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I. JURISDICTION

1. This Administrative Settlement Agreement (“Settlement”) is entered into pursuant to the authority of the Attorney General of the United States to compromise and settle claims of the United States, which authority, in the circumstances of this settlement, has been delegated to the undersigned Department of Justice official. The Environmental Protection Agency (EPA) is proceeding under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) authority vested in the President and delegated to the Administrator of EPA and further delegated to the undersigned Region official, including the authority in section 122(h)(1) of CERCLA, which authority has been delegated to the Regional Administrators of EPA by EPA Delegation No. 14-14-D (Cost Recovery Non-Judicial Agreements and Administrative Consent Orders). These authorities were further redelegated by the Regional Administrator of EPA Region 8 by EPA Delegation No. 14-14-D (Cost Recovery Non-Judicial Agreements and Administrative Consent Orders) and then further redelegated by the Assistant Regional Administrator to Region 8’s Associate Regional Counsel for Enforcement.
2. This Settlement is made and entered into by the United States on behalf of EPA, the State of Colorado (“State”), Commodore Mining Company, Del Monte Mining Company, Kanawha Mines, LLC, and Mineral County, Colorado (collectively the “Parties”). Commodore Mining Company, Del Monte Mining Company, and Kanawha Mines, LLC are collectively referred to as “Settling Parties.” Mineral County, Colorado is referred to as “Purchaser.” Settling Parties and Purchaser consent to and will not contest the authority of the United States or the State to enter into this Settlement or to implement or enforce its terms.

II. BACKGROUND

3. This Settlement concerns the Nelson Tunnel/Commodore Waste Rock Superfund Site (“Site”) located in Mineral County, Colorado. EPA and the State allege that the Site is a facility as defined by section 101(9) of CERCLA.
4. In response to the release or threatened release of hazardous substances at or from the Site, EPA and the State undertook response actions at the Site pursuant to section 104 of CERCLA and will undertake additional response actions in the future.
5. In performing response actions at the Site, EPA and the State have incurred response costs and will incur additional response costs in the future.
6. EPA and the State allege that Settling Parties are responsible parties pursuant to section 107(a) of CERCLA, 42 U.S.C. § 9607(a), and are jointly and severally liable for response costs incurred and to be incurred at the Site.
7. EPA has reviewed the Financial Information submitted by Settling Parties to determine whether Settling Parties are financially able to pay response costs incurred and to be incurred at the Site. Based upon this Financial Information, EPA has determined that Settling Parties have limited financial ability to pay for response costs incurred and to be incurred at the Site.

8. Purchaser represents that it is a bona fide prospective purchaser (BFPP) as defined by sections 101(40) and 107(r)(1) of CERCLA, that it has and will continue to comply with sections 101(40) and 107(r) during its ownership of the Transferred Properties, and thus qualifies for the protection from liability under CERCLA set forth in section 107(r)(1) of CERCLA with respect to the Transferred Properties. Purchaser agrees to undertake all actions required by this Settlement.
9. This Settlement provides that Settling Parties will Transfer certain mining claims to Purchaser, which will in turn support Purchaser's efforts to preserve the important historical structures on these mining claims. The Parties acknowledge that this Settlement is structured to support Purchaser's efforts to stabilize and preserve the historical structures.
10. The Parties recognize that this Settlement has been negotiated in good faith and that this Settlement is entered into without the admission or adjudication of any issue of fact or law. The actions undertaken by Settling Parties and Purchaser in accordance with this Settlement do not constitute an admission of any liability. Settling Parties and Purchaser do not admit and retain the right to controvert in any subsequent proceedings other than proceedings to implement or enforce this Settlement, the validity of the facts or allegations contained in this Section.

III. PARTIES BOUND

11. This Settlement shall be binding upon the United States and the State, and upon Settling Parties and Purchaser and their successors. Any change in ownership or corporate or other legal status of Settling Parties or Purchaser, including but not limited to any transfer of assets or real or personal property, shall in no way alter Settling Parties' or Purchaser's responsibilities under this Settlement, except as provided in Paragraphs 27 and 28 of the Property Requirements Section, respectively. Settling Parties' and Purchaser's responsibilities under this Settlement cannot be assigned except under a modification executed in accordance with Section XXIII (Modification).
12. Settling Parties and Purchaser shall provide notice of this Settlement to officers, directors, employees, agents, contractors, subcontractors, or any person representing Settling Parties or Purchaser with respect to the Site. Settling Parties and Purchaser are responsible for ensuring that such persons act in accordance with the terms of this Settlement.

IV. STATEMENT OF PURPOSE

13. Settling Parties and Purchaser agree to undertake all obligations required of each of them by this Settlement. In exchange, this Settlement resolves Settling Parties' alleged civil liability for the Site as provided in the covenants not to sue in Section XIV, subject to the limitations and reservations contained in Sections XIV and XV. In exchange, this Settlement also resolves Purchaser's potential CERCLA liability in accordance with the covenants not to sue in Section XIV, subject to the limitations and reservations contained in Section XIV and XV. The Parties recognize that this Settlement is fair, reasonable, in the public interest, and consistent with CERCLA.

V. DEFINITIONS

14. Unless otherwise expressly provided in this Settlement, terms used in this Settlement that are defined in CERCLA or in regulations promulgated under CERCLA shall have the meaning assigned to them in CERCLA or in such regulations. Whenever terms listed below are used in this Settlement or its appendices, the following definitions shall apply:

“Affected Property” means all real property at the Site and any other real property, owned or controlled by Settling Parties or Purchaser, where EPA or the State determine, at any time, that access or land, water, or other resource use restrictions are needed to implement response actions at the Site, pursuant to their authorities under section 104 of CERCLA, 42 U.S.C. § 9604, including, but not limited to, the properties identified in Appendix A, List of Affected Properties.

“BFPP” means a bona fide prospective purchaser as described in section 101(40) of CERCLA, 42 U.S.C. § 9601(40).

“CERCLA” means the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §§ 9601-9675.

“Commodore Waste Rock Pile” means Operable Unit 1 of the Site, which is the waste rock pile located in the West Willow Creek drainage near the portals of two adits commonly referred to as the Nelson Tunnel and the Commodore No. 5.

“County Ordinance” means Mineral County Ordinance No. 23-01 for the Regulation of Land Use, Development and Activities Upon Certain Property Within Unincorporated Mineral County Containing Mine Waste Source Areas Where Residual Mine Wastes and/or Engineered Components Exist, Specifically Including the Nelson Tunnel/Commodore Waste Rock Superfund Site, enacted pursuant to the Colorado Environmental Covenants Law, C.R.S. § 25-15-320(3)(b), attached as Appendix B.

“Day” or “day” mean a calendar day. In computing any period of time under this Settlement, where the last day would fall on a Saturday, Sunday, or federal or State holiday, the period shall run until the close of business of the next working day.

“DOJ” means the United States Department of Justice.

“Effective Date” means the effective date of this Settlement as provided by Section XXVII.

“EPA” means the U.S. Environmental Protection Agency.

“EPA Hazardous Substance Superfund” means the Hazardous Substance Superfund established by the Internal Revenue Code, 26 U.S.C. § 9507.

“Existing Contamination” means:

- a. any hazardous substances, pollutants or contaminants present or existing on or under the Transferred Properties prior to or as of the Effective Date;

- b. any hazardous substances, pollutants or contaminants that migrated from the Transferred Properties prior to the Effective Date; and
- c. any hazardous substances, pollutants or contaminants present or existing at the Site as of the Effective Date that migrate onto, under or from the Transferred Properties after the Effective Date.

“Financial Information” means those financial documents identified in Appendix C, List of Financial Information.

“Historic Structures” means those structures located within and around the Nelson Tunnel/Commodore Waste Rock Superfund Site as described in Appendix D, Colorado Division of Reclamation and Mine Safety Structural Evaluation Report.

“National Contingency Plan” or “NCP” mean the National Oil and Hazardous Substances Pollution Contingency Plan promulgated pursuant to section 105 of CERCLA, 42 U.S.C. § 9605, codified at 40 C.F.R. Part 300, and any amendments thereto.

“Ore Sorting House” means the ore house that is located adjacent to the Nelson Tunnel/Commodore Waste Rock Superfund Site on County Road 503 and described in Appendix D, Colorado Division of Reclamation and Mine Safety Structural Evaluation Report.

“Paragraph” or “¶” mean a portion of this Settlement identified by an Arabic numeral or an upper- or lower-case letter.

“Parties” means the United States, the State of Colorado, Settling Parties, and Purchaser.

“Purchaser” means Mineral County, Colorado.

“RCRA” means the Solid Waste Disposal Act, as amended, 42 U.S.C. §§ 6901-6992 (also known as the Resource Conservation and Recovery Act).

“Section” means a portion of this Settlement identified by a Roman numeral.

“Settlement” means this Administrative Settlement Agreement and any attached appendices. In the event of conflict between this Settlement and any appendix, the Settlement shall control.

“Settling Parties” means Commodore Mining Company, Del Monte Mining Company, and Kanawha Mines, LLC.

“Site” means the Nelson Tunnel/Commodore Waste Rock Superfund Site, which was placed on the National Priorities List on September 3, 2008, see 42 U.S.C. § 9605 and 73 Fed. Reg. 51,368 (Sept. 3, 2008). The Site is located in the San Juan Mountains about 1.5 miles north of the statutory town of Creede in Mineral County, Colorado and generally shown on the map included in Appendix E.

“Six Claim Properties” means a subset of the Transferred Properties, specifically the Sunol, Arian, Malissa, Silent Friend, Pueblo Chief, and Silver King mining claim properties, as described in Appendix F.

“State” means the State of Colorado by and through the Colorado Department of Public Health and Environment.

“Transfer” means to sell, assign, convey, lease, mortgage, or grant a security interest in, or where used as a noun, a sale, assignment, conveyance, or other disposition of any interest by operation of law or otherwise.

“Transferee” means the party to whom a Transfer is made.

“Transferred Properties” means those properties owned by Commodore Mining Company and Del Monte Mining Company that are to be Transferred to Purchaser and described in Appendix H.

“United States” means the United States of America and each department, agency, and instrumentality of the United States, including EPA and the United States Forest Service.

“United States Forest Service” means the United States Forest Service and its successor departments, agencies, or instrumentalities.

“Waste Material” means (a) any “hazardous substance” under section 101(14) of CERCLA; (b) any pollutant or contaminant under section 101(33) of CERCLA; (c) any “solid waste” under section 1004(27) of RCRA or under section 101(6) of the Colorado Solid Waste Disposal Sites and Facilities Act, C.R.S. §§ 30-20-100 to 1417.

“Work” means all obligations of Settling Parties and Purchaser under Sections VI (Transferred Properties), VII (Property Requirements), and VIII (Indemnification and Insurance).

VI. TRANSFERRED PROPERTIES

15. **Transfer of Properties by Settling Parties to Purchaser.** Within 10 days of the Effective Date, Settling Parties shall Transfer full ownership of the Transferred Properties, as described in Appendix H, to Purchaser.
16. **Raising Funds for the Historical Structures.** Within 30 days of Purchaser acquiring the Transferred Properties, Purchaser shall commence best efforts to raise funds to stabilize and preserve the Historical Structures pursuant to Paragraph 18. Best efforts may include the Transfer of the Six Claim Properties, as identified in Appendix F, through the following, as appropriate: (i) entering into a listing agreement, for the purpose of marketing the property, with a real estate broker, dealer, or agent licensed in the State of Colorado who customarily deals with real property similar to the Six Claim Properties; (ii) advertising the Six Claim Properties in appropriate publications; (iii) listing the Six Claim Properties with appropriate real estate listing services; (iv) maintaining the Six Claim Properties in a condition suitable for showing to prospective parties; and (v) providing access to the Six Claim Properties, at reasonable times, to real estate

brokers, dealers or agents and prospective parties. If EPA requests, Purchaser shall provide EPA with any documentation regarding its best efforts.

17. Net Proceeds of Transferred Properties

- a. For purposes of this Paragraph, “net proceeds” means all consideration received by Purchaser from the Transfer of any of the Transferred Properties, not including: (i) any reasonable closing costs paid regarding the Transfer; (ii) any reasonable broker’s fees regarding the Transfer; and (iii) any State and/or municipal transfer taxes regarding the Transfer.
- b. **Use of Net Proceeds.** The net proceeds Purchaser receives, shall only be used to finance or reimburse Purchaser for direct costs associated with any activities performed on the Historic Structures pursuant to an approved Work Plan under Paragraph 18. Net proceeds may not be used (i) for indirect costs associated with activities on the Historic Structures or (ii) for costs associated with fulfilling any other obligation under this Settlement, including any activities under Paragraph 16. For purposes of this Paragraph, “indirect costs” means Purchaser’s internal costs, including its salaries, travel, and other internal administrative costs associated with the activities proposed or performed at the Historic Structures. Any such net proceeds shall first be used toward the stabilization and maintenance of the Ore Sorting House, unless other Historic Structures are in imminent danger of being lost or seriously damaged, in which case Purchaser shall include a justification for using the net proceeds for activities on the other Historic Structure(s) in its Work Plan, submitted pursuant to Paragraph 18.
- c. **Accounting for Net Proceeds.** Purchaser shall maintain documentation calculating the net proceeds and all documentation regarding the values used in the calculation, including: (i) copies of all documents to be executed regarding the Transfer; (ii) documentation of the amounts of closing costs to be paid; (iii) documentation of any broker’s fees regarding the Transfer; and (iv) documentation of the amounts of State and/or municipal transfer taxes to be paid regarding the Transfer of the Transferred Property. Purchaser shall place and maintain any net proceeds received from the Transfer of the Transferred Properties into an interest-bearing account dedicated solely for use in accordance with Paragraph 17.b and subject to meaningful financial controls to prevent funds from being expended on any other activity. Purchaser shall, upon request by EPA, provide documentation related to the information and accounting required under this Paragraph.

VII. PROPERTY REQUIREMENTS

18. **Work Plan for Activities on Historic Structures.** Any activities Purchaser proposes to conduct or have conducted on the Historic Structures shall be outlined in a Work Plan that is submitted to and approved in writing by EPA and the State prior to the start of any work on the Historic Structures. Recognizing the often time-sensitive nature of the field season associated with the Site, EPA and the State will respond to Purchaser no later than fifteen (15) days after submission of any Work Plan.

19. **Site Security.** Purchaser shall provide annual security for the Site through weekly visits to the Site, unless EPA and the State notify Purchaser in writing that this is no longer needed.
20. **County Road 503 Maintenance.** Purchaser shall conduct year-round maintenance of County Road 503 from the City of Creede up to the Site to allow for EPA, the State, and their respective representatives, contractors, and subcontractors to access the Site by vehicle, unless EPA and the State notify Purchaser in writing that this is no longer needed.
21. **Staging of Response Equipment and Allowed Transfer of this Obligation.** Purchaser shall allow EPA, the State, and their respective representatives, contractors, and subcontractors to use Purchaser's Affected Property that comprises the Commodore Waste Rock Pile free of charge for purposes of any response activities at the Site, including as a staging area for response equipment, unless EPA and the State notify Purchaser that this obligation is no longer needed. If Purchaser Transfers such Affected Property before the remedy has achieved construction completion, Purchaser may Transfer its rights, obligations, and benefits of the Settlement with respect to such Affected Property to the Transferee, provided the United States, the State, and Purchaser so agree, and these parties modify this Settlement in writing, and subject to the following:
 - a. Any such Transfer by Purchaser of the rights, benefits, and obligations conferred upon Purchaser under this Settlement with respect to such Affected Property, shall require the prior written consent of the United States and the State in their sole discretion, and is not subject to judicial review.
 - b. The United States and the State expect the Transferee of any Transfer of the Affected Property comprising the Commodore Waste Rock Pile to avail itself of the protections afforded a "bona fide prospective purchaser" under 42 U.S.C. Section 9601(40) and 9607(r)(1) and will maintain its status as a "bona fide prospective purchaser" for the duration of its interest in the Commodore Waste Rock Pile.
 - c. Prior to or simultaneous with any Transfer of the rights, benefits, and obligations of Purchaser under this Settlement with respect to the Commodore Waste Rock Pile, the Transferee must consent in a written modification to this Settlement in accordance with Section XXIII (Modification) to be bound by specified terms, conditions, and obligations of this Settlement, which must include but are not limited to this Section VII, Section XIII (Certification by Purchaser), and Section XVIII (Effect of Settlement/Contribution), in order for the covenants not to sue in Section XIV to be available to Transferee. Such modification shall be in substantially the form attached as Appendix G. The covenants not to sue in Section XIV and the contribution protection under Section XVIII will be effective with respect to any Transferee upon counter signature by the United States and the State.

22. **Maintenance of the Transferred Properties.** So long as Purchaser owns any Transferred Property, Purchaser shall maintain and make necessary repairs to such Transferred Property.
23. **Agreements Regarding Access and Non-Interference.** Settling Parties and Purchaser shall, with respect to their Affected Property:
- a. Provide the United States, the State, parties who have entered or may enter into an agreement with the United States or the State for performance of response actions at the Site, and their representatives, contractors, and subcontractors with access at all reasonable times to their Affected Property to conduct any activity regarding the Settlement and relating to response actions at the Site including the following activities:
- (1) Implementing the Work;
 - (2) Verifying any data or information submitted to the United States or the State;
 - (3) Conducting investigations regarding contamination at or near the Site;
 - (4) Obtaining samples;
 - (5) Assessing the need for, planning, implementing, or monitoring response actions;
 - (6) Inspecting and copying records, operating logs, contracts, or other documents maintained or generated by Settling Parties or its agents, consistent with Section XX (Records);
 - (7) Assessing Settling Parties' and Purchaser's compliance with the Settlement;
 - (8) Determining whether the Affected Property is being used in a manner that is prohibited or restricted, or that may need to be prohibited or restricted under the Settlement; and
 - (9) Implementing, monitoring, maintaining, reporting on, and enforcing any institutional controls or any land, water, or other resource use restrictions regarding the Affected Property.
- b. Refrain from using their Affected Property in any manner that EPA determines will (i) pose an unacceptable risk to human health or to the environment due to exposure to Waste Material or (ii) interfere with or adversely affect the implementation, integrity, or protectiveness of response actions at the Site.
24. **Land, Water, or Other Resource Use Restrictions.** Settling Parties and Purchaser shall: (1) remain in compliance with any land use restrictions established in connection with any response action at their Affected Property; (2) implement, maintain, monitor, and

report on institutional controls; and (3) not impede the effectiveness or integrity of any institutional control employed at their Affected Property in connection with a response action. The following is a list of land, water, or other resource use restrictions currently applicable to Affected Property:

- a. Purchaser has enacted and will maintain the County Ordinance, which is attached as Appendix B. Purchaser has entered into an intergovernmental agreement with the State, which is attached as Appendix I.

25. Notice to Successors-in-Title

- a. Settling Parties and Purchaser shall, within 30 days after the Transfer of properties required under Paragraph 15, submit for EPA approval a notice to be filed regarding their respective Affected Property in the appropriate land records. The notice must: (1) include a proper legal description of the Affected Property; (2) provide notice to all successors-in-title: (i) that the Affected Property is part of, or related to, the Site; and that (ii) that Settling Parties and Purchaser have entered into an Administrative Settlement Agreement requiring compliance with the property requirements in this Section; and (iii) of the name, CERCLA docket number, and Effective Date of this Settlement. Settling Parties and Purchaser shall record the notice within 10 days after EPA's approval of the notice and submit to EPA, within 10 days thereafter, a certified copy of the recorded notice.
- b. Settling Parties and Purchaser shall, prior to entering into a contract to Transfer any of their respective Affected Property, or 60 days prior to Transferring any of their Affected Property, whichever is earlier:
 - (1) Notify the proposed Transferee that EPA performed a response action regarding the Site and that Settling Parties and Purchaser have entered into an Administrative Settlement Agreement requiring compliance with the property requirements in this Section (identifying the name, CERCLA docket number, and the Effective Date of this Settlement); and
 - (2) Notify EPA and the State of the name and address of the proposed Transferee and provide EPA and the State with a copy of the above notice that it provided to the proposed Transferee, and notify EPA if Settling Parties or Purchaser seeks termination of its obligations in accordance with Paragraph 27 or Paragraph 28, respectively.

26. For so long as Settling Parties and Purchaser are owners or operators of any of the Affected Property, Settling Parties and Purchaser shall require that Transferees and other parties with rights to use any of their respective Affected Property provide access and cooperation to EPA and the State, their authorized officers, employees, representatives, and all other persons performing response actions under EPA or State oversight. Settling Parties and Purchaser shall require that Transferees and other parties with rights to use any of their respective Affected Property implement and comply with any land use restrictions and institutional controls, including the County Ordinance, on the Affected

Property in connection with any response action, and not contest EPA's and the State's authority to enforce any land use restrictions and institutional controls on any of their respective Affected Property.

27. Upon sale or other conveyance of any of the Affected Property, other than the Transfer of properties required under Paragraph 15, Settling Parties shall require that each Transferee or other holder of any interest in any of their respective Affected Property shall comply with Section XX (Records) and Paragraphs 23 through 27, 29 and 30 of this Section VII (Property Requirements) and not contest EPA's and the State's authority to enforce any land use restrictions and institutional controls on any of their respective Affected Property. After demonstration to EPA that a Transferee or other holder of any interest in any of the Affected Property agrees to comply with the requirements of this ¶ 27, EPA will notify Settling Parties that its obligations under this Settlement, except obligations under Section XX (Records), are terminated with respect to any of that Affected Property.
28. Upon sale or other conveyance of any of the Affected Property, other than the Transfer of properties required under Paragraph 15, Purchaser shall require that each Transferee or other holder of any interest in any of their respective Affected Property shall comply with Section XX (Records) and Paragraphs 21 through 26 and 28 through 30 of this Section VII (Property Requirements) and not contest EPA's and the State's authority to enforce any land use restrictions and institutional controls on any of their respective Affected Property.
 - a. Prior to Transfer, Purchaser shall secure access from Transferee, for any applicable Affected Property, to allow continued performance by Purchaser of the obligations under Paragraph 18 (Work Plan for Activities on Historic Structures), Paragraph 19 (Site Security), and Paragraph 20 (County Road 503 Maintenance).
 - b. After demonstration to EPA that Purchaser has obtained agreement from a Transferee or other holder of any interest in any of the Affected Property to comply with the requirements of this Paragraph 28 and, where required, has entered an access agreement for an applicable Affected Property, EPA will notify Purchaser that its obligations under this Settlement, except obligations under Paragraph 17 (Net Proceeds of Transferred Properties), Paragraph 18 (Work Plan for Activities on Historic Structures), Paragraph 19 (Site Security), Paragraph 20 (County Road 503 Maintenance), Paragraph 21 (Staging of Response Equipment and Allowed Transfer of this Obligation), and Section XX (Records), are terminated with respect to any of that Affected Property. The obligations under Paragraph 21 (Staging of Response Equipment and Allowed Transfer of this Obligation) may only be terminated with respect to any Affected Property if Purchaser obtains a written agreement from Transferee to assume this obligation pursuant to Paragraph 21.
29. Settling Parties and Purchaser shall provide a copy of this Settlement to any current lessee, sublessee, and other party with rights to use any portion of their respective Affected Property.

30. Notwithstanding any provision of this Settlement, the United States and the State retain all of their access authorities and rights, as well as all of their rights to require land, water, resource use restrictions and institutional controls, including enforcement authorities related thereto, under CERCLA, RCRA, the Colorado Environmental Covenants Law, Colorado Revised Statutes sections 25-15-317 to 327, and any other applicable statute or regulations.

VIII. INDEMNIFICATION AND INSURANCE

31. Indemnification

- a. The United States and the State do not assume any liability by entering into this Settlement or by virtue of any designation of Purchaser as EPA's or the State's authorized representative under section 104(e)(1) of CERCLA. Purchaser shall indemnify and save and hold harmless the United States and the State, and their officials, agents, employees, contractors, subcontractors, and representatives for or from any and all claims or causes of action arising from, or on account of, negligent or other wrongful acts or omissions of Purchaser, its officers, directors, employees, agents, contractors, or subcontractors, and any persons acting on Purchaser's behalf or under its designation of Purchaser as EPA's or the State's authorized representative under section 104(e)(1) of CERCLA. Further, Purchaser agrees to pay the United States and the State all costs they incur, including attorneys' fees and other expenses of litigation and settlement arising from, or on account of, claims made against the United States or the State based on negligent or other wrongful acts or omissions of Purchaser, its officers, directors, employees, agents, contractors, subcontractors, and any persons acting on its behalf or under its control, in carrying out activities under this Settlement. The United States and the State shall not be held out as a party to any contract entered into by or on behalf of Purchaser in carrying out activities under this Settlement. Purchaser and any such contractor may not be considered an agent of the United States or the State.
- b. The United States or the State shall give Purchaser notice of any claim for which the United States or the State plans to seek indemnification under this Paragraph 31, and shall consult with Purchaser prior to settling such claim.

32. Purchaser covenants not to sue and shall not assert any claim or cause of action against the United States or the State for damages or reimbursement or for set-off of any payments made or to be made to the United States or the State, arising from or on account of any contract, agreement, or arrangement between Purchaser and any person for performance of Work or other activities on or relating to the Site, including claims on account of construction delays. In addition, Purchaser shall indemnify and save and hold the United States and the State harmless with respect to any claims for damages or reimbursement arising from or on account of any contract, agreement, or arrangement between Purchaser and any person for performance of work on or relating to the Site, including claims on account of construction delays.

33. **Insurance.** Purchaser shall keep the Transferred Properties insured against loss from casualty and liability. Purchaser also shall secure, by no later than 15 days before commencing activities under an approved Work Plan pursuant Paragraph 18, the following insurance: (a) commercial general liability insurance with limits of liability of \$1 million per occurrence; (b) automobile liability insurance with limits of liability of \$1 million per accident; and (c) umbrella liability insurance with limits of liability of \$5 million in excess of the required commercial general liability and automobile liability limits. The insurance policy must name EPA and the State as an additional insured with respect to all liability arising out of the activities performed by or on behalf of Purchaser under this Settlement. Purchaser shall maintain this insurance until completion of activities pursuant to any Work Plan under Paragraph 18. In addition, for the duration of this Settlement, Purchaser shall satisfy, or shall ensure that its contractors or subcontractors satisfy, all applicable laws and regulations regarding the provision of worker's compensation insurance for all persons performing under an approved Work Plan on behalf of Purchaser in furtherance of this Settlement. Prior to commencement of any activities under an approved Work Plan, Purchaser shall provide to EPA certificates of such insurance and a copy of each insurance policy. Purchaser shall resubmit such certificates and copies of policies each year on the anniversary of the date a Work Plan was approved until completion of the activities pursuant to the Work Plan. If Purchaser demonstrates by evidence satisfactory to EPA that any contractor or subcontractor maintains insurance equivalent to that described above, or insurance covering all of the same risks but in a lesser amount, then, with respect to that contractor or subcontractor, Purchaser need provide only that portion of the insurance described above that is not maintained by the contractor or subcontractor. Purchaser shall ensure that all submittals to EPA under this Paragraph identify the Nelson Tunnel/Commodore Waste Rock Superfund Site, Creede, Colorado, and the CERCLA docket number for this action.

IX. FORCE MAJEURE

34. "Force Majeure," for purposes of this Settlement, means any event arising from causes beyond the control of Purchaser, of any entity controlled by Purchaser, or of Purchaser's contractors that delays or prevents the performance of any obligation under this Settlement despite Purchaser's best efforts to fulfill the obligation. Given the need to protect public health and welfare and the environment, the requirement that Purchaser exercise "best efforts to fulfill the obligation" includes using best efforts to anticipate any potential force majeure and best efforts to address the effects of any potential force majeure (a) as it is occurring and (b) following the potential force majeure such that the delay and any adverse effects of the delay are minimized to the greatest extent possible. "Force majeure" does not include financial inability to complete the Work, or increased cost of performance.
35. If any event occurs for which Purchaser will or may claim a force majeure, Purchaser shall notify EPA's RPM and the State Project Manager by email. The deadline for the initial notice is 5 days after the date Purchaser first knew or should have known that the event would likely delay performance. Purchaser shall be deemed to know of any circumstance of which any contractor of, subcontractor of, or entity controlled by Purchaser knew or should have known. Within 3 days thereafter, Purchaser shall send a

further notice to EPA that includes: (a) a description of the event and its effect on Purchasers' completion of the requirements of the Settlement; (b) a description of all actions taken or to be taken to prevent or minimize the delay; (c) the proposed extension of time for Purchaser to complete the requirements of the Settlement; (d) a statement as to whether, in the opinion of Purchaser, such event may cause or contribute to an endangerment to public health or welfare or the environment; and (e) all available proof supporting its claim of force majeure. Failure to comply with the notice requirements herein regarding an event precludes Purchaser from asserting any claim of force majeure regarding that event, provided, however, that if EPA, despite the late or incomplete notice, is able to assess to its satisfaction whether the event is a force majeure under ¶ 34 and whether Purchaser has exercised best efforts under ¶ 34, EPA may, in its unreviewable discretion, excuse in writing Purchaser's failure to submit timely or complete notices under this Paragraph.

36. EPA will notify Purchaser of its determination whether Purchaser is entitled to relief under ¶ 34, and, if so, the duration of the extension of time for performance of the obligations affected by the force majeure. An extension of the time for performance of the obligations affected by the force majeure shall not, of itself, extend the time for performance of any other obligation. Purchaser may initiate dispute resolution under Section X regarding EPA's determination within 15 days after receipt of the determination. In any such proceeding, Purchaser has the burden of proving that it is entitled to relief under ¶ 34 and that its proposed extension was or will be warranted under the circumstances.
37. The failure by EPA or the State to timely complete any activity under this Settlement is not a violation of the Settlement, provided, however, that if such failure prevents Purchaser from meeting one or more deadlines under this Settlement, Purchaser may seek relief under this Section.

X. DISPUTE RESOLUTION

38. Unless otherwise provided in this Settlement, Settling Parties and Purchaser must use the dispute resolution procedures of this Section to resolve any dispute arising under this Settlement.
39. A dispute will be considered to have arisen when one or more parties sends EPA and the State a timely written notice of dispute ("Notice of Dispute"). A notice is timely if sent within 30 days after receipt of the EPA notice or determination giving rise to the dispute or within 15 days in the case of a force majeure determination. Disputes arising under this Settlement must in the first instance be the subject of informal negotiations between the parties to the dispute. The period for informal negotiations may not exceed 90 days after the dispute arises, unless EPA otherwise agrees. If the parties to the dispute cannot resolve the dispute by informal negotiations, the position advanced by EPA is binding unless the party to the dispute initiates formal dispute resolution under ¶ 40. By agreement of the parties to the dispute, mediation may be used during this informal negotiation period to assist the parties to the dispute in reaching a voluntary resolution or narrowing of the matters in dispute.

40. Formal Dispute Resolution

- a. **Statements of Position.** Settling Parties or Purchaser may initiate formal dispute resolution by submitting to EPA, within 7 days after the conclusion of informal dispute resolution under ¶ 39, an initial Statement of Position regarding the matter in dispute. EPA's responsive Statement of Position is due within 20 days after receipt of the initial Statement of Position. All Statements of Position must include supporting factual data, analysis, opinion, and other documentation. A reply, if any, is due within 10 days after receipt of the response. If appropriate, EPA may extend the deadlines for filing statements of position for up to 15 days and may allow the submission of supplemental statements of position.
- b. **Formal Decision.** The Director of the Superfund & Emergency Management Division, EPA Region 8, will issue a formal decision resolving the dispute ("Formal Decision") based on the statements of position and any replies and supplemental statements of position. The Formal Decision is binding on the party to the dispute and shall be incorporated into and become an enforceable part of this Settlement.

41. The initiation of dispute resolution procedures under this Section does not extend, postpone, or affect in any way any requirement of this Settlement, except as EPA agrees. Stipulated penalties with respect to the disputed matter will continue to accrue, but payment is stayed pending resolution of the dispute, as provided in Paragraph 42.c.

XI. FAILURE TO COMPLY WITH SETTLEMENT

42. Stipulated Penalty

- a. If Settling Parties fail to Transfer the Transferred Properties as required by Paragraph 15 (Transfer of Properties by Settling Parties to Purchaser), Settling Parties shall be in violation of this Settlement and shall pay to EPA, as a stipulated penalty, \$100.00 per day that such action is late.
- b. All penalties, including any interest, accruing under this Section shall be due and payable to EPA within 30 days after Settling Parties' receipt from EPA of a demand for payment of the penalties. Settling Parties shall make all payments under this Section at <https://www.pay.gov> using the link for "EPA Miscellaneous Payment Cincinnati Finance Center," including the Site Name, docket number, and Site/Spill ID Number 08MB, and indicate in the comment field that the payment is for stipulated penalties. Settling Parties shall send to EPA, in accordance with Section XXI (Notices and Submissions), a notice of this payment including these references.
- c. Penalties shall accrue as provided in this Paragraph regardless of whether EPA has notified Settling Parties of the violation or made a demand for payment but need only be paid upon demand. All penalties shall begin to accrue on the day after performance is due and shall continue to accrue through the final day of completion of the activity. Any late payment, must also include an additional

amount for interest accrued from date of receipt of the demand through the date of payment. Interest in this Section means interest at the rate specified for interest on investments of the EPA Hazardous Substance Superfund, as provided under section 107(a) of CERCLA, compounded annually on October 1 of each year. The applicable rate of interest is the rate in effect at the time the interest accrues. The rate of interest is subject to change on October 1 of each year. As of the date EPA signs this Settlement, rates are available online at <https://www.epa.gov/superfund/superfund-interest-rates>.

- d. Notwithstanding any other provision of this Section, EPA may, in its unreviewable discretion, waive payment of any portion of the stipulated penalties that have accrued pursuant to this Settlement. Settling Parties' payment of stipulated penalties shall not excuse Settling Parties from performance of any other requirements of this Settlement.

43. Enforcement

- a. Nothing in this Settlement limits the authority of the United States to seek any remedy otherwise provided by law for Settling Parties' failure to pay stipulated penalties or interest.
- b. Nothing in this Settlement limits the authority of the United States or the State to seek any other remedies or sanctions available by virtue of Settling Parties' or Purchaser's failure to comply with any term or condition of this Settlement or of the statutes and regulations upon which it is based, including actions pursuant to section 122(h) of CERCLA, 42 U.S.C. § 9622(h)(3).
- c. If the United States or the State brings an action to enforce this Settlement against Settling Parties, Settling Parties shall reimburse the United States and the State for all costs of such action, including but not limited to costs of attorney time.
- d. If the United States or the State bring an action to enforce this Settlement against Purchaser, Purchaser shall reimburse the United States and the State for all costs of such action, including but not limited to costs of attorney time.
- e. The Parties agree that the United States District Court for the District of Colorado ("Court") will have jurisdiction, including under section 113(b) of CERCLA for any judicial enforcement action brought with respect to this Settlement.
- f. Notwithstanding ¶¶ 46 and 49 of this Settlement, if Settling Parties or Purchaser fail to comply with the terms of this Settlement, the United States or the State may file a lawsuit for breach of this Settlement, or any provision thereof, in the Court. In any such action, Settling Parties and Purchaser consent to and agree not to contest the exercise of personal jurisdiction over it by the Court. Settling Parties and Purchaser further acknowledge that venue in the Court is appropriate and agree not to raise any challenge on this basis.
- g. If the United States or the State file a civil action as contemplated by ¶ 43.e, to remedy breach of this Settlement, the United States or the State may seek, and the

Court may grant as relief, the following: a) an order mandating specific performance of any term or provision in this Settlement, without regard to whether monetary relief would be adequate; and b) any additional relief that may be authorized by law or equity.

XII. CERTIFICATION BY SETTLING PARTIES

44. Settling Parties certify that, to the best of their knowledge and belief, after thorough inquiry, they have:
- a. not altered, mutilated, discarded, destroyed or otherwise disposed of any records, reports, or information (including records, reports, documents and other information in electronic form) (other than identical copies) relating to their potential liability regarding the Site since notification of potential liability by the United States or the State and that they have fully complied with any and all EPA and State requests for information regarding the Site and Settling Parties' financial circumstances, including but not limited to insurance and indemnity information, pursuant to Sections 104(e) and 122(e)(3)(B) of CERCLA, 42 U.S.C. §§ 9604(e) and 9622(e)(3)(B), Section 3007 of RCRA, 42 U.S.C. § 6927, and state law;
 - b. submitted to EPA financial information that fairly, accurately, and materially sets forth their financial circumstances, and that those circumstances have not materially changed between the time the financial information was submitted to EPA and the time Settling Parties execute this Settlement Agreement; and
 - c. fully disclosed any information regarding the existence of any insurance policies or indemnity agreements that may cover claims relating to cleanup of the Site, and submitted to EPA upon request such insurance policies, indemnity agreements, and information.

XIII. CERTIFICATION BY PURCHASER

45. Purchaser certifies to the best of its knowledge and belief that after thorough inquiry and as of the date of Purchaser's signature: (a) it will become a BFPP as defined by section 101(40) of CERCLA upon acquisition of the Transferred Properties; (b) it has fully and accurately disclosed to EPA all information known to Purchaser and all information in the possession or control of its officers, directors, employees, contractors and agents which relates in any way to any Existing Contamination or any past or potential future release of hazardous substances, pollutants or contaminants at or from the Site; and (c) it has not altered, mutilated, discarded, destroyed or otherwise disposed of any documents and electronically stored information relating to the Site.

XIV. COVENANTS BY UNITED STATES, EPA, AND THE STATE

46. **Covenants by the United States and the State for Purchaser.** Subject to Section XV, the United States covenants not to sue or to take administrative action against Purchaser under sections 106 and 107(a) of CERCLA for Existing Contamination and the Work,

and the State covenants not to sue or take administrative action against Purchaser pursuant to section 107(a) of CERCLA for Existing Contamination and the Work.

47. The covenants under Paragraph 46: (a) take effect upon the Effective Date; (b) are conditioned on (i) the satisfactory performance by Purchaser of the requirements of this Settlement; and (ii) the veracity of the information provided to EPA and the State by Purchaser relating to Purchaser's involvement with the Site and the certification made by Purchaser in Paragraph 45; and (c) do not extend to any other person.
48. Nothing in this Settlement constitutes a covenant not to sue or not to take action or otherwise limits the ability of the United States, EPA, or the State to seek or obtain further relief from Purchaser if the information provided to EPA or the State by Purchaser relating to Purchaser's involvement with the Site or the certification made by Purchaser in Paragraph 45 is false or in any material respect inaccurate.
49. **Covenants by EPA and the State for Settling Parties.** Subject to Section XV, EPA covenants not to sue or to take administrative action against Settling Parties pursuant to sections 106 and 107(a) of CERCLA for the Site and the Work, and the State covenants not to sue or take administrative action against Purchaser pursuant to section 107(a) of CERCLA for the Site and the Work.
50. With respect to present and future liability, these covenants shall take effect upon the Effective Date. These covenants are conditioned upon the satisfactory performance by Settling Parties of their obligations under this Settlement. The covenants for Settling Parties are also conditioned upon the veracity and completeness of the Financial Information and the Insurance Information provided to EPA and the State by Settling Parties and the financial, insurance, and indemnity certification made by Settling Parties in Paragraph 44. The covenants for Settling Parties extend only to Settling Parties and do not extend to any other person.

