



**HZW**  
Environmental  
Consultants

May 19, 2022

Ms. Joanne Shaner, PE, Assoc. VP  
HDR Engineering, Inc.  
1100 Superior Avenue, Suite 650  
Cleveland, Ohio 44114

***Subject: Report of Findings from an Asbestos Survey Conducted at the Schaaf Road Bridge Over State Route 17 Located in Brooklyn Heights, Cuyahoga County, Ohio (CUY-17-13.50, PID 112998) (HZW Project No. H22141-01)***

Dear Ms. Shaner:

In accordance with our Project Agreement form dated March 14, 2022, HZW Environmental Consultants, LLC (HZW) is pleased to submit this letter report that presents the findings of an asbestos survey conducted at the Schaaf Road bridge over State Route 17 located in Brooklyn Heights, Cuyahoga County, Ohio (herein referred to as the “subject bridge”) prior to the bridge being replaced. Discussions of the methods of investigation, the findings, and subsequent recommendations based on the findings are provided separately below.

## **METHODS OF INVESTIGATION**

During March 2022, a representative of HZW, certified as an Asbestos Hazard Evaluation Specialist (AHES), performed an asbestos survey of the subject bridge. This certification is required to be maintained by the inspector in accordance with the Asbestos School Hazard Abatement Reauthorization Act (ASHARA) and the Ohio Environmental Protection Agency (Ohio EPA) Asbestos regulation [Chapter 3745-22 of the Ohio Administrative Code (OAC)].

The asbestos survey was conducted in accordance with the United States Environmental Protection Agency (U.S. EPA) Asbestos National Emission Standards for Hazardous Air Pollutants (Asbestos NESHAP) survey protocol. The Asbestos NESHAP regulation requires no specific survey protocol be followed; however, the Asbestos Hazard Emergency Response Act (AHERA) protocol is recommended. Therefore, the asbestos survey at the subject bridge was conducted in accordance with AHERA protocol. Any bulk samples collected were submitted to CA Labs, LLC of Baton Rouge, Louisiana, for analysis of asbestos content by polarized light microscopy (PLM) using the Environmental Protection Agency (EPA) Method 600/R-93/116.

## FINDINGS

During HZW's physical inspection of the subject bridge, no building materials suspect for containing asbestos were identified, therefore, no bulk samples were collected. A site sketch of the subject bridge documenting where photographs were taken is included as **Attachment 1**. A photographic log depicting the site conditions at the subject bridge at the time of the asbestos survey is included as **Attachment 2**. A partially completed Ohio EPA "Notification of Demolition and Renovation/Abatement" form is included as **Attachment 3**.

## RECOMMENDATIONS

Based on the findings of the asbestos survey conducted at the subject bridge, the following recommendations are being presented for consideration:

1. Submit the Ohio EPA "Notification of Demolition and Renovation/Abatement" form to the Ohio EPA 10 days prior to demolition activities being conducted at the subject bridge.
2. Ensure demolition of the subject bridge is performed in accordance with Ohio EPA regulations. Ohio EPA requires that during demolition activities that no visible dust emissions be present. Therefore, ensure that the demolition work is performed using wet methods.

HZW appreciates the opportunity you have given us to provide professional services to HDR Engineering, Inc. Should you have any questions regarding the information presented in this letter report, please do not hesitate to contact us.

Sincerely,

**HZW ENVIRONMENTAL CONSULTANTS, LLC**

*Carmen Rocco*

Carmen Rocco

Certified Asbestos Hazard Evaluation Specialist (EPA License No. ES33794)

