CITY OF OAKLAND

AGENDA REPORT

TO:	Sabrina B. Landreth City Administrator	**FROM:**	William A. Gilchrist Director, PBD
SUBJECT:	Supplemental Correction Report 0 Mandela Parkway Appeal	**DATE:**	March 4, 2019

City Administrator Approval: _____ Date: 11-15-19

RECOMMENDATION

Staff Recommends That The City Council Receive This Supplemental Staff Report Related To The Appeal Of The June 6, 2018 Planning Commission Approval For The Mandela Hotel Development.

REASON FOR THE SUPPLEMENTAL REPORT

At the February 26, 2019 City Council meeting, this item was continued to allow additional time for review. The City Council voted to continue the matter to the March 12, 2019 City Council meeting. In doing so, the City Council took no action on the appeal, but allowed the public to provide testimony on the matter.

Please note that on page four of the staff report, staff inadvertently characterized the existence of a nexus with respect to a Condition of Approval to support a specific wage.

Also, staff has received additional correspondence from the appellant. See ***Attachment A***.

ACTION REQUESTED OF THE CITY COUNCIL

Staff Recommends That The City Council Receive This Supplemental Staff Report Related To The Appeal Of The June 6, 2018 Planning Commission Approval For The Mandela Hotel Development.

Item: _____
CED Committee
March 5, 2019

For questions regarding this report, please contact Mike Rivera, project case Planner at (510) 238-6417.

Respectfully submitted,

WILLIAM A. GILCHRIST
Director, Planning and Building Department

Reviewed by:
Ed Manasse, Deputy Director
Bureau of Planning

Prepared by:
Mike Rivera, Planner II
Bureau of Planning/Major Projects

Attachment *(1)*:
A. Additional correspondence submitted by the appellant, dated February 26, 2019

Item: _____
CED Committee
March 5, 2019

Rivera, Mike

From:	Ty Hudson <thudson@unitehere.org>
Sent:	Tuesday, February 26, 2019 11:45 AM
To:	Rivera, Mike
Subject:	additional comment and documents regarding Mandela Hotel appeal
Attachments:	defining hazardous waste.pdf; 1-10-17 letter Mandela Parkway hotel.pdf

Mr. Rivera,

Please accept this additional comment regarding the appeal of the Mandela Parkway hotel (PLN16394-A01) and distribute it, including the attachments, to the City Council prior to tonight's hearing.

1. One of the grounds for our appeal relates to the elevated levels of toxic substances such as mercury and lead found at the site where the hotel would be built. The Lamphier-Gregory memo dated December 10, 2018, states the following:

> The UNITE HERE letter of June 15, 2018 asserts that information in the Kleinfelder environmental assessment (which is included as an appendix to the Mandela Parkway Hotel project CEQA document) reports Soluble Threshold Limit Concentration (STLCs) that demonstrate the project site is "contaminated with lead and mercury at levels 10 times the threshold for the State's definition of toxic waste." This is a misinterpretation of the data.

Contrary to Lamphier-Gregory's claim that this statement is a "misrepresentation," the STLC is in fact part of the State of California's definition of toxic waste. The attached document from the Department of Toxic Substances Control (DTSC), "Defining Hazardous Waste," makes this clear. See page 3 of the document, item #2 under the definition of "toxicity."

2. Many documents that we submitted prior to the Planning Commission hearings have been omitted from the agenda report for tonight's hearing. This includes a large group of documents that documents the toxic history of the site, which were sent by email on March 12, 2018. I will forward that email separately. Other omitted documents include the letter we submitted on January 10, 2017, regarding the hotel's potential impact on demand for affordable housing subsidy and other social services. This letter is central to the grounds for our appeal, and it is very disappointing that it was not distributed to the City Council before today. It is attached to this email. Please distribute it to the City Council prior too tonight's hearing.

Thank you.

Ty

Ty Hudson
Senior Research Analyst
UNITE HERE Local 2850
http://www.unitehere.org
cell: 213-509-9114

Attachment A

Defining Hazardous Waste

This section contains information on:

What is a Hazardous Waste?

Hazardous waste is a waste with properties that make it potentially dangerous or harmful to human health or the environment. The universe of hazardous wastes is large and diverse. Hazardous wastes can be liquids, solids, or contained gases. They can be the by-products of manufacturing processes, discarded used materials, or discarded unused commercial products, such as cleaning fluids (solvents) or pesticides. In regulatory terms, a hazardous waste is a waste that appears on one of the four RCRA[1] hazardous wastes lists (the F-list, K-list, P-list, or U-list) or that exhibits one of the four characteristics of a hazardous waste - ignitability, corrosivity, reactivity, or toxicity. However, materials can be hazardous wastes even if they are not specifically listed or don't exhibit any characteristic of a hazardous waste. For example, "used oil," products which contain materials on California's M-list, materials regulated pursuant to the mixture or derived-from rules, and contaminated soil generated from a "clean up" can also be hazardous wastes. To view the hazardous waste regulations and statutes, go to: http://www.dtsc.ca.gov/LawsRegsPolicies/index.cfm

Click below to take a self-paced internet course on hazardous waste identification
http://ccelearn.csus.edu/wasteclass/intro/intro_01.html

The following paragraphs provide an overview of the various ways that a waste may be identified as hazardous waste.

I. Listed Wastes

By regulation, some specific wastes are hazardous wastes. These wastes are incorporated into five lists.

These five lists are organized into four categories:

- **The F-list (non-specific source wastes):** This list identifies wastes from many common manufacturing and industrial processes, such as solvents that have been used for cleaning or degreasing. Since the processes producing these wastes occur in many different industry sectors, the F-listed wastes are known as wastes from non-specific sources. (Non-specific meaning they don't come from one specific industry or one specific industrial or manufacturing process.) The F-list appears in the hazardous waste regulations in 22CCR Section 66261.31.

- **The K-list (source-specific wastes):** This list includes certain wastes from specific

industries, such as petroleum refining or pesticide manufacturing. Also, certain sludges and wastewaters from treatment and production processes in these specific industries are examples of source-specific wastes. The K-list appears in the hazardous waste regulations in 22CCR Section 66261.32.

• **The P-list and the U-list (discarded commercial chemical products):** These lists include specific commercial chemical products that have not been used, but that will be (or have been) discarded. Industrial chemicals, pesticides, and pharmaceuticals are example of commercial chemical products that appear on these lists and become hazardous waste when discarded. The P- and U-lists appear in the hazardous waste regulations in 22CCR Subsections 66261.33(e) and (f).

• **M-listed Wastes (discarded mercury-containing products):** This list includes certain wastes known to contain mercury, such as fluorescent lamps, mercury switches and the products that house these switches, and mercury-containing novelties. For additional information see DTSC's mercury web page.

II. Characteristic Hazardous Wastes

Wastes may be hazardous wastes if they exhibit any of the four characteristics of a hazardous waste (ignitability, corrosivity, reactivity, and toxicity) as defined in Article 3 of Chapter 11 of the hazardous waste regulations (Sections 66261.21 to 66261.24).

These four characteristics are:

Ignitability – Ignitable wastes can create fires under certain conditions, undergo spontaneous combustion, or have a flash point less than 60°C (140°F). Examples include waste oil and used solvents. The characteristic of ignitability is defined in section 66261.21 of the hazardous waste regulations. Test methods that may be used to determine if a waste exhibits the characteristic of ignitability include the Pensky-Martens Closed-Cup Method for Determining Ignitability, the Setaflash Closed-Cup Method for Determining Ignitability, and the Ignitability of Solids (U.S. EPA Test Methods, SW-846 Methods: 1010, 1020, and 1030, respectively.). 22CCR 66261.21.

Corrosivity – Corrosive wastes are materials, including solids, that are acids or bases, or that produce acidic or alkaline solutions. Aqueous wastes with a pH less than or equal to 2.0 or greater than or equal to 12.5 are corrosive. A liquid waste may also be corrosive if it is able to corrode metal containers, such as storage tanks, drums, and barrels. Spent battery acid is an example. The characteristic of corrosivity is defined in section 66261.22 of the hazardous waste regulations. Test methods that may be used to determine if a waste exhibits the characteristic of corrosivity are pH Electronic Measurement and Corrosivity Towards Steel (U.S. EPA Test Methods, SW-846 Methods: 9040 and 1110 respectively.). 22CCR 66261.22.

Reactivity – Reactive wastes are unstable under normal conditions. They can cause explosions or release toxic fumes, gases, or vapors when heated, compressed, or mixed with water. Examples include lithium-sulfur batteries and unused explosives. The characteristic of reactivity is defined in section 66261.23 of the hazardous waste regulations. There are currently no test methods available for reactivity. Instead wastes are evaluated for reactivity using the narrative criteria set forth in the hazardous waste regulations. 22CCR 66261.23.

Toxicity – Toxic wastes are harmful or fatal when ingested or absorbed (e.g., wastes

containing mercury, lead, DDT, PCBs, etc.). When toxic wastes are disposed, the toxic constituents may leach from the waste and pollute ground water. The characteristic of toxicity is defined in section 66261.24 of the hazardous waste regulations. It contains eight subsections, as described below. A waste is a toxic hazardous waste if it is identified as being toxic by any one (or more) of the eight subsections of this characteristic. 22CCR 66261.24.

1. TCLP: Toxic as defined through application of a laboratory test procedure called the Toxicity Characteristic Leaching Procedure (TCLP - U.S. EPA Test Method 1311). The TCLP identifies wastes (as hazardous) that may leach hazardous concentrations of toxic substances into the environment. The result of the TCLP test is compared to the Regulatory Level (RL) in the table in subsection 66261.24(a)(1) of the hazardous waste regulations. This criterion does not apply to wastes that are excluded from regulation under the Resource Conservation and Recovery Act.

2. Totals and WET: Toxic as defined through application of laboratory test procedures called the "total digestion" and the "Waste Extraction Test" (commonly called the "WET"). The results of each of these laboratory tests are compared to their respective regulatory limits, the Total Threshold Limit Concentrations (TTLCs) and the Soluble Threshold Limit Concentrations (STLCs), which appear in subsection 66261.24(a)(2) of the hazardous waste regulations.

3. Acute Oral Toxicity: Toxic because the waste either is an acutely toxic substance or contains an acutely toxic substance, if ingested. As stated in subsection 66261.24(a)(3), a waste is identified as being toxic if it has an acute oral LD_{50} less than 2,500 mg/kg. A calculated oral LD_{50} may be used.

4. Acute Dermal Toxicity: Toxic because the waste either is an acutely toxic substance or contains an acutely toxic substance, if dermal exposure occurs. As stated in subsection 66261.24(a)(4), a waste is identified as being toxic if it has an dermal LC_{50} less than 4,300 mg/kg. A calculated dermal LD_{50} may be used.

5. Acute Inhalation Toxicity: Toxic because the waste either is an acutely toxic substance or contains an acutely toxic substance, if inhaled. As stated in subsection 66261.24(a)(5), a waste is identified as being toxic if it has an dermal LC_{50} less than 10,000 mg/kg. U.S. EPA Test Method, SW-846 Methods: 3810, Headspace (formerly Method 5020) may be used to "test out" (for volatile organic substances).

6. Acute Aquatic Toxicity: Toxic because the waste is toxic to fish. A waste is aquatically toxic if it produces an LC_{50} less than 500 mg/L when tested using the "Static Acute Bioassay Procedures for Hazardous Waste Samples". This test procedure is available at: http://www.dtsc.ca.gov/HazardousWaste/upload/HWMP_bioassay_report.pdf

7. Carcinogenicity: Toxic because it contains one or more carcinogenic substances. As stated in subsection 66261.24(a)(7), a waste is identified as being toxic if it contains any of the specified carcinogens at a concentration of greater than or equal to 0.001 percent by weight.

8. Experience or Testing: Pursuant to subsection 66261.24(a)(8), a waste may be toxic (and therefore, a hazardous waste) even if it is not identified as toxic by any of the seven criteria above. At the present time, only wastes containing ethylene glycol (e.g.,

spent antifreeze solutions) have been identified as toxic by this subsection.

III. Used Oil: In California, waste oil and materials that contain or are contaminated with waste oil are usually regulated as hazardous wastes if they meet the definition of "Used Oil" even if they do not exhibit any of the characteristics of hazardous waste. The term "used oil" is a legal term which means any oil that has been refined from crude oil, or any synthetic oil that has been used and, as a result of use, is contaminated with physical or chemical impurities. Other materials that contain or are contaminated with used oil may also be subject to regulation as "used oil" under Part 279 of Title 40 of the Code of Federal Regulations. http://www.epa.gov/epahome/cfr40.htm

IV. Mixture & Derived-From Rules: When evaluating materials that are mixtures or that are residuals resulting from processing other materials, you should check to see if the hazardous waste mixture-rule or derived-from rule applies. The hazardous waste mixture and derived-from rules are located in 22CCR Section 66261.3. There are also additional mixture rules specifically for mining wastes and for used oil. These rules are intended to ensure that mixtures and residuals containing hazardous wastes are regulated in a manner that is protective of human health and the environment.

V. Contained-In Policy: Environmental media (soil, groundwater and surface water) are not normally considered wastes. However, when environmental media are excavated (and stored or transported) for disposal at another location, the environmental media may be regulated as hazardous waste if it contains hazardous waste, including both listed and characteristic hazardous wastes. For example, soil contaminated with lead is often a hazardous waste because the lead "contained-in" the soil is a hazardous waste.

Additional Information and Resources:

Hazardous Waste Determination: As described above, the hazardous waste regulations set forth criteria that identify wastes as hazardous wastes. Although they may meet the definition of hazardous waste, some wastes are specifically excluded or exempted from regulation as hazardous waste (e.g., chlorofluorocarbon refrigerants that are reclaimed for reuse). The process of determining if a waste is a hazardous waste is called the "hazardous waste determination". To ensure an exclusion or exemption is not overlooked, generators should always follow the Hazardous Waste Determination procedure provided in 22CCR Section 66262.11 of the hazardous waste regulations when evaluating their wastes.

Click below to take a self-paced, internet course on hazardous waste identification
http://ccelearn.csus.edu/wasteclass/intro/intro_01.html

Hazardous Waste Recycling: A material must be a "waste" in order to be a hazardous waste. Generally, a waste is any material that someone possesses, but does not have a use for. In regulatory terms, a waste is any discarded material that is not otherwise excluded. The process of determining if something is a waste is called "waste Identification." Materials may not be wastes if they are recycled in certain ways, i.e., they may be excluded from the definition of waste in 22CCR Section 66261.2 of the hazardous waste regulations. Besides 22CCR Section 66261.2, you will have to refer to Health and Safety Code Sections 25120.5, 25120.55, 25121.5, and 25143.2 (and perhaps others) when making a waste determination.

Click below to review the DTSC Hazardous Waste and Recycling Letters
http://www.dtsc.ca.gov/HazardousWaste/CSERFS/index.cfm

Test Methods: Sampling and analysis of materials and wastes for hazardous waste identification purposes shall be in accordance with U.S. EPA's publication: "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," SW-846, commonly referred to just as "SW-846." SW-846 is available online at:
http://www.epa.gov/epawaste/hazard/testmethods/sw846/index.htm

Additional Links:
DTSC Hazardous Waste and Recycling Letters
http://www.dtsc.ca.gov/HazardousWaste/CSERFS/index.cfm

Q&A for Specific Hazardous Waste and Hazardous Substances
http://www.dtsc.ca.gov/InformationResources/

Information for universal waste
http://www.dtsc.ca.gov/InformationResources/Regulatory_Assistance_Frequently_Asked_Questions.cfm#Is_it_a_Hazardous_Waste_or_Isn%27t_It

US EPA training module – Introduction to Hazardous Waste Identification
http://www.epa.gov/osw/inforesources/pubs/training/hwid05.pdf

RCRA online
http://www.epa.gov/epawaste/inforesources/online/index.htm

Click below to take a self-paced, internet course on hazardous waste identification
http://ccelearn.csus.edu/wasteclass/intro/intro_01.html

Comments or Questions:
If you still have questions about hazardous waste identification, or if you have suggestions to improve this document, call (916) 324-2428 or send email to rao@dtsc.ca.gov

1 The Resource Conservation and Recovery Act. As used on this web page, "hazardous waste regulations" refers to Chapters 10 through 32 of Division 4.5 of Title 22 of the California Code of Regulations

Last Updated: 03/22/2016

UNITEHERE! Local 2850

East and North Bay's Union for hotel, foodservice, and gaming workers

By: Taliah Mirmalek, Research Analyst

Date: January 10, 2017

Re: Conditional Use Permit for proposed hotel on Parcel Number 7-617-14-5, Planning Application PLN16394

Dear Planning Commissioners,

I am writing on behalf of UNITE HERE Local 2850 to comment on the proposed Mandela Parkway Hotel (PLN16394). Local 2850 is the union of hotel and food service workers in the East Bay. In the course of representing the interests of our members who work at hotels, we pay close attention to hotel development in Oakland and regularly comment on the merits of particular developments.

Support for responsible development is one of our key organizational priorities, and for this reason it is important to us that applicable development regulations be faithfully and consistently enforced by the responsible public agencies. In addition to the issues raised in a previous letter, we'd like to respond to the staff report's analysis of the transient habitation Conditional Use Permit (CUP) criteria.

This letter evaluates the potential impact of the proposed hotel on affordable housing, public transit, and social services. This is an impact the Planning Commission must consider when deciding to deny or grant a Conditional Use Permit. (See Section 17.103.050 of the Oakland Planning Code.)

At this time, we oppose the approval of this project because the Mandela Hotel project has the potential to have an adverse impact on the demand for affordable housing and social services in this city. This potential impact has not been sufficiently considered by the city, nor has the applicant (to our knowledge) provided the needed information to accurately assess the impact.

Summary

Many hotels pay minimum wage and do not offer benefits. If that is the case at this hotel, then there will be an adverse impact on the demand for housing and social services in the city of

Oakland. The city's impact fee nexus studies, establish a methodology[1] for determining the impact of low-wage jobs on the need for affordable housing subsidies.

Our analysis will assume wages and benefits similar to those found in a recent survey of hotels on Hegenberger Road.[2] The City's analysis should rely either on these conservative assumptions, or on credible evidence that more generous wages and benefits will be offered.

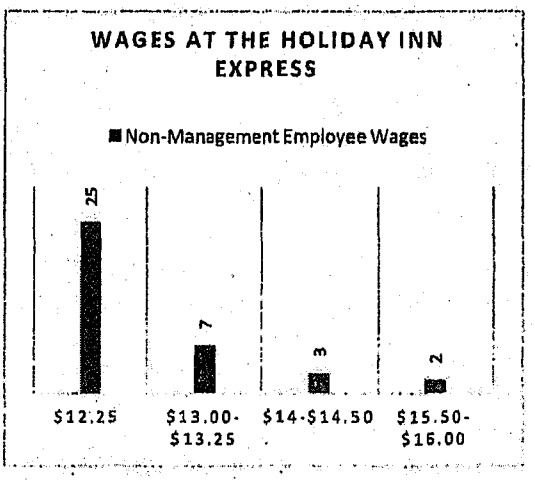
This project has the potential to create an additional demand for affordable housing subsidies in the range of $2.3 million and $7.3 million, exacerbating an already existing crisis. It should also be anticipated that low wage jobs would significantly impact social services offered by or within the City of Oakland. Many minimum-wage workers qualify for food stamps. Without employer-sponsored healthcare, low-wage workers often have to turn to Medi-Cal. These social services could cost taxpayers between $54,000 and $183,000 each year. Given these findings, the Hotel has the potential to have an adverse impact on housing and social services, and the Planning Commission should deny the project's Conditional Use Permit, pending further analysis.

Legal Basis

According to the Planning Code, hotels ("transient habitation") in Zone CR-1 require a Conditional Use Permit (CUP). In this case, a Major CUP is required because the proposed 143,212 square feet of development exceeds the 25,000 square feet floor area threshold.[3] Section 17.103.050 of the Planning Code requires the Planning Commission to make a series of findings, including that "the proposal considers the impact of the employees of the hotel or motel on the demand in the City for housing, public transit, and social services." This criterion reflects the importance of not just evaluating a proposal's congruence with the architectural design of a zone, but also the development's larger impact on the city, including the resulting socioeconomic issues. Unfortunately, the staff report brushes off this analysis altogether.

Minimum Wage Jobs and No Benefits

A survey of eight hotels on Hegenberger Road found that the hotels offer only minimum wage for non-management workers, and either no health insurance or inaccessibly priced health insurance. Furthermore, in 2015, the City of Oakland obtained a list of non-management employees at a 90-room hotel in East Oakland, the Holiday Inn Express. The majority of the non-management employees



[1] "Oakland Affordable Housing Impact Fee Nexus Analysis," 10 Mar 2016. "Commercial Development Linkage Fee Analysis," 13 September 2001.
[2] EBASE Survey of hotels on Hegenberger Road, August-September 2017.
[3] 17.134.020.A

were minimum or near-minimum wage workers.

The 37 Holiday Inn Express employees made between $12.25 - $16.00, with the vast majority making minimum wage ($12.25). The breakdown was as follows: 25 employees (67%) made minimum wage ($12.25), seven (18%) made $13.00-$13.25, three (.08%) made $14.00-$14.50, and two (.05%) made $15.50 - $16.00.[4]

The Mandela Parkway Hotel proposal has done nothing to indicate that its jobs will be any different from the norm, minimum wage jobs with no benefits. In fact, according to the application, the wages will be "commiserate" (*sic*) with other hotels.

City of Oakland's Affordable Housing Crisis

As is clear to the residents of West Oakland, and to the predominantly Black and Brown people who, with no access to affordable housing, have created refugee camps and tent cities under freeway overpasses, this city is already beset by an affordable housing crisis.

West Oakland, the site of the proposed hotel, is undergoing advanced gentrification. Many residents have either been displaced in the past few years or are on the verge of displacement. The affordable housing crisis is an income inequality crisis. As rents increase in Oakland, it becomes impossible to afford housing relying on a minimum wage or near minimum wage job.

Furthermore, it is not unheard of for full-time employees in the Bay Area to be entirely without homes, living in their cars or in tents. Last year, the City of Oakland declared a homelessness crisis. It's getting worse every year: In the past two years alone, Oakland's homeless population has increased by 26%.[5] It is clear that this is not just a housing issue, it is also a racial justice issue: 68% of the people without homes are Black.[6]

The affordable housing crisis is in large part a direct result of displacement wrought by development that has been approved with no attention to its impact on housing affordability and income inequality. Fortunately, in the case of the Mandela Hotel, Planning Code §17.103.050 requires the Planning Commission to consider these impacts.

The Project's Impact on Affordable Housing

Workers making minimum wage are unable to afford housing in Oakland. Oakland's minimum wage of $12.86 equates to an annual income of $25,480 for a full-time worker. With that salary, a 4-person household would be considered "extremely low income" by the City of Oakland Housing and Community Development Department and would be in need of subsidized housing.

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[4] Report re: Investigation into Complaint Against Holiday Inn, Case No. 2015-FF-24. "Holiday Inn Express minimum wage determination" City of Oakland.

[5] EveryOne Home's State of Homelessness Report's City of Oakland Executive Summary http://everyonehome.org/wp-content/uploads/2016/02/City-of-Oakland-ES.pdf Accessed 11/28/2017.

[6] See Home's State of Homelessness Report's City of Oakland Executive Summary. *See also* Veklerov, Kimberly. "Survey finds surge in homelessness in Oakland, Alameda County." SFGATE. 05/25/2017. Accessed 11/28/2017.

The City of Oakland's 2001 and 2016 nexus studies establish a causal relationship between low-wage jobs and the demand for affordable housing. The nexus studies determined minimum allowable impact fees for developments of various types, hotels included, by calculating a development's impact on the demand for subsidized housing. Based on expected incomes and the cost of building housing units, the studies determine the amount of subsidies needed.

Using the methodologies employed by the 2001 and 2015 nexus studies, we estimate that a hotel project with 220 rooms with low wage jobs could result in a need for between $2.3 and $7.3 million in affordable housing subsidies, depending on the number of workers the new hotel is assumed to require. (The City's methodology assumes a 220-room hotel would have 143 employees, whereas the applicant expects to employ 44 workers.) The calculations are exhibited in detail in Attachment A.

The Planning Commission, by law, must consider the project's impact on affordable housing in deciding whether to deny or grant a conditional use permit. Your charge is not to streamline development simply for the sake of development but to support the growth and development of our community in a way that actually develops our communities, not in a way that further accelerates the affordable housing crisis underway in our city.

Taking seriously this condition of approval is especially urgent, because the City of Oakland has not adopted impact fees for hotels. Whereas market-rate housing, warehouse buildings, and office buildings must pay impact fees to compensate and address their adverse impacts, hotels have no such obligation.

The staff report does not consider this impact, but defers to the affordable housing pipeline without acknowledging the impact this project could have on the demand, an impact which may place additional strain on the City's limited funds for affordable housing subsidies. The staff report states, "There are housing alternatives as new market rate and affordable residential development have been approved and others are being constructed in the City of Oakland for future residents." However—and this point should not be taken lightly—the city of Oakland's own report on affordable housing cites uncertainty around the availability of federal tax credits for affordable housing. According to the report, "the tax credit market has been volatile due to pending tax reform efforts since the change in national leadership. The value of credits is decreasing, thereby creating a financing gap."[7] In other words, there isn't a secure source of subsidies for the subsidies already needed, let alone additional demand generated by more and more low-wage jobs.

The City has not considered these impacts, as required by Planning Code §17.103.050. If the analysis were done, you may find the impact is so great that the development is not worth it. As such, you owe it to the law and to Oaklanders who are unhoused, have been displaced, or are threatened with displacement, to sufficiently consider this project's impact. As previously noted, our analysis assumes wages similar to those provided by many hotels near the Oakland airport. The City's analysis should rely either on these conservative assumptions, or on credible evidence that more generous wages and benefits will be offered.

[7] "Oakland At Home Update: 2017. A Progress Report on Implementing a Roadmap Toward Equity From the Oakland Housing Cabinet." Aug 10, 2017. https://beta.oaklandca.gov/documents/oakland-at-home-update-2017

Impact on Social Services

Workers making minimum wage often rely on public assistance, including Food Stamps or CalFRESH. If this hotel pays low wages similar to some other hotels in Oakland, it could cost taxpayers between $21,931 and $74,292 annually.

Moreover, if the hotel does not offer benefits to its future employees, the employees may either struggle without health insurance or turn to the state for publicly-funded healthcare services, such as Medi-Cal. This could cost taxpayers between $32,244 and $109,339 annually.

In total, a hotel that offers low wage jobs with no benefits could cost taxpayers between $54,175 and $183,631 annually. See Attachment B for the detailed calculations.

The State of Social Services in California

The Trump administration and Republican majority seek to cut and undermine federal funding for social services, with healthcare as the most prominently discussed target. This means that the state of California's social service programs are facing a very real threat of losing federal subsidies, in particular California's healthcare program Medi-Cal.

At the same time, Medi-Cal enrollment is on the rise. According to the California Department of Health Care services, Medi-Cal enrollment saw an increase of 4 million enrollees between 2013 and 2015.[8] The state of California has had to increase its Medi-Cal spending by $40 billion as of 2012-2013 through 2014-2015.[9]

We tend to imagine enrollees in social services, including Medi-Cal, as unemployed individuals. However, 73% of enrollees in the US' major public support programs are members of working families.[10] This is in part due to a decrease in employer-sponsored healthcare. As of 2016, "only one in four firms with many low-wage workers (those earning $23,000 or less) offered health coverage to employees."[11]

Employers who offer minimum wage or near minimum wage jobs and no benefits are effectively passing on the bill to the state.[12] A 2013 report studied the cost to taxpayers of Walmart's low

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[8] http://www.chcf.org/publications/2017/04/california-health-plans-insurers

[9] http://www.chcf.org/publications/2017/04/california-health-plans-insurers

[10] Sylvia Allegretto, Marc Doussard, Dave Graham-Squire, Ken Jacobs, Dan Thompson, and Jeremy Thompson (October 2013). Fast Food, Poverty Wages: The Public Cost of Low-Wage Jobs in the Fast-Food Industry. University of California, Berkeley, Center for Labor Research and Education and the University of Illinois at Urbana-Champaign Department of Urban & Regional Planning. laborcenter.berkeley.edu/pdf/2013/fast_food_poverty_wages.pdf

[11] http://www.chcf.org/publications/2017/03/employer-health-benefits

[12] New York Times. "Working but need Public Assistance Anyways." April 13, 2015. "Nearly three-quarters of the people helped by programs geared to the poor are members of a family headed by a worker, according to a new study by the Berkeley Center for Labor Research and Education at the University of California. As a result, taxpayers are providing not only support to the poor but also, in effect, a huge subsidy for employers of low-wage workers, from giants like McDonald's and Walmart to mom-and-pop businesses." https://www.nytimes.com/2015/04/13/business/economy/working-but-needing-public-assistance-anyway.html Accessed November 28, 2017

wages and benefits which, according to the report, often forces workers to rely on various public assistance or social service programs. The study found that, on a national level, Walmart's low-wage workers "cost U.S. taxpayers an estimated $6.2 billion in public assistance including food stamps, Medicaid and subsidized housing."[13] An additional study, authored by UC Berkeley's Labor Center, found that low wages cost U.S. taxpayers $152.8 billion each year for social service programs.[14]

This hotel has the potential to induce the use of public assistance, costing taxpayers an annual $13,388 per household on Medi-Cal and Food Stamps.[15] If the hotel provides low-wage jobs, the total cost to taxpayers could be between $54,175 and $183,631 each year.

