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By Alameda County Environmental Health at 9:55 am, Nov 25, 2014

Mr. Jerry Wickham
Alameda County Environmental Health Services
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Suite 250
Alameda, CA 94502-6577

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100 Smith Ranch Road
Suite 329
San Rafael
California 94903
Tel 415 491 4530
Fax 415 491 4532
www.arcadis-us.com

Subject:

Work Plan Addendum for Vapor Intrusion Evaluation of Existing Building

Former Pacific Electric Motors Site
1009 66th Avenue
Oakland, California
(Fuel Leak Case Number RO0000411)

ENVIRONMENT

Date:
November 24, 2014

Contact:
Erica Kalve

Phone:
415.491.4530 ext. 22

Email:
Erica.Kalve@arcadis-us.com

Our ref:
EM009155.0017

Dear Mr. Wickham:

ARCADIS has prepared this work plan addendum on behalf of College for Certain, LLC (CFC) for the Former Pacific Electric Motors (PEM) Facility located at 1009 66th Avenue in Oakland, California ("the Site"; Figures 1 and 2). Alameda County Environmental Health (ACEH) provided conditional approval of the Revised Vapor Intrusion Evaluation Work Plan dated September 12, 2014.

This work plan addendum was developed to provide additional information regarding the proposed crawl space sampling and increase the number of crawl space samples appropriate to adequately characterize the air quality throughout the crawl space for Building 200 as requested by ACEH.

Building Reconnaissance

On October 28, 2014 ARCADIS conducted a reconnaissance of Building 200. The crawl space at Building 200 is below grade. The air vents of the crawl space are made of metal grilles that sit flush with the surrounding surface and are located behind the building facing the driveway (see photo log – Attachment A). The air vents are spaced approximately 7 to 15 feet apart and are approximately 4-feet long and 1-foot wide (Attachment A and Figure 3). Below the metal grilles at each air vent location there are three openings to the crawl space measuring approximately 1 foot (length) by 0.5 foot (height). There are two air vents with metal grilles that are approximately 4 feet long and 2 feet wide (Figure 3 and Attachment A). Below the

Imagine the result

metal grilles at these two locations there is one opening measuring approximately 4 feet (length) by 1.5 feet (height) (Photo 5 of Attachment A).

As shown on the building floor plan included as Attachment B, there are a row of footings in the middle of the floor plan. However, these footings do not create barriers to air flow within the crawl space. The building footprint measured approximately 140 feet long and 40 feet wide, therefore two crawl space samples collected at the two crawl space access points will be sufficient to characterize the air quality within the crawl space. The tubing attached to the sampling canister will be extended as far under the building as possible.

Crawl Space Sampling

ARCADIS proposes to collect crawl space samples from both of the 4 feet by 2 feet crawl space access that could better accommodate the sampling apparatus (Figure 3). Two representative crawl space air samples (to be labelled CS-1 and CS-2) will be placed by ARCADIS personnel and collected using 6-liter, 100%-certified clean SUMMA™ canisters with a flow controller set to collect the samples over an 24-hour period. Crawl space air sampling will be stopped when the canister vacuum has dropped to no less than 5 inches of mercury (inHg). Each SUMMA™ canister will be fitted with 0.25-inch outer diameter (OD) telfon tubing cut long enough to reach into the middle of the crawl space.

The crawl space samples will be analyzed for analyses as presented in the Revised Vapor Intrusion Evaluation Work Plan (work plan) dated September 12, 2014. The crawl space air data will be evaluated as presented in the work plan.

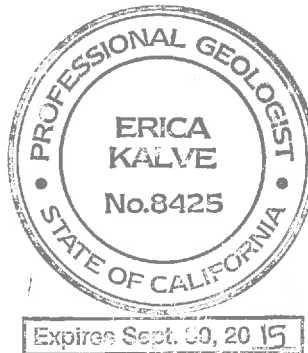
If you have any questions regarding the content of this letter, please feel free to contact me at phone: 415.491.4530 or email: Erica.Kalve@arcadis-us.com.

Sincerely,

ARCADIS U.S., Inc.



Erica Kalve, P.G.
Senior Geologist



Copies:

Tim Simon, Aspire Public Schools (electronic)

Enclosures:

