

Casimiro Damele  
3750 Victor Avenue  
Oakland CA 94619

DEC 07 2001

3 December 2001

Project No. P257

Letter Report  
Potential Conduit and Sensitive Receptor Study  
4401 Market Street  
Oakland CA

Dear Mr. Damele:

This letter report presents the results of our potential conduit and sensitive receptor study for 4401 Market Street, Oakland CA (Figure 1). Our study was conducted for an area within 500 feet of the subject property (Figure 2). Within this area, we researched:

- wells (domestic/residential, irrigation, agricultural, industrial)
- preferential hydrogeologic pathways
- surface water features
- other potential sensitive receptors

The results of our research are summarized below.

### **Wells**

The Alameda County Public Works Agency, Water Resources Section maintains a database of existing and former wells in Oakland (and other areas). We requested a search of the database for wells in the vicinity of 4401 Market Street. The search results (Attachment 1) revealed only monitoring wells within a 500-foot radius of the property. The monitoring wells were installed as part of the remedial investigations for 4401 Market Street.

In November 2001, we conducted a windshield survey of the area within 500 feet of 4401 Market Street; no evidence of domestic/residential, irrigation, agricultural, or industrial wells was observed.

4401 Market Street and the surrounding area are currently served by municipal water and have been for many years.

### **Preferred Hydrogeologic Pathways**

Data collected during drilling at the subject property indicate soils consist of layers of sand, clay, sandy silt and silty sand extending from ground surface to a depth of at least 25 feet (the maximum depth explored).

The groundwater table has been measured at depths ranging from 12 to 16 feet. The direction of groundwater gradient has typically been measured toward the southwest. The magnitude of groundwater gradient has typically been measured at 0.01.

There are no known faults, shear zones, buried stream channels, or other natural hydrogeologic pathways for preferred contaminant migration.

Buried utilities represent a potential preferred pathway for contaminant migration. We contacted the Oakland Public Works Department and obtained maps of buried utilities in the vicinity of 4401 Market Street. Water and gas are buried in the vicinity of 4401 Market Street, but at depths typically less than 3 feet (shallower than the groundwater table); accordingly, these utilities do not appear to provide a significant pathway for preferred contaminant migration.

Figure 3 shows stormwater and sanitary sewers in the vicinity of 4401 Market Street. We verified the presence of these utilities and made field measurements of their invert depths. The stormwater sewer is buried at a depth less than 7 feet (shallower than the groundwater table); accordingly, the stormwater sewer does not appear to provide a significant pathway for preferred contaminant migration. The 36-inch diameter sanitary sewer along Market Street is buried at a depth of approximately 16 feet (below the groundwater table) and could provide a pathway for preferred contamination migration.

### Surface Water Features

Surface water features are not mapped within 500 feet of 4401 Market Street (Figure 2). In November 2001, we conducted a windshield survey of the area within 500 feet of 4401 Market Street; no surface water features were observed.

4401 Market Street and the surrounding area are currently served by municipal stormwater sewers and have been for many years.

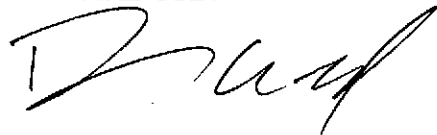
### Other Potential Sensitive Receptors

Other potential sensitive receptors include hospitals, schools, nursing homes, parks, playgrounds, wildlife preserves. Potential sensitive receptors are not mapped within 500 feet of 4401 Market Street (Figure 2). In November 2001, we conducted a windshield survey of the area within 500 feet of 4401 Market Street; no potential sensitive receptors were observed.

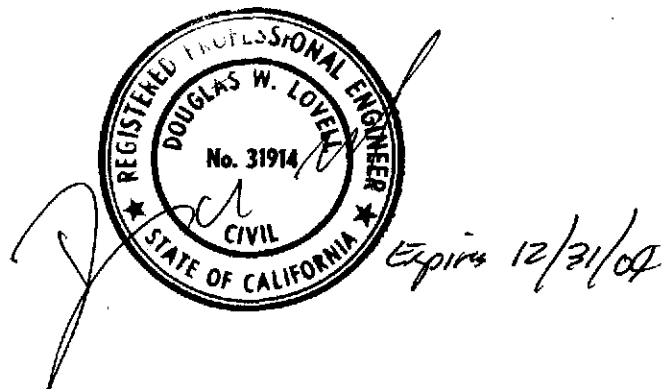
If you have any questions or comments, please call.

