Analysis of Brownfield Cleanup Alternatives

Central Building
2425 Washington Avenue
Baker City, OR 97814

April 28, 2022

Prepared for:

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1.0 INTRODUCTION

This Analysis of Brownfield Cleanup Alternatives (ABCA) was prepared for Baker Technical Institute (BTI). The purpose of the ABCA is to present options and costs for the abatement of regulated building materials (RBM) (e.g., asbestos-containing materials [ACM] and lead-based paint [LBP]) identified during the completion of an RBM Survey on behalf of BTI in May 2019 and November 2019. The results of the RBM Survey were documented in a report entitled *Regulated Building Materials Survey, 2425 Washington Avenue, Baker City, OR 97814*, dated June 3, 2019, and Asbestos Roof Survey, Central Building, 2425 Washington Avenue, Baker City, OR 97814, dated January 31, 2020.

1.1 PROPERTY LOCATION AND DESCRIPTION

The 1.46-acre property on which the Central Building is located is five blocks west of the historic core of downtown Baker City, Oregon. It is comprised of a single Baker County tax lot designated 09S40EDC-6300. The property is a single block, bound by Washington Avenue and Baker Middle School to the north, 6th Street and residences to the west, Court Avenue and residences to the south, and 5th Street and residences to the east. The Central Building occupies the majority of the northern portion of the block. The southern portion of the property is occupied by tennis courts and lawn.

The Central Building is approximately 57,612 gross square feet (SF) (measured to the outside of the exterior walls) of conditioned space on four main levels. Within these main levels are multiple levels including a large auditorium with a structurally sloping floor. The educational portion of the building, those areas with classrooms, are situated in a "U" shape with the bottom of the "U" in a northerly direction. Wedged within the southern opening of the "U" are the gymnasium on the lowest level of the building and above it the auditorium with stage. Wedged between the educational portion and the gymnasium and auditorium is a large light well (Trout, 2019).

1.2 PROPERTY HISTORY

Construction of the Central Building, originally for use as Baker City's only high school, was completed in October 1917. The Baker School District operated a high school in the building through 1952. From 1952 through 2009, the School District operated a middle school in the building. The Central Building has been minimally used for storage since 2009 but is largely vacant.

2.0 2019 RBM SURVEY RESULTS SUMMARY

Based on Stantec's June 2019 survey report, the following building materials were determined to contain asbestos in a quantity greater than 1% (labels in parentheses, e.g., "HA 01", etc. refer to sample identifications [IDs] described in the RBM Survey report):

1. Wallboard systems in the 3rd Floor Boys Restroom, 2nd and 3rd Floor Girls Restrooms, Health Rooms, Gym Entry, West Storage Room, and 1st and 2nd Floor Center Corridor Vestibule including sheetrock, wall joint compound, ceiling texture, and skim coats (3,000 SF).

2. Gray 9” x 9” vinyl floor tile (VFT) (HA 01) associated with Stair Landings, the 1st Floor Central Corridor Vestibule, Kitchen, and Rooms 33, 34, and 35 (5,250 SF).

3. Brick red 9” x 9” VFT (HA 04) associated with Room 31 (950 SF).

4. White patterned Armstrong vinyl sheet flooring (VSF) (HA 05) associated with the 2nd and 3rd Floor Girls Restrooms (500 SF).

5. Gray with blue streaks 9” x 9” VFT (HA 06) associated with Room 36 (950 SF).

6. Gray with black streaks 9” x 9” VFT (HA 07) associated with Room 37 and Health Rooms (1,150 SF).

7. White 12” x 12” VFT (assumed due to presence of material in packaging labeled as asbestos-containing) and black mastic (HA 08) associated with the 3rd Floor Boys Restroom (250 SF).

8. White with brown streaks 9” x 9” VFT (HA 09) associated with Room 38 (100 SF).

9. Brown speckled 9” x 9 VFT (HA 10) associated with Room 38 and patching adjacent Storage Room 106 (105 SF).

10. Black asphaltic rug (HA 11) associated with the 3rd Floor Southwest Closet and adjacent alcove (20 SF).

11. Concealed red VFT (Concealed beneath HA 13D & 78D – non-detect) associated with Room 22, present in an unknown quantity - it is likely concealed in other areas of Room 22 (total of up to 900 SF).

12. Tan mastic (HA 79) associated with peach 9” x 9” VFT (HA 14 – non-detect) located in Room 24’s Storage Closet, Janitor Closet, and the adjoining Northeast Corridor Storage Closet (totaling approximately 55 SF).

