



August 25, 2020

Project No. 19119232

Ms. Maureen Hatfield

VCP-CA Section - Remediation Division
Texas Commission on Environmental Quality
P.O. Box 13087, MC-127
Austin, Texas 78711-3087

**RE: UPDATED PROPOSED CONFIRMATION SOIL GAS PROBES FOR SOIL VAPOR INTRUSION
ASSESSMENT
UNION PACIFIC RAILROAD COMPANY – HOUSTON WOOD PRESERVING WORKS
HOUSTON, HARRIS COUNTY, TEXAS
HAZARDOUS WASTE PERMIT/COMPLIANCE PLAN NO: 50343, ISWR NO 31547
EPA IDENTIFICATION NO TXD000820266; RN100674613/CN600131098**

Dear Ms. Hatfield:

Golder Associates Inc. (Golder), on behalf of Union Pacific Railroad Company (UPRR), provides this letter in response to a conference call discussion on the vapor intrusion (VI) assessments between the Texas Commission on Environmental Quality (TCEQ), UPRR, and Golder on July 30, 2020 and in response to an email received from the TCEQ on August 18, 2020. As presented in the Updated Soil Vapor Intrusion Assessment Interim Report (VI Report) dated August 4, 2020, the VI pathway off-site is incomplete based on the lines of evidence including vertical separation distance, groundwater COC concentrations in the off-site A-TZ wells, lateral distribution of the soil gas sample locations, and benzene, ethylbenzene, xylenes, and naphthalene concentrations in soil gas samples collected for the VI evaluation. However, as detailed in the August 4, 2020 report, water had infiltrated four of the additional six soil gas probes installed in June 2020 and the soil gas probes could not be sampled, including three of the five installed on the Greater Mount Nebo Baptist Church Property (SG-23, SG-24, and SG-26). Per the conference call with the TCEQ, UPRR proposes to install additional soil gas probe locations, pending off-site landowner access, as confirmation samples to confirm that the VI pathway is incomplete.

The proposed soil gas probe locations shown on Figure 1 were selected since soil gas probes SG-01, SG-02, SG-04, SG-06, SG-07 and SG-09 installed in February 2020 and SG-23, SG-24, and SG-25 installed in June 2020 in the City of Houston right-of-way (ROW) had water present during the soil gas sampling events and soil gas samples could not be collected from those locations. As a result, the following locations are proposed (see attached Figure 1):

- Two soil gas probe locations north of SG-01 and SG-02 are proposed on property located at 2909 Lavender Street located between Lavender and Solo Streets on the north side of Liberty Road. According to Harris County Appraisal District records, this property is currently owned by 2013 Cottage, LLC.
- Four soil gas probe locations (three north of the church building and one near monitoring well MW-68A) are proposed to be installed on property owned by the Greater Mount Nebo Baptist Church located at 5005 Liberty Road.

UPRR obtained an access agreement with the Greater Mount Nebo Baptist Church for the property located at 5005 Liberty Road to install additional probes in June 2020. UPRR will contact the representatives of the Greater Mount Nebo Baptist Church to request permission to install additional soil gas probes on the property. UPRR will also contact representatives for 2013 Cottage, LLC to request access to the property at 2909 Lavender Street. UPRR will keep the TCEQ updated on the progress of acquiring access on a weekly basis.

The scope of work to install the additional soil gas probes will follow the procedures outlined in the Updated Proposed Vapor Intrusion Assessment Work Plan (Work Plan) dated January 2, 2020 and updated January 31, 2020, and approved by the TCEQ in an email dated January 31, 2020. If the potential for underground utilities in the area of the proposed locations is deemed low following initial clearance activities (811 One Call, City of Houston utility map review, and private utility locates), soil borings will be attempted using a hand-auger as described in the Work Plan dated January 2, 2020.

