BONKOWSKI & ASSOCIATES, INC.
GEOTECHNICAL SERVICES AND HAZARDOUS MATERIALS MANAGEMENT

August 20, 2012
Project No. E211346

Mr. Keith Nowell, PG, CHG
Alameda County Health Agency
Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502-6577

RE: Revisions to the Site Investigation Work Plan, 1534 Park Street, Alameda, California, Case No. RO0003080

Dear Mr. Nowell,

Thank you for your letter dated 2 August 2012 requesting additional information regarding the previously submitted Site Investigation Work Plan for 1534 Park Street, in Alameda, California (BAI, 15 May 2012). Revisions to the original Work Plan, based upon consideration of your comments, are provided herein. The original Work Plan and PPS are provided as Appendix A and B. Table 1 (attached) has been prepared to summarize the rationale for each sampling point described in the Work Plan. The PPS Utility/Conduit locations are summarized on Figure 1 and in Appendix B.

The Work Plan states that the investigation will be performed following ASTM Method D6235-04 (2010) and DTSC Vapor Intrusion Guidance (2011). Both of these methods prescribe the completion of a SCM (Task 1) based upon Site history reviews and characterizations. The Work Plan clearly states that what will follow as Tasks 2 and 3 is a soil and groundwater investigation, and soil vapor survey. Neither of these will be implemented until the results of Task 1 have been discussed with the ACDEH. We anticipate that additional locations may be tested for chemicals of concern in any medium, and that those proposed in the original Work Plan may be modified per our discussions and findings.

The soil gas survey is being conducted for two primary reasons, one of which is to evaluate the possible exposure of PCE and its breakdown chemicals into indoor air; the second to evaluate the extent of subsurface chlorinated solvent contamination in both soil and groundwater media, and soil vapor in close proximity to preferential pathways (Figure 1). The soil sampling locations were initially selected to evaluate these conditions in close proximity to utility line pathways. To address your concern regarding indoor air, one additional sampling point (SV-7) will be placed inside the building. Four soil samples have been previously collected from this location by AEI. One of these samples (SB-2), placed in close proximity to the former dry cleaning equipment, contained 5.5 mg/kg PCE (AEI, 2011). Rather than rely upon air modeling of this data, SV-7 will be placed in close proximity to SB-2 for the sole purpose of collecting an air sample (Figure 2). Additional step out soil vapor sample locations may be required (shown on Figure 1 as SV-8 and SV-9), but this is subject to the results of SV-7.

We appreciate the time needed to review this material, and we understand that your work load is substantial. We would also like to point out that the original findings of the PPS were previously presented to you in our meeting of April 11, 2012, and subsequently delivered electronically. Our report production schedule was based upon the date of our ACDEH meeting, determined by your availability.

BONKOWSKI & ASSOCIATES, INC.

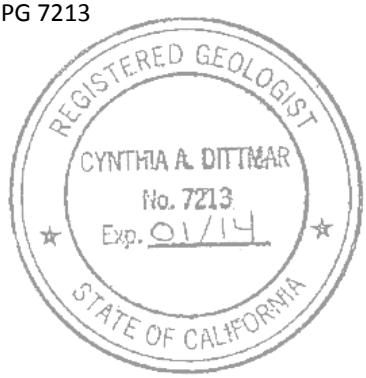
We plan to proceed with Task 1 of the Work Plan dated May 15, 2012, if we do not hear from you within 30 days. We consider Task 1, the completion of a SCM, an integral part of the work. As stated in the original Work Plan, we will discuss sample locations with ACDEH after the completion of this task, and prior to implementing any field work.

If you have any question or need any additional information, please do not hesitate to contact either of the undersigned at (510) 450 0770.

Sincerely,
BONKOWSKI & ASSOCIATES, INC.

Michael S. Bonkowski, PG CEG 1329 L.HG
Senior Managing Principal
Environmental and Engineering Services

Cynthia A. Dittmar, PG 7213
Project Geologist



cc Mr. Michael von Wittenau
Mr. Michael Reynolds, Esq.

ATTACHMENTS

Table 1	Soil Gas, Soil and Groundwater Sample Locations
Figure 1	Planned Soil Vapor and GeoProbe Sample Locations
Figure 2	Planned Indoor Soil Vapor Sample Location
Appendix A	Site Investigation Work Plan, May 15, 2012
Appendix B	Preferential Pathway Survey, July 26, 2012
Perjury Letter	

August 23, 2012

Mr. Keith Nowell, PG, CHG
Hazardous Materials Specialist
County of Alameda – Health Care Services, Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Subject: Revisions to the Site Investigation Work Plan
1534 Park Street, Alameda, California, Case No. RO0003080

Dear Mr. Nowell:

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document are true and correct to the best of my knowledge.

Sincerely yours,

Marcia Breese

Marcia Breese

Enclosure

BONKOWSKI & ASSOCIATES, INC.

TABLES

Table 1. Soil Gas, Soil and Groundwater Sample Placement Summary
1534 Park Street, Alameda, California

Sample	Technical Rationale[1]
GP-1/ SV-1	To identify soil, groundwater and soil vapor quality upgradient of the Site, between other known sources (see AEI Report Phase 1 ESA, 2011) and also along the Alameda Power Electric Line trench.
GP-2/ SV2	To identify soil, groundwater and soil vapor quality immediately down groundwater gradient of the Site, and in possible phnone lines (verbal communication from ATT).
GP-3/ SV-3	To identify soil, groundwater, and soil vapor quality cross gradient of the Site. This location is in close proximity to the Alameda Power Electric Line Trench, Sewer Line Trench, and Water Line Trench.
GP-4/ SV-4	To identify soil, groundwater, and soil vapor quality cross gradient of the Site. This location is in close proximity to the Alameda Power Electric Line Trench, Sewer Line Trench, and Water Line Trench.
GP-5/ SV-5	To identify soil, groundwater, soil vapor quality down groundwater gradient of the Site.
GP-6/ SV-6	To identify soil, groundwater, soil vapor quality down groundwater gradient of the Site.
SV-7	To test soil vapor within known soil source area, and in close proximity to the location of the former dry cleaning equipment. Data will be used to calculate the risk of exposure to indoor air, if it exceeds the ESL.
SV-8	This location will be sampled, if the concentration of PCE and its breakdown products exceed their respective ESLs in SV-7; or if the risk of vapor exposure at SV-7 fails DTSC exposure thresholds.
SV-9	This location will be sampled, if the concentration of PCE and its breakdown products exceed their respective ESLs in SV-7; or if the risk of vapor exposure at SV-7 fails DTSC exposure thresholds.

[1] - Proposed sample locations are based upon the results of the PPS, and are subject to change with the completion of the SCM.

BONKOWSKI & ASSOCIATES, INC.

FIGURES

LEGEND

SV-1 GP-1 — Soil Vapor or GeoProbe Sample Location

1534 — Site

Building

Sanitary Sewer, Arrow Indicates Flow Direction

EBMUD Water Line

Alameda Power Electric Line

APPROXIMATE SCALE:

50 0 50 100 feet

Project No. E211346	1534 PARK STREET ALAMEDA, CALIFORNIA	PLANNED SOIL VAPOR AND GEOPROBE SAMPLE LOCATIONS	Revised Figure 1
Bonkowski & Associates, Inc.			

LEGEND

SV-7 Planned Soil Vapor Sample Location

Subject Property

SB-1 Soil Boring (AEI)

APPROXIMATE SCALE:
0 16 32
Feet

Source: AEI (2011)

Project No. E211346	1534 PARK STREET ALAMEDA, CALIFORNIA	PLANNED INDOOR SOIL VAPOR SAMPLE LOCATION	Figure 2
Bonkowski & Associates, Inc.			

BONKOWSKI & ASSOCIATES, INC.

APPENDIX A

BONKOWSKI & ASSOCIATES, INC.
GEOTECHNICAL SERVICES AND HAZARDOUS MATERIALS MANAGEMENT

May 15, 2012
Project No. E211346

Mr. Keith Nowell, PG, CHG
Alameda County Health Agency
Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502-6577

RE: Site Investigation Work Plan, 1534 Park Street, Alameda, California

Dear Mr. Nowell,

This letter Site Investigation Work Plan for the former dry cleaners at 1534 Park Street in Alameda, California was prepared on behalf of Michael von Wittenau et al. by Bonkowski & Associates, Inc. This plan is submitted to the Alameda County Department of Environmental Health (ACDEH) in response to the letter directive dated January 12, 2012. Pursuant to the requirements of the directive, and agreements made in a meeting with the ACDEH on April 11, 2012, this report develops an investigative approach to evaluate the extent of PCE in shallow soils and groundwater, while gathering enough information to evaluate the risks of exposure to this chemical. This technical approach follows ASTM Method D6235-04(2010), *Standard Practices for Expedited Site Characterization of Vadose Zone and Groundwater Contamination at Hazardous Waste Contaminated Sites;* and evaluates risk associated with exposure following DTSC Final *Guidance For The Evaluation And Mitigation of Subsurface Vapor Intrusion to Indoor Air (Vapor Intrusion Guidance)*, (October 2011).