*Joan Sablar*

Joan A. Sablar

Senior Industrial Hygienist

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Attachments

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## ATTACHMENT 1

### SITE SKETCH OF BRIDGE



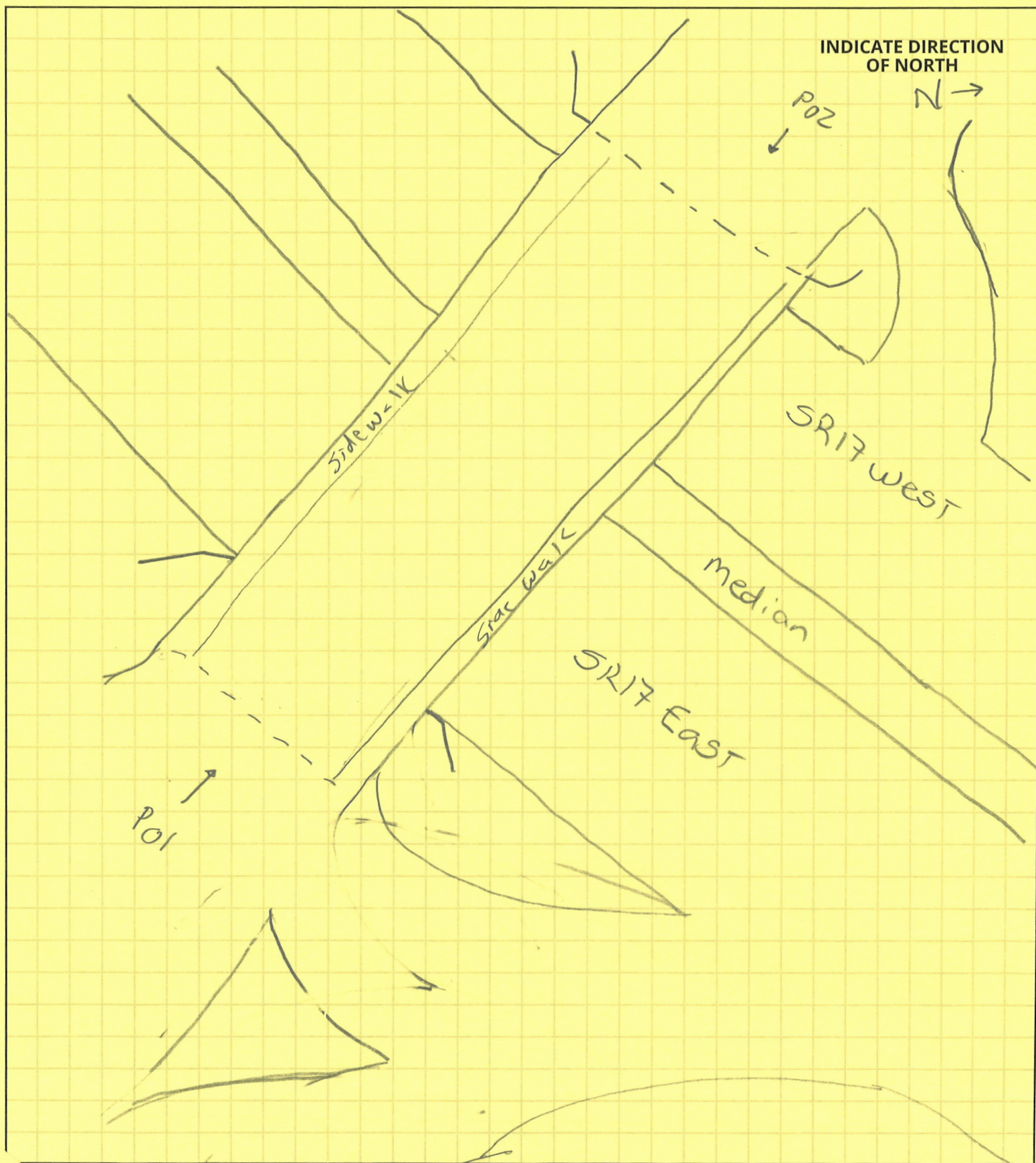




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A Woman-Owned Business Enterprise

PROJECT Shaf Rd Bridge over SR-17  
PROJECT NO. H22141-01  
PAGE NO. \_\_\_\_\_ OF \_\_\_\_\_  
FIELD REPRESENTATIVE Ca DATE 03/31/22  
SCALE \_\_\_\_\_ TH



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## ATTACHMENT 2

### PHOTOGRAPHIC LOG OF BRIDGE







**Photograph 01**

View Looking Northwest at the Top of the Schaaf Road Bridge over State Route 17  
Brooklyn Heights, Cuyahoga County, Ohio



**Photograph 02**

View Looking Southeast at the Top of the Schaaf Road Bridge over State Route 17  
Brooklyn Heights, Cuyahoga County, Ohio





**Photograph 03**

View Looking Northeast at the Underside of the Schaaf Road Bridge over State Route 17  
Brooklyn Heights, Cuyahoga County, Ohio