The TCEQ requested that UPRR submit a schedule to complete the additional VI assessment activities. Since an access agreement has not been established with the one of the identified private property owners, the schedule to complete the additional VI assessment activities is not known at this time. However, provided below is an estimated schedule once the access agreement has been established:

- VI Assessment Confirmation Activities:
 - UPRR will attempt to contact representatives for the property located at 2909 Lavender Road (2013 Cottage, LLC) starting the week of August 24, 2020, and will request permission from the Greater Mount Nebo Baptist Church representatives to install additional soil gas probe locations on their property;
 - Additional soil gas probe installation will be initiated within four weeks of obtaining the access agreement with 2013 Cottage, LLC, depending on subcontractor availability. UPRR will gauge the groundwater elevation in MW-68A before installing a soil gas probe near the well as requested by the TCEQ.
 - Soil gas sampling will be conducted approximately 24 hours after installation of the soil gas probes if completed by hand auger (following the Work Plan dated January 2, 2020) or 10 days after installation of the soil gas probes if completed by hydrovac excavation (following the Work Plan dated January 31, 2020). Per the Work Plan, if there is a significant rain event (1/2-inch or greater during a 24-hour period) at the Site, soil gas samples will not be collected until 48 hours after the rain event.
 - Laboratory analysis of the soil gas samples is assumed to take approximately seven days (pending laboratory availability).
 - Assuming water is not present in the additional soil gas probes and sampling/analysis can be performed as described above, the updated VI Report will be submitted to the TCEQ within four weeks of receiving the soil gas analytical data report from the laboratory.

UPRR believes that we have collected sufficient data to demonstrate that a VI pathway off-site does not exist per the requirements of the USEPA VI guidance. Per the conference call with TCEQ, UPRR will complete the additional work described in this letter in an effort to achieve the spatial distribution of sampling locations specified in the TCEQ-approved Work Plan. Upon completion of the additional work, UPRR believes it has made all necessary and appropriate efforts to achieve the spatial distribution of sampling locations.

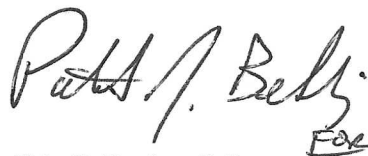
Please feel free to give us or Kevin Peterburs of UPRR at 414-267-4164 a call if you have any questions or comments.

Sincerely,

Golder Associates Inc.



Eric C. Matzner, P.G.
Principal / Practice Leader



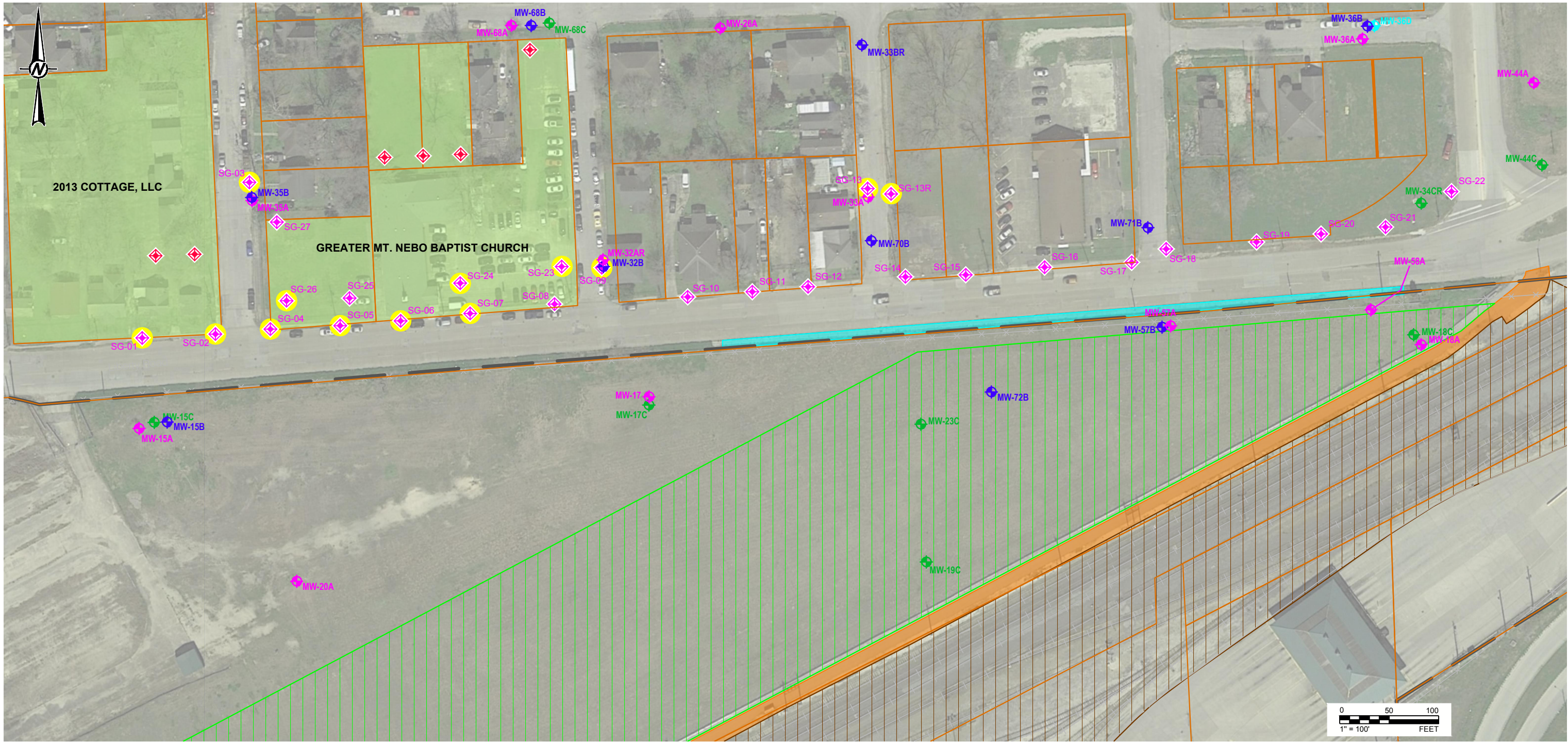
Eric F. Pastor, P.E.
Principal / Practice Leader