This technical approach requires: 1) the preparation of a working Site Conceptual Model, 2) the completion of shallow soil and groundwater quality investigation in close proximity of the source to determine the extent of contamination and risk associated with exposure to tetrachloroethene (PCE) in residual soil, and 3) completion of a soil gas survey to further evaluate various indoor air risk exposure scenarios. The work elements required to complete these tasks are described in subsequent sections below.

Task 1: Working Site Conceptual Model

Prior to conducting any field work, Bonkowski & Associates, Inc. will prepare a working Site Conceptual Model to evaluate existing soil and groundwater contaminant migratory pathways, water quality in the area of the Site, and potential receptors. This will include the preparation of lithologic cross-sections, water level maps, and isoconcentration contour maps, to evaluate the location and possible magnitude of contaminants in the immediate area of the Site (if necessary). Based upon these finding, Bonkowski & Associates, Inc. will perform a subsurface investigation, at locations likely to assess the limits of PCE in shallow soil and groundwater. This information will be used to refine the area of investigation

described in Tasks 2 and 3 and identify possible additional sources. The results of this task will be discussed with ACEHD prior to the implementation of Tasks 2 and 3.

Task 2: Soil and Groundwater Investigation

The first phase of field work is designed to confirm that PCE is present in the immediate vicinity of the Site, and beneath the sewer line lateral that discharges from the property onto Park Street. To complete this task, GeoProbe borings GP-1, GP-2, GP-3, GP-4, GP-5 and GP-6 will be advanced to the top of the shallow groundwater as locations shown on Figure 1. Boring GP-1 is located to sample soils immediately adjacent to and beneath the above referenced sewer line. GP-3 and GP-4 are also located to test soils and groundwater in close proximity to the main sewer line, to evaluate up-gradient sources. The remaining borings are placed downgradient of the Site and will be used to identify PCE that may have migrated downgradient from the former dry cleaners.

The GeoProbe borings will be advanced by a state licensed C-57 well driller, to approximate depths of 15 feet, or the top of the shallow-most groundwater, whichever occurs first. Soil samples will be collected continuously using a clear 4-foot long core barrels placed inside the GeoProbe sampler. Soil samples will be collected from the unsaturated zone at five foot intervals for chemical analysis by EPA Method 8260. The soil cores will be continuously logged by a field geologist the Unified Soils Classification System (USCS) Visual-Manual Procedure ASTM D2488. Organic vapors will be monitored by the field geologist using a photoionization detector and a portable combustible gas meter. To further investigate PCE contamination, grab groundwater samples will be collected and tested by EPA Method 8260, at the completion of each GeoProbe advance.

Task 3: Soil Gas Survey

A soil gas survey will be conducted to evaluate the potential for vapor intrusion to indoor air pathways. Six (6) samples (SV-1, SV-2, SV-3, SV-4, SV-5 and SV-6) will be collected at the approximate locations shown in Figure 1. These locations may be modified based on the results of Task 2 above. The object of this work will be to evaluate the concentrations of any PCE and its breakdown products in vapor that may be present in the soil. In order to reduce the effects of barometric pumping, all vapor samples will be collected approximately five (5) feet below the ground surface (bgs). The depth to groundwater at the site ranges from 11.79 to 13.15 feet bgs. If the target depth cannot be reached, a vapor sample from the closest practical depth will be collected.

Soil gas probes will be advanced using direct push technology. After each probe is advanced to the target depth, the probe will be allowed to set 20 to 30 minutes to allow the vapor and fluid pressures in the ground to equilibrate. At each given soil gas sampling location point, two attempts will be made to obtain gas samples. If the first attempt fails, the sampling

probe will be withdrawn and re-driven a few feet away. This field procedure is in accordance with USEPA Method 5035 and DTSC (2011) guidance documents.

A tracer gas will be applied to the soil gas probes at each point of connection in which ambient air could enter the sampling system. These points include the top of the sampling probe where the tubing meets the probe connection and the surface bentonite seals

The soil gas samples will be tested in the field using a mobile GC/MS laboratory using modified EPA Method 8260 for aromatic and volatile hydrocarbons. The vapor sample collected from each probe location will be tested for:

- Tetrachloroethene (PCE)
- Trichloroethene (TCE)
- 1,1-dichloroethene
- cis-1,2-dichloroethene
- trans-1,2-dichloroethene, and
- Vinyl Chloride

If a mobile lab is not available, the vapor samples will be collected in Summa™, or equivalent, canisters and transported to a California Certified analytical laboratory. The sample will be analyzed using method TO-15.

Task 4: Data Analysis and Reporting

A report will be prepared by Bonkowski & Associates, Inc. describing the findings and conclusions of the field investigation, and will present a working Site Conceptual Model. The report will include a description of subsurface lithologies as shown in cross-sections, residual PCE in soil and dissolved PCE isoconcentration maps, groundwater elevation contour maps, and tabulated chemical test results (as required). The report may recommend further investigation, or possible corrective actions, depending upon the concentration of PCE.

Regardless, if the concentration of PCE in soil gas samples collected adjacent to the building exceed the DTSC prescribed indoor air exposure pathway screening levels, a risk assessment will be performed according the guidelines in the DTSC *Final Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air*, October 2011. If the information gathered by this investigation do not warrant further investigation based upon the risk of exposure to soil vapor, or soil and groundwater pathways, then the conditions previously reported by AEI will be assumed to only represent a nuisance, and recommendations will be made for regulatory closure.

HEALTH AND SAFETY AND PERMITTING

Bonkowski & Associates, Inc. has an excellent health and safety training and monitoring program. Bonkowski & Associates, Inc. will prepare a Site Health and Safety Plan prior to conducting any fieldwork. The Health and Safety Plan will address 29 Code of Federal Regulations (CFR) 1910.120 requirements regarding basic 40-hour health and safety training, supervisor training and annual refresher training. The work will be performed in Level D protection, unless field conditions otherwise warrant.

Drilling permits will be obtained from Alameda County to advance GeoProbe and soil gas survey borings on this Site. Underground utilities will be checked by notifying Underground Service Alert and confirmed at each well location using a commercial underground utility locator.

CERTIFICATION STATEMENT

This Work Plan has been prepared by the staff of Bonkowski and has been reviewed and approved by the professionals whose signatures appear below. The findings, recommendations, specifications, or professional opinions are presented, within the limits prescribed by the Client, after being prepared in accordance with generally accepted engineering practice in Northern California at the time this Work Plan was prepared. No other warranty is either expressed or implied.

Bonkowski & Associates, Inc. will begin this work within five days of our authorization to proceed. Please feel free to contact either of the undersigned professionals at (510) 450-0770 if you have any questions or need any additional information.

Sincerely,

Bonkowski & Associates, Inc.

Michael S. Bonkowski

Michael S. Bonkowski, PG CEG 1329
Senior Managing Principal
Environmental and Engineering Services

Cynthia A. Dittmar

Digitally signed by Cynthia A. Dittmar
DN: cn=Cynthia A. Dittmar, c=US, ou=Bonkowski and Associates, Inc., email=Cindy@Bonkowski.com
Date: 2012.05.15 11:59:50 -07'00'

Cynthia A. Dittmar, PG 7213
Project Geologist

REGISTERED GEOLOGIST
CYNTHIA A. DITTMAR
No. 7213
Exp. 1/14
STATE OF CALIFORNIA

cc Mr. Michael von Wittenau
Mr. Michael Reynolds, Esq.

ATTACHMENTS

Figure 1 Planned Soil Vapor and GeoProbe Sample Locations
Perjury Letter

LEGEND

SV-1 GP-1 — Soil Vapor or GeoProbe Sample Location

Building

Sanitary Sewer, Arrow Indicates Flow Direction

APPROXIMATE SCALE:

50 0 50 100 feet

Project No. E211346	1534 PARK STREET ALAMEDA, CALIFORNIA	PLANNED SOIL VAPOR AND GEOPROBE SAMPLE LOCATIONS	Figure 1
Bonkowski & Associates, Inc.			

May 11, 2012

Mr. Keith Nowell, CHG
Hazardous Materials Specialist
County of Alameda – Health Care Services, Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Subject: **Site Investigation Work Plan**
1534 Park Street, Alameda, California

Dear Mr. Nowell:

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document is true and correct to the best of my knowledge.

Sincerely yours,

Michael von Wittenau

Enclosure

BONKOWSKI & ASSOCIATES, INC.