As for those who do not seek out subsidized health insurance, in a 2015 study published by the National Bureau of Economic Research, the authors estimated that every uninsured person costs local hospitals $900 in uncompensated care costs each year.[16] If none of employees of the hotel are offered health insurance benefits, and if they do not choose to enroll in healthcare—especially when the GOP tax bill plans to eliminate the individual mandate—local hospitals will have to shoulder between $22,500 and $75,600 in uncompensated care each year.

Unfortunately, the staff report does not sufficiently consider this impact. Instead, it simply states that "the proposal would not create social services impacts because the new jobs can provide economic opportunities to Oakland residents and help reduce unemployment rate." This is simply an unsupported assertion; no analysis was included in the staff report to provide evidence for this claim. As for the point of providing "economic opportunities to Oakland residents," the city's own analysis in the nexus studies assumes that only 5% of new jobs will be filled by local residents. Furthermore, employment in and of itself does not eliminate social services impact. As discussed above, the wages and benefits offered significantly determine whether an employee will require social services from the city.

Conclusion

The Planning Commission should not approve the proposed hotel's Conditional Use Permit. Planning staff has not seriously considered its potential impact on affordable housing and social services as required by Planning Code §17.103.050. As discussed herein, these adverse impacts may be very significant and can be estimated as follows:

Subsidized housing costs to Oakland: Between $2.3 million and $7.3 million

Medi-Cal costs to taxpayers: between $32K and $109K each year

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[13] Clare O'Connor. "Report: Walmart Workers Cost Taxpayers $6.2 Billion In Public Assistance." *Forbes.* https://www.forbes.com/sites/clareoconnor/2014/04/15/report-walmart-workers-cost-taxpayers-6-2-billion-in-public-assistance/#1ac8c245720b April 15, 2014. Accessed 11/28/2017.

[14] http://laborcenter.berkeley.edu/the-high-public-cost-of-low-wages/

[15] Sylvia Allegretto, Marc Doussard, Dave Graham-Squire, Ken Jacobs, Dan Thompson and Jeremy Thompson. *Fast Food, Poverty Wages The Public cost of low-wage Jobs in the fast-food industry.* October 15, 2013 http://laborcenter.berkeley.edu/pdf/2013/fast_food_poverty_wages.pdf

[16] http://www.nber.org/papers/w21290

. **Public assistance costs to taxpayers:** Between $21K and $74K and each year

Un-insured cost to local hospitals: Between $22,500 and $75,600 each year

The Planning Commission should be motivated by these crises to take seriously each project's impact on housing and social services. While one hotel project will not change the tide of either affordable housing or the social service crises, we cannot ignore the problem just because we are facing a small piece of it. After all, these projects—if approved one by one—will have a cumulative impact. By taking seriously the Planning Code's mandate to consider these impacts, you can encourage responsible development that can be part of the solution, not part of the problem.

Attachment A: Calculating Impact of Workers on Subsidized Housing

The following calculations rely on two City of Oakland studies: Affordable Housing Impact Fee Nexus Analysis (AHIFNA) and Commercial Linkage Fee (CLF).

1. **Determine number of employees**

A hotel is expected to have 0.65 employees per room (CLF). For a 220-room hotel, that means 143 employees.

# of rooms * 0.65 = total number of employees

220 rooms * 0.65 = 143 employees

According to the applicant, this hotel is expected to have 44 employees. To reflect both proposals, each step will have a part A and part B. Part A will be the city's anticipated number of employees and part B will be the hotel applicant's self-reported expectations.

2. **Eliminate number of employees who are already local residents;**

5% of employees are anticipated to be local residents who already have housing (CLF).

Employees – (.05 * Employees) = Employees who will need housing

A. According to the city's employment projections:

143 – (.05*143) = 135.85 employees

B. According to the applicant's employment projections:

44 – (.05 * 44) = 41.8 employees

3. **Convert number of employees into number of households;**

CLF relies on US Census Bureau's 5-year estimate of 1.48 workers per household for Oakland households with workers.

Employees / 1.4 = Households

C. According to the city's employment projections:

135.85 / 1.4 = 97 Households

D. According to the applicant's employment projections:

41.8 / 1.4 = 30 Households

4. **Categorize households into management and non-management positions**

9% of employees are employed into professional or management classifications, with 91% in work classified as non-management (service, clerical/administrative, and maintenance) (CLF).

.91 * HH = Non-Management Households

A. According to the city's employment projections:

.91 * 97 = 88 Non-Management Households

B. According to the applicant's employment projections:

.91 * 30 = 27 Non-Management Households

5. **Determine wages for worker households.**

According to CLF, 9% of employees are employed into professional or management classifications, while 91% are classified as non-management (service, clerical/administrative, and maintenance).

According to a list obtained by the City of Oakland, at a similarly limited service hotel, the Holiday Inn Express, the 37 non-management employees make between $12.25 - $16.00, with the following percentage breakdowns:

Wage	**Number of Employees**	**Employee Households**	**Percentage of total HHs**
$12.25	25	16.89	67.56%
$13.00-$13.25	7	4.72	18.8%
$14-$14.50	3	2.03	8.12%
$15.50-$16.00	2	1.3	5.2%
Total	37	25	100%

Since the City of Oakland's report on the Holiday Inn Express, Oakland's minimum wage has increased to $12.86. The minimum wage in the charts below are updated to reflect this increase.

A. According to the city's estimate:

Wage	**Percentage HH**	**Hotel HHs**

$12.86	67.56%	59
$13.00-$13.25	18.8%	17
$14-$14.50	8.12%	7
$15.50-$16.00	5.2%	5
Total	**100%**	**88 HH**

B. According to applicant's estimate:

Wage	**Percentage HH**	**Hotel HHs**
$12.86	67.56%	18
$13.00-$13.25	18.8%	5
$14-$14.50	8.12%	2
$15.50-$16.00	5.2%	1
Total	**100%**	**27 HH**

6. **Convert into annual salary and identify AMI categories:**

Before determining what percentage of Average Median Income (AMI) each household makes, the CLF categorizes workers into household size using the US Census (See Attachment C).

Then, the studies categorize the wages according to the percentage of AMI. The AHIFNA relies on the City of Oakland Housing and Community Development Department's report on the AMI (See Attachment C).

7. **Determine number of households in each household AMI bracket:**

This analysis uses census data on household sizes and number of workers per household. The tables below assume that our discussion is only about households with workers and therefore eliminates households without workers.

A. According to city's employment projections:

59 Households have at least one worker who makes minimum wage ($12.86) or $26,748 a year.

Type of Household	%	Number of Households	Income	AMI Bracket
1-person household	0.338	19.94	$26,748.80	Very Low
2-person household	0.296	17.46		
1 worker	0.33/.76	7.58	$26,748.80	Very Low
2 workers	0.43/.76	9.88	$53,497.60	Low

3-person household	0.15	8.85		
1 worker	0.36/.88	3.62	$26,748.80	Extremely Low
2 workers	0.39/.88	3.92	$53,497.60	Very Low
3 workers	0.13/.88	1.31	$80,246.40	Median
4-or-person household	0.22	12.80		
1 worker	0.33/.82	5.15	$26,748.80	Extremely Low
2 workers	0.37/.82	5.78	$53,497.60	Low
3 workers	0.22/.82	3.43	$80,246.40	Median

17 Households make $13 - $13.25 an hour or between $27,040 and $27,560 a year.

Type of Household	%	Number of Households	Income	AMI Bracket
1-person household	0.338	5.75	$27,040.00	Very Low
2-person household	0.296	5.03		
1 worker	0.33/.76	2.18	$27,040.00	Very Low
2 workers	0.43/.76	2.85	$54,080.00	Low
3-person household	0.15	2.55		
1 worker	0.36/.88	1.04	$27,040.00	Extremely Low
2 workers	0.39/.88	1.13	$54,080.00	Low
3 workers	0.13/.88	0.38	$81,120.00	Median
4-or-person household	0.22	3.69		
1 worker	0.33/.82	1.48	$27,040.00	Low
2 workers	0.37/.82	1.66	$54,080.00	Low
3 workers	0.22/.82	0.99	$81,120.00	Median

7 Households make $14 an hour or $29,120-$30,160 a year.

Type of Household	%	Number of Households	Income	AMI Bracket

1-person household	0.338	2.37	$29,120.00	Very Low
2-person household	0.296	2.07		
1 worker	0.33/.76	0.90	$29,120.00	Very Low
2 workers	0.43/.76	1.17	$58,240.00	Low
3-person household	0.15	1.05		
1 worker	0.36/.88	0.43	$29,120.00	Very Low
2 workers	0.39/.88	0.47	$58,240.00	Low
3 workers	0.13/.88	0.16	$87,360.00	Median
4-or-person household	0.22	1.52		
1 worker	0.33/.82	0.61	$29,120.00	Very Low
2 workers	0.37/.82	0.69	$58,240.00	Low
3 workers	0.22/.82	0.41	$87,360.00	Median

5 Households make $15.50-$16.00 an hour or $32,240-$33,280 a year.

Type of Household	%	Number of Households	Income	AMI Bracket
1-person household	0.338	1.69	$32,240.00	Very Low
2-person household	0.296	1.48		
1 worker	0.33/.76	0.64	$32,240.00	Very Low
2 workers	0.43/.76	0.84	$64,480.00	Median
3-person household	0.15	0.75		
1 worker	0.36/.88	0.31	$32,240.00	Very Low
2 workers	0.39/.88	0.33	$64,480.00	Low
3 workers	0.13/.88	0.11	$96,720.00	Median
4-or-person household	0.22	1.09		
1 worker	0.33/.82	0.44	$32,240.00	Very Low
2 workers	0.37/.82	0.49	$64,480.00	Low
3 workers	0.22/.82	0.29	$96,720.00	Median

Total in AMI bracket eligible for subsidies:

AMI Bracket	# HH
Low	25.93
Very low	46.76
Extremely low	9.8
Total	**72.69**

B. According to applicant's estimate:

17.36 Households make minimum wage ($12.86) or $26,748 a year.

Type of Household	%	Number of Households	Income	AMI Bracket
1-person household	0.338	5.87	$26,748.80	Very Low
2-person household	0.296	5.14		
1 worker	0.33/.76	2.23	$26,748.80	Very Low
2 workers	0.43/.76	2.91	$53,497.60	Low
3-person household	0.15	2.60		
1 worker	0.36/.88	1.07	$26,748.80	Extremely Low
2 workers	0.39/.88	1.29	$53,497.60	Very Low
3 workers	0.13/.88	0.38	$80,246.40	Median
4-or-person household	0.22	3.82		
1 worker	0.33/.82	1.54	$26,748.80	Extremely Low
2 workers	0.37/.82	1.72	$53,497.60	Low
3 workers	0.22/.82	1.02	$80,246.40	Median

5 Households make $13 - $13.25 an hour or between $27,040 and $27,560 a year.

Type of Household	%	Number of Households	Income	AMI Bracket
1-person household	0.338	1.69	$27,040.00	Extremely low
2-person household	0.296	1.48		
1 worker	0.33/.76	0.64	$27,040.00	Very low income
2 workers	0.43/.76	0.84	$54,080.00	Low income

3-person household	0.15	0.75		
1 worker	0.36/.88	0.31	$27,040.00	Extremely low
2 workers	0.39/.88	0.37	$54,080.00	Low income
3 workers	0.13/.88	0.11	$81,120.00	Median
4-or-person household	0.22	1.10		
1 worker	0.33/.82	0.44	$27,040.00	Extremely low
2 workers	0.37/.82	0.50	$54,080.00	Low income
3 workers	0.22/.82	0.30	$81,120.00	Median

2 Households make $14 an hour or $29,120-$30,160 a year.

Type of Household	%	Number of Households	Income	AMI Bracket
1-person household	0.338	0.68	$29,120.00	Very Low
2-person household	0.296	0.59		
1 worker	0.33/.76	0.26	$29,120.00	Very Low
2 workers	0.43/.76	0.33	$58,240.00	Low Income
3-person household	0.15	0.30		
1 worker	0.36/.88	0.12	$29,120.00	Very Low
2 workers	0.39/.88	0.15	$58,240.00	Low
3 workers	0.13/.88	0.04	$87,360.00	Median
4-or-person household	0.22	0.44		
1 worker	0.33/.82	0.18	$29,120.00	Extremely Low
2 workers	0.37/.82	0.20	$58,240.00	Low
3 workers	0.22/.82	0.12	$87,360.00	Median

1.3 Households make $15.50-$16.00 an hour or $32,240-$33,280 a year.

Type of Household	%	Number of Households	Income	AMI Bracket
1-person household	0.338	0.44	$32,240.00	Very Low Income
2-person	0.296	0.38		

household				
1 worker	0.33/.76	0.17	$32,240.00	Very Low
2 workers	0.43/.76	0.22	$64,480.00	Low
3-person household	0.15	0.20	$96,720.00	Median
1 worker	0.36/.88	0.08	$32,240.00	Very Low
2 workers	0.39/.88	0.10	$64,480.00	Low
3 workers	0.13/.88	0.03	$96,720.00	Median
4-or-person household	0.22	0.29		
1 worker	0.33/.82	0.12	$32,240.00	Very Low
2 workers	0.37/.82	0.13	$64,480.00	Low
3 workers	0.22/.82	0.08	$87,360.00	Median

Total in each AMI bracket:

AMI Bracket	# HH
Low	7.47
Very low	11.9
Extremely low	5.23
Total	**24.6**

8. **Calculate affordability gap for each bracket.**

The affordability gap is the gap between the cost to develop and the ability of the household to afford the housing unit –housing subsidies are needed to close the gap. CLIF and AHIFNA assume that affordable rent is 30% of annual income plus utilities. The 2016 AHIFNA study calculates the affordability gap for each income bracket as follows:

AMI Bracket	Affordability Gap
Low	$47,400
Very low	$102,700
Extremely low	$129,900

A. According to city's estimate:

AMI Bracket	Total Affordability Gap
Low	$1,229,082
Very low	$4,802,252
Extremely low	$1,274,319
Total	$7,305,653

B. According to applicant's estimate

AMI Bracket	Affordability Gap
Low	$354,078
Very low	$1,222,130
Extremely low	$679,377
Total	$2,255,585

9. **Total subsidies needed:**

A. According to the city's estimate:

$7,305,653 **or $7.3 million**

B. According to applicant's estimate:

$2,255,585 **or $2.3 million**

Attachment B: Calculating impact of workers on demand for social services

1. Determine number of households that would be eligible for Medi-Cal.

The analysis below relies on the previous numbers of annual income that accounted for the number of workers per household.

A. According to the city's estimate:

Eligibility for Medi-Cal

Family Size	138% Poverty Level	# of Eligible Households
1	16,395	0
2	22,108	0
2 Adults	22,108	0
3	27,821	4.66
4	33,534	5.14
5	39,248	0
6	44,961	0
Total	--	**9.8**

B. According to the applicant's estimate:

Eligibility for Medi-Cal

Family Size	138% Poverty Level	# of Eligible Households
1	16,395	0
2	22,108	0
2 Adults	22,108	0
3	27,821	1.38
4	33,534	1.51
5	39,248	0
6	44,961	0
Total	--	**2.89**

2. Determine number of households that would be eligible for Food Stamps.

For the eligibility thresholds, we rely on the California Department of Social Services[17].

A. According to the city's estimate:

Eligibility for Food Stamps

Household Size	Gross Monthly	Annual	# Eligible Households
1	$2,010	$24,120.00	0
2	$2,708	$32,496.00	11.3
3	$3,404	$40,848.00	5.4
4	$4,100	$49,200.00	16.6
5	$4,798	$57,576.00	0
Totals	--	--	**33.3**

B. According to the applicant's estimate:

Eligibility for Food Stamps

Household Size	Gross Monthly	Annual	# Eligible Households
1	$2,010	$24,120.00	0
2	$2,708	$32,496.00	3.3
3	$3,404	$40,848.00	1.58
4	$4,100	$49,200.00	4.95
5	$4,798	$57,576.00	0
Totals	--	--	**9.83**

3. Calculate annual cost to taxpayers.

The UC Labor Center's report calculates the cost to taxpayers of social services in the following table:

[17] California Department of Social Services, CalFresh. http://www.cdss.ca.gov/inforesources/CDSS-Programs/CalFresh/Eligibility-and-Issuance-Requirements#income

Table 1: Enrollment and Costs of Public Support Programs, annual average, 2007–2011

Program	Total Families Enrolled	Total Program Cost (billions)	Cost Per Family
Medicaid and CHIP	23,419,000	$261.30	$11,157
EITC	26,383,000	$ 58.61	$ 2,222
Food Stamps	25,073,000	$ 55.93	$ 2,231
TANF	2,950,000	$ 9.88	$ 3,348

Sources: 2008–2012 March CPS,[12] program administrative data. Medicaid data from http://www.cms.gov/Research-Statistics-Data-and-Systems/Computer-Data-and-Systems/MedicaidDataSourcesGenInfo/MSIS-Mart-Home.html. CHIP data from http://medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Data-and-Systems/MBES/Downloads/FY02through11NetExpenditure.zip (expenditures) and http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Childrens-Health-Insurance-Program-CHIP/CHIP-Reports-and-Evaluations.html (enrollment). EITC data from http://www.irs.gov/uac/SOI-Tax-Stats---Historic-Table-2. Food stamps data from http://www.fns.usda.gov/pd/90.xls (2008–2012) and http://www.fns.usda.gov/snap/qc/pdfs/2007_state_activity.pdf (2007). TANF caseload data from http://archive.acf.hhs.gov/programs/ofa/data-reports/caseload/[YYYY]/ [YYYY]_family_tanssp.html and spending data from http://archive.acf.hhs.gov/programs/ofs/data/[YYYY]/table[F_[YYYY].htm (2007–08), http://archive.acf.hhs.gov/programs/ofs/data/2009/table_f3_2009.html (2009) and http://archive.acf.hhs.gov/programs/ofa/data/[YYYY]fin/table_b2.pdf (2010–11).
Note: All costs reported in 2011 dollars.

Accordingly, the total annual cost of social services is as follows:

A. According to the city's estimate:

	Annual Cost	Households	Total Annual Cost
Medi-Cal	$11,157.00	9.8	$109,338.60
Food Stamps	$2,231.00	33.3	$74,292.30
Total			$183,630.90

B. According to the applicant's estimate:

	Cost	Households	Total Cost
Medi-Cal	$11,157.00	2.89	$32,243.73
Food Stamps	$2,231.00	9.83	$21,930.73
Total			$54,174.46

4. Total annual cost to taxpayers:

C. According to the city's estimate:

$183,630.90 **or $183.6K**

D. According to applicant's estimate:

$54,174.46 **or $54.2K**

Attachment C: Sources

The most recent census (2010) reports the following "Distribution of Households by Household Size":

Type of Household	Number	Percent
1-person household	52,103	33.8%
2-person household	45,563	29.6%
3-person household	22,372	14.5%
4-person household	16,433	10.6%
5-person household	8,456	5.4%
6-person household	4,067	2.6%
7-or-more household	4,797	3.1%
Total:	153,791	100%

Source: US Census Bureau, American FactFinder, Accessed: https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_16_5YR_B08202&prodType=table

HOUSEHOLD SIZE BY NUMBER OF WORKERS IN HOUSEHOLD	Oakland, California	
	Estimate	**Percent**
Total:	158,937	100%
No workers	*40,034*	*25%*
1 worker	*65,754*	*41%*
2 workers	*42,704*	*27%*
3 or more workers	*10,445*	*7%*
1-person household:	52,975	33%
No workers	*23,232*	*44%*
1 worker	*29,743*	*56%*
2-person household:	48,927	31%
No workers	*11,574*	*24%*
1 worker	*16,325*	*33%*
2 workers	*21,028*	*43%*
3-person household:	24,555	15%
No workers	*2,823*	*11%*
1 worker	*8,879*	*36%*
2 workers	*9,620*	*39%*

3 workers	*3,233*	*13%*
4-or-more-person household:	32,480	20%
No workers	*2,405*	*7%*
1 worker	*10,807*	*33%*
2 workers	*12,056*	*37%*
3 or more workers	*7,212*	*22%*

Source: US Census Bureau, American FactFinder

The numbers below are from the most recent 2017 Income Limit which organizes annual salary in relation to the percentage of AMI.

Household Size / *Income Level*	1	2	3	4	5	6	7-or-more
30% of Area Median Income (Extremely Low Income)	$21,930	$25,050	$28,170	$31,290	$33,810	$36,300	$38,820
50% of Area Median Income (Very Low Income)	$36,550	$41,750	$46,950	$52,150	$56,350	$60,500	$64,700
60% of Area Median Income	$43,860	$50,100	$56,340	$62,580	$67,620	$72,600	$77,640
80% of Area Median Income (Low Income)	$56,300	$64,350	$72,400	$80,400	$86,850	$93,300	$99,700
100% of Area Median Income (Median Income)	$68,200	$77,900	$87,650	$97,400	$105,200	$113,000	$120,800

Affordable Housing Cost Definitions
Oakland Affordability Gap Analysis

Income Level	Affordable Housing Cost Definition
50% AMI (Very Low Income)	30% of 45% AMI
80% AMI (Low Income)	30% of 60% AMI
120% AMI (Moderate Income)	30% of 100% AMI

Table 13
JUSTIFIABLE HOUSING LINKAGE FEE BY LAND USE
CITY OF OAKLAND

2001

		Office	Warehouse/ Distribution	Retail	Hotel
Very Low Income Households					
1. Very Low Income Households Employed per 100,000 SF Development		17	6	16	8
2. Estimated Housing Gap Cost at Per Unit Gap of: (1)	$129,900	$2,208,300	$779,400	$2,078,400	$1,039,200
3. Cost of Housing Gap Per Square Foot Bldg. Area		$22.08	$7.79	$20.78	$10.39
Low Income Households					
1. Low Income Households Employed per 100,000 SF Development		9	4	9	2
2. Estimated Housing Gap Cost at Per Unit Gap of: (1)	$102,700	$924,300	$410,800	$924,300	$205,400
3. Cost of Housing Gap Per Square Foot Bldg. Area		$9.24	$4.11	$9.24	$2.05
Moderate Income Households					
1. Moderate Income Households Employed per 100,000 SF Development		8	2	5	1
2. Estimated Housing Gap Cost at Per Unit Gap of: (1)	$47,400	$379,200	$94,800	$237,000	$47,400
3. Cost of Housing Gap Per Square Foot Bldg. Area		$3.79	$0.95	$2.37	$0.47
Total Fee Per Square Foot		$35.11	$12.85	$32.39	$12.91

Rivera, Mike

From: Ty Hudson <thudson@unitehere.org>
Sent: Tuesday, February 26, 2019 11:46 AM
To: Rivera, Mike
Subject: Fwd: Mandela Hotel
Attachments: Mandela hotel letter re DTSC and SWRCB sites.pdf; Levine-Fricke-Recon maps.pdf; parcel maps 2045 and 7572.pdf; Grant deeds 2000261171 and 2000324864.pdf; SFBRWQCB to Best Buy 1.pdf; SFBRWQCB to Best Buy 2.pdf; SFBRWQCB to OTR NFA February 8, 2002 (1).pdf; SFBRWQCB to Wilcox 1.pdf; SFBRWQCB to Wilcox 2.pdf; SFBRWQCB to Wilcox 3.pdf; SFOBB seismic retrofit Figures 2 and 5.pdf; SFOBB soil sampling plan.pdf

Please distribute the attached letter and related documents to the City Council prior to tonight's hearing on the Mandela Parkway hotel appeal (PLN16394-A01). This letter was originally submitted by email on March 12, 2018.

Begin forwarded message:

From: Ty <thudson@unitehere.org>
Subject: Mandela Hotel
Date: March 12, 2018 at 4:46:04 PM PDT
To: "Rivera, Mike" <mrivera@oaklandnet.com>

Mike,

Please see the attached letter regarding the Mandela Hotel, and please make sure the letter and attachments are distributed to the Planning Commissioners prior to next week's hearing.

Thank you.

Ty Hudson
Senior Research Analyst
UNITE HERE Local 2850
http://www.unitehere.org
cell: 213-509-9114

UNITEHERE! Local 2850
1440 Broadway, Suite 208, Oakland, CA 94612 510/893-3181 Fax: 510/893-5362

March 12, 2018

Planning Commission
City of Oakland
1 Frank H Ogawa Plaza
Oakland, CA 94612

Dear Commissioners:

This letter presents important new information that supplements UNITE HERE Local 2850's previous letter, dated January 5th, 2018, regarding the CEQA analysis for the Mandela-Parkway hotel (PLN16394). In short, the new information indicates that the CEQA exemptions sought for the project are not appropriate because the project is proposed for **a site that is listed in databases of contaminated sites maintained by the State Water Resources Control Board and the Department of Toxic Substances Control.**

The presence of the site on these lists, as well as the apparent incompleteness of cleanup efforts, helps explain why the Environmental Site Investigation Report prepared by Kleinfelder in 2016 (which is included in an attachment to the CEQA analysis) noted several contaminants above their respective Environmental Screening Levels (ESL) in soil and/or groundwater testing, including **arsenic, lead, and petroleum hydrocarbons** (diesel and motor oil). The ESL's are thresholds set by the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) as guidance for determining risk to human health and the environment. In addition, Kleinfelder reported several substances detected at over *ten times* the Soluble Threshold Limit Concentration (STLC), including **mercury and lead**. The STLC is a threshold set by Title 22 of the California Code of Regulations to define toxic waste (22 CCR § 66261.24).

The Cortese List

The project seeks the Class 32 categorical exemption for infill projects. We have previously argued that this project is not eligible for that exemption because it is not consistent with the applicable zoning regulations. This letter presents an additional reason this categorical exemption is not appropriate for the project. CEQA Guidelines Section 15300.2 lists several circumstances under which projects cannot qualify for categorical exemptions (including the Class 32 infill exemption), even if they would otherwise be eligible. Subsection 15300.2(e) states, "A categorical exemption shall not be used for a project located on a site which is

included on any list compiled pursuant to Section 65962.5 of the Government Code." The provisions of Government Code Section 65962.5 are commonly known as the "Cortese List." The Cortese List is actually composed of multiple lists compiled by various state agencies, including the State Water Resources Control Board (SWRCB) and Department of Toxic Substances Control (DTSC).[1] The CEQA analysis prepared for the Mandela Parkway hotel claims that the project site does not appear on any such list. However, in fact, the hotel is proposed at a location where two listed sites overlap: the Oakland Terminal Railway site (listed by the SWRCB) and the Seismic Retrofit SFOBB Distribution Structure (listed by the DTSC).

Oakland Terminal Railway

The CEQA analysis cites the SWRCB's Geotracker online database in support of its claim that the project site is not on the "Cortese List." However, this database includes a site known as the Oakland Terminal Railway Property ("OTR Site") identified as SFBRWQCB Case # 01S0542. The map provided on the Geotracker website indicates this site with an icon located on the parcel occupied by the Extended Stay America hotel at 3650 Mandela Parkway, across the street from the proposed hotel. However, the Extended Stay parcel is not the entirety of the OTR Site. The Geotracker website describes the location of the OTR Site as "Hwy 80/ Hwy 580 interchange south of Emeryville"—exactly where the new Mandela Hotel is proposed.

The attached "Site Location Map," prepared in 1999 by Levine-Fricke-Recon, comes from the Alameda County Environmental Health Department's case file for the OTR Site. The shaded area on the map clearly indicates that the parcel where the new hotel is proposed is part of the OTR Site. Alameda County Parcel Maps 2045 and 7572, as well as four more detailed maps from Levine-Fricke-Recon, all of which are also attached to this letter, show this even more clearly. On Parcel Map 7572, the triangular parcel to the west of the future Nelson Mandela Parkway and marked "State of California Dept. of Transportation" is the proposed location of the Mandela Hotel. As shown on Parcel Map 2045, this triangle of land was part of the OTR property before it was transferred to the State of California.

The History of the Oakland Terminal Railway Site

The two parcel maps and Grant Deeds 2000261171 and 2000324864 (also attached) help describe the history of the ownership of the various pieces of the OTR Site. Parcel Map 2045 shows the property as of 1976. Parcel Map 7572 shows the property as of October 2000, after it has been subdivided and sold to various buyers.

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[1] https://calepa.ca.gov/SiteCleanup/CorteseList/Background/

The westernmost portion of the site, which includes the Mandela Hotel project site as well as a section of Mandela Parkway itself, was transferred to Caltrans in 1999, and the sale recorded in Grant Deed 2000261171. The remainder of what Parcel Map No. 2045 calls "Parcel A" was sold to a developer in October 2000, per Grant Deed 2000324864. This portion of the site is indicated as Parcel 1 and Parcel 2 on Parcel Map No. 7572. Parcel 1 is now the location of the Extended Stay America hotel, and Parcel 2 is the location of the Best Buy store.

