

Mulcahy, Connor P - DNR

From: Travis W. Peterson <tpeterson@kapurinc.com>
Sent: Wednesday, February 8, 2023 9:39 AM
To: Mulcahy, Connor P - DNR
Cc: robert3bach@gmail.com
Subject: FW: BRRTS Activity 02-46-588930
Attachments: Fox Run VPs & SBs Maps (24x36) 12.14.22.pdf; Fox Run Vapor Data Table December 14 2022 Final.xlsx

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Good morning Connor.

I thought I should forward this email that was previously submitted to John Feeney on December 28th of last year, hoping it should answer your question presented in your most recent email asking "What is the status of the vapor intrusion screening evaluation requested in the DNR's July 20, 2022 letter?"

In short, additional vapor screening/testing has been completed and further assessment is planned (see below email). As discussed previously, we anticipate completing an interim action summary report following the collection of additional on-site vapor probe samples once the former building footing removal activities have been completed. We'd anticipate that would occur in Spring/Summer 2023 but such work is weather-dependent and subject to the site contractor's progress.

Thank you again Connor.

Cheers,



Travis W. Peterson

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From: Travis W. Peterson
Sent: Wednesday, December 28, 2022 10:16 AM
To: Feeney, John M - DNR <johnm.feeney@wisconsin.gov>; 'Feeney, John M - DNR' <JohnM.Feeney@wisconsin.gov>
Cc: Travis W. Peterson <tpeterson@kapurinc.com>
Subject: BRRTS Activity 02-46-588930

Good morning John:

As previously mentioned, we are in the process of compiling some preliminary information relating to the vapor assessment activities that have been occurring at the Fox Run site in Cedarburg as part of our assessment of current site conditions and I wanted to provide you with the attached vapor assessment-related information.

As you are aware, the current site owner is in the process of conducting an interim action designed to reduce the potential future environmental impacts associated with the historic use of this site and we expect to provide you with an interim action summary report upon the completion of the interim action activities. We expect this to occur in the next few weeks. The interim action summary report will provide detailed information regarding the excavation of contaminated soil from three areas of the site and the off-site in-state as well as out-of-state disposal of the various excavated materials.

Turning to the vapor assessment update, the attached figures provide a depiction of the location of the various vapor probe, soil boring, temporary monitoring well, monitoring well and piezometer installations that have been associated with the historic and ongoing environmental assessment of this site and the various figures depict such locations in relation to historic site conditions as well as the proposed City-approved Fox Run site redevelopment plans and adjoining properties.

The data table provides a summary of the initial vapor assessment work (which consisted of the installation of VP-1 through VP-12), followed by the installation of VP-20 through VP-25 and then VP-30 through VP-39. A review of the data obtained during the vapor assessment appears to indicate that the highest concentrations of vapors were identified in the vicinity of the former vapor degreaser locations and that observed vapor concentrations tended to diminish fairly rapidly with distance away from what are considered to have been the proximate "source areas" (the former vapor degreasers). The recent implementation of the interim action activities that resulted in the removal of a significant quantity of hot-spot contaminated soil from the site is likely to have had the effect of reducing potential future vapor concerns at the site and post-interim action vapor sampling is anticipated to occur within the next few weeks.

