

## **Addendum #1**

Bid Number 23/24-18  
Stauffer Middle School  
Canopy Replacement Project

The changes made under this Addendum of the Contract Documents, Specifications, Special Provisions, and Plans for the above project Bid Packet are as follows:

### **Item 1. Contract Documents**

1. Please replace 07550 technical specifications from the project manual posted November 22, 2023 with attached 07550 technical specifications.
2. Please include the attached asbestos survey of the canopy roofing into the project manual.

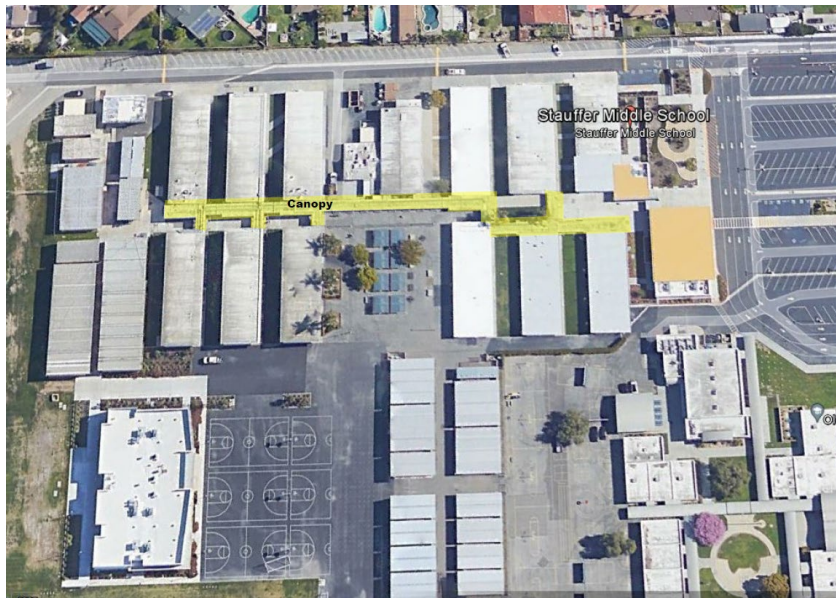
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SECTION 07550  
MODIFIED BITUMINOUS MEMBRANE ROOFING  
RESTORATION FLUID APPLIED MEMBRANE ROOFING

PART 1 GENERAL

1.1 SCOPE OF WORK

- A. Provide all labor, equipment, and miscellaneous materials to install District purchased and furnished roofing materials over the properly prepared substrate
- B. All products listed in 2.01, D will be furnished by the District. All products not listed in 2.01, D are to be furnished by the Contractor. All products listed in 2.1, D will be manufactured by The Garland Company and purchased by Downey Unified School District.
- C. Roof Replacement:
  - Stauffer MS Canopy



1. Contractor to hold pre-construction meeting with HVAC installer to schedule new curb installation. Work for both trades to be performed during the summer break. In addition, prior to the start of construction, any existing drains to be tested. District to clean any drains not functioning properly.
2. Remove the existing roof system to the structural deck. District to mark any non-functioning equipment. All marked equipment to be removed during demolition.
3. Repair any damaged decking as required. Contractor to include 7% deck

replacement in the base bid. If the amount of deck replacement exceeds 7%, the contractor is to receive a change order equal to the unit price for deck replacement per sq ft multiplied by the sq ft in excess of the base bid amount. If the amount of deck replacement is less than 7%, the contractor is to provide a credit to the District equal to the unit price of deck replacement per sq ft multiplied by the sq ft less than the base bid amount.