This history is important because it relates to the cleanup of the site. The private developers who purchased Parcels 1 and 2 undertook measures to clean up their respective portions of the site, supervised by the SFBRWQCB. The attached letters from the SFBRWQCB to Wilcox Development (then owner of Parcel 1), Best Buy Company (Parcel 2), and the Oakland Terminal Railway provide partial documentation of these cleanup efforts. However, the portion of the site that was purchased by Caltrans—the site of the proposed Mandela Hotel—seems to have gotten lost in the shuffle. None of these letters refers to any cleanup of the Caltrans portion of the site. The letter from the SFBRWQCB to Oakland Terminal Railway which documents the closure of the case (dated February 8, 2002) refers to Parcel 1 (the Extended Stay hotel parcel) as the "western portion of the OTR site" and to Parcel 2 (the Best Buy parcel) as the "eastern portion of the OTR site," suggesting that the Caltrans portion of the site, which lies to the west of the Extended Stay hotel, had been forgotten. By contrast, the documents prepared in 1999 by Levine-Fricke-Recon—before the sale of the property—clearly indicate the future Caltrans parcel as part of the OTR Site.

There is nothing in the administrative record or in the files maintained by the SFBRWQCB or the Alameda County Department of Environmental Health that indicates that any cleanup efforts were performed on the Caltrans portion of the OTR Site. This may explain the levels of lead, mercury, petroleum hydrocarbons, and other contaminants reported by Kleinfelder.

Seismic Retrofit of San Francisco Oakland Bay Bridge Distribution Structure

In addition to the SWRCB Geotracker database, the CEQA analysis cites the DTSC Envirostor database in support of its claim that the hotel project site does not appear on the Cortese List. But the Envirostor database contains a site known as the Seismic Retrofit SFOBB Distribution Structure, which includes the parcel where the Mandela Hotel is proposed. According to the site history summarized on the Envirostor website, "The Seismic Retrofit Project consists of strengthening the I-580 viaduct to the west of where it crosses over Mandela Parkway, at kilometer 74.5, in the City of Oakland, in Alameda County.... This wetland was filled in over time with discarded material such as municipal waste, ruble, and earth. This artificial fill material is believed to be the source of most of the contaminants discovered at the

site."[2] The Mandela Hotel project site is immediately adjacent to the I-580 viaduct, immediately to the west of where it crosses over Mandela Parkway. The retrofit of the SFOBB Distribution Structure required the relocation of an EBMUD pipe known as the Adeline Interceptor, and the attached maps labeled "Figure 2 EBMUD Adeline Interceptor Relocation Project - Location Map 1" and "Figure 5 Map of Proposed Soil Reuse Sites" show that the proposed hotel parcel is part of this project site.

The relocation of the Adeline Interceptor required the excavation of over 3,000 cubic meters of material, including "artificial fill material with moderate levels of lead contamination."[3] The Caltrans parcel where the Mandela Hotel is proposed (Caltrans Parcel No. 56359-0101) was one of the disposal sites for this material.[4] Although this parcel was designated for the relatively clean portion of this excavated material, the criteria for material to be clean enough to be disposed of on this site included a lead concentration threshold (150 mg/kg) that is nearly double the SFBRWQCB ESL (80 mg/kg). This also may explain the elevated levels of lead indicated by the Kleinfelder report.

CEQA Implications

The inclusion of a site on the Cortese List disqualifies it from the Class 32 categorical exemption from CEQA, which the Mandela Hotel project seeks. It also has implications for the infill streamlining process under CEQA Guidelines Section 15183.3, which the project also claims to qualify for. If a project site is included in the Cortese List, the project must document how the site has been remediated, or implement the recommendations of the preliminary endangerment assessment, per the performance standards of CEQA Guidelines Appendix M. The Mandela Hotel CEQA analysis neither provides documentation of remediation, nor proposes specific mitigation measures to remediate the site.

The presence of elevated levels of lead, mercury, arsenic, and other contaminants on the site constitutes new, site-specific information that requires further review and mitigation, beyond what is included in the West Oakland Specific Plan (WOSP) EIR. It should be noted that the WOSP EIR, though it lists and discusses many contaminated sites in West Oakland, does not list either of the sites discussed in this letter. The OTR Site may have been left out of the WOSP EIR because it is listed as closed, but, as discussed above, it appears that the cleanup of that site may have excluded the portion that was sold to Caltrans, rather than to private

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[2] http://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=60000492

[3] California Department of Transportation, "Data Quality Objectives & Soil Sampling Plan, San Francisco Oakland Bay Bridge Distribution Structure in the City of Oakland in the County of Alameda on Interstate 580 at kilometer post 74.5, for use with the Seismic Retrofit Project Caltrans Contract No. 04-143554," March 31, 2006, page 2. (Document attached.)

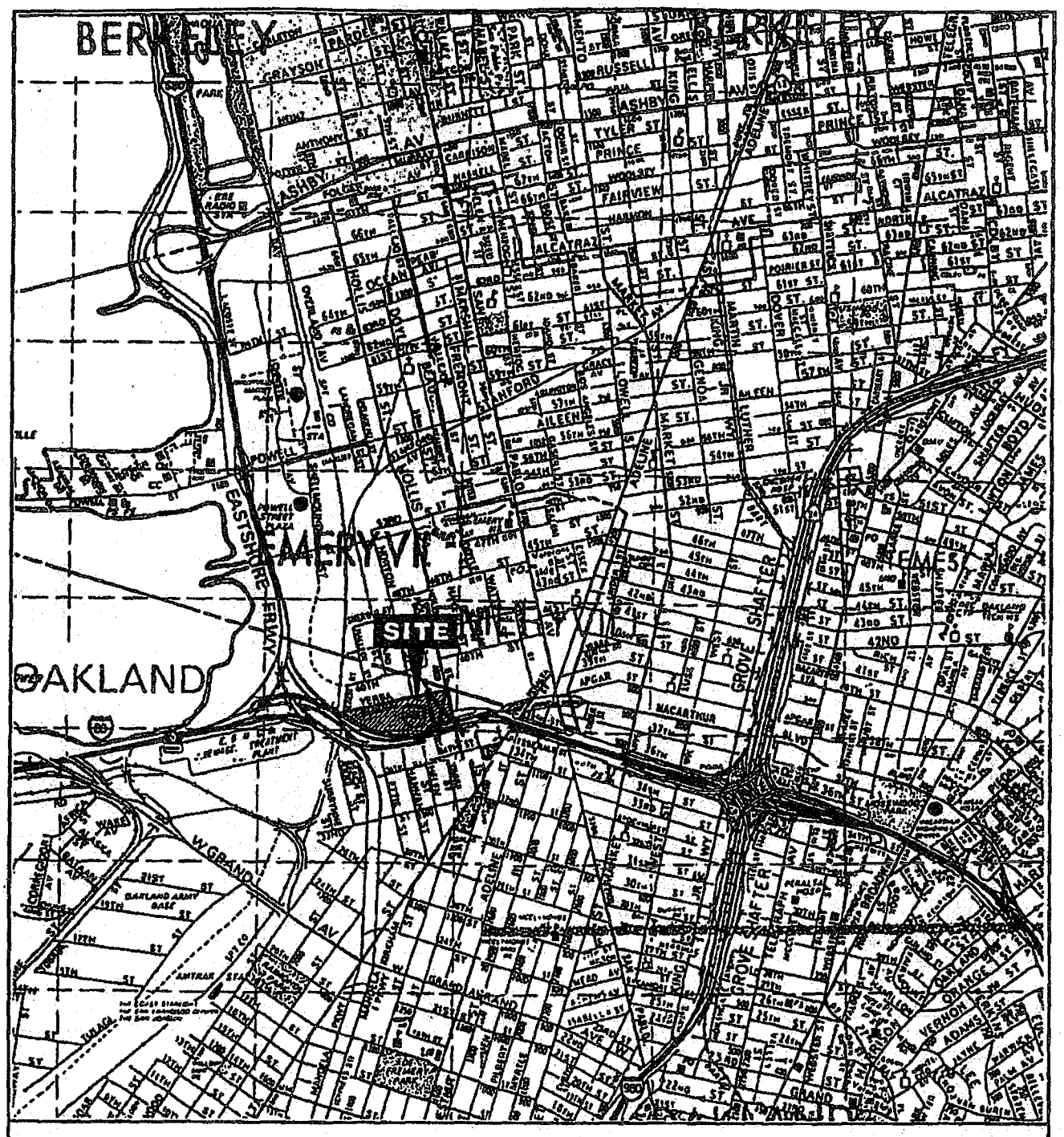
[4] Ibid., page 3.

developers. The Seismic Retrofit of the SFOBB Distribution Center is listed in the DTSC database as "Inactive – Needs Evaluation." It is not clear why it was excluded from the hazardous waste analysis in the WOSP EIR.

Our January 5th letter discusses in more detail the inadequacy of the CEQA analysis of the proposed Mandela Hotel. For the sake of the neighborhood and of future hotel workers and guests, we hope you will require further study and mitigation of the toxic contamination at the site.

Sincerely,

Ty Hudson
Senior Research Analyst



N

0 1/2 1 MILE

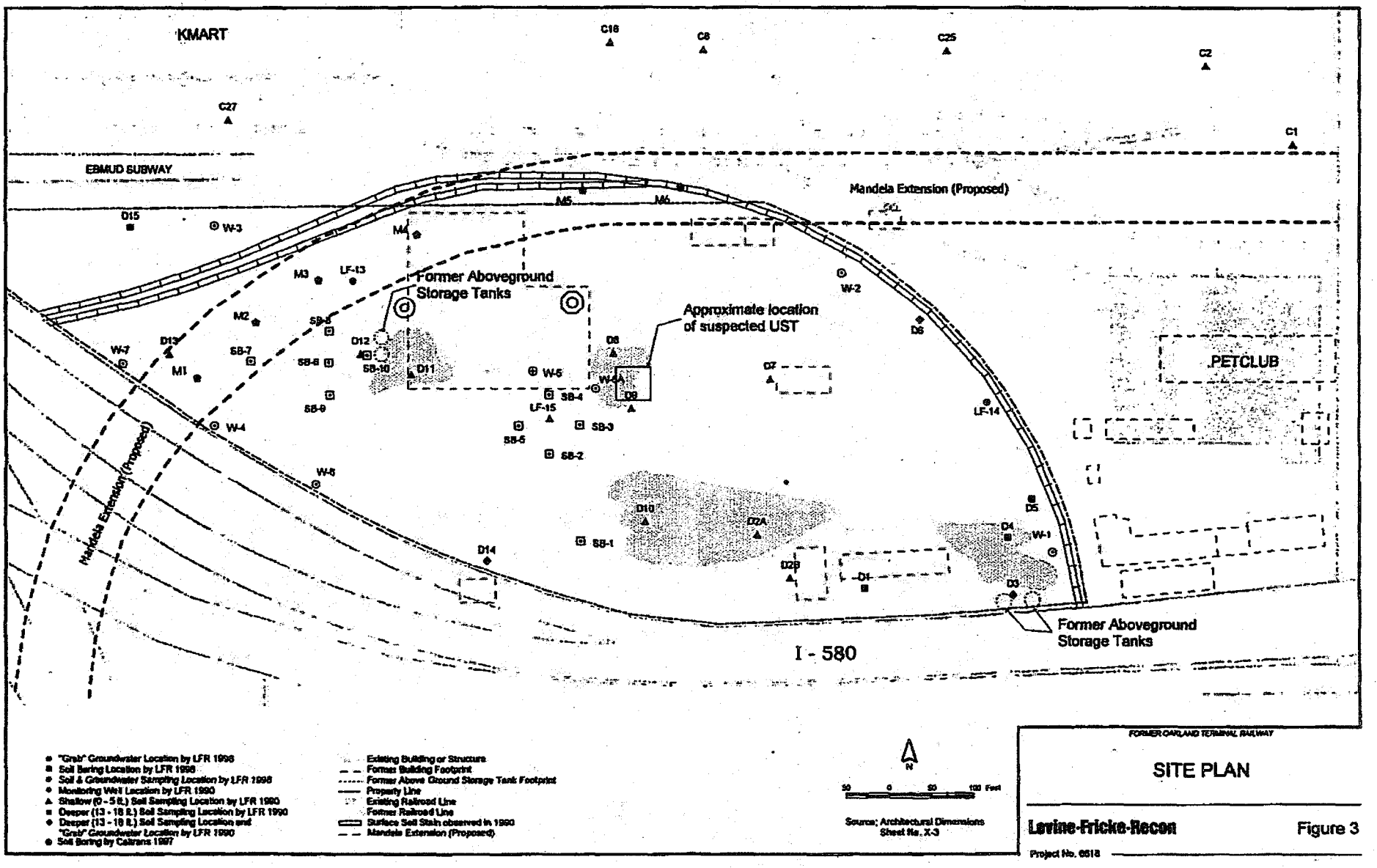
FORMER OAKLAND TERMINAL RAILWAY

Site Location Map

Levine-Fricke-Recon Figure 1

Project No. 6618

6618SV01.CDR 102398

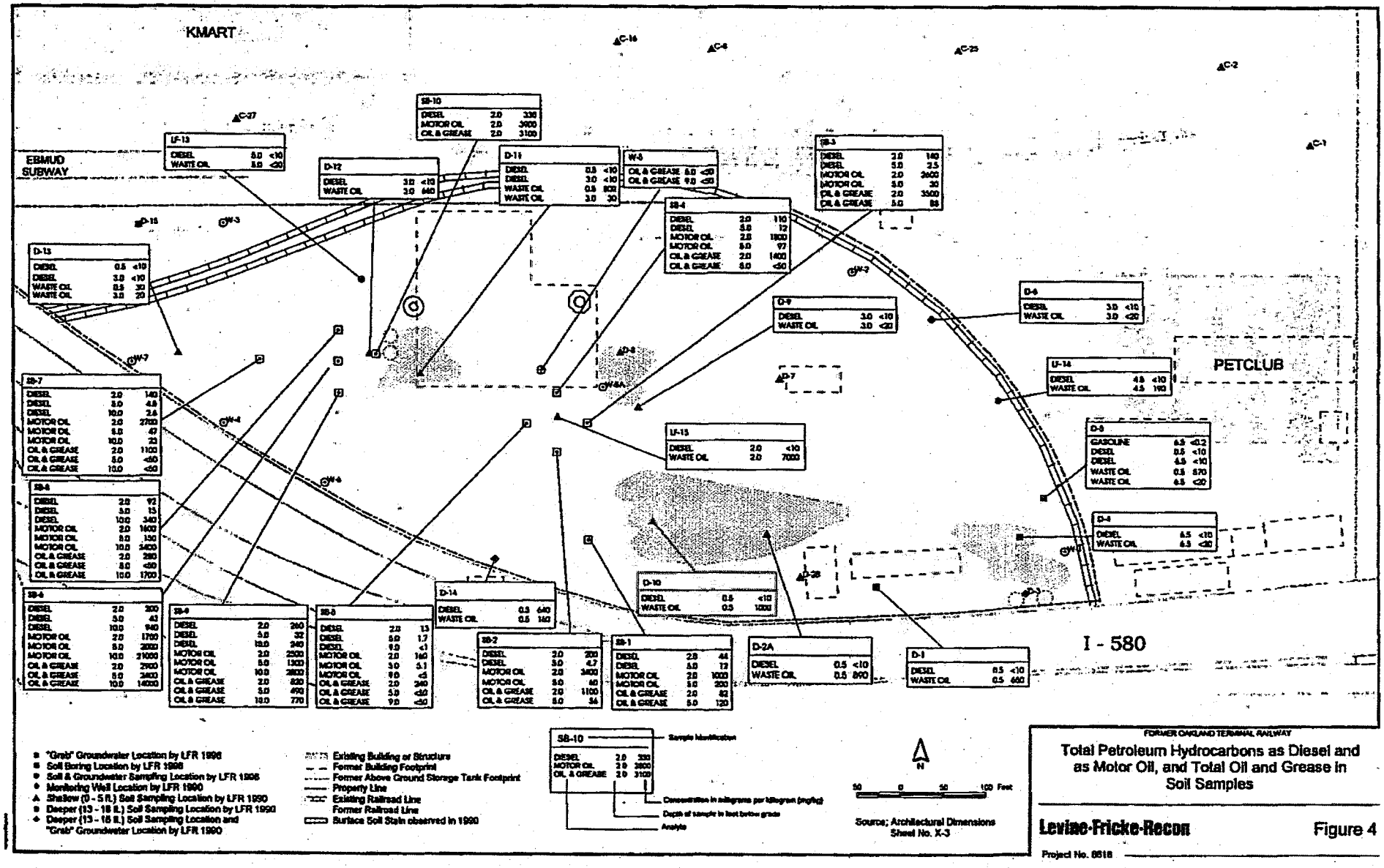


SITE PLAN

Levine-Fricke-Recon

Figure 3

Project No. 6518



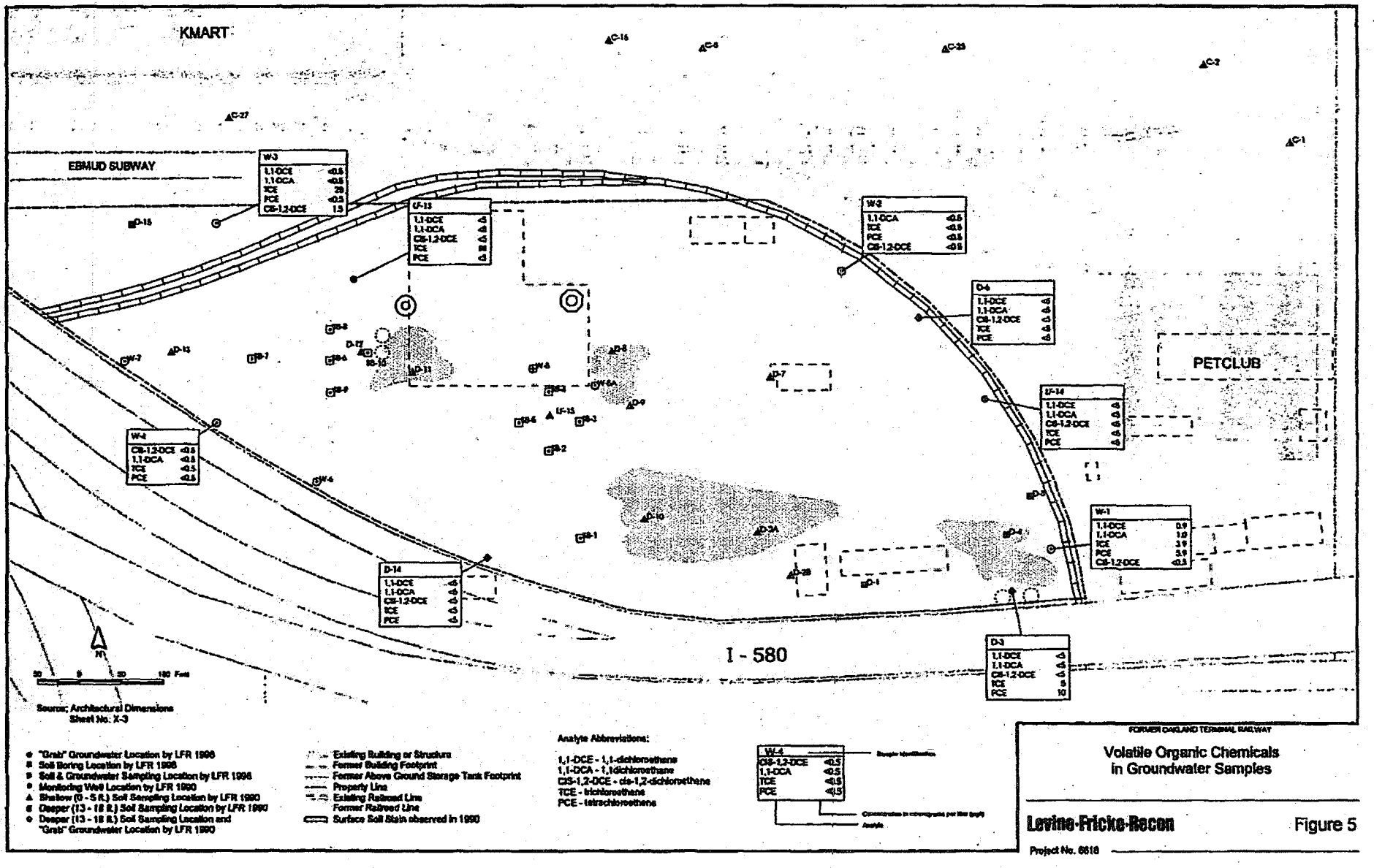
Source; Architectural Dimensions Sheet No. X-3

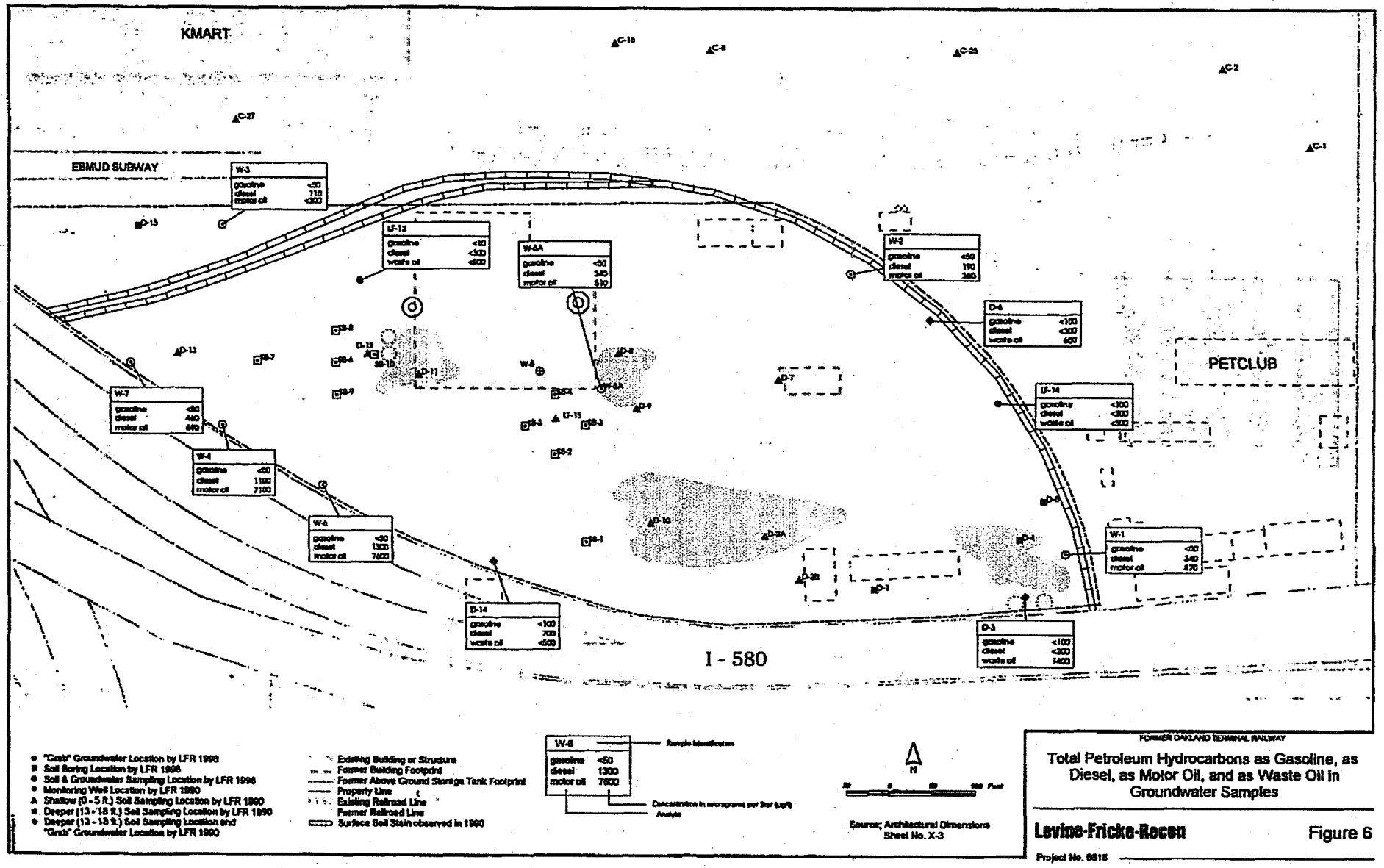
FORMER OAKLAND TERMINAL RAILWAY

Total Petroleum Hydrocarbons as Diesel and as Motor Oil, and Total Oil and Grease in Soil Samples

Levine-Fricke-Recon Figure 4

Project No. 6618


KMART
EBMUD SUBWAY
PETCLUB
I - 580
W-3
1,1-DCE <0.5
1,1-DCA <0.5
TCE 28
PCE <0.5
CIS-1,2-DCE 1.5
UF-13
1,1-DCE Δ
1,1-DCA Δ
CIS-1,2-DCE Δ
TCE Δ
PCE Δ
W-2
1,1-DCA <0.5
TCE <0.5
PCE <0.5
CIS-1,2-DCE <0.5
D-6
1,1-DCE Δ
1,1-DCA Δ
CIS-1,2-DCE Δ
TCE Δ
PCE Δ
UF-14
1,1-DCE Δ
1,1-DCA Δ
CIS-1,2-DCE Δ
TCE Δ
PCE Δ
W-4
CIS-1,2-DCE <0.5
1,1-DCA <0.5
TCE <0.5
PCE <0.5
W-1
1,1-DCE 0.9
1,1-DCA 1.0
TCE 3.9
PCE 3.9
CIS-1,2-DCE <0.5
D-14
1,1-DCE Δ
1,1-DCA Δ
CIS-1,2-DCE Δ
TCE Δ
PCE Δ
D-3
1,1-DCE Δ
1,1-DCA Δ
CIS-1,2-DCE Δ
TCE 5
PCE 10
N
50 0 50 100 Feet
Source: Architectural Dimensions
Sheet No. X-3
"Grab" Groundwater Location by LFR 1996
Soil Boring Location by LFR 1996
Soil & Groundwater Sampling Location by LFR 1996
Monitoring Well Location by LFR 1990
Shallow (0 - 5 ft.) Soil Sampling Location by LFR 1990
Deeper (13 - 18 ft.) Soil Sampling Location by LFR 1990
Deeper (13 - 18 ft.) Soil Sampling Location and "Grab" Groundwater Location by LFR 1990
Existing Building or Structure
Former Building Footprint
Former Above Ground Storage Tank Footprint
Property Line
Existing Railroad Line
Former Railroad Line
Surface Soil Stain observed in 1990
Analyte Abbreviations:
1,1-DCE - 1,1-dichloroethene
1,1-DCA - 1,1dichloroethane
CIS-1,2-DCE - cis-1,2-dichloroethene
TCE - trichloroethene
PCE - tetrachloroethene
W-4
CIS-1,2-DCE <0.5
1,1-DCA <0.5
TCE <0.5
PCE <0.5
Sample Identification
Concentration in micrograms per liter (ug/l)
Analyte
FORMER OAKLAND TERMINAL RAILWAY
Volatile Organic Chemicals
in Groundwater Samples
Levine-Fricke-Recon
Figure 5
Project No. 6618



FORMER OAKLAND TERMINAL RAILWAY

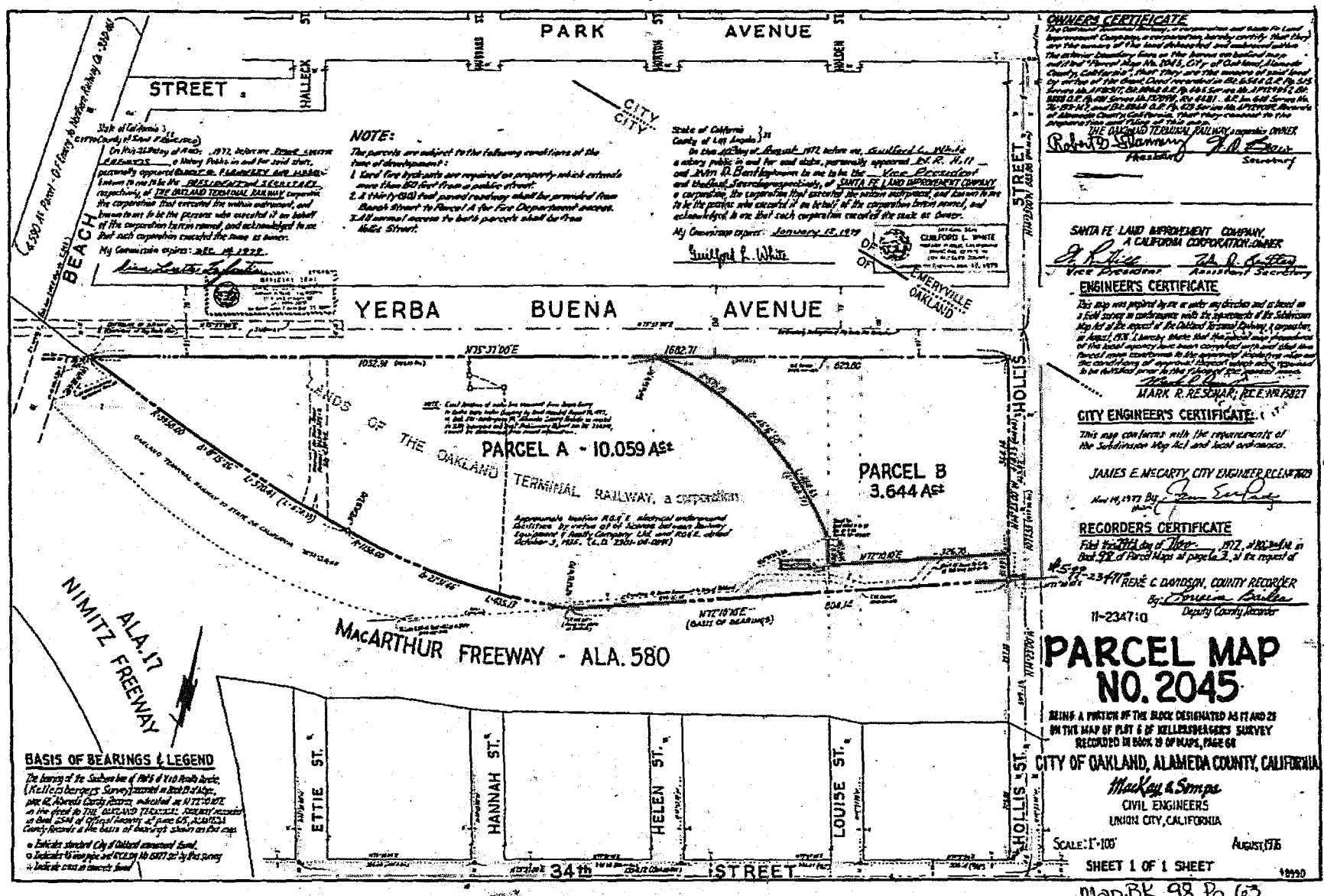
Total Petroleum Hydrocarbons as Gasoline, as Diesel, as Motor Oil, and as Waste Oil in Groundwater Samples

Levine-Fricke-Recon

Figure 6

Project No. 6818

II-2347:0



NOTE:
The parcels are subject to the following conditions of the time of development:
1. Yard fire hydrants are required on property which extends more than 300 feet from a public street.
2. A thirty (30) foot paved roadway shall be provided from Branch Street to Parcel A for fire Department access.
3. All normal access to both parcels shall be from Hollis Street.