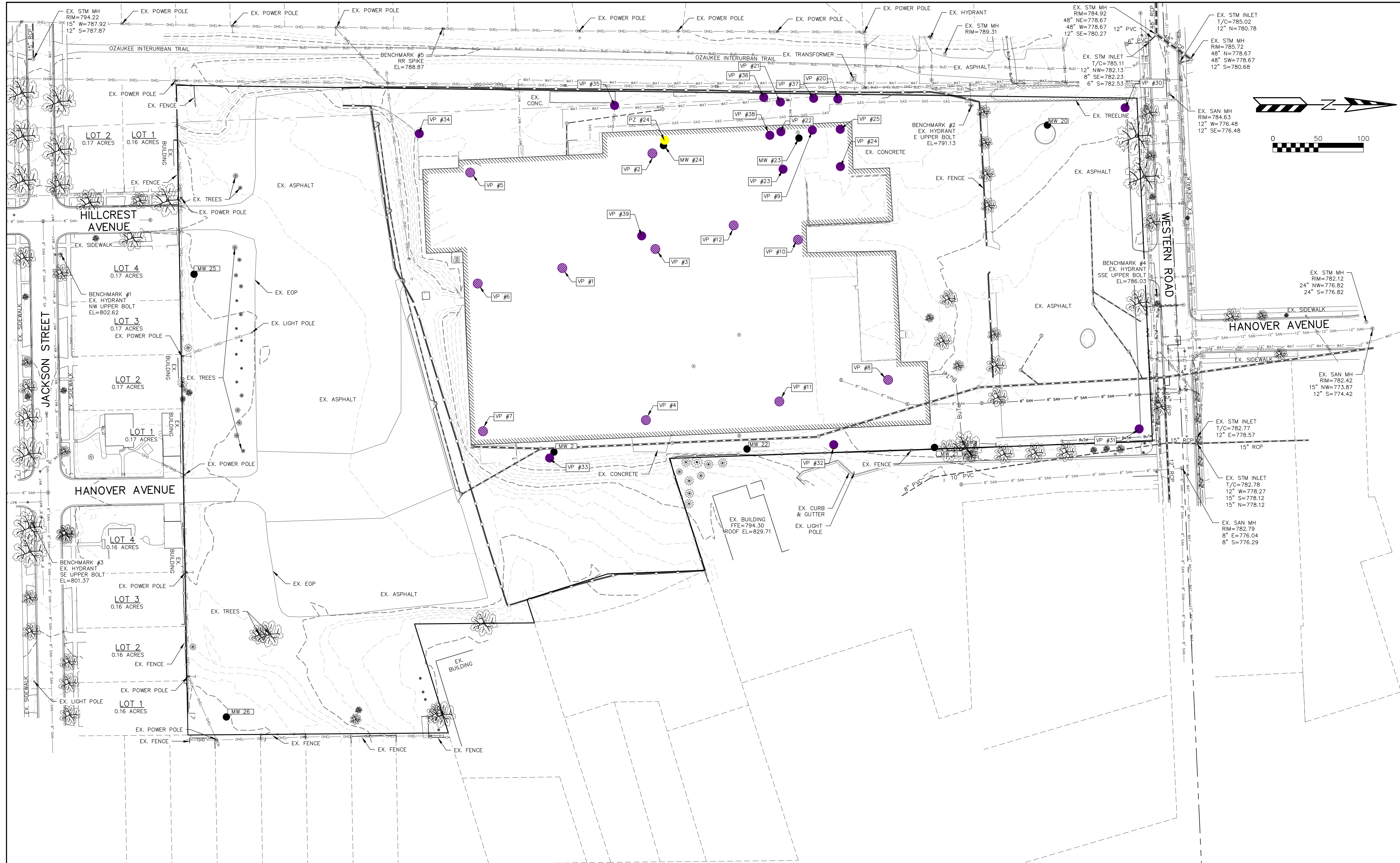
With regard to the potential impact of the presence of vapors upon the proposed development, the developer has incorporated several vapor mitigation strategies into their redevelopment plans and the proposed buildings at the site are anticipated to be constructed with passive soil gas mitigation systems that have the potential to be converted to active systems if future on-site conditions warrant.

Please let me know if you have any questions regarding the attached information.

Thanks again John.

Cheers,

Travis



REVISIONS:	
NO.	DESCRIPTION

PSE
 PARISH SURVEY & ENGINEERING
 122 Wisconsin Street, West Bend, WI 53095
 262.346.7600
 kparish@parishse.com

PROJECT TITLE:
**FOX RUN DEVELOPMENT
 HANOVER AVE
 CEDARBURG, WI 53012**

PLAN TITLE:
**VAPOR
 BORINGS -
 EXISTING
 CONDITIONS**

DRAWN BY:
M.SWARTWOUT
 DESIGNED BY:

