ENGINEERING DEPARTMENT

ADDENDUM TO THE CONTRACT

for the

Jensen-Olson Arboretum
Sunroom Renovations
Contract No. BE17-244

ADDENDUM NO.: **FIVE**

NEW DEADLINE FOR BIDS:
September 29, 2017

PREVIOUS ADDENDA: **FOUR**

ISSUED BY: City and Borough of Juneau
ENGINEERING DEPARTMENT
155 South Seward Street
Juneau, Alaska 99801

DATE ADDENDUM ISSUED: **September 22, 2017**

The following items of the contract are modified as herein indicated. All other items remain the same. This addendum has been issued and is posted online. Please refer to the CBJ Engineering Contracts Division webpage at: http://www.juneau.org/engineering_ftp/contracts/Contracts.php

PROJECT MANUAL:

Item No. 1 ***Add*** SECTION 028333 REMOVAL AND DISPOSAL OF MATERIALS CONTAINING LEAD, labeled Addendum No. 5, dated September 22, 2017.

DRAWINGS:

Item No. 1 ***Add*** attached Drawings A & B, labeled Addendum No. 5 for Direction at Interior Stair.

By: _____
Greg Smith,
Contract Administrator

Total number of pages contained within this Addendum: 12

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. General provisions of the Contract, including General and Supplementary Conditions.

B. Contract Drawings.

1.2 SUMMARY

A. The lead removal work is in support of demolition of the Jensen-Olson Arboretum Sunroom in Juneau, Alaska.

B. Testing has identified the following lead-containing building components in the Sunroom that will impact the overall Project:
   1. Exterior paint on siding (78 ppm); and
   2. Exterior paint on windows and trim (130 ppm).

C. None of the materials is classified as lead-based paint (5,000 ppm), therefore, the EPA RRP Rule is not applicable to this Project. All OSHA Lead in Construction regulations do apply.

D. The intent of the lead removal project is to:
   1. Properly control demolition of all lead-based materials on the project to assure that all paint debris is entrained into the general waste stream and not left on the property; and
   2. Properly dispose of the combined waste stream from the project.

E. Overall sampling results indicate that the combined waste stream (lead-based paint plus other demolition debris) is suitable for disposal in a non-hazardous landfill.

F. The lead removal portion of the Work includes all material, labor, equipment and other related costs for:
   1. mobilization (including moving all equipment and materials onto the site; providing necessary project utilities or improving existing utilities as necessary, arranging for approved storage areas, issuing and posting all notices, and submitting all submittals),
   2. installing all necessary critical barriers and engineering controls to establish non-permanent control areas to isolate the various lead-control areas as necessary and minimize the risk of employee exposure to lead in air during removal and disposal operations,
   3. providing a competent person to oversee abatement operations,
   4. completing all project elements as described in Paragraph C. above,
   5. cleaning all surfaces and spaces within the confines of the control areas, as needed
   6. disposing of hazardous materials and related demolition debris in accordance with these Contract Documents,
   7. removing the non-permanent control areas,

8. performing all required monitoring, and
9. performing general cleanup and demobilization.

1.3 COORDINATION AND TIMING OF ABATEMENT ACTIVITIES

A. The Sunroom will be unoccupied during the demolition project.

B. Site access:
   1. The General Contractor shall have full access to the site. Abatement Subcontractor shall coordinate with Contractor for access and shall comply with all necessary site security measures.

C. It is the responsibility of the Abatement Subcontractor to coordinate with the General Contractor for scheduling abatement activities.

D. The Owner will provide access to temporary power and to water for direct Project use. The Abatement Subcontractor is responsible for all costs and effort required to develop those utilities for his or her use.

E. Security to the site shall be maintained for the duration of the work.

1.4 REFERENCE SPECIFICATIONS, CODES, AND STANDARDS

C. The publications listed below form a part of this specification to the extent referenced. The list is for reference only and may not be comprehensive. Publications on the list are referred to in the text by the basic designation only.