APPENDIX B

BONKOWSKI & ASSOCIATES, INC.
GEOTECHNICAL SERVICES AND HAZARDOUS MATERIALS MANAGEMENT

July 26, 2012
Project No. E211346

Mr. Keith Nowell, PG, CHG
Alameda County Health Agency
Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502-6577

RE: Preferential Pathway Survey, 1534 Park Street, Alameda, California
Former Bell Cleaners, Case No. RO0003080

Dear Mr. Nowell,

This letter report documents the results of a search of underground utilities and wells located in close proximity to the former Bell Cleaners located at 1534 Park Street in Alameda, California. A Site location map is provided as Figure 1. The results of this work were presented to the ACDEH in a meeting on April 11, 2012, and were supplemented per your request of July 9, 2012. Based upon discussions held in that meeting, the drawings, plans, utility maps, etc., provided by others were considered to help identify locations requiring contaminant migratory pathway investigation, described in the Site Investigation Work Plan for 1534 Park Street, Alameda, California (Bonkowski, 15 May 2012).

The information described herein includes site plan maps drawn by the property owner, Department of Water Resources Well Logs, East Bay Municipal Utility District water line plans, Alameda Power utility line plans, and City of Alameda sanitary and storm sewer plans. PG&E would not provide information on the location or details of its gas lines. AT&T has not provided the location of underground telephone lines. Historic land use was discussed in the Phase I Site Assessment prepared by AEI Consultants also attached herein (June 2011). The results of our survey are briefly described below.

Site Plan Map and Well Survey

A Site Plan map of the former Bell Dry Cleaners is provided as Figure A-1, Appendix A. The map was prepared by the site owner. The map shows the locations of the former dry cleaning equipment. The locations of through floor fittings and associated piping are not available.

The results of a search of the California Department of Water Resources (DWR) and Geotracker for wells located within ¼ mile of the Site. A review of this information indicates that at least 67 groundwater wells are located within this radius. The approximate locations of these wells are plotted on Figure 2 where detailed information is available. According to the records of the DWR, only one well is utilized for water supply. This well is located at 2538 Lincoln Avenue (Appendix B, Figure B-1). The well is screened from 9 to 17 feet, but sealed from 0 to 8 feet (Appendix B). The construction of this well prohibits its use as a potable supply well (California Well Standards, 74-81, 1981 and 74-90, 1991).

East Bay Municipal Utilities District Water Line Plans

EBMUD maintains water lines in the City of Alameda. A copy of the EBMUD water line is provided as Figure C-1, in Appendix C. As shown, the main water line serving the property is a 12-inch steel pipe located along the northwest side of Park Street. The pipe was installed in 1920. Two lines are located along Lincoln Avenue. A 24-inch steel pipe mortar lined and coal tar enamel coated is located near the centerline of the Street. According to plan maps, this pipe was installed in 1935. The second line is located on the northeast side of the street. This line was installed in 1980, and consists of bare cast iron pipe. A 6-inch bare cast iron line is also located on Webb Avenue. According the EBMUD, this line was installed in 1994. The depths of these pipes are unknown.

Alameda Power Electric Line Plans

Electricity for the Site is provided by Alameda Municipal Power. Lines serving the property, and also the locations of trunk lines, secondary lines, and service lines are shown in Figure D-1, Appendix D. Electric lines located on the southeast side of Park Street include an underground primary trunk line, underground secondary line, and trunk lines. Overhead primary, underground primary, and underground secondary and service lines are located along Lincoln Avenue. Underground secondary lines on the northeast side of Webb Street extend from the property at 2411 Webb southeastward. Underground primary trunk lines and underground secondary lines on the southwest side of Webb extend to Park Street. The depths of these lines are not known.

City of Alameda Sewer Lines Plans

The size, location and flow directions of the sanitary sewer lines in the vicinity of the Site are shown in Appendix E. The City of Alameda provides sewer service for the Site. A 10-inch line is located below the centerline of Park Street. The line flows to the northeast. A 6-inch line is located on Lincoln Avenue. Flow from this line is directed northwest into a line on Park Street. An 8-inch line is located beneath Webb Avenue. Flow in this line is directed toward the northwest into the line on Park Street.

We trust that this provides the information you have requested. Please feel free to contact our Project Manager Ms. Cynthia Dittmar at (510) 450-0770 if you have any questions or need any additional information.

Sincerely,
Bonkowski & Associates, Inc.

Michael S. Bonkowski, PG CEG 1329
Senior Managing Principal
Environmental and Engineering Services

Cynthia A. Dittmar, PG 7213
Project Geologist

cc Mr. Michael von Wittenau
Mr. Michael Reynolds, Esq.

Attachments

East Bay Municipal Utilities District Water Line Plans

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The size, location and flow directions of the sanitary sewer lines in the vicinity of the Site are shown in Appendix E. The City of Alameda provides sewer service for the Site. A 10-inch line is located below the centerline of Park Street. The line flows to the northeast. A 6-inch line is located on Lincoln Avenue. Flow from this line is directed northwest into a line on Park Street. An 8-inch line is located beneath Webb Avenue. Flow in this line is directed toward the northwest into the line on Park Street.

We trust that this provides the information you have requested. Please feel free to contact our Project Manager Ms. Cynthia Dittmar at (510) 450-0770 if you have any questions or need any additional information.

Sincerely,
Bonkowski & Associates, Inc.

Michael S. Bonkowski

Michael S. Bonkowski, PG CEG 1329
Senior Managing Principal
Environmental and Engineering Services

Cynthia A. Dittmar

Digitally signed by Cynthia A. Dittmar
DN: cn=Cynthia A. Dittmar, c=US, o=Bonkowski and Associates, Inc., email=Cindy@Bonkowski.com
Date: 2012.07.30 16:09:28 -07'00'

Cynthia A. Dittmar, PG 7213
Project Geologist

REGISTERED GEOLOGIST
CYNTHIA A. DITTMAR
No. 7213
Exp. 01/12
STATE OF CALIFORNIA

cc Mr. Michael von Wittenau
Mr. Michael Reynolds, Esq.

Attachments

BONKOWSKI & ASSOCIATES, INC.

FIGURES

LEGEND

Building

Sanitary Sewer, Arrow Indicates Flow Direction

APPROXIMATE SCALE:

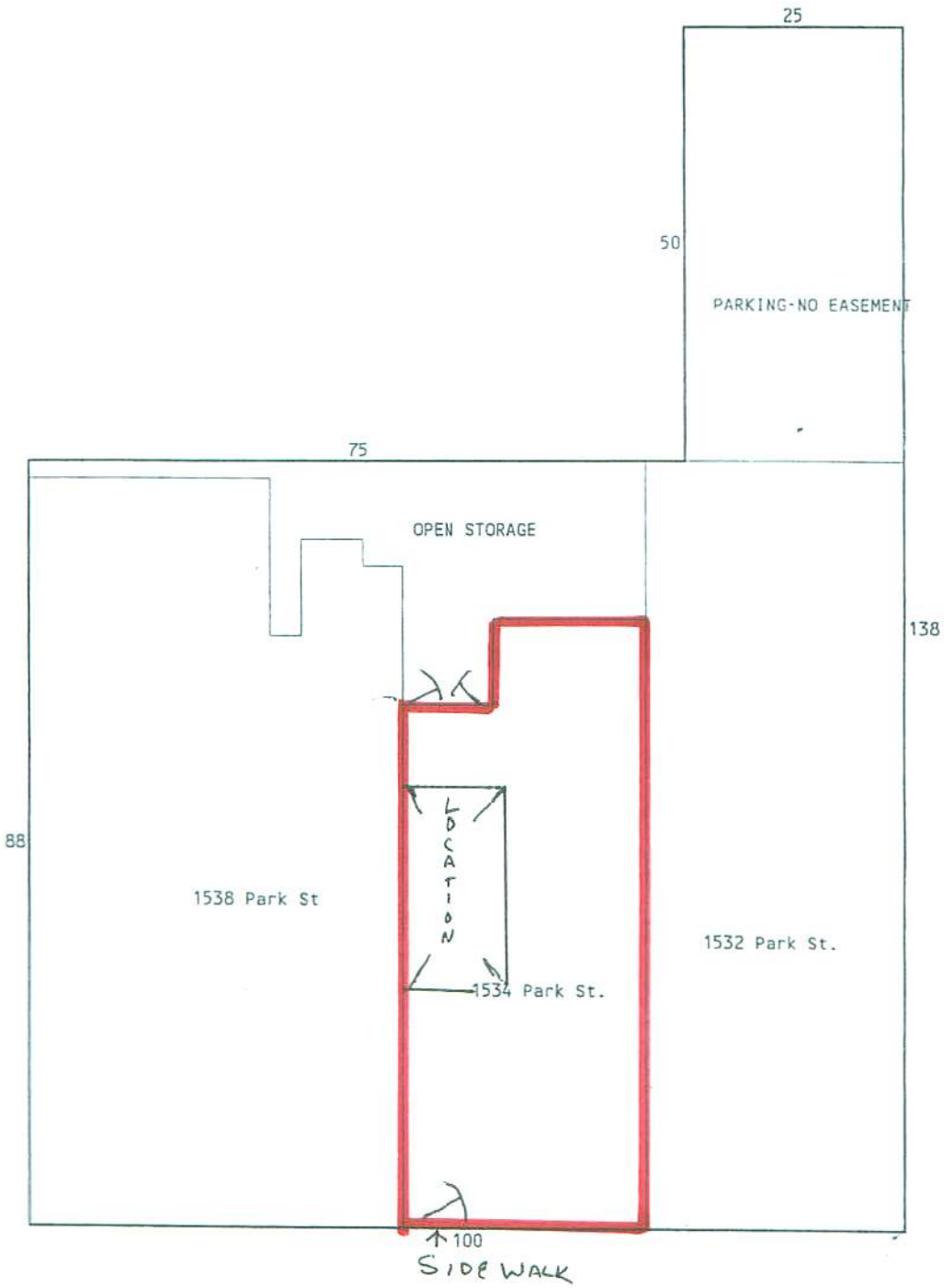
50 0 50 100 feet

Project No. E211346	1534 PARK STREET ALAMEDA, CALIFORNIA	SITE VICINITY MAP	Figure 1
Bonkowski & Associates, Inc.			