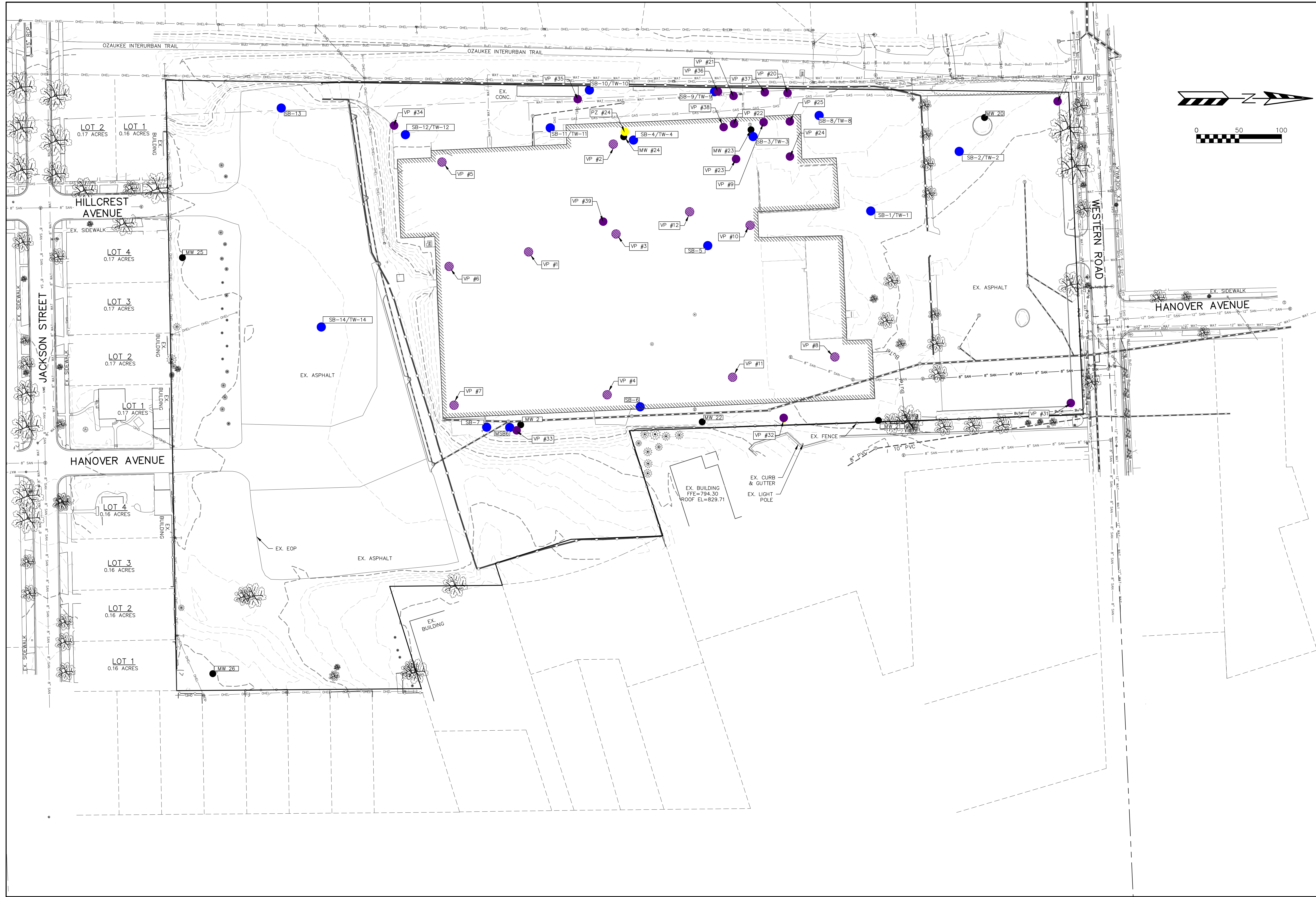
CHECKED BY:
K.PARISH

PLAN DATE:
12-14-2022

PROJECT NO:
 \PD-09-21\

BID SET

SHEET NO:
C1.01



REVISIONS:	
NO.	DESCRIPTION

PSE
 PARISH SURVEY & ENGINEERING
 122 Wisconsin Street, West Bend, WI 53095
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PROJECT TITLE:
**FOX RUN DEVELOPMENT
 HANOVER AVE
 CEDARBURG, WI 53012**

