Mcpherson, Benjamin J (DEC)

From: Mcpherson, Benjamin J (DEC) **Sent:** Monday, October 31, 2022 1:50 PM

To: Brian Robinson

Cc: Mcpherson, Benjamin J (DEC); Noelle Clarke; Caprio, Andrea (DEC)

Subject: RE: 350 - Pipe Removal Procedure

Brian,

Thank you for the additional details, they have satisfied my previous questions. It is my understanding that these procedures will be used to remove all known refinery piping at the site, which is a modification of the RAWP and DD. As this change is broader in scope than the original work it is an acceptable to the Department to implement these changes.

Please let me know if you have any questions regarding this.

Thank you, Ben McPherson

Benjamin McPherson, P.E.

(he/him/his)

Professional Engineer 1 (Environmental), Division of Environmental Remediation

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From: Brian Robinson brobinson@rouxinc.com

Sent: Tuesday, October 25, 2022 1:09 PM

To: Mcpherson, Benjamin J (DEC)

 dec.ny.gov>

Subject: 350 - Pipe Removal Procedure

ATTENTION: This email came from an external source. Do not open attachments or click on links from unknown senders or unexpected emails.

Ben,

Last week we began investigating the purple GPR-identified linear anomalies on the attached Figure 9 to uncover, remove, and cap (if applicable, see below) any subsurface piping on site. These anomalies are based on a GPR survey that was conducted in 2015 (see attached Naeva GPR Survey PDF, which includes the location IDs of the anomalies). Below is a summary of the procedure we've been using to investigate these anomalies, as well as how to manage cutting, capping, and removal of any pipes encountered.

- 1. Cross reference the Figure 9 map with the Naeva GPR map to determine IDs for the anomalies (e.g., ?70, ?71, etc.)
- 2. Use GPS to mark out (with paint or flags) the section of the anomaly to investigate.

- 3. Generally, at each investigation location, a 10-foot-long trench oriented perpendicular to and centered across the linear anomaly was excavated down to 10 feet depth or until pipes were encountered. In cases where multiple linear anomalies intersected or were within <10 feet of each other, a single trench was excavated at the intersection or at the narrowest point between the anomalies. For particularly long anomalies, or anomalies with discontinuous sections, multiple trenches may be necessary if piping is not located during the first trench.
- 4. Record general observations about soil conditions (color, grain size, moisture, odor, presence of GCM, etc.). If we encounter GCM in soil, it will be stockpiled separately on poly for disposal. Any other soil may be stockpiled on the ground surface adjacent to the trench and used to backfill the hole. Collect a baggie of the soil intended to be replaced in the hole for PID headspace reading we target the "worst-looking" soil for this.
- 5. If piping is encountered, TREC will work to expose it the entire length until they reach one of the following: property boundary, appropriate buffer from a known active utility (e.g., 6 feet from center of electric line), or some other obstruction.
- 6. Record observations about piping or any other structures encountered (e.g., scrap metal). Note the depth encountered, diameter of piping, approximately how many pipes, and length of piping removed. Note any liquids or sludge in the pipe. Any petroleum product or water with petroleum product (globules or measurable product) should be drained from the pipe into buckets and containerized in 55-gallon steel drums with pending analysis stickers. Pipe sludge should be sampled for PID. Sludge with indications of petroleum impacts (odor, elevated PID readings, sheen, etc.) should be managed as GCM.
- 7. Any cuts being made with the Sawzall on a pipe containing petroleum or petroleum contaminated materials requires a Hot Work Permit and appropriate procedure (Fire watch, 5-Gas meter in vicinity, etc.).

