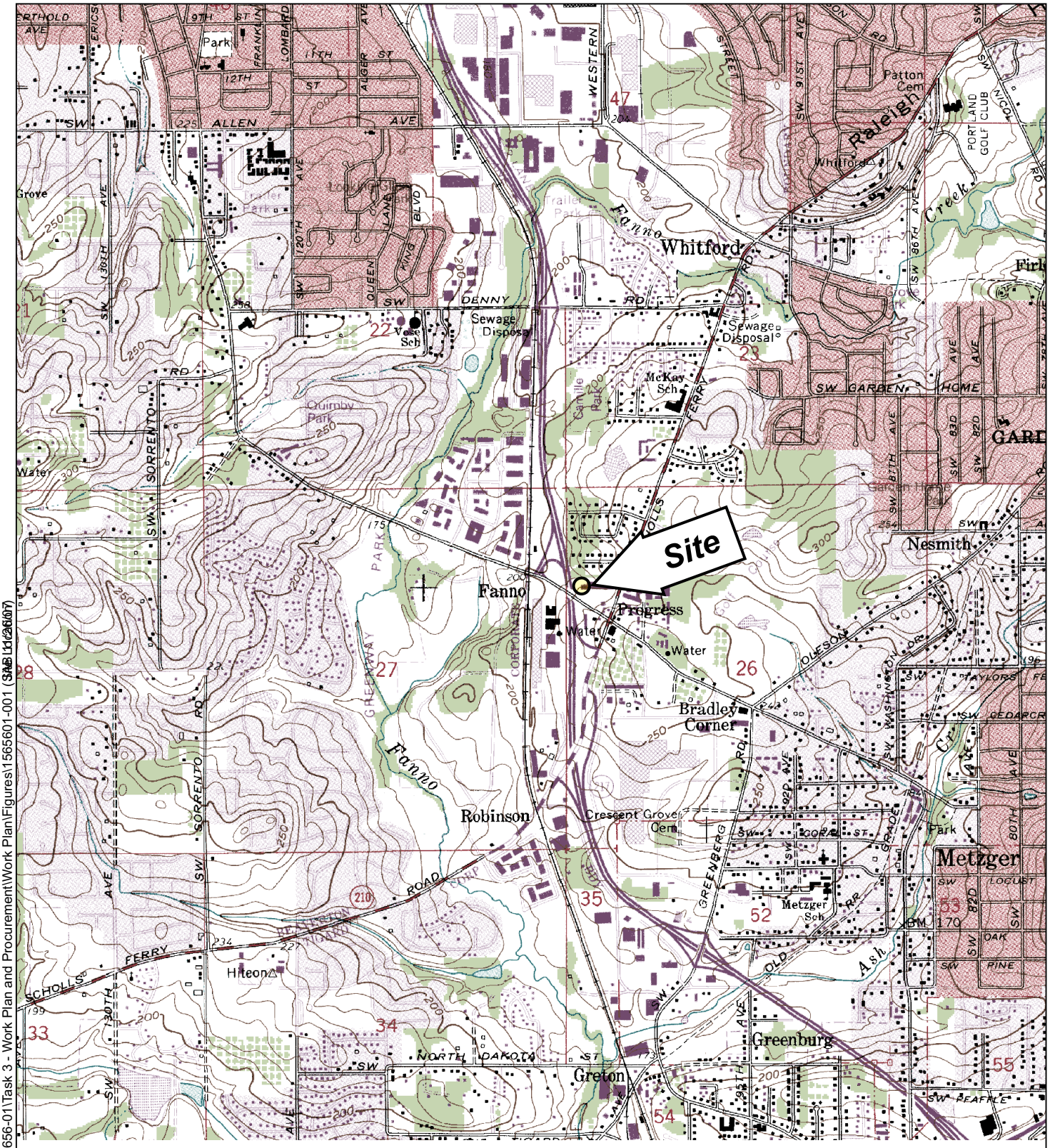
Figure 1
Site Vicinity map



Source: Base map prepared from the USGS 7.5-minute quadrangle of Beaverton, Oregon, photorevised 1984.

