

November 20, 2020

Ray Phillips Protect Sudbury, Inc. 79 Robert Best Road Sudbury, Massachusetts 01776

Subject: Sudbury-Hudson Transmission Reliability and Mass Central Rail Trail Project – Response to Comments Sudbury, Massachusetts 01776 Partner Project No. 20352381

Dear Mr. Phillips:

Partner Engineering and Science, Inc. (Partner) completed a Peer Review on behalf of Protect Sudbury, Inc. on November 2, 2020 regarding the Sudbury-Hudson Transmission Reliability and Mass Central Rail Trail Project (Project). On November 6, 2020 Weston & Sampson completed a response to the Peer Review which was provided to Partner on November 17, 2020.

#### Conceptual Site Model

Partner provided a general Conceptual Site Model (CSM) in the Peer Review which is defined by the Massachusetts Contingency Plan (MCP) as "a site-specific description of how contaminants entered the environment, how contaminants have been and may be transported within the environment, and routes of exposure to human and environmental receptors that provides a dynamic framework for assessing site characteristics and risk, identifying and addressing data gaps and managing uncertainty, eliminating or controlling contaminant sources, developing and conducting response action strategies, and evaluating whether those strategies have been effective in achieving desired endpoints. ..."

The Massachusetts Department of Environmental Protection (MassDEP) guidance document Best Management Practices for Controlling Exposure to Soil during the Development of Rail Trails (RTG) provides guidance for the evaluation of potential sources of contamination along a rail road line.

The RTG suggests that "an MCP Phase 1 level of investigation, tailored to the nature of the contaminant and source, would be appropriate to address these sources of elevated chemical contamination. A Phase 1 Preliminary Investigation would typically contain sufficient information in the following areas to determine the need for a Response Action or further detailed investigation:..." Development of a CSM therefore would be an appropriate step to take and is consistent with MassDEP's RTG.

#### MCP 21E Sites

As stated in the Peer Review, a hazardous materials assessment by Vanasse Hangen Brustlin, Inc. (VHB) identified several MCP (21E) regulated disposal sites abutting or adjacent to the Project. Sixteen 21E sites



are located along the Project in the Town of Sudbury, including sites associated with chlorinated volatile organic compounds (VOCs) impact (Coatings Engineering RTN 3-74, Concord Street RTN 3-15581) and Light Non Aqueous Phase Liquid (LNAPL) (Gasoline Service Station RTN 3-33240). Although these locations were targeted for soil sampling, groundwater samples were not collected. In addition, eight disposal sites were not designated for sampling, including the Former Sudbury Rod and Gun Club (see Attachment A).

The Former Sudbury Rod and Gun Club (RTN 3-24573) is located on 33 Bulkley Road in Sudbury. Although residential areas were the focus of remediation activities, historic diagrams indicate the firing range extended onto the Massachusetts Bay Transportation Authority (MBTA) right-of-way (ROW) suggesting the potential for lead impacted soil (see attached Attachment B). The potential also exists for lead impacted groundwater in this location.

The Former Raytheon Company (RTNs 3-3037 and 3-27243) is located at 528 Boston Post Road and abuts the Project Site. Laboratory analytical results for 1,4-dioxane (a stabilizer in the manufacturing of chlorinated VOCs) exceeded the MCP RCs for Groundwater Category 1 (RCGW-1) standard. An alternative testing method (i.e. EPA Method 8270SIM) would be a more appropriate method to test for the presence of 1, 4-dioxane.

As previously stated in the Peer Review, a sample strategy table for the VHB sample locations would assist in determining the purpose of each location and if a groundwater sample would be warranted.

Partner concurs that the VHB soil data set does not indicate the presence of a disposal site(s) but the selection of sample locations, the collection of composite soil samples over an 8 foot interval, and the collection of three groundwater samples may not have adequately characterized the Project.

#### Soil Management

The Response to Comments letter notes that soil management will be conducted in accordance with a Soil and Groundwater Management Plan (SGMP) that has not been provided to Partner for review. As Partner discussed in the Peer Review, the MassDEP RTG document was not intended for the large quantity of soil that will be displaced as part of this Project. Typically for 21E Disposal Sites, a Release Abatement Measure (RAM) Plan or Utility RAM Plan would be utilized. For this Project, a release of oil or hazardous materials has not been identified therefore a SGMP developed outside the MCP framework would be appropriate.