XV. RESERVATIONS OF RIGHTS BY UNITED STATES, EPA, AND THE STATE

51. Subject to ¶¶ 46 and 49, nothing in this Settlement limits any authority of the United States, EPA, or the State to take, direct, or order all appropriate action to protect public health and the environment or to prevent, abate, respond to, or minimize an actual or threatened release of Waste Material on, at, or from the Site, or to request a Court to order such action. Further, except as specifically provided in this Settlement, nothing in this Settlement shall prevent the United States or the State from seeking legal or equitable relief to enforce the terms of this Settlement or from taking other legal or equitable action as it deems appropriate and necessary.
52. **General Reservations of Rights by the United States and the State Relating to Purchaser.** Notwithstanding any other provision of this Settlement, the United States and the State reserve, and this Settlement is without prejudice to, all rights against Purchaser regarding the following:
 - a. liability for failure by Purchaser to meet a requirement of this Settlement;

- b. liability resulting from an act or omission that causes exacerbation of Existing Contamination by Purchaser, its successors, assigns, lessees, or sublessees;
 - c. liability resulting from the disposal, release, or threat of release of hazardous substances, pollutants or contaminants at or in connection with the Site after the Effective Date, not within the definition of Existing Contamination;
 - d. liability arising from the past, present, or future disposal, release, or threat of release of Waste Material outside of the Site, except as provided in clause (c) of the definition of Existing Contamination;
 - e. liability for damages for injury to, destruction of, or loss of natural resources, and for the costs of any natural resource damage assessments; and
 - f. criminal liability.
53. With respect to any claim or cause of action asserted by the United States or the State against Purchaser, Purchaser shall bear the burden of proving that the claim or cause of action, or any part thereof, is attributable solely to Existing Contamination and that Purchaser has complied with all the requirements of CERCLA §§ 101(40) and 107(r).
54. **General Reservations of Rights by EPA and the State Relating to Settling Parties.** Notwithstanding any other provision of this Settlement, EPA and the State reserve, and this Settlement is without prejudice to, all rights against Settling Parties regarding the following:
- a. liability for failure of Settling Parties to meet a requirement of this Settlement;
 - b. liability for damages for injury to, destruction of, or loss of natural resources, and for the costs of any natural resource damage assessments;
 - c. liability, based on the ownership or operation of the Site by Settling Parties when such ownership or operation commences after signature of this Settlement by Settling Parties;
 - d. liability based on Settling Parties' transportation, treatment, storage, or disposal, or arrangement for transportation, treatment, storage, or disposal of a hazardous substance or a solid waste at or in connection with the Site, after signature of this Settlement by Settling Parties;
 - e. liability arising from the past, present, or future disposal, release or threat of release of Waste Material outside of the Site; and
 - f. criminal liability.
55. Notwithstanding any other provision of this Settlement, EPA and the State also reserve, and this Settlement is without prejudice to, the right to reinstitute or reopen this action as to Settling Parties, or to commence a new action against Settling Parties seeking relief other than as provided in this Settlement, if the Financial Information provided by

Settling Parties, or the financial, insurance, or indemnity certification made by Settling Parties in Paragraph 44, is false or, in any material respect, inaccurate.

XVI. COVENANTS BY SETTLING PARTIES

56. Covenants by Settling Parties to the United States and the State.
- a. Subject to Paragraph 60 (Settling Parties' Reservations), Settling Parties covenant not to sue and shall not assert any claim or cause of action against the United States or the State under CERCLA, section 7002(a) of RCRA, 42 U.S.C. § 6972(a), the United States Constitution, the Tucker Act, 28 U.S.C. § 1491, the Equal Access to Justice Act, 28 U.S.C. § 2412, the State Constitution, State law, or at common law regarding the Site, the Work, and this Settlement.
 - b. Subject to Paragraph 60 (Settling Parties' Reservations), Settling Parties covenant not to seek reimbursement from the EPA Hazardous Substance Superfund through CERCLA or any other law for costs regarding the Work and the Site.
57. Settling Parties agree not to assert any claims and to waive all claims or causes of action (including but not limited to claims or causes of action under sections 107(a) or 113 of CERCLA) that it may have for response costs relating to the Site against each other or any other person who is a potentially responsible party under CERCLA at the Site. This waiver shall not apply with respect to any defense, claim, or cause of action that Settling Parties may have against any person if such person asserts a claim or cause of action relating to the Site against Settling Parties.
58. **Covenants by Settling Parties to Purchaser.** Settling Parties covenant not to sue and agree not to assert any claims or causes of action against Purchaser, or its contractors or employees, with respect to the Transferred Properties, the Work, or the Site and this Settlement under CERCLA sections 107 or 113, 42 U.S.C. §§ 9607 or 9613, RCRA section 7002(a), 42 U.S.C. § 6972(a), or analogous state law.
59. Settling Party Kanawha Mines, LLC further covenants not to sue and assert any claims or causes of action against the United States or the State under the Fifth Amendment to the United States Constitution or Article Two, Section 15 of the Colorado Constitution regarding Kanawha Mines, LLC's interest in the Kanawha Ditch and Pipeline water right, Priority No. 1959-2 as identified in Appendix J.
60. **Settling Parties' Reservations.** The covenants in Paragraph 56 do not apply to any claim or cause of action brought, or order issued, after the Effective Date by the United States or the State to the extent such claim, cause of action, or order is within the scope of a reservation under Paragraph 54.a through e.

XVII. COVENANTS BY PURCHASER

61. Covenants by Purchaser to the United States and the State
- a. Subject to Paragraph 63, Purchaser covenants not to sue and shall not assert any claim or cause of action against the United States or the State under CERCLA,

section 7002(a) of RCRA, the Constitution, the Tucker Act, 28 U.S.C. § 1491, the Equal Access to Justice Act, 28 U.S.C. § 2412, the State Constitution, State law, or at common law regarding Existing Contamination, the Work, and this Settlement.

- b. Subject to Paragraph 63, Purchaser covenants not to seek reimbursement from the EPA Hazardous Substance Superfund through CERCLA or any other law for the costs regarding the Existing Contamination, the cost of the Work, or any claim arising out of response actions at or in connection with the Site.
62. **Covenants by Purchaser to Settling Parties.** Purchaser covenants not to sue and agrees not to assert any claims or causes of action against the Settling Parties, or their contractors or employees, with respect to the Transferred Properties or the Site and this Settlement under CERCLA sections 107 or 113, 42 U.S.C. §§ 9607 or 9613, RCRA section 7002(a), 42 U.S.C. § 6972(a), or analogous state law.
63. Purchaser's Reservations.
- a. The covenants in Paragraph 61 do not apply to any claim or cause of action brought, or order issued, after the Effective Date by the United States to the extent such claim, cause of action, or order is within the scope of a reservation under Paragraph 52.a through 52.e.
 - b. Purchaser reserves, and this Settlement is without prejudice to, claims against the United States, subject to the provisions of Chapter 171 of Title 28 of the United States Code, and brought pursuant to any statute other than CERCLA or RCRA and for which the waiver of sovereign immunity is found in a statute other than CERCLA or RCRA, for money damages for injury or loss of property or personal injury or death caused by the negligent or wrongful act or omission of any employee of the United States, as that term is defined in 28 U.S.C. § 2671, while acting within the scope of his or her office or employment under circumstances where the United States, if a private person, would be liable to the claimant in accordance with the law of the place where the act or omission occurred. However, the foregoing shall not include any claim based on EPA's selection of response actions, or the oversight or approval of Purchaser's deliverables or activities.

XVIII. EFFECT OF SETTLEMENT/CONTRIBUTION

64. Except as provided in Section XVI (Covenants by Settling Parties) and Section XVII (Covenants by Purchaser), each of the Parties reserves any and all rights (including, but not limited to, under section 113 of CERCLA, 42 U.S.C. § 9613), defenses, claims, demands, and causes of action that it may have with respect to any matter, transaction, or occurrence relating in any way to the Site against any person not a Party hereto. Nothing in this Settlement diminishes the right of the United States or the State, pursuant to sections 113(f)(2) and (3) of CERCLA, 42 U.S.C. § 9613 (f)(2)-(3), to pursue any such persons to obtain additional response costs or response action and to enter into settlements that give rise to contribution protection pursuant to section 113(f)(2).

65. The EPA and Settling Parties agree that this Settlement: (a) constitutes an administrative settlement pursuant to which Settling Parties have, as of the Effective Date, resolved liability to the United States within the meaning of sections 113(f)(2), 113(f)(3)(B), and 122(h)(4) of CERCLA, 42 U.S.C. §§ 9613(f)(2), 9613(f)(3)(B), and 9622(h)(4); and (b) Settling Parties are entitled, as of the Effective Date, to protection from contribution actions or claims as provided by sections 113(f)(2) and 122(h)(4) of CERCLA, or as may be otherwise provided by law, for the “matters addressed” in this Settlement. The “matters addressed” in this Settlement are all response actions taken or to be taken and all response costs incurred or to be incurred, at or in connection with the Site, by the United States, the State, or any other person. However, if the EPA or the State exercise rights under reservations in Paragraphs 50 (52.a) through (52.e), the “matters addressed” in this Settlement will no longer include those response costs or response actions that are within the scope of the exercised reservation.
66. If a suit or claim for contribution is brought against Purchaser, notwithstanding the provisions of section 107(r)(1) of CERCLA with respect to Existing Contamination (including any claim based on the contention that Purchaser is not a BFPP, or has lost its status as a BFPP as a result of response actions taken in compliance with this Settlement or at the direction of EPA’s OSC) or if Purchaser is found, in connection with any action or claim it may assert to recover costs incurred or to be incurred with respect to Existing Contamination, not to be a BFPP, or to have lost its status as a BFPP as a result of response actions taken in compliance with this Settlement or at the direction of EPA’s OSC, the United States and Purchaser agree that: (a) this Settlement constitutes an administrative settlement under which Purchaser has, as of the Effective Date, resolved liability to the United States within the meaning of sections 113(f)(2) and 113(f)(3)(B) of CERCLA; and (b) Purchaser is entitled, as of the Effective Date, to protection from contribution actions or claims as provided by section 113(f)(2) of CERCLA, or as may be otherwise provided by law, for the “matters addressed” in this Settlement. The “matters addressed” in this Settlement are all response actions taken or to be taken and all response costs incurred or to be incurred in connection with Existing Contamination by the United States, the State, or any other person. However, if the United States or the State exercise rights under reservations in Paragraphs 52.a through 52.e, the “matters addressed” in this Settlement will no longer include those response costs or response actions that are within the scope of the exercised reservation.
67. Settling Parties and Purchaser shall, with respect to any suit or claim brought by it for matters related to Settlement, notify EPA and DOJ in writing no later than 60 days prior to the initiation of such suit or claim. Settling Parties and Purchaser also shall, with respect to any suit or claim brought against it for matters related to this Settlement, notify EPA and DOJ in writing within 10 days after service of the complaint or claim upon Settling Parties. In addition, Settling Parties shall notify EPA and DOJ within 10 days after service or receipt of any Motion for Summary Judgment and within 10 days after receipt of any order from a court setting a case for trial, for matters related to this Settlement.
68. In any subsequent administrative or judicial proceeding against any Settling Party initiated by the United States or the State for injunctive relief, recovery of response costs,

or other relief relating to the Site, any such Settling Party shall not assert, and may not maintain, any defense or claim based upon the principles of waiver, res judicata, collateral estoppel, issue preclusion, claim-splitting, or other defenses based upon any contention that the claims raised by the United States or the State in the subsequent proceeding were or should have been addressed in this Settlement; provided, however, that nothing in this Paragraph affects the enforceability of the Covenants by EPA and the State set forth in Paragraph 49.

69. Effective upon signature of this Settlement by Settling Parties, Settling Parties agree that the time period commencing on the date of their signatures and ending on the date of any Section XI (Failure to Comply with Settlement) noncompliance shall not be included in computing the running of any statute of limitations potentially applicable to any action brought by the United States or the State related to the “matters addressed” as defined in Paragraph 65, and that, in any action brought by the United States or the State related to the “matters addressed,” Settling Parties will not assert, and may not maintain, any defense or claim based upon principles of statute of limitations, waiver, laches, estoppel, or other defense based on the passage of time during such period. If EPA gives notice to Settling Parties that it will not make this Settlement effective, the statute of limitations shall begin to run again commencing 90 days after the date such notice is sent by EPA.

XIX. RELEASE OF LIENS

70. Thirty days after the Transfer of properties required under Paragraph 15, EPA agrees to release any lien it has on the properties described in Appendix K, List of EPA Liens on Settling Parties’ Properties.

XX. RECORDS

71. Retention of Records and Information

- a. Settling Parties and Purchaser shall retain, and instruct their contractors and agents to retain, the following documents and electronically stored data (“Records”) until 10 years after the Effective Date (“Record Retention Period”):
- (1) All records regarding Existing Contamination or any release or threat of release of hazardous substances, pollutants or contaminants at or from the Site;
 - (2) All records regarding Settling Parties’ or Purchaser’s liability and the liability of any other person under CERCLA regarding the Site;
 - (3) All documents submitted to EPA or the State in accordance with this Settlement, including all underlying research and data; and
 - (4) All data developed by, or on behalf of, Settling Parties or Purchaser in the course of performing any Work.
- b. At the end of the Record Retention Period, Settling Parties and Purchaser shall each notify EPA that it has 90 days to request that party’s Records subject to this

Section. Settling Parties and Purchaser shall each retain and preserve their Records subject to this Section until 90 days after EPA’s receipt of the notice. These record retention requirements apply regardless of any corporate or county record retention policy.

72. Settling Parties and Purchaser shall provide to EPA or the State, upon request, copies of all Records and information required to be retained under this Section. Settling Parties and Purchaser shall also comply, as required by law, with any authorized request for information or administrative subpoena issued by EPA or the State.
73. **Privileged and Protected Claims**
 - a. Settling Parties and Purchaser may assert that all or part of a record requested by EPA or the State is privileged or protected as provided under federal law, in lieu of providing the record, provided that the asserting party complies with ¶ 73.b, and except as provided in ¶ 73.c.
 - b. If Settling Parties or Purchaser asserts a claim of privilege or protection, it shall provide EPA or the State with the following information regarding such record: title; its date; the name, title, affiliation (e.g., company or firm), and address of the author, of each addressee, and of each recipient; a description of the record’s contents; and the privilege or protection asserted. If a claim of privilege or protection applies only to a portion of a record, the asserting party shall provide the record to EPA or the State in redacted form to mask the privileged or protected portion only. Settling Parties and Purchaser shall retain all records that it claims to be privileged or protected until EPA or the State has had a reasonable opportunity to dispute the privilege or protection claim and any such dispute has been resolved in the party’s favor.
 - c. Settling Parties and Purchaser shall not make any claim of privilege or protection regarding: (1) any data regarding the Site, including all sampling, analytical, monitoring, hydrogeologic, scientific, chemical, radiological or engineering data, or the portion of any other record that evidences conditions at or around the Site; or (2) the portion of any record that Settling Parties or Purchaser is required to create or generate in accordance with this Settlement.
74. **Confidential Business Information Claims.** Settling Parties and Purchaser are entitled to claim that all or part of a record submitted to EPA or the State under this Section is Confidential Business Information (“CBI”) that is covered by section 104(e)(7) of CERCLA and 40 C.F.R. § 2.203(b). Settling Parties and Purchaser shall segregate all records or parts thereof submitted under this Settlement which it claims are CBI and label them as “claimed as confidential business information” or “claimed as CBI.” Records that Settling Parties and Purchaser properly labels in accordance with the preceding sentence will be afforded the protections specified in 40 C.F.R. part 2, subpart B. If the records are not properly labeled when they are submitted to EPA or the State, or if EPA and the State notify the party that the records are not entitled to confidential treatment under the standards of section 104(e)(7) of CERCLA or 40 C.F.R. part 2, subpart B, the

public may be given access to such records without further notice to Settling Parties or Purchaser.

75. Notwithstanding any provision of this Settlement, EPA and the State retain all of their information gathering and inspection authorities and rights, including enforcement actions related thereto, under CERCLA, RCRA, and any other applicable statutes or regulations.

XXI. NOTICES AND SUBMISSIONS

76. Any approvals, consents, deliverables, modifications, notices, notifications, objections, proposals, reports, waivers, and requests specified in this Settlement must be in writing unless otherwise specified. Whenever a notice is required to be given or a report or other document is required to be sent by one Party to another under this Settlement, it must be sent as specified below. All notices under this Section are effective upon receipt, unless otherwise specified. In the case of emailed notices, there is a rebuttable presumption that such notices are received on the same day that they are sent. Any Party may change the method, person, or address applicable to it by providing notice of such change to all Parties.

As to EPA:

Erin Agee
Senior Assistant Regional Counsel
Environmental Protection Agency, Region VIII
1595 Wynkoop Street
Denver, CO 80202
agee.erin@epa.gov

**As to DOJ:
(email preferred)**

EES Case Management Unit
U.S. Department of Justice
Environment and Natural Resources Division
P.O. Box 7611
Washington, DC 20044-7611
Re: DJ # 90-11-3-10841/2
eesdcopy.enrd@usdoj.gov
Re: DJ # 90-11-3-10841/2

As to Colorado:

Jason King
Senior Assistant Attorney General
Colorado Department of Law
1300 Broadway, 7th Floor
Denver, CO 80203
jason.king@coag.gov

As to Settling Parties: Tyrus B. Poxson, II
51312 Kirby Drive
Chesterfield, MI 48047
tpoxson@gmail.com

As to Purchaser: County Administrator
1201 North Main Street
PO Box 70
Creede, CO 81130
countyadmin@mincocolo.com

XXII. INTEGRATION/APPENDICES

77. This Settlement and its appendices constitute the final, complete, and exclusive agreement and understanding between the Parties with respect to the settlement embodied in this Settlement. The Parties acknowledge that there are no representations, agreements, or understandings relating to the settlement other than those expressly contained in this Settlement. The following appendices are attached to and incorporated into this Settlement:

“Appendix A” is List of Affected Properties.

“Appendix B” is Mineral County Ordinance No. 23-01.

“Appendix C” is List of Financial Information.

“Appendix D” is the Structural Evaluation Report.

“Appendix E” is a map of the Site.

“Appendix F” is the Six Claim Properties.

“Appendix G” is the Sample Transfer Amendment.

“Appendix H” is the Transferred Properties.

“Appendix I” is the Intergovernmental Agreement.

“Appendix J” is the Kanawha Ditch and Pipeline Water Right.

“Appendix K” is List of EPA Liens on Settling Parties’ Properties.

XXIII. MODIFICATION

78. If EPA’s Remedial Project Manager (RPM) determines a modification to any approved deliverable submitted by Purchaser to EPA after the Effective Date is appropriate, the RPM may make such modification in writing or by oral direction. EPA will promptly memorialize in writing any oral modification, but the modification has as its effective date the date of the RPM’s oral direction, unless otherwise indicated.

79. Any other requirements of this Settlement may be modified by mutual agreement of the Parties, and any such modification has as its effective date the date of signature of all Parties. Any modification that does not affect the obligations of or the protections afforded to Settling Parties may be executed without the signature of Settling Parties. Any modification that does not affect the obligations of or the protections afforded Purchaser may be executed without the signature of Purchaser.
80. If Purchaser seeks permission to deviate from any approved deliverable, Purchaser shall submit a written request to the RPM outlining the proposed modification and its basis. Purchaser may not proceed with a requested modification under this Paragraph until receiving approval under ¶ 78.
81. No informal advice, guidance, suggestion, or comment by the RPM or other EPA or State representatives regarding any deliverable submitted by Purchaser shall relieve Purchaser of its obligation to obtain any formal approval required by this Settlement, or to comply with all requirements of this Settlement, unless it is formally modified.

XXIV. SIGNATORIES

82. Each undersigned representative of the United States and the State, and each undersigned representative of Settling Parties and Purchaser, certifies that the signatory is authorized to enter into the terms and conditions of this Settlement and to execute and legally bind Settling Parties and Purchaser to this Settlement.

XXV. DISCLAIMER

83. This Settlement is in no way a finding by EPA or the State as to the risks to human health and the environment that may be posed by contamination at any Affected Property or the Site, or a representation by EPA or the State that any Affected Property or the Site is fit for any particular purpose.

XXVI. PUBLIC COMMENT

84. This Settlement shall be subject to a public comment period of at least 30 days pursuant to section 122(i) of CERCLA, 42 U.S.C. § 9622(i). In accordance with section 122(i)(3) of CERCLA, the United States may withdraw its consent or seek to modify this Settlement if comments received disclose facts or considerations that indicate that this Settlement is inappropriate, improper, or inadequate.

XXVII. EFFECTIVE DATE

85. The Effective Date of this Settlement shall be the date upon which EPA issues written notice to Settling Parties and Purchaser that the public comment period pursuant to Paragraph 84 has closed and the United States and the State have determined not to withdraw its consent or seek to modify this Settlement based on the comments received, if any.

Signature Page for Settlement Regarding Nelson Tunnel/Commodore Waste Rock
Superfund Site

IT IS SO AGREED:

U.S. ENVIRONMENTAL PROTECTION AGENCY:

CHRISTOPHE Digitally signed by
R THOMPSON CHRISTOPHER THOMPSON
Date: 2023.09.13 16:51:26
-06'00'

Christopher Thompson
Associate Regional Counsel for Enforcement, Region 8

BEN Digitally signed by BEN
BIELENBERG BIELENBERG
Date: 2023.09.14
09:20:41 -06'00'

Ben Bielenberg
Acting Director
Superfund and Emergency Management Division

Signature Page for Settlement Regarding Nelson Tunnel/Commodore Waste Rock Superfund Site

U.S. DEPARTMENT OF JUSTICE:

ELLEN MAHAN Digitally signed by ELLEN MAHAN
Date: 2023.10.05 12:51:36 -04'00'

Ellen M. Mahan
Deputy Section Chief
U.S. Department of Justice
Environment and Natural Resources Division
Environmental Enforcement Section
Washington, D.C. 20044-7611

/s/ Jonah Brown

Jonah Brown
Trial Attorney
U.S. Department of Justice
Environment and Natural Resources Division
Environmental Enforcement Section
P.O. Box 7611
Washington, DC 20044-7611

Signature Page for Settlement Regarding Nelson Tunnel/Commodore Waste Rock Superfund Site

STATE OF COLORADO:

Tracie White Digitally signed by Tracie White
Date: 2023.09.13 14:11:34 -06'00'

Tracie White
Division Director
Hazardous Materials and Waste Management Division
Colorado Department of Public Health and Environment

Jason King Digitally signed by Jason King
Date: 2023.09.11 08:41:38 -06'00'

Jason E. King
Senior Assistant Attorney General
Colorado Attorney General's Office

Signature Page for Settlement Regarding Nelson Tunnel/Commodore Waste Rock Superfund Site

COMMODORE MINING COMPANY:



Digitally signed by Tyrus B. Poxson, II
Date: 2023.09.09 11:02:08 -04'00'

Tyrus B. Poxson, II
President
51312 Kirby Drive
Chesterfield, MI 48047

Signature Page for Settlement Regarding Nelson Tunnel/Commodore Waste Rock Superfund Site

DEL MONTE MINING COMPANY:



Digitally signed by Tyrus B. Poxson, II
Date: 2023.09.09 11:02:40 -04'00'

Tyrus B. Poxson, II
President
51312 Kirby Drive
Chesterfield, MI 48047

Signature Page for Settlement Regarding Nelson Tunnel/Commodore Waste Rock Superfund Site

KANAWHA MINES, LLC:



Digitally signed by Tyrus B. Poxson, II
Date: 2023.09.09 11:02:58 -04'00'

Tyrus B. Poxson, II
President
51312 Kirby Drive
Chesterfield, MI 48047

Signature Page for Settlement Regarding Nelson Tunnel/Commodore Waste Rock Superfund Site

MINERAL COUNTY:

Jesse Albright Digitally signed by Jesse Albright
Date: 2023.09.11 08:24:52 -06'00'

Jesse Albright
Chairman of the Board of County Commissioners

Robert Scott Lamb Digitally signed by Robert Scott Lamb
Date: 2023.09.11 08:25:20 -06'00'

R. Scott Lamb
Mineral County Commissioner

Ramona Weber Digitally signed by Ramona Weber
Date: 2023.09.11 08:25:39 -06'00'

Ramona Weber
Mineral County Commissioner

List of Affected Properties

APPENDIX A TO:

NELSON TUNNEL/COMMODORE WASTE ROCK SITE ADMINISTRATIVE SETTLEMENT AGREEMENT

CLAIM NAME	MINERAL SURVEY NUMBER	COUNTY PARCEL NUMBER	PATENT NUMBER	OWNER
Sunnyside	7347	4763 2310 0003	24531	Commodore Mining Company
Corona	7389	4763 2310 0003	23207	Commodore Mining Company
Napoleon	7389	4763 2310 0003	23207	Commodore Mining Company
Transfer	7389	4763 2310 0003	23207	Commodore Mining Company
Unknown	7389	4763 2310 0003	23207	Commodore Mining Company
New York	7406	4763 2310 0003	24151	Commodore Mining Company*
Commodore	7420	4763 2310 0003	25995	Commodore Mining Company
Maid of Erin	7440	4763 2310 0003	25512	Commodore Mining Company
Legal Tender	7440	4763 2310 0003	25512	Commodore Mining Company
Copper	7539	4763 2310 0003	23289	Commodore Mining Company
Rio Grande No. 2	8208	4763 2310 0003	26401	Commodore Mining Company*
Archimedes	8345	4763 2310 0003	24463	Commodore Mining Company
Fraction	12638	4763 2310 0003	30871	Commodore Mining Company
Manhattan	7460	4763 2520 0002	23345	Commodore Mining Company
Bachelor	7539	4763 2520 0002	23289	Commodore Mining Company
Spar	7539	4763 2520 0002	23289	Commodore Mining Company
N.Y.C. Lode	8240A	4763 2520 0002	24277	Commodore Mining Company
N.Y.C. Millsite	8240B	4763 2520 0002	24277	Commodore Mining Company
Trail	9803	4763 2520 0002	27468	Commodore Mining Company
Tram	11970	4763 2520 0002	30638	Commodore Mining Company
Tariffa	11970	4763 2520 0002	30638	Commodore Mining Company
Amethyst	7333	4763 1300 0006	22063	Del Monte Mining Company
Hidden Treasure	7462	4763 1300 0006	25944	Del Monte Mining Company
Undine	8265	4763 1300 0006	25972	Del Monte Mining Company
Hillside	9241	4763 1300 0006	25918	Del Monte Mining Company
Albion	9375	4763 1300 0006	26627	Del Monte Mining Company
Snowstorm	9375	4763 1300 0006	26627	Del Monte Mining Company
Smuggler	9375	4763 1300 0006	26627	Del Monte Mining Company
Del Monte	7356	4763 2310 0014	23885	Del Monte Mining Company
Aspen	7356	4763 2310 0014	23885	Del Monte Mining Company
White	7370	4763 2310 0014	24461	Del Monte Mining Company
Equitable	7370	4763 2310 0014	24461	Del Monte Mining Company
Pueblo Chief	7383	4763 2310 0014	23475	Del Monte Mining Company
Storm	7389	4763 2310 0014	23207	Del Monte Mining Company
Lottie	7467	4763 2310 0014	22487	Del Monte Mining Company
Matilda	7468	4763 2310 0014	23288	Del Monte Mining Company
Arian	7877	4763 2310 0014	26900	Del Monte Mining Company
Sunol	7930	4763 2310 0014	26287	Del Monte Mining Company
German National #2	8016	4763 2310 0014	25766	Del Monte Mining Company
Mustang	8054	4763 2310 0014	34579	Del Monte Mining Company*
St Charles	8261	4763 2310 0014	26449	Del Monte Mining Company
S.C.F.	8336	4763 2310 0014	26426	Del Monte Mining Company
Malissa	8375	4763 2310 0014	28356	Del Monte Mining Company
Silver King	8375	4763 2310 0014	28356	Del Monte Mining Company
Ochre	8375	4763 2310 0014	28356	Del Monte Mining Company
Silent Friend	8834	4763 2310 0014	25730	Del Monte Mining Company
Senora	7672	4763 2410 0019	24043	Del Monte Mining Company
Tunnel Annex	9791A	4763 2520 0003	27346	Del Monte Mining Company
Annex Millsite	9791B	4763 2520 0003	27346	Del Monte Mining Company
Windsor	7478	4763 1300 0008/4763 1300 0009	26806	Kanawha Mining Company*
Metropole	7478	4763 1300 0008/4763 1300 0009	26806	Kanawha Mining Company*

Governor	7478	4763 1300 0008/4763 1300 0009	26806	Kanawha Mining Company*
Robinson	7484	4763 1300 0008/4763 1300 0009	26133	Kanawha Mining Company*
Frazee	7484	4763 1300 0008/4763 1300 0009	26133	Kanawha Mining Company*
Major	7484	4763 1300 0008/4763 1300 0009	26133	Kanawha Mining Company*
Taylor	7484	4763 1300 0008/4763 1300 0009	26133	Kanawha Mining Company*
Fraction	7484	4763 1300 0008/4763 1300 0009	26133	Kanawha Mining Company*
American Girl	7484	4763 1300 0008/4763 1300 0009	26133	Kanawha Mining Company
Little Kanawha	11922	4763 1300 0008/4763 1300 0009	29394	Kanawha Mining Company
Big Kanawha	11922	4763 1300 0008/4763 1300 0009	29394	Kanawha Mining Company
Last Whack	17091	4763 1300 0008/4763 1300 0009	41937	Kanawha Mining Company
Morpheus	17091	4763 1300 0008/4763 1300 0009	41937	Kanawha Mining Company
Weaver	18751	4763 1300 0008/4763 1300 0009	167990	Kanawha Mining Company
Kanawha #1	20861A	4763 1300 0008/4763 1300 0009	05-72-0006	Kanawha Mining Company
Kanawha #2	20861A	4763 1300 0008/4763 1300 0009	05-72-0006	Kanawha Mining Company
Kanawha #4	20861A	4763 1300 0008/4763 1300 0009	05-72-0006	Kanawha Mining Company
Kanawha #5	20861A	4763 1300 0008/4763 1300 0009	05-72-0006	Kanawha Mining Company
Kanawha #6	20861A	4763 1300 0008/4763 1300 0009	05-72-0006	Kanawha Mining Company
Big Ben Millsite	20861B	4763 1300 0008/4763 1300 0009	05-72-0006	Kanawha Mining Company
Sybil	20864	4763 1300 0008/4763 1300 0009	05-72-0007	Kanawha Mining Company*
Texas Girl	20865	4763 1300 0008/4763 1300 0009	05-72-0008	Kanawha Mining Company*

*Other owners in addition to the stated Mining Company

ORDINANCE NO. 23-01

**AN ORDINANCE OF THE BOARD OF COUNTY COMMISSIONERS OF MINERAL COUNTY,
COLORADO FOR THE REGULATION OF LAND USE, DEVELOPMENT AND ACTIVITIES
UPON CERTAIN PROPERTY WITHIN UNINCORPORATED MINERAL COUNTY
CONTAINING MINE WASTE SOURCE AREAS WHERE RESIDUAL MINE WASTES AND/OR
ENGINEERED COMPONENTS EXIST, SPECIFICALLY INCLUDING
THE NELSON TUNNEL/COMMODORE WASTE ROCK SUPERFUND SITE**

WHEREAS, Mineral County (the "County") has jurisdiction over mine waste source areas, as defined herein, where residual mine wastes and remediation, including engineered components exist, and the Board of County Commissioners adopts this Ordinance to control and regulate land use at such mine waste source areas, specifically including, but not limited to, the Nelson Tunnel/Commodore Waste Rock Superfund site ("Site"), pursuant to authority granted in C.R.S. § 29-20-104 and C.R.S. § 30-11-101, *et seq.*; and

WHEREAS, the United States Environmental Protection Agency ("EPA") and the Colorado Department of Public Health and Environment ("CDPHE") have and will conduct Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA") response actions at portions of the Nelson Tunnel/Commodore Waste Rock Superfund Site (collectively referred to as "CERCLA response actions"), in Mineral County; and

WHEREAS, the mine waste source areas within and outside of the Site are listed in **Attachment A** and depicted in **Attachment B**, as may be modified from time to time and maintained within the Office of the Mineral County Clerk and Recorder for public viewing; and

WHEREAS, although the CERCLA response actions are conducted to protect human health and the environment in accordance with the National Contingency Plan (40 C.F.R. Part 300), residual mine waste will remain at the mine waste source areas within and outside of the Site. Contact with residual mine waste could result in unacceptable human exposure to lead and arsenic; and

WHEREAS, the CERCLA response actions include engineered components such as waste rock covers and rehabilitated mine portals that will not function as intended if disturbed; and

WHEREAS, the Colorado Environmental Covenants Law, C.R.S. § 25-15-320(2), requires environmental covenants for environmental remediation projects related to remedial decisions made after July 1, 2001, that result in residual contamination levels determined safe for one or more specific uses, but not all uses, or where engineered features or structures are incorporated requiring monitoring, maintenance or operation or that will not function as intended if disturbed. Environmental covenants are only required for remedial decisions made pursuant to the: Resource Conservation and Recovery Act, 42 U.S.C. §§ 6921-6939e, 6972, 6973 and 6991-6991i; CERCLA, 42 U.S.C. § 9601, *et seq.*; Uranium Mill Tailings Radiation Control Act of 1978, 42 U.S.C. § 7901 *et seq.*; Colorado Radiation Act, C.R.S. §§ 25-11-101 to 114 and 301-205; Colorado Hazardous Waste Act, C.R.S. §§ 25-15-310 to 328; and Colorado Solid Waste Disposal Sites and Facilities Act, C.R.S. § 30-20-100.5 *et seq.*; and

WHEREAS, Site response actions are selected pursuant to CERCLA and after July 1, 2001, thus triggering the requirement for environmental covenants at Site mine waste source areas; and

WHEREAS, C.R.S. § 25-15-320(3)(b) authorizes CDPHE to waive the requirement for an environmental covenant for parcels of land where the owner does not grant an environmental covenant under C.R.S. § 25-15-320, and where the County, City, or municipality having jurisdiction over the affected land has enacted an ordinance or resolution imposing the relevant environmental use restrictions, and has entered into an intergovernmental agreement with CDPHE; and

WHEREAS, the County finds that this Ordinance is necessary to protect human health and the environment and to maintain remediation measures, including engineered components at the subject CERCLA mine waste source areas.

BE IT ORDAINED BY THE BOARD OF COUNTY COMMISSIONERS OF MINERAL COUNTY, COLORADO as follows:

Section 1. Title.

This Ordinance shall be known and referred to as the Nelson Tunnel Superfund Land Use, Development, Activities Regulations.

Section 2. Authority to Promulgate Ordinance.

The Board of County Commissioners has authority to regulate land use, development and activities in hazardous areas pursuant to C.R.S. § 29-20-104, and to adopt and enforce ordinances and resolutions regarding health, safety and welfare pursuant to C.R.S. § 30-11-101, *et seq.*

Section 3. Purpose.

The Board of County Commissioners of Mineral County, Colorado, finds and declares that residual contamination at mine waste source areas may pose a threat to the health, safety, and welfare, of the citizens of Mineral County, Colorado. The Board of County Commissioners also finds and declares that the land use restrictions are necessary to protect remediation measures, including engineered components at mine waste source areas within and outside of the Site.

Section 4. Scope of Ordinance.

A. This Ordinance shall apply to mine waste source areas listed in **Attachment A** and depicted in **Attachment B**, as may be modified from time to time and maintained within the Office of Mineral County Clerk and Recorder for public viewing. Mine waste source areas are hereby defined as portions of real property upon which mine waste or contamination, or any engineered components designed to contain, treat, divert, avoid or otherwise address any aspect of such mine waste or contamination, are located, either partially or wholly.

B. This Ordinance is intended to create an additional permitting process applicable to mine waste source areas, in addition to the process required by the Mineral County and Land Use Regulations. Nothing herein shall be construed as limiting the scope or the authority of the Mineral County Zoning and Land Use Regulations.

C. The determination as to whether a specific property listed in **Attachment A** and depicted in **Attachment B** is subject to this Ordinance shall be made by CDPHE and the County. Any property owner or prospective purchaser may at any time request CDPHE and the County make a formal determination whether a property is in whole or in part a mine waste source area, or whether the property contains an engineered structure or feature that requires monitoring, maintenance, or operation or that will not function as intended if it is disturbed, and thus subject to this Ordinance. Requests shall be made in writing and provide at minimum a survey plat as well as corresponding survey staking of the subject property. CDPHE and the County shall make such a determination within a reasonable period of time. Said timeframe may be impacted by such factors as weather, snowpack, and general access. The determination regarding inclusion or exclusion of a specific property is subject to change for reasons including but not limited to changes on the ground, current or proposed remediation measures, or the discovery or evaluation of additional information. To assist in the determination process, CDPHE and the County may request that a Phase 1 and/or Phase 2 environmental site assessment be conducted on the subject property. If CDPHE and the County determine that the subject property is not within a mine waste source area, and the property does not contain an engineered structure or feature that requires monitoring, maintenance, or operation or that will not function as intended if it is disturbed, then the ordinance will not apply to the property and CDPHE will have no further involvement with regard to the County’s Permit process for future development proposals. Any determination of non-applicability shall be provided in writing to the applicant.

Section 5. Regulation of Land Use Activities.

A. Regulation of Excavation Activities in Mine Waste Source Areas with Residual Contamination or Engineered Structures or Features

- (1) No excavation, drilling, grading, digging, tilling, or any other soil-disturbing activity is allowed within any mine waste source areas containing residual contamination at levels that have been determined to be safe for one or more specific uses, but not all uses, including mine tailings, waste-rock impoundments, or engineered structures or features that require monitoring, maintenance, or operation or that will not function as intended if it is disturbed, except as authorized in a remedial decision document or with the prior written authorization of CDPHE as set forth in this Section 5.

B. Mine Waste Source Area Permit – CDPHE Consult Required

- (1) Any application to the County for any building permit, zoning, subdivision, planned unit development, use by right, special review use, or any development activity (“Permit

application”) that will result in any soil-disturbing activity within the boundary of a mine waste source area shall be preceded by an application for consultation with CDPHE.

- (2) CDPHE consultation prior to a County Permit application may be requested by an applicant. At a minimum, the consultation application must include:
 - (a) A general site plan showing the major details of the proposed development, consisting of the location of building and structures, off-street parking and loading areas, service and refuse areas, means of ingress and egress, major landscaping and screening proposals, and signs and pedestrian areas, or a relevant summary of the development activity proposed to be conducted within the boundaries of the mine waste source area;
 - (b) A time schedule for the proposed development;
 - (c) A plan for maintaining the integrity of any engineered component of the remedial action; and
 - (d) Any other information the applicant believes will support his or her request.
- (3) Prior to proceeding to the CDPHE consultation and County Permit process, any applicant may request a determination as to whether the subject property is within a mine waste source area pursuant to subsection 4(C). If CDPHE and the County determine that the subject property is not within a mine waste source area, and the property does not contain an engineered structure or feature that requires monitoring, maintenance, or operation or that will not function as intended if it is disturbed, then the ordinance will not apply to the property and CDPHE will have no further involvement with regard to the County’s Permit process.
- (4) The following activities shall be exempt from the County Permit and CDPHE authorization processes set forth herein:
 - (a) Operations, inspection and maintenance activities undertaken at a mine waste source area by EPA, CDPHE or their duly authorized contractors;
 - (b) Operations, inspection and maintenance activities undertaken at a mine waste source area by the County or their designee(s). This includes any activities undertaken by the County or their designee in connection with the County’s efforts to stabilize and repair any historic structure; and
 - (c) Any other activity exempted from the provision of this Ordinance pursuant to the joint written consent of the County and a duly authorized representative of CDPHE.

C. CDPHE Consultation Review and Results

- (1) Within a reasonable time following written submittal of a consultation application to the CDPHE representative, along with the minimum required application information and any additional information requested, the CDPHE representative shall prepare a letter to the County setting forth the position of CDPHE as to the permit being sought. The letter shall include either: 1) a denial of authorization to proceed; 2) authorization to proceed with the permit as described in the application; 3) authorization with conditions; or 4) a determination by the CDPHE to defer its final position and participate in the County Permit process, in which case CDPHE will render its final position at the conclusion of the County Permit process.

D. County Permit Application

- (1) Following receipt of CDPHE’s written authorization, authorization with conditions, or deferral and request to participate jointly in the County Permit process, the County shall proceed with processing the application pursuant to the Mineral County Zoning and Land Use Regulations. In the event that CDPHE is participating in the County Permit process prior to issuing authorization, said authorization or denial by the CDPHE may be determined at any point during the County Permit process. Final Authorization by CDPHE and final issuance of a County Permit shall authorize CDPHE to review and work with the County and Permit recipient to assure no activity disturbs the engineered features of the remediated areas of the property unless authorized in a remedial decision document.

E. No Development without Permit

- (1) No application for any building permit, zoning, subdivision, planned unit development, use by right, special review use, or any other development activity that will result in any soil-disturbing activity within the boundaries of a mine waste source area shall be allowed until such time as the property owner or applicant has secured CDPHE’s written authorization and a County Permit, and has fully complied with any conditions set forth in the Permit. The issuance of CDPHE’s written authorization shall be a condition precedent to any soil-disturbing activity within the boundaries of a mine waste source area.

Section 6. Violations and Penalties.

A. This Ordinance may be enforced pursuant to the provisions of the Mineral County Land Use Code and C.R.S. §§ 30-28-124, 124.5, 209 and 209.5. Violation of any provision of this Ordinance, or a Permit issued pursuant to Section 5, shall constitute a violation of the Mineral County Land Use Code which shall carry such penalties and entitle the County to seek such remedies as are provided by the Mineral County Land Use Code or state law.