4. Apply SA Primer to the deck at ½ gal per sq. Allow 6 hrs to cure.
5. Apply SA Base IV base sheet. Apply per manufacturer requirements.
6. Apply Stressply IV UV Plus Mineral.
7. Flashings / Sheet Metal:
  - a. Apply SBS-modified flashing ply in all flashing areas – SA Base IV. Flashing ply to extend min 6” onto the roof field. Apply SBS-modified flashing cap ply –Stressply IV UV Plus Mineral -- in all flashing areas extending a min 9” onto the roof field.
  - b. All flashing plies to be terminated with a termination bar set in butyl tape and fastened every 6” o.c. Caulk above the termination bar.
  - c. Interior Wall Flashing / Existing Counterflashing Metal: Install flashing plies as high as possible. Install 22 gauge, galvanized skirt metal counterflashing to the existing counterflashing metal.
  - d. Edge: Install 22 gauge, galvanized edge metal. Edge metal flashing to comply with manufacturer details.
  - e. Gutters: Existing gutters to be removed and replaced with new, 24 gauge, kynar, seamless gutters with K-Style design. Tie into the existing downspouts.
    - 1) Install new interior gutters. 22 gauge, galvanized gutters. Tie into new gutter system.
  - f. Wall Flashings -- Counterflashing: Flash plies as high as possible under embedded counterflashing metal. Terminate with a termination bar set in butyl tape. Caulk above. Install a 22 gauge, galvanized skirt metal flashing extending over the flashing ply termination.
8. No pitch pockets on roof. Lead flash all penetrations. Roofing contractor to supply and install all lead flashings. Install umbrella cover over all caulked clamps. Caulk umbrella.
  - a. DHS Bldg X Ductwork Leg Supports: Install wood blocking and install fabricated lead flashing. Install umbrella cover to ensure watertight condition.
9. All conduit to be placed on rubber walkpads.
10. Replace rusted and damaged heat stack / vent covers.
11. Sleepers: Replace existing sleepers with new redwood blocking. Place on walkpads.

## 1.2 REFERENCES

- A. ASTM D 41 - Standard Specification for Asphalt Primer Used in Roofing, Dampproofing, and Waterproofing.

- B. ASTM D 312 - Standard Specification for Asphalt used in Roofing.
- C. ASTM D 451 - Standard Test Method for Sieve Analysis of Granular Mineral Surfacing for Asphalt Roofing Products.
- D. ASTM D 1970 - Specification for Sheet Materials, Self-Adhering Polymer Modified Bituminous, Used as Steep Roofing Underlayment for Ice Dam Protection.
- E. ASTM D 1079 Standard Terminology Relating to Roofing, Waterproofing and Bituminous Materials.
- F. ASTM D 1227 Standard Specification for Emulsified Asphalt Used as a Protective Coating for Roofing.
- G. ASTM D 1863 Standard Specification for Mineral Aggregate Used as a Protective Coating for Roofing.
- H. ASTM D 2178 Standard Specification for Asphalt Glass Felt Used in Roofing and Waterproofing.
- I. ASTM D 2824 Standard Specification for Aluminum-Pigmented Asphalt Roof Coating.
- J. ASTM D 4586 Standard Specification for Asphalt Roof Cement, Asbestos-Free.
- K. ASTM D 4601 Standard Specification for Asphalt Coated Glass Fiber Base Sheet Used in Roofing.
- L. ASTM D 5147 Standard Test Method for Sampling and Testing Modified Bituminous Sheet Materials.
- M. ASTM D 6162 Standard Specification for Styrene Butadiene Styrene (SBS) Modified Bituminous Sheet Materials Using a Combination of Polyester and Glass Fiber Reinforcements.
- N. ASTM D 6163 Standard Specification for Styrene Butadiene Styrene (SBS) Modified Bituminous Sheet Materials Using Glass Fiber Reinforcements.
- O. ASTM D 6164 - Standard Specification for Styrene Butadiene Styrene (SBS) Modified Bituminous Sheet Materials Using Polyester Reinforcements.
- P. ASTM D 6754 - Standard Specification for Ketone Ethylene Ester (KEE) Sheet Roofing.
- Q. ASTM D 6757 - Standard Specification for Underlayment Felt Containing Inorganic Fibers Used in Steep-Slope Roofing.
- R. ASTM E 108 - Standard Test Methods for Fire Test of Roof Coverings
- S. Factory Mutual Research (FM): Roof Assembly Classifications.
- T. National Roofing Contractors Association (NRCA): Roofing and Waterproofing Manual.
- U. Sheet Metal and Air Conditioning Contractors National Association, Inc. (SMACNA)



- Architectural Sheet Metal Manual.

- V. Underwriters Laboratories, Inc. (UL): Fire Hazard Classifications.
- W. Warnock Hersey (WH): Fire Hazard Classifications.
- X. ANSI-SPRI ES-1 Wind Design Standard for Edge Systems used with Low Slope Roofing Systems.
- Y. ASCE 7, Minimum Design Loads for Buildings and Other Structures
- Z. UL - Fire Resistance Directory.
- AA. FM Approvals - Roof Coverings and/or RoofNav assembly database.
- BB. FBC - Florida Building Code.
- CC. California Title 24 Energy Efficient Standards.

