EAST BAY
MUNICIPAL UTILITY DISTRICT

GARY L. HUNT
ASSISTANT GENERAL MANAGER
OPERATIONS, PLANNING, AND MAINTENANCE

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January 26, 1996

Juliet Shin
Alameda County Health Care Services Department
Hazardous Material Division
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

Dear Ms. Shin:

Subject: Transmittal of Addendum No. 1 to the Materials Management Plan for the AMC Site

Enclosed for your review is a copy the area specific assessment plan for the phase 1 AMC construction project. This plan was prepared as outlined in the Materials Management Plan forwarded to you on January 19, 1996. I assume that we will discuss any comments you have to the enclosed during our Wednesday, January 31, meeting. If you have any questions in advance of the meeting, please do not hesitate to call.

Sincerely,

Eileen Fanelli /pas

EILEEN FANELLI
Senior Environmental Compliance Specialist

EC960041

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GeoPlexus, Inc.

Health & Safety Training • Geo/Environmental Personnel • Engineering Geology Consultants • Environmental Management Consultants

ADDENDUM No. 1 TO MATERIALS MANAGEMENT PLAN for EAST BAY MUNICIPAL UTILITY DISTRICT ADELINE MAINTENANCE CENTER 1200 21st STREET OAKLAND, CALIFORNIA

INTRODUCTION

East Bay Municipal Utility District (EBMUD) is constructing a new Adeline Maintenance Center (AMC) at the site of the existing AMC. The AMC site comprises four city blocks, as shown in Figure 1. Walsh Pacific Construction (WPC) has been retained by EBMUD as the design/build contractor for the AMC project which includes demolition of several existing structures, the construction of 5 new buildings, and remodeling of 2 buildings. The construction project will be completed in 3-phases over a 2-year period ending approximately November, 1997.

Alameda County Health Department is the lead regulatory agency providing oversight of environmental investigations and remedial activities conducted at the site.

A Materials Management Plan (MMP) for the EBMUD AMC was prepared by Geo Plexus, Inc., (dated January 18, 1996) which presented the general history of the project site, presented an evaluation of human and environmental risks associated with the known soil contaminates, presented remedial action criteria for the planned construction phases, and presented phase-specific guidelines to be implemented to complete the earthwork associated with the construction.

The purpose of this Addendum to the MMP is to present the work plan for additional investigation activities to further define the extent of soil contamination identified at the Phase 1 - Fleet Maintenance Building above the threshold criteria. Figure 2 illustrates the Phase 1 construction area and the location of the planned Fleet Maintenance Building

It is understood that 2 underground storage tanks (10,000 gallon diesel and 500 gallon gas) were removed from the AMC Phase 1 construction site in 1986 under Alameda County Department of Environmental Health oversight.

PREVIOUS INVESTIGATIVE ACTION

A preliminary site assessment was performed by Geo Plexus, Inc. in 1995 which included advancing 4 exploration borings (B6-1, B6-2, B6-3, and B6-4) within the Phase 1 project site as indicated on Figure 3. WPC also advanced 3 shallow test pits within the planned "footprint" of the Fleet Maintenance Building at the locations indicated on Figure 3. Specifics of these investigation activities are presented in the MMP. Analytical testing of soil samples from Test Pit 1 indicated TPH gas concentrations ranging from non-detect to ~~6,700~~ 7,200 ppm with Benzene ranging from 0.010-55 ppm.

Based on the known site conditions, the areas where soil is likely to contain contaminants of concern above threshold criteria for the Phase 1 AMC construction are indicated on Figure 3.

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SUPPLEMENTAL INVESTIGATION

Supplemental investigations are planned to verify the limits of known soil contamination and to reduce the uncertainty of remediation requirements for the Phase 1 construction areas. The investigation would be accomplished with test pits advanced by Bay Cities Paving & Grading personnel (subcontractor to WPC).

It is currently planned to advance from 10 to 17 test pits with a backhoe in the vicinity of Test Pit No.1 and Borings 6-1, 6-2, and 6-3 as indicated on Figure 4. The actual number and locations of the test pits may vary depending on the conditions encountered in the field. It is intended to advance the initial 4-6 test pits to define the general boundaries of the known soil contamination and then to advance additional test pits within the contaminated area to obtain soil samples for pre-profiling for disposal. The test pits will be logged under the supervision of a State of California Certified Engineering Geologist.