13. Burnt orange Armstrong VSF (HA 15) associated with the 1st Floor East Entry. Note that a sample of associated mastic was not obtained but should be assumed to be ACM when encountered (135 SF).

14. Yellow mastic (HA 16) associated with the blue 9” x 9” VFT (HA 16 – non-detect) in the 1st Floor Boys Restroom (85 SF).

15. Gray with brown and white streaks 9” x 9” VFT (HA 17) in the Cafeteria (900 SF).

16. Tan 9” x 9” VFT (HA 35) associated with 3rd Floor Corridors, Room 32, Auditorium Ramps, Paint Storage Closet, and 1st Floor Corridors (6,000 SF).

17. Concealed tan plaster (HA 35A-35C) concealed under HA 35 from the 3rd Floor Corridor floors (2,000 SF).

18. Red VFT (HA 37) concealed under blue carpet, glue, and fiberboard in Room 25 (Music Room) (900 SF).

19. Gray VFT (HA 37C) and associated mastic concealed under blue carpet, fiberboard, red VFT, tar paper, and mastic, associated with Room 25 (Music Room) (900 SF).

20. Gray VFT (HA 40) concealed under white with gray streaks 12” x 12” VFT (HA 13 – non-detect), mastic, and chipboard associated with Rooms 21, 23, and 24 (2,700 SF).

21. Tan VFT and gray/white plaster (HA 41) concealed under white 12” x 12” VFT (HA 12 – non-detect) and mastic, associated with 2nd Floor West/Northwest Corridors (950 SF).

22. Wall joint compound (HA 47C) associated with brown ceramic tiles of the urinal surround in the 1st Floor Boys Restroom (15 SF).

23. Wall joint compound (HA 52) associated with sheetrock in the 3rd Floor Boys Restroom (500 SF).

24. Wall joint compound (HA 54) associated with sheetrock in 2nd and 3rd Floor Girls Restrooms (950 SF).

25. Wall joint compound (HA 60) associated with sheetrock in the Health Rooms, Gym Entry, West Storage Room, and 1st and 2nd Floor Center Corridor Vestibule (1,500 SF).

26. Gray speckled 9" x 9" VFT (HA 67) associated with a patch in the south Health Room (5 SF).

27. Pipe wrap in the attic was inaccessible and is assumed to be ACM. As it is concealed, it is unknown how much pipe wrap remains in the attic or other parts of the building.

28. Mag pipe insulation in the building tunnels was identified in a prior survey as ACM (100 linear feet (LF)).

29. Hard fittings on fiberglass pipe insulation throughout the building were identified in a prior survey as assumed ACM in a quantity of at least 61 individually observed fittings. Stantec agrees with this assumption.

30. Air Cell pipe insulation in the attic was identified in a prior survey as ACM (280 LF).

31. Troweled ceiling texture in the 3rd Floor Boys Restroom was identified in a prior survey as ACM (125 SF).

32. Millboard in a 3rd Floor Projection Room was identified in a prior survey as ACM (225 SF). Note that a Projection Room was not labeled in the present or historical plans for the Central Building, nor was one observed at the time of the survey. It is our opinion the millboard may have been removed or may be concealed in the Operators Room.

33. Fire doors associated with exterior entrances and mechanical areas were identified in a prior survey as assumed ACM in a quantity of at least 6 individually observed fire doors. Stantec agrees with this assumption.

34. Black vibration dampening cloth in the Boiler Room was identified in a prior survey as assumed ACM (20 LF). Note that Stantec sampled gray vibration dampening cloth (HA 26) on ductwork in the Boiler Room and that was non-detect for ACM. No other vibration dampening cloth was observed at the time of the survey; that observed by Stantec was present in much smaller quantity (10 LF) and was gray, not black. If black vibration dampening cloth is observed during the course of renovation, it should be treated as ACM unless tested.

It should be noted that the asbestos survey was completed as a renovation-level survey and was limited to accessible materials only and did not include wall cavities, underground utilities, areas that specified asbestos abatement had been completed in prior surveys (Fan Room, boiler area of Boiler Room, Boys Shower Room), or the building exterior.