BASIS OF BEARINGS & LEGEND
The bearing of the Southern line of Plat 5 of Y10 Roads Tract, (Kellersberger's Survey) recorded in Book B of Maps, page 62, Alameda County Records, indicated as N71°00'E on the deed to THE OAKLAND TERMINAL RAILWAY recorded in Book 6557 of Official Records, at page 605, Alameda County Records is the basis of bearings shown on this map.
● Indicates standard City of Oakland monument found.
○ Indicates ¾" iron pipe and tag LS 6377 set by this survey
+ Indicates cross on concrete found

OWNER'S CERTIFICATE
The Oakland Terminal Railway, a corporation and Santa Fe Land Improvement Company, a corporation, hereby certify that they are the owners of the land delineated and embraced within the exterior boundary lines on the hereon embodied map and that said map, No. 2045, City of Oakland, Alameda County, California, that they are the owners of said land by virtue of the Grant Deed recorded in Bk. 6568 O.R. Pg. 515 Series No. A-78217, Bk. 8868 O.R. Pg. 436 Series No. A-79149-1 & 2, Bk. 8868 O.R. Pg. 441 Series No. A-79149-3, Bk. 6481 O.R. Pg. 62 Series No. 76-159-N-1, and Bk. 8868 O.R. Pg. 429 Series No. A-79149-4, Records of Alameda County, California, that they consent to the preparation and recordation of said map.

THE OAKLAND TERMINAL RAILWAY, a corporation, OWNER
By: R. D. Manning, President
By: [illegible], Secretary

SANTA FE LAND IMPROVEMENT COMPANY, A CALIFORNIA CORPORATION, OWNER
By: [illegible], Vice President
By: [illegible], Assistant Secretary

ENGINEER'S CERTIFICATE
This map was prepared by me or under my direction and is based on a field survey in conformance with the requirements of the Subdivision Map Act at the request of the Oakland Terminal Railway, a corporation, in August, 1976. I hereby state that the final map monuments of the parcel shown hereon will be set in those positions indicated, or that the parcel corner monuments will be sufficient to enable the survey to be retraced, which will be completed prior to the filing of the parcel map.
MARK R. RESCHAR, R.C.E. 14,952

CITY ENGINEER'S CERTIFICATE
This map conforms with the requirements of the Subdivision Map Act and local ordinance.
JAMES E. McCARTY, CITY ENGINEER, R.C.E. 14,703
Dated May 19, 1977 By: [illegible]

RECORDER'S CERTIFICATE
Filed this 27th day of May, 1977, at 10:30 A.M. in Book 98 of Parcel Maps at page 63, at the request of
RENÉ C. DAVIDSON, COUNTY RECORDER
By: [illegible], Deputy County Recorder
II-2347:0

PARCEL MAP NO. 2045

BEING A PORTION OF THE BLOCK DESIGNATED AS 17 AND 25 ON THE MAP OF PLAT 5 OF KELLERSBERGER'S SURVEY RECORDED IN BOOK B OF MAPS, PAGE 62

CITY OF OAKLAND, ALAMEDA COUNTY, CALIFORNIA

MacKay & Somps
CIVIL ENGINEERS
UNION CITY, CALIFORNIA

SCALE: 1" = 100' AUGUST, 1976

SHEET 1 OF 1 SHEET

18990

Map BK 98 Pg 63

PARCEL MAP NO. 7572

BEING A SUBDIVISION OF A PORTION OF PARCEL A, OF PARCEL MAP 2045, BOOK 98 OF PARCEL MAPS, PAGE 63, ALAMEDA COUNTY RECORDS AND ALSO BEING A PORTION OF THE BLOCK DESIGNATED AS 17 AND 23 ON THE MAP OF PLOT 6 OF KELLERSBERGER'S SURVEY RECORDED IN BOOK 19 OF MAPS, PAGE 68, ALAMEDA COUNTY RECORDS AND LYING WITHIN THE

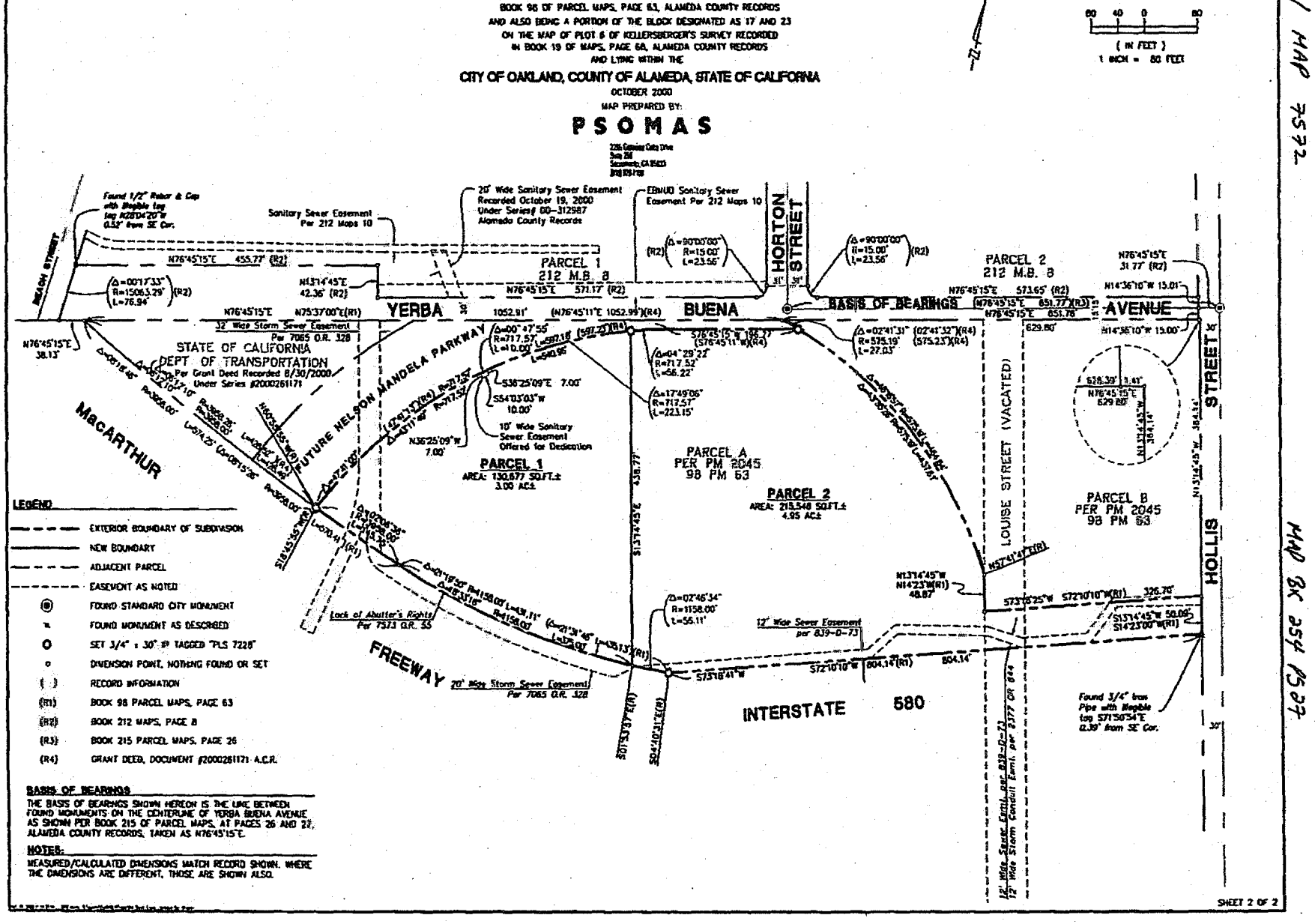
CITY OF OAKLAND, COUNTY OF ALAMEDA, STATE OF CALIFORNIA

OCTOBER 2000

MAP PREPARED BY:

PSOMAS

2256 Gateway Oaks Drive
Suite 200
Sacramento, CA 95833
(916) 929-7000



LEGEND

- EXTERIOR BOUNDARY OF SUBDIVISION
- NEW BOUNDARY
- ADJACENT PARCEL
- EASEMENT AS NOTED
- FOUND STANDARD CITY MONUMENT
- FOUND MONUMENT AS DESCRIBED
- SET 3/4" x 30" ℄ TAGGED "PLS 7228"
- DIMENSION POINT, NOTHING FOUND OR SET
- ( ) RECORD INFORMATION
- (R1) BOOK 98 PARCEL MAPS, PAGE 63
- (R2) BOOK 212 MAPS, PAGE 8
- (R3) BOOK 215 PARCEL MAPS, PAGE 26
- (R4) GRANT DEED, DOCUMENT #2000261171 A.C.R.

BASIS OF BEARINGS

THE BASIS OF BEARINGS SHOWN HEREON IS THE LINE BETWEEN FOUND MONUMENTS ON THE CENTERLINE OF YERBA BUENA AVENUE AS SHOWN PER BOOK 215 OF PARCEL MAPS, AT PAGES 26 AND 27, ALAMEDA COUNTY RECORDS, TAKEN AS N76°45'15"E.

NOTES:

MEASURED/CALCULATED DIMENSIONS MATCH RECORD SHOWN. WHERE THE DIMENSIONS ARE DIFFERENT, THOSE ARE SHOWN ALSO.

(IN FEET)
1 INCH = 80 FEET

SHEET 2 OF 2

PARCEL MAP 7572
MAP BK 254 PG 27

23

RECORDING REQUESTED BY
CHICAGO TITLE COMPANY

RECORDING REQUESTED BY
STATE OF CALIFORNIA

WHEN RECORDED - RETURN TO
DEPARTMENT OF TRANSPORTATION
PO BOX 23440
OAKLAND CA 94623-0440

2000261171
OFFICIAL RECORDS OF
ALAMEDA COUNTY
PATRICK O'CONNELL

08/30/2000 08:30 AM
RECORDING FEE: 13.00

3 PGS

A03
3.
2

S502018-1TP
9835852-4

Space above this line for Recorder's Use

GRANT DEED
(CORPORATION)

District	County	Route	K.P.	Number
4	Ala	880	74.8	56359-1

THE OAKLAND TERMINAL RAILWAY, A CALIFORNIA CORPORATION

a corporation organized and existing under and by virtue of the laws of the State of _____,

does hereby GRANT to the STATE OF CALIFORNIA all that real property in the _____

City of Oakland, County of Alameda, State of California, described as:

Please see EXHIBIT "A" attached.

The date of possession by grantee of the herein described property was October 1, 1999.

Form RW 6-1(C) (Revised 10/99)

JUN 26 2000

Number
56359-1

EXHIBIT "A"

A portion of Parcel A, as shown on Parcel Map No. 2045, filed for record in the office of the County Recorder of Alameda County on November 29, 1977, in Book 98 of Parcel Maps, at Page 63, further described as follows:

COMMENCING at the most westerly corner of said parcel; thence along the northerly line of said parcel N. 76°45'11" E., 320.928 meters to the southwesterly line of Parcel B, as shown on said Parcel Map; thence along last said line from a tangent that bears S. 78°35'13" E., along a curve to the right with a radius of 175.318 meters, through an angle of 2°41'32", an arc length of 8.238 meters; thence S. 76°45'11" W., 59.823 meters; thence along a curve to the left with a radius of 218.700 meters, through an angle of 47°41'13", an arc length of 182.023 meters to the southerly line of said Parcel A; thence along last said line from a tangent that bears N. 71°14'07" W., along a curve to the right with a radius of 1206.401 meters, through an angle of 6°12'10", an arc length of 130.604 meters to the point of commencement.

CONTAINING 8,510 square meters, more or less.

Reserving unto the Grantor all oil, oil rights, minerals, mineral rights, natural gas, natural gas rights, and other hydrocarbons by whatsoever name known that may be within or under the parcel of land hereinabove described, together with the perpetual right of drilling, mining, exploring and operating therefor and removing the same from said land or any other land, including the right to whipstock or directionally drill and mine from lands other than those hereinabove described, oil or gas wells, tunnels and shafts into, through or across the subsurface of the land hereinabove described, and to bottom such whipstock or directionally drilled wells, tunnels and shafts under and beneath or beyond the exterior limits thereof, and to redrill, retunnel, equip, maintain, repair, deepen and operate any such wells or mines, without, however, the right to drill, mine, explore and operate through the surface or the upper 100 feet of the subsurface of the land hereinabove described or otherwise in such manner as to endanger the safety of any highway that may be constructed on said lands.

This Grant is made subject to all covenants, conditions, restrictions, exceptions, easements, rights-of-way, rights-of-access, agreements, reservations, encumbrances, lines and other matters as the same may be of record; any matters which would be disclosed by a survey, investigation or inquiry; and any general and special real estate taxes not yet due and payable.

The bearings and distances used in the above description are on the California Coordinate System of 1927, Zone 3. Multiply the above distances by 1.0000715 to obtain ground level distances.

This real property description has been prepared by me, or under my direction, in conformance with the Professional Land Surveyors Act.

Signature _____
Licensed Land Surveyor

Date 6-26-00

LICENSED LAND SURVEYOR
BRUCE QUINN
Exp. 12/31/03
No. 6642
STATE OF CALIFORNIA

JUN 26 2000

Number
56359-1

The grantor further understands that the present intention of the grantee is to construct and maintain a public highway on the lands hereby conveyed in fee and the grantor, for itself, its successors and assigns, hereby waives any claims for any and all damages to grantor's remaining property contiguous to the property hereby conveyed by reason of the location, construction, landscaping or maintenance of said highway.

IN WITNESS WHEREOF, said corporation has caused its corporate name to be hereunto subscribed and its corporate seal to be affixed hereto, this 3rd day of December, 1999

THE OAKLAND TERMINAL RAILWAY

By Phillip Edward Copple ~~President~~ SCOT.

By Phillip Edward Copple, Secretary

[CORPORATE SEAL]

STATE OF CALIFORNIA
County of SOLANO } ss

PERSONAL ACKNOWLEDGMENT

On this the 3 day of December 19 99, before me, LORA VELARDO, NOTARY PUBLIC
Name, Title of Officer-E.G., "Jane Doe, Notary Public"

personally appeared PHILLIP EDWARD COPPLE,
Name(s) of Signer(s)

☐ personally known to me

☒ proved to me on the basis of satisfactory evidence

to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Lora Velardo
(Notary Public's signature in and for said County and State)

LORA VELARDO
COMM. # 1221740
NOTARY PUBLIC-CALIFORNIA
SOLANO COUNTY
COMM. EXP. JUNE 22, 2003

(for notary seal or stamp)

THIS IS TO CERTIFY, That the State of California, acting by and through the Department of Transportation (pursuant to Government Code Section 27281), hereby accepts for public purposes the real property described in the within deed and consents to the recordation thereof.

IN WITNESS WHEREOF, I have hereunto set my hand this 19 day of October, 1999

JOSÉ MEDINA
Director of Transportation

By John A. Hibel Attorney in Fact
JOHN A. HIBEL
District Office Chief
R/W Acquisition/LPA Services

OCT 19 1999

Form RW 6-1(C) (Revised 4/96)

RECORDING REQUESTED BY

First American Title Guaranty Company
#158264

AND WHEN RECORDED MAIL THIS DEED AND, UNLESS OTHERWISE SHOWN BELOW, MAIL TAX STATEMENTS TO:

NAME: ~~WDS Oakland, LLC~~ WD-VC 1 LLC
c./o Wilcox Development Services

ADDRESS: 14001 Dallas Parkway, #1111

CITY & STATE: Dallas, Texas 75240

Title Order No. SP158264 Escrow No. SP158264

2000324864 10/31/2000 08:30 AM
OFFICIAL RECORDS OF ALAMEDA COUNTY
PATRICK O'CONNELL
RECORDING FEE: 29.00
COUNTY TAX: 9060.70
CITY TAX: 123544.30
5 PGS

PCOR
1SM
TTTR
CTY

THIS SPACE FOR RECORDER'S USE

GRANT DEED

A.P.N. 007-0617-014-01 Portion

THE UNDERSIGNED GRANTOR DECLARES
CITY TRANSFER TAX $ 123,544.30
DOCUMENTARY TRANSFER TAX is $ 9,060.70
SURVEY MONUMENT FEE $
[ ] _____ UNINCORPORATED AREA [X] CITY OF OAKLAND
PARCEL NO.
[X] COMPUTED ON FULL VALUE OF PROPERTY CONVEYED, OR
[ ] COMPUTED ON FULL VALUE LESS VALUE OF LIENS OR ENCUMBRANCES REMAINING AT TIME OF SALE, AND

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged, The OAKLAND TERMINAL RAILWAY, a California corporation ("Grantor"), hereby GRANTS to WDS-VC 1, LLC. . . . a California limited liability company, the following described real property (the "Property") in the City of OAKLAND, County of Alameda, State of California:

Parcels 1 and 2, Parcel Map 7572, filed October 31, 2000 **, Map Book** 254 **, pages** 26 **-** 27 **, Alameda County Records.**

Grantor hereby expressly excepts from the Property hereby conveyed and reserves unto itself, its successors and assigns, all minerals and mineral rights, interests, and royalties, including, without limiting the generality thereof, oil, gas and other hydrocarbon substances, as well as metallic or other solid minerals, that are more than five hundred (500) feet below the surface of the Property; however, Grantor or its successors and assigns, shall not have the right for any purpose whatsoever to enter upon, into or through the surface of the Property in connection therewith. Grantor may, however, and hereby reserves the right to, remove any of said minerals from said Property by means of wells, shafts, tunnels, or other means of access to said minerals which may be constructed, drilled or dug from other land, provided that the exercise of such rights by Grantor shall in no way interfere with or impair the use of the surface of the Property or of any improvements thereon.

This Grant is made subject to all covenants, conditions, restrictions, exceptions, easements, rights-of-way, rights-of-access, agreements, reservations, encumbrances, lines and other matters as the same may be of record; any matters which would be disclosed by a survey, investigation or inquiry; and any general and special real estate taxes and assessments not yet due and payable, if any.

Dated: 10/16/2000

The Oakland Terminal Railway,
a California corporation

By Phillip Edward Copple

Its Phillip Edward Copple, Superintendent

SUBSTITUTION OF LEGIBLE ORIGINALS
(Govt. Code 27361.7)

I declare, under penalty of perjury, that this is a handwritten or typewritten legible copy is a true copy of the original page(s).

Signature

Paul C. Donahue, Title Officer
FIRST AMERICAN TITLE GUARANTY COMPANY

Dated: October 30, 2000 at Oakland, California

RECORDING REQUESTED BY

First American Title Guaranty Company
158264
AND WHEN RECORDED MAIL THIS DEED AND, UNLESS OTHERWISE SHOWN BELOW, MAIL TAX STATEMENTS TO.

NAME WD - VC 1 LLC
ADDRESS C/O WILCOX DEVELOPMENT SERVICES
CITY & STATE 14001 Dallas Parkway
Dallas, Texas 75240

Title Order No SP158264 Escrow No SP158264

Space Above For Recorders Use

THE UNDERSIGNED GRANTOR DECLARES
CITY TRANSFER TAX $ 123,544.30
DOCUMENTARY TRANSFER TAX is $ 9,060.70
SURVEY MONUMENT FEE $
[ ]_____ unincorporated area [X] City of OAKLAND
Parcel No.
[X] computed on full value of property conveyed, or
[ ] computed on full value less value of liens or encumbrances remaining at time of sale, and

Grant Deed

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged, The OAKLAND TERMINAL RAILWAY hereby GRANTS to WDS-VC 1, LLC, a California limited liability company the following described real property (the "Property") in the City of OAKLAND, County of Alameda, State of California:

Parcels 1 and 2, Parcel Map 7572 filed October 31, 2000, Map Book 254 ~~FOR LEGAL DESCRIPTION SEE EXHIBIT "A" ATTACHED HERETO AND MADE A PART THEREOF.~~ Pages 26-27, Alameda County Records

Grantor hereby expressly excepts from the Property hereby conveyed and reserves unto itself, its successors and assigns, all minerals and mineral rights, interests, and royalties, including, without limiting the generality thereof, oil, gas and other hydrocarbon substances, as well as metallic or other solid minerals, that are more than five hundred (500) feet below the surface of the Property; however, Grantor or its successors and assigns, shall not have the right for any purpose whatsoever to enter upon, into or through the surface of the Property in connection therewith. Grantor may, however, and hereby reserves the right to, remove any of said minerals from said Property by means of wells, shafts, tunnels, or other means of access to said minerals which may be constructed, drilled or dug from other land, provided that the exercise of such rights by Grantor shall in no

way interfere with or impair the use of the surface of the Property or of any improvements thereon.

This Grant is made subject to all covenants, conditions, restrictions, exceptions, easements, rights-of-way, rights-of-access, agreements, reservations, encumbrances, lines and other matters as the same may be of record; any matters which would be disclosed by a survey, investigation or inquiry; and any general and special real estate taxes and assessments not yet due and payable, if any, ~~including, but not limited to those matters set forth on Exhibit "B" attached hereto and by this reference made a part hereof~~.

~~[unrecorded leases, licenses, etc., if any, encumbering the property and which have been approved by buyer should also be set forth on Exhibit "B".]~~

Dated: 10/16/200

The Oakland Terminal Railway,
a California corporation

By _____

Its Phillip Edward Copple, Superintendent

STATE OF CALIFORNIA
COUNTY OF _____

On _____ before me,

_____
a Notary Public in and for said County and State, personally appeared

personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person(s) acted, executed the instrument

WITNESS my hand and official seal

Signature _____ FOR NOTARY SEAL OR STAMP

MAIL TAX STATEMENTS TO PARTY SHOWN ON FOLLOWING LINE; IF NO PARTY SO SHOWN, MAIL AS DIRECTED ABOVE

_____
Name Street Address City & State

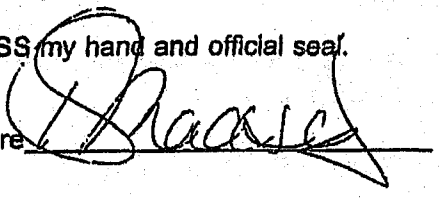
C:\WINDOWS\TEMP\WILCOX61.DOC

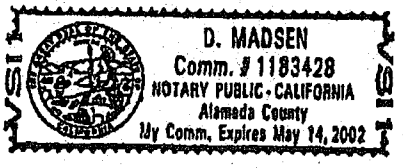
NOTARY ACKNOWLEDGMENT

STATE OF CALIFORNIA }ss
COUNTY OF ALAMEDA }

On **October 16, 2000**, before me, **D. Madsen**, a Notary Public in and for said State, personally appeared **Phillip Edward Copple**, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s) or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature 



(This area for official notarial seal)

OPTIONAL:

DESCRIPTION OF ATTACHED DOCUMENT

California Regional Water Quality Control Board
San Francisco Bay Region

Winston H. Hickox
Secretary for Environmental Protection

Internet Address: http://www.swrcb.ca.gov
1515 Clay Street, Suite 1400, Oakland, California 94612
Phone (510) 622-2300 FAX (510) 622-2460

Gray Davis
Governor

Date: January 11, 2002
File No.01S0542 (BG)

Best Buy Company, Inc.
Attn. Mr. Roger Olson
7500 Flying Cloud Drive
Eden Prairie, Minnesota, 55344

Subject: Status of Investigation and Remediation for the Eastern Portion of the Oakland Terminal Railway Property, City of Oakland, Alameda County.

Dear Mr. Olson:

Twining Laboratories, your consultant, has informed the Regional Water Quality Control Board, San Francisco Bay Region (Regional Board) of your intent to acquire title to the eastern portion of Oakland Terminal Railway site (OTR site) located in the City of Oakland, Alameda County. Twining Laboratories has requested this letter on your behalf.

Since 1999, the Regional Board has been the lead agency in connection with the investigation and remediation of soil and groundwater contamination at the site. The Regional Board considers Oakland Terminal Railway to be the primary responsible party in connection with the remediation of contamination at the site. The Oakland Terminal Railway, a subsidiary of the Burlington Northern and Sante Fe Railway and corporate successor to the Key System Railway, is the former owner of the subject property. Oakland Terminal Railway has cooperated fully with the Regional Board, and it has committed to do so in the future.

Since 1990, Levine Frieke Recon (LFR) has conducted soil and groundwater investigations at the OTR site. These investigations identified several hot spots on the western portion of the site with total petroleum hydrocarbon, lead, and arsenic contamination. A risk assessment was developed to determine appropriate remedial cleanup levels for the site and the Regional Board reviewed and approved these remediation goals.

During June 2000, pursuant to the April 21, 2000, "Workplan for Soil Excavation and Groundwater Monitoring," (Workplan) and the May 19, 2000, letter supplement, and as approved by the Regional Board by letter dated June 20, 2000, the hot spots were excavated and contaminated soils were disposed off-site in a Class II non-hazardous landfill located in Stockton, CA. LFR collected samples from the sidewalls and bottom of the excavation to confirm that remediation goals had been met. The excavations were then backfilled with clean imported fill. The removal activities are documented in the "Report of the Excavation of Soil at the Former Oakland Terminal Railway, Oakland, California" (Soil Excavation Report), dated July 3, 2000. Except for the installation of four monitoring wells approved under the

Workplan and periodic and ongoing monitoring required by the Regional Board, all work identified by the Workplan has been completed to the satisfaction of the Regional Board.

During July 2001, additional soil samples were collected from the eastern parcel in areas previously identified as having elevated concentrations of lead or areas potentially disturbed by Best Buy's proposed development. Analytical results indicated that detected concentrations of contaminants were below established remedial cleanup levels.

The Regional Board considers Oakland Terminal Railway to be the primary responsible party in connection with the remediation of contamination at the OTR site and the Regional Board expects that Oakland Terminal Railway, will continue to implement the current remedial action plan until closure (as evidenced by a determination of no further action) is obtained. The Regional Board does not pursue prospective purchasers where the primary responsible party(s) has the financial resources necessary to conduct the remediation, and where that responsible party is satisfactorily engaged in active remediation.

If you have any additional questions, please contact Betty Graham of my staff at (510) 622-2358 [e-mail bg@rb2.swrcb.ca.gov].