The soils encountered within the test pits will be monitored in the field for evidence of hydrocarbon content through the use of a portable photo-ionization detector (PID). Soil samples will be obtained from the initial perimeter test pits for analytical testing to determine the lateral and vertical extent of the contamination. The samples will be obtained at various depths ranging from 5- to 8-feet. In addition to the vapor monitoring, soil samples will be collected and analyzed in the field for presence of petroleum hydrocarbons with a Arts Manufacturing and/or Hanby Field Test Kit. These test kits will be used to guide the excavation based on qualitative/quantitative data and have detection threshold limits for TPHgas/BTEX of 3ppm/1ppm and 1ppm/1ppm, respectively.

Additional soil samples will also be collected from test pits advanced within the known/identified area of soil contamination to obtain composite samples for analytical testing for pre-profiling for landfill disposal or recycling through Remedial Environmental Marketing Co. (REMCO). The actual number of test pits required for this characterization will be determined in the field based on in-part on the field test kit data and depending on the volume of soil determined to be subject to disposal or recycling.

The soil samples will be obtained directly from the backhoe bucket by advancing a pre-cleaned 2 inch I.D. brass or stainless steel liner into the undisturbed soil contained in the backhoe bucket. The soil samples will be immediately sealed in the liners using aluminum foil or teflon tape and plastic caps and properly labeled including: the date, time, sample location, and project number. The samples will be immediately placed in a cooler maintained at 3-5°C for transport to the laboratory under chain-of-custody documentation. Sampling equipment will be cleaned between sample events using a phosphate-free detergent bath and double rinsed to prevent cross contamination. The sampling equipment will also be cleaned subsequent to completion of the field activities.

Since these soil materials will be subsequently excavated, the test pits will be backfilled with the excavated materials.

ANALYTICAL TESTING

The soil samples will be submitted to and tested by McCampbell Analytical, a State of California, Department of Health Services certified testing laboratory. Analytical testing will be scheduled and performed in accordance with the State of California, Regional Water Quality Control Board Recommendations for Initial Evaluation and Investigation of Underground Tanks and Alameda County Department of Environmental Health guidelines.

The samples from the perimeter boundary test pits will be tested for:

Total Petroleum Hydrocarbons as gasoline by Method GCFID 5030/8015
Total Petroleum Hydrocarbons as diesel by Method GCFID 3550/8015
Volatile Aromatics (BTEX) by EPA Method 8020

The samples from the test pits for pre-characterization will be composited by the analytical testing laboratory as 4-part composite samples and tested for:

Total Petroleum Hydrocarbons as gasoline by Method GCFID 5030/8015
Total Petroleum Hydrocarbons as diesel by Method GCFID 3550/8015
Volatile Aromatics (BTEX) by EPA Method 8020
LUFT 5-Metals by EPA Methods 7000 series.
Resistivity, Corrosivity, and Ignitability by CCR Title 22 and EPA 1010 Methods
STLC Lead by CCR Title 22 Methods

SUMMARY OF FINDINGS

The field observation records and analytical test data will be reviewed to establish the limits of the soil contamination and to further establish the limits of planned excavation within and exterior to the planned structure using the evaluation criteria set forth in the MMP. A letter report will be issued containing the field observations, chain-of-custody documentation, analytical test data and other pertinent observations recorded. The Phase 1 Implementaion Plan base map will be updated identifying the limits of planned excavation. The composite test data will be provided to the appropriate landfill/REMCO for pre-authorization for disposal/recycling of the excavated soil.

EXCAVATION PROTOCOLS

Excavation of the soil containing contaminants above threshold criteria as set forth in the MMP will be performed by Bay Cities Paving & Grading under direct oversight from Geo Plexus, Inc. personnel. The construction activities will proceed with excavation and direct off-hauling of the contaminated soils to the limits established by the remedial action criteria.

Field screening of the excavated soils will be performed on-site through the use of an Organic Vapor Analyzer (OVA) or Organic Vapor Meter (OVM) as the excavation proceeds. In addition to the vapor monitoring, soil samples will be collected and analyzed in the field for presence of petroleum hydrocarbons with the field test kits as previoulsy described.

