DRAFT ANALYSIS OF BROWNFIELDS CLEANUP ALTERNATIVES (ABCA) AND CONCEPTUAL REMEDIAL ACTION PLAN (RAP)

Olde Federal Building
295 Water Street
Augusta, Maine 04330

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1.0 INTRODUCTION

1.1 Background

TRC Environmental Corporation (TRC) has prepared an Analysis of Brownfields Cleanup Alternatives (ABCA) and Conceptual Remedial Action Plan (RAP) for the Kennebec Valley Council of Governments (KVCOG; the "Client") on behalf of Uncommon Augusta, LLC for the Olde Federal Building property, located at 295 Water Street in Augusta, Maine (the Site).

The ABCA is designed to summarize potential cleanup alternatives for addressing hazardous building materials at the Site.

The ABCA includes the following:

- Summary of the evaluation of potential Remedial Alternatives for the Site;
- Summary of the remedial options and evaluation criteria;
- Preliminary cost estimates;
- Evaluation of the degree of effectiveness of the Remedial Alternative;
- Evaluation for ease of implementation for each Remedial Alternative;
- Recommended selection of Remedial Alternative(s); and
- Discussion of the resiliency to extreme weather conditions for the Remedial Alternatives.

The primary purpose of the Conceptual RAP is to outline a structured remediation approach for addressing contamination at this Brownfields Site. The approach is designed to ensure the Site is safe for reuse and that actions are protective of human health and the environment.

Prior environmental investigations including a Phase I Environmental Site Assessment (ESA) and a Hazardous Materials Assessment (HMA) have been completed for the Site, as summarized in Section 2.0. The HMA was conducted to identify hazardous building materials, which would require proper abatement, management, and/or disposal, prior to or during renovation and redevelopment of the Site. The HMA identified the presence of asbestos in several materials throughout the building, as well as lead-based paint (LBP) on both interior and exterior surfaces. Potentially hazardous materials, wastes, and universal wastes were also identified and inventoried.

Given the above, this ABCA/RAP presents a summary of potential cleanup alternatives along with a recommendation and conceptual cleanup plan for the selected or preferred remedial action(s) for addressing hazardous building materials at the Site. The building materials alternatives also include the removal and proper disposal of universal waste that has accumulated at the Site or will result from the renovations of the Site structure.

In addition, the owner/developer intends to sample sub-slab soil gas conditions to determine if a vapor mitigation system is warranted. If it is deemed necessary, then the vapor mitigation system would also be installed during building renovations. No new buildings will be constructed as part of the Site redevelopment.

1.2 Site Description

The Site consists of one 0.49-acre parcel identified by the City of Augusta as Lot 279 Tax Map 33. The Site is currently developed with a commercial office building and associated parking and landscaped areas surrounding the building. Public water and sewer is available to the Site.

The Site is currently occupied and utilized as an office for the United States Postal Service (USPS) on the north side of the first floor of the building, with vacant office spaces throughout the rest of the building. The Site is currently owned and operated by Uncommon Augusta, LLC.

1.3 Historical Site Use

The Site is currently located in an area of commercial and residential development and had been historically an industrial area since the 1880's. The Site building was originally constructed by the United States Federal Government beginning in 1884 and construction continued through 1889. Several government offices operated within the building from 1889 through 1965. From 1965 through 2024, various governmental and non-governmental organizations and businesses also operated out of the offices on the upper stories of the building, and since 2024 the building has remained partially vacant on the upper stories except for the USPS operations out of the first floor.

1.4 Potential Future Site Use

Uncommon Augusta, LLC plans to redevelop the Site into a boutique hotel. The proposed redevelopment includes renovation of the existing structure following abatement/removal and/or encapsulation of previously identified hazardous building materials.

1.5 Purpose and Scope of Services

The purpose of this ABCA/RAP is to evaluate potential remedial action alternatives for abatement of hazardous building materials identified at the Site and recommend/select a proposed remedial option(s) to be implemented during the proposed Site redevelopment. The evaluation of alternatives, presented herein are based on the findings of previous investigations and the proposed future use of the Site (boutique hotel). The ABCA/RAP includes the following:

- Evaluate the available remedial alternatives against evaluation criteria stated herein;
- Select the remedial alternative that best meets the objectives and considerations of the project and proposed end use; and
- Present a general plan for implementation of the selected remedial alternative(s).

Prior to developing remedial alternatives for the Site, evaluation of the exposure scenarios to on-Site contaminants is also required, and presented herein, given the new proposed future use of the Site.

The cleanup will likely be funded, in part, by a Unites States Environmental Protection Agency (EPA) Brownfields Revolving Loan Fund (RLF) cleanup loan provided by KVCOG, as well as an EPA Brownfields RLF cleanup loan provided by the Maine Department of Economic and Community Development (ME DECD). The owners/developers requested $300,000 from each

program, and they've indicated their intention to fund the remainder of abatement costs through other funding sources.

1.6 Objectives

Based on the information collected during previous environmental investigations (listed and summarized in Section 2.0), remedial options were considered for the Site and evaluated based on feasibility and ease of implementation, resiliency to extreme weather conditions, effectiveness and reliability, preliminary cost and cost effectiveness, schedule and time to implement the remedy and reach an endpoint of "no further action."

Remedial consideration was given to the following goals:

- Eliminate or reduce potential or current exposure to receptors, to the extent possible;
- Eliminate or reduce the risk of exposure to potential future site users, site workers, and trespassers to the contamination identified based on the proposed future reuse of the Site; and
- Eliminate or reduce potential environmental impacts to off-site receptors, including environmental receptors.

The remedial alternatives presented for the Site are all related to abatement of hazardous building materials (HBMs) during renovation. The remedial alternatives evaluated in this ABCA include:

- Building Alternatives:
    - Building Alternative #1: No Action.
    - Building Alternative #2: Full abatement and removal of identified hazardous building materials and universal wastes.
    - Building Alternative #3: Partial abatement of hazardous building materials, with encapsulation of remaining hazardous building materials, and removal of universal wastes.

