

DEPARTMENT OF TRANSPORTATION

BOX 23660
OAKLAND, CA 94623-0660
(510) 286-4444
TDD (510) 286-4454



November 7, 1995

Ms. Susan Hugo, Senior Hazardous Waste Specialist
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway
Alameda, CA 94502

Subject: Workplans for Monitoring Well Sampling and Analysis at Former UST Locations in
the Cypress Reconstruction Project

Dear Ms. Hugo:

Enclosed for your review and comments are the draft workplans for the sampling and analysis of monitoring wells located at two former underground storage tank (UST) sites involved in the Cypress freeway reconstruction project (J&A Truck Repair, 500 Kirkham Street and Thomas A. Short Co., 3430 Wood Street). The installation of the wells will be performed by Geocon Environmental for Caltrans. Geocon's draft workplans for installing the wells at these sites and the health & safety plans were sent to you in October. The well development, sampling, and groundwater analyses will be performed by our office, and are discussed in the enclosed workplans.

Delays in construction activities have suspended the start of the monitoring well installation work, but the wells should be completed the last week of November. Therefore, I would appreciate receiving your comments on these workplans before Thanksgiving, if possible. Please call me with any additions or comments you may have at 286-5647.

Sincerely,

Christopher R. Wilson

Christopher R. Wilson, P.E.
Office of Environmental Engineering

Enclosures

cc: file

95 NOV -9 PM 2:22

ENVIRONMENTAL
PROTECTION

DRAFT

MONITORING WELL SAMPLING AND ANALYSIS WORKPLAN

**THOMAS A. SHORT COMPANY
3430 WOOD STREET
OAKLAND, CALIFORNIA**

Submitted By:

**CALIFORNIA DEPARTMENT OF TRANSPORTATION
DISTRICT 4
OFFICE OF ENVIRONMENTAL ENGINEERING
OAKLAND, CALIFORNIA**

DRAFT

November 6, 1995

I Introduction

This workplan is for the groundwater study at the former Thomas A. Short Company (TASCO) located at 3430 Wood Street in Oakland, California (see Figure 1 for location map) that will be conducted by the Department of Transportation's District 4 Office of Environmental Engineering. The site is the former location of a 4000-gallon gasoline underground storage tank (UST) and a 1000-gallon diesel UST that were found to have leaked petroleum hydrocarbons into the site subsurface. The tanks were removed in January 1993, approximately a year before Caltrans purchased the site, and now three monitoring wells will be installed around the former tank location (see Figure 2 for site map) in order to investigate the impact of the tank leaks on the region's groundwater. Groundwater samples will be collected and analyzed quarterly to determine the extent of groundwater contamination and the trend in contaminant concentrations over the next year.

II Site Background

DRAFT

For nearly forty years the subject site was occupied by TASCO, who repaired and manufactured marine valves and associated parts. Located at the site, and utilized by company vehicles, were diesel and gasoline USTs. The 1000-gallon diesel and 4000-gallon gasoline USTs were removed in January 1993. After the USTs had been removed from the excavation, the tank pit sidewalls and bottom appeared to be stained by petroleum hydrocarbons. As a result, excavation activities continued after the tanks were removed until organic vapor meter readings indicated that the hydrocarbon-contaminated soil had been removed. The tank pit was then backfilled with non-contaminated soil and compacted.

Before the pit was backfilled, soil samples were collected from the excavation sidewalls and bottom and from the excavated, stockpiled soil. The samples were analyzed for total petroleum hydrocarbons as diesel (TPH-d), total petroleum hydrocarbons as gasoline (TPH-g), and BTEX (benzene, toluene, ethyl benzene, and xylenes). Results of the analyses showed that not all of the hydrocarbon-contaminated soil was removed during excavation activities. None of the ten samples taken from within the excavation had detectable levels of TPH-d, but every one of the samples had detectable levels of TPH-g, ranging from 1.8 mg/kg to 49 mg/kg. All but one of the tank pit samples had detectable levels of benzene (range: 5.0 to 31.0 ug/kg), and every sample had detectable levels of toluene, ethyl benzene, and xylenes (6.2 to 88.0 ug/kg, 10.0 to 160.0 ug/kg, and 24.0 to 280 ug/kg, respectively).

A little more than a year after the tank removal, Caltrans' purchase of the property was finalized and TASCO vacated. Caltrans purchased the site for Cypress freeway reconstruction right of way. Column footings for the Cypress structure will be located on the property as shown in Figure 2. The buildings at the site were demolished in mid-1995, and construction activities began in the site's general area in late October 1995. After Geocon Environmental's workplan for installing the monitoring wells is approved by Alameda County, the wells will be placed around the former tank location, as far removed from the footing and column construction as is reasonable. A Caltrans survey crew will determine the top of casing elevation, relative to mean sea level, for each well to the nearest hundredth of a foot.

DRAFT

II Scope of Work

At least 24 hours after the borings for the wells have been drilled, the soil samples collected for laboratory analysis, and the monitoring wells constructed by Geocon Environmental, Caltrans' Office of Environmental will develop the wells using surge and bail techniques. The wells will be surged and bailed sufficiently enough to obtain sediment-free groundwater samples. All purged groundwater will be stored on-site or in the immediate vicinity in labeled 55-gallon drums, pending laboratory analysis for proper disposal.