Regards,

Brian Robinson, PE – CT, FL, MA, ME, NH, NY, RI, TN, VT Senior Engineer

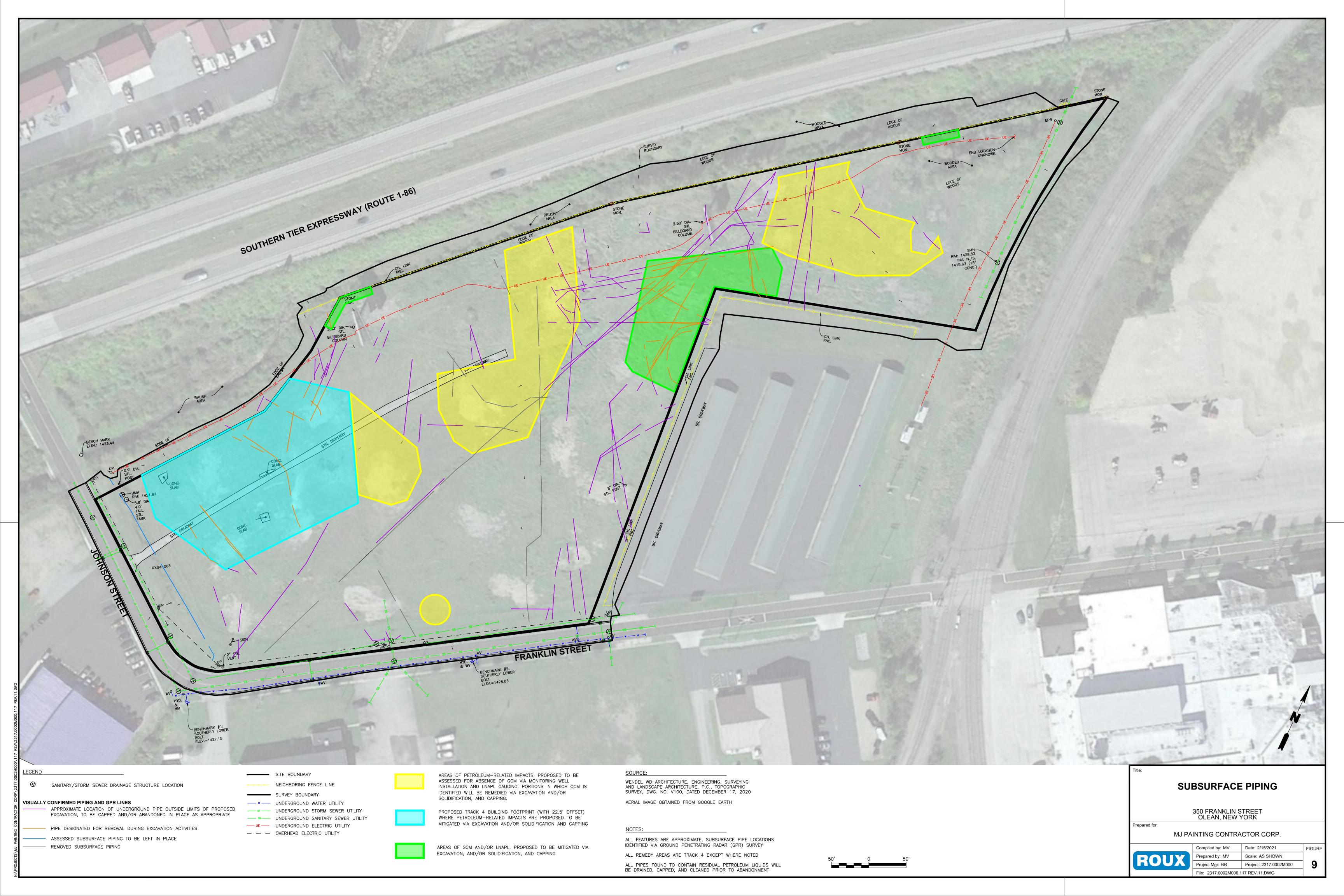
200 Summit Drive, Suite 500, Burlington, MA 01803

