
**FINAL SOIL MANAGEMENT PLAN
MANDELA GATEWAY
1350 - 1400 SEVENTH STREET
Oakland, California**

**Prepared For:
Mandela Gateway Associates
San Francisco, California**

**Submitted to:
Alameda Health Care Services Agency
Alameda, California**

**13 April 2004
Project No. 3433.08**

Rec'd 4/22/04
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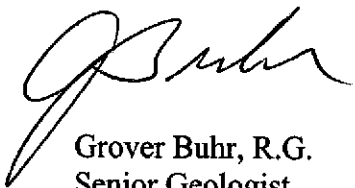
Mr. Barney Chan
Alameda Health Care Services Agency
1131 Harbor Bay Parkway, 2nd Floor
Alameda, California 94502

Subject: Final Soil Management Plan
Mandela Gateway
1350-1400 Seventh Street
Oakland, California

Dear Mr. Chan:

Enclosed is our revised *Final Soil Management Plan* (FSMP) for post-development activities at the Mandela Gateway site in Oakland, California. We appreciate the opportunity to work with you on this project. If you have any questions, please call.


Sincerely yours,
TREADWELL & ROLLO, INC.



Grover Buhr, R.G.
Senior Geologist

34330821.OAK

Attachment



Michael P. McGuire, P.E..
Principal Engineer

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**FINAL SOIL MANAGEMENT PLAN
MANDELA GATEWAY
1350-1400 SEVENTH STREET
Oakland, California**

1.0 INTRODUCTION

This Final Soil Management Plan (FSMP) presents the post-development measures to protect future workers and site users from risks associated with the presence of residual chemical compounds and metals in the soil at the Mandela Gateway property located at 1350-1400 Seventh Street in Oakland, California (Figure 1). This FSMP was prepared by Treadwell & Rollo for Mandela Gateway Associates. A separate Soil Management and Removal Documentation Report (SMRDR) dated 13 April 2004 (Treadwell & Rollo, 2004) documents the implementation of measures recommended by Treadwell & Rollo to protect construction workers and future site users from risks associated with the presence of chemical compounds and metals in the soil at the site. As reported in the SMRDR, considerable mitigation activities were performed during redevelopment of the site. As a result, soil containing residual chemicals at concentrations greater than site-specific remedial target levels remain in certain discrete, localized areas of the site. This FSMP is intended to ensure that capping of soils in these areas by means of either building slabs, pavement or clean fill soil (for landscaped areas) will remain undisturbed during the site's use and occupancy period. Section 2 of this FSMP summarizes the background information at the site and states the rationale for the FSMP. Section 3.0 describes the maintenance, inspection, and repair measures recommended to maintain the cap at the site and soil handling procedures for future activities.

2.0 BACKGROUND

The site consists of approximately 4.7 acres of relatively flat land in two areas: the West Block bordered by Seventh Street, Center Street, Parcel A of Parcel Map 8058 and Mandela Parkway; and the East Block bordered by Seventh Street, Mandela Parkway, Eighth Street, and Parcel B of

Parcel Map 8059. The site was previously a combination of vacant and commercial properties and parking lots located in a mixed commercial and residential area in west Oakland, and is being redeveloped with multi-story at-grade structures that include parking garages, retail space, and residential units. A total of 55 and 113 residential units are planned for the West and East Blocks, respectively, with common areas, commercial buildings, and parking structures (see Figure 2).

The West Block was previously occupied by the Westwood Gardens apartment complex (owned by the Oakland Housing Authority), which has been demolished. The former apartment complex consisted of four 3-story, multi-unit residential buildings, a central partially-paved plaza area, a driveway/parking area, a paved basketball court and landscaped areas. The East Block was occupied in the western part by J&A Truck Repair (J&A). The rest of the site was formerly occupied by a CalTrans Park and Ride parking lot (CalTrans lot) and a portion of a parking lot owned by Armored Transport Systems, Inc. located on Parcel B of Parcel Map 8059. A portion of the Nimitz Freeway viaduct previously ran above the CalTrans lot, but was removed after the 1989 Loma Prieta earthquake. All subsurface structures associated with former site uses and pile caps associated with the former freeway that impacted the current building's foundation system have been substantially removed.