BONKOWSKI & ASSOCIATES, INC.

APPENDIX A

SITE PLAN - SUBJECT PROPERTY

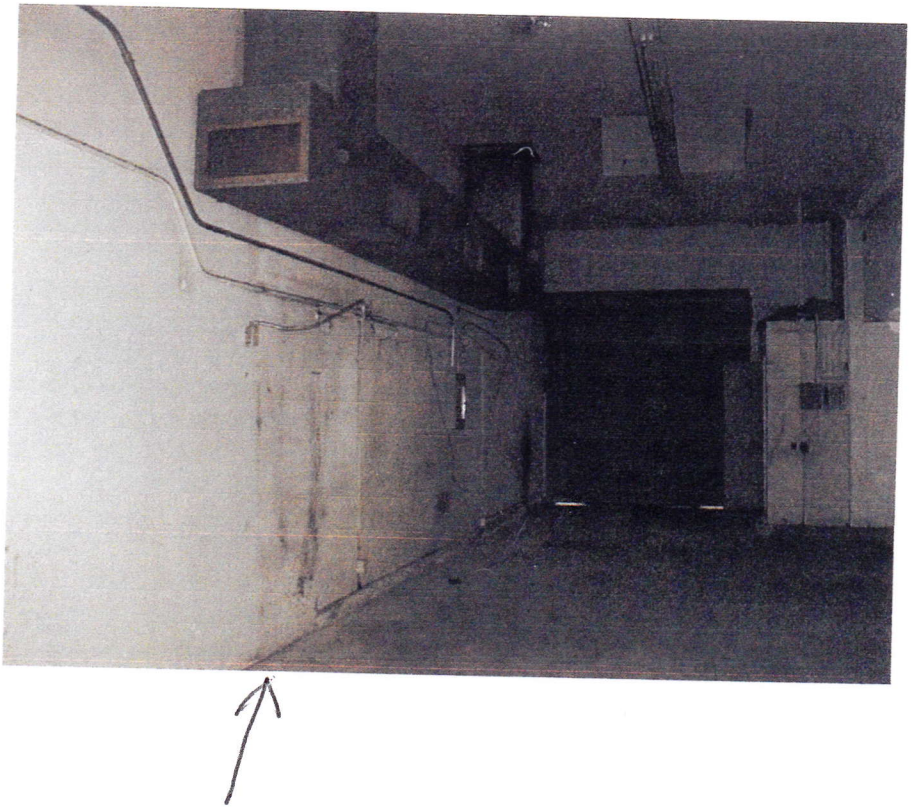


SITE PLAN

PARK STREET

Subject property photographs

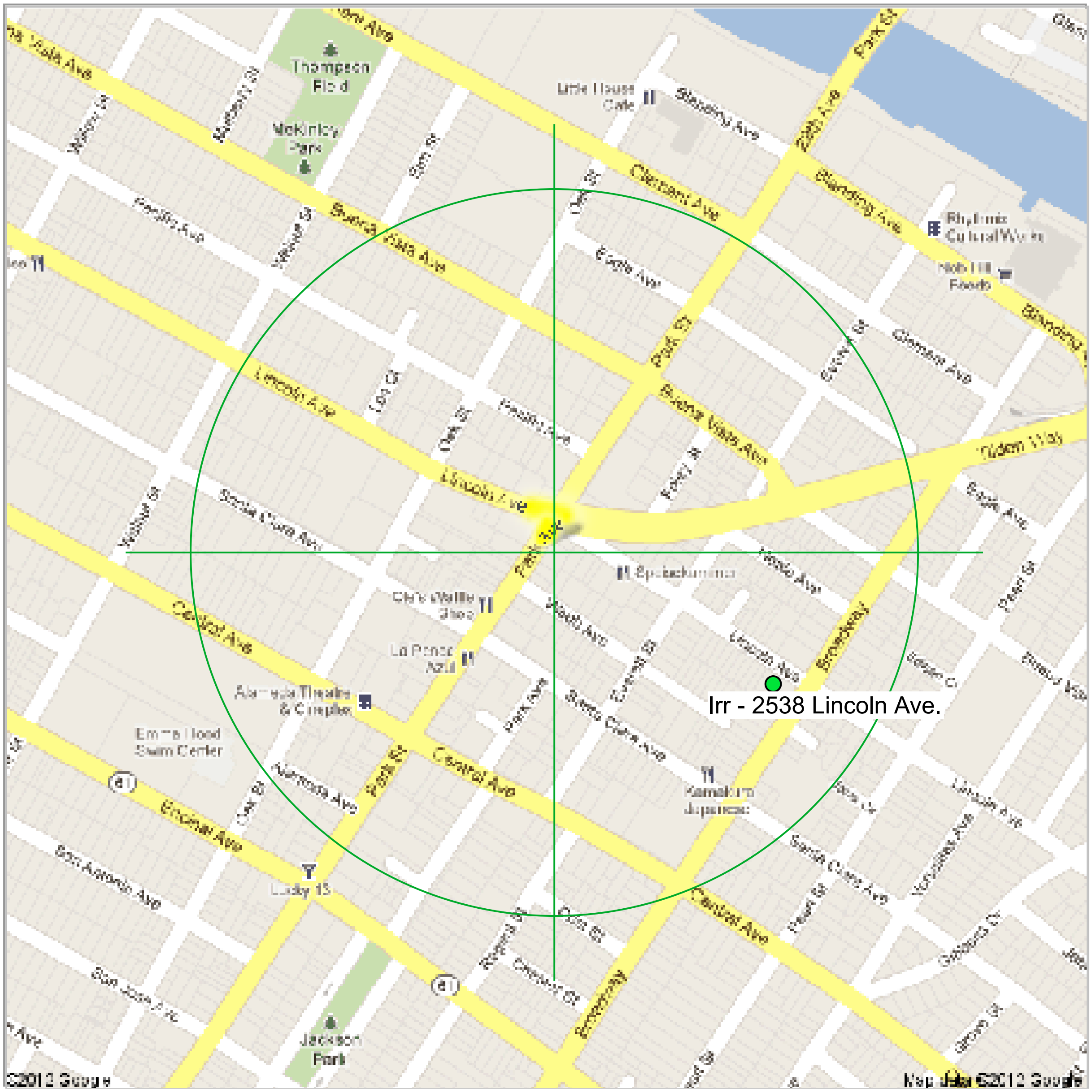
1534 Park St. - Interior
Vacant



1534 Park St. - Interior
Vacant

BONKOWSKI & ASSOCIATES, INC.