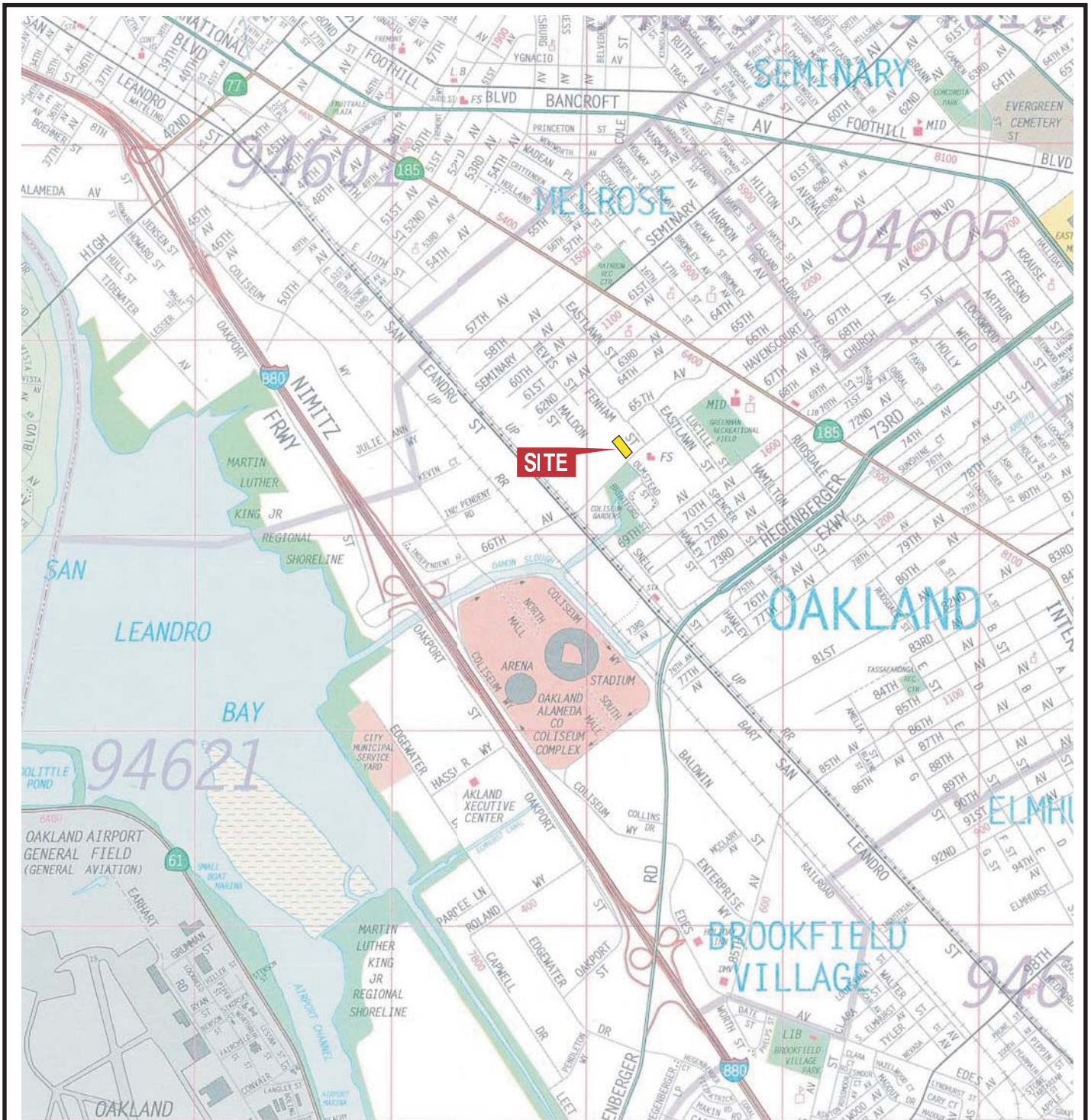
Figure 1 – Site Location Map

Figure 2 – Site Plan

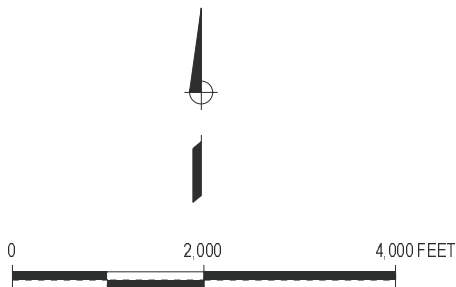
Figure 3 – Building 200 and Proposed Crawl Space Sampling Locations