Sincerely,

Stephen A. Hill
Chief, Toxics Cleanup Division

for

Loretta K. Barsamian
Executive Officer

cc:

Chris Skelton
Twining Laboratories
2527 Fresno St.
Fresno, CA 93721

Mark Gomez
City of Oakland
250 Frank H. Ogawa Plaza
Oakland, CA 94612

Phil Copple
Oakland Terminal Railway
2001 Engineers Road
Oakland, CA 94607

Todd Ashbrook
WDS-Oakland, LLC
14001 Dallas Parkway, Suite 1111
Dallas TX 75240

California Regional Water Quality Control Board
San Francisco Bay Region

Winston H. Hickox
Secretary for Environmental Protection

Internet Address: http://www.swrcb.ca.gov
1515 Clay Street, Suite 1400, Oakland, California 94612
Phone (510) 622-2300 FAX (510) 622-2460

Gray Davis
Governor

January 31, 2002
File No.01S0542 (BG)

Best Buy Company, Inc.
Attn. Mr. Roger Olson
7500 Flying Cloud Drive
Eden Prairie, Minnesota 55344

SUBJECT: Approval of Soil and Groundwater Management Plan for the Oakland Terminal Railway site, Oakland, Alameda County

Dear Mr. Olson:

This letter responds to your December 17, 2001, Soil and Groundwater Management Plan (Plan) for the Oakland Terminal Railway (OTR) site. As explained below, I approve this Plan.

Since 1999, the Regional Board has been the lead agency in connection with the investigation and remediation of soil and groundwater contamination at the site. Since 1990, Levine Fricke Recon has conducted soil and groundwater investigations at the OTR site. These investigations identified several hot spots on the western portion of the site with total petroleum hydrocarbon, lead, and arsenic contamination. In accordance with an approved work plan and risk assessment the hot spots were excavated and contaminated soils were disposed off-site in a Class II non-hazardous landfill located in Stockton, CA. Four monitoring wells were installed and sampled on a semi-annual basis. Groundwater underlying the site is not considered a potential source of drinking water due to high levels of salts and detected concentrations of petroleum hydrocarbons in groundwater are not considered to pose an unacceptable ecological health risk.

In July 2001, Twining Laboratories conducted additional soil investigations on the eastern portion of the site. No hot spots were detected and none of the soils on the eastern portion were contaminated at levels above the approved site remedial cleanup levels.

As required in our June 20, 2000 letter, you have prepared a soil and groundwater management plan for your proposed development of the site. With implementation of these measures, I find that any residual contamination at the site will be managed in ways that are protective of human health, the environment, and water quality.

The subject Plan satisfies the requirements of our June 20, 2000 letter. I hereby approve it.

If you have any additional questions, please contact Betty Graham of my staff at (510) 622-2358 [e-mail bg@rb2.swrcb.ca.gov].

Sincerely,

Stephen A. Hill
Toxics Cleanup Division Chief

For

Loretta K. Barsamian
Executive Officer

cc:

Mr. Chris Skelton
Twining Laboratories
2527 Fresno St.
Fresno, CA 93721

Mr. Phil Copple
Oakland Terminal Railway
2001 Engineers Road
Oakland, CA 94607

Mr. Ron Goloubow
Levine Fricke Recon
1900 Powell St., 12th Floor
Emeryville, CA 94608-1827

Mr. Mark Gomez
City of Oakland
250 Frank H. Ogawa Plaza
Oakland, CA 94612

Mr. Todd Ashbrook
WDS-Oakland, LLC
14001 Dallas Parkway, Suite 1111
Dallas TX 75240

California Regional Water Quality Control Board
San Francisco Bay Region

Winston H. Hickox
Secretary for Environmental Protection

Internet Address: http://www.swrcb.ca.gov
1515 Clay Street, Suite 1400, Oakland, California 94612
Phone (510) 622-2300 ∃ FAX (510) 622-2460

Gray Davis
Governor

February 8, 2002
File No.01S0542 (BG)

Oakland Terminal Railway
Attn: Mr. Phil Copple
2001 Engineers Road
Oakland, CA 94607

SUBJECT: No Further Action, Oakland Terminal Railway site, Oakland, Alameda County

Dear Mr. Copple:

This letter confirms the completion of site investigation and remedial action for the pollutant releases at the Oakland Terminal Railway (OTR) site.

Since 1990, Levine Fricke Recon (LFR) and Twinings Laboratories have conducted soil and groundwater investigations at the OTR site. These investigations identified several hot spots on the western portion of the site with total petroleum hydrocarbon, lead, and arsenic contamination. A risk assessment was developed to determine appropriate remedial cleanup levels for the site and the Regional Board reviewed and approved the following soil cleanup objectives[1].

Total Petroleum Hydrocarbons, motor oil (TPHmo)	5,000	mg/kg
Total Petroleum Hydrocarbons, diesel (TPHd)	1,000	mg/kg
Poly Aromatic Hydrocarbons (PAH)	appropriate industrial/commercial PRGs	
Soluble Lead:	5	mg/l
Arsenic:	27	mg/kg

During June 2000, pursuant to the April 21, 2000, "Workplan for Soil Excavation and Groundwater Monitoring," (Workplan) and the May 19, 2000, letter supplement, and as approved by the Regional Board by letter dated June 20, 2000, the hot spots were excavated and contaminated soils were disposed off-site in a Class II non-hazardous landfill located in Stockton, CA.

....

1. Objectives taken from the EPA Preliminary Remediation Goals (PRGs) and Board staff 's draft risk-based screening levels, April 2000, for commercial or industrial land use.

LFR collected samples from the sidewalls and bottom of the excavation to confirm that cleanup objectives had been met. The excavations were then backfilled with clean imported fill. The removal activities are documented in the "Report of the Excavation of Soil at the Former Oakland Terminal Railway, Oakland, California" (Soil Excavation Report), dated July 3, 2000.

In accordance with the Workplan, four monitoring wells were installed in August 2000 and sampled on August 21, 2000, May 1, 2001, and December 14, 2001. The analytical results from these sampling events are all below risk-based screening levels for total petroleum hydrocarbons as diesel, total petroleum hydrocarbons as motor oil, and total oil and grease, the constituents of concern for groundwater at the site. Based upon the above identified sampling events, the ground water monitoring program required under the Workplan is considered complete. No additional ground water monitoring under the Workplan is required, and the four monitoring wells shall be properly abandoned.

In 2001, Extended Stay California, Inc., completed construction of the four-story Extended Stay Hotel with associated paved parking and landscaped areas on the western portion of the OTR site. (The planned hotel construction had been identified in the Workplan.)

During July 2001, additional soil samples were collected from the eastern portion of the OTR site in areas previously identified as having elevated concentrations of lead or areas potentially disturbed by future development proposed by Best Buy Company, Inc. Analytical results indicated that detected concentrations of contaminants were below established cleanup objectives for the OTR site. Best Buy Company, Inc., has prepared (and Board staff have approved) a soil and groundwater management plan to be used during development of the eastern portion to manage residual contamination in a manner that is protective of human health, the environment, and water quality.

Based upon the available information, including the current commercial and industrial land use and the expectation that such use will not change in the foreseeable future, and with the provision that the information provided to this agency was accurate and representative of site conditions, no further action related to the pollutant release at the subject site is required. If the land use at the site is proposed to be changed to residential, then the risk assessment and the remedial cleanup levels for the site should be reevaluated.

If you have any questions, please contact Betty Graham of my staff at (510) 622-2358 [e-mail bg@rb2.swrcb.ca.gov].

Sincerely,

Stephen A. Hill
Toxics Cleanup Division Chief

For Loretta K. Barsamian
Executive Officer

cc: Mailing List

Mr. Todd Ashbrook
WDS-Oakland, LLC
14001 Dallas Parkway, Suite 1111
Dallas TX 75240

Mr. Ron Goloubow
LFR
1900 Powell Street 12th Floor
Emeryville, CA 94608-1827

Mr. Roger Olson
Best By Company, Inc.
7500 Flying Cloud Drive
Eden Prairie, MN 55344

Mr. Chris Skelton
Twinings Laboratory
2527 Fresno St.
Fresno, CA 93721

Mr. Steve Pieters
Extended Stay California, Inc.
6044 Loma Prieta Drive
San Jose, CA 95123

Mr. Mark Gomez
City of Oakland
250 Frank H. Ogawa Plaza
Oakland, CA 94612

California Regional Water Quality Control Board
San Francisco Bay Region

Winston H. Hickox
Secretary for Environmental Protection

Internet Address: http://www.swrcb.ca.gov
1515 Clay Street, Suite 1400, Oakland, California 94612
Phone (510) 622-2300 • FAX (510) 622-2460

Gray Davis
Governor

Date: JUN 13 2000
File No. 01S0542(BG)

Mr. Todd Ashbrook
Wilcox Development
14001 Dallas Parkway, Suite 1111
Dallas TX 75240

Re: Spills, Leaks, Investigations, and Cleanup (SLIC) Program for Recovery of Oversight Costs at the Oakland Terminal Railway Property, Oakland, Alameda County.

Dear Mr. Ashbook:

The Regional Board (Board) staff understands that Wilcox Development intends to purchase the Oakland Terminal Railway property and address the conditions of environmental concern at the subject site.

The site is located northeast of the Highway 80/Highway 580 interchange and immediately south of the Emeryville/Oakland boundary. Historically the site was occupied by a power station and by Key Route railroad tracks with associated office, depot and maintenance facilities. The site is about 16 acres in size and is currently vacant.

The Phase I Environmental Site Assessment and Phase II Soil and Groundwater Investigation Results were completed in 1998 and supplemented in 1999. These investigations indicated the presence of elevated concentrations of metals (arsenic and lead) and total petroleum hydrocarbons (TPH). Your consultant has recently submitted a Work Plan for the Excavation of Soil and for Groundwater Monitoring.

The presence of metals and petroleum hydrocarbons in soils that overly shallow groundwater can adversely affect the beneficial uses of the groundwater. These beneficial uses can include municipal and domestic supply, agricultural supply, industrial service and process water supply. The presence of metals or petroleum hydrocarbons can also pose a potential risk to human health through direct exposure to impacted soils or exposure to vapors emitted from the soil and groundwater. Impacts to soil and groundwater at the site should therefore be fully delineated and assessed in the shortest reasonable period of time.

The California Water Code, §13304, allows the Board to recover reasonable expenses for overseeing the investigation and cleanup of illegal discharges, contaminated properties, and other unregulated releases adversely affecting or threatening to adversely affect the State's waters. It is our intent to recover such costs for regulatory oversight work conducted in accordance with California Water Code, §13304. To assure that sufficient Board staff resources are available to

conduct the necessary reviews and approvals, we intend to include this site in this Board's SLIC Cost Recovery Program.

Estimate of Work to be Performed and Statement of Expected Outcome

Board staff will be actively overseeing the investigation and cleanup of this site. Given this, Board staff estimate that the following work (a portion of which has already been completed) will be performed for the subject site from now until the end of the 2001 fiscal year, ending June 30, 2001:

- Review results of soil and groundwater sampling, remedial action plan, risk management plan, and associated correspondence from the discharger, its consultant and/or interested parties.

- Conduct site inspections and meetings regarding the site when issues relevant to site cleanup arise. Engage in phone conversations to discuss issues related to the site and prepare written correspondence between the Board and interested parties.

Upon completion of any agreed upon soil and/or groundwater remediation, you may be required to submit a site risk management plan (RMP) with engineering/institutional controls. Implementation of an approved RMP may last beyond FY 2001. In accordance with AB2507, we will identify more detailed, specific requirements in the future as work progresses and more site-specific data become available.

Billing Rates

Attachment 1 describes the billing rates for employees expected to engage in the work or services for your site/facility. We estimate that 40 hours (including time already spent by Board staff) will be required in the oversight of the subject site until the end of the 2001 fiscal year. This is merely an estimate. The actual time needed will depend on the nature and extent of the necessary oversight. The name and classification of employees making charges will be listed on invoices. The average billing rate is approximately $70 per hour. An estimate for any necessary work after June 30, 2001, will be provided in late spring of next year.

A detailed description of the billing procedure is enclosed (Attachment 2). Please acknowledge in writing your intent to reimburse the Board for cleanup oversight work as stated in the enclosure. You may use the enclosed letter (Attachment 3). **Please return the attached letter or its equivalent by June 30, 2000.**

If you have any questions concerning this letter, please contact Betty Graham of my staff at (510) 622-2358 [e-mail bg@rb2.swrcb.ca.gov].

Sincerely,

Lawrence P. Kolb
Acting Executive Officer

Attachment 1 - Billing Rates
Attachment 2 - Reimbursement Process for Regulatory Oversight
Attachment 3 - Acknowledgment Letter

c.

Ron Goloubow
LFR
1900 Powell Street, 12th Floor
Emeryville, CA 94608-1827

SPILLS, LEAKS, INVESTIGATIONS, AND LEAKS (SLIC) PROGRAM
COST RECOVERY FOR REGULATORY OVERSIGHT CLEANUPS
MONTHLY SALARY SCALE BY JOB CLASSIFICATION

CLASSIFICATION	ABBR.	SALARY SCALE (Includes Benefits)
Student Assistant	SA	1,914 - 2,898
Office Assistant	OA	2,083 - 2,779
Office Technician	OT	2,649 - 3,221
Environmental Specialist I	ESI	3,120 - 3,747
Environmental Specialist II	ESII	3,791 - 4,567
Sanitary Engineering Technician	SET	3,459 - 4,832
Water Resources Control Engineer	WRCE	3,728 - 5,184
Engineering Geologist	EG	3,728 - 5,184
Associate Governmental Program Analyst	AGPA	4,459 - 5,382
Environmental Specialist III	ESIII	4,567 - 5,515
Sanitary Engineering Associate	SEA	4,789 - 5,820
Associate Water Resources Control Engineer	AWRCE	5,030 - 6,110
Associate Engineering Geologist	AEG	5,030 - 6,113
Environmental Specialist IV	ESIV	5,258 - 6,348
Senior Water Resources Control Engineer	SWRCE	5,790 - 7,037
Senior Engineering Geologist	SEG	5,790 - 7,037
Supervising Water Resources Control Eng.	SUWRCE	6,354 - 7,752

SUMMARY OF COSTS

Overhead costs = 80%* times salary and benefits

Administrative costs = State Board: 15%* times salary and benefits
Regional Board: 10%* times salary and benefits

Example:	Associate Water Resources Control Engineer
Salary:	$ 5,030
Overhead:	4,024
Admin: State Board:	754
Regional Board:	503
Total Cost per month:	$ 10,311

Divided by 176 hours per month equals per hour: $ 58.58

* These are averages. May vary a few percent between billing periods.

Note: Due to the various classifications that expend SLIC resources, an average of $70.00 per hour can be used for projection purposes.

The name and classification of employees performing oversight work on your site will be listed on the invoices.

Attachment 1
Billing Rates

California Regional Water Quality Control Board
San Francisco Bay Region

Winston H. Hickox
Secretary for Environmental Protection

Internet Address: http://www.swrcb.ca.gov
1515 Clay Street, Suite 1400, Oakland, California 94612
Phone (510) 622-2300 FAX (510) 622-2460

Gray Davis
Governor

June 20, 2000
File No. 01S0542 (BG)

Mr. Todd Ashbrook
Wilcox Development
14001 Dallas Parkway, Suite 1111
Dallas TX 75240

SUBJECT: Approval of Workplan for Excavation of Soil and for Groundwater Monitoring at the Oakland Terminal Railway site, Oakland, Alameda County

Dear Mr. Ashbrook:

This letter responds to the April 21, 2000 workplan and May 19, 2000 letter submitted on your behalf by LFR Levine Frieke (LFR) for the excavation of contaminated soils and for groundwater monitoring for the Oakland Terminal Railway site. As explained below, I approve the workplan.

The 1998/99 Phase I and Phase II investigations by LFR demonstrated the presence of elevated levels of metals (arsenic and lead) and total petroleum hydrocarbons (TPH) in soil and groundwater. Groundwater at the site is not currently used as a drinking water supply and no such future use is anticipated.

LFR has proposed cleanup objectives for on-site soils and has proposed excavation and removal of soils in specific areas where levels exceed cleanup objectives. LFR also states that the site will be developed in accordance with a risk based soil management plan so that any residual contaminated soil will be managed in a manner that is protective of human health and the environment, including water quality.

The following soil cleanup objectives are proposed. They are taken from the EPA Preliminary Remediation Goals (PRGs) and the Board's April 2000 Draft Summary Tier 1 Lookup Tables.

- Total Petroleum Hydrocarbons, motor oil (TPHmo) 5,000 mg/kg
- Total Petroleum Hydrocarbons, diesel (TPHd) 1,000 mg/kg
- Poly Aromatic Hydrocarbons (PAH) appropriate industrial/commercial PRGs
- Soluble Lead: 5.0 mg/l
- Arsenic: 27 mg/kg

Seven areas in and around specific hot spots will be excavated to a maximum depth of 12 feet. Excavated soils will be disposed off-site in a Class II or Class III non-hazardous waste landfill.

Following excavation, confirmation soil samples will be collected from the excavation sidewalls to document residual concentrations remaining in those areas of the site.

Four shallow monitoring wells will be installed to assess groundwater quality. The monitoring wells will be sampled semi-annually for a period of two years, at which time the Board will consider whether any further action is necessary.

The April 21, 2000 workplan as modified by the May 19, 2000 letter is satisfactory to the Board. I hereby approve the workplan. A technical report documenting completion of excavation and removal activities should be submitted within 60 days of work completion.

If you have any questions, please contact Betty Graham of my staff at (510) 622-2358 [e-mail bg@rb2.swrcb.ca.gov].

Sincerely,

Lawrence P. Kolb
Acting Executive Officer

Stephen A. Hill
Chief, Toxics Cleanup Division

cc.

Mr. Ron Goloubow
LFR
1900 Powell Street, 12th Floor
Emeryville, CA 94608-1827

Mr. Mark Gomez
City of Oakland
250 Frank H. Ogawa Plaza, Suite 5301
Oakland, CA 94612

Mr. Tom Peacock
ACDEH
1131 Harbor Bay Parkway
Alameda, CA 94502

California Regional Water Quality Control Board
San Francisco Bay Region

Winston H. Hickox
Secretary for Environmental Protection

Internet Address: http://www.swrcb.ca.gov
1515 Clay Street, Suite 1400, Oakland, California 94612
Phone (510) 622-2300 FAX (510) 622-2460

Gray Davis
Governor

Date: July 12, 2000
File No.01S0542 (BG)

Mr. Todd Ashbrook
Wilcox Development
14001 Dallas Parkway, Suite 1111
Dallas TX 75240

Subject: Status of Investigation and Remediation for the Western Portion of the Oakland Terminal Railway Property, City of Oakland, Alameda County.

Dear Mr. Ashbrook:

Wilcox Development has informed the Regional Water Quality Control Board, San Francisco Bay Region ("Regional Board") that it intends to sell the western portion of the Oakland Terminal Railway property (OTR site) located in the City of Oakland, Alameda County for development of a hotel. Since 1999, the Regional Board has been the lead agency in connection with the investigation and remediation of soil and groundwater contamination at the site. Wilcox Development has cooperated fully with the Regional Board, and it has committed to do so in the future.

Since 1990, Levine Frieke Recon (LFR), consultant to Wilcox Development has conducted soil and groundwater investigations at the OTR site. These investigations identified several hot spots with total petroleum hydrocarbon, lead, and arsenic contamination. A risk assessment was developed to determine appropriate remedial cleanup levels for the property and the Regional Board reviewed and approved these remediation goals. During June 2000, the hot spots were excavated and contaminated soils were disposed off-site in a Class II non-hazardous landfill located in Stockton, CA. LFR collected samples from the sidewalls and bottom of the excavation to confirm that remediation goals for the western portion of the OTR property had been met. The excavations were then backfilled with clean imported fill.

The Regional Board considers Wilcox Development to be the primary responsible party in connection with the remediation of contamination at the OTR site, and the Regional Board expects that Wilcox Development will continue to implement the current remedial action plan until closure is obtained. The Regional Board does not pursue prospective purchasers where the primary responsible party has the financial resources necessary to conduct the remediation, and where that responsible party is satisfactorily engaged in active remediation.

If you have any additional questions, please contact Betty Graham of my staff at (510) 622-2358 [e-mail bg@rb2.swrcb.ca.gov].

Sincerely,

Lawrence P. Kolb
Acting Executive Officer

Stephen A. Hill
Chief, Toxics Cleanup Division

cc:

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Emeryville, CA 94608-1827

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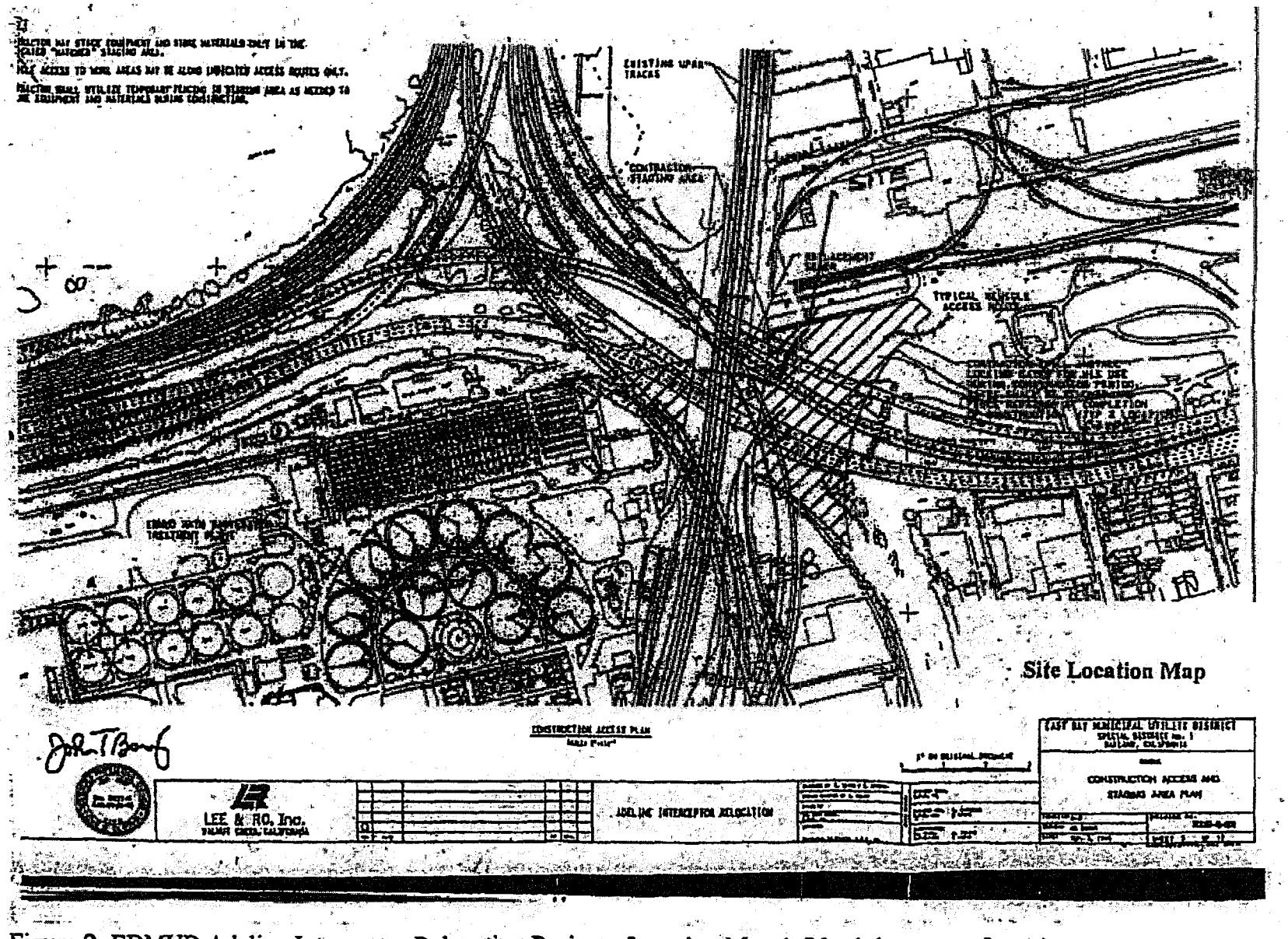

Figure 2 EBMUD Adeline Interceptor Relocation Project - Location Map 1 (North is at top of map)

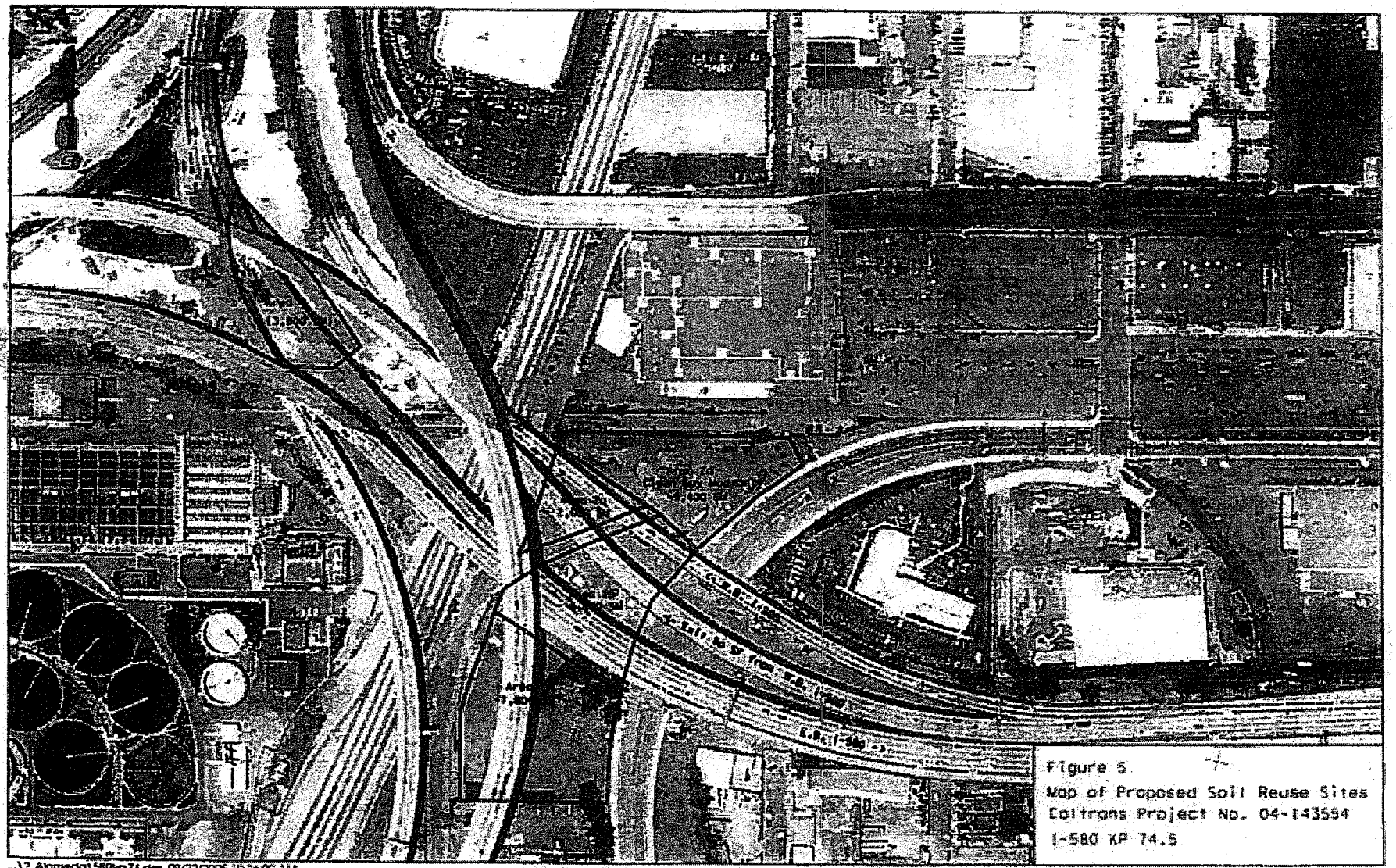

Figure 5
Map of Proposed Soil Reuse Sites
Caltrans Project No. 04-143594
I-580 KP 74.5

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Data Quality Objectives

& Soil Sampling Plan

San Francisco Oakland Bay Bridge Distribution Structure
In the City of Oakland in the County of Alameda
On Interstate 580 at kilometer post 74.5
For use with the Seismic Retrofit Project
Caltrans Contract No. 04-143554

March 31, 2006

Prepared for:

California Department of Transportation
District 04
Division of Construction

Prepared by:

California Department of Transportation
District 04
Division of Planning
Office of Environmental Engineering
Hazardous Waste Branch
(Alameda, Napa, San Mateo, Solano, and Sonoma Counties)

State of California — Business, Transportation and Housing Agency

Memorandum

Flex your power!
Be energy efficient!

To: DRAGOMIR BOGDANIC, PE
Branch Chief
Construction Hazardous Waste Support

Date: March 31, 2006

File: Ala 580 KP 74.5
04-143554
SFOBB Seismic
Retrofit Project
Oakland

From: PETER M. ALTHERR, PE, REA
Environmental Engineer
Office of Environmental Engineering - MS 8C
Hazardous Waste Branch
(Alameda/Napa/San Mateo/Solano & Sonoma Counties)

Subject: Soil Sampling Plan & Data Quality Objectives

The soil sampling plan and associated data quality objectives are attached for your use in managing excavated material produced during the seismic retrofit of footings, and the associated utility relocation work, for the San Francisco Oakland Bay Bridge Distribution Structure in Oakland.

The data quality objectives and sampling plan contained herein have been prepared by or under the direction of the following registered civil engineer.