Soils exhibiting visible evidence of petroleum contamination (e.g., visible staining, visible sheen and/or product, noticeable odors, etc.) or concentrations of petroleum products above established threshold criteria will continue to be excavated and off-hauled.

Field observations will be recorded as the excavation proceeds to document the soil excavation and disposal activities and to determine the appropriate time and locations for collection of verification samples.

The excavation will proceed laterally and vertically beneath the planned structure until the soil conditions are below the threshold criteria set forth in the MMP.

The excavation will proceed laterally and vertically outside of the planned building footprint until the soil concentrations are within the threshold criteria for areas outside building footprints set forth in the MMP or until functional excavation limits are encountered (i.e., encroachment of structures to remain, public property, etc.).

CONFIRMATION SAMPLING

Final verification samples of the native soil materials at the base of the excavation and from the excavation sidewalls will be obtained upon completion of the remedial excavation activities to document the site conditions prior to backfilling and construction as described in the MMP.

At this time, we anticipate obtaining 1 sample per 200 square feet in areas where contamination above threshold criteria is removed. However, this rate may be revised based on an evaluation using EPA SW-846 guidelines following determination of the extent of contamination and definition of the limits of excavation.

The verification soil samples would be obtained from the excavation sidewalls and excavation bottom by advancing a pre-cleaned 2 inch I.D. brass or stainless steel liner into the undisturbed soil. Should the excavated area to be sampled not be directly accessible for personnel for safety reasons, the samples would be obtained remotely through the use of a backhoe or excavator.

The soil samples would be immediately sealed, labeled, contained, and transported in accordance with the protocols previously described for the test pit samples. The soil samples would be submitted to and tested by McCampbell Analytical in accordance with the protocols previously described for the test pit samples. The testing would include:

Total Petroleum Hydrocarbons as gasoline by Method GCFID 5030/8015
Total Petroleum Hydrocarbons as diesel by Method GCFID 3550/8015
Volatile Aromatics (BTEX) by EPA Method 8020.