The Evaluation of Remediation Alternatives (Section 5.0) includes a discussion of the requirements for each alternative. The Site is currently being enrolled into MEDEP's Voluntary Response Action Program (VRAP).

2.0 PREVIOUS ENVIRONMENTAL INVESTIGATIONS

The following previous environmental reports regarding the Site were reviewed in preparation for this ABCA/RAP:

- July 3, 2024, *Hazardous Materials Assessment, Old Federal Building, 295 Water Street, Augusta, Maine*, prepared by Haley Ward, Inc. (Haley Ward);
- May 8, 2025, *Phase I Environmental Site Assessment* [ESA]*, 295 Water Street, Augusta, Maine*, prepared by Haley Ward; and
- October 27, 2025, *Supplemental Asbestos Identification Survey, Wall and Ceiling Plaster Assessment, Old Federal Building, 295 Water Street, Augusta, Maine*, prepared by Haley Ward.

These reports are summarized in the following subsections, in *italics*, where directly quoted.

2.1 Hazardous Materials Assessment – July 2024 – Haley Ward

A Hazardous Materials Assessment was prepared for the Site in July 2024. The following is a summary of findings of the assessment, the results are provided below:

Asbestos-Containing Materials (ACM)

Laboratory analytical results for sampled building materials identified the following materials as asbestos-containing:

- *Mud pipe fitting and tee insulation on fiberglass-insulated lines;*
- *Pipe insulation and associated mud pipe fitting insulation (two size groups: 2-4 inch and 6-8 inch);*
- *Boiler insulation;*
- *Boiler breeching;*
- *Plaster brown coat on walls and ceilings including attic and basement;*
- *Black floor tile outside of vault on second floor;*
- *Cove base adhesive;*
- *Yellow floor tile and associated adhesive;*
- *Multilayer floor tile systems in hallway; and*
- *Exterior South Roof:*
    - *Slate roof adhesive;*
    - *Silver coating on south roof flashing;*
    - *Asphalt flashing;*
    - *White/gray caulk (metal to brick);*
    - *White caulk (wood to granite); and*
    - *White caulk under copper roof.*

Lead-based Paint (LBP)/Lead-Containing Surface Coatings

LBP/lead-containing surface coatings were identified on interior and exterior surfaces of the including:

Interior

- *Plaster walls and ceilings (including interior vault located on the second floor);*
- *Stair newel posts, balusters, handrail systems; and*
- *Stair mopboards and risers.*

Exterior

- *Window and door trim; and*
- *Upper and overhang trim (assumed).*

The identified LBP surface coatings ranged in condition from good to poor on the interior and fair to poor on the exterior.

Polychlorinated Biphenyls (PCBs)

The laboratory analytical results for the caulk samples associated with exterior window and roof systems on the south roof did not detect the presence of PCBs above the laboratory's Method Detection Limits (MDL) for the following materials:

- *Gray caulk associated with the copper roof;*
- *Lt. gray caulk metal to clay masonry brick;*
- *White caulk associated with the granite pillars;*
- *White caulk associated with wood windowsills to granite; and*
- *Gray caulk associated with granite blocks.*

Potential Hazardous Materials/Wastes and Universal Wastes

Potential hazardous materials, Hazardous Wastes, and Universal Wastes were observed on the interior of the building and include:

- *Mercury-containing fluorescent light bulbs;*
- *Assumed PCB-containing fluorescent light ballasts (various sizes);*
- *Mercury-containing thermostats;*
- *Emergency exit signs;*
- *Emergency light batteries;*
- *Above-ground oil storage tank (AST);*
- *Paints;*
- *Cleaning agents;*
- *Degreaser; and*
- *Antifreeze.*

Based on the identified hazardous building materials throughout the Site building, Haley Ward preliminary estimated an approximate abatement cost of $686,245, based on 2024 pricing (see Table 3 of the Haley Ward report).

2.2 Phase I ESA – May 2025 – Haley Ward

A Phase I ESA was prepared for the Site in May 2025. The assessment has revealed evidence of two recognized environmental conditions (RECs), and no evidence of controlled recognized environmental conditions (CRECs) or historical RECs (HRECs) in connection with the Site.

The following RECs associated with the Site were identified and quoted below in italics:

- *The past releases of #2 fuel oil from the basement AST, specifically from the December 2023 flooding, is considered a REC due to potential remaining petroleum contamination in the basement of the Site; and*
- *The historical presence and operation of coal sheds, a freight house, and other industrial infrastructure on and adjacent to the eastern portion of the Site are considered a REC.*

Other environmental conditions associated with the Site include:

- *The past releases of #2 fuel oil from the basement above ground storage tank (AST), especially from the December 2023 flooding, is considered a potential Vapor Encroachment Condition (VEC) due to potential remaining petroleum contamination in the basement of the Site;*
- *Potential PCBs exist in elevator at the Site; and ACM and LBP have been identified at the Site. Based on the investigations conducted for this Phase I ESA, conditions indicative of releases or threatened releases of hazardous substances, pollutants, contaminants, petroleum or petroleum products, and/or controlled substances on, at, in, or to the Site were identified.*

ME DEP Spill Report A-810-2023, the basement of the Site building was completely filled with water from flooding during a December 2023 storm, causing the 2,500-gallon #2 fuel oil tank to break its straps and lift off its supports, allowing the oil remaining it to leak out. After the water drained, the oil settled in the elevator shaft, containment around the boilers, and in a sump by the doors to the exterior. The MEDEP responder pumped approximately 40 gallons of oil from the sump and numerous bags of sorbent material were laid down to collect other areas of oil. The spent sorbents were placed in drums for off-site disposal. The MEDEP Safety Officer investigated the building with a photoionization detector (PID) and found the oil vapors at a satisfactory level for workers to continue working. The spill report notes that this site was referred to MEDEP Technical Services "due to oil vapors in the work area" and checked numerous times by their team. Based on the volume of contamination released and ongoing monitoring of the site by the MEDEP, residual petroleum impacts may remain at the Site as a result of the reported spill event. Follow up on this spill report indicated that vapors were monitored until they were no longer considered a concern for Site building occupants. The MEDEP indicated no further action was necessary.