PLAN TITLE:
**VAPOR & SOIL
 BORINGS -
 EXISTING
 CONDITIONS**

DRAWN BY:
M.SWARTWOUT

DESIGNED BY:

CHECKED BY:
K.PARISH

PLAN DATE:
12-14-2022

PROJECT NO:
 \PD-09-21\

BID SET

SHEET NO:
C1.03



Parameter	Residential Sub-Slab Vapor Risk Screening Level (ug/m3)	VP-1	VP-2	VP-3	VP-4	VP-5	VP-6	VP-7	VP-8	VP-9	VP-10	VP-11	VP-12
Attenuation Factor	0.03												
Date Sampled		2022-03-07	2022-03-07	2022-03-07	2022-03-07	2022-03-07	2022-03-07	2022-03-07	2022-03-07	2022-03-08	2022-03-08	2022-03-08	2022-03-08
Regulated Fill Time		30 Min	30 Min	30 Min	30 Min	30 Min	30 Min	30 Min	30 Min	30 Min	30 Min	30 Min	30 Min
Structure/Location Sampled		Sub-slab	Sub-slab	Sub-slab	Sub-slab	Sub-slab	Sub-slab	Sub-slab	Sub-slab	Sub-slab	Sub-slab	Sub-slab	Sub-slab
Media		Vapor	Vapor	Vapor	Vapor	Vapor	Vapor	Vapor	Vapor	Vapor	Vapor	Vapor	Vapor
1,1,1-Trichloroethane	170,000	2.10	2.0J	<0.35	<0.35	<0.34	<.69J	<1.7	<0.33	21.70	<0.33	<0.33	<0.35
1,1-Dichloroethane	600	<0.30	<0.30	<0.31	<0.31	<0.30	<.34	<1.5	<0.30	<2.9	<0.30	<0.30	<0.31
1,1-Dichloroethene	7,000	<0.25	<0.25	<0.26	<0.26	<0.25	<.28	<1.3	<0.25	<2.4	<0.25	<0.25	<0.26
1,2,4-Trimethylbenzene	2,100	24.50	38.00	23.70	26.40	18.60	28.20	25.50	7.40	13.4J	5.70	6.10	4.80
1,2-Dichloroethane	37	<0.35	<0.36	<0.36	<0.36	<0.36	<.40	<1.8	<0.35	<3.4	<0.35	<0.35	<0.36
1,3,5-Trimethylbenzene	2,100	8.00	11.50	7.50	9.10	5.60	8.60	9.60	2.60	7.8J	2.00	2.00	1.7J
Benzene	120	9.50	11.40	8.70	8.80	4.00	5.00	4.60	2.70	2.4J	1.80	2.10	4.10
Carbon tetrachloride	160	<0.50	<0.51	<0.52	<0.52	1.2J	<.58	<2.6	<0.50	13.7J	<0.50	<0.50	<0.52
Chloroform	40	<0.33	<0.33	<0.34	<0.34	<0.33	<.38	<1.7	<0.33	3.9J	<0.33	<0.33	<0.34
Chloromethane	3,100	<0.15	<0.16	<0.16	<0.16	<0.16	<.18	<.80	<0.15	<1.5	<0.15	<.59J	<0.16
Dichlorodifluoromethane	3,300	2.30	2.80	2.60	2.40	2.90	2.60	3.1J	2.60	3.4J	2.30	2.60	2.40
Ethylbenzene	370	36.90	49.20	31.50	35.30	26.70	30.50	29.70	10.80	12.1J	7.40	7.60	7.70
Methyl-tert-butyl ether	3,700	<0.23	<0.23	<0.24	6.2J	<.23	<.26	<1.2	<0.23	<2.2	<0.23	1.8J	3.8J
Methylene Chloride	21,000	<1.1	<1.1	<1.1	<1.1	<1.1	<1.2	<5.5	<1.1	<10.5	<1.1	<1.1	<1.1
Naphthalene	28	7.0J	8.5J	5.7J	6.6J	4.4J	8.2J	<20.3	<3.9	<38.4	4.1J	<3.9	<4.1
Tetrachloroethene	1,400	1.60	1.70	1.1J	1.1J	1.30	3.00	<2.7	<0.52	<5.2	<0.52	<.52	<0.55
Toluene	170,000	410.00	584.00	401.00	620.00	315.00	461.00	442.00	216.00	115.00	114.00	123.00	122.00
Trichloroethene	70	0.75J	15.30	<0.37	<0.37	<0.36	3.10	<1.8	2.40	1,530.00	0.91J	0.77J	1.10
Vinyl chloride	57	<0.16	<0.16	<0.16	<0.16	<0.16	<.18	<.81	<0.16	<1.5	<0.16	<0.16	<0.16
o-Xylene	3,300	39.30	54.00	34.70	38.80	29.70	36.60	32.60	12.30	13.1J	8.60	8.70	8.30