Sampling and analysis of soil in the West Block prior to site redevelopment indicated that lead and pesticides were present in the shallow soils. In samples collected prior to redevelopment in the East Block, lead and Total Petroleum Hydrocarbons quantified as motor oil (TPH-mo), were detected in shallow soils.

Site-specific, carcinogenic-based and noncancer-hazard-based soil remedial target levels were calculated for lead and pesticides in a site-specific risk assessment titled *Human Health Risk Assessment (HHRA), Mandela Gateway Redevelopment Site, Seventh Street and Mandela Parkway, Oakland, California*, prepared by Treadwell & Rollo, Inc. and dated 24 March 2003 (Treadwell & Rollo 2003a). Potentially exposed populations considered in the HHRA included

construction workers, residents, and commercial/industrial workers. Exposure pathways included inhalation, ingestion, and direct contact. The HHRA indicated that pesticides in soil in the West Block and lead in both the West and East Blocks were the primary contributors to risk for the residential receptors evaluated.

Lead and pesticides were found in some soil samples collected prior to redevelopment in the West Block at concentrations exceeding remedial target levels for future residential and commercial receptors calculated in the HHRA. Lead was detected in some soil samples collected prior to redevelopment in the East Block at concentrations exceeding the HHRA remedial target level. TPH-mo were also detected in several locations in the East Block at concentrations greater than the Shallow Soil Environmental Screening Level (ESL), where groundwater is not a current or potential source of drinking water, developed by the Regional Water Quality Control Board (RWQCB), San Francisco Bay Region (RWQCB, 2003).

Based on the occurrence of these residual chemicals and on the risk-based values calculated in the HHRA, remedial target levels were proposed in the Treadwell & Rollo *Soil Management and Removal Plan (SMRP), Mandela Gateway Redevelopment Site, Seventh Street and Mandela Parkway, Oakland, California*, dated 5 May 2003 (Treadwell & Rollo, 2003b). The SMRP proposed specific remedial target levels of 0.010, 0.5, and 0.011 milligrams per kilogram (mg/kg) for the pesticides Aldrin, DDT, and Dieldrin, respectively, and 255 mg/kg for lead. The remedial target levels for all other pesticides and for TPH-mo proposed in the SMRP were the respective ESLs for the respective chemicals (500 mg/kg in the case of TPH-mo). These remedial target levels were approved by the Alameda County Health Care Services Agency – Environmental Health (ACEH) in their letter dated 23 May 2003 (ACEH, 2003).

In addition, some chemical concentrations detected in soils in some areas of the West and East Blocks prior to site redevelopment indicated that if such soils were to be excavated, they would need to be managed as a California hazardous waste, as defined in the California Code of Regulations Title 22, Section 66261.24 and the California Health and Safety Code, Section

25157.8. These statutory chemical levels are not related to those associated with protection of human health or the environment at residential sites.

Soil management procedures for redevelopment activities were documented in the SMRP, which was approved by the ACEH in their 23 May 2003 letter (ACEH, 2003). The SMRP included soil management procedures that were to be conducted whenever soil was disturbed or exposed, such as during excavation and construction. As part of the redevelopment of the site, soil containing residual chemicals above remedial target levels was either removed, or alternatively, capped by building foundations and slabs, pavement, or by at least two feet of clean soil. These procedures were implemented to preclude direct contact of site occupants with subsurface soils that may contain residual chemicals. Excavated soil determined to contain residual chemicals above risk-based remedial target levels, but below hazardous waste criteria, was reused at the site only if such soil was capped beneath building foundations, paved areas, or at least two feet of clean soil.