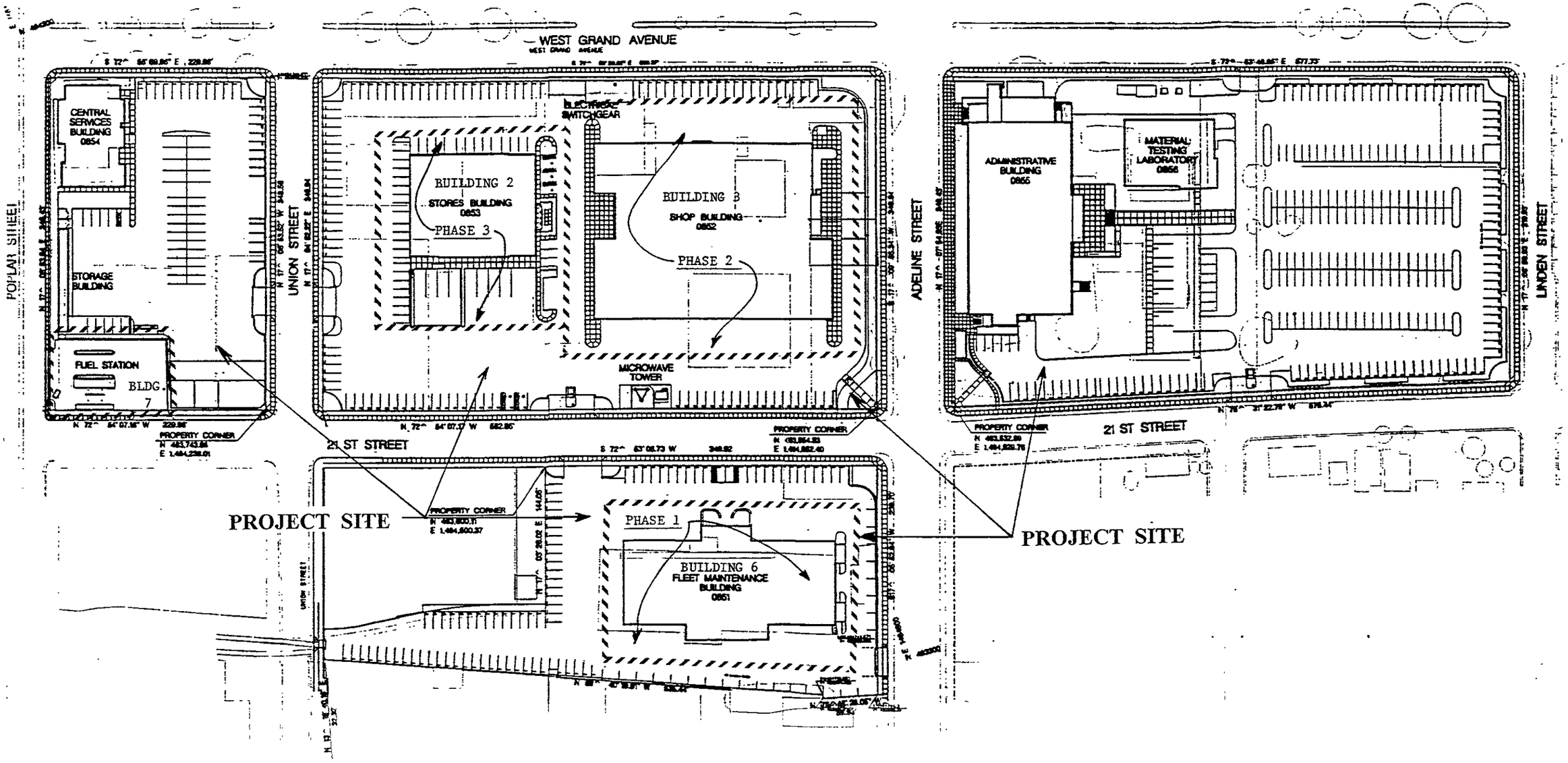
EXCAVATION DOCUMENTATION

Geo Plexus personnel will provide continuous observation of the excavation activities to assure compliance with the MMP. On site documentation of the field conditions and remedial activities will be recorded on a daily basis and include air/vapor monitoring data, field test kit analysis data, sampling data, and chain-of-custody documentation for any samples collected and other pertinent observations recorded. A base map will be updated daily identifying the locations of the excavation limits and noting the sample locations.

DEWATERING

It is anticipated that perched ground water (observed in the previous excavations, test pits, and borings) will be encountered in localized areas during excavation. Grab water samples from Test Pit No. 1 contained concentrations of TPH gas and BTEX above established NPDES and EBMUD discharge limits. It is currently planned to evacuate the perched water in the vicinity of the remedial excavation with diaphragm pumps and to treat the water with activated carbon canisters prior to discharge of the water under appropriate permit conditions. Specific details of the dewater/treatment plans are contained in the specific permit applications.

Dewatering and disposal of the perched water not impacted with petroleum compounds will be in accordance with the protocols presented in the MMP.