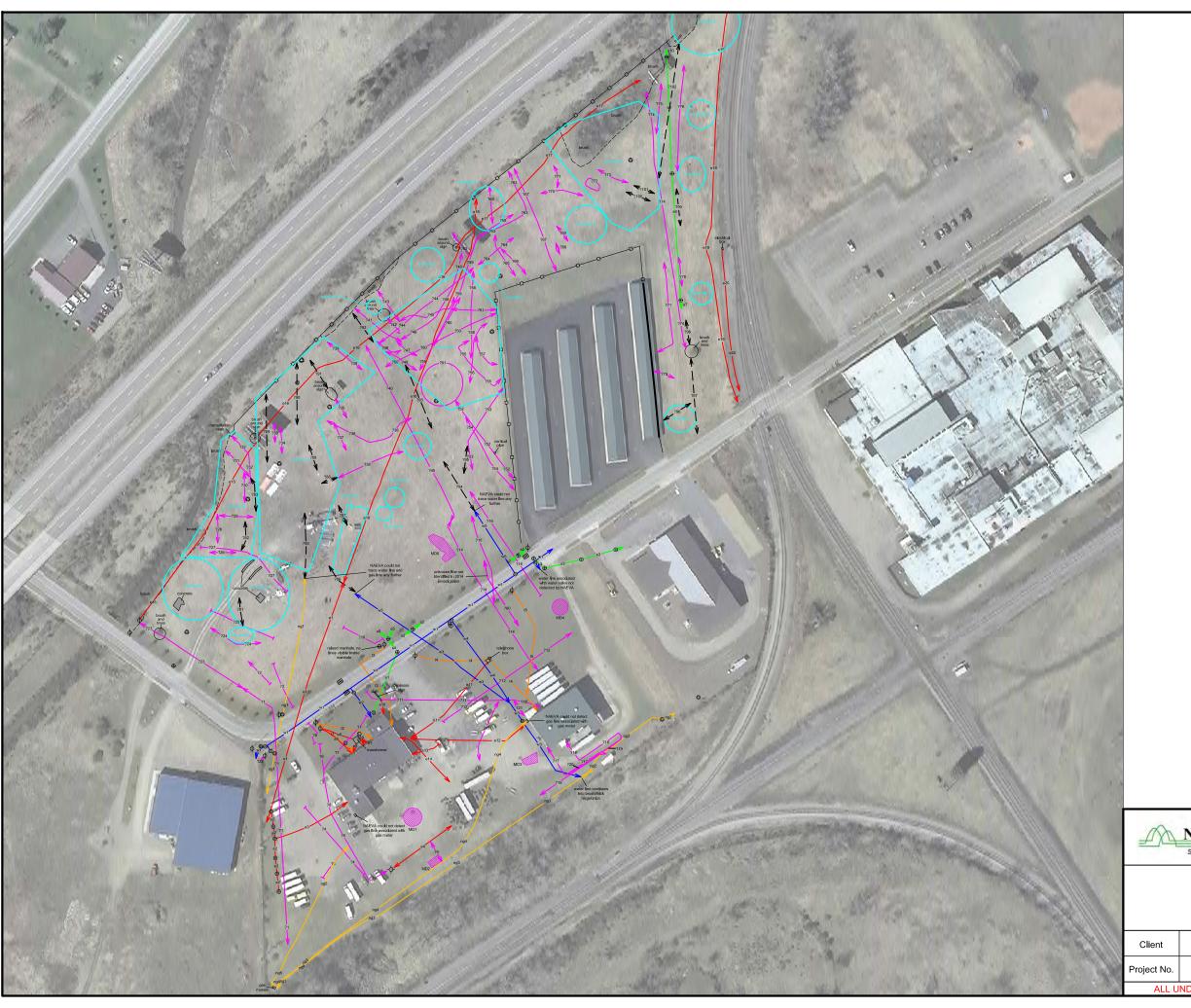
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California | Illinois | Massachusetts | New Jersey | New York | Texas | Virginia