Former Progress Dry Cleaners
8602 SW Hall Boulevard, Beaverton, Oregon

Site Location Map

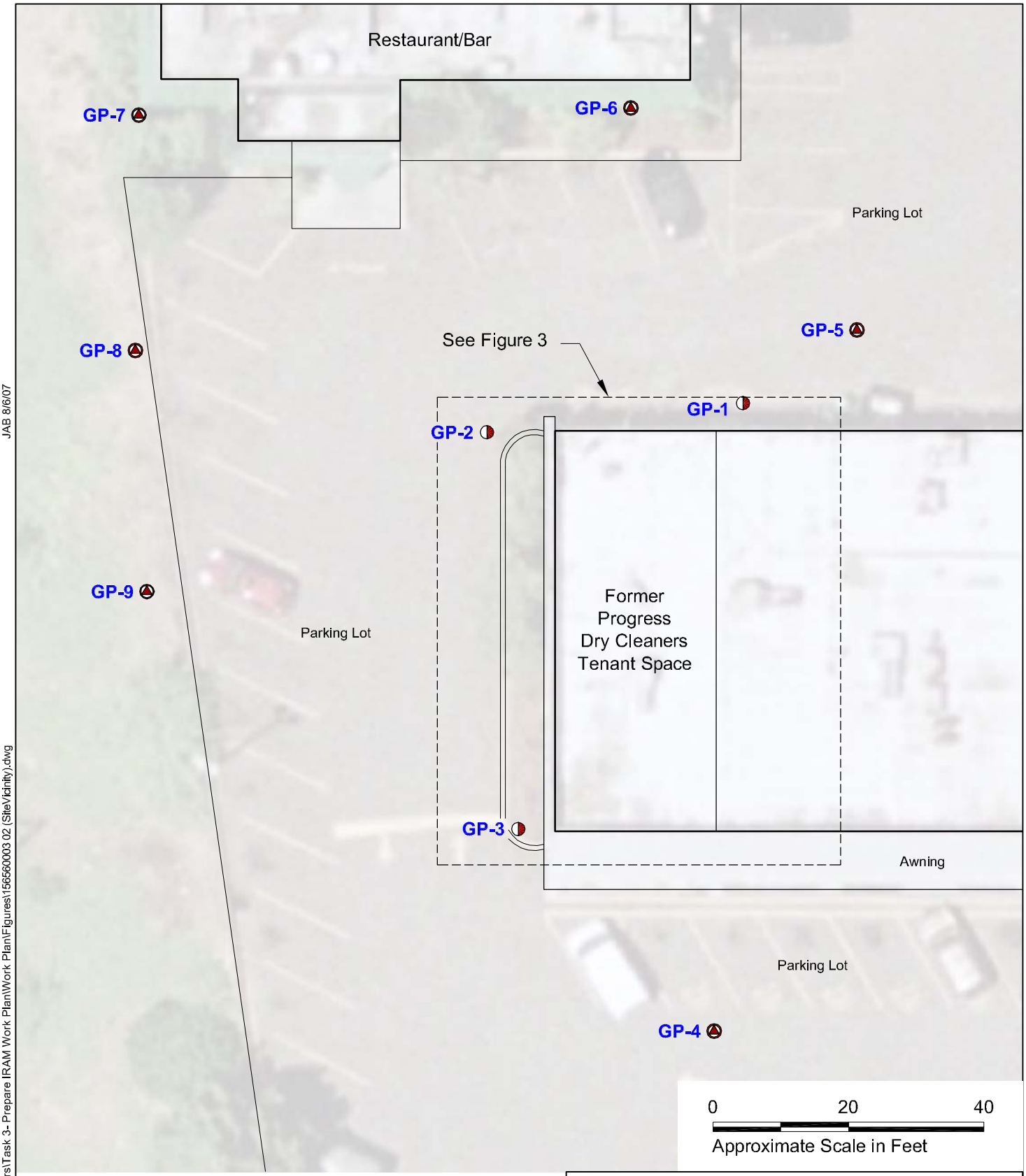
15656-01/Task 5 6/14

HARTCROWSER

Figure
1

F:\Data\Jobs\DEQ\15656 Progress Cleaners\15656-01\Task 3 - Work Plan and Procurement\Work Plan\Figures\1565601-001 (SAB) 11/26/07

Figure 2
Pre-IRM Soil Sampling Locations Outside the Building



GP-1 Push Probe Location and Number (Jan. 2003)

GP-4 Push Probe Location and Number (Dec. 2003)

N

Source: Google Earth, and Figure 2 Boring Locations (dated 1/6/06) by Tim O'Gara Consulting Hydrogeologist.

Former Progress Dry Cleaners
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Site Vicinity Plan

15656-00/Task 3 8/07

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Figure
2

JAB 8/6/07

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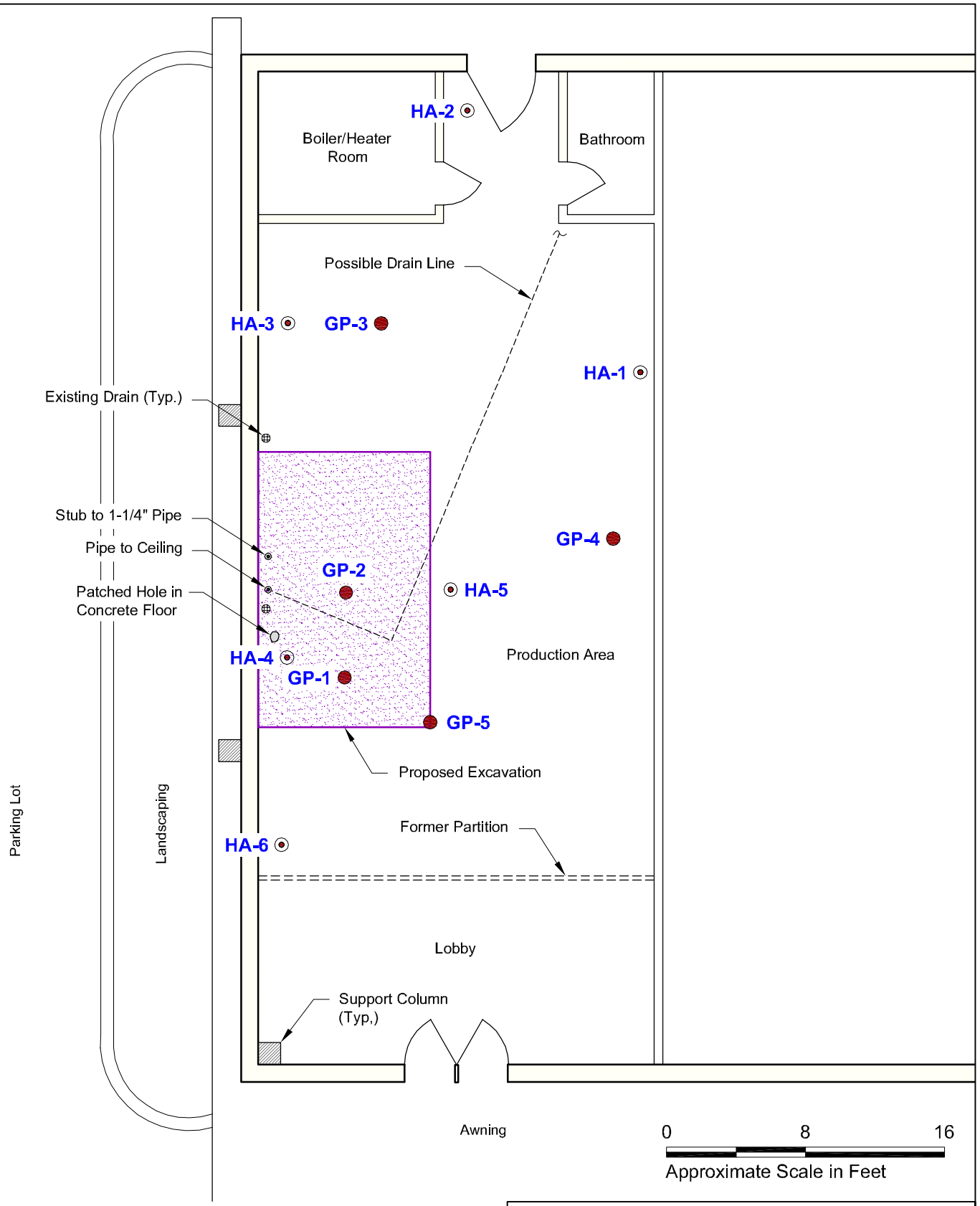
Figure 3
Soil Sampling Locations Inside the Building



