# Old White Meeting House
# 320 US-2
# South Hero, Vermont 05486

VT DEC SMS #2024-5472
KAS #510210643

## DRAFT CORRECTIVE ACTION PLAN

March 13, 2026

*Prepared for:*

Town of South Hero
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## Certification

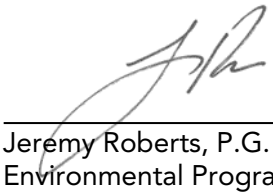
This draft Corrective Action Plan for the Old White Meeting House property located at 320 US-2 in South Hero, Vermont, State of Vermont Department of Environmental Conservation Sites Management Section #2024-5472, has been prepared and reviewed by the following personnel.

We certify under penalty of perjury that we are environmental professionals and that all content contained within this deliverable is to the best of our knowledge true and accurate.

Prepared By:

Aske Doerge
Senior Environmental Project Manager

Reviewed By:



Jeremy Roberts, P.G.
Environmental Program Manager

Reviewed By:

Stephen Diglio, P.E.
Engineering Manager

## Executive Summary

This draft Corrective Action Plan (CAP) has been prepared by KAS Inc. (KAS) for the Town of South Hero, to outline corrective actions proposed during the redevelopment of the Old White Meeting House property, located at 320 US Route 2, South Hero, Vermont ("Site"). Funding for the preparation of the CAP has been provided by the Northwest Regional Planning Commission (NRPC) of St. Albans, Vermont. The Site was classified by the Vermont Department of Environmental Conservation (VT DEC) Sites Management Section (SMS) as SMS #2024-5472 following the completion of a Phase II Environmental Site Assessment (ESA) by KAS in August 2024. During this Phase II ESA and subsequent Supplemental Site Investigation (SSI) in April 2025, lead impacts above the Residential Vermont Soil Standard (R-VSS) and the Vermont Urban Background (VUB) were identified in shallow soil (0-18 inches) in the immediate area surrounding the property building footprint. Lead impacts have also been identified in shallow soil at various other locations throughout the property above the R-VSS, with only shallow soil in the southwestern and northeastern corners of the property found to contain lead concentrations above the VUB. Lead impacts to shallow soils around the property building are believed to be related to the historical presence of lead based paint (LBP) on the exterior of the building as the building was constructed pre-1978. Site groundwater was tested for total lead in September of 2025, with lead reported at concentrations above the laboratory method detection limit (MDL), but below the Vermont Groundwater Enforcement Standard (VGES) throughout the monitoring well network. As such, groundwater is not considered to be impacted by lead.

The objective of the corrective actions is to mitigate the potential exposure of impacted soils and sensitive receptors to the maximum extent practicable during and after Site redevelopment. This will be accomplished by implementing the following:

1. A soil management plan to ensure that impacted soils disturbed during construction are managed appropriately, do not migrate, and do not present a risk to potential sensitive receptors during construction;

2. Installation of engineered barriers to isolate impacted soils that will remain; and,

3. Use of institutional controls to ensure engineered controls remain effective over time.

The corrective action work is anticipated to start as early as April of 2026. This schedule is dependent on the property owner (Town of South Hero) and subcontractors obtaining all required permits, and the selection of qualified contractors.

# 1.0 Introduction

This draft Corrective Action Plan (CAP) has been prepared by KAS Inc. (KAS), on behalf of Town of South Hero, to outline corrective actions proposed during the redevelopment of the Old White Meeting House property, located at 320 US Route 2, South Hero, Vermont ("Site" or "property"). This work was performed by KAS, Inc. (KAS) for the Northwest Regional Planning Commission (NRPC) of St. Albans, Vermont on behalf of the property owner (Town of South Hero). This work was funded by NRPC through EPA Brownfields Assessment Cooperative Agreement #BF00A01264. This CAP has been prepared in accordance with the Vermont Department of Environmental Conservation (VT DEC) *Investigation and Remediation of Contaminated Properties Rule* (IRule). An IRule CAP checklist is provided in Appendix G.

The owner and responsible party contact information is outlined below.

| Owner / Responsible Party | Mailing Address | Contact Name | Phone | Email Address |
|---|---|---|---|---|
| Town of South Hero | P.O. Box 175<br>So Hero, VT 05468 | Ms. Sandy Gregg | (802) 372-4565 | Frogrock37@gmail.com |

# 2.0 Background

## 2.1 Site Description

The Site consists of a 0.51-acre parcel located off the northern side of US Route 2 in South Hero, Vermont. The property lies between Wally's Point Road and Hill Road within the northern portion of the Town of South Hero. One building is present on the property consisting of an approximately 2,000-SF two-story wood frame structure. The building is dated 1816 according to the signage near its front door. Two overhead garage doors with garage bays are present along the lower portion of the building. The lower portion of the building is vacant except for some storage of various thrift shop items. The upper floors are used to store and display thrift shop items as part of the Granny's Attic. A Site Map, which shows relevant Site features, is included in Appendix A. Previous investigations conducted at the Site have found contaminants in soil as summarized in Section 3.0 Conceptual Site Model.

## 2.2 Applicable Environmental Media Standards

The VT DEC has established concentration standards for contaminants that have the potential to adversely affect human health or the environment. The contaminants of concern for the Site, and the basis for corrective actions, are summarized in the following table and compared to the applicable standard.

**Table 1: Contaminants of Concern and Applicable Standards**

| Contaminant | Media | Vermont Residential Soil Standard (mg/kg) | Vermont Urban Background Soil Standard (mg/kg) |
|---|---|---|---|
| Lead | Soil | 41 | 111 |

### 2.3 Redevelopment and Reuse Plan

The Town of South Hero intends to redevelop the Site, which will include restoration of the historical on-site meeting house building, the demolition of the existing foundation slab beneath the building, and the construction of a new foundation slab and frost walls beneath the building. Following completion of Site redevelopment, the Site will continue to be used for community use by the Town of South Hero. A Proposed Site Plan by Arnold & Scangas Architects, which shows the redevelopment plans, is provided in Appendix A.

### 2.4 Objective and Scope of Corrective Actions

The objective of the corrective actions, as detailed in Section 4.0, is to mitigate the potential exposure of impacted soils to sensitive receptors to the maximum extent practicable during and after Site redevelopment. This will be accomplished by implementing the following:

1. A soil management plan to ensure that impacted soils disturbed during construction are managed appropriately, do not migrate, and do not present a risk to potential sensitive receptors during construction;

2. Installation of engineered barriers to isolate impacted soils that will remain; and,

3. Use of institutional controls to ensure engineered controls remain effective over time.

### 2.5 Evaluation of Corrective Action Alternatives

The proposed corrective actions were evaluated prior to the CAP and communicated to the VT DEC via an email on March 2, 2026. The Site was determined to be exempt from the need for an evaluation of corrective action alternatives (ECAA) per Section § 35-604 (b) of the IRule.

### 2.6 Public Notice and CAP Approval

Once reviewed by the VT DEC, this CAP will be uploaded into the Environmental Notice Bulletin (ENB) for the required 30-day public comment period. A notice of this CAP will be mailed to all adjoining property owners (Appendix B). A parcel boundary map, which shows who will receive notification of the CAP public comment, is included in Appendix B. The notice will consist of a completed VT DEC Official Notice form (Appendix B). Any information request or public comment will be considered prior to final CAP approval.

### 2.7 Implementation of the Corrective Action Plan

Following CAP approval by the VT DEC, implementation of the CAP is planned for the spring of 2026. Upon completion of the CAP, a Corrective Action Construction Completion Report, per Subchapter 5, §35-507 of the IRule will be prepared and submitted to the VT DEC.

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## 3.0 Conceptual Site Model

### 3.1 Site Conditions and Property History

The property is located off the northern side of US Route 2 in South Hero, Vermont. The property lies between Wally's Point Road and Hill Road within the northern portion of the Town of South

Hero. The property consists of approximately 0.51 acres and is located within a residential zoning district according to the Town of South Hero.[1] The property coordinates are – 73.304884˚ west longitude and 44.645901˚ north latitude.[2] The property is generally flat throughout and is accessed via paved entrances off US Route 2. No bedrock outcroppings or surface water have been noted on the property or in the vicinity. The general area predominantly consists of a mix of residential and commercial development.

One building is present on the property consisting of an approximately 2,000-SF two-story wood frame structure. The building is dated 1816 according to the signage near its front door. Two overhead garage doors with garage bays are present along the lower portion of the building. The lower portion of the building is vacant except for some storage of various thrift shop items. The upper floors are used to store and display thrift shop items as part of the Granny's Attic. A Site Map which shows relevant Site features is included in Appendix A.

The property building was constructed in the early 1800's for use as a church and town hall. As time went on, the lower portion of the building was reportedly used by the Town of South Hero as a town garage, which reportedly included some degree of vehicle servicing. No other historical uses of the property are known.

Based on a review of topographic maps and aerial photography, the Site lies at an approximate elevation of 150 feet above mean sea level (AMSL). Lake Champlain is located approximately 0.5 miles to the north of the property. Based on Site topography, the surface drainage from the Site is anticipated to flow in a general northerly direction. The property area is served by municipal sewer and water, natural gas, electricity, and telecommunications. No other subsurface infrastructure is known to be present beneath or near the Site.

As of the date of this report, neighboring property uses consisted of the following:

North: Former So Hero Fire Department followed by open agricultural land
South: US Route 2 followed by residential properties
West: Farmers Market and restaurant
East: Blue Paddle Bistro (restaurant)

## 3.2 Apparent Source(s) of Release

Prior to completion of the Phase II Environmental Site Assessment (ESA), no releases of hazardous materials at the property were reported. The Phase I ESA completed by KAS in November 2021 identified the presence of lead based paint (LBP) on the outside of the property building and the past use of the property building for vehicle maintenance. No other potential sources on site are known to exist or have been identified at this time.

Lead impacts to shallow soils around the property building are believed to be related to the historical presence of LBP on the exterior of the building as the building was constructed pre-1978.

The past use of the building for vehicle maintenance does not appear to have resulted in evidence of a release of regulated Volatile Organic Compounds (VOCs).

[1] Town of South Hero
[2] Envirosite

## 3.3 Geology

According to the Surficial Geology Map of Vermont[3], the overburden deposits near the property primarily consist of till. According to the Bedrock Geology Map of Vermont[4], the property is underlain by dark-gray calcareous shale with beds of bluish-gray limestone.

No bedrock outcrops are present on the property, and no wetland areas have been identified on or near the property according to VT DEC records.

## 3.4 Hydrogeology

The depth to groundwater beneath the property has previously been measured at approximately 4-8 feet below grade (fbg), and flows in a general northerly direction based on Site topography and the location to nearby surface waters.

## 3.5 Contaminant Distribution

In May-August 2024, KAS conducted a Phase II ESA, followed by a supplemental site investigation (SSI) completed in November 2025, to evaluate environmental conditions of soil, groundwater, and soil vapor beneath the Site. Contaminant summary tables from both reports are included in Appendix C.

## 3.6 Contaminant Fate and Transport

Lead impacts above the Residential Vermont Soil Standard (R-VSS) and the Vermont Urban Background (VUB) standard have been identified in shallow soil at 0-18 inches in the immediate area surrounding the property building footprint. Lead impacts have also been identified in shallow soil at various other locations throughout the property above the R-VSS, with only shallow soil in the southwestern and northeastern corners of the property found to contain lead concentrations above the VUB. Transport of lead to these soils likely occurred through the chipping and flaking of exterior paint containing lead onto the surrounding soil, or the leaching of lead into soil through rainwater coming in contact with the exterior paint and dripping onto the soil below. During monitoring well development, deeper soil samples were collected in the immediate area surrounding the property building footprint at depths of 4-12 fbg. All the deeper soil samples collected contained lead concentrations below the R-VSS and VUB. Lead impacts are therefore thought to be localized to shallow exterior areas at the Site, however, the full extent of these impacts is not clear based on the limited testing completed to date.

Polycyclic aromatic hydrocarbon (PAH) impacts above the R-VSS, but below the VUB, have been identified at select locations in the immediate area surrounding the building footprints. PAH impacts were limited to the northern portion of the building footprint in shallow soil at 0–6 inches, with one exceedance of the R-VSS at 12–18 inches in the northwestern corner of the footprint. As the Site is located within an urban background area and no PAHs have been detected above the VUB, PAH impacts are not considered a concern with respect to the planned corrective actions during Site redevelopment. Additionally, soil with PAH impacts above the R-VSS is also impacted by lead above the VUB, and therefore any remedial action taken to address soil lead impacts will also address soil PAH impacts.

[3] Surficial Geologic Map of Vermont, 1970
[4] Bedrock Geologic Map of Vermont, 2011

Generally, lead and other metals exhibit low mobility (do not easily dissolve in water) and will persist in the environment once adsorbed onto soils. Heavy metals are slow to degrade under natural conditions. Site groundwater has been tested for lead in September of 2025, with lead reported at concentrations above the laboratory method detection limit (MDL), but below the Vermont Groundwater Enforcement Standard (VGES) through the site. As such, groundwater is not considered to be impacted by lead.

## 3.7 Exposure Pathways and Sensitive Receptor Risk Assessment

A review of potential exposure pathways and a sensitive receptor risk assessment of the area surrounding the property is provided below, and a determination of the potential risk to identified exposure pathways and receptors has been made based on proximity to the impacted areas, the presumed groundwater flow direction, contaminant mobility and volatility, and contaminant concentration levels in soil.

**Table 2: Exposure Pathways and Sensitive Receptor Risk Assessment**

| Exposure Pathway / Sensitive Receptor | Pathway Complete or Incomplete | Supporting Documentation |
|---|---|---|
| Direct human contact to soil or groundwater | Deemed Complete | Impacted soils have been identified to be present at surface depths beneath the Site and these soils are not all capped with hardscape cover. |
| Soil to groundwater (drinking water) | Deemed Incomplete | There are no public or private supply wells within one ½ mile of the Site. |
| Inhalation of soil vapor | Deemed Incomplete | Soil gas testing beneath the Site does not support the likely presence of a complete vapor intrusion pathway. |
| Soil to surface water | Deemed Incomplete | Impacts to nearby surface water are not likely based on existing data. |
| Groundwater to surface water | Deemed Incomplete | Impacts to nearby surface water are not likely based on existing data. |
| Groundwater or vapor migration to utility corridors | Deemed Incomplete | Groundwater or vapor migration via the nearest utility line corridors is not believed to be a concern based on available data. |

Routes of potential exposure to current and future site users include absorption via dermal contact and/or ingestion of soil. Impacted soils above R-VSS have been identified at shallow depths at various locations at the Site property. Most of these areas have hardscape cover, however greenspace areas around Site building present a direct contact risk. Potential exposure to groundwater or soil gas is not deemed to be of concern given previous Site sampling results and the contaminant identified.

## 3.8 Data Gap Analysis

KAS has completed an evaluation of potential data gaps at the Site. A complete picture of the property history and use has been obtained through prior completion of a Phase I ESA. The data collected through the Phase II ESA and SSI is deemed adequate to fully evaluate impacts to shallow soils, soil gas, and groundwater at the property.

# 4.0 CORRECTIVE ACTION PLAN

Corrective actions are required to mitigate the potential exposure of impacted soils to sensitive receptors during and after Site redevelopment

## 4.1 Soil Management Plan

The soil management plan establishes guidelines for the excavation, loading, and stockpiling of contaminated soil. Most of the soil to be excavated as part of Site redevelopment will be reused as backfill, with the remaining soil transported off-site for disposal.

### *4.1.1 Lead-Based Paint Management*

To facilitate redevelopment of the Site, the on-site meeting house building will be lifted and relocated to the back of the property for renovation. Green Mountain Painters, a Vermont licensed and certified LBP abatement company, will implement protective measures compliant with The Vermont Department of Health (VT DOH) Regulations for Lead Control during the move to prevent LBP from flaking and contaminating nearby soil. After relocation, the building will undergo LBP removal in accordance with VT DOH regulations and protocols. All existing LBP will be properly scraped and collected, and the building will then be repainted using new lead-free paint.

### *4.1.2 Temporary Stockpiles*

To facilitate redevelopment of the Site, the use of temporary onsite soil stockpiles is anticipated as part of the soil management plan. Soil beneath and within an 8-foot wide horizontal width around the exterior of the meeting house building will be temporarily excavated to a depth of 4-6 fbg. The excavated soil will be separated into two on-site soil stockpiles, as described below.

The first stockpile (Stockpile 1) will contain soil from 0 to 18 inches within eight horizontal feet of the building, which prior sampling has confirmed to contain lead above the VUB, and PAHs below the VUB but above the R-VSS. The second stockpile (Stockpile 2) will contain all the remaining excavated soil.

To mitigate potential contaminant migration and impacts to nearby sensitive receptors, stockpiles will be fully encapsulated in a minimum 6-mil plastic sheeting at all times with appropriate anchors to keep the cover in place. The stockpile area will be appropriately graded to control run-off and will be in areas not subject to flooding or excessive sheet flow during storm events.

In order to facilitate Site development activities, and limit public access and exposure to excavated soil, the soil piles will be temporarily stockpiled at 310 Route 2, the property directly north of the Site. This property was recently purchased by the Town of South Hero and is currently undeveloped, making it suitable for temporary soil storage.

A VT DEC stockpile form (e.g., Management of Non-Hazardous Contaminated Soil Request Form) is provided in Appendix D.

### *4.1.3 Waste Characterization Soil Sampling*

Once excavation is complete, composite waste-characterization samples will be collected by KAS from stockpile 1 to determine the disposal requirements of the receiving facility and the associated

costs. The costs for the waste characterization will be covered by the disposal facility. Additional details regarding soil disposal are provided in Section 4.1.4.

*4.1.4 Offsite Soil Disposal*

Soil in stockpile 1 is expected to contain elevated lead concentrations of greater than 111 mg/kg, which will necessitate disposal at a permitted facility capable of managing soils with high lead concentrations.

Based on an estimated excavation depth of 1.5 feet, corresponding to a radius of 8 feet around the meeting house building, approximately 84 cubic yards of soil will require off-site disposal. This volume is equivalent to roughly five truckloads. The excavated material will be transported to Biogenie Canada Inc. located in Montréal-Est, Canada. At this facility, soils are treated and stabilized before final placement in approved disposal locations. Estimated costs for soil transportation and disposal are included in Appendix F.

*4.1.5 Soil Excavation & Offsite Disposal*

Based on rough soil cut estimates for the building foundation, frost walls, and expanded utilities, an approximate 700 tons of soil is anticipated to be excavated to facilitate Site redevelopment. Table 3 below provides a breakdown of the soil estimates based on elements of the proposed construction

**Table 3: Soil Excavation and Disposal Estimates**

| Description | Approx. Excavation Depth (feet) | Volume (cubic yards) | Approx tonnage |
|---|---|---|---|
| Building – Foundation | 6 | 212 | 318 |
| Building – Footing Drain | 1-4 | 50 | 75 |
| Building – Frost wall and utilities 0 – 1.5 fbg (Disposal) | 1.5 | 84 | 126 |
| Building – Frost wall and utilities 1.5 - 5 fbg | 5 | 119 | 179 |
| **Total** | - | 465 | 698 |

As described in Section 4.1.4 off-site disposal of excavated soil from stockpile 1 will be required. The remaining soil will be used to backfill the areas from which it was excavated. To replace the disposed soil, the uppermost 18 inches of soil within an 8-inch radius of the meeting house building will be backfilled with a combination of gravel, clean fill, and topsoil. Should any residual contaminated soil remain in the backfill, the new soil layer, together with the reconstructed building slab and flooring, will function as engineered barriers, consistent with the specifications outlined in Section 4.2.

Excavated soil from stockpile 1 will be loaded onto tractor trailers and/or dump trucks provided by the disposal/receiving facility. To prevent the migration of contaminated soil, the following will be verified prior to each truck leaving the site:

- There is no evidence of liquid leaking from the truck bed;
- Tailgates are latched;

- Loads are covered; and,
- There is no evidence of excavated soil being tracked out of the excavation area.

The excavation of soil will be overseen and documented by KAS. Offsite disposal of soil will be documented via transportation bill of ladings/manifests and/or truck scale tickets from the disposal facility.

#### *4.1.6 Dewatering and Water Treatment*

Excavation depths are generally anticipated to be above the depth of groundwater. As such, dewatering during excavation is not anticipated to be a component of the construction. Nonetheless, depending on conditions at the time of construction, groundwater may be encountered during the deepest excavations, which is estimated to be 4-6 fbg. If groundwater is encountered during construction activities, it will be managed through standard construction practices, as prior groundwater and deeper soil testing has shown that neither medium is impacted by lead. If a significant amount of groundwater requires dewatering, a discharge permit will be obtained as needed.

## 4.2 Engineered Barriers

It is anticipated that all soil with lead concentrations above the VUB that is excavated will be disposed of off-site during Site redevelopment. However, should any residual contamination remain in the backfill at the Site, it will be isolated by the reconstructed building foundation and slab, along with the planned backfill of gravel, clean fill, and topsoil. These materials will function as IRule-compliant engineered barriers. Impervious surfaces will be underlain by a minimum of 6 inches of sub-base material, consistent with IRule requirements, and excavated greenspace or landscaped areas surrounding the meeting house building will include an 18-inch soil barrier that also meets IRule compliance.

Shallow soil previously documented to be impacted with lead above the VUB in the southwestern and northeastern corners of the Site is currently isolated with paved hardscape barriers that are not planned to be disturbed as a part of this CAP. Should these areas be planned to be disturbed in the future as part of further Site redevelopment, it will be addressed as part of a separate soil management plan.

## 4.3 Erosion Control

The potential area impacted by the Site redevelopment will be less than 1-acre. Therefore, a soil erosion control plan, which is intended to minimize off-site migration during construction activities, is not required. However, standard erosion control measures, per the Vermont Low Risk Site Handbook, will be used to minimize soil migration during CAP implementation.

Generation of dust during CAP implementation will be addressed as follows to minimize the inhalation pathway during construction: all excavated surfaces will be wetted with water as needed to minimize dust; and calcium chloride may also be used to control dust on exposed excavation surfaces.

## 4.4 Health and Safety Plan (HASP)

A HASP for the corrective action area will be prepared and implemented to govern the safety aspects associated with the corrective action activities in accordance with OSHA requirements. A

40-hour OSHA 1910.120 trained personnel must be appointed as the Site Safety Officer with a backup also designated. A copy of the HASP will be kept onsite and will be available to other parties upon request. A copy of the HASP is included in Appendix E.

# 5.0 PERFORMANCE STANDARDS AND LONG TERM OPERATION & MAINTENANCE PLAN

## 5.1 Soil Management

KAS will periodically check in on the excavation progress and document that the work is being completed in accordance with the CAP. The proposed inspection frequency will generally depend on key milestones/activities associated with the soil management plan (Section 4.1). Such activities may include, but not necessarily be limited to, the following: lifting of the meeting house building, delineation and excavation of soil beneath and surrounding the meeting house building, excavation during the proposed building foundation renovation, inspection of temporary stockpile(s), and loading of transport trucks. Offsite disposal will be documented via transportation bill of ladings/manifests and/or truck scale tickets from the disposal facility.

## 5.2 Groundwater

As Site groundwater is not considered to be impacted by lead, and groundwater is not expected to be impacted by Site remediation and redevelopment activities, no groundwater management will be required for CAP implementation.

As the on-Site groundwater monitoring wells are expected to be destroyed during Site remediation and redevelopment activities, monitoring wells will be abandoned as a part of CAP implementation.

# 6.0 PERMITS, CONTRACTORS, REPORTING, SCHEDULE, AND COST

## 6.1 Permits / Approvals

CAP approval from the VT DEC is required prior to CAP implementation. Additional permits/approvals that are beyond the scope of this CAP may be required and are the responsibility of the owner. Such permits include zoning, water/wastewater, stormwater, and building permits. Given the nature of this project, it is exempt from Act 250. No other permits are known to be required.

## 6.2 Contractors and Sub-Contractors

The following table provides a list of contractors that will be utilized for CAP implementation:

**Table 4: Contractors and Sub-Contractors**

| Company | Contact Information | |
|---|---|---|
| ***Excavation and Site Restoration*** | | |
| Beaulac Excavating | Contact: John Beaulac | (802) 796-3469 |
| Vermont Heavy Timber | Contact: Miles Jenness | (802)-540-5988 |
| Green Mountain Painters | Contact: Blake Ressler | (802) 992-1717 |
| ***Waste Disposal Facilities*** | | |
| Biogenie Canada | Contact: William C. Eaton | (603) 498 1174 |

| | | |
|---|---|---|
| | Montréal-Est, Canada | |
| ***Laboratories*** | | |
| Endyne, Inc | Contact: Eileen Toomey | (802) 879-4333 |

### 6.3 Reporting

Following the completion of the CAP implementation, a Corrective Action Construction Completion Report will be prepared per the IRule. The report will describe the work performed during construction and note deviations, if any, from the approved CAP. The report will also include the results of the soil screening and sampling and analysis completed as part of the soil excavation.

### 6.4 Schedule

Following CAP approval by the VT DEC, the start of CAP implementation is anticipated to begin as early as April of 2026. The duration of the CAP implementation is expected to be approximately one month. The following are specific target dates and milestones:

**Table 5: Implementation Schedule**

| Estimated Target Date | CAP Related | Construction Related | Milestone Description |
|---|---|---|---|
| 04/17/26 | ✓ | | Final approval of CAP (following 30-day public comment period). |
| 04/24/26 | | ✓ | Completion of soil excavation |
| 05/01/26 | ✓ | | Waste characterization sampling completed and waste profile obtained |
| 05/08/26 | ✓ | ✓ | Completion of soil off site transportation/disposal |
| 05/08/26 | ✓ | ✓ | Completion of LBP removal |
| 06/19/26 | ✓ | | Completion of Corrective Action Completion Report |

### 6.5 Cost

KAS has prepared a cost estimate for the corrective actions specified herein. The estimated costs are representative of the design elements, as described within this CAP, that are necessary to mitigate exposure to Site contaminants. Structural, architectural, and other components of the Site's redevelopment design are not included within these costs.

The total estimated cost to implement the corrective actions as described within this CAP is approximately $52,930, which includes a 15% contingency. A detailed cost estimate is provided in Appendix F.

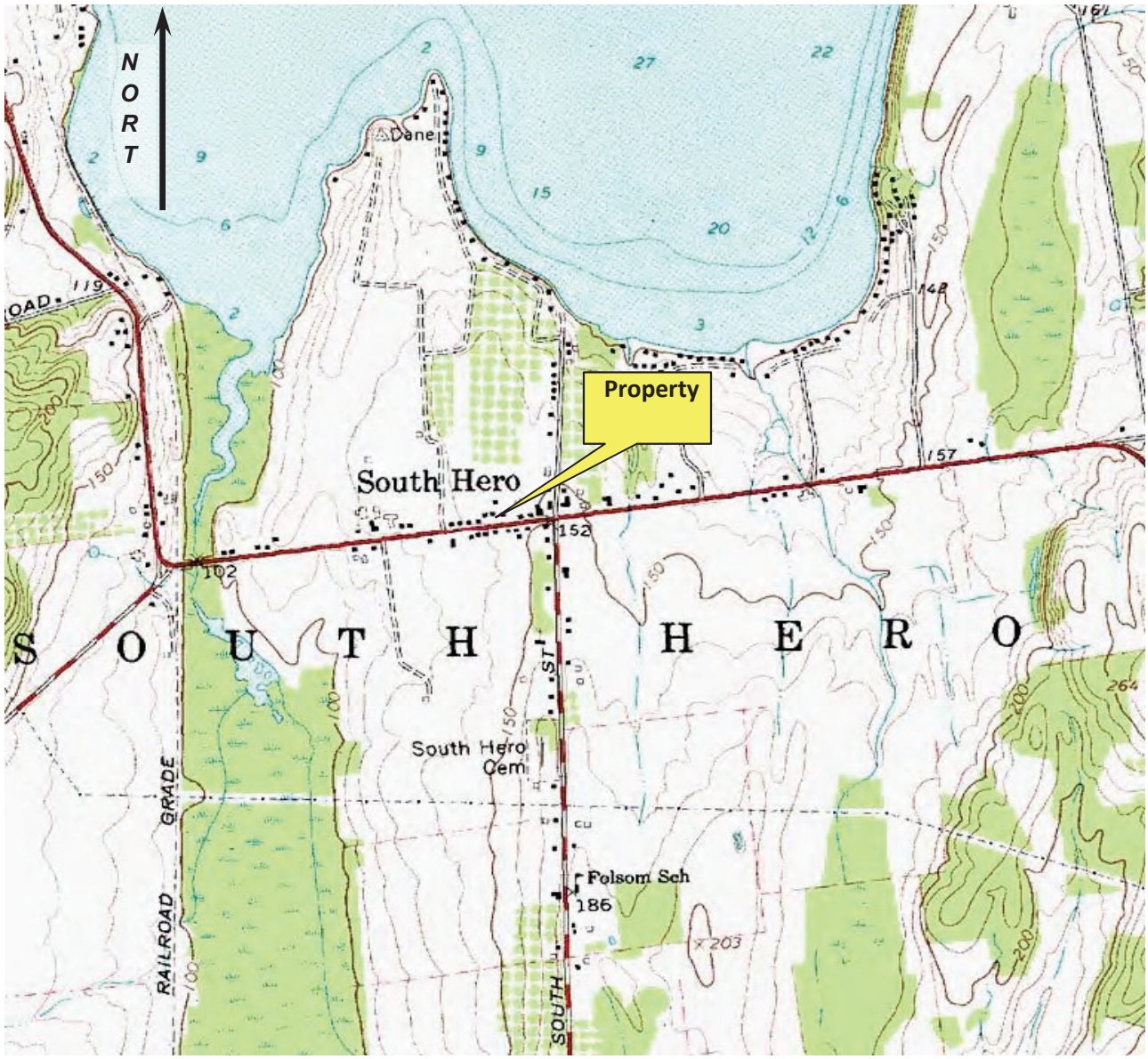
## 7.0 SITE CLOSURE

Following substantial completion of the CAP, a Sites Management Activities Completed (SMAC) will be issued for the Site.