Attachment A – Photo Log

Attachment B – Building 200 Lower Level Partial Floor Plan



MAP SOURCE: Copyright 1995, Thomas Bros. Map ALAMEDA COUNTY 2002 Edition



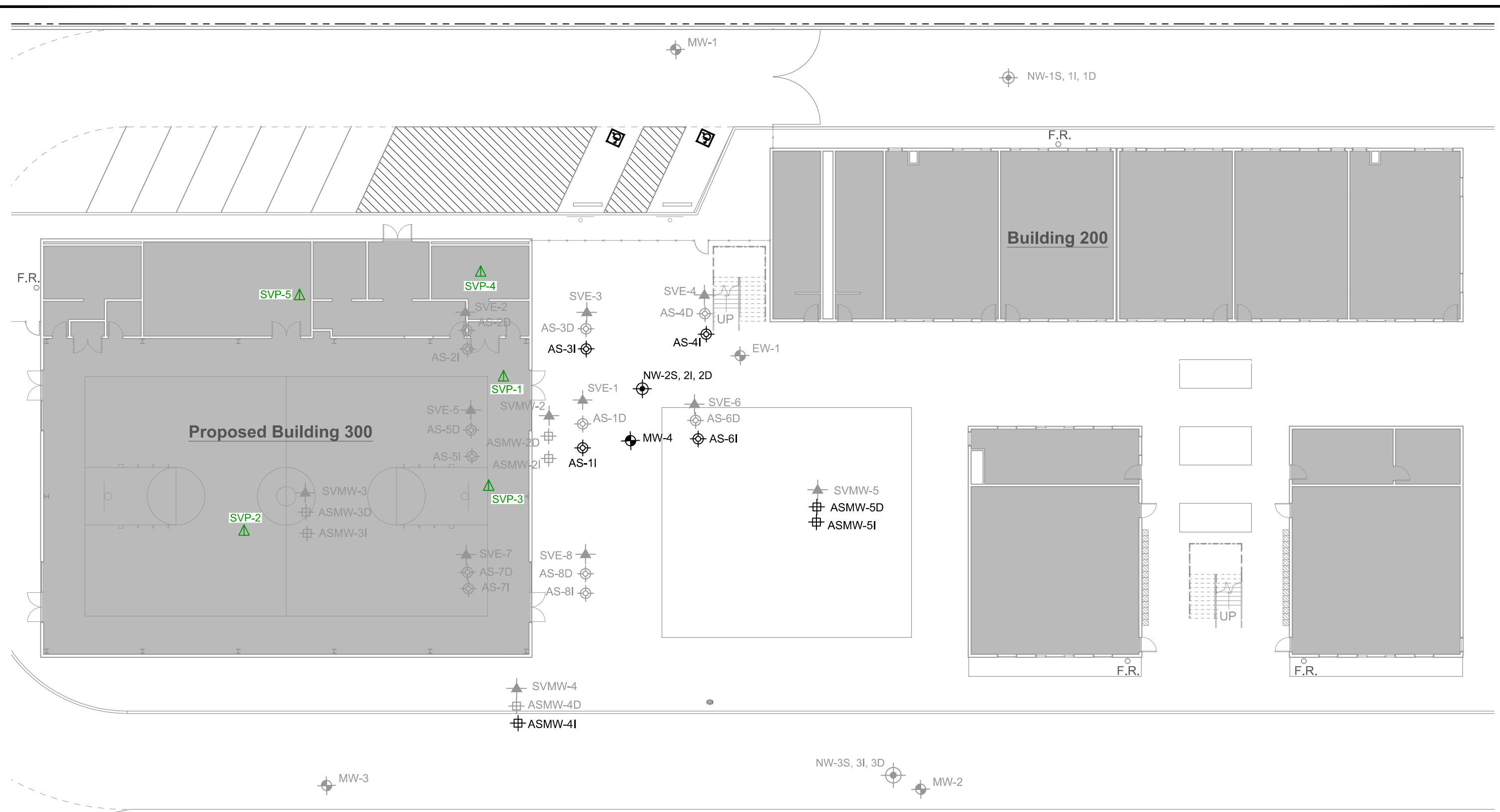
1009 66TH AVENUE, OAKLAND, CALIFORNIA

SITE VICINITY MAP



FIGURE
1

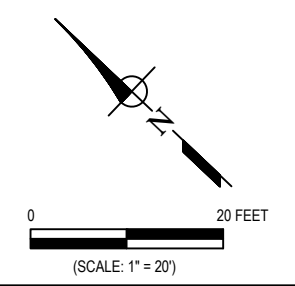
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LEGEND:

- Property Line
- MW-4 Monitoring Well
- NW-2S Nested Monitoring Well
- AS-6I Air Injection Well
- ASMW-5D Air Injection Monitoring Well
- SVE-4 SVE or SVE Monitoring Well
- SVP-1 Soil Vapor Point Location

NOTES:
 SVE = Soil Vapor Extraction
 GREY symbols represent abandoned well locations