REGISTERED CIVIL ENGINEER

REGISTERED PROFESSIONAL ENGINEER
PETER M. ALTHERR
No. 53685
Exp. 12/31/07
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File

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1.0 Introduction

The purpose of this report is to document the California Department of Transportation's (Caltrans') completion of the data quality objectives (DQO) process, and the completion of the corresponding soil sampling plan, for the characterization of soil generated by the next phase of seismic retrofit work on the San Francisco Oakland Bay Bridge (SFOBB) Distribution Structure and its associated utility relocation work.

The intent of the DQO process is to ensure that the environmental data collected to analyze excavated material will result in material handling decisions that are ultimately protective of human health and the environment.

The implementation of the DQO process enables project managers at Caltrans to obtain a balance between decision error tolerances and the cost of sampling, analyzing, and characterizing hazardous material.

Project Description

The Seismic Retrofit Project, Caltrans' Project No. 04-143554, will strengthen the I-580 viaduct to the west of where it crosses over Mandela Parkway, at kilometer post 74.5, in the City of Oakland, in Alameda County. See Figure 1. This is the second phase of the seismic retrofit work for the I-580 viaduct. This project will involve the 17 footings listed in Table 1. Soil data is currently available for twelve of these 17 footings.

The soil from around the footings listed in Table 1 must be removed such that additional piles may be driven to enlarge the footings. Caltrans anticipates that this activity will generate approximately 1,451 cubic meters (M^3) of soil. The majority of this material is likely to consist of the original structure backfill material and contaminated fill. Once the footings have been enlarged Caltrans proposes to use the soil primarily as backfill around these footings or to raise the grade within Area 2a, Area 2b or Area 4. See Figure 5.

Table 1 - I-580 Footings on SFOBB Distribution Structure to be Strengthened

BENT	Soil Data Available (Yes/No)	Bottom of Footing Elevation (Meters)
CB 18	Yes	1.680
CB 19	Yes	1.680
CB 20	Yes	1.370
CB 21	No	-0.766
CB 22	No	-0.766
BM 21	Yes	-0.055
BM 22	Yes	0.110
MB 20	Yes	0.610
MB 21	Yes	0.610
MB 22	Yes	1.222
MB 23	No	1.222
MB 24	Yes	1.678
MB 25	Yes	2.288
MB 26	Yes	2.044
BC 7	No	-0.404
BC 8	No	-0.069
BC 9	Yes	1.981

Note: The underlined bents indicate that excavation goes below the water table.

The retrofit of the I-580 SFOBB Distribution Structure requires that the East Bay Municipal Utility District (EBMUD) relocate a 60-inch reinforced concrete pipe (RCP). This RCP is referred to as the Adeline Interceptor. See Figures 2 and 3 . EBMUD's Adeline Interceptor Relocation Project will generate approximately 3,100 M^3 of excavated material. The top five to ten feet of the excavation spoils consist primarily of artificial fill material with moderate levels of lead contamination. This surface material will be tested to determine whether or not it meets the existing site specific reuse criteria. The bottom portion of excavation spoils consists primarily of alluvial material such as sands, silts and clays. This alluvial material is thought to be free from significant contamination. Caltrans proposes to reuse 300 to 500 M^3 of material to backfill the RCP after it has been installed.

The 1,550 M^3 of alluvial material, if clean, will be used as fill material at Area 2d, alternately known as Caltrans Parcel No. 56359-01-01, and the remaining contaminated material (1,050 to 1,550 M^3) would be used as fill material in Area 2a and 2b which are underneath the I-580 viaduct within the pre-defined limits of the area of contamination. See Figure 5.

Note that the soil quantities mentioned in this report are compacted in situ volumes. Material removed from the ground and placed in stockpiles will have more void space due to the lofting effect associated with the excavation process.

2.0 Site History

History

The project site was once a wetland at the edge of San Francisco Bay. The original ground surface was relatively flat but did gradually gain in elevation with increasing distance from the Bay. This wetland was filled in over time with discarded material such as municipal waste, rubble, and earth. This artificial fill material is believed to be the source of most of the contaminants discovered at the site. The level of contamination generally decreases with increasing depth from the ground surface.

In 1878 the Official Historical Atlas Map of Alameda County shows that the project site is situated within what was known at the time as the Watts Tract. The Watts Tract is depicted as extending from the east shore of San Francisco Bay, just east of what is shown as the Northern Railway, to Peralta Street and from 32nd Street to the south to Yerba Buena Street to the north. The area to the west of the present location of Ettie Street was depicted as marshland at the edge of the San Francisco Bay. This area, however, was also depicted as an location destined for residential development. The area east of Ettie Street also shows blocks of land subdivided in to what appears to be residential lots extending all the way to Peralta Street. The original Watts Tract subdivision lines still appear to be present today for lots situated between 32nd and 34th Streets.

In October of 1903 the San Francisco, Oakland & San Jose Railway's (SFO & SJ Railway) opened for service. The SFO & SJ Railway, a light rail public transit system, was referred to as the Key System. The power plant and maintenance shops for the Key System were located in the area that is currently bounded by Yerba Buena Avenue to the north, I-580 to the south, Beach Street to the west and San Pablo Avenue to the east. The western portion of this area was referred to as the Yerba Buena Yard.

In the 1930's the State of California acquired the right of way for the construction of I-580 and subsequently constructed the freeway viaduct as part of the approach to the San Francisco-Oakland Bay Bridge (SFOBB). This right of way was located just south of the Yerba Buena Yard. The Bay Bridge opened to vehicle traffic in the fall of 1936. The Key System switched transbay operations from ferry service to the Bay Bridge on Jan 15, 1939 and offered rail service on the Bay Bridge until April of 1958.

Caltrans used the area underneath I-580, at 3465 Ettie Street between Mandela Parkway and Hannah Street, as a maintenance facility. This facility included both above ground and underground storage tanks. Maintenance had also used this facility as a transfer area for street-sweeper debris.

On October 17, 1989 the Loma Prieta Earthquake struck the San Francisco Bay Area. As a result of the Loma Prieta Earthquake, numerous freeway structures in the Bay Area were damaged and required seismic strengthening or required modification to accommodate other changes to the

freeway system. The SFOBB Distribution Structure was one of the viaducts that required both foundation work, to strengthen the structure, and widening to accommodate operational changes.

On October 19th and 20th of 1995 two underground storage tanks (UST) were removed from Caltrans' Ettie Street Maintenance Facility. The fuel dispenser islands for this station were located under the I-580 viaduct, between Bent No BM-30 and BM-31, near the end of Ettie Street. The USTs were situated to the north of the dispenser islands. Soil and groundwater samples collected from the UST excavation confirmed the presence of diesel and waste oil hydrocarbons. Caltrans conducted groundwater monitoring at the site of the former maintenance station from September 1997 to March 1998. The Regional Water Quality Control Board's Geotracker database shows that a leak was discovered, reported and stopped on December 4, 1995. This case is still considered to be open.

In April of 1996 a hazardous waste site investigation of the soil and groundwater adjacent to the foundations for the Distribution Structure was completed by Professional Service Industries (PSI). PSI documented the results of their investigation of this site in a report entitled "Hazardous Waste Preliminary Site Investigation Report, Task Order No. 04-14350K-01."

PSI's investigation of the area under the Distribution Structure revealed the presence of total recoverable petroleum hydrocarbons, volatile and semi-volatile organic compounds, and various metals. The solubilities of some of these metals samples, when subjected to the California Waste Extraction Test (WET), are in excess of their soluble threshold limit concentrations (STLC). Waste material with soluble metal concentrations in excess of their respective STLCs typically must be managed as a hazardous waste in California.

The development of the seismic retrofit project was complicated and the design of some of the footings could not be completed by the initial project delivery date. The seismic retrofit of the SFOBB Distribution Structure was subsequently split into multiple projects such that the majority of the retrofit work could be advertised for construction.

The plan for the parent retrofit project called for the transportation and disposal of the majority of excavation spoils. Dave Pang, the resident engineer on the parent project, was aware of the United States Environmental Protection Agency's (US EPA) Area of Contamination policy (AOC) and worked with the Ms. Lynn Nakashima, representing the California Environmental Protection Agency's Department of Toxic Substances Control (DTSC), to implement this policy at this site. The AOC policy states that material excavated for construction projects located within large areas of contaminated fill material may be reused to backfill excavations and need not be disposed of as a waste.

While the US EPA's AOC policy does provide for the reuse of contaminated soil within an area of contamination, it does not, however, provide any determination as to the threat to public health or the environment. In order to ensure that our construction efforts were environmentally safe, Caltrans Construction met with DTSC on December 14, 2001. During this meeting soil screening criteria were selected by DTSC to be protective of ecological resources and protective of human health given the proposed future use of this area. The DTSC studies determined that Caltrans may reuse soils with total lead levels of less than 350 mg/kg and deionized water soluble lead of less than 0.5 mg/l, provided that this soil was placed at least five feet above the maximum water table elevation and covered with at least one foot of non-hazardous soil. See Table 4 for a complete list of the soil screening criteria established for this site.

The original soil management plan, prepared by Harding ESE for Caltrans' construction contractor, depicts the area of contamination to be the State's right-of-way located underneath I-580 in

Oakland, from Hollis Street to where I-580 connects with westbound I-80. It is noteworthy to mention that the "true" area of contamination for this region includes many of the adjacent portions of the City of Oakland and the City of Emeryville. This phase of the seismic retrofit project lies within the area of soil contamination depicted in the soil management plan prepared for the original seismic retrofit project. See Figure 4.

The Hazardous Waste Branch, in cooperation with DTSC, prepared special provisions to implement the same soil management plan for the proposed Project as was used for the original seismic retrofit project. A key part of this soil management strategy is the preparation and implementation of a soil sampling plan to characterize the excavation spoils.

Site Geology

Sheet 1 of the Regional Geologic Map Series for the San Francisco-San Jose Quadrangle – Map No. 5A issued by the California Department of Conservation shows three types of material meeting at the intersection of I-580 and the original I-880. Artificial fill is shown to the west and south of the site, older alluvium is shown to the east and to the south of the site, and alluvium is shown to the north of the site. Alluvium consists of sand, silt and clay from the Quaternary Period that has been eroded, carried and deposited by water.

Boring logs completed in 1995 by Geologist John P. Neville, with Bayland Drilling, for PSI who was under contract with Caltrans to provide the following data about the surface geology within Caltrans' right-of-way:

Logs for borings BC14 to BC21, located under I-580 between Mandela Parkway and Hannah Street, indicate that the top one meter or so of material consisted of clay, sand, gravely clay, and gravely sand with clay. The logs indicate that the surface material overlays a gravelly clay/clay layer.

Caltrans log of test borings for Project No. 143514 depicts multiple layers of silty clay, sandy clay and silty sand extending from the surface to a depth of 100 feet below the original ground surface. See Figures 6 through 8.

Groundwater

The "Soil Management Plan, Interstate 80/580 Seismic Retrofit Project, Oakland, California," prepared during construction, used an average water table elevation of 0.4 feet above mean sea level based upon the National Geodetic Vertical Datum of 1929 (1929 NGVD). This translates to an elevation of approximately 0.95 meters on the North American Vertical Datum of 1988 (NAVD88). (Corpscon Program v6.0.1)

Conceptual Site Model

The majority of soil contamination is believed to be confined within the artificial fill that makes up most of the surface material. The underlying native alluvial material, such as bay mud, are thought to be largely free from contamination.

Chemicals of Potential Concern

The chemicals of potential concern (COPCs) are determined by evaluating the history of the site to determine what substances might have been released into the environment. The information for

this site was largely obtained from the initial site assessment (ISA) that Caltrans' Hazardous Waste Branch performed for the adjacent MacArthur On-ramp Widening Project.

The COPCs, generated from the evaluation of the site history, are then evaluated and subsequently used to determine which laboratory tests to perform on the samples obtained from within each decision unit. A decision unit is a particular volume of material for which an individual or organization must select a particular course of action based upon the results of analytical data obtained from within the specified volume of material.

The results of the laboratory analysis are then used to produce the final list of bona fide chemicals of concern.

Table 2 shows all potential chemicals of concern and includes a list of potential sources for each contaminant.

Table 2 - Chemicals of Potential Concern and their Probable Source(s)

Chemical of Potential Concern (COPC)	Potential Source of COPC
Arsenic (As)	N, PP
Beryllium (Be)	PP
BTEX	LUST
Cadmium (Cd)	N, PP
Chromium (Cr)	PP
Copper (Cu)	PP
Iron (Fe)	N, PP, RR
Lead (Pb)	ADL, Fill, Paint, PP
Magnesium (Mg)	N, PP
Mercury (Hg)	PP
PCBs	RR
Semi-volatile Organic Compounds (SVOCs) (includes polycyclic aromatic hydrocarbons (PAHs))	Fill, PP, RR
Total Petroleum Hydrocarbons – Middle Distillates (Diesel Fuel)	AST, Fill, LUST, RR
Total Petroleum Hydrocarbons – Residual Fuels (Motor Oils)	Automobiles, RR, PP
Total Petroleum Hydrocarbons – Gasoline	Automobiles, LUST, RR
Volatile Organic Compounds (VOCs)	Fill, LUST, RR
Zinc (Zn)	Paint

ADL = Aerially Deposited Lead from automobile exhaust LUST = Leaking Underground Storage Tank AST = Above ground Storage Tank

N = Naturally occurring substance Fill = Contaminated Fill material PP = Yorba Linda Power Plant

Paint = Paint on Steel Structure RR = Rail System Railroad

Relevant Data from Previous Site Investigations

Laboratory data obtained from past site investigations within the general area of contamination were used to validate the list of chemicals of potential concern (COPC) as identified in the initial site assessment. In this case data from the following sources was used to validate the chemicals of concern:

1) Hazardous Waste Site Investigation Report, I-80/I-580 Interchange (Distribution Structure), Oakland, California dated April 4, 1996, by Professional Service Industries

2) Soil Sampling and Analysis Report, Adeline Street Interceptor Relocation, Oakland, California dated July 15, 2005 by EnviroSurvey Incorporated

3) Soil Management Plan, Interstate 80/580 Seismic Retrofit Project, Oakland, California dated May 2002 by Harding ESE

The laboratory's analytical results for each of the COPCs are initially compared to the naturally occurring levels for each chemical. Chemicals that exceed levels found naturally in the environment retain their status as COPCs. The COPCs that exceed naturally occurring levels are then compared to California Human Health Screening Levels (CHHSLs) to access their potential risk to human health and the environment. Contaminants that exceed these preliminary site screening criteria are often subject to further evaluation via the preliminary endangerment assessment process.

The preliminary endangerment assessment process typically includes a site-specific risk assessment to establish risk based cleanup goals. After the site-specific cleanup goals for the bona fide chemicals of concern are established, an environmental professional can then prepare data quality objectives and a sampling plan to ensure that the cleanup goals are obtained.

Table 3 shows the range of contaminant concentrations, the 95% upper confidence limit of the arithmetic mean of each contaminant, and the available background data for each of the contaminants. The substances shown in bold font were observed at concentrations that are in excess of concentrations known to occur naturally in the Bay Area.

Table 3 - Relevant Data from Past Site Investigations

Substance	Range of Concentrations at AOC[1] (mg/kg)	95% UCL of Arithmetic Mean of Soil Samples from PSI Site Investigation[2] (mg/kg)	95% UCL of Arithmetic Mean of Soil Samples from EBMUD Site Investigation[3] (mg/kg)	Lawrence Berkeley National Laboratories 95% UCL[4] (mg/kg)	Range of Naturally Occurring Concentrations in California[5] (mg/kg)	California Human Health Screening Levels for Soil with Residential Land Use[6] (mg/kg)
As	ND (5.0) to 29	8.11	5.75	19.1	0.6 to 63	0.07
Ba	ND (10.0) to 1,400	628.06	228	323.6	1 to 1,300	5,200
Be	ND (0.5) to 0.8	0.25	0.13	1.0	0.25 to 2.70	150
Cd	ND (0.5) to 15	2.07	0.13	2.7	0.05 to 16	1.7
Cr	ND (0.5) to 1,100	30.27	29	99.6	23 to 1,579	100,000 (Cr III)
Co	ND (1.0) to 17	9.48	209	22.2	2.7 to 46.9	660
Cu	ND (2.5) to 12,000	199.23	121	69.4	9.1 to 200	3,000
Fe	Not Analyzed	Not Available		Not Available	1.0 to 8.7	Not Available
Pb	ND (1.0) to 3,900	284.04	390	16.1	12.4 to 97.1	150
Mg	Not Analyzed	Not Available		Not Available	1,450 to 32,378	Not Available
Hg	ND (0.10) to 3.1	0.64	1.30	0.4	0.10 to 0.20	18
Ni	ND (0.5) to 120	58.59	39	119.8	0 to 509	1,600
PCBs	ND(0.05)		Not Available	Not Available	Not Available	
TRPH[4]	ND (10) to 28,000	827.39	742	Not Available	Not Available	
Se	ND (2.5) to 8.4	1.25	0.25	5.6	0.045 to 21	380
Σ PAHs[7]	0.6 to 15.91	0.19[8]	Not Available	Not Available	0.9 [9]	
VOCs	ND(0.005 to 0.050)	Not Available	Not Available	Not Available	Not Available	
Zn[5]	ND (10) to 2,300	1,222.31	476	108.1	66 to 236	23,000

Table 3 Notes:

1) The values for the range of substances found on site were obtained from Professional Services Industries' (PSI) Hazardous Waste Preliminary Site Investigation Report, Task Order No. 04-14350K-01, Contract No. 53W202, I-80/I-580 Interchange (Distribution Structure) Oakland, California, dated April 4, 1998. AOC is the area shown in Figure 4.

2) Upper confidence limits for Caltrans' data from the viaducts footings were calculated by ProUCL using only data from the relevant footings and not from entire dataset obtained from the AOC. The ProUCL-recommended statistical method was selected except where noted. See Appendix B for the footing data and corresponding statistical analysis.

3) Upper confidence limits for EBMUD's data from the utility trench were calculated by ProUCL using data from EnviroSurvey's July 15,2005 Soil Sampling and Analysis Report. The ProUCL-recommended statistical method was selected except where noted. See Appendix C for the footing data and corresponding statistical analysis.

4) Values obtained from Lawrence Berkeley National Laboratory (LBNL) Environmental Restoration Program, 1995. The LBNL data was obtained from 71 monitoring well borings representing five geological units at LBNL. This LBNL publication is one of the few resources containing background data for soil from the San Francisco Bay Area.

5) The values for the range of substances found in California were obtained from the University of California's Kearney Foundation of Soil Science – Division of Agriculture and Natural Resources Special Report entitled "Background Concentrations of Trace and Major Elements in California Soils" dated March 1996 except for the underlined maximum values which were obtained from the LBNL study.

6) Background data for total recoverable petroleum hydrocarbons (TRPH), via EPA Method 1664, is not available. The site screening level for TRPH for this area of contamination is 1,000 mg/kg. The SF Bay Regional Water Quality Control Board (RWQCB)'s Environmental Screening Levels (ESLs) for middle distillates of total petroleum hydrocarbons is 500 mg/kg and for residual fuels is 1,000 mg/kg for shallow soil at commercial properties situated in locations where groundwater is not a current or potential source of drinking water.

7) The weighted summation of the following seven Polycyclic Aromatic Hydrocarbons: Benzo(a)anthracene, Chrysene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Dibenzo(a,h)anthracene and Indeno(1,2,3-cd)pyrene. These PAHs were measured using US EPA's Test Method 8310 which provides information on 16 different polycyclic aromatic hydrocarbons. However, benzo(a)pyrene equivalency factors are only available for 7 of these 16 PAHs.

8) The value shown here is the 95% UCL of the mean of the weighted summations of the potentially carcinogenic PAHs for which the DTSC has established benzo(a)pyrene equivalency factors. The selected PAHs are specified in from DTSC's PEA Guidance Manual dated June 1999. For each soil sample the potentially carcinogenic PAH was multiplied by it's unique benzo(a)pyrene equivalency factor, these weighted PAH results were added up to obtain a sum of the potentially carcinogenic PAHs. The 95% UCL was then calculated using the weighted sums of the 7 selected PAHs. Note that this data was obtained from Harding ESE's Soil Management Plan, Interstate 80/580 Seismic Retrofit Project, Oakland, California dated May 2002 and not from the PSI Site Investigation Report. (The data from the PSI site investigation was not useful because the detection limits were too high for the PAHs)

9) One suspected outlier, Zn = 2,300 mg/kg, was included in the data analysis. The next highest result for zinc was 920 mg/kg. The RWQCB's ESL (February 2005) for zinc in surface soil on industrial sites where groundwater is not a current or potential source of drinking water is 600 mg/kg.

10) CHHSLs were obtained from Table 1 in Cal EPA's "Use of California Human Health Screening Levels (CHHSLs) in Evaluation of Contaminated Properties" dated January 2005.

11) This value represents the 95th percentile of data obtained from a study of soils in Northern California on behalf of the PG&E and the US Navy. This value was provided by the DTSC. (DTSC 12/19/05)

Recent Soil Management Activity

Harding ESE prepared a Soil Management Plan (SMP) for West Coast Bridge, Inc. in May of 2002. This SMP documented how contaminated excavation spoils, generated by West Coast Bridge as part of the retrofit of the I-80/I-580 Distribution Structure, would be managed. This SMP documented the soil reuse criteria established by the DTSC for the area underneath the Distribution Structure. The original list of soil screening levels for this area of contamination are as shown in Table 4.

Table 4 - SFOSS AOC Soil Screening Criteria Established in December of 2001

Chemical Parameter	Site Specific Threshold Limit
Arsenic	19 mg/kg
Total Lead	350 mg/kg
Soluble Lead (DI-WET)	0.5 mg/l
TRPH (EPA Method 1664)	1,000 mg/kg
Weighted Summation of 7 Selected Potentially Carcinogenic Polycyclic Aromatic Hydrocarbons (PAHs)[1]	300 µg/kg

Note 1) The seven selected PAHs are as follows: Benzo(a)anthracene, Chrysene, Benzo(b)flouranthene, Benzo(k)flouranthene, Benzo(a)pyrene, Dibenzo(a,h)anthracene and Indeno(1,2,3-cd)pyrene. These PAHs were measured using US EPA's Test Method 8310 which actually provides information on 16 different polycyclic aromatic hydrocarbons. Note that benzo(a)pyrene equivalency factors are only available for 7 of these 16 PAHs.

The weighted summation of the 7 PAHs was originally calculated as follows:

> For each soil sample, each of the seven the potentially carcinogenic PAHs were multiplied by it's unique benzo(a)pyrene equivalency factor. The upper confidence limit of the arithmetic mean was then calculated using the sums of the weighted PAH results from each of the four samples, one from each quadrant, of the stockpile being analyzed. This UCL of the mean of the soil samples was then compared to the 300 µg/kg soil screening level for the PAHs. The benzo(a)pyrene equivalency factors for each PAH were obtained from DTSC's PEA Guidance Manual dated June 1999 or as specified by DTSC.

Soil excavated for the original I-580 seismic retrofit project was stockpiled underneath the viaduct. It is estimated that the size of these stockpiles ranged from 75 to 150 cubic yards. Stockpile soil sampling was performed by dividing the piles into four equal sections and collecting one composite sample from each section of the stockpile. The composite soil samples were collected from four random areas of each divided section of the stockpile.

Stockpiled material that met the site-specific reuse criteria was reused as fill material within the area of contamination and placed a minimum of five feet above the average groundwater table elevation of 0.4 feet, based upon the National Geodetic Vertical Datum established in 1929 (NGVD 1929).

and covered with one foot of non-hazardous material. Material that did not meet the site-specific reuse criteria was disposed of at a landfill.

Soil excavated for this next phase of the seismic retrofit project will also be stockpiled underneath the I-580 viaduct, sampled and then will either be reused on-site as fill material or transported off-site to a landfill.

3.0 Data Quality Objectives Process

The data quality objectives (DQO) process is a planning tool for data collection activities. (http://dqo.pnl.gov/why.htm) The DQO process, if properly implemented, will ensure that the environmental data collected to analyze structure excavation spoils will result in material handling decisions that are technically sound, legally defensible and protective of human health and the environment.

Overview of the DQO Process

The seven primary steps to the data quality objectives process are as follows:

1) Prepare a concise statement of the problem

2) Identify the decisions that are required to solve the problem

3) Identify the environmental data needed to make decisions listed in step 2

4) Delineate the limits for each decision unit

5) Develop site-specific decision rules

6) Set limits for the two types of decision errors

7) Prepare a sampling plan

DQO Participants

In order to successfully implement the DQO process, all of the appropriate parties must participate in the process. The key DQO participants for the proposed project are as follows:

Peter M. Allhear, PE, Caltrans Environmental Engineer, Hazardous Waste Branch

Dragomir Bogdanic, PE, Caltrans Branch Chief, Construction Hazmat Support

Richard Day, CEG,CHG, Geocon Consultants Inc., Regional Manager

Jacinto Soto, Cal EPA/DTSC, Project Manager

Hossain Razawi, PE, Caltrans Project Engineer

The responsibilities of the aforementioned DQO participants are generally as follows:

The Hazardous Waste Branch is responsible for preparing the DQO report which includes, but is not limited to, researching the site history, assembling past site investigation data, completing a statistical analysis of the existing data, determining the chemicals of concern, estimating standard deviations for the chemicals of concern, recommending decision error rates, calculating the number of samples required and preparing the final sampling plan. The Hazardous Waste Branch may also provide support with the post sampling data quality assessment work to evaluate whether or not the data quality objectives have been achieved. The registered professional signing off on the DQO report is responsible for ensuring that the data quality objectives process is protective of human health and the environment.

The Construction Hazmat Support Branch is responsible for ensuring that the sampling plan is feasible to implement in the field and that it is properly implemented by the consultant performing the sampling work. The Construction Hazmat Support Branch is the end user of the soil sampling plan, they supervise the collection of samples, review the consultant's site investigation report, and evaluate whether or not the data quality objectives have been achieved. Once the data quality assessment process is complete the Construction Hazmat Support Branch is responsible for making soil management decisions based upon the site specific decision rules outlined within the DQO report.

Design SHOPP is responsible for overall project management. Project management responsibilities include the ultimate selection of contaminant specific decision error probabilities, mainly the selection of alpha, beta and delta. The selection of these variables directly affects the total cost of the soil sampling. The project engineer and the project manager therefore are responsible for achieving a balance between the consequences associated with the two types of decision errors and the cost of soil sampling.

The Department of Toxic Substances Control's mission is to restore, protect and enhance the environment, to ensure public health, environmental quality and economic vitality, by regulating hazardous waste, conducting and overseeing cleanups, and developing and promoting pollution prevention. The DTSC is therefore responsible for ensuring that this particular DQO process, and Caltrans' subsequent soil management decisions and actions, are protective of human health and the environment.

Problem Statement

In order to determine whether excavation spoils generated from construction of the I-580 Seismic Retrofit of the SFOBB Distribution Structure, and the Adeline Interceptor Relocation Project, are eligible for reuse as fill material on site, data regarding the concentrations of the contaminants of concern is required.

Decisions Required to Resolve Problem Statement

In order to determine whether excavation spoils generated by these projects will be eligible for onsite reuse it will be necessary to collect data regarding each of the chemicals of concern. Data will then be analyzed and compared to site-specific screening criteria to determine the appropriate method to manage the excavated material. Chemicals of potential concern were identified at the onset of the DQO process. The final list of chemicals of concern, as shown in the next section entitled "Principal Study Questions (PSQs)/Chemicals of Concern," was produced by disregarding the chemicals that are within range of substances known to occur naturally in this region or that are below the established risk based screening criteria.

The following paragraphs present the rational for the elimination of certain chemicals from the list of chemicals of concern.

The 95% UCL for barium was determined to be 628 mg/kg (PSI Data) which was almost twice as high as background concentrations of barium found at Lawrence Berkeley National Laboratory (323.6 mg/kg). However, since the DTSC's CHHSL for barium in soil at residential sites is 5,200 mg/kg this element was not included in the final list of chemicals of concern.

The 95% UCL for cobalt was determined to be 209 mg/kg, which was nearly ten times the background concentration of cobalt found at Lawrence Berkeley National Laboratory (22.2 mg/kg). However since the DTSC's CHHSL for cobalt in soil at residential sites is 660 mg/kg this element was not included in the final list of chemicals of concern for onsite reuse.

The 95% UCL for copper was determined to be 199 mg/kg (PSI Data) which was more than double the background concentration of copper found at Lawrence Berkeley National Laboratory (69.4 mg/kg). However, since the DTSC's CHHSL for copper in soil at residential sites is 3,000 mg/kg this element was not included in the final list of chemicals of concern.

The 95% UCL for mercury was determined to be 1.30 mg/kg (EBMUD Data) which was over three times as high as background concentrations of mercury found at Lawrence Berkeley National Laboratory (0.4 mg/kg). However, since the DTSC's CHHSL for mercury in soil at residential sites is 18 mg/kg this element was not included in the final list of chemicals of concern.