1. CODE OF FEDERAL REGULATIONS (CFR):

   a. 29 CFR 1910.134 Respiratory Protection

   b. 29 CFR 1910.145 Specs for Accident Prevention Signs and Tags

   c. 29 CFR 1926.62 Lead Exposures in Construction

   Note: Alaska is a state plan state and the Division of Occupational Safety and Health (AKDOSH) is responsible for the enforcement of OSHA regulations. For projects falling under AKDOSH jurisdiction, 29 CFR 1926.62 takes precedence.

   d. 40 CFR 241 Guidelines for Land Disposal of Solid Wastes

D. State Of Alaska Regulations

1. ALASKA ADMINISTRATIVE CODE (AAC):

   a. 8 AAC 61 Occupational Safety and Health Standards

   b. 18 AAC 60 Solid Waste Management

c. 18 AAC 62 Hazardous Waste Management

E. Other references:

1. NATIONAL INSTITUTE OF OCCUPATIONAL SAFETY AND HEALTH (NIOSH)

a. NIOSH-7082 Manual of Analytical Methods, 3rd edition (1984)

b. NIOSH-7105 Manual of Analytical Methods, 3rd edition (1984)

2. UNDERWRITERS LABORATORIES (UL)

a. UL 586 High-Efficiency, Particulate, Air (HEPA) Filter Units

1.2 DEFINITIONS

A. Abatement: A process of reducing potential exposure to lead and lead dust, which includes removal, testing, worker protection, contaminant containment, cleanup, waste disposal, and clearance testing.

B. Abatement Contractor: Any business entity or person performing the work for a lead abatement project. Referred to in this specification as the "contractor."

C. Abrasive Removal: The removal of lead-based paint using mechanical means such as chipping, grinding, sanding, sand blasting, etc.

D. Action Level (AL): The concentration of lead in air of 30 micrograms per cubic meter of air (30 $\mu g/m^3$) averaged over an 8-hour period.

E. Biological Monitoring: The collection and analysis of a person's blood to determine the level of lead in the body. Biological monitoring is required when the employee is exposed above the action level for 30 days or more per year. The blood lead level that requires medical removal is 50 µg/dl.

F. Chemical Removal: The removal of lead-based paint using chemical paint strippers.

G. Competent Person: The on-site supervisor, designated by the contractor, who has been certified as a lead abatement contractor/supervisor by successfully completing an EPA-accredited course.

H. Contained Work Area: An enclosed lead abatement work area constructed and equipped with a negative pressure exhaust system so that lead dust and fumes will not migrate out and contaminate non-work areas.

I. Disposal Facility: A permitted, licensed, or approved facility at which solid or hazardous waste is permanently placed.

J. Encapsulation: Coating and sealing of surfaces with durable, paint-like coatings specifically formulated to prevent the chalking and flaking of lead-containing substances.

K. Enclosure: Barricading lead-painted surfaces behind or within a durable barrier to make them permanently inaccessible.

L. Engineering Controls: Temporary measures implemented at a work site to contain, control, and reduce worker exposure to lead.

M. EPA Identification: The unique number assigned by the environmental protection agency

(EPA) to each generator or transporter of hazardous waste and each treatment, storage, or disposal (TSD) facility.

N. Hazardous Waste Generator: An entity that causes a hazardous waste to be created, or an entity that first makes the waste subject to regulation.

O. Hazardous Waste: Lead abatement waste which, when tested using the TCLP procedure (see toxicity characteristic leaching procedure (TCLP) below), has more than five milligrams per liter (5 mg/l) of lead in the extract.

P. High-Efficiency, Particulate, Air (HEPA) filter: A filter capable of removing particles of 0.3 microns or greater from air with 99.97 percent efficiency. HEPA filters do **not** remove lead fumes.

Q. High Phosphate Detergent: Cleaning agent used in wet-washing that contains at least 5% trisodium phosphate.

R. Certified Industrial Hygienist: A person certified in the comprehensive practice of industrial hygiene by the American board of industrial hygiene (ABIH).

S. Industrial Hygienist: An individual certified by the ABIH, and having significant prior experience in managing and evaluating the health and safety aspects on projects of similar nature and scope to ensure capability of performing the work in a satisfactory manner. Prior project similarities shall be in areas related to material composition, project size, number of employees, and in the engineering, work practice, environmental, and personal protection required. An equivalent individual, such as a licensed professional safety engineer, certified safety professional, or other qualified person with a minimum of five years experience in industrial hygiene, including extensive experience in the management and evaluation of health and safety aspects of lead abatement, may substitute for the industrial hygienist, subject to the approval of the owner. The industrial hygienist shall be responsible for all monitoring, training, abatement work, and for ensuring that the contractor complies with all safety and health requirements prescribed by state and federal regulations as well as these specifications. The industrial hygienist is also responsible for ensuring that the competent person performs all assigned duties in accordance with this specification and applicable federal and state regulations.