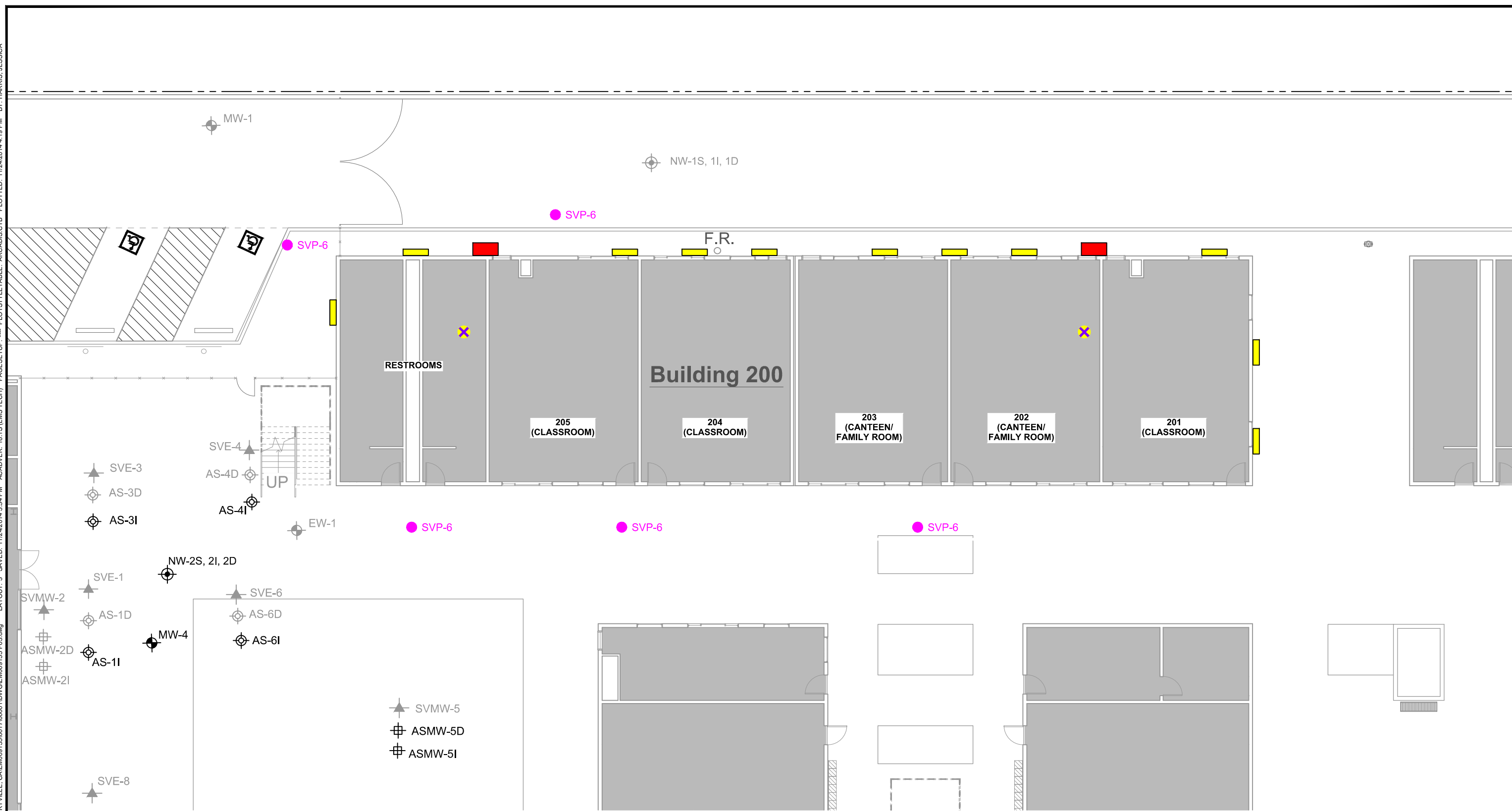


1009 66TH AVENUE, OAKLAND, CALIFORNIA

SITE PLAN

FIGURE
2

CITY:\Regd\DIV\GROUP\Regd DB\Regd LD\Opt\ PIC\Opt\ PM\Regd TM\Opt\ LVR\Opt\ON\OFF=REF C:\Users\jharris\Desktop\ENV\CAD\RETURN-TO-EMERY\ILLE, CA\EM09155\001700001\DWG\EM09155 P03.dwg LAYOUT: 3 SAVED: 11/24/2014 3:34 PM ACADVER: 18.1S (LMS TECH) PAGES: 3 PLOTSTYLETABLE: ARCADIS.CTB PLOTTED: 11/24/2014 4:19 PM BY: HARRIS, JESSICA

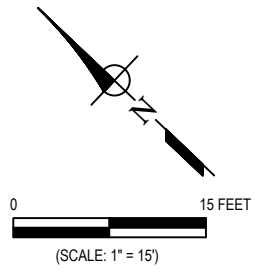


LEGEND:

- Property Line
- MW-4 Monitoring Well
- NW-2S Nested Monitoring Well
- AS-6I Air Injection Well
- ASMW-5D Air Injection Monitoring Well
- SVE-1 SVE or SVE Monitoring Well
- SVP-6 Proposed Soil Vapor Point Location
- 1 ft x 4 ft Vent
- 2 ft x 4 ft Access / Vent Well Crawl Space
- Proposed Crawl Space Sampling Location¹

SVE = Soil Vapor Extraction
 GREY symbols represent abandoned well locations

- NOTE:**
- Teflon tubing will be extended approximately 5-10 feet under the building for the crawl space sample. The sampling canisters will be placed at the crawl space access.



1009 66TH AVENUE, OAKLAND, CALIFORNIA

**BUILDING 200 AND
PROPOSED CRAWL SPACE
SAMPLING LOCATIONS**

ARCADIS

FIGURE
3



Attachment A

Photo Log

Attachment A – Photo Log
Former Pacific Electric Motors Site
1009 66th Avenue
Oakland, California



Photo 1 – Building 200 facing south, adjacent to the road.



Photo 2 – Building 200 facing north – no crawl space air vents

Attachment A – Photo Log
Former Pacific Electric Motors Site
1009 66th Avenue
Oakland, California