**Photograph 04**

View Looking Southwest at the Underside of the Schaaf Road Bridge over State Route 17  
Brooklyn Heights, Cuyahoga County, Ohio

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## ATTACHMENT 3

PARTIALLY COMPLETED COPY OF OHIO EPA'S "NOTIFICATION OF  
DEMOLITION AND RENOVATION/ABATEMENT FORM" FOR THE BRIDGE







# Notification of Demolition and Renovation/Abatement

## Section 1: General Information

Division of Air Pollution Control

Work on projects cannot begin until 10 working days after a COMPLETE original notification form, **including payment**, is submitted to Ohio EPA. Instructions and a worksheet for fee calculation are available at [epa.ohio.gov/asbestos](http://epa.ohio.gov/asbestos). This form can be completed, and payment made, at [ebiz.epa.ohio.gov](http://ebiz.epa.ohio.gov). Questions? [asbestos@epa.ohio.gov](mailto:asbestos@epa.ohio.gov) or (614) 466-0061.

|                   |                 |                 |               |   |
|-------------------|-----------------|-----------------|---------------|---|
| Ohio EPA Use Only | Notification #: | Postmarked: / / | Received: / / | <input type="checkbox"/> Hand-Delivered |
|-------------------|-----------------|-----------------|---------------|---|

### 1) Notification Information (Check all that apply)

|   |  |                                       |                                    |                                 |                                       |                          |
|---|--|---------------------------------------|------------------------------------|---------------------------------|---------------------------------------|--------------------------|
| <input checked="" type="checkbox"/> Original          | <input type="checkbox"/> Revision # (count): | <input type="checkbox"/> Installation | <input type="checkbox"/> Emergency | <input type="checkbox"/> Annual | <input type="checkbox"/> Cancellation | Project County: Cuyahoga |
| <input type="checkbox"/> NESHAP Residential Exemption |  |                                       |                                    |                                 |                                       |                          |

### 2) Owner, Asbestos Abatement Contractor, Billing and Fire Department Information

Revised? ☐

|  |                           |  |
|--|---------------------------|--|
| Owner  |                           |  |
| Name: Ohio Department of Transportation  |                           | Is this a company? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Address: 5500 Transportation Boulevard   |                           | Contact Person: Mark Carpenter   |
| City: Garfield Heights   | State: Oh                 | Zip: 44125 -   |
| Email: Mark.Carpenter@dot.state.oh.us  | Phone: ( 216 ) 584 - 2002 | Fax: ( ) -   |
| Asbestos Abatement Contractor (if applicable)  |                           |  |
| Name:  | License #: AC             | Expiration Date: / /   |
| Address:   |                           | Contact Person:  |
| City:  | State:                    | Zip: -   |
| Email:   | Phone: ( ) -              | Fax: ( ) -   |
| Billing Contact (Entity paying for original notification)  |                           |  |
| Is this contact associated with the <input type="checkbox"/> Owner, <input type="checkbox"/> Asbestos Abatement Contractor, or <input type="checkbox"/> Demolition Contractor (if not installation)? |                           |  |
| Address:   |                           | Contact Person:  |
| City:  | State:                    | Zip: -   |
| Email:   | Phone: ( ) -              | Fax: ( ) -   |
| Fire Department (if applicable)  |                           |  |
| Name:  |                           |  |
| Address:   |                           | Contact Person:  |
| City:  | State:                    | Zip: -   |
| Email:   | Phone: ( ) -              | Fax: ( ) -   |

### 3) Ohio Asbestos Hazard Evaluation Specialist and Evaluation Procedure

Revised? ☐

|  |                           |                                 |
|--|---------------------------|---------------------------------|
| Evaluation Specialist: Carmen Rocco  | Certification #: ES 33794 | Expiration Date: 09 / 01 / 2022 |
| Procedure, including analytical methods, employed to detect the presence of and to estimate the quantity of regulated asbestos-containing material (RACM) and Category I and Category II non-friable asbestos-containing material: <input type="checkbox"/> PLM <input type="checkbox"/> Point Count <input type="checkbox"/> TEM <input type="checkbox"/> Other Method (Explain Below): |                           |                                 |
| NESHAP Asbestos Survey   |                           |                                 |