### 1.3 DESIGN / PERFORMANCE REQUIREMENTS

- A. Perform work in accordance with all federal, state and local codes.
- B. Exterior Fire Test Exposure: Roof system shall achieve a UL, FM or WH Class rating for roof slopes indicated on the Drawings as follows:
  - 1. Factory Mutual Class A Rating.
  - 2. Underwriters Laboratory Class A Rating.
- C. Energy Star: Roof System shall comply with the initial and aged reflectivity required by the U.S. Federal Government's Energy Star program.
- D. Roof System membranes containing recycled or bio-based materials shall be third party certified through UL Environment.

### 1.4 SUBMITTALS

- A. Product Data: Manufacturer's data sheets on each product to be used, including:
  - 1. Preparation instructions and recommendations.
  - 2. Storage and handling requirements and recommendations.
  - 3. Installation instructions.
- B. Shop Drawings: Submit shop drawings including installation details of roofing, flashing, fastening, insulation and vapor barrier, including notation of roof slopes and fastening patterns of insulation and base modified bitumen membrane, prior to job start.
- C. Design Pressure Calculations: Submit design pressure calculations for the roof area in accordance with ASCE 7 and local Building Code requirements. Include a roof system attachment analysis report, certifying the system's compliance with applicable wind load requirements before Work begins.
- D. Manufacturer's Certificates: Provide to certify products meet or exceed specified requirements.
- E. Test Reports: Submit test reports, prepared by an independent testing agency, for

all modified bituminous sheet roofing, indicating compliance with ASTM D5147. Testing must be performed at 77 deg. F. Tests at 0 deg. F will not be considered.

- F. Test Reports: Submit test reports, prepared by an independent testing agency, for all modified bituminous sheet roofing, indicating compliance with ASTM D5147.
- G. Manufacturer's Fire Compliance Certificate: Certify that the roof system furnished is approved by Factory Mutual (FM), Underwriters Laboratories (UL), Warnock Hersey (WH) or approved third party testing facility in accordance with ASTM E108, Class A for external fire and meets local or nationally recognized building codes.
- H. Closeout Submittals: Provide manufacturer's maintenance instructions that include recommendations for periodic inspection and maintenance of all completed roofing work. Provide product warranty executed by the manufacturer. Assist Owner in preparation and submittal of roof installation acceptance certification as may be necessary in connection with fire and extended coverage insurance on roofing and associated work.

#### 1.5 QUALITY ASSURANCE

- A. Perform Work in accordance with NRCA Roofing and Waterproofing Manual.
- B. Manufacturer Qualifications: Company specializing in manufacturing products specified with documented ISO 9001 certification and minimum of twelve years of documented experience and must not have been in Chapter 11 bankruptcy during the last five years.
- C. Installer Qualifications: Company specializing in performing Work of this section with minimum five years documented experience and a certified Pre-Approved Garland Contractor.
- D. Installer's Field Supervision: Maintain a full-time Supervisor/Foreman on job site during all phases of roofing work while roofing work is in progress.
- E. Product Certification: Provide manufacturer's certification that materials are manufactured in the United States and conform to requirements specified herein, are chemically and physically compatible with each other, and are suitable for inclusion within the total roof system specified herein.
- F. Source Limitations: Obtain all components of roof system from a single manufacturer. Secondary products that are required shall be recommended and approved in writing by the roofing system Manufacturer. Upon request of the Architect or Owner, submit Manufacturer's written approval of secondary components in list form, signed by an authorized agent of the Manufacturer.

#### 1.6 PRE-INSTALLATION MEETINGS

- A. Convene minimum two weeks prior to commencing Work of this section.
- B. Review installation procedures and coordination required with related Work.
- C. Inspect and make notes of job conditions prior to installation:
  - 1. Record minutes of the conference and provide copies to all parties present.
  - 2. Identify all outstanding issues in writing designating the responsible party for

- follow-up action and the timetable for completion.
3. Installation of roofing system shall not begin until all outstanding issues are resolved to the satisfaction of the Architect.