The 2025 Phase I ESA identified other off-Site releases and historical off-site property uses as potential sources of environmental contamination, which may have potential to impact the Site (refer to Section 4.1.2.7 of the Haley Ward Phase I ESA report). These potential off-site sources are currently being further assessed via a separate Phase II ESA being funded through KVCOG's Assessment Grant program. That supplemental assessment work is anticipated to focus primarily on potential soil gas impacts on the upgradient side of the Site building and/or beneath the building slab. As previously noted, these results will inform the owner/developer if there is a potential vapor intrusion concern for the Site and if a vapor barrier and/or vapor mitigation system may be necessary as part of the proposed future Site redevelopment.

2.3 Supplemental Asbestos Identification Survey – October 2025 – Haley Ward

This supplemental survey was completed as a follow up to Haley Ward's building-wide Asbestos Renovation Impact Survey to determine the presence and location of asbestos-containing wall and ceiling plaster within the interior of the building. As part of the 2024 HMA, *plaster samples associated with the wall and ceiling systems present within the building were collected and submitted for laboratory analysis.*

The plaster wall and ceiling systems are comprised of two-layers; a thick brown base coat (internal layer) applied to expanded metal lath or directly on a masonry substrate and a thin skim (or finish) coat layer applied over the brown base coat layer. The skim coat is the exposed surface face of the plaster wall and ceiling systems. Each layer was
determined to be a unique homogeneous material and was analyzed separately. ACM was not identified by the analytical laboratory in the skim coat layer samples. ACM was identified in four of the nine brown coat layer samples.

Since plaster systems are known to have variability in materials, and a limited number of samples were collected from each of the plaster wall and ceiling systems within the building as part of the initial Asbestos Renovation Impact Survey, Haley Ward recommended a supplemental sampling of the building plaster systems to attempt to delineate the presence and extent of the plaster ACM.

Of the 60 samples analyzed during this investigation, four samples were identified as asbestos-containing. This information will be utilized to update the current Site abatement estimates.

3.0 SITE SUMMARY AND CLEAN-UP GOALS

ACM, LBP, and universal wastes were identified at the Site through the prior HMA activities (see Section 2.1). The proposed redevelopment requires management of HBMs during renovation activities.

3.1 Site Use and Site Classification

Uncommon Augusta, LLC intends to remediate and renovate the Site for reuse as a boutique hotel. Redeveloping this Brownfields Site with sustainable development goals will be beneficial for the City of Augusta through the beneficial reuse of a former government building. Additionally, the proposed reuse plans for the Site will help the city with more tourist hospitality and economic opportunities.

3.2 Applicable Cleanup Goals

Hazardous building materials in the form of ACM, LBP, and/or universal waste are contaminants of concern and an exposure risk for the Site, but do not have applicable cleanup goals that require listing herein, beyond the appropriate off-Site removal and/or on-Site management of such materials (e.g., encapsulate and/or maintain the identified hazardous building materials). Abatement activities will be conducted in accordance with State (MEDEP) and Federal (EPA and OSHA) guidelines and regulations.

3.3 Risk Evaluation

A comprehensive risk assessment was not performed as part of the previous assessments. However, this section contains a brief overview of the findings for hazardous building materials and a discussion of potential environmental risks.

Hazardous Building Materials

As summarized in Section 2.1, HBMs were identified on and in building materials at the Site during HMA activities. ACM was identified in adhesive compounds, window glazing, flooring materials, caulking, stair materials and boiler materials. Lead levels meeting or exceeding the HUD published level identified as potentially dangerous were detected through laboratory analysis of samples collected from exterior surfaces and several interior locations throughout the structure, inclusive of wall paneling, windowsills, and door trims. The presence of these hazardous building materials could pose a potential risk to public health and future occupants in the building; therefore, proper abatement will need to occur prior to or during renovation activities as part of Site redevelopment. Abatement activities may occur prior to renovation activities, which would require installation and maintenance of temporary covers to protect the building from the elements, or concurrently with renovations, which would help to preserve the building envelope integrity.

4.0 DESCRIPTION OF EVALUATION CRITERIA

Each remedial alternative was evaluated with respect to comparative evaluation criteria, including effectiveness, short- and long-term reliability, difficulty of implementation, cost, potential risks, timeliness, non-pecuniary effects, and resiliency to extreme weather conditions. The preliminary engineering cost estimates presented in this document are for comparative evaluation purposes and are based on the extent of contamination identified in the previous Site investigations including the 2024 HBA. They were prepared utilizing published data from RS Means, a construction cost estimating tool, and includes a 10% contingency to allow for the relative comparison of the identified alternatives. Actual cleanup costs may vary from these preliminary engineering costs estimates generated at this time and will ultimately be dependent on final remedial action plans, bid specifications, and competitive contractor bids/quotes to be obtained in the future, as part of proposed cleanup and redevelopment planning activities.

4.1 Identification and Initial Screening of Remedial Technologies

The remedial identification process focused on technologies that exhibited the potential to eliminate or significantly reduce exposure to the hazardous building materials at the Site. The technologies to be employed by the alternatives were considered using the following evaluation criteria:

- Effectiveness
- Reliability
- Ability to Implement
- Feasibility
- Risk Reduction (Toxicity, Mobility, Quantity)
- Preliminary Costs
- Resiliency to Extreme Weather Conditions

<u>No Action</u>

No Action assumes no additional efforts are undertaken to eliminate potential future exposures to HBM impacts at the Site. In terms of HBM, this alternative would not abate the buildings and would not reduce, mitigate, or eliminate compounds identified in the building materials. Therefore, the potential exposure to human health and the environment from ACM, LBP, and universal wastes would remain the same at the Site.

This alternative is not protective of human health and the environment. This alternative will not meet State regulatory requirements or achieve/meet the criteria for a MEDEP VRAP “No Further Action” or “Certificate of Completion”. However, this alternative will continue to be evaluated as a remedial alternative in this analysis.