A secondary survey of the roof was completed in November 2019 and reported in January 2020 due to interest in replacing it due to nearing its lifespan and water intrusion through the roof. The survey included three roof levels: the third-floor roof (U-shaped primary roof), the second-floor roof (rectangular across the south end of the Property building), and the lightwell roof. All roofing materials appeared identical (with the exception of patching) and was classified together as HA "Roof-01". Only bottom layers of lightwell roofing appeared in very poor and crumbling condition, and therefore lightwell roofing was sampled as HA "Roof-02". Sample locations were chosen in a deliberately distributed way across the three areas and included patch materials. Samples were collected of all layers at each sampling location until a wood layer was reached. Layered analysis was performed by NVL Labs in Seattle, WA on these layered samples (i.e., asphaltic material, binder, and/or paint).

35. A mix of top and bottom layers of black asphaltic roofing, binder material, and embedded silver paint were present as asbestos-containing from both Roof-01 and Roof-02 sample sets, for a total of approximately 20,000 SF of roofing ACM.

Certain concealed materials may be present within wall cavities (e.g. other electrical wire wrapping, insulation materials, vapor barrier paper, etc.) that contain asbestos, and some underground utility piping has been known to contain asbestos (e.g. Transite pipe). If renovation of the property includes removal of on-site portions of underground utilities (storm drains, sewer, domestic water laterals, etc.), removal of exterior grout and coating, or roofing and associated adhesives, evaluation of the asbestos content of these components must be assumed, or assessment performed prior to the removal process. Suspect materials identified in these locations are assumed positive for asbestos until sampling and analysis indicates otherwise. If, during the course of renovation activities, suspect ACMs are discovered that are not identified within this report, those materials should be assumed positive for asbestos unless additional sampling, analysis, and/or assessment indicates otherwise.

It is recommended that ACMs be removed by a licensed abatement contractor prior to renovation, refurbishing, or demolition activities in accordance with all applicable laws, including Oregon Department of Environmental Quality (DEQ) and Oregon Occupational Safety and Health Administration (OSHA) guidelines. It is also recommended that a third-party consultant, independent from the abatement contractor, be retained to monitor abatement activities and provide final remediation clearance testing as appropriate during the renovation, in accordance with all applicable laws.

Stantec's rough order of magnitude (ROM) cost estimate for abatement of the ACMs identified herein, including sealing the building envelop with a new roof after abatement and third-party oversight of the abatement contractor, is $1,040,000. Actual abatement costs may vary based on market conditions and includes a 20% contingency. The scope of abatement services for the property is of a magnitude to warrant retention of a qualified consultant to both assist BTI in obtaining bids from abatement contractors, and to oversee the work of the abatement contractor.

3.0 APPLICABLE REGULATIONS AND CLEANUP STANDARDS

3.1 APPLICABLE LAWS & REGULATIONS

The following are applicable laws and regulations for ACMs, lead, and materials containing miscellaneous hazardous substances.

3.1.1 Asbestos Laws and Regulations

Asbestos is regulated by the US Environmental Protection Agency (EPA) National Emission Standard for Hazardous Air Pollutants (NESHAP), the Toxic Substances Control Act (TSCA), the Clean Air Act (CAA), and DEQ under OAR, Chapter 340, Division 248 (Asbestos Requirements).

Further, to protect construction workers, all asbestos abatement work must be performed in accordance with US OSHA asbestos regulations as promulgated in Title 29 of the Code of Federal Regulations (29 CFR), Section 1926.1101 and Oregon OSHA under OAR Chapter 437, Division 2 (General Occupational Safety and Health Rules).

3.1.2 Lead Laws and Regulations

The United States Department of Housing and Urban Development (HUD), promulgates the rules for evaluating and controlling lead-based paint hazards commonly referred to as Title X (ten). Although HUD Title X specifically focuses on residential housing and child-occupied facilities, the evaluation framework promulgated by HUD for lead paint evaluation is the generally accepted guideline for performing paint surveys/inspections. Similar to HUD Title X, Oregon maintains state-specific lead regulations. However, they are only applicable to lead abatement of homes.

Further, to protect construction workers, lead-related work must be performed in accordance with US OSHA asbestos regulations as promulgated in Title 29 of the Code of Federal Regulations (29 CFR), Sections 1910.1025 and 1926.62 and Oregon OSHA under OAR Chapter 437, Division 2 (General Occupational Safety and Health Rules).