T. Lead: Metallic lead, all inorganic lead compounds, and organic lead soaps. Welding, cutting, and burning operations may generate lead fumes.

U. Lead Abatement Work Area: An area in which lead abatement or disturbance activities take place and in which the concentration of lead in air exceeds or can be reasonably expected to exceed the action level.

V. Manifest: The shipping document, as required by EPA and DOT, used for identifying the quantity, composition, origin, routing, and destination of hazardous waste during its transportation from the point of generation to the point of treatment, storage, or disposal.

W. Medical Removal: The temporary reassignment of lead abatement workers to non-lead containing work areas due to blood lead levels at or above 50 µg/dl.

X. Negative Pressure Exhaust Systems: A fan system that creates a negative air pressure within a contained work area by exhausting air from the area through a HEPA filter.

Y. Permissible Exposure Limit (PEL): An 8-hour time weighted average (TWA) exposure to lead of 50 micrograms per cubic meter of air (50 $\mu g/m^3$). If exposure to lead exceeds an 8-hour period, the PEL is reduced according to the following formula:

Maximum PEL (in $\mu g/m^3$) = 400/number of hours worked in a day.

Z. Personal air samples: Air samples collected in the breathing zone of a worker, but outside the respirator.

AA. Small Quantity Generator: A generator who produces less than 100 kg of hazardous waste per month.

BB. Solid Waste: As defined in RCRA the term "solid waste" includes any refuse, and other discarded material resulting from construction operations.

CC. Storage: The holding of hazardous waste for a temporary period, at the end of which the hazardous waste is treated, disposed of, or stored elsewhere.

DD. Substrate: The material that is coated, usually composed of wood, plaster, or metal, including items such as door frames, window trim, walls, baseboards, etc.

EE. Surface: The outer or topmost boundary of a substrate.

FF. Toxicity Characteristic Leaching Procedure (TCLP): Test method 1311 as defined by 40 CFR 261.24, Appendix II.

GG. Transporter: Any person engaged in off-site transportation of hazardous waste.

1.3 ABBREVIATIONS

A.	ABIH	American Board of Industrial Hygiene
B.	ADEC	State of Alaska Department of Environmental Conservation
C.	AKDOSH	State of Alaska Division of Occupational Safety and Health
D.	AIHA	American Industrial Hygiene Association
E.	AL	Action Level
F.	BLL	Blood Lead Level
G.	DOT	U.S. Department of Transportation
H.	EPA	U.S. Environmental Protection Agency
I.	HEPA	High-Efficiency, Particulate, Air (filter)
J.	MSDS	Material Safety Data Sheet
K.	MSHA	Mine Safety and Health Administration
L.	NIOSH	National Institute for Occupational Safety and Health
M.	OSHA	U.S. Occupational Safety and Health Administration
N.	PEL	Permissible Exposure Limit
O.	RCRA	Resource Conservation and Recovery Act
P.	TCLP	Toxicity Characteristic Leaching Procedure
Q.	TCP	Tricresyl Phosphate
R.	TSD	Transportation, Storage or Disposal (facility)
S.	TSP	Trisodium Phosphate
T.	XRD	X-Ray Diffraction
U.	XRF	X-Ray Fluorescence

1.5 PRE-WORK SUBMITTALS

A. The Pre-Work Submittal shall be submitted digitally as a complete package and modified as necessary to obtain approval by the Engineer five working days prior to any work on the project. The abatement Subcontractor shall perform his work in compliance with the approved Pre-Work Submittal which shall include:

1. Hazardous Materials Work Plan: Prepare a detailed plain language plan covering the Work procedures to be used during each and all operations involving hazardous materials. Annotated building plans or site plans no larger than 11 inches by 17 inches shall be included to detail locations for control areas, monitoring locations, access and disposal routes, and other activities where needed. The plan shall include as a minimum the following elements:
2. Detailed approach to controlling lead on the project;
3. Schedule for lead activities;
4. Testing Laboratory: Submit the name, address, telephone number and qualifications of the independent testing laboratory selected to perform the monitoring, testing and reporting of airborne lead
5. Training: Submit certificates signed by each employee and the Industrial Hygienist that each employee has received the training required by 29 CFR 1926.62, and appropriate State of Alaska Regulations and this specification. Include proof that each employee has completed lead awareness training.
6. Protective Equipment and Protective Method Plans: Details of planned personnel protective equipment requirements and protective methods, including respirators as will be required for each specific type of operation or condition. Include supporting justification when alternate (e.g., less than the maximum specified) protection is proposed.
7. Manufacturer's Data: Provide complete manufacturer's information, including maintenance and usage instructions, on all specialized equipment to be used for lead Work, including, but not limited to:
8. Vacuum equipment
9. Respirators
10. Material Safety Data Sheets (MSDS): Provide copies of the MSDS for each chemical, adhesive, sealant, foam, glue, additive for creation of the amended water, and paints to be utilized, as well as any other material requiring this reporting in accordance with Federal Standard 313B. This requirement is in addition to the requirement for submittal of material data sheets specified elsewhere in the specifications.

B. Any changes to procedures, methods, conditions, etc., identified in the approved Pre-Work Submittal must be submitted in writing for review and approval by the Architect prior to the inception of the change. Where changes must be implemented immediately for the protection of workers, personnel outside the Work area, the structure or the environment, and the change established an environment more stringent than that previously existing, the changes may be implemented by the competent person or other individuals with appropriate authority, and the Architect notified immediately. These changes will then be submitted in writing within 24 hours for final review and approval.

C. Any analytical data collected as part of the pursuit of the Work shall be considered the property of the Owner and shall be submitted to the Owner within 24 hours of receipt of such data.

1.6 POST-WORK SUBMITTALS

A. A digital version of the post-Work submittal shall be submitted. The following items shall be included and approved by the Architect as complete before final payment is approved:
   1. A copy of all shipping manifests that document disposal of all hazardous materials at an approved solid waste facility.

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION

3.1 PROTECTION OF ADJACENT AREAS

A. Perform all hazardous materials Work in such a way as to not contaminate adjacent areas. Such areas or spaces are assumed free of lead dust contamination, and if they are found to be contaminated after abatement activities, they shall be cleaned and/or restored to their original condition as directed by the Architect at the Abatement Subcontractor's expense.

3.2 NOTIFICATIONS AND PERMITS

A. The Abatement Subcontractor shall notify the Architect 48 hours prior to commencement of any abatement Work, and immediately upon completion or termination of the Work. Where any emergency removal is required, notifications will be made immediately, but Work schedules will not be contingent on the notification timing specified in the paragraph.

B. The Abatement Subcontractor shall carry out disposal in accordance with state and federal requirements, and shall secure necessary permits in conjunction with lead removal and transport, and provide timely notification of such actions as may be required by Federal, State, regional and local authorities.

3.3 PROJECT INSPECTION

A. While performing lead Work, the Abatement Subcontractor may be subject to on-site inspection by the Owner, the Architect (or designated representative), fire, safety, and health personnel, and Federal and State inspectors. If the Work is in violation of specification requirements, or applicable Federal, State, regional, or local regulations, the Architect may issue a stop-Work order to be in effect immediately, and which will remain in place until the violation(s) are resolved and, if required by the Architect, a new or amended lead Work plan is submitted. Restart will not be accomplished without approval of the Architect. Standby time and expenses required to resolve the violation(s) and provide new or amended submittals shall be at the Abatement Subcontractor's expense.

B. The Project Work Log (see Paragraph 1.7A.1 above) shall be subject to review by the Owner and the Architect on a daily basis and at each Application for Payment by the Abatement Subcontractor.

3.4 SAFETY AND HEALTH COMPLIANCE

A. The Abatement Subcontractor shall comply with all laws, ordinances, rules and regulations of Federal, State, regional and local authorities regarding demolition, handling, storing, transporting and disposing of lead and lead containing materials. He shall also comply with the applicable requirements of the current issues of 29 CFR 1910.1001, 29 CFR 1926.1101, 40 CFR 61 Subparts A and M, and 40 CFR 745. Lead removal is also required to comply with the provisions of the State of Alaska, Solid Waste Management Codes, title 18 of the Alaska Administrative Code, and the State of Alaska AK-OSH Standards.