The SMRDR (Treadwell & Rollo, 2004) documents the implementation of mitigation measures during site redevelopment. As a result of the mitigation measures, soil containing residual chemicals at concentrations exceeding the remedial target levels remains on site in four localized areas, which are shown in Figure 3. In the West Block, soil containing pesticides at concentrations greater than the remedial target levels was left in place in the northwest and north parts of the parking lot and in the area of excavation for the site buildings, which included the narrow landscaped area adjacent to Mandela Parkway. These areas were capped with building foundations, slabs, pavement, or more than two feet of clean fill (in landscaped areas). In the East Block, soil with lead exceeding the remedial target level was left in place only in one localized area: the central part of the Town Square. This area has also been capped with more than four feet of clean fill.

3.0 CAP MAINTENANCE AND MANAGEMENT PROCEDURES

As a result of the redevelopment of the property, some areas at the site contain soil with residual chemicals above remedial target levels. As noted above, soil with pesticides or lead exceeding the remedial target levels was left on site only in areas that have been capped by pavement, building foundations and slabs, or by at least two feet of clean fill. These areas include three areas in the West Block and one area in the East Block, as shown in Figure 3. As the cap in these areas must be maintained indefinitely during the property's operation to prevent potential uncontrolled human contact, a cap maintenance plan specifying long-term maintenance protocols and soil management procedures must be defined.

3.1 Cap Maintenance Requirements

The objective of these maintenance requirements is to ensure the cap's integrity during the site's use and occupancy period in those areas where underlying soil containing residual contamination exceeds remedial target levels. The site owner, or its designee, will maintain copies of this FSMP, the deed restriction, the SMRDR, maintenance work plans (Section 3.4), and maintenance records in a readily accessible on-site location and shall be responsible for informing any employee or contractor who will perform sub-cap construction work in these affected areas of the environmental conditions, soil management concerns, and health and safety requirements stipulated in the SMRP (Treadwell & Rollo, 2003b) and this FSMP.

3.2 Cap Maintenance and Inspection Schedule

Visual cap inspection will be performed on an annual basis in readily-accessible areas where soil contains residual chemicals that exceed remedial target levels. The cap in these areas will be inspected for concrete or pavement cracks and holes, erosion of soil, and any other deterioration in these areas that may cause subsurface soil with residual concentrations of chemicals above remedial target levels to come in contact with site workers and users. Inspection logs will be kept, including written descriptions, photographs (if appropriate), and location plans, together

with the other site documents in a readily accessible on-site location. Appendix A includes a cap maintenance inspection form.

3.3 Minor Cap Repair

Breeches of the cap will be repaired in a timely manner by applying new concrete, asphalt, sealant, clean fill (for landscaped areas) or other appropriate material. Such repairs will be logged, described, and records kept on site.

3.4 Soil Cap Maintenance and Soil Management Procedures During Future Construction Activities

Cap maintenance measures will also be implemented during any post-development construction activities such as utility line repair, building expansion, and other activities that may disturb the underlying soil in those designated areas where residual chemical concentrations exceed remedial target levels. To maintain the integrity of the cap and to protect future site workers who may disturb the cap in these areas, the following procedures will be adhered to by the owner and/or operator of the site:

- Require the preparation of a specific work plan that includes a description of the proposed construction activities, soil management and removal plan, and health and safety plan.
- Direct any contractor or employee who disturbs the encapsulating layer (i.e., building foundations, slabs, pavement or clean fill) and is engaged in any excavation or earth movement in those designated areas where underlying soils contain residual contaminants exceeding remedial target levels to comply with the appropriate local, State, and Federal regulations.
- Direct any contractor or employee engaged in any activities that involve penetrating the encapsulating layer in these areas to repair the disturbed area to its original capped condition as soon as is practical.