B. Any person who violates the Ordinance or a Permit Section shall also be guilty of a class 2 petty offense, and, upon conviction thereof, shall be punished by a fine of not more than one thousand (\$1,000) dollars for each separate violation.

C. The penalty assessment procedure provided in C.R.S. § 16-2-201 shall be followed for any violation of this Ordinance. Any person found in violation pursuant to subsection (A) of this Section 6 shall be assessed a penalty by the apprehending peace officer or by the County Code Enforcement Officer. The penalty assessment shall be a summons and complaint which:

- (1) identifies the alleged offender by name, address and social security number (if available);
- (2) specifies the offense with which the person is charged;
- (3) states both the applicable maximum one thousand (\$1,000) fine and maximum six (6) months jail sentence (if convicted and sentenced by the Court) and the violator's option to instead voluntarily pay a fine of five hundred (\$500) dollars payable to the County Treasurer; and
- (4) states the requirement that the alleged offender either pay the optional five hundred (\$500) fine to the County Treasurer in person or by mail within fourteen (14) days of the issuance of the penalty assessment or else appear to answer the charge before the County Court at 9:00 a.m. on the date of its next regular session at the Mineral County Courthouse.

Any person who chooses to acknowledge his or her guilt may, within fourteen (14) days of the date of issuance of the penalty assessment, voluntarily pay a fine of five hundred (\$500) to the Mineral County Treasurer either in person or by mail at the address as shown on the penalty assessment. Any such payment shall be accompanied by a copy of the penalty assessment signed by said person acknowledging his or her guilt. Payment of the foregoing fine shall relieve the person receiving the penalty assessment of any further obligation to appear in the County Court to answer the offense charged in the penalty assessment.

D. When imposing a fine under this Ordinance, the Court shall separately state, as a part of the total fine, the surcharge specified in C.R.S. § 24-4.2-104(1). The defendant shall also pay court costs and docket fees.

E. Pursuant to C.R.S. § 25-15-322, this Ordinance, and the Intergovernmental Agreement referenced herein, whenever CDPHE and/or the County finds that any person is or has been in violation of any requirement of this Ordinance or a Permit as it relates specifically to property or actions at mine source areas, CDPHE and/or the County may bring suit in district court for injunctive relief, enforcement of this Ordinance, or a Permit, and recovery of attorneys' fees and costs for any such enforcement action pursuant to C.R.S. § 25-15-322. CDPHE may also issue an administrative order identifying the factual and legal elements of such violation and requiring the person to comply with any such requirements remedying the violation.

Section 7. Prosecution.

All prosecutions pursuant to Section 6(A)-(D), shall be by the 12th Judicial District, District Attorney according to the Colorado County Court Rules of Criminal Procedure in the Mineral County Court. The simplified county court procedures set forth in part 1 of article 2 of title 16, C.R.S., shall be applicable to the prosecution of violations of this Ordinance.

Section 8. Severability.

If a Court of competent jurisdiction shall hold any part of this Ordinance void or unconstitutional, such part shall be deemed severable, and the invalidity thereof shall not affect the remaining provisions of the Ordinance.

Section 9. Disposition of Fines, Fees, and Forfeitures.

All fines and forfeitures obtained through enforcement actions initiated under Section 6 for violations of the provisions of this Ordinance shall be paid into the treasury of Mineral County upon payment of said fines and forfeitures.

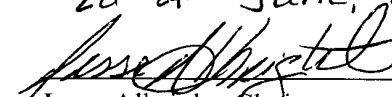
Section 10. Effective Date.

This Ordinance shall be in full force and effect thirty days after publication of the Notice of Adoption in the *Mineral County Miner* and *Pagosa Springs Sun*.

INTRODUCED, FIRST READING AND ORDERED PUBLISHED IN FULL on this
17 of May, 2023.


ADOPTED ON SECOND READING AND ORDERED PUBLISHED IN FULL this
21 of June, 2023.

28 of ~~June~~ June, 2023



Jesse Albright, Chairman

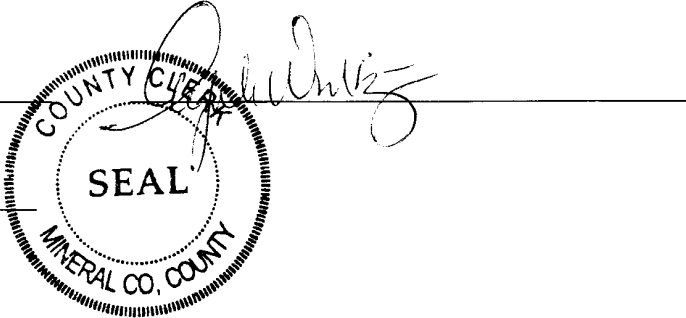
ATTEST:



Ramona Weber



Scott Lamb



PROPERTIES SUBJECT TO ORDINANCE 23-01

EXHIBIT A TO:

MINERAL COUNTY ORDINANCE 23-01 NELSON TUNNEL SUPERFUND LAND USE, DEVELOPMENT, ACTIVITES REGULATIONS

CLAIM NAME	MINERAL SURVEY NUMBER	COUNTY PARCEL NUMBER	PATENT NUMBER	OWNER
Sunnyside	7347	4763 2310 0003	24531	Commodore Mining Company
Corona	7389	4763 2310 0003	23207	Commodore Mining Company
Napoleon	7389	4763 2310 0003	23207	Commodore Mining Company
Transfer	7389	4763 2310 0003	23207	Commodore Mining Company
Unknown	7389	4763 2310 0003	23207	Commodore Mining Company
New York	7406	4763 2310 0003	24151	Commodore Mining Company*
Commodore	7420	4763 2310 0003	25995	Commodore Mining Company
Maid of Erin	7440	4763 2310 0003	25512	Commodore Mining Company
Legal Tender	7440	4763 2310 0003	25512	Commodore Mining Company
Copper	7539	4763 2310 0003	23289	Commodore Mining Company
Rio Grande No. 2	8208	4763 2310 0003	26401	Commodore Mining Company*
Archimedes	8345	4763 2310 0003	24463	Commodore Mining Company
Fraction	12638	4763 2310 0003	30871	Commodore Mining Company
Manhattan	7460	4763 2520 0002	23345	Commodore Mining Company
Bachelor	7539	4763 2520 0002	23289	Commodore Mining Company
Spar	7539	4763 2520 0002	23289	Commodore Mining Company
N.Y.C. Lode	8240A	4763 2520 0002	24277	Commodore Mining Company
N.Y.C. Millsite	8240B	4763 2520 0002	24277	Commodore Mining Company
Trail	9803	4763 2520 0002	27468	Commodore Mining Company
Tram	11970	4763 2520 0002	30638	Commodore Mining Company
Tariffa	11970	4763 2520 0002	30638	Commodore Mining Company
Amethyst	7333	4763 1300 0006	22063	Del Monte Mining Company
Hidden Treasure	7462	4763 1300 0006	25944	Del Monte Mining Company
Undine	8265	4763 1300 0006	25972	Del Monte Mining Company
Hillside	9241	4763 1300 0006	25918	Del Monte Mining Company
Albion	9375	4763 1300 0006	26627	Del Monte Mining Company
Snowstorm	9375	4763 1300 0006	26627	Del Monte Mining Company
Smuggler	9375	4763 1300 0006	26627	Del Monte Mining Company
Del Monte	7356	4763 2310 0014	23885	Del Monte Mining Company
Aspen	7356	4763 2310 0014	23885	Del Monte Mining Company
White	7370	4763 2310 0014	24461	Del Monte Mining Company
Equitable	7370	4763 2310 0014	24461	Del Monte Mining Company
Storm	7389	4763 2310 0014	23207	Del Monte Mining Company
Lottie	7467	4763 2310 0014	22487	Del Monte Mining Company
Matilda	7468	4763 2310 0014	23288	Del Monte Mining Company
German National #2	8016	4763 2310 0014	25766	Del Monte Mining Company
Mustang	8054	4763 2310 0014	34579	Del Monte Mining Company*
St Charles	8261	4763 2310 0014	26449	Del Monte Mining Company
S.C.F.	8336	4763 2310 0014	26426	Del Monte Mining Company
Ochre	8375	4763 2310 0014	28356	Del Monte Mining Company
Senora	7672	4763 2410 0019	24043	Del Monte Mining Company
Tunnel Annex	9791A	4763 2520 0003	27346	Del Monte Mining Company
Annex Millsite	9791B	4763 2520 0003	27346	Del Monte Mining Company
Windsor	7478	4763 1300 0008/4763 1300 0009	26806	Kanawha Mining Company*
Metropole	7478	4763 1300 0008/4763 1300 0009	26806	Kanawha Mining Company*
Governor	7478	4763 1300 0008/4763 1300 0009	26806	Kanawha Mining Company*
Robinson	7484	4763 1300 0008/4763 1300 0009	26133	Kanawha Mining Company*
Fraze	7484	4763 1300 0008/4763 1300 0009	26133	Kanawha Mining Company*
Major	7484	4763 1300 0008/4763 1300 0009	26133	Kanawha Mining Company*
Taylor	7484	4763 1300 0008/4763 1300 0009	26133	Kanawha Mining Company*
Fraction	7484	4763 1300 0008/4763 1300 0009	26133	Kanawha Mining Company*
American Girl	7484	4763 1300 0008/4763 1300 0009	26133	Kanawha Mining Company
Little Kanawha	11922	4763 1300 0008/4763 1300 0009	29394	Kanawha Mining Company
Big Kanawha	11922	4763 1300 0008/4763 1300 0009	29394	Kanawha Mining Company
Last Whack	17091	4763 1300 0008/4763 1300 0009	41937	Kanawha Mining Company
Morpheus	17091	4763 1300 0008/4763 1300 0009	41937	Kanawha Mining Company
Weaver	18751	4763 1300 0008/4763 1300 0009	167990	Kanawha Mining Company
Kanawha #1	20861A	4763 1300 0008/4763 1300 0009	05-72-0006	Kanawha Mining Company
Kanawha #2	20861A	4763 1300 0008/4763 1300 0009	05-72-0006	Kanawha Mining Company
Kanawha #4	20861A	4763 1300 0008/4763 1300 0009	05-72-0006	Kanawha Mining Company
Kanawha #5	20861A	4763 1300 0008/4763 1300 0009	05-72-0006	Kanawha Mining Company

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Eryn K Wintz
Mineral County Clerk

Kanawha #6	20861A	4763 1300 0008/4763 1300 0009	05-72-0006	Kanawha Mining Company	
Big Ben Millsite	20861B	4763 1300 0008/4763 1300 0009	05-72-0006	Kanawha Mining Company	
Sybil	20864	4763 1300 0008/4763 1300 0009	05-72-0007	Kanawha Mining Company*	
Texas Girl	20865	4763 1300 0008/4763 1300 0009	05-72-0008	Kanawha Mining Company*	
Equinox	7433	1463 1410 0017/4763 1410 0053	26425	Martha Antoinette Johnson/Marianne Viatora Patrick	
Winchester	7423	4763 1410 0060	25917		Creede Bachelor Enterprises
Hard Cash	7428	4763 1410 0060	24335		Creede Bachelor Enterprises
Baltimore	7428	4763 1410 0060	24335		Creede Bachelor Enterprises
Dead Pine	7446	4763 1410 0060	27939		Creede Bachelor Enterprises
Domingo	7428	4763 1410 0062	24335		Creede Bachelor Enterprises
Legal Tender	8242	4763 1410 0062	28207		Creede Bachelor Enterprises

*Other owners in addition to the stated Mining Company



**Attachment B to Appendix __ to the Nelson Tunnel/Commodore
Waste Rock Superfund Site Administrative Settlement Agreement
A depiction of the properties subject to Mineral County Ordinance No. 23-01**

List of Financial Information

APPENDIX C TO:

NELSON TUNNEL/COMMODORE WASTE ROCK SITE ADMINISTRATIVE SETTLEMENT

List of Financial Information Submitted by Settling Parties Commodore Mining Company, Del Monte Mining Company, and Kanawha Mines, LLC

- Completed, signed and dated Financial Statement for Businesses from Commodore Mining Company
- Completed, signed and dated Financial Statement for Businesses from Del Monte Mining Company
- Completed, signed and dated Financial Statement for Businesses from Kanawha Mines, LLC
- Kanawha Mines, LLC Tax Returns 2015 - 2020
- Mineral County Treasurer assessed value of real property owned by Commodore Mining Company, Del Monte Mining Company, and Kanawha Mines, LLC
- Commodore and Del Monte Mining Companies response to request for financial information under CERCLA Section 104(e) dated August 13, 2013
- Original signed and notarized certificate

Structural Evaluation Report
APPENDIX D TO:
NELSON TUNNEL/COMMODORE WASTE
ROCK SITE ADMINISTRATIVE SETTLEMENT

SUBMITTED TO:
Colorado Division of
Reclamation, Mining &
Safety
1313 Sherman Street, Ste. 215
Denver, CO 80203

BY:
Shannon & Wilson
1321 Bannock St., Suite 200
Denver, CO 80204

(303) 825-3800
www.shannonwilson.com

GEOTECHNICAL RECONNAISSANCE REPORT
Commodore Mine Structural
Evaluation Project
CREEDE, COLORADO

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Submitted To: Colorado Division of Reclamation, Mining & Safety
1313 Sherman Street, Ste. 215
Denver, CO 80203
Attn: Mr. Jeff Graves

Subject: GEOTECHNICAL RECONNAISSANCE REPORT, COMMODORE MINE
STRUCTURAL EVALUATION PROJECT CREEDE, COLORADO

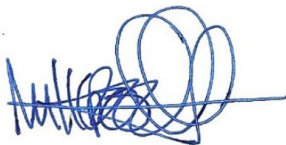
Shannon & Wilson completed a geotechnical reconnaissance at three historic structures of the Commodore Mine near Creede, Colorado. In addition to Shannon & Wilson activities, our subconsultant, JVA, Inc. of Boulder, Colorado (JVA) performed a structural evaluation and prepared conceptual mitigation designs for these structures (see Appendix A).

Our scope of services was specified in CT-PKAA-1000-2021*3955, CMS# 168176, dated April 6, 2021. This report summarizes our reconnaissance observations of geologic and foundation conditions at the building and presents foundation mitigation concepts. The report was prepared by the undersigned.

We appreciate the opportunity to be of service to you on this project. If you have questions concerning this report, or we may be of further service, please contact us.

Sincerely,

SHANNON & WILSON



Matthew T. Grizzell
Associate



David A. Varathungarajan, P.E.
Senior Associate

MTG:DAV:GRF/mzc

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Figures

Figure 1: Vicinity Map
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Appendices

Appendix A: JVA Structural Assessment, Conceptual Design, and Cost Estimates
Appendix B: Laboratory Test Results
Important Information

1 INTRODUCTION

This report presents the results of a geotechnical assessment of three structures within the Bachelor-Commodore Mine Complex near Creede, Colorado (see Figure 1). A structural assessment of the structures performed by JVA, Inc. of Boulder, Colorado (JVA) under subcontract to Shannon & Wilson is included in Appendix A. The structures considered include the Ore Sorting House, the Lower Bachelor Ore Sorting House, and the Blacksmith Shop (see Figure 2).

We understand that a private entity currently owns the three timber structures and is planning to donate the structures to Mineral County for potential preservation. We also understand that the structures are under review by the Colorado State Historic Preservation Office and federal agencies for inclusion on the National Register of Historic Places.

The Colorado Division of Reclamation, Mining & Safety (CDRMS) identified three objectives for this project to support potential preservation of these structures, including:

- Performing a structural assessment to evaluate the current condition of the structures. JVA completed this scope item.
- Developing conceptual structural stabilization strategies and estimating construction costs. JVA completed this scope item.
- Performing a geotechnical reconnaissance study to evaluate visible soil and bedrock conditions near the buildings, including in and around the timber crib walls at the Ore Sorting House. Shannon & Wilson performed this scope item.

JVA also included their opinions of order-of-magnitude construction costs for various elements described below (Appendix A). Our scope of services assumed that the buildings will not be occupied.

JVA noted substantial deterioration of the Lower Bachelor Ore Sorting House and Blacksmith Shop. These buildings are also remote from the popular West Willow Creek Road. Because the Ore Sorting House is relatively well preserved and immediately adjacent to publicly accessible areas on West Willow Creek Road, DRMS directed JVA to focus effort on evaluation and conceptual repair design of this structure. The JVA report and drawings summarizing structural conditions and recommended treatments are included in this report as Appendix A.

2 SITE DESCRIPTION

The project area is located approximately 1.5 miles north of Creede in the Bachelor-Commodore mining complex, part of the Creede Mining District. The Creede Mining District was active between about 1891 and the early 1970s. Details regarding the history of the Creede Mining District and the buildings of concern can be found in a draft historic structure assessment report by Skeo Solutions, Inc (Skeo, 2021). The Ore Sorting House is located along West Willow Creek Road (Mineral County Road 503). The Blacksmith shop and Lower Bachelor Ore Sorting Houses are located adjacent to the Lower Bachelor Tunnel portal, approximately 1,200 feet northwest of the Ore Sorting House (see Figure 2).

2.1 Ore Sorting House and Covered Trestle

The Ore Sorting House was reportedly constructed around 1940 (Skeo, 2021). The Ore Sorting House consists of an approximately 38-foot-wide, 78-foot-long, and up to about 80-foot-high timber framed structure that processed ores from the Commodore 5 Tunnel. The mine rail spur accessed the upper level of the Ore Sorting House along an up to 75-foot-high trestle adjoining the north side of the building.

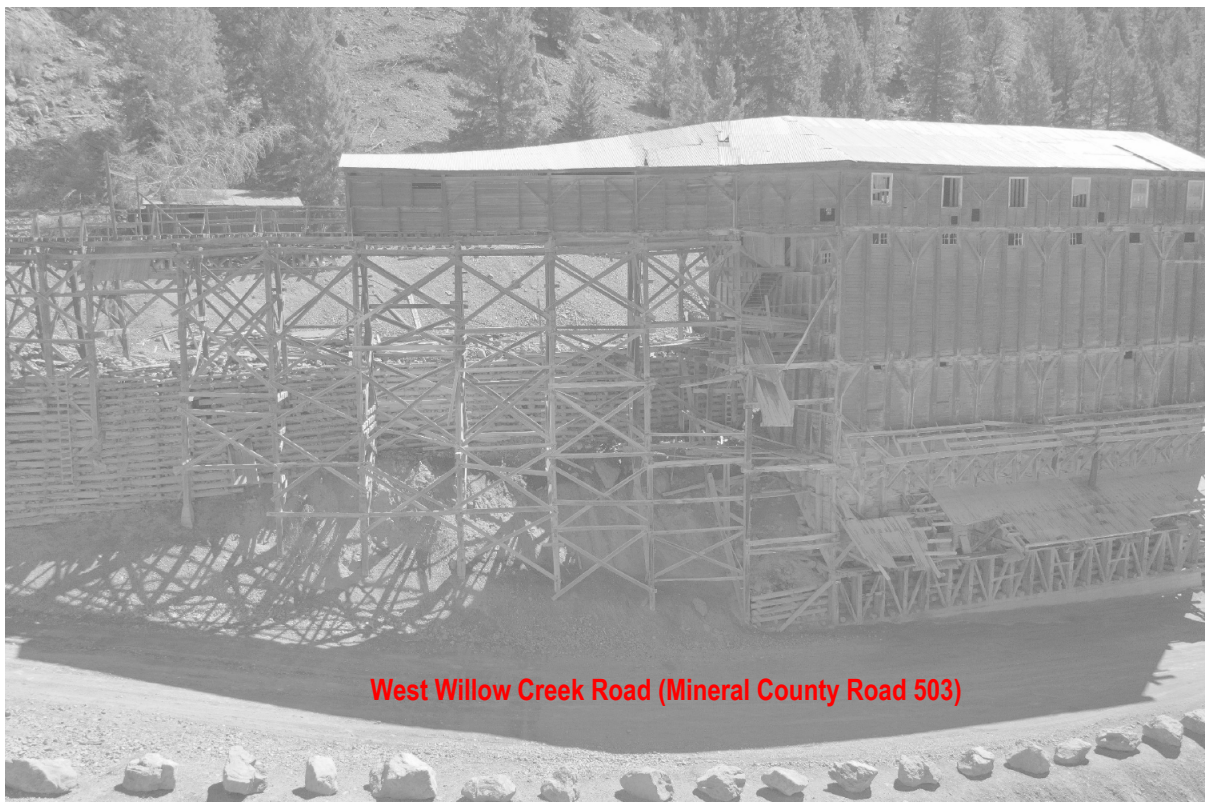


Exhibit 2-1: Aerial view of Ore Sorting House building and adjoining covered trestle, view east.

This report and conceptual design effort concerns the approximately 75-foot-long covered section of the trestle immediately adjoining the Ore Sorting House. Based on observations during the field reconnaissance, JVA indicated that the trestle to the west of this area is not salvageable.

2.2 Lower Bachelor Ore Sorting House

The Lower Bachelor Ore Sorting House consists of an approximately 50-foot by 46-foot timber-framed structure built on a crib wall-retained waste rock platform near the Lower Bachelor Tunnel portal (see Exhibit 2-2). This building was constructed in the 1890s with a 25-foot-long by 15-foot-wide shed-roof extension adjoining the north side of the building that was erected in the 1910s (Skeo, 2021). This structure accepted ores delivered from the Upper Bachelor complex via an aerial tramway. The structure was also the upper terminal of a tramway connected to the surface plant along West Willow Creek. As noted by JVA in Appendix A, the Lower Bachelor Ore Sorting House is significantly deteriorated, with much of the roof paneling missing and racking of the structural frame.

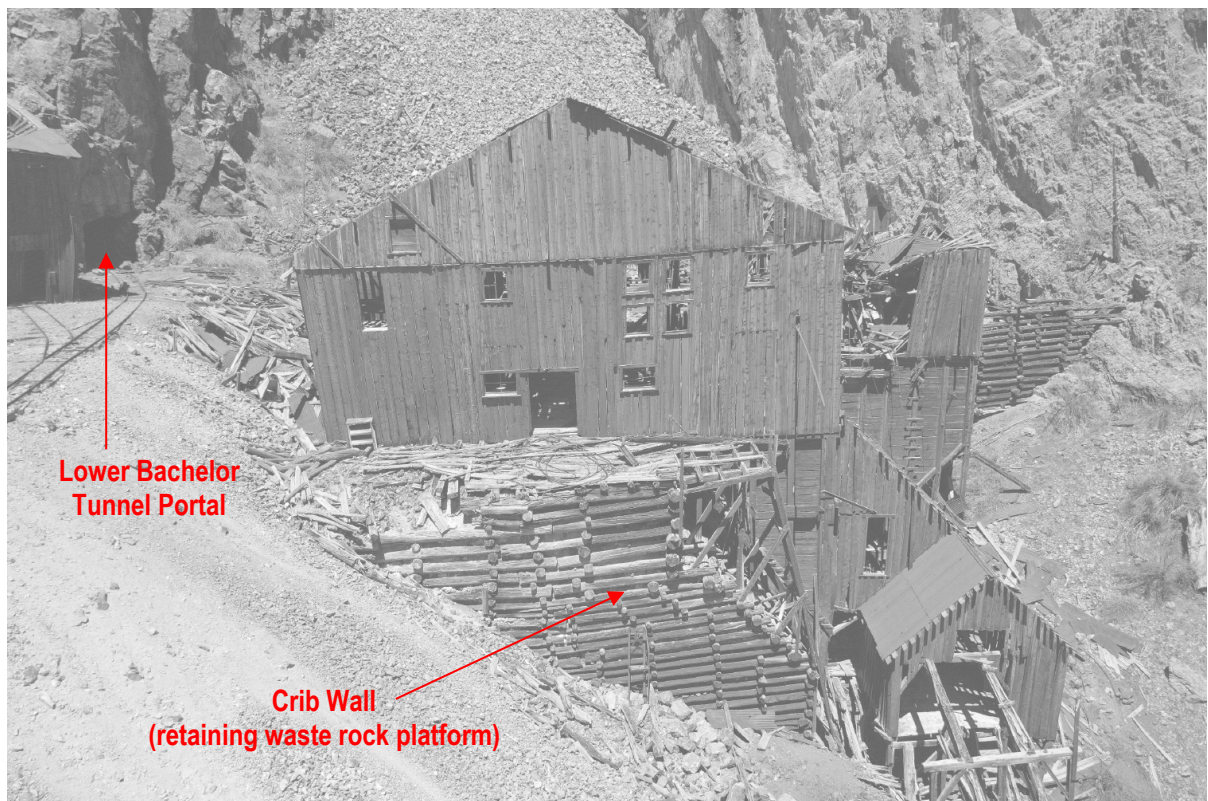


Exhibit 2-2: Aerial view of Lower Bachelor Ore Sorting House, view northwest.

2.3 Blacksmith Shop

The Blacksmith Shop consists of an approximately 29-foot by 40-foot timber framed structure that was constructed in the 1890s with improvements in the 1930s (Skeo, 2021). The roof of the Blacksmith shop has collapsed. As noted by JVA (Appendix A) the structure is also racked downhill, possibly due to soils loading the uphill wall (see Exhibit 2-3).

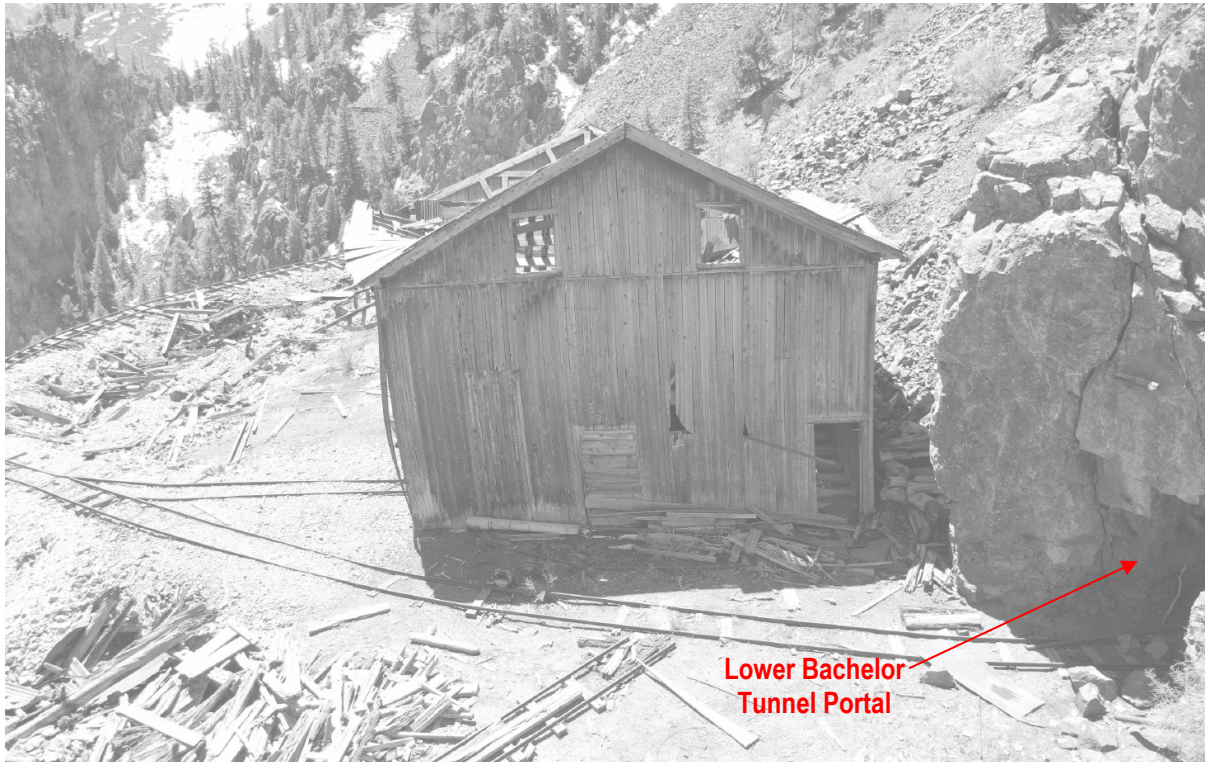


Exhibit 2-3: Aerial view of Blacksmith Shop building, view south.

3 REGIONAL GEOLOGY

We reviewed a regional geologic map by Lipman (2007) showing bedrock and surficial units at the site. Lipman (2007) indicates that bedrock in the project area consists of the Willow Creek Welding Zone of the Bachelor Mountain Member, a sub-unit of the Carpenter Ridge Tuff. This rock unit is also referred to as the “Willow Creek Tuff” by Emmons and Larsen (1927) and includes a light gray welded rhyolite tuff. Lipman (2007) indicates that recent deposits of talus overlie bedrock on steep hillsides. The map does not show recent deposits of waste rock in the project area.

4 RECONNAISSANCE OBSERVATIONS

A Shannon & Wilson geological engineer visited the site from June 23 through 25, 2021 to make reconnaissance observations of site geology and foundation conditions. Observations were limited to accessible areas in and around the buildings. In addition to visual observations, the field representative used a Schmidt rebound hammer to estimate the unconfined compressive strength of exposed bedrock and concrete. No subsurface explorations were performed as part of this project.

The Shannon & Wilson representative was accompanied by two structural engineers from JVA who observed structural conditions of the three buildings. In addition, Mr. Jeff Graves, the CDRMS project manager, made site visits with the Shannon & Wilson and JVA personnel on June 23 and 25.

The following sections describe our geologic and foundation reconnaissance observations at each of the structures during the site visit. JVA observations are summarized in their assessment report included as Appendix A.

4.1 Geologic Conditions

Geologic conditions varied at the site but were generally consistent with mapping by Lipman (2007). Geologic conditions observed generally consisted of discontinuous accumulations of waste rock overlying discontinuous native colluvium, in turn overlying bedrock. The following bullets describe our observations of these units.

- **Waste Rock** – where accessible behind cribbing and on slopes, we generally observed waste rock to consist of poorly graded gravel with cobbles, some sand, and trace fines. Waste rock commonly exhibited a sulfur odor and precipitates consistent with sulfide minerals present in local ores. On slopes above and below the Lower Bachelor Ore Sorting House and Blacksmith Shop, we observed waste rock to consist of talus-like deposits of angular cobbles standing at or near the angle of repose.
- **Colluvium** – where accessible at the Ore Sorting House, we observed colluvium to consist of medium dense, poorly graded sand with silt and gravel and few cobbles. We obtained a sample of colluvium soil from the south side of the Ore Sorting House (designated B-1) for laboratory index testing. Results of the laboratory tests are included in Appendix B.
- **Bedrock** – We observed bedrock to consist of a strong to very strong (unconfined compressive strength estimated to range from approximately 7,000 to 36,000 pounds per square inch [psi]), light to dark brown, slightly weathered to fresh rhyolite and/or dacite tuff with occasional iron oxide staining and flow banding. We observed the tuff bedrock to be slightly vesicular to glassy. We observed fracture spacing ranging from close to very wide (approximate spacing ranging from about 2.5 inches to upwards of 20 feet).

We also observed accumulated silty sand soils beneath the ore chutes in the Ore Sorting House. These soils may be "dust" originating from ore processing. We collected a sample of this material (designated G-1) for laboratory index testing. Results of the laboratory tests are included in Appendix B.

4.2 Geology and Foundation Reconnaissance Observations

The following sections summarize our key reconnaissance observations of geologic conditions and the condition of foundation and cribbing components.

4.2.1 Ore Sorting House

- **West Side Strip Footing** – We observed a continuous concrete strip footing on the west side of the Ore Sorting House adjacent to West Willow Creek Road (see Figure 3). Schmidt hammer testing indicated the concrete in the strip footings has a compressive strength on the order of 3,000 to 7,000 psi in the areas tested. We did not observe spalling or other indications of degradation. However, we observed three areas of cracking with up to ½ inch aperture and no indication of offset (see Figure 3). No other foundations were visible beneath the Ore Sorting House.
- **West Side Cribbing Wall** – A cribbing wall was visible on the west side of the building behind the strip footing (Figure 4). This wall appeared to be backfilled with waste rock, but a bedrock outcrop was visible behind the cribbing at the center of the structure. The Ore Sorting House structure is connected to the cribbing. As noted in the JVA structural assessment (Appendix A), the central part of the cribbing north of the bedrock outcrop appears to have deflected downhill (to the west). Columns in the center of the building at this location also appear to have settled and deflected downhill. While it is possible that the displaced columns may have deflected and settled due to a localized slope failure and/or bearing capacity failure beneath footings, the foundations were not visible beneath this part of the building due to accumulated dust deposits beneath the ore chutes.
- **East Side Cables and Bolts** – We observed several steel cables extending between every other column grid at the upper level the building and eye bolt anchors in bedrock outcrops to the east (uphill). The cables were corroded and did not appear to be tensioned. Some parts of cables were lying on the ground. The eye bolt anchors did not appear to have a grouted annulus and exhibited corrosion (see Figure 5).
- **East Side Debris and Soil** – We observed accumulated soil and debris along the east wall of the building (see Figure 6). The depth of the soil and debris is not known but may be imparting earth pressure loading is are contributing to a slight downhill deflection of the building.

4.2.2 Covered Trestle

- **Concrete Pedestal Footings** – We observed concrete pedestal footings supporting timber columns on the steep colluvium slopes underlying the covered part of the trestle. Some of the footing on the east (uphill) side exhibited undermining due to raveling of the colluvium slopes. Footings on the west (downhill) side were buried, but the columns appeared to have rotted or otherwise shifted to the west off the footings (see Figure 7).
- **East Side Cables and Bolts** – We observed cables and eye bolts along the east side of the trestle. These components did not appear to be under tension and were in similar condition as described above (see Figure 6).

4.2.3 Lower Bachelor Ore Sorting House

- **Waste Rock Fill Platform and Cribbing** – The larger, southern part of the Lower Bachelor Sorting Building was constructed on an up to about 20-foot-high waste rock fill retained with timber cribbing to the southeast. The waste rock visible through the timber cribbing included some areas of sandy material showing evidence of heavy mineral leaching (likely related to sulfide mineralization in waste rock). This may indicate that water is seeping through the cribbing. The cribbing appears to have rotated slightly outwards, with the top of the cribbing slightly overhanging the base. We observed timber cribbing up to about 15 feet high retaining talus-like waste rock slopes originating at the Upper Bachelor. The cribbing is visible in Exhibit 2-2 above.
- **Foundations** – This structure is in an advanced state of deterioration that limited access. Where visible, columns appeared to bear on timber grade beams extending below the waste rock floor grade of the building. We noted an outcrop of bedrock at the back corner of the building. We did not observe indications of foundation settlement in accessible areas.

4.2.4 Blacksmith Shop

- **Earth Loading of Uphill Wall** – Based on our observation of cribbing logs, a cribbing wall appears to have been constructed on the west (uphill) side to retain a cut in mixed colluvium and waste rock soils (see Exhibit 2-3 above). This cribbing appears to have failed, allowing the scree and waste rock to ravel downhill and load the wall of the building, likely contributing the observed eastward (downhill) racking of the structure. Foundations were not visible at the Blacksmith Shop.

5 CONCEPTUAL RECOMMENDATIONS AND CONSTRUCTION CONSIDERATIONS

JVA has prepared conceptual structural treatments for each of these buildings as described in Appendix A. Due to the relatively better condition and higher public hazard posed by

the Ore Sorting House, we recommend that stakeholder resources be prioritized for mitigation of this building. The treatments are classified in decreasing order of priority as “immediate,” “critical,” and “serious.” The following sections include conceptual-level foundation recommendations and construction considerations that could be implemented with the structural treatments described by JVA in Appendix A.

5.1 Ore Sorting House

5.1.1 Immediate Monitoring and Signage

As described by JVA on Sheet SK-10, the observed deflections of the west wall of the Ore Sorting House are indicative of structural instability. **We recommend immediate implementation of survey monitoring to evaluate whether the Ore Sorting House is continuing to deflect to the west. Critical repairs will be required to stabilize the building and reduce collapse hazards.** In the event that the structural repairs cannot be undertaken, we recommend that stakeholders consider dismantling the building to reduce potential collapse hazards and associated risk to the adjacent, publicly accessible West Willow Creek Road. **We also recommend that stakeholders post signage to communicate structural hazards to the public. Stakeholders should also consider placing fencing or other barriers to discourage the public from entering or parking near the Ore Sorting House.**

5.1.2 Critical/Serious Improvements

As described by JVA on Sheets SK-10 and shown on Sheets SK-11 and SK-15, immediate structural improvements are required to mitigate downhill deflections and settlement of affected columns. The concept presented by JVA consists of inclined micropiles to provide lateral restraint of columns on the west side of the building. The concept also includes construction of a strengthened headframe with a new micropile-supported grade beam and cables anchored in rock. This concept was developed in part because it eliminates the need to underpin inaccessible foundations beneath the interior column row. The following bullets include a discussion of foundation concepts and construction considerations.

- **Micropiles** – We recommend that micropiles be constructed with a minimum bond diameter of 4 inches and minimum bond length of 10 feet. We anticipate that micropiles can be grouted under gravity-induced grout pressures. Based on site observations, we also anticipate that individual inclined and vertical micropiles will be on the order of 40 feet long (including a minimum 10-foot-long bond zone and 30-foot-long cased interval in the overburden). We recommend neglecting end bearing frictional resistance in overburden soils and weathered bedrock. A permanent steel casing should be used in the soil overburden (waste rock and colluvium) to prevent caving during drilling and to act as a “bond-breaker.” The micropile foundations should include a full-length

- reinforcing bar to resist potential tension loads. Such micropiles would have allowable axial capacities on the order of 100 kips.
- **Rock Dowels** – At locations adjacent to exposed bedrock outcrops, structural tension cables can be anchored to rock dowels. We recommend rock dowels consist of untensioned, fully grouted all-thread bar with a minimum 10-foot bond length in bedrock. To allow grouting, rock dowels should be inclined at least 10 degrees below horizontal. Hole diameter for rock dowels should be in accordance with the manufacturer’s recommendations as determined during final design. If cables need to be anchored in areas covered by overburden soils, we recommend construction of an inclined micropile foundation (as described in the above bullet) to prevent hole collapse during drilling and/or excessive grout losses in waste rock.
 - **Corrosion Considerations** - Due to the anticipated presence of sulfide mineralization in site soils and bedrock, we recommend that micropiles and rock dowels incorporate sulfate-resistant grout such as Type V Portland cement or similar. Galvanized or epoxy-coated thread bar should be used for the micropiles and rock dowels. If additional corrosion protection is desired, a fully encapsulated bar could be used. This may increase costs and limit the ability to couple shorter bar segments in areas of tight access during construction. The designer may also consider use of upsized bar or micropile casing to add sacrificial section.
 - **Access Considerations** – Installation of micropiles on the (uphill) east side of the building will require removal of accumulated soils and debris and potentially some areas of cribbing to expose structural elements at the bottom of the proposed strengthened headframe. This will require measures to avoid damaging the existing structure. The excavation must be sloped in accordance with OSHA requirements. Contractors may need to mobilize specialized excavation and drilling equipment, including excavator mounted or other difficult access drills to access these areas. Construction of micropile foundations on the west side of the building will require traffic control or temporary closures of West Willow Creek Road to limit public exposure to construction hazards.

5.2 Covered Trestle

5.2.1 Immediate Monitoring and Signage

Structural monitoring and signage (as described above) should be implemented immediately to reduce public exposure to potential collapse hazards at the covered trestle.

5.2.2 Critical Foundation Underpinning

As shown on sheets SK-11 and SK-15, critical treatments for the covered trestle could consist of constructing new, micropile-supported grade beams between columns. These

foundations would provide bearing for new longitudinal structural shoring beams required for stabilization of the covered trestle.

This concept would likely require temporary stabilization measures to reduce soil raveling and to temporarily shore undermined pedestal footings during construction. Measures to reduce raveling could consist of applying temporary shotcrete to the exposed soil face beneath the trestle. Bearing improvements at undermined pedestal footings could be accomplished by forming and pouring a new concrete footings to encase the existing column ends and pedestal foundation during construction. We also recommend measures be taken at the top of the uphill-adjacent cribbing to reduce surface drainage onto this area.

Drilling micropiles for the new grade beams would likely require use of excavator-mounted or specialized drilling equipment to access the slope. We anticipate that micropiles will be on the order of 30 feet in total length (including a minimum 10-foot bond zone and 20-foot-long cased zone). The designer should refer to the conceptual micropile recommendations and construction considerations described above.