LEGEND

electric line

suspected utility of unknown use

water line natural gas line sewer line telephone line

EM31 linear anomaly

metal detector (MD) anomaly

catch basin

monitoring well manhole cover

water valve

utility pole

sewer cleanout

light post

electrical post

fire hydrant

electromagnetic (EM) anomalous area

landscape lighting

*NOTE: natural gas lines "ng3", "ng4", and "ng5" were marked out by different contractors than NAEVA



approximately fifty meters



225 N Route 303, Suite 102 Congers, NY 10920 (845)268-1800 (845)268-1802 FAX

Figure 2. Combined Results from 2014 and 2015 Geophysical Investigations 350-351 Franklin Street Olean, New York

| Client | Roux Associates | Dates of Work | October 13-17, 2014 and June 9-14, 2015 | |
|--|--------------------------|---------------|---|--|
| Project No. | C1410131X & C1506091X | Мар Ву | Kelly Weyer | |
| ALL UNDERGROUND FACILITIES MAY NOT BE DEPICTED ON THIS MAP | | | | |

APPENDIX A Table 1. List of Detected Subsurface Utilities and EM31 Anomalies for 350 Franklin Street

| Anomaly ID | Suspected Source | Approximate Depth | Notes and Comments |
|------------|------------------|---------------------------------|--|
| | | | service from utility pole to |
| e15 | electric line | unknown | western billboard sign |
| | | | service from western billboard |
| e16 | electric line | unknown | sign to eastern billboard sign |
| -17 | alastois lina | | runs east from cut-off conduit at |
| e17 | electric line | unknown | eastern billboard sign |
| e18 | electric line | ~3 to 6 feet | Continuation of electric line "e1" |
| 610 | electric line | 3 to 0 leet | from 2014 investigation |
| | | | electric line running parallel to |
| e19 | electric line | ~2 to 4 feet | railroad tracks, possible |
| | | | associated with railroad service |
| | | | |
| 20 | 1 1. | | electric line associated with |
| e20 | electric line | unknown | electric conduit box along |
| | | ~11 to 12 feet to top | railroad tracks ~18 to 24 inch diameter sewer |
| | | of pipe, appears to | pipe. Heads south from |
| s7 | sewer line | get deeper towards | manhole. Could not trace due to |
| | | the north | depth of pipe. |
| | | ~11 to 12 feet to top | ~18 to 24 inch diameter sewer |
| s8 | sewer line | of pipe, appears to | pipe. Runs north-south on |
| 20 | Sewei iiile | get deeper towards | eastern side of property |
| | | the north | eastern side of property |
| | | ~11 to 12 feet to top | ~18 to 24 inch diameter sewer |
| s9 | sewer line | of pipe, appears to | pipe. Runs north-south on |
| | | get deeper towards the north | eastern side of property |
| | | ~11 to 12 feet to top | ~18 to 24 inch diameter sewer |
| 10 | 1. | of pipe, appears to | pipe. Heads north from |
| s10 | sewer line | get deeper towards | manhole. Could not trace due to |
| | | the north | depth of pipe. |
| | | | NAEVA could not determine the |
| | | | source of this feature. Appears |
| ?23 | unknown | unknown | to be continuation of unknown |
| | | | line "?1" from 2014 investigation. |
| | | | _ |
| ?24 | unknown | unknown | NAEVA could not determine the |
| | | | source of this feature |
| ?25 | unknown | ~3 to 5 feet | NAEVA could not determine the |
| | | | source of this feature |
| ?26 | unknown | unknown | NAEVA could not determine the source of this feature |
| | | | NAEVA could not determine the |
| ?27 | unknown | ~1 to 2 feet | source of this feature |
| | | | source or this leature |

Table 1. List of Detected Subsurface Utilities and EM31 Anomalies for 350 Franklin Street (cont.)