#### 1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver and store products in manufacturer's unopened packaging with labels intact until ready for installation.
- B. Store all roofing materials in a dry place, on pallets or raised platforms, out of direct exposure to the elements until time of application. Store materials at least 4 inches above ground level and covered with "breathable" tarpaulins.
- C. Stored in accordance with the instructions of the manufacturer prior to their application or installation. Store roll goods on end on a clean flat surface except store KEE-Stone FB 60 rolls flat on a clean flat surface. No wet or damaged materials will be used in the application.
- D. Store at room temperature wherever possible, until immediately prior to installing the roll. During winter, store materials in a heated location with a 50 degree F (10 degree C) minimum temperature, removed only as needed for immediate use. Keep materials away from open flame or welding sparks.
- E. Avoid stockpiling of materials on roofs without first obtaining acceptance from the Architect/Engineer.
- F. Adhesive storage shall be between the range of above 50 degree F (10 degree C) and below 80 degree F (27 degree C). Area of storage shall be constructed for flammable storage.

#### 1.8 COORDINATION

- A. Coordinate Work with installing associated metal flashings as work of this section proceeds.

#### 1.9 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

#### 1.10 WARRANTY

- A. Roof Replacement:
  1. Upon completion of the work, provide the Manufacturer's written and signed NDL Warranty, warranting that, if a leak develops in the roof during the term of this warranty, due either to defective material or defective workmanship by the installing contractor, the manufacturer shall provide the Owner, at the Manufacturer's expense, with the labor and material necessary to return the defective area to a watertight condition.
  2. Warranty Period: 30 year NDL warranty
- B. Upon completion of the work, provide the Contractors warranty:
  1. Warranty Period:

- a. 5 years from date of acceptance.

**PART 2 PRODUCTS**

**2.1 MANUFACTURERS**

- A. The design is based upon roofing systems engineered and manufactured by The Garland Company:
  - 1. The Garland Company  
3800 East 91st Street  
Cleveland, Ohio 44105  
Miles Taylor  
310.367.7655
- B. Roofing Contractor to be responsible for all Garland materials in excess of District purchased and furnished amount. District to provide material quantities matching the specified amount below. Any additional Garland material required to complete the project is the responsibility of the roofing contractor. Roofing Contractor responsible for purchasing additional materials required, including all freight and tax charges.
- C. Roofing contractor to be at delivery of District purchased roof materials. The District has no responsibility to provide any equipment for handling and / or loading the materials to the Contractor's trucks. Upon signature of delivery, the roofing contractor assumes full responsibility for all District purchased roof materials. Any materials lost or stolen are the responsibility of the roofing contractor to replace. Roofing Contractor responsible for freight and tax on the replaced materials.
- D. Maximum quantity of the OFCI materials to be provided for all roofing which will be provided to the Contractor is as follows:

<b>Material</b>	<b>Amount</b>	<b>Unit Size</b>
SA Primer	8	Roll
SA Base IV	82	Roll
Stressply IV UV Plus Mineral	108	Roll
Flashing Bond	4	5 Gal
Tuff Stuff Natural White	20	Tube

**2.2 HOT APPLIED 3-PLY ASPHALT ROOFING**

- A. Primer:
  - 1. SA Primer
- B. Base (Ply) Sheet: Three plies bonded to the prepared substrate with Interply Adhesive:
  - 1. SA Base IV

- C. Modified Cap (Ply) Sheet: One ply bonded to the prepared substrate with interply Adhesive.
  - 1. Stressply IV UV Plus Mineral
- D. Flashing Base Ply: One ply bonded to the prepared substrate with Interply Adhesive except for torch applied:
  - 1. SA Base IV
- E. Flashing Cap (Ply) Sheet: One ply bonded to the prepared substrate with Interply Adhesive except for torch applied:
  - 1. Stressply IV UV Plus Mineral