5.3 Blacksmith Shop

Given the advanced deterioration of these buildings, we recommend that stakeholders immediately place signage and or barriers to communicate collapse hazards and discourage public entry into these buildings.

To the extent that structural repairs are undertaken, cable anchorages can be constructed with rock dowels or micropiles as described above. Construction in these areas will require use of specialty or difficult access equipment that may reduce the available contractor pool and increase overall construction costs.

6 OPINIONS REGARDING ESTIMATED CONSTRUCTION COSTS

The following sections briefly outline our assumptions and opinions of the costs of various foundation and excavation items to support the Ore Sorting House and covered trestle treatments. Potential costs associated with characterizing, treating, or disposing of contaminated materials (such as displaced groundwater or mine waste) are not included.

Appendix A includes a cost estimate completed by Deep Roots Timberworks, LLC of Fort Collins, Colorado (Deep Roots Craftsmen or DRC). The DRC cost estimate includes the approximate foundation and excavation costs in the following sections and approximate

costs associated with the structural treatments and monitoring shown on the conceptual plans by JVA (also in Appendix A).

6.1 Micropile and Rock Dowel Construction Costs

We anticipate that construction of micropile foundations for the Ore Sorting House and covered trestle will be on the order of about \$175 to \$225 per linear foot. Based on JVA conceptual plans and site observations, we estimate the following micropiles will be required:

- six 40-foot-long inclined tension micropiles at the east side of the Ore Sorting House,
- six 40-foot-long vertical micropiles at the west side of the Ore Sorting House,
- two 30-foot-long tension micropiles for cable anchors in soil-covered areas, and
- eight 30-foot-long micropiles for the trestle underpinning.

Rock dowels may cost on the order of \$100 to \$150 per foot. We anticipate four 10-foot-long rock dowels along the east side of the Ore Sorting House for cable dowels in outcrops.

We anticipate that construction of micropiles and rock dowels will cost on the order of \$165,000.

6.2 Grade Beam Construction Costs

We anticipate the following costs for the various footing elements at the site assuming an approximate reinforced concrete cost of \$2,000 per cubic yard and the approximate dimensions depicted on the JVA plan set (Appendix A):

- **Ore Sorting House Grade Beam/Pile Cap** - Assuming a 2-foot-wide by 2-foot-deep by 75-foot-long concrete pile cap/grade beam on the uphill (east) side of the Ore Sorting House, we anticipate grade beam construction will cost on the order of \$23,000 (or about \$300 per lineal foot).
- **Covered Trestle Grade Beams** - Assuming a total of four grade beams below the covered trestle, each 2 feet wide by 2 feet high by 40 feet long, we anticipate construction costs on the order of \$48,000 (or about \$12,000 per unit).
- **Covered Trestle Temporary Footings** – a total of 10 temporary footings may be required to shore the covered trestle columns. Assuming each footing consists of a 3-foot diameter, 3-foot-deep cylinder, we anticipate construction costs on the order of \$16,000 (or \$1,600 per unit).

6.3 Rubble Excavation at Ore Sorting House

Based on the geometry shown by JVA on sheet SK-15 (Appendix A), we anticipate an excavation volume on the order of about 500 cubic yards will be required to expose existing footings along the uphill (east) side of the Ore Sorting House to allow construction of the pile cap/grade beam. Assuming a cost of \$50 per cubic yard for hand excavation along the uphill (east) side of the Ore Sorting House, excavation cost is estimated to be on the order of \$25,000. This cost figure does not include temporary shoring, waste characterization, or off-site hauling and disposal of material, if needed.

6.4 Vacuum Excavation Beneath Ore Chutes

Access beneath the ore bins to construct the strengthened headframe will require removal of the silty sand “dust” deposits. Assuming that these materials could be removed with a vacuum truck over the course of three 10-hour days at a rate of \$300 per hour, cleanup beneath the ore bins may cost on the order of about \$9,000. This figure does not include characterization or disposal costs for the vacuumed soils, if needed.

6.5 Other Costs

Additional geotechnical engineering exploration and analysis will be required for final design of this project. These costs may be on the order of \$40,000. Implementation of a design-build approach for foundation construction may reduce engineering and structural final design costs. Design-build delivery may also be advantageous due to the specialized nature of the proposed construction and challenging site constraints.

7 LIMITATIONS AND CLOSURE

This report was prepared for the exclusive use of the Colorado Division of Reclamation, Mining & Safety, and their representatives for the Commodore Mine Structural Evaluation Project. Our studies were performed for conceptual design purposes and should not be used for final design or construction. Our conceptual recommendations and opinions are based solely on visual reconnaissance observations of readily accessible surface features and should not be used for final design of the project. Additional engineering analyses are recommended herein to develop final design recommendations for this project. Regulatory agencies may reach different conclusions than Shannon & Wilson.

The structural assessments, engineering recommendations, and schematic (not for construction) plans included herein were completed by JVA and are based on field assessment observations by JVA (see Appendix A). As noted in Section 5 of this report, the

buildings evaluated by JVA have structural deficiencies and should be monitored immediately to evaluate if ongoing movement is occurring that could result in structural collapse or other hazards to the public. As noted above, stakeholders may consider dismantling the Ore Sorting House to reduce public hazards if structural mitigations are not undertaken.

The scope of services did not include any environmental assessment or evaluation regarding the presence or absence of wetlands or hazardous or toxic materials in the soil, surface water, groundwater, or air, on or below the site, or for the evaluation of disposal of contaminated soils or groundwater. Shannon & Wilson has qualified personnel to assist you with these services should they be needed.

This report should not be used without our approval if any of the following occurs:

- Conditions change due to natural forces or human activity under, at, or adjacent to the site.
- Assumptions stated in this report have changed.
- Project details change, or new information becomes available such that our conclusions and recommendations may be affected.
- More than five years has passed since the date of this report.
- If any of these occur, we should be retained to review the applicability of our conclusions and recommendations.

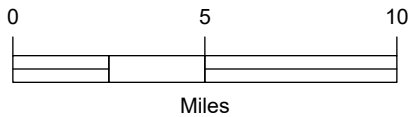
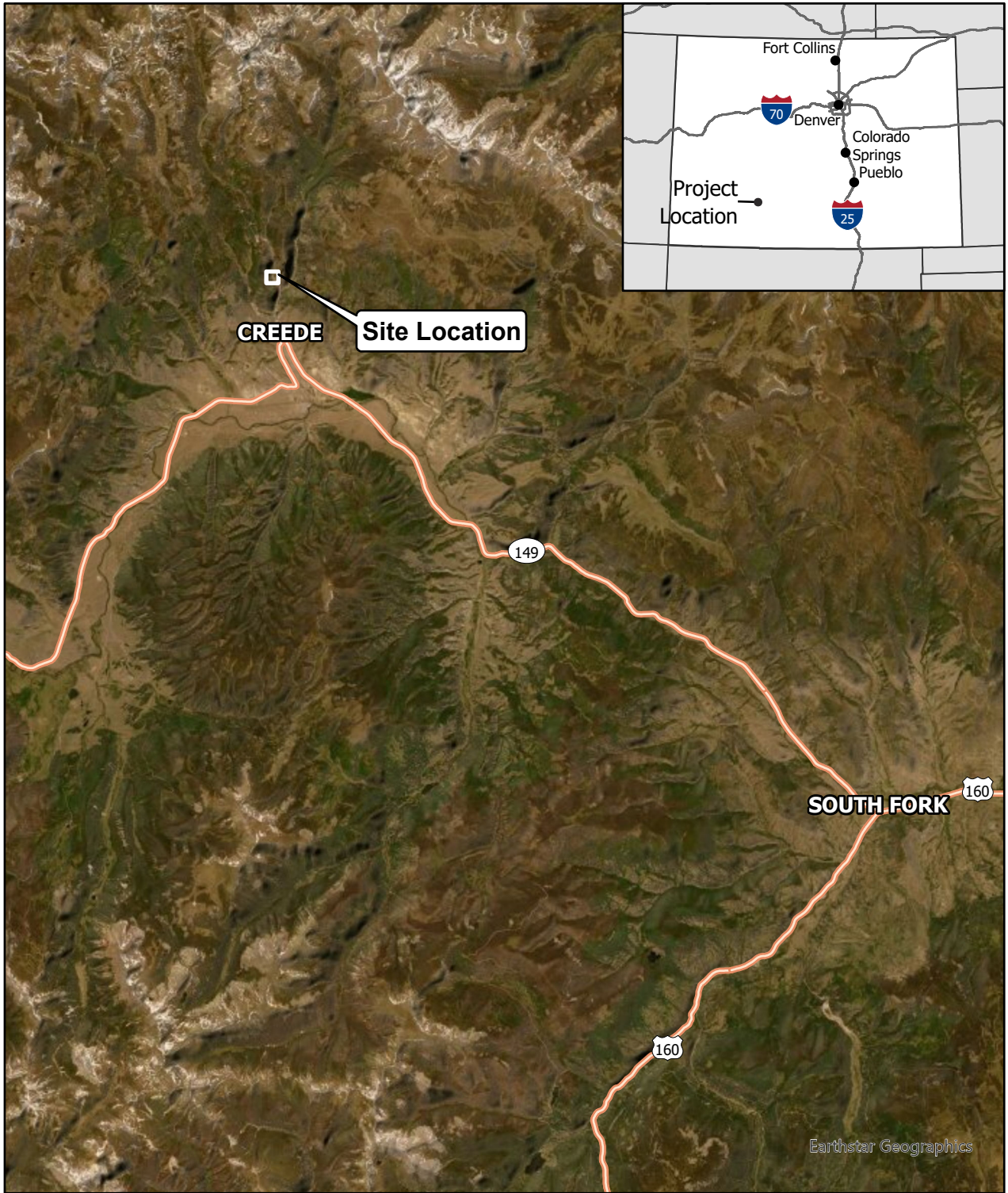
We have prepared the attached "Important Information About Your Geotechnical Report," to assist you and others in understanding the use and limitations of our reports. We appreciate the opportunity to work with DRMS on this project.

8 REFERENCES

Emmons, W.H. and Larsen, E.S., 1923, Geology and ore Deposits of the Creede District, Colorado, U.S. Geological Survey Bulletin 718, 198 p.

Lipman, P.W., 2007, Geologic Map of the Central San Juan Caldera Cluster, Southwestern Colorado, U.S. Geological Survey Geologic Investigations Series Map I-2799, Scale 1:50,000.

Skeo Solutions, Inc., 2021, Historic Structure Assessment – DRAFT, Nelson Tunnel/Commodore Waste Rock Superfund Site, Mineral County, CO, Report prepared by Skeo Solutions for U.S. Environmental Protection Agency Region 8, February, 15 p., 2 Appendices.



Colorado Div. of Reclamation, Mining & Safety
Commodore Mine Structural Evaluation Project
Near Creede, Colorado

VICINITY MAP

July 2021

106585-001

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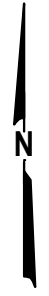
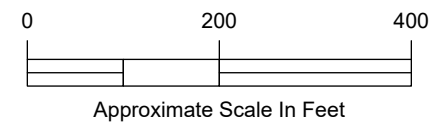
FIG. 1



Maxar, Microsoft

LEGEND
 - - - Building Outline
 — Road

NOTES
 1. Figure adapted from a general overview of the Commodore Mine provided by JVA, Inc. on July 23, 2021.



Colorado Div. of Reclamation, Mining & Safety
 Commodore Mine Structural Evaluation Project
 Near Creede, Colorado

SITE PLAN

July 2021 106585-001
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Concrete footing along west side of Ore Sorting House. View due north on June 23, 2021. Inset shows typical crack in footing.

FIG. 3

Colorado Div. of Reclamation, Mining, & Safety
Commodore Mine Structural Evaluation Project
Near Creede, Colorado

SITE PHOTOGRAPHS

July 2021

106585-001

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FIG. 3



Cribbing behind west façade of Ore Sorting House. Note potential bedrock exposure and gap in cribbing at left. View due east on June 25, 2021.

FIG. 4

Colorado Div. of Reclamation, Mining, & Safety
Commodore Mine Structural Evaluation Project
Near Creede, Colorado

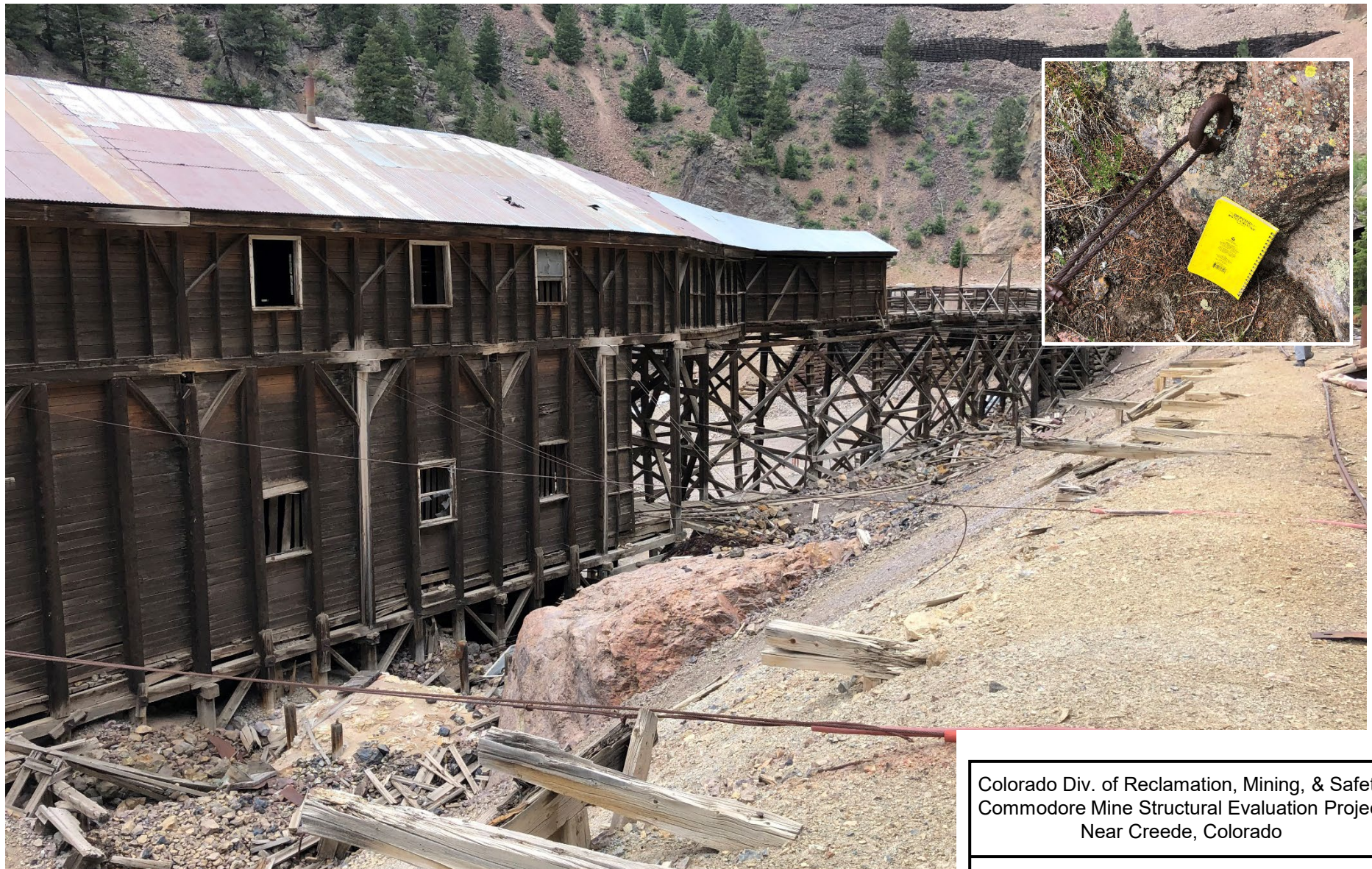
SITE PHOTOGRAPHS

July 2021

106585-001

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FIG. 4



West side of Ore Sorting house and covered trestle showing slack steel cables. View due northwest on June 23, 2021. Inset shows eyebolt at cable anchorage.

FIG. 5

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Commodore Mine Structural Evaluation Project
Near Creede, Colorado

SITE PHOTOGRAPHS

July 2021

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FIG. 5



West side of Ore Sorting house and covered trestle showing accumulations of waste rock and debris. Note rock outcrop at center. View due south on June 23, 2021.

FIG. 6

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Commodore Mine Structural Evaluation Project
Near Creede, Colorado

SITE PHOTOGRAPHS

July 2021

106585-001

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FIG. 6



Colorado Div. of Reclamation, Mining, & Safety
Commodore Mine Structural Evaluation Project
Near Creede, Colorado

SITE PHOTOGRAPHS

July 2021

106585-001

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FIG. 7

FIG. 7

Covered trestle concrete pedestal foundations, various views taken on June 23 and June 25, 2021.

Appendix A

JVA Structural Assessment Conceptual Design, and Cost Estimates

APPENDIX A: JVA STRUCTURAL ASSESSMENT

Background:

Spurred by a silver boom, the Bachelor Mine and Commodore Mine formed in the 1890s. Just outside of Creede, Colorado the mines and associated buildings operated through World Word II and closed in 1976. The Bachelor-Commodore Mine District was listed as one of Colorado's Most Endangered Places by Colorado Preservation, Inc. in 2006. Many of the buildings retain historic integrity and therefore the district is believed to be edible for listing by the National Register of Historic Places by the National Park Service. Such a listing would indicate or validate that the district is worthy of preservation. The district is most recognizable by the Commodore Ore Sorting House and Trestle which tower 80' above the Bachelor Loop. The buildings in the district suffer from deferred maintenance and some site features contribute contaminants (cadmium and zinc) to surface water.

Scope:

The engineering and construction team was engaged by the State of Colorado Division of Mining, Reclamation, Mining & Safety (DRMS) to evaluate three mining buildings: the Commodore Ore Sorting House, the Lower Bachelor Ore Sorting House & Aerial Tramway Terminal (one interconnected building), and the Blacksmith Shop. The Trestle adjoining the Commodore Ore Sorting House was added to the scope since the structures' stability are intertwined. The nearby and evocative Upper Bachelor Ore Sorting House & Aerial Tramway Terminal and the cliffside Ore Sorting House were excluded from the scope as were the abundant ancillary structures and timber-cribbed retaining walls.

Shannon & Wilson (S&W) evaluated the buildings and immediately surrounding sites from a geotechnical perspective. JVA, Inc. (JVA) evaluated the buildings from a structural perspective and through the lens of preservation. S&W and Deep Roots Craftsmen (DRC) contributed to feasibility analyses of recommended treatments and to costing exercises.

A Historic Structures Assessment (HSA) was authored in early 2021 by Skeo. As such, this project does not repeat that work. Instead, this project aspired to identify geotechnical and structural condition issues requiring attention, followed with treatment recommendations and their associated costs. Treatment recommendations are described in these documents, and they are grouped into buckets based on their priority. Each group of treatments has been assigned a rough order of magnitude cost estimate. The development of framing plans (as-builts) was excluded from the scope.

The treatment recommendations presented in these documents are conceptual in nature and are not issued for construction. They are intended to convey the type and breadth of repairs needed for each of the structures and to establish a framework for budgeting.

Site Work:

Jason Jeffries (JVA) visited the site on April 29-30 to document the buildings via drone photography and photogrammetry. The aerial photography was used to create top, side, and interior view sheets for taking field notes in the subsequent site visit and to convey information in this set of documents. The photogrammetry data was used to confirm building dimensions and can be used in future, more detailed analyses and designs.

Ian Glaser (JVA) visited briefly on June 30 to procure small wood samples for wood species identification. The lower 10x10 timbers of the Commodore Ore Sorting House were determined to be Engelmann Spruce.

A team subsequently visited the buildings over the course of three days on June 23-25, 2021. The onsite team consisted of Jeff Graves (DRMS), Robbie Diester (S&W), Jeffrey Schalk (JVA), Ian Glaser (JVA), and Jon Sargent (DRC). The team evaluated the buildings visually and discussed rehabilitation options and site access. No destructive testing was performed on site. Engineers performed preliminary calculations following this site visit to inform the final treatment recommendations.

Description:

The three mining buildings and trestle are all wood framed. The framing is primarily post-and-beam construction. The structures are constructed on hillsides, and they are purpose-built. Further descriptions are provided on building-by-building basis on later sheets.

Diagnosis:

Each of the structures has deteriorated since last in use.

The Lower Bachelor Ore Sorting House & Aerial Tramway Terminal and the Blacksmith Shop structures have degraded significantly. The common culprit is believed to be loss of the metal roofing panels coupled with proximity of the timber sills to grade. The exposed roof framing and wall bases are consequently subjected to moisture-borne deterioration. As the exposed roof framing has deteriorated and collapsed, while the roof diaphragms have lost integrity, the perimeter walls have been able to translate/rotate on their marginal bases. The buildings are partially collapsed.

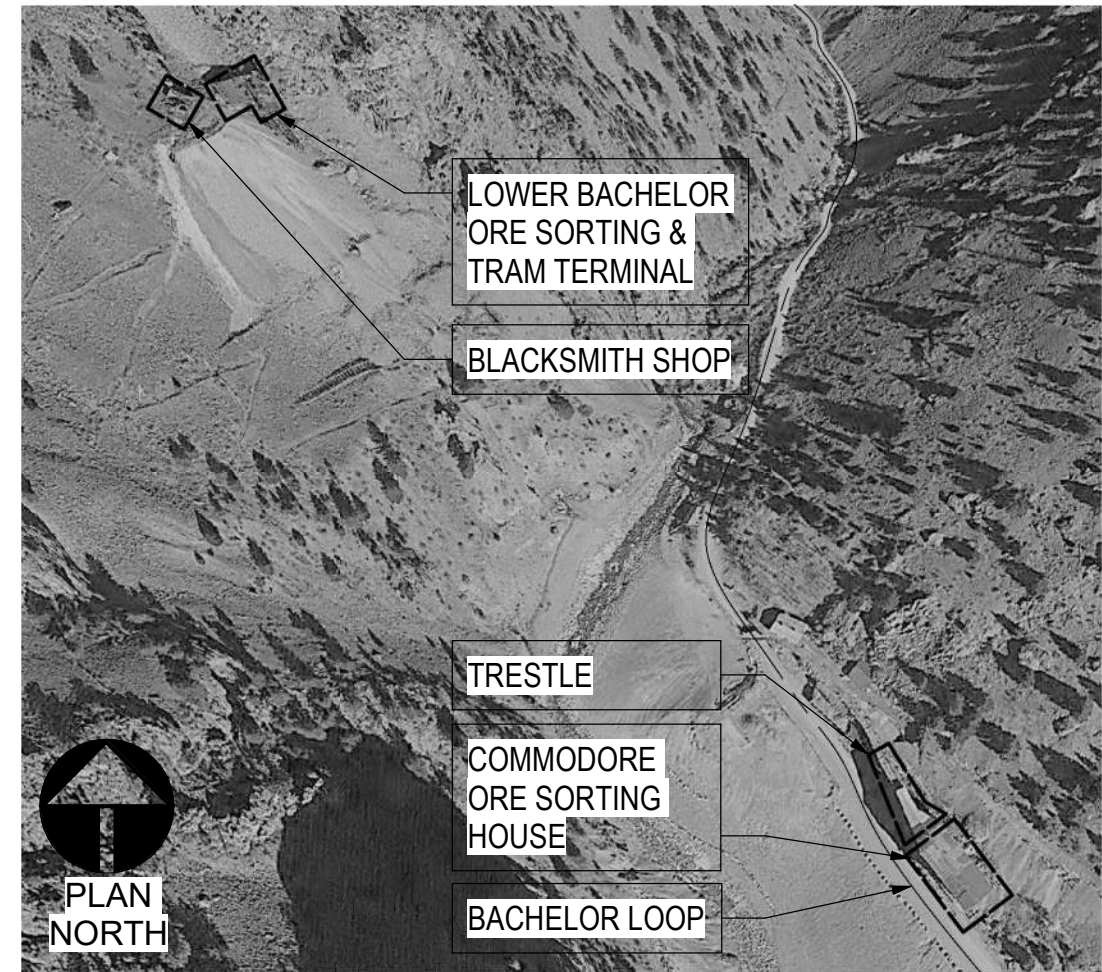
The Commodore Ore Sorting House and Trestle superstructures are in good and fair condition respectively. It is understood that these buildings were in use most recently and their lessened state of disrepair may be related to more recent maintenance endeavors.

However, both structures are experiencing significant foundation condition issues.

- There is believed to be a localized soil failure under the north end of the Ore Sorting House that is causing outward displacement of the west wall. The area falls under the midline of the building and is not accessible or visible. The hypothesis is based on measurement of the floor planes and wall planes.
- The concrete foundations beneath many of the Trestle's 'legs' are being undermined by erosion of the hillside on which they bear.

If these foundation issues were to worsen, they could further destabilize the structures and in the worst-case cause partial or even complete collapses.

Accurately predicting the timeline for such events is not possible and therefore the conditions should be addressed immediately.



SITE PLAN
NO SCALE

Treatment Recommendations:

It should be made clear that resources should be focused on remediating the foundation issues at the Commodore Ore Sorting House and Trestle. These immediate actions include:

1. Prohibiting public access to the areas in the fall radius of the Commodore Ore Sorting House and Trestle
2. Monitoring the structures so that movement can be readily detected (that could possibly signal the need for more restrictions).
 - Excepting the foundation issues at the Commodore Ore Sorting House and Trestle, the structures are in considerably better condition than the Lower Bachelor Ore Sorting House & Aerial Tramway Terminal and the Blacksmith Shop. The Commodore Ore Sorting House and Trestle frame the gateway to the Commodore Mine District via the road from Creede. The road passes through the shadow of these two tall structures and presents a tempting stopping point for passersby. The Lower Bachelor Ore Sorting House & Aerial Tramway Terminal and Blacksmith Shop on the other hand are only visible distantly and can be viewed up close only by a short but precarious hike (loose scree) on an unmaintained trail. As these buildings progressively collapse the risk to the public is small given their relative remoteness. Relatedly, construction access to the upper structures is difficult and adds a considerable upcharge to their rehabilitation costs. Meanwhile, a structural failure at the Commodore Ore Sorting House or Trestle presents a higher risk to the public given their proximity to the road. Because of the road, construction equipment access is considerably more straightforward. If funding for the structures' rehabilitation is limited, a strong argument can be made for focusing on the Commodore Ore Sorting House and Trestle.
 - Consideration can be given to further documenting the Lower Bachelor Mine Ore Sorting House & Aerial Tramway Terminal. The documentation can include HABS/HAER drawings and photography as well as video recordation. Such documentation can allow those with disabilities to experience the site from an accessible site elsewhere in the district or in a museum. As-builting the framing of the buildings would also guide a future rehabilitation so that reconstruction is less speculative. As the structures progressively deteriorate, it becomes more difficult to determine how exactly they were originally framed.
 - Specific treatments recommendations are made on a structure-by-structure basis later in this set of documents. Those recommendations are structure-specific and are essentially independent of the big-picture recommendations presented above. While all the recommendation made are intended to be practical and preservation-minded, they do come from engineers. As this project springboards to the next phase of design and implementation, it will be important to make room at the table for stakeholders, preservation officers, building officials, community advocates, historic architects, and so on to provide their input.

Project Name: COMMODORE MINE



Drawing Reference:
BACHELOR-COMMODORE MINE DISTRICT - OVERVIEW

Project Address:
CREEDE, COLORADO 81130

Scale: 3/4" = 1'-0"

Date: 07/31/21

JVA Job #: 20862

Drawn By: JSS

Drawing Number:

SK-01

SCHEMATIC ONLY
NOT FOR CONSTRUCTION

Description:

The Commodore Ore Sorting House is a wood-framed, tailor-made structure. The primary structure is framed almost entirely of 10x10 timbers. The timber frame system is regularly tied with steel rods that travel from node to node. A conventionally framed upper level and roof accepted railcars delivering ore for the gravity-fed system. Framing at the top of the structure follows a regular grid spacing of 13' (north-south) and 19' (east-west). Ore sorting chutes descend downward and diagonally to the east to an intermediate floor level where more sorting occurred. This level is accessible from the hillside on the back/east side of the structure. From this level, another level of ore sorting chutes descend downward and diagonally to the west where they discharged just above the road level. The post spacing of the structure densifies working downward and finishes at 4'-4" in the north-south direction and 6'-4" in the east-west direction at the lowest level. The pitch of the lowest level of chutes parallels that of the hillside. The Trestle is conventionally framed with timber battered columns, or legs, supported on concrete pedestals. At the taller, south end of the trestle, the legs bear on the hillside below the timber-cribbed retaining wall. As the trestle continues northward, the legs transition to a smaller height and some are positioned uphill of the timber-cribbed retaining wall. The legs are regularly interrupted/spliced by horizontal tie beams, and X-braces are in place, to create transverse frames of sorts. The transverse frames are tied to one another by a series of X-braces. The south end of the Trestle ties into the upper level of the Ore Sorting House. The first 4 bays are covered with a roof structure. The remaining bays to the north are uncovered and unprotected from the elements.

Diagnosis:

The Ore Sorting House superstructure is in good condition. Most of the framing elements are intact. There are however some serious condition issues that require treatment:

- The transverse beam ends at each level project outside the building envelope and the end grain is exposed to the environment. In some cases, the beam ends are significantly deteriorated.
- At the middle level of the structure, there is not a traditional diaphragm. The end walls were observed to be kinked outward at this elevation despite tie beam oriented in the north-south direction.

There are several isolated, less systemic condition issues that are identified in the drawings and treatment recommendations.

Regarding the foundation, measured displacements of the upper-level floor and tilt of the west wall signaled a probable issue. Along the midline of the structure near the north end, upper-level relative floor displacements approach 1'. Corresponding wall tilt on the west wall at the lowest level measures greater than 5%. In very general terms and in this area, soil is believed to have compressed and correspondingly expanded laterally and to the west.

The Trestle superstructure is in fair condition. Most framing elements are intact. Some of the horizontal tie beams are deteriorating on their skyward facing faces and end-grain exposed ends. The Trestle's timber framing is significantly less weathered where better protected from ultraviolet light and moisture by the roof structure. Many of the X-braces have become dislodged from their original positions. The X-braces have dislodged for two reasons: shifting of the trestle legs due to undermining of the foundation pedestals and warping due to weather exposure. The concept of focusing resources on the more intact, roof-covered south end of the Trestle coupled with abandonment of the more deteriorated, and almost unsalvageable, north end is presented. Alternate strategies that include preserving the entire Trestle, albeit at higher costs, can be studied in a future phase.

The Trestle's concrete pedestals are not tied together; they are a series of isolated supports. Many of these foundation supports were observed to be undermined and/or shifted and in other cases completely buried. Small exploratory excavations were made at the buried pedestals to reveal deteriorated timber column legs. The Trestle framing is interconnected with the Commodore Ore Sorting House Framing; a destabilization of one structure could destabilize the other.

Treatments

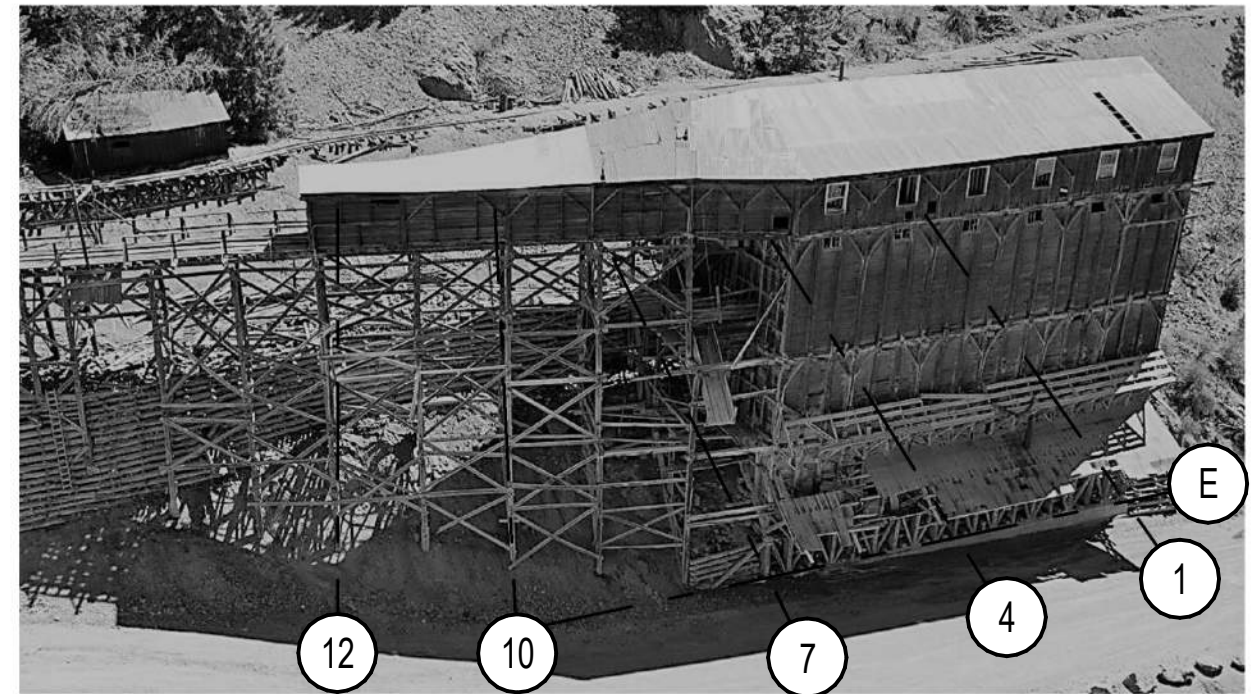
- Recommended treatments are summarized here but are elucidated graphically on the accompanying drawings.

Immediate Treatment Recommendations for Ore Sorting House:

- Lateral, westward deflection of the building's west wall at the lowest level on the north end is significant and signals an instability.
 1. Install instrumentation to record today's baseline of westward wall tilt all along the west wall of the structure. Monitor the tilt until permanent repairs can be installed.
 2. Post signage and/or introduce barricades to discourage the public from congregating along the west side of the structure.

Critical Treatment Recommendations for Ore Sorting House:

- Further investigate and develop designs to arrest superstructure movement presumed to be the result of localized soil subsidence. Implement repairs.
 3. Construct access road on backside of structure.
 4. Grids 1-7: Remove material (remnants from ore sorting process) that has accumulated beneath structure and to further expose longitudinal uphill (grid A) and center (grid C) column lines.
- It is assumed that repairs will be focused on the area between grids 7 and 4. Work may expand all the way to grid 1 depending on the result of the monitoring.
 5. Grids 4-7: Install whaler and pin lower-level structure on west face (grid E) horizontally to competent rock with soil nails.
 6. Grids 4-7: Support grid C columns vertically by cantilevered headframes constructed sympathetically with the building's timber-framed geometry. Support the armature vertically with a grade beam over micropiles and horizontally with a series of soil nails.
- The stability issue at the end walls should be addressed concurrently.
 7. Tie kinks along end walls (grids C/1 & C/7) back to interior structure per SK-17.
 8. Remove (or reattach) loose metal roof panels from awning along grid E and provide temporary posts beneath eave.



COMMODORE ORE SORTING HOUSE & TRESTLE

NO SCALE

Serious Treatment Recommendations for Ore Sorting House:

- Continue monitoring south end of structure. Previous pinning and underpinning repairs may expand to this end of the structure preemptively.
 1. Reconstruct upper and lower awnings along grid E and reinstall all metal roof panels. Remove temporary columns.
 2. Provide cleats at deteriorated beam ends at upper level along grid A per SK-16.
 3. Patch roof penetrations and replace missing roof panel.
 4. Remove window obstructions at upper level to lessen wind pressure.
 5. Selectively strengthen roof framing including shimming and tying across gaps per SK-14 & SK-18.
 6. Introduce nominal lateral force resisting system at upper level per SK-14 and SK-18.
- Not shown on drawings:
 7. Planning and pricing exercises should include an allowance to repair a variety of additional structural condition issues that will inevitably be discovered in a future, more-detailed site investigation.
 8. Grease turnbuckles and tighten only excessively sagged/loose existing horizontal cables that are anchored into hillside on east side of structure.
 9. Treat exposed, projecting beam ends with linseed oil (or equivalent) and flash over ones most susceptible to UV light and moisture damage.
 10. Establish routine maintenance inspection and repair program.

Immediate Treatment Recommendations for Trestle:

- Undermining of the Trestle's isolated foundation elements is destabilizing the structure.
 1. Monitoring the structure so that movement can be readily detected (that could possibly signal the need for more restrictions).
 2. Prohibit the public from congregating under and along the west side of the Trestle

Critical Treatment Recommendations for Trestle

3. Install shoring followed by micropiles and grade beam foundation underpinning system as described on sheet SK-11 and section 2/SK-15.
4. Decouple north end of Trestle from roof-covered south end. Deconstruct north end to remove hazard.

Serious Treatment Recommendations for Trestle

5. Disassemble timber-cribbed retaining wall and reestablish natural grade profile.
6. Inspect each framing element of Trestle Structure. Replace deteriorated members in-kind. Replace isolated deteriorated areas with Dutchmans and/or wood-based epoxy fillers and consolidants. (Not shown on drawings)
7. Repair and strengthen deteriorated and overstressed transfer beam per SK-12 & SK-19.
8. Replace all missing, and reattach all loose, X-brace members.
9. Establish routine maintenance inspection and repair program.