3.5 LEAD DUST WORK PROCEDURES

A. In order to ensure worker safety, the following procedures shall be used when removing lead hazards:

B. Ensure that abatement employees have completed OSHA lead awareness training, and appropriate training under the EPA Renovation, Repair, and Painting (RRP) Rule,

C. Install appropriate engineering controls to minimize the risk of employee exposure to lead in air during demolition, cleaning, and disposal operations,

D. Ensure that respirators are worn by all workers at all times, and

E. Provide laboratory results showing that the waste stream or a mass balance of the waste stream and the TCLP results show that all demolition debris from this project may be disposed of as regular demolition debris. For bidding purposes, the Abatement Subcontractor should assume that the final waste stream will meet TCLP standards for disposal at the local municipal landfill.

3.6 MONITORING

A. At a minimum, the Abatement Subcontractor shall provide “Initial Exposure Assessment Monitoring” and “Personal Monitoring”, all as specified in Paragraph 1.5 “DEFINITIONS”, above.

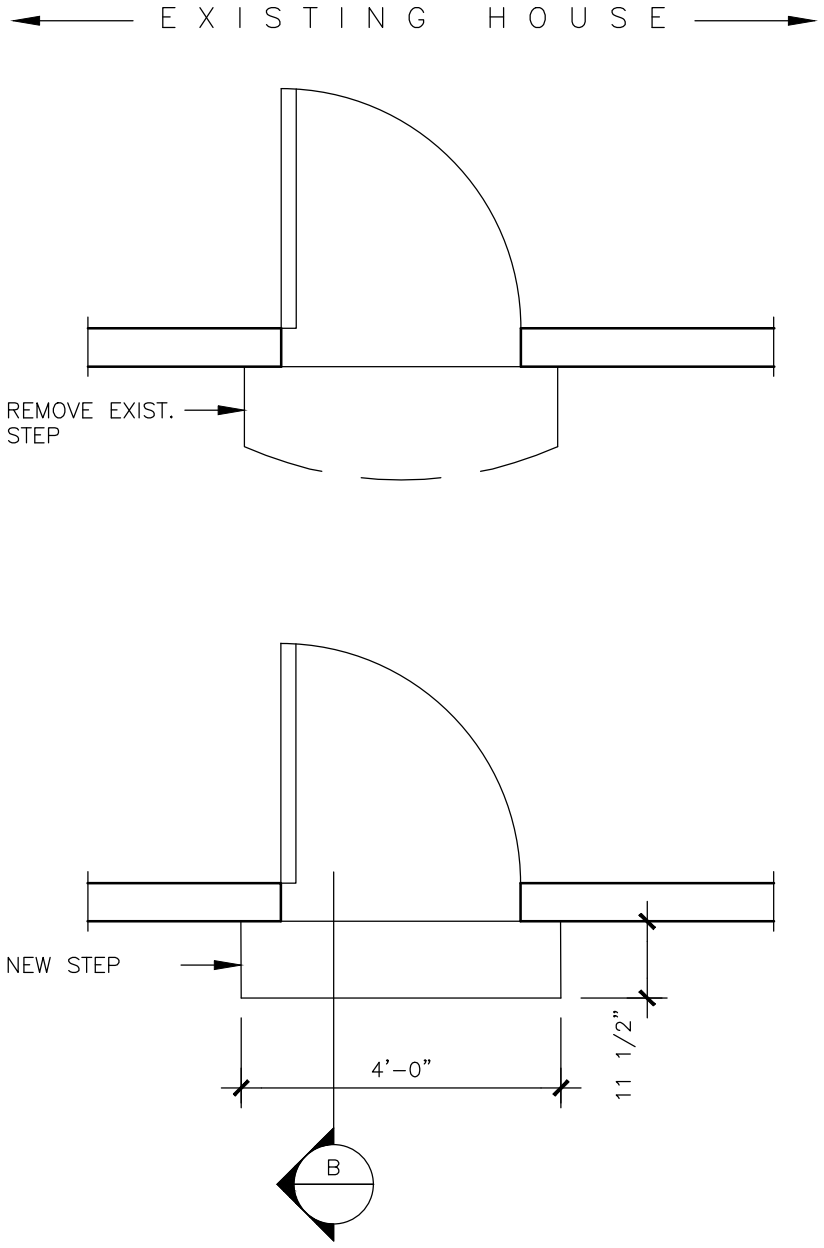
3.7 CLEARANCE PROCEDURES FOR EACH ABATEMENT AREA:

A. After all lead work activities are complete, the Abatement Subcontractor and the Owner representative shall perform a detailed visual inspection of the Work area for any visible lead dust residual. If any is found, a complete cleaning of the area shall be performed, and the area

shall be re-inspected. Once the visual inspection is satisfactorily completed, the area shall be considered cleared of lead-based wastes.

