

**LANE EDUCATION SCHOOL DISTRICT
WESTMORELAND CAMPUS
VOLUNTARY SEISMIC STRENGTHENING**
1717 City View Street
Eugene OR

JOB NO. 21001.00.L

ADDENDUM ONE (1)

19 APRIL 2021

PAGE 1 OF 1 (PLUS ATTACHMENTS)

THE FOLLOWING CHANGES, ADDITIONS, AND DELETIONS TO THE CONTRACT DOCUMENTS DATED 2 APRIL 2021 HEREBY BECOME A PART OF THE CONTRACT DOCUMENTS.

NOTIFY ALL SUBCONTRACTORS AFFECTED BY THIS ADDENDUM.

INFORMATION

The following item(s) are provided as a matter of information only to all bidders and plan holders and do not modify or become part of the Contract Documents.

1. Question: Single source warranty by roofing manufacturer is not feasible because different subcontractors perform roofing and sheet metal. Please delete.

Answer: See Section 07 62 00, 1.8, A for 2 year installer warranty. Items such as integral edge flashing, pipe boots, etc are part of the roofing manufacturer's single source warranty.

2. Add the sign in sheet from the Mandatory Pre-Bid Conference.

SPECIFICATIONS

1. Remove Section 00 01 10 and replace it with attached sheet.
2. Remove Section 07 54 19.05 and replace it with attached sheet.
3. Remove Section 08 54 43 and replace it with attached sheet.
4. Delete Section 08 81 00 Glazing.
5. Add the following report. Hazmat Survey Lane ESD Westmoreland to the set.

DRAWINGS

1. None

ATTACHMENTS TO THIS ADDENDUM

Section 00 01 10
Section 07 54 19.05
Section 08 54 43
Hazmat Survey Lane ESD Westmoreland
Sign in sheet

END OF ADDENDUM

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NOTE: Division and Section numbers listed in the Table of Contents and items of work included in each Section conform in general to CSI's MasterFormat, 2010 Upgrade Edition. Section numbers listed are merely for identification and may not be consecutive. Users of this Project Manual shall check the specification with the Table of Contents to be sure each Section is included and shall check each Section to be sure each consecutively numbered pages within each Section is included. The last page of each Section has the statement "END OF SECTION".

DIVISIONS AND SECTIONS

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NOT USED

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NOT USED

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DIVISION 11: EQUIPMENT

NOT USED

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NOT USED

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NOT USED

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NOT USED

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NOT USED

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NOT USED

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NOT USED

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NOT USED

DIVISION 41: MATERIAL PROCESSING AND HANDLING EQUIPMENT
NOT USED

HAZMAT SURVEY LANE ESD WESTMORELAND

END OF SECTION

MECHANICALLY –ATTACHED THERMOPLASTIC MEMBRANE ROOFING^{Add#1}**PART 1 - GENERAL****1.1 DESCRIPTION**

- A. Work Included: Provide a complete mechanically-attached roofing system including membrane, flashings and other components.
- B. Related Work: The work of this Section includes but is not limited to the installation of:
 - 1. Substrate Preparation.
 - 2. Roof Drains.
 - 3. Vapor Retarder.
 - 4. Wood Blocking.
 - 5. Insulation.
 - 6. Separation Layers.
 - 7. Roof Membrane.
 - 8. Fasteners.
 - 9. Adhesive for Flashings.
 - 10. Roof Membrane Flashings.
 - 11. Walkways.
 - 12. Metal Flashings.
 - 13. Sealants.
- C. Upon successful completion of work, provide the following warranties to the Owner:
 - 1. Roofing Manufacturer's Warranty.
 - 2. Roofing Contractor Warranty.

1.2 QUALITY ASSURANCE

- A. This roofing system shall be applied only by a Roofing Contractor authorized by the roofing manufacturer prior to bid (Sika Sarnafil "Applicator").
- B. Upon completion of the installation and the delivery to the roofing manufacturer by the Applicator of a certification that all work has been done in strict accordance with the Contract Specifications and the roofing manufacturer's requirements, an inspection shall be made by a Technical Representative of the roofing manufacturer to review the installed roof system.
- C. There shall be no deviation made from the Project Specification or the approved shop drawings without prior written approval by the Owner, the Owner's Representative and the roofing manufacturer.
- D. All work pertaining to the installation of the roofing membrane and flashings shall only be completed by Applicator personnel trained and authorized by the roofing manufacturer in those procedures.

1.3 SUBMITTALS

- A. At the time of bidding, the Applicator shall submit to the Architect the following:
 - 1. Copies of Specification.
 - 2. Samples of each primary component to be used in the roof system and the manufacturer's current literature for each component.

MECHANICALLY –ATTACHED THERMOPLASTIC MEMBRANE ROOFING^{Add#1}

3. Written approval by the insulation manufacturer (as applicable) for use and performance of the product in the proposed system.
 4. Sample copy of roofing manufacturer's warranty.
 5. Sample copy of Applicator's warranty.
- B. Dimensioned shop drawings which shall include:
1. Outline of roof with roof size and elevations shown.
 2. Profile details of flashing methods for penetrations.
 3. Technical acceptance from the roofing manufacturer.
- C. Certifications by manufacturers of roofing and insulating materials that all materials supplied comply with all requirements of the identified ASTM and other industry standards or practices.
- D. Certification from the Applicator that the system specified meets all identified code and insurance requirements as required by the Specification.
- E. Material Safety Data Sheets (MSDS).

1.4 CODE REQUIREMENTS

- A. The applicator shall submit evidence that the proposed roof system meets the requirements of the local building code and has been tested and approved or listed by the following test organizations. These requirements are minimum standards and no roofing work shall commence without written documentation of the system's compliance, as required in the "Submittals" section of this specification.
- B. Factory Mutual Research Corporation (FM) - Norwood, MA
1. Class 1-90 (for high wind exposure).
- C. Underwriters Laboratories, Inc. - Northbrook, IL
1. Class B assembly.

1.5 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. All products delivered to the job site shall be in the original unopened containers or wrappings bearing all seals and approvals.
- B. Handle all materials to prevent damage. Place all materials on pallets and fully protect from moisture.
- C. Membrane rolls shall be stored lying down on pallets and fully protected from the weather with clean canvas tarpaulins. Unvented polyethylene tarpaulins are not accepted due to the accumulation of moisture beneath the tarpaulin in certain weather conditions that may affect the ease of membrane weldability.
- D. As a general rule all adhesives shall be stored at temperatures between 40° F (5° C) and 80° F (27° C). Read instructions contained on adhesive canister for specific storage instructions.
- E. All flammable materials shall be stored in a cool, dry area away from sparks and open flames. Follow precautions outlined on containers or supplied by material manufacturer/supplier.
- F. Any materials which the owner's representative and/or Sika Sarnafil determine to be damaged are to be removed from the job site and replaced at no cost to the owner.

MECHANICALLY –ATTACHED THERMOPLASTIC MEMBRANE ROOFING^{Add#1}**1.6 JOB CONDITIONS**

- A. Roofing materials may be installed under certain adverse weather conditions but only after consultation with roofing manufacturer, as installation time and system integrity may be affected.
- B. Only as much of the new roofing as can be made weathertight each day, including all flashing and detail work, shall be installed. All seams shall be heat welded before leaving the job site that day.
- C. All work shall be scheduled and executed without exposing the interior building areas to the effects of inclement weather. The existing building and its contents shall be protected against all risks.
- D. All surfaces to receive new insulation, membrane or flashings shall be dry. Should surface moisture occur, the Applicator shall provide the necessary equipment to dry the surface prior to application.
- E. All new and temporary construction, including equipment and accessories, shall be secured in such a manner as to preclude wind blow-off and subsequent roof or equipment damage.
- F. Uninterrupted waterstops shall be installed at the end of each day's work and shall be completely removed before proceeding with the next day's work. Waterstops shall not emit dangerous or unsafe fumes and shall not remain in contact with the finished roof as the installation progresses. Contaminated membrane shall be replaced at no cost to the Owner.
- G. The Applicator is cautioned that certain roofing membranes are incompatible with asphalt, coal tar, heavy oils, roofing cements, creosote and some preservative materials. Such materials shall not remain in contact with Sarnafil membranes. The Applicator shall consult the roofing manufacturer regarding compatibility, precautions and recommendations.
- H. Arrange work sequence to avoid use of newly constructed roofing as a walking surface or for equipment movement and storage. Where such access is absolutely required, the Applicator shall provide all necessary protection and barriers to segregate the work area and to prevent damage to adjacent areas. A substantial protection layer consisting of plywood over roofing membrane or plywood over insulation board shall be provided for all new and existing roof areas that receive rooftop traffic during construction.
- I. Prior to and during application, all dirt, debris and dust shall be removed from surfaces either by vacuuming, sweeping, blowing with compressed air and/or similar methods.
- J. The Applicator shall follow all safety regulations as required by OSHA and any other applicable authority having jurisdiction.
- K. All roofing, insulation, flashings and metal work removed during construction shall be immediately taken off site to a legal dumping area authorized to receive such materials. Hazardous materials, such as materials containing asbestos, are to be removed and disposed of in strict accordance with applicable City, State and Federal requirements.
- L. All new roofing waste material (i.e., scrap roof membrane, release paper, empty cans of adhesive) shall be immediately removed from the site by the Applicator and properly transported to a legal dumping area authorized to receive such material.

MECHANICALLY –ATTACHED THERMOPLASTIC MEMBRANE ROOFING^{Add#1}

- M. The Applicator shall take precautions that storage and/or application of materials and/or equipment does not overload the roof deck or building structure.
- N. Installation of roofing membrane over coal tar pitch or a resaturated roof requires special consideration to protect the roofing membrane from volatile fumes and materials. Consult roofing manufacturer for precautions prior to bid.
- O. Flammable adhesives and deck primers shall not be stored and not be used in the vicinity of open flames, sparks and excessive heat.
- P. All rooftop contamination that is anticipated or that is occurring shall be reported to the roofing manufacturer to determine the corrective steps to be taken.
- Q. The Applicator shall verify that all roof drain lines are functioning correctly (not clogged or blocked) before starting work. Applicator shall report any such blockages in writing (letter copy to the roofing manufacturer) to the Owner's Representative for corrective action prior to the installation of the roof system.
- R. Applicator shall immediately stop work if any unusual or concealed condition is discovered and shall immediately notify Owner of such condition in writing for correction at the Owner's expense (letter copy to the roofing manufacturer).
- S. Site cleanup, including both interior and exterior building areas that have been affected by construction, shall be completed to the Owner's satisfaction.
- T. All landscaped areas damaged by construction activities shall be repaired at no cost to the Owner.
- U. The Applicator shall conduct fastener pullout tests in accordance with the latest version of the SPRI/ANSI Fastener Pullout Standard to help verify condition of the deck/substrate and to confirm expected pullout values.
- V. The roofing membrane shall not be installed under the following conditions without consulting the roofing manufacturer's Technical Dept. for precautionary steps:
 - 1. The roof assembly permits interior air to pressurize the membrane underside.
 - 2. Any exterior wall has 10% or more of the surface area comprised of opening doors or windows.
 - 3. The wall/deck intersection permits air entry into the wall flashing area.
- W. Precautions shall be taken when using roofing system adhesives at or near rooftop vents or air intakes. Adhesive odors could enter the building. Coordinate the operation of vents and air intakes in such a manner as to avoid the intake of adhesive odor while ventilating the building. Keep lids on unused cans at all times.
- X. Protective wear shall be worn when using solvents or adhesives or as required by job conditions.
- Y. Roofing membranes are slippery when wet or covered with snow, frost, or ice. Working on surfaces under these conditions is hazardous. Appropriate safety measures must be implemented prior to working on such surfaces. Always follow OSHA and other relevant fall protection standards when working on roofs.

MECHANICALLY –ATTACHED THERMOPLASTIC MEMBRANE ROOFING^{Add#1}**1.7 WARRANTIES**

- A. Sika Sarnafil System Warranty (only products purchased from Sika Sarnafil are covered under System Warranty).
 - 1. Warranty Period: 20 years.
- B. Upon successful completion of the work to Sika Sarnafil's satisfaction and receipt of final payment, the Sika Sarnafil System Warranty shall be issued.
- C. Applicator/Roofing Contractor Warranty: The Applicator shall supply the Owner with a separate **2 year^{Add#1}** workmanship warranty. In the event any work related to roofing, flashing, or metal is found to be within the Applicator warranty term, defective or otherwise not in accordance with the Contract Documents, the Applicator shall repair that defect at no cost to the Owner. The Applicator's warranty obligation shall run directly to the Owner, and a copy shall be sent to the roofing manufacturer.
- D. Owner Responsibility: Owner shall notify both the roofing manufacturer and the Applicator of any leaks as they occur during the time period when both warranties are in effect.

PART 2 - PRODUCTS**2.1 MANUFACTURER**

- A. Mechanically-Attached Roof System Components: Sika Sarnafil Sarnafast mechanically-attached roof system components are to be products of Sika Sarnafil as indicated on the Detail Drawings and specified in the Contract Documents.
- B. Components to be used that are other than those supplied or manufactured by Sika Sarnafil may be submitted for review and acceptance by Sika Sarnafil. Sika Sarnafil's acceptance of any other product is only for a determination of compatibility with Sika Sarnafil products and not for inclusion in the Sika Sarnafil warranty. The specifications, installation instructions, limitations, and/or restrictions of the respective manufacturers must be reviewed by the Architect for acceptability for the intended use with Sika Sarnafil products.
- C. Approved Substitutes:
 - 1. Carlisle Sure-Flex PVC 60-mil Minimum
 - 2. Siplast Parasolo PVC 60-mil Minimum
 - 3. Johns Manville PVC 60-mil/MIN with DuPont Elvaloy KEE Polymer

2.2 MEMBRANE

- A. Sarnafil S327-60 EnergySmart polyester reinforced membrane with a lacquer coating.
- B. Membrane shall conform to ASTM D4434 (latest version), "Standard for Polyvinyl Chloride Sheet Roofing," Classification: Type III.
 - 1. Sarnafil S327-60, 60 mil (1.5 mm), thermoplastic membrane with polyester reinforcement.
- C. Certified Polymer Thickness:

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1. Membrane manufacturer is to certify that the polymer thickness is of the polymer thickness specified (see 2.2, B, 1). Certification is to be signed by the membrane manufacturer's quality control manager. ASTM +/- tolerance for membrane thickness is not accepted.

D. Color of Membrane: White

E. Typical Physical Properties:

<u>Parameters</u>	<u>ASTM Test Method</u>	<u>Minimum ASTM Requirement</u>	<u>Sarnafil Typical Physical Properties</u>
Reinforcing Material	-		Polyester
Overall Thickness, min., inches (mm)	D751	0.060 (1.5)	[0.060inches]
Breaking Strength, min., lbf/in. (KN/m)	D751	200	305
Elongation at Break, min.	D751	15%	20%
Seam strength*, min. (% of breaking strength)	D751	75	85
Retention of Properties After Heat Aging	D3045	-	-
Breaking Strength, min., (% of original)	D751	90	95
Elongation, min., (% of original)	D751	90	90
Tearing Strength, min., lbf (N)	D1004	45.0	48
Low Temperature Bend, -40°F (-40°C)	D2136	Pass	Pass
Accelerated Weathering Test (Florescent Light, UV exposure)	G154	5,000 Hours	Pass
Cracking (7x magnification)	-	None	None
Discoloration (by observation)	-	Negligible	Negligible
Crazing (7 x magnification)	-	None	None
Linear Dimensional Change	D1204	0.5% max.	0.12%
Weight Change After Immersion in Water	D570	± 3.0% max.	2.0%
Static Puncture Resistance, 33 lbf (15 kg)	D5602	Pass	Pass
Dynamic Puncture Resistance, 14.7 ft-lbf (20 J)	D5635	Pass	Pass

* Failure occurs through membrane rupture not seam failure. Physical Properties shown are prior to applying felt backing, if specified.