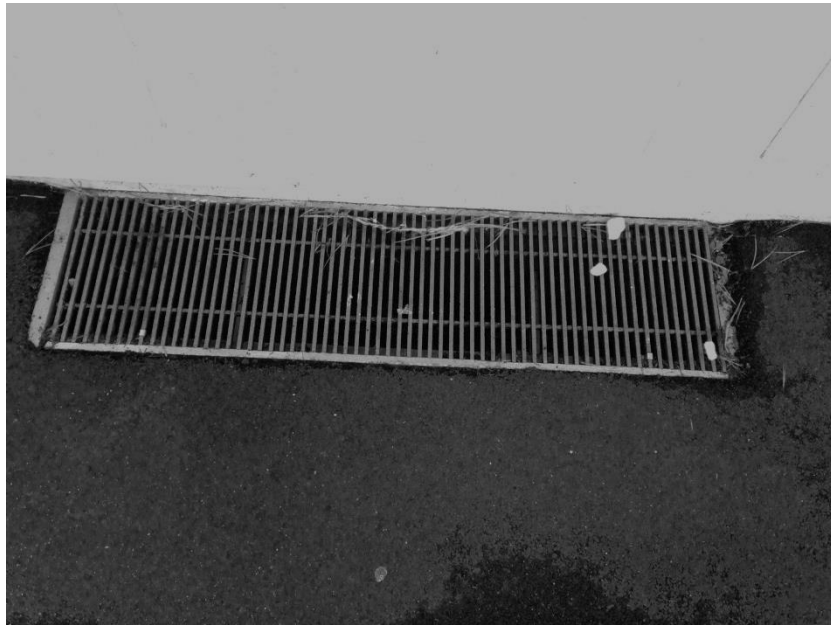


Photo 3 – 4 feet (length) by 1 foot (width) feet air vent



Photo 4 – 4 feet (length) by 2 feet (width) access/vent well crawlspace

Attachment A – Photo Log
Former Pacific Electric Motors Site
1009 66th Avenue
Oakland, California