The Site Investigation Report stated that a total of 53 samples were analyzed for PCBs and that they all had concentrations below their detection limits. The detection limit for PCBs in soil samples was 0.05 mg/kg. The detection limit for PCBs in water samples ranged from 0.001 to 0.005 mg/L. The DTSC's CHHSL for PCBs in soil at residential sites is 0.089 mg/kg. Whereas all the results for PCBs were reported as non detectable and whereas the detection limits were all less than the CHHSL, PCBs are not considered to be a chemical of concern for this area of contamination.

The 95% UCL for zinc was determined to be 1,222.31 mg/kg, which was over ten times the background concentration of zinc found at Lawrence Berkeley National Laboratory (106.1 mg/kg). However since the DTSC's CHHSL for zinc in soil at residential sites is 23,000 mg/kg this element was not included in the final list of chemicals of concern for onsite reuse.

There are two distinctly different proposed locations for placement of excavated material, one for contaminated material and one for clean material. Accordingly there are two sets of principal study questions, one for each of the proposed reuse sites.

Principal Study Questions (PSQs)/ Chemicals of Concern

PSQs for Contaminated Fill Material

Materials generated from the Seismic Retrofit Project and material generated from the layer of artificial fill (surface material) from inside the excavation for the Adeline Interceptor have the following principal study questions:

1) Will the total lead concentration in the excavation spoils exceed the site screening criteria of 350 mg/kg?

2) Will the soluble lead concentration, as determined via the de-ionized water waste extraction test, exceed the site screening criteria of 0.5 mg/l?

3) Will the concentration of petroleum hydrocarbons in excavation spoils, as measured by the total recoverable petroleum hydrocarbons (TRPH), exceed the site screening criteria of 1,000 mg/kg?

4) Will the weighted summation of the seven selected potentially carcinogenic polycyclic aromatic hydrocarbons in the excavation spoils exceed 0.9 mg/kg? (This value represents the 95th percentile of background data obtained from a Northern California study conducted on behalf of PG&E and the US Navy)

PSQs for Clean Fill Material

Materials generated from the native alluvium generated from inside the excavation for the Adeline interceptor have the following principal study questions:

1) Will the total cobalt concentration in the excavation spoils exceed the LBNL background level of 22.2 mg/kg?

2) Will the total lead concentration in the excavation spoils exceed the CHHSL for soil on residential sites of 150 mg/kg?

3) Will the soluble lead concentration, di-wet, in the excavation spoils exceed the site screening criteria of 0.5 mg/l?

4) Will the concentration of total petroleum hydrocarbons reported as middle distillates exceed the RWQCB's residential ESL (Table B) of 100 mg/kg?

5) Will the concentration of total petroleum hydrocarbons reported as residual fuels exceed the RWQCB's residential ESL (Table B) of 500 mg/kg?

5) Will the total zinc concentration in the excavation spoils exceed the RWQCB's residential ESL (Table B) of 600 mg/kg?

6) Will the weighted summation of the seven selected potentially carcinogenic polycyclic aromatic hydrocarbons in the excavation spoils exceed 0.9 mg/kg? (This value represents the 95th percentile of background data obtained from a Northern California study conducted on behalf of Pacific Gas & Electric and the US Navy)

Note that for each contaminant of concern the San Francisco Bay Regional Water Quality Control Board's (RWQCB's) environmental screening level (ESL) were compared to the DTSC's CHHSL and in each case the lowest screening level was selected for the PSQs for clean fill material. This method maximizes the value of the material deemed to be clean since it would be subject to fewer reuse restrictions.

Data & Analytical Methods Required to Resolve Principal Study Questions

The final list of chemicals of concern, and their corresponding laboratory analytical methods, are shown below in Table 5.0.

Table 5 - Chemicals of Concern, Test Methods and Reporting Limits

Chemical/ Element	Soil Screening Criteria	Test Method	Maximum Lab Reporting Limit
Cobalt	22 mg/kg[1]	US EPA 6010	2.5 mg/kg
Total Lead	Cover Material: 150 mg/kg AOC Reuse: 350 mg/kg	US EPA 6010	5.0 mg/kg
Soluble Lead	0.5 mg/l	Title 22 CCR Soluble Threshold Limit Concentration's waste extraction test using de-ionized water to extract the sample instead of citric acid	0.05 mg/l
TPH – Diesel (Middle Distillates)	Cover Material Only: 100 mg/kg	US EPA 8015 modified for extractable fuel hydrocarbons in the C9 to C25 range. This includes diesel, kerosene, heating oil and jet fuel	10 mg/kg
TPH – Motor Oil (Residual Fuels)	Cover Material Only: 500 mg/kg	US EPA 8015 modified for residual fuels in the C24 to C40 range. This includes lubricating oils, waste oils, grease, and asphalt.	50 mg/kg
TRPH	AOC Reuse Only: 1,000 mg/kg	US EPA 1664 for total recoverable petroleum hydrocarbons. (Gravimetric with cleanup)	50 mg/kg
Zinc	600 mg/kg	US EPA 6010	0.5 mg/kg
Selected Potentially Carcinogenic Polycyclic Aromatic Hydrocarbons[2]	Sum of PAHs in AOC = 0.9 mg/kg	US EPA 8310 or US EPA 8270C/SIM GC/MS for PAHs only	0.015 mg/kg for BaP

1) The RWQCB's industrial, and residential, ESL for cobalt in shallow soil at industrial sites where groundwater is not a potential or future use of drinking water is 10 mg/kg. However, this screening level for cobalt is not feasible because the background concentration for cobalt in the Bay Area is 22 mg/kg. (As determined by the Lawrence Berkeley Laboratory's "Protocol for Determining Background Concentrations of Metals in Soil at Lawrence Berkeley National Laboratory" dated August 1995)

2) The seven selected PAHs are as follows: Benzo(a)anthracene, Chrysene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Dibenzo(a,h)anthracene and Indeno(1,2,3-cd)pyrene.

The weighted summation of the 7 selected PAHs shall be calculated as follows:

For each soil sample analyzed for the 7 selected PAHs, each of the seven the potentially carcinogenic PAHs shall be multiplied by the unique benzo(a)pyrene equivalency factor specified in Appendix D. The 95% upper confidence limit of the arithmetic mean shall then be calculated, via ProUCL software, using the sums of the weighted PAH results from each of the PAH samples from within the specified decision management unit. The 95% UCL of the arithmetic mean of these PAH samples shall then be compared to the soil screening level for the PAHs.

Soil screening criteria, for contaminants not specifically addressed in the original soil management plan, will be the DTSC's California Human Health Screening Levels (CHHSLs) for soil on a commercial/industrial site.

Boundaries for Decision Management Units

The decision management units for this project are essentially the stockpile, or stockpiles, of excavated material for which an environmental decision is to be made by the risk manager. The material in this case is the excavation spoils for the Seismic Retrofit Project and the EBMUD Interceptor Relocation Project. The risk managers are Caltrans' project managers.

The special provisions for State Contact No. 04-143554 state that the excavation spoils shall be assembled onsite in stockpiles not to exceed 100 cubic meters in size. The Engineer's estimate indicates that 1,451 cubic meters of structure excavation (Type H) material will be generated by this project. This quantity of excavation spoils means that, at a minimum, 15 separate stockpiles will be constructed by the Contractor.

The original seismic retrofit project handled each stockpile as a separate decision management unit. The proposed strategy for the seismic retrofit project is to treat all of the stockpiles as one decision management unit instead of multiple decision management units. The rational behind this change is based upon standard risk assessment protocol and statistics.

The structure excavation material is being generated from the same contiguous area of contamination and no information is available that would justify segregating material based upon anything other than soil type. Since the majority of footing excavation work involves surface material, segregation of footing excavation spoils by soil type is not warranted. The proposed placement of the structure excavation spoils is within the same area of contamination from where the material originates. Therefore it is reasonable to initially view all of the excavation spoils as one decision unit. In the event that the excavated material is not relatively homogeneous then field personnel are to be instructed to segregate any material that appears to be of substantially different character.

The material from the EBMUD interceptor project will be split into two separate decision management units. The upper surface material, consisting of contaminated fill material (1,550 CM), will be handled as one decision unit and the underlying alluvial material (1,550 CM) will be treated as a second decision management unit.

Risk assessment protocol is based upon obtaining randomly selected samples from within the area for which the risk to human health is to be assessed. The current professional standard for assessing risk is to estimate the true mean by calculating the 95% upper confidence limit (95%

UCL) of the arithmetic mean of the sample population. This 95% UCL is said to be representative of a persons exposure to the contaminant of concern because the current protocol assumes that an individual on a site would not spend their entire time, within a defined decision management unit, at the location of the highest contaminant concentration. The "true" exposure to a contaminant on any given site, therefore, has been estimated by the 95% UCL of the arithmetic mean of the sample population. This method of risk management protocol recognizes that, for any given site, some of the sample results may exceed the acceptable threshold limit and some will be below this limit. The final material management decision will, however, be based upon our estimate of the true mean contaminant concentration as determined by the 95% upper confidence limit of the arithmetic mean of representative soil samples obtained from randomly selected locations within the decision management unit.

In order to preserve the integrity of the existing structure, the plans may not permit the contractor from excavating all of the footings at the same time. If this situation should occur then the need may arise to subdivide the proposed decision management units into subsets that correspond to the staging of the project.

Decision Rules for Reuse of Contaminated Material Within AOC

Once all of the stockpiles within the decision management units have been sampled and analyzed the resultant estimate of the true mean of the contaminant concentration must be compared to the site specific screening criteria for the contaminant of concern. This section establishes and documents the decision rules for the subject area of contamination.

If the true mean for any of the chemicals of concern, as estimated by the 95% upper confidence limit of the arithmetic mean of the sample population, as determined by US EPA's ProUCL software, is greater than or equal to the site-specific reuse criteria shown in Table 6, for Project No. 04-143554, then the material within that decision unit shall be disposed of at an off-site waste disposal facility that is permitted by either the California Integrated Waste Management Board, for Class II waste, or by the Department of Toxic Substances Control, for California hazardous waste material. Note that material subject to off-site disposal is subject to a separate set of decision rules that are specific to waste disposal. Therefore, additional soil sampling and analysis might be required to satisfy landfill acceptance criteria.

If the true mean for each of the chemicals of concern, as estimated by the 95% upper confidence limit of the arithmetic mean of the sample population, as determined by US EPA's ProUCL software, is less than the site-specific reuse criteria shown in Table 6, for Project No. 04-143554, then the material may be reused as fill material within Area 2a, 2b or Area 4 as of shown in Figure 5 in accordance with the soil placement specifications provided in Harding ESE's May 2002 Soil Management Plan.

Table 6 - Site Specific Reuse Criteria for 3FOBB AOC in Oakland (Areas 2a & 2b)

Chemical Parameter	Site Specific Threshold Limit
Total Lead	350 mg/kg
Soluble Lead (DI-WET)	0.5 mg/l
TRPH (EPA Method 1664)	1,000 mg/kg
Summation of Weighted Results of 7 Selected Potentially Carcinogenic Polycyclic Aromatic Hydrocarbons[1]	900 µg/kg

Notes

1) The individual results for the seven selected PAHs are to be multiplied by the equivalency factor promulgated in the list of potentially carcinogenic PAHs as shown in DTSC's Preliminary Endangerment Assessment Guidance Manual reprinted in June 1999. See Appendix D. The 95% UCL of the sum of these "weighted" PAH values is then compared to the site specific threshold limit of 900 µg/kg.

2) The soluble lead parameter is to be based upon a modified version of the California waste extraction test (WET) that uses de-ionized water, instead of citric acid, for sample extraction.

3) Laboratory results reported as non-detectable will be assigned a value equal to one half of the laboratory's reporting limit.

4) The reuse criteria for chemical parameters not shown in the table above shall be the California Human Health Screening Levels (CHHSLs) for soil on commercial/industrial sites as shown in Table 1 in the "Use of California Human Health Screening Levels (CHHSLs) in Evaluation of Contaminated Properties" by California Environmental Protection Agency dated January 2005.

Caltrans may elect to partition the decision management unit into separate stockpiles if statistical outliers are suspected to occur in individual stockpiles.

Decision Rules for Verifying that EBMUD's Alluvial Material is Clean

Once the stockpile(s) within the decision management unit(s) have been sampled and analyzed the resultant estimate of the true mean of the contaminant concentration must be compared to the site specific screening criteria for the contaminant of concern. This section establishes and documents the decision rules needed to determine that the alluvial material generated from EBMUD's Adeline Interceptor Project is clean enough for reuse on an adjacent parcel owned by Caltrans.

If the true mean for any of the chemicals of concern, as estimated by the 95% upper confidence limit of the arithmetic mean of the sample population, as determined by US EPA's ProUCL software, is greater than or equal to the site-specific reuse criteria shown in Table 7, for alluvial material generated at EBMUD's excavation for the Adeline Interceptor Relocation Project, then the material within that decision unit shall be re-evaluated for reuse as fill material within the SFOBB AOC. If no additional fill material is required within the AOC then this material should be characterized for off-site disposal at an appropriately permitted landfill.

If the true mean for each of the chemicals of concern, as estimated by the 95% upper confidence limit of the arithmetic mean of the sample population, as determined by US EPA's ProUCL software, is less than the site-specific reuse criteria shown in Table 7, for alluvial material generated at EBMUD's excavation for the Adeline Interceptor Relocation Project, then the material may be reused as clean fill material without any restrictions on placement. Caltrans anticipates that this material would most likely be placed in Area 2d shown in Figure 5.

Table 7 - Reuse Criteria for Fill Material at Parcel 56359-01-01 (Area 2a)

Chemical Parameter	Site Specific Threshold Limit
Cobalt	22 mg/kg
Total Lead	150 mg/kg
Soluble Lead (DI-WET)	0.5 mg/l
THP – Diesel (Middle Distillates)	100 mg/kg
TPH – Motor Oil (Residual Fuels)	500 mg/kg
Zinc	600 mg/kg
Summation of Weighted Results of 7 Selected Potentially Carcinogenic Polycyclic Aromatic Hydrocarbons[1]	900 µg/kg

Notes

1) The individual results for the seven selected PAHs are to be multiplied by the equivalency factor promulgated in the list of potentially carcinogenic PAHs as shown in DTSC's Preliminary Endangerment Assessment Guidance Manual reprinted in June 1999. See Appendix D. The 95% UCL of the sum of these "weighted" PAH values is then compared to the site specific threshold limit of 300 µg/kg.

2) The soluble lead parameter is to be based upon a modified version of the California waste extraction test (WET) that uses de-ionized water, instead of citric acid, for sample extraction.

3) Laboratory results reported as non-detectable will be assigned a value equal to one half of the laboratory's reporting limit.

4) The reuse criteria for chemical parameters not shown in the table above shall be the environmental screening limits for industrial land use shown in Table B "Environmental Screening Levels (ESLs), Shallow Soils (<3m bgs), Groundwater is NOT a Current or Potential Source of Drinking Water" of California's Regional Water Quality Control Board, San Francisco Bay Region's "Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, 4th Edition" dated February 2005.

Decision Error Limits

Analytical data obtained from representative samples of a large volume of material are only an estimate of the true condition of that volume of material. The only way to ever know the true contaminant concentration of any quantity of material is to sample the entire volume of material. To perform a "census" on the large volumes of material generated during any given construction project is not practical. Whereas any decisions based upon sample data could potentially be in error, risk management strategies have been developed to mitigate these decision errors. Classical statistics provides the tools decision managers need to mitigate decision errors.

There are basically two types of decision management errors that are possible:

1) Deciding "dirty" material is clean

2) Deciding clean material is "dirty"

The statistical method used to manage decision error is based upon the scientific method. The basis of the scientific method is to make an assumption, or a hypothesis, regarding the nature of the contamination within a decision management unit and then to either prove or discredit this assumption. Statistics is then employed to test the hypothesis and then to either accept or reject the initial assumption.

The traditional assumption for environmental work, and for this project, will be that the material does not meet the site specific reuse criteria, i.e. the material is "dirty." Statisticians refer to this hypothesis as the null hypothesis (H_o).

Null Hypothesis, H_o = Site is Dirty

The first type of decision error, the Type I Error, would be to falsely reject the null hypothesis, that is to decide that material is clean when in fact it is dirty. (Deciding that "dirty" material is clean) The measurement of the Type I decision error is designated by alpha (α) and is called the level of significance. Alpha is expressed numerically as a probability. The level of significance, α, is related to the level of confidence, which is expressed as $(1-\alpha)$. Whereas the 95% upper confidence limit of the arithmetic mean has already been established as the standard for assessing environmental risk, the corresponding significance level has, in effect, been pre-selected as 5%. Alpha is an expression of a risk manager's tolerance for uncertainty but does not imply that a Type I decision error will occur.

The second type of decision error, the Type II Error, would be to falsely accept the null hypothesis, that is to decide that the material is "dirty" when in fact it is clean. (Deciding that clean material is "dirty") The measurement of the Type II decision error is designated by beta (β), and is called the complement of the power of a hypothesis test. Beta is also expressed numerically as a probability. The complement of the power of the test (β) is directly liked to the power of the test which is expressed as ($1-\beta$). Beta is also an expression of a risk manager's tolerance for uncertainty but does not imply that a Type II decision error will occur.

Table 8 - Types of Decision Errors for Sites Assumed to be Dirty

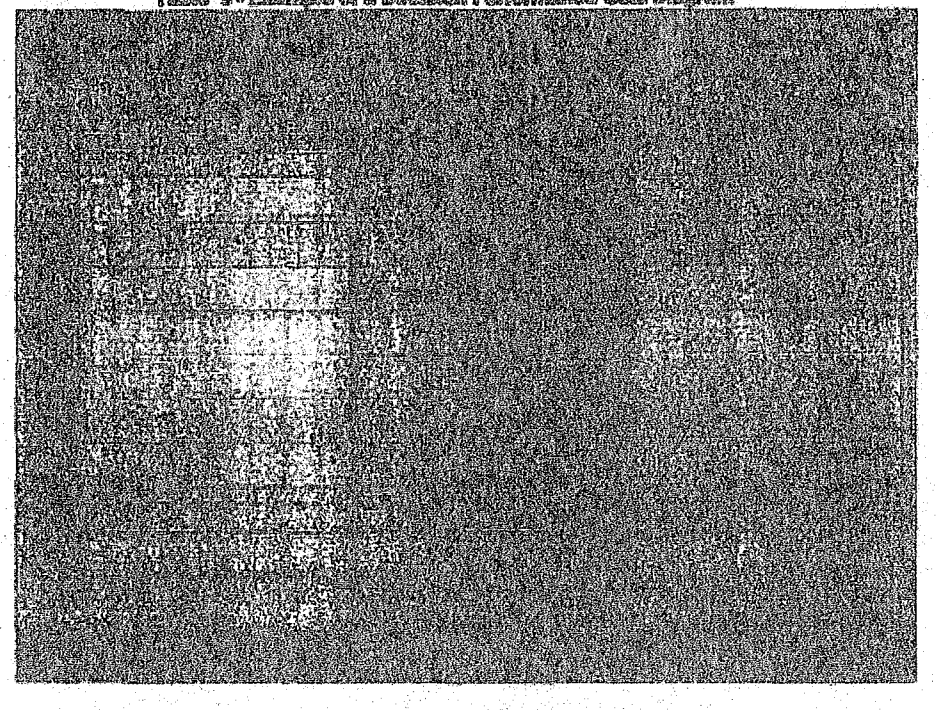
Decision → / True Condition ↓	Site Declared Clean (Reject Null Hypothesis)	Site Declared Dirty (Accept Null Hypothesis)
Site is Dirty (Null Hypothesis (Ho) is True)	False rejection of Ho Type I Decision Error (significance level, α)	Correct Decision (Level of Confidence = 1-α)
Site is Clean (Null Hypothesis (Ho) is False)	Correct Decision (Power of the Test = 1-β)	False acceptance of Ho Type II Decision Error (Compliment of the Power, β)

The level of significance and the compliment of the power of a test are two key input criteria on a decision performance goal diagram (DPGD). A DPGD is a type of probability function. The decision performance goal diagram has "The Probability of Deciding that the True Mean is Greater than or equal to the Action Level," (i.e. the probability that the material is "dirty") on the ordinate, and the "True Mean" expressed on the abscissa. The level of significance, alpha, determines where the actual probability function will intersect with the action level for the particular contaminant of concern. The complement of the power of the test, beta, together with the lower bound of the Gray Region, further define the shape of the probability function. The width of this Gray Region is expressed as delta (Δ).

The Gray Region is a range of contaminant concentrations, shown on a DPGD as a shaded or gray area, where risk managers determine that it is not practical to control the false acceptance decision errors, that is error of deciding that a clean site is dirty, because to do so would require unreasonable sampling and analytical expenses. This Gray Region extends to the left of the action level on the DPGD to a concentration selected by the risk managers. This concept should be intuitive to the reader in that the closer the true population mean gets to the action level, the more samples you will need to prove that the true mean is indeed below the action level.

An example of a decision performance goal diagram is shown below in Table 9. This DPGD is for lead and shows a vertical line at the action level of 350 ppm. The "s"-shaped line is the decision performance function. This DPGD has an alpha of 5%. The decision performance function therefore intersects the action level at a probability of 0.95. The probability function intersects the lower bound of the Gray Region at a probability of 0.10 or ten percent. The width of the Gray Region, delta, for this DPGD is 75 (350 – 275).

Table 9 – Example of a Decision Performance Goal Diagram



Once the level of significance, the compliment of the power of a test, the standard deviation and the width or lower boundary of the gray region have been selected, for each chemical of concern, the data may entered into a statistical software program to determine the appropriate number of samples required to obtain answers to the principal study questions within the specified decision error tolerances. The software used for this report is called Visual Sample Plan (VSP) Version 4.0 which was prepared for the United States Department of Energy by Pacific Northwest National Laboratory. The statistical equations that VSP uses to determine the number of samples are shown in Appendix E and F.

Note that the equations used by VSP require that a standard deviation must be entered for each chemical of concern. This application, therefore, is of limited use at sites that do not have any data. The SFOBB AOC has data available for all of the COPCs therefore this method is particularly relevant for determining the number of samples at this site.

Sampling Plan

The required number of samples for each contaminant was determined via Visual Sample Plan (VSP) Version 4.0 by Pacific Northwest National Laboratory. Information regarding VSP software is available at: http://dqo.pnl.gov/

The input criteria for the VSP software assumes that the material being sampled, within the predefined decision management unit, is flat and relatively homogeneous. Since it is neither cost effective nor practical for Caltrans to spread out the stockpiled material for sampling purposes, the use of this program was restricted to determining the number of samples.

The number of samples was determined by VSP assuming that the material would be spread out and compacted over the area specified in Table 10 and shown in Figure 5.

Table 10 - Proposed Material Reuse Sites

Material Source	Volume (M^3)	Proposed Destination	Surface Area (M^2)	Depth of Deposit (M)
Contract 04-143554 (Retrofit Project)	1,451	Area 2a and 2b	6,000 + 2,000	0.181 (7 inches)
EBMUD – Adeline Interceptor Project – Surface Material	1,550	Area 2a and 2b	6,000 + 2,000	0.194 (7 ¾ inches)
EBMUD – Adeline Interceptor Project – Subsurface Material	1,550	Area 2d	5,400	0.287 (11.3 inches)
Excess Material		Area 4	3,800	

The 1,451 M^3 of material from the seismic retrofit project would be spread out over Area 2a and 2b which combined have a rectangular area of approximately 8,000 M^2. The depth of this material would be approximately 18 centimeters. The number of samples determined by VSP, for the area specified and for the given decision error criteria, will then divided by the number of stockpiles on the site to determine the number of samples to be obtained per stockpile. The sample locations for each stockpile will be determined in the field using the stockpile sampling plan included in Appendix A.

Note that the depiction of the proposed soil placement area in this soil sampling plan is preliminary and does not constitute an approved soil grading plan. The final site grading plan will be produced by the project engineer.

The stockpile sampling plan in Appendix A calls for each stockpile to be theoretically partitioned into 85 sections each having an approximate volume of 1.2 cubic meters. A random number generator, available on most calculators or spreadsheet programs, is then used to generate a number between zero and one. This randomly generated decimal is then multiplied by the total number of sections, 85, to select the appropriately numbered section of the stockpile from which to obtain the soil

sample. This procedure is then repeated for each soil sample to be collected from the stockpile. The following example demonstrates how this plan would work.

> Table 11 specifies that six samples for lead shall be collected from each 100 cubic meter stockpile. A random number generator is then used to produce six random numbers. Lets say the first random number generated is 0.310. This random number would be multiplied by the total number of potential sample locations within the 100 cubic meter stockpile which, in this case is 85. (0.310 x 85 = 26.35) The result of the product of the random number and the total number of sample units is then rounded to the nearest whole number, which in this example is 26. The first sample location in this stockpile would be sample area No. 26. The Stockpile Sampling Plan in Appendix A is then used to find the random sample location within the stockpile. Sample area No. 26 is shown on Stockpile Sampling Plan L-4 which indicates that this sample area is located in the northeast quadrant of the stockpile in layer L4, the fourth layer down from the top of the stockpile. The environmental professional would then divide the stockpile up into four quadrants, measure up about one meter from the existing ground level, and advance the hand auger horizontally approximately 1.5 meters into the stockpile through sample area No. 35 into sample area No. 26. Stockpile sample layers are shown on the elevation view of the stockpile sampling plan.

This soil sampling method, while not purely random, will ensure that material from each stockpile is sampled and is thought to provide enough randomness to allow for a somewhat meaningful estimate of the actual contaminant concentration.

The number of samples recommended by VSP for structure excavation spoils, with the input criteria specified in Table 11, is as shown in Table 11. The VSP results are all assuming that the material has been distributed as proposed in Table No. 10.

Table 11 - Number of Samples Required for Characterization of 1,451 M^3 of Material for AOC Reuse

Contaminant	Alpha (%)	Beta (%)	Delta	Action Level (mg/kg)	Estimated Standard Deviation[1]	VSP's Total Number of Samples	Number of Samples per Stockpile
Total Lead (Pb)	5	20	200	350	522	87	6
dl-WET for Pb	5	10	0.3	0.5	0.5	52	4
TRPH	5	20	500	1,000	795	34	3
Selected PAHs[2]	5	20	0.15	0.3	0.16	16	2

1) The estimated standard deviation was the actual standard deviation obtained via analysis of the existing data except for the deionized water waste extraction test for which insufficient data was available. See Appendix B and Appendix C. Data analysis was made using ProUCL.

2) The estimated standard deviation for the selected PAHs was obtained from a statistical analysis of the sums of the weighted benzo(a)pyrene equivalents that were reported in the May 2002 Soil Management Plan, Interstate 80/580 Seismic Retrofit Project, Oakland, California.

Since the contaminants of concern, their range of concentrations, standard deviation and proposed reuse area for the contaminated material to be generated from the EBMUD project are virtually identical, Table 11 is relevant and appropriate for sampling the surface material (contaminated artificial fill) generated from the excavations for EBMUD's Adeline Interceptor Relocation Project. The remaining material from EBMUD's project, the alluvial material from the lower portions of the excavation, should be sampled and analyzed as proposed in Table 12.

Table 12 - Number of Samples Required for Characterization of 1,530 M^3 of Alluvial Material from EBMUD

Contaminant	Alpha (%)	Beta (%)	Delta	Action Level (mg/kg)	Estimated Standard Deviation[1]	VSP's Total Number of Samples	Number of Samples per Stockpile
Co	5	10	5	22	4	17	2
Total Pb	5	10	50	150	100	71	5
di-WET - Pb	5	20	0.3	0.5	0.5	38	3
Zn	5	20	200	600	356	45	3
TPH – Diesel	5	10	50	100	63	33	2
TPH – Motor Oil	5	25	250	500	496	45	3
Selected PAHs[2]	5	20	0.15	0.3	0.16	16	2

1) The estimated standard deviation was the actual standard deviation obtained via analysis of the existing data except for the de-ionized water waste extraction test for which insufficient data was available. See Appendix B and Appendix C. Data analysis was made using ProUCL.

2) The estimated standard deviation for the selected PAHs was obtained from a statistical analysis of the sums of the weighted benzo(a)pyrene equivalents that were reported in the May 2002 Soil Management Plan, Interstate 80/580 Seismic Retrofit Project, Oakland, California.

This sampling plan, once approved, would be implemented immediately. The sampling activities would be occurring intermittently over the course of the next two years. The estimated cost of this sampling is as shown in Tables 13 through 15.