3.1.3 PCBs and Other Hazardous Materials

EPA regulations specify requirements for managing the following hazardous materials: PCBs, batteries, pesticides, mercury-containing equipment, lamps, household hazardous waste, and conditionally exempt small quantity generator waste. In addition to the EPA universal waste regulations, the following federal regulations may also include, but not be limited to the following:

- Applicable Federal OSHA regulations;
- Title 40, Code of Federal Regulations, Part 61 Subpart M – National Emission Standards for Hazardous Pollutants;
- Title 40, Code of Federal Regulations, Part 260 – Hazardous Waste Management System;
- Title 40, Code of Federal Regulations, Part 261 - Identification and Listing of Hazardous Waste;
- Title 40, Code of Federal Regulations, Part 262 - Standards Applicable to Generators of Hazardous Waste;
- Title 40, Code of Federal Regulations, Part 264 - Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities;
- Title 40, Code of Federal Regulations, Part 265 - Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities;
- Title 40, Code of Federal Regulations, Part 273 -Standards for Universal Waste Management;
- Title 40, Code of Federal Regulations, Part 268 - Land Disposal Restrictions;
- Title 40, Code of Federal Regulations, Part 761 - Polychlorinated Biphenyls Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions; and
- Title 49, Code of Federal Regulations, Parts 100-199 - Transportation of Hazardous Materials.

4.0 EVALUATION OF CLEANUP ALTERNATIVES

4.1 REMEDIAL ACTION OBJECTIVE

The remedial action objective for Central Building ACMs and other hazardous materials is to prevent these materials from causing unacceptable risk to human health. The following formula is commonly used to represent risk:

RISK = EXPOSURE X CONCENTRATION

As indicated by this common formula, risk can be reduced by limiting exposure or by reducing the magnitude of contaminant concentration. The human exposure pathway of concern for ACMs is inhalation. As a result, ACM exposure can be limited by isolating ACMs from human contact or by maintaining ACMs in good condition so that asbestos fibers would not be released into indoor air where exposure via inhalation could occur. The only way to reduce ACM concentration is to perform asbestos abatement, which would reduce concentration to zero. If concentration is zero, then risk also would be zero.

4.2 CLEANUP ALTERNATIVES

The optimal cleanup alternative for ACM and other hazardous materials will depend on future plans for the Central Building. Three options are described below. These options cover the full spectrum of possible cleanup alternatives.

4.2.1 Alternative 1: No Abatement Alternative

The No Abatement Alternative is essentially the alternative that has been implemented by the School District and then BTI since use of the building as a middle school was discontinued in 2009. Under this alternative, the School District must continue to secure the building to eliminate trespassing and also minimize uses of the building that require School District employees to enter the building. This alternative may be preferred until plans for the renovation of the building have been determined.

Several ACMs were identified during the Stantec RBM Survey as being in fair condition including:

- Gray 9” x 9” VFT in stair landings, Rooms 33, 34 and 35, 1st Floor Central Corridor Vestibule and Kitchen;
- Brick red 9” x 9” VFT in Room 31;
- Black asphaltic rug in 3rd Floor SW Closet and adjacent alcove; and
- Tan 9” x 9” VFT in 3rd Floor Corridors, Room 32, Auditorium Ramps, Paint Storage Closet and 1st Floor Corridors.

However, the condition ratings in the RBM Survey are based on average condition of each discrete material. There are smaller areas where building materials are in poor condition, most commonly as a result of water damage. ACM in poor condition represents a current risk to anyone that may enter the building. As a result, Stantec recommends that as part of the No Abatement Alternative, signage identifying this potential hazard be erected, and where reasonably implementable, access to these areas

be prohibited and barred. For example, in Room 31, VFT in poor condition is present. The door into Room 31 should be closed and locked, and signage indicating the hazard within Room 31 and prohibiting access posted on the door.

Photograph of Damaged VFT in Room 31

In order to prevent ACM releases to the exterior environment surrounding the Central Building, the building envelope must be maintained. Windows are the most obvious weak link in maintaining the building envelope. As a result, all broken windows should be addressed to maintain a secure building envelope. This might include window replacement or using plywood to "board up" a broken window. This is particularly important if there is known ACM in poor condition near a broken window.

Roofing is part of the building envelope and is also ACM. Maintenance and repair will need to continue on the roof to ensure the building envelope does not fail and release ACM to the surrounding environment. In addition to repair, placement of tarp or other lightweight protective material could be placed on the roof and weighed down to protect problem areas from the elements.