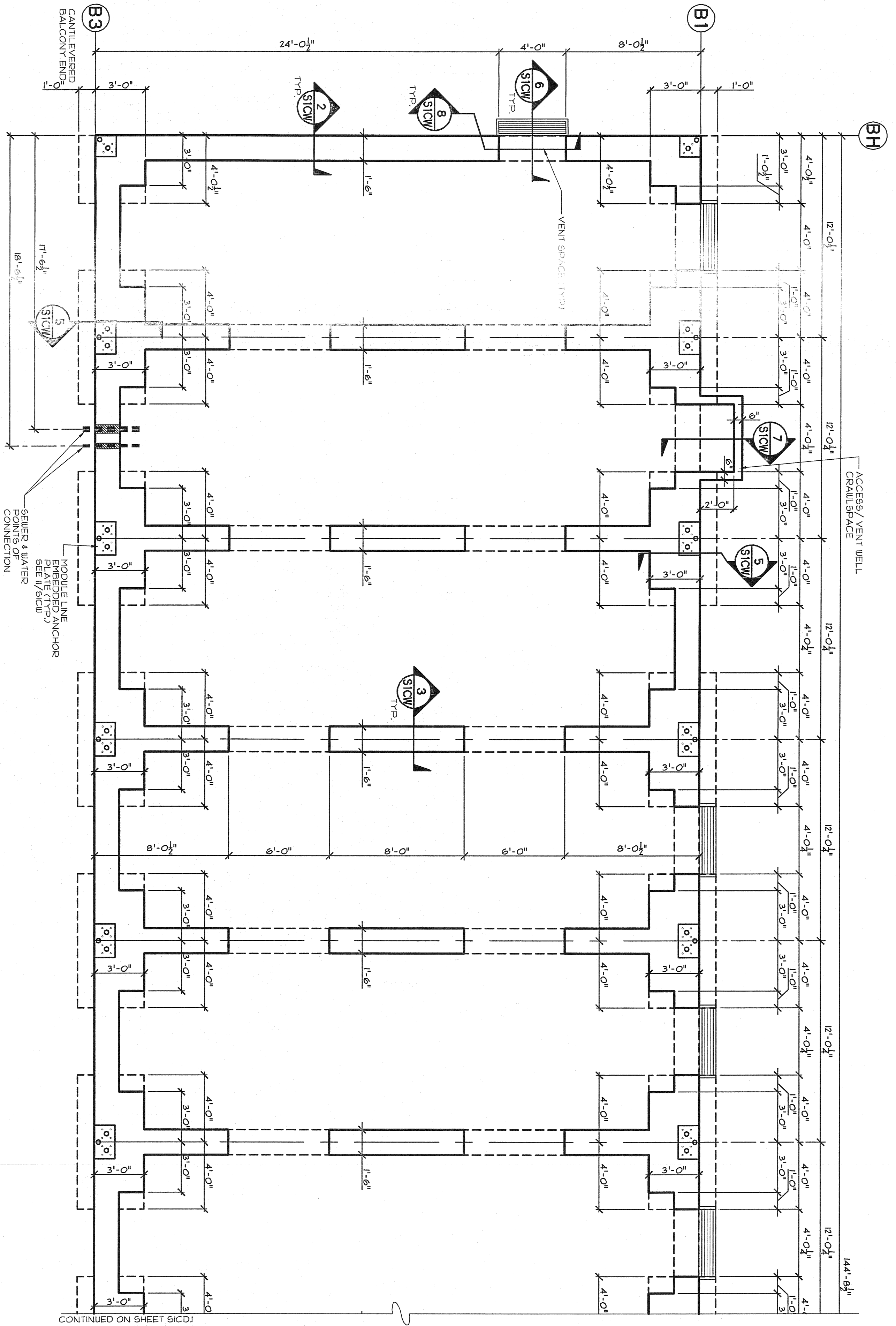


Photo 5 – Crawl space below grade, underneath the metal grille

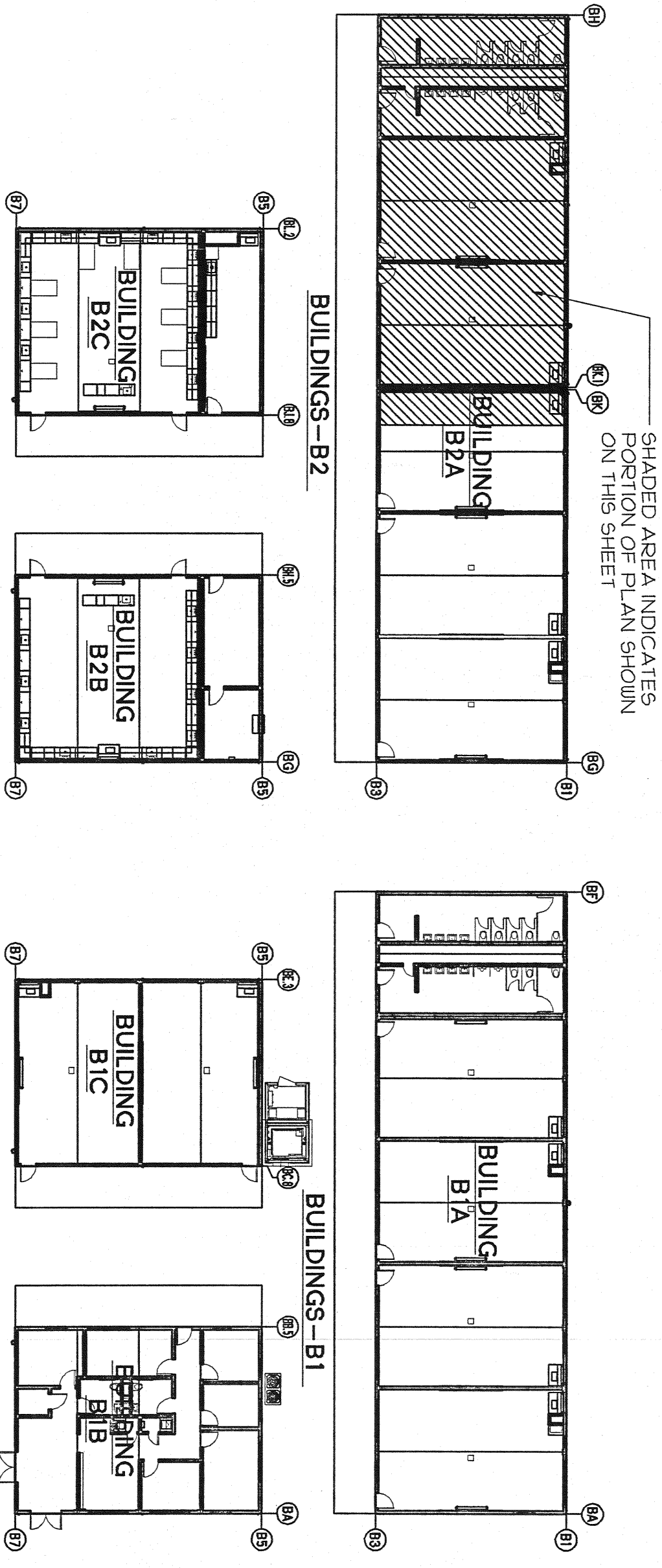


Attachment B

Building 200 Lower Level Partial
Floor Plan



1 PARTIAL CONCRETE FOUNDATION PLAN
SCALE: 1/4" = 1'-0"

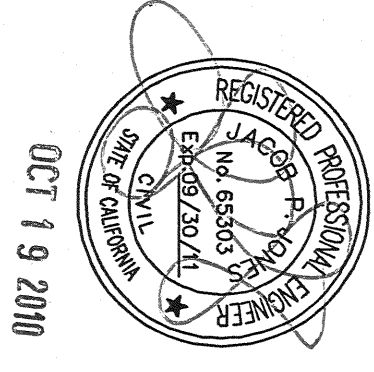


KEY PLAN - "OVER LEVEL"
SCALE: 1/4" = 1'-0"

| | |
|-------------------------------------|---------------|
| UNDERFLOOR VENTILATION REQUIREMENTS | |
| BUILDING SIZE | 36,144 |
| NET BUILDING AREA | 584 / 190 |
| MIN. VENT AREA REQ'D | 3,456 SQ. FT. |
| QTY. OF VENTS | 0 |
| QTY. 4" VENTS | 2 |
| VENT WELL | 120 SQ. FT. |
| VENT AREA PROVIDED | 3619 SQ. FT. |

NOTE:
1. POLY VENT = 225 SQ. FT. VENT AREA
2. ACCESS/VENT WELL = 60 SQ. FT. VENT AREA

DIVISION OF THE STATE ARCHITECT

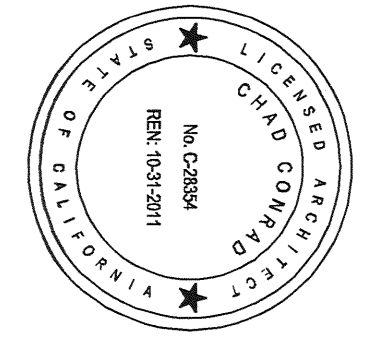


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(B2A) SICD

ENVIROPLEX, INC.
4777 E. CARPENTER ROAD STOCKTON, CA. 95215, (209) 466-8000
ASPIRE - 66TH AVENUE CHARTER SCHOOL
OAKLAND, CALIFORNIA