# Appendix A

## Maps & Plans

1) Site Location Map
2) Site Vicinity Map
3) Site Map
4) Soil: Lead Concentration Map 5/29/24
5) Soil: Lead Concentration Map 0-3" 2/17/25
6) Soil: Lead Concentration Map 12-18" 2/17/25
7) Soil: Lead Concentration Map 0-3" 8/21/25
8) Soil: Lead Concentration Map 12-18" 8/21/25
9) Site Map with Excavation Area
10) Proposed Site and Building Plan (by Dubois & King, Inc.)




KAS Job Number *510210643*

Source: *www.topoquest.com, USGS South Hero, VT Quadrangle, 1966, photorevised 1983*

# Old White Meeting House

**320 US-2, South Hero, VT**

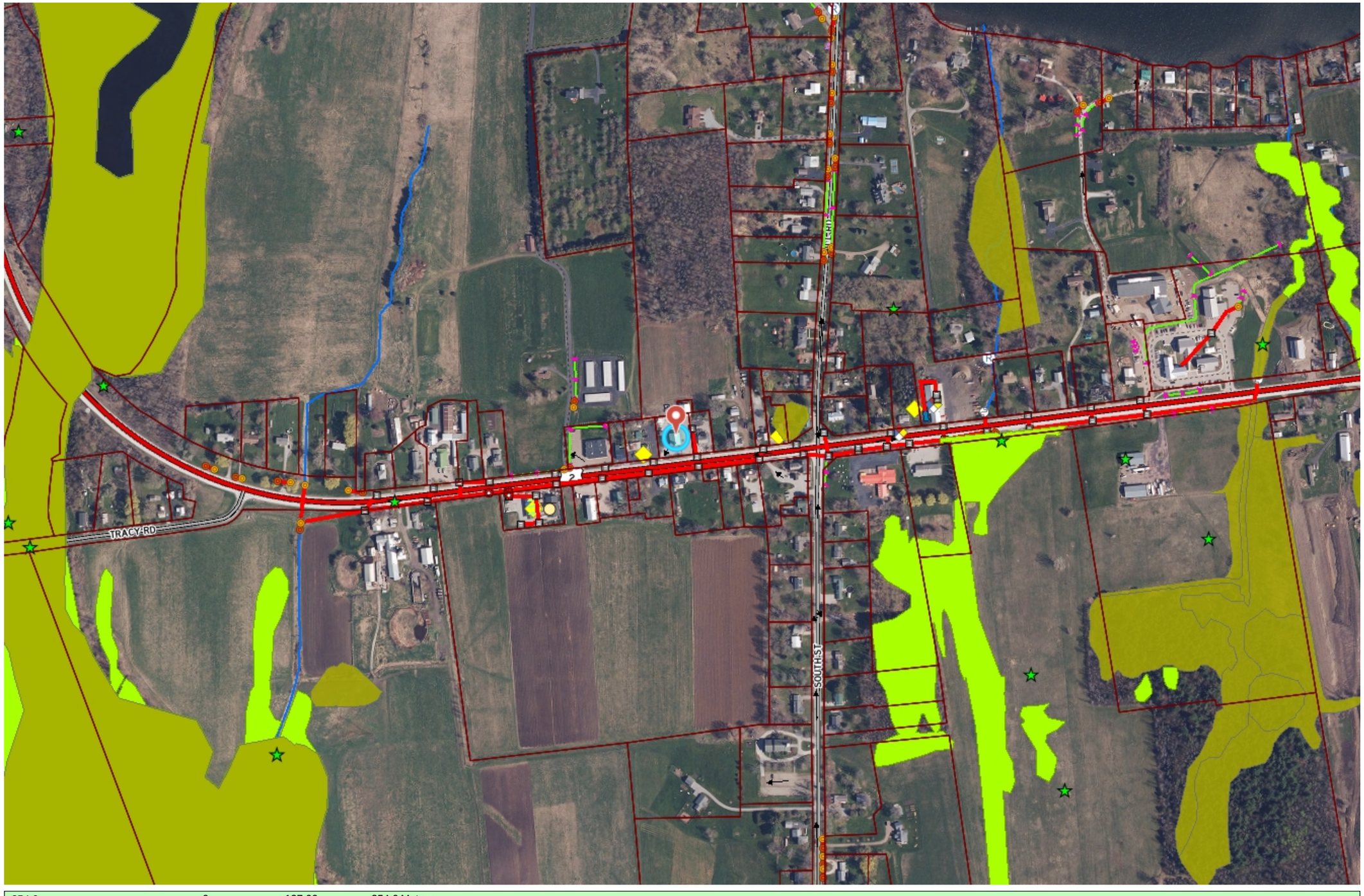
**Site Location Map**

| Date: 11/05/21 | Drawing No. 0 | Scale: NTS | By: JR |
|---|---|---|---|

# Old White Meeting House Site Vicinity Map

Vermont Agency of Natural Resources

vermont.gov





## LEGEND

- Wetland Projects
- Wetland - VSWI
  - Class 1 Wetland
  - Class 2 Wetland
  - Wetland Buffer
- Wetlands Advisory Layer
- Existing stormwater point
  - Pipe Cross (not connected)
  - Catchbasin
  - Dry Well
  - Drop Inlet
  - Grate/Curb Inlet
  - Yard drain
  - Junction Box
  - Stormwater Manhole
  - Outfall
  - Culvert inlet
  - Culvert outlet
  - Pond outlet structure
  - Treatment feature (see notes)
  - Retrofit
  - Unknown Point
  - Information Point
  - <all other values>
- Existing stormwater line
  - Storm line
  - Storm line (old Sanitary line)
  - Tunnel (storm)
  - Swale
  - Footing drain
  - Under drain
  - Roof drain
  - Infiltration pipe
  - French drain
  - Trench drain
  - Emergency spillway
  - Stream
  - Overland flow
- Existing stormwater area
- Sanitary Points
- Sanitary Lines

**1: 5,000**

1in = 417 ft.
1cm = 50 meters

254.0 0 127.00 254.0 Meters

WGS_1984_Web_Mercator_Auxiliary_Sphere

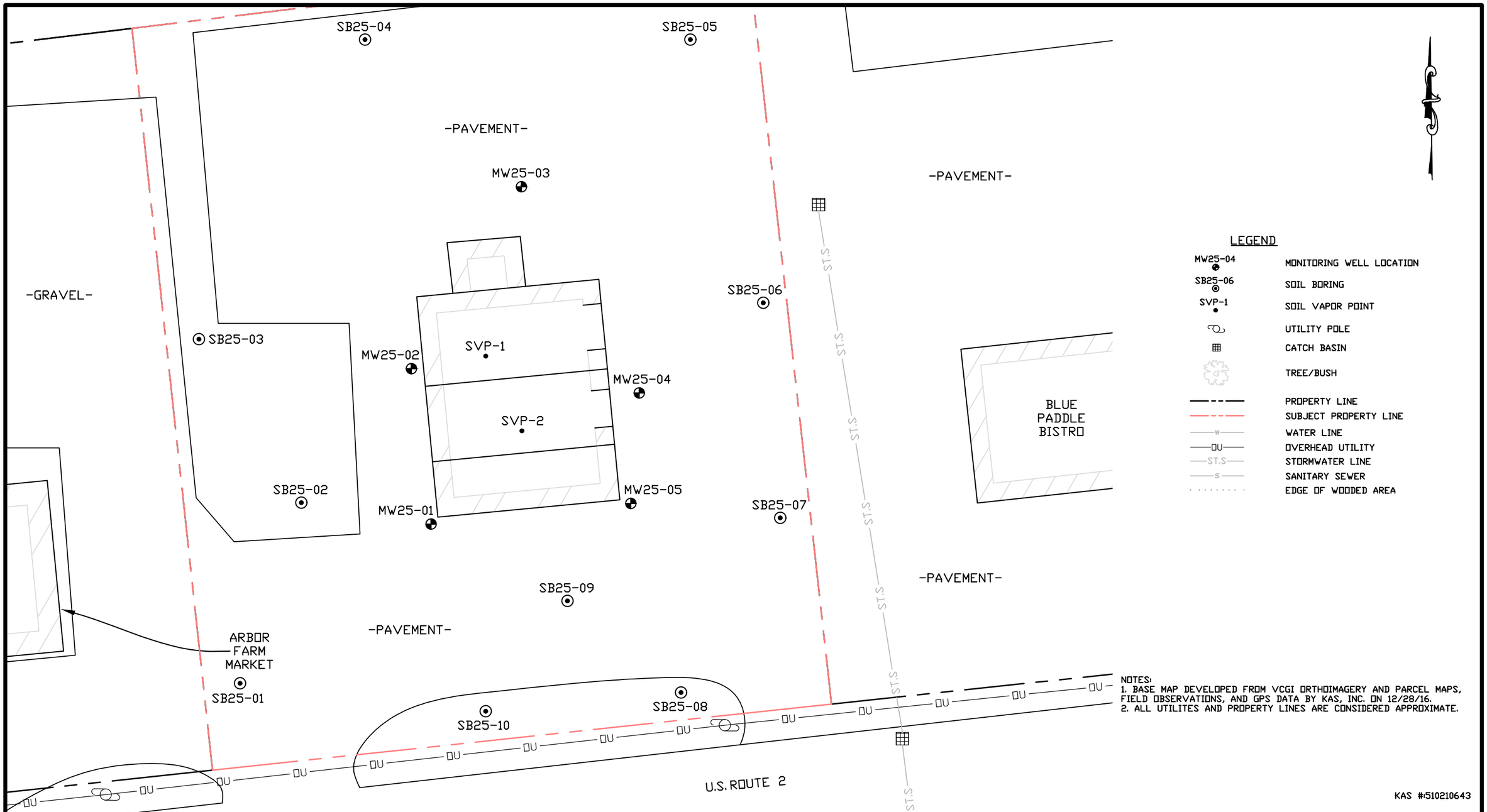




## NOTES

Map created using ANR's Natural Resources Atlas

KAS #510210643

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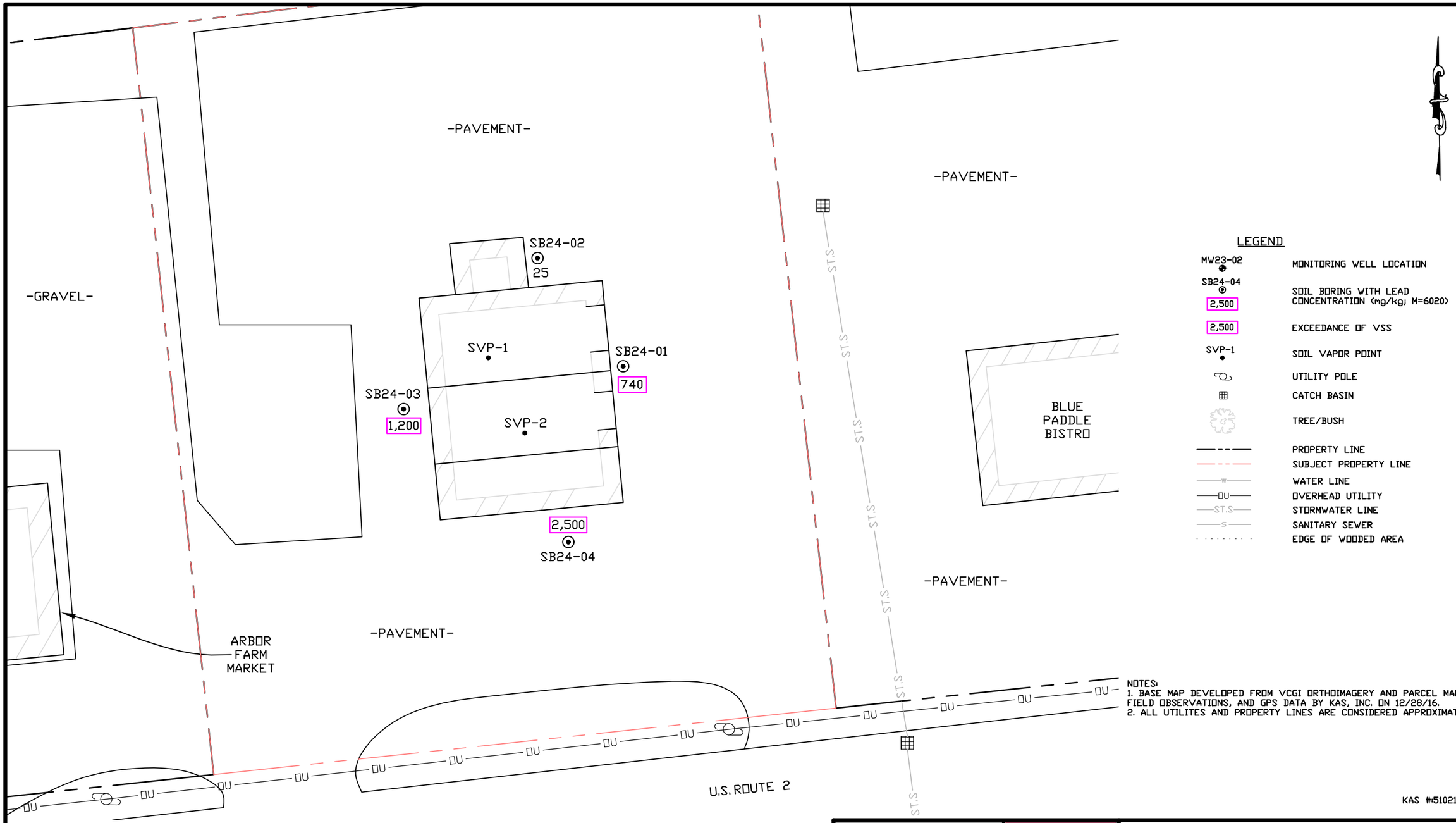
# OLD WHITE MEETING HOUSE
320 US ROUTE 2
SOUTH HERO, VERMONT

## SITE MAP

| DATE: 10/29/25 | DWG. #: 1 | SCALE: 1"=20' | DRN.: TT | APP.: JR |
|---|---|---|---|---|

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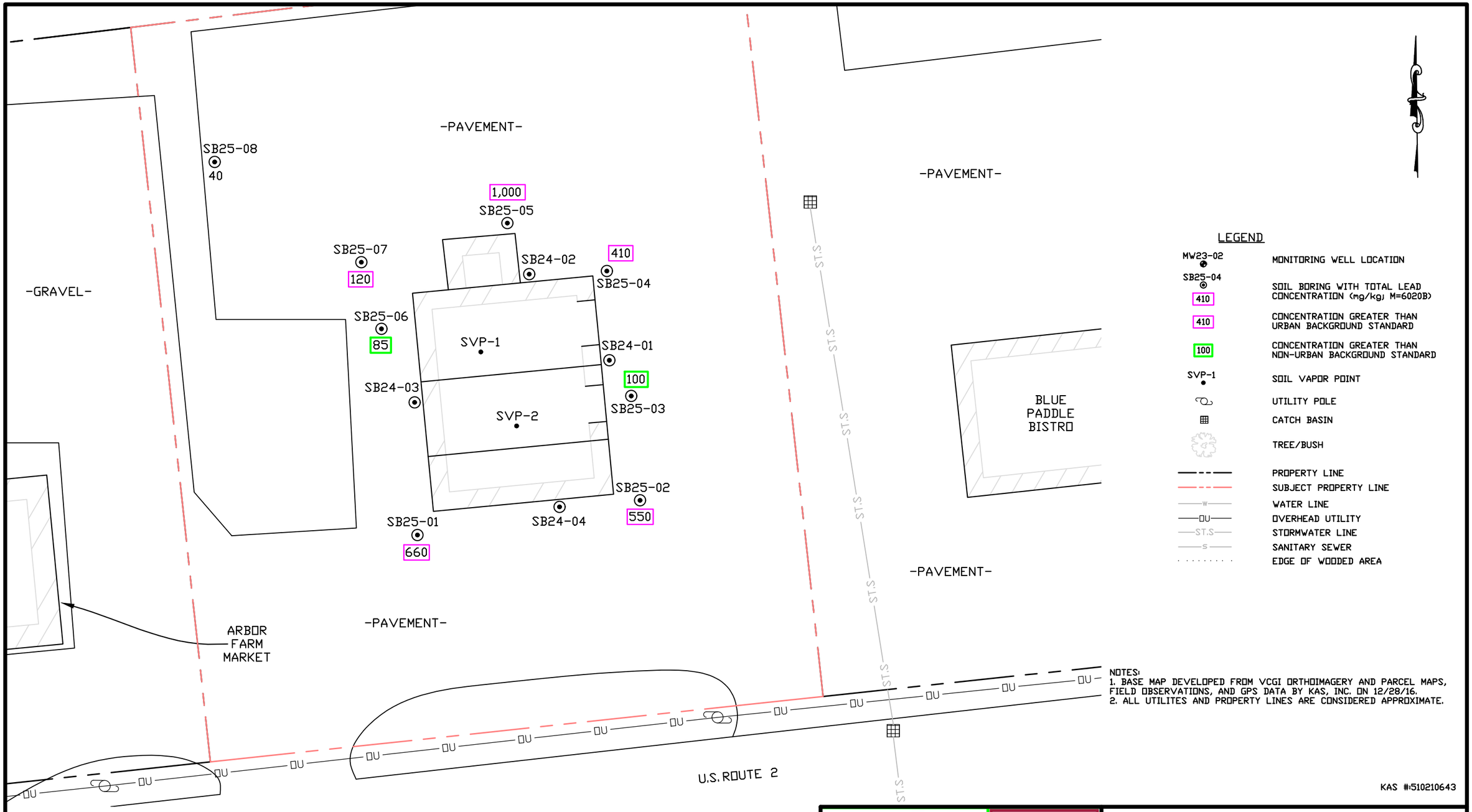
# OLD WHITE MEETING HOUSE
## 320 US ROUTE 2
## SOUTH HERO, VERMONT

## SOIL: LEAD CONCENTRATION MAP

SAMPLED: 5/29/24

| DATE: 7/9/24 | DWG. #: 2 | SCALE: 1"=20' | DRN.: TT | APP.: ML |
|---|---|---|---|---|

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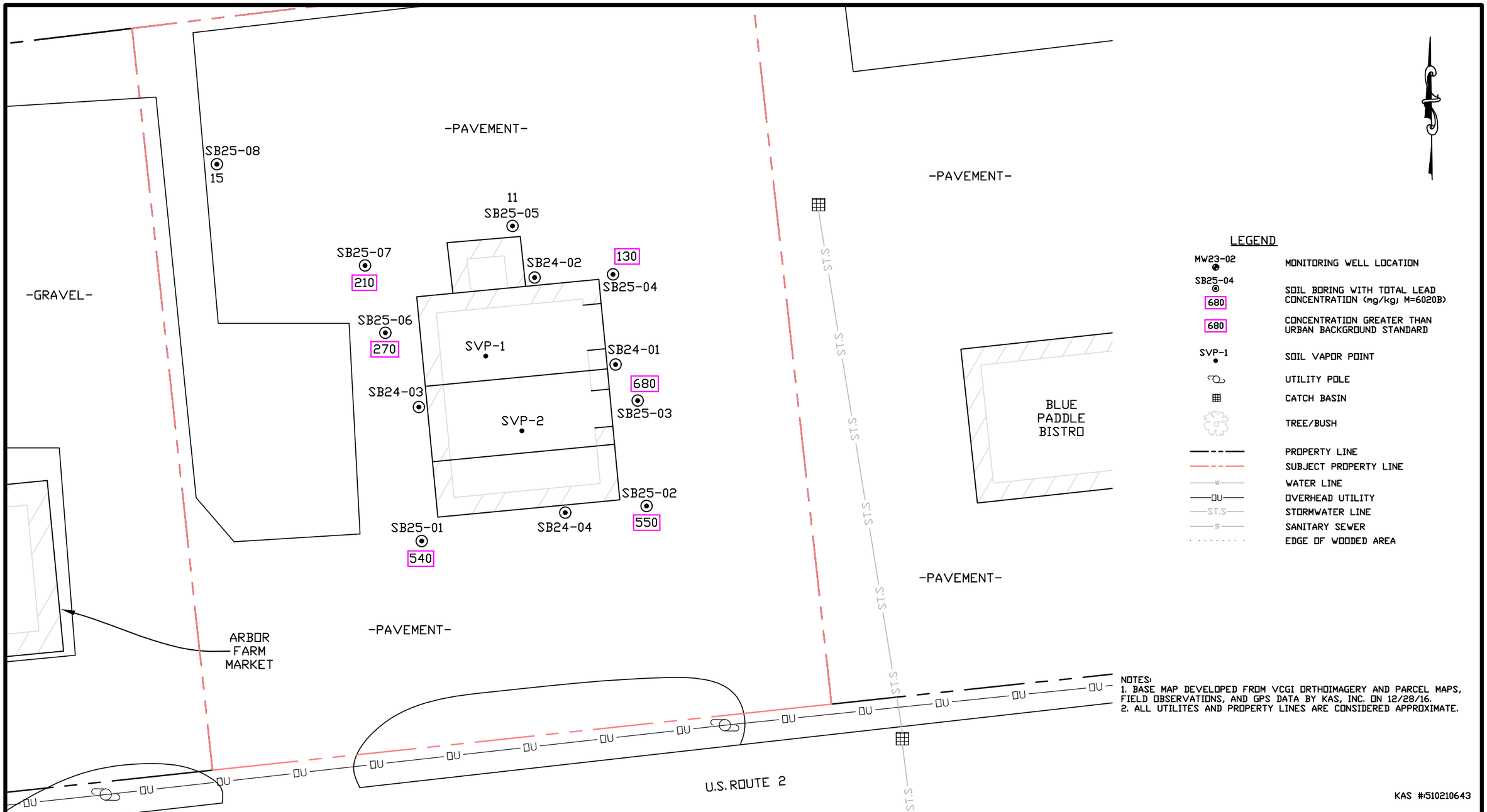
# OLD WHITE MEETING HOUSE
## 320 US ROUTE 2
## SOUTH HERO, VERMONT

SOIL: TOTAL LEAD CONCENTRATION MAP (0-3")
SAMPLED: 2/17/2025

| DATE: 4/4/25 | DWG. #: 2 | SCALE: 1"=20' | DRN.: TT | APP.: JR |
|---|---|---|---|---|

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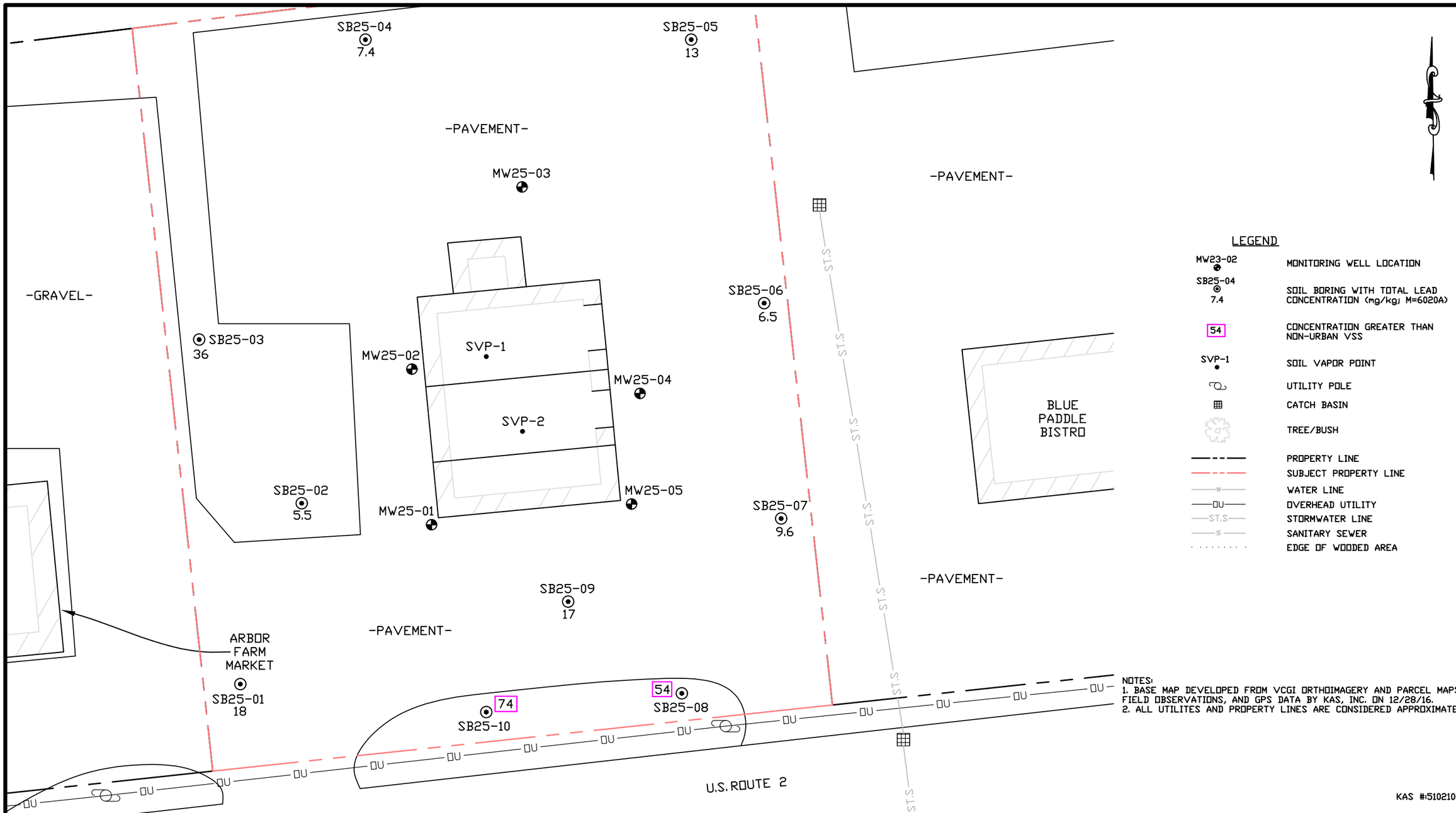
# OLD WHITE MEETING HOUSE
## 320 US ROUTE 2
## SOUTH HERO, VERMONT

SOIL: TOTAL LEAD CONCENTRATION MAP (12-18")

SAMPLED: 2/17/2025

| DATE: 4/4/25 | DWG. #: 3 | SCALE: 1"=20' | DRN.: TT | APP.: JR |
|---|---|---|---|---|

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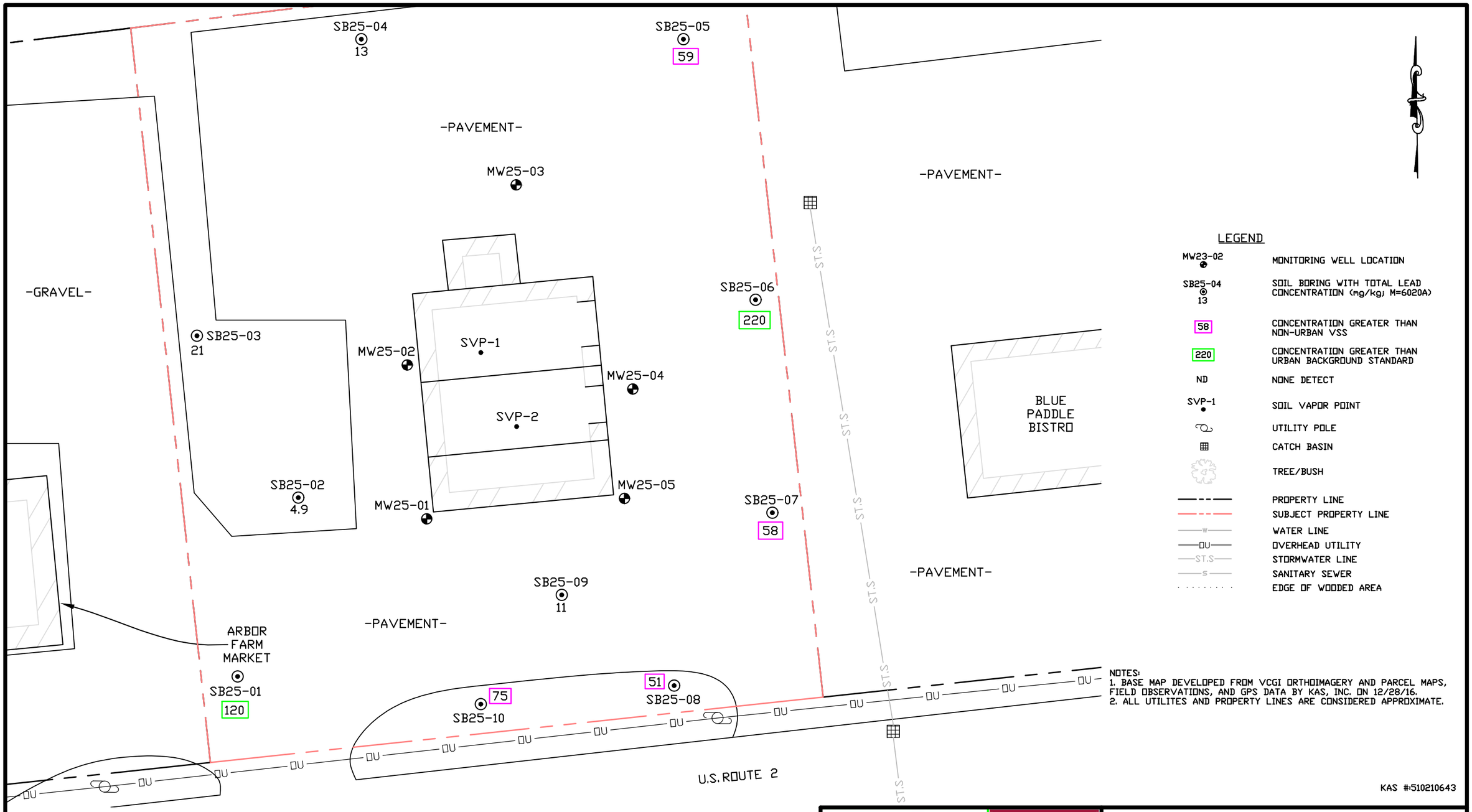
# OLD WHITE MEETING HOUSE
## 320 US ROUTE 2
## SOUTH HERO, VERMONT

SOIL: TOTAL LEAD CONCENTRATION MAP (0-3")
SAMPLED: 8/21/25

| DATE: 10/29/25 | DWG. #: 4 | SCALE: 1"=20' | DRN.: TT | APP.: JR |
|---|---|---|---|---|




NOTES:
1. BASE MAP DEVELOPED FROM VCGI ORTHOIMAGERY AND PARCEL MAPS, FIELD OBSERVATIONS, AND GPS DATA BY KAS, INC. ON 12/28/16.
2. ALL UTILITES AND PROPERTY LINES ARE CONSIDERED APPROXIMATE.