Based on an Architectural Assessment of the Central Building conducted by Trout Architects in 2019, the building is in excellent structural condition (Trout, 2019). The Architectural Assessment report states that the foundation is structurally sound and with no apparent signs of differential settlement. The stone walls supported by the foundation are straight and plumb. The lower floor concrete slabs, where exposed, do not show signs of major cracking or settlement. The wood flooring systems above are also sound and level. Based on this analysis, that the short-term risk of structural failure of the building is low. Such a structural failure could result in a release of ACM or hazardous materials to the exterior environment. The building structure integrity must be reasonably maintained to minimize the risk of structural failure and the release of ACM or hazardous materials into the exterior environment.

Lastly, under the No Abatement Alternative, BTI must 1) limit access to the building interior using security measures, including limiting access by School District personnel, 2) ensure that the hazards of building entry are properly communicated to any School District or BTI personnel that may enter the building, and 3) establish an entry protocol for School District or BTI personnel that may enter the building.

4.2.2 Alternative 2: Partial Encapsulation or Abatement of ACM and Hazardous Substances

The Partial Abatement Alternative may range from abating all ACM and LBP in poor condition as a temporary measure to reduce the current risk to human health, to abating ACM and other hazardous materials impacted by a limited renovation of the building. Under this range of alternatives, ACM would

remain in the building, and would require implementation of an Operations and Maintenance Plan to ensure remaining ACM does not pose a threat to those who might enter the building. If possible, a new roof would encapsulate the previous ACM layers of roofing but would likely not meet fire department standards and need to be removed upon building occupancy.

4.2.3 Alternative 3: Complete Abatement of ACM and Hazardous Substances

The Complete Abatement Alternative requires the abatement of all ACM, abatement of all LBP in poor condition, and encapsulation of all lead-containing paint. This alternative must be selected if the building were to be demolished, and likely would be the preferred alternative should substantial renovation of the building occur. Under this alternative, all ACM and LBP in poor condition would be removed, and there would be no on-going management requirements.

4.3 CLEANUP ALTERNATIVE EVALUATION

To satisfy EPA requirements, the effectiveness, ability to implement, and cost of each alternative must be considered prior to selecting a recommended cleanup alternative.

4.3.1 Effectiveness

Effectiveness is evaluated by 1) the ability to achieve the desired level of protection as quickly as possible, and 2) whether the alternative can maintain the desired level of protection over the long-term.

4.3.1.1 Alternative 1

The No Abatement Alternative would use engineering and institutional controls (e.g., signage, locked doors) to manage identified ACMs and other hazardous materials in-place within the Central Building. Various engineering and institutional controls (generally described above in Section 4.2.1), if properly implemented, would be effective in mitigating the risk associated with ACM and LBP presence by minimizing or eliminating human exposure to these materials. However, maintaining the building roof would create an increased risk of exposure and building envelope/roof failure with time. The effectiveness of this alternative requires initial measures to isolate hazards, and continued management to maintain hazard isolation and maintain fair condition of the roof. The overall effectiveness of Alternative 1 is considered poor as the long-term reliability of on-going management is considered challenging and roofing will eventually need to be removed and replaced.

4.3.1.2 Alternative 2

The Partial Encapsulation and Abatement Alternative would use a combination of abatement, encapsulation, and engineering and institutional controls to mitigate risks associated with ACMs and LBP. Various engineering and institutional controls (generally described above in Section 4.2.1), if properly implemented, would be effective in mitigating the risk associated with ACM and LBP that BTI may elect to leave in place by minimizing or eliminating human exposure to these materials. The abatement of select materials would eliminate the potential for exposure associated with all abated ACMs. Roof overlay encapsulation would also temporarily eliminate the potential for exposure until the building is occupied.

The effectiveness of this alternative requires partial asbestos abatement and encapsulation, initial measures to isolate remaining hazards, and continued management to maintain hazard isolation. The overall effectiveness of Alternative 2 is considered moderate. This rating is based upon the fact that the quantity of ACMs would be reduced through partial abatement, and also the fact that the long-term reliability of on-going management of remaining ACMs is considered challenging.

4.3.1.3 Alternative 3

The Complete Abatement Alternative would use abatement to remove all ACMs and LBP. With all ACMs removed from the Central Building, risk to human health associated with exposure to ACMs would be eliminated. The overall effectiveness of Alternative 3 is considered good as no long-term management would be required to prevent ACM exposure.

4.3.2 Ability to Implement

The assessment of implementability is intended to evaluate whether, or with how much difficulty, the cleanup alternative can be implemented and whether the alternative's continued effectiveness can be assessed and verified.