HA-1 ⊙ Hand Auger Boiring Location and Number (Jan. 2003)

GP-4 ● Push Probe Location and Number (Nov. 2006)

N

Source: Google Earth, and on site reconnaissance by Hart Crowser personnel.

Former Progress Dry Cleaners
8602 SW Hall Boulevard, Beaverton, Oregon

Site Plan

15656-00/Task 3 8/07

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Figure
3

JAB 8/6/07

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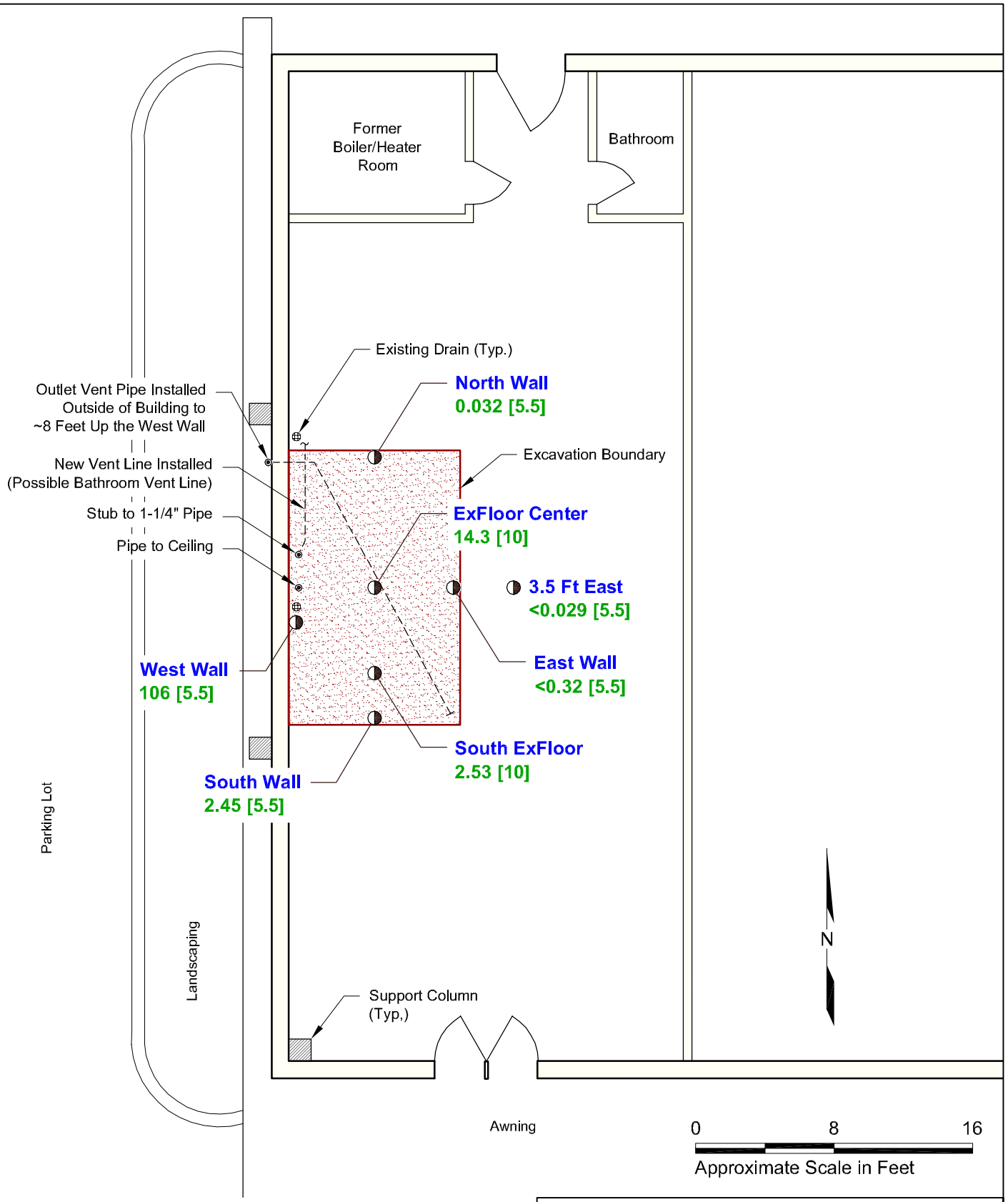
Figure 4
Soil Sampling on the Boundaries of the IRM Excavation



West Wall ◑ Confirmation Soil Sample and Designation (Approximate Location)

106 [5.5] PCE Concentration in mg/kg and [Depth in Feet]

Source: On site reconnaissance by Hart Crowser personnel.