CC: TCEQ Region 12, Waste Section Manager

[https://golderassociates.sharepoint.com/sites/116841/project files/6 deliverables/rap/rap revision 5/vi work plan/additional sg probes-aug2020/houston tx-wood preserving works-vi soil gas sup assess letter 20200806.docx](https://golderassociates.sharepoint.com/sites/116841/project%20files/6%20deliverables/rap/rap%20revision%205/vi%20work%20plan/additional%20sg%20probes-aug2020/houston%20tx-wood%20preserving%20works-vi%20soil%20gas%20sup%20assess%20letter%2020200806.docx)

FIGURE

Path: \\usarhars\data\Projects - Round Rock\19119232 - HWPW\2020-7 July - Soil Gas Sampling Locations.dwg | File Name: FIG 1 - Soil Gas Sampling Locations.dwg | Last Edited By: adamond | Date: 2020-08-07 | Time: 09:29 AM | Printed By: adamond | Date: 2020-08-07 | Time: 09:29 AM



LEGEND

UPRR PROPERTY BOUNDARY

FENCE

RAILROAD

A-TZ MONITORING WELL LOCATION

B-CZ/B-TZ MONITORING WELL LOCATION

C-TZ MONITORING WELL LOCATION

D-TZ MONITORING WELL LOCATION

SOIL CAP AREA (20016)

ASPHALT CAP AREA

CONCRETE SIDEWALK CAP AREA

RAILROAD CAP AREA

SOIL GAS AND SURFACE SOIL SAMPLE LOCATION

SOIL GAS AND SURFACE SOIL SAMPLE LOCATION
(SOIL GAS SAMPLE POINT SATURATED WITH WATER)

PROPOSED SOIL GAS AND SURFACE SOIL SAMPLE LOCATION
(PENDING ACCESS AGREEMENT)

NOTE(S)

1. * SOIL ANALYTICAL DATA REJECTED BY VALIDATOR.

REFERENCE(S)

BASE MAP TAKEN FROM ERM-SOUTHWEST, INC APAR ADDENDUM, FIG 3-1, DATED JUNE 2004.
AERIAL: GOOGLE EARTH, IMAGERY DATED 2/23/19.

CLIENT
UNION PACIFIC RAILROAD CO.

PROJECT
HOUSTON WOOD PRESERVING WORKS

TITLE
SOIL GAS & SURFACE SOIL SAMPLING LOCATIONS

CONSULTANT	YYYY-MM-DD	2020-08-07
DESIGNED	AJD	
PREPARED	AJD	
REVIEWED	MH	
APPROVED	ECM	

PROJECT NO. 19119232
REV. 0
FIGURE 1

1 in IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ANSI B