Project Name: COMMODORE MINE



Drawing Reference:
COMMODORE ORE SORTING HOUSE & TRESTLE - OVERVIEW

Project Address:
CREEDE, COLORADO 81130

Scale: 3/4" = 1'-0"

Date: 07/31/21

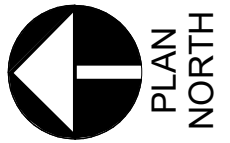
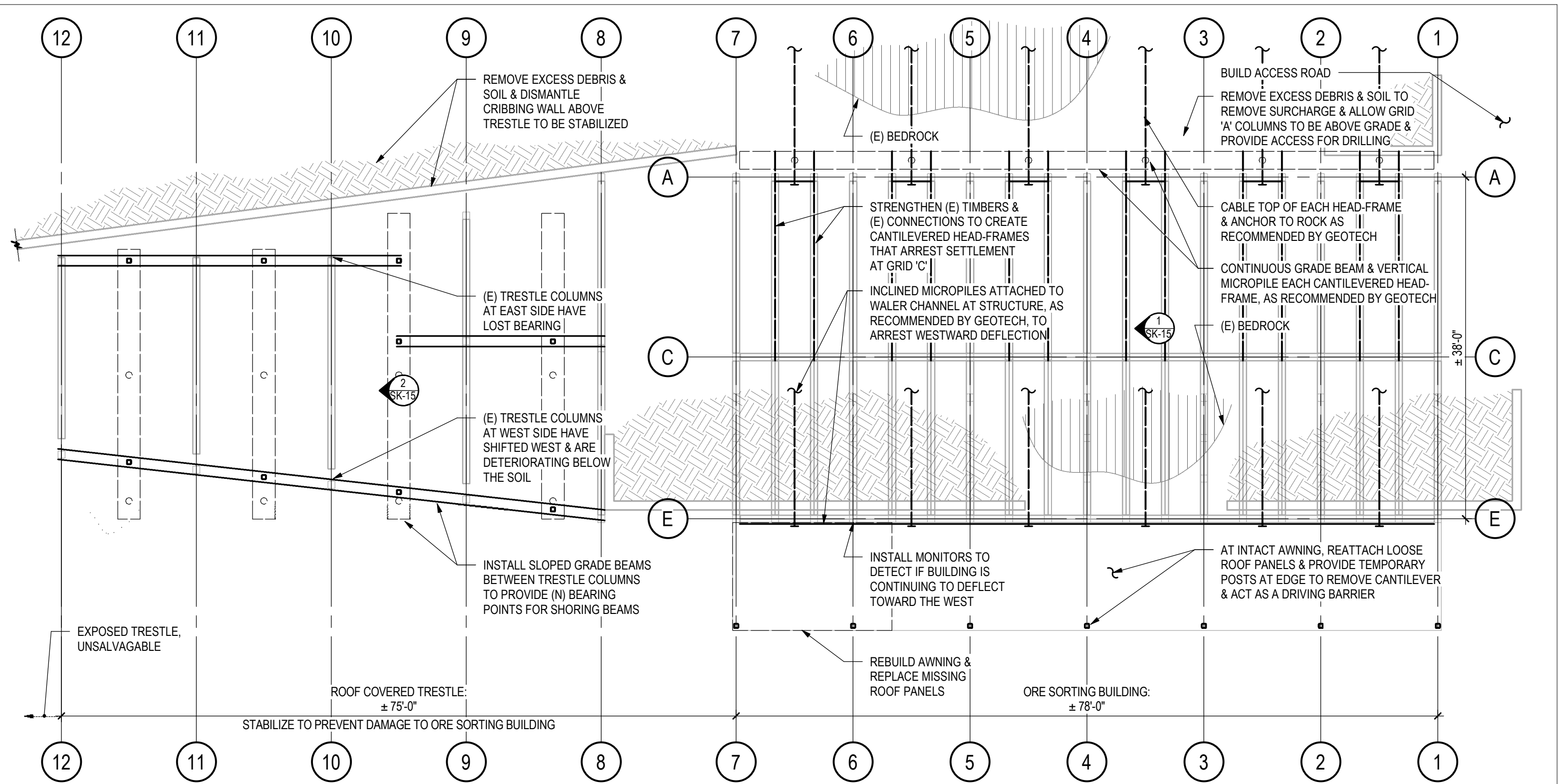
JVA Job #: 20862

Drawn By: JSS

Drawing Number:

SK-10

**SCHEMATIC ONLY
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Project Name: COMMODORE MINE



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Glenwood Springs • Denver

Drawing Reference:
COMMODORE ORE SORTING HOUSE & TRESTLE - FOUNDATION PLAN

Project Address:
CREEDE, COLORADO 81130

**SCHEMATIC ONLY
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Scale: 3/32" = 1'-0"

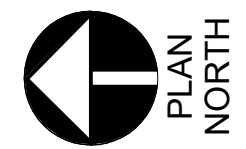
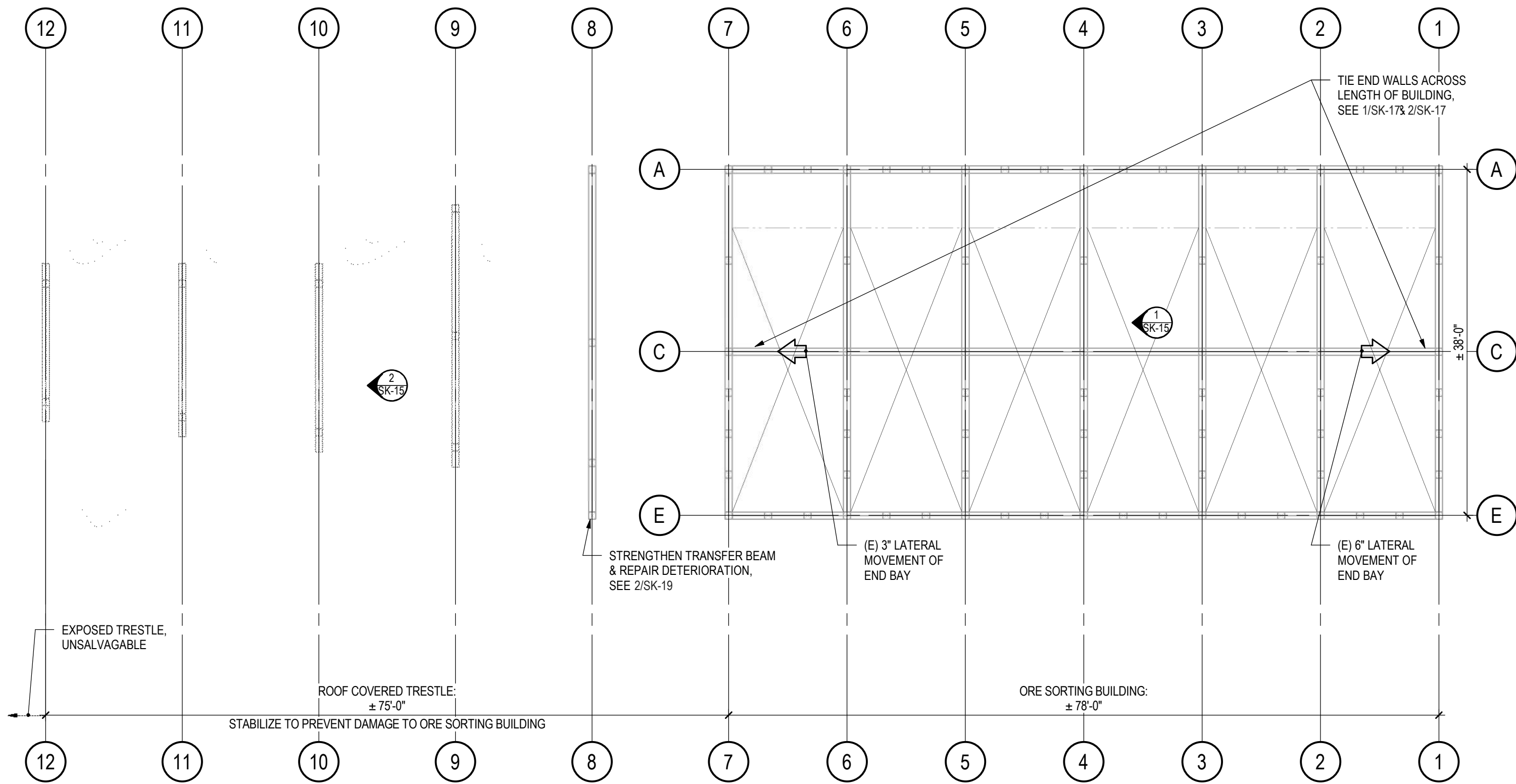
Date: 07/31/21

JVA Job #: 20862

Drawn By: JSS

Drawing Number:

SK-11



Project Name: COMMODORE MINE



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Drawing Reference:
COMMODORE ORE SORTING HOUSE & TRESTLE - MAIN LEVEL PLAN

Project Address:
CREEDE, COLORADO 81130

**SCHEMATIC ONLY
NOT FOR CONSTRUCTION**

Scale: 3/32" = 1'-0"

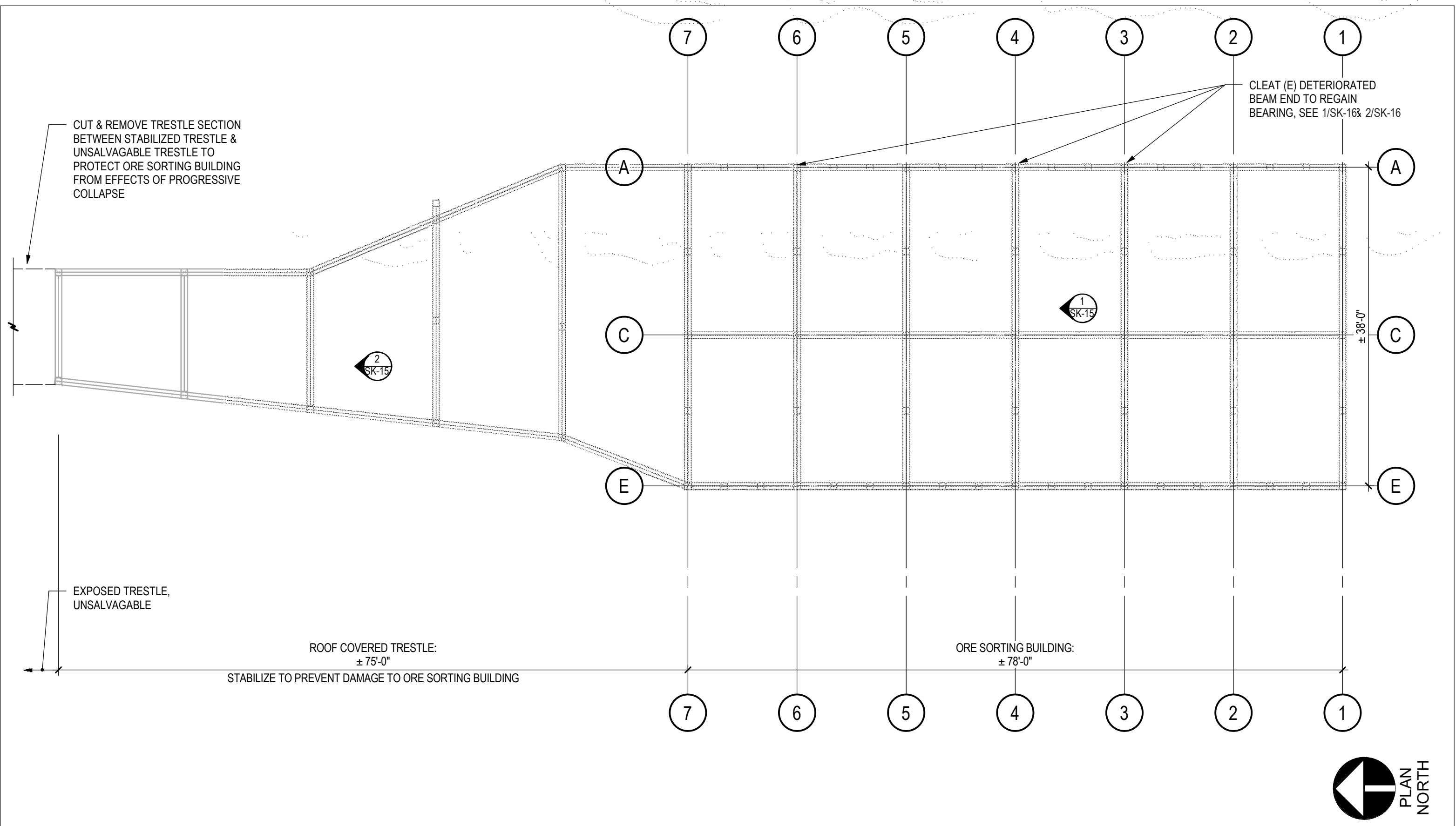
Date: 07/31/21

JVA Job #: 20862

Drawn By: JSS

Drawing Number:

SK-12



Project Name: COMMODORE MINE



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Drawing Reference:
COMMODORE ORE SORTING HOUSE & TRESTLE - UPPER LEVEL PLAN

Project Address:
CREEDE, COLORADO 81130

**SCHEMATIC ONLY
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Scale: 3/32" = 1'-0"

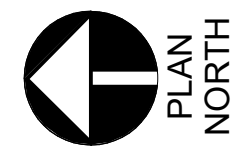
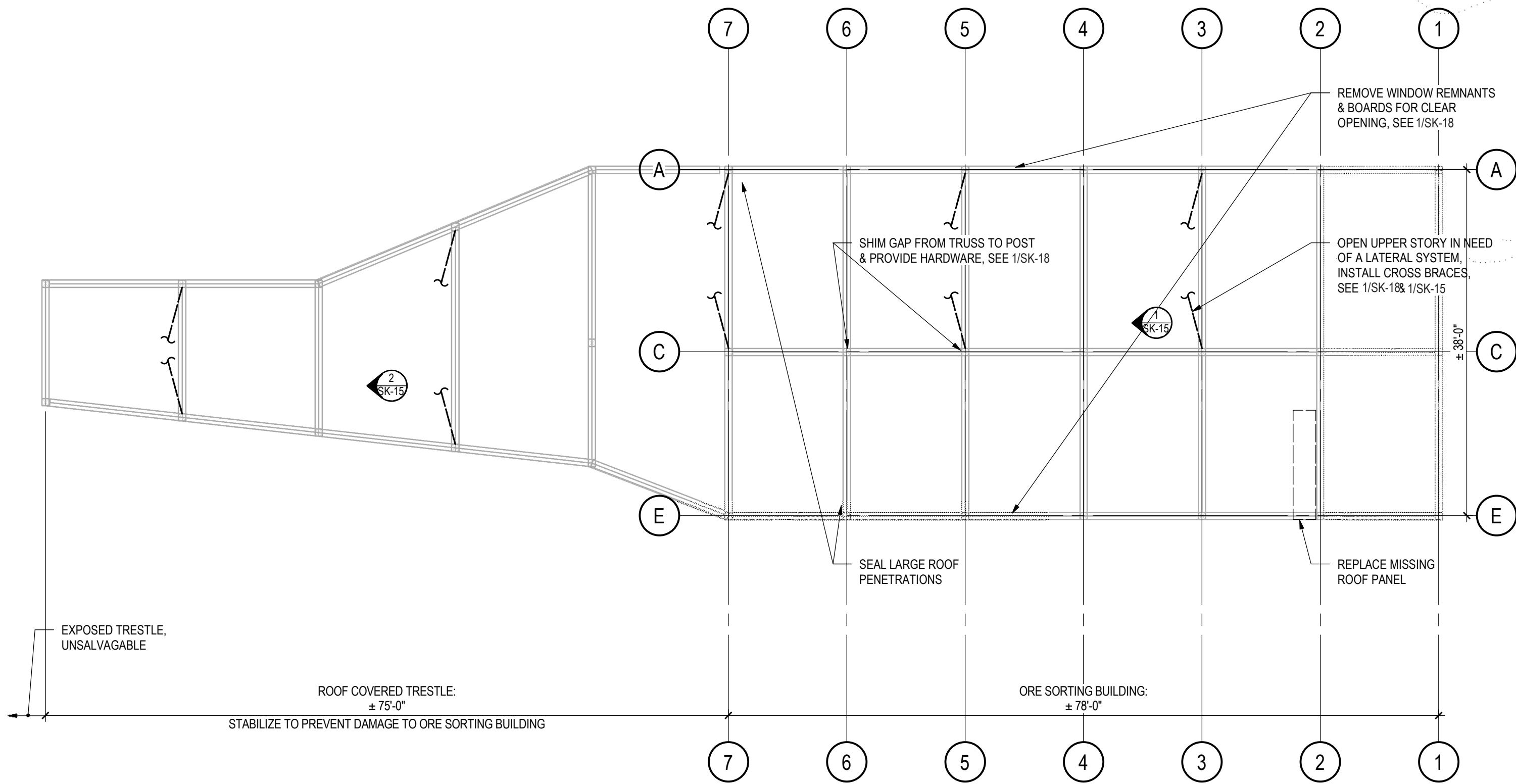
Date: 07/31/21

JVA Job #: 20862

Drawn By: JSS

Drawing Number:

SK-13



Project Name: COMMODORE MINE



Drawing Reference:
COMMODORE ORE SORTING HOUSE & TRESTLE - ROOF PLAN

Project Address:
CREEDE, COLORADO 81130

**SCHEMATIC ONLY
NOT FOR CONSTRUCTION**

Scale: 3/32" = 1'-0"

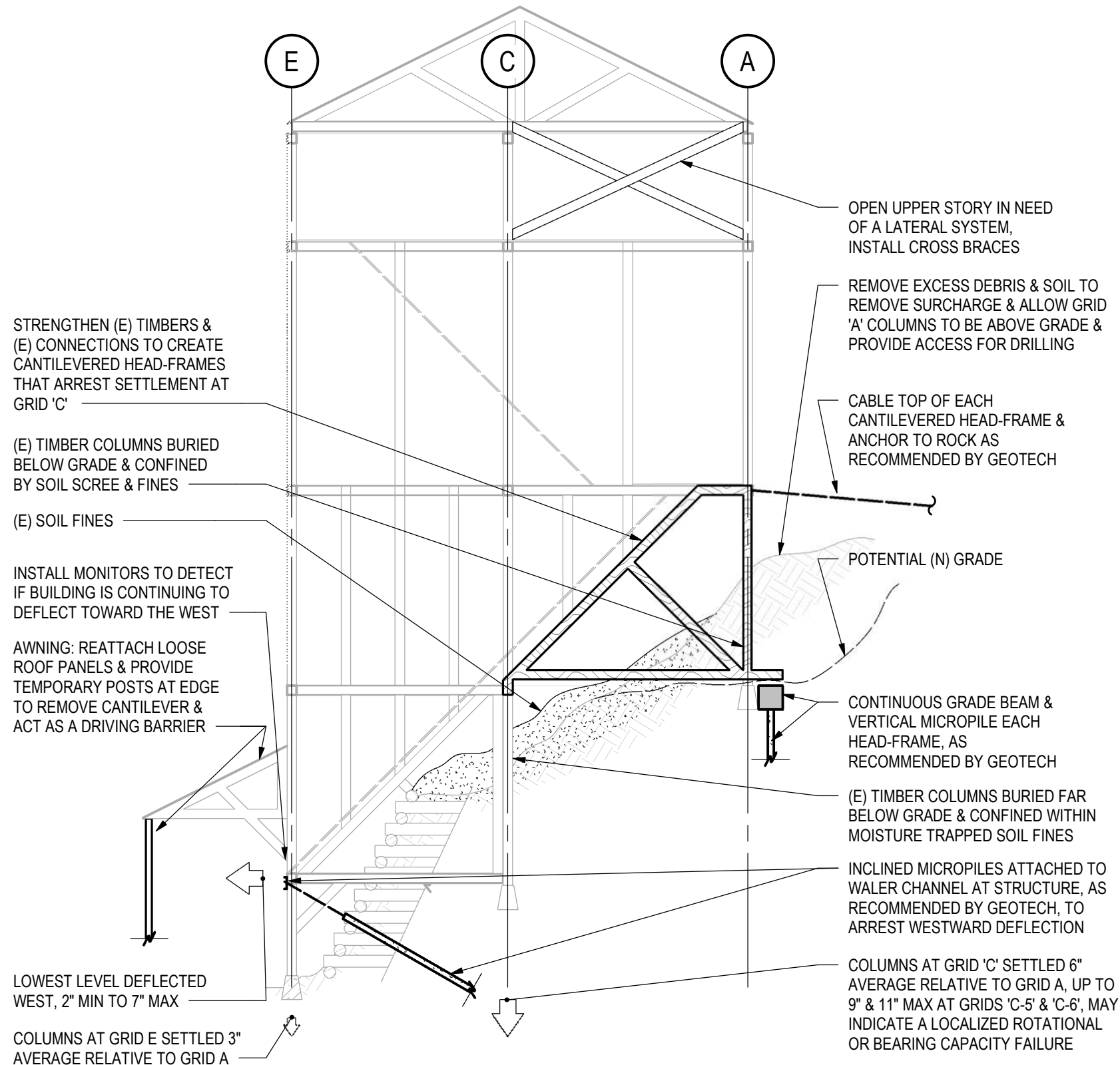
Date: 07/31/21

JVA Job #: 20862

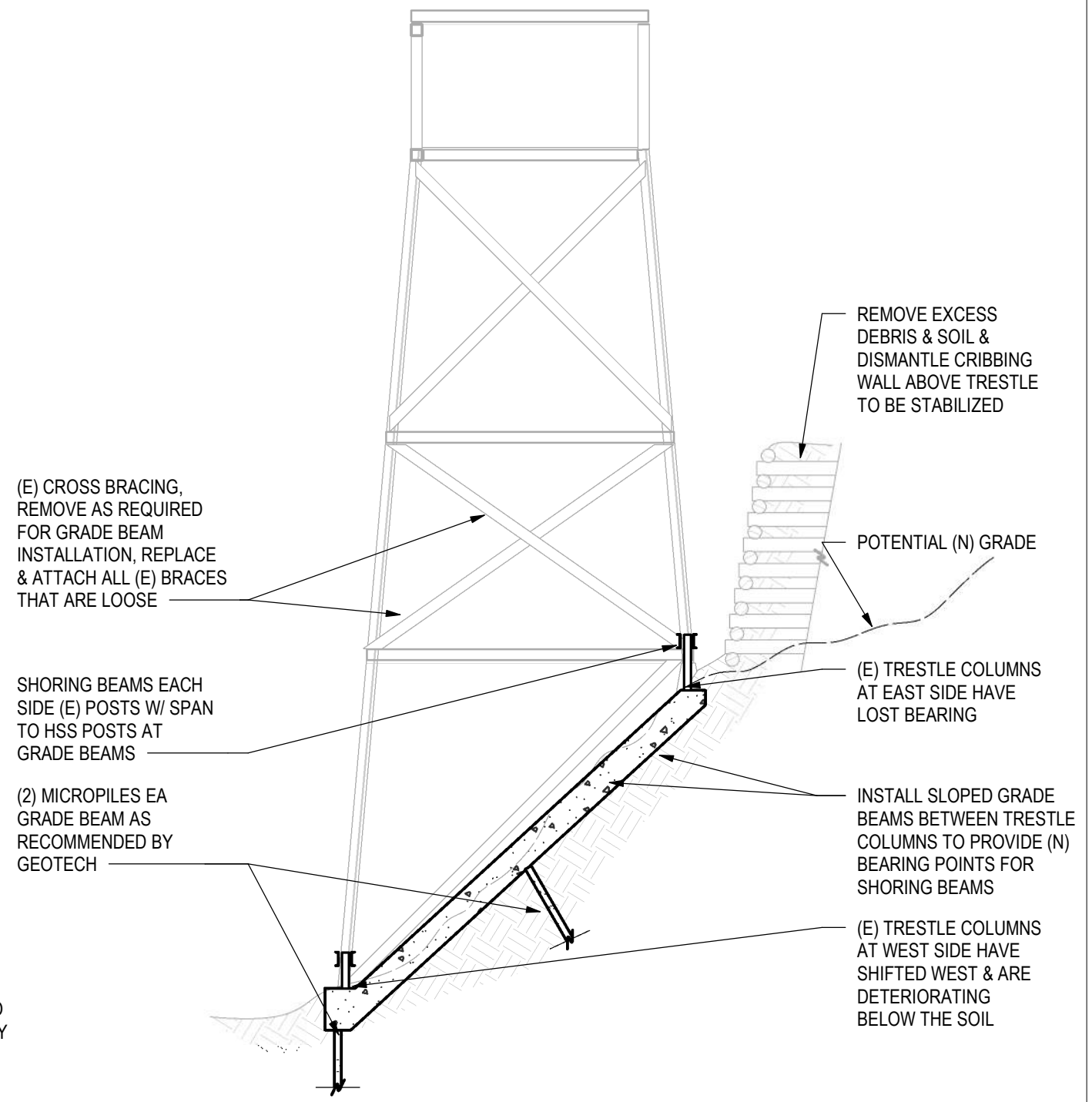
Drawn By: JSS

Drawing Number:

SK-14



1 SECTION AT ORE SORTING BUILDING
 SK-15 3/32" = 1'-0"



2 SECTION AT TRESTLE
 SK-15 3/32" = 1'-0"

Project Name: COMMODORE MINE



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Drawing Reference:
 COMMODORE ORE SORTING HOUSE & TRESTLE - REPAIR CROSS SECTIONS

Project Address:
 CREEDE, COLORADO 81130

Scale: 3/32" = 1'-0"

Date: 07/31/21

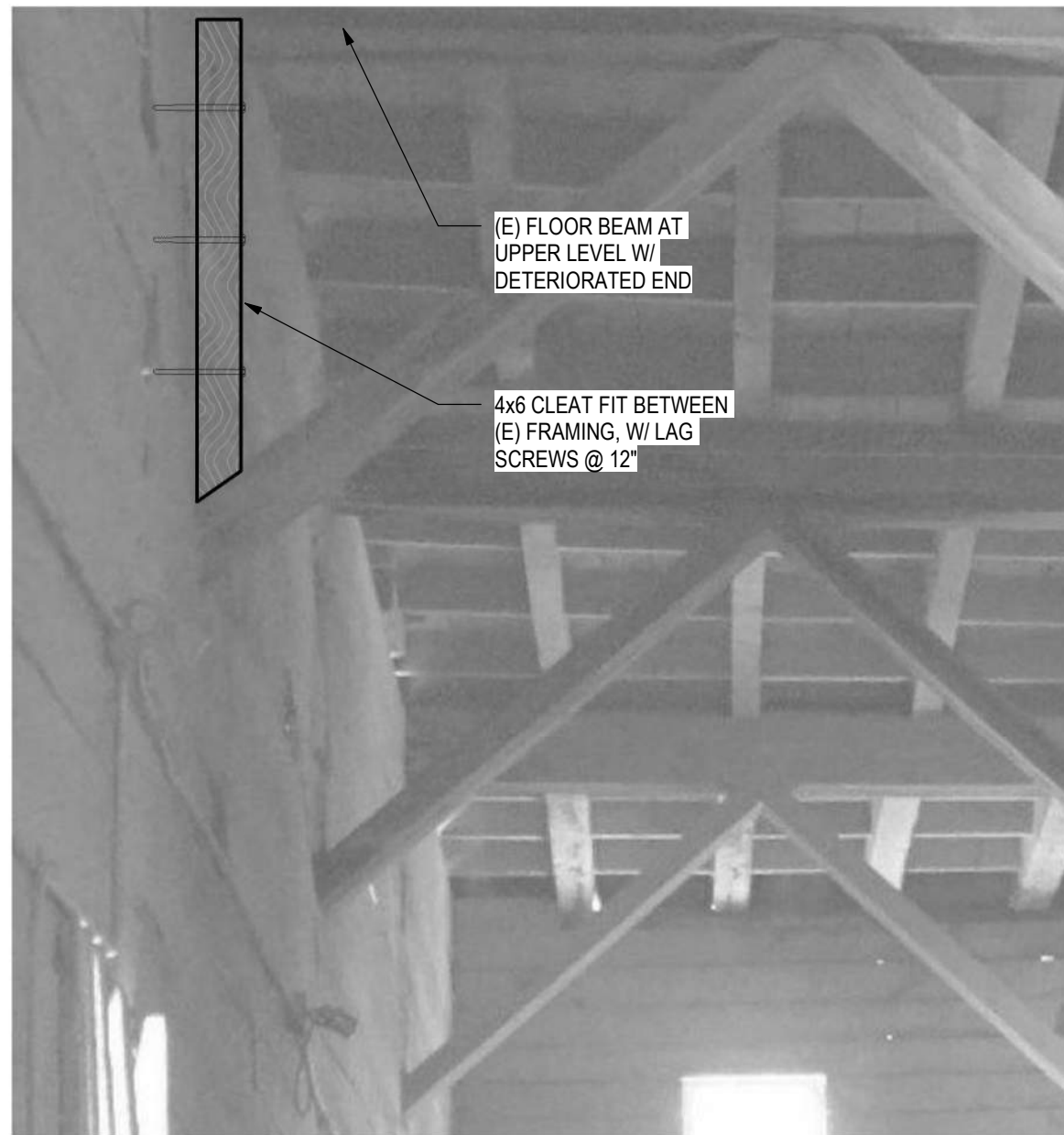
JVA Job #: 20862

Drawn By: JSS

Drawing Number:

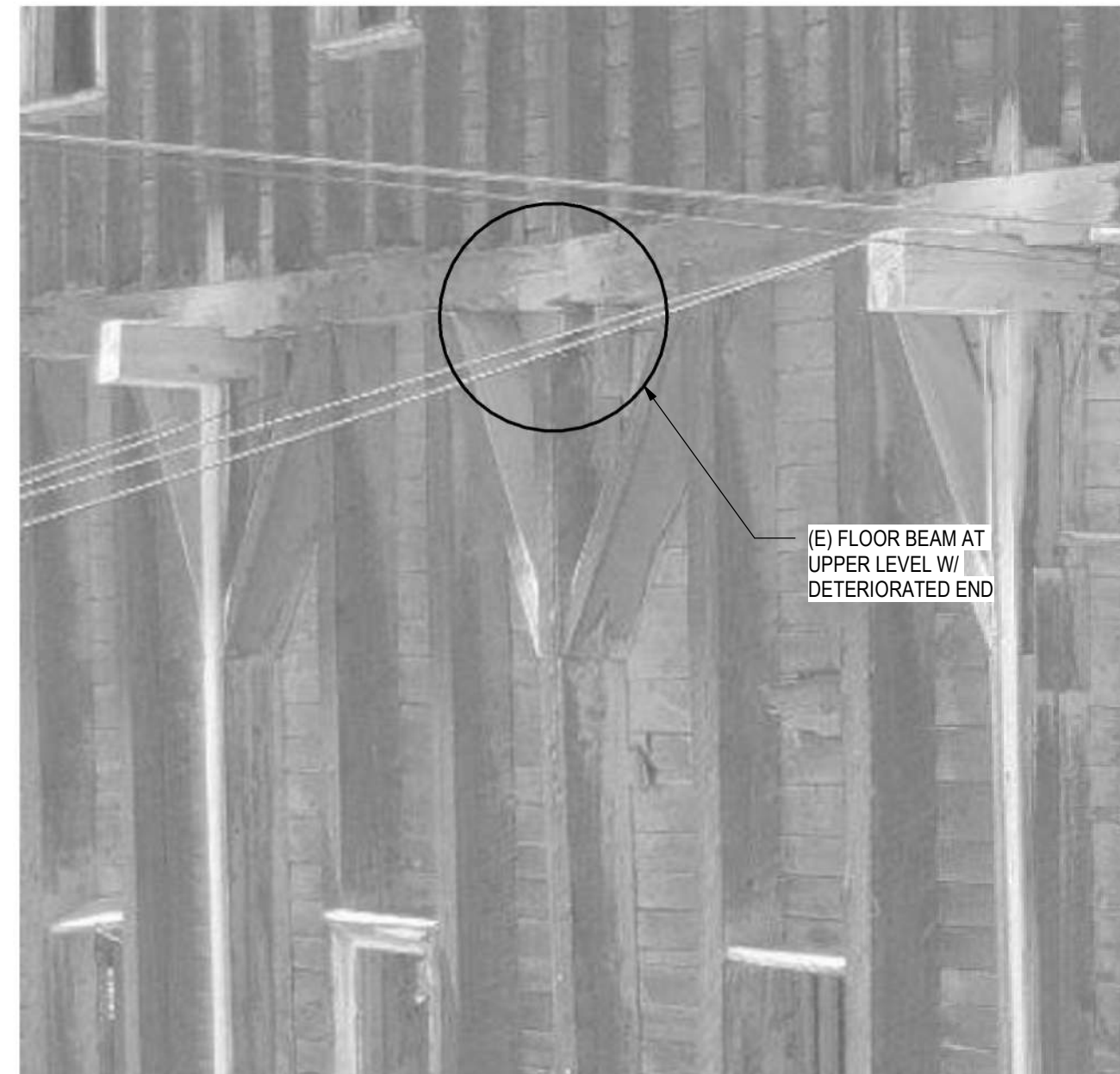
SK-15

**SCHEMATIC ONLY
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BEAM REPAIR

NO SCALE



BEAM END AT EXTERIOR

NO SCALE

Project Name: COMMODORE MINE



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Drawing Reference:
COMMODORE ORE SORTING HOUSE - REPAIR DETAILS

Project Address:
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Scale: 3/4" = 1'-0"

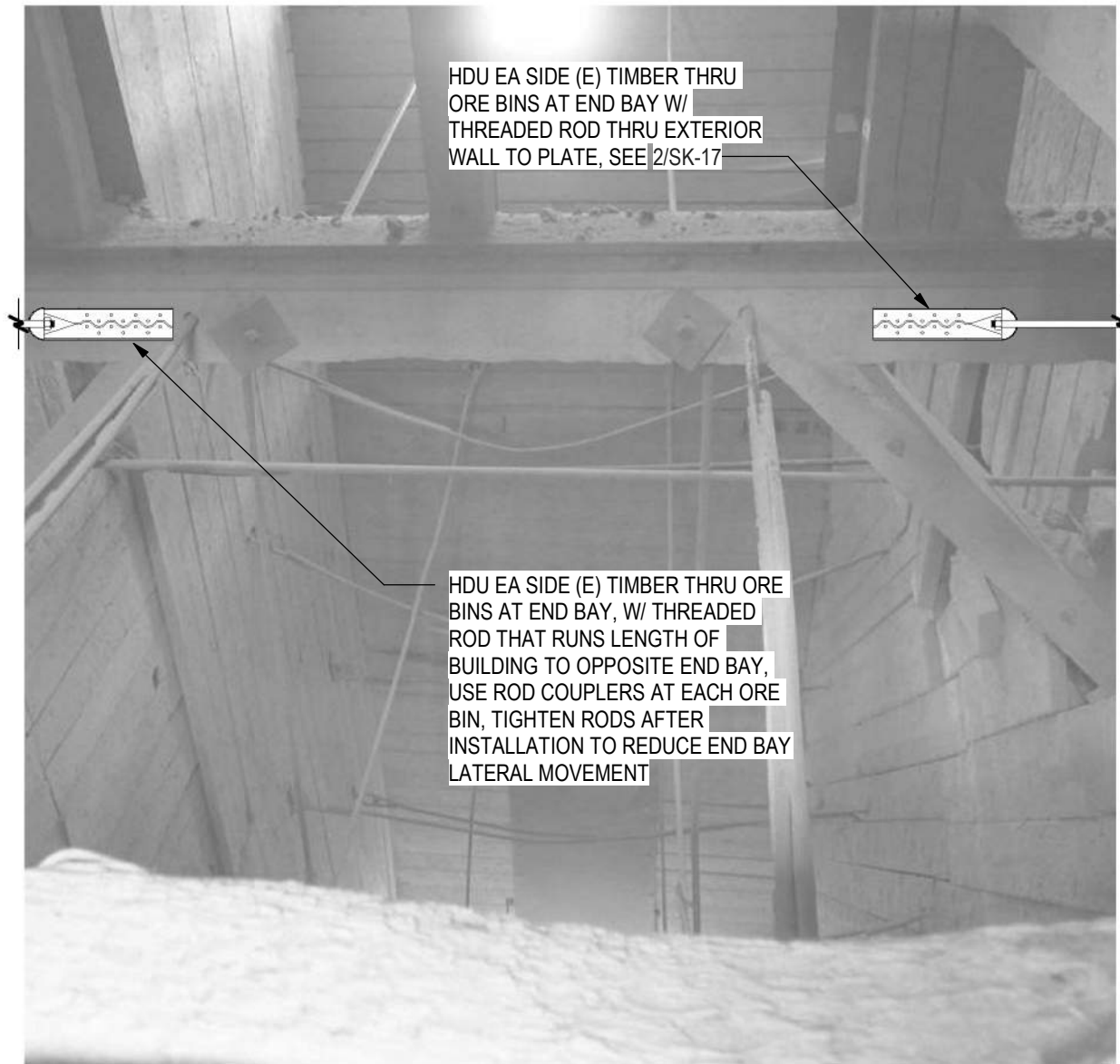
Date: 07/31/21

JVA Job #: 20862

Drawn By: JSS

Drawing Number:

SK-16



1 END WALL AT INTERIOR
SK-17 NO SCALE



2 END WALL AT EXTERIOR
SK-17 NO SCALE

Project Name: COMMODORE MINE



Drawing Reference:
COMMODORE ORE SORTING HOUSE - REPAIR DETAILS

Project Address:
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**SCHEMATIC ONLY
NOT FOR CONSTRUCTION**

Scale: 3/4" = 1'-0"

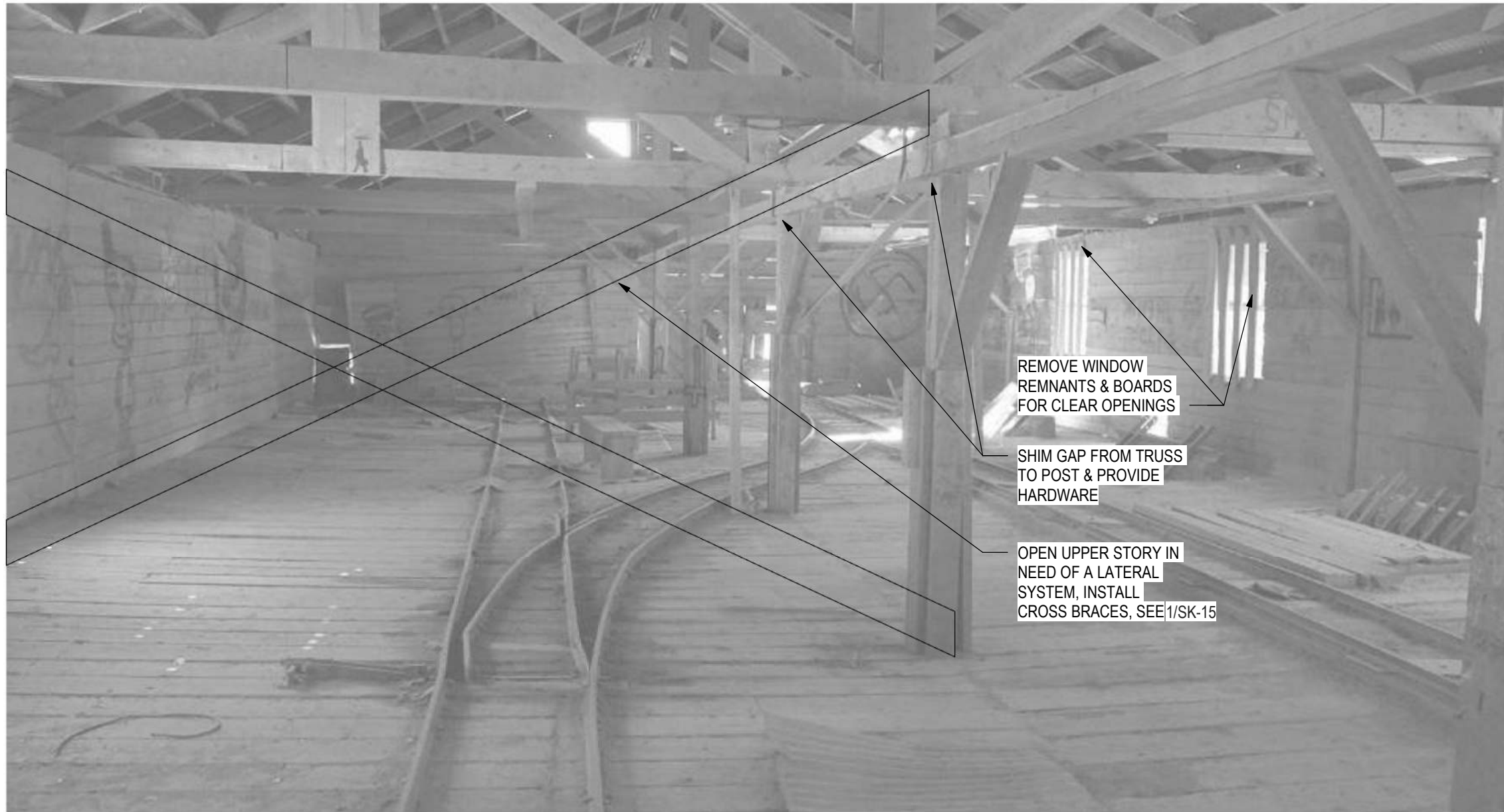
Date: 07/31/21

JVA Job #: 20862

Drawn By: JSS

Drawing Number:

SK-17



1 UPPER STORY
 SK-18 NO SCALE

Project Name: COMMODORE MINE



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Drawing Reference:
 COMMODORE ORE SORTING HOUSE - REPAIR DETAILS

Project Address:
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**SCHEMATIC ONLY
 NOT FOR CONSTRUCTION**

Scale: 3/4" = 1'-0"