<u>Hazardous Building Material Abatement</u>

Abatement, via removal/disposal and/or encapsulation, of hazardous building materials would eliminate the possibility of exposure for a potential future use of the Site. The alternative to fully

abate the building and renovate the building can be expensive in comparison to partial abatement and encapsulation of remaining HBMs due to additional abatement contractor costs and disposal costs. However, when these remedies are combined, the cost can be significantly reduced.

Abatement and renovation involves hiring experienced contractors to identify and remove or encapsulate hazardous building materials from the project Site. Since an HMA was already performed for the Site, the process can likely be expedited.

Remedial Action Alternatives Development and Evaluation

The proposed redevelopment includes interior renovations that will impact HBMs. Technologies were identified that have the potential to eliminate direct contact with hazardous building materials at the Site and/or remove hazardous materials to achieve or approach background/reuse conditions to the extent feasible. TRC identified the following potentially applicable technologies to achieve these objectives, which are:

- **Building Alternative #2: Full Abatement and Removal of Identified Hazardous Building Materials and Universal Wastes** – This alternative includes the full abatement of identified HBMs for disposal off-Site to eliminate potential exposure to those materials.
- **Building Alternative #3: Partial Abatement of Hazardous Building Materials, with Encapsulation of Remaining Hazardous Building Materials, and Removal of Universal Wastes** – This alternative includes the partial abatement of HBMs for disposal off-Site and encapsulation of HBMs which remain on-Site to eliminate potential exposure to those materials.

The remedial alternatives identified above were evaluated with respect to the comparative evaluation criteria including effectiveness, short and long-term reliability, difficulty of implementation, cost, potential risks, timeliness, non-pecuniary effects, and resiliency to extreme weather conditions.

As previously noted, the preliminary engineering cost estimates presented in this document are for comparative evaluation purposes and are based on the extent of HBM contamination identified in previous Site investigations including the 2024 HMA report. They were prepared utilizing published data from RS Means, a construction cost estimating tool, and includes a 10% contingency to allow for the relative comparison of the identified alternatives. Actual cleanup costs may vary from these preliminary engineering costs estimates generated at this time and will ultimately be dependent on final remedial action plans, bid specifications, and competitive contractor bids/quotes to be obtained in the future, as part of proposed cleanup and redevelopment planning activities. Preliminary remedial costs are included in **Appendix A**.

5.0 EVALUATION OF REMEDIATION ALTERNATIVES

Based on the evaluation criteria presented in earlier sections, potential exposure pathways evaluated during the Phase I ESA and HMA and summaries presented herein, the remedial action alternatives selected for the Site should accomplish the following objectives.

- Reduce the potential for construction worker exposure to hazardous building materials; and
- Remove the hazardous building materials from the Site.

To achieve these objectives, three remedial options were considered to address the environmental conditions previously described and are discussed below.

5.1 Considered Remediation Alternatives for Hazardous Building Materials

To address contamination at the Site and in consideration of the proposed redevelopment, three different building clean-up alternatives were considered and are described below:

- Building Alternative #1: No Action.
- Building Alternative #2: Full abatement and removal of identified hazardous building materials and universal wastes.
- Building Alternative #3: Partial abatement of hazardous building materials, with encapsulation of remaining hazardous building materials, and removal of universal wastes.

5.1.1 Building Alternative #1: No Action

A “No Action” alternative indicates that no remedial activities will be conducted at the Site. The “No Action” alternative does not include activities to mitigate, eliminate or reduce exposure to contaminated material; therefore, the potential for human exposure through direct contact, ingestion, and inhalation has not been controlled and therefore continues to exist for potential future Site residents, visitors, workers (construction/utility), and or trespassers.

The “No Action” alternative does not involve any remedial activities; therefore, the “No Action” response is not protective of human health and the environment and does not meet the threshold criteria as previously discussed. However, this alternative has been included to demonstrate a comparison between the alternatives.

5.1.2 Building Alternative #2: Full Abatement and Removal of Identified Hazardous Building Materials and Universal Wastes

Hazardous building materials debris would be removed from the Site and disposed of off-Site. Abatement of all identified hazardous building materials will reduce exposure risks for any potential future use. The prior HMA activities revealed the presence of asbestos in several building materials, including joint compounds, window glazing, flooring materials, and mastics (full list included in Section 2.1). Lead levels meeting or exceeding the HUD published level identified

as potentially dangerous were identified in samples collected from exterior surfaces and several interior locations throughout the structure.

An environmental contractor that specializes in hazardous building material abatement would be hired to perform the removal work. Due to the physical extent of the contaminated materials, workers must wear appropriate PPE. Other environmental personnel would be present during Site activities to oversee the abatement.

In the case of this alternative, a separate contractor would mobilize to the Site after abatement of hazardous materials had been completed to perform the renovation of the building. The hazardous material debris would be taken off-Site and disposed of before the commencement of the renovation work.

5.1.3 Building Alternative #3: Partial Abatement of Hazardous Building Materials, with Encapsulation of Remaining Hazardous Building Materials, and Removal of Universal Wastes

This alternative is similar to Building Alternative #2. However, hazardous building materials debris that are in areas that would be affected by future renovation activities would be removed from the Site and disposed of off-Site and remaining HBMs would be encapsulated and maintained in place to reduce the risk of exposure for any future Site uses. Encapsulation of remaining HBMs would minimize exposure, and minimize removal and off-site disposal of hazardous building materials from the building renovations.

Under this alternative, however, a single contractor (and/or contractor with their selected subcontractor) would be hired to abate the building of hazardous materials and encapsulate concurrently, and renovations would occur afterwards.

5.1.4 Effectiveness, Feasibility, and Cost of Alternatives

The effectiveness, feasibility, and cost of each alternative were considered prior to selecting a recommended cleanup alternative, in accordance with the EPA requirements.