2.3 VAPOR RETARDER

- A. Vapor Retarder SA 31: Self adhesive vapor retarder, 31 mil (0.8 mm) thick for use as temporary roof protection.

2.4 FLASHING MATERIALS

- A. Wall/Curb Flashing:
 1. Manufacturers acceptable flashing material, adhesive and securement appropriate for the substrate and compatible with adjoining products.
- B. Perimeter Edge Flashing:
 1. Sarnaclad: A PVC-coated, heat-weldable sheet metal capable of being formed into a variety of shapes and profiles. Sarnaclad is a 25 gauge, G90 galvanized metal sheet with a 20 mil (1 mm)

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unsupported Sarnafil membrane laminated on one side. The dimensions of Sarnaclad are 4 ft x 8 ft (1.2 m x 2.4 m).

2. Non-Typical Edge: Project-specific perimeter edge detail reviewed and accepted for one-time use by Sika Sarnafil's Technical Department. Consult Regional Technical Manager prior to job start for review and consideration for acceptance.

C. Miscellaneous Flashing:

1. Sarnastack: A prefabricated vent pipe flashing made from 0.060 inch (60 mil/1.5 mm) thick Sarnafil membrane. Available in multiple sizes. Consult Product Data Sheet for sizes and additional information.
2. Multi-Purpose Sealant: A proprietary sealant used at flashing terminations. Consult Product Data Sheet for additional information.
3. Sarnacol 2170 Adhesive: A solvent-based reactivating-type adhesive used to attach membrane to flashing substrate. Consult Product Data Sheets for additional information.
4. Detail Membrane PVC: Integral fiberglass mat reinforcement for dimensional stability. Used for flashing details.
5. Sarnafil G410 SA: PVC thermoplastic membrane with a factory applied pressure sensitive adhesive backing. Used for flashing details.

2.5 INSULATION/RECOVER BOARD

- A. Roof Insulation: Rigid expanded isocyanurate foam insulation with black mat, treated glass, or foil facers. R-30 minimum; Manufacturer: Sarnatherm EPS.
- B. Tapered Insulation: ASTM C1289-13 Type II Class 1 Grade 2, polyisocyanurate core foam faced with non asphaltic glass fiber reinforced cellulosic organic felt facers on both major surfaces. Available in 4x4 feet or 4x8 feet. Provide tapered insulation crickets; 3/4" per foot taper. Minimum thickness: 1/2". Manufacturer: Sarnatherm Polyisocyanurate.
- C. Recover Board: A-111 polyisocyanurate roof board with coated glass facers.

2.6 ATTACHMENT COMPONENTS

- A. Sarnaplate: Used with various Sarnafasteners to attach insulation boards to roof deck. Sarnaplate is a 3 inch (75 mm) square or round, 26 gauge stamping of SAE 1010 steel with a Galvalume coating.
- B. Sarnafastener #12: A #12 corrosion-resistant threaded drill point fastener used with Sarnaplates to attach insulation boards to steel or wood roof decks. Sarnafastener #12 has a modified buttress thread, a shank diameter of approximately 0.160 inch (4 mm) and a thread diameter of approximately 0.220 inch (5 mm). The driving head has a diameter of approximately 0.435 inch (11 mm) with a #3 Phillips recess for positive engagement.
- C. Sarnafastener-15XP: A #15, heavy-duty, corrosion-resistant drill point fastener used with Sarnaplate to attach insulation or Sarnadisc, Sarnadisc-XP and Sarnabar to attach Sarnafil S327 roof membrane to steel or wood roof decks. Sarnafastener-XP has a shank diameter of approximately 0.202 inch (5.3 mm) and the thread diameter is approximately 0.265 inch (6.6 mm). The driving head has a diameter of approximately 0.435 inch (11 mm) with a #3 Phillips recess for positive engagement.

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- D. Sarnadisc-XPB: A high strength linear plate used with a Sarnafastener to attach Sarnafil S327 roof membrane to steel, wood or concrete roof decks. Sarnadisc-XPB is an 18 gauge (1.2 mm), 1½ inch by 3¾ inch (38 mm x 95 mm) corrosion resistant steel plate.

2.7 WALKWAY PROTECTION

- A. Sarnatred: A polyester reinforced, 0.096 inch (96 mil/2.4 mm), weldable membrane with surface embossment. Used as a protection layer from rooftop traffic. Sarnatred is supplied in rolls of 39 inches (1.0 m) wide and 50 feet (15 m) long.

2.8 MISCELLANEOUS ACCESSORIES

- A. Aluminum Tape: A 2 inch (50 mm) wide pressure-sensitive aluminum tape used as a separation layer between small areas of asphalt contamination and the membrane and as a bond-breaker under the coverstrip at Sarnaclad joints.
- B. Multi-Purpose Tape ST: A high performance sealant tape used with metal flashings as a preventive measure against air and wind blown moisture entry.
- C. Perimeter Warning Membrane: Highly visible yellow strip of PVC thermoplastic membrane to draw attention to roof perimeters.
- D. Sarnamatic 641mc or 661: 220 volt, self-propelled, hot-air welding machine used to seal Sarnafil membrane seams.
- E. See “Localized Membrane Cleaning” technical bulletin #02-13 for cleaner: A high quality solvent cleaner used for the general cleaning of residual asphalt, scuff marks, etc., from the membrane surface. Also used daily to clean seam areas prior to hot-air welding in tear off or dirty conditions or if the membrane is not welded the same day it is unrolled. Consult Product Data Sheet for additional information.

2.9 SEALANTS AND PITCH POCKET FILLERS

- A. Sarnafil sealant as appropriate for conditions.
- B. Sarnafiller (two-component urethane adhesive for pitch pocket toppings).
- C. Depending on substrates, the following sealants are options for temporary overnight tie-ins:
 - 1. Type III hot asphalt conforming to ASTM D312 (latest revision).
 - 2. Sarnacol 2165 Adhesive.
 - 3. Multiple layers of roofing cement and felt.
 - 4. Spray-applied, water-resistant urethane foam.
 - 5. Mechanical attachment with rigid bars and compressed sealant.

2.10 MISCELLANEOUS FASTENERS AND ANCHORS

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- A. All fasteners, anchors, nails, straps, bars, etc. shall be post-galvanized steel, aluminum or stainless steel. Mixing metal types and methods of contact shall be assembled in such a manner as to avoid galvanic corrosion. Fasteners for attachment of metal to masonry shall be expansion type fasteners with stainless steel pins. All concrete fasteners and anchors shall have a minimum embedment of 1¼ inch (32 mm) and shall be approved for such use by the fastener manufacturer. All miscellaneous wood fasteners and anchors used for flashings shall have a minimum embedment of 1 inch (25 mm) and shall be approved for such use by the fastener manufacturer.

2.11 RELATED MATERIALS

- A. Wood Nailer: Treated wood nailers shall be installed at the perimeter of the entire roof and around such other roof projections and penetrations as specified on Project Drawings. Thickness of nailers must match the insulation thickness to achieve a smooth transition. Wood nailers shall be treated for fire and rot resistance (wolmanized or osmose treated) and be #2 quality or better lumber. Creosote or asphalt-treated wood is not acceptable. Wood nailers shall conform to Factory Mutual Loss Prevention Data Sheet 1-49. All wood shall have a maximum moisture content of 19% by weight on a dry-weight basis.
- B. Plywood: When bonding directly to plywood, a minimum 1/2 inch (12 mm) CDX (C side out), smooth-surfaced exterior grade plywood with exterior grade glue shall be used. Rough-surfaced plywood or high fastener heads will require the use of Sarnafelt behind the flashing membrane. Plywood shall have a maximum moisture content of 19% by weight on a dry weight basis.

PART 3 - EXECUTION**3.1 PRE-CONSTRUCTION CONFERENCE**

- A. The Applicator, Owner's Representative/Designer and Manufacturer(s) shall attend a pre-construction conference.
- B. The meeting shall discuss all aspects of the project including but not limited to:
 - 1. Safety.
 - 2. Set up.
 - 3. Construction schedule.
 - 4. Contract conditions.
 - 5. Coordination of the work.

3.2 SUBSTRATE CONDITION

- A. Applicator shall be responsible for acceptance or provision of proper substrate to receive new roofing materials.
- B. Applicator shall verify that the work done under related sections meets the following conditions:
 - 1. Roof drains and/or scuppers have been reconditioned and/or replaced and installed properly.
 - 2. Roof curbs, nailers, equipment supports, vents and other roof penetrations are properly secured and prepared to receive new roofing materials.
 - 3. All surfaces are smooth and free of dirt, debris and incompatible materials.
 - 4. All roof surfaces shall be free of water, ice and snow.

3.3 SUBSTRATE PREPARATION

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- A. The roof deck and existing roof construction must be structurally sound to provide support for the new roof system. The Applicator shall load materials on the rooftop in such a manner as to eliminate risk of deck overload due to concentrated weight. The Owner's Representative shall ensure that the roof deck is secured to the structural framing according to local building code and in such a manner as to resist all anticipated wind loads in that location.

3.4 SUBSTRATE INSPECTION

- A. A dry, clean and smooth substrate shall be prepared to receive the Sika Sarnafil Sarnafast mechanically-attached roof system.
- B. The Applicator shall inspect the substrate for defects such as excessive surface roughness, contamination, structural inadequacy, or any other condition that will adversely affect the quality of work.
- C. The substrate shall be clean, smooth, dry, free of flaws, sharp edges, loose and foreign material, oil and grease. Roofing shall not start until all defects have been corrected.
- D. All roof surfaces shall be free of water, ice and snow.
- E. Sarnafil shall be applied over compatible and accepted substrates only.

3.5 WOOD NAILER INSTALLATION

- A. Install continuous wood nailers at the perimeter of the entire roof and around roof projections and penetrations as shown on the Detail Drawings.
- B. Nailers shall be anchored to resist a minimum force of 300 pounds per lineal foot (4,500 Newtons/lineal meter) in any direction. Individual nailer lengths shall not be less than 3 feet (0.9 meter) long. Nailer fastener spacing shall be at 12 inches (0.3 m) on center or 16 inches (0.4 m) on center if necessary to match the structural framing. Fasteners shall be staggered 1/3 the nailer width and installed within 6 inches (0.15 m) of each end. Two fasteners shall be installed at ends of nailer lengths. Nailer attachment shall also meet the requirements of the current Factory Mutual Loss Prevention Data Sheet 1-49.
- C. Thickness shall be as required to match substrate and/or insulation height to allow a smooth transition.
- D. Any existing nailer woodwork which is to remain shall be firmly anchored in place to resist a minimum force of 300 pounds per lineal foot (4,500 Newtons/lineal meter) in any direction and shall be free of rot, excess moisture or deterioration. Only woodwork shown to be reused in Detail Drawings shall be left in place. All other nailer woodwork shall be removed.

3.6 INSULATION INSTALLATION**General Criteria:**

- A. Insulation shall be installed according to insulation manufacturer's instructions.
- B. Insulation shall be neatly cut to fit around penetrations and projections.
- C. Install tapered insulation in accordance with insulation manufacturer's shop drawings.

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- D. Install tapered insulation around drains creating a drain sump.
- E. Do not install more insulation board than can be covered with Sarnafil membrane by the end of the day or the onset of inclement weather.
- F. Use at least 2 layers of insulation when the total insulation thickness exceeds 2-1/2 inches (64 mm). Stagger joints at least 12 inches (0.3 m) between layers.
- G. Mechanical Attachment:
 - 1. Insulation shall be mechanically fastened to the deck with approved fasteners and plates at a rate according to the insulation manufacturer's, FM's and Sika Sarnafil's recommendations for fastening rates and patterns. The quantity and locations of the fasteners and plates shall also cause the insulation boards to rest evenly on the roof deck/substrate so that there are no significant and avoidable air spaces between the boards and the substrate. Each insulation board shall be installed tightly against the adjacent boards on all sides.
 - 2. Fasteners are to be installed consistently in accordance with fastener manufacturer's recommendations. Fasteners are to have minimum penetration into structural deck recommended by the fastener manufacturer and Sika Sarnafil.
 - 3. Use fastener tools with a depth locator and torque-limiting attachment as recommended or supplied by fastener manufacturer to ensure proper installation.

3.7 MEMBRANE ATTACHMENT

- A. The surface of the insulation or substrate shall be inspected prior to installation of the Sarnafil roof membrane. The substrate shall be clean, dry, free from debris and smooth with no surface roughness or contamination. Broken, delaminated, wet or damaged insulation boards shall be removed and replaced.
- B. General:
 - 1. Sarnafil S327 membrane is to be attached with Sarnafasteners and Sarnabar according to Sika Sarnafil's and Factory Mutual's requirements.
 - 2. Membrane overlaps shall be shingled with the flow of water where possible.
 - 3. Sarnafil full-width rolls shall be fastened perpendicular to the direction of the wood plank, where possible.
 - 4. Tack welding of S327 full or half-width rolls for purposes of temporary restraint during installation is not permitted. Consult Sika Sarnafil's Technical Department for further information.
- C. Perimeter and Corner Areas:
 - 1. Over the properly installed and prepared substrate surface, S327 half-width rolls are to be installed either parallel or perpendicular to the entire perimeter edge according to FM guidelines. The number of adjacent half-rolls will be determined by building height and width and other conditions according to FM guidelines and Sika Sarnafil Technical. Sarnafasteners and Sarnadiscs are installed along the edge of the membrane on the fastening line at a spacing determined by Sika Sarnafil and the Owner's Representative/Designer.
 - 2. Sarnadisc and Sarnadisc-XPN are held-back 1 inch (25 mm) are held-back 1-1/4 inch (31.8 mm) from the outer edge of the membrane. The adjacent half-roll is positioned to overlap the fastened edge of the first half-roll by 5-1/2 inches (140 mm) for Sarnadisc and Sarnadisc-XPN in accordance with the overlap lines marked on it's edge. The 5-1/2 inch (140 mm) overlap will allow the top membrane to extend 2-1/2 inches (63 mm) past the Sarnadisc and Sarnadisc-XPN for heat-welding. Fasteners shall clamp the S327 membrane

MECHANICALLY –ATTACHED THERMOPLASTIC MEMBRANE ROOFING^{Add#1}

tightly to the substrate. In corner areas where perimeter half-rolls intersect, add rows of Sarnafasteners and Sarnadiscs over the top the half-rolls and weld a (S327) coverstrip above them for watertightness. See Detail Drawings.

- a. Perimeter area is defined as the outer boundary of the roof. If the roof is broken into different levels, each roof area shall be treated as an individual roof with its outer boundary being treated as a perimeter. Typically, internal expansion joints and firewalls are not considered to be full perimeters. Refer to Factory Mutual's Data Sheet 1-28 for more information.
- b. The ridge area is defined as the high point in the roof area formed by two intersecting planes. When the sum of the slopes is a minimum of 4 inches in 12 inches (30 degrees), each side of the ridge shall be treated as a perimeter area.
3. Hot-air weld overlaps according to Sika Sarnafil's requirements. Seam test cuts shall be taken at least 3 times per day.