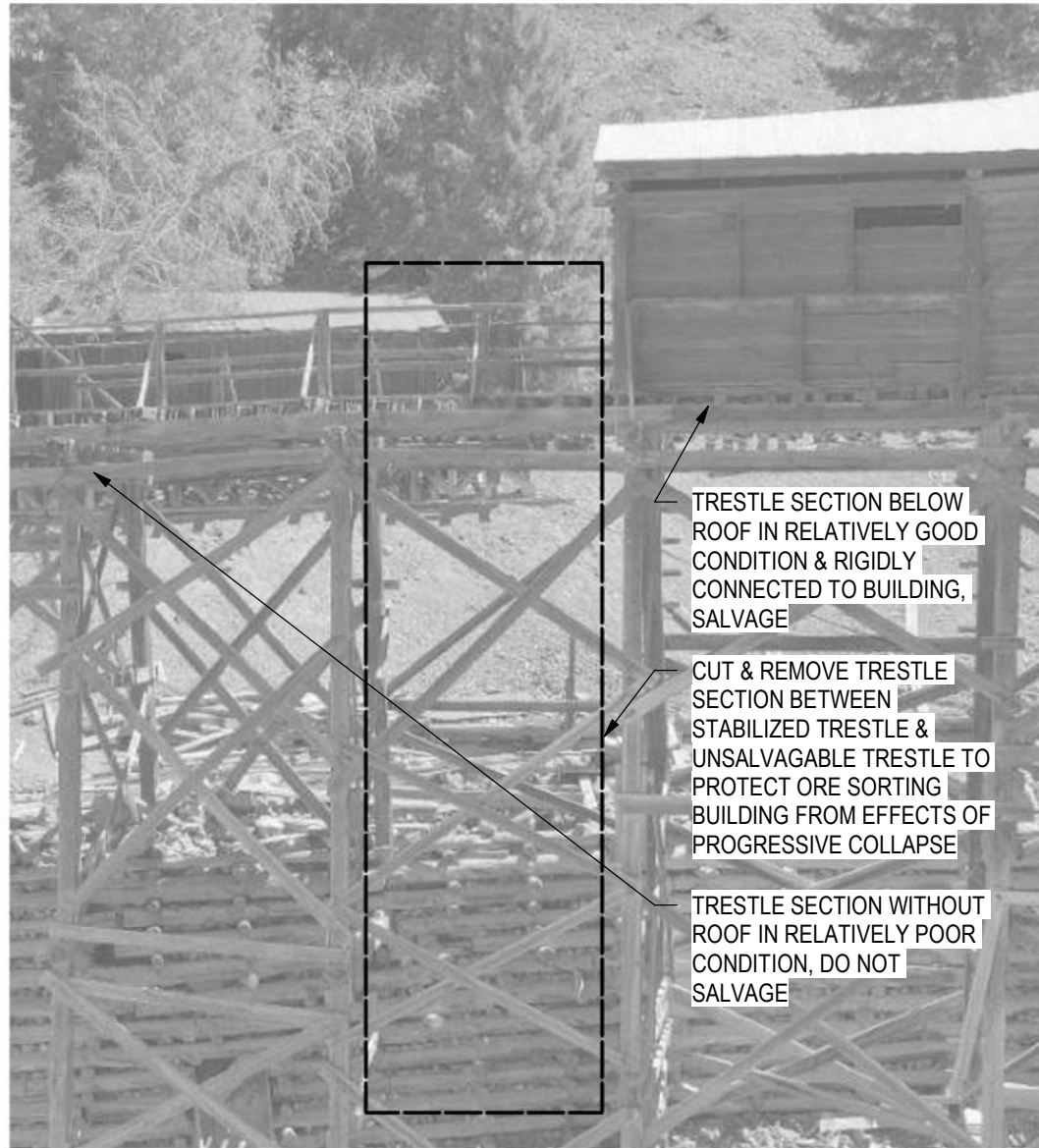
Date: 07/31/21

JVA Job #: 20862

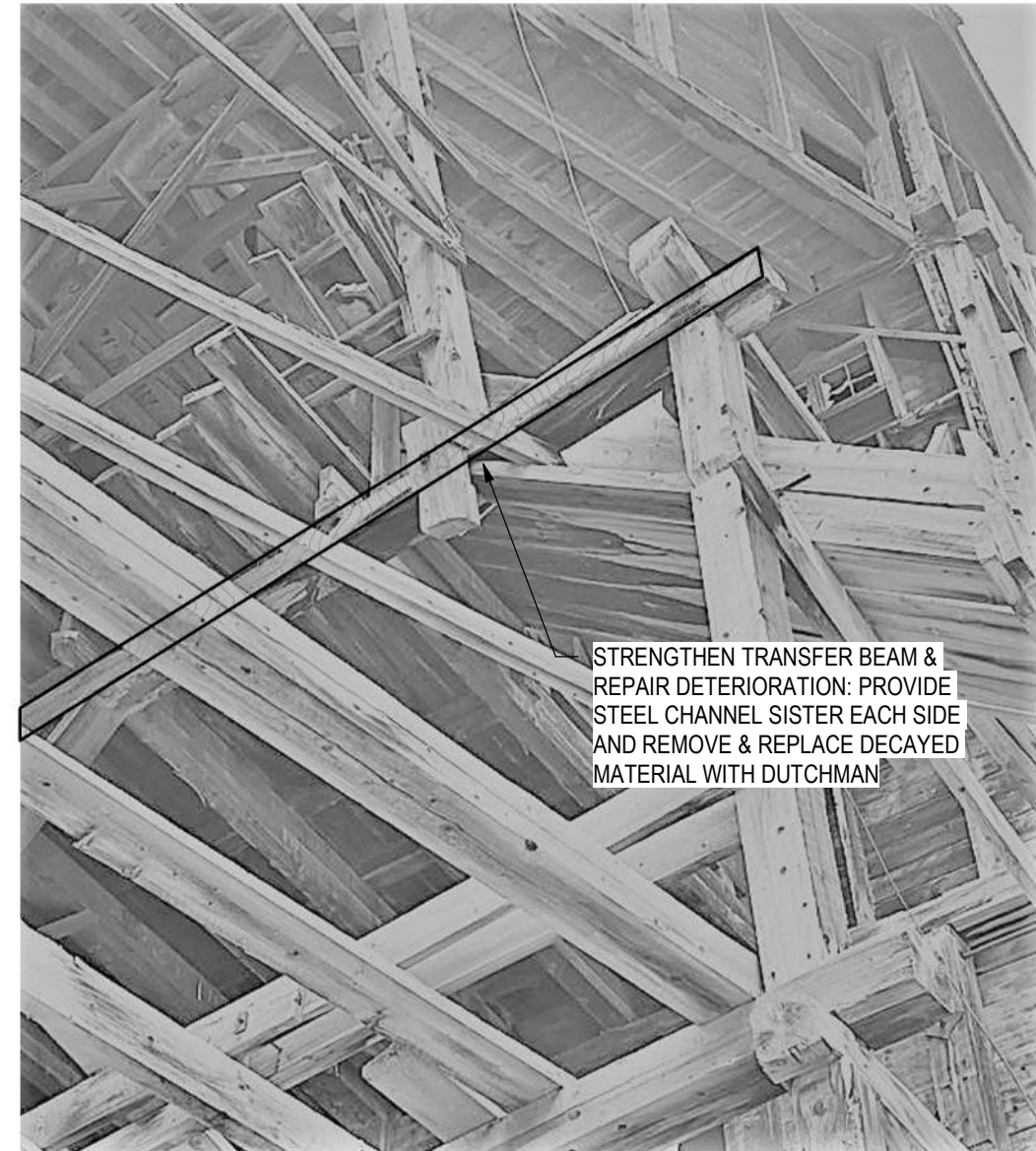
Drawn By: JSS

Drawing Number:

SK-18



1 TRESTLE
SK-19 NO SCALE



2 TRESTLE TRANSFER
SK-19 NO SCALE

Project Name: COMMODORE MINE



Drawing Reference:
TRESTLE - REPAIR DETAILS

Project Address:
CREEDE, COLORADO 81130

**SCHEMATIC ONLY
NOT FOR CONSTRUCTION**

Scale: 3/4" = 1'-0"

Date: 07/31/21

JVA Job #: 20862

Drawn By: JSS

Drawing Number:

SK-19

Description:

The Blacksmith Shop is a post-and-beam, timber framed structure. It is a gable form. The primary area to the north is 2-story; the narrower and shorter adjacent area to the south is 1-story. There is a shed-roof form along the south elevation. The building's roof is rafter-framed with 3x8s, and the second story is framed with 3x12 joists. The walls are clad with vertical board siding that is affixed to the perimeter post-and-beam framing. The floor is earthen overlain with wood planking. The structure is believed to bear on timber sills.



BLACKSMITH SHOP, CIRCA 1999

NO SCALE

Diagnosis:

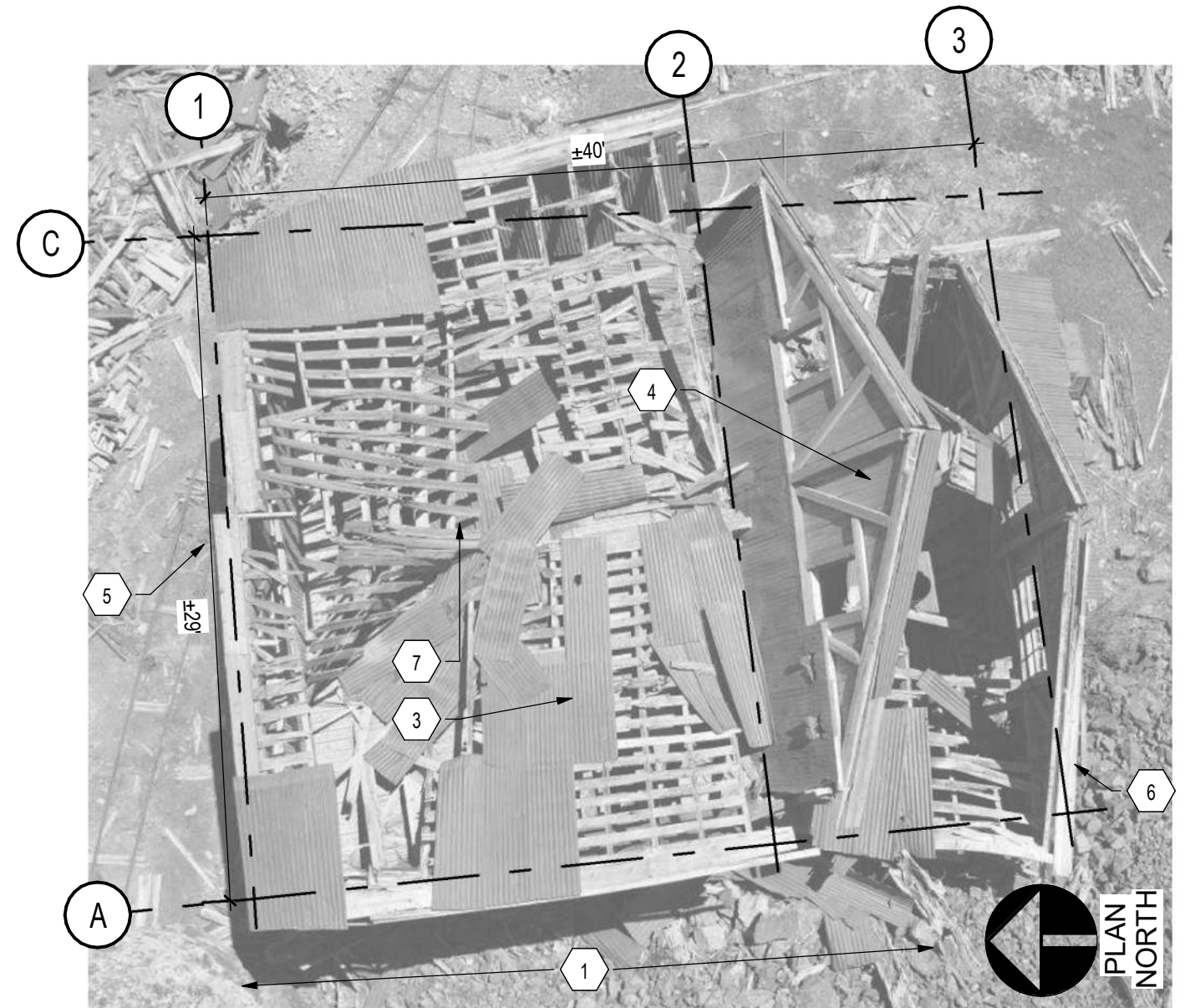
The Blacksmith Shop is in an advanced state of deterioration. The primary roofs and the cupola have collapsed and only the shed roof remains. Without a roof diaphragm in place, the building is more easily able to rack and for the walls to tilt outward; and without weather protection the framing is prone to decay. The upper portion of the interior gable wall has displaced and tilted significantly to the south. The center wall has racked significantly to the east in part due to the rock debris that has accumulated on the west side of the building. The other building walls have displaced sympathetically with the racked interior wall. The timber sills on which the building is founded range in condition from poor to fair based on their level of moisture-borne deterioration. A photograph from 1999 shows the building in a lessened state of disrepair. By comparing the photograph to current day photographs the rate of deterioration is indicated. If untreated, the building is expected to deteriorate at an increased pace given that there is no roof diaphragm and only limited skyward weather protection.

Critical Structural Stabilization Items/Keyed Notes:

1. Remove vertical siding along west elevation where in contact with loose rock debris to reduce lateral pressure imparted on building. Shore timber beams along grids A & 2 so that column at grid intersection A/2 can be removed or relocated away from rock pile. Rock debris is expected to spill into the building.
2. Brace leaning east wall along grid C, particularly at grid 2 where it is most displaced. Bracing can be accomplished with exterior raker braces or with interior cable bracing.
3. Remove collapsed roof framing. Store salvage materials below second floor in north bay.
4. Plumb upper section of interior gable wall (or remove it). Brace top of wall section down to second floor.
5. Brace upper section of exterior gable wall on north elevation down to second floor.
6. Brace upper section of exterior gable wall on south elevation down to ground.
7. Protect second floor framing and sheathing with overbuilt, sloped framing and salvaged roof panels, tarps, or equivalent. Drain to east side of structure.

Structural Rehabilitation Items (Future Phase):

8. Remove rock and timber debris uphill and inside of building.
9. Install a retaining wall and/or grade the hillside to direct surface water away from base of building and such that rocks no longer impact the west elevation.
10. Plumb and straiten all walls. Rebuild damaged sidewalls in the south bay and the west side of the north bay. Replace deteriorated timbers in-kind or repair deteriorated sections. Strengthen/retrofit vulnerable and deteriorated timber-to-timber connections.
11. Replace deteriorated timber sills under all walls. Verify solid stone directly under each primary building column or provide concrete footing.
12. Reframe roof forms. Note that rebuilt roof framing will be more robust than the original roofing to satisfy the intent of the building code and to ensure longevity. Reroof with compatible or matching materials.
13. Complete envelope improvements by replacing missing or deteriorated vertical siding boards in-kind.



BLACKSMITH SHOP TOP VIEW

NO SCALE

Project Name: COMMODORE MINE



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Drawing Reference:
BLACKSMITH SHOP - OVERVIEW

Project Address:
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Scale: 3/4" = 1'-0"

Date: 07/31/21

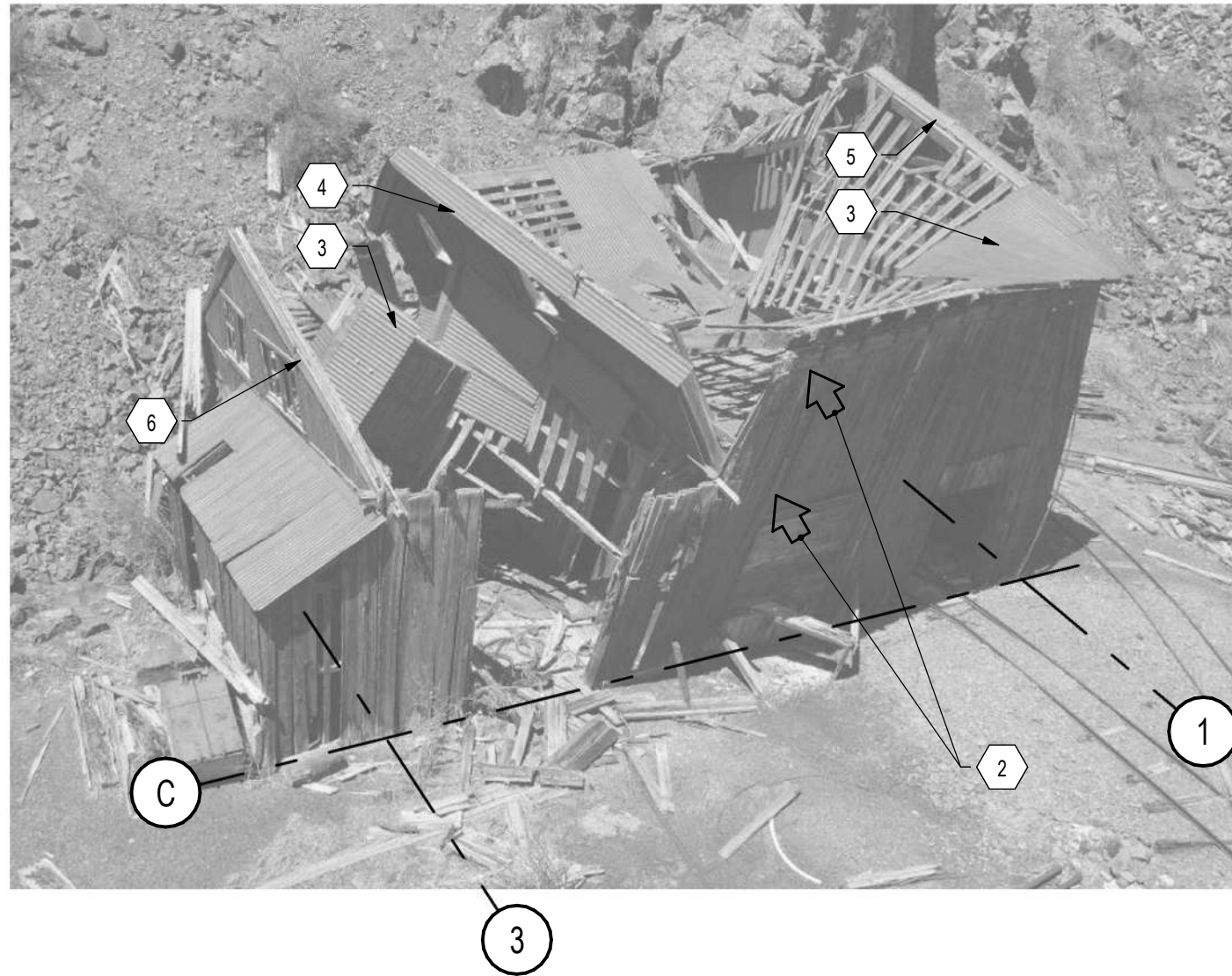
JVA Job #: 20862

Drawn By: JSS

Drawing Number:

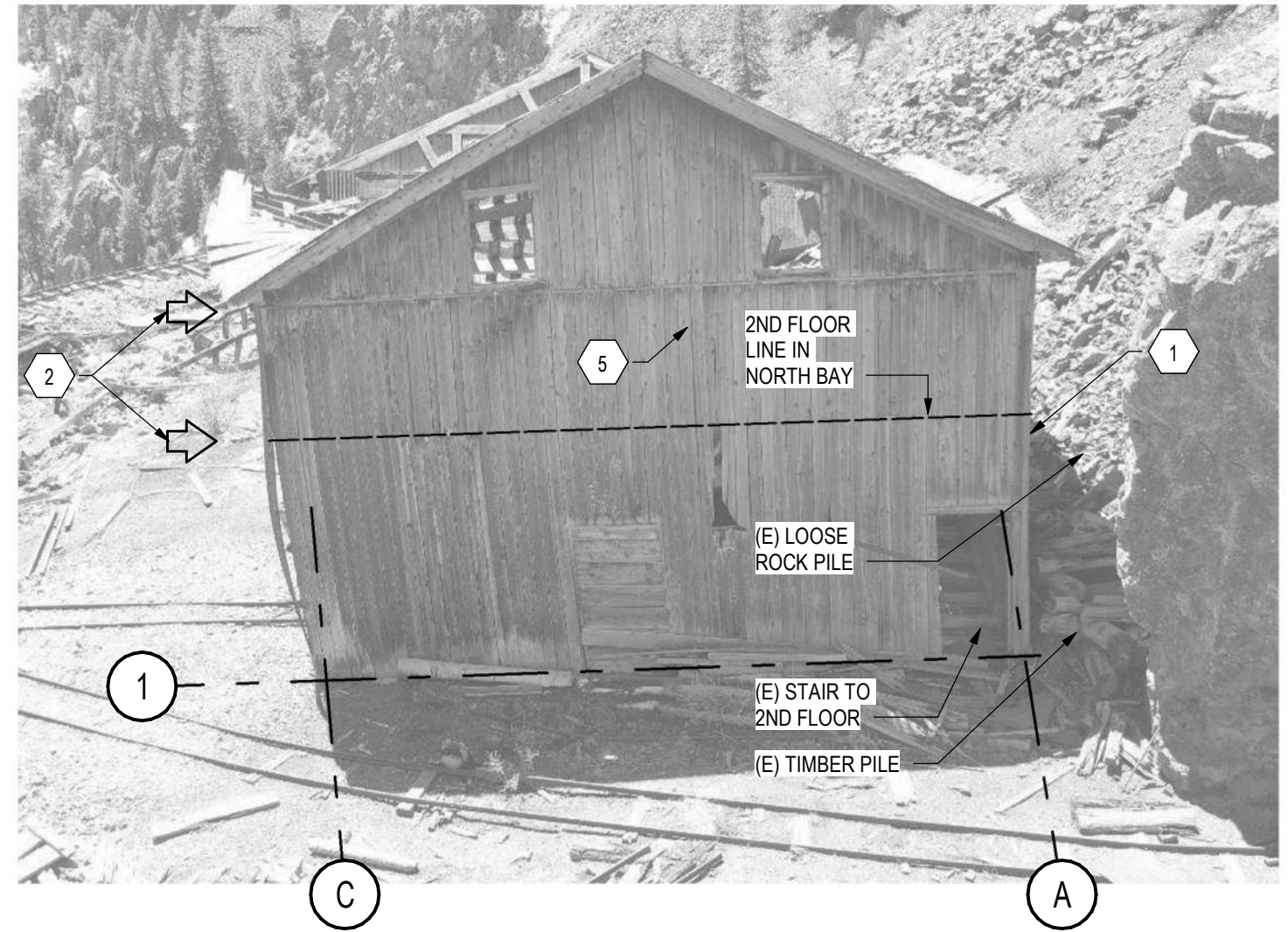
SK-20

**SCHEMATIC ONLY
NOT FOR CONSTRUCTION**



BLACKSMITH SHOP SOUTHEAST CORNER

NO SCALE



BLACKSMITH SHOP EAST ELEVATION

NO SCALE

Project Name: COMMODORE MINE



Drawing Reference:
 BLACKSMITH SHOP - ISOMETRIC VIEWS

Project Address:
 CREEDE, COLORADO 81130

**SCHEMATIC ONLY
 NOT FOR CONSTRUCTION**

Scale: 3/4" = 1'-0"

Date: 07/31/21

JVA Job #: 20862

Drawn By: JSS

Drawing Number:

SK-21

Description:

The Lower Bachelor Ore Sorting House and Tram Terminal is an amalgamation of several structural forms. The Ore Sorting House is a post and beam structure having a two-story volume and a gabled roof. The building sits on a waste-rock platform that is supported by timber cribbing. The north end of the building extends over the retaining wall and bears on the lower bins. The upper level only partially covers the building footprint: at the south where the warming rooms are located and a grillage of beams and columns at the west and east to support ore cart rails. The Ore Sorting House's east gable end wall is clearly visible from the roadway in the valley below.

The building is flanked on the north by bins that extend to the lower elevation at the base of the timber-cribbed retaining wall. The bins are topped at the west with a cross gable. The bins at the east angle downward and terminate at the Tram Terminal beneath a large, shed roof. A gable roof extends from the east elevation of the shed roof to form the Tram Terminal entry.

More detailed descriptions are available in the February 2021 Historic Structure Assessment and the 1999-2000 reports prepared by Eric Twitty.



ORE & TRAM, CIRCA 1999

NO SCALE

Diagnosis:

The upper Ore Sorting House is in poor structural condition. The metal roofing is nearly gone, and the horizontal board decking and roof framing have consequently deteriorated. The gable roof over the Ore Sorting House has partially collapsed and the cross gable over the upper bin has collapsed. The shed roof and the Tram Terminal roof have not yet reached the state of collapse.

The Ore Sorting House's east and west walls are tilted to the east significantly and the south and north walls have racked sympathetically. The perimeter walls are at risk of complete collapse. Similarly, the upper story walls over the western bin have lost stability with the loss of its roof diaphragm.

The partial second story within the Ore Sorting House has also racked to the east. The west side of the second story has partially collapsed.

The Ore Sorting House's west, south, and east walls are partially buried by waste rock and debris. Grade is pitched towards the building on the west and south elevations. The wall bases have deteriorated significantly, particularly along the south.

The timber retaining walls are in fair condition structurally, but they are deteriorating. They will progressively degrade and eventually fail, destabilizing the parts of the structure that are supported on the retained rock and the portions supported below the retaining wall.

A photograph from 1999 shows the building with all the roof forms intact. This photograph compared to current photographs conveys the level of deterioration that can occur in two decades once the envelope is breached. Since many of the building's framing arrangements are difficult to discern, the historic photographs and written history will help guide a rehabilitation/reconstruction.

Critical Structural Stabilization Items/Keyed Notes:

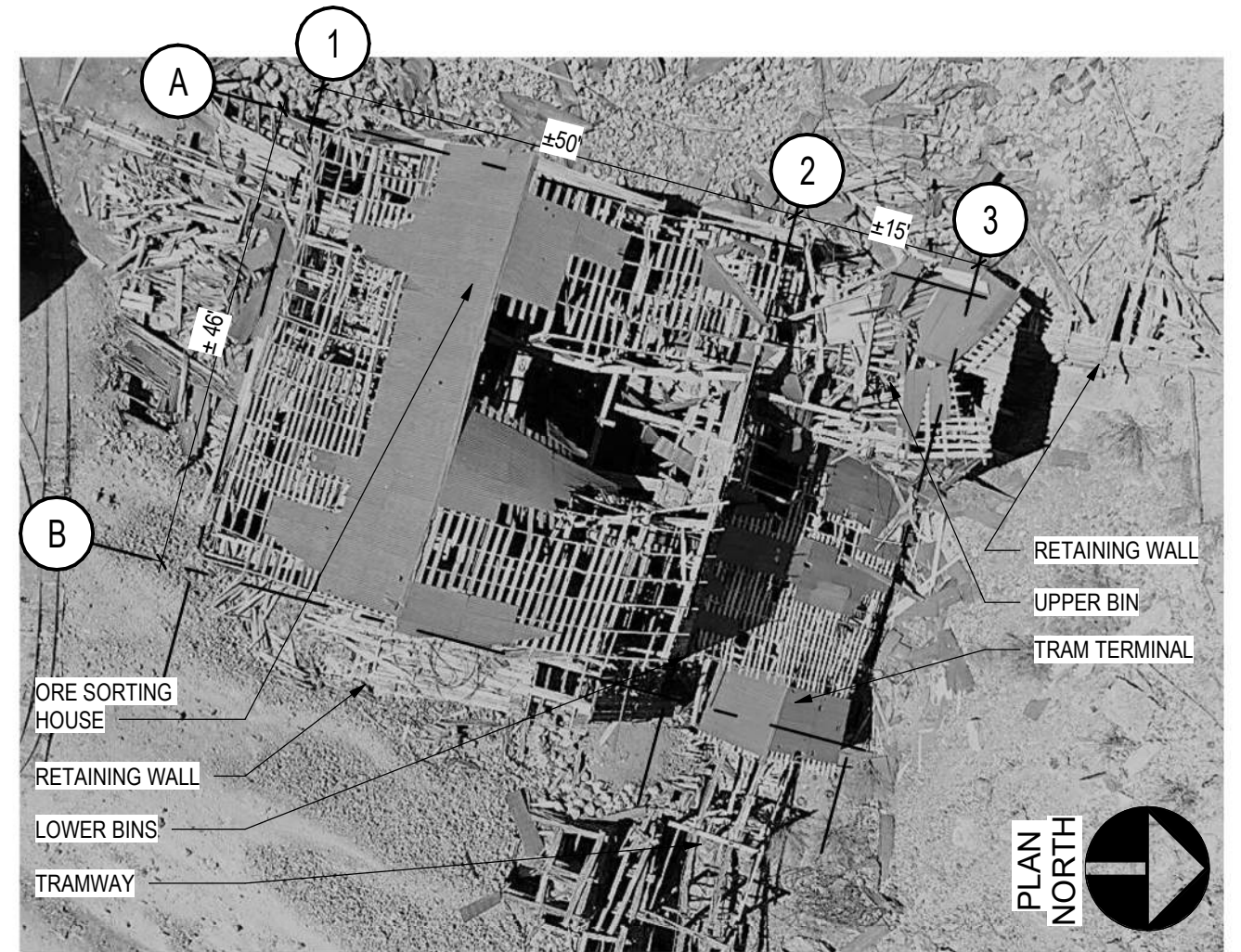
• Critical stabilization recommendations recognize the difficulty of expedient and safe access to the site and building. Therefore, the recommendations aspire only to meet the modest goal of preventing the east gable end wall of the Ore Sorting House from collapsing so that it can continue to be viewed from the valley below. The recommendations are tailored for a small crew hiking to the site with handheld tools and materials while utilizing onsite lumber as much as practical.

1. Near each splice, vertically shore the east-west beam that ties the east and west end walls at the plate height.
2. Arrest the tilt of the east wall along grid B by installing cables along the roof line and along the intermediate plate line. Terminate the cables into solid rock or structure.
3. Brace the second floor/loft column line that is racking eastward with diagonal kickers.
4. Periodically adjust shores, cables, and braces as environmental conditions and continued deterioration cause load redistribution.
5. Several important condition issues are likely to be discovered during a more detailed assessment and during construction. Stabilization efforts should include performing discretionary spot repairs to existing, yet undiscovered, structural condition issues.

Subsequent Critical Structural Stabilization Items/Keyed Notes:

• Subsequent critical stabilization recommendations make sense if stakeholders are committed to temporarily stabilizing, and eventually rehabilitating, the entire structure. The recommendations also assume limited site access but perhaps more manpower.

6. Remove egregious, water-trapping debris around base of Ore Sorting House's walls.
7. Crib under primary posts that no longer bear on solid timber sills.
8. Cable or brace the remaining Ore Sorting House walls.
9. Remove the collapsed roof over the western bin. Protect exposed remaining structure with a tarp or panel-covered sloping platform
10. Brace tilted Tram Terminal lower-level column located at northeast corner.
11. Brace kinked column at northeast corner of lower bins.
12. As in the previous phase, plan for periodic adjustment of shores and mitigating deficiencies as they become apparent.



ORE SORTING & TRAM TERMINAL, TOP VIEW

NO SCALE

Structural Rehabilitation Items (Future Phase):

- Given the advanced state of disrepair, rehabilitation of the structure will require considerable resources. The following treatment recommendations assume that material and equipment transport is afforded via helicopter or by developing an access road.
- 13. Remove debris around the perimeter of the Ore Sorting House, particularly along the south wall and to a lesser degree along the west and east walls. Remove debris from inside the structure.
- 14. Contour grade (construct swales) that direct drainage away from and around the bases of the west and south walls of the Ore Sorting House.
- 15. Plumb and straighten all walls at the Ore Sorting House. Replace deteriorated timbers in-kind or repair deteriorated sections with splices or dutchmans. Strengthen/retrofit vulnerable and deteriorated timber-to-timber connections.
- 16. Replace deteriorated timber sills under all walls. Verify solid stone directly under each primary building column or provide concrete footing.
- 17. The second story within the Ore Sorting House should be reconstructed as it provides bracing to the perimeter walls. Alternatively, the second story can be deconstructed, and the perimeter walls be braced with interior diagonal kickers.
- 18. Rebuild the two primary trusses forming the Ore Sorting House roof. Increase their snow load resisting capacity by cover-plating or by providing intermediate support columns. Reinstall purlins and rafters.
- 19. Rebuild the walls that spring from the top of the upper bin and reframe the gable roof.
- 20. Strengthen the mostly intact Tram terminal shed and gable roof framing.
- 21. At all roofs, replace deteriorated board sheathing in-kind. Resurface the roof framing with salvaged metal panels. Where new panels are needed, they should be compatible but differentiable from the original roof panels.
- 22. Complete envelope improvements by replacing missing or deteriorated vertical siding boards in-kind.

Project Name: COMMODORE MINE



Drawing Reference:
LOWER BACHELOR ORE SORTING HOUSE & AERIAL TRAM TERMINAL - OVERVIEW

Project Address:
CREEDE, COLORADO 81130

Scale: 3/4" = 1'-0"

Date: 07/31/21

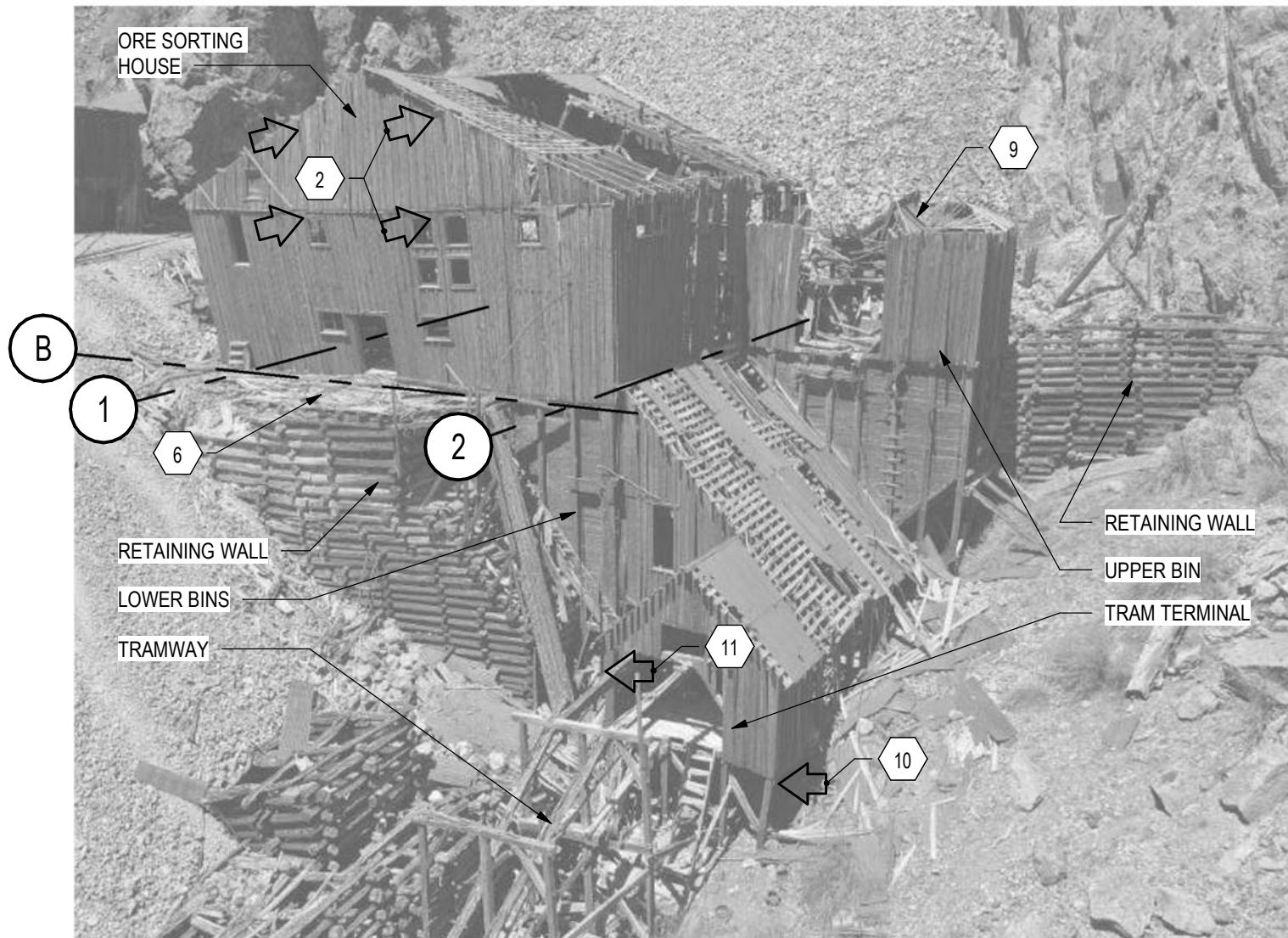
JVA Job #: 20862

Drawn By: JSS

Drawing Number:

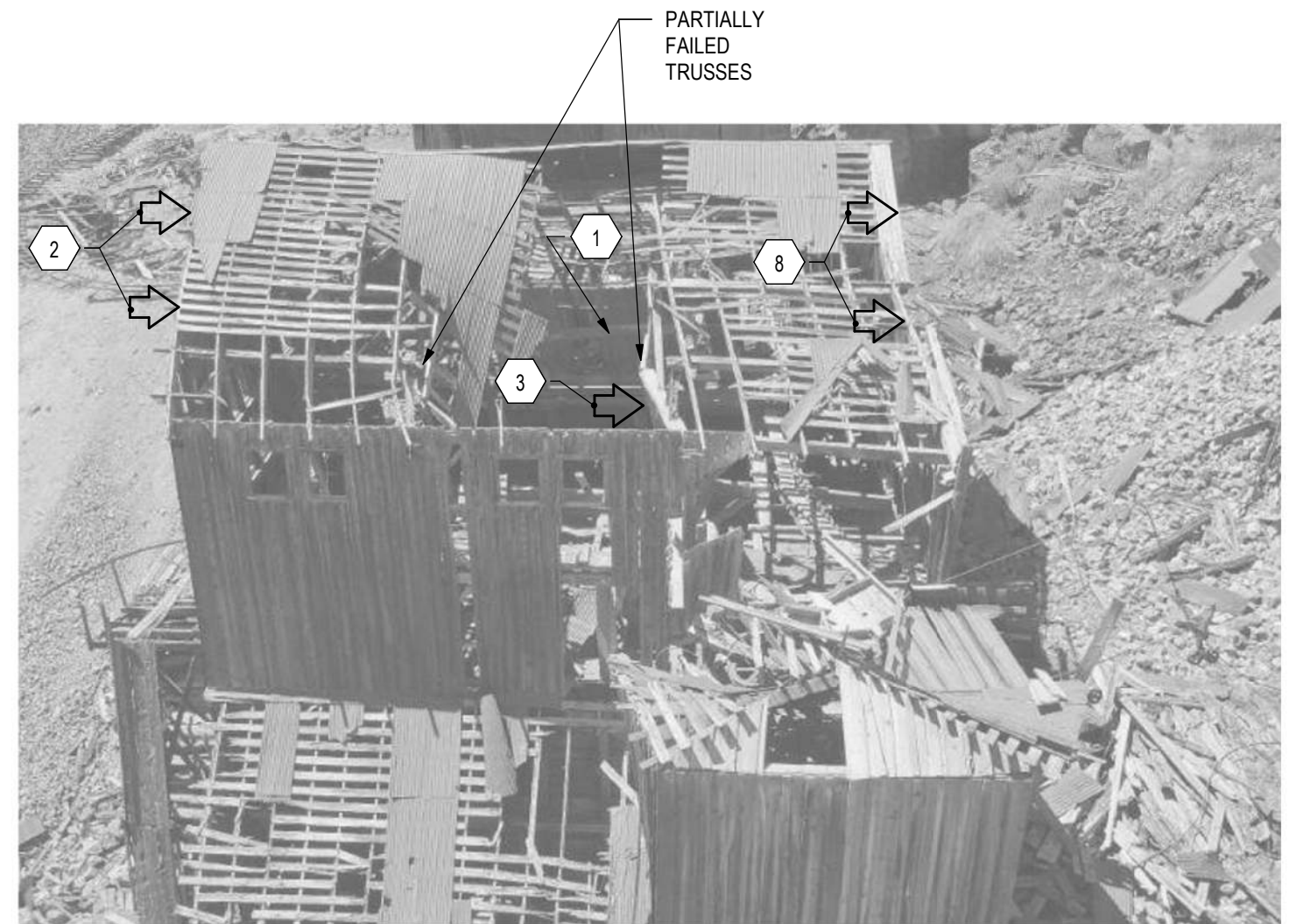
SK-30

**SCHEMATIC ONLY
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ORE & TRAM, NORTHEAST CORNER

NO SCALE



ORE & TRAM, NORTH ELEVATION

NO SCALE

Project Name: COMMODORE MINE



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Drawing Reference:
LOWER BACHELOR ORE SORTING HOUSE & AERIAL TRAM TERMINAL - ISOMETRIC VIEWS

Project Address:
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**SCHEMATIC ONLY
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Scale: 3/4" = 1'-0"

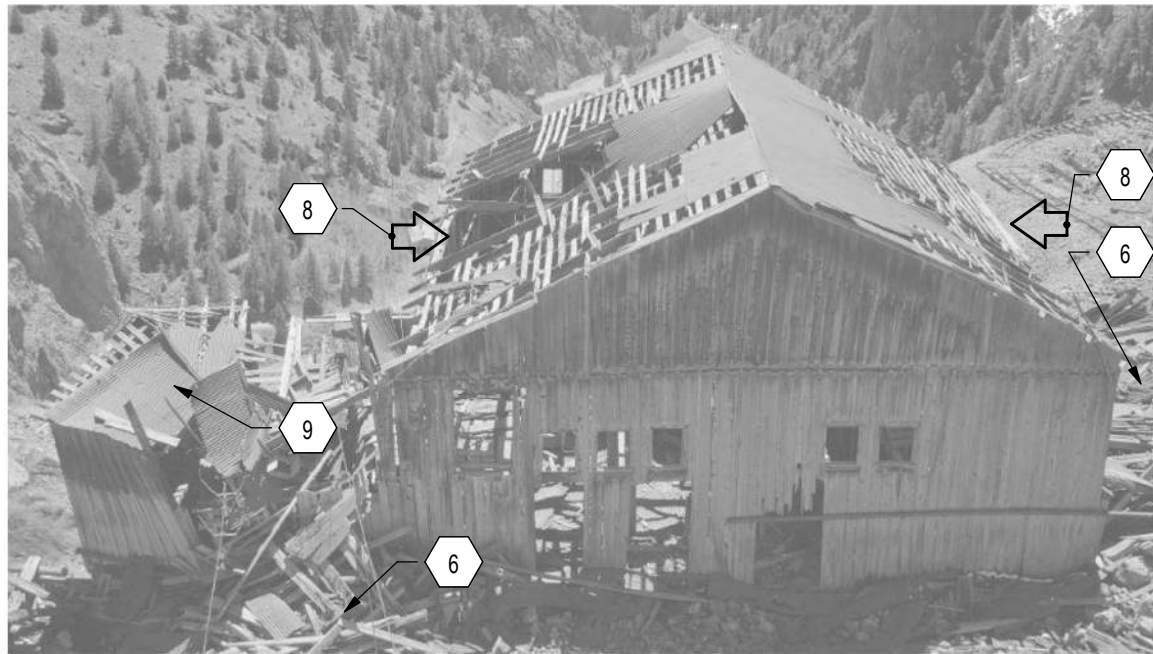
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JVA Job #: 20862

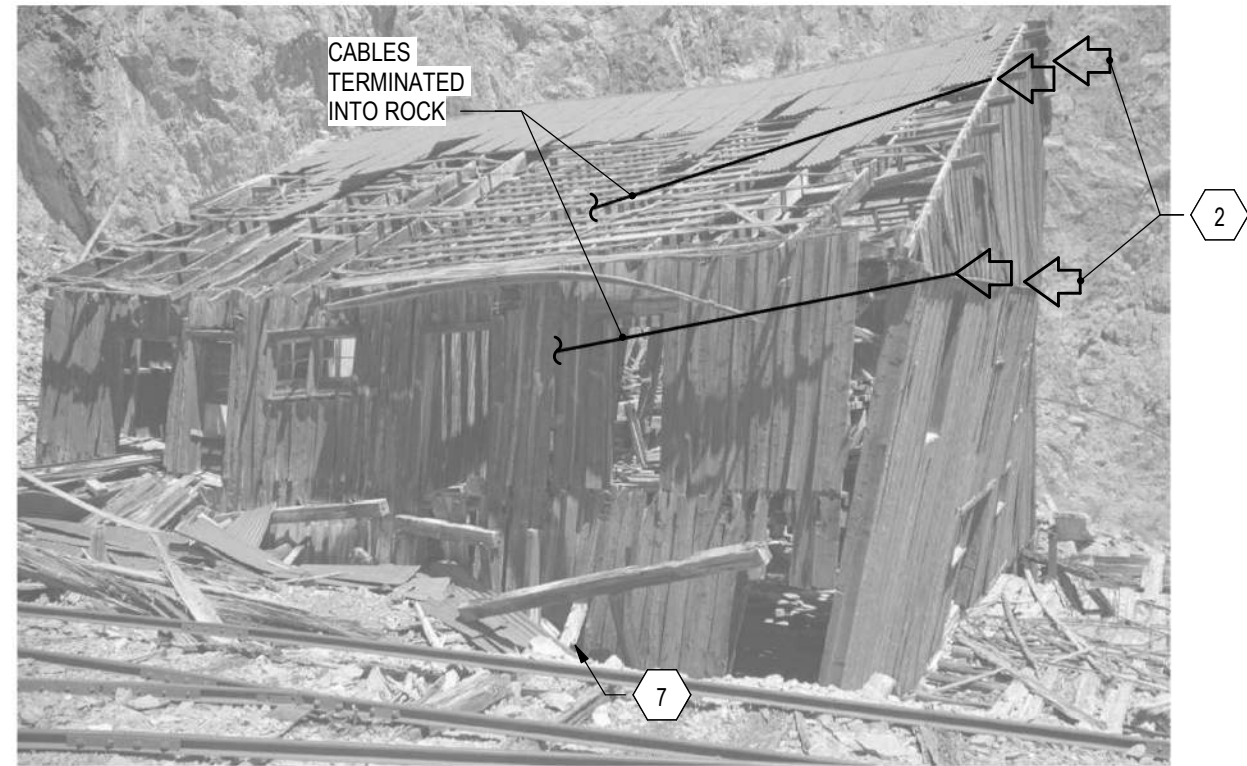
Drawn By: JSS

Drawing Number:

SK-31



ORE & TRAM, WEST ELEVATION
NO SCALE



ORE & TRAM, SOUTH ELEVATION
NO SCALE



ORE & TRAM, INTERIOR LOOKING SOUTHEAST
NO SCALE

Project Name: COMMODORE MINE



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Scale: 3/4" = 1'-0"

Date: 07/31/21

JVA Job #: 20862

Drawn By: JSS

Drawing Number:

SK-32



July 31, 2021

Order of Magnitude Pricing

Commodore and Bachelor Mines – Mining Structure Stabilizations and Rehabilitations, Creede, CO

The following documentation describes budget pricing for the stabilization and potential restoration of several structures associated with the Bachelor and Commodore Mines in Creede, CO. Deep Roots Craftsmen (DRC) estimated the costs associated with the superstructures. Shannon & Wilson (S&W) estimated costs related to the foundations at the Commodore Ore Sorting House & Trestle structures. The itemized tables below combine the two cost estimates to provide an overall project pricing summary.