At least 24 hours after development, the wells will be sampled. Before any groundwater is purged or sampled, the distance to the static water table in each well will be measured by an electric water level meter and recorded. The water level meter will be washed and rinsed with distilled water after each measurement. Following the depth-to-water measurements, the wells will be purged of at least three well casing volumes, using dedicated, disposable bailers. The groundwater temperature, conductivity, and pH will be recorded before purging activities begin, and again approximately every purged well casing volume, and also after the samples have been collected. Proper personal protective equipment will be worn during all purging and sampling activities.

After purging, the wells will be allowed to recover to approximately 90% of their original volumes before samples are collected. The groundwater samples will be collected by lowering the dedicated bailers into each well, and will then be released through disposable VOC samplers into sterile, laboratory-supplied containers. The samples will be collected in order of decreasing analyte volatility, labeled for the laboratory, and placed in a cooler chilled to 4 degrees Celsius with blue ice. The cooler will be transported under chain of custody to American Environmental Network, a state-certified laboratory in Pleasant Hill for analysis. The groundwater samples will be analyzed for the following contaminants:

- CAM 17 Metals by EPA Method 6010
- Total Recoverable Petroleum Hydrocarbons (TRPH) by EPA Method 418.1
- Total Petroleum Hydrocarbons as Gasoline (TPH-g) by EPA Method 8015-m
- Total Petroleum Hydrocarbons as Diesel (TPH-d) by EPA Method 8015-m
- Volatile Organic Compounds (VOCs) by EPA Method 8240

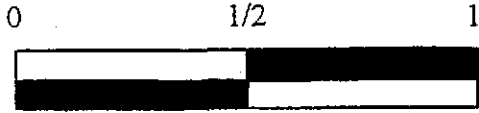
IV Report

After the lab analysis results are completed, the Office of Environmental Engineering will report to Alameda County Health Care Services Agency on the monitoring well installation, the soil and groundwater sampling and analyses, the groundwater gradient and direction, and our conclusions and recommendations regarding the site.