Former Progress Dry Cleaners
8602 SW Hall Boulevard, Beaverton, Oregon

Site Plan

15656-00/Task 5 11/07

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Figure
2

JAB 8/6/07

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Figure 5

Post-IRM Soil Sampling Locations Outside the Building

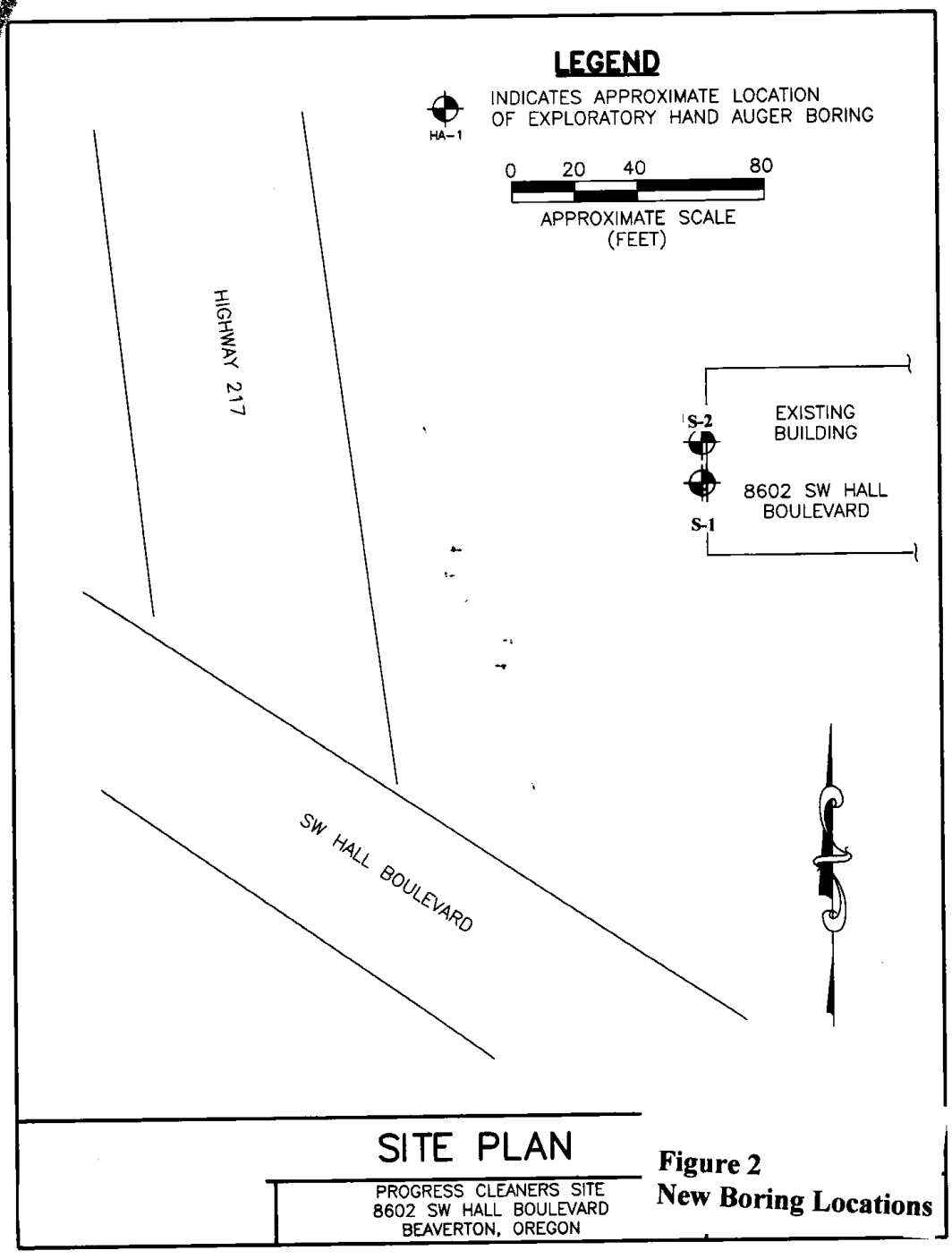
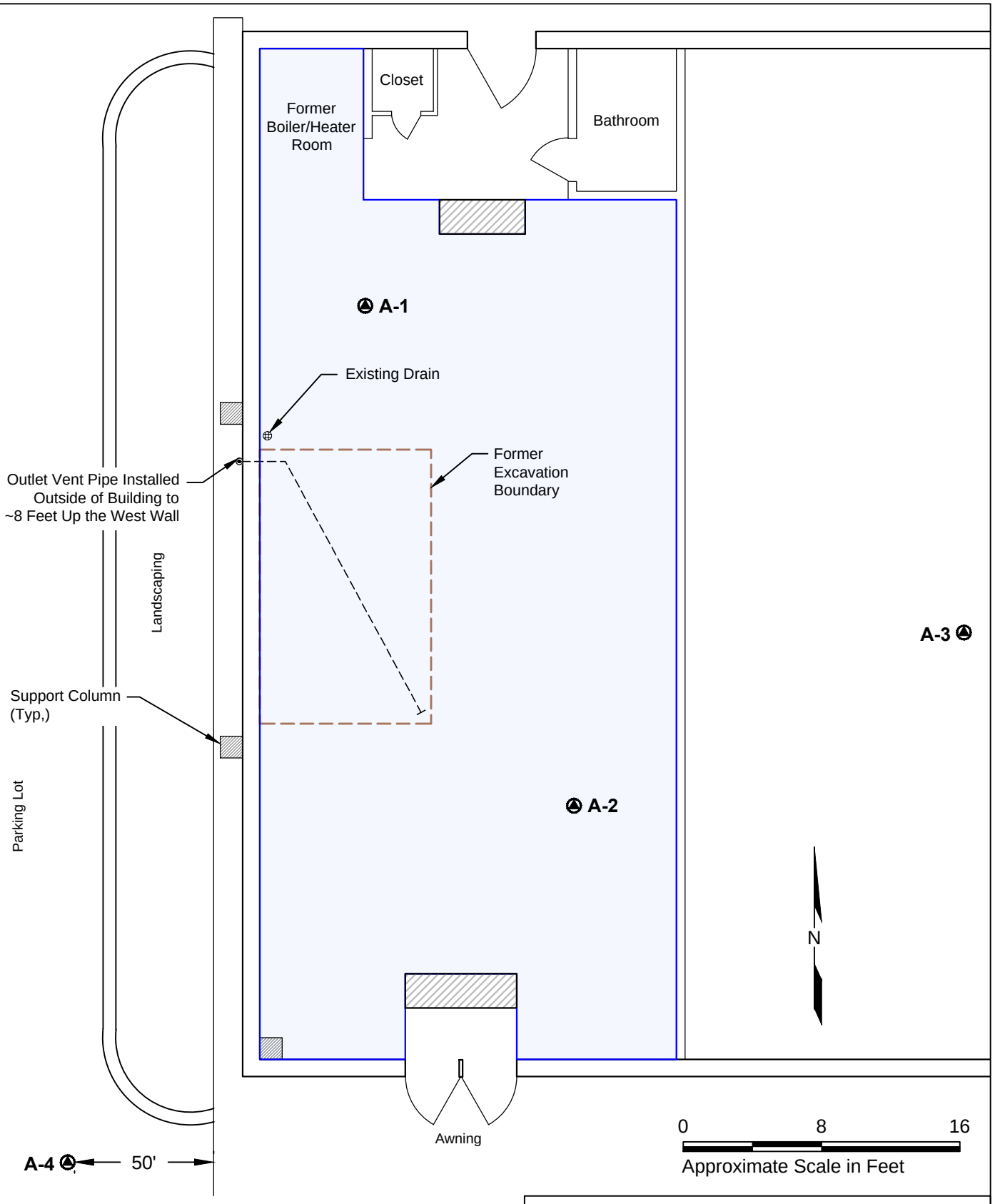