## 2.3 ACCESSORIES:

- A. Nails and Fasteners: Non-ferrous metal or galvanized steel, except that hard copper nails shall be used with copper; aluminum or stainless steel nails shall be used with aluminum; and stainless steel nails shall be used with stainless steel, Fasteners shall be self-clinching type of penetrating type as recommended by the deck manufacturer. Fasten nails and fasteners flush-driven through flat metal discs not less than 1 inch (25 mm) diameter. Omit metal discs when one-piece composite nails or fasteners with heads not less than 1 inch (25 mm) diameter are used.
- B. Walkway Pads - Commercial Innovations Walkway Pads: As recommended and furnished by the membrane manufacturer set in approved adhesive to control foot traffic on roof top surface and provide a durable system compliant non-slip walkway.
- C. Sealant - Green-Lock Structural Adhesive: Single component, 100% solids structural adhesive as furnished and recommended by the membrane manufacturer.
  - 1. Elongation, ASTM D 412: 300%
  - 2. Hardness, Shore A, ASTM C 920: 50
  - 3. Shear Strength, ASTM D 1002: 300 psi
- D. Butyl Tape: 100% solids, asbestos free and compressive tape designed to seal as recommended and furnished by the membrane manufacturer.
- E. Glass Fiber Cant - Glass Cant: Continuous triangular cross Section made of inorganic fibrous glass used as a cant strip as recommended and furnished by the membrane manufacturer.

## PART 3 EXECUTION

### 3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.
- B. Inspect and approve the deck condition, slopes and fastener backing if applicable, parapet walls, expansion joints, roof drains, stack vents, vent outlets, nailers and surfaces and elements.
- C. Verify that work penetrating the roof deck, or which may otherwise affect the roofing, has been properly completed.
- D. If substrate preparation and other conditions are the responsibility of another

installer, notify Architect of unsatisfactory preparation before proceeding.

### 3.2 PREPARATION

- A. General: Clean surfaces thoroughly prior to installation.
1. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
  2. Fill substrate surface voids that are greater than 1/4 inch wide with an acceptable fill material.
  3. Roof surface to receive roofing system shall be smooth, clean, free from loose gravel, dirt and debris, dry and structurally sound.
  4. Wherever necessary, all surfaces to receive roofing materials shall be power broom and vacuumed to remove debris and loose matter prior to starting work.
  5. Do not apply roofing during inclement weather. Do not apply roofing membrane to damp, frozen, dirty, or dusty surfaces.
  6. Fasteners and plates for fastening components mechanically to the substrate shall provide a minimum pull-out capacity of 300 lbs. (136 k) per fastener. Base or ply sheets attached with cap nails require a minimum pullout capacity of 40 lb. per nail.
  7. Prime decks where required, in accordance with requirements and recommendations of the primer and deck manufacturer.
- B. Wood Deck:
1. Dimensional wood deck shall be minimum 1 inch (25 mm) thick, knotholes and cracks larger than 1/4 inch shall be covered with sheet metal. All boards shall be appropriately nailed and have adequate end bearing to the centers of beams/rafters. Lumber shall be kiln dried.
  2. Plywood shall be a minimum 15/32 inch (11.9 mm) thick and conform to the standards and installation requirements of the American Plywood Association (APA).
  3. If no roof insulation is specified, provide a suitable dry sheathing paper, followed by an approved base sheet nailed appropriately for the specified roof system, with 1 inch (25 mm) diameter caps and annular nails unless otherwise required by the applicable Code or Approval agency.
  4. Insulation is to be mechanically attached in accordance with the insulation manufacturer's recommendations unless otherwise required by the applicable Code.
  5. In all retrofit roof applications, it is required that deck be inspected for defects. Any defects are to be corrected per the deck manufacturer's recommendations and standards of the APA/Engineered Wood Association prior to new roof application.
  6. Light metal wall ties or other structural metal exposed on top of the wood deck shall be covered with one ply of a heavy roofing sheet, such as HPR Glasbase Base Sheet, extending 2 inches to 6 inches (51 mm to 152 mm) beyond the metal in all directions. Nail in place before applying the base ply.
- C. Re-Roofing Applications:
1. Remove existing roof flashings from curbs and parapet walls down to the surface of the roof. Remove existing flashings at roof drains and roof penetrations.
  2. Remove all wet, deteriorated, blistered or delaminated roofing membrane or

insulation and fill in any low spots occurring as a result of removal work to create a smooth, even surface for application of new roof membranes.

3. Install new wood nailers as necessary to accommodate insulation/recovery board or new nailing patterns.
4. When mechanically attached, the fastening pattern for the insulation/recovery board shall be as recommended by the specific product manufacturer.
5. Re-roofing over coal tar pitch requires a mechanically attached recovery board or insulation and a base sheet prior to the application of roofing system.
6. Existing roof surfaces shall be primed as necessary with asphalt primer meeting ASTM D 41 and allowed to dry prior to installing the roofing system.