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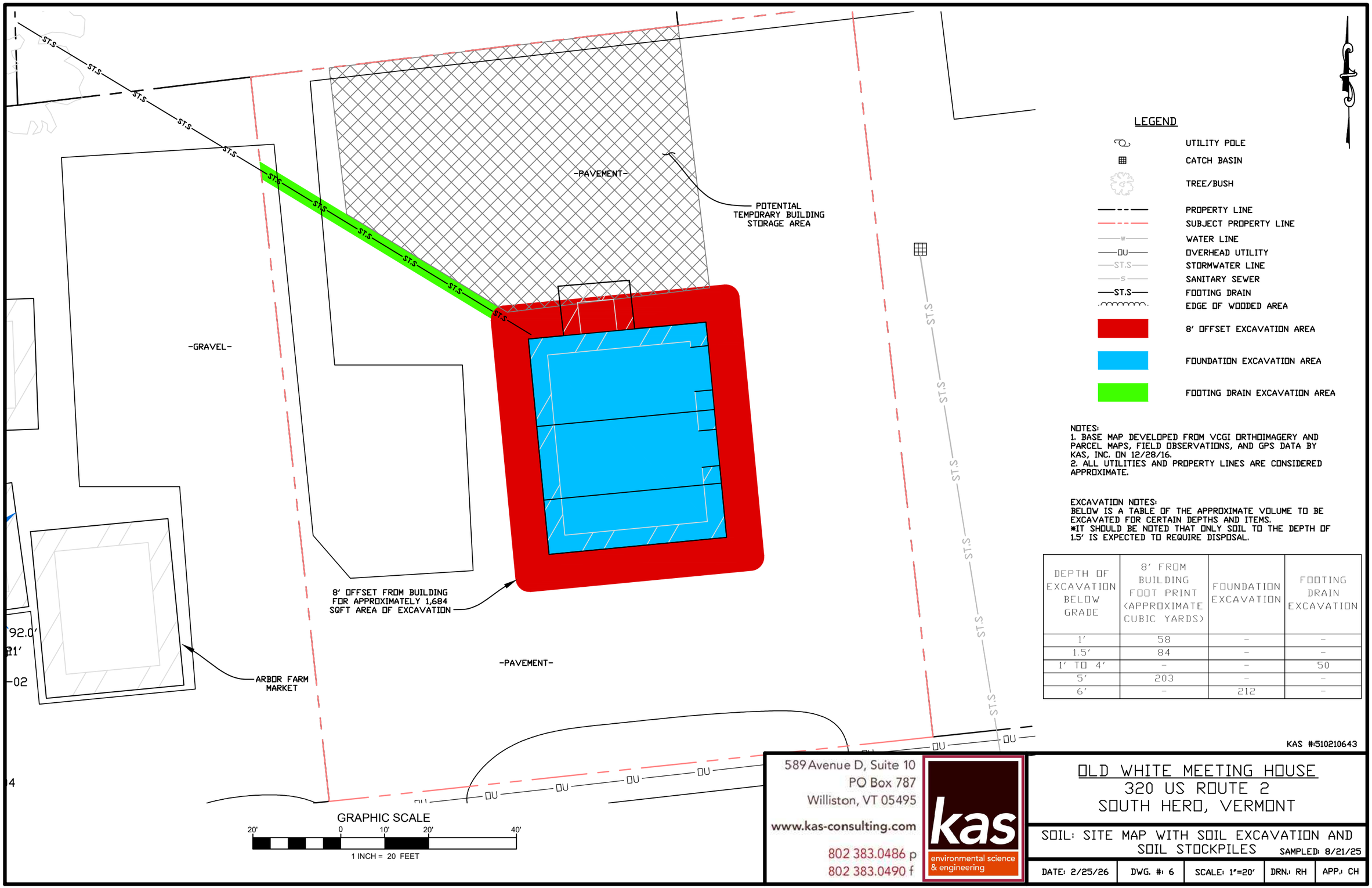
# OLD WHITE MEETING HOUSE
320 US ROUTE 2
SOUTH HERO, VERMONT

SOIL: TOTAL LEAD CONCENTRATION MAP (12-18")
SAMPLED: 8/21/25

| DATE: 10/29/25 | DWG. #: 5 | SCALE: 1"=20' | DRN.: TT | APP.: JR |
|---|---|---|---|---|




NOTES:
1. BASE MAP DEVELOPED FROM VCGI ORTHOIMAGERY AND PARCEL MAPS, FIELD OBSERVATIONS, AND GPS DATA BY KAS, INC. ON 12/28/16.
2. ALL UTILITIES AND PROPERTY LINES ARE CONSIDERED APPROXIMATE.

EXCAVATION NOTES:
BELOW IS A TABLE OF THE APPROXIMATE VOLUME TO BE EXCAVATED FOR CERTAIN DEPTHS AND ITEMS.
*IT SHOULD BE NOTED THAT ONLY SOIL TO THE DEPTH OF 1.5' IS EXPECTED TO REQUIRE DISPOSAL.

| DEPTH OF EXCAVATION BELOW GRADE | 8' FROM BUILDING FOOT PRINT (APPROXIMATE CUBIC YARDS) | FOUNDATION EXCAVATION | FOOTING DRAIN EXCAVATION |
|---|---|---|---|
| 1' | 58 | - | - |
| 1.5' | 84 | - | - |
| 1' TO 4' | - | - | 50 |
| 5' | 203 | - | - |
| 6' | - | 212 | - |

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# OLD WHITE MEETING HOUSE
320 US ROUTE 2
SOUTH HERO, VERMONT

SOIL: SITE MAP WITH SOIL EXCAVATION AND SOIL STOCKPILES SAMPLED: 8/21/25

| DATE: 2/25/26 | DWG. #: 6 | SCALE: 1"=20' | DRN.: RH | APP.: CH |
|---|---|---|---|---|

TEMPORARY BUILDING STORAGE AREA

D1 D2 D3 D4 D5 D6

REBAR FOUND

REBAR .5IN-DIP 1.4

TREELINE

320 U.S. ROUTE 2 (TOWN HALL)

DOOR SILL 145.12'

N

E

GRAPHIC SCALE

10 0 5 10 20 40

1 inch = 10 ft.
for sheet size 24" x 36"

## LEGEND

- CLEAN OUT
- MANHOLE
- CATCH BASIN
- STORM MANHOLE
- TAPPING SLEEVE AND VALVE
- GATE VALVE
- WATER SHUT OFF
- LIGHT POLE
- UTILITY POWER POLE
- SIGN
- SPOT ELEVATION
- TREE
- SURVEY POINT
- HANDICAP SYMBOL
- STREAM
- TREELINE
- FENCE
- CONTOUR
- PROPERTY LINE
- EDGE OF PAVEMENT
- SANITARY SEWER LINE
- STORM LINE
- WATER LINE
- UNDERGROUND ELECTRIC
- OVERHEAD ELECTRIC
- SETBACK

## DEMOLITION SCHEDULE

D1 EXISTING BUILDING LIFTED AND RESET ON NEW FOUNDATION, REFER TO D1.1 AND S100 FOR DETAILS.

D2 CONTRACTOR TO SALVAGE EXISTING STAIRS FOR LATER REINSTALLATION.

D3 CONTRACTOR TO COORDINATE WITH VERMONT ELECTRIC COOP FOR REMOVAL OF ELECTRICAL SERVICE LINE PRIOR TO MOVING STRUCTURE.

D4 CONTRACTOR TO TRACE EXISTING GALVANIZED WATER SERVICE BEYOND LIMITS OF FOUNDATION EXCAVATION AND CAP.

D5 REMOVE EXISTING WOODEN SHED STRUCTURE.

D6 PROJECT BENCHMARK (3 TOTAL, 2 OFF-SHEET)

## PROJECT NOTES

- PROPERTY LINES SHOWN ARE APPROXIMATE. NO BOUNDARY SURVEY HAS BEEN COMPLETED.
- CONTRACTOR TO COORDINATE WITH OWNER FOR STAGING AREAS.
- FOOTING DRAIN OUTLET EXTENDS BEYOND PROPERTY LINE. COORDINATE WITH OWNER AND ADJACENT LANDOWNER BEFORE INSTALLING.
- CONTRACTOR TO OBTAIN A VALID DIG-SAFE TICKET PRIOR TO BEGINNING EXCAVATION.
- CONTRACTOR TO INSTALL AND MAINTAIN EPSC MEASURES CONSISTENT WITH THE VT LOW-RISK REQUIREMENTS FROM THE BEGINNING OF EXCAVATION WORK THROUGH STABILIZATION.
- CONTRACTOR TO FOLLOW VERMONT LOW-RISK STANDARDS FOR EROSION PREVENTION AND SEDIMENT CONTROL DURING EXCAVATION WORK AND UNTIL ALL DISTURBED SOILS HAVE BEEN STABILIZED.
- ANY SOIL TRACKED ONTO ADJACENT ROADWAYS AND PROPERTIES IS TO BE REMOVED AT THE END OF EACH CONSTRUCTION DAY.
- CONTRACTOR RESPONSIBLE FOR LAYOUT AND SURVEY CONTROL.


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CONTRACT 1

NEW FOUNDATION & BUILDING STABILIZATION

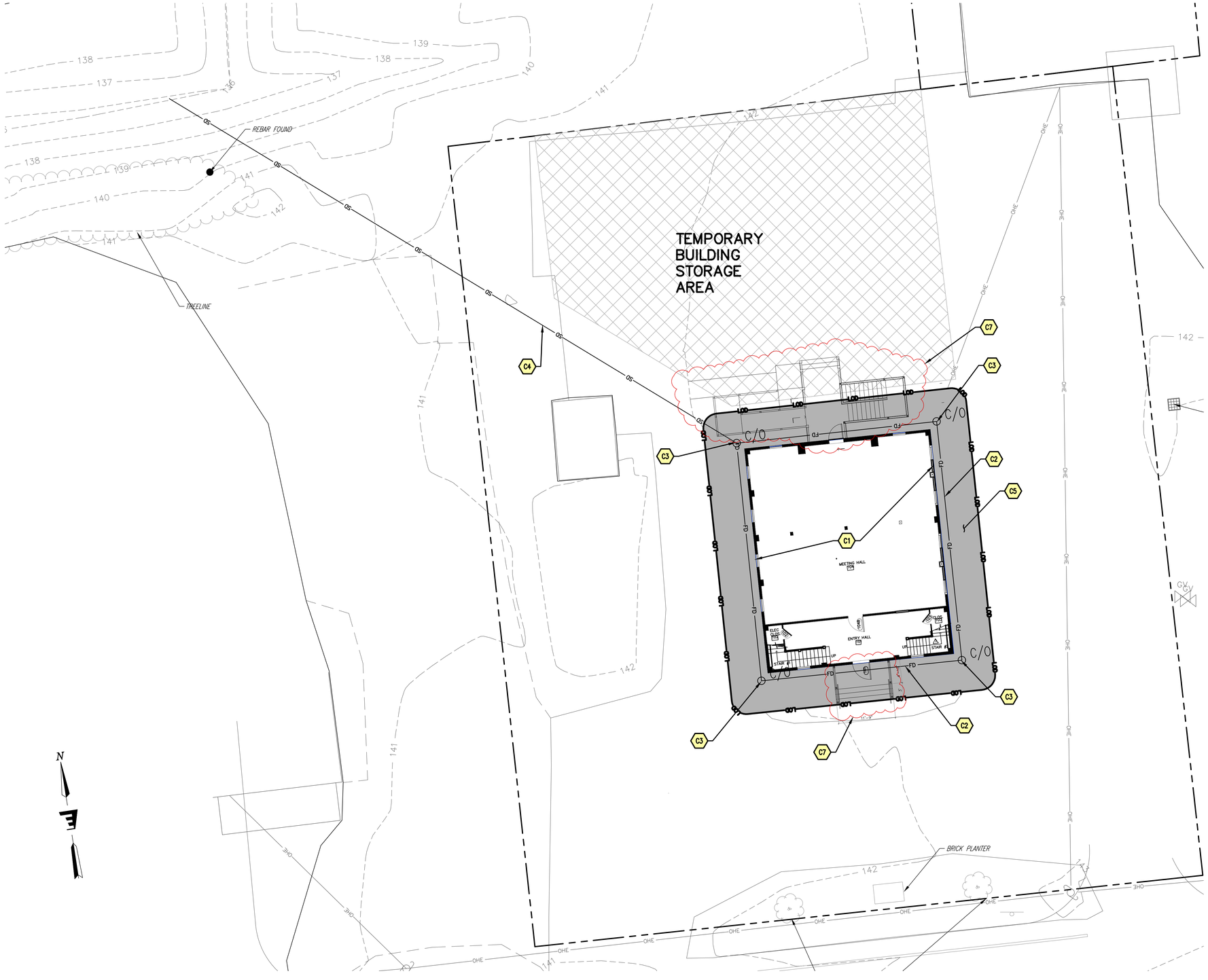
Existing Conditions Plan

DRAWING TITLE:

# C100

DRAWN BY: PMB
DATE: MARCH, 2025
SCALE: AS INDICATED
DRAWING NO: C200

PROJECT NO: 21281




## LEGEND

- CLEAN OUT
- MANHOLE
- CATCH BASIN
- STORM MANHOLE
- TAPPING SLEEVE AND VALVE
- GATE VALVE
- WATER SHUT OFF
- LIGHT POLE
- UTILITY POWER POLE
- SIGN
- SPOT ELEVATION
- TREE
- SURVEY POINT
- HANDICAP SYMBOL
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- FENCE
- CONTOUR
- PROPERTY LINE
- EDGE OF PAVEMENT
- SANITARY SEWER LINE
- STORM LINE
- WATER LINE
- UNDERGROUND ELECTRIC
- OVERHEAD ELECTRIC
- SETBACK

## SITEWORK SCHEDULE

- C1 EXISTING BUILDING LIFTED AND RESET ON NEW FOUNDATION, REFER TO D1.1 AND S100 FOR DETAILS.
- C2 6" PERFORATED PVC FOOTING DRAIN, INSTALLED AROUND PERIMETER OF FOUNDATION. SLOPE AT 0.5% MINIMUM TO NW CORNER OF FOUNDATION.
- C3 CLEANOUT WITH PVC CAP AT GRADE AT EACH CORNER.
- C4 136' OF 6" SDR 35 FOOTING DRAIN DISCHARGE LINE. INV AT NW BUILDING CORNER 137.70 INV AT SWALE (DAYLIGHT) 137.00 V.I.F.
- C5 STABILIZE DISTURBED AREA AROUND BUILDING WITH 12" OF FINE-GRADED CRUSHED GRAVEL (VTRANS 704.05B) AFTER RESETTING BUILDING.
- C7 PERMANENT RAMPS AND STAIRS TO BE PART OF CONTRACT 3. SOUTH STAIRS TO BE SALVAGED AND REINSTALLED TEMPORARILY BY CONTRACTOR.

## PROJECT NOTES

- PROPERTY LINES SHOWN ARE APPROXIMATE. NO BOUNDARY SURVEY HAS BEEN COMPLETED.
- CONTRACTOR TO COORDINATE WITH OWNER FOR STAGING AREAS.
- FOOTING DRAIN OUTLET EXTENDS BEYOND PROPERTY LINE. COORDINATE WITH OWNER AND ADJACENT LANDOWNER BEFORE INSTALLING.
- CONTRACTOR TO OBTAIN A VALID DIG-SAFE TICKET PRIOR TO BEGINNING EXCAVATION.
- CONTRACTOR TO INSTALL AND MAINTAIN EPSC MEASURES CONSISTENT WITH THE VT LOW-RISK REQUIREMENTS FROM THE BEGINNING OF EXCAVATION WORK THROUGH STABILIZATION.
- CONTRACTOR TO FOLLOW VERMONT LOW-RISK STANDARDS FOR EROSION PREVENTION AND SEDIMENT CONTROL DURING EXCAVATION WORK AND UNTIL ALL DISTURBED SOILS HAVE BEEN STABILIZED.
- ANY SOIL TRACKED ONTO ADJACENT ROADWAYS AND PROPERTIES IS TO BE REMOVED AT THE END OF EACH CONSTRUCTION DAY.
- CONTRACTOR RESPONSIBLE FOR LAYOUT AND SURVEY CONTROL.

GRAPHIC SCALE

10 0 5 10 20 40

1 inch = 10 ft.
for sheet size 24" x 36"

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CONTRACT 1

NEW FOUNDATION & BUILDING STABILIZATION

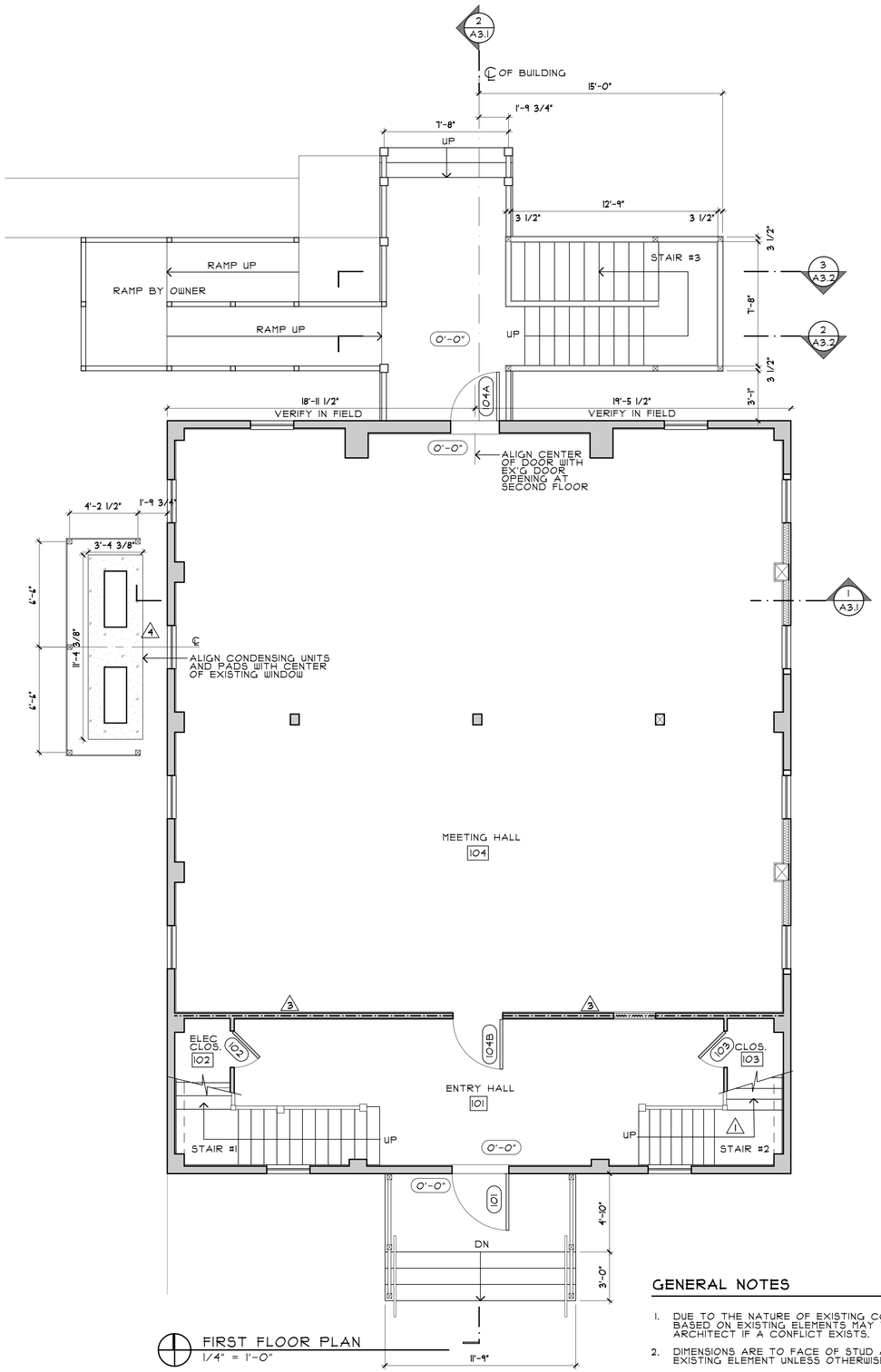
Site Plan

DRAWING TITLE:

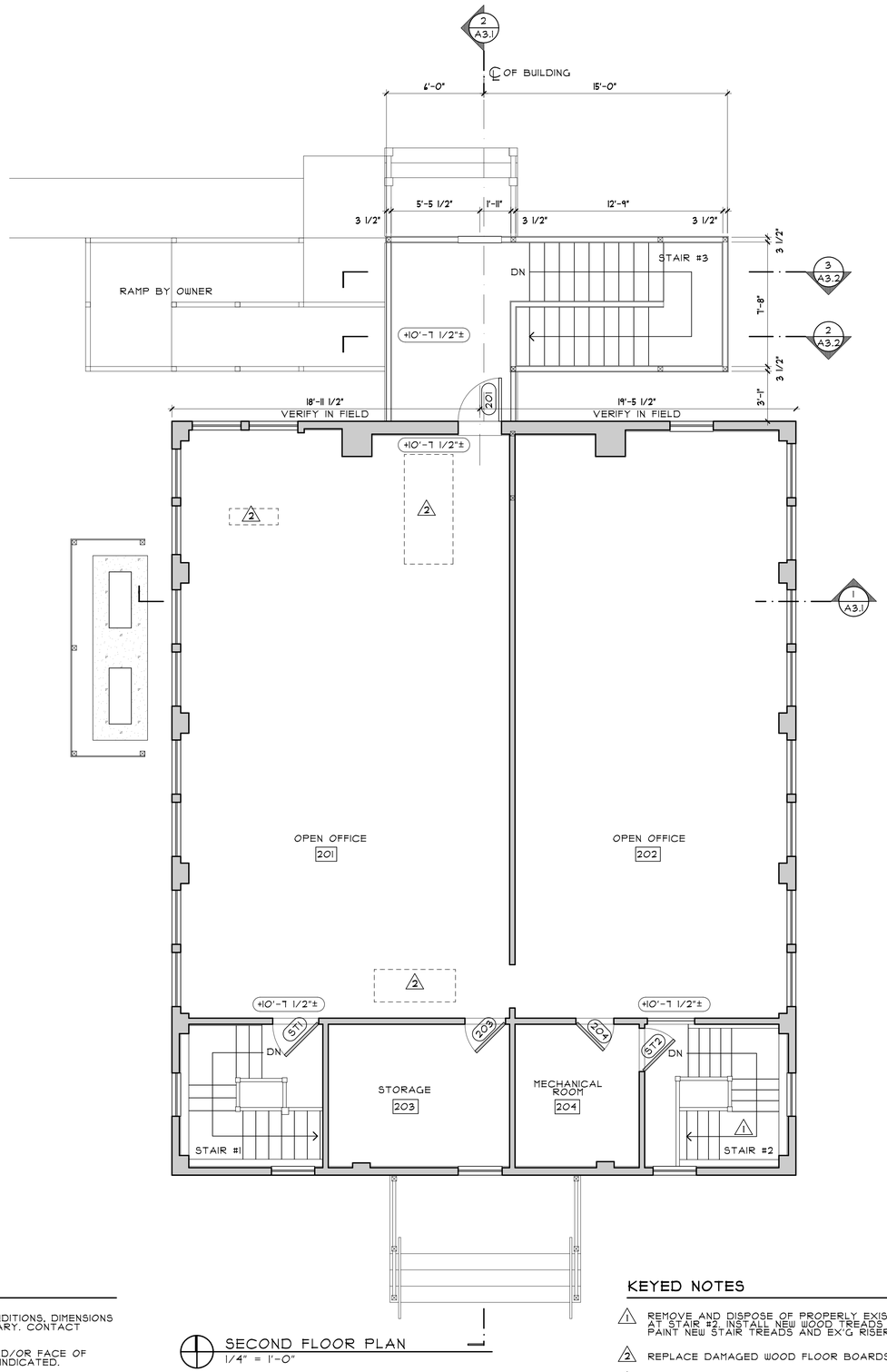
**C200**

DRAWN BY: PMB
DATE: MARCH, 2025
SCALE: AS INDICATED
DRAWING NO: C200

PROJECT NO: 21281




FIRST FLOOR PLAN
1/4" = 1'-0"




SECOND FLOOR PLAN
1/4" = 1'-0"

## GENERAL NOTES

1. DUE TO THE NATURE OF EXISTING CONDITIONS, DIMENSIONS BASED ON EXISTING ELEMENTS MAY VARY. CONTACT ARCHITECT IF A CONFLICT EXISTS.
2. DIMENSIONS ARE TO FACE OF STUD AND/OR FACE OF EXISTING ELEMENT UNLESS OTHERWISE INDICATED.
3. PATCH ALL HOLES DUE TO REMOVAL OF MECHANICAL, PLUMBING, AND ELECTRICAL EQUIPMENT IN EX'G EXTERIOR WALLS. MATCH EX'G MATERIALS.
4. SEE STRUCTURAL DWGS FOR NEW FOUNDATION AND FRAMING REQUIREMENTS.
5. SEE MECHANICAL, PLUMBING AND ELECTRICAL DWGS.