| Anomaly ID | Suspected Source | Approximate Depth | Notes and Comments |
|------------|------------------|-------------------|--|
| , | • | | NAEVA could not determine the |
| ?28 | unknown | unknown | source of this feature |
| 200 | | | NAEVA could not determine the |
| ?29 | unknown | unknown | source of this feature |
| 220 | .1 | .1 | NAEVA could not determine the |
| ?30 | unknown | unknown | source of this feature |
| ?31 | unknovun | unknoven | NAEVA could not determine the |
| 121 | unknown | unknown | source of this feature |
| ?32 | unknown | unknown | NAEVA could not determine the |
| :32 | unknown | unknown | source of this feature |
| ?33 | unknown | unknown | NAEVA could not determine the |
| :55 | unknown | unknown | source of this feature |
| ?34 | unknown | unknown | NAEVA could not determine the |
| :54 | unknown | UTIKITOWIT | source of this feature |
| ?35 | unknown | unknown | NAEVA could not determine the |
| .55 | unknown | unknown | source of this feature |
| ?36 | unknown | unknown | NAEVA could not determine the |
| | G | G | source of this feature |
| ?37 | unknown | unknown | NAEVA could not determine the |
| | | | source of this feature |
| ?38 | unknown | unknown | NAEVA could not determine the |
| | | | source of this feature |
| ?39 | unknown | unknown | NAEVA could not determine the |
| | | | source of this feature |
| | | | NAEVA could not determine the |
| 240 | .1 | .1 | source of this feature. Appears |
| ?40 | unknown | unknown | to be continuation of unknown |
| | | | line "?14" from 2014 |
| | | | investigation. |
| ?41 | unknown | unknown | NAEVA could not determine the source of this feature |
| | | | NAEVA could not determine the |
| ?42 | unknown | unknown | source of this feature |
| | | | source of this feature |
| | | | NAEVA could not determine the |
| ?43 | unknown | unknown | source of this feature. Maybe |
| | | | related to unknown line "?45". |
| | | | AMATENA AND AND AND AND AND AND AND AND AND A |
| ?44 | unknown | unknown | NAEVA could not determine the |
| | | | source of this feature |
| | | | NAEVA could not determine the |
| ?45 | unknown | ~1 to 3 feet | source of this feature. Maybe |
| | | | related to unknown line "?43". |
| | | | |

Table 1. List of Detected Subsurface Utilities and EM31 Anomalies for 350 Franklin Street (cont.)

| Anomaly ID | Suspected Source | Approximate Depth | Notes and Comments |
|------------|------------------|-------------------|---|
| ?46 | unknown | unknown | NAEVA could not determine the |
| :40 | unknown | unknown | source of this feature |
| ?47 | unknown | unknown | NAEVA could not determine the |
| : 47 | unknown | unknown | source of this feature |
| ?48 | unknown | ~2 to 4 feet | NAEVA could not determine the |
| , | | - 00 1 1001 | source of this feature |
| ?49 | unknown | unknown | NAEVA could not determine the |
| | | | source of this feature |
| ?50 | unknown | unknown | NAEVA could not determine the |
| | | | source of this feature |
| | | | NAEVA could not determine the |
| ?51 | unknown | unknown | source of this feature. Circular |
| 121 | unknown | unknown | feature, may be former |
| | | | ringholder for aboveground tank. |
| | | | NAEVA could not determine the |
| | | | source of this feature. Appears |
| ?52 | unknown | ~3 to 5 feet | to run through visible |
| :32 | unknown | 3 10 3 1001 | aboveground cut-off pipe, ~8" to |
| | | | 10" in diameter. |
| _ | _ | _ | NAEVA could not determine the |
| ?53 | unknown | ~3 to 5 feet | source of this feature |
| | | | NATVA could not determine the |
| ?54 | unknown | unknown | NAEVA could not determine the |
| :54 | unknown | unknown | source of this feature. Appears to join unknown line "?52". |
| | | | to join unknown line !32 . |
| ?55 | unknown | unknown | NAEVA could not determine the |
| :55 | unknown | unknown | source of this feature |
| ?56 | unknown | unknown | NAEVA could not determine the |
| .50 | 4111111111 | u.iii.io iii.i | source of this feature |
| | | | NAEVA could not determine the |
| | | | source of this feature. Appears |
| ?57 | unknown | unknown | to be beginning of circular |
| | | | feature, maybe another |
| | | | ringholder for an aboveground |
| | | | tank. |
| ?58 | unknown | unknown | NAEVA could not determine the |
| | | | source of this feature |
| ?59 | unknown | ~1 to 3 feet | NAEVA could not determine the |
| | | | source of this feature NAEVA could not determine the |
| ?60 | unknown | unknown | source of this feature |
| | | | NAEVA could not determine the |
| ?61 | unknown | unknown | source of this feature |
| | | | source or this leature |