Sincerely,

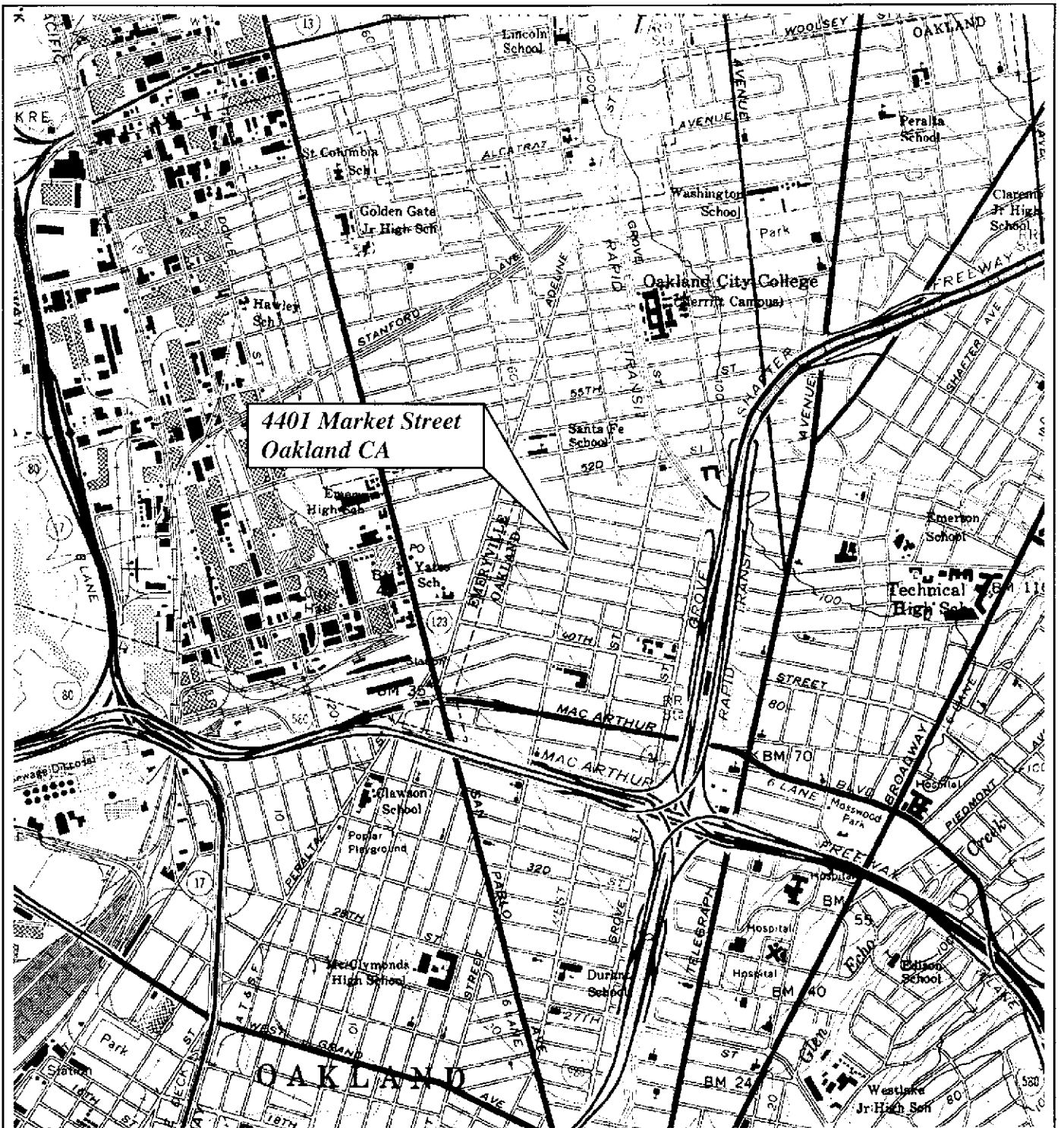
STREAMBORN



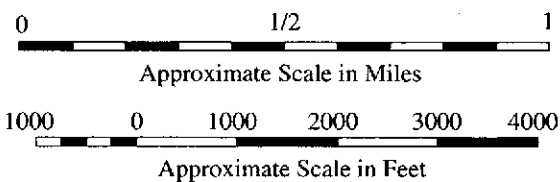
Douglas W. Lovell, PE  
Geoenvironmental Engineer