## KEYED NOTES

1. REMOVE AND DISPOSE OF PROPERLY EXISTING WOOD TREADS AT STAIR #2. INSTALL NEW WOOD TREADS TO MATCH EX'G. PAINT NEW STAIR TREADS AND EX'G RISERS
2. REPLACE DAMAGED WOOD FLOOR BOARDS
3. 2-HR RATED WALL ASSEMBLY: EX'G WALL FRAMING WITH NEW ACOUSTICAL BATT CAVITY INSULATION AND 2 LAYERS OF 5/8" GWB, TYPE 'X', ON BOTH SIDES OF EXISTING WALL. FIRE TAPE UNEXPOSED LAYERS.
4. NEW CONDENSING UNITS ON CONCRETE MAINTENANCE PADS. SEE MECHANICAL DWGS. PROVIDE AND INSTALL P.T. POSTS AND HORIZONTAL BOARD SCREEN. SEE DET. 4/A3.1.

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CONTRACT 3

INTERIOR RESTORATION & WEATHERIZATION

DRAWING TITLE:
FIRST & SECOND FLOOR PLANS

DRAWN BY: RA/JC
DATE: MARCH 2025
SCALE: 1/4" = 1'-0"
DRAWING NO:

A1.1

PROJECT NO: 22105

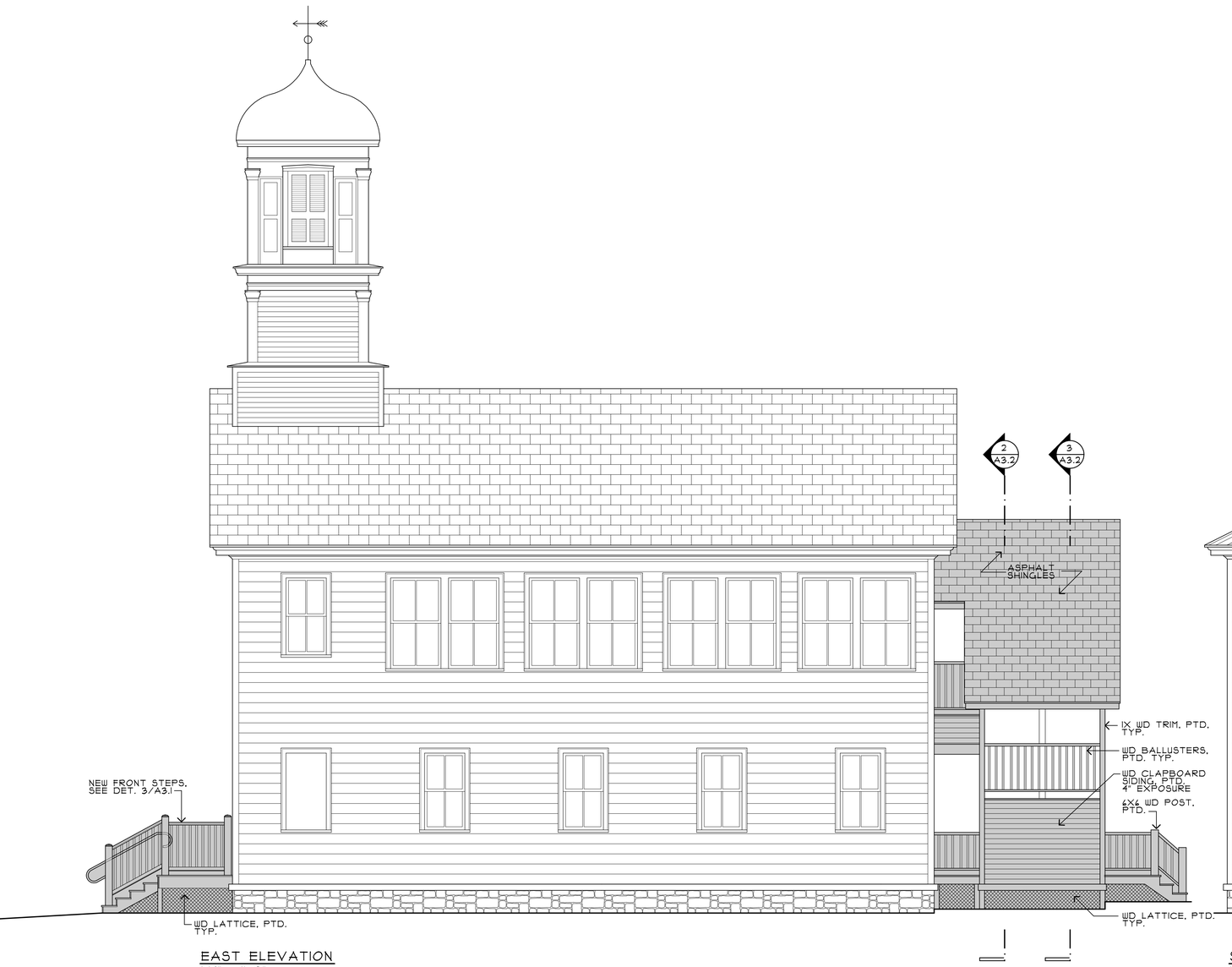
## LEGEND

2 — KEYED NOTE. SEE CORRESPONDING NOTE.

NEW WORK TO BE DONE
SEE ACCOMPANIED KEYED NOTES

## GENERAL NOTES

1. ALL NEW EXTERIOR TRIM TO BE PRIMED (1 COAT) AND PAINTED WITH 2 FINISH COATS.
2. ALL NEW EXTERIOR TRIM TO BE CAULKED AT SIDING JUNCTURES INCLUDING BOTTOM OF SILLS
3. ALL WINDOW AND DOOR TRIM TO RECEIVE NEW PREFINISHED METAL CAP FLASHING AT HEAD
4. PAINT NEW EXTERIOR CLAPBOARD SIDING W/ 1 PRIME AND 2 FINISH COATS




EAST ELEVATION
1/4" = 1'-0"


SOUTH ELEVATION
1/4" = 1'-0"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CONTRACT 3

INTERIOR RESTORATION & WEATHERIZATION

DRAWING TITLE:

SOUTH & EAST ELEVATIONS

DRAWN BY: JC/RA
DATE: MARCH 2025
SCALE: 1/4"=1'-0"
DRAWING NO:

A2.1

PROJECT NO: 22105

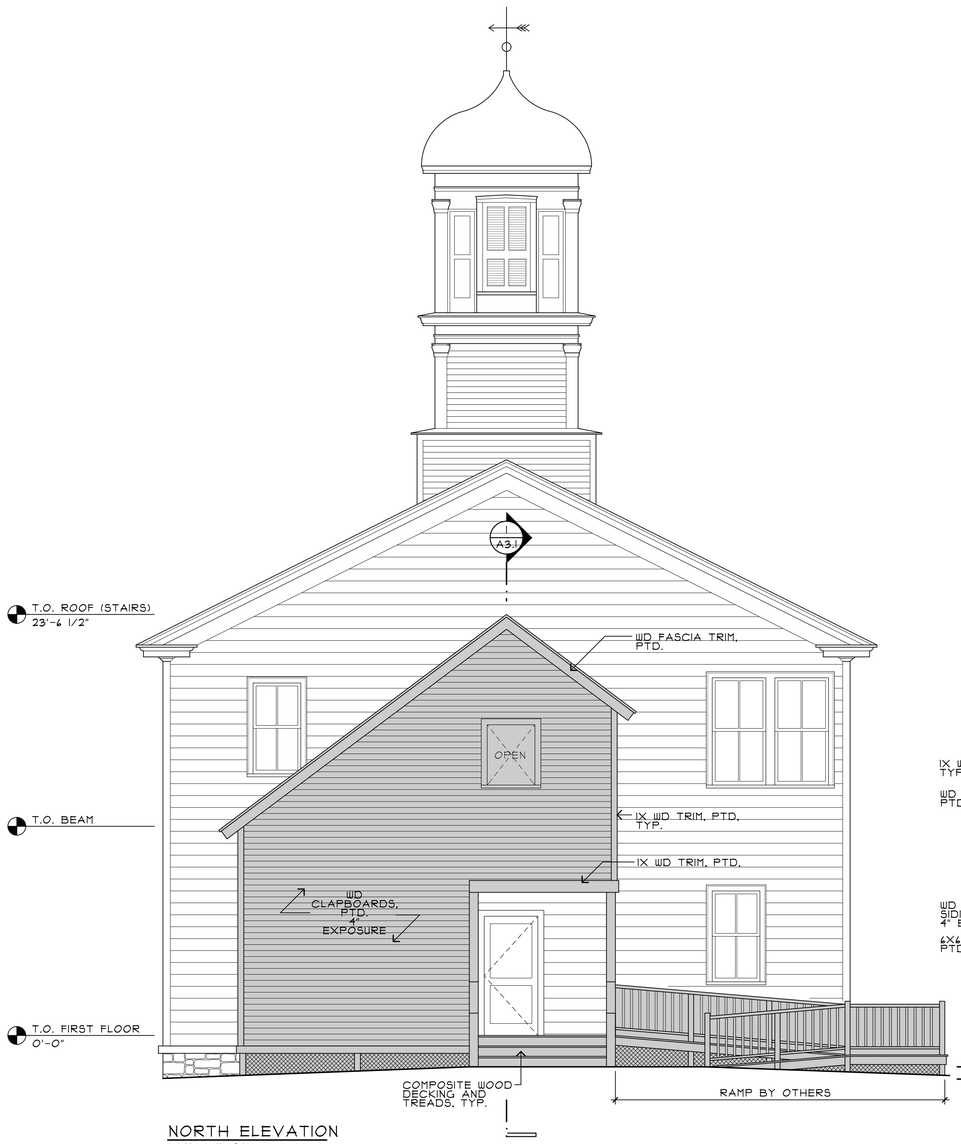
## LEGEND

2 — KEYED NOTE. SEE CORRESPONDING NOTE.

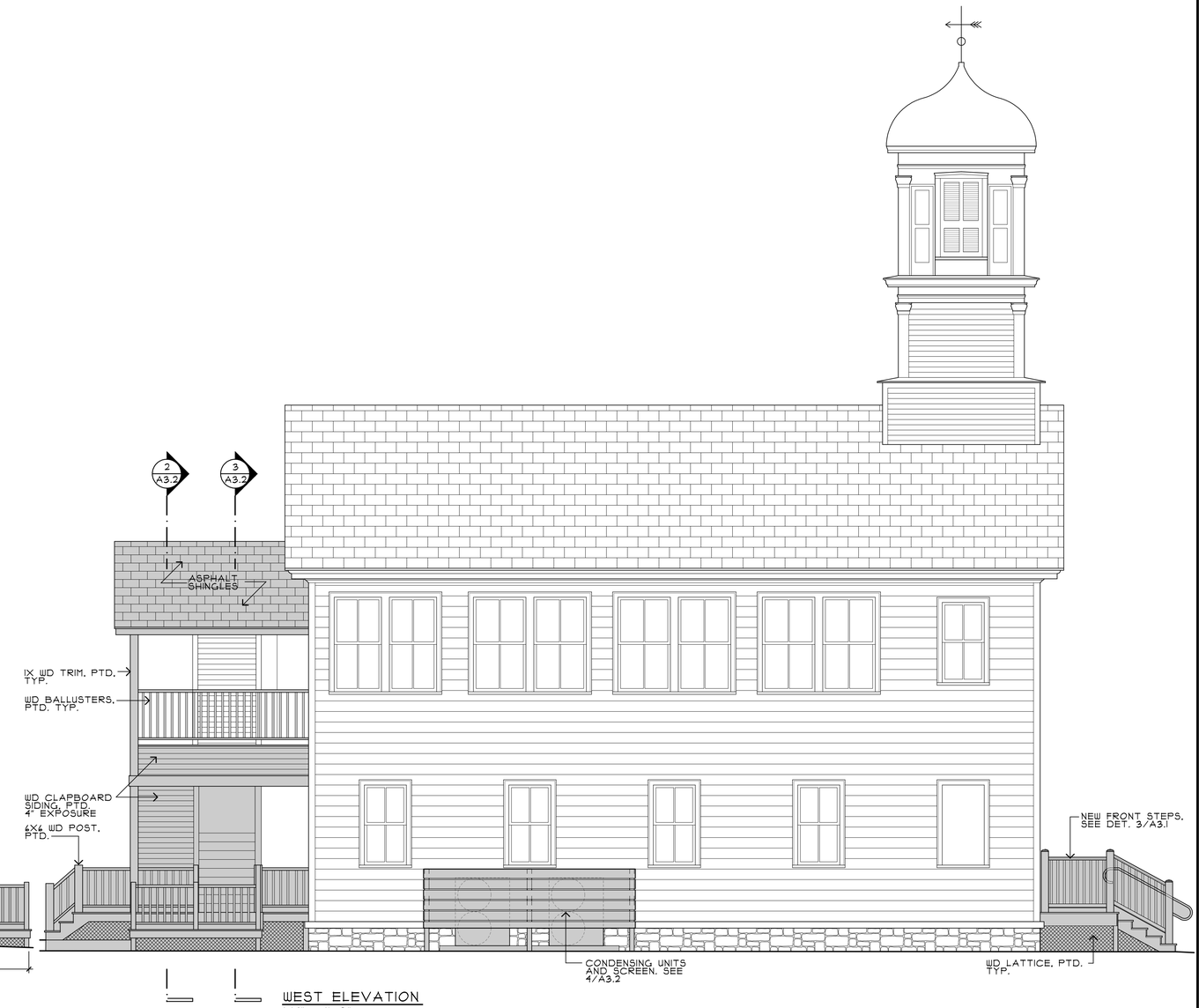
NEW WORK TO BE DONE
SEE ACCOMPANIED KEYED NOTES

## GENERAL NOTES

1. ALL NEW EXTERIOR TRIM TO BE PRIMED (1 COAT) AND PAINTED WITH 2 FINISH COATS.
2. ALL NEW EXTERIOR TRIM TO BE CAULKED AT SIDING JUNCTURES INCLUDING BOTTOM OF SILLS
3. ALL WINDOW AND DOOR TRIM TO RECEIVE NEW PREFINISHED METAL CAP FLASHING AT HEAD
4. PAINT NEW EXTERIOR CLAPBOARD SIDING W/ 1 PRIME AND 2 FINISH COATS




NORTH ELEVATION
1/4" = 1'-0"




WEST ELEVATION
1/4" = 1'-0"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CONTRACT 3

INTERIOR RESTORATION & WEATHERIZATION

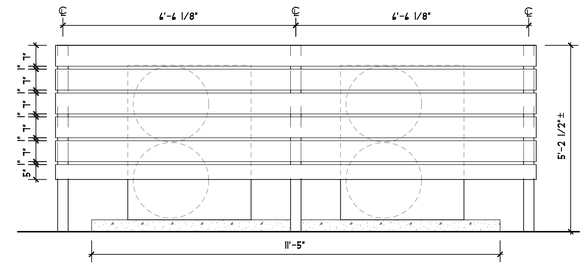
DRAWING TITLE:

NORTH & WEST ELEVATIONS

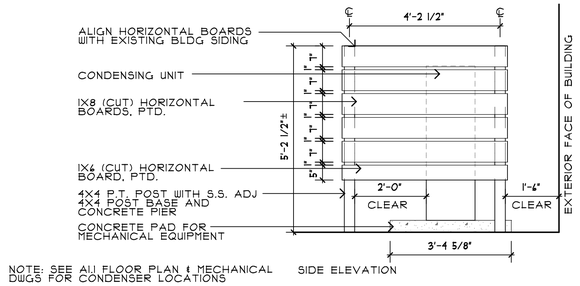
DRAWN BY: JC/RA
DATE: MARCH 2025
SCALE: 1/4"=1'-0"
DRAWING NO:

A2.2

PROJECT NO: 22105



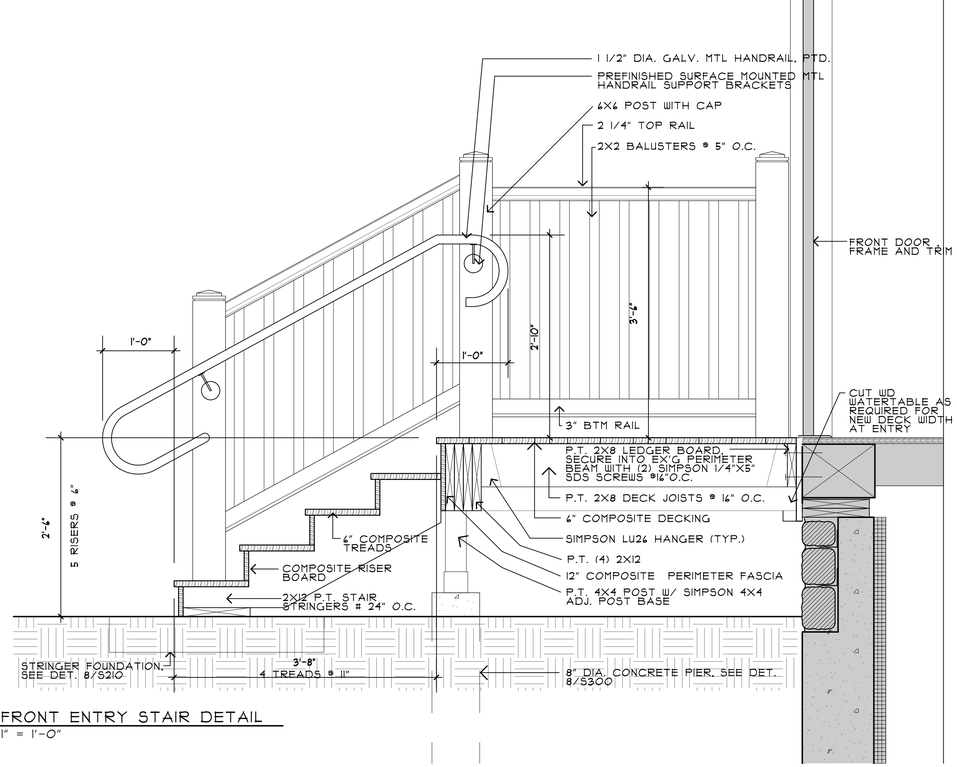

FRONT ELEVATION



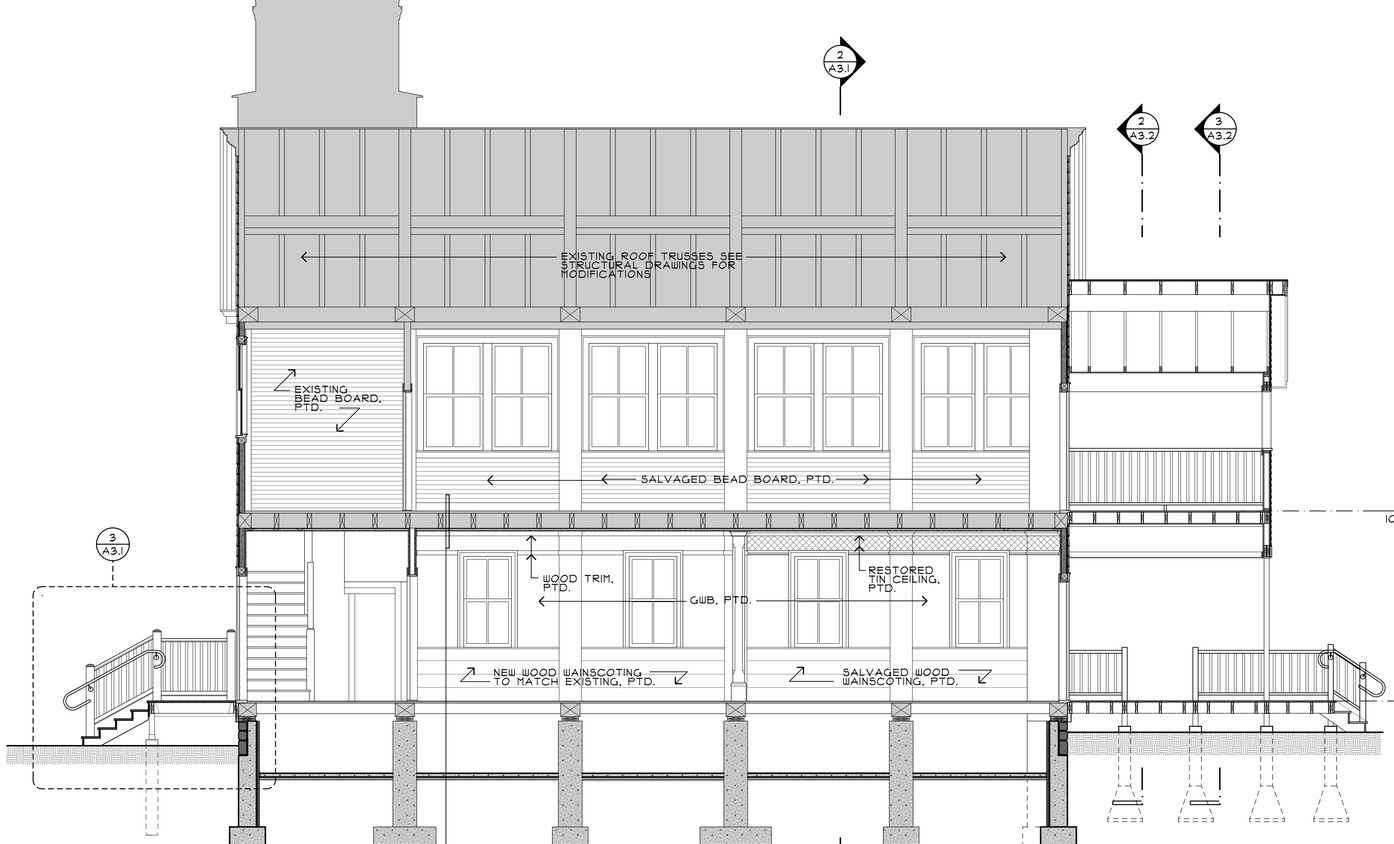

NOTE: SEE A1.1 FLOOR PLAN & MECHANICAL DWGS FOR CONDENSER LOCATIONS

SIDE ELEVATION

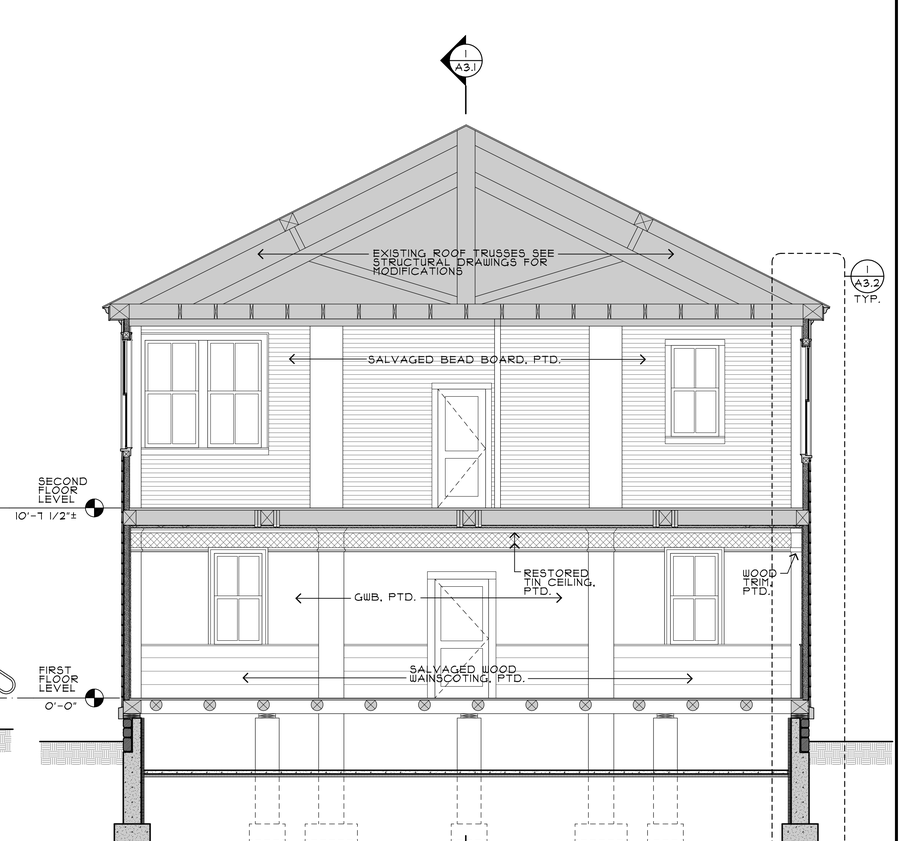
4 / A3.1 EXTERIOR CONDENSER SCREEN DETAIL
1" = 1'-0"




3 / A3.1 FRONT ENTRY STAIR DETAIL
1" = 1'-0"




1 / A3.1 BUILDING LONGITUDINAL SECTION
1/4" = 1'-0"




2 / A3.1 BUILDING CROSS SECTION
1/4" = 1'-0"

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MECHANICAL/ELECTRICAL:
DUBOIS & KING, INC.
75 North Main Street
Waterbury, VT. 05656
802-882-8789

SOUTH HERO MEETING HOUSE
320 ROUTE 2
SOUTH HERO, VERMONT

TOWN OF SOUTH HERO
333 ROUTE 2
P.O. BOX 115
SOUTH HERO, VERMONT
05486

CONTRACT 3

INTERIOR RESTORATION & WEATHERIZATION

DRAWING TITLE:
BUILDING SECTIONS & FRONT STAIR DETAIL

DRAWN BY: RA/JC
DATE: MARCH 2025
SCALE: AS NOTED
DRAWING NO:
A3.1

PROJECT NO: 22105

# Appendix B

# Adjoining Property Owner Information & Public Notice Form

## Adjoining Property Owners

| Direction | Property Address | SPAN Number / Map or Parcel ID | Property Owner & Mailing Address |
|---|---|---|---|
| East | 316 Route 2 | 603-189-10735/ RT316 | Hayward 316 US Route 2 LLC<br>38 Community Lane Box 2,<br>South Hero, VT 05486 |
| North | 318 Route 2 | 603-189-11257/ RT318 | Town of South Hero / Red Fire Station<br>Po Box 175, South Hero, VT 05486 |
| | 310 Route 2 | 603-189-10733 / RT310 | Town of South Hero<br>Po Box 175, South Hero, VT 05486 |
| South | 321 Route 2 | 603-189-10737 / RT321 | Bellinghiri James & Janine Cerra-Belli<br>Po Box 44, South Hero, VT 05486 |
| | 317 Route 2 | 603-189-11248 / RT317 | Town of South Hero / Museum<br>Po Box 175, South Hero, VT 05486 |
| | 323 Route 2 | 603-189-10738/ RT323 | Bellinghiri James & Janine Cerra-Belli<br>Po Box 44, South Hero, VT 05486 |
| West | 324 Route 2 | N/A / RT324 | Unknown |
| | 328 Route 2 | 603-189-10740/ RT328 | SP Properties Inc<br>67 Mallard Dr, Colchester, VT 05446 |

Note:
Information obtained from the Vermont Agency of Natural Resources Parcel Maps
(https://anrmaps.vermont.gov/websites/anra5/)

## Vermont Agency of Natural Resources Parcel Map


Excerpt of Parcel Map obtained from the Vermont Agency of Natural Resources Parcel Maps (https://anrmaps.vermont.gov/websites/anra5/)

VERMONT

**State of Vermont**
**Department of Environmental Conservation**
**Waste Management & Prevention Division**
Davis Building - 1st Floor, One National Life Drive
Montpelier, VT 05620-3704

# OFFICIAL NOTICE

Dear _____,

This is an official notice that a draft Corrective Action Plan (CAP) has been prepared by KAS, Inc. on behalf of The Town of South Hero for the Old White Meeting House site. Vermont law requires that adjoining and/or impacted property owners receive notice of this CAP, as well as being provided a 30 day public comment period.

The CAP approval process includes a public comment period and an opportunity to request a public meeting. Note that in order to appeal a final CAP approval, comments must be submitted during the public comment period.