WEST GRAND AVENUE
POPLAR STREET
UNION STREET
ADELINE STREET
LINDEN STREET
21 ST STREET
CENTRAL SERVICES BUILDING 0854
STORAGE BUILDING
FUEL STATION
BLDG. 7
PROPERTY CORNER
N 483,743.86
E 1,484,238.01
BUILDING 2
STORES BUILDING 0853
PHASE 3
ELECTRICAL SWITCHGEAR
BUILDING 3
SHOP BUILDING 0852
PHASE 2
MICROWAVE TOWER
N 72° 54' 07.17" W 682.85'
PROPERTY CORNER
N 483,864.83
E 1,484,682.40
S 72° 53' 08.73" W 348.82
PROJECT SITE
PROPERTY CORNER
N 483,800.71
E 1,484,500.37
PHASE 1
BUILDING 6
FLEET MAINTENANCE BUILDING 0851
ADMINISTRATIVE BUILDING 0855
MATERIAL TESTING LABORATORY 0856
PROPERTY CORNER
N 483,832.89
E 1,484,825.76
21 ST STREET
PROJECT SITE
N
CONSTRUCTION PLAN
FIGURE 1
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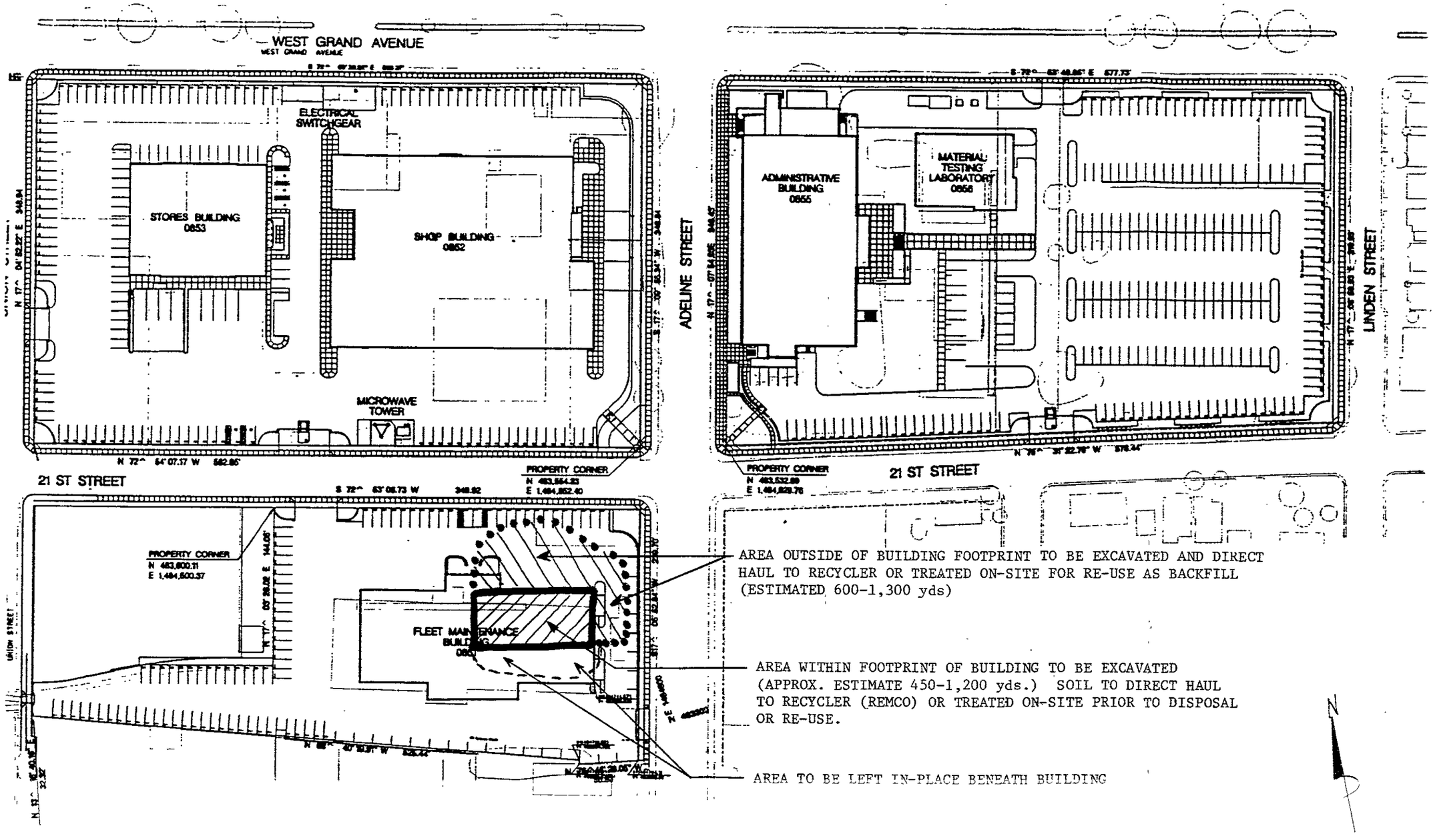
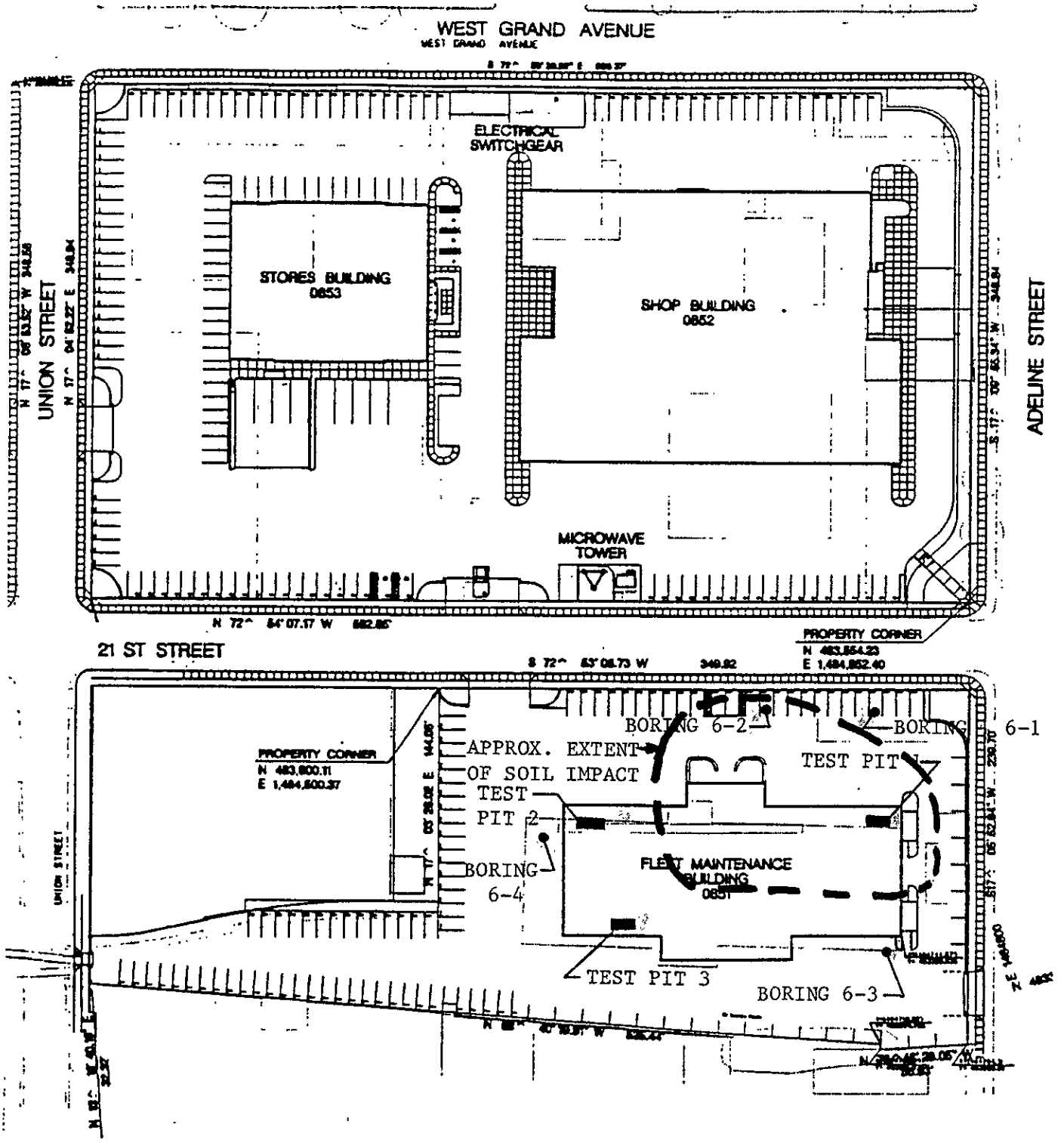