5.1.5 Effectiveness

- Building Alternative #1 (No action): This alternative is not effective in controlling or preventing the exposure of receptors to contamination at the Site, or in the elimination of a potential continuing contaminant source at the Site. This alternative does not provide a reduction in risk.
- Building Alternative #2 (Full abatement and removal of identified hazardous building materials and universal wastes): This alternative includes full abatement of hazardous building materials and is an effective alternative for eliminating the direct contact exposure pathway. It would also be effective in the removal of the source of contamination and minimization of potential exposure while protecting nearby environmental receptors.
- Building Alternative #3 (Partial abatement of hazardous building materials, with encapsulation of remaining hazardous building materials, and removal of universal wastes): This alternative includes partial abatement of hazardous building materials and

partial encapsulation of hazardous building materials and is an effective alternative for the elimination of the direct contact exposure pathway, while also effective in removal and/or encapsulation of the source of contamination, and in minimizing potential exposure, while protecting the nearby environmental receptors.

Both alternatives 2 and 3 provide resiliency to extreme weather conditions by minimizing the exposure of the structure to the weather/elements during abatement activities. For the Site area, such weather conditions include days of extreme precipitation and/or season precipitation above the 33% average (per the Climate Mapping for Resilience & Adaptation [CMRA] web tool, available at https://resilience.climate.gov/).

5.1.6 Feasibility and Ease of Implementation

- Building Alternative #1 (No action): This alternative would be easy to implement as no remedial actions will be conducted at the Site.
- Building Alternative #2 (Full abatement and removal of identified hazardous building materials and universal wastes): This remedial alternative would utilize readily available standard construction techniques for hazardous material abatement and renovation. This alternative is technically practical and easily implementable at the Site.
- Building Alternative #3 (Partial abatement of hazardous building materials, with encapsulation of remaining hazardous building materials, and removal of universal wastes): This remedial alternative would also utilize readily available standard construction techniques for hazardous material abatement and renovation. This alternative is technically practical and easily implementable at the Site.

5.1.7 Cost Effectiveness

- Building Alternative #1 (No action): No cost as no remedial activities will be implemented.
- Building Alternative #2 (Full abatement and removal of identified hazardous building materials and f universal wastes): Cost of Building Alternative #2 is estimated to be approximately $666,000. Assumptions for preliminary costing purposes include:
    - Asbestos and lead abatement of the Site building
    - Abatement of Lighting
    - Abatement of Thermostats and Batteries
    - Abatement of Above-ground Storage Tank
    - Abatement of Liquids
    - Labor & Transportation
    - Mobilization (x2)
    - Engineering, construction oversight, & reporting
    - This includes a 10% contingency (cost without contingency would be $605,000)
- Building Alternative #3 (Partial abatement of hazardous building materials, with encapsulation of remaining hazardous building materials, and removal of universal

wastes): Cost of Building Alterative #3 is estimated to be approximately $514,000. Assumptions for preliminary costing purposes include:

- Abatement of Lighting
- Abatement of Thermostats and Batteries
- Abatement of Above-ground Storage Tank
- Abatement of Liquids
- Labor & Transportation
- Encapsulation of Flooring and Adhesives
- Encapsulation of Roofing Materials
- Mobilization (x2)
- Engineering, construction oversight, & reporting
- This includes a 10% contingency (cost without contingency would be $467,000)

5.1.8 Overall Comparison of Comparative Evaluation Criteria

This section presents a relative comparison of the selected remedial alternatives for the identified hazardous building materials.

Effectiveness – Building Alternative #2 has increased risks for off-Site transport of HBMs and potential to disturb and spread HBMs during full abatement, but would be fully effective at removing potential exposure to HBMs to future Site users. Building Alternative #3 requires additional coordination and would leave some HBMs on-Site to be maintained, but if carefully executed (e.g., proper encapsulation, maintenance, and implementation of long-term management/inspection plans), Alternative #3 can be nearly equally effective. Building Alternative #1 is considered the least effective as exposure is not mitigated.

Reliability – Building Alternatives #2 and #3 are more reliable than Building Alternative #1 in preventing exposure to future users of the Site, because the HBMs are removed and/or encapsulated. Building Alternative #1 is not reliable as no remedial action implemented. Building Alternative #3 is less reliable than Building Alternative #2, as leaving some HBMs on-Site (even encapsulated) requires periodic maintenance and inspection to confirm continued exposure risks are mitigated. Therefore, Building Alternative #2 is the most reliable of these alternatives.

Difficulty of Implementation – There is no difficulty associated with Building Alternative #1, as no actions are taken. There is more difficulty associated with Building Alternative #2 than Building Alternative #3, as additional measures are required to completely abate hazardous building materials throughout the entire building, and there might be a difference of time between when abatement occurs and the time when renovations occur. Building Alternative #3 is relatively easy to implement as renovation could occur concurrently and/or immediately following abatement.

Cost-Benefit – The cost to implement Building Alternative #3 is significantly less than Building Alternative #2. There is no cost associated with Building Alternative #1 as no remedial activities would occur.

Resiliency to Extreme Weather Events – Building Alternative #1 is not effective from resiliency to an extreme weather event standpoint, as no actions are taken. Building Alternative #2 and #3 equally provide resiliency to extreme weather conditions by minimizing exposure to the weather/elements during abatement activities. For the Site area, such weather conditions include days of extreme precipitation and/or season precipitation above the 33% average (per CMRA).

Potential Risks – The potential short-term and long-term risks associated with each alternative are considered low, with the exception of Building Alternative #1, which is the No Action Alternative, and therefore, no remedial activities are conducted. Building Alternative #2 has slightly less risk compared to Building Alternative #3, as the HBMs would be fully removed.

Timeliness – The following estimated time frames are associated with implementation of each alternative:

- Building Alternative #1: No associated timeframe.
- Building Alternative #2: Estimated two to three months (dependent on cleanup and redevelopment schedules and contractor methods).
- Building Alternative #3: Estimated one to two months (dependent on cleanup and redevelopment schedules and contractor methods).

Based on the above, Building Alternative #1 is the timeliest of the alternatives. However, the additional time required for Building Alternatives #2 and #3 are associated with greater protection of future Site use and protection of Site construction workers.

Conclusion – Building Alternative #3 appears to be the best alternative, as it is equally effective and has less cost compared to Building Alternative #2. Building Alternative #1 is not recommended because it does not address the risks posed by the HBMs and/or meet the cleanup objectives.