To view the draft CAP, please visit the Environmental Notice Bulletin (ENB) at ENB.VERMONT.GOV, and enter the site number: 2024-5472 in the "Permit #" space. Do not include spaces or dashes.

For further information, please visit the following website:
DEC.VERMONT.GOV/PERMITS/ENB/GENERAL.

**FOR QUESTIONS CONTACT:**
Waste Management & Prevention Division, Sites Management Section (SMS)
SMS Site Manager: Graham Bradley
SMS Site Manager email address: grahame.bradley@vermont.gov
(802) 828-1138

## SITE NUMBER

2024-5472

## NAME OF POTENTIALLY RESPONSIBLE PARTY

The Town of South Hero

## LOCATION OF CORRECTIVE ACTION STREET ADDRESS/ROUTE

320 US-2 South Hero, Vermont 05486

## TOWN(S) WHERE PROPOSED CORRECTIVE ACTION WILL TAKE PLACE

South Hero

# Appendix C

# Contaminant Summary Tables

# Soil

**Summary of Soil Analytical Data**
**Old White Meeting House**
**320 US Route 2**
**South Hero, Vermont**

| Sample ID | SVP-1 | SVP-2 | Vermont Soil Standards - Resident |
|---|---|---|---|
| Sample Date: | 5/29/24 | 5/29/24 | |
| Sample Type: | Grab | Grab | |
| Sample Depth: | 5" | 6" | |
| PID Reading (ppmv): | 0.1 | 0.5 | |
| **VOCs (mg/kg)** | | | |
| Dichlorodifluoromethane | < 0.1 | < 0.1 | - |
| Chloromethane | < 0.1 | < 0.1 | - |
| Vinyl chloride | < 0.02 | < 0.02 | 0.10 |
| Bromomethane | < 0.1 | < 0.1 | - |
| Chloroethane | < 0.1 | < 0.1 | - |
| Trichlorofluoromethane | < 0.1 | < 0.1 | - |
| Diethyl Ether | < 0.05 | < 0.05 | - |
| Acetone | < 2 | < 2 | 63,079 |
| 1,1-Dichloroethene | < 0.05 | < 0.05 | - |
| Methylene chloride | < 0.1 | < 0.1 | - |
| Carbon disulfide | < 0.1 | < 0.1 | 608 |
| Methyl-t-butyl ether (MTBE) | < 0.1 | < 0.1 | 27 |
| trans-1,2-Dichloroethene | < 0.05 | < 0.05 | 108 |
| 1,1-Dichloroethane | < 0.05 | < 0.05 | 2.1 |
| 2,2-Dichloropropane | < 0.05 | < 0.05 | - |
| cis-1,2-Dichloroethene | < 0.05 | < 0.05 | 77 |
| 2-Butanone (MEK) | < 0.5 | < 0.5 | 16,952 |
| Bromochloromethane | < 0.05 | < 0.05 | 193 |
| Tetrahydrofuran (THF) | < 0.5 | < 0.5 | - |
| Chloroform | < 0.05 | < 0.05 | - |
| 1,1,1-Trichloroethane | < 0.05 | < 0.05 | - |
| Carbon tetrachloride | < 0.05 | < 0.05 | 0.37 |
| 1,1-Dichloropropene | < 0.05 | < 0.05 | - |
| Benzene | < 0.05 | < 0.05 | 0.70 |
| 1,2-Dichloroethane | < 0.05 | < 0.05 | 0.29 |
| Trichloroethene | < 0.05 | < 0.05 | 1.9 |
| 1,2-Dichloropropane | < 0.05 | < 0.05 | 1.5 |
| Dibromomethane | < 0.05 | < 0.05 | - |
| Bromodichloromethane | < 0.05 | < 0.05 | - |
| 4-Methyl-2-pentanone(MIBK) | < 0.5 | < 0.5 | - |
| cis-1,3-Dichloropropene | < 0.05 | < 0.05 | - |
| Toluene | < 0.05 | < 0.05 | 705 |
| trans-1,3-Dichloropropene | < 0.05 | < 0.05 | - |
| 1,1,2-Trichloroethane | < 0.05 | < 0.05 | - |
| 2-Hexanone | < 0.1 | < 0.1 | - |
| Tetrachloroethene | < 0.05 | < 0.05 | 2.4 |
| 1,3-Dichloropropane | < 0.05 | < 0.05 | - |
| Dibromochloromethane | < 0.05 | < 0.05 | - |
| 1,2-Dibromoethane (EDB) | < 0.02 | < 0.02 | 0.02 |
| Chlorobenzene | < 0.05 | < 0.05 | 267 |
| 1,1,1,2-Tetrachloroethane | < 0.05 | < 0.05 | 1.3 |
| Ethylbenzene | < 0.05 | < 0.05 | 3.7 |
| mp-Xylene | < 0.05 | < 0.05 | 252 |
| o-Xylene | < 0.05 | < 0.05 | |
| Styrene | < 0.05 | < 0.05 | - |
| Bromoform | < 0.05 | < 0.05 | - |
| IsoPropylbenzene | < 0.05 | < 0.05 | 256 |
| Bromobenzene | < 0.05 | < 0.05 | - |
| 1,1,2,2-Tetrachloroethane | < 0.05 | < 0.05 | - |
| 1,2,3-Trichloropropane | < 0.05 | < 0.05 | 0.00311 |
| n-Propylbenzene | < 0.05 | < 0.05 | 253 |
| 2-Chlorotoluene | < 0.05 | < 0.05 | - |
| 4-Chlorotoluene | < 0.05 | < 0.05 | - |
| 1,3,5-Trimethylbenzene | < 0.05 | < 0.05 | |
| 1,2,3-Trimethylbenzene | < 0.05 | < 0.05 | 144 |
| 1,2,4-Trimethylbenzene | < 0.05 | < 0.05 | |
| sec-Butylbenzene | < 0.05 | < 0.05 | 7,009 |
| 1,3-Dichlorobenzene | < 0.05 | < 0.05 | - |
| tert-Butylbenzene | < 0.05 | < 0.05 | 7009 |
| p-Isopropyltoluene | < 0.05 | < 0.05 | - |
| 1,4-Dichlorobenzene | < 0.05 | < 0.05 | - |
| 1,2-Dichlorobenzene | < 0.05 | < 0.05 | - |
| n-Butylbenzene | < 0.05 | < 0.05 | 3,504 |
| 1,2-Dibromo-3-chloropropane | < 0.05 | < 0.05 | 0.01 |
| 1,2,4-Trichlorobenzene | < 0.05 | < 0.05 | - |
| Hexachlorobutadiene | < 0.05 | < 0.05 | - |
| Naphthalene | < 0.1 | < 0.1 | 1.2 |
| 1,2,3-Trichlorobenzene | < 0.05 | < 0.05 | - |

NOTES:
All values reported in mg/kg, dry, unless otherwise indicated.
Vermont Soil Standards from Investigation and Remediation of Contaminated Properties Rule (I-Rule, Februa
<xx = Compound not detected above detection limit (xx)
Results reported above detection limits are indicated in **bold**.
Detection limits and reported concentrations at or above the applicable standard, screening level or urban b
"-" indicates not analyzed or that a screening level is not provided in the I-Rule

**Summary of Soil Analytical Data**
**Old White Meeting House**
**South Hero, Vermont**

***VOCs QAQC***

| *Soil Sample* | *Trip Blank* | *SVP-2* | *Duplicate* | RPD |
|---|---|---|---|---|
| *Sample Depth (ft.)* | - | *6"* | *6"* | |
| *PID reading (ppmv)* | - | *0.5* | *0.5* | |
| *Sample Date* | - | *5/29/2024* | *5/29/2024* | |
| **VOCs by Method 8260C (mg/kg)** | | | | |
| Dichlorodifluoromethane | < 0.1 | < 0.1 | < 0.1 | - |
| Chloromethane | < 0.1 | < 0.1 | < 0.1 | - |
| Vinyl chloride | < 0.02 | < 0.02 | < 0.02 | - |
| Bromomethane | < 0.1 | < 0.1 | < 0.1 | - |
| Chloroethane | < 0.1 | < 0.1 | < 0.1 | - |
| Trichlorofluoromethane | < 0.1 | < 0.1 | < 0.1 | - |
| Diethyl Ether | < 0.05 | < 0.05 | < 0.05 | - |
| Acetone | < 2 | < 2 | < 2 | - |
| 1,1-Dichloroethene | < 0.05 | < 0.05 | < 0.05 | - |
| Methylene chloride | < 0.1 | < 0.1 | < 0.1 | - |
| Carbon disulfide | < 0.1 | < 0.1 | < 0.1 | - |
| Methyl-t-butyl ether(MTBE) | < 0.1 | < 0.1 | < 0.1 | - |
| trans-1,2-Dichloroethene | < 0.05 | < 0.05 | < 0.05 | - |
| 1,1-Dichloroethane | < 0.05 | < 0.05 | < 0.05 | - |
| 2,2-Dichloropropane | < 0.05 | < 0.05 | < 0.05 | - |
| cis-1,2-Dichloroethene | < 0.05 | < 0.05 | < 0.05 | - |
| 2-Butanone(MEK) | < 0.5 | < 0.5 | < 0.5 | - |
| Bromochloromethane | < 0.05 | < 0.05 | < 0.05 | - |
| Tetrahydrofuran(THF) | < 0.5 | < 0.5 | < 0.5 | - |
| Chloroform | < 0.05 | < 0.05 | < 0.05 | - |
| 1,1,1-Trichloroethane | < 0.05 | < 0.05 | < 0.05 | - |
| Carbon tetrachloride | < 0.05 | < 0.05 | < 0.05 | - |
| 1,1-Dichloropropene | < 0.05 | < 0.05 | < 0.05 | - |
| Benzene | < 0.05 | < 0.05 | < 0.05 | - |
| 1,2-Dichloroethane | < 0.05 | < 0.05 | < 0.05 | - |
| Trichloroethene | < 0.05 | < 0.05 | < 0.05 | - |
| 1,2-Dichloropropane | < 0.05 | < 0.05 | < 0.05 | - |
| Dibromomethane | < 0.05 | < 0.05 | < 0.05 | - |
| Bromodichloromethane | < 0.05 | < 0.05 | < 0.05 | - |
| 4-Methyl-2-pentanone(MIBK) | < 0.5 | < 0.5 | < 0.5 | - |
| cis-1,3-Dichloropropene | < 0.05 | < 0.05 | < 0.05 | - |
| Toluene | < 0.05 | < 0.05 | < 0.05 | - |
| trans-1,3-Dichloropropene | < 0.05 | < 0.05 | < 0.05 | - |
| 1,1,2-Trichloroethane | < 0.05 | < 0.05 | < 0.05 | - |
| 2-Hexanone | < 0.1 | < 0.1 | < 0.1 | - |
| Tetrachloroethene | < 0.05 | < 0.05 | < 0.05 | - |
| 1,3-Dichloropropane | < 0.05 | < 0.05 | < 0.05 | - |
| Dibromochloromethane | < 0.05 | < 0.05 | < 0.05 | - |
| 1,2-Dibromoethane(EDB) | < 0.02 | < 0.02 | < 0.02 | - |
| Chlorobenzene | < 0.05 | < 0.05 | < 0.05 | - |
| 1,1,1,2-Tetrachloroethane | < 0.05 | < 0.05 | < 0.05 | - |
| Ethylbenzene | < 0.05 | < 0.05 | < 0.05 | - |
| mp-Xylene | < 0.05 | < 0.05 | < 0.05 | - |
| o-Xylene | < 0.05 | < 0.05 | < 0.05 | - |
| Styrene | < 0.05 | < 0.05 | < 0.05 | - |
| Bromoform | < 0.05 | < 0.05 | < 0.05 | - |
| IsoPropylbenzene | < 0.05 | < 0.05 | < 0.05 | - |
| Bromobenzene | < 0.05 | < 0.05 | < 0.05 | - |
| 1,1,2,2-Tetrachloroethane | < 0.05 | < 0.05 | < 0.05 | - |
| 1,2,3-Trichloropropane | < 0.05 | < 0.05 | < 0.05 | - |
| n-Propylbenzene | < 0.05 | < 0.05 | < 0.05 | - |
| 2-Chlorotoluene | < 0.05 | < 0.05 | < 0.05 | - |
| 4-Chlorotoluene | < 0.05 | < 0.05 | < 0.05 | - |
| 1,3,5-Trimethylbenzene | < 0.05 | < 0.05 | < 0.05 | - |
| tert-Butylbenzene | < 0.05 | < 0.05 | < 0.05 | - |
| 1,2,4-Trimethylbenzene | < 0.05 | < 0.05 | < 0.05 | - |
| sec-Butylbenzene | < 0.05 | < 0.05 | < 0.05 | - |
| 1,3-Dichlorobenzene | < 0.05 | < 0.05 | < 0.05 | - |
| 1,2,3-Trimethylbenzene | < 0.05 | < 0.05 | < 0.05 | - |
| p-Isopropyltoluene | < 0.05 | < 0.05 | < 0.05 | - |
| 1,4-Dichlorobenzene | < 0.05 | < 0.05 | < 0.05 | - |
| 1,2-Dichlorobenzene | < 0.05 | < 0.05 | < 0.05 | - |
| n-Butylbenzene | < 0.05 | < 0.05 | < 0.05 | - |
| 1,2-Dibromo-3-chloropropane | < 0.05 | < 0.05 | < 0.05 | - |
| 1,2,4-Trichlorobenzene | < 0.05 | < 0.05 | < 0.05 | - |
| Hexachlorobutadiene | < 0.05 | < 0.05 | < 0.05 | - |
| Naphthalene | < 0.1 | < 0.1 | < 0.1 | - |
| 1,2,3-Trichlorobenzene | < 0.05 | < 0.05 | < 0.05 | - |

***Metals QAQC***

| *Soil Sample* | SB24-03 | Duplicate | RPD |
|---|---|---|---|
| *Sample Depth (ft.)* | 0-3" | 0-3" | |
| *Sample Date* | 5/29/2024 | 5/29/2024 | |
| ***Lead by Method 6020A*** | | | |
| Lead (mg/kg) | **1,200** | **1,200** | 0.0% |
| TCLP lead (mg/L) | 12 | 8.8 | 30.8% |

The results of the laboratory analysis of the duplicate sample were analyzed using a relative percent difference (RPD) analysis. The RPD is defined as 100 times the difference in reported concentration between sample and duplicate, divided by the mean of the two samples. A small RPD indicates good correlation between sample and duplicate.

NOTES:

All values reported in mg/kg, dry, unless otherwise indicated.

IRULE= Investigation and Remediation of Contaminated Properties Rule (February 23, 2024)

<xx = Not Detected< Detection Limit

Results reported above detection limits are indicated in bold

Reported concentrations exceed IRULE Resident VSS

**Summary of Soil Analytical Data**
**Old White Meeting House**
**South Hero, Vermont**

| Sample ID | SB24-01 | SB24-02 | SB24-03 | SB24-04 | Max. Concentration for Toxicity Characteristic | Vermont Background | |
|---|---|---|---|---|---|---|---|
| Sample Date: | 5/29/24 | 5/29/24 | 5/29/24 | 5/29/24 | | | |
| Sample Type: | Grab | Grab | Grab | Grab | | | |
| Sample Depth: | 0-3" | 0-3" | 0-3" | 0-3" | | | |
| PID Reading (ppmv): | 0.6 | 0.7 | 0.2 | 0.4 | | Urban | Non-urban |
| Total Lead | | | | | | | |
| Lead (mg/kg) | **740** | **25** | **1,200** | **2,500** | - | 111 | 41 |
| TCLP Lead (mg/L) | **4.1** | NA | **12** | **0.7** | 5.0 | - | - |

NOTES:
All values reported in mg/kg, dry, unless otherwise indicated.
VSS = Vermont Soil Standards (Investigation and Remediation of Contaminated Properties Rule (I-Rule), February 23, 2024)
ND<xx = Compound not detected above detection limit (xx)
Results reported above detection limits are indicated in bold
Detection limits and reported concentrations at or above the the applicable standards are shaded.
"-" indicates not analyzed or that a screening level is not provided in the I-Rule
Maximum concentration of contaminants for the Toxicity Characteristic - Table 1;
Title 40 - Protection of the Environment, Chapter 1 - EPA, Subchapter 1 - Soilid Waste,
Part 261 - Identification and Listing of Hazardous Waste, Subpart C - Characteristics of Hazardous Waste

**Summary of Shallow Soil Analytical Data - Metals**
**Old White Meeting House**
**320 US-2**
**South Hero, Vermont 05486**

| Sample ID (depth): | SB25-01 (0-3") | SB25-02 (0-3") | SB25-03 (0-3") | SB25-04 (0-3") | SB25-05 (0-3") | SB25-06 (0-3") | SB25-07 (0-3") | SB25-08 (0-3") | SB25-09 (0-3") | SB25-10 (0-3") | Vermont Soil Standards - Non Urban | Vermont Urban Background |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample Date: | 8/22/25 | 8/22/25 | 8/22/25 | 8/22/25 | 8/22/25 | 8/22/25 | 8/22/25 | 8/22/25 | 8/22/25 | 8/22/25 | | |
| PID Reading (ppmv): | 0.2 | 0.2 | 0.4 | 0.3 | 0.4 | 0.4 | 0.3 | 0.2 | 0.2 | 0.2 | | |
| **METALS (mg/kg)** | | | | | | | | | | | | |
| Lead | **18** | **5.5** | **36** | **7.4** | **13** | **6.5** | **9.6** | **54** | **17** | **74** | 41 | 111 |

| Sample ID (depth): | SB25-01 (12-18") | SB25-02 (12-18") | SB25-03 (12-18") | SB25-04 (12-18") | SB25-05 (12-18") | SB25-06 (12-18") | SB25-07 (12-18") | SB25-08 (12-18") | SB25-09 (12-18") | SB25-10 (12-18") | Vermont Soil Standards - Non Urban | Vermont Urban Background |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample Date: | 8/22/25 | 8/22/25 | 8/22/25 | 8/22/25 | 8/22/25 | 8/22/25 | 8/22/25 | 8/22/25 | 8/22/25 | 8/22/25 | | |
| PID Reading (ppmv): | 0.2 | 0.3 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.2 | 0.2 | 0.2 | | |
| **METALS (mg/kg)** | | | | | | | | | | | | |
| Lead | **120** | **4.9** | **21** | **13** | **59** | **220** | **58** | **51** | **11** | **75** | 41 | 111 |

NOTES:

All values reported in mg/kg, dry, unless otherwise indicated.

Vermont Soil Standards from Investigation and Remediation of Contaminated Properties Rule (I-Rule, February 23, 2024)

<xx = Compound not detected above detection limit (xx)

Results reported above detection limits are indicated in bold.

"-" indicates not analyzed or that a screening level is not provided in the I-Rule Table

=reported concentration above applicable regulatory standard (urban background)

=reported concentration above VT non-urban standard but below applicable urban background standard

**Summary of Shallow Soil Analytical Data - Metals**
**Old White Meeting House**
**320 US-2**
**South Hero, Vermont 05486**

| Sample ID (depth): | SB25-01 (0-3") | SB25-01 (12-18") | SB25-02 (0-3") | SB25-02 (12-18") | SB25-03 (0-3") | SB25-03 (12-18") | SB25-04 (0-3") | SB25-04 (12-18") | Vermont Soil Standards - Non Urban | Vermont Urban Background |
|---|---|---|---|---|---|---|---|---|---|---|
| Sample Date: | 2/27/25 | 2/27/25 | 2/27/25 | 2/27/25 | 2/27/25 | 2/27/25 | 2/27/25 | 2/27/25 | | |
| PID Reading (ppmv): | 0.1 | 0.4 | 0.2 | 0.4 | 0.3 | 0.2 | 0.3 | 0.3 | | |
| **METALS (mg/kg)** | | | | | | | | | | |
| Arsenic | **4.1** | **4.2** | **2.8** | **3.8** | **2.2** | **3.7** | **4.1** | **3.3** | - | 16 |
| Lead | **660** | **540** | **550** | **830** | **100** | **680** | **410** | **130** | 41 | 111 |

| Sample ID (depth): | SB25-05 (0-3") | SB25-05 (12-18") | SB25-06 (0-3") | SB25-06 (12-18") | SB25-07 (0-3") | SB25-07 (12-18") | SB25-08 (0-3") | SB25-08 (12-18") | Vermont Soil Standards - Non Urban | Vermont Urban Background |
|---|---|---|---|---|---|---|---|---|---|---|
| Sample Date: | 2/27/25 | 2/27/25 | 2/27/25 | 2/27/25 | 2/27/25 | 2/27/25 | 2/27/25 | 2/27/25 | | |
| PID Reading (ppmv): | 0.3 | 0.5 | 0.4 | 0.6 | 0.3 | 0.6 | 0.5 | 0.4 | | |
| **METALS (mg/kg)** | | | | | | | | | | |
| Arsenic | **7.1** | **2.0** | **3.0** | **6.1** | **2.7** | **5.8** | **3.2** | **2.4** | 16 | 16 |
| Lead | **1000** | **11** | **85** | **270** | **120** | **210** | **40** | **15** | - | 111 |

| Sample ID (depth): | SB24-01R (0-3") | SB24-03R (0-3") | SB24-04R (0-3") | Vermont Groundwater Enforcement Standard (VGES) | Preventative Action Level (PAL) |
|---|---|---|---|---|---|
| Sample Date: | 2/27/25 | 2/27/25 | 2/27/25 | | |
| PID Reading (ppmv): | 0.2 | 0.2 | 0.1 | | |
| **SPLP METALS (mg/L)** | | | | | |
| Arsenic | <0.01 | <0.01 | <0.01 | 0.01 | 1.0 |
| Lead | **0.98** | **0.91** | **0.43** | 0.015 | 1.5 |

NOTES:
All values reported in mg/kg, dry, unless otherwise indicated.
Vermont Soil Standards from Investigation and Remediation of Contaminated Properties Rule (I-Rule, February 23, 2024)
<xx = Compound not detected above detection limit (xx)
Results reported above detection limits are indicated in bold.
"-" indicates not analyzed or that a screening level is not provided in the I-Rule Table
* Total Equivalent Quotient (TEQ) obtained from EAI laboratory report. TEQ values were summed to obtain TEQ as benzo(a)pyrene. One-half of ND values were used in TEQ calculations per I-Rule.
=reported concentration above applicable regulatory standard (urban background)
=reported concentration above VT non-urban standard but below applicable urban background standard
=reported concentration above VGES

**Summary of Deeper Soil Analytical Data - Metals**
**Old White Meeting House**
**320 US-2**
**South Hero, Vermont 05486**

| **Sample ID (depth):** | **MW25-01 (11')** | **MW25-02 (8-12')** | **MW25-03 (8-12')** | **MW25-04 (12-16')** | **MW25-05 (4-8')** | **Vermont Soil Standards - Non Urban** | **Vermont Urban Background** |
|---|---|---|---|---|---|---|---|
| Sample Date: | 8/22/25 | 8/22/25 | 8/22/25 | 8/22/25 | 8/22/25 | | |
| PID Reading (ppmv): | 0.0 | 0.1 | 0.1 | 0.2 | 0.2 | | |
| **METALS (mg/kg)** | | | | | | | |
| Lead | **5.8** | **6.5** | **9.9** | **8.0** | **6.9** | 41 | 111 |

NOTES:
All values reported in mg/kg, dry, unless otherwise indicated.
Vermont Soil Standards from Investigation and Remediation of Contaminated Properties Rule (I-Rule, February 23, 2024)
<xx = Compound not detected above detection limit (xx)
Results reported above detection limits are indicated in bold.
=reported concentration above applicable regulatory standard (urban background)
=reported concentration above VT non-urban standard but below applicable urban background standard

**Summary of Soil Analytical Data - QAQC**
**Old White Meeting House**
**320 US-2**
**South Hero, Vermont 05486**

| Sample ID (depth): | MW25-05 | Duplicate 3 | RPD (%) | SB25-02 (0-3") | Duplicate (0-3') | RPD (%) | SB25-02 (12-18") | Duplicate (12-18') | RPD (%) |
|---|---|---|---|---|---|---|---|---|---|
| Sample Date: | 8/22/25 | 8/22/25 | | 8/22/25 | 8/22/25 | | 8/22/25 | 8/22/25 | |
| **METALS (mg/kg)** | | | | | | | | | |
| Lead | **6.9** | **6.4** | 7.5 | **5.5** | **3.9** | 34.0 | **4.9** | **5.7** | -15.1 |

NOTES:
All values reported in mg/kg, dry, unless otherwise indicated.
Results reported above detection limits are indicated in bold.
RPD - Relative Percent Difference

**Summary of Shallow Soil Analytical Data - Metals**
**Old White Meeting House**
**320 US-2**
**South Hero, Vermont 05486**

| **Sample ID (depth):** | **SB25-01 (0-3")** | **SB25-01 (12-18")** | **SB25-02 (0-3")** | **SB25-02 (12-18")** | **SB25-03 (0-3")** | **SB25-03 (12-18")** | **SB25-04 (0-3")** | **SB25-04 (12-18")** | **Vermont Soil Standards - Non Urban** | **Vermont Urban Background** |
|---|---|---|---|---|---|---|---|---|---|---|
| Sample Date: | 2/27/25 | 2/27/25 | 2/27/25 | 2/27/25 | 2/27/25 | 2/27/25 | 2/27/25 | 2/27/25 | | |
| PID Reading (ppmv): | 0.1 | 0.4 | 0.2 | 0.4 | 0.3 | 0.2 | 0.3 | 0.3 | | |
| **METALS (mg/kg)** | | | | | | | | | | |
| Arsenic | **4.1** | **4.2** | **2.8** | **3.8** | **2.2** | **3.7** | **4.1** | **3.3** | - | 16 |
| Lead | **660** | **540** | **550** | **830** | **100** | **680** | **410** | **130** | 41 | 111 |

| **Sample ID (depth):** | **SB25-05 (0-3")** | **SB25-05 (12-18")** | **SB25-06 (0-3")** | **SB25-06 (12-18")** | **SB25-07 (0-3")** | **SB25-07 (12-18")** | **SB25-08 (0-3")** | **SB25-08 (12-18")** | **Vermont Soil Standards - Non Urban** | **Vermont Urban Background** |
|---|---|---|---|---|---|---|---|---|---|---|
| Sample Date: | 2/27/25 | 2/27/25 | 2/27/25 | 2/27/25 | 2/27/25 | 2/27/25 | 2/27/25 | 2/27/25 | | |
| PID Reading (ppmv): | 0.3 | 0.5 | 0.4 | 0.6 | 0.3 | 0.6 | 0.5 | 0.4 | | |
| **METALS (mg/kg)** | | | | | | | | | | |
| Arsenic | **7.1** | **2.0** | **3.0** | **6.1** | **2.7** | **5.8** | **3.2** | **2.4** | 16 | 16 |
| Lead | **1000** | **11** | **85** | **270** | **120** | **210** | **40** | **15** | - | 111 |

| **Sample ID (depth):** | **SB24-01R (0-3")** | **SB24-03R (0-3")** | **SB24-04R (0-3")** | **Vermont Groundwater Enforcement Standard (VGES)** | **Preventative Action Level (PAL)** |
|---|---|---|---|---|---|
| Sample Date: | 2/27/25 | 2/27/25 | 2/27/25 | | |
| PID Reading (ppmv): | 0.2 | 0.2 | 0.1 | | |
| **SPLP METALS (mg/L)** | | | | | |
| Arsenic | <0.01 | <0.01 | <0.01 | 0.01 | 1.0 |
| Lead | **0.98** | **0.91** | **0.43** | 0.015 | 1.5 |

NOTES:
All values reported in mg/kg, dry, unless otherwise indicated.
Vermont Soil Standards from Investigation and Remediation of Contaminated Properties Rule (I-Rule, February 23, 2024)
<xx = Compound not detected above detection limit (xx)
Results reported above detection limits are indicated in bold.
"-" indicates not analyzed or that a screening level is not provided in the I-Rule Table
* Total Equivalent Quotient (TEQ) obtained from EAI laboratory report. TEQ values were summed to obtain TEQ as benzo(a)pyrene. One-half of ND values were used in TEQ calculations per I-Rule.
=reported concentration above applicable regulatory standard (urban background)
=reported concentration above VT non-urban standard but below applicable urban background standard
=reported concentration above VGES