APPENDIX B



LEGEND

Address — Approximate Well Location

1/4 mile Radius

Approximate Scale (feet):

200 0 200 400 600

Note: Irr - Irrigation

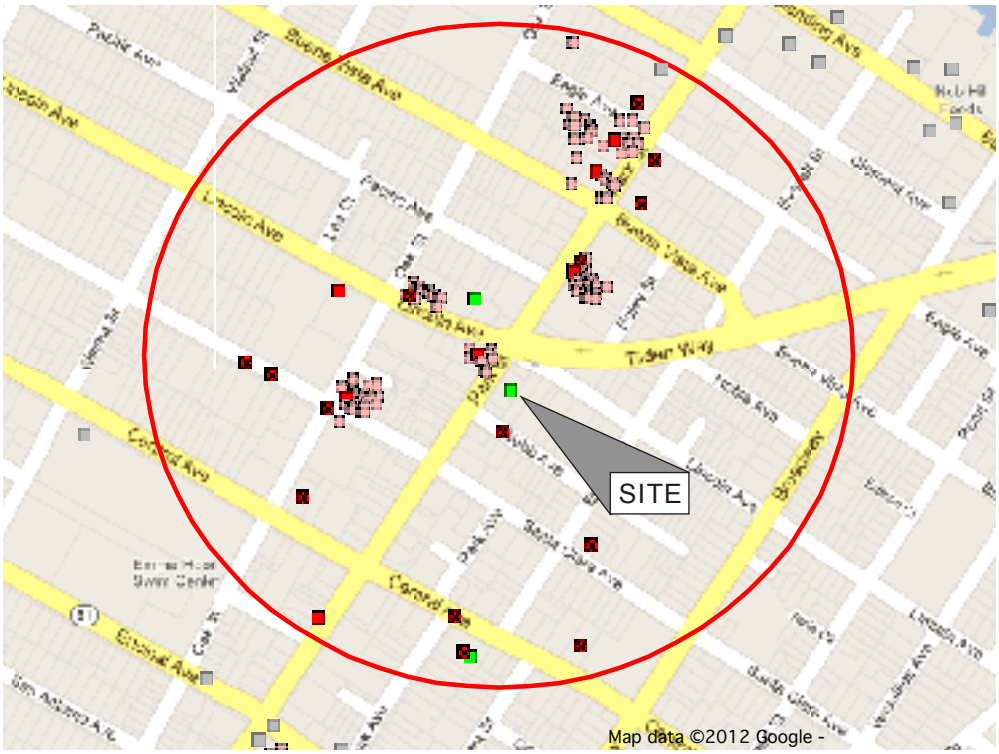
Source: Google Maps

Project No. E211346	FORMER BELL CLEANERS	WELL LOCATIONS 1534 PARK STREET ALAMEDA, CALIFORNIA	Figure B-1
Bonkowski & Associates, Inc.			

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED



SHOW SITES WITHIN 1320 FEET OF THE FOLLOWING ADDRESS: 1534 Park Street, Alameda

LEGEND

- SIGNIFIES A CLOSED SITE
- Leaking Underground Tank (LUST) Cleanup Sites
- Other Cleanup Sites
- Land Disposal Sites
- Military Sites
- WDR Sites
- Monitoring Wells
- DTSC Cleanup Sites

N

Source: GeoTracker

Project No. E211346	1534 PARK STREET ALAMEDA, CALIFORNIA	MONITOR WELL LOCATIONS	Figure B-2
Bonkowski & Associates, Inc.			

BONKOWSKI & ASSOCIATES, INC.

APPENDIX C

LEGEND

Site

Water Line

Source: EBMUD

Project No. E211346	1534 PARK STREET ALAMEDA, CALIFORNIA	EAST BAY MUNICIPAL UTILITY DISTRICT WATER LINES	Figure C-1
Bonkowski & Associates, Inc.			

EAST BAY MUNICIPAL UTILITY DISTRICT
ENGINEERING SERVICES DIVISION
MAIL SLOT 503

DATE: 3/13/2012

SEND TO: Bonkowski and Associates
6400 Hollis Street, Suite 4
Emeryville, CA 94608

FAX NUMBER: (510) 450-0801

NUMBER OF SHEETS TRANSMITTED (including this cover sheet): 10

FROM: P. Quiachon; Drafter III; EBMUD ESD, Mapping Services
Mapping Services Phone: (510) 287-1049
Mapping Services Fax: (510) 287-1260

ATTENTION: Cynthia Dittmar, Project Manager

SUBJECT: Your map request for 1534 Park St., Alameda, CA

Dear Cynthia,

As you've requested via phone on March 9, 2012, attached are letter-size copies of portions of EBMUD maps 1494B464 and 1497B464. These map copies show EBMUD water utility facilities around 1534 Park St., Alameda, CA and vicinity.

Please take note that these drawings are for general reference only and not drawn to scale.

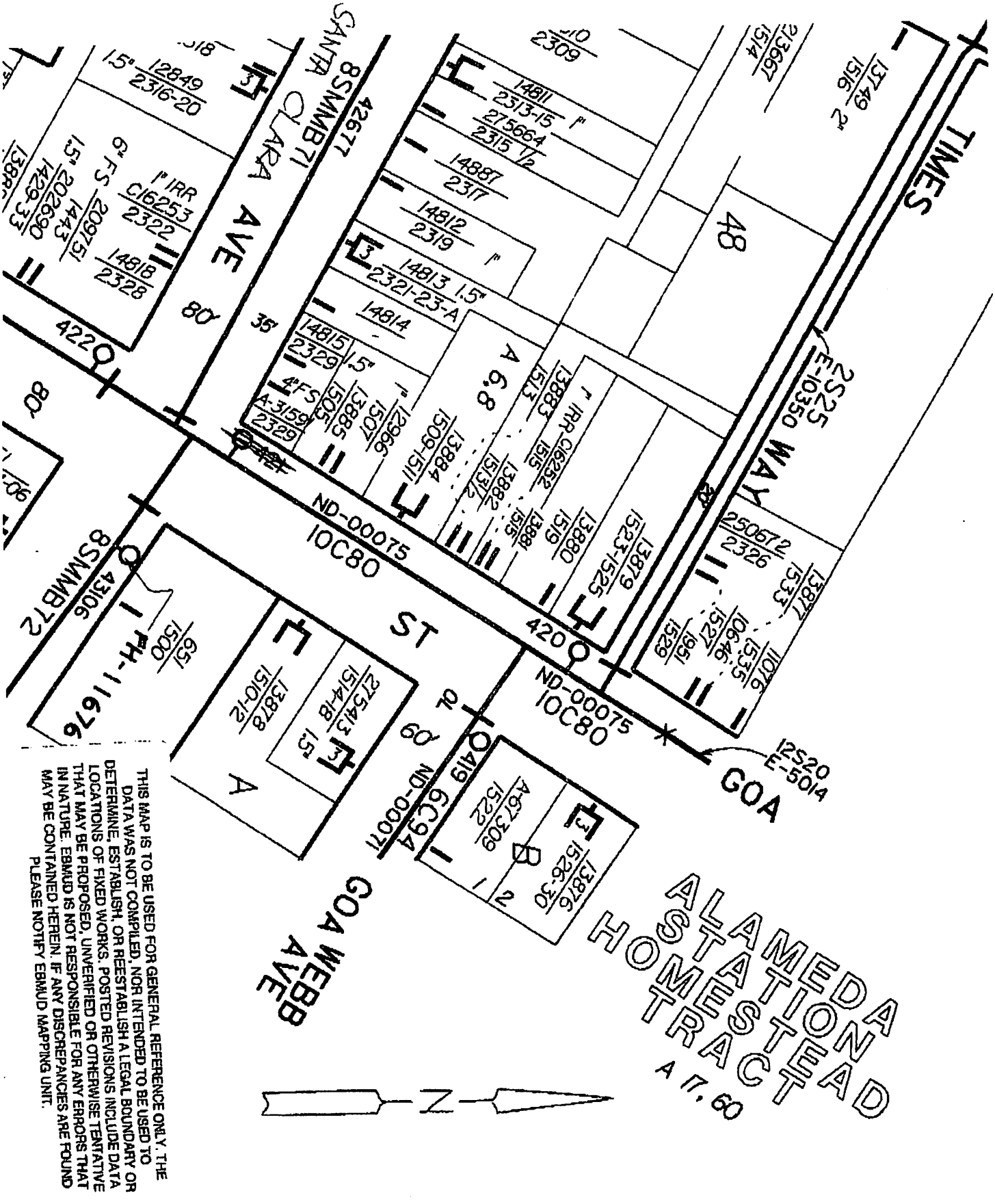
You can contact me via the number indicated above, should you have questions.