DRAFT

SAN FRANCISCO BAY

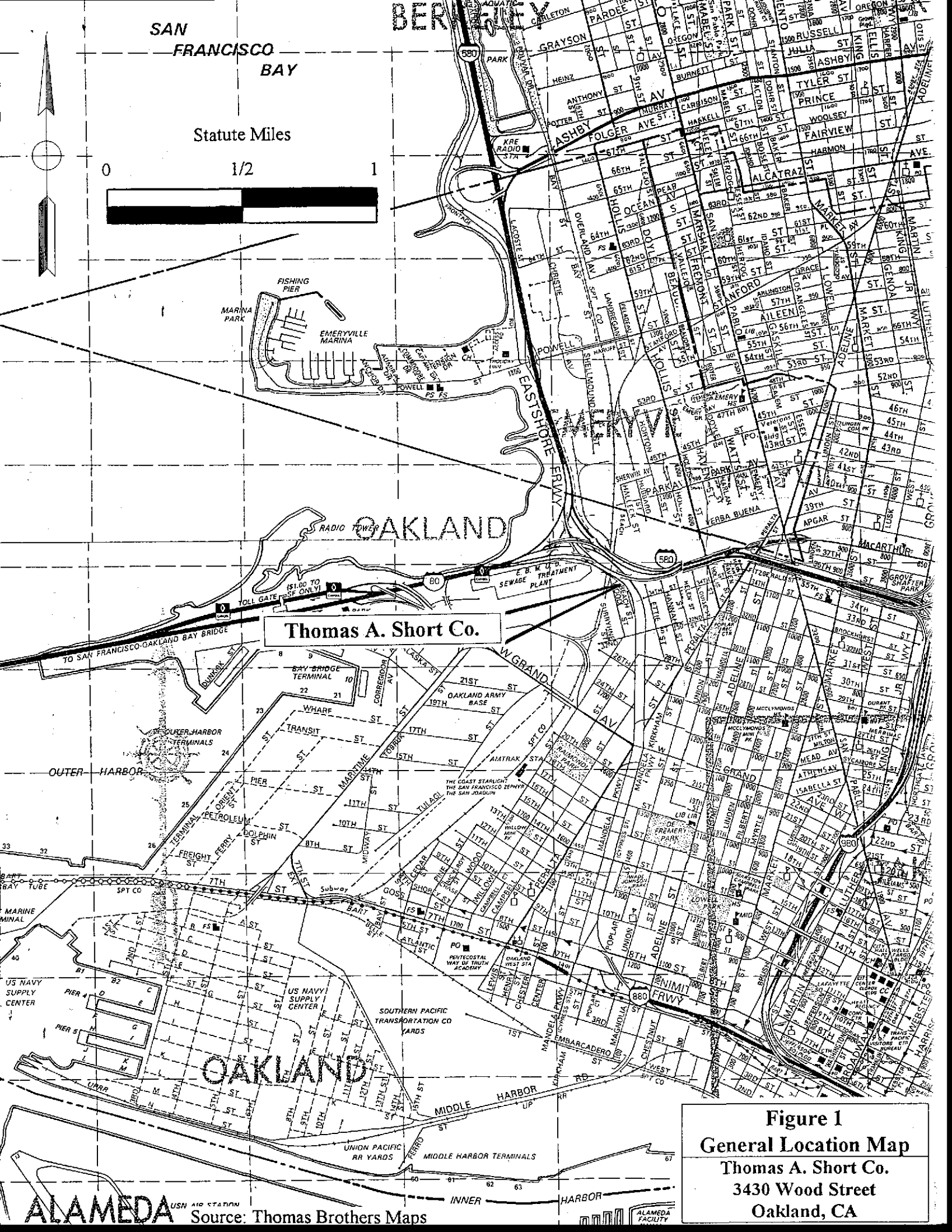
Statute Miles



BERKELEY

Thomas A. Short Co.

Figure 1
General Location Map
Thomas A. Short Co.
3430 Wood Street
Oakland, CA



ALAMEDA USN AND STATION Source: Thomas Brothers Maps

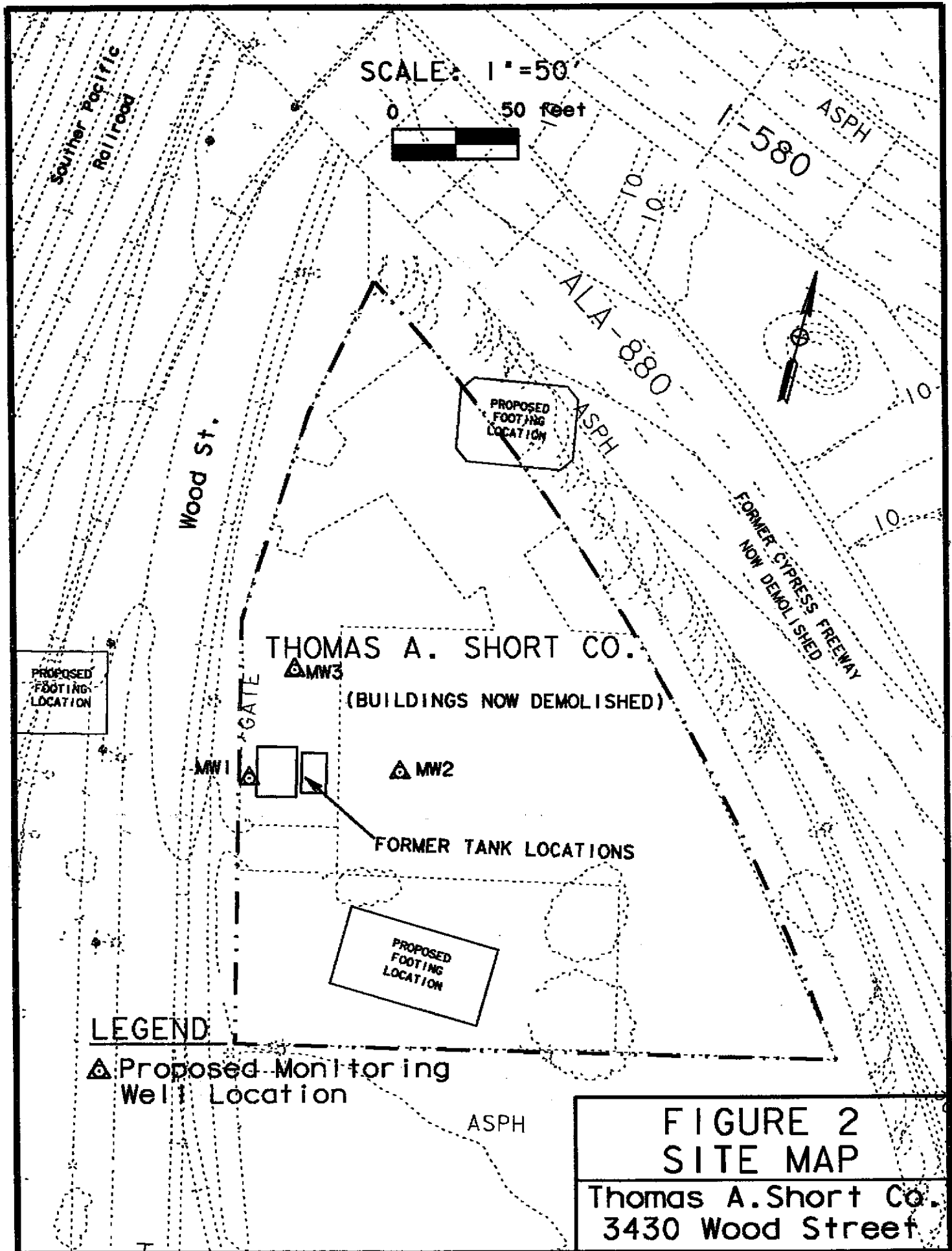


FIGURE 2
SITE MAP
 Thomas A. Short Co.
 3430 Wood Street