Green and Sustainable Remediation – The following measures will be implemented where applicable, beneficial or feasible to improve the overall sustainability of the proposed remedial alternative as recommended by the U.S. EPA Region 1 Green and Sustainable Remediation Guidance.

Administrative

- Green remediation principles will be incorporated into the contracting process, as possible.
- Interim and final documents will be submitted in digital rather than hardcopy format, unless otherwise requested by EPA or required by law, in an effort to save paper. This is especially applicable to voluminous data reports.
- Optimize the use of electronic and centralized communication and outreach to the local community.

General Site Operations

- Use energy efficient equipment
- Reuse or recycle waste in the visual and access control berms

- Protect and conserve water
- Use alternative fuel vehicles (e.g., hybrid-electric, biodiesel, and/or ultra-low sulfur diesel)
- Carpool for Site visits and project meetings and/or use public transportation
- Schedule activities efficiently to minimize travel to and from the Site

Remediation Operations

- Encourage use of fuel-efficient / alternative fuel vehicles and equipment
- Minimize mobilizations
- Provide for erosion control to minimize runoff into environmentally sensitive areas
- Encourage use of diesel engines that meet the most stringent EPA on-road emissions standards available upon time of project's implementation
- Have idle reduction policy and idle reduction devices installed on machinery
- Use ultra-low sulfur diesel and/or fuel-grade biodiesel as fuel on machinery
- Maximize use of machinery equipped with advanced emission controls
- Maximize efficiency in transport/disposal of soils and backfill, utilizing practices such as backloading.

5.2 Additional Permitting

Final local and State permits, as necessary, will be obtained prior to initiating the selected/proposed cleanup alternatives.

5.3 Recommended Cleanup Alternative(s)

5.3.1 Recommended Building Alternative

Building Alternative #3 is the recommended cleanup alternative for the abatement and encapsulation of identified hazardous building materials in the Site structure, because it is considered to be effective and also cost-effective to mitigate the risks posed by the HBM contamination and meets the cleanup objectives, in consideration of the proposed redevelopment scenario. This alternative is sustainable in that it will mitigate environmental conditions, while also maintaining the integrity of the building with hazardous encapsulation, where applicable.

Building Alternative #1 is not recommended because it does not address the risks posed by the soil contamination.

Building Alternative #2 is not recommended because it could take more time to complete, it is more expensive, and there is a potential risk with disturbing and fully removing the hazardous building materials, with the potential to spread hazardous building materials during construction and building renovations.

5.3.2 Evaluation and Comparison of Alternatives

Table 1 and Table 2 (on the following pages) provide Evaluation and Comparison Summaries of the Remedial Alternatives for Building Alternatives.

Table 1. Evaluation and Comparison Summary of Alternatives – Building Alternatives

Remedial Action	Building Alternative #1: No Action	Building Alternative #2: Full abatement and removal of hazardous building materials and universal wastes	Building Alternative #3: Partial abatement of hazardous building materials, with encapsulation of remaining hazardous building materials, and removal of universal wastes
Overall protection of Human Health and the Environment	Not protective of human health and the environment. Does not meet threshold criteria.	Provides protection of human health and the environment concerns through mitigating/ eliminating the risk of exposure to humans and the environment to the HBMs present at the Site.	Provides protection of human health and the environment concerns through mitigating/ eliminating the risk of exposure to humans and the environment to the HBMs present at the Site.
Technical Practicality	Not Applicable.	Completing the remedial alternative identified is technically practical.	Completing the remedial alternative identified is technically practical.
Ability to Implement	Not Applicable.	This Alternative is technically feasible and is an effective action for reducing or eliminating the risk of direct contact to HBMs. The activities and materials to complete the alternative are readily available. Equipment and contactors are available and have the expertise to complete.	This Alternative is technically feasible and is an effective action for reducing or eliminating the risk of direct contact to HBMs. The activities and materials to complete the alternative are readily available. Equipment and contactors are available and have the expertise to complete. No additional coordination is required as the abatement could occur concurrently with building renovation.
Reduction of Toxicity, Mobility, and Volume	No Reduction.	Alternative achieves a reduction risk of contact.	Alternative achieves a reduction risk of contact.
Short Term Effectiveness	Not Applicable.	No short-term effectiveness issues.	No short-term effectiveness issues.
Estimated Cost	Not Applicable.	$666,000 Includes a 10% contingency (cost without contingency: $605,000)	$514,000 Includes a 10% contingency (cost without contingency: $467,000)

6.0 CONCLUSIONS AND RECOMMENDATIONS

The Site has hazardous building material abatement needs. While the proposed reuse/redevelopment of the Site, mitigation is recommended.

The three total remedial alternatives were evaluated in this ABCA include:

Building Alternatives:

- Building Alternative #1: No Action.
- Building Alternative #2: Estimated two to three months (dependent on cleanup and redevelopment schedule and selected contractor methods).
- Building Alternative #3: Estimated one to two months (dependent on cleanup and redevelopment schedule and selected contractor methods).

Building Alternative #3 (partial abatement of hazardous building materials, with encapsulation of remaining hazardous building materials, and removal of universal wastes) is the recommended cleanup alternative for the abatement of the Site structure, because it is considered the most practical alternative to meet the overall cleanup objectives and mitigate the risk posed by the contamination, considering the proposed redevelopment scenario and evaluation criteria including effectiveness and cost. This alternative is sustainable in that it will mitigate environmental conditions.

7.0 CONCEPTUAL REMEDIAL ACTION PLAN

Potential remedial actions were outlined and compared to one another for feasibility, cost, and implementation ability in this ABCA/RAP. The selected remedial actions (Alternative 3 - Partial abatement of hazardous building materials, with encapsulation of remaining hazardous building materials, and removal of universal wastes) have been outlined below. The purpose of the selected remedial actions is to address the identified environmental concerns identified in the prior assessment activities, as previously outlined in this report. Media addressed by these actions primarily includes hazardous building materials.