Figure 2
New Boring Locations

Figure 6
Air sampling Locations



A-1 Ambient Air Sample Name and Approximate Location

Ramp (Gradient of 1"/12")

Vapor Barrier Boundary

Source: On site reconnaissance by Hart Crowser personnel.

Former Progress Dry Cleaners
8602 SW Hall Boulevard, Beaverton, Oregon

Site Plan

15656-01/Task 5 6/14

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Figure
2

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Figure 7
Monitoring Well Locations

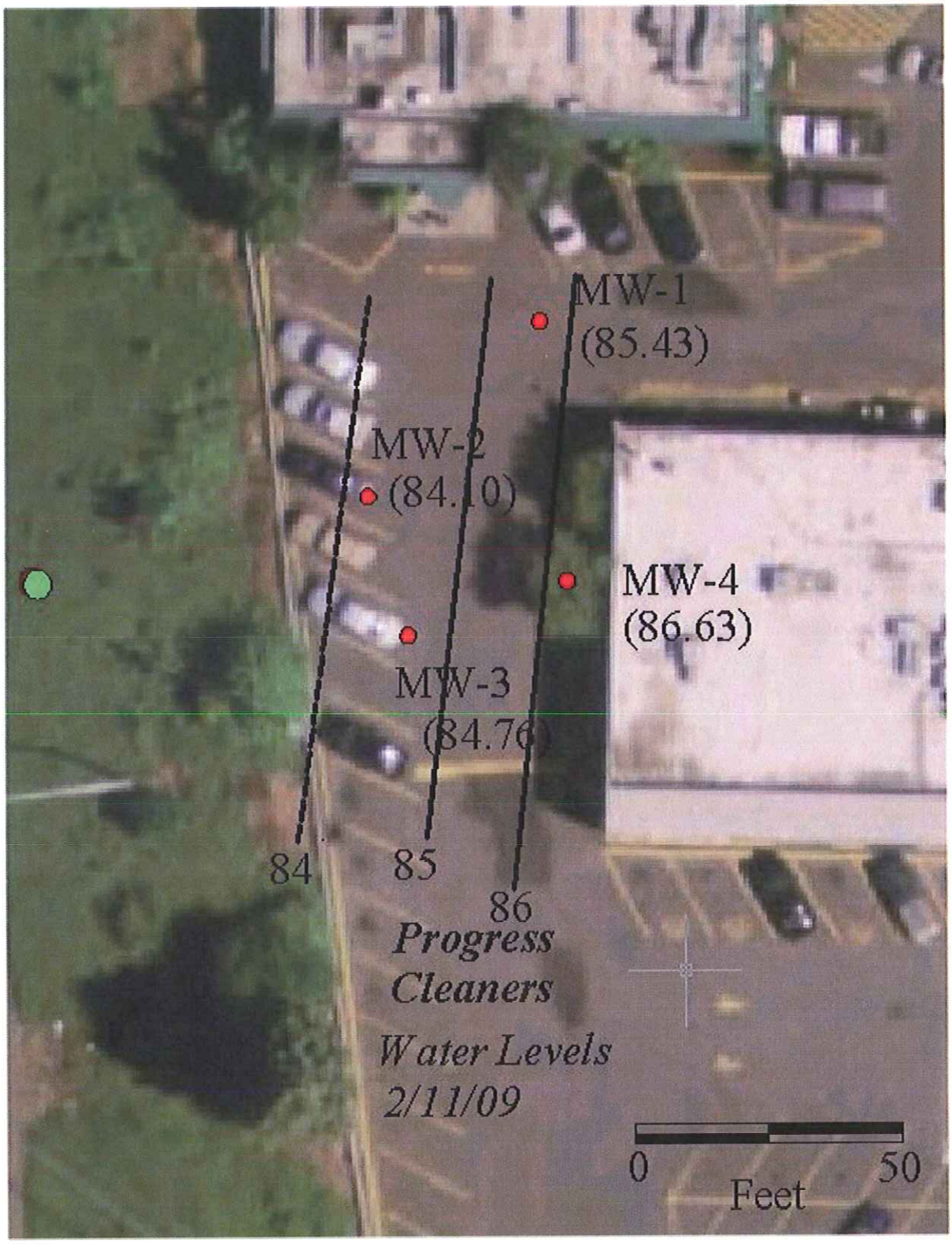

Figure 7. Monitoring Well Locations

Table A-1: Soil Sampling Results

			Analyte Concentration (mg/kg)					
Sample ID	Depth (feet)	Date	Tetrachloroethene (PCE)	Trichloroethene (TCE)	cis-1,2-Dichloroethene (cis-DCE)	trans-1,2-Dichloroethene (trans-DCE)	Vinyl chloride	Other Contaminants Detected
GP1-4'	4	1/15/2003	<0.1	NA	NA	NA	NA	
GP1-8'	8	1/15/2003	<0.1	NA	NA	NA	NA	
GP2-4'	4	1/15/2003	<0.1	NA	NA	NA	NA	
GP2-7'	7	1/15/2003	0.5	0.3	2.9	<0.1	0.9	
GP2-15'	15	1/15/2003	2.8	**3.9**	4	<0.1	0.3	
GP2-20'	20	1/15/2003	<0.1	**10**	13.2	NA	<0.2	
GP3-6'	6	1/15/2003	<0.1	NA	NA	NA	NA	
GP3-20'	20	1/15/2003	<0.1	NA	NA	NA	NA	
HA1-16"	16"	1/15/2003	<0.1	NA	NA	NA	NA	
HA2-16"	16"	1/15/2003	<0.1	NA	NA	NA	NA	
HA3-16"	16"	1/15/2003	<0.1	NA	NA	NA	NA	
HA4-16"	16"	1/15/2003	0.3	NA	NA	NA	NA	
HA5-16"	16"	1/15/2003	<0.1	NA	NA	NA	NA	
HA6-16"	16"	1/15/2003	<0.1	NA	NA	NA	NA	
GP-4-6	6	12/24/2003	ND	ND	ND	ND	ND	
GP-4-13	13	12/24/2003	ND	ND	ND	ND	ND	
GP-4-19	19	12/24/2003	ND	ND	ND	ND	ND	
GP-5-8	8	12/24/2003	ND	ND	ND	ND	ND	
GP-5-10	10	12/24/2003	ND	ND	ND	ND	ND	
GP-6-12	12	12/24/2003	ND	ND	ND	ND	ND	
GP-6-18	18	12/24/2003	ND	ND	ND	ND	ND	
GP-7-8	8	12/24/2003	ND	ND	ND	ND	ND	
GP-7-15	15	12/24/2003	ND	ND	ND	ND	ND	
GP-8-8	8	12/24/2003	ND	ND	ND	ND	ND	
GP-8-12	12	12/24/2003	ND	ND	ND	ND	ND	