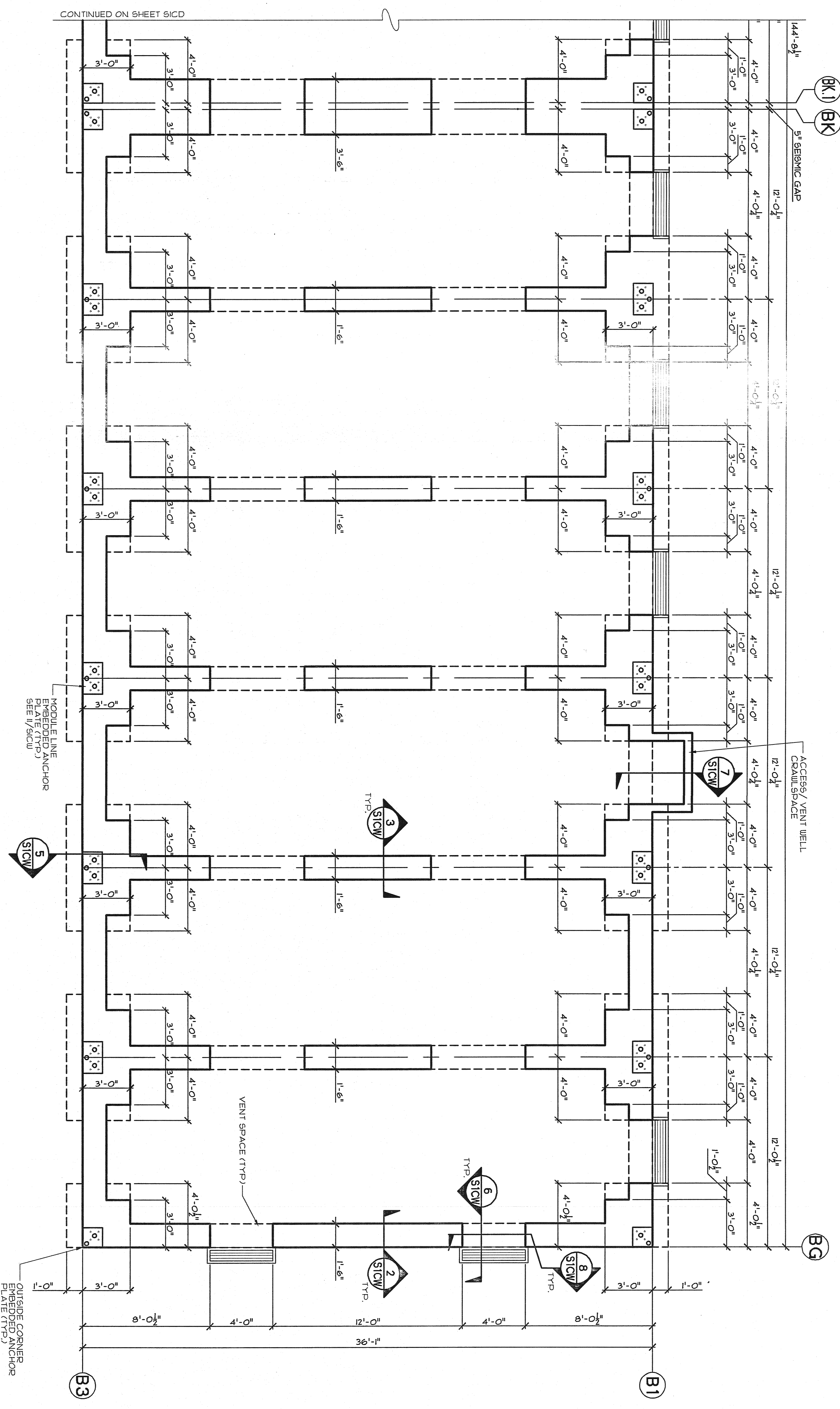
TAVARES ASSOCIATES
DESIGN & CONSULTING & PROJECT MGT.
9815 BARRELL GAYLEN RD. SUITE 205
SAN DIEGO, CA 92121 619.444.3344
3324 SANTA FE ST. SUITE A
RIVERSIDE, CA 92507 951.863.8928
WWW.B2TAVARES.COM

"PARTIAL" FOUNDATION PLAN

REVISION DATE: BY:

| | |
|-----------|-------------|
| JOB No.: | 10-000 |
| DRAWN BY: | JM/MS/E/L/O |
| DATE: | 07-21-10 |

THIS MODULAR BLDG. HAS BEEN ENGINEERED BY A REGISTERED STRUCTURAL ENGINEER AND PREVIOUSLY REVIEWED & APPROVED BY THE DIVISION OF THE STATE ARCHITECT. FIRE & LIFE SAFETY AND ACCESS COMPLIANCE SECTION