D. Interior Area:

1. Over the properly installed and prepared substrate surface, S327 full-width rolls are to be installed perpendicular to the wood plank or wood. Sarnafasteners and Sarnadiscs are installed along the edge of the membrane on the fastening line at a spacing determined by Sika Sarnafil and the Owner's Representative/Designer. Sarnadisc and Sarnadisc-XPN are held-back 1 inch (25 mm) from the outer edge of the membrane. The adjacent full-roll is positioned to overlap the fastened edge of the first full-roll by 5-1/2 inches (140 mm) for Sarnadisc and Sarnadisc-XPN in accordance with the overlap lines marked on it's edge. The 5-1/2 inch (140 mm) overlap will allow the top membrane to extend 2-1/2 inches (63 mm) past the Sarnadisc and Sarnadisc-XPN for heat-welding. Fasteners shall clamp the S327 membrane tightly to the substrate. See Detail Drawings.
2. Hot-air weld overlaps according to Sika Sarnafil's recommendations. Seam test cuts shall be taken at least 3 times per day.

E. Securement around Rooftop Penetrations:

1. Around all perimeters, at the base of walls, drains, curbs, vent pipes, or any other roof penetrations, Sarnafasteners and Sarnadiscs shall be installed according to perimeter rate of attachment. Fasteners shall be installed according to the manufacturer's instructions. Fasteners shall be installed using the fastener manufacturer's recommended torque-sensitive fastening tools with depth locators. Fasteners shall clamp the Sarnafil membrane tightly to the substrate.
2. Sarnafil membrane flashings shall extend 2-1/2 inches (63 mm) past the Sarnadisc and Sarnadisc-XPN and be hot-air welded to the Sarnafil deck membrane.

3.8 HOT-AIR WELDING OF SEAM OVERLAPS**A. General**

1. All seams shall be hot-air welded. Seam overlaps should be 5-1/2 inches (140 mm) wide for Sarnadisc and Sarnadisc-XPN when automatic machine-welding and 4 inches (100 mm) wide when hand-welding, except for certain details.
2. Welding equipment shall be provided by or approved by Sika Sarnafil. All mechanics intending to use the equipment shall have successfully completed a training course provided by a Sika Sarnafil Technical Representative prior to welding.
3. All membrane to be welded shall be clean and dry.

- B. Hand-Welding: Hand-welded seams shall be completed in two stages. Hot-air welding equipment shall be allowed to warm up for at least one minute prior to welding.

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1. The back edge of the seam shall be welded with a narrow but continuous weld to prevent loss of hot air during the final welding.
 2. The nozzle shall be inserted into the seam at a 45 degree angle to the edge of the membrane. Once the proper welding temperature has been reached and the membrane begins to "flow," the hand roller is positioned perpendicular to the nozzle and rolled lightly. For straight seams, the 1-1/2 inch (40 mm) wide nozzle is recommended for use. For corners and compound connections, the 3/4 inch (20 mm) wide nozzle shall be used.
- C. Machine Welding:
1. Machine welded seams are achieved by the use of Sika Sarnafil's automatic welding equipment. When using this equipment, Sika Sarnafil's instructions shall be followed and local codes for electric supply, grounding and over current protection observed. Dedicated circuit house power or a dedicated portable generator is recommended. No other equipment shall be operated simultaneously off the generator.
 2. Metal tracks may be used over the deck membrane and under the machine welder to minimize or eliminate wrinkles.
- D. Quality Control of Welded Seams:
1. The Applicator shall check all welded seams for continuity using a rounded screwdriver. Visible evidence that welding is proceeding correctly is smoke during the welding operation, shiny membrane surfaces, and an uninterrupted flow of dark grey material from the underside of the top membrane. On-site evaluation of welded seams shall be made daily by the Applicator at locations as directed by the Owner's Representative or Sika Sarnafil's representative. One inch (25 mm) wide cross-section samples of welded seams shall be taken at least three times a day. Correct welds display failure from shearing of the membrane prior to separation of the weld. Each test cut shall be patched by the Applicator at no extra cost to the Owner.

3.9 MEMBRANE FLASHINGS

- A. All flashings shall be installed concurrently with the roof membrane as the job progresses. No temporary flashings shall be allowed without the prior written approval of the Owner's Representative and Sika Sarnafil. Approval shall only be for specific locations on specific dates. If any water is allowed to enter under the newly completed roofing, the affected area shall be removed and replaced at the Applicator's expense. Flashing shall be adhered to compatible, dry, smooth, and solvent-resistant surfaces. Use caution to ensure adhesive fumes are not drawn into the building.
- B. Sarnacol Adhesive for Membrane Flashings:
1. Over the properly installed and prepared flashing substrate, Sarnacol adhesive shall be applied according to instructions found on the Product Data Sheet. The Sarnacol adhesive shall be applied in smooth, even coats with no gaps, globs or similar inconsistencies. Only an area which can be completely covered in the same day's operations shall be flashed. The bonded sheet shall be pressed firmly in place with a hand roller.
 2. No adhesive shall be applied in seam areas that are to be welded. All panels of membrane shall be applied in the same manner, overlapping the edges of the panels as required by welding techniques.
- C. Sika Sarnafil's requirements and recommendations and the specifications shall be followed. All material submittals shall have been accepted by Sika Sarnafil prior to installation.

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- D. All flashings shall extend a minimum of 8 inches (0.2 m) above roofing level unless otherwise accepted in writing by the Owner's Representative and Sika Sarnafil Technical Department.
- E. All flashing membranes shall be consistently adhered to substrates. All interior and exterior corners and miters shall be cut and hot-air welded into place. No bitumen shall be in contact with the Sarnafil membrane.
- F. All flashing membranes shall be mechanically fastened along the counter-flashed top edge with Sarnastop at 6-8 inches (0.15-0.20 m) on center.
- G. Sarnafil flashings shall be terminated according to Sika Sarnafil recommended details.
- H. All adhered flashings that exceed 30 inches (0.75 m) in height or that of the perimeter Sarnastop spacings shall receive additional securement. Consult Sika Sarnafil Technical Department for securement methods.
- I. All mechanically-attached flashings that exceed 18 inches (0.46 m) in height shall receive additional securement. Consult Sika Sarnafil Technical Department for securement methods.

3.10 METAL FLASHINGS

- A. Metal details, fabrication practices and installation methods shall conform to the applicable requirements of the following:
 - 1. Factory Mutual Loss Prevention Data Sheet 1-49 (latest issue).
 - 2. Sheet Metal and Air Conditioning Contractors National Association, Inc. (SMACNA) - latest issue.
- B. Metal, other than that provided by Sika Sarnafil, is not covered under the Sika Sarnafil warranty.
- C. Complete all metal work in conjunction with roofing and flashings so that a watertight condition exists daily.
- D. Metal shall be installed to provide adequate resistance to bending to allow for normal thermal expansion and contraction.
- E. Metal joints shall be watertight.
- F. Metal flashings shall be securely fastened into solid wood blocking. Fasteners shall penetrate the wood nailer a minimum of 1 inch (25 mm).
- G. Airtight and continuous metal hook strips are required behind metal fascias. Hook strips are to be fastened 12 inches (0.3 m) on center into the wood nailer or masonry wall.
- H. Counter flashings shall overlap base flashings at least 4 inches (100 mm).
- I. Hook strips shall extend past wood nailers over wall surfaces by 1½ inch (38 mm) minimum and shall be securely sealed from air entry.

3.11 SARNAFLAD METAL BASE FLASHINGS/EDGE METAL

MECHANICALLY –ATTACHED THERMOPLASTIC MEMBRANE ROOFING^{Add#1}

- A. All flashings shall be installed concurrently with the roof membrane as the job progresses. No temporary flashings shall be allowed without the prior written approval of the Owner's Representative and Sika Sarnafil. Acceptance shall only be for specific locations on specific dates. If any water is allowed to enter under the newly completed roofing due to incomplete flashings, the affected area shall be removed and replaced at the Applicator's expense.
- B. Sarnaclad metal flashings shall be formed and installed per the Detail Drawings.
 - 1. All metal flashings shall be fastened into solid wood nailers with two rows of post galvanized flat head annular ring nails, 4 inches (100 mm) on center staggered. Fasteners shall penetrate the nailer a minimum of 1 inch (25 mm).
 - 2. Metal shall be installed to provide adequate resistance to bending and allow for normal thermal expansion and contraction.
- C. Adjacent sheets of Sarnaclad shall be spaced ¼ inch (6 mm) apart. The joint shall be covered with 2 inch (50 mm) wide aluminum tape. A 4 inch minimum (100 mm) wide strip of Sarnafil flashing membrane shall be hot-air welded over the joint. Exercise caution at perimeter of roof. Workers shall follow OSHA safety procedures.

3.12 WALKWAY INSTALLATION

- A. Sarnatred Walkway: Roofing membrane to receive Sarnatred Walkway shall be clean and dry. Place chalk lines on deck sheet to indicate location of Walkway. Apply a continuous coat of Sarnacol 2170 adhesive to the deck sheet and the back of Walkway in accordance with Sika Sarnafil's technical requirements and press Walkway into place with a water-filled, foam-covered lawn roller. Clean the deck membrane in areas to be welded. Hot-air weld the entire perimeter of the Walkway to the Sarnafil deck sheet. Check all welds with a rounded screwdriver. Re-weld any inconsistencies. Important: Check all existing deck membrane seams that are to be covered by Walkway with rounded screwdriver and reweld any inconsistencies before Walkway installation. Do not run Walkway over Sarnabars.

3.13 TEMPORARY CUT-OFF

- A. All flashings shall be installed concurrently with the roof membrane in order to maintain a watertight condition as the work progresses. All temporary waterstops shall be constructed to provide a 100% watertight seal. The stagger of the insulation joints shall be made even by installing partial panels of insulation. The new membrane shall be carried into the waterstop. The waterstop shall be sealed to the deck and/or substrate so that water will not be allowed to travel under the new or existing roofing. The edge of the membrane shall be sealed in a continuous heavy application of sealant as described in Section 2.09. When work resumes, the contaminated membrane shall be cut out. All sealant, contaminated membrane, insulation fillers, etc. shall be removed from the work area and properly disposed of off site. None of these materials shall be used in the new work.
- B. If inclement weather occurs while a temporary waterstop is in place, the Applicator shall provide the labor necessary to monitor the situation to maintain a watertight condition.
- C. If any water is allowed to enter under the newly-completed roofing, the affected area shall be removed and replaced at the Applicator's expense.

3.14 COMPLETION

MECHANICALLY –ATTACHED THERMOPLASTIC MEMBRANE ROOFING^{Add#1}

- A. Prior to demobilization from the site, the work shall be reviewed by the Owner's Representative and the Applicator. All defects noted and non-compliances with the Specifications or the recommendations of Sika Sarnafil shall be itemized in a punch list. These items must be corrected immediately by the Applicator to the satisfaction of the Owner's Representative and Sika Sarnafil prior to demobilization.
- B. All Warranties referenced in this Specification shall have been submitted and have been accepted at time of contract award.

3.15 DETAILS

- A. See Details on Drawings and shop drawings.
- B. Refer also to roofing manufacturer's detail drawings. Refer to the manufacturer's Typical System Details section for additional details.

END OF SECTION

FIBERGLASS WINDOWS^{Add#1}**PART 1 - GENERAL****1.1 WORK INCLUDED**

- A. Provide fiberglass windows in locations indicated on the Drawings and as herein specified.

1.2 SUBMITTALS

- A. Product Data.
- B. Shop Drawings: Include window schedule, window elevations, sections and details, and multiple window assembly details.
- C. Samples:
 - 1. Color Samples: Minimum 1" x 4" paint color chips on fiberglass substrate.
 - 2. Glass: Submit sample showing specified tint color.
- D. Quality Assurance/Control Submittals:
 - 1. Qualifications: Proof of manufacturer's qualifications.
 - 2. U-Factor and structural rating charts required for AAMA and NFRC labeling requirements.
 - 3. Installation Instructions – AAMA 2400.
- E. Closeout Submittals:
 - 1. Temporary window labels marked to identify windows that labels were applied to.
 - 2. Maintenance instructions.
 - 3. Special Warranties.

1.3 QUALITY ASSURANCE

- A. Overall Standards: Comply with ANSI/AAMA/NWDA 101/I.S.2, except as otherwise noted herein.
- B. Manufacturer Qualifications:
 - 1. Minimum 10 years experience in producing fiberglass windows of the type(s) specified.
 - 2. Member AAMA, NFRC.
- C. Regulatory Requirements:
 - 1. Certifications for insulated glass windows:
 - a. AAMA: Silver Label certified with label attached to frame per AAMA requirements.
 - b. NFRC: NFRC certified with temporary U-factor label applied to glass and an NFRC tab added to permanent AAMA frame label.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Provide cardboard corner boots and full stretch wrap shipping protection.
- B. Follow manufacturer's instructions on label applied to windows.

1.5 WARRANTY

- A. Commercial Special Warranty:
 - 1. ***10-year Manufacturer warranty.***^{Add#1}

FIBERGLASS WINDOWS^{Add#1}

2. Guarantee windows against defects in materials and workmanship including costs for parts and labor.

B. *Installer warranty: 2 year installer warranty.*^{Add#1}

PART 2 – PRODUCTS**2.1 ACCEPTED MANUFACTURES**

- A. Milgard Manufacturing, Inc., Tel: (800) 645-4273, Website: <http://www.milgard.com/>, Series Milgard Ultra. (Specification Base)
- B. Marvin Windows.
- C. Or accepted substitute.

2.2 MATERIALS

- A. Fiberglass: AAMA 305 glass fiber reinforced thermoset profile.

2.3 GENERAL PERFORMANCE REQUIREMENTS

- A. Thermal Performance: Comply with NFRC 100.
- B. Air Leakage, Water Resistance, Structural Test: Comply with ANSI/AAMA /NWWDA 101/I.S.2.
- C. Forced-Entry Resistance: Comply with CAWM 301.

2.4 WINDOW TYPES

- A. Awning – Ultra Series, C650, 3410 Series, Block Frame
 1. Frame: Minimum 3-1/4" deep, multi-chambered fiberglass pultrusion.
 2. Sash: Minimum 2-3/8" deep, multi-chambered fiberglass pultrusion.
 3. Structural Class: AP-C35.
 4. Hardware:
 - a. Single steel arm rotary scissor operator with standard handle.
 - b. Dual lever locking mechanism.
 - c. Two bar stainless steel hinge.
 5. Weatherstripping: Vinyl compression bulb seal.
- B. Picture – Ultra Series C650, 3315 Series Block Frame:
 1. Frame: Minimum 4-1/4" deep, multi-chambered fiberglass pultrusion.
 2. Sightlines: Equal to operating windows.
 3. Structural Class: F-C50.

2.5 GLAZING

- A. Insulated Glass Units: ASTM E774, Class A, 7/8" thick overall:
 1. Glazing Type: Clear/SunCoat™ Low-E, argon gas filled.
 2. Spacer Bar: Stainless steel spacer.

FIBERGLASS WINDOWS^{Add#1}**2.6 INSECT SCREENS**

- A. Provide tight-fitting screen for operating sash with hardware to allow easy removal.
 - 1. Screen Cloth: Fiberglass mesh.

2.7 FABRICATION

- A. Fabricate frames and panels with milled and mitered joints and mechanically joined corners. Trim and finish corners to match adjacent surfaces.
- B. Provide concealed metal reinforcement in sash frame for attaching lock mechanism.
- C. Factory exterior wet silicone glaze with snap-on fiberglass glazing stops matching interior sash and frame finish, except where field glazing is required due to large window unit dimensions (over 40-sf). Units shall be reglazeable without dismantling sash framing.