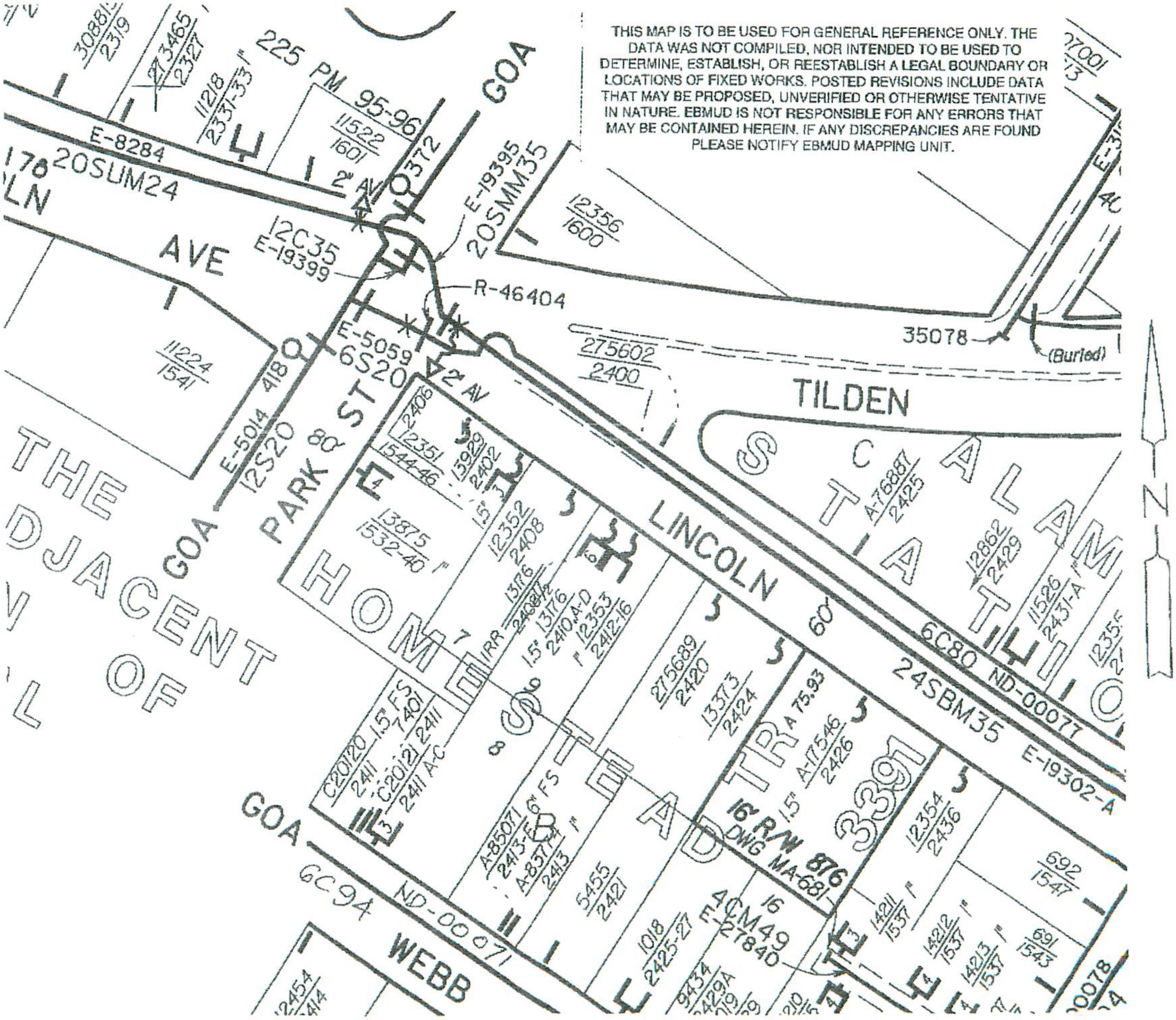
By receipt of requested documents, the DOCUMENT RECIPIENT agrees that he or she, and/or any other authorized representatives of the DOCUMENT RECIPIENT, will provide no copy (nor partial copy), will not redistribute any document to any other entity, business or individual, nor use the document for other than the specified purpose. At the point document is no longer required for use by the DOCUMENT RECIPIENT, the data shall be returned to EBMUD or destroyed.

Very truly yours,

Perfy Quiachon

Re: Attachments - Maps are to be used for general reference purposes only. The data was not compiled nor intended to be used to determine, establish, or reestablish a legal boundary or location of fixed works. Posted revisions include data that may be proposed, unverified or otherwise tentative in nature. EBMUD is not responsible for any errors that may be contained herein. If discrepancies are found please notify the EBMUD Mapping Services.




THIS MAP IS TO BE USED FOR GENERAL REFERENCE ONLY. THE DATA WAS NOT COMPILED, NOR INTENDED TO BE USED TO DETERMINE, ESTABLISH, OR REESTABLISH A LEGAL BOUNDARY OR LOCATIONS OF FIXED WORKS. POSTED REVISIONS INCLUDE DATA THAT MAY BE PROPOSED, UNVERIFIED OR OTHERWISE TENTATIVE IN NATURE. EBMUD IS NOT RESPONSIBLE FOR ANY ERRORS THAT MAY BE CONTAINED HEREIN. IF ANY DISCREPANCIES ARE FOUND PLEASE NOTIFY EBMUD MAPPING UNIT.
LINCOLN AVE
TILDEN
PARK ST
WEBB
GOA
E-8284
20SUM24
225 PM 95-96
E-19395
20SMM35
12C35
E-19399
R-46404
E-5059
6S20
E-5014
12S20
35078
(Buried)
275602 2400
6C80
ND-00077
24SBM35
E-19302-A
6C94
ND-00071
16' R/W 876
DWG MA-681
A-76887 2425
A-17546 2426
3391
N

ENGINEERING STANDARD PRACTICE

ESP	251.1
EFFECTIVE	31 JAN 89
SUPERCEDES	15 NOV 79

SUBJECT:

PIPE DESIGNATIONS FOR 100 FT/IN DISTRIBUTION AND SERVICE MAP

PURPOSE

The size, kind, lining, coating, and year of pipe installation are presented on the 100 ft. per inch Distribution and Service Maps with the designation scheme described here.

PIPE SIZE

Main size will be shown to the nearest whole inch of net inside diameter.

KIND, LINING AND COATING

LETTER CODE	KIND	LINING	COATING
A	Asbestos Cement	M - Mortar or Cement	M - Mortar or Cement
C	Cast Iron	B - Insulating Material; Epoxy, Asphaltic, Coal Tar, etc.	B - Insulating Material
D	Ductile Iron		BM - Insulating Material with Mortar Overcoat
K	Copper		MB - Mortar with Insulating Overcoat
N	Non-metallic, plastic, etc.	U - Unlined	PE - Polyethylene Coating
W	Wrought Iron		PP - Polypropylene Coating
L	Reinforced Concrete Cylinder		TW - Tape wrapped
R	Reinforced Concrete Non-Cylinder		
S	Steel		
T	Pretensioned Concrete Cylinder		
P	Prestressed Concrete Cylinder		

The pipeline description will then be expressed in a one, two, three or four letter code. The first position will invariably indicate the kind of pipe. If the pipe is bare, this will be the only position used. The second position will describe the lining. Again, if there is no coating, there would be only two positions. The third and fourth positions will describe the coating and/or an overcoat when used.

YEAR OF INSTALLATION

The year of installation will be indicated with the last two digits from the year.

PIPE DESIGNATION

A standard grouping of these designations will be used throughout. The first element in the group will be size expressed in numerals; the second element will be the one, two, three or four position letter code describing kind, lining and coating; and the third element will be the year of installation, again in numerals.

E-104

ENGINEERING STANDARD PRACTICE

ESP	251.1
EFFECTIVE	31 JAN 89
SUPERCEDES	15 NOV 79

SUBJECT:

PIPE DESIGNATIONS FOR 100 FT/IN DISTRIBUTION AND SERVICE MAP

EXAMPLES

6A53	6" I.D. Asbestos Cement installed in 1953
8C36	8" I.D. Cast Iron bare pipe installed in 1936
12CM28	12" I.D. Cast Iron mortar lined but no coating installed in 1928
16SUM08	16" I.D. Steel Pipe unlined but mortar coated installed in 1908
24SMB56	24" I.D. Steel Pipe mortar lined and coal-tar enamel coating installed in 1956
53SMM52	53" I.D. Steel Pipe mortar lined and coated installed in 1952
60T63	60" I.D. Pretensioned concrete cylinder pipe installed in 1963
36SMBM62	36" I.D. Steel Pipe mortar lined and coated first with an insulating coating followed by a mortar overcoat installed in 1962
16SMPP78	16" I.D. Steel Pipe mortar lined and polypropylene coated installed in 1978

C. W. WAY
Chief Engineer

E-104 (1)

ENGINEERING STANDARD PRACTICE

ESP	251.2
EFFECTIVE	30 APR 64
SUPERSEDES	29 NOV 62

SUBJECT: DISTRIBUTION AND SERVICE MAPS
PIPE AND FITTING SYMBOLS

Air Valve on Main (Show Size)	1" A.V.
Blowoff at end of Main (Show Size if over 2")	
Blowoff on Main (Show Size)	2" B.O.
Blowoff and Pumping Tee (Show Size)	6" B.O. PT.
Cathodic Protection Station	C.P.S.
Change in Size, Kind or Installation Date of Pipe	6C34 E-12345 × 6A56 E-30789
Check Valve	
Culvert for Pipe (All types)	12" Culv.
Electrolysis Test Station	E.T.S.
Encasement around pipe	Encased
Extension replacing extension where Front Foot Charge still applies	35707 ($33456 '56) 8A60
Extension With Front Foot Charge	$33456
Flow Meters - All Types	
Gates and Cocks on Main	Open Closed
Butterfly Valve on Main	Open Closed
Hydrant	18813
Insulation Joint	I.J.
Manhole (On Large Lines)	M.H.
Pressure Zone Designation (See ESP 480.1)	
Pumping Plant	D7B D9C
Rate Control Station	G1A G0A
Regulator	C4C C4Ca
Turnout (Show Size)	4" T.O.
Valves Opening Left (Hydrant & Main Line Valves)	485 O.L. O.L.

