O'Reilly, Talbot & Okun
ENGINEERING ASSOCIATES

J2793-01-06
November 10, 2025

401 Liberty Street, LLC
265 State Street
Springfield, Massachusetts 01103
Attn: Raipher D. Pelligrino, Esq.

Re: Responses to Public Involvement Questions for Draft Revised Phase II Comprehensive Site Assessment Report
Former Lunt Silversmith, Inc.
298 Federal Street
Greenfield, Massachusetts
RTN 1-18869

Dear Mr. Pelligrino:

OTO is pleased to provide the attached responses to questions and comments that were submitted by Apex Companies, LLC, and OHI Engineering, Inc. for the Draft Revised Phase II Comprehensive Site Assessment (CSA) Report for the above-referenced property (the Site). These responses have been prepared in accordance with Public Involvement Plan (PIP) and will be incorporated into the final Revised Phase II CSA Report. With your approval, a copy of these responses has been provided to the Massachusetts Department of Environmental Protection and will be distributed to the PIP Group.

Please contact the undersigned should you have any questions with this submittal.

Sincerely,
O'Reilly, Talbot & Okun Associates, Inc.

Lori A. McCarthy, LSP
Principal

Debra M. Listernick
Senior Risk Assessor, Reviewer

ec: MassDEP (via eDEP)
City of Greenfield, Mayor's Office
City of Greenfield, Board of Health
City of Greenfield, Department of Public Works
City of Greenfield, Planning Director
Lunt Neighborhood Action Group, G. Ayers
Apex Companies, D. Felten, LSP for LNAG
OHI Engineering, Inc. W. L. Witten, LSP for City of Greenfield

Questions and Comments Received from Mr. Daniel Felten, LSP for Apex on behalf of Lunt Neighborhood Action Group (LNAG) Public Involvement Plan (PIP) Group:

Q1: MW-109, which is located in Kenwood Street several hundred feet away from the former Lunt property, is currently exhibiting increasing concentrations of trichloroethylene (TCE) and 1,2-dichloroethylene (DCE). As depicted on Figure 3, the stormwater piping corridor near MW-109 is included in the "boundary of area of COC-impacted stormwater and catch basin sediment", while the "boundary of area of COC impacted soil and groundwater" is depicted as ending at, or near, the western property boundary of the former Lunt property, and does not include MW-109. Although the concentrations in MW-109 are currently below Method 1 GW-2 and GW-3 groundwater standards, should MW-109 be considered a part of the Disposal Site since TCE has "come to be located" at this well and concentrations exhibit an increasing trend?

A1: MW-109 was omitted from the draft Disposal Site Boundary in error. As Apex noted, including MW-109 within the DSB is appropriate since chlorinated VOCs have been detected in groundwater samples at concentrations greater than the detection limits. This has been corrected on the Figure to be submitted with the Revised Phase II report. This change did not impact the outcome of the risk characterization or the conclusions of the Revised Phase II report.

Q2: MW-108, which is located closer to the former Lunt property, has not been sampled since 2013. Elevated concentrations of chlorinated VOCs have been detected in nearby catch basin CB-3N during every sampling event in 2024. Should the absence of sampling data at MW-108 be considered a data gap in light of the increasing trends at CB-3N?

A2: The analysis of the sample collected at MW-108 in 2013 did not detect chlorinated VOCs above the laboratory detection limit. Samples collected at monitoring wells MW-106 and MW-107R, both on the south side of Kenwood Street and closer to the Site property in 2024 did not contain chlorinated VOCs above detection limits, and samples collected at MW-109 on the south side of Kenwood Street further from the Site property did contain detectable chlorinated VOCs. OTO opines that the data collected from quarterly sampling of MW-106, MW-107R, and MW-109 are appropriate to define the extent of shallow groundwater impact to the Site along this portion of Kenwood Street.

Additional discussion of trend evaluation of catch basin stormwater sample concentrations is provided in the answer to Question 7 (below).

Q3: Apex also questions whether stormwater samples collected from the catch basins should be considered groundwater since these samples may represent subsurface preferential pathways for groundwater flow? And if this were the case, should the concentrations in the catch basins be subject to the Method 1 groundwater standards?

A3: Stormwater is not generally considered to be an environmental medium, as it is comprised of precipitation, ice and snow melt, and other water sources that come to be located within catch basins and distribution lines following overland flow, where the water may come into contact with other contaminant sources. It is therefore not appropriate to compare the results of analyses of the samples collected within the stormwater system to the Method 1 Standards. The Method 1 GW-2 Standards are applicable and were developed based on models for vapor intrusion from shallow groundwater beneath structures on land above the groundwater. The stormwater lines are located under rights of way and the stormwater is not in direct contact with soil, so the vadose zone modeling that was utilized to establish risk-based concentrations for exposure to groundwater under Method 1 would not apply to stormwater.