2.8 FINISH

- A. Frame and Sash:
 - 1. Exterior: Harmony
 - 2. Interior: White baked on enamel.
- B. Hardware: Satin Chrome.
- C. Screen Frame Color:
 - 1. Exterior Mounted Screens: Match frame to exterior window frame and sash color.
 - 2. Interior Mounted Screens: White.

2.9 SOURCE QUALITY CONTROL

- A. Inspect windows in accordance with manufacturer's Quality Control Program as required by AAMA Silver Label certification.

PART 3 – EXECUTION**3.1 EXAMINATION**

- A. Examine openings in which windows will be installed.
 - 1. Verify that framing complies with AAMA 2400.
 - 2. Verify that fasteners in framed walls are fully driven and will not interfere with window installation.
- B. Coordinate with responsible entity to correct unsatisfactory conditions.
- C. Commencement of work by installer is acceptance of substrate conditions.

FIBERGLASS WINDOWS^{Add#1}

3.2 INSTALLATION

- A. Install windows in framed walls in accordance with AAMA 2400. Provide continuous shim support along full length of sill.
- B. Do not remove temporary labels.
- C. Install insect screens on operable sash.

3.3 CLEANING

- A. Remove temporary labels and retain for Closeout Submittals.
- B. Clean soiled surfaces and glass using a mild detergent and warm water solution with soft, clean cloths.

END OF SECTION



Hazardous Building Materials Survey Report

1717 City View Street

Eugene, Oregon

Prepared for:

Lane Education Service District

General Information	1.1
Certification	1.2
Inspection Summary	1.3
Asbestos Bulk Sample Inventory	2.1
Lead Paint Sample Inventory	3.1
Laboratory Data	Not Numbered
Inspector Certification	Not Numbered

April 2021
Project No.: 52651.001

GENERAL INFORMATION

BUILDING DATA

1717 City View Street
Eugene, Oregon

CLIENT DATA

Lane Education Service District
1200 Highway 99N
Eugene, Oregon

Year(s) Built: – Building B – 1949 and 1955, Building D – 1949 and 1953, Building E – Circa 1940s,
Covered Walkways – Unknown

PBS Engineering and Environmental, Inc. (PBS) has performed a limited hazardous building materials survey throughout interior and exterior areas of 3 Lane ESD classroom structures and covered walkways at 1717 City View Street in Eugene, Oregon. The survey was conducted in support of a planned seismic upgrade project and was performed in general accordance with OSHA regulations in 29 CFR 1910.1001, Oregon Department of Environmental Quality (DEQ) regulations in OAR 340-248-0270, and Lane Regional Air Protection Agency (LRAPA) Title 43. Based on the information gathered during the site inspection and laboratory analysis, this report contains the following information:

- A summary of asbestos-containing materials discovered during the inspection, including a material description and location of each identified asbestos-containing material (ACM);
- A summary of lead paint sampling;
- A sample inventory listing the sample number, location, material description, and laboratory results for each sample;
- Laboratory analysis reports and chain of custody documentation;
- Inspector(s) Certification

The client provided PBS with historic asbestos bulk sample results as part of the Asbestos Management Plan for the school. Where possible, PBS utilized these sample results in the completion of this investigation. Refer to the Asbestos Management Plan for the former Westmoreland Elementary School for additional information regarding historic samples collected at the site.

SURVEY SCOPE

Asbestos

PBS endeavored to locate suspect asbestos-containing materials within accessible areas of each building; however, additional suspect asbestos-containing materials may be concealed in areas that were inaccessible during the survey. If additional suspect materials are uncovered during renovation or demolition activities that are not identified in this report, testing should be performed prior to impact. This survey was conducted to identify and sample accessible suspect asbestos-containing building materials and it is not considered an exhaustive survey of every building material. PBS was unable to gain access to the following areas during this inspection:

- Permit required confined spaces (e.g., boilers, air handling units)

April 2021

- Crawlspaces and tunnels with insufficient clearance

Lead Paint

PBS collected bulk samples from representative painted surfaces from building interiors and exteriors. The samples were analyzed for lead using FAA (flame atomic absorption). No attempt was made to determine the paint history of the components that were sampled. The lead paint testing conducted during this survey was for site lead hazard characterization purposes and was not a surface-by-surface inspection of every painted building component.

Certification

PBS has conducted a physical inspection of 3 Lane ESD classroom structures and covered walkways at 1717 City View Street in Eugene, Oregon, compiled this report consistent with the survey scope, and certifies that the information is correct and accurate within the standards of professional quality and contractual obligations.

Daniel Lyons
Industrial Hygiene Technician
Accreditation IR-20-8027B

Signature

Date

INSPECTION SUMMARY

DATES	SURVEYED BY	ACTIVITY
March 31, 2021 – April 3, 2021	Daniel Lyons Jeff Heeren	Materials Inventory and Bulk Sample Collection

PBS Engineering and Environmental, Inc. has investigated accessible areas of 3 Lane ESD classroom structures and covered walkways to locate suspect asbestos-containing building materials (ACBM). The scope of work was limited to site areas anticipated to be impacted by planned renovation activities. The findings are listed below.

ASBESTOS MATERIALS

The following materials tested positive, or, based on the experience of PBS field personnel, were not tested and should be considered asbestos-containing. Materials that had mixed results are considered positive. Materials not sampled may contain asbestos and should be tested to verify asbestos content prior to impact through demolition, renovation, etc.

(+) Tested Positive, (M) Mixed Results, (P) Presumed Positive, (T) Previously Tested Positive

Result	Material	Location	Quantity
(T/T)	Vinyl floor tile (9"x9"), green/Mastic, black ¹	Building D: Classroom 5 Building E: Classroom 3 and hallways	Building D: 1,200 SF Building E: 1,655 SF
(T/-)	Vinyl floor tile (9"x9"), olive or dark green/Mastic, black ¹	Building D: Classroom 4, hallway, & janitor's closet	Building D: 1,150 SF
(+/P)	Cement Asbestos Chalkboard/Mastic ²	Building B: Classrooms 17, 18, & 19 Building D: Classroom 4, West wall Building E: Classrooms throughout	Building B: 575 SF Building D: 70 SF Building E: 300 SF
(+/-)	Sink countertop and backsplash, green/Felt, black	Building D: Classroom 5, northeast corner	30 SF
(+)	Rooftop penetration sealant, black brittle	Building D: Rooftop penetrations	2 EA

Result	Material	Location	Quantity
(T/+)	Window glazing compound, gray brittle ³	Building B: Classrooms 17, 18, & 19 Building D: Classrooms 4 & 5 and restrooms Building E: Upper skylight windows near roof, assumed Building F: Upper skylight windows near roof, assumed Building G: Upper skylight windows near roof	Building B: 24 EA Building D: 7 EA Building E: 20 EA Building F: 20 EA Building G: 12 EA
(T/+)	Window frame sealant	Building B: Classrooms 17, 18, & 19 Building D: Classrooms 4 & 5 Building E: Classroom 2, South window next to exterior door	Building B: 24 EA Building D: 5 EA / 180 LF Building E: 1 EA
(T/+)	Door frame sealant	Building B: Classroom 17 exterior door Building D: Classroom 4 exterior doors Building E: Classroom 2 exterior door	Building B: 1 EA Building D: 2 EA Building E: 1 EA
(T)	Pipe insulation ⁴	Observed in pipe trenches connected to surveyed buildings	Not Quantified

Notes:

- Asbestos-containing floor tile and mastics were found both exposed and concealed beneath various non-asbestos carpet and carpet mastics.
- Cement asbestos chalkboards and associated mastics were found concealed behind newer metal chalkboards and whiteboards throughout classrooms.
- A total of 40 additional framed out skylight windows covered in plywood were found on Building F and E. Asbestos containing window glazing may exist concealed behind sheets of plywood.
- PBS observed significantly damaged asbestos-containing pipe insulation in pipe trenches connected to the buildings surveyed during this inspection. Access to these areas should be restricted to personnel with proper training. Additional pipe insulation may be present concealed above ceilings and inside wall cavities.

MATERIALS WHICH TESTED NEGATIVE FOR ASBESTOS

The following materials tested negative based on ASHARA sampling minimums and testing by NVLAP participating laboratories. Although no asbestos was detected, it is possible that further sampling could indicate asbestos content.

Material	Location
Vinyl floor tile (12"x12")/Mastic, yellow ¹	Building B: Classrooms and hallway throughout Building E: Classrooms 1 and 2

Material	Location
Covebase (4"), black/Mastic, yellow with remnant brown ¹	Building B: Classrooms and hallway throughout Building D: Classrooms and hallway throughout Building E: Classrooms and hallway throughout
Sheet floor covering, brown ¹	Building B: Classroom coatracks Building D: Classroom coatracks Building E: Classroom coatracks
Carpet mastic, yellow	Building D: Classrooms 4 and 5 Building E: Classroom 3
Ceramic tile, various colors/Grout, gray	Building B: Bathroom floors throughout Building D: Bathroom floors throughout
Gypsum wallboard/Joint compound/Skim coat ¹	Building B: Room 17 southwest wall, hallway ceiling, bathroom walls and ceilings Building D: Classrooms 4 and 5, hallway, and bathrooms Building E: Classroom 3 North/West walls and North ceiling, hallway ceiling
Surfacing Plaster	Building D: Bathroom walls
Corkboard mastics, brown brittle	Building B: Concealed behind corkboards throughout classrooms Building D: Concealed behind corkboards throughout classrooms Building E: Concealed behind corkboards throughout classrooms
Countertop mastics, brown brittle	Building B: Classroom sinks Building E: Classroom sinks
Lay-in ceiling tile (2'x4') with random pinholes and oriented fissures ¹	Building B: Throughout classrooms Building D: Throughout classrooms
Acoustical ceiling tile (12"x12") with aligned holes ¹	Building D: Hallway and custodial closet Building E: Classroom ceilings throughout
Roofing Debris, black asphaltic	Building B: Classrooms above lay-in ceiling tile throughout
Built up roofing, gray or white aggregate with multiple felt layers	Building B, D, H, G, and covered walkways
TPO roofing over DensDeck	Building E: rooftop
Roof flashing sealant, black	Building E: West parapet wall
Air handling unit sealants, gray	Exterior air handling units on covered walkways and building rooftops

Material	Location
Brick and mortar ¹	Building B, D, & E
Vapor barrier ¹	Building B: Concealed behind wood siding Building D: Concealed behind wood siding

Notes:

1. When feasible, historical sampling results provided by the client were used by PBS personnel during this survey. PBS performed additional sampling on select previously tested materials if historical sample results provided insufficient information.

All asbestos bulk samples were collected by an EPA AHERA accredited inspector and analyzed using Polarized Light Microscopy (PLM) with dispersion staining. Samples were submitted under chain of custody to NVL Labs in Seattle, WA (NVLAP # 102063-0) for analysis. The laboratory analysis reports are attached to this report.

Asbestos Regulatory Issues

LRAPA, Oregon DEQ, and United States Environmental Protection Agency (EPA) regulations require proper removal and handling of asbestos-containing building materials (ACBM) by a licensed and trained asbestos abatement contractor prior to the renovation or demolition of buildings. In addition, Oregon-OSHA has specific requirements when workers may encounter or disturb ACBM or when ACBM is removed.

The LRAPA, EPA, DEQ, and OSHA all define ACBM as "any material containing more than one percent asbestos."

In 1995, Oregon-OSHA adopted federal regulation governing asbestos (29CFR Part 1926.1101). These regulations have made significant changes in work procedures and how asbestos-containing materials are removed. OSHA believes that the single biggest problem is to workers who unknowingly or improperly disturb ACBM. Hazard communication, training, personal protection, work practices, exposure monitoring, and recordkeeping are all major components of the regulation.

DEQ's OAR 340, Division 248 and LRAPA Title 43 also covers asbestos abatement requirements, removal notifications, licensing, and certifications of contractors.

Reference documents for the removal of asbestos-containing materials include the following:

1. Oregon Occupational Safety and Health Administration (OAR-437, 1926.1101 Asbestos)
2. Department of Environmental Quality (OAR-340, Division 248)
3. LRAPA (Title 43)

LEAD-CONTAINING PAINT

Lead Paint Summary

Paint chip samples were collected from representative interior and exterior painted building components. The samples represent the facility's major painted building components. The samples were submitted to NVL Laboratories, Inc. in Seattle, Washington (AIHA #101861) and analyzed for lead content by atomic absorption.

Laboratory analytical results indicated the presence of lead in 6 of the 10 paint-chip samples collected, with concentrations ranging from None Detected to 9,100 parts per million (ppm). Refer to the attached lead sample inventory for additional details regarding sample locations and laboratory analytical results. For reference, the Environmental Protection Agency (EPA) uses 5,000 ppm as the threshold limit for the definition of lead-based paint. Under OSHA, any amount of lead triggers the OSHA Lead in Construction Standard. Lead safe work practices should always be employed when impacting paint that contains lead in any concentration.

A summary of painted surfaces in which lead was detected is presented in the table below:

Location	Building Component
Building D – Classroom 5	West wall on wood substrate
Building D – Classroom 5	Cabinet on wood substrate
Building E – Classroom 1*	Window sill on wood substrate
Building E – Classroom 2	Air ducting on metal substrate
Building B – Classroom 19	Window sill on wood substrate
Building B – Classroom 17	Wall on wood substrate

*Lead-based paint (exceeds 5,000 ppm)

Disposal

According to Oregon DEQ's Hazardous Waste/Toxics Reduction Policy Clarification, disposal of building demolition waste coated with lead-based paint generally will not require a hazardous waste determination (i.e., toxicity characteristic leaching procedures [TCLP] testing) if demolition debris is disposed of at a DEQ-permitted solid waste landfill that meets the current design standards for municipal solid waste disposal facilities of 40 CFR Part 258.

Refer to the DEQ hazardous waste reduction policy and follow all requirements under the Oregon DEQ, Management of Building Demolition Waste, 97-002A for proper disposal of lead-based painted demolition waste.

This report is not suitable as a bid document or an asbestos abatement design. The purpose of this report is risk hazard communication only.