1. *Hazardous Building Materials Abatement & Removal of Universal Wastes* – TRC has assisted Uncommon Augusta, LLC with obtaining quotes for the abatement of HBMs (ACM, LBP, etc.) at the Site during previous assessment activities. If requested, TRC will assist Uncommon Augusta, LLC in the selection of abatement contractors. The abatement of hazardous building materials is expected to occur concurrently with the renovation of the Site building, per the selected Building Alternative presented in this ABCA, and will be conducted in accordance with state (MEDEP) and federal (EPA and OSHA) guidelines and regulations.

2. *Vapor Mitigation System* – The owner/developer intends to sample sub-slab soil gas conditions to determine if on-site soil gas is impacted and potential vapor intrusion is a concern for the existing building. If deemed necessary and/or warranted, a passive vapor mitigation system would also be installed during the proposed building renovations and Site redevelopment activities. Such a system, if installed, may be tested and turned into an active venting system, if needed. This preventative measure would mitigate potential future indoor impacts from vapor intrusion associated with Site subsurface conditions. However, if the supplemental investigation results determine there are no subsurface impacts related to soil gas, a vapor mitigation system will not be necessary.

8.0 Closing

8.1 Schedule

Upon issuance and acceptance by MEDEP of this draft ABCA and Conceptual RAP, and after acceptance into VRAP, a conditional NAA letter will likely be issued from VRAP for the 295 Water Street (Site). The owner/developer plans to begin remedial actions in winter 2025/spring 2026 once the ABCA and Conceptual RAP are finalized, and as soon as cleanup loan funds are approved by KVCOG and MEDECD. The remedial actions, outlined herein, are anticipated to be the first activities to occur for this redevelopment, with an anticipated completion of early summer 2026. The remainder of the redevelopment activities would continue through 2026.

8.2 Completion and Closure

Following issuance of a final NAA letter and a Remedial Action Closure Report is completed and approved by MEDEP with concurrence that the proposed remedial actions have been completed to the satisfaction of the MEDEP VRAP, the MEDEP VRAP will likely issue a Certificate of Completion for the Site. The owner/developer (and their members and/or assigns) will thereby be granted liability protections provided by 38 M.R.S. §343-E.1. for the Site and the MEDEP will take no action against Uncommon Augusta, LLC (or its members and/or assigns), as identified in 38 M.R.S. §343-E.6.

9.0 LIMITATIONS

TRC's study was performed in accordance with generally accepted practices of other consultants undertaking similar studies at the same time and in the same geographical area, and TRC observed that degree of care and skill generally exercised by other consultants under similar circumstances and conditions. TRC's findings and conclusions must be considered not as scientific certainties, but rather as our professional opinion concerning the significance of the limited data gathered during the course of the study. No other warranty, express or implied is made. Specifically, TRC does not and cannot represent that the subject property contains no hazardous material, oil, or other latent condition beyond that observed by TRC during its study. Additionally, TRC makes no warranty that any response action or recommended action will achieve all of its objectives or that the findings of this study will be upheld by a MEDEP audit.

The observations described in this report were made under the conditions stated therein. The conclusions presented in the report were based solely upon the services described therein, and not on scientific tasks or procedures beyond the scope of described services or the time and budgetary constraints imposed by Client. The work described in this report was carried out in accordance with the Terms and Conditions referenced in our contract with the Client.

In preparing this report, TRC has relied on certain information obtained from previous reports, and on information contained in the files of state and/or local agencies available to TRC at the time of the study. Although there may have been some degree of overlap in the information provided by these various sources, TRC did not attempt to independently verify the accuracy or completeness of all information reviewed or received during the course of this evaluation.

No specific attempt was made to check on the compliance of present or past owners or operators of the Site with federal, state, or local laws and regulations, environmental or otherwise. The conclusions and recommendations contained in this report are based in part upon the data obtained from a limited number of soil samples and groundwater samples obtained from widely spread subsurface explorations. The nature and extent of variations between these explorations may not become evident until further exploration. If variations or other latent conditions then appear evident, it will be necessary to reevaluate the conclusions and recommendations of this report.

TRC has relied upon the quantitative laboratory analyses data provided by various laboratories and has not conducted an independent evaluation of the reliability of these data.

The conclusions and recommendations contained in this report are based in part upon various types of chemical data and are contingent upon their validity. These data have been reviewed and interpretations made in the report. Moreover, it should be noted that variations in the types and concentrations of contaminants and variations in their migration pathways may occur due to seasonal water table fluctuations, past disposal practices, the passage of time, and other factors. Should additional chemical data become available in the future, these data should be reviewed by TRC and the conclusions and recommendations presented herein modified accordingly.

Historic chemical analyses have been performed for specific parameters as described in the text. However, it should be noted that additional chemical constituents not searched for during the referenced studies might be present at the subject property. Nothing herein limits, changes or modifies TRC’s contract with the Client.

Furthermore, the preliminary engineering cost estimates presented in this document are for comparative evaluation purposes and are based on the extent of HBM contamination identified in previous Site investigations including the 2024 HMA report. They were prepared utilizing published data from RS Means, a construction cost estimating tool, and includes a 10% contingency to allow for the relative comparison of the identified alternatives. Actual cleanup costs may vary from these preliminary engineering costs estimates generated at this time and will ultimately be dependent on final remedial action plans, bid specifications, and competitive contractor bids/quotes to be obtained in the future, as part of proposed cleanup and redevelopment planning activities.