**Summary of Shallow Soil Analytical Data - PAHs**
**Old White Meeting House**
**320 US-2**
**South Hero, Vermont 05486**

| **Sample ID (depth):** | **SB25-01 (0-3")** | **SB25-01 (12-18")** | **SB25-02 (0-3")** | **SB25-02 (12-18")** | **SB25-03 (0-3")** | **SB25-03 (12-18")** | **SB25-04 (0-3")** | **SB25-04 (12-18")** | Vermont Soil Standards - Resident | Vermont Urban Background |
|---|---|---|---|---|---|---|---|---|---|---|
| Sample Date: | 2/27/25 | 2/27/25 | 2/27/25 | 2/27/25 | 2/27/25 | 2/27/25 | 2/27/25 | 2/27/25 | | |
| PID Reading (ppmv): | 0.1 | 0.4 | 0.2 | 0.4 | 0.3 | 0.2 | 0.3 | 0.3 | | |
| **PAHs (mg/kg)** | | | | | | | | | | |
| 1-Methylnaphthalene | <0.012 | <0.0085 | <0.012 | <0.0085 | <0.038 | <0.0083 | <0.050 | <0.0092 | - | - |
| 2-Methylnaphthalene | <0.012 | <0.0085 | <0.012 | <0.0085 | <0.038 | <0.0083 | <0.050 | <0.0092 | - | - |
| Acenaphthene | <0.012 | <0.0085 | <0.012 | <0.0085 | <0.038 | <0.0083 | <0.050 | <0.0092 | - | - |
| Acenaphthylene | <0.012 | <0.0085 | <0.012 | <0.0085 | <0.038 | <0.0083 | <0.050 | <0.0092 | - | - |
| Anthracene | <0.012 | <0.0085 | <0.012 | <0.0085 | <0.038 | <0.0083 | **0.071** | <0.0092 | - | - |
| Benzo[a]anthracene | **0.020** | **0.018** | **0.025** | **0.017** | <0.038 | **0.0094** | **0.37** | <0.0092 | - | - |
| Benzo[a]pyrene | **0.020** | **0.019** | **0.022** | **0.017** | **0.051** | **0.0086** | **0.36** | <0.0092 | 0.07 | - |
| Benzo[b]fluoranthene | **0.029** | **0.028** | **0.031** | **0.024** | **0.054** | **0.014** | **0.56** | <0.0092 | - | - |
| Benzo[g,h,i]perylene | **0.018** | **0.016** | **0.021** | **0.014** | **0.043** | <0.0083 | **0.11** | <0.0092 | - | - |
| Benzo[k]fluoranthene | <0.012 | **0.0097** | **0.015** | **0.0089** | <0.038 | <0.0083 | **0.21** | <0.0092 | | - |
| Chrysene | **0.020** | **0.021** | **0.026** | **0.020** | **0.076** | **0.011** | **0.440** | <0.0092 | - | - |
| Dibenz[a,h]anthracene | <0.012 | <0.0085 | <0.012 | <0.0085 | <0.038 | <0.0083 | <0.050 | <0.0092 | - | - |
| Fluoranthene | **0.031** | **0.031** | **0.051** | **0.035** | <0.038 | **0.010** | **1.0** | <0.0092 | 2,301 | - |
| Fluorene | <0.012 | <0.0085 | <0.012 | <0.0085 | <0.038 | <0.0083 | <0.050 | <0.0092 | 2,301 | - |
| Indeno[1,2,3-cd]pyrene | **0.016** | **0.015** | **0.020** | **0.013** | <0.038 | <0.0083 | **0.14** | <0.0092 | - | - |
| Naphthalene | <0.012 | <0.0085 | <0.012 | <0.0085 | <0.038 | <0.0083 | <0.050 | <0.0092 | 2.7 | - |
| Phenanthrene | <0.012 | **0.0097** | **0.024** | **0.015** | <0.038 | <0.0083 | **0.55** | <0.0092 | - | - |
| Pyrene | **0.027** | **0.028** | **0.040** | **0.029** | <0.038 | **0.0094** | **0.67** | <0.0092 | - | - |
| TEQ as Benzo(a)pyrene* | **0.03258** | **0.029468** | **0.035776** | **0.026759** | **0.079466** | **0.0155575** | **0.49454** | ND | 0.07 | 0.58 |

| **Sample ID (depth):** | **SB25-05 (0-3")** | **SB25-05 (12-18")** | **SB25-06 (0-3")** | **SB25-06 (12-18")** | **SB25-07 (0-3")** | **SB25-07 (12-18")** | **SB25-08 (0-3")** | **SB25-08 (12-18")** | Vermont Soil Standards - Resident | Vermont Urban Background |
|---|---|---|---|---|---|---|---|---|---|---|
| Sample Date: | 2/27/25 | 2/27/25 | 2/27/25 | 2/27/25 | 2/27/25 | 2/27/25 | 2/27/25 | 2/27/25 | | |
| PID Reading (ppmv): | 0.3 | 0.5 | 0.4 | 0.6 | 0.3 | 0.6 | 0.5 | 0.4 | | |
| **PAHs (mg/kg)** | | | | | | | | | | |
| 1-Methylnaphthalene | <0.038 | <0.0076 | <0.046 | <0.043 | <0.041 | <0.045 | <0.0091 | <0.037 | - | - |
| 2-Methylnaphthalene | <0.038 | <0.0076 | <0.046 | <0.043 | <0.041 | <0.045 | <0.0091 | <0.037 | - | - |
| Acenaphthene | <0.038 | <0.0076 | <0.046 | <0.043 | <0.041 | <0.045 | <0.0091 | <0.037 | - | - |
| Acenaphthylene | <0.038 | <0.0076 | <0.046 | <0.043 | <0.041 | <0.045 | <0.0091 | <0.037 | - | - |
| Anthracene | <0.038 | <0.0076 | <0.046 | <0.043 | <0.041 | <0.045 | <0.0091 | <0.037 | - | - |
| Benzo[a]anthracene | **0.054** | <0.0076 | <0.046 | <0.043 | **0.043** | **0.047** | **0.013** | <0.037 | - | - |
| Benzo[a]pyrene | **0.083** | <0.0076 | **0.088** | <0.043 | **0.047** | **0.047** | **0.014** | <0.037 | 0.07 | - |
| Benzo[b]fluoranthene | **0.12** | <0.0076 | **0.11** | <0.043 | **0.067** | **0.073** | **0.027** | <0.037 | - | - |
| Benzo[g,h,i]perylene | **0.065** | <0.0076 | <0.046 | <0.043 | <0.041 | <0.045 | <0.0091 | <0.037 | - | - |
| Benzo[k]fluoranthene | <0.038 | <0.0076 | <0.046 | <0.043 | <0.041 | <0.045 | <0.0091 | <0.037 | | - |
| Chrysene | **0.11** | <0.0076 | **0.11** | <0.043 | **0.043** | <0.045 | **0.016** | <0.037 | - | - |
| Dibenz[a,h]anthracene | <0.038 | <0.0076 | <0.046 | <0.043 | <0.041 | <0.045 | <0.0091 | <0.037 | - | - |
| Fluoranthene | **0.094** | <0.0076 | <0.046 | <0.043 | **0.059** | **0.082** | **0.025** | <0.037 | 2,301 | - |
| Fluorene | <0.038 | <0.0076 | <0.046 | <0.043 | <0.041 | <0.045 | <0.0091 | <0.037 | 2,301 | - |
| Indeno[1,2,3-cd]pyrene | <0.038 | <0.0076 | <0.046 | <0.043 | <0.041 | <0.045 | <0.0091 | <0.037 | - | - |
| Naphthalene | <0.038 | <0.0076 | <0.046 | <0.043 | <0.041 | <0.045 | <0.0091 | <0.037 | 2.7 | - |
| Phenanthrene | <0.038 | <0.0076 | <0.046 | <0.043 | <0.041 | <0.045 | <0.0091 | <0.037 | - | - |
| Pyrene | **0.097** | <0.0076 | **0.071** | <0.043 | **0.051** | **0.069** | **0.019** | <0.037 | - | - |
| TEQ as Benzo(a)pyrene* | **0.1216** | ND | **0.12694** | ND | **0.080648** | **0.0821625** | **0.0230665** | ND | 0.07 | 0.58 |

NOTES:
All values reported in mg/kg, dry, unless otherwise indicated.
Vermont Soil Standards from Investigation and Remediation of Contaminated Properties Rule (I-Rule, February 23, 2024)
<xx = Compound not detected above detection limit (xx)
Results reported above detection limits are indicated in bold.
"-" indicates not analyzed or that a screening level is not provided in the I-Rule Table
* Total Equivalent Quotient (TEQ) obtained from EAI laboratory report. TEQ values were summed to obtain TEQ as benzo(a)pyrene. One-half of ND values were used in TEQ calculations per I-Rule.
=reported concentration above applicable regulatory standard (urban background)
=reported concentration above VT residential standard but below applicable urban background standard

**Summary of Shallow Soil Analytical Data - QAQC**
**Old White Meeting House**
**320 US-2**
**South Hero, Vermont 05486**

| Sample ID (depth in feet): | SB24-04R (0-3") | Dup-1 | RPD (%) | SB25-01 (12-18") | Dup-2 | RPD (%) |
|---|---|---|---|---|---|---|
| Sample Date: | 02/27/25 | 02/27/25 | | 02/27/25 | 02/27/25 | |
| **PAHs (mg/kg)** | | | | | | |
| 1-Methylnaphthalene | PAHs not analyzed for this dupliate sample | | N/A | <0.0085 | <0.0086 | N/A |
| 2-Methylnaphthalene | | | N/A | <0.0085 | <0.0086 | N/A |
| Acenaphthene | | | N/A | <0.0085 | <0.0086 | N/A |
| Acenaphthylene | | | N/A | <0.0085 | <0.0086 | N/A |
| Anthracene | | | N/A | <0.0085 | <0.0086 | N/A |
| Benzo[a]anthracene | | | N/A | **0.018** | **0.020** | -10.5 |
| Benzo[a]pyrene | | | N/A | **0.019** | **0.020** | -5.1 |
| Benzo[b]fluoranthene | | | N/A | **0.028** | **0.035** | -22.2 |
| Benzo[g,h,i]perylene | | | N/A | **0.016** | **0.012** | 28.6 |
| Benzo[k]fluoranthene | | | N/A | **0.0097** | <0.0086 | N/A |
| Chrysene | | | N/A | **0.021** | **0.025** | -17.4 |
| Dibenz[a,h]anthracene | | | N/A | <0.0085 | <0.0086 | N/A |
| Fluorene | | | N/A | <0.0085 | <0.0086 | N/A |
| Flouranthene | | | N/A | **0.031** | **0.038** | -20.3 |
| Indeno[1,2,3-cd]pyrene | | | N/A | **0.015** | <0.0086 | N/A |
| Naphthalene | | | N/A | <0.0085 | <0.0086 | N/A |
| Phenanthrene | | | N/A | **0.0097** | **0.0120** | -21.2 |
| Pyrene | | | N/A | **0.028** | **0.033** | -16.4 |
| TEQ as Benzo(a)pyrene* | | | N/A | **0.029468** | **0.025525** | 14.3 |
| **METALS (mg/kg)** | | | | | | |
| Total Arsenic | NA | NA | N/A | **4.2** | **3.7** | 12.7 |
| Total Lead | NA | NA | N/A | **540** | **470** | 13.9 |
| **SPLP METALS (mg/L)** | | | | | | |
| Total Arsenic | <0.01 | <0.01 | N/A | NA | NA | N/A |
| Total Lead | **0.43** | **0.47** | -8.9 | NA | NA | N/A |

NOTES:
All values reported in mg/kg, dry, unless otherwise indicated.
<xx = Compound not detected above detection limit (xx)
Results reported above detection limits are indicated in bold
* Sum of Toxicity Equivalent Quotients (TEQs) provided in laboratory report.
Toxicity Equivalent Factors (TEFs) used by laboratory are consistent with those provided in I-Rule (February 23, 2024).
RPD - Relative Percent Difference

# Groundwater

**Summary of Groundwater Analytical Data - Metals**
**Old White Meeting House**
**320 US-2**
**South Hero, Vermont 05486**

| Sample ID (depth): | MW25-01 | MW25-02 | MW25-03 | MW25-04 | MW25-05 | Vermont Groundwater Enforcement Standard (VGES) |
|---|---|---|---|---|---|---|
| Sample Date: | 8/21/25 | 8/21/25 | 8/21/25 | 8/21/25 | 8/21/25 | |
| **METALS (mg/L)** | | | | | | |
| Lead | **0.0019** | **0.0019** | **0.0044** | **0.0027** | **0.0011** | 0.015 |

NOTES:
All values reported in mg/L, fluid, unless otherwise indicated.
Lead Action Level from EPA Lead and Copper Rule
<xx = Compound not detected above detection limit (xx)
Results reported above detection limits are indicated in bold.
=reported concentration above Vermont Groundwater Enforcement Standard (VGES)

**Summary of Groundwater Elevation Data**
**Old White Meeting House**
**320 US-2**
**South Hero, Vermont 05486**

**Monitoring Date: 11/07/2025**

| Well I.D. | Date of Installation | Well Depth btoc | Well Diameter (inches) | Well Screen Interval btoc | Top of Casing Elevation | Depth To Product btoc | Depth To Water btoc | Product Thickness | Specific Gravity Of Product | Water Equivalent | Corrected Depth To Water | Corrected Water Table Elevation |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW25-01 | 8/21/2025 | 20.0 | 2.0 | 10.0 - 20.0 | 99.58 | - | 4.29 | - | - | - | 4.29 | 95.29 |
| MW25-02 | 8/21/2025 | 16.0 | 2.0 | 6.0 - 16.0 | 99.46 | - | 7.95 | - | - | - | 7.95 | 91.51 |
| MW25-03 | 8/21/2025 | 16.0 | 2.0 | 6.0 - 16.0 | 100.00 | - | 4.10 | - | - | - | 4.10 | 95.90 |
| MW25-04 | 8/21/2025 | 16.0 | 2.0 | 6.0 - 16.0 | 99.96 | - | 3.89 | - | - | - | 3.89 | 96.07 |
| MW25-05 | 8/21/2025 | 16.0 | 2.0 | 6.0 - 16.0 | 99.97 | - | 5.67 | - | - | - | 5.67 | 94.30 |

NOTES:
All Values Reported in Feet
btoc - Below Top of Casing
Wells surveyed by KAS on 11/07/2025. Top of casing at MW25-03 used as benchmark (100.00').
All wells are flush mounted with steel well boxes.

**Quality Assurance / Quality Control - Groundwater**
**Old White Meeting House**
**South Hero, Vermont**

| Sample Location:<br>Date: | MW25-02<br>9/8/25 | Duplicate<br>9/8/25 | <br>RPD |
|---|---|---|---|
| Total Lead | 0.0019 | 0.0020 | -5.1 |

NOTES:

All values reported in mg/L, unless otherwise indicated

<xx = Not Detected< Detection Limit

Results reported above detection limits are indicated in bold

The results of the laboratory analysis of the duplicate sample were analyzed using a relative percent difference (RPD) analysis. The RPD is defined as 100 times the difference in reported concentration between sample and duplicate, divided by the mean of the two samples. A small RPD indicates good correlation between sample and

# Soil Vapor

## Summary of Soil Vapor Analytical Data
## Old White Meeting House
## South Hero, Vermont

| Soil Gas Well ID: | SVP-1 | SVP-2 | Ambient Air | VTDEC I-Rule Vapor Intrusion Screening Value Sub-Slab Soil Gas | |
|---|---|---|---|---|---|
| Sample Date: | 06/05/24 | 06/05/24 | 06/05/24 | Resident | Non-Resident |
| **VOCs (ug/m$^3$)** | | | | | |
| Benzene | ND<0.32 | ND<0.32 | **0.30** | 4.3 | 35 |
| Carbon Tetrachloride | ND<0.63 | ND<0.63 | **0.50** | 5.7 | 45 |
| Chloroethane | ND<0.26 | ND<0.26 | ND<0.093 | 330,000 | 1,200,000 |
| Dichloroethane, 1,1- | ND<0.40 | ND<0.40 | ND<0.14 | 21 | 170 |
| Dichloroethylene, 1,1- | ND<0.40 | ND<0.40 | ND<0.14 | 6,700 | 23,000 |
| Ethylbenzene | ND<0.43 | ND<0.43 | ND<0.15 | 13 | 110 |
| Methylene Chloride | ND<3.5 | ND<3.5 | ND<1.2 | 2,000 | 27,000 |
| Naphthalene | ND<0.52 | ND<0.52 | ND<0.18 | 1.0 | 8.0 |
| Tetrachloroethylene | ND<0.68 | ND<0.68 | ND<0.24 | 21 | 170 |
| Trichloroethylene | ND<0.54 | ND<0.54 | ND<0.19 | 6.7 | 23 |
| Trimethylbenzene, 1,2,3- | ND<1.8 | ND<1.8 | ND<0.65 | | |
| Trimethylbenzene, 1,2,4- | ND<0.49 | ND<0.49 | ND<0.17 | 2,000 | 7,000 |
| Trimethylbenzene, 1,3,5- | ND<0.49 | ND<0.49 | ND<0.17 | | |
| Vinyl Chloride | ND<0.26 | ND<0.26 | ND<0.090 | 3.7 | 62 |
| Acetone | **20** | ND<9.5 | **18** | - | - |
| Bromomethane | ND<0.39 | ND<0.39 | **0.18** | - | - |
| Chloromethane | ND<0.41 | ND<0.41 | **1.4** | - | - |
| Chloroform | ND<0.49 | **0.57** | ND<0.17 | - | - |
| Dichlorodifluoromethane (Freon 12) | **1.4** | **1.2** | **1.1** | - | - |
| 1,2-Dichoroethane | **0.54** | ND<0.40 | ND<014 | | |
| Ethanol | **4.6** | ND<7.5 | **9.1** | - | - |
| Heptane | ND<0.41 | ND<0.41 | **0.19** | - | - |
| 2-Hexanone (MBK) | ND<0.41 | ND<0.41 | **0.21** | - | - |
| Toluene | ND<0.38 | **0.48** | **0.61** | - | - |
| Trichlorofluoromethane (Freon 11) | ND<2.2 | ND<2.2 | **1.6** | - | - |

NOTES:

All values reported in ug/m$^3$ unless otherwise indicated.

VTDEC = Vermont Department of Environmental Conservation

I-Rule = Investigation and Remediation of Contaminated Properties Rule (February 23, 2024)

<xx = Not Detected< Detection Limit

Results reported above detection limits are indicated in **bold**

Detection limits and reported concentrations at or above the the applicable screening value (e.g., residential) are shaded

"-" indicates not analyzed or that a screening value is not provided in the I-Rule

# Appendix D

# VT DEC Stockpile Form

VERMONT

AGENCY OF NATURAL RESOURCES

**State of Vermont**
**Department of Environmental Conservation**
**Waste Management & Prevention Division**
**1 National Life Drive – Davis 1**
**Montpelier, VT 05620-3704**
**(802) 828-1138**

# MANAGEMENT OF NON-HAZARDOUS CONTAMINATED SOIL REQUEST FORM
**July 2021**

This form is to be used to assist in the compliance with the Investigation and Remediation of Contaminated Properties Rule (IRule) §35-803. This form takes the place of the ANR Off-site Soil Treatment Form and is to be used for the movement, stockpiling, treatment, or disposal of non-hazardous contaminated soils, both on-site and off-site. This form should be included with Soil Management Plans and Corrective Action Plans, as applicable. DEC Site Manager approval must be received, as signified by signature in Section 4, prior to the initiation of soil management work.

## Section 1. General Information

**Soil Source Site Name**: Old White Meeting House

**Address**: 320 US-2, South Hero, Vermont 05486

**Facility ID#**: _____ and/or **Spill #**: _____ and/or **SMS Site #**: 2024-5472

**Will soils be temporarily stockpiled on-site or off-site for more than 90 days or between December 1st and April 1st?**
__**Yes** ___X___**No** **if Yes, date range**: _____ to _____.

**Disposal Facility**: Biogenie Canada Inc, 8365 Av. Broadway N, Montréal-Est, QC H1B 5X7, Canada

**Quantity of Soils:** 415 cubic yards

**Soil Contaminants:** Lead and PAHs

**Check proposed soil management scenario below:**

- ☐ Soil will be live loaded and transported to disposal facility. **If yes, skip to Section 4.**
- ■ Soil to be temporarily stored on/off site, then transported to disposal facility. **If yes, complete entire form**.
- ☐ Soil is Staying On-Site for Treatment. **If yes, complete entire form**.
- ☐ Soil is Destined for Off-Site Stockpile, Management and Treatment. **If yes, complete entire form.**

## Section 2. Soil Stockpile Siting Criteria Checklist

- ■ There are no potable drinking water supplies within 300-foot radius of the Soil Stockpile. This limit may need to be extended if water supplies are shown to be hydraulically down gradient.
- ■ Soil Stockpile is not within zone one or two of a groundwater source protection area.
- ■ *There are no sensitive environments within 100 feet of the treatment location including, but not limited to:
  - Waterways (e.g., stream, river, lake, pond, wetland or floodplain zone);
  - State or Federally listed threatened or endangered species or habitat;
  - Class I or II groundwater zone;
  - Residence; or
  - Property boundary

- ☐ Public access to the soil is prohibited through posting no trespassing or other means approved by Secretary.
- ☐ If the owner of the soil stockpiling parcel is different from the soil generator, written approval from the landowner that also grants access to the Secretary, has been obtained before stockpiling begins.
- ☐ **The municipality in which the soils will be stockpiled or treated has been notified in writing of the soil stockpiling or treatment location. If applicable, local permits should be obtained. M**unicipal approval documents (letter, permit, etc.) attached.**
- ☐ ANR Atlas generated Map including the latitude and longitude of the location in decimal degrees where the soil will be stockpiled. Minimum acceptable accuracy is plus-or-minus 15 feet. **Map attached.**

*If setback criteria from sensitive receptors cannot be achieved, please provide written explanation.
**This is a requirement for off-site stockpiling of soils only.

## Section 3. Ownership Information

| **Location of Soil Stockpile** | | **Generator/Owner of Soil/Responsible Party** | |
|---|---|---|---|
| Street Address | 310 US-2<br>South Hero, Vermont 05486 | Street Address | 333 US Route 2<br>South Hero, Vermont 05486 |
| Company Name | Town of South Hero | Company Name | Town of South Hero |
| Landowner Name | Town of South Hero | Owner Name | Town of South Hero |
| Landowner Phone # | 802-372-5552 | Owner Phone # | 802-372-5552 |
| Landowner email | townclerk@southherovt.org | Owner email | townclerk@southherovt.org |

## Section 4. Signature Section

**Responsible Party:**

**As the party responsible for compliance with the Investigation and Remediation of Contaminated Properties Rule and applicable statutes, I hereby certify that the representations made on this form are to the best of my knowledge true and correct.**

Town of South Hero _____ Town of South Hero _____

Name of Owner/Operator Representative (printed) Company Title

_____ _____

Signature Date

**Landowner:**

**As landowner of the soil treatment stockpile location, I hereby give approval to the soil generator to stockpile the soil volume cited above at the above referenced location. In addition, I hereby grant property access to DEC investigators for the purpose of inspecting the Soil Stockpile at any reasonable time.**

Town of South Hero
_____
Print Name

_____ _____
Signature Date

**DEC Site Manager Approval:**

Graham Bradley
_____
Print Name

_____ _____
Signature of DEC Site Manager Date of Approval

# Appendix E

# Health and Safety Plan

# HEALTH AND SAFETY PLAN

# FOR CONTAMINATED SITES

## Prepared for:

Old White Meeting House
320 US-2
South Hero, VT 05486

**Project #: 510210643**

***KAS, INC.***
589 Avenue D, Suite 10
Williston, VT 05495

**Date: 03/13/2026**

Rev. 10/04, 9/08

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INDEX (cont.)

KAS, INC.
EVACUATION MAP

DIRECTIONS TO THE HOSPITAL:

Head west on US-2 W / US Route 2 toward Wallys Point Rd

1.8 mi
Turn left onto VT-314 / Ferry Rd

2.2 mi
Turn left onto Gordons Landing

0.2 mi
Take Plattsburgh - Grand Isle

0.7 mi
Keep straight to stay on Plattsburgh - Grand Isle

Entering New York

1.1 mi
Take NY-314 / Commodore Thomas Macdonough Hwy

4.0 mi
Turn left onto US-9 S / NY-9 / State Route 9

1.3 mi
Bear right onto Boynton Ave

0.8 mi
Turn left onto Beekman St

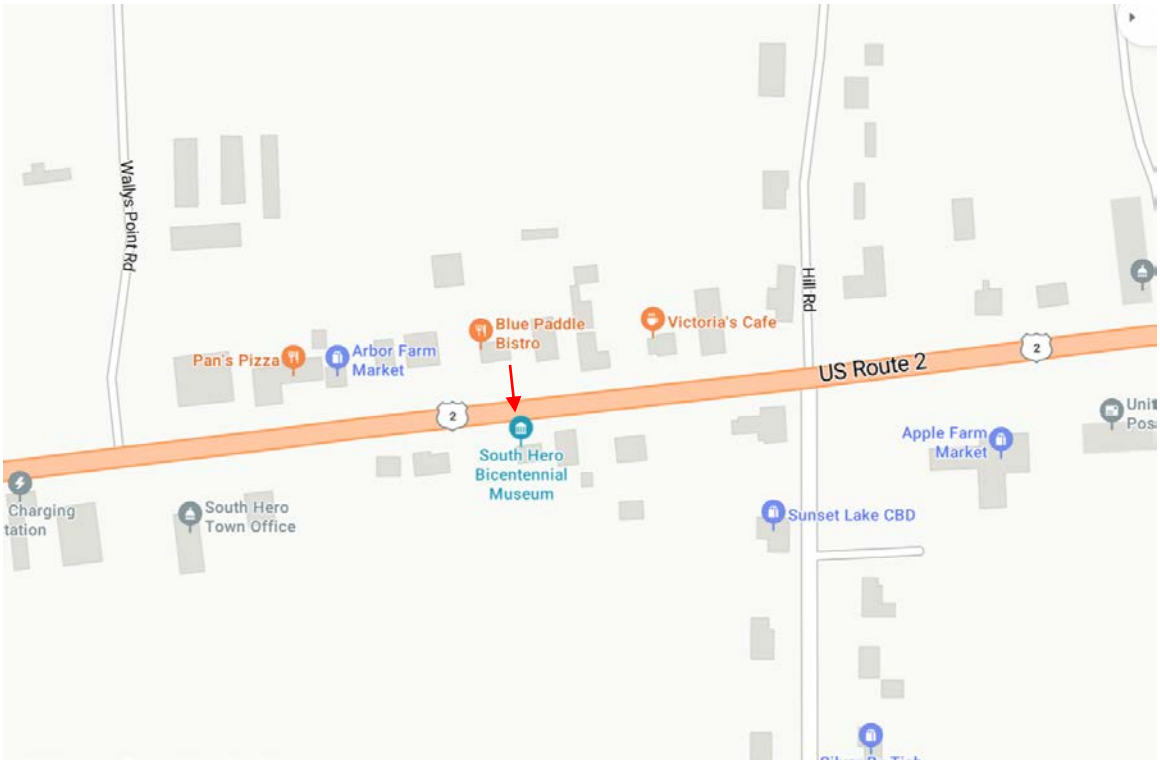
0.5 mi
Turn right

0.1 mi
Keep right to get onto road

0.1 mi
Turn left

The last intersection before your destination is Beekman St

SITE EVACUATION MAP:



KAS, INC.
HEALTH AND SAFETY PLAN ACKNOWLEDGEMENT LOG

I have read this Health and Safety Plan and understand its contents. I agree to fully comply with it.

| Name | Organization | Date | Time |
|---|---|---|---|

KAS, INC.
WORKER/VISITOR LOG

| NAME | ORGANIZATION | DATE | TIME IN | TIME OUT |
|---|---|---|---|---|

## GENERAL

This site-specific Health and Safety Plan has been developed for site investigations and monitoring at petroleum-contaminated sites. This plan (and subsequent revisions) shall be in effect throughout the duration of the project. All personnel, regardless of their professional affiliation, are subject to the requirements of this plan when they are in the area defined as the site.

## 1. OPERATIONAL INFORMATION

1.A. Chain of Command - Responsible Individuals

| | |
|---|---|
| Aske Doerge , | Project Manager |
| KAS Assigned Personnel , | Project Supervisor |
| On Site KAS Field Scientist , | Site Safety Officer |
| , | Assistant Site Safety Officer |

Non KAS Personnel:

The chain of command for this project is as follows:

Immediate job coordination issues and/or scheduling will be brought to the attention of the Project Manager. If the project is of a size where there is no Project Manager assigned, issues will be brought to the attention of the Project Supervisor.