GP-9-8	8	12/24/2003	ND	ND	ND	ND	ND	
GP-9-13	13	12/24/2003	0.052	0.015	ND	ND	ND	
GP-1-5	5	11/17/2006	**36.4**	1.78	1.35	0.014	0.056	
GP-1-13	13	11/17/2006	ND	ND	ND	ND	ND	
GP-2-5	5	11/17/2006	**321**	0.288	ND	ND	ND	
GP-2-11	11	11/17/2006	0.835	0.376	0.613	0.011	0.51	
GP-3-2	2	11/17/2006	0.022	ND	ND	ND	ND	
GP-3-5	5	11/17/2006	ND	ND	ND	ND	ND	
GP-4-5	5	11/17/2006	ND	ND	ND	ND	ND	
GP-5-4	4	11/17/2006	0.25	0.034	0.015	ND	0.05	
Samples at Boundaries of IRM Excavation								
Ex Floor Center	10	10/24/2007	14.3	**7.97**	10.4	0.225	0.506	
North Wall	5.5	10/25/2007	0.0317	<0.0317	1.1	0.0443	0.697	
West Wall	5.5	10/26/2007	**106**	**3.36**	0.48	<0.123	<0.123	1,2,4-TMB: 0.199 1,3,5-TMB: 0.128
South ExFloor	5.5	10/26/2007	2.53	0.65	0.848	<0.031	<0.031	
South Wall	5.5	10/24/2007	2.45	2.48	2.59	<0.0313	0.368	1,2,4-TMB: 0.0338
3.5 ft. East	3.5	10/25/2007	<0.0286	<0.0286	<0.286	<0.286	0.292	
East Wall	5.5	10/25/2007	<0.0317	0.12	0.248	0.0875	0.1	
S-1-5	5	3/7/2013	ND	ND	ND	--	--	--
S-1-10	10	3/7/2013	ND	ND	ND	--	--	--
S-2-5	5	3/7/2013	**253**	**24.5**	6.9	--	--	--
S-2-10	10	3/7/2013	**760**	**19.1**	ND	--	--	--
S-2-12.5	12.5	3/7/2013	**381**	ND	ND	--	--	--
Pathway			***DEQ Risk-Based Concentrations***					
Vapor Intrusion Into Buildings (Occupational)			36	2.8	-	200	2.2	1,2,4-TMB: 1,000 1,3,5-TMB: -
Direct Contact Occupational Exposure			940	46	2,000	9,200	3.9	1,2,4-TMB: 2,000 1,3,5-TMB: 10,000
Direct Contact Construction Worker			1,600	120	620	4,500	30	1,2,4-TMB: 2,000 1,3,5-TMB: 3,100
Direct Contact Excavation Worker			44,000	3,400	17,000	130,000	830	1,2,4-TMB: 54,000 1,3,5-TMB: 86,000

Notes:
RBC values from June 7, 2012 revision

10	Concentrations exceed Occupational Vapor Intrusion into Buildings RBC
	Soil removed during 2007 IRM
NA	Not Analyzed
ND	Not Detected
TMB	Trimethylbenzene
--	Data not provided