4.3.2.1 Alternative 1

Alternative 1 has generally already been implemented by the School District and then BTI. Stantec recommends that limited additional measures (described in Section 4.2.1) be taken to ensure the isolation of ACMs in poor condition from School District or BTI personnel that may enter the building or work on the roof. Further, the effectiveness of Alternative 1 is readily verifiable through the collection and analysis of air samples for ACM fibers. The implementability rating for Alternative 1 is good.

4.3.2.2 Alternative 2

The Partial Abatement and Encapsulation Alternative requires the implementation of 1) limited asbestos abatement; 2) Encapsulation of roofing with a roofing overlay; and 3) the same engineering and institutional controls required under Alternative 1 for any ACMs not abated. There are no DEQ-licensed asbestos abatement contractors in Baker City, Oregon. However, there are four licensed asbestos abatement contractors located within a 125-mile radius of Baker City. Thus, the technical capabilities to perform the limited asbestos abatement are reasonably available. The Baker Sanitary Landfill holds a DEQ permit for the acceptance of ACM wastes. Therefore, the transportation and disposal of abated ACMs is readily available. Based on these implementability factors, the ability to implement rating for Alternative 2 is good-moderate.

4.3.2.3 Alternative 3

The complete Abatement Alternative requires comprehensive asbestos abatement. Based on the implementability factors associated with asbestos abatement described in Section 4.3.2.2, but also considering the much larger scale of abatement activities, the ability to implement rating for Alternative 3 is moderate.

4.3.3 Cost

4.3.3.1 Alternative 1

The ROM cost associated with Alternative 1 is approximately $10,000. These costs are associated with 1) added isolation measures for ACMs in poor condition and 2) mitigating the building envelope (the School District and BTI have taken effective measures, but additional measures are needed). Based on this low implementation cost, Alternative 1 receives a cost rating of good.

4.3.3.2 Alternative 2

The ROM cost estimate for this alternative ranges from $400,000 to $500,000. The low-end cost estimate includes the abatement of ACMs in poor condition, encapsulation by roofing overlay, and all elements of Alternative 1. The high-end cost estimate includes the abatement of all ACMs in poor condition, the abatement of select ACMs to-be-determined based on building renovation plans, and all elements of Alternative 1. This implementation cost results in a cost rating of moderate.

4.3.3.3 Alternative 3

The ROM cost estimate for this alternative, is $370,000 as indicated in the 2019 RBM Survey report, which excluded the roof. The abatement cost with the roof will total approximately $540,000 and $500,000 for a new roof (Trout, 2022) to seal the building envelope for a total cleanup cost of $1,040,000. This estimate includes the abatement of all ACMs identified in the RBM Survey report and listed in Section 2 of this ABCA, the abatement of 3,000 SF of LBP in poor condition, and the encapsulation of 8,000 SF of lead-containing paint in poor condition. This also includes the cost of a new roof as that will be required to maintain the building envelope once the previous roofing is abated. This implementation cost results in a cost rating of moderate-poor.

4.3.4 Green Remediation Considerations

The carbon footprint associated with asbestos and other hazardous abatement is relatively small. Electrical service in the building is active and will provide power for hand power tools and fans associated with abatement containment systems. ACM waste requires disposal in a DEQ approved landfill, but the Baker Sanitary Landfill is located less than 7 miles from the Central Building property so the carbon footprint associated with ACM transport for disposal will be relatively small. Finally, reuse of the Central Building would have a much smaller carbon footprint than demolition of the building and construction a new building of similar function and size.

4.4 RECOMMENDED CLEANUP ALTERNATIVE

In order to quantitatively evaluate the three cleanup alternatives, the following point system is utilized:

- Good – 5 points
- Good-Moderate – 4 points
- Moderate – 3 points
- Moderate-Poor – 2 points

- Poor – 1 point

The application of this scoring system for each of the three scoring criteria listed above results in the following point totals.

- Alternative 1 – 11
- Alternative 2 – 10
- Alternative 3 – 12

Based on this quantitative scoring system, the recommended cleanup alternative is Alternative 3: Complete Abatement of ACM and Hazardous Substances.

5.0 REFERENCES

Stantec, 2019. Regulated Building Materials Survey, 2425 Washington Avenue, Baker City, OR 97814. Prepared for Baker School District 5J. June 4, 2019.

Trout, 2019. Architectural Assessment – Central Building, Baker City, Oregon. Prepared for Baker City and Hunter Noack. March 27, 2019

Trout, 2022. Roof Abatement and Reroof Cost Estimate – Central Building, Baker City, Oregon. Prepared for Stantec and BTI. January 3, 2022.

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0 June 6, 2019