Table 1. List of Detected Subsurface Utilities and EM31 Anomalies for 350 Franklin Street (cont.)

| Anomaly ID | Suspected Source | Approximate Depth | Notes and Comments |
|-------------|---------------------|-----------------------|-----------------------------------|
| 7 monary 15 | Suspected Source | | NAEVA could not determine the |
| ?62 | unknown | ~1 to 3 feet | source of this feature |
| | | | NAEVA could not determine the |
| ?63 | unknown | ~2 to 4 feet | source of this feature |
| | | | NAEVA could not determine the |
| ?64 | unknown | unknown | |
| | | | source of this feature |
| ?65 | unknown | unknown | NAEVA could not determine the |
| | | | source of this feature |
| ?66 | unknown | unknown | NAEVA could not determine the |
| | | | source of this feature |
| | | ~2 to 5 feet, appears | NAEVA could not determine the |
| ?67 | unknown | to get deeper | source of this feature |
| | | towards the north | |
| ?68 | unknown | unknown | NAEVA could not determine the |
| | | | source of this feature |
| ?69 | unknown | unknown | NAEVA could not determine the |
| .03 | dillini di li | G. II. (10 17 11 | source of this feature |
| ?70 | unknown | unknown | NAEVA could not determine the |
| .70 | diknown | dikilowii | source of this feature |
| ?71 | unknown | unknown | NAEVA could not determine the |
| : 7 1 | diknown | dikilowii | source of this feature |
| | | | NAEVA could not determine the |
| | | | source of this feature. Irregular |
| ?72 | unknown | unknown | circular feature, maybe |
| | | | reinforced concrete or grounding |
| | | | cable/wire. |
| 272 | | | NAEVA could not determine the |
| ?73 | unknown | unknown | source of this feature |
| 274 | | 0/4 to 4 foot | NAEVA could not determine the |
| ?74 | unknown | ~1 to 4 feet | source of this feature |
| 275 | .1 | ī | NAEVA could not determine the |
| ?75 | unknown | unknown | source of this feature |
| 276 | ı | ı | NAEVA could not determine the |
| ?76 | unknown | unknown | source of this feature |
| 2== | | | NAEVA could not determine the |
| ?77 | unknown | unknown | source of this feature |
| _ | _ | _ | NAEVA could not determine the |
| ?78 | unknown | unknown | source of this feature |
| _ | _ | unknown | NAEVA could not determine the |
| ?79 | unknown | | source of this feature |
| | | unknown | NAEVA could not determine the |
| ?80 | unknown | | source of this feature |
| | unknown EM31 linear | | NAEVA could not determine the |
| ?81 | anomaly | unknown | source of this feature |
| | anomary | | Jource of this leature |

Table 1. List of Detected Subsurface Utilities and EM31 Anomalies for 350 Franklin Street (cont.)