Issues relative to personnel health and safety will be brought to the attention of the Site Safety Officer.

Job progress meetings and issues requiring Corporate coordination and KAS input will be coordinated by the Project Manager or Project Supervisor.

## 1.B Emergency Notification

A list of all State and Local Police, Ambulance, and Rescue Departments and a listing complete with routes to hospitals and emergency facilities shall be maintained by the Site Safety Officer. The list must include phone numbers and quickest routes to areas facilities. The Site Safety Officer shall also contact the hospitals or emergency treatment center and inform them of an injured worker. Advice on the transportation method, and if necessary, decontamination or treatment shall be offered.

Facilities to be posted on the site are listed below, including telephone numbers.

Police Department: Phone 911

Address _____

Fire Department: Phone 911

Address _____

EMS Unit: Phone 911

Address _____

Hospital: 911

1.C. Site Personal Protective Equipment (PPE)

Personal Protection Equipment (PPE) for this site will be Level D or Level D Plus, as described in Section 4 of this plan, and as dependent upon the task(s) to be conducted.

| Task | Level of Protection |
|---|---|
| Water/product level monitoring | D |
| Water sampling | D |
| Soil screening/ sampling | D |
| Product bailing | D |
| O & M of Remedial Systems | D |
| Drilling/ Soil Borings/ Monitoring Well Installation | D Plus |
| Trenching | D Plus |
| Tank Pull Inspection | D Plus |
| Drum changes | D Plus (hard hat optional) |

PPE will be automatically upgraded to higher levels if the action limits for Level D are exceeded (see Section 4.C). The Site Supervisor or the Site Safety Officer has the authority to change the PPE level to suit the site conditions in accordance with the prescribed limits contained in this plan.

## 1.D. Fire Extinguisher Location

At least one fire extinguisher shall be kept in an accessible location on the KAS support vehicle. In addition, a fire extinguisher must be kept in an accessible location on any drill rig used on site.

## 1.E. First Aid

A first aid kit is located in the KAS support vehicle on-site.

## 1.F. Worker/Visitor Log

The attached logs must be completed for each worker or visitor to the site.

## 1.G. Plan Acknowledgment Form

Each worker or visitor must read and understand this plan and then sign the attached acknowledgment form before being allowed on-site.

## 1.H. Daily Air Monitoring Record

The attached Daily Air Monitoring Record must be completed by the end of each work day.

## 1.I EMERGENCY CONTINGENCY PLANS

The following Emergency Contingency Plans represent the most likely emergencies to be encountered on-site. These Emergency Plans shall be followed if they have to be activated. The Site Supervisor has senior authority to implement and modify the plans to suit particular situations until a higher authority is physically on-site. All workers also carry the responsibility to initiate emergency plans if the situation presents and the Site Supervisor is not in the immediate area.

## EMERGENCY CONTINGENCY PLAN

### 1.I.1. EVACUATION

It is possible that a site emergency could necessitate evacuating all personnel from the site. If such a situation develops, the Site Safety Officer, or designated representative, shall notify the Project Supervisor, or vice versa, of the event and they shall ensure that the evacuation is carried out in a calm, controlled fashion.

All personnel shall exit the site and congregate in an area designated by the Project Supervisor and/or Site Safety Officer during the daily tailgate safety meeting. The route of evacuation will be dependent on wind direction, severity and type of incident, etc.

The Project Supervisor and/or Site Safety Officer shall ensure that all personnel are accounted for. If someone is missing the Site Safety Officer shall alert emergency personnel.

## EMERGENCY CONTINGENCY PLAN

### 1.I.2. MEDICAL EMERGENCY

The following procedures should be followed in the event of a medical emergency involving illness or injury to on-site personnel.

EMS units should be called immediately, unless the injury or illness is determined to be minor, not requiring emergency care.

Site operations should be shut-down and the site should be immediately secured. The area in which the injury or illness occurred shall be considered off-limits until the cause of the illness or injury is known.

Assess the nature of the injury or illness and insure the site is safe for additional personnel to enter and provide care to the injured/ ill person(s).

Assess the victim's condition, noting the level of consciousness and any cardiac or respiratory involvement. Administer first aid treatment to the injured person(s).

1) Check to see if the victim is conscious by talking loudly to them and gently jostling their shoulders.
2) If the victim is unconscious, check to see if they are breathing. Place an ear directly above their mouth and nose, at the same time looking toward the abdomen to watch for rise and fall of the chest cavity.
3) If the victim is not breathing, notify an EMS unit immediately, if one has not already been contacted. Administer rescue breathing if trained in this procedure, and check for a pulse.
4) If the victim is not breathing but maintains a pulse, continue rescue breathing (if trained) until the victim breathes on their own or until EMS rescue staff arrives.
5) If the victim is not breathing and has no pulse, administer Cardiopulmonary Resuscitation (if trained in this procedure) until EMS staff arrives and takes over, or until the victim recovers.

If site work has been conducted at Personal Protective Level C or higher, the victim should be decontaminated as soon as possible after removal from the contaminated environment. This should be done in a non-contaminated area well away from the source of the problem. Extreme care should be used to avoid cross-contamination to rescuer personnel. The victim should be washed by water spray or safety shower. Contaminated protective clothing should be removed after washing. The victim should be covered with plastic or fitted with a Tyvek suit. The SCBA or respirator should be removed last, except in the case of a critical injury where the victim requires respiratory support. The victim should not be transported until decontamination is performed to the degree that other personnel will not be unduly subjected to cross-contamination.

Instantaneous real-time air monitoring with photoionization detectors should be performed to ascertain if the illness or injury was caused by potential exposure to hazardous materials. Monitoring should be done both upwind and downwind of the incident site.

The Fire Department should be notified if additional help is immediately needed, or if access to water for decontamination of the victim is not available at the site.

If the victim appears to be critically injured, transport them to the nearest Emergency Room as soon as possible. The victim should not be transported to the hospital in anything other than an EMS Unit staffed by qualified personnel.

If the victim's condition appears to be non-critical, and is anything more severe than minor cuts or bruises, they can be transported to the nearest hospital in a vehicle other than a EMS Unit staffed by qualified personnel.

If the victim has sustained extremely minor injuries or a minor illness, it will be up to the discretion of the Site Safety Officer whether or not the victim should be treated on-site, and whether the victim may resume work. If the Site Safety Officer determines that the victim may not continue to work, the victim should be decontaminated and relieved of duty for the day. A physician or the victim's family physician should be contacted by the victim.

Any incident shall be documented both in the project file and on an Injury/Illness Report Form available from KAS management personnel.

## 1.I.3. ACCIDENTAL CONTAMINATION

The following procedures shall be instituted immediately in the event of contamination of any person on-site by Hazardous Materials.

If emergency rescue is needed to remove the victim from the contaminated area, notify EMS, Police, and Fire units immediately.

Absolutely no emergency rescue is to be attempted without trained emergency rescuers.

If the victim is able to move under their own power, escort them to a non-contaminated area as soon as possible.

The site should be shut-down and immediately secured. The area in which the contamination occurred shall be considered off limits until the arrival of trained personnel who are properly equipped with the appropriate personal protective equipment and monitoring instrumentation.

Assess the victim's condition for the nature of injury or contamination. The victim should be considered symptomatic if they exhibit any evidence of abnormal symptoms. Monitor the level of consciousness and any cardiac or respiratory involvement. Use special care to insure that you do not become contaminated as well. If any abnormal symptoms are present, notify EMS, Police, and Fire Department units immediately.

Attempt to identify the exact type of material involved. If the material cannot be positively identified, attempt to acquire a grab sample. Use extreme caution if the danger of being contaminated exists.

The victim should be decontaminated as soon as possible after removal from the contaminated environment. This should be done in a non-contaminated area well away from the source of the problem. Extreme care shall be taken to avoid cross-contamination. The victim should be washed by water spray or safety shower. Contaminated protective clothing should be removed after washing. The victim should be covered with plastic or fitted with a Tyvek suit. The SCBA or respirator should be removed last, except in the case of critical injury where the victim requires respiratory support. The victim should not be transported until decontamination is performed to the degree that other personnel will not be unduly subjected to cross-contamination.

If the victim appears to be critically injured (i.e. unconscious, cardiac or respiratory abnormalities, seizures, etc.), support the victim's vital functions. Administer CPR if needed.

The Fire Department should be notified if additional help is immediately needed, or, if access to water to wash and decontaminate the victim is not available at the site.

If the victim appears to be symptomatic, the victim should be decontaminated and then transported to the nearest Emergency Room or appropriate medical assistance facility as soon as possible. The victim should not be transported other than by an EMS unit staffed by qualified personnel.

The incident shall be documented both in the project file and on an Injury/Illness report form.

## EMERGENCY CONTINGENCY PLAN

1.I.4. FIRE

The following procedures shall be instituted immediately in the event of a fire on-site.

The site should be shut-down and immediately secured. The area in which the fire occurred should be considered off limits until the cause can be determined. All nonessential site personnel shall be evacuated from the site to a safe, secure area. Notify the Fire Department immediately.

The four classes of fire along with their constituents are as follows:

Class A - Wood, cloth, paper, rubber, many plastics,
ordinary combustible materials.
Class B - Flammable liquids, gases and greases.
Class C - Energized electrical equipment.
Class D - Combustible metals such as magnesium, titanium,
sodium, potassium.

Small fires on site may be actively attacked for control and extinguishing. Extreme care shall be taken while in this operation and protective clothing should be worn to protect personnel. If the fire involves hazardous materials, positive pressure self contained breathing apparatus is mandatory.

The Site Safety Officer, or his/her representative, shall be responsible for all fire fighting activities on the site until a Fire Department is present.

All approaches to the fire should be from the upwind side if possible. Distance from personnel to the fire should be close enough to ensure proper attack of the extinguishing material, but far enough away to ensure that personnel are safe. The proper extinguisher shall be utilized for the Class(es) of fire present on the site.

If possible, the fuel source should be cut off or separated from the fire. Care must be taken when performing operations involving shut-off of valves and manifolds, if present.

No attempt should be made against large fires. These should be handled by the Fire Department.

All fire extinguishers should be recharged and inspected by qualified personnel after any use. All equipment shall be properly decontaminated prior to repair/recharging.

## EMERGENCY CONTINGENCY PLAN

### 1.I.5. RELEASE OF HAZARDOUS MATERIAL

The following procedures shall be instituted immediately in the event of a spill or air release of a hazardous material on site.

Site activities should be shut down and immediately secured. The area in which the spill or release occurred shall be considered off limits until the cause can be determined and site safety can be evaluated. All nonessential site personnel shall be evacuated from the site to a safe, secure area.

The spilled or released product should be immediately identified and appropriate measures, such as dikes or berms, instituted to halt and contain the flow. If the spill extends into waterways, the Coast Guard and the National Response Center (1-800-424-8802) and appropriate State and Local Agencies should be notified immediately. Spill booms should be put in place in an attempt to curb downstream contamination.

Instantaneous real-time air monitoring with ionization and combustible gas indicators should be started. Monitoring should be performed both upwind and downwind of the spill site or release point. Results of the air monitoring will determine the appropriate level of Personal Protective Equipment.

If the released material is unknown, Level B protection is mandatory. Samples of the material should be acquired to facilitate identification of the material.

If the results of the air monitoring show that the levels of contaminants exceed immediately dangerous to life or health (IDLH) values, the site shall be immediately evacuated and the appropriate Federal, State, County, and local regulatory authorities and emergency response personnel should be notified.

Notify the Police and Fire Department immediately if contaminants are found to have migrated off site into populated areas, a large spill of flammable products is involved, or, the material is considered acutely toxic or exceeding published IDLH values.

The procedures listed above shall be instituted if there is a discovery of an acutely toxic material in much larger quantities than expected. In this case, all personnel on the site should be cleared to a safe area and briefed in a tailgate safety meeting.

The spill or release shall be reported to the appropriate Federal, State, County and Local regulatory authorities per the reporting standards of those regulatory agencies.

## 2. SITE HISTORY AND TASK DESCRIPTION

The Site is being further investigated to assess shallow soil impacts identified during the completion of a Phase II Environmental Site Assessment. Contaminants identified in soils > Vermont regulatory standard include arsenic, lead and PAHs.

## 3. WORK AREAS

Work and support areas shall be established based on ambient air data at the work sites. They shall be established in order to contain contamination within the smallest areas possible and shall ensure that each person on the site has the proper personal protective equipment for the area or zone in which work is to be performed.

Adequate safety instruction signs shall be placed in areas where admittance is restricted due to a hazardous environment.

Personnel shall not be permitted on the site alone during the following site activities:

- all work conducted in Level C or above
- Confined Space Entry activities
- trenching and pipe installation for remedial system installation
- drilling activities

Personnel in these situations shall use the "Buddy System", in groups of two or more, while on site. Non-KAS personnel (i.e., drillers, excavators) may serve in the capacity of a "Buddy" while on site conducting the above-noted activities.

Personnel may be on-site alone for Level D site activities, if Confined Space Entry activities are not in progress.

## 4. PROTECTIVE EQUIPMENT

4.A. Protective Clothing

Protective clothing shall be worn by all persons on site as directed by the Site Supervisor and/or Site Safety Officer for the job.

4.B. Personnel Protection Requirements and Methods

Action levels are those concentrations of which an upgrade in protective clothing or equipment is required. Organic vapor concentrations are to be continuously monitored in the field by use of an HNu, or a device of similar capability, with readings being taken in the breathing space occupied by the field personnel to determine whether an action level has been exceeded.

The Site Safety Officer shall designate the appropriate level of protection for personnel entering the work area as determined by the predetermined action level. It shall be the responsibility of each contractor to supply their personnel with the required personal protective equipment and to ensure that they are knowledgeable and proficient in its use. The Site Safety Officer has the authority to reject the credentials of any person and disallow their entry to the site if he/she feels that any person is insufficiently qualified or protected for the tasks at hand.

Respiratory protection shall be selected for use as warranted by breathing zone air monitoring and type of site work being performed. Levels of Protection are as follows, listed in order from highest to lowest protection:

**Level A Protection**

Level A should be selected when the highest level of respiratory, skin and eye protection is needed. Level A is generally used when extremely hazardous substances are known to be present in high atmospheric concentrations and were Level B splash gear does no offer adequate protection against any dermal-active substances present or where materials and concentrations are unknown. Level A is used where air-borne compound(s) exceeding the Immediately Dangerous to Life or Health limit may be encountered.

- Approved, positive pressure-demand, self contained breathing apparatus (SCBA) or airline
- Full encapsulating, chemical-resistant clothing
- Gloves (outer/inner), chemical resistant
- Chemical-resistant disposable outer-boot coverings,
- Boots with toe and shank protection
- Hard hat
- All seams between protective clothing items will be sealed with duct tape
- Two-way radio communications

**Level B Protection**

Level B should be selected when the type and atmospheric concentrations of substances have been identified and the highest level of respiratory protection is required, but a lesser level of skin protection is needed. Generally Level B protection is used in situations where the chemical(s) is known, the atmosphere is oxygen deficient (less than 19.5%), no IDLH concentrations of substances which pose a respiratory hazard are present, or where dermal contact with a hazardous substance is unlikely.

- Approved, positive pressure-demand, self contained breathing apparatus (SCBA) or airline
- Chemical-resistant clothing
- Gloves (outer/inner), chemical resistant
- Chemical-resistant disposable outer-boot coverings

- Boots with protective toe and shank
- Hard hat
- All seams between protective clothing items will be sealed with duct tape

**Level C Protection**

Level C should be selected when the type of air contaminants have been identified, concentrations have been measured, and the criteria for using air-purifying respirators are met, and skin-exposure to dermal-hazardous compounds are not expected. Appropriate cartridges must be available removal of the subject contaminant(s) to be encountered. The atmospheric concentration of oxygen must be greater than and equal to 19.5% (but not in-excess of 23%). Use of Level C requires continuing measurement of air contaminants to ensure that IDLH concentrations do no exist and that the concentrations of the contaminants present do not exceed the service limits of the respirator.

- Approved, full face or half-face air purifying, cartridge/canister-equipped respirator
- Chemical-resistant clothing
- Gloves (outer/inner), chemical resistant
- Chemical-resistant disposable outer-boot coverings,
- Boots with protective toe and shank
- Hard hat
- All seams between protective clothing items will be sealed with duct tape

**Level D Protection:**

Level D should be selected when the contaminants are known, when airborne contaminant levels are below appropriate TLV limits, and there is no hazard for direct skin contact. At a minimum, Level D protection shall require use of the following protective equipment.

- Standard work uniform
- Substantial boots
- Goggles or safety glasses w/ side shields
- Latex gloves
- Chemical resistant outer gloves are required for work tasks involving contact with pure petroleum products.

In addition, certain work site tasks will require additional personal protective equipment to protect against injury around heavy machinery and overhead hazards, as well as potential splash hazards. These tasks will be conducted in **Level D Plus protection**

**Level D Plus**

- all PPE listed for Level D above
  except boots must have protective toe and shank

- hard hat

No person may be assigned a task requiring the use of respiratory protection equipment without first being properly trained in its use and limitations and having passed the appropriate OSHA physical. Before the wearing of any respiratory protection equipment is permitted, the wearer must first complete a fit test, and must be completely aware of fitting procedures.

No person may be assigned a task requiring the use of respiratory equipment where it has been determined that that person has a physical limitation which might result in injury in conjunction with respiratory equipment use.

All respiratory equipment shall be properly fitted to worker(s) who will be using such equipment. All equipment shall be properly cleaned and inspected for work parts as often as necessary. SCBA's should be inspected once a month at a minimum. All respiratory equipment shall be cleaned and a fit test shall be satisfactorily passed before being worn by a different operator.

Any persons wearing glasses who must wear respiratory equipment must wear short-templed or no-templed glasses which may be taped to the wearers face, to prevent interference with the respiratory face piece.

Applicable protective clothing shall be selected and worn at all times by personnel exposed to, or in areas suspected of, contamination.

4.C. Action Levels

All initial site access and activities will be done in Level D attire.

4.C.1. Photoionization Detector Response in breathing zone (ppm):

0 to 100: Level D
101 to 750: Level C
751 to 10,000: Level B or A
Above 3,000: Immediately vacate the area

4.C.2. Combustible Gas Response

0.0 to 20.0% LEL: Continue with normal activity
Above 20.0% LEL: Immediately vacate the area

Note: Confined Space activities have lower LEL levels.
See KAS Confined Space Plan for levels.

4.C.3. Oxygen Detector Response

0.0 to 19.5% Oxygen: Level B is mandatory
19.5% to 23.0% Oxygen: Continue with normal activity
Above 23.0% Oxygen: Immediately vacate the area

4.D. Decontamination Procedures

Where high levels of site contamination are discovered such that respiratory, skin and eye protection are necessary, decontamination will be required. The support area will be positioned so that no one is permitted to enter or leave without passing through the decontamination station. At the boundary between the work and support areas, decontamination processes for equipment and personnel are required. All access to and from the work area will be through this section of the support area.

Decontamination shall be performed to protect workers from exposure to dangerous materials and to eliminate the hazard of contamination on equipment.

All water used in decontamination procedures, which is not treated at the site, shall be stored in portable storage tanks, until disposal takes place.

At each work location reusable sampling and personal protective equipment shall be decontaminated prior to sampling, between each sample, and after sampling. Sampling equipment shall be decontaminated by steam cleaning or washing with a mixture of Alconox and water, then rinsed twice with distilled water and allowed to air dry. All decontamination solutions shall be disposed at the work station where they were generated. Disposable sampling and personal protective equipment will be placed in plastic bags and temporarily stored in designated drums. These drums shall be disposed of according to regulatory guidelines.

The sequence of steps for removing and cleaning personal protective equipment follows:

Wash gloves, boots, and outer disposable coveralls
Rinse work gloves, boots, coveralls
Remove outer boots (if used) and outer gloves
Remove hard hat
Remove disposable coveralls
Remove respirator or masks
Wash respirator
Package and/or dispose of respirator or filters
Dispose of all contaminated items in properly labeled drums
If necessary, copy notes from contaminated paper onto clean paper while wearing inner gloves (surgical gloves) at decontamination station area.
Remove latex gloves
Dispose of latex gloves and contaminated note paper
Wash hands and face.

## 5. SAFETY EQUIPMENT

5.A. Color Code

5.A.1. Red

Red shall be used to identify fire equipment; identify containers of flammable materials; stop bars/buttons on mechanical machinery used for emergency power disconnection.

5.A.2. Yellow

Yellow shall be used as the basic color for identifying caution. Physical hazards shall be marked by yellow signs.

5.B. Warnings and Notifications

Signs and tags shall be of a design in accordance with 29 CFR 1910.145.d. Specific signs designated in this section are danger, caution, slow-moving vehicle, biological hazard, and safety instruction. Signs shall be worded in a clear, concise manner.

Tags shall be used for temporary situations, to warn of broken equipment or other similar hazard. Temporary hazards should be remedied as quickly as possible. Tags will be designed in accordance with 29 CFR 1920.145.f-2.

5.C. Communications for Entry Into Hazardous Areas

Where large distances may separate workers or in extremely dangerous areas, a communication network shall be established. The use of hand signals may be employed in close areas where portable radios are inconvenient, or unavailable.

## 6. FIRE PREVENTION

### 6.A. General Considerations

Fire prevention and protection techniques shall be instituted on-site to minimize sparks. All smoking and utilization of tools requiring open flames will be used only with the express permission of the Site Safety Officer. A fire extinguisher must be maintained in the immediate vicinity of the open-flame work. Emergency procedures in case of fire shall be discussed with workers before every new work area location or new work activity begins. Diagrams of emergency routes shall be displayed in the work areas and in areas and any other areas where workers will break from work activities.

Only Fire Marshall approved metal safety cans will be used to transport and store flammable liquids.

All gasoline and diesel-driven engines requiring refueling must be shut down and allowed to cool before filling.

No open flame or spark is allowed in any area containing flammable liquids.

### 6.B. Explosive Gas Survey

Before new work locations are entered in which the there is a probability for the buildup of explosive vapors, an explosive gas survey shall be conducted. If there are no explosive gases or vapors, work activities may commence. If explosive levels are registered, then work activities shall stop and workers moved out of the immediate work area. Work shall not begin until explosive levels are no longer registering on the meter or the source of the explosive gases are found and corrected. During work activities, monitoring for explosive vapors shall be continuous.

## 7. ON-SITE MEDICAL PROVISIONS

### 7.A. Accident Reporting

When an emergency situation occurs, a warning procedure shall be initiated by the first person to recognize the situation. As appropriate, EMS, Fire, and Police Departments shall be notified immediately. In the event of an accident or injury of any type on-site, a report of the incident shall be completed immediately after appropriate first aid has been rendered. The Site Supervisor shall be responsible for remedial plan of action and for completing an injury report.

7.B. First Aid

A first aid kit shall be located on site. It shall be the responsibility of the Site Supervisor/Safety Officer to notify all personnel as to the location and proper use of these items.

Vehicles used for site work shall be equipped with a first aid/safety kit and safety equipment.

7.C. Heat Stress

Heat stress may be of concern depending upon the ambient temperature. The heat stress of personnel on-site shall be monitored continually when heat stress potential is evident.

One or more of the following control measures can be used to help control heat stress:

Adequate replacement of lost body fluids. Personnel must replace water and salt lost from sweating. Personnel must be encouraged to drink more than the amount required to satisfy thirst. Thirst satisfaction is not an accurate indicator of adequate salt and fluid replacement.

Replacement fluids can be a 0.1% salt water solution, a commercial mix or a combination of these and fresh water.

Establishment of a work regimen that will provide adequate rest periods for cooling down.

All breaks are to be taken in cool areas.

Personnel shall remove impermeable protective garments during rest periods.

Personnel shall not be assigned other tasks during rest periods.

All personnel shall be informed of the importance of adequate rest, acclimatization and proper diet in the prevention of heat stress.

<u>Heat Stress Monitoring</u>

Heat stress may occur even in moderate temperatures and may present heat rash, heat cramps, heat exhaustion, and/or heat stroke.

Monitoring procedures shall be implemented to prevent heat stress arising from any of the following: environmental conditions, use of personal protective equipment, intensity of workload. Such procedures may include the following:

| Signs and Symptoms of Heat Stress | Treatment |
|---|---|
| Heat rash<br>- red rash on the skin | Increase fluid intake |
| Heat cramps<br>- muscle spasms<br>- pain in the hands, feet, and abdomen | Rest in cool areas |
| Heat exhaustion<br>- pale, cool moist skin<br>- heavy sweating<br>- dizziness, nausea, fainting | Loosen clothing<br>Apply cool water to skin surfaces |
| Heat stroke<br>- red, hot, usually dry skin<br>- lack of or reduced perspiration<br>- nausea<br>- dizziness and confusion<br>- strong, rapid pulse<br>- coma | Transport to nearest hospital if symptoms are not reversed by the above listed measures; |

7.D. Cold Stress

If the project is conducted during cold weather, cold stress must be addressed.

Persons working outdoors in temperatures at or below freezing may become frostbitten. Extreme cold, even for a short time, may cause severe injury to the surface of the body, or result in profound generalized cooling, causing death. Areas of the body which have high surface-area-to volume ratios such a fingers, toes, and ears are the most susceptible.

Two factors heavily influence the development of a cold injury; ambient temperature and the velocity of the wind. Wind chill is used to describe the chilling effect of moving air in combination with temperature. For instance, 10 degrees F., with a wind of 15 miles per hour is equivalent in chilling effect to still air at least 18 degrees below zero.

As a general rule, the greatest incremental increase in wind chill occurs when a wind of 5 mph is increased to 10 mph. Additionally, water conducts heat 240 times faster than air. Thus, the body cools suddenly when chemical-protective equipment is removed if the clothing underneath is perspiration soaked.

Local injury resulting from cold is generally termed frostbite. Frostbite of the extremities can be categorized into:

Frost nip or initial frostbite: characterized by sudden blanching or whitening of the skin.

Superficial frostbite: skin has a waxy or white appearance and is firm to the touch, but tissue beneath is resilient.

Deep frostbite: tissues are cold, pale and solid; extremely serious injury.

Systematic hypothermia is caused by exposure to freezing or rapidly dropping temperature. Its symptoms are usually exhibited in five stages: shivering, apathy/listlessness, unconsciousness/slow responses, freezing of the extremities, death.

Thermal socks, long poly or thermal underwear, hard hat liners and other cold weather gear can aid in the prevention of hypothermia. Cotton should be avoided due to its moisture retention characteristics.

Blankets, warm drinks (other than caffinated coffee) and warm break areas are essential.

The overall goal is to keep from getting wet. If one does get wet, he/she should dry off and change clothes.

7.E. Emergency Notification

A list of all State and Local Police, Ambulance, and Rescue Departments and a listing complete with routes to all hospitals and emergency facilities shall be maintained by the Site Safety Officer (see Section 1 of this HASP). The list must include phone numbers and quickest routes to appropriate emergency facilities. The Site Safety Officer shall also contact the hospitals or emergency treatment center and inform them of an injured worker. Advice on the transportation method, and if necessary, decontamination or treatment shall be offered.

Facilities to be posted on the site are listed below.

Police Department
Fire Department
EMS Unit
Hospital

## 8. AIR QUALITY/AMBIENT AIR MONITORING

8.A. Preliminary Survey

All air monitoring will be conducted by a trained professional. The professional shall have adequate working experience. He/she will have a sound working knowledge of State and Federal Occupational, Safety and Health regulations, and formal training in occupational safety and health. The preliminary survey will be conducted using one or more of the following portable real-time instrumentation:

Photoionization Detector
Explosimeter
Oxygen Meter
Draeger type tube

8.B. Daily Surveys

Ambient air monitoring shall be conducted throughout the duration of all operations on site. A minimum of five locations around the perimeter of the site will be established and actively monitored during operations.

In the event that daily air analyses determine that ambient air quality exceeds recommended levels for the respiratory equipment utilized, the Project Site Supervisor/Site Safety Officer shall be notified immediately. The Project Site Supervisor/Site Safety Officer shall immediately inspect operating conditions at the site and attempt to determine the cause of the elevated levels in the ambient air. The Project Site Supervisor/Site Safety Officer may require changes in the operating procedures in order to reduce or eliminate elevated conditions.

In the event elevated levels persist after several attempts to reduce such levels, the Project Site Supervisor shall immediately stop all operations at that location and either remove workers from the location until conditions are improved or a higher level of PPE is employed.