Method 1 GW-3 Standards are developed to address adverse ecological effects that could result from discharge of oil or hazardous material to surface water. Analysis of samples collected at the outfall of the stormwater system in 2012 and 2024 did not detected contaminants of concern for the Site.

In addition, a Method 3 Risk Characterization was conducted in the Revised Phase II which quantifies risks for complete exposure pathways and Method 1 Standards are not applicable when using Method 3. As discussed above, a vapor intrusion pathway and discharge to surface water from impacted stormwater are not complete exposure pathways and, therefore, were not required to be evaluated quantitatively in the Method 3.

Q4: If not groundwater, should the concentrations detected in the catch basin stormwater be considered an unpermitted point source discharge (i.e., the contaminant plume) subject to permitting under the National Pollutant Discharge Elimination System (NPDES)? These questions may warrant consideration in the Phase II as they will impact future response action decisions.

A4: The NPDES permitting system is designed to regulate point source discharges to water of the United States. Section 502(14) of the Clean Water Act indicates that "…the term point source means any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged..." Groundwater does not meet the definition of a discernible, confined, and discrete conveyance. The permit that would most closely apply to groundwater entering a stormwater line would be the NDPES Phase II Stormwater Program Municipal Separate Storm Sewer System (MS4) General Permit, which applies to areas in select Massachusetts municipalities and requires that they identify and prevent groundwater infiltration to their stormwater lines through implementation of an Illicit Discharge Detection and Elimination (IDDE) program. However, the City of Greenfield is not presently

designated as a jurisdiction required to maintain an MS4 permit, and therefore it is unlikely to impact future response actions decisions.

Q5: The Phase II documents indoor air sampling (and/or attempts made to obtain access to sample indoor air) at specific properties identified in the Conditional Approval of Phase II Scope of Work (MassDEP, September 2023). On page 2 of the Conditional Approval, the Department included the following language recommending that the indoor air sampling program be expanded based upon the results of the assessments conducted (emphasis added):

"The Department requires that indoor air samples be collected in the late summer/early fall 2023 from the locations listed below, *at a minimum*. *Based on indoor sampling results and other assessments to be conducted, re-sampling and/or inclusion of additional properties in the indoor air monitoring program may be necessary.*"

Since MassDEP did not intend for the list of properties for indoor air sampling to be exclusive, should the indoor air sampling program be expanded based on increasing trends of TCE concentrations observed in MW-104 as well as in stormwater samples collected from nearby catch basins CB-2N and CB-3N? According to the Draft Phase II, samples were last collected in 2013 from the following properties located downgradient of MW-104, CB-2N and CB-3N: 28 Kenwood, 38 Kenwood, 42 Kenwood, 44 Kenwood, and 48 Kenwood. Although TCE was not detected at these properties above the laboratory reporting limit in 2013, the laboratory reporting limit was greater than the Residential Indoor Air Threshold Value for TCE. LNAG believes that the elevated laboratory reporting limit for the samples collected in 2013, combined with increasing dissolved-phase TCE concentration trends in the monitoring well and catch basins located directly upgradient, warrant resampling of the indoor air at these properties. Pending the results of the recommended sampling, additional sampling may be warranted at properties located further downgradient on Davis Street and Forest Avenue, consistent with the language included in MassDEP's Conditional Approval.

A5: TCE and PCE have been detected in groundwater samples collected at monitoring well MW-104, on the north side of Kenwood Street. Groundwater samples collected at monitoring wells located on the south side of Kenwood Street in 2024 (MW-103, MW-106, MW-107R, MW-109, LS-22, LS-23) have contained PCE or TCE at significantly lower concentrations. The evaluation of risk has been performed utilizing Method 3; therefore, the Method 1 Standards are not applicable. Additional indoor air sampling is not warranted at these residences to support the conclusion of the Revised Phase II report.

As referenced above, the MassDEP TCE Fact Sheet (August 2014) identifies Target Risk Levels for TCE under Residential Exposure Scenarios.[1] For fetal development and immune system effects for all receptors, the estimated indoor air concentration at which there is No Significant Risk under the MCP (Hazard Index ≤ 1) is 2 µg/m^3. Since the 2013 detection limit for TCE (0.96 µg/m^3) is below 2 µg/m^3, a condition of No Significant Risk can be concluded for non-cancer effects based on the 2013 data.