### 4) Procedures to be followed should unexpected RACM be discovered (check all that apply)

Revised? ☐

|  |   |  |   |
|--|---|--|---|
| <input checked="" type="checkbox"/> Stop work and keep wet           | <input checked="" type="checkbox"/> Evacuate area | <input checked="" type="checkbox"/> Demarcate area | <input checked="" type="checkbox"/> Contact licensed abatement contractor |
| <input type="checkbox"/> Contact district office/local air authority |   |  |   |
| <input type="checkbox"/> Other (Explain):                            |   |  |   |

### 5) Planned Demolition (check all that apply)

Revised? ☐

|   |  |
|---|--|
| Describe demolition work to be performed and method(s) to be employed, including demolition techniques to be used:  |  |
| <input type="checkbox"/> Implosion <input type="checkbox"/> Fire Training <input checked="" type="checkbox"/> Wet Methods <input checked="" type="checkbox"/> Manual Demolition <input checked="" type="checkbox"/> Mechanical Demolition <input type="checkbox"/> Other (Explain): |  |

Mail completed form and payment to:  
Ohio EPA, DAPC – Asbestos  
P.O. Box 1049, Columbus, OH 43216-1049

# Notification of Demolition and Renovation/Abatement

## Section 1: General Information

Continued

Description of affected facility components (include attachment if necessary):

(Revised 10/18)

Page 1 of 1

### 6) Asbestos Description and Engineering Controls (if asbestos is being abated)

Revised? ☐

For the material listed in each project, describe the type(s) of ACM to be abated, engineering controls and work practices to be used to minimize emissions and ensure proper waste handling:

|                           |   |                                     |                                     |                                 |                                 |
|---------------------------|---|-------------------------------------|-------------------------------------|---------------------------------|---------------------------------|
| Type of ACM to be abated: | <input type="checkbox"/> Surfacing      | <input type="checkbox"/> Mechanical | <input type="checkbox"/> Other      |                                 |                                 |
| Engineering Controls:     | <input type="checkbox"/> Wet Methods    | <input type="checkbox"/> Glove Bag  | <input type="checkbox"/> NPE        | <input type="checkbox"/> AFD    | <input type="checkbox"/> Other: |
| Work Practices:           | <input type="checkbox"/> Intact Removal | <input type="checkbox"/> Manual     | <input type="checkbox"/> Mechanical | <input type="checkbox"/> Other: |                                 |

### 7) Asbestos Waste Transporter (if applicable)

Revised? ☐

|                                      |              |                 |
|--------------------------------------|--------------|-----------------|
| Transporter #1 Name:                 |              |                 |
| Address:                             |              | Contact Person: |
| City:                                | State:       | Zip: -          |
| Email:                               | Phone: ( ) - | Fax: ( ) -      |
| Transporter #2 Name (if applicable): |              |                 |
| Address:                             |              | Contact Person: |
| City:                                | State:       | Zip: -          |
| Email:                               | Phone: ( ) - | Fax: ( ) -      |

### 8) Asbestos Waste Disposal Site (if applicable)

Revised? ☐

|          |              |                 |
|----------|--------------|-----------------|
| Name:    |              |                 |
| Address: |              | Contact Person: |
| City:    | State:       | Zip: -          |
| Email:   | Phone: ( ) - | Fax: ( ) -      |

### 9) Emergency Demolition (complete if you checked "Emergency" above and "Demolition" for any project)

Revised? ☐

A copy of the issued order, including the following information, **must be attached** to this notification.

|                                    |  |
|------------------------------------|--|
| Government Official Issuing Order: | Title:                                 |
| Agency:                            | Authority of Order (Citation of Code): |
| Date of Order: / /                 | Demolition Date: / /                   |

### 10) Emergency Renovation/Abatement (complete if you checked "Emergency" above and "Renovation/Abatement" for any project)

Revised? ☐

|  |  |
|--|--|
| Date of Emergency: / /   | Time of Emergency: : <input type="checkbox"/> a.m. <input type="checkbox"/> p.m. |
| Description of Sudden, Unexpected Event:                                   |  |
| Explanation of how the event caused unsafe conditions or equipment damage: |  |

### 11) Attestation

Revised? ☐

In accordance with Ohio Administrative Code rule 3745-20-03(A)(4)(p), I certify that at least one person trained as required by paragraph (B) of rule 3745-20-04 of the Administrative Code will supervise the stripping and removal described by this notification. I acknowledge that the submission of false or misleading statements is prohibited by law and I certify that facts contained in this notification are true, accurate, and complete.

|               |           |
|---------------|-----------|
| Signature:    | Date: / / |
| Name:         | Title:    |
| Organization: |           |

# Notification of Demolition and Renovation/Abatement

## Section 2: Project Address Specific Information

Division of Air Pollution Control

Please complete Section 2 for the address included with this notification. If the project is an "Installation" per OAC 3745-20, complete a separate Section 2 page for each address associated with this notification.