NOTES:

All results are in micrograms per cubic meter (µg/m³) unless noted otherwise
 Concentrations exceeding the Residential Sub-Slab Vapor Risk Screening Levels are *italicized*
 J = Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
 N/A



A.4: Vapor Analytical Results (Sub-Slab)
 Former Mercury Marine Plant No. 1
 N49W6337 Western Road, Cedarburg, Wisconsin

Parameter	Residential Sub-Slab Vapor Risk Screening Level (ug/m3)	VP-20	VP-21	VP-22	VP-23	VP-24	VP-25
Attenuation Factor	0.03						
Date Sampled		2022-07-14	2022-07-14	2022-07-14	2022-07-14	2022-07-14	2022-07-14
Regulated Fill Time		30 Min	30 Min	30 Min	30 Min	30 Min	30 Min
Structure/Location Sampled		Sub-slab	Sub-slab	Sub-slab	Sub-slab	Sub-slab	Sub-slab
Media		Vapor	Vapor	Vapor	Vapor	Vapor	Vapor
1,1,1-Trichloroethane	170,000	58.9	73.6	11.4	227.0	1,790.0	132.0
1,1-Dichloroethane	600	1.9	2.2J	<0.33	<0.34	2.5	<0.36
1,1-Dichloroethene	7,000	1.1J	2.5	<0.28	0.47J	6.1	<0.30
1,2,4-Trimethylbenzene	2,100	75.8	74.5	77.3	73.9	71.5	59.5
1,2-Dichloroethane	37	<0.39	<0.54	<0.39	<0.40	2.5	<0.42
1,3,5-Trimethylbenzene	2,100	23.3	23.3	23.9	23.0	21.9	21.2
Benzene	120	19.3	28.2	27.9	19.6	24.6	22.6
Carbon tetrachloride	160	<0.56	1.4J	<0.56	5.0	23.5	37.4
Chloroform	40	6.2	35.5	2.6	9.8	55.4	38.6
Chloromethane	3,100	<0.17	<0.24	<0.17	<0.18	<0.18	<0.19
Dichlorodifluoromethane	3,300	2.8	2.9	3.0	3.1	2.7	3.3
Ethylbenzene	370	536.0	925.0	524.0	586.0	699.0	619.0
Methyl-tert-butyl ether	3,700	<0.25	<0.35	<0.25	<0.26	<0.27	<0.27
Methylene Chloride	21,000	<1.2	<1.6	<1.2	<1.2	<1.3	<1.3
Naphthalene	28	18.1	19.4	19.7	18.8	16.9	7.3
Tetrachloroethene	1,400	7.2	6.8	6.7	9.5	10.0	30.5
Toluene	170,000	2,610.0	5,040.0	2,630.0	2,100.0	3,450.0	2,290.0
Trichloroethene	70	114.0	153,000.0	1,980.0	13,000.0	55,900.0	20,700.0
Vinyl chloride	57	<0.17	0.24J	<0.17	<0.18	<0.18	<0.19
o-Xylene	3,300	545.0	941.0	525.0	638.0	697.0	638.0

NOTES:

All results are in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) unless noted otherwise

Concentrations exceeding the Residential Sub-Slab Vapor Risk Screening Levels are **italicized**

J = Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.