Both the superstructure and foundation estimates are based on the narratives and drawings (dated July 31, 2021) prepared by S&W and JVA, Inc. The cost estimates were further informed by site visits made by S&W and DRC.

Please refer to the following pages which detail the clarifications, assumptions, and exclusions made to develop the cost estimates and the pricing summary.

For all pricing, a 5% reduction would be anticipated if all phases of work on a structure happened during a continuous phase of work. The prices below represent a projected worst-case scenario in which the work would be completed over multiple phases and across at least 2 years' time.

Total Cost Estimates (Superstructure + Geotechnical)

Refer to following pages for further detail

Blacksmith Shop

Critical Structural Stabilization	\$ 245,000
Structural Rehabilitation	\$ 320,000
Total	\$ 565,000

Lower Bachelor Ore Sorting and Tram Terminal

Critical Structural Stabilization	\$ 495,000
Subsequent Critical Structural Stabilization	\$ 520,000
Structural Rehabilitation	\$ 780,000
Total	\$ 1,795,000



Total Cost Estimates (Superstructure + Geotechnical), Continued

Commodore Ore Sorting House

Immediate Treatment	\$ 60,000
Critical Treatment	\$ 708,000
Serious Treatment	\$ 335,000
Total	\$ 1,112,000

Commodore Trestle

Immediate Treatment	\$ 65,000
Critical Treatment	\$ 416,000
Serious Treatment	\$ 560,000
Total	\$ 1,032,000

Grand Total \$ 4,504,000



Clarifications, Assumptions, and Exclusions (from Deep Roots Craftsmen)

General:

- Price would need to be recalculated if work split into more phases than those listed in the engineering report and pricing breakouts
- All phases include costs of temporary toilet facilities to be located at bottom of hill
- No escalation of costs included for severe changes in material costs or severe construction inflation (depends on timeline of project).
- Prices include a 10% design fee category to cover engineering and design costs.
- All prices include necessary bonding costs but do not include permitting costs as it is unknown whether permitting fees will apply.
- All phases of the Blacksmith Shop and Bachelor Lower Ore House structures include ATV rental for transport of small tools/ materials partly uphill from bottom. Necessary minor trail alterations excluded but required for clear access approximately half-way up hill.

Blacksmith Shop

- Includes helicopter allowance for materials in 2nd phase of work (\$25,000 allowance).
- Anticipates site access from below.
- Assumes that demolished material may be stored near the building and not transported downhill. Also assumes that where appropriate, and where meeting code and specs, existing material may be re-used on repair work.



Clarifications, Assumptions, and Exclusions (from Deep Roots Craftsmen continued)

Bachelor Lower Sorting House and Tram Terminal

- Anticipates that debris removal associated with critical structural scope will be performed without heavy equipment (costs of heavier equipment carried in the full restoration scope).
- Factors in helicopter allowances for each phase of work (\$50,000 for each phase).
- Assumes that demolished material may be stored near the building and not transported downhill. Also assumes that where appropriate, and where meeting code and specs, existing material may be re-used on repair work.

Commodore Ore Sorting House

- Immediate scope assumes installing 6 concrete barriers along area of awning to discourage/ prevent vehicle access. Assumes that signage and potential chains between barriers would be used to prevent pedestrian access.
- Assumes three sets of monitoring devices to be installed along west wall.
- “Serious” scope includes \$40,000 allowance for future structural repair work currently unknown
- Assumes that necessary work areas will have been made accessible by S&W through required fill removal and/or vacuuming (costs for this scope of work have been captured in S&W pricing).

Trestle

- Allows for potential scaffold installation to perform work. If alternate approach is taken, these same costs would apply towards equipment costs used in lieu of, or paired with, reduced scaffolding.
- Assumes proper working platform will be established for equipment and/or crane to be used to dismantle cribbing wall.

COMMODORE AND BACHELOR MINE AREAS

PRICING SUMMARY

7/31/2021

STRUCTURE	PHASE	SUPERSTRUCTURE SCOPE*		GEOTECHNICAL SCOPE***			SUBTOTALS	TOTALS
		STABILIZATION & CARPENTRY	CONTINGENCIES**	FOUNDATION COSTS	FOUNDATION ENG. DESIGN	FOUNDATION MOBE COSTS (20%)		
BLACKSMITH	<i>Critical</i>	\$ 245,000		\$ -	\$ -	\$ -	\$ 245,000	\$ 565,000
	<i>Rehab</i>	\$ 320,000		\$ -	\$ -	\$ -	\$ 320,000	
LOWER BACHELOR ORE SORTING	<i>Critical</i>	\$ 495,000		\$ -	\$ -	\$ -	\$ 495,000	\$ 1,795,000
	<i>Subsequent</i>	\$ 520,000		\$ -	\$ -	\$ -	\$ 520,000	
	<i>Rehab</i>	\$ 780,000		\$ -	\$ -	\$ -	\$ 780,000	
COMMODORE ORE SORTING HOUSE	<i>Immeditate</i>	\$ 60,000		\$ -	\$ -	\$ -	\$ 60,000	\$ 1,112,000
	<i>Critical</i>	\$ 450,000	\$ 34,000	\$ 173,000	\$ 25,000	\$ 35,000	\$ 717,000	
	<i>Serious</i>	\$ 335,000		\$ -	\$ -	\$ -	\$ 335,000	
COMMODORE TRESTLE	<i>Immediate</i>	\$ 65,000		\$ -	\$ -	\$ -	\$ 65,000	\$ 1,032,000
	<i>Critical</i>	\$ 240,000	\$ 16,000	\$ 113,000	\$ 15,000	\$ 23,000	\$ 407,000	
	<i>Serious</i>	\$ 560,000		\$ -	\$ -	\$ -	\$ 560,000	
ESTIMATED TOTAL							\$ 4,504,000	

* Estimated by DRC

** Superstructure contingencies capture the following: waste characterization, or off-site hauling and disposal of material, if needed totalling and \$20,000.

Additionally, an earthwork contingency of \$30,000, split between the Sorting House and Trestle has been included.

*** Estimated by S&W

Appendix B

Laboratory Testing

CONTENTS

B.1 Introduction B-1

B.2 Soil Classification System B-1

B.3 Laboratory Index Testing..... B-1

 B.3.1 Water Content..... B-1

 B.3.2 Grain Size Distribution and Hydrometer Analyses B-1

 B.3.3 Atterberg Limits B-2

Tables

Table B-1: Summary of Laboratory Test Results

Figures

Figure B-1: Soil Description and Log Key

Figure B-2: Grain Size Distribution

Figure B-3: Plasticity Chart

B.1 INTRODUCTION

During observations of both Ore Sorting Houses and the Blacksmith Shop, a Shannon & Wilson field representative obtained two samples, one grab sample beneath the Ore Sorting House (G-1) and a sample of native colluvium to the south of the Ore Sorting House (B-1). Laboratory tests were completed on the grab samples in general accordance with the ASTM International (ASTM) testing methods. The geotechnical laboratory testing was performed at our laboratory in Denver, Colorado. A summary of the laboratory test results is presented in Table B-1. The following sections describe the laboratory testing procedures.

B.2 SOIL CLASSIFICATION SYSTEM

Soil classification for this project was based on ASTM International (ASTM) Designation: D2487, Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System), and ASTM Designation: D2488, Standard Practice for Description and Identification of Soils (Visual-Manual Procedure). The Unified Soil Classification System is summarized in Figure B-1.

B.3 LABORATORY INDEX TESTING

B.3.1 Water Content

Water content was determined for selected samples in general accordance with ASTM D2216, Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass. To perform this test, a sample was weighed before and after oven-drying, and the water content was calculated. Water content determinations are summarized in Table B-1. A water content test was generally taken on each sample, except for sands and gravels below the groundwater table where free water was observed in the sample jar.

B.3.2 Grain Size Distribution and Hydrometer Analyses

The grain size distribution of selected samples was determined in general accordance with ASTM D6913, Standard Test Methods for Particle-Size Distribution (Gradation) of Soils Using Sieve Analysis. Results of these analyses are presented as grain size distribution curves in Figure B-2 and summarized in Table B-1.

B.3.3 Atterberg Limits

Soil plasticity was determined by performing Atterberg limits tests on selected fine-grained samples. The tests were completed in general accordance with ASTM D4318, Standard Test Method for Liquid Limit, Plastic Limit, and Plasticity Index of Soils. The Atterberg limits include liquid limit (LL), plastic limit (PL), and plasticity index (PI equals LL minus PL) and are generally used to assist in classification of soils, to indicate soil consistency (when compared to natural water content), and to provide correlation to soil properties. The results of the Atterberg limits tests are plotted on a plasticity chart in Figure B-3.

Table B-1 - Summary of Laboratory Test Results

SAMPLE DATA				GRAIN SIZE ANALYSIS ²				ATTERBERG LIMITS			
Location	Sample	Depth (feet)		USCS Symbol ¹	Natural Moisture Content (%)	Gravel (%)	Sand (%)	Fines ³ (%)	Liquid Limit	Plastic Limit	Plasticity Index
		Top	Bottom								
Ore House 1	G-1	0.0	0.5	SM	1.3			49	NV	NP	NP
	B-1	0.1	0.5	GC	2.1	56	23	21	28	19	9

NOTES:

- 1 Refer to Figure B-1 for definitions.
 - 2 Gravel defined as particles larger than the No. 4 sieve size, Sand as particles between the No. 4 and No. 200 sieve sizes, and Fines as particles passing the No. 200 sieve.
 - 3 Percentage of fines (clay/silt) passing the No. 200 sieve indicated where applicable. Clay size particles defined as those smaller than 0.002mm
- NP = non plastic; NV = no value

Shannon & Wilson, Inc. (S&W), uses a soil identification system modified from the Unified Soil Classification System (USCS). Elements of the USCS and other definitions are provided on this and the following pages. Soil descriptions are based on visual-manual procedures (ASTM D2488) and laboratory testing procedures (ASTM D2487), if performed.

S&W INORGANIC SOIL CONSTITUENT DEFINITIONS

CONSTITUENT ²	FINE-GRAINED SOILS (50% or more fines) ¹	COARSE-GRAINED SOILS (less than 50% fines) ¹
Major	Silt, Lean Clay, Elastic Silt, ³ or Fat Clay	Sand or Gravel ⁴
Modifying (Secondary) Precedes major constituent	30% or more coarse-grained: Sandy or Gravelly ⁴	More than 12% fine-grained: Silty or Clayey ³
Minor Follows major constituent	15% to 30% coarse-grained: with Sand or with Gravel ⁴ 30% or more total coarse-grained and lesser coarse-grained constituent is 15% or more: with Sand or with Gravel ⁵	5% to 12% fine-grained: with Silt or with Clay ³ 15% or more of a second coarse-grained constituent: with Sand or with Gravel ⁵

¹All percentages are by weight of total specimen passing a 3-inch sieve.
²The order of terms is: *Modifying Major with Minor*.
³Determined based on behavior.
⁴Determined based on which constituent comprises a larger percentage.
⁵Whichever is the lesser constituent.

MOISTURE CONTENT TERMS

Dry	Absence of moisture, dusty, dry to the touch
Moist	Damp but no visible water
Wet	Visible free water, from below water table

STANDARD PENETRATION TEST (SPT) SPECIFICATIONS

Hammer:	140 pounds with a 30-inch free fall. Rope on 6- to 10-inch-diam. cathead 2-1/4 rope turns, > 100 rpm
	NOTE: If automatic hammers are used, blow counts shown on boring logs should be adjusted to account for efficiency of hammer.
Sampler:	10 to 30 inches long Shoe I.D. = 1.375 inches Barrel I.D. = 1.5 inches Barrel O.D. = 2 inches
N-Value:	Sum blow counts for second and third 6-inch increments. Refusal: 50 blows for 6 inches or less; 10 blows for 0 inches.
	NOTE: Penetration resistances (N-values) shown on boring logs are as recorded in the field and have not been corrected for hammer efficiency, overburden, or other factors.

PARTICLE SIZE DEFINITIONS

DESCRIPTION	SIEVE NUMBER AND/OR APPROXIMATE SIZE
FINES	< #200 (0.075 mm = 0.003 in.)
SAND Fine Medium Coarse	#200 to #40 (0.075 to 0.4 mm; 0.003 to 0.02 in.) #40 to #10 (0.4 to 2 mm; 0.02 to 0.08 in.) #10 to #4 (2 to 4.75 mm; 0.08 to 0.187 in.)
GRAVEL Fine Coarse	#4 to 3/4 in. (4.75 to 19 mm; 0.187 to 0.75 in.) 3/4 to 3 in. (19 to 76 mm)
COBBLES	3 to 12 in. (76 to 305 mm)
BOULDERS	> 12 in. (305 mm)

RELATIVE DENSITY / CONSISTENCY

COHESIONLESS SOILS		COHESIVE SOILS	
N, SPT, BLOWS/FT.	RELATIVE DENSITY	N, SPT, BLOWS/FT.	RELATIVE CONSISTENCY
< 4	Very loose	< 2	Very soft
4 - 10	Loose	2 - 4	Soft
10 - 30	Medium dense	4 - 8	Medium stiff
30 - 50	Dense	8 - 15	Stiff
> 50	Very dense	15 - 30	Very stiff
		> 30	Hard

WELL AND BACKFILL SYMBOLS

	Bentonite Cement Grout		Surface Cement Seal
	Bentonite Grout		Asphalt or Cap
	Bentonite Chips		Slough
	Silica Sand		Inclinometer or Non-perforated Casing
	Perforated or Screened Casing		Vibrating Wire Piezometer

PERCENTAGES TERMS^{1,2}

Trace	< 5%
Few	5 to 10%
Little	15 to 25%
Some	30 to 45%
Mostly	50 to 100%

¹Gravel, sand, and fines estimated by mass. Other constituents, such as organics, cobbles, and boulders, estimated by volume.

²Reprinted, with permission, from ASTM D2488 - 09a Standard Practice for Description and Identification of Soils (Visual-Manual Procedure), copyright ASTM International, 100 Barr Harbor Drive, West Conshohocken, PA 19428. A copy of the complete standard may be obtained from ASTM International, www.astm.org.

Colorado Div. of Reclamation, Mining & Safety
Commodore Mine Structural Evaluation Project
Near Creede, Colorado

SOIL DESCRIPTION AND LOG KEY

July 2021

106585-001

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FIG. B-1
Sheet 1 of 3

UNIFIED SOIL CLASSIFICATION SYSTEM (USCS)
(Modified From USACE Tech Memo 3-357, ASTM D2487, and ASTM D2488)

MAJOR DIVISIONS		GROUP/GRAPHIC SYMBOL	TYPICAL IDENTIFICATIONS	
COARSE-GRAINED SOILS <i>(more than 50% retained on No. 200 sieve)</i>	Gravels <i>(more than 50% of coarse fraction retained on No. 4 sieve)</i>	Gravel <i>(less than 5% fines)</i>	GW 	Well-Graded Gravel; Well-Graded Gravel with Sand
			GP 	Poorly Graded Gravel; Poorly Graded Gravel with Sand
		Silty or Clayey Gravel <i>(more than 12% fines)</i>	GM 	Silty Gravel; Silty Gravel with Sand
			GC 	Clayey Gravel; Clayey Gravel with Sand
	Sands <i>(50% or more of coarse fraction passes the No. 4 sieve)</i>	Sand <i>(less than 5% fines)</i>	SW 	Well-Graded Sand; Well-Graded Sand with Gravel
			SP 	Poorly Graded Sand; Poorly Graded Sand with Gravel
		Silty or Clayey Sand <i>(more than 12% fines)</i>	SM 	Silty Sand; Silty Sand with Gravel
			SC 	Clayey Sand; Clayey Sand with Gravel
FINE-GRAINED SOILS <i>(50% or more passes the No. 200 sieve)</i>	Silt and Clays <i>(liquid limit less than 50)</i>	Inorganic	ML 	Silt; Silt with Sand or Gravel; Sandy or Gravelly Silt
			CL 	Lean Clay; Lean Clay with Sand or Gravel; Sandy or Gravelly Lean Clay
		Organic	OL 	Organic Silt or Clay; Organic Silt or Clay with Sand or Gravel; Sandy or Gravelly Organic Silt or Clay
	Silt and Clays <i>(liquid limit 50 or more)</i>	Inorganic	MH 	Elastic Silt; Elastic Silt with Sand or Gravel; Sandy or Gravelly Elastic Silt
			CH 	Fat Clay; Fat Clay with Sand or Gravel; Sandy or Gravelly Fat Clay
		Organic	OH 	Organic Silt or Clay; Organic Silt or Clay with Sand or Gravel; Sandy or Gravelly Organic Silt or Clay
HIGHLY-ORGANIC SOILS	Primarily organic matter, dark in color, and organic odor	PT 	Peat or other highly organic soils (see ASTM D4427)	

NOTE: No. 4 size = 4.75 mm = 0.187 in.; No. 200 size = 0.075 mm = 0.003 in.

NOTES

- Dual symbols (*symbols separated by a hyphen, i.e., SP-SM, Sand with Silt*) are used for soils with between 5% and 12% fines or when the liquid limit and plasticity index values plot in the CL-ML area of the plasticity chart. Graphics shown on the logs for these soil types are a combination of the two graphic symbols (e.g., SP and SM).
- Borderline symbols (*symbols separated by a slash, i.e., CL/ML, Lean Clay to Silt; SP-SM/SM, Sand with Silt to Silty Sand*) indicate that the soil properties are close to the defining boundary between two groups.

Colorado Div. of Reclamation, Mining & Safety
 Commodore Mine Structural Evaluation Project
 Near Creede, Colorado

**SOIL DESCRIPTION
 AND LOG KEY**

July 2021

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SHANNON & WILSON, INC.
 Geotechnical and Environmental Consultants

FIG. B-1
 Sheet 2 of 3

GRADATION TERMS

Poorly Graded	Narrow range of grain sizes present or, within the range of grain sizes present, one or more sizes are missing (Gap Graded). Meets criteria in ASTM D2487, if tested.
Well-Graded	Full range and even distribution of grain sizes present. Meets criteria in ASTM D2487, if tested.

CEMENTATION TERMS¹

Weak	Crumbles or breaks with handling or slight finger pressure.
Moderate	Crumbles or breaks with considerable finger pressure.
Strong	Will not crumble or break with finger pressure.

PLASTICITY²

DESCRIPTION	VISUAL-MANUAL CRITERIA	APPROX. PLASTICITY INDEX RANGE
Nonplastic	A 1/8-in. thread cannot be rolled at any water content.	< 4
Low	A thread can barely be rolled and a lump cannot be formed when drier than the plastic limit.	4 to 10
Medium	A thread is easy to roll and not much time is required to reach the plastic limit. The thread cannot be rerolled after reaching the plastic limit. A lump crumbles when drier than the plastic limit.	10 to 20
High	It takes considerable time rolling and kneading to reach the plastic limit. A thread can be rerolled several times after reaching the plastic limit. A lump can be formed without crumbling when drier than the plastic limit.	> 20

ADDITIONAL TERMS

Mottled	Irregular patches of different colors.
Biorturbated	Soil disturbance or mixing by plants or animals.
Diamict	Nonsorted sediment; sand and gravel in silt and/or clay matrix.
Cuttings	Material brought to surface by drilling.
Slough	Material that caved from sides of borehole.
Sheared	Disturbed texture, mix of strengths.

PARTICLE ANGULARITY AND SHAPE TERMS¹

Angular	Sharp edges and unpolished planar surfaces.
Subangular	Similar to angular, but with rounded edges.
Subrounded	Nearly planar sides with well-rounded edges.
Rounded	Smoothly curved sides with no edges.
Flat	Width/thickness ratio > 3.
Elongated	Length/width ratio > 3.

ACRONYMS AND ABBREVIATIONS

ATD	At Time of Drilling
Diam.	Diameter
Elev.	Elevation
ft.	Feet
FeO	Iron Oxide
gal.	Gallons
Horiz.	Horizontal
HSA	Hollow Stem Auger
I.D.	Inside Diameter
in.	Inches
lbs.	Pounds
MgO	Magnesium Oxide
mm	Millimeter
MnO	Manganese Oxide
NA	Not Applicable or Not Available
NP	Nonplastic
O.D.	Outside Diameter
OW	Observation Well
pcf	Pounds per Cubic Foot
PID	Photo-Ionization Detector
PMT	Pressuremeter Test
ppm	Parts per Million
psi	Pounds per Square Inch
PVC	Polyvinyl Chloride
rpm	Rotations per Minute
SPT	Standard Penetration Test
USCS	Unified Soil Classification System
q _u	Unconfined Compressive Strength
VWP	Vibrating Wire Piezometer
Vert.	Vertical
WOH	Weight of Hammer
WOR	Weight of Rods
Wt.	Weight

STRUCTURE TERMS¹

Interbedded	Alternating layers of varying material or color with layers at least 1/4-inch thick; singular: bed.
Laminated	Alternating layers of varying material or color with layers less than 1/4-inch thick; singular: lamination.
Fissured	Breaks along definite planes or fractures with little resistance.
Slickensided	Fracture planes appear polished or glossy; sometimes striated.
Blocky	Cohesive soil that can be broken down into small angular lumps that resist further breakdown.
Lensed	Inclusion of small pockets of different soils, such as small lenses of sand scattered through a mass of clay.
Homogeneous	Same color and appearance throughout.

Colorado Div. of Reclamation, Mining & Safety
Commodore Mine Structural Evaluation Project
Near Creede, Colorado

SOIL DESCRIPTION AND LOG KEY

July 2021

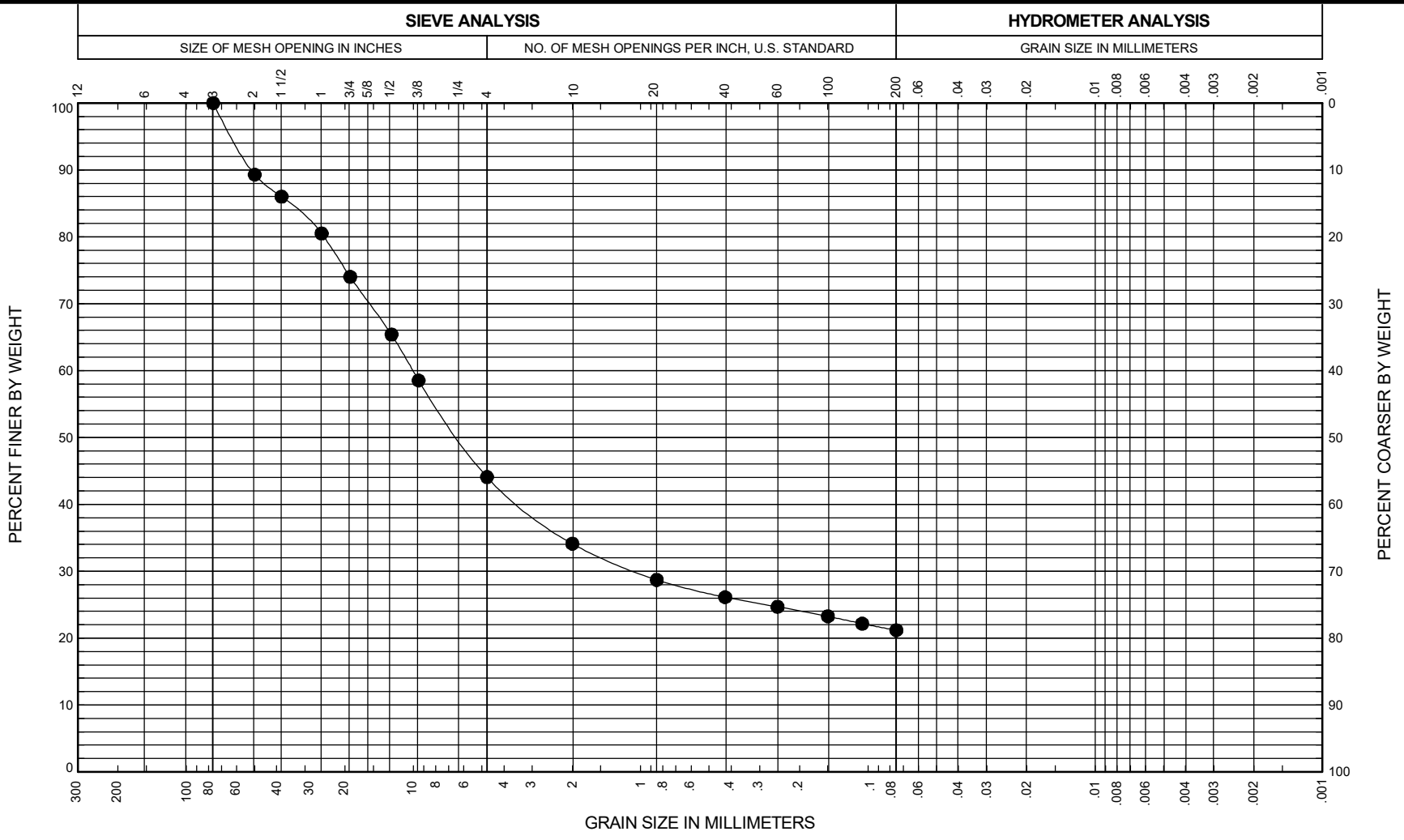
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FIG. B-1
Sheet 3 of 3

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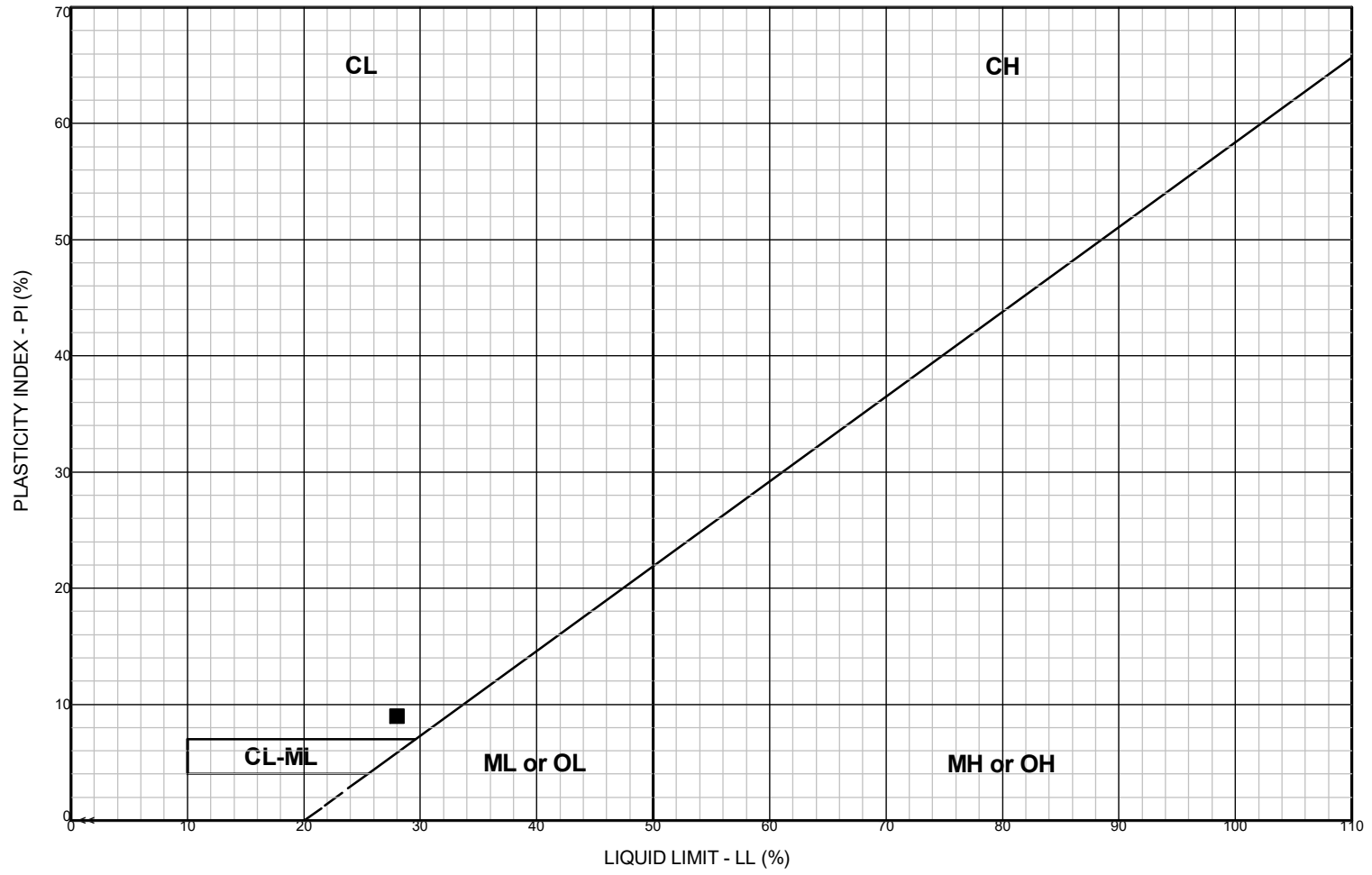
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COBBLES	COARSE	FINE	COARSE	MEDIUM	FINE	FINES: SILT OR CLAY
	GRAVEL		SAND			

SAMPLE ID	DEPTH (feet)	U.S.C.S. SYMBOL	SAMPLE DESCRIPTION	FINES %	NAT. W.C. %	LL %	PL %	PI %	Colorado Div. of Reclamation, Mining & Safety Commodore Mine Structural Evaluation Project Near Creede, Colorado	
● Ore House 1, B-1	0.1	GC	Clayey Gravel with Sand	21.2	2.1	28	19	9	GRAIN SIZE DISTRIBUTION July 2021 106585-001 SHANNON & WILSON, INC. Geotechnical and Environmental Consultants FIG. B-2	

FIG. B-2



LEGEND

- CL:** Low plasticity inorganic clays; sandy and silty clays
- CH:** High plasticity inorganic clays
- ML or OL:** Inorganic and organic silts and clayey silts of low plasticity
- MH or OH:** Inorganic and organic silts and clayey silts of high plasticity
- CL-ML:** Silty clays and clayey silts

SAMPLE ID	DEPTH (feet)	U.S.C.S. SYMBOL	SOIL CLASSIFICATION	LL %	PL %	PI %	NAT. W.C. %	PASS. #200, %
Ore House 1, C-1	0.0	SM	Silty Sand	NV	NP	NP	1.3	48.7
■ Ore House 1, B-1	0.1	GC	Clayey Gravel with Sand	28	19	9	2.1	21.2

Colorado Div. of Reclamation, Mining & Safety
 Commodore Mine Structural Evaluation Project
 Near Creede, Colorado

PLASTICITY CHART

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FIG. B-3

FIG. B-3

Important Information

About Your Geotechnical Report

IMPORTANT INFORMATION

CONSULTING SERVICES ARE PERFORMED FOR SPECIFIC PURPOSES AND FOR SPECIFIC CLIENTS.

Consultants prepare reports to meet the specific needs of specific individuals. A report prepared for a civil engineer may not be adequate for a construction contractor or even another civil engineer. Unless indicated otherwise, your consultant prepared your report expressly for you and expressly for the purposes you indicated. No one other than you should apply this report for its intended purpose without first conferring with the consultant. No party should apply this report for any purpose other than that originally contemplated without first conferring with the consultant.

THE CONSULTANT'S REPORT IS BASED ON PROJECT-SPECIFIC FACTORS.

A geotechnical/environmental report is based on a subsurface exploration plan designed to consider a unique set of project-specific factors. Depending on the project, these may include the general nature of the structure and property involved; its size and configuration; its historical use and practice; the location of the structure on the site and its orientation; other improvements such as access roads, parking lots, and underground utilities; and the additional risk created by scope-of-service limitations imposed by the client. To help avoid costly problems, ask the consultant to evaluate how any factors that change subsequent to the date of the report may affect the recommendations. Unless your consultant indicates otherwise, your report should not be used (1) when the nature of the proposed project is changed (for example, if an office building will be erected instead of a parking garage, or if a refrigerated warehouse will be built instead of an unrefrigerated one, or chemicals are discovered on or near the site); (2) when the size, elevation, or configuration of the proposed project is altered; (3) when the location or orientation of the proposed project is modified; (4) when there is a change of ownership; or (5) for application to an adjacent site. Consultants cannot accept responsibility for problems that may occur if they are not consulted after factors that were considered in the development of the report have changed.

SUBSURFACE CONDITIONS CAN CHANGE.

Subsurface conditions may be affected as a result of natural processes or human activity. Because a geotechnical/environmental report is based on conditions that existed at the time of subsurface exploration, construction decisions should not be based on a report whose adequacy may have been affected by time. Ask the consultant to advise if additional tests are desirable before construction starts; for example, groundwater conditions commonly vary seasonally.

Construction operations at or adjacent to the site and natural events such as floods, earthquakes, or groundwater fluctuations may also affect subsurface conditions and, thus, the continuing adequacy of a geotechnical/environmental report. The consultant should be kept apprised of any such events and should be consulted to determine if additional tests are necessary.

MOST RECOMMENDATIONS ARE PROFESSIONAL JUDGMENTS.

Site exploration and testing identifies actual surface and subsurface conditions only at those points where samples are taken. The data were extrapolated by your consultant, who then applied judgment to render an opinion about overall subsurface conditions. The actual interface between materials may be far more gradual or abrupt than your report indicates. Actual conditions in areas not sampled may differ from those predicted in your report. While nothing can be done to prevent such situations, you and your consultant can work together to help reduce their impacts. Retaining

your consultant to observe subsurface construction operations can be particularly beneficial in this respect.

A REPORT'S CONCLUSIONS ARE PRELIMINARY.

The conclusions contained in your consultant's report are preliminary, because they must be based on the assumption that conditions revealed through selective exploratory sampling are indicative of actual conditions throughout a site. Actual subsurface conditions can be discerned only during earthwork; therefore, you should retain your consultant to observe actual conditions and to provide conclusions. Only the consultant who prepared the report is fully familiar with the background information needed to determine whether or not the report's recommendations based on those conclusions are valid and whether or not the contractor is abiding by applicable recommendations. The consultant who developed your report cannot assume responsibility or liability for the adequacy of the report's recommendations if another party is retained to observe construction.

THE CONSULTANT'S REPORT IS SUBJECT TO MISINTERPRETATION.

Costly problems can occur when other design professionals develop their plans based on misinterpretation of a geotechnical/environmental report. To help avoid these problems, the consultant should be retained to work with other project design professionals to explain relevant geotechnical, geological, hydrogeological, and environmental findings, and to review the adequacy of their plans and specifications relative to these issues.

BORING LOGS AND/OR MONITORING WELL DATA SHOULD NOT BE SEPARATED FROM THE REPORT.