Table 13 - Cost Estimate for Analysis of 1,451 M³ of Structure Excavation Spoils for Caltrans' Footings

Contaminant	EPA Test Method	Samples per Pile	Total Number of Samples	Estimated Cost per Sample ($)	Analytical Cost ($)
Pb	6010	6	90	35	3,150
Pb (di-WET)	Ca STLC	4	60	100	6,000
TRPH	1664	3	45	100	4,500
PAHs	8310	2	30	250	7,500
Subtotal					$21,150

Table 14 - Cost Estimate for Analysis of 1,550 M³ of Surface Material Generated by the EBMUD Project

Contaminant	EPA Test Method	Samples per Pile	Total Number of Samples	Estimated Cost per Sample ($)	Analytical Cost ($)
Pb	6010	6	90	35	3,150
Pb (di-WET)	Ca STLC	4	60	100	6,000
TRPH	1664	3	45	100	4,500
PAHs	8310	2	30	250	7,500
Subtotal					$21,150

Table 15 - Cost Estimate for Analysis of 1,550 M³ of Alluvial Material Generated by the EBMUD Project

Contaminant	EPA Test Method	Samples per Pile	Total Number of Samples	Estimated Cost per Sample ($)	Analytical Cost ($)
Co	6010	2	32	35	1,120
Pb	6010	5	80	35	2,800
Pb (di-WET)	Ca STLC	3	48	100	4,800
Zn	6010	3	48	35	1,680
TPH-Diesel	8015 Mod.	2	32	100	3,200
TPH – Motor oil	8015 Mod.	3	48	100	4,800
PAHs	8310	2	32	250	8,000
Subtotal					26,400

To keep the soil sampling costs in proper perspective it is helpful to compare the sampling and analysis costs to the costs associated with the disposal of the soil generated from these proposed projects. One should keep in mind that soil sampling and analysis is also required by the landfills for waste profiling purposes. Cost estimates for the disposal of contaminated soil are shown below in Table 16 and are based upon characterizing the "waste material" using the available, or relevant, site investigation data. Additional soil sampling and analysis would likely be necessary for verify landfill acceptance criteria.

Table 16 - Cost Estimate for Disposal of Hazardous Material

Material Source	Volume (M^3)	Weight (Tones)	Predicted Waste Characterization	Disposal Cost Estimate (Dollars)
Contract 04-143554 (Structure Retrofit Project)	1,451	2,467	California Hazardous	209,695
EBMUD – Adeline Interceptor Project – Surface Material	1,550	2,636	California Hazardous	223,975
EBMUD – Adeline Interceptor Project – Subsurface Material	1,550	2,636	Non-Hazardous Class 2 Material	105,400
Total Disposal Cost	4,551	7,739		539,070

Figures

INDEX OF SHEETS

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

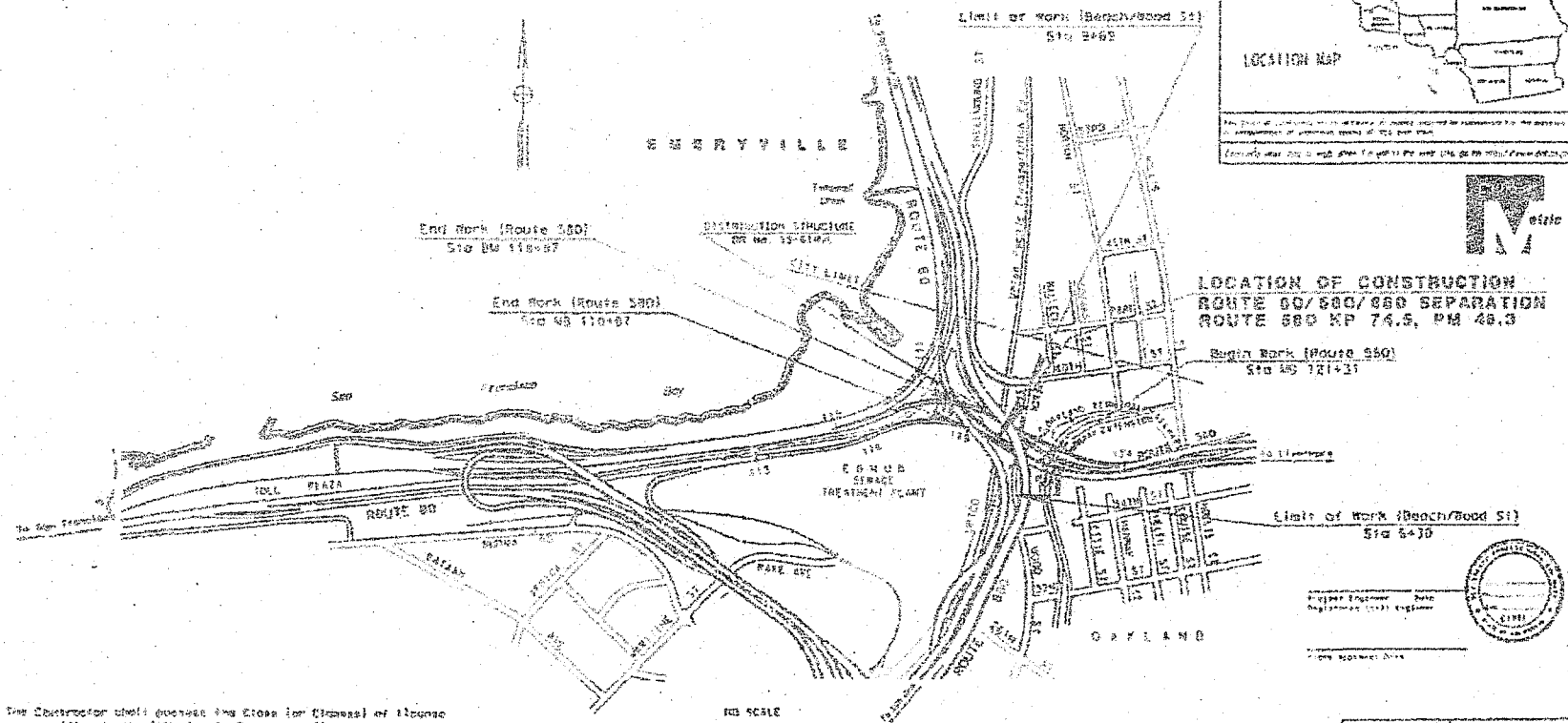
PROJECT PLANS FOR CONSTRUCTION ON STATE HIGHWAY

IN ALAMEDA COUNTY
IN OAKLAND
AT ROUTE 80/580/880 SEPARATION

To be supplemented by Standard Plans dated July, 1999

04	Ala	580	74.5

LOCATION MAP



LOCATION OF CONSTRUCTION
ROUTE 80/580/880 SEPARATION
ROUTE 580 KP 74.5, PM 46.3

The Contractor shall possess the class for Highway or License as specified in the "Notice to Contractors".

NO SCALE

Contract No. 04-142554

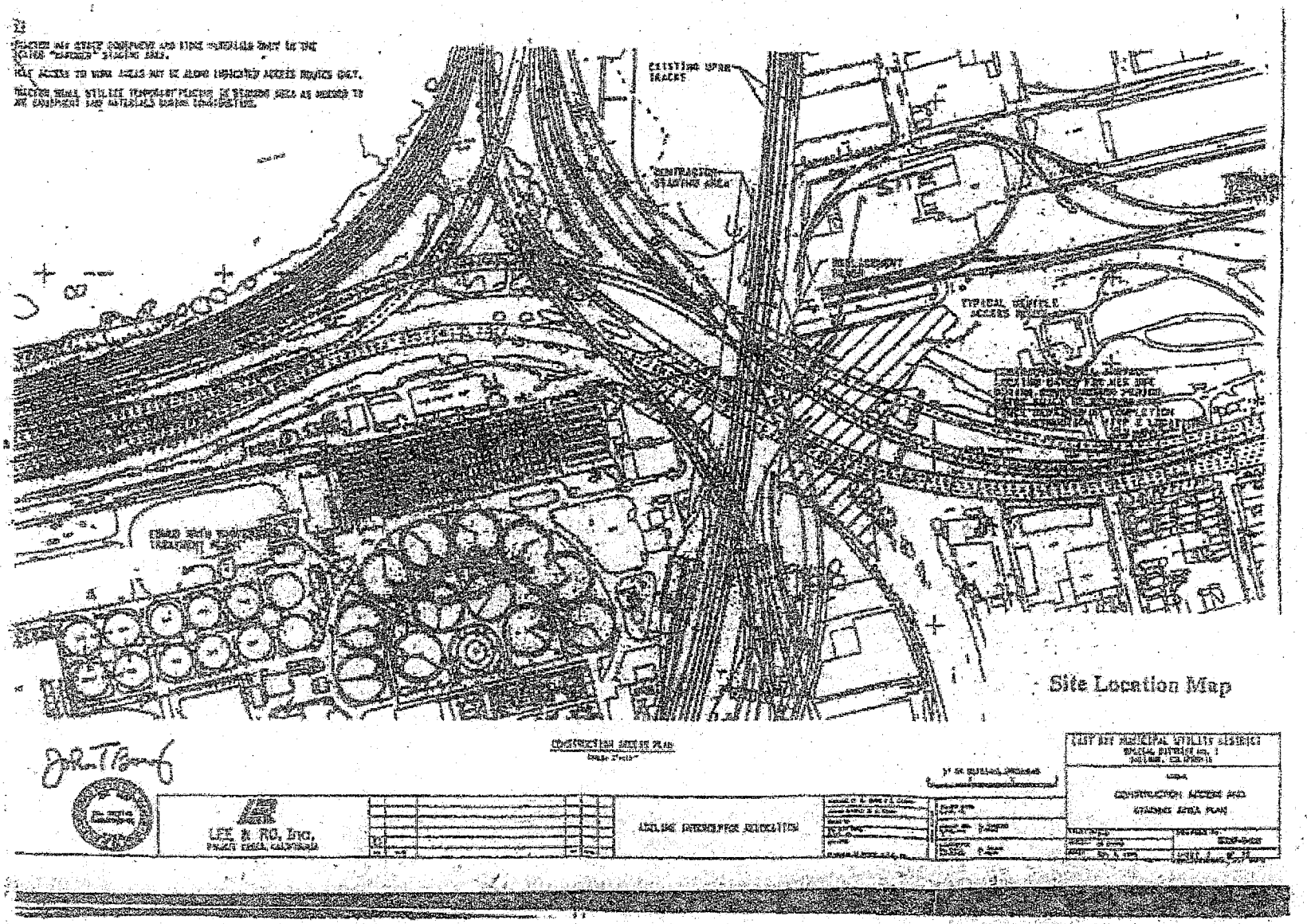


Figure 2 EBMUD Adeline Interceptor Relocation Project - Location Map 1 (North is at top of map)

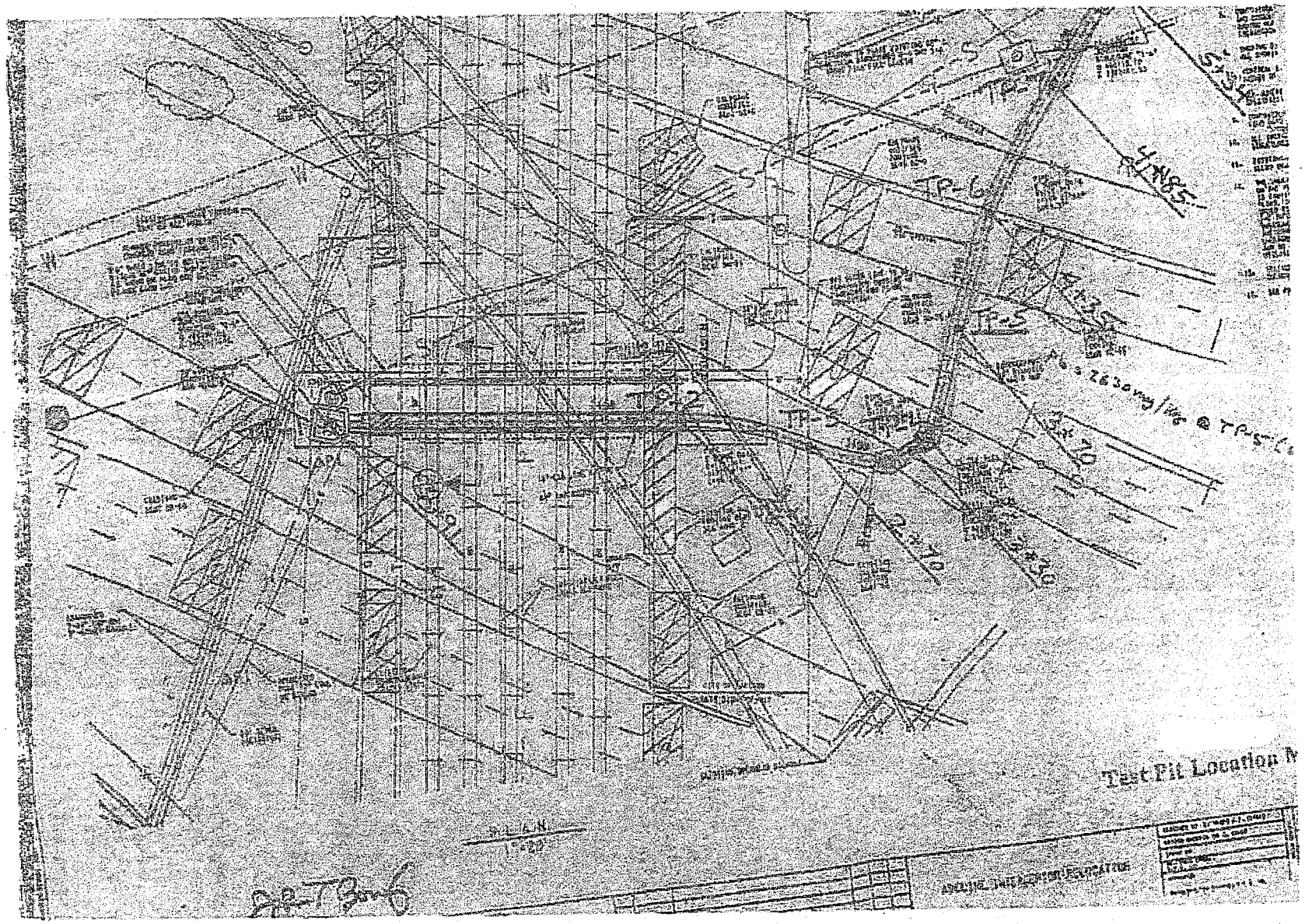


Figure 3 EBMUD Adeline Interceptor Relocation Project - Location Map 2 (North is at top of map)

FIGURE 4-MAP OF AREA OF CONTAMINATION

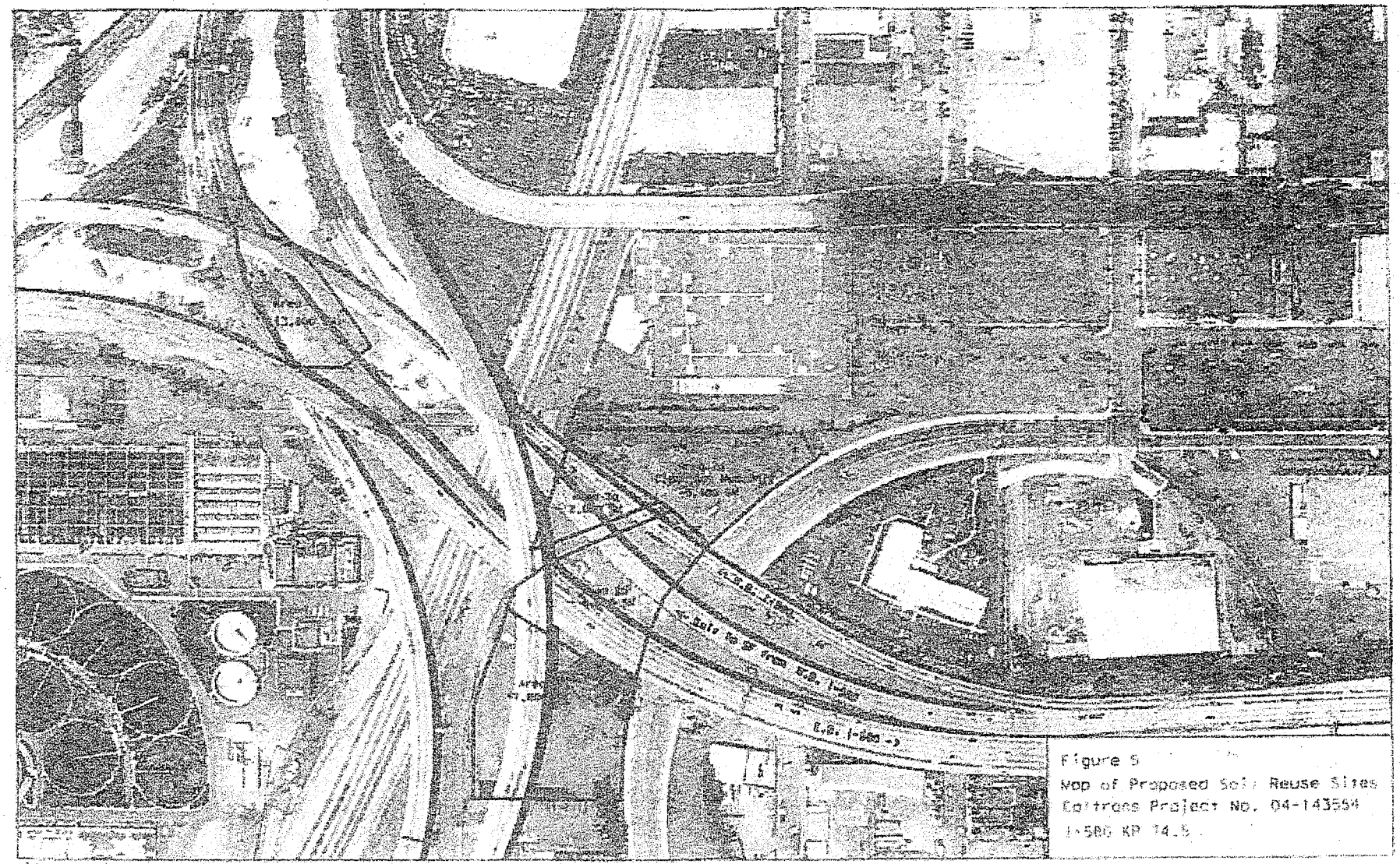


Figure 5
Map of Proposed Soil Reuse Sites
Caltrans Project No. 04-143554
I-280 KP 14.5

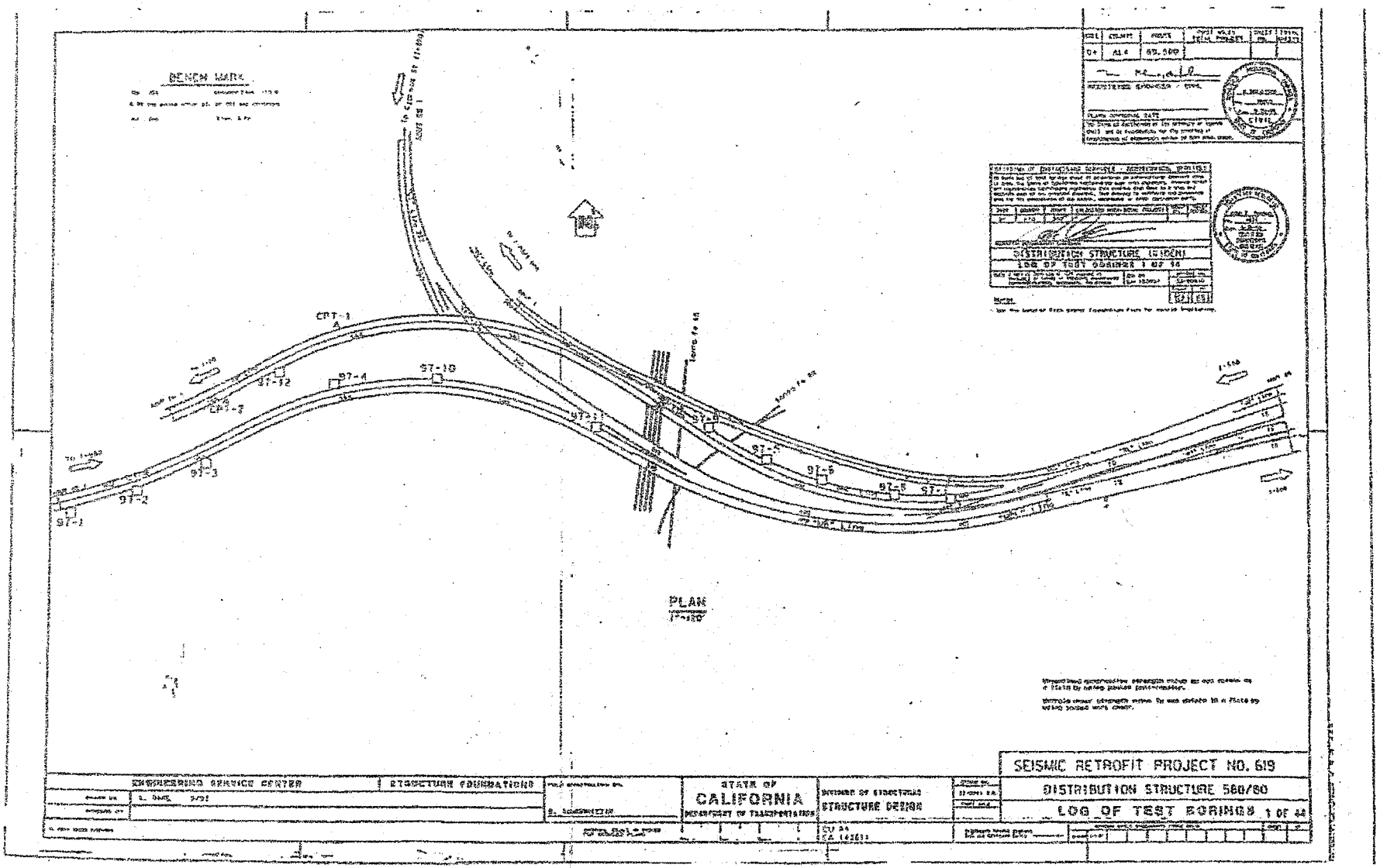


Figure 6. Log of Test Borings Page 1 of 44

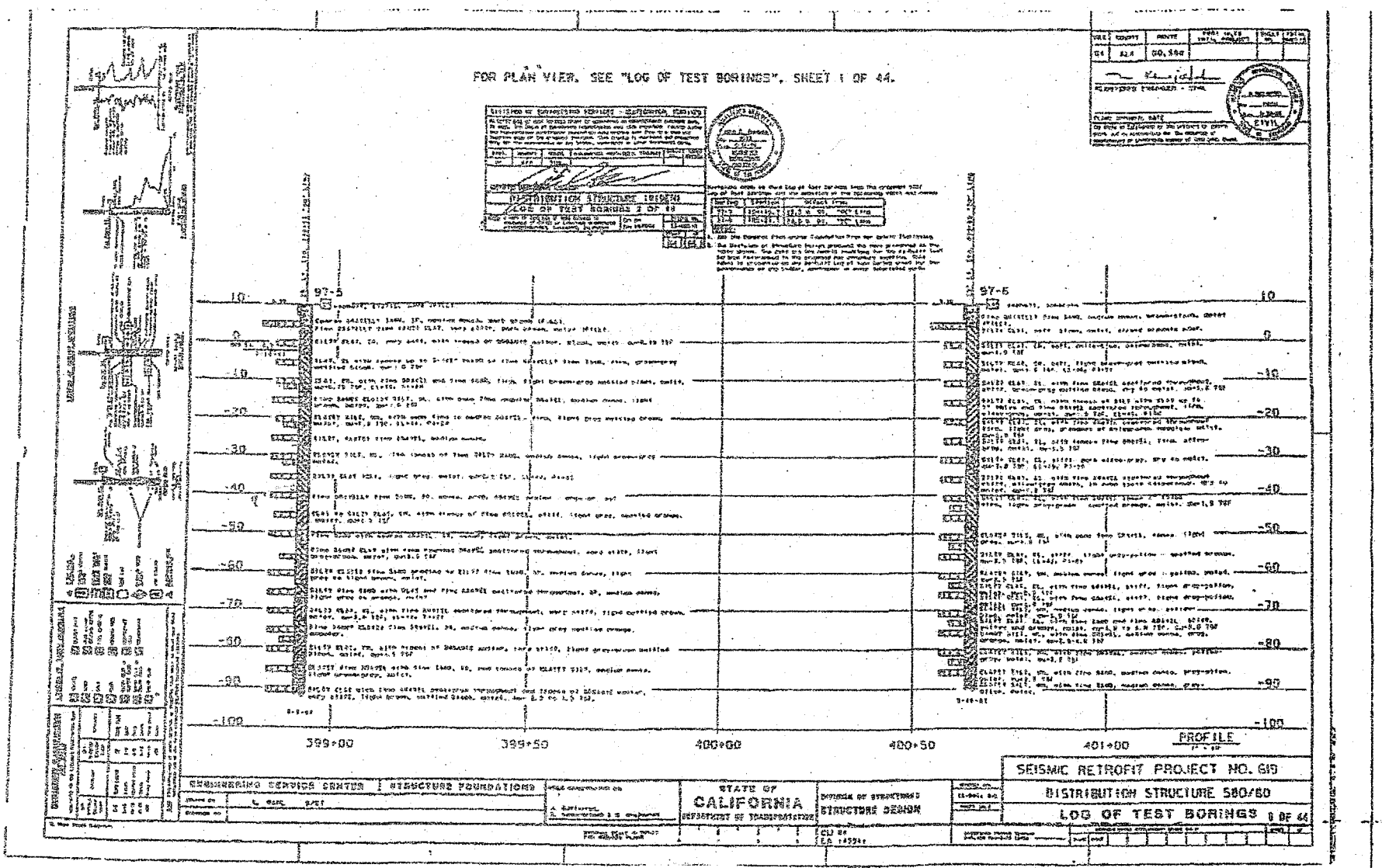


Figure 7. Log of Test Borings Page 6 of 44

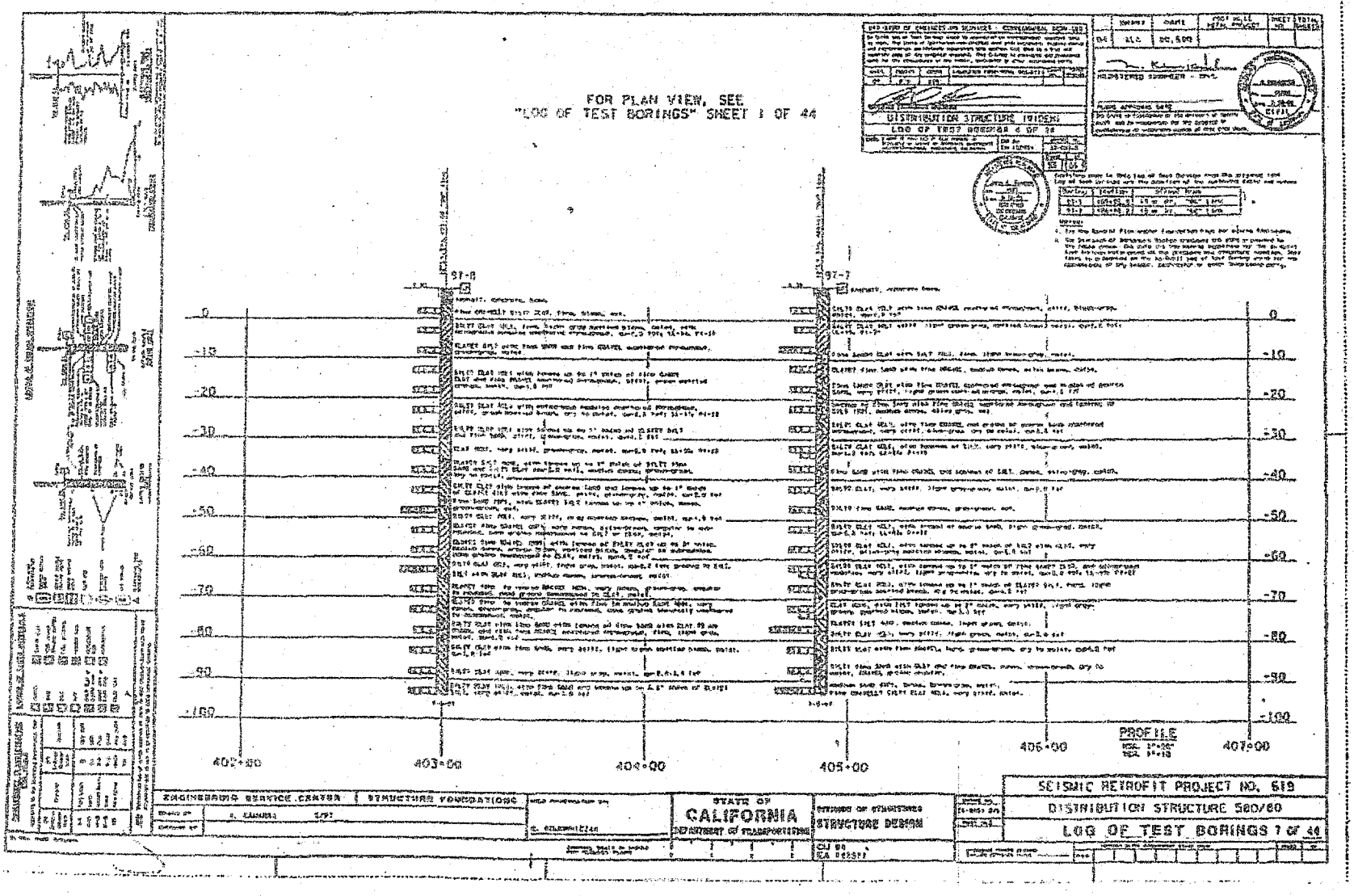


Figure 8 Log of Test Borings Page 7 of 44