Q6: **Lastly, the Draft Phase II may be understating the conclusion of the USEPA's May 2014 indoor air investigation. The Draft Phase II states that there were "no concentrations of chlorinated VOCs associated with the Site" reported by EPA (p. 19, Draft Phase II, August 2025). However, EPA's conclusion was qualified with the following statement:**

"Although trichloroethylene (TCE) is not detected in indoor air samples, the highest reporting limit of 0.64 µg/m³ for TCE slightly exceeds its VISL at 0.43 µg/m³ for the target cancer risk level of 1E-06, leading to a possibility that TCE might exist in indoor air at levels slightly above 1E-06 risk level." (see internal EPA Memorandum: Vapor intrusion evaluation for 15-17 Forest Avenue - Lunt Silversmiths Site, March 26, 2014)

This statement is consistent with LNAG's interpretation of the January 2013 indoor air sampling results, as described above.

A6: The EPA VISL, which is a screening value and not a determination of total risk, is not directly applicable to evaluation under the MCP. The EPA VISL are established by EPA for a 1E-06 cancer risk level for a *single* compound. The MassDEP excess lifetime cancer risk (ELCR) level calculates total site risk, and is set to one-in-100,000, or 1E-05 as a level of No Significant Risk. When the detection limit of 0.64 µg/m^3 is entered into the MassDEP Shortform for Residential Air as the exposure point concentration (EPC), the resulting ELCR is calculated as 1.6E-06. This ELCR for total site risk is lower than the MassDEP risk management criteria of ELCR ≤ 1E-05. According to the definitions within the MCP, there is No Significant Risk for cancer health effects when using the detection limit as the EPC.

As noted above, the MassDEP TCE Fact Sheet (August 2014) identifies the estimated indoor air concentration at which there is No Significant Risk (Hazard Index ≤ 1) for non-cancer health effects as 2 µg/m^3. Since the May 2014 detection limit (0.64 µg/m^3) is below 2 µg/m^3, a condition of No Significant Risk also applies for non-cancer effects based upon the 2014 data.

[1] https://www.mass.gov/doc/tce-toxicity-information-implications-for-chronic-and-shorter-term-exposure-fact-sheet/download

Questions and Comments Received from Mr. Lyons Witten, LSP for OHI Engineering, Inc. on behalf of the City of Greenfield

Q7: **We notice that there is one deep monitoring well, MW-AD, and that CVOCs were detected in that well. Since CVOCs are heavier than water we are wondering if additional deep wells are planned for the Site to map the extent of TCE in deep groundwater? Perhaps it is not the best use of scarce funds to drill deep wells near the north side of Kenwood Street where TCE concentrations in shallow groundwater are among the highest at the Site. However, it does seem prudent to drill deep wells on the south side of Kenwood to assure the neighborhood that TCE is not migrating under the storm sewer and is present under their homes. Evidence in support of deep wells south of Kenwood Street includes:**

- **MW-104 TCE trend is upwards with maximum concentration detected in November 2024.**
- **CB-2 TCE trending upward with highest concentration in November 2024.**
- **Vinyl Chloride, a TCE breakdown product, was detected in MW-103 at highest concentration in November 2024.**
- **CVOCs in MW-101 have an increasing concentration trend.**

A7: The November 2024 groundwater analytical data was anomalous compared to the other three data sets collected in 2024. The increasing concentrations of TCE in groundwater generally correlate with observations of increasing depth to groundwater.

When comparing groundwater data for MW-101 and MW-104 from 2018 through 2024 using a Mann-Kendall Statistical Analysis, the data are found to be variable and are not increasing over time with sufficient statistical confidence.[2] Since both Apex (in Question 2 above) and OHI posed questions regarding trends in catch basin stormwater concentrations, OTO has included a Mann-Kendall Statistical Analysis of the stormwater data for CB-2N and CB-3N in the final Revised Phase II report as Appendix I. The evaluation calculated no trend in concentrations of TCE at CB-2N with statistical confidence, and the trend in concentrations of TCE at CB-3N was calculated to be stable.

Q8: **Recent indoor air testing was conducted at residences south of Kenwood St who allowed the testing to occur. Figure 2 (really 3) indicates six homes where CVOCs were detected in indoor air and your risk assessment calculations using DEP short forms indicate NSR for those homes.**

[2] Based on information from the GSI Environmental Mann-Kendall Toolkit User's Manual, available at https://www.gsienv.com/software/data-management-and-stats-tool/data-managment-tool/, Version 1.0, November 2012 (Page 14).

Review of prior reports indicate another seven homes where TCE was detected in the past (2013) but not resampled. Should something be done to protect those homes in case conditions worsen in the future? Should future testing be scheduled now to assure continued No Significant Risk?

A8: Figure 3[3] identifies six properties south of Kenwood where indoor air samples contained contaminants of concern (COCs) for the Site (specifically TCE and PCE) at concentrations above the laboratory detection limits. These properties were included in the Disposal Site Boundary. The samples collected at 14 Kenwood Street (2013, 2022, and 2023) and 15-17 Forest Avenue (2022, 2023, and 2024) did not contain detectable concentrations of contaminants of concern, and so these properties were not included in the boundary for the Disposal Site.