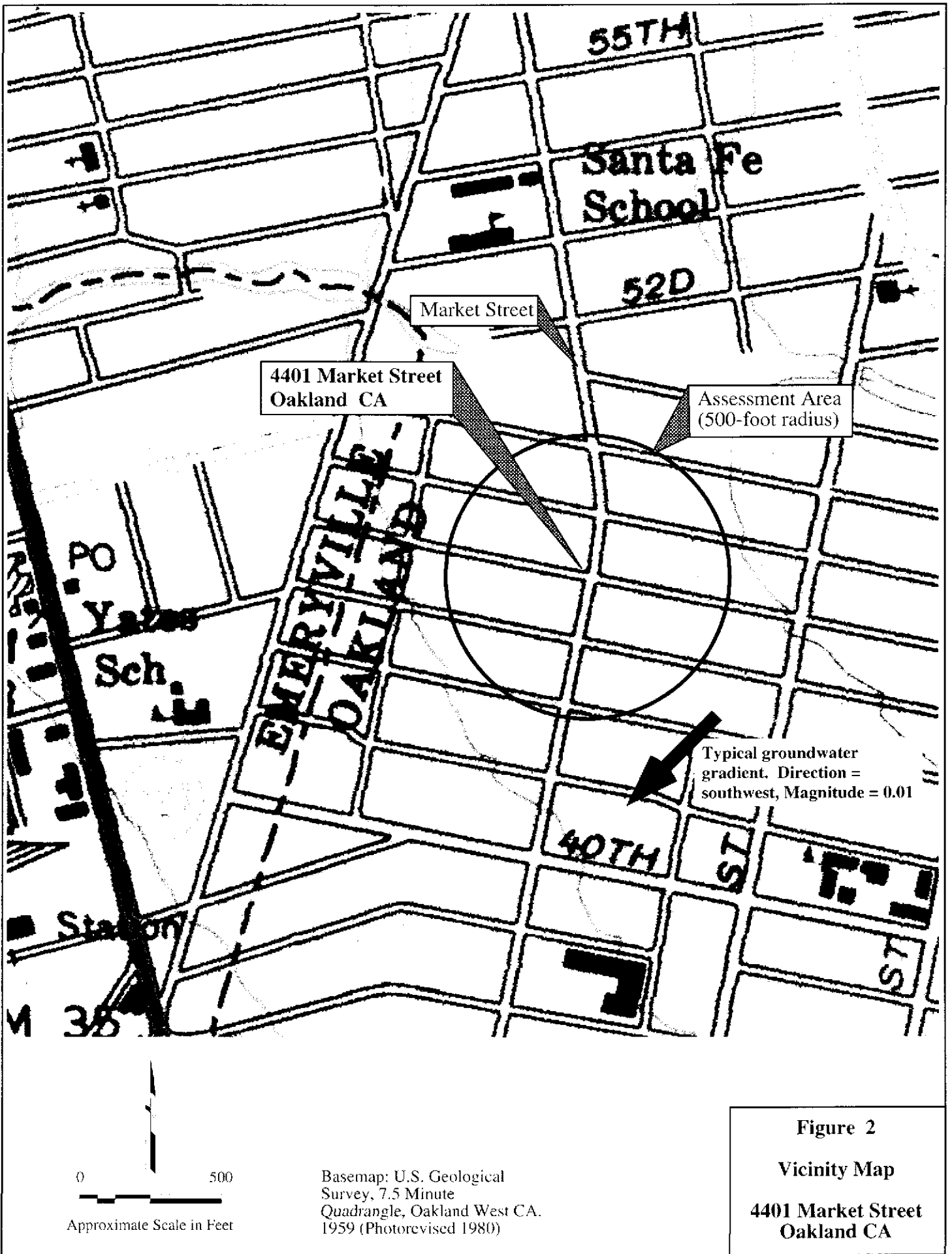
cc: Don Hwang/Alameda County Environmental Health Services, Alameda CA  
Christopher Fleming/San Leandro CA



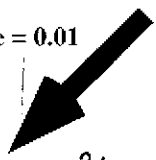
Basemap: U.S. Geological Survey, 7.5 Minute Quadrangle, Oakland West CA, 1959 (Photorevised 1980).