Ambient air monitoring will be continued until safe levels are assured.

This program will be conducted and monitored by the Site Safety Officer or his/her designee. All equipment utilized for sampling shall be maintained and calibrated and shall be documented and included in project record documents.

8.C. Records

Accurate records shall be kept of all air monitoring results. These records should include date, time, place of sample, air temperature, weather conditions, and a physical

description of any obvious hazards that may influence the results of the tests. These records shall be maintained as part of the permanent job records by KAS, Inc.

8.D. Hazard Assessment

Personnel present on-site shall be advised of all potential hazards associated with the substances that are present.

The following are physical and chemical parameters of typical gasoline:

| | |
|---|---|
| Specific Gravity 60/60 deg. F | 0.72 to 0.76 |
| ODOR T. - Odor Threshold | Approximately 10 ppm |
| FL-P - Flash Point | - 50 F |
| Flammability Limit - Lower | 1.3 % |
| Flammability Limit - Upper | 6 % |

*Source: The Merck Index, 10th Ed., 1983, Merck & Co., Inc., Rahway, NJ.*
Physical parameters of other petroleum products are presented in the Material Safety Data Sheets (MSDSs) included in Appendix A of this HASP.

The following are air quality limits for **gasoline** obtained from the MSDSs included in Appendix A.

| | |
|---|---|
| TLV-TWA - Threshold Limit Value, Time-Weighted Average | 300 ppm |
| TLV-STEL - Threshold Limit Value, Short-Term Exposure Limit | 500 ppm |
| MUC – Maximum Use Concentration (OV Cartridge) | 3,000 ppm |

*Sources: VOSHA Table Z-1-A Limits for Air Contaminants Final Rule Limits, at http://159.105.83.167/Portals/0/WP%20Safety/VTPELs.pdf; ACGIH 2004*

*Slippery Surfaces:*

Skid proof soles are highly recommended.

*Organic Vapors:*

The inhalation of volatile organic vapors during any operation can pose a potential health hazard. Hazard reduction procedures include monitoring the ambient air with a PID and use of appropriate PPE. Workers should stand upwind of the source of contamination whenever possible. If ambient air levels in the breathing zone exceed the limits specified in Section 4C of this HASP, upgrades in PPE must be immediately undertaken.
*Flammable Vapors:*

Presence of flammable vapors can pose a potential fire hazard and health hazard. Hazard reduction procedures include monitoring the ambient air with an O2/LEL meter. If the LEL reading exceeds 20%, leave the site immediately and contact the Fire Department.

*Oxygen:*

Atmospheres that contain a level of oxygen greater than 23% pose an extreme fire hazard (the usual ambient oxygen level is approximately 20.5%). This hazard can be compounded by the fact that vapors typical of gasoline retailing facilities are highly flammable. All personnel encountering atmospheres that contain a level of oxygen greater than 23% must evacuate the site immediately and must notify the fire department. If oxygen level is less than 19.5%, do not enter the space.

*Vehicular Traffic:*

When working on or near traveled ways, all personnel will be required to wear a fluorescent safety vest. In addition, the following safety equipment procedures must be adhered to for day time work. To secure an ongoing work site overnight in a heavy traffic area, appropriate lighted barricades must be used.

| TASK | TRAFFIC SAFETY EQUIPMENT |
|---|---|
| Soil boring samples | A |
| Drilling | A |
| Subsurface Entry | A |
| Well Installation | A |
| Well Maintenance | B |
| Well Survey | B |
| Well Gauging | B |
| Well Development | B |
| Sampling | B |
| Pump Test | B |
| Excavation | A |

Safety Equipment Key :

A = Cones and barricades required- tapes and flags are recommended but optional.
B = Cones are required - flags are recommended but are optional.

*Well Installation; Well Development; Well Gauging; Well Bailing; Soil & Groundwater Sampling:*

Skin and eye contact with contaminated groundwater and/or soil may occur during these tasks. Nitrile or Viton gloves and approved safety goggles should be worn when contact with contaminated substance and/or splash is possible. This PPE will be worn at the discretion of the Site Safety Officer, dependent on the task.

*Sample Preservation:*

When hydrochloric acid is used, skin and eye contact can occur. This hazard can be reduced with the use of Nitrile or Viton gloves and the use of safety goggles or glasses.

*Cleaning Equipment:*

Skin and eye contact with methanol, Alconox, or other cleaning substances can occur while cleaning equipment. This hazard can be reduced with the use of Nitrile or Viton gloves and the use of goggles or glasses.

8.E. Engineering Controls

Where feasible, engineering controls shall be the primary means utilized to maintain containment exposure within the limits prescribed to be safe.

## 9. SITE SECURITY

The Project Site Supervisor shall be responsible for the management of any security implemented at the site. Access to the site shall be at the discretion of the Site Supervisor.

No visitors shall be allowed without the approval of the Project Supervisor. Visitors shall not be permitted to enter known or suspected active hazardous work areas without proper indoctrination by the Site Safety Officer and Project Supervisor.

## 10 . PROGRESS MEETINGS/PERSONNEL TRAINING

10.A. Tailgate Safety Meetings

Tailgate safety meetings shall be held at the beginning of each shift at a central location in a non-contaminated area. All ongoing activities shall be discussed, and air monitoring results will be presented. Safety measures shall be reviewed to ensure all employees are aware of all precautionary methods and emergency procedures.

10.B. Orientation/Indoctrination

Orientation and Indoctrination of all new personnel shall be conducted by the Project Site Supervisor/Site Safety Officer before new workers are allowed access to the work area. The indoctrination shall include discussion of work activities, chain of command, respiratory protection program, emergency work exits and any other applicable information governing everyday work activities.

10.C. Training

All personnel are required to be trained in the following areas of health and safety awareness:

*Basic Safety*: this includes cause and prevention of slip, trip and fall hazards, safe drum handling and opening techniques, safe lifting techniques, heat stress illness and its prevention, etc.

*Hazardous Protection*: dealing with the identification, recognition and safe work procedures for toxic materials. This would include having knowledge of the use and limitation of applicable protective clothing, respirators, and decontamination procedures. Respirator fit tests for all personnel required to use respirators fall under this category. Information pertaining to routes of exposure, toxic effects, and specific nature of the job which could result in exposure shall be conveyed at this time.

10.D. Worker and Community Right-To-Know

The following contaminants have been identified, or are suspected, in either groundwater or soil samples as being in excess of prescribed limits:

Unleaded Gasoline
Leaded Gasoline
Kerosene
Diesel Fuel
Waste Oil

Health Effects:

Potential health effects from a chemical exposure are dependent on several exposure factors such as: toxicity of substances, duration of exposure, concentration during exposure and the overall health of the person exposed.

The chemicals or chemical constituents potentially contaminating this site are: Gasoline, Benzene, Toluene, Ethyl benzene, and Xylene and methyl tert-butyl ether. The following is a health analysis of these chemicals. Additional information on these chemicals can be found in the generic Material Safety Data Sheets attached in Appendix A.

*Gasoline* constituents can be divided into five major groups: alkanes, alkenes, cycloalkanes, aromatics and additives. The aromatics are the constituents generally regarded to be of greatest toxic concern. The major aromatics in gasoline are benzene, toluene, ethyl benzene and xylene. Of these, benzene is considered to be the most toxic. One characteristic effect of gasoline and its aromatic constituents is their ability to irritate the skin when repeated or prolonged exposure occurs.

*Benzene*
Benzene can enter the body through inhalation, ingestion and skin contact. Studies have noted that chronic exposure to benzene vapor can produce neurotoxic and hematopoietic (blood system) effects. Other effects can include headache, dizziness, nausea, convulsions, coma and possible death if exposure is not reversed. One significant effect from chronic benzene exposure is bone marrow toxicity. There is also an association between chronic exposures to benzene and the development of certain types of leukemia. OSHA lists benzene as a human carcinogen.

*Toluene*
Inhalation exposure to toluene vapor can produce effects such as central nervous system depression. Depending on exposure factors signs and symptoms can include headache, dizziness, fatigue, muscular weakness, in coordination, drowsiness, collapse and possible coma. Toluene can be a skin and mucous membrane irritant and studies have shown that high levels of toluene exposure can cause liver and kidney damage.

*Xylenes*
Depending on exposure factors, inhalation exposure to xylene vapor may produce central nervous system excitation followed by depression. Exposure to xylene vapor may produce lung irritation, nausea, vomiting and abdominal pain. Xylene is not known to possess the chronic bone marrow toxicity of benzene, but liver enlargement and nerve-cell damage have been noted from chronic overexposure.

*Ethyl Benzene*
Exposure to ethyl benzene at high vapor concentrations may produce irritation to the skin, eyes and upper respiratory tract. Overexposure to ethyl benzene vapors can produce central nervous system depression with symptoms of headache, nausea, dizziness, shortness of breath and unsteadiness. Prolonged skin exposure to ethyl benzene may result in drying and cracking of the skin (dermatitis).

*Methyl tertiary Butyl Ether (MTBE)*
Exposure to ethyl benzene at high vapor concentrations may irritate respiratory tract. Causes central nervous system effects. Breathing high concentrations in air can cause

lightheadedness, dizziness, weakness, nausea, headache. Liquid is slightly irritating to the skin.

Any person needing specific information on any of the chemicals listed above should contact the Site Safety Officer. They will be provided in accordance with OSHA 29 CFR 1910.1200.

## 11. CONTRACTOR/VISITOR COMPLIANCE

All EPA, State and Federal regulations shall be adhered to by contractors and visitors during excavation, disposal and construction operations or any other site operation.

## 12. OCCUPATIONAL NOISE

Requirements set forth in the OSHA Hearing Conservation Amendment (OSHA 1910.95) shall be adhered to during work on-site. Hearing protection shall be provided where sound pressure levels exceed 85 dBA, 8 hours per day, 90 dBA, 4 hours per day. Hearing protection shall be required where sound pressure levels exceed 90dBA. Hearing Protection shall be worn during all rotary drilling operations.

## 13. HEAVY EQUIPMENT OPERATIONS AND HEAVY MATERIALS HANDLING SAFETY

The following information warrants extra attention regarding work around heavy equipment (drilling rigs, front and back hoe loaders, etc.) and heavy materials:

Use common sense

Hard hats shall be worn at all times on-site

Pay attention at all times

Maintain visual contact at all times

Establish hand signal communication when verbal communication is difficult. Designate one person per work group to give hand signals to equipment operators.

Be aware of footing at all times

All heavy equipment shall have backup alarms of some type

Only qualified people are to operate heavy equipment

Use chains, hoists, straps, and any other equipment to safely aide in moving heavy materials

Never walk directly in back of, or to the side of, heavy equipment without the operator's knowledge

Never use a piece of equipment unless you are familiar with its operation

Pipe sections and other materials to be removed during any project may be extremely heavy. Make sure all precautions have been taken prior to moving. Let the equipment, not your body, do the moving.

Be sure that no underground or overhead power lines, sewer lines, gas lines, or telephone lines will present a hazard in the work area

Get help whenever you are in doubt about a material's weight. Use the "Buddy System"

Ensure that compressed air bottles are secured properly at all times.

## 14. PLAN ACKNOWLEDGMENT

All on-site workers, regardless of their affiliation, are required to have read this entire Health and Safety Plan, and must sign the accompanying form to acknowledge this.

## 15. SITE SAFETY PERSONNEL RESPONSIBILITIES

The responsibilities of all personnel involved in health and safety operations are stated below:

KAS, Inc. will oversee and act accordingly during all phases of the project. The following management structure will be used.

**Project Manager**:(If required by work scope)
The Project Manager shall be responsible for implementing the project and obtaining any necessary personnel or resources for the completion of the project. Specific duties will include:

coordinating the activities of all subcontractors, to include informing them of the required personal protective equipment and insuring their signature acknowledging this Site Safety Plan,

selecting a Site Safety Officer and field personnel for the work to be undertaken on site,

ensuring that the tasks assigned are being completed as planned and on schedule,

providing authority and resources to ensure that the Site Safety Officer is able to implement and manage safety procedures,

preparing reports and recommendations about the project to clients and affected KAS personnel,

ensuring that all persons allowed to enter the site (i.e., EPA, Contractors, State Officials, visitors) are made aware of the potential hazards associated with the substances known or suspected to be on site, and are knowledgeable as to the on-site copy of the specific site safety plan.

ensuring that the Site Safety Officer is aware of all of the provision of this site safety plan and is instructing all personnel on site about the safety practices and emergency procedures defined in the plan, and

ensuring that the Site Safety Officer or the Site Safety Officer's designee is making an effort to monitor site safety.

**Site Safety Officer**

The Site Safety Officer shall be responsible for the overall coordination and oversight of the site safety plan. Specifically:

approving the selection of the types of (PPE) to be used on site for specific tasks,

evaluating weather and chemical hazard information and making recommendations to the Project Manager/Site Supervisor about any modifications to work plans or personal protection levels in order to maintain personal safety,

coordinate upgrading or downgrading PPE with Site Safety Officer, as necessary, due to changes in exposure levels, monitoring results, weather, other site conditions,

approving field personnel for work on-site, taking into consideration their level of safety training, their physical capacity, and their eligibility to wear the protective equipment necessary for their assigned tasks,

overseeing the air monitoring procedures as they are carried out by site personnel for compliance with all company health and safety policies,

monitoring the compliance of field personnel for the routine and proper use of the PPE that has been designated for each task,

routinely inspecting PPE and clothing to ensure that it is in good condition and is being stored and maintained properly,

stopping work on the site or changing work assignments or procedures if any operation threatens the health and safety of workers or the public,

monitoring personnel who enter and exit the site and all controlled access points,

reporting any signs of fatigue, work-related stress, or chemical exposures to the Project Manager and/or Site Supervisor,

dismissing field personnel from the site if their actions or negligence endangers themselves, co-workers, or the public, and reporting the same to the Project Manager and/or the Site Supervisor,

reporting any accidents or violations of the site safety plan to the Project Manager and/or the Site Supervisor, and documenting the same for the project in the project records,

knowing emergency procedures, evacuation routes and the telephone numbers of the ambulance, local hospital, poison control center, fire and police departments,

ensuring that all project-related personnel have signed the acknowledgments form contained in this site safety plan,

coordinate upgrading and downgrading PPE , as necessary, due to changes in exposure levels, monitoring results, weather, and other site conditions, and

perform air monitoring with approved instruments in accordance with requirements stated in this Site Safety Plan.

**Site Supervisor**
In the event that the Project Manager and the Site Safety Officer are not on site, the Site Supervisor shall assume all their responsibilities and authority.

**Other Field Personnel**
All field personnel shall be responsible for acting in compliance with all safety procedures outlined in the Health and Safety Plan. Any hazardous work situations or procedures shall be reported to the Site Safety Officer so that corrective steps can be taken.

## 16. CONFINED SPACE ENTRY

The reader is referred to the KAS Permit-Required Confined Spaces Program on file at KAS offices for more details on confined space entry protocols. A confined space:

a) is large enough and so configured that a person can bodily enter and perform assigned work; and
b) has limited or restricted means for entry or exit (for example, tanks, vessels, silos, storage bins, hoppers, vaults, and pits are spaces that may have limited means of entry); and
c) is not designed for continuous occupancy.

Included within this definition are excavations, storage tanks, impoundment, soils, pipelines, pits and vaults.

All personnel are urged to use caution in identifying any of the area listed above to their immediate Supervisor, and, to plan their approach to operations conducted in these areas to be in compliance with KAS's Confined Space Plan.

All personnel are urged to use all engineering controls possible to avoid entering these areas. Examples of this would include using remote sampling equipment, or, using a contractors back hoe bucket to collect soils for sampling, rather than personnel entering the excavation. Entry into a confined space is defined as breaking the plane of the opening to the confined space with any part of the body.

## 17. DRILLING SAFETY

During the drilling operation (2) persons designated as "driller" and "helper" must be present on the rig at all times.

The immediate area around the rig shall be cordoned off with temporary barricades, fencing or cones to assist in preventing unauthorized entry.

Only personnel authorized by KAS are to be allowed within the area of drilling. If any unauthorized personnel enter the work area, KAS will shut down operations until the area is cleared.

The mast of the drilling rig must maintain a minimum clearance of 20 feet from any overhead electrical cables. The drilling rig must not be moved from its set up position without first putting down the mast.

All drilling operations shall cease immediately during any electrical storms.
KAS, Inc. retains sole authority to shut down the drilling operations at any time a hazardous situation is deemed present.

## 18. EXCAVATING/TRENCHING SAFETY

All excavation and trenching work must comply with all safety regulatory agency rules. Prior to any excavation work, the existence and location of underground pipe, electrical conductors, etc. must be determined. The walls and spaces of all excavations more than four (4) feet deep or excavated below a building footing or foundation shall be guarded properly by shoring, sloping of the ground, or equivalent means.

Maximum Allowable Slopes are specified by OSHA for various soil types in 29 CFR Part 1926, Subpart P.

| Soil/ Rock Type | Maximum Allowable Slope (H:V) for Excavations less than 20 ft | |
|---|---|---|
| Stable Rock | Vertical | (90 degrees) |
| Type A | 3/4:1 | (53 degrees) |
| Type B | 1:1 | (45 degrees) |
| Type C | 1.5:1 | (34 degrees) |

Type A soils: clays, silty clays, sandy clays, clay loam, and cemented soils (caliche, hardpan)
Type B soils: silt, silt loam, sandy loam, unstable dry rock
Type C soils: granular soils including gravel, sand, and loamy sand; submerged, unstable soil or rock

Daily inspections of excavations shall be made. If there is evidence of possible cave-ins or slides, all work in the excavation shall cease until the necessary safeguards have been taken.

Trenches more than four (4) feet deep shall have ladders or steps located so as to require no more than 25 feet of lateral travel between means of access.

All equipment such as pipe, tools, etc. shall be kept out of traffic lanes and access ways. Equipment shall be stored to prevent danger to personnel at any time.

Trenches shall be completely guarded on all sides in areas where pedestrian and vehicular traffic is expected. A minimum of two (2) feet from the edges will be maintained. Trench guarding shall consist of wooden, metal, or heavy plastic barricades. Such barricades shall not be less than 36 inches high when erected.

Battery-lighted barricades shall be used to secure trenched areas left open overnight, as follows:

A minimum of two (2) battery-lighted barricades shall be used at corners, one on either side of the barricades.

At least one (1) battery-lighted barricade shall be used where vehicular traffic approaches the trench at the right angles.

Where trenches parallel roadways the distance between battery-lighted barricades should not exceed 40 feet.

All battery-lighted units should be regularly serviced to ensure equipment is operating.

Protection between barricades shall consist of at least 3/4 inch wide nylon tape (yellow or yellow and black). The tapes shall be stretched between barricades.

All barricaded sections immediately adjacent to where pedestrians cross trenches shall be guarded with a minimum of 2 by 2 inch wooded rails from the bridge to the first adjacent barricade. This barricade shall not be less than eight (8) feet horizontally to the top of the first barricade.

All pedestrian bridges shall be of sufficient strength to prevent no greater vertical deflection than 1/2 inch when a 250 pound weight is applied to the center of the bridge.

Handrails shall consist of an intermediate and top rail on both sides of the bridge. The top rail shall be a minimum of 42 inches high and capable of withstanding a lateral force of 200 pounds against the center of the top rail.

All surfaces which a person could reasonably contact should be sufficiently free of splinters, nails, or protrusions which may cause injury.

All bridges intended for vehicular traffic shall be constructed to withstand twice the load of the heaviest vehicle anticipated.

All trenches shall be back filled as soon as practical after work is completed and all associated equipment removed.

## 19. ELECTRICAL SAFETY

All electrical equipment and power cables in and around wells or structures suspected of containing chemical contamination must be equipped with a three-wire, ground lead. In accordance with OSHA 29 CFR 1926.404, approved ground fault circuit interrupters (GFCI) must be used for all 120 volt, single phase, 15 and 20 ampere receptacle outlets on the site which are in use by personnel and which are not part of the permanent wiring as defined by the NEC 1987.

The GFCI is a fast-acting circuit breaker which senses small imbalances in the circuit caused by current leakage to ground, and in a fraction of a second shuts off the electricity. However, the GFCI will not protect personnel from line-to-line contact hazards (such as a person holding two "hot" wires or a hot and neutral wire in each hand). The GFCI provides protection against the most common form of electrical shock hazard, the ground fault.

GFCIs can be used successfully to reduce electrical hazards on construction sites. Tripping of GFCIs, interruption of current flow, is sometimes caused by wet connectors and tools. It is good practice to limit exposure of connectors and tools to excessive moisture by using watertight or sealable connectors. Providing more GFCIs or shorter circuits can prevent tripping caused by the cumulative leakage from several tools or by leafages from extremely long circuits. (Adapted from OSHA 3007; Ground-Fault Protection on Construction Sites, 1987).

Electrical cords shall be inspected thoroughly prior to each work day for fraying of or damage to the cord. Electrical cords which are frayed or damaged will be permanently removed from service.

# Appendix F

# Cost Estimate

**Old White Meeting House - CAP Implementation Cost Estimate**

Install 18" soil cap in a 8' radius around the building. Replace removed hardscape with a combination of 18 inches of gravel, clean fill, and topsoil

March 13, 2026

| | |
|---|---|
| Cubic Yards (Lead Urban background - 18") | 84 |
| Tons ( Lead - Urban Background - 18") | 126 |
| Trucks (Lead- Urban Background - 18") | 5 |

KAS# 510210643
SMS# 2024-5472

Work Scope:
1. See CAP for associated work scope.

Assumptions:
1. Costs from excavating and Biogene billed directly to The Town of South Hero. If costs billed to KAS, 10% markup will be added.
2. Disturbed area around building will be replaced with 18 inches of gravel, clean fill and topsoil
3. Excavation labor and materials not included since the work would be completed during the planned redevelopment.
4. Soils beneath the building are not contaminated
5. Soil excavated for disposal containts lead < 1000 ppm Pb. If lead concentrations are > 1000 ppm Pb disposal costs will be $195 / ton

| WORK ELEMENT | CATEGORGY | QTY | UNITS | RATE | ELEMENT COST | WITH O/H 10% | TOTAL COST | TASK COST |
|---|---|---|---|---|---|---|---|---|
| **TASK 1: FINAL DESIGN / SITE PLANNING** | | | | | | | | |
| KAS PROJECT COORDINATION / BID SUPPORT | PROJECT MANAGER | 4.0 | HR | $115.00 | $460.00 | | $460.00 | |
| KAS FINAL DESIGN / BID SUPPORT | ENGINEER | 4.0 | HR | $135.00 | $540.00 | | $540.00 | |
| KAS PRINCIPAL REVIEW | PRINCIPAL | 1.0 | HR | $135.00 | $135.00 | | $135.00 | |
| KAS CONTRACTOR PREP / COORDINATION | PROJECT MANAGER | 4.0 | HR | $115.00 | $460.00 | | $460.00 | **$1,595.00** |
| **TASK 2: MONITORING WELL AND SOIL GAS POINT ABANDONMENT** | | | | | | | | |
| PROJECT COORDINATION | PROJECT MANAGER | 1.0 | HR | $115.00 | $115.00 | | $115.00 | |
| KAS LABOR: MOBE | PROJECT MANAGER | 1.0 | HR | $115.00 | $115.00 | | $115.00 | |
| KAS LABOR: ON-SITE | FIELD TECHNICIAN | 8.0 | HR | $80.00 | $640.00 | | $640.00 | |
| KAS LABOR: DEMOBE | FIELD TECHNICIAN | 1.0 | HR | $80.00 | $80.00 | | $80.00 | |
| MILEAGE | EXPENSE | 42.0 | MILE | $0.725 | $30.45 | | $30.45 | |
| HAMMER DRILL | EQUIPMENT | 1.0 | DAY | $200.00 | $200.00 | | $200.00 | |
| IP | EQUIPMENT | 1.0 | DAY | $55.00 | $55.00 | | $55.00 | |
| GENERATOR | EQUIPMENT | 1.0 | DAY | $75.00 | $75.00 | | $75.00 | |
| BETONITE | EQUIPMENT | 5.0 | BAG | $12.00 | $60.00 | | $60.00 | **$1,370.45** |
| **TASK 3: SOIL EXCAVATION / SOIL CAPPING** | | | | | | | | |
| PROJECT COORDINATION | PROJECT MANAGER | 10.0 | HR | $115.00 | $1,150.00 | | $1,150.00 | |
| GEOTEXTILE FABRIC (VODALAND GROUND MESH) | CONTRACTOR | 84.0 | SY | $7.25 | $609.00 | | $609.00 | |
| POLY SHEETING | CONTRACTOR | 2.0 | ROLL | $150.00 | $300.00 | | $300.00 | |
| KAS LABOR: MOBE | PROJECT MANAGER | 4.0 | HR | $115.00 | $460.00 | | $460.00 | |
| KAS LABOR: ON-SITE | PROJECT SCIENTIST | 32.0 | HR | $115.00 | $3,680.00 | | $3,680.00 | |
| KAS LABOR: DEMOBE | PROJECT SCIENTIST | 4.0 | HR | $115.00 | $460.00 | | $460.00 | |
| MILEAGE | EXPENSE | 176.0 | MILE | $0.725 | $127.60 | | $127.60 | **$6,786.60** |
| **TASK 4: SOIL TRANSPORT AND DISPOSAL** | | | | | | | | |
| PROJECT COORDINATION | PROJECT MANAGER | 5.0 | HR | $115.00 | $575.00 | | $575.00 | |
| TRANSPORTATION | BIOGENE | 126.0 | TON | $106.00 | $13,356.00 | | $13,356.00 | |
| DISPOSAL < 1000 ppm Pb | BIOGENE | 126.0 | TON | $140.00 | $17,640.00 | | $17,640.00 | |
| CUSTOMS FEE | BIOGENE | 5.0 | LOAD | $425.00 | $2,125.00 | | $2,125.00 | **$33,696.00** |
| **TASK 5: CAP COMPLETION REPORT** | | | | | | | | |
| PROJECT COORDINATION | PROJECT MANAGER | 2.0 | HR | $115.00 | $230.00 | | $230.00 | |
| DATA ENTRY | PROJECT MANAGER | 2.0 | HR | $115.00 | $230.00 | | $230.00 | |
| DRAFTING | DRAFTSPERSON II | 4.0 | HR | $85.00 | $340.00 | | $340.00 | |
| REPORT PREPARATION | PROJECT MANAGER | 14.0 | HR | $115.00 | $1,610.00 | | $1,610.00 | |
| SENIOR REVIEW | SENIOR SCIENTIST | 1.0 | HR | $135.00 | $135.00 | | $135.00 | |
| ADMINISTRATIVE | ADMINISTRATOR | 0.5 | HR | $65.00 | $32.50 | | $32.50 | **$2,577.50** |

| | |
|---|---|
| CLEANUP COST: | $46,025.55 |
| 15% CONTINGENCY: | $6,903.83 |
| TOTAL COST FOR PROJECT: | $52,929.38 |

# Appendix G

# I-Rule Corrective Action Plan Checklist

**Vermont Department of Environmental Conservation**
**Waste Management and Prevention Division**
**Sites Management Section**
**I-Rule CORRECTIVE ACTION PLAN Checklist**

**Site Number:** VTDEC SMS#2024-5472

**Site Name:** Old White Meeting House

**Site Address:** 320 US-2.

**Site City/Town:** South Hero

**Report Title:** Corrective Action Plan

**Report Date:** March 13, 2026

**Consultant:** KAS, Inc.

**Report Author:** Aske Doerge

| Deliverable | YES | N/A | Comments | WMPD Use Only | |
|---|---|---|---|---|---|
| | | | | Adequate | Inadequate |
| **Subchapter 5. Corrective Action** | | | | | |
| **§35-505. Corrective Action Plan** | | | | | |
| Executive Summary | X | | | | |
| Public Notice | X | | | | |
| Performance standards | X | | | | |
| Remedial Construction Plan | X | | | | |
| Waste Management Plan | X | | | | |
| Implementation schedule | X | | | | |
| Corrective Action Maintenance Plan | X | | | | |
| Institutional Control Plan | X | | | | |
| Redevelopment and Reuse Plan | X | | | | |
| QA/QC Plan | | X | | | |
| Cost estimate | X | | | | |
| Updated maps | X | | | | |
| Tabular contaminant concentrations | X | | | | |
| Cross-sections | | X | | | |
| Proposed contractors and subcontractors | X | | | | |
| P.E. Signature and certification | X | | | | |