EAST BAY MUNICIPAL UTILITY DISTRICT

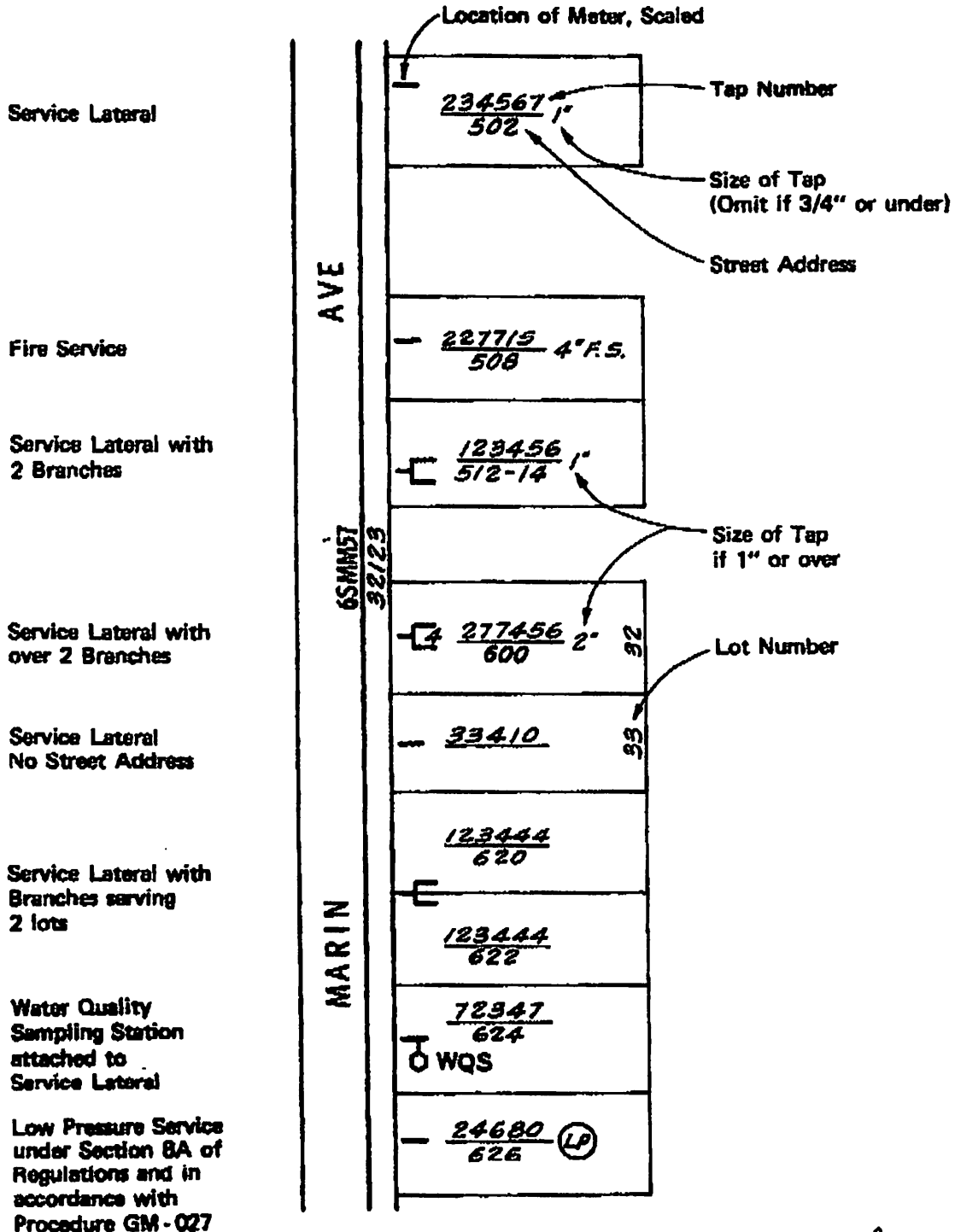
SHEET 1 OF 1

ENGINEERING STANDARD PRACTICE

ESP	251.3
EFFECTIVE	15 FEB 80
SUPERSEDES	8 JUN 70

SUBJECT:

DISTRIBUTION AND SERVICE MAP SERVICE SYMBOLS



Chief Engineer

EAST BAY MUNICIPAL UTILITY DISTRICT

SHEET 1 OF 1

ENGINEERING STANDARD PRACTICE	ESP	251.4
SUBJECT: **DISTRIBUTION AND SERVICE MAP SYMBOLS, TAPS TO MULTIPLE MAINS**	EFFECTIVE	05 AUG 98
	SUPERCEDES	30 APR 89

PURPOSE

To provide a means to indicate the main to which a service tap is connected when more than one main exists in a street.

APPLICATION

This information is needed:

1. when studying loadings on pressure zones and making comparisons with various geographic areas described by other agencies, it is necessary to know with certainty which services relate to individual pressure zones;

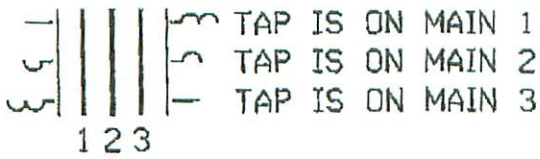
2. when planning to shut down a portion of the distribution system, it is necessary to know which services will be affected; and

3. to calculate charges for water service as these are determined by the pressure zone in which the service connection is located.

Whenever it becomes necessary to include this information on a map sheet, the symbols below should be used. The Tap Legend should be placed in the lower margin of the map and each individual tap should display the proper tap symbol to indicate from which main it is tapped. If the dual main situation is eliminated, the tap symbols should be corrected and the Tap Legend removed from that map.

Loops in the tap symbols below indicate the number of mains jumped by the tap lateral and the straight bar indicates a service tap on the closest main.

TAP LEGEND



ONLY THOSE MAPS ON WHICH THIS LEGEND APPEARS IDENTIFY THE MAIN TAPPED.

Marilyn Miller

MARILYN L. MILLER
Director of Engineering and Construction

ENGINEERING STANDARD PRACTICE

ESP	251.5
EFFECTIVE	30 APR 64
SUPERSEDES	29 NOV 62

SUBJECT:

100' SCALE DISTRIBUTION AND SERVICE MAP LINES & SYMBOLS

PIPELINES

- Water Tunnels
- Raw Water Lines
- Water Mains 12" and over
- Water Mains 6" to 10"
- Water Mains 4" and under
- Overflow Drain Lines

OTHERS

- Ultimate EBMUD Service Boundary
- County Boundary Line
- City Boundary Line
- EBMUD Boundary Line (Present Service Limits)
- EBMUD Property Line (Outside)
- (Outside)

- Street Property Lines & Paths
- Tract Lines
- Railroad R/W Lines
- Shorelines & Canal R/W
- Freeway R/W Lines

- Named Undedicated Streets (Public by Use)
- Tract Line (Overlapping Ownership)

- Freeway Structure Lines
- Lot Line
- Section Line
- Ownership Line
- Underline for Service (Tap) Number

- EBMUD R/W Lines
- Edge of Paving

- Railroad Track
- Mapping Control Point
- Junction between differently named portions of the same street
- Fence Line

FORM E 164

EAST BAY MUNICIPAL UTILITY DISTRICT

SHEET 1 OF 1

ENGINEERING STANDARD PRACTICE

SUBJECT:	ESP	250.1
	EFFECTIVE	31 JAN 89
HIGH VOLTAGE DANGER WARNING SYMBOL	SUPERCEDES	31 AUG 62

PURPOSE

To provide a warning and indicate general location of the District's high voltage tables on Distribution System Maps. Also to provide a standard warning note for use on pipeline extension drawings when it is determined that high voltage underground cables are proximate to the proposed excavation.

DISTRIBUTION SYSTEM MAPS

The following symbol shall be introduced on District distribution system maps to indicate the general location of the District's high voltage underground electrical cables. The symbol shall appear frequently enough along the route followed by such cables to provide a warning to anyone seeking information through reference to the map.

HIGH VOLTAGE
DANGER WARNING
SYMBOL

Each distribution system map sheet containing the above symbol shall also carry an explanatory legend.

H I G H V O L T A G E - E B M U D

PHONE EAST BAY MUNICIPAL UTILITY DISTRICT,
ELECTRICAL SECTION - DESIGN DIVISION,
BEFORE EXCAVATING IN STREETS WHERE THIS
SYMBOL APPEARS.

EXTENSION DRAWINGS

Drawings presenting pipeline extensions in the immediate vicinity of any underground high voltage cable shall carry a warning drawing attention to the potential hazard and instructing construction crews to notify the agency responsible for the cable before commencing excavation.