**Figure 1**  
**Location Map**  
**4401 Market Street**  
**Oakland CA**



Typical groundwater gradient. Direction = southwest, Magnitude = 0.01



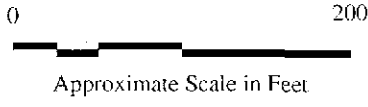
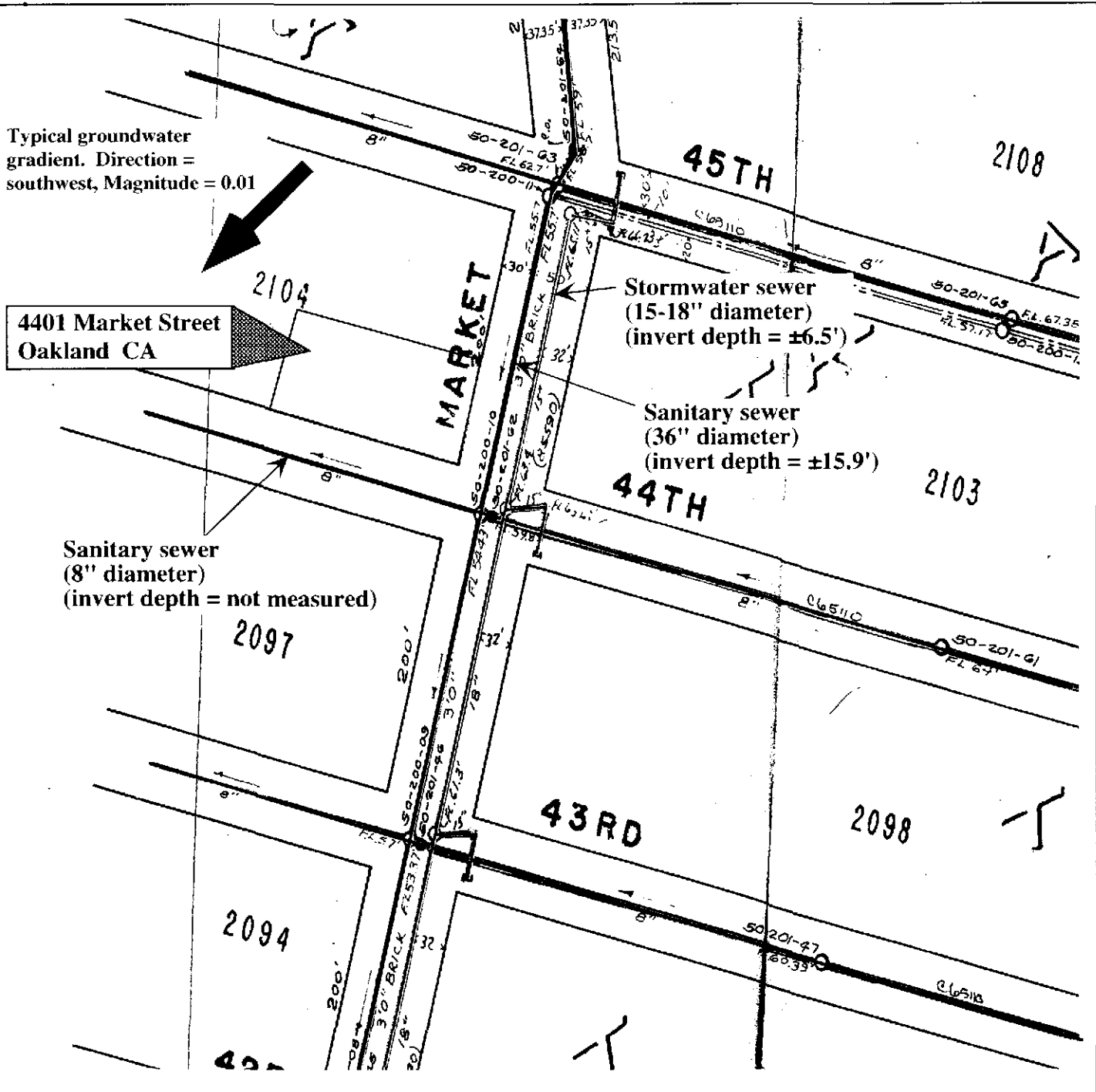
4401 Market Street  
Oakland CA