- Control dust by wetting and protect exposed or excavated soil from stormwater run-on and run-off during the period of excavation, soil movement, or exposure.
- Consistent with standard construction practice, determine by appropriate analytical testing whether any excess material removed from these areas is a hazardous waste pursuant to State or Federal hazardous waste criteria. This material must be managed in accordance with all appropriate regulations.
- Prepare a report that summarizes the maintenance activities implemented, including details regarding repair of the cap, excavation of soil, and disposal of soil, as necessary.

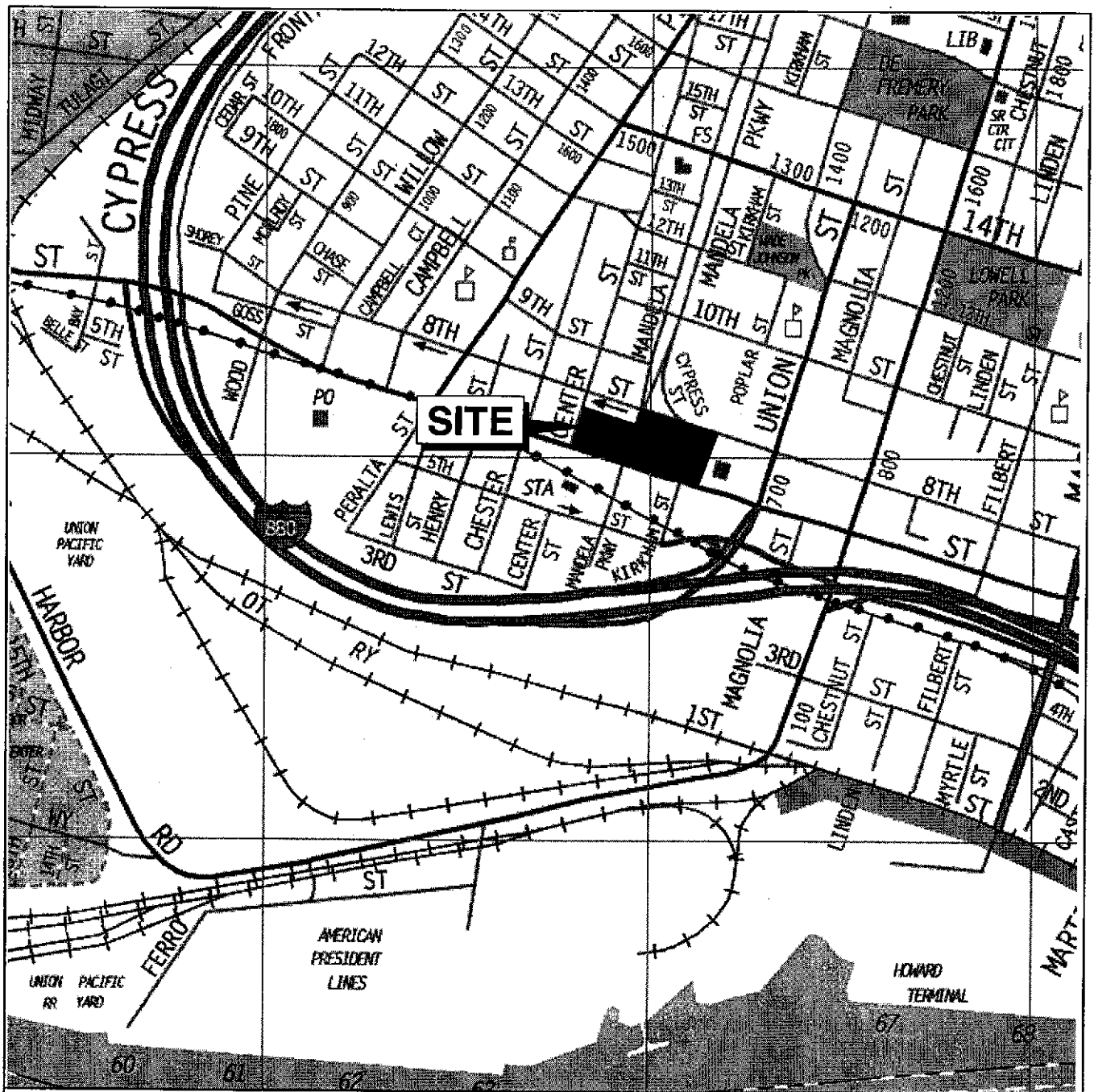
REFERENCES

Alameda County Health Care Services Agency (ACEH), 2003, Letter to Mandela Gateway Associates from Barney Chan, Hazardous Materials Specialist, *Subject: Regarding Site #R00002517, Mandela Gateway Redevelopment Site, Seventh Street and Mandela Parkway, Oakland, California 94607.* 23 May 2003.

Treadwell & Rollo, 2003a, *Human Health Risk Assessment, Mandela Gateway Redevelopment Site, Seventh Street and Mandela Parkway, Oakland, California,* 24 March 2003

Treadwell & Rollo, 2003b, *Soil Management and Removal Plan, Mandela Gateway Redevelopment Site, Seventh Street and Mandela Parkway, Oakland, California,* 5 May 2003

Treadwell & Rollo, 2004, *Soil Management and Removal Documentation and Closure Report, Mandela Gateway Redevelopment Site, Seventh Street and Mandela Parkway, Oakland, California,* 12 April 2004.



Base map: The Thomas Guide
 Alameda County
 1999


 No scale

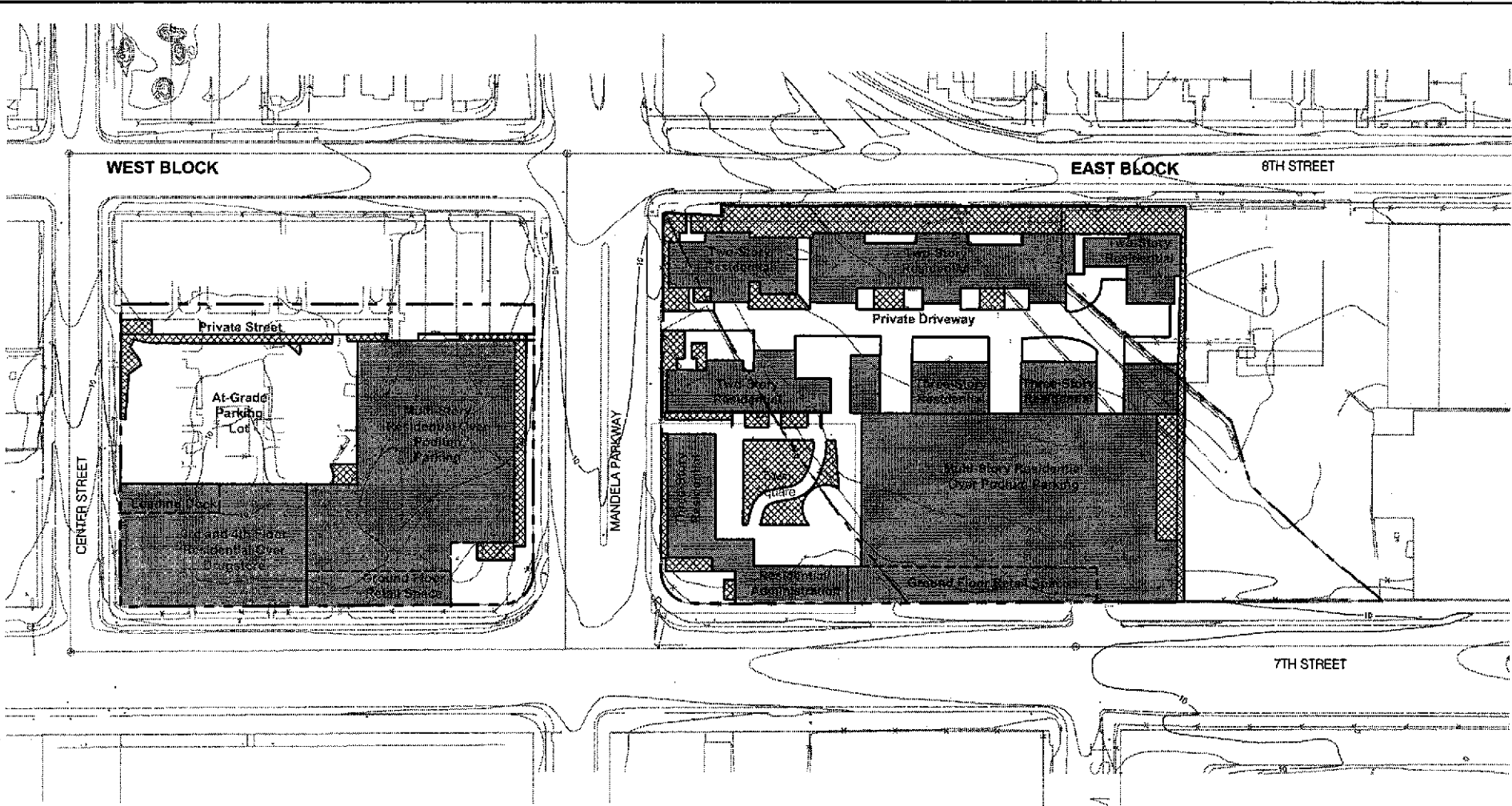
MANDELA GATEWAY
 1350 - 1400 Seventh Street
 Oakland, California