### 3.3 INSTALLATION - GENERAL

- A. Install modified bitumen membranes and flashings in accordance with manufacturer's instructions and with the recommendations provided by the National Roofing Contractors Association's Roofing & Waterproofing Manual, the Asphalt Roofing Manufacturers Association, and applicable codes.
- B. General: Avoid installation of modified bitumen membranes at temperatures lower than 40-45 degrees F. When work at such temperatures unavoidable use the following precautions:
  1. Take extra care during cold weather installation and when ambient temperatures are affected by wind or humidity, to ensure adequate bonding is achieved between the surfaces to be joined. Use extra care at material seam welds and where adhesion of the applied product to the appropriately prepared substrate as the substrate can be affected by such temperature constraints as well.
  2. Unrolling of cold materials, under low ambient conditions must be avoided to prevent the likelihood of unnecessary stress cracking. Rolls must be at least 40 degrees F at the time of application. If the membrane roll becomes stiff or difficult to install, it must be replaced with roll from a heated storage area.
- C. Commence installation of the roofing system at the lowest point of the roof (or roof area), working up the slope toward the highest point. Lap sheets shingle fashion so as to constantly shed water
- D. All slopes greater than 2:12 require back-nailing to prevent slippage of the ply sheets. Use ring or spiral-shank 1 inch cap nails, or screws and plates at a rate of 1 fastener per ply (including the membrane) at each insulation stop. Place insulation stops at 16 ft o.c. for slopes less than 3:12 and 4 feet o.c. for slopes greater than 3:12. On non-insulated systems, nail each ply directly into the deck at the rate specified above. When slope exceeds 2:12, install all plies parallel to the slope (strapping) to facilitate backnailing. Install 4 additional fasteners at the upper edge of the membrane when strapping the plies.

### 3.4 RE-ROOF INSTALLATION EDGE TREATMENT AND ROOF PENETRATION FLASHING

- A. Fabricated Flashings: Fabricated flashings and trim as needed per scope of work. .
  1. Fabricated flashings and trim shall conform to the detail requirements of SMACNA "Architectural Sheet Metal Manual" and/or the Copper Development

Association "Copper in Architecture - Handbook" as applicable.

- B. Manufactured Roof Specialties: Manufactured copings, fascia, gravel stops, control joints, expansion joints, joint covers and related flashings and trim are provided as specified in Section
1. Manufactured roof specialties shall conform to the detail requirements of SMACNA "Architectural Sheet Metal Manual" and/or the National Roofing Contractor's Association "Roofing and Waterproofing Manual" as applicable.
- C. Metal Edge:
1. Inspect the nailers to assure proper attachment and configuration.
  2. Run the base sheet over the edge. Assure coverage of all wood nailers. Fasten plies with ring shank nails at 8 inches (203 mm) o.c.
  3. Install continuous cleat and fasten at 6 inches (152 mm) o.c.
  4. Install new metal edge hooked to continuous cleat and set in bed of roof cement. Fasten flange to wood nailers every 3 inches (76 mm) o.c. staggered.
  5. Prime metal edge at a rate of 100 square feet per gallon and allow to dry. Do not prime for Green-Lock System lightly sand metal to improve bond.
  6. Strip in flange with base flashing ply covering entire flange in bitumen with 6 inches (152 mm) on to the field of roof. Assure ply laps do not coincide with metal laps.
  7. Install a second ply of modified flashing ply in bitumen over the base flashing ply, 9 inches (228 mm) on to the field of the roof. Seal outside edge with rubberized cement.
- D. Raised Metal Edge:
1. Inspect the nailer to assure proper attachment and configuration.
  2. Run the base sheet over the edge. Assure coverage of all wood nailers. Fasten the ply with ring shank nails at 8 inches (203 mm) o.c.
  3. Install continuous cleat and fasten at 6 inches (152 mm) o.c.
  4. Install new metal edge hooked to continuous cleat and set in bed of roof cement. Fasten flange to wood nailer every 3 inches (76 mm) o.c. staggered.
  5. Prime metal edge at a rate of 100 square feet per gallon and allow to dry. Do not prime for Green-Lock System lightly sand metal to improve bond.
  6. Strip in flange with base flashing ply covering entire flange in bitumen with 6 inches (152 mm) on to the field of roof. Assure ply laps do not coincide with metal laps.
  7. Install a second ply of modified flashing ply in bitumen over the base flashing ply, 9 inches (228 mm) on to the field of the roof.
- E. Reglet Mounted Counterflashing / Skirt Metal Flashing.
1. Minimum flashing height is 8 inches (203 mm) above finished roof height. Maximum flashing height is 24 inches. Prime vertical wall at a rate of 100 square feet per gallon and allow to dry.
  2. Set cant in bitumen. Run all field plies over cant a minimum of 2 inches (50 mm).
  3. Install base flashing ply covering wall set in bitumen with 6 inches (152 mm) on to field of the roof.
  4. Install a second ply of modified flashing ply in bitumen over the base flashing ply, 9 inches (228 mm) on to the field of the roof. Apply a three-course application of mastic and mesh at all vertical seams and allow to cure and aluminize.