Table A-2: Air Sampling Results

Sample ID	Date	Analyte Concentration (ug/m3) Tetrachloro-ethene (PCE)	Trichloro-ethene (TCE)	cis-1,2-Dichloroethene (cis-DCE)	trans-1,2-Dichloroethene (trans-DCE)	Vinyl Chloride (VC)	Other Detected Contaminants	*Notes*
Indoor Air								
Central Area	11/6/2006	**59**	**40.0**					
Boiler Room	11/6/2006	8	**4.0**					
Bathroom	11/6/2006	**2,254**	**191.0**					
Southern Area	11/6/2006	**1,983**	**298.0**					*Evren, 2006*
Adjacent Space	11/6/2006	**907**	**<100**					
Roof	11/6/2006	8	<2					
IRM Soil Removal (October and November 2007)								
Inside Sample	3/13/2008	**720**	**22**	22	<1.7	0.012		
Floor sealing and fan installation								
Inside Front	9/9/2008	29	0.64	0.52	<0.020	0.0099		
Inside Back	9/9/2008	25	0.59	0.5	<0.020	0.012		
HVAC Adjustment								
Inside Front	12/31/2008	2	0.046	<0.0099	<0.02	0.0077		
Inside Rear	12/31/2008	2	0.054	<0.0099	<0.055	<0.0064		
Inside Front	6/29/2009	21	0.24	0.14	ND	ND		
Inside Back	6/29/2009	21	0.5	0.16	ND	ND		
Floor Repair								
Inside Front	10/20/2009	7	0.16	0.08	<0.020	0.021		
Inside Back	10/20/2009	6.9	0.18	0.086	<0.020	0.026		
Inside Front	2/2/2010	1.7	0.14	0.02	<0.020	0.011		
Inside Back	2/2/2010	2.5	0.3	0.029	<0.020	<0.0089		
Inside Front	4/13/2010	1.6	0.12	0.059	<0.020	<0.0051		
Inside Back	4/13/2010	2.7	0.13	<0.0099	<0.020	<0.0051		
Inside Front	9/8/2010	5.1	0.082	0.017	<0.020	0.012		
Inside Back	9/8/2010	5.7	0.077	0.018	<0.020	0.013		
Inside Front	4/29/2011	1.7	0.03	<0.099	<0.020	<0.0051		
Inside Back	4/29/2011	1.9	0.03	<0.099	<0.020	0.02		
Inside Front (Air-1)	9/14/2011	2.6	0.14	0.48	<0.079	<0.051	Benzene: 1.1 Carbon tetrachloride: 0.48 Chloroform: 0.45 Chloromethane: 1.1 Ethylbenzene: 1.6	
Inside Back (Air-2)	9/14/2011	6.0	0.11	0.26	<0.079	<0.051	Benzene: 0.67 Carbon tetrachloride: 0.46 Chloroform: 0.36 Chloromethane: 0.95 Ethylbenzene: 0.91	
Air 2 Front	6/19/2012	4.4	<0.11	<0.079	<0.079	<0.051	Benzene: 0.51 Carbon tetrachloride: 0.43 Chloroform: 0.17 Chloromethane: 0.95 Ethylbenzene: 0.42	
Air 1 Back	6/19/2012	6.2	<0.11	0.17	<0.079	<0.051	Benzene: 0.67 Carbon tetrachloride: 0.44 Chloroform: 0.36 Chloromethane: 0.95 Ethylbenzene: 0.48	
Air-2 Front	9/12/2012	**200**	**19**	11	0.13	0.061		Subslab vent fan turned off for one week prior to sampling.
Air-2 Back	9/12/2012	**190.0**	**14**	7.9	<0.079	<0.051		Cracks again noted around excavation patch.
Front	10/23/2012	4.2	0.21	<0.079	<0.079	<0.051	Benzene: 0.70 Carbon tetrachloride: 0.48 Chloroform: 0.21 Chloromethane: 0.78 Ethylbenzene: 0.33	
Back	10/23/2012	4.5	0.23	0.1	<0.079	<0.051	Benzene: 0.23 Carbon tetrachloride: 0.076 Chloroform: 0.050 Chloromethane: 0.41 Ethylbenzene: 0.084	With subslab vent fan turned back on
Vapor Barrier Installation (March 2014)								
A-1	4/21/2014	8.8	<1.1	1.1	<0.79	<0.51		
A-2	4/21/2014	9.5	<1.1	1.4	<0.79	<0.51		
A-3 Neighboring Space	4/21/2014	8.1	1.4	1.5	<0.79	<0.51		Subslab fan (and building HVAC) was turned off starting in March 2014 to test whether it is still needed.
A-1	5/21/2014	**51**	**9.1**	9.5	<0.79	<0.51		
A-2	5/21/2014	40	**7.5**	7.1	<0.79	<0.51		
A-3 Neighboring Space	5/21/2014	12	**3.3**	2.3	<0.79	<0.51		
A-1	7/7/2014	34	<1.1	<0.79	<0.79	<0.51		Subslab vent fan and building HVAC was turned back on in June 2014, 30 days ahead of the 7/7/2014 sampling.
A-2	7/7/2014	25	<1.1	<0.79	<0.79	<0.51		
A-3 Neighboring Space	7/7/2014	2.3	<1.1	<0.79	<0.79	<0.51		
Outdoor Air								
Outside Sample	3/13/2008	<2.4	<1.6	<1.5	<1.7	<1.1		
Outside Background	9/9/2008	0.21	0.042	<0.0099	<0.020	<0.0064		
Outside Background	6/29/2009	0.13	ND	0.012	ND	ND		
Outside Background	10/20/2009	0.12	0.06	<0.0099	<0.020	<.0064		
Outside Background	4/13/2010	0.066	0.024	<0.0099	<0.020	<0.0051		
A-4 Background	4/21/2014	<1.4	<1.1	<0.79	<0.79	<0.51		
A-4 Background	5/21/2014	<1.4	<1.1	<0.79	<0.79	<0.51		
A-4 Background	7/7/2014	<1.4	<1.1	<0.79	<0.79	<0.51		

Pathway	DEQ Risk-Based Concentrations					
Indoor Air Inhalation (Occupational)	47	3.0	>Pv	260	2.8	

Notes:
RBC values from June 7, 2012 revision

29 Yellow shading indicates concentrations exceed RBCs for Indoor Air in Occupational Exposure Scenario

>Pv RBC exceeds the vapor pressure of the pure chemical. The constituent cannot create an unacceptable risk through this pathway.