SITE LOCATION MAP





Treadwell & Rollo

Date 03/16/04 | Project No. 3433.08 | Figure 1

343308_REDEVELOPMENT_PLAN.DWG



EXPLANATION

-  Existing site boundary
-  Former property line
-  Proposed building
-  Landscaped Areas or Mixed Landscape and Walkways



0 120 Feet
Approximate scale

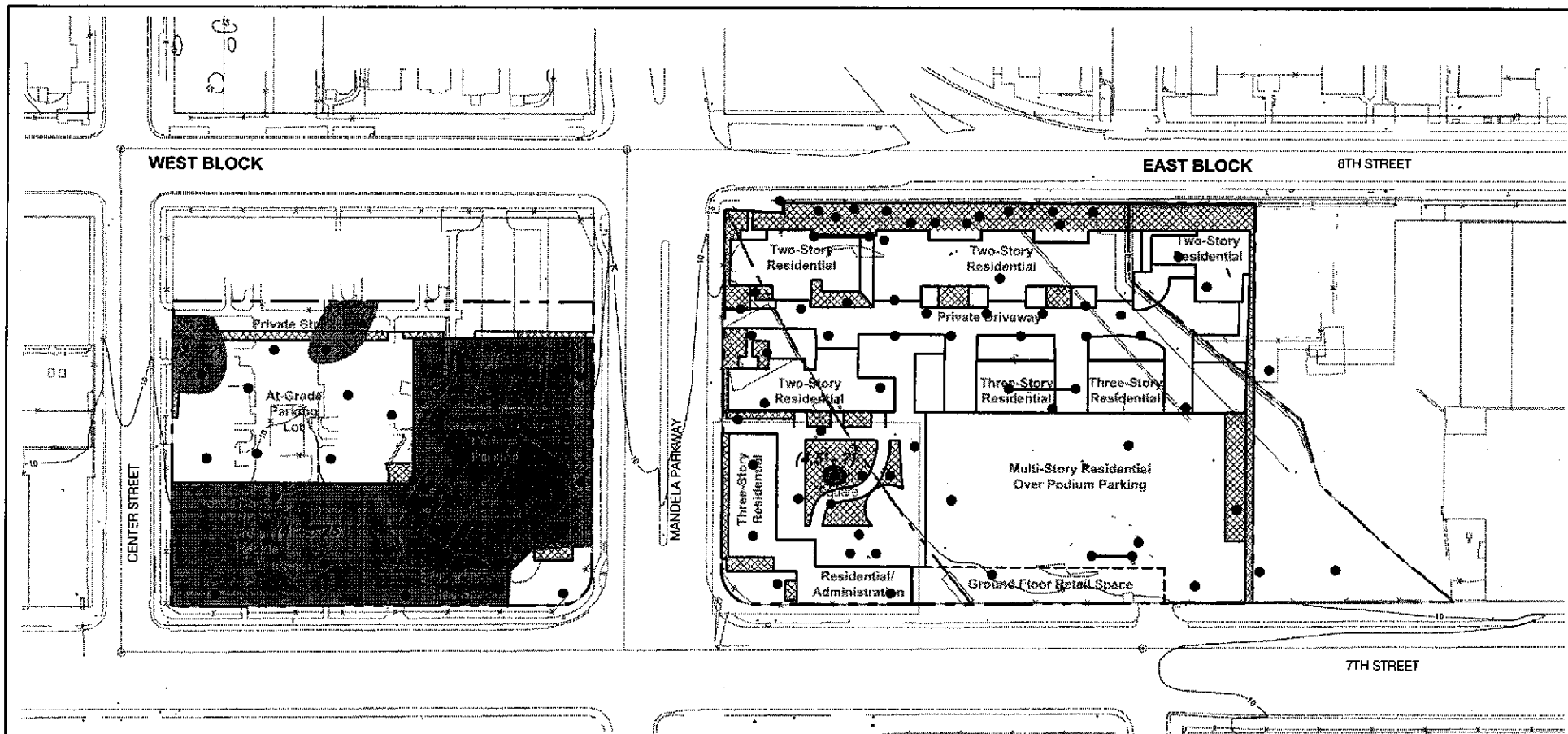
MANDELA GATEWAY
1350-1400 Seventh Street
 Oakland, California

REDEVELOPMENT PLAN





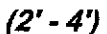

Date 4/01/04	Project No. 3433.08	Figure 2
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Treadwell&Rollo

Reference: 1. DK Associates, "Topographic Survey - Mandela Gateway", May 30, 2002.
 2. Site plan prepared by Michael Willis Architects, dated 11 July 2002.




EXPLANATION

-  Existing site boundary
-  Former property line
-  Landscaped Areas or Mixed Landscape and Walkways
-  Areas where confirmed residual chemicals in soil exceed the remedial target levels.
-  (2' - 4') Depth to top and bottom (if known) of soil with residual contaminants exceeding remedial target levels
-  Approximate locations of soil samples

Note: Soil containing pesticides exceeding remedial target levels were reused beneath the building slabs and foundations in the West Block podium area

3433.08.08 - ResidualContaminant.dwg

Reference: 1. DK Associates, "Topographic Survey - Mandela Gateway", May 30, 2002.
2. Site plan prepared by Michael Willis Architects, dated 11 July 2002.

MANDELA GATEWAY 1350 - 1400 Seventh Street Oakland, California		
AREAS WHERE RESIDUAL CHEMICALS EXCEED REMEDIAL TARGET LEVELS AFTER DEVELOPMENT		
Date 04/01/04	Project No. 3433.08	Figure 3
		

APPENDIX A
CAP INSPECTION FORM

Subject: **CAP INSPECTION**
Field Inspector: _____
Weather: _____
Reviewed by: _____

Date: _____
Time: _____

- _____ Evidence of cracks in concrete or pavement? Please describe.

- _____ Evidence of holes in concrete or pavement? Please describe.

- _____ Evidence of cap deterioration (concrete, pavement or landscape soil)? Please describe.

- _____ Subsurface soil exposed for potential uncontrolled human contact? Please describe.

Insert sketch of subject area and locations of potential cap issues.

Attachments: _____

Initials _____