<u>Code</u>	<u>Material</u>	<u>Location</u>	<u>Results</u>	<u>Lab</u>
52651.001-0001	Covebase/Mastic	Classroom 1, Southeast corner		NVL Labs, Inc.
	Layer:	Description:	Analysis:	
	Layer 1	Black rubbery material	No Asbestos Detected	
	Layer 2	Soft white mastic	No Asbestos Detected	
	Layer 3	Brown brittle mastic	No Asbestos Detected	
52651.001-0002	Cement Asbestos Board	Classroom 1, West wall		NVL Labs, Inc.
	Layer:	Description:	Analysis:	
	Layer 1	Grey brittle material with paint	25% Chrysotile	
	Comments:	chalkboard		
52651.001-0003	Covebase/Mastic	Hallway, East wall outside Classroom 2		NVL Labs, Inc.
	Layer:	Description:	Analysis:	
	Layer 1	Black rubbery material	No Asbestos Detected	
	Layer 2	Brown crumbly mastic	No Asbestos Detected	
52651.001-0004	Corkboard/Mastic	Classroom 1, North wall		NVL Labs, Inc.
	Layer:	Description:	Analysis:	
	Layer 1	Brown fibrous material with paint	No Asbestos Detected	
	Layer 2	Crumbly brown mastic	No Asbestos Detected	
52651.001-0005	Corkboard/Mastic	Classroom 2, South wall		NVL Labs, Inc.
	Layer:	Description:	Analysis:	
	Layer 1	Brown fibrous material with paint	No Asbestos Detected	
	Layer 2	Crumbly brown mastic	No Asbestos Detected	
52651.001-0006	Gypsum Wallboard/Joint Compound	Classroom 3, North wall		NVL Labs, Inc.
	Layer:	Description:	Analysis:	
	Layer 1	White compacted powdery material with paint	No Asbestos Detected	
	Layer 2	White compacted powdery material with paper	No Asbestos Detected	
	Layer 3	Chalky white material with paper	No Asbestos Detected	
52651.001-0007	Door Sealant	Classroom 2, East exterior door		NVL Labs, Inc.
	Layer:	Description:	Analysis:	
	Layer 1	Soft brown material with paint	8% Chrysotile	

<u>Code</u>	<u>Material</u>	<u>Location</u>	<u>Results</u>	<u>Lab</u>
52651.001-0008	Window Sealant	Classroom 2, South window next to exterior door		NVL Labs, Inc.
	Layer:	Description:	Analysis:	
	Layer 1	Soft brown material with paint	7% Chrysotile	
52651.001-0009	Counter Top Mastic	Classroom 3, South sink area		NVL Labs, Inc.
	Layer:	Description:	Analysis:	
	Layer 1	Brown brittle material with green laminate surface	No Asbestos Detected	
	Layer 2	Brittle brown mastic	No Asbestos Detected	
52651.001-0010	Gypsum Wallboard/Joint Compound	Ceiling outside of Classroom 1		NVL Labs, Inc.
	Layer:	Description:	Analysis:	
	Layer 1	White sandy brittle material with paint	No Asbestos Detected	
	Layer 2	Chalky white material with paper	No Asbestos Detected	
52651.001-0011	Built-up Roofing	Building B, Center field		NVL Labs, Inc.
	Layer:	Description:	Analysis:	
	Layer 1	Black asphaltic built-up material with granules	No Asbestos Detected	
52651.001-0012	Built-up Roofing	Building B, South field		NVL Labs, Inc.
	Layer:	Description:	Analysis:	
	Layer 1	Black asphaltic built-up material with granules	No Asbestos Detected	
	Layer 2	Black asphaltic material	No Asbestos Detected	
52651.001-0013	Penetration Mastic	Building B, South field		NVL Labs, Inc.
	Layer:	Description:	Analysis:	
	Layer 1	Grey rubbery material	No Asbestos Detected	
52651.001-0014	AHU Sealant	Building B, covered walkway		NVL Labs, Inc.
	Layer:	Description:	Analysis:	
	Layer 1	Soft grey rubbery material	No Asbestos Detected	
52651.001-0015	Built-up Roofing	Covered walk way South of Building B		NVL Labs, Inc.
	Layer:	Description:	Analysis:	
	Layer 1	Black asphaltic built-up material with granules	No Asbestos Detected	
	Layer 2	Brown fibrous material	No Asbestos Detected	

<u>Code</u>	<u>Material</u>	<u>Location</u>	<u>Results</u>	<u>Lab</u>
52651.001-0016	Built-up Roofing	Building D, Southeast field		NVL Labs, Inc.
	Layer:	Description:	Analysis:	
	Layer 1	Black asphaltic built-up material with granules	No Asbestos Detected	
52651.001-0017	Roof Penetration Sealant	Building D, Southeast field		NVL Labs, Inc.
	Layer:	Description:	Analysis:	
	Layer 1	Black asphaltic material	10% Chrysotile	
52651.001-0018	AHU Sealant	Building D, covered walkway roof		NVL Labs, Inc.
	Layer:	Description:	Analysis:	
	Layer 1	Soft grey rubbery material with paint	No Asbestos Detected	
52651.001-0019	Flashing Sealant	Building E, West roof wall		NVL Labs, Inc.
	Layer:	Description:	Analysis:	
	Layer 1	Soft black rubbery material	No Asbestos Detected	
52651.001-0020	TPO Roofing Membrane	Building E roof, Center		NVL Labs, Inc.
	Layer:	Description:	Analysis:	
	Layer 1	White rubbery material	No Asbestos Detected	
	Layer 2	White chalky material with woven fibrous mesh	No Asbestos Detected	
52651.001-0021	Built-up Roofing	Building H, covered walkway		DCM Science Laboratory
	Layer:	Description:	Analysis:	
	Layer 1	Black asphaltic built-up material with granules	No Asbestos Detected	
	Layer 2	Brown crumbly fibrous material	No Asbestos Detected	
	Layer 3	Black asphaltic fibrous material	No Asbestos Detected	
	Layer 4	Yellow spongy foamy material	No Asbestos Detected	
	Layer 5	Black asphaltic built-up material	No Asbestos Detected	
52651.001-0022	Window Glazing Compound	Building G, South window		NVL Labs, Inc.
	Layer:	Description:	Analysis:	
	Layer 1	Grey brittle material with paint	6% Chrysotile	
52651.001-0023	Window Glazing Compound	Building G, North window		NVL Labs, Inc.
	Layer:	Description:	Analysis:	
	Layer 1	Grey brittle material with paint	5% Chrysotile	

<u>Code</u>	<u>Material</u>	<u>Location</u>	<u>Results</u>	<u>Lab</u>
52651.001-0024	Built-up Roofing	Building G, covered walkway		NVL Labs, Inc.
	Layer:	Description:	Analysis:	
	Layer 1	Black asphaltic material with granules	No Asbestos Detected	
	Layer 2	Black asphaltic built-up material	No Asbestos Detected	
	Layer 3	Black asphaltic material	No Asbestos Detected	
52651.001-0025	Built-up Roofing	Covered walk way East of building C		NVL Labs, Inc.
	Layer:	Description:	Analysis:	
	Layer 1	Black asphaltic built-up material with granules	No Asbestos Detected	
	Layer 2	Brown crumbly fibrous material	No Asbestos Detected	
	Layer 3	Black asphaltic fibrous material	No Asbestos Detected	
	Layer 4	Yellow spongy foamy material	No Asbestos Detected	
	Layer 5	Brown fibrous material	No Asbestos Detected	
	Layer 6	Black & brown asphaltic fibrous material	No Asbestos Detected	
	Layer 7	Black asphaltic built-up material	No Asbestos Detected	
52651.001-0026	Carpet Mastic	Building D, Room 5, West end		NVL Labs, Inc.
	Layer:	Description:	Analysis:	
	Layer 1	Soft yellow mastic	No Asbestos Detected	
52651.001-0027	Ceramic Tile/Grout	Building D, student restroom floor		NVL Labs, Inc.
	Layer:	Description:	Analysis:	
	Layer 1	Blue brittle material	No Asbestos Detected	
	Layer 2	Grey brittle material	No Asbestos Detected	
52651.001-0028	Gypsum Wallboard/Joint Compound/Skim Coat	Building D, hallway		NVL Labs, Inc.
	Layer:	Description:	Analysis:	
	Layer 1	White compacted powdery material with paint	No Asbestos Detected	
	Layer 2	Chalky white material with paper	No Asbestos Detected	
52651.001-0029	Acoustic Ceiling Tile	Building D, custodial room		NVL Labs, Inc.
	Layer:	Description:	Analysis:	
	Layer 1	Soft yellow mastic	No Asbestos Detected	
	Layer 2	Tan fibrous material with paint	No Asbestos Detected	

<u>Code</u>	<u>Material</u>	<u>Location</u>	<u>Results</u>	<u>Lab</u>
52651.001-0030	Counter Top/Backsplash	Building D, Room 5, Northeast corner		NVL Labs, Inc.
	Layer:	Description:	Analysis:	
	Layer 1	Blue vinyl tile	9% Chrysotile	
	Layer 2	Black asphaltic fibrous backing with crumbly brown mastic	No Asbestos Detected	
52651.001-0031	Corkboard/Mastic	Building D, Room 5, North wall		NVL Labs, Inc.
	Layer:	Description:	Analysis:	
	Layer 1	Brown fibrous material with paint	No Asbestos Detected	
	Layer 2	Crumbly brown mastic	No Asbestos Detected	
52651.001-0032	Cement Asbestos Board	Building D, Room 4, West wall		NVL Labs, Inc.
	Layer:	Description:	Analysis:	
	Layer 1	Grey brittle material with paint	30% Chrysotile	
	Comments:	chalkboard		
52651.001-0033	Corkboard/Mastic	Building D, Room 4, North wall		DCM Science Laboratory
	Layer:	Description:	Analysis:	
	Layer 1	Brown fibrous material	No Asbestos Detected	
	Layer 2	Crumbly brown mastic	No Asbestos Detected	
52651.001-0034	Window Frame Sealant	Building D, Room 5, East exterior		NVL Labs, Inc.
	Layer:	Description:	Analysis:	
	Layer 1	Off-white crumbly material with paint	8% Chrysotile	
52651.001-0035	Gypsum Wallboard/Joint Compound	Building B, Room 17, South wall		NVL Labs, Inc.
	Layer:	Description:	Analysis:	
	Layer 1	White compacted powdery material with paint	No Asbestos Detected	
	Layer 2	Chalky white material with paper	No Asbestos Detected	

<u>Code</u>	<u>Material</u>	<u>Location</u>	<u>Results</u>	<u>Lab</u>
52651.001-0036	Gypsum Wallboard/Joint Compound	Building B, hallway outside Room 19 wall		NVL Labs, Inc.
	Layer:	Description:	Analysis:	
	Layer 1	White compacted powdery material with paint	No Asbestos Detected	
	Layer 2	White sandy brittle material	No Asbestos Detected	
	Layer 3	Chalky white material with paper	No Asbestos Detected	
52651.001-0037	Roof Debris	Building B, Room 17, Center above ceiling		NVL Labs, Inc.
	Layer:	Description:	Analysis:	
	Layer 1	Grey fibrous material with paint	No Asbestos Detected	
	Layer 2	Brittle black asphaltic material	No Asbestos Detected	
	Layer 3	Tan fibrous material	No Asbestos Detected	
52651.001-0038	Corkboard Mastic	Building B, Room 17, Southeast corner		NVL Labs, Inc.
	Layer:	Description:	Analysis:	
	Layer 1	Brown & green fibrous material	No Asbestos Detected	
	Layer 2	Brown brittle mastic	No Asbestos Detected	
52651.001-0039	Counter Top Mastic	Building B, Room 17, Northwest corner		NVL Labs, Inc.
	Layer:	Description:	Analysis:	
	Layer 1	White spongy foamy material	No Asbestos Detected	
	Layer 2	Brown brittle material with pink laminate surface	No Asbestos Detected	
	Layer 3	Brown brittle mastic	No Asbestos Detected	
52651.001-0040	Counter Top Mastic	Building B, Room 18, Southwest corner		NVL Labs, Inc.
	Layer:	Description:	Analysis:	
	Layer 1	Brown brittle material with green laminate surface	No Asbestos Detected	
	Layer 2	Brown brittle mastic	No Asbestos Detected	
52651.001-0041	Roof Debris	Building B, Room 18, Center above ceiling		NVL Labs, Inc.
	Layer:	Description:	Analysis:	
	Layer 1	Black asphaltic material	No Asbestos Detected	
52651.001-0042	Window Glazing Compound	Building B, Room 17, West exterior		NVL Labs, Inc.
	Layer:	Description:	Analysis:	
	Layer 1	White brittle material with paint	No Asbestos Detected	

<u>Code</u>	<u>Material</u>	<u>Analysis</u>	<u>Location</u>	<u>Lab</u>
PAINT				
LB52651.001-1001	Paint, Green	900 ppm	Bldg D-North Classroom, West Wall, Wood	NVL Labs, Inc.
LB52651.001-1002	Paint, White	430 ppm	Bldg D-North Classroom,Cabinet, Wood	NVL Labs, Inc.
LB52651.001-1003	Paint, White	<55 ppm	Bldg D-South Classroom,Partitioned Wall, Wood	NVL Labs, Inc.
LB52651.001-1004	Paint, White	<54 ppm	Bldg E-Classroom 1,Partitioned Wall, Wood	NVL Labs, Inc.
LB52651.001-1005	Paint, Beige	9,100 ppm	Bldg E-Classroom 1,Window Sill, Wood	NVL Labs, Inc.
LB52651.001-1006	Paint, White	110 ppm	Bldg E-Classroom 2, Duct, Metal	NVL Labs, Inc.
LB52651.001-1007	Paint, White	<51 ppm	Bldg E-Classroom 3, Wall, Gypsum	NVL Labs, Inc.
LB52651.001-1008	Paint, Beige	780 ppm	Bldg B-Classroom 19, Window Sill, Wood	NVL Labs, Inc.
LB52651.001-1009	Paint, White	4,200 ppm	Bldg B-Classroom 18, Wall, Wood	NVL Labs, Inc.
LB52651.001-1010	Paint, White	<53 ppm	Bldg B-Classroom 17, Wall, Gypsum	NVL Labs, Inc.

April 7, 2021



Daniel Lyons
PBS Environmental - Eugene
3500 Chad Drive Suite 100
Eugene, OR 97408

RE: Bulk Asbestos Fiber Analysis; NVL Batch # 2106185.00

Client Project: 52651.001 Phase 0001
Location: N-A

Dear Mr. Lyons,

Enclosed please find test results for the 42 sample(s) submitted to our laboratory for analysis on 4/6/2021.

Examination of these samples was conducted for the presence of identifiable asbestos fibers using polarized light microscopy (PLM) with dispersion staining in accordance with **U. S. EPA 40 CFR Appendix E to Subpart E of Part 763**, Interim Method for the Determination of Asbestos in Bulk Insulation Samples and **EPA 600/R-93/116**, Method for the Determination of Asbestos in Bulk Building Materials.

For samples containing more than one separable layer of materials, the report will include findings for each layer (labeled Layer 1 and Layer 2, etc. for each individual layer). The asbestos concentration in the sample is determined by calibrated visual estimation.

For those samples with asbestos concentrations between 1 and 10 percent based on visual estimation, the EPA recommends a procedure known as point counting (NESHAPS, 40 CFR Part 61). Point counting is a statistically more accurate means of quantification for samples with low concentrations of asbestos.

The detection limit for the calibrated visual estimation is <1%, 400 point counts is 0.25% and 1000 point counts is 0.1%

Samples are archived for two weeks following analysis. Samples that are not retrieved by the client are discarded after two weeks.

Thank you for using our laboratory services. Please do not hesitate to call if there is anything further we can assist you with.

Sincerely,

A handwritten signature in black ink, appearing to read 'Nick Ly'.

Nick Ly, Technical Director



The logo for NVLAP (National Voluntary Laboratory Accreditation Program). It consists of the letters 'NVLAP' in a large, stylized, outlined font.