H I G H
V O L T A G E
U N D E R G R O U N D C A B L E S
I N T H I S A R E A

CONTACT PG&E ELECTRICAL DEPARTMENT
PRIOR TO EXCAVATION

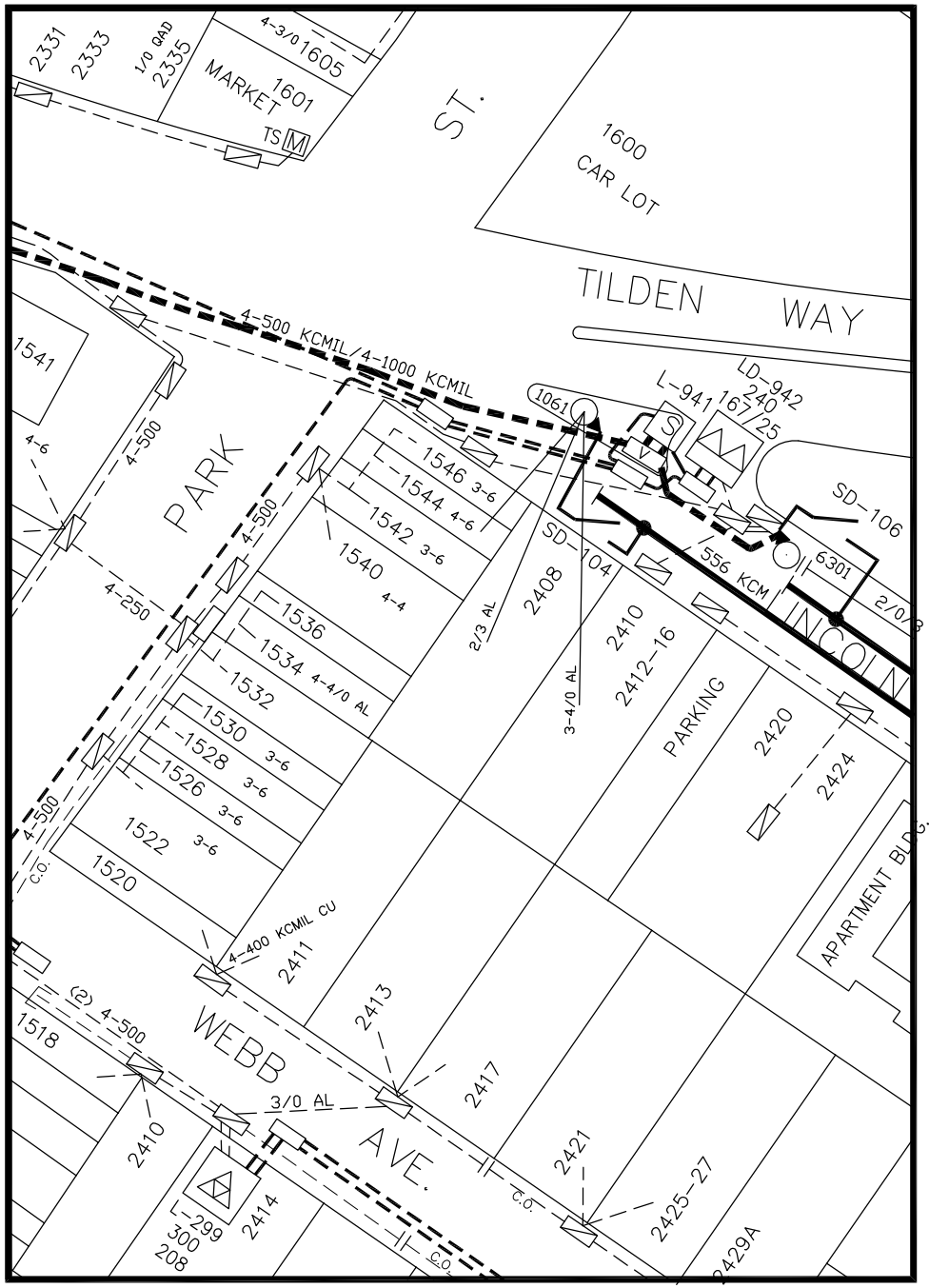
GTWay

C. T. WAY
Chief Engineer

E-104 .37

BONKOWSKI & ASSOCIATES, INC.

APPENDIX D



LEGEND

- OVERHEAD PRIMARY TRUNKLINE
- OVERHEAD PRIMARY LINE
- OVERHEAD SECONDARY LINE
- OVERHEAD SERVICE DROP (4/3 AL OR 2/3 AL UNLESS SHOWN OTHERWISE)
- UNDERGROUND PRIMARY TRUNKLINE
- UNDERGROUND PRIMARY LINE (3 #2 URD, UNLESS SHOWN OTHERWISE)
- UNDERGROUND SECONDARY LINE (2-3/0 1-1/0 AL, UNLESS SHOWN OTHERWISE)
- UNDERGROUND SERVICE LATERAL (PROVIDED BY CUSTOMER, SIZE AS SHOWN)
- POWER POLE
- RISER
- PB-1 : PB-# : PRIMARY PULL-BOX IDENTIFIER
- SB-1 : SB-# : SECONDARY PULL-BOX IDENTIFIER
- S : PAD-MOUNTED SWITCH
- M : METER
- 3ø PAD-MOUNTED TRANSFORMER (208V SECONDARY UP TO 300KVA) UNLESS SHOWN OTHERWISE (480V SECONDARY FOR 500KVA AND ABOVE)
- DUPLEX PAD-MOUNTED TRANSFORMER OPEN DELTA CONNECTED (120/240V SECONDARY)

DISCLAIMER

BONKOWSKI & ASSOCIATES, INC.

APPENDIX E

TILDEN WAY
FOLEY ST.
REF. 4750-21
BUENA VISTA AVE.
BROADWAY
NOBLE AVE.
GOULD CT.
PARK ST.
REF. 2924-21
LINCOLN ST.
WEBB ST.
REF. 5058-11
REF. 5214-11
EVERETT ST.
REF. 5743-11
PARK AVE
REF. 3728-11
REF. 5753-11
SANTA CLARA AVE.
REF. 3765-11
REF. 3733-11
BROADWAY
ST. MARGARET CT.
REF. 5418-11
JANIST CIR.
REF. 3285-24
CENTRAL AVE.
REF. 3829-11
REGENT ST.
CHRIST ST.
REF. 6259-11
PEARL AVE.
REF. 3831-11
VERSAILLES AVE.
CHESTER ST.
GIBBONS DR.
CB INLET 14.01
MH RIM 14.40
N.R. 9.18
E.R. 10.52
S.R. 10.21
W.R. 11.98
CB INLET 14.13
R. 10.80
CB INLET 15.90
R. 14.20
MH RIM 19.39
N.R. 13.70
S.R. 15.32
CB INLET 18.47
R. 15.93
CB INLET 18.56
N.R. 15.55
W.R. 15.85
CB INLET 14.13
R. 10.80
MH RIM 19.39
N.R. 11.53
S.R. 11.53
W.R. 13.91
41
51
50
52
61

LINCOLN AVE.
TIMES WAY
AVE.
PARK AVE.
PARK ST
REGENT ST
CHESTER ST.
EAST
PARK AVE
JACKSON PARK
WEST
PARK AVE
ENCINAL AVE.
PARK ST
ALAMEDA AVE
SANTA CLARA AVE.
CENTRAL AVE.
ALAMEDA HIGH SCHOOL
WALNUT ST.
SAN ANTONIO
PARK AVE.
60
59
49
48
REF 2924-21
REF 3808-11
REF 3384-14
REF 3473-11
REF 5556-11
REF 5897-11
REF 5566-11
REF 3551-11
FB 4-87 P 10-12

51

41

FOLEY ST

TILDEN WAY

BUENA VISTA

NOBLE AVE

LINCOLN

GOULD CT

PARK ST.

WEBB

ST

EVERETT AVE

PARK AVE.

SANTA CLARA

BROADWAY

ST. MARGARET CT.

JANIS CIR

CENTRAL AVE

REGENT ST.

CRIST ST.

CHESTER ST.

PEARL AVE.

VERSAILLES AVE

GIBBONS DR.

50

52

61

24" FM

18" FM

16" pressure line

12" Pressure line

Ref. F.B. 4-58, p. 31-35 F.B. 4-100, p.19
" 4-70, p. 73
" 4-48, p. 63

50

40

WALNUT ST.

SANTA CLARA ST

LINCOLN AVE.

TIMES WAY

CENTRAL AVE

ALAMEDA HIGH SCHOOL

ENCINAL AVE

SAN ANTONIO PARK

PARK AVE. WEST

JACKSON PARK

PARK AVE. EAST

P.O. CT

PARK AVE

REGENT ST

CHESTER ST.

49

51

60

Ref. F.B. 4-58, p.31-35
Dwg. 5566-11

● Inaccessible

July 26, 2012

Mr. Keith Nowell, CHG
Hazardous Materials Specialist
County of Alameda – Health Care Services, Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Subject: Preferential Pathway Survey
1534 Park Street, Alameda, California

Dear Mr. Nowell:

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document is true and correct to the best of my knowledge.

Sincerely yours,

Marcia Breese

Enclosure