B. The Abatement Subcontractor shall be responsible for all costs relating to all clearance inspections after the first failed clearance inspection, and for any additional clearance inspections added to the project to improve the Contractor's schedule. The Abatement Subcontractor is responsible for coordinating inspection trips with the owner's representative.

END OF SECTION 028333



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ADDENDUM NO. 5

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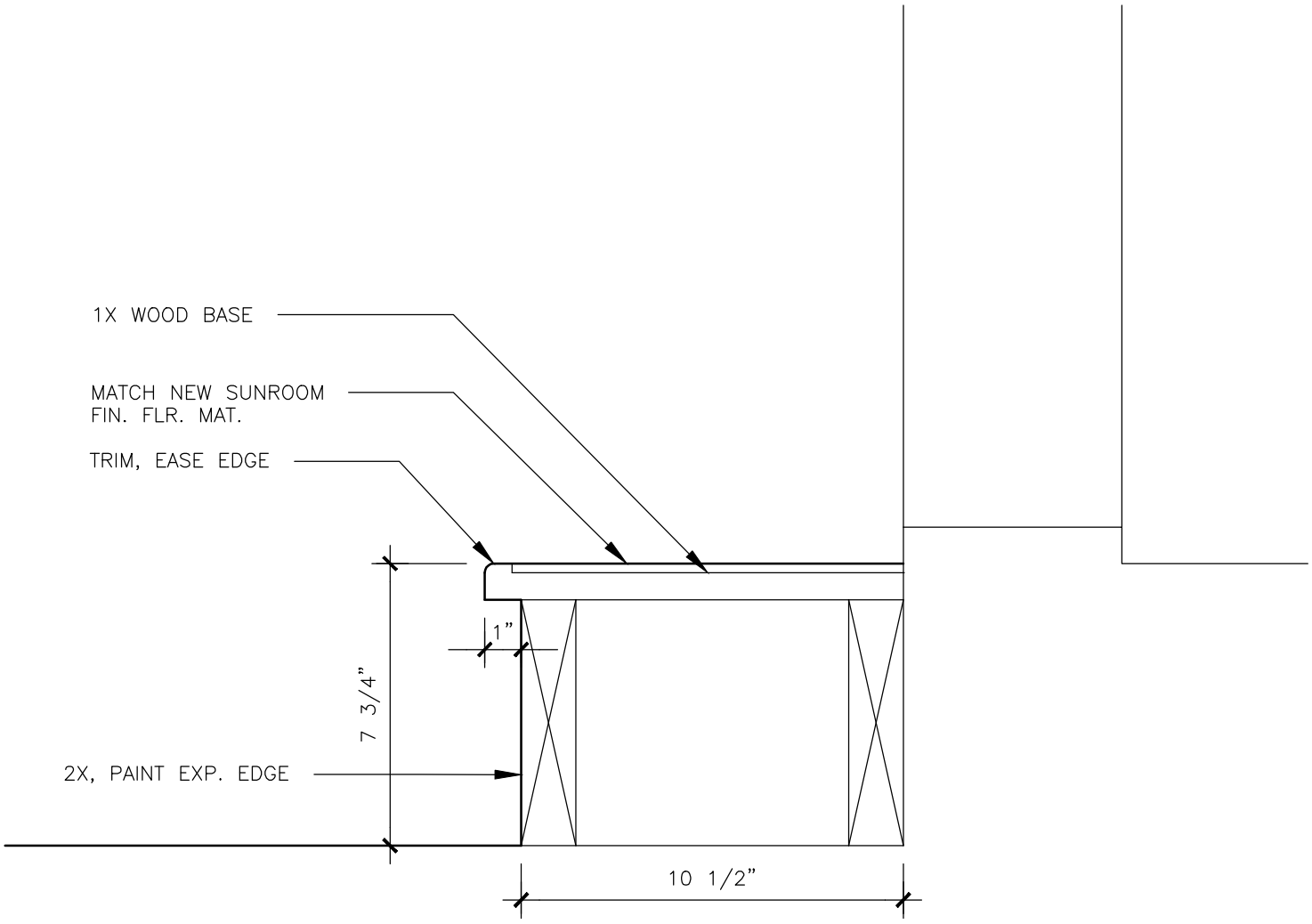

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