| Anomaly ID | Suspected Source | Approximate Depth | Notes and Comments |
|------------|--------------------------------|-------------------|--|
| ?82 | unknown EM31 linear anomaly | unknown | NAEVA could not determine the source of this feature |
| ?83 | unknown EM31 linear anomaly | unknown | NAEVA could not determine the source of this feature. Maybe related to unknown line "?31" |
| ?84 | unknown EM31 linear anomaly | unknown | NAEVA could not determine the source of this feature |
| ?85 | unknown EM31 linear anomaly | unknown | Appears to be continuation of gas line "ng1" from 2014 investigation. NAEVA could not confirm this with any other instruments. |
| ?86 | unknown EM31 linear anomaly | unknown | Appears to be continuation of water line "w3" from 2014 investigation. NAEVA could not confirm this with any other instruments. |
| ?87 | unknown EM31 linear anomaly | unknown | NAEVA could not determine the source of this feature |
| ?88 | unknown EM31 linear anomaly | unknown | NAEVA could not determine the source of this feature. Maybe related to unknown line "?38". |
| ?89 | unknown EM31 linear anomaly | unknown | NAEVA could not determine the source of this feature |
| ?90 | unknown EM31 linear anomaly | unknown | NAEVA could not determine the source of this feature. Runs through gas marker post, may be continuation of gas line "ng1" from 2014 investigation. |
| ?91 | unknown EM31 linear anomaly | unknown | NAEVA could not determine the source of this feature. Maybe related to unknown line "?35". |
| ?92 | unknown EM31 linear anomaly | unknown | NAEVA could not determine the source of this feature |
| ?93 | unknown EM31 linear anomaly | unknown | NAEVA could not determine the source of this feature |

Table 1. List of Detected Subsurface Utilities and EM31 Anomalies for 350 Franklin Street (cont.)

| Anomaly ID | Suspected Source | Approximate Depth | Notes and Comments |
|------------|--------------------------------|-------------------|---|
| ?94 | unknown EM31 linear anomaly | unknown | Appears to be continuation of water line "w5" from 2014 investigation. NAEVA could not confirm this with any other instruments. |
| ?95 | unknown EM31 linear anomaly | unknown | NAEVA could not determine the source of this feature. Maybe related to unknown line "?53". |
| ?96 | unknown EM31 linear anomaly | unknown | NAEVA could not determine the source of this feature. Maybe related to unknown EM31 linear anomaly "?97". |
| ?97 | unknown EM31 linear anomaly | unknown | NAEVA could not determine the source of this feature. Maybe related to unknown EM31 linear anomaly "?96" and/or "?98". |
| ?98 | unknown EM31 linear anomaly | unknown | NAEVA could not determine the source of this feature. Maybe related to unknown EM31 linear anomaly "?97". |
| ?99 | unknown EM31 linear anomaly | unknown | NAEVA could not determine the source of this feature |
| ?100 | unknown EM31 linear anomaly | unknown | NAEVA could not determine the source of this feature |
| ?101 | unknown EM31 linear anomaly | unknown | NAEVA could not determine the source of this feature. Maybe related to unknown line "?73". |
| ?102 | unknown EM31 linear anomaly | unknown | NAEVA could not determine the source of this feature |
| Anomaly A | unknown | unknown | Concrete pad visible at surface. Large area of high conductivity with some small inphase anomalies. |
| Anomaly B | unknown | unknown | Area of several linear EM31 anomalies, both in the inphase and conductivity data. NAEVA identified several unknown lines with other instruments, however, EM31 data indicates more features than were identified. |

Table 1. List of Detected Subsurface Utilities and EM31 Anomalies for 350 Franklin Street (cont.)