Appendix A: Remedial Alternatives Costing

BUILDING ALTERNATIVE 2 - FULL ABATEMENT AND REMOVAL OF HBM
ABCA - OLDE FEDERAL BUILDING - 295 WATER STREET, AUGUSTA, MAINE 04330

	DESCRIPTION OF ITEM	QUANTITY	UNIT	UNIT RATE	TOTAL COST	LOGIC
	I. ABATEMENT (OFF-SITE DISPOSAL, ONLY) - INTERIOR ACMs, LBP & PCB's					
1	Abatement of Pipe Insulation	1	LS	$ 162,875.00	$ 162,875.00	See Reference 1
2	Abatement of Mudded Pipe Fitting	1	LS	$ 20,550.00	$ 20,550.00	See Reference 1
3	Abatement of Boiler Insulation	1	LS	$ 85,500.00	$ 85,500.00	See Reference 1
4	Abatement of Flooring & Associated Adhesive	1	LS	$ 34,850.00	$ 34,850.00	See Reference 1
5	Abatement of Adhesive, Caulk, & Plaster	1	LS	$ 169,220.00	$ 169,220.00	See Reference 1
6	Abatement of Roofing Materials	1	LS	$ 34,600.00	$ 34,600.00	See Reference 1
	Subtotal Abatement Costs				$ 507,595.00	
	II. ABATEMENT AND DISPOSAL OF UNIVERSAL WASTE					
7	Abatement of Lighting	1	LS	$ 2,958.00	$ 2,958.00	See Reference 1
8	Abatement of Thermostat & Batteries	1	LS	$ 189.00	$ 189.00	See Reference 1
9	Abatement of Above-ground Storage Tank	1	LS	$ 2,500.00	$ 2,500.00	See Reference 1
10	Abatement of Liquids	1	LS	$ 594.00	$ 594.00	See Reference 1
11	Labor & Transportion	1	LS	$ 9,500.00	$ 9,500.00	See Reference 1
	Subtotal Abatement Costs				$ 15,741.00	
	III. MOBILIZATION					
12	Mobilization	1	LS	$ 13,083.40	$ 13,083.40	Assume mobilization cost is approx. 2.5 percent of subtotal.
13	Remobilization for renovations	1	LS	$ 13,083.40	$ 13,083.40	Assume remobilization cost is approx. 2.5 percent of subtotal.
	Subtotal Mobilization Costs				$ 26,166.80	
	IV. ENGINEERING					
14	Engineering, Permitting, and Construction Oversight Fees	1	LS	$ 55,000.00	$ 55,000.00	Also includes Licensed Asbestos Inspector & Monitoring.

SUBTOTAL (rounded)	**$ 605,000**
10% CONTINGENCY	**$ 61,000**
TOTAL	**$ 666,000**

References:

- Pricing for Section I & II. Abatement & Demolition is based on a received estimate ("quote") from Haley Ward, Inc of Bangor, ME dated October 31st, 2025. Line Item costs include cost of labor, materials, equipment, and disposal. The estimate may be provided upon request. Prices are subject to change.

- This cost estimate was prepared under the supervision of a professional engineer licensed in the State of Maine. Costs assumes the work will be performed by a contractor experienced in the construction of similar facilities.

BUILDING ALTERNATIVE 3 - PARTIAL ABATEMENT OF HBM AND REMOVAL OF UNIVERSAL WASTE
ABCA - OLDE FEDERAL BUILDING - 295 WATER STREET, AUGUSTA, MAINE 04330

	DESCRIPTION OF ITEM	QUANTITY	UNIT	UNIT RATE	TOTAL COST	LOGIC
	I. ABATEMENT and/or ENCAPSULATION - INTERIOR ACMs, LBP & PCB's					
1	Abatement of Pipe Insulation	1	LS	$ 162,875.00	$ 162,875.00	See Reference 1
2	Abatement of Mudded Pipe Fitting	1	LS	$ 20,550.00	$ 20,550.00	See Reference 1
3	Abatement of Boiler Insulation	1	LS	$ 85,500.00	$ 85,500.00	See Reference 1
4	Encapsulation of Flooring & Associated Adhesive	1	LS	$ 17,425.00	$ 17,425.00	Assume Price of 50% of full abatement. Work will include closing and stabilizing site to prevent materials for breaching encapsulation during renovation.
5	Encapsulation of Adhesive, Caulk, & Plaster	1	LS	$ 84,610.00	$ 84,610.00	Assume Price of 50% of full abatement. Work will include closing and stabilizing site to prevent materials for breaching encapsulation during renovation.
6	Encapsulation of Roofing Materials	1	LS	$ 17,300.00	$ 17,300.00	Assume Price of 50% of full abatement. Work will include closing and stabilizing site to prevent materials for breaching encapsulation during renovation.
		Subtotal Abatement Costs			$ 388,260.00	
	II. ABATEMENT AND DISPOSAL OF UNIVERSAL WASTE					
7	Abatement of Lighting	1	LS	$ 2,958.00	$ 2,958.00	See Reference 1
8	Abatement of Thermostat & Batteries	1	LS	$ 189.00	$ 189.00	See Reference 1
9	Abatement of Above-ground Storage Tank	1	LS	$ 2,500.00	$ 2,500.00	See Reference 1
10	Abatement of Liquids	1	LS	$ 594.00	$ 594.00	See Reference 1
11	Labor & Transportion	1	LS	$ 9,500.00	$ 9,500.00	See Reference 1
		Subtotal Abatement Costs			$ 15,741.00	
	III. MOBILIZATION					
12	Mobilization	1	LS	$ 10,100.03	$ 10,100.03	Assume mobilization cost is approx. 2.5 percent of subtotal.
13	Remobilization for renovations	1	LS	$ 10,100.03	$ 10,100.03	Assume remobilization cost is approx. 2.5 percent of subtotal.
		Subtotal Mobilization Costs			$ 20,200.05	
	IV. ENGINEERING					
14	Engineering, Permitting, and Construction Oversight Fees	1	LS	$ 42,400.00	$ 42,400.00	Also includes Licensed Asbestos Inspector & Monitoring.

SUBTOTAL (rounded)	**$ 467,000**
10% CONTINGENCY	**$ 47,000**
TOTAL	**$ 514,000**

References:

- Pricing for Section I & II. Abatement & Demolition is based on a received estimate ("quote") from Haley Ward, Inc of Bangor, ME dated October 31st, 2025. Line Item costs include cost of labor, materials, equipment, and disposal. The estimate may be provided upon request. Prices are subject to change.

- This cost estimate was prepared under the supervision of a professional engineer licensed in the State of Maine. Costs assumes the work will be performed by a contractor experienced in the construction of similar facilities.