Lab Code: 102063-0

Enc.: Sample Results

Phone: 206 547.0100 | Fax: 206 634.1936 | Toll Free: 1.888.NVL.LABS (685.5227)
4708 Aurora Avenue North | Seattle, WA 98103-6516



Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: PBS Environmental - Eugene

Address: 3500 Chad Drive Suite 100
Eugene, OR 97408

Batch #: 2106185.00

Client Project #: 52651.001 Phase 0001

Date Received: 4/6/2021

Samples Received: 42

Samples Analyzed: 42

Method: EPA/600/R-93/116

Attention: Mr. Daniel Lyons

Project Location: N-A

Lab ID: 21044222 Client Sample #: 52651.001-0001

Location: N-A

Layer 1 of 3 Description: Black rubbery material

Non-Fibrous Materials:
Rubber/Binder

Other Fibrous Materials:%
None Detected ND

**Asbestos Type: %
None Detected ND**

Layer 2 of 3 Description: Soft white mastic

Non-Fibrous Materials:
Mastic/Binder

Other Fibrous Materials:%
None Detected ND

**Asbestos Type: %
None Detected ND**

Layer 3 of 3 Description: Brown brittle mastic

Non-Fibrous Materials:
Mastic/Binder

Other Fibrous Materials:%
None Detected ND

**Asbestos Type: %
None Detected ND**

Lab ID: 21044223 Client Sample #: 52651.001-0002

Location: N-A

Layer 1 of 1 Description: Grey brittle material with paint

Non-Fibrous Materials:
Cement/Binder, Paint, Fine grains

Other Fibrous Materials:%
None Detected ND

**Asbestos Type: %
Chrysotile 25%**

Lab ID: 21044224 Client Sample #: 52651.001-0003

Location: N-A

Layer 1 of 2 Description: Black rubbery material

Non-Fibrous Materials:
Rubber/Binder

Other Fibrous Materials:%
None Detected ND

**Asbestos Type: %
None Detected ND**

Layer 2 of 2 Description: Brown crumbly mastic

Non-Fibrous Materials:
Mastic/Binder

Other Fibrous Materials:%
None Detected ND

**Asbestos Type: %
None Detected ND**

Sampled by: Client

Analyzed by: Matt Macfarlane

Reviewed by: Nick Ly

Date: 04/07/2021

Date: 04/07/2021

Nick Ly, Technical Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government



Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: PBS Environmental - Eugene
Address: 3500 Chad Drive Suite 100
Eugene, OR 97408

Batch #: 2106185.00

Client Project #: 52651.001 Phase 0001

Date Received: 4/6/2021

Samples Received: 42

Samples Analyzed: 42

Method: EPA/600/R-93/116

Attention: Mr. Daniel Lyons

Project Location: N-A

Lab ID: 21044225 Client Sample #: 52651.001-0004

Location: N-A

Layer 1 of 2	Description: Brown fibrous material with paint	Non-Fibrous Materials:	Other Fibrous Materials: %	Asbestos Type: %
		Binder/Filler, Paint	Cellulose 55%	
Layer 2 of 2	Description: Crumbly brown mastic	Non-Fibrous Materials:	Other Fibrous Materials: %	Asbestos Type: %
		Mastic/Binder	None Detected ND	

Lab ID: 21044226 Client Sample #: 52651.001-0005

Location: N-A

Layer 1 of 2	Description: Brown fibrous material with paint	Non-Fibrous Materials:	Other Fibrous Materials: %	Asbestos Type: %
		Binder/Filler, Paint	Cellulose 60%	
Layer 2 of 2	Description: Crumbly brown mastic	Non-Fibrous Materials:	Other Fibrous Materials: %	Asbestos Type: %
		Mastic/Binder	None Detected ND	

Lab ID: 21044227 Client Sample #: 52651.001-0006

Location: N-A

Layer 1 of 3	Description: White compacted powdery material with paint	Non-Fibrous Materials:	Other Fibrous Materials: %	Asbestos Type: %
		Calcareous binder, Paint	None Detected ND	
Layer 2 of 3	Description: White compacted powdery material with paper	Non-Fibrous Materials:	Other Fibrous Materials: %	Asbestos Type: %
		Calcareous binder	Cellulose 30%	

Sampled by: Client

Analyzed by: Matt Macfarlane

Reviewed by: Nick Ly

Date: 04/07/2021

Date: 04/07/2021

Nick Ly, Technical Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government



Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: PBS Environmental - Eugene

Address: 3500 Chad Drive Suite 100
Eugene, OR 97408

Batch #: 2106185.00

Client Project #: 52651.001 Phase 0001

Date Received: 4/6/2021

Samples Received: 42

Samples Analyzed: 42

Method: EPA/600/R-93/116

Attention: Mr. Daniel Lyons

Project Location: N-A

Layer 3 of 3	Description: Chalky white material with paper			
	Non-Fibrous Materials:	Other Fibrous Materials: %		Asbestos Type: %
	Gypsum/Binder	Cellulose 15%		None Detected ND
		Glass fibers 2%		

Lab ID: 21044228 **Client Sample #: 52651.001-0007**

Location: N-A

Layer 1 of 1	Description: Soft brown material with paint			
	Non-Fibrous Materials:	Other Fibrous Materials: %		Asbestos Type: %
	Putty Compound, Paint, Asphaltic Particles	None Detected ND		Chrysotile 8%

Lab ID: 21044229 **Client Sample #: 52651.001-0008**

Location: N-A

Layer 1 of 1	Description: Soft brown material with paint			
	Non-Fibrous Materials:	Other Fibrous Materials: %		Asbestos Type: %
	Putty Compound, Paint, Calcareous particles	None Detected ND		Chrysotile 7%

Lab ID: 21044230 **Client Sample #: 52651.001-0009**

Location: N-A

Layer 1 of 2	Description: Brown brittle material with green laminate surface			
	Non-Fibrous Materials:	Other Fibrous Materials: %		Asbestos Type: %
	Laminate/binder	Cellulose 25%		None Detected ND

Layer 2 of 2	Description: Brittle brown mastic			
	Non-Fibrous Materials:	Other Fibrous Materials: %		Asbestos Type: %
	Mastic/Binder	None Detected ND		None Detected ND

Lab ID: 21044231 **Client Sample #: 52651.001-0010**

Location: N-A

Sampled by: Client

Analyzed by: Matt Macfarlane

Reviewed by: Nick Ly

Date: 04/07/2021

Date: 04/07/2021

Nick Ly, Technical Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government



Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: PBS Environmental - Eugene
Address: 3500 Chad Drive Suite 100
Eugene, OR 97408

Batch #: 2106185.00

Client Project #: 52651.001 Phase 0001

Date Received: 4/6/2021

Samples Received: 42

Samples Analyzed: 42

Method: EPA/600/R-93/116

Attention: Mr. Daniel Lyons

Project Location: N-A

Layer 1 of 2	Description: White sandy brittle material with paint	Non-Fibrous Materials:	Other Fibrous Materials:%	Asbestos Type: %
		Calcareous binder, Paint, Sand	None Detected ND	
Layer 2 of 2	Description: Chalky white material with paper	Non-Fibrous Materials:	Other Fibrous Materials:%	Asbestos Type: %
		Gypsum/Binder	Cellulose 12%	
			Glass fibers 2%	

Lab ID: 21044232 **Client Sample #: 52651.001-0011**

Location: N-A

Layer 1 of 1	Description: Black asphaltic built-up material with granules	Non-Fibrous Materials:	Other Fibrous Materials:%	Asbestos Type: %
		Asphalt/Binder, Granules, Mineral grains	Glass fibers 30%	

Lab ID: 21044233 **Client Sample #: 52651.001-0012**

Location: N-A

Layer 1 of 2	Description: Black asphaltic built-up material with granules	Non-Fibrous Materials:	Other Fibrous Materials:%	Asbestos Type: %
		Asphalt/Binder, Granules, Mineral grains	Glass fibers 25%	
Layer 2 of 2	Description: Black asphaltic material	Non-Fibrous Materials:	Other Fibrous Materials:%	Asbestos Type: %
		Asphalt/Binder, Fine grains	Glass fibers 20%	

Lab ID: 21044234 **Client Sample #: 52651.001-0013**

Location: N-A

Layer 1 of 1	Description: Grey rubbery material	Non-Fibrous Materials:	Other Fibrous Materials:%	Asbestos Type: %
		Rubber/Binder, Fine particles	Polyethylene fibers 5%	

Sampled by: Client

Analyzed by: Matt Macfarlane

Reviewed by: Nick Ly

Date: 04/07/2021

Date: 04/07/2021

Nick Ly, Technical Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government



Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: PBS Environmental - Eugene

Address: 3500 Chad Drive Suite 100
Eugene, OR 97408

Batch #: 2106185.00

Client Project #: 52651.001 Phase 0001

Date Received: 4/6/2021

Samples Received: 42

Samples Analyzed: 42

Method: EPA/600/R-93/116

Attention: Mr. Daniel Lyons

Project Location: N-A

Lab ID: 21044235 **Client Sample #: 52651.001-0014**

Location: N-A

Layer 1 of 1 **Description:** Soft grey rubbery material

Non-Fibrous Materials:

Rubber/Binder

Other Fibrous Materials:%

None Detected ND

Asbestos Type: %

None Detected ND

Lab ID: 21044236 **Client Sample #: 52651.001-0015**

Location: N-A

Layer 1 of 2 **Description:** Black asphaltic built-up material with granules

Non-Fibrous Materials:

Asphalt/Binder, Granules, Mineral grains

Other Fibrous Materials:%

Glass fibers 35%

Asbestos Type: %

None Detected ND

Layer 2 of 2 **Description:** Brown fibrous material

Non-Fibrous Materials:

Binder/Filler

Other Fibrous Materials:%

Cellulose 95%

Glass fibers 2%

Asbestos Type: %

None Detected ND

Lab ID: 21044237 **Client Sample #: 52651.001-0016**

Location: N-A

Layer 1 of 1 **Description:** Black asphaltic built-up material with granules

Non-Fibrous Materials:

Asphalt/Binder, Granules, Mineral grains

Other Fibrous Materials:%

Glass fibers 40%

Asbestos Type: %

None Detected ND

Lab ID: 21044238 **Client Sample #: 52651.001-0017**

Location: N-A

Layer 1 of 1 **Description:** Black asphaltic material

Non-Fibrous Materials:

Asphalt/Binder, Fine particles

Other Fibrous Materials:%

Cellulose 2%

Asbestos Type: %

Chrysotile 10%

Sampled by: Client

Analyzed by: Matt Macfarlane

Reviewed by: Nick Ly

Date: 04/07/2021

Date: 04/07/2021

Nick Ly, Technical Director

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Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: PBS Environmental - Eugene

Address: 3500 Chad Drive Suite 100
Eugene, OR 97408

Batch #: 2106185.00

Client Project #: 52651.001 Phase 0001

Date Received: 4/6/2021

Samples Received: 42

Samples Analyzed: 42

Method: EPA/600/R-93/116

Attention: Mr. Daniel Lyons

Project Location: N-A

Lab ID: 21044239 **Client Sample #: 52651.001-0018**

Location: N-A

Layer 1 of 1 **Description:** Soft grey rubbery material with paint

Non-Fibrous Materials:

Rubber/Binder, Paint

Other Fibrous Materials: %

Polyethylene fibers 2%

Asbestos Type: %

None Detected ND

Lab ID: 21044240 **Client Sample #: 52651.001-0019**

Location: N-A

Layer 1 of 1 **Description:** Soft black rubbery material

Non-Fibrous Materials:

Rubber/Binder

Other Fibrous Materials: %

Polyethylene fibers 7%

Asbestos Type: %

None Detected ND

Lab ID: 21044241 **Client Sample #: 52651.001-0020**

Location: N-A

Layer 1 of 2 **Description:** White rubbery material

Non-Fibrous Materials:

Rubber/Binder

Other Fibrous Materials: %

Synthetic fibers 30%

Asbestos Type: %

None Detected ND

Layer 2 of 2 **Description:** White chalky material with woven fibrous mesh

Non-Fibrous Materials:

Gypsum/Binder, Calcareous particles

Other Fibrous Materials: %

Glass fibers 15%

Asbestos Type: %

None Detected ND

Lab ID: 21044242 **Client Sample #: 52651.001-0021**

Location: N-A

Comments: Unsure of correct layer sequence.

Layer 1 of 5 **Description:** Black asphaltic built-up material with granules

Non-Fibrous Materials:

Asphalt/Binder, Granules, Mineral grains

Other Fibrous Materials: %

Glass fibers 30%

Asbestos Type: %

None Detected ND

Sampled by: Client

Analyzed by: Matt Macfarlane

Reviewed by: Nick Ly

Date: 04/07/2021

Date: 04/07/2021

Nick Ly, Technical Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government



Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: PBS Environmental - Eugene

Address: 3500 Chad Drive Suite 100
Eugene, OR 97408

Batch #: 2106185.00

Client Project #: 52651.001 Phase 0001

Date Received: 4/6/2021

Samples Received: 42

Samples Analyzed: 42

Method: EPA/600/R-93/116

Attention: Mr. Daniel Lyons

Project Location: N-A

Layer 2 of 5	Description: Brown crumbly fibrous material			
	Non-Fibrous Materials:	Other Fibrous Materials:%		Asbestos Type: %
	Binder/Filler, Asphaltic Particles, Perlite	Cellulose 60%		None Detected ND
		Glass fibers 8%		
Layer 3 of 5	Description: Black asphaltic fibrous material			
	Non-Fibrous Materials:	Other Fibrous Materials:%		Asbestos Type: %
	Asphalt/Binder	Cellulose 80%		None Detected ND
Layer 4 of 5	Description: Yellow spongy foamy material			
	Non-Fibrous Materials:	Other Fibrous Materials:%		Asbestos Type: %
	Synthetic foam	None Detected ND		None Detected ND
Layer 5 of 5	Description: Black asphaltic built-up material			
	Non-Fibrous Materials:	Other Fibrous Materials:%		Asbestos Type: %
	Asphalt/Binder	Glass fibers 20%		None Detected ND

Lab ID: 21044243 **Client Sample #: 52651.001-0022**

Location: N-A

Layer 1 of 1	Description: Grey brittle material with paint			
	Non-Fibrous Materials:	Other Fibrous Materials:%		Asbestos Type: %
	Putty Compound, Paint	None Detected ND		Chrysotile 6%

Lab ID: 21044244 **Client Sample #: 52651.001-0023**

Location: N-A

Layer 1 of 1	Description: Grey brittle material with paint			
	Non-Fibrous Materials:	Other Fibrous Materials:%		Asbestos Type: %
	Putty Compound, Paint	None Detected ND		Chrysotile 5%

Lab ID: 21044245 **Client Sample #: 52651.001-0024**

Location: N-A


Sampled by: Client

Analyzed by: Matt Macfarlane

Reviewed by: Nick Ly

Date: 04/07/2021

Date: 04/07/2021


Nick Ly, Technical Director

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By Polarized Light Microscopy

Client: PBS Environmental - Eugene

Address: 3500 Chad Drive Suite 100
Eugene, OR 97408

Batch #: 2106185.00

Client Project #: 52651.001 Phase 0001

Date Received: 4/6/2021

Samples Received: 42

Samples Analyzed: 42

Method: EPA/600/R-93/116

Attention: Mr. Daniel Lyons

Project Location: N-A

Layer 1 of 3	Description: Black asphaltic material with granules	Non-Fibrous Materials:	Other Fibrous Materials:%	Asbestos Type: %
	Asphalt/Binder, Granules, Mineral grains		Glass fibers 33%	None Detected ND
Layer 2 of 3	Description: Black asphaltic built-up material	Non-Fibrous Materials:	Other Fibrous Materials:%	Asbestos Type: %
	Asphalt/Binder, Fine grains		Glass fibers 35%	None Detected ND
Layer 3 of 3	Description: Black asphaltic material	Non-Fibrous Materials:	Other Fibrous Materials:%	Asbestos Type: %
	Asphalt/Binder, Fine grains		Glass fibers 35%	None Detected ND

Lab ID: 21044246 **Client Sample #: 52651.001-0025**

Location: N-A

Comments: Unsure of correct layer sequence.