CONTINUED ON SHEET SICD

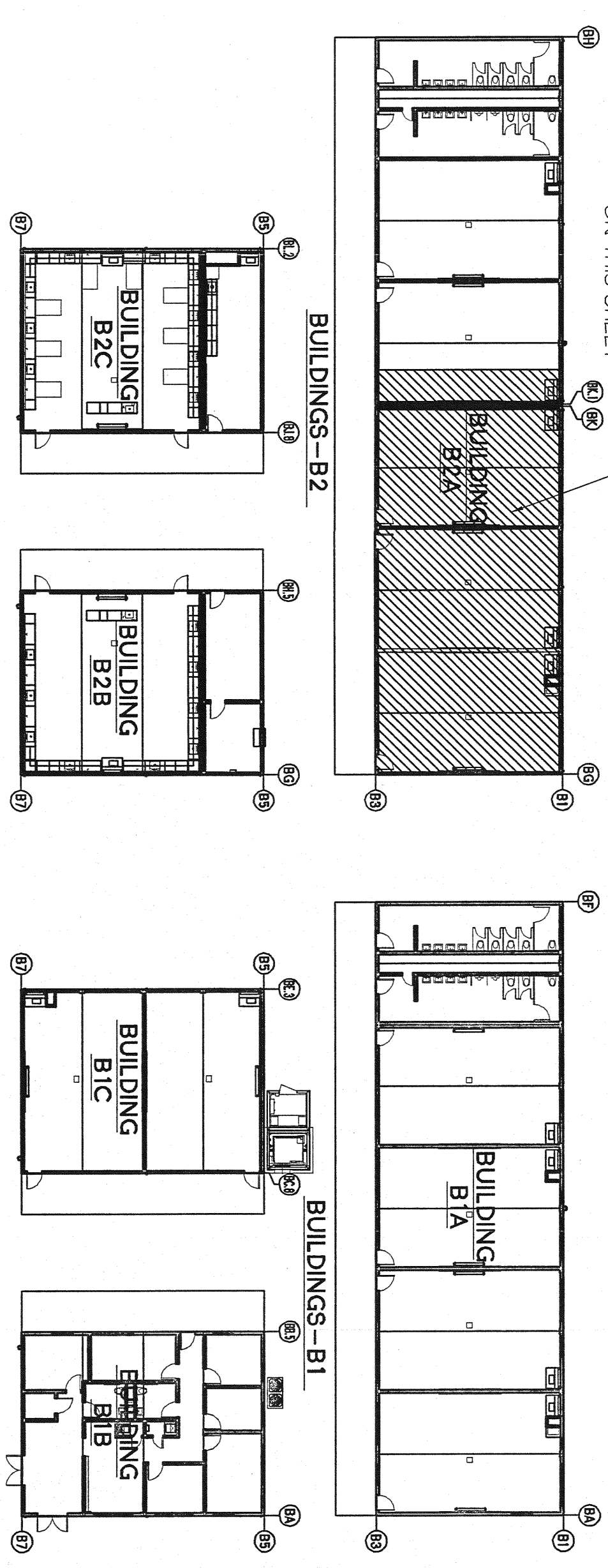
| UNDERFLOOR VENTILATION REQUIREMENTS | | | |
|-------------------------------------|--------------|-------|---------------|
| BUILDING SIZE | 36k/44 | | |
| NET BUILDING AREA | 3984 / 50 | | |
| MINI VENT AREA REQ'D. | 3456 SQ. FT. | | |
| QTY. 6" VENTS | 0 | 0 | 50 SQ. FT. |
| QTY. 4" VENTS | 2 | 24.75 | 50 SQ. FT. |
| VENT WELL | 2 | 7.0 | 50 SQ. FT. |
| VENT AREA PROVIDED | | | 36.75 SQ. FT. |

NOTE:
 4" POLY VENT = 225 SQ. FT. VENT AREA
 6" POLY VENT = 281 SQ. FT. VENT AREA
 ACCESS/ VENT WELL = 60 SQ. FT. VENT AREA

"PARTIAL" CONCRETE FOUNDATION PLAN

SCALE: 1/4" = 1'-0"

SHADED AREA INDICATES PORTION OF PLAN SHOWN ON THIS SHEET



KEY PLAN - "LOWER LEVEL"

SCALE: 1/4" = 1'-0"



OCT 19 2010

DIVISION OF THE STATE ARCHITECT

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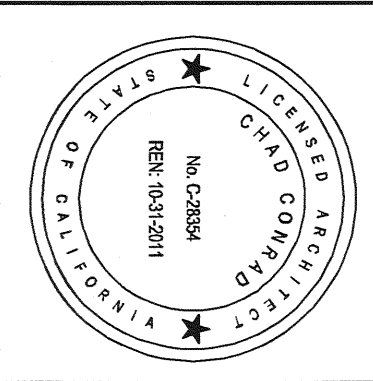
JOB No.: 10-000
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 DATE: 07-21-10

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"LOWER LEVEL" PARTIAL FLOOR PLAN, MATERIAL SPECIFICATIONS-GENERAL NOTES

ENVIROPLEX, INC.
 4777 E. CARPENTER ROAD STOCKTON, CA. 95215, (209) 466-8000

ASPIRE - 66TH AVENUE CHARTER SCHOOL
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