Note: RBCs for indoor air are not applicable to vent sample. Vent samples are well below applicable soil gas RBCs

Table A-3: Monitoring Well Sampling Results

	Analyte Concentration (ug/L)					
	Tetrachloroethene (PCE)	**Trichloroethene (TCE)**	**cis-1,2-Dichloroethene (cis-DCE)**	**trans-1,2-Dichloroethene (trans-DCE)**	**Vinyl chloride**	**Other Contaminants Detected**
MW-1						
7/2/2008	<5	<5	188	<5	282	-
10/28/2008	<1	3.2	100	1.6	160	1,1-Dichloroethene: 1.0
2/11/2009	<1	1.2	740	6.7	970	1,1-Dichloroethene: 1.9
6/29/2009	<1	131	2,050	13.8	**17,600**	
9/8/2010	<1	1.63	151	1.28	231	
4/29/2011	<1	14.2	980	4.66	144	
9/14/2011	<0.24	0.36	39	0.47	92	-
1/23/2012	0.4	0.44	100	1	160	
MW-2						
7/2/2008	118	**1,420**	800	<10	179	-
10/28/2008	110	**920**	960	5.8	740	1,1-Dichloroethene: 2.6
2/11/2009	73	**620**	13,000	50	**1,400**	Acetone: 35 2-Butanone: 35 Chlorobenzene: 5.4 1,1-Dichloroethene: 8.5
6/29/2009	142	**1,280**	12,900	68.4	**3,140**	
9/8/2010	15.1	61	1,300	10.8	**2,560**	
4/29/2011	197	**1,750**	8,540	43.1	**5,050**	
9/14/2011	83	160	1,300	6.7	740	Chlorobenzene: 0.46 Chloroethane: 2.1 1,1-Dichloroethene: 2.3
1/23/2012	19	89	6,700	29	**7,600**	Acetone: 13 Chlorobenzene: 2.3 Chloroethane: 10 1,1-Dichloroethene: 3.6 Toluene: 0.45
MW-3						
7/2/2008	<5	<5	197	<5	19.4	-
10/28/2008	<1	4.2	150	<1	66	-
2/11/2009	<1	<1	220	<1	94	-
6/29/2009	<1	3.73	658	3.41	375	
9/8/2010	<1	138	1,690	5.01	148	
4/29/2011	<1	**540**	2,970	5.62	277	
9/14/2011	0.94	310	1,800	6.1	330	1,1-Dichloroethene: 9.4
1/23/2012	0.85	110	1,000	3.3	100	1,1-Dichloroethene: 2.6
MW-4						
7/2/2008	<40	<40	1,760	<40	312	-
10/28/2008	<1	1.2	4,500	25	**2,400**	Acetone: 64 1,1-Dichloroethene: 7.0 2-Butanone (MEK): 42
2/11/2009	<1	<1	4,200	22	**1,700**	2-Butanone: 430 1,1-Dichloroethene: 3.3
6/29/2009	<1	<1	3,400	16.8	**1,610**	
9/8/2010	<1	<1	1,320	15.8	1,140	
4/29/2011	<1	172	10,700	72.6	**1,730**	
9/14/2011	<0.24	<2.9	200	2.1	170	1,1-Dichloroethene: 0.78
1/23/2012	4.2	83	2,300	11	580	Chlorobenzene: 0.42 1,1-Dichloroethene: 2.3
Pathway	**DEQ Risk-Based Concentrations**					
Volatilization to Outside Air (Occupational)	>S	19,000	>S	1,800,000	6,800	
Vapor Intrusion Into Buildings (Occupational)	32,000	3,300	>S	350,000	910	
Groundwater in Excavation	5,400	430	24,000	14,000	1,200	

Notes:

RBC values from June 7, 2012 revision

1,400	Yellow Shaded Concentrations exceed Vapor Intrusion RBCs
970	Bolded Concentrations exceed Groundwater in Excavation RBCs
>S	RBC exceeds the solubility limit, so this contaminant cannot present an unacceptable risk in groundwater
<	Analyte was not detected above the listed detection limit

Table A-4: Direct Push Groundwater Sampling Results

		Analyte Concentration (ug/L)			
Sample	**Date**	**Tetrachloroethene (PCE)**	**Trichloroethene (TCE)**	**cis-1,2-Dichloroethene (cis-DCE)**	**Vinyl chloride**
PC-GW-1	1/15/2003	23	50	271	168
PC-GW-2	1/15/2003	48	48	4,280	154
PC-GW-3	1/15/2003	7	16	24	ND
GP-4-W	12/24/2003	ND	ND	ND	ND
GP-5-W	12/24/2003	ND	ND	ND	12.4
GP-6-W	12/24/2003	ND	ND	115	23.5
GP-7-W	12/24/2003	ND	ND	37.5	61.2
GP-8-W	12/24/2003	ND	1.12	739	**1,010**
GP-9-W	12/24/2003	516	**2,100**	603	304
GP-1-W	11/17/2006	**17,300**	**1,670**	4	194
GP-2-W	11/17/2006	**16,000**	**981**	16.5	336
GP-3-W	11/17/2006	10.5	4.3	ND	ND
GP-4-W	11/17/2006	4.28	ND	ND	3
GP-5-W	11/17/2006	494	19	ND	527
Pathway	DEQ Risk-Based Concentrations				
Volatilization to Outside Air (Occupational)	---	>S	19,000	>S	6,800
Vapor Intrusion Into Buildings (Occupational)	---	32,000	3,300	>S	910
Groundwater in Excavation	---	5,400	430	24,000	1,200

Notes:

RBC values from June 7, 2012 revision

1,400	Yellow Shaded Concentrations exceed Vapor Intrusion RBCs
970	Bolded Concentrations exceed Groundwater in Excavation RBCs
>S	RBC exceeds the solubility limit, so this contaminant cannot present an unacceptable risk in groundwater
<	Analyte was not detected above the listed detection limit