Layer 1 of 7	Description: Black asphaltic built-up material with granules	Non-Fibrous Materials:	Other Fibrous Materials:%	Asbestos Type: %
	Asphalt/Binder, Granules, Mineral grains		Glass fibers 25%	None Detected ND
Layer 2 of 7	Description: Brown crumbly fibrous material	Non-Fibrous Materials:	Other Fibrous Materials:%	Asbestos Type: %
	Binder/Filler, Asphaltic Particles, Fine grains		Cellulose 70%	None Detected ND
Layer 3 of 7	Description: Black asphaltic fibrous material	Non-Fibrous Materials:	Other Fibrous Materials:%	Asbestos Type: %
	Asphalt/Binder		Cellulose 50%	None Detected ND
Layer 4 of 7	Description: Yellow spongy foamy material	Non-Fibrous Materials:	Other Fibrous Materials:%	Asbestos Type: %
	Synthetic foam		None Detected ND	None Detected ND

Sampled by: Client

Analyzed by: Matt Macfarlane

Reviewed by: Nick Ly

Date: 04/07/2021

Date: 04/07/2021

Nick Ly, Technical Director

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Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: PBS Environmental - Eugene

Address: 3500 Chad Drive Suite 100
Eugene, OR 97408

Batch #: 2106185.00

Client Project #: 52651.001 Phase 0001

Date Received: 4/6/2021

Samples Received: 42

Samples Analyzed: 42

Method: EPA/600/R-93/116

Attention: Mr. Daniel Lyons

Project Location: N-A

Layer 5 of 7	Description: Brown fibrous material	Non-Fibrous Materials:	Other Fibrous Materials:%	Asbestos Type: % None Detected ND
		Binder/Filler, Fine particles	Cellulose 85%	
Layer 6 of 7	Description: Black & brown asphaltic fibrous material	Non-Fibrous Materials:	Other Fibrous Materials:%	Asbestos Type: % None Detected ND
		Asphalt/Binder	Cellulose 80%	
Layer 7 of 7	Description: Black asphaltic built-up material	Non-Fibrous Materials:	Other Fibrous Materials:%	Asbestos Type: % None Detected ND
		Asphalt/Binder	Glass fibers 20%	

Lab ID: 21044247 **Client Sample #: 52651.001-0026**

Location: N-A

Layer 1 of 1	Description: Soft yellow mastic	Non-Fibrous Materials:	Other Fibrous Materials:%	Asbestos Type: % None Detected ND
		Mastic/Binder, Fine particles	Synthetic fibers 2%	

Lab ID: 21044248 **Client Sample #: 52651.001-0027**

Location: N-A

Layer 1 of 2	Description: Blue brittle material	Non-Fibrous Materials:	Other Fibrous Materials:%	Asbestos Type: % None Detected ND
		Ceramic/Binder, Fine grains	None Detected ND	
Layer 2 of 2	Description: Grey brittle material	Non-Fibrous Materials:	Other Fibrous Materials:%	Asbestos Type: % None Detected ND
		Cement/Binder, Fine grains, Mineral grains	None Detected ND	

Lab ID: 21044249 **Client Sample #: 52651.001-0028**

Location: N-A

Sampled by: Client

Analyzed by: Matt Macfarlane

Reviewed by: Nick Ly

Date: 04/07/2021

Date: 04/07/2021


Nick Ly, Technical Director

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Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: PBS Environmental - Eugene
Address: 3500 Chad Drive Suite 100
Eugene, OR 97408

Batch #: 2106185.00

Client Project #: 52651.001 Phase 0001

Date Received: 4/6/2021

Samples Received: 42

Samples Analyzed: 42

Method: EPA/600/R-93/116

Attention: Mr. Daniel Lyons

Project Location: N-A

Layer 1 of 2	Description: White compacted powdery material with paint	Non-Fibrous Materials:	Other Fibrous Materials:%	Asbestos Type: %
		Calcareous binder, Paint	None Detected ND	
Layer 2 of 2	Description: Chalky white material with paper	Non-Fibrous Materials:	Other Fibrous Materials:%	Asbestos Type: %
		Gypsum/Binder	Cellulose 10%	
			Glass fibers 2%	

Lab ID: 21044250 Client Sample #: 52651.001-0029

Location: N-A

Layer 1 of 2	Description: Soft yellow mastic	Non-Fibrous Materials:	Other Fibrous Materials:%	Asbestos Type: %
		Mastic/Binder	None Detected ND	
Layer 2 of 2	Description: Tan fibrous material with paint	Non-Fibrous Materials:	Other Fibrous Materials:%	Asbestos Type: %
		Binder/Filler, Paint	Cellulose 75%	

Lab ID: 21044251 Client Sample #: 52651.001-0030

Location: N-A

Layer 1 of 2	Description: Blue vinyl tile	Non-Fibrous Materials:	Other Fibrous Materials:%	Asbestos Type: %
		Vinyl/Binder, Fine grains	None Detected ND	
Layer 2 of 2	Description: Black asphaltic fibrous backing with crumbly brown mastic	Non-Fibrous Materials:	Other Fibrous Materials:%	Asbestos Type: %
		Asphalt/Binder, Mastic/Binder	Cellulose 75%	

Lab ID: 21044252 Client Sample #: 52651.001-0031

Location: N-A

Sampled by: Client

Analyzed by: Matt Macfarlane

Reviewed by: Nick Ly

Date: 04/07/2021

Date: 04/07/2021

Nick Ly, Technical Director

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Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: PBS Environmental - Eugene

Address: 3500 Chad Drive Suite 100
Eugene, OR 97408

Batch #: 2106185.00

Client Project #: 52651.001 Phase 0001

Date Received: 4/6/2021

Samples Received: 42

Samples Analyzed: 42

Method: EPA/600/R-93/116

Attention: Mr. Daniel Lyons

Project Location: N-A

Layer 1 of 2	Description: Brown fibrous material with paint	Non-Fibrous Materials:	Other Fibrous Materials:%	Asbestos Type: % None Detected ND
		Binder/Filler, Paint	Cellulose 80%	
Layer 2 of 2	Description: Crumbly brown mastic	Non-Fibrous Materials:	Other Fibrous Materials:%	Asbestos Type: % None Detected ND
		Mastic/Binder	None Detected ND	

Lab ID: 21044253 **Client Sample #: 52651.001-0032**

Location: N-A

Layer 1 of 1	Description: Grey brittle material with paint	Non-Fibrous Materials:	Other Fibrous Materials:%	Asbestos Type: % Chrysotile 30%
		Cement/Binder, Paint, Fine grains	None Detected ND	

Lab ID: 21044254 **Client Sample #: 52651.001-0033**

Location: N-A

Layer 1 of 2	Description: Brown fibrous material	Non-Fibrous Materials:	Other Fibrous Materials:%	Asbestos Type: % None Detected ND
		Binder/Filler	Cellulose 75%	
Layer 2 of 2	Description: Crumbly brown mastic	Non-Fibrous Materials:	Other Fibrous Materials:%	Asbestos Type: % None Detected ND
		Mastic/Binder	None Detected ND	

Lab ID: 21044255 **Client Sample #: 52651.001-0034**

Location: N-A

Layer 1 of 1	Description: Off-white crumbly material with paint	Non-Fibrous Materials:	Other Fibrous Materials:%	Asbestos Type: % Chrysotile 8%
		Putty Compound, Paint	None Detected ND	

Sampled by: Client

Analyzed by: Matt Macfarlane

Reviewed by: Nick Ly

Date: 04/07/2021

Date: 04/07/2021

Nick Ly, Technical Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government



Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: PBS Environmental - Eugene
Address: 3500 Chad Drive Suite 100
Eugene, OR 97408

Batch #: 2106185.00

Client Project #: 52651.001 Phase 0001

Date Received: 4/6/2021

Samples Received: 42

Samples Analyzed: 42

Method: EPA/600/R-93/116

Attention: Mr. Daniel Lyons

Project Location: N-A

Lab ID: 21044256 **Client Sample #: 52651.001-0035**

Location: N-A

Layer 1 of 2	Description: White compacted powdery material with paint	Non-Fibrous Materials:	Other Fibrous Materials: %	Asbestos Type: %
		Calcareous binder, Paint	None Detected ND	
Layer 2 of 2	Description: Chalky white material with paper	Non-Fibrous Materials:	Other Fibrous Materials: %	Asbestos Type: %
		Gypsum/Binder	Cellulose 12%	
			Glass fibers 2%	

Lab ID: 21044257 **Client Sample #: 52651.001-0036**

Location: N-A

Layer 1 of 3	Description: White compacted powdery material with paint	Non-Fibrous Materials:	Other Fibrous Materials: %	Asbestos Type: %
		Calcareous binder, Paint	None Detected ND	
Layer 2 of 3	Description: White sandy brittle material	Non-Fibrous Materials:	Other Fibrous Materials: %	Asbestos Type: %
		Calcareous binder, Sand, Mineral grains	None Detected ND	
Layer 3 of 3	Description: Chalky white material with paper	Non-Fibrous Materials:	Other Fibrous Materials: %	Asbestos Type: %
		Gypsum/Binder	Cellulose 10%	
			Glass fibers 2%	

Lab ID: 21044258 **Client Sample #: 52651.001-0037**

Location: N-A

Comments: Unsure of correct layer sequence.

Sampled by: Client

Analyzed by: Matt Macfarlane

Reviewed by: Nick Ly

Date: 04/07/2021

Date: 04/07/2021

Nick Ly, Technical Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government



Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: PBS Environmental - Eugene

Address: 3500 Chad Drive Suite 100
Eugene, OR 97408

Batch #: 2106185.00

Client Project #: 52651.001 Phase 0001

Date Received: 4/6/2021

Samples Received: 42

Samples Analyzed: 42

Method: EPA/600/R-93/116

Attention: Mr. Daniel Lyons

Project Location: N-A

Layer 1 of 3	Description: Grey fibrous material with paint			
	Non-Fibrous Materials:	Other Fibrous Materials: %		Asbestos Type: %
	Binder/Filler, Paint, Perlite	Cellulose 60%		None Detected ND
	Calcareous particles	Glass fibers 6%		
Layer 2 of 3	Description: Brittle black asphaltic material			
	Non-Fibrous Materials:	Other Fibrous Materials: %		Asbestos Type: %
	Asphalt/Binder	None Detected ND		None Detected ND
Layer 3 of 3	Description: Tan fibrous material			
	Non-Fibrous Materials:	Other Fibrous Materials: %		Asbestos Type: %
	Binder/Filler	Wood fibers 95%		None Detected ND

Lab ID: 21044259 **Client Sample #: 52651.001-0038**

Location: N-A

Layer 1 of 2	Description: Brown & green fibrous material			
	Non-Fibrous Materials:	Other Fibrous Materials: %		Asbestos Type: %
	Binder/Filler	Cellulose 75%		None Detected ND
Layer 2 of 2	Description: Brown brittle mastic			
	Non-Fibrous Materials:	Other Fibrous Materials: %		Asbestos Type: %
	Mastic/Binder	None Detected ND		None Detected ND

Lab ID: 21044260 **Client Sample #: 52651.001-0039**

Location: N-A

Layer 1 of 3	Description: White spongy foamy material			
	Non-Fibrous Materials:	Other Fibrous Materials: %		Asbestos Type: %
	Synthetic foam	None Detected ND		None Detected ND

Sampled by: Client

Analyzed by: Matt Macfarlane

Reviewed by: Nick Ly

Date: 04/07/2021

Date: 04/07/2021

Nick Ly, Technical Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government



Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: PBS Environmental - Eugene

Address: 3500 Chad Drive Suite 100
Eugene, OR 97408

Batch #: 2106185.00

Client Project #: 52651.001 Phase 0001

Date Received: 4/6/2021

Samples Received: 42

Samples Analyzed: 42

Method: EPA/600/R-93/116

Attention: Mr. Daniel Lyons

Project Location: N-A

Layer 2 of 3	Description: Brown brittle material with pink laminate surface	Non-Fibrous Materials:	Other Fibrous Materials:%	Asbestos Type: % None Detected ND
		Laminate/binder	Cellulose 20%	
Layer 3 of 3	Description: Brown brittle mastic	Non-Fibrous Materials:	Other Fibrous Materials:%	Asbestos Type: % None Detected ND
		Mastic/Binder, Calcareous particles	None Detected ND	

Lab ID: 21044261 **Client Sample #: 52651.001-0040**

Location: N-A

Layer 1 of 2	Description: Brown brittle material with green laminate surface	Non-Fibrous Materials:	Other Fibrous Materials:%	Asbestos Type: % None Detected ND
		Laminate/binder	Cellulose 30%	
Layer 2 of 2	Description: Brown brittle mastic	Non-Fibrous Materials:	Other Fibrous Materials:%	Asbestos Type: % None Detected ND
		Mastic/Binder	None Detected ND	

Lab ID: 21044262 **Client Sample #: 52651.001-0041**

Location: N-A

Layer 1 of 1	Description: Black asphaltic material	Non-Fibrous Materials:	Other Fibrous Materials:%	Asbestos Type: % None Detected ND
		Asphalt/Binder, Fine grains	Glass fibers 33%	

Lab ID: 21044263 **Client Sample #: 52651.001-0042**

Location: N-A

Layer 1 of 1	Description: White brittle material with paint	Non-Fibrous Materials:	Other Fibrous Materials:%	Asbestos Type: % None Detected ND
		Putty Compound, Paint, Fine grains	None Detected ND	

Sampled by: Client

Analyzed by: Matt Macfarlane

Reviewed by: Nick Ly

Date: 04/07/2021

Date: 04/07/2021

Nick Ly, Technical Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

ASBESTOS LABORATORY SERVICES



Company PBS Environmental - Eugene
Address 3500 Chad Drive Suite 100
 Eugene, OR 97408
Project Manager Mr. Daniel Lyons
Phone (541) 686-8684
Cell (514) 255-6182
NVL Batch Number 2106185.00
TAT 3 Days **AH** No
Rush TAT
Due Date 4/9/2021 **Time** 9:15 AM
Email daniel.lyons@pbsusa.com
Fax (866) 727-0140

Project Name/Number: 52651.001 Phase 0001
Project Location: N-A

Subcategory PLM Bulk

Item Code ASB-02 EPA 600/R-93-116 Asbestos by PLM <bulk>

Total Number of Samples 42

Rush Samples

	Lab ID	Sample ID	Description	A/R
1	21044222	52651.001-0001		A
2	21044223	52651.001-0002		A
3	21044224	52651.001-0003		A
4	21044225	52651.001-0004		A
5	21044226	52651.001-0005		A
6	21044227	52651.001-0006		A
7	21044228	52651.001-0007		A
8	21044229	52651.001-0008		A
9	21044230	52651.001-0009		A
10	21044231	52651.001-0010		A
11	21044232	52651.001-0011		A
12	21044233	52651.001-0012		A
13	21044234	52651.001-0013		A
14	21044235	52651.001-0014		A
15	21044236	52651.001-0015		A
16	21044237	52651.001-0016		A
17	21044238	52651.001-0017		A
18	21044239	52651.001-0018		A

	Print Name	Signature	Company	Date	Time
Sampled by	Client				
Relinquished by	Federal Express				

	Print Name	Signature	Company	Date	Time
Received by	Umer Khan		NVL	4/6/21	915
Analyzed by	Matt Macfarlane		NVL	4/7/21	
Results Called by					
<input type="checkbox"/> Faxed <input type="checkbox"/> Emailed					

Special Instructions: Please include results in electronic (csv) format.