Parameter	Residential Sub-Slab Vapor Risk Screening Level (ug/m3)	VP-30	VP-31	VP-32	VP-33	VP-34	VP-35	VP-36	VP-37	VP-38	VP-39
Attenuation Factor	0.03										
Date Sampled		2022-08-15	2022-08-15	2022-08-15	2022-08-15	2022-08-15	2022-08-15	2022-08-15	2022-08-15	2022-08-15	2022-08-15
Regulated Fill Time		30 Min	30 Min	30 Min	30 Min	30 Min	30 Min	30 Min	30 Min	30 Min	30 Min
Structure/Location Sampled		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Media		Vapor	Vapor	Vapor	Vapor	Vapor	Vapor	Vapor	Vapor	Vapor	Vapor
1,1,1-Trichloroethane	170,000	0.51J	<0.51J	50.1	<0.39	3.1	233,000.0	4.8	15.8	<23.0	<11.5
1,1-Dichloroethane	600	<0.34	<0.34	<0.34	<0.35	<0.30	25,600.0	<0.33	<0.32	<20.4	<10.2
1,1-Dichloroethene	7,000	<0.28	<0.28	<0.28	<0.29	<0.25	2,340.0	<0.28	<0.27	<17.1	<8.5
1,2,4-Trimethylbenzene	2,100	31.4	34.8	45.0	37.3	36.8	35.5	33.7	37.1	148J	78.2J
1,2-Dichloroethane	37	<0.40	<0.40	<0.40	<0.41	<0.35	6.8	<0.39	<0.38	<24.0	<12.0
1,3,5-Trimethylbenzene	2,100	9.6	11.1	13.3	11.7	11.7	11.2	10.7	11.5	<35.8	42.1J
Benzene	120	4.7	10.9	13.4	12.1	10.7	12.8	7.2	7.7	<14.1	<7.0
Carbon tetrachloride	160	<0.58	<0.58	1.4J	0.77J	<0.50	<0.56	<0.56	<0.55	<34.6	<17.3
Chloroform	40	0.84J	<0.38	0.82J	40.1	1.0	13.6	0.74J	0.67J	<22.6	<11.3
Chloromethane	3,100	0.86J	2.0	0.69J	0.72J	0.37J	1.4	0.83J	0.77J	<10.5	<5.3
Dichlorodifluoromethane	3,300	2.3	2.5	38.0	2.4	2.4	2.0J	2.0J	2.1	<23.2	<11.6
Ethylbenzene	370	25.9	32.4	38.3	33.3	30.6	26.5	88.5	94.6	99.7J	75.7
Methyl-tert-butyl ether	3,700	<0.26	<0.26	<0.26	<0.27	<0.23	<0.25	<0.25	<0.25	<15.6	<7.8
Methylene Chloride	21,000	<1.2	<1.2	<1.2	<1.3	<1.1	<1.2	<1.2	<1.2	<73.3	<36.6
Naphthalene	28	4.9J	5.3J	6.6	5.9	5.9	5.8	8.6	9.6	<268	<134
Tetrachloroethene	1,400	2.5	2.1	3.8	4.3	2.0	17.9	2.1	2.1	<36.1	<18.0
Toluene	170,000	149.0	221.0	257.0	186.0	161.0	122.0	1,480.0	1,520.0	1,550.0	1,050.0
Trichloroethene	70	2.0	3.3	111.0	2.2	3.7	459.0	181.0	218.0	2,620.0	14.4J
Vinyl chloride	57	<0.38J	0.32J	0.39J	<0.18	<0.16	2.7	<0.17	<0.17	<10.7	<5.4
o-Xylene	3,300	32.9	41.3	47.5	42.2	39.3	34.9	93.4	99.9	155.0	108.0

NOTES:

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 Concentrations exceeding the Residential Sub-Slab Vapor Risk Screening Levels are *italicized*
 J = Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.