Ohio EPA Use Only Project ID #:

### A. Facility Description

Revised? ☐

|   |  |  |              |
|---|--|--|--------------|
| Building Name (if applicable): Schaaf Road Bridge |  | Site Location (specific): Schaaf Road Bridge Over State Route 17 |              |
| Address: Brooklyn Heights, Cuyahoga County        |  |  |              |
| City: Brooklyn Heights                            |  | State: OH  | Zip: 44131 - |
| Building Size (square feet): NA                   |  | No. of Floors: NA  | Age: Unknown |
| Present Use: Bridge                               |  | Prior Use: Bridge  |              |

### B. Type of Operation (check all that apply)

Revised? ☐

|  |  |
|--|--|
| <input checked="" type="checkbox"/> Demolition | <input type="checkbox"/> Renovation/Abatement – Type: <input type="checkbox"/> Removal <input type="checkbox"/> Repair <input type="checkbox"/> Encapsulation <input type="checkbox"/> Enclosure |
|--|--|

### C. Asbestos Present (check one)

Revised? ☐

|                              |  |  |              |
|------------------------------|--|--|--------------|
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | <input type="checkbox"/> No, previously abated | Year Abated: |
|------------------------------|--|--|--------------|

### D. Approximate Amount of Asbestos-Containing Materials (complete table below and Section 1 #6 if asbestos is present)

Revised? ☐

|   | Material to be Removed |  |             | Material NOT to be Removed               |             |
|---|------------------------|--|-------------|--|-------------|
|   | RACM                   | Non-friable Asbestos-Containing Material |             | Non-friable Asbestos-Containing Material |             |
|   |                        | Category I                               | Category II | Category I                               | Category II |
| Pipes (linear feet)                               |                        |  |             |  |             |
| Surface area on other facility components (ft²)   |                        |  |             |  |             |
| Volume if length or area cannot be measured (ft³) |                        |  |             |  |             |

### E. Asbestos Abatement Schedule and Abatement Specialist (original notification is required 10 working days prior to the start of work)

Revised? ☐

|                                  |        |         |                     |          |        |                      |        |
|----------------------------------|--------|---------|---------------------|----------|--------|----------------------|--------|
| Setup Date: / /                  |        |         | Abatement Date: / / |          |        | Complete Date: / /   |        |
| (Shift 1) Time start/end on site | Monday | Tuesday | Wednesday           | Thursday | Friday | Saturday             | Sunday |
|                                  |        |         |                     |          |        |                      |        |
| Abatement Specialist Name:       |        |         | Certification #: AS |          |        | Expiration Date: / / |        |
| (Shift 2) Time start/end on site | Monday | Tuesday | Wednesday           | Thursday | Friday | Saturday             | Sunday |
|                                  |        |         |                     |          |        |                      |        |
| Abatement Specialist Name:       |        |         | Certification #: AS |          |        | Expiration Date: / / |        |

### F. Demolition Contractor (if applicable)

Revised? ☐

|          |              |                 |  |
|----------|--------------|-----------------|--|
| Name:    |              |                 |  |
| Address: |              | Contact Person: |  |
| City:    | State:       | Zip: -          |  |
| Email:   | Phone: ( ) - | Fax: ( ) -      |  |

### G. Demolition Schedule (original notification is required 10 working days prior to the start of work)

Revised? ☐

|                 |                    |
|-----------------|--------------------|
| Start Date: / / | Complete Date: / / |
|-----------------|--------------------|

### H. Project Hold

Revised? ☐

|                      |                       |
|----------------------|-----------------------|
| Hold Begin Date: / / | Work Resume Date: / / |
|----------------------|-----------------------|