PHASE 1 IMPLEMENTATION PLAN
FIGURE 2

GeoPlexus, Inc.



TEST PIT / BORING LOCATION PLAN		
DATE 1/5/96	SCALE 1"=100'	DRAWN BY dcg
EBMUD ADELINE FACILITY		
	Figure 3	

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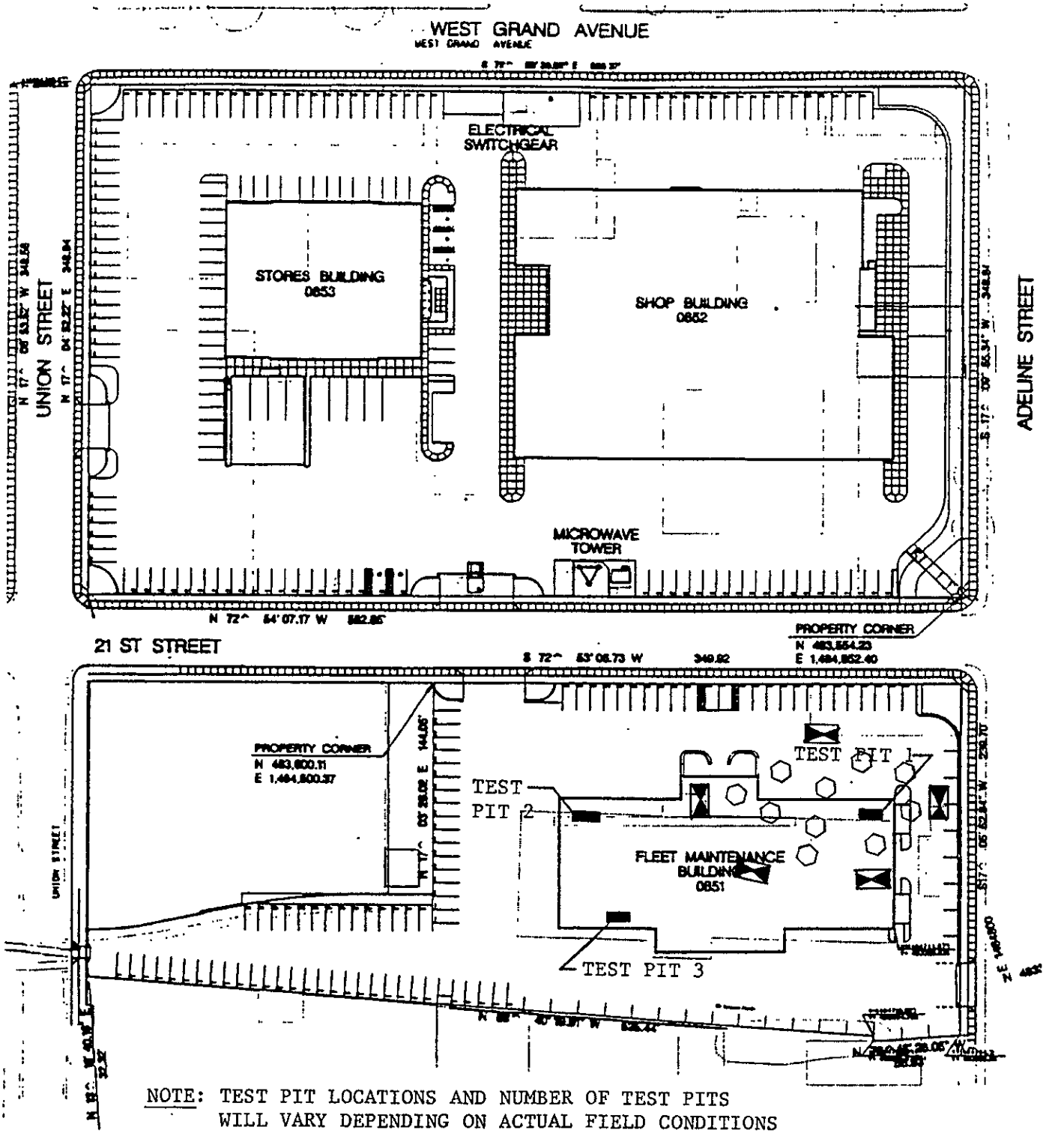

NOTE: TEST PIT LOCATIONS AND NUMBER OF TEST PITS WILL VARY DEPENDING ON ACTUAL FIELD CONDITIONS

APPROXIMATE LOCATIONS OF INITIAL TEST PITS TO DEFINE LATERAL EXTENT OF SOIL CONTAMINATION EXCEEDING THRESHOLD CRITERIA AND TO DETERMINE VOLUME OF SOIL TO BE REMOVED

LOCATION OF TEST PITS FOR COMPOSITE SAMPLES FOR DISPOSAL

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PROPOSED TEST PIT LOCATION PLAN		
DATE 1/5/96	SCALE 1"=100'	DRAWN BY dcg
EBMUD ADELINE FACILITY		
	Figure 4	