Sanitary sewer  
(8" diameter)  
(invert depth = not measured)

Stormwater sewer  
(15-18" diameter)  
(invert depth = ±6.5')

Sanitary sewer  
(36" diameter)  
(invert depth = ±15.9')



Legend

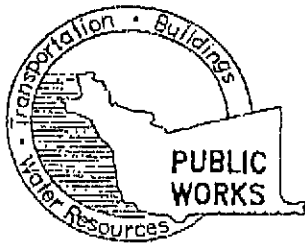
- Sanitary Sewer
- Stormwater Sewer

Figure 3

Stormwater and  
Sanitary Sewers

4401 Market Street  
Oakland CA

Basemap provided by the Oakland  
Public Works Department.



COUNTY OF ALAMEDA  
 PUBLIC WORKS AGENCY  
 WATER RESOURCES SECTION  
 399 Elmhurst Street, Hayward, CA 94544-1395

## FAX TRANSMITTAL

TO: *Streamborn*  
*Attn: Matt Hall*

DATE: *10-2-01*

FAX NO.: (510) 528-2613  
 TRANSMITTING THE FOLLOWING:

SHEETS	DATED	TITLE/DESCRIPTION
<i>1</i>		<i>well search for 4401 Market St. - Oakland.</i>

*(2)* TOTAL PAGES INCLUDING THIS SHEET.

FROM WATER RESOURCES SECTION

NAME: JAMES YOO

TEL: (510) 670-6633

FAX: (510) 782-1939

E-MAIL: jamesy@acpwa-mail.co.alameda.ca.us

IF YOU EXPERIENCE PROBLEMS WITH THIS TRANSMISSION, PLEASE CALL ME.

REMARKS: *-Matt's sorry no map. This was for a 0.5 mile radius - ~~7~~ took out all monitoring wells same list.*

4401 MARKET ST -

P. 02/02

FAX NO. 5107821939

ALAMEDA COUNTY PWA RM239

OCT-02-01 TUE 04:10 PM

Tr	Sect	Address	Owner	City	Drilldate	Total Depth	Water Depth	Diam	Use	Log	EAST	NORTH	EAST. DIST. FROM 1487959	DIST FROM SITE
1S/4W	23C 1	4401 Market St	Casimiro Damele	OAK	Oct-94	26	23	2	MON	G	1487959	490517	0	0
1S/4W	23C 2	4401 Market St	Casimiro Damele	OAK	Oct-94	28	26	2	MON	G	1487959	490517	0	0
1S/4W	23C 3	4401 Market St	Casimiro Damele	OAK	Oct-94	28	25	2	MON	G	1487959	490517	0	0
1S/4W	23E 1	989 41 ST	CALIFORNIA LINEN	SUAK	1/27	575	16	0	ABN	?	1487102	489757	-857	1145
1S/4W	34P 1	ADELINE ST	MOORE SHIPS CO.	OAK	?	504	79	0	IND	?	1487354	492461	-605	2036
1S/4W	34P 2	ADELINE ST	MOORE SHIPS CO.	OAK	?	273	98	0	IND	?	1487354	492461	-605	2036
1S/4W	14R13	747 52nd St	Children's Hospital	OAK	Dec-91	130	21	7	IRR	D	1489808	491725	1849	2208
1S/4W	14L 1	5702 ADELINE ST	HUGAST SANTOS	OAK	8/77	92	12	8	IND	D	1487591	493350	-368	2857
1S/4W	14R17	5131 Shattuck Ave	ARCO Products Co.	MOAK	Oct-92	27	17	4	TES	G	1490507	491932	2548	2914