Date: 4/6/2021
 Time: 10:03 AM
 Entered By: Kelly AuVu

ASBESTOS LABORATORY SERVICES



Company PBS Environmental - Eugene
Address 3500 Chad Drive Suite 100
 Eugene, OR 97408
Project Manager Mr. Daniel Lyons
Phone (541) 686-8684
Cell (514) 255-6182
NVL Batch Number 2106185.00
TAT 3 Days **AH** No
Rush TAT
Due Date 4/9/2021 **Time** 9:15 AM
Email daniel.lyons@pbsusa.com
Fax (866) 727-0140

Project Name/Number: 52651.001 Phase 0001
Project Location: N-A

Subcategory PLM Bulk

Item Code ASB-02 EPA 600/R-93-116 Asbestos by PLM <bulk>

Total Number of Samples 42

Rush Samples

	Lab ID	Sample ID	Description	A/R
19	21044240	52651.001-0019		A
20	21044241	52651.001-0020		A
21	21044242	52651.001-0021		A
22	21044243	52651.001-0022		A
23	21044244	52651.001-0023		A
24	21044245	52651.001-0024		A
25	21044246	52651.001-0025		A
26	21044247	52651.001-0026		A
27	21044248	52651.001-0027		A
28	21044249	52651.001-0028		A
29	21044250	52651.001-0029		A
30	21044251	52651.001-0030		A
31	21044252	52651.001-0031		A
32	21044253	52651.001-0032		A
33	21044254	52651.001-0033		A
34	21044255	52651.001-0034		A
35	21044256	52651.001-0035		A
36	21044257	52651.001-0036		A

	Print Name	Signature	Company	Date	Time
Sampled by	Client				
Relinquished by	Federal Express				

	Print Name	Signature	Company	Date	Time
Received by	Umer Khan		NVL	4/6/21	915
Analyzed by	Matt Macfarlane		NVL	4/7/21	
Results Called by					
<input type="checkbox"/> Faxed <input type="checkbox"/> Emailed					

Special Please include results in electronic (csv) format.
Instructions:

Date: 4/6/2021
 Time: 10:03 AM
 Entered By: Kelly AuVu

ASBESTOS LABORATORY SERVICES



Company PBS Environmental - Eugene
Address 3500 Chad Drive Suite 100
 Eugene, OR 97408
Project Manager Mr. Daniel Lyons
Phone (541) 686-8684
Cell (514) 255-6182
NVL Batch Number 2106185.00
TAT 3 Days **AH** No
Rush TAT
Due Date 4/9/2021 **Time** 9:15 AM
Email daniel.lyons@pbsusa.com
Fax (866) 727-0140

Project Name/Number: 52651.001 Phase 0001
Project Location: N-A

Subcategory PLM Bulk
Item Code ASB-02 EPA 600/R-93-116 Asbestos by PLM <bulk>

Total Number of Samples 42 **Rush Samples**

	Lab ID	Sample ID	Description	A/R
37	21044258	52651.001-0037		A
38	21044259	52651.001-0038		A
39	21044260	52651.001-0039		A
40	21044261	52651.001-0040		A
41	21044262	52651.001-0041		A
42	21044263	52651.001-0042		A

	Print Name	Signature	Company	Date	Time
Sampled by	Client				
Relinquished by	Federal Express				
Office Use Only	Print Name	Signature	Company	Date	Time
Received by	Umer Khan		NVL	4/6/21	915
Analyzed by	Matt Macfarlane		NVL	4/7/21	
Results Called by					
<input type="checkbox"/> Faxed <input type="checkbox"/> Emailed					

Special Instructions: Please include results in electronic (csv) format.

Date: 4/6/2021
 Time: 10:03 AM
 Entered By: Kelly AuVu



2106185

TRANSMITTAL AND CHAIN OF CUSTODY FOR ASBESTOS BULK SAMPLES

Project No.: 52651.001 Phase 0001

Individuals signing this form warrant that the information provided is correct and complete. The Sender should keep a copy and send the original. The Receiver should complete the form, keep a copy and return the original to the Sender. Receiver shall report damage of package immediately to Sender.

SENDER

Date Sent: April 05, 2021

PBS Engineering and Environmental Inc.

3500 Chad Drive, Suite 100

Eugene, OR 97408

541.686.8684, Fax: 866.727.0140

Daniel Lyons

Name

[Signature] 4/5/21 3:00

Authorized Signature

Date

Time

RECEIVER

Date Received: 4/6/21

Company: NVL Labs, Inc.

Address: 4708 Aurora Ave. North

Seattle, WA 98103

(206)547-0100

Umer Khan

Name

[Signature] 4/6/21 09:55

Authorized Signature

Date

Time

Sender's ID No.

Brief Description

Receiver's ID No.

52651.001-0001

52651.001-0002

52651.001-0003

52651.001-0004

52651.001-0005

52651.001-0006

52651.001-0007

52651.001-0008

52651.001-0009

52651.001-0010

52651.001-0011

52651.001-0012

52651.001-0013

52651.001-0014



2106185

TRANSMITTAL AND CHAIN OF CUSTODY FOR ASBESTOS BULK SAMPLES

52651.001-0015		
52651.001-0016		
52651.001-0017		
52651.001-0018		
52651.001-0019		
52651.001-0020		
52651.001-0021		
52651.001-0022		
52651.001-0023		
52651.001-0024		
52651.001-0025		
52651.001-0026		
52651.001-0027		
52651.001-0028		
52651.001-0029		
52651.001-0030		
52651.001-0031		
52651.001-0032		
52651.001-0033		
52651.001-0034		
52651.001-0035		
52651.001-0036		
52651.001-0037		
52651.001-0038		
52651.001-0039		



2106185

TRANSMITTAL AND CHAIN OF CUSTODY FOR ASBESTOS BULK SAMPLES

52651.001-0040

52651.001-0041

52651.001-0042

Please analyze the enclosed 42 sample(s) for asbestos content using PLM with dispersion staining. PBS requests prior notification if samples will be disposed.

Request verbal results by: _____ AM/PM _____ Date.

Please fax and mail the results to the above address.

TURNAROUND DESIRED:

72 Hour

SPECIAL INSTRUCTIONS:

Please include results in electronic (csv) format.

Please email results to daniel.lyons@pbusa.com
thanks!

April 8, 2021

Daniel Lyons

PBS Environmental - Eugene

3500 Chad Drive Suite 100

Eugene, OR 97408



NVL Batch # 2106188.00

RE: Total Metal Analysis
Method: EPA 7000B Lead by FAA <paint>
Item Code: FAA-02

Client Project: 52651.001 Phase 0001

Location: N-A

Dear Mr. Lyons,

NVL Labs received 10 sample(s) for the said project on 4/6/2021. Preparation of these samples was conducted following protocol outlined in EPA 3051/7000B , unless stated otherwise.

Analysis of these samples was performed using analytical instruments in accordance with EPA 7000B Lead by FAA <paint>. The results are usually expressed in mg/Kg and percentage (%). Test results are not blank corrected.

For recent regulation updates pertaining to current regulatory levels or permissible exposure levels, please call your local regulatory agencies for more detail.

At NVL Labs all analyses are performed under strict guidelines of the Quality Assurance Program. This report is considered highly confidential and will not be released without your approval. Samples are archived after two weeks from the analysis date. Please feel free to contact us at 206-547-0100, in case you have any questions or concerns.

Sincerely,

A handwritten signature in black ink, appearing to read "Shalini Patel".

Shalini Patel, Lab Supervisor



Enc.: Sample results



Phone: 206 547.0100 | Fax: 206 634.1936 | Toll Free: 1.888.NVL.LABS (685.5227)
4708 Aurora Avenue North | Seattle, WA 98103-6516

Analysis Report

Total Lead (Pb)



Client: PBS Environmental - Eugene
Address: 3500 Chad Drive Suite 100
Eugene, OR 97408

Batch #: 2106188.00

Matrix: Paint
Method: EPA 3051/7000B
Client Project #: 52651.001 Phase 0001
Date Received: 4/6/2021
Samples Received: 10
Samples Analyzed: 10

Attention: Mr. Daniel Lyons

Project Location: N-A

Lab ID	Client Sample #	Sample Weight (g)	RL in mg/Kg	Results in mg/Kg	Results in percent
21044292	LB52651.001-1001	0.1843	54	900	0.090
21044293	LB52651.001-1002	0.1827	55	430	0.043
21044294	LB52651.001-1003	0.1817	55	< 55	<0.0055
21044295	LB52651.001-1004	0.1836	54	< 54	<0.0054
21044296	LB52651.001-1005	0.1858	54	9100	0.91
21044297	LB52651.001-1006	0.1051	95	110	0.011
21044298	LB52651.001-1007	0.1967	51	< 51	<0.0051
21044299	LB52651.001-1008	0.2060	49	780	0.078
21044300	LB52651.001-1009	0.1803	55	4200	0.42
21044301	LB52651.001-1010	0.1873	53	< 53	<0.0053


Sampled by: Client

Analyzed by: Yasuyuki Hida

Reviewed by: Shalini Patel

Date Analyzed: 04/08/2021

Date Issued: 04/08/2021


Shalini Patel, Lab Supervisor

mg/ Kg =Milligrams per kilogram

Percent = Milligrams per kilogram / 10000

Note : Method QC results are acceptable unless stated otherwise.

Unless otherwise indicated, the condition of all samples was acceptable at time of receipt.

RL = Reporting Limit

'<' = Below the reporting Limit

Bench Run No: 2021-0408-3

FAA-02

LEAD LABORATORY SERVICES



Company PBS Environmental - Eugene
Address 3500 Chad Drive Suite 100
 Eugene, OR 97408
Project Manager Mr. Daniel Lyons
Phone (541) 686-8684
Cell (514) 255-6182
NVL Batch Number 2106188.00
TAT 3 Days **AH** No
Rush TAT
Due Date 4/9/2021 **Time** 9:15 AM
Email daniel.lyons@pbsusa.com
Fax (866) 727-0140

Project Name/Number: 52651.001 Phase 0001
Project Location: N-A

Subcategory Flame AA (FAA)
Item Code FAA-02 EPA 7000B Lead by FAA <paint>

Total Number of Samples 10 **Rush Samples**

	Lab ID	Sample ID	Description	A/R
1	21044292	LB52651.001-1001		A
2	21044293	LB52651.001-1002		A
3	21044294	LB52651.001-1003		A
4	21044295	LB52651.001-1004		A
5	21044296	LB52651.001-1005		A
6	21044297	LB52651.001-1006		A
7	21044298	LB52651.001-1007		A
8	21044299	LB52651.001-1008		A
9	21044300	LB52651.001-1009		A
10	21044301	LB52651.001-1010		A

	Print Name	Signature	Company	Date	Time
Sampled by	Client				
Relinquished by	Federal Express				

Office Use Only	Print Name	Signature	Company	Date	Time
Received by	Umer Khan		NVL	4/6/21	915
Analyzed by	Yasuyuki Hida		NVL	4/8/21	
Results Called by					
<input type="checkbox"/> Faxed <input type="checkbox"/> Emailed					

Special Instructions:

Date: 4/6/2021
 Time: 10:20 AM
 Entered By: Kelly AuVu



2106188

TRANSMITTAL AND CHAIN OF CUSTODY FOR LEAD BULK SAMPLES

Project No.: 52651.001 Phase 0001

Individuals signing this form warrant that the information provided is correct and complete. The Sender should keep a copy and send the original. The Receiver should complete the form, keep a copy and return the original to the Sender. Receiver shall report damage of package immediately to Sender.

SENDER

Date Sent: April 05, 2021

PBS Engineering and Environmental Inc.
3500 Chad Drive, Suite 100
Eugene, OR 97408
541.686.8684, Fax: 866.727.0140



Name



Authorized Signature

4/5/21

Date

RECEIVER

Date Received: 4/6/21

Company: NVL Labs, Inc.
Address: 4708 Aurora Ave. North
Seattle, WA 98103
(206)547-0100



Name

 (NVL)

Authorized Signature

4/6/21 @ 09:15 fda

Date

Sender's ID No.

Brief Description

Receiver's ID No.

LB52651.001-1001

LB52651.001-1002

LB52651.001-1003

LB52651.001-1004

LB52651.001-1005

LB52651.001-1006

LB52651.001-1007

LB52651.001-1008

LB52651.001-1009

LB52651.001-1010



2106188

TRANSMITTAL AND CHAIN OF CUSTODY FOR LEAD BULK SAMPLES

ANALYSIS REQUESTED:

- LEAD:**
- ☒ Paint
 - ☐ Wipe
 - ☐ Soil/Misc.
 - ☐ Air
 - ☐ TCLP

Please analyze the enclosed 10 sample(s) for LEAD content using Atomic Absorption Method. PBS requests prior notification if samples will be disposed.

Please fax and mail the results to the above address.

TURNAROUND DESIRED:

72 Hour

SPECIAL INSTRUCTIONS:

Please email results to daniel.lyons@pbsusa.com

THIS IS TO CERTIFY THAT

DANIEL LYONS

HAS SUCCESSFULLY COMPLETED THE TRAINING COURSE

for

ASBESTOS INSPECTOR REFRESHER

In accordance with TSCA Title II, Part 763, Subpart E, Appendix C of 40 CFR

Course Date: 04/16/2020

Course Location: Eugene, OR

Certificate: IR-20-8027B



CCB #SRA0615 4-Hr Training

4-Hour AHERA Inspector Refresher Training; AHERA is the Asbestos Hazard Emergency Response Act enacting Title II of Toxic Substance Control Act (TSCA)

Expiration Date: 04/16/2021

For verification of the authenticity of this certificate contact:
PBS Engineering and Environmental Inc.
4412 S Corbett Avenue
Portland, Oregon 97239
503.248.1939

A handwritten signature in black ink, which appears to read "Andy Fridley", is written over a horizontal line.

Andy Fridley, Instructor

THIS IS TO CERTIFY THAT

JEFF HEEREN

HAS SUCCESSFULLY COMPLETED THE TRAINING COURSE

for

ASBESTOS MANAGEMENT PLANNER REFRESHER

In accordance with TSCA Title II, Part 763, Subpart E, Appendix C of 40 CFR

Course Date: 05/20/2020

Course Location: Portland, OR

Certificate: MPR-20-4941A



AHERA is the Asbestos Hazard Emergency Response Act enacting Title II of Toxic Substance Control Act (TSCA)

Expiration Date: 05/20/2021

For verification of the authenticity of this certificate contact:
PBS Environmental
4412 SW Corbett Avenue
Portland, OR 97239
(503) 248-1939

A handwritten signature in black ink, reading 'Andy Fridley', written over a horizontal line.

Andy Fridley, Instructor

Lane Educational Service District

April 14, 2021

Westmoreland Campus Voluntary Seismic Strengthening

Walk Through Attendance List

Name	Company	Phone	E-mail
Doug PRUITT	BBL ARCHITECTS	503 635-4925	Doug@BBLARCHITECTS.COM
Caleb Ewing	Sika Sarnafil	503-944-9541	ewing.caleb@us.sika.com
Eric Vanderhoof	Umpqua Roofing	541-302-6850	eric@umpquaroofing.com
Brian Gray	Ausland	541-237-4377	bgray@auslandgroup.com
Sam Montano	Mchaniz Commercial	541-729-2643	jmender@mcmail.biz
DOUG LOST	2G CONSTRUCTION	(541) 689-3850	djost@2gconstruction.com
Billy Phillips	Essex Construction	(541) 953-9633	billy.phillips@essexcl.com
Trevor Mael	Swinerton	971-409-7834	trevor.mael@swinerton.com
Jerry Valera	Bridgeway Contracting	541-606-2571	jerryval@bridgewaycontracting.com
Bob Buss	Bridgeway Contracting	541-501-9020	bob@bridgewaycontracting.com
BRIAN KNIGHT	WRK ENGINEERS	503-680-0018	BRIAN@WRKENGINEERS.COM