| Anomaly ID | Suspected Source | Approximate Depth | Notes and Comments |
|------------|------------------|-------------------|--|
| Anomaly C | unknown | unknown | Very large area with very high conductivity and inphase readings. NAEVA identified several unknown lines in this area, and a natural gas line and water line are headed into this area. Could be large amounts of metal and/or conductive material in this area. Large anomaly may be obscuring other linear features (such as gas line and water line). |
| Anomaly D | unknown | unknown | Several concrete pads/debris visible at surface. Another large area of very high conductivity and inphase readings. Could be large amounts of metal and/or conductive material in this area. Large anomaly may be obscuring other linear features. |
| Anomaly E | unknown | unknown | Small area of high conductivity readings, with not as high inphase readings. Maybe related to Anomaly D. |
| Anomaly F | unknown | unknown | Area of some high conductivity and inphase readings. Very near electric line "e18". Maybe buried metallic/conductive debris. |
| Anomaly G | unknown | unknown | Small are of high conductivity readings, with no obvious inphase anomaly. Maybe relatively small amount of buried metallic/conductive feature. |
| Anomaly H | unknown | unknown | 2 relatively small, discrete inphase anomalies, with no corresponding conductivity anomalies. Possible buried metallic features. |

Table 1. List of Detected Subsurface Utilities and EM31 Anomalies for 350 Franklin Street (cont.)

| Anomaly ID | Suspected Source | Approximate Depth | Notes and Comments |
|------------|------------------|-------------------|--|
| Anomaly I | unknown | unknown | A strong inphase anomaly, with very little corresponding conductivity anomaly. Unknown line "?40" runs through this feature. Possible buried metallic/conductive feature, maybe related to unknown line "?40". |
| Anomaly J | unknown | unknown | Another very large area with very high conductivity and inphase readings. NAEVA identified several unknown lines and an electric line in this area. Could be large amounts of metal and/or conductive material in this area. Large anomaly may be obscuring other linear features. |
| Anomaly K | unknown | unknown | 2 relatively small, discrete inphase anomalies, with no corresponding conductivity anomalies. Possible buried metallic features. |
| Anomaly L | unknown | unknown | Several small, discrete inphase anomalies, with small or no corresponding conductivity anomalies. Possible buried metallic/conductive features. |
| Anomaly M | unknown | unknown | Several discrete inphase anomalies with no corresponding conductivity anomalies. Electric lines "e17" and "e18" and unknown line "?62" are located in this area. Possible buried metallic features. |
| Anomaly N | unknown | unknown | 2 relatively small, discrete inphase anomalies, with no corresponding conductivity anomalies. Possible buried metallic features. |

Table 1. List of Detected Subsurface Utilities and EM31 Anomalies for 350 Franklin Street (cont.)

| Anomaly ID | Suspected Source | Approximate Depth | Notes and Comments |
|------------|------------------|-------------------|--|
| Anomaly O | unknown | unknown | Area of relatively high conductivity readings with some low conductivity readings. No corresponding inphase anomaly. Possible buried conductive/resistive materials and/or features. Maybe related to Anomaly P. |
| Anomaly P | unknown | unknown | An area of very high conductivity and inphase readings. Some unknown lines and linear EM31 features located in this area. Could be large amounts of metal and/or conductive material in this area. Large anomaly may be obscuring other linear features. |
| Anomaly Q | unknown | unknown | Several small, discrete inphase anomalies and some relatively high conductivity readings. Possible buried metallic/conductive features. |
| Anomaly R | unknown | unknown | Some small inphase anomalies with no conductivity anomaly. Possible metallic debris. Maybe shallow or at surface. Area had high and thick vegetation. |
| Anomaly S | unknown | unknown | Some small inphase anomalies with no conductivity anomaly. Possible metallic debris. Maybe shallow or at surface. Area had high and thick vegetation. |
| Anomaly T | unknown | unknown | Small area of high inphase readings with no corresponding conductivity anomaly. Possible shallow/surface metallic feature(s). |

Table 1. List of Detected Subsurface Utilities and EM31 Anomalies for 350 Franklin Street (cont.)

| Anomaly ID | Suspected Source | Approximate Depth | Notes and Comments |
|------------|------------------|-------------------|--|
| Anomaly U | unknown | unknown | Strong, discrete inphase and conductivity anomaly. Unknown EM31 linear anomaly "?96" is near this feature. Possible buried metallic/conductive feature(s). |