Regarding soil assessment conducted in 2018, Partner notes that in addition to the lack of soil characterization beyond 8 feet below present grade at the splice vault locations, composite soil samples (not including the VOC fraction) were collected. As noted in the response to the Peer Review, contaminants associated with former rail road beds are typically encountered in surface intervals. Although composite sampling may be an efficient way of estimating average concentration, the collection of a composite sample over this depth interval may not have appropriately assessed surficial soils. It may be possible that hot



spots or areas of elevated concentrations may have been diluted. The MCP defines accessible soil as 0 to 3 feet below ground surface (bgs).

Regarding the characterization of soil below 8 feet below present grade, the presence or absence of soil impacts cannot definitely be determined without laboratory analysis. Partner concurs that typically contaminants associated with a former rail road bed (e.g. PAHs and metals) would be confined to the surface interval but this cannot be assumed.

#### Groundwater Characterization

Partner reiterates that the limited groundwater sampling (three groundwater samples) may not have adequately characterized groundwater conditions along the Project. As previously stated, gaps in the spatial distribution of monitoring wells and alternative laboratory methods to qualify the presence of potential contaminants support this assumption.

As previously stated in the Peer Review, the Massachusetts Wetland Protection Act (MWPA) recognizes and protects eight important public functions and values provided by wetlands, waterbodies, and other areas. Among these functions and values are water quality/water supply protection and pollution prevention. The review of the Project to ascertain impact to water supply and wetland resources would be within the jurisdiction of a conservation commission. Although the due diligence investigation completed for the Project has not identified impacted soil and groundwater, Partner suggests that the investigation may not have completely assessed these media.

We appreciate the opportunity to provide these services. If you have any questions concerning this report, or if we can assist you in any other matter, please contact Tom Campbell at (508) 975-3022.

Sincerely,

Partner Engineering and Science, Inc.

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Tom Campbell, LSP Project Manager

Attachments:

ATTACHMENT A VHB SAMPLE LOCATION MAP ROD AND GUN CLUB







- 600 Feet
- Residential, Rural, Undeveloped Corridor per MassDEP Rail Trail BMP
- Industrial Corridor per MassDEP Rail Trail BMP
- OHM Sampling Location

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- Monitoring Well Location igodol
  - MA Towns (Multi-part Polygons, from Survey Points)

Sudbury to Hudson Transmission Reliability and Mass Central Rail Trail Project



Sudbury, Massachusetts

## Subsurface Sample Locations

Sources: MassGIS 2013 Aerial Imagery Note: This figure does not include geotechnical sampling locations.

# ATTACHMENT B ROD AND GUN CLUB SKEET RANGE MAP

# Former Sudbury Rod & Gun Club Sudbury, Massachusetts





#### DATA SOURCES

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	15	OPEN SPACE: MassGIS, 1:25,000. Digitized from 1:25,000 bissemaps produced by MassGIS. These boundaries are not based on surveys and do not represent a legal record of ownership. 2000.								
ds	F	CONTOURS: MassGIS, 1:25,000, 1:5,000. This data is derived from the USGS 1:25,000 DLG 3 meter contours and from the 3 meter contours created from DTM data points collected during production of 1:5,000 digital orthophotograph images. 1998.								
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Draft map provided by the Lead Shot Initiative . Information on this map is subject to change.

# ATTACHMENT C VHB SAMPLE LOCATION MAP: FORMER RAYTHEON AND RTN-3-74

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Sudbury to Hudson Transmission Reliability and Mass Central Rail Trail Project

Sudbury, Massachusetts

## Subsurface Sample Locations

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# ATTACHMENT D VHB SAMPLE LOCATIONS (RTN 3-15581 and RTN 3-33240)





600 Feet 150 300

- Residential, Rural, Undeveloped Corridor per MassDEP Rail Trail BMP
- Industrial Corridor per MassDEP Rail Trail BMP
- OHM Sampling Location

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- Monitoring Well Location  $\bigcirc$ 
  - MA Towns (Multi-part Polygons, from Survey Points)

Sudbury to Hudson Transmission Reliability and Mass Central Rail Trail Project



Sudbury, Massachusetts

## Subsurface Sample Locations

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- Residential, Rural, Undeveloped Corridor per MassDEP Rail Trail BMP
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- OHM Sampling Location
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Sudbury to Hudson Transmission Reliability and Mass Central Rail Trail Project



Sudbury, Massachusetts

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