OTO reviewed laboratory data for samples collected at 37 and 45 Forest Avenue and 28, 38, 42, 44, and 46 Kenwood Street in January 2013 and also reviewed USEPA summary letters sent to homeowners for indoor air and soil gas sampling conducted by the agency in 2014 at 15-17 Forest Avenue, 12, 14, 20, 22, Kenwood Street, and 313-315 and 317 Davis Street. The laboratory data for 2013 and the letters from 2014 do not report the presence of TCE in indoor air samples collected at these residences.

Other VOCs (i.e., 1,2-dichloroethane, chloromethane, methylene chloride, and 1,1,1-trichloroethane) were detected in indoor air samples. These VOCs were evaluated in the Revised Phase II and were determined to be unrelated to the release at the Site property. This is discussed in the Method 3 Risk Characterization of the Revised Phase II Report.

Q9: **Evaluation of indoor air in the on-Site buildings used data from 2012-2019 with a single sample in one building was collected in 2022. Is there a reason that current air sampling was not conducted within the working spaces of the on-Site buildings for this Revised Phase II?**

A9: Air samples were collected inside the former Lunt building at multiple locations following the installation of the passive exposure pathway mitigation measure (PEPMM) in the winter (February 2018), spring (June 2018), and fall (October 2018), and winter (February 2019). The sampling program conducted is more conservative than the MassDEP guidance for seasonal sampling, as two winter season sampling events were conducted. These sampling events were conducted over 24 hours, which is a more conservative sampling duration than is recommended under MassDEP guidance (which recommends an 8-hour sampling duration at commercial and industrial buildings). The maximum concentration of TCE reported in the samples collected post PEPMM installation in 2018-2019 was 3.5 µg/m^3, which was detected in a sample

[3] Thank you for noting the numbering error – it has been corrected on the final plan submitted with the Revised Phase II Report.

collected in the not-continuously occupied basement of Unit B1. For comparison, the LSPA produced a White Paper in 2023 that identified 8.8 µg/m^3 as the Risk-Based Screening Level for Commercial/Industrial exposures that are "…protective of [adverse non-cancer health] effects from potential long-term exposures via inhalation…" and 30 µg/m^3 as the "…risk-based screening level protective of potential inhalation exposures at a target cancer risk of one in one-hundred thousand" (1E-05)…".[4]

In 2014, MassDEP established the workplace Reference Concentration (RfC) of 8 µg/m^3 for TCE as the long-term remediation target for situations where workplace indoor air has been impacted by vapor intrusion and is equivalent to the residential RfC value (2 µg/m^3) adjusted for a typical workplace exposure pattern of 8 hours a day, five days a week.[5]

The 2022 samples were collected at the request of MassDEP following discussion between MassDEP personnel and the City of Greenfield Health Director. The sampling was again conducted over a 24-hour period of time – a more conservative sampling duration than is recommended in the MassDEP guidance. The analysis of the sample did not detect chlorinated VOCs above the detection limits, which were all below both the residential and commercial Threshold Values established by MassDEP. These sampling results further supported the conclusion that the PEPMM is mitigating the migration of chlorinated VOCs present in soil gas into the interior air of the Site building.

The sampling results (including those collected in the basement, which is not continuously occupied) were all below the MassDEP-established Threshold Values for indoor air at commercial properties. The representativeness of this data set is discussed in the Representativeness Evaluation within the revised Phase II report (Section 9.1), and the data were found to be representative and satisfy the objectives of the Risk Characterization. Additional indoor air sampling is not required to support the Risk Characterization submitted with the Revised Phase II.

Q10: **Figure 7 Site Plan with TCE and PCE Isopleths uses data from the Nov. 2024 sampling round. It would be interesting to see how the isopleths change if the EPC data in the Risk Assessment Table 2 were mapped. Since the four quarters of GW results have wild swings in concentration at some wells, this would show a more tempered set of highs and lows and could better represent the extent of contamination at the Site.**

A10: Figure 7 has been revised utilizing the EPCs for groundwater and is submitted with the final Revised Phase II report. The overall plume dimensions did not

[4] https://lspa.memberclicks.net/assets/LSPA_Letters/Final%20TCE%20Whitepaper%2011.17.23.pdf

[5] https://www.mass.gov/doc/tce-toxicity-information-implications-for-chronic-and-shorter-term-exposure-fact-sheet/download

significantly change by utilizing EPCs in lieu of the concentrations for the sampling event in November 2024 sampling data. The 5,000 µg/L isopleth for TCE did change to include on-site monitoring well LS-19.