Final boring logs developed by the consultant are based upon interpretation of field logs (assembled by site personnel), field test results, and laboratory and/or office evaluation of field samples and data. Only final boring logs and data are customarily included in geotechnical/environmental reports. These final logs should not, under any circumstances, be redrawn for inclusion in architectural or other design drawings, because drafters may commit errors or omissions in the transfer process.

To reduce the likelihood of boring log or monitoring well misinterpretation, contractors should be given ready access to the complete geotechnical engineering/environmental report prepared or authorized for their use. If access is provided only to the report prepared for you, you should advise contractors of the report's limitations, assuming that a contractor was not one of the specific persons for whom the report was prepared, and that developing construction cost estimates was not one of the specific purposes for which it was prepared. While a contractor may gain important knowledge from a report prepared for another party, the contractor should discuss the report with your consultant and perform the additional or alternative work believed necessary to obtain the data specifically appropriate for construction cost estimating purposes. Some clients hold the mistaken impression that simply disclaiming responsibility for the accuracy of subsurface information always insulates them from attendant liability. Providing the best available information to contractors helps prevent costly construction problems and the adversarial attitudes that aggravate them to a disproportionate scale.

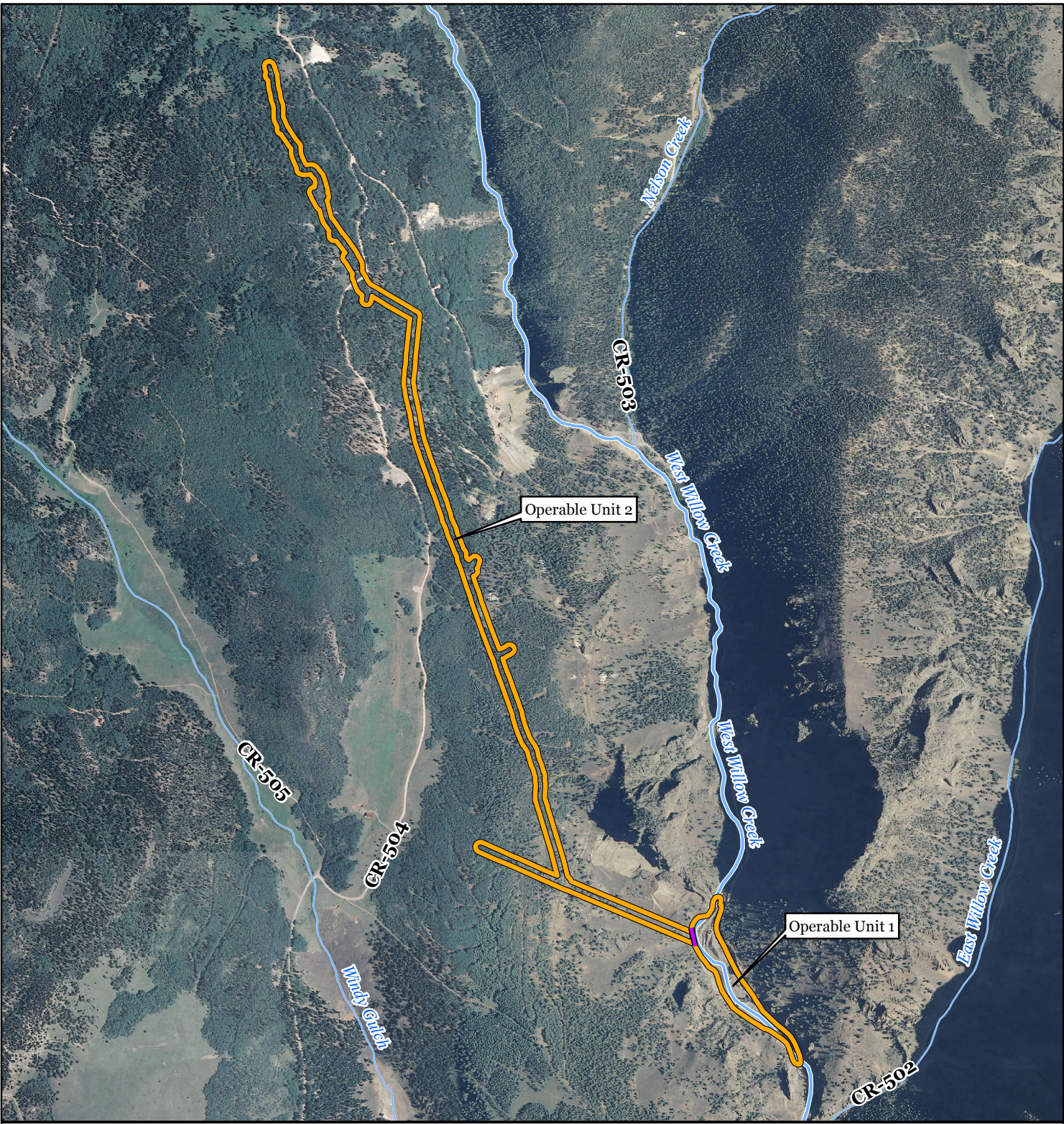
READ RESPONSIBILITY CLAUSES CLOSELY.

Because geotechnical/environmental engineering is based extensively on judgment and opinion, it is far less exact than other design disciplines. This situation has resulted in wholly unwarranted claims

being lodged against consultants. To help prevent this problem, consultants have developed a number of clauses for use in their contracts, reports, and other documents. These responsibility clauses are not exculpatory clauses designed to transfer the consultant's liabilities to other parties; rather, they are definitive clauses that identify where the consultant's responsibilities begin and end. Their use helps all parties involved recognize their individual responsibilities and take appropriate action. Some of these definitive clauses are likely to appear in your report, and you are encouraged to read them closely. Your consultant will be pleased to give full and frank answers to your questions.

The preceding paragraphs are based on information provided by the ASFE/Association of Engineering Firms Practicing in the Geosciences, Silver Spring, Maryland.

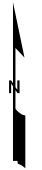
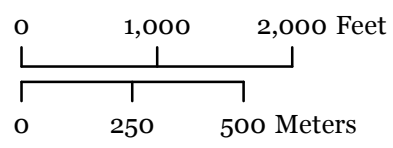
IMPORTANT INFORMATION



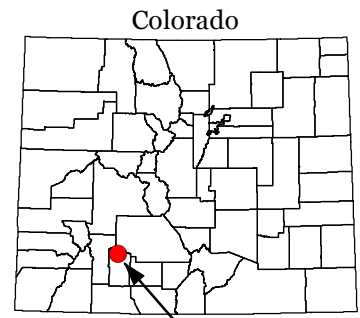
Nelson Tunnel/Commodore Waste Rock NPL Site
Operable Units
Mineral County, Colorado

 NPL & Operable Unit Boundaries
  OU Boundary
  River

Map Date: April 16, 2012



Map Projection: UTM, Meters, 13 North, NAD83
Data Sources: Boundaries - U.S. EPA Region 8 (2012);
 Imagery - USDA NAIP 1-meter aerial photo (2009).



*Boundaries are based on the nature and extent of contamination and are subject to change.

Six Claim Properties

APPENDIX F TO:

NELSON TUNNEL/COMMODORE WASTE ROCK SITE ADMINISTRATIVE SETTLEMENT

CLAIM NAME	MINERAL SURVEY NUMBER	COUNTY PARCEL NUMBER	PATENT NUMBER	OWNER
Pueblo Chief	7383	4763 2310 0014	23475	Del Monte Mining Company
Arian	7877	4763 2310 0014	26900	Del Monte Mining Company
Sunol	7930	4763 2310 0014	26287	Del Monte Mining Company
Malissa	8375	4763 2310 0014	28356	Del Monte Mining Company
Silver King	8375	4763 2310 0014	28356	Del Monte Mining Company
Silent Friend	8834	4763 2310 0014	25730	Del Monte Mining Company

UNITED STATES DEPARTMENT OF JUSTICE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION 8,
AND
STATE OF COLORADO

IN THE MATTER OF:

CERCLA Docket No. _____

Nelson Tunnel/Commodore Waste Rock
Superfund Site
Mineral County, Colorado

**FIRST AMENDMENT TO
ADMINISTRATIVE SETTLEMENT
AGREEMENT**

Mineral County, Colorado,
Purchaser

1. Pursuant to Paragraph 21 of the Settlement and subject to this First Amendment to Administrative Settlement Agreement (“First Amendment”), Purchaser intends to Transfer certain rights, benefits, and obligations to [name] (“Transferee”), upon Transferee’s acquisition of the property comprising the Commodore Waste Rock Pile described in Attachment 1 to this First Amendment (“Property”). Purchaser retains all other rights, benefits, and obligations of the Settlement.

2. Transferee has reviewed the Settlement and hereby agrees to be bound by the terms, conditions, and obligations of the Settlement excluding the following obligations, which Purchaser is retaining: Paragraph 18 (Work Plan for Activities on Historic Structures), Paragraph 19 (Site Security), and Paragraph 20 (County Road 503 Maintenance) of the Settlement.

3. Transferee acknowledges that the Site remedy has not achieved construction completion and Purchaser is obligated to provide use of the Property for any response activities at the Site, including as a staging area for response equipment.

4. Transferee shall allow EPA, the State, and their respective representatives, contractors, and subcontractors to use the Property free of charge for purposes of any response activities at the Site, including as a staging area for response equipment, unless EPA and the State notify Transferee that this obligation is no longer needed.

5. Transferee shall not interfere with response actions taken at or near the Site.

6. Transferee agrees to not contest EPA’s and the State’s authority to enforce any land use restrictions and institutional controls on any of the Property.

7. Transferee shall provide access to Purchaser to allow continued performance by Purchaser of the obligations under Paragraph 18 (Work Plan for Activities on Historic Structures), Paragraph 19 (Site Security), and Paragraph 20 (County Road 503 Maintenance) of the Settlement.

8. To the best of its knowledge, Transferee has not caused or contributed to the release or threat of release of any Existing Contamination, as that term is defined in the Settlement, at the Site.

9. Transferee acknowledges the rights and benefits provided by the First Amendment for the Property are limited to the Existing Contamination on the Property as of the Effective Date of the Settlement. With respect to liability for any new hazardous substance, pollutants or contaminants that first become present at the Property after the Effective Date, Transferee represents that upon acquisition of the Property it will be a bona fide prospective purchaser (“BFPP”) meeting the criteria in sections 101(40) and 107(r)(1) of CERCLA, that it will continue to comply with sections 101(40) and 107(r)(1) during its ownership of the Property, including taking reasonable steps, and thus will qualify for the protection from liability under CERCLA set forth in section 107(r)(1) of CERCLA with respect to the Property.

10. By submission of this First Amendment to the United States, EPA, and the State, signed by a person authorized to bind the Transferee, Purchaser is requesting that the United States, EPA, and the State give written consent to the Transfer of the rights and benefits set forth in the Settlement at Section XIV (Covenants by United States, EPA, and the State), subject to Section XV (Reservations of Rights by United States, EPA, and the State), and Section XVIII (Effect of Settlement/Contribution) with respect to the Property, currently held by Purchaser, to Transferee. By countersigning this First Amendment, the United States, EPA, and the State hereby provide such written consent.

11. Transferee acknowledges that at any time the United States, EPA, or the State determine that Transferee’s representations, certifications, or information provided to the United

States, EPA, or the State is materially inaccurate or incomplete, the covenant not to sue and contribution protection set forth in Sections XIV and XVIII of the Settlement shall be null and void and the United States, EPA, and the State reserve any and all rights they may have against Transferee.

12. Transferee may Transfer its rights, benefits, and obligations of this First Amendment with respect to the Property to future parties pursuant to Paragraph 21 of the Settlement. Transferee acknowledges that in the case of a Transfer of the Property that does not include a Transfer of the obligations, EPA and the State will direct such parties to the self-implementing statutory liability protections for BFPPs, which are intended to allow private parties to save time and costs, in part by avoiding EPA involvement in the majority of private party transactions.

13. Should the Settlement be modified, amended, or otherwise changed, Transferee shall, in its discretion, have the option to become subject to the terms, conditions, and obligations of any future amendment. Otherwise, Transferee shall be subject to the terms of this First Amendment.

14. By countersigning this First Amendment, EPA and the State hereby release Purchaser from its obligations only with respect to the Property, except for the obligations specified in Paragraph 28 of the Settlement.

15. For further reference, upon the Transfer of the Property to Transferee, all notices and submissions required under this First Amendment shall be sent to the following contact person: **[name]**, **[title]**, at the following address: **[address]**, **[city]**, **[state]**, **[zip code]**.

[Include a separate signature page for each signatory]

IT IS SO AGREED:

Dated

Transferee
[Title]
[Company]
[Address]

IT IS SO AGREED:

Dated

Purchaser
[Title]
[Company]
[Address]

IT IS SO AGREED:

U.S. ENVIRONMENTAL PROTECTION AGENCY:

Dated

[Name]
Regional Administrator, Region 8

IT IS SO AGREED:

THE STATE OF COLORADO:

Dated

[Name]
[Title]

**ATTACHMENT 1
PROPERTY DESCRIPTION**

Transferred Properties

APPENDIX H TO:

NELSON TUNNEL/COMMODORE WASTE ROCK SITE ADMINISTRATIVE SETTLEMENT

CLAIM NAME	MINERAL SURVEY NUMBER	COUNTY	PARCEL NUMBER	PATENT NUMBER	OWNER
Sunnyside	7347		4763 2310 0003	24531	Commodore Mining Company
Corona	7389		4763 2310 0003	23207	Commodore Mining Company
Napoleon	7389		4763 2310 0003	23207	Commodore Mining Company
Transfer	7389		4763 2310 0003	23207	Commodore Mining Company
Unknown	7389		4763 2310 0003	23207	Commodore Mining Company
New York	7406		4763 2310 0003	24151	Commodore Mining Company*
Commodore	7420		4763 2310 0003	25995	Commodore Mining Company
Maid of Erin	7440		4763 2310 0003	25512	Commodore Mining Company
Legal Tender	7440		4763 2310 0003	25512	Commodore Mining Company
Copper	7539		4763 2310 0003	23289	Commodore Mining Company
Rio Grande No. 2	8208		4763 2310 0003	26401	Commodore Mining Company*
Archimedes	8345		4763 2310 0003	24463	Commodore Mining Company
Fraction	12638		4763 2310 0003	30871	Commodore Mining Company
Manhattan	7460		4763 2520 0002	23345	Commodore Mining Company
Bachelor	7539		4763 2520 0002	23289	Commodore Mining Company
Spar	7539		4763 2520 0002	23289	Commodore Mining Company
N.Y.C. Lode	8240A		4763 2520 0002	24277	Commodore Mining Company
N.Y.C. Millsite	8240B		4763 2520 0002	24277	Commodore Mining Company
Trail	9803		4763 2520 0002	27468	Commodore Mining Company
Tram	11970		4763 2520 0002	30638	Commodore Mining Company
Tariffa	11970		4763 2520 0002	30638	Commodore Mining Company
Snowstorm	9375		4763 1300 0006	26627	Del Monte Mining Company
Smuggler	9375		4763 1300 0006	26627	Del Monte Mining Company
Del Monte	7356		4763 2310 0014	23885	Del Monte Mining Company
Aspen	7356		4763 2310 0014	23885	Del Monte Mining Company
White	7370		4763 2310 0014	24461	Del Monte Mining Company
Equitable	7370		4763 2310 0014	24461	Del Monte Mining Company
Pueblo Chief	7383		4763 2310 0014	23475	Del Monte Mining Company
Storm	7389		4763 2310 0014	23207	Del Monte Mining Company
Lottie	7467		4763 2310 0014	22487	Del Monte Mining Company
Matilda	7468		4763 2310 0014	23288	Del Monte Mining Company
Arian	7877		4763 2310 0014	26900	Del Monte Mining Company
Sunol	7930		4763 2310 0014	26287	Del Monte Mining Company
German National #2	8016		4763 2310 0014	25766	Del Monte Mining Company
Mustang	8054		4763 2310 0014	34579	Del Monte Mining Company*
St Charles	8261		4763 2310 0014	26449	Del Monte Mining Company
S.C.F.	8336		4763 2310 0014	26426	Del Monte Mining Company
Malissa	8375		4763 2310 0014	28356	Del Monte Mining Company
Silver King	8375		4763 2310 0014	28356	Del Monte Mining Company
Ochre	8375		4763 2310 0014	28356	Del Monte Mining Company
Silent Friend	8834		4763 2310 0014	25730	Del Monte Mining Company
Senora	7672		4763 2410 0019	24043	Del Monte Mining Company
Tunnel Annex	9791A		4763 2520 0003	27346	Del Monte Mining Company
Annex Millsite	9791B		4763 2520 0003	27346	Del Monte Mining Company

*Other owners in addition to the stated Mining Company

**THE STATE OF COLORADO
DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT**

AND

MINERAL COUNTY, COLORADO

INTERGOVERNMENTAL AGREEMENT

REGARDING

MINERAL COUNTY ORDINANCE NO. 23-01

THIS INTERGOVERNMENTAL AGREEMENT ("IGA") is executed by the State of Colorado, acting through the Colorado Department of Public Health and Environment ("CDPHE"), whose address is 4300 Cherry Creek Drive South, Denver, CO 80246, and Mineral County, State of Colorado, ("County") whose address is 1201 N Main St, Creede, CO 81130.

RECITALS:

WHEREAS, Mineral County (the "County") has jurisdiction over mine waste source areas, as defined herein, where residual mine wastes or remediation, including engineered components, exist, and the Board of County Commissioners adopts this Ordinance to control and regulate land use at such mine waste source areas, specifically including, but not limited to, the Nelson Tunnel/Commodore Waste Rock Superfund site ("Site"), pursuant to authority granted in C.R.S. § 29-20-104 and C.R.S. § 30-11-101, *et seq.*; and

WHEREAS, the United States Environmental Protection Agency ("EPA") and CDPHE have and will conduct Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA") response actions at portions of the Nelson Tunnel/Commodore Waste Rock Superfund Site (collectively referred to as "CERCLA response actions"), in Mineral County; and

WHEREAS, the mine waste source areas included within and outside of the Site are listed in Attachment A and depicted in Attachment B of the Ordinance, as may be modified from time to time and maintained within the Office of the Mineral County Clerk and Recorder for public viewing; and

WHEREAS, although the CERCLA response actions are conducted to protect human health and the environment in accordance with the National Contingency Plan (40 C.F.R. Part 300), residual mine waste will remain at the mine waste source areas within and outside of the Site. Contact with residual mine waste could result in unacceptable human exposure to lead and arsenic; and

WHEREAS, the CERCLA response actions include engineered components that will not function as intended if disturbed; and

WHEREAS, C.R.S. § 25-15-320(3)(b) authorizes CDPHE to waive the requirement for an environmental covenant for parcels of land where the owner does not grant an environmental covenant under C.R.S. § 25-15-320, and where the County, City, or municipality having jurisdiction over the affected land has enacted an ordinance or resolution imposing the relevant environmental use restrictions, and has entered into an intergovernmental agreement with CDPHE; and

WHEREAS, the County enacted Ordinance No. 23-01 on June 28, 2023 for the regulation of land use, development and activities upon certain property within unincorporated Mineral County containing mine waste source areas where residual mine wastes and engineered components exist (“Ordinance”); and

WHEREAS, The Ordinance implements environmental use restrictions and consultation requirements for land use permit applications that will protect human health and the environment and maintain engineered components at mine waste source areas; and

WHEREAS, compliance with the Ordinance shall result in conditions at the mine waste source areas that are protective of human health and the environment; and

WHEREAS, CDPHE and the County enter into this IGA pursuant to the authority in C.R.S. § 29-1-203 and § 25-15-320 for the purpose of protecting human health and the environment and maintaining engineered components at the mine waste source areas.

NOW THEREFORE, CDPHE and the County agree as follows:

1. The above recitals shall be incorporated into this IGA as if they were set forth below.
2. The term “mine waste source areas” are hereby defined as portions of real property upon which mine waste or contamination, or any engineered components designed to contain, treat, divert, avoid or otherwise address any aspect of such mine waste or contamination, are located, either partially or wholly. Mine waste source areas are more fully described in Attachment A and depicted in Attachment B to the Ordinance, and as may be modified from time to time and maintained within the Office of the Mineral County Clerk and Recorder for public viewing.

3. The County shall maintain the Ordinance, subject to its authority to repeal or amend, but then only in accordance with the following:
 - a. The County shall give at least thirty (30) days written notice to CDPHE of any proposed amendment to or repeal of the Ordinance; and
 - b. In the event of an Ordinance amendment, the County and CDPHE shall work together to ensure continued protection of human health and the environment within mine waste source areas pursuant to C.R.S. § 25-15-320(3)(b)(III).
4. Upon receiving an application for a building permit, zoning, subdivision, planned unit development, use by right, special review use, or any development activity (“permit application”) for a mine waste source area, the County shall provide a copy of the Ordinance to the property owner and the building permit applicant.
5. The County agrees to not approve any permit application for a mine waste source area unless CDPHE provides prior written approval to the County.
6. As provided in C.R.S. § 25-15-320(3)(b)(III), this IGA authorizes the County and CDPHE to enforce the Ordinance at mine waste source areas. Pursuant to C.R.S. § 25-15-322, CDPHE and the County shall have the authority to file an action in Mineral County district court seeking injunctive relief to require compliance with the Ordinance at mine waste source areas. Pursuant to C.R.S. §§ 30-28-124, 124.5, 209 and 209.5, the County shall also have the authority to enforce Ordinance violations at all mine waste source areas in accordance with Section 6 of the Ordinance.
7. Nothing in this agreement shall require the County to perform remediation or create an environmental covenant on County owned property.
8. This IGA does not prevent or limit the County from enforcing its Regulations as it would in the normal course of business.
9. This IGA does not prevent or limit the County from enforcing the Ordinance in any manner.
10. If CDPHE seeks to enforce the Ordinance to obtain injunctive relief from Mineral County District Court, CDPHE shall inform the County in writing of its intended actions not less than 14 days in advance of any filing. CDPHE shall not seek any reimbursement of its costs from the County.
11. This IGA shall become effective on the date of execution by the last signatory party to this IGA.
12. This IGA may be amended by mutual consent of the parties at the same organizational level as those who sign this IGA, or terminated by either party providing the other 14 days written notice.

13. CDPHE shall file a written notice in the chain of title for each property containing a mine waste source area identified in Attachment A to the Ordinance by parcel ID number and name of mining claim. Said Notice shall be periodically updated.

IN WITNESS WHEREOF, the parties have executed this Agreement on the date indicated for each respective signatory:

MINERAL COUNTY, COLORADO

By: _____

Jesse Albright, BOCC Chair

DATE

ATTEST:

Eryn K. Wintz

Clerk and Recorder

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

By: **Tracie White** _____

Digitally signed by Tracie White
Date: 2023.07.06 13:29:38 -06'00'

7/6/23

Tracie White, Director

DATE

Hazardous Materials Waste Management Division

13. CDPHE shall file a written notice in the chain of title for each property containing a mine waste source area identified in Attachment A to the Ordinance by parcel ID number and name of mining claim. Said Notice shall be periodically updated.

IN WITNESS WHEREOF, the parties have executed this Agreement on the date indicated for each respective signatory:

MINERAL COUNTY, COLORADO

By: Jesse Albright
Jesse Albright, BOCC Chair

7-5-23
DATE

ATTEST:

Eryn K Wintz
Eryn K Wintz
Clerk and Recorder



COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

By: _____
Tracie White, Director

DATE

Kanawha Ditch and Pipeline Water Right
APPENDIX J TO:
NELSON TUNNEL/COMMODORE WASTE ROCK
SITE ADMINISTRATIVE SETTLEMENT

STATE OF COLORADO)
COUNTY OF ALBERTA) SS. IN THE DISTRICT COURT.

IN THE MATTER OF THE ADJUDICATION)
OF PRIORITY OF WATER RIGHTS IN)
KAWA DIVERGENT WATERS COURTS IN)
THE STATE OF COLORADO.)

D-I-S-C-R-I-M-I-N-I-O-R

The above entitled action comes on to be heard upon the report of Ralph C. Millmore, Referee herein, on the proposed Decree submitted, protests, objections and exceptions thereto filed:

Now, on this 3rd day of February, 1960, this matter comes on for final hearing and adjudication upon the evidence submitted before said Referee heretofore appointed, and to hear this matter also, by Order of this Court herein entered on the 27th day of December, 1954, referred for the purposes in said Order mentioned, as well as upon the evidence taken by and before said Referee in this matter, all of which findings, evidence and testimony, protests, objections and exceptions, have been and are duly filed among the records of this Court; and the Court having been duly advised in the premises and being fully satisfied, from the several returns of notices, certificates of publication, affidavits and certificates of the said Referee, that the said testimony taken and upon which the findings herein returned have severally been made, was taken upon due and lawful notice in all respects according to the provisions of the statutes, in that case made and provided and the rules and several orders of this Court in that behalf in this matter made and entered

and further; that the notice of the time set for filing exceptions herein to said report and findings, and of the time set for the final hearing thereof and of this cause, have been duly served upon all parties through their attorneys of record entitled thereto; and further, that all parties interested in this proceeding and entitled to notice at any stage of the proceedings herein have at all times been duly notified, according to law and the orders of this Court; and the report of said Referee, Ralph C. Ellithorpe, together with the returns of service of notices, affidavits, lists, indices and findings, have been found to be in due form, and the Court now here in open Court heard all parties and their attorneys, so far as they desired to be heard respective touching the several matters herein, and being fully advised in the premises:-

IT IS ORDERED, ADJUDGED AND DECREED BY THE COURT, that the several Findings of the Referee, reported to and filed in this Court, be in all things approved and confirmed, except as hereinafter modified, abrogated, extended or over-ruled, and that they be taken, deemed and held in all respects, as the Findings of this Court in this matter; and further, that all and singular, the ditches, canals and reservoirs hereinafter set forth, be ordered, adjudged and decreed to have the several rights, numbers and priorities of the waters of the several streams, drainage ditches and reservoirs respectively, as hereinafter more particularly set forth, subject, however, to the following next mentioned provision to-wit:

FIRST: No part of this decree shall in any case be taken, deemed or held to confirm, impair, or in any manner affect any claim of right of property held or claimed by any person, association or corporation in or to any ditch, pump installation, drainage canal, reservoir or structure, meaning the structure itself, or any part thereof, or the land or any part thereof, on

which any of the same may be situated, or the land held or claimed as right of way of any of them; or any right, interest or claim of property whatever in or relating to any of them.

SECOND: No part of this decree shall be taken, deemed or held as affecting in any manner any question or claim of right between the owners or claimants of any ditch, pump installations, canal, drainage canal or reservoir, as between themselves, whether as part owners or stockholders or contractual thereto, or as stockholders in any corporation, reservoir, ditch or canal company, claiming or to claim the same or any part thereof; nor shall it affect the rights, interests or claims of any consumers of water for irrigation, storage, fish culture, manufacturing, power or domestic purposes, whether as part owner, lessee, shareholder or stockholder in any corporation holding or controlling the same, or as purchaser of water therefrom, as against the same, or as purchaser of water therefrom, as against the rights, interests or claims of any other party or parties interested, or claiming interest or right in or to such ditch, reservoir, canal or drain ditch, as owner, lessee, or part owner thereof, or as shareholder, stockholder or contractual relation in any such corporation, company or association claiming the same, or as purchaser of water therefrom; neither shall it affect any claim of priority made, or resisted as between parties using water for said purposes, from the same appropriation in any ditch, canal or drain ditch, as to such water, except as hereinafter designated.

THIRD: This decree shall not affect any claim, interest or right of any person or persons, corporation, association or company as to the right of property in any ditch, pump installation, canal, reservoir or drainage canal, on the ground on which the same may be situated, or any question which may arise between any person or persons, shareholders or stockholders thereof, or between them and the State, people, or any party, to any appropriation of water

heretofore decreed, or rights secured by condemnation proceedings, if any, by any person, association, company or corporation.

FOURTH: No part of this decree shall affect in any way any right, claim or interest in and to any water in any ditch, canal, drain ditch or reservoir heretofore adjudicated and decreed, or claimed to any appropriation of water by reason of the enlargement of, or in any manner relating to, the ditch, canal, drain ditch or reservoir by means of which such prior appropriation or appropriation have been made.

FIFTH: No part of this decree shall be taken or held as adjudicating to any claimants, or present or future representatives of any claim to any ditch, canal, drain ditch or reservoir, or party holding, using or controlling the same, any right to take and carry by means of any ditch herein mentioned, or by virtue of any appropriation herein adjudged, any water from any natural stream, reservoir, or drainage water developed by the construction of said drain ditch, except to be applied to the use for which such appropriation has been made; nor to allow any excessive use or waste of water whatever, nor to allow any diversion of water, except for lawful and beneficial purposes.

SIXTH: This decree shall be taken, deemed and held as intended to determine and establish the several priorities of right by appropriation of water from the streams, drainage canals and reservoirs of said Water District Number Twenty from the several ditches, drainage canals and reservoirs for the purposes concerning which testimony has been offered in this matter, with the amount of water held to have been appropriated through said ditches, canals, drain ditches, pump installations in drain ditches or streams and reservoirs respectively, except as hereinafter conditioned.

SEVENTH: The priorities hereby established are granted and made absolute, for the purpose of irrigation, mining, domestic use reservoir storage and fish culture for the respective appropriation

hereby granted and decreed, and the user of the respective appropriations and amount of water is restricted to the practicable utilization thereof as actually needed and utilized therefor.

SIXTH: This decree shall not be taken, deemed or held as establishing, decreeing or fixing, any priorities of right to the use of water in Water District Number Twenty, which will conflict with or in any manner affect or disturb the various rights, claims and priorities heretofore adjudicated in and by the various decrees heretofore entered by this Court in the Matter of the Adjudication of the Priorities, and Right to the Use of Water in Water District Number Twenty, or adverse or contrary to the effect of said decrees and all priorities herein decreed shall be junior and subsequent in point of time to all priorities and rights to the use of water heretofore adjudicated and decreed, and all priorities herein adjudicated, decreed and established can, and may go back no further than a date subsequent to the date of the latest appropriation decreed in any of the decrees heretofore entered in this cause.

SEVENTH: The priorities herein determined and established are based upon statements of claim filed subsequent to the 1st day of September, 1936, the date of the last general decree entered and designated as the "Meiser Decree" in said Water District, and prior to the 15th day of April, 1959, the final date fixed by the Referee, pursuant to Notice, as the concluding date for filing statements of claim.

EIGHTH: Subject to said several provisions, the said several Ditches, Canals, Drainage Ditches, Pumping Rights from Drain Ditches and Reservoirs hereinafter named, are numbered and given Priorities, as follows, that is to say:

APPROPRIATION PRIORITY NO. 1959-2

KANAWHA DITCH AND PIPELINE.

FINDINGS

THE COURT DOES FIND:

FIRST: That the names of the claimants and owners of said Kanawha Ditch and Pipeline are B.E. Foxson, whose address is 700 Washington Street, Denver, Colorado, and Tyrus B. Foxson whose Post Office address is Creede, Colorado.

SECOND: That the name of said ditch is Kanawha Ditch and Pipeline.

THIRD: That the headgate of said ditch is located at the portal of the Nelson (Wooster) Tunnel from which it derives its supply of water, whence the North $\frac{1}{4}$ corner of Section 26, Township 42 North, Range 1 West N.M.P.M., bears South $6^{\circ}07'$ West, 6,410.1 feet distant.

FOURTH: That the work of construction of said ditch was commenced on the 1st day of February, 1894, and was carried on with reasonable diligence to completion.

FIFTH: That the depth of said ditch at high water line is one foot; that the width of said ditch at high water line is five feet; that the bottom width of said ditch is two feet; that the length of said ditch is 84.2 feet; that the minimum grade of said ditch is not less than five feet per 1000 feet. The diameter of said pipeline is four inches which is constructed of steel and water is delivered into said pipeline from a pumping station; that the length of said pipeline is 1207.9 feet. That the carrying capacity of said ditch and pipeline is seven cubic feet of water per second of time.

SIXTH: That the water developed by said Nelson Tunnel and appurtenant mine workings flows $5.51^{\circ}22'$ East, 84.2 feet to a point where said ditch enters West Willow Creek, whence said North $\frac{1}{2}$ corner of Section 36, Township 42 North, Range 1 West bears South $6^{\circ}45'$ West, 6,365.2 feet distant, from which said water flows down said creek, to a pumping plant located on the Westerly bank of Willow Creek, whence said North $\frac{1}{2}$ corner of Section 36, Township 42 North, Range 1 West bears North $30^{\circ}24'$ West, 4,339.6 feet distant, at which said pumping plant said water enters said Pipeline and is conveyed into a storage tank through a pipeline beginning at the pumping plant, thence North $48^{\circ}08'$ West, 17.33 feet, thence North $84^{\circ}54'$ West, 405.58 feet; thence South $28^{\circ}37'$ West, 191.90 feet; thence North $85^{\circ}25'$ West, 273.34 feet; thence North $1^{\circ}31'$ West, 199.35 feet; thence North $24^{\circ}33'$ West, 119.40 feet to the point at which said water is delivered to said storage tank and from which said water is used as needed.

SEVENTH: That the source of supply of water for said ditch and pipeline is an independent supply, not tributary to any natural stream, developed by said Nelson Tunnel and appurtenant mine workings and that said water is used for mining, agricultural, domestic and power purposes.

EIGHTH: That within a reasonable time after the construction of said ditch and pipeline and the beneficial use of water therefrom for the purpose of mining, agricultural, domestic and power purposes has been made as to entitle an appropriation therefor to relate back to the date of commencement of said ditch and pipeline.

NINTH: That said Kanawha Ditch and Pipeline is entitled to a priority dating from the 1st day of February, 1894, and to Appropriation Priority No. 1959-2 for seven (7) cubic feet of water per second of time.

D E C R E E

WHEREFORE, IT IS ORDERED, ADJUDGED AND DECREED,
that said Kanawha Ditch and Pipeline shall have Priority No.
1959-2, and there shall be permitted to flow into said ditch
and pipeline from said independent source for the use aforesaid
and for the benefit of the party or parties lawfully entitled
thereto, under Appropriation Priority No. 1959-2, of date
February 1, 1894, not to exceed seven (7) cubic feet of water
per second of time.

Referee's
Case No. 3

APPROPRIATION PRIORITY NO. 1959-3

MIDDLE CREEK DITCH ENLARGEMENT AND EXTENSION.

FINDINGS

FIRST: That the name of the claimant and owner of said
Middle Creek Ditch Enlargement and Extension is Emma McCrone,
whose Post Office address is Creede, Colorado.

SECOND: That said Middle Creek Ditch was heretofore awarded
Priority No. 1903-56 for .7 cubic feet of water, as of date June
1, 1900.

THIRD: That said Middle Creek Ditch Enlargement and
Extension takes its supply of water from Middle Creek, a tributary
of the Rio Grande River.

FOURTH: That the headgate of said ditch is located at a
point on the Westerly bank of Middle Creek, whence the South
quarter corner of Section 18, Township 40 North, Range 1 West,
N.M.P.M., bears North 3°01' West, 5,951.3 feet distant.

FIFTH: That the depth of said ditch since enlargement

Support

PL. 2. 10. 11. 4. 1977
22555
C. H. K. K. K.

RECEIVED
MAY 23 1977

IN THE DISTRICT COURT IN AND FROM IN DISTRICT COURT
WATER DIVISION 3 WATER DIVISION 3
STATE OF COLORADO STATE OF COLORADO
MAY 27 1977
Case No. W-3201

CAROL S. REDDING
WATER CLERK

IN THE MATTER OF THE APPLICATION)
FOR WATER RIGHTS OF)

KANAWHA MINES, A CO-PARTNERSHIP)

IN MINERAL COUNTY)

JUDGMENT AND DECREE
CHANGE OF WATER RIGHT
The Kanawha Ditch and Pipeli

THIS MATTER came on to be heard this day upon the Referee's Report and Ruling. The Court finds that the application for change of water rights herein was filed on August 15, 1973; that the Referee's Report and Ruling granting the hereinafter described change of water rights to applicants was entered on May 24, 1977, and served as provided by law; that no protest has been filed and the time for filing protests has expired, and that the Report and Ruling of the Referee should be confirmed and approved and the indicated change of water rights granted.

THEREFORE, IT IS ORDERED, ADJUDGED AND DECREED that the Report and Ruling of the Referee herein, be, and the same hereby is, confirmed and approved and that the applicants are hereby granted the indicated change of water right and priority as follows:

1. That the applicant's names and addresses are:

B. T. Poxson		Tyrus B. Poxson
Creede, Colorado	81130	Creede, Colorado 81130.

2. That the name or names of said structure is:
 The Kanawha Ditch and Pipeline, Appropriation Priority No. 1959-2, for 7 cubic feet of water per second of time, as of February 1, 1894, except 0.4 cubic feet per second conveyed to the City of Creede by Warranty Deed recorded April 23, 1975, in Book 111-E at page 177 of the public records of Mineral County, Colorado.

The source of water diverted by said Kanawha Ditch and Pipeline is the Nelson Tunnel, and the headgate is located at a point whence the North quarter corner of Section 26, Township 42 North, Range 1 West, NMPM, bears South 6° 08' West 6,410.1 feet, in Mineral County, Colorado.

Filed for record on 27 July
A. D. 1977, at 11:55 AM
Book No. 39535
Collector Rogers

3. That subject to the terms and conditions hereof, the applicant Kanawha Mines, a co-partnership, whose address is Creede, Colorado, shall be and hereby is permitted to transfer the following described water rights:

Not to exceed 6½ cubic feet of water per second of time decreed to Kanawha Ditch and Pipeline, Priority No. 1959-2, as of February 1, 1894;

and to exchange the water formerly developed by the Nelson Tunnel, the source of water decreed to said ditch and pipeline, for waters being discharged by Homestake Mining Company from its mine workings into Windy Gulch, a tributary of Willow Creek, the present headgates and points of diversion of which are set forth above, to a new headgate and point of diversion described as follows:

The confluence of Windy Gulch and Willow Creek, which is located at a point whence the Northeast corner of Section 36, Township 42 North, Range 1 West, NMPM, bears South 42° 35' East 1935 feet distant;

as an alternate point of diversion for the said Kanawha Ditch and Pipeline, location of which is described above.

4. That such change of water rights shall be subject to the following conditions:

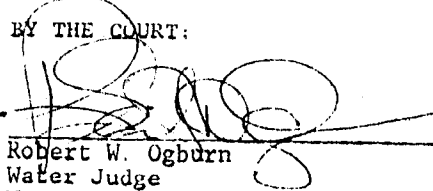
(a) That applicant shall install suitable measuring devices in Windy Gulch at the point of discharge from the Homestake mine workings, and at a point which is immediately above the confluence of Windy Gulch and Willow Creek.

(b) That the amount of water to be diverted from such alternate point of diversion shall not exceed the amount of water being discharged from the Homestake mine workings as indicated by the measuring device at the point of discharge of water from the mine workings.

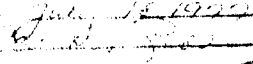
DONE AND SIGNED in Open Court at Alamosa, Colorado,

this 7th day of July, 1977.

BY THE COURT:


Robert W. Ogburn
Water Judge
Water Division 3

BY THE DISTRICT COURT IN AND FOR
WATER DIVISION NO. 3
STATE OF COLORADO
I certify to be a true and correct
copy of the original in my custody.


Clerk of the Water Court
Alamosa County Court House

Deputy Clerk

List of EPA Liens on Settling Parties' Properties

APPENDIX K TO: NELSON TUNNEL/COMMODORE WASTE ROCK SITE ADMINISTRATIVE SETTLEMENT

Del Monte Mining Company

Claim Name	Survey #	Section	Acres in Survey	Parcel #	Patent #
Amethyst	7333	13	10.32	476313000006	22063
Hidden Treasure	7462	13/14	5.166	476313000006	7462
Hillside	9241	13	2.31	476313000006	9241
Senora (SE 300')	7672	24	9.251	476323100019	7672
Tunnel Annex	9791A	24/25	6.409	476323100003	9791A
Undine	8265	13	2.41	476313000006	8265

Commodore Mining Company

Archimedes	8345	24	3.424	476323100003	8345
Bachelor	7539	24	26.167	476323100003	7539
Commodore	7420	24	7.424	476323100003	7420
Copper	7539	24	25.167	476323100003	7539
Fraction	2638	24	0.984	476323100003	12638
Manhattan	7640	24	9.717	476323100002	7460
Spar	7539	24	25.167	476323100003	7539
Sunnyside	7347	24	10.27	476323100001	7347
Trail	9603	24	6.454	476323100002	9803