5. Apply butyl tape to wall behind flashing. Secure termination bar through flashing, butyl tape and into wall. Alternatively use caulk to replace the butyl tape.
  6. At existing reglet counterflashing, mechanically fasten new 22 gauge, galvanized skirt metal to the existing counterflashing metal.
  7. Where new reglet metal ins required, cut reglet in masonry one joint above flashing. Secure reglet counterflashing with expansion fasteners and caulk reglet opening.
- F. Expansion Joint:
1. Minimum curb height is 8 inches (203 mm) above finished roof height. Chamfer top of curb. Prime vertical curb at a rate of 100 square feet per gallon and allow to dry.
  2. Mechanically attach wood cant to expansion joint nailers. Run all field plies over cant a minimum of 2 inches (50 mm).
  3. Install compressible insulation in neoprene cradle.
  4. Install base flashing ply covering curb set in bitumen with 6 inches (152 mm) on to field of the roof.
  5. Install a second ply of modified flashing ply in bitumen over the base flashing ply, 9 inches (228 mm) on to the field of the roof. Attach top of membrane to top of curb and nail at 8 inches (203 mm) o.c. Apply a three-course application of mastic and mesh at all vertical seams and allow to cure and aluminize.
  6. Install pre-manufactured expansion joint cover. Fasten sides at 12 inches (609 mm) o.c. with fasteners and neoprene washers. Furnish all joint cover laps with butyl tape between metal covers.
- G. Equipment Support:
1. Minimum curb height is 8 inches (203 mm) above finished roof height. Prime vertical at a rate of 100 square feet per gallon and allow to dry.
  2. Set cant in bitumen. Run all field plies over cant a minimum of 2 inches (50 mm).
  3. Install base flashing ply covering curb set in bitumen with 6 inches (152 mm) on to field of the roof.
  4. Install a second ply of modified flashing ply in bitumen over the base flashing ply, 9 inches (228 mm) on to the field of the roof. Attach top of membrane to top of curb and nail at 8 inches (203 mm) o.c. Apply a three-course application of mastic and mesh at all vertical seams and allow to cure and aluminize.
  5. Install pre-manufactured cover. Fasten sides at 24 inches (609 mm) o.c. with fasteners and neoprene washers. Furnish all joint cover laps with butyl tape between metal covers.
  6. Set equipment on neoprene pad and fasten as required by equipment manufacturer.
- H. Curb Detail/Air Handling Station:
1. Minimum curb height is 8 inches (203 mm) above finished roof height. Prime vertical at a rate of 100 square feet per gallon and allow to dry.
  2. Set cant in bitumen. Run all field plies over cant a minimum of 2 inches (50 mm).
  3. Install base flashing ply covering curb set in bitumen with 6 inches (152 mm) on to field of the roof.
  4. Install a second ply of modified flashing ply in bitumen over the base flashing

- ply, 9 inches (228 mm) on to the field of the roof. Apply a three-course application of mastic and mesh at all vertical seams and allow to cure and aluminize.
5. Install pre-manufactured counterflashing with fasteners and neoprene washers or per manufacturer's recommendations.
  6. Set equipment on neoprene pad and fasten as required by equipment manufacturer.
- I. Pre-manufactured Curb For Equipment Support:
1. Minimum curb height is 8 inches (203 mm) above finished roof height. Prime vertical at a rate of 100 square feet per gallon and allow to dry.
  2. Run all field plies over cant of the pre-manufactured equipment support a minimum of 2 inches.
  3. Install base flashing ply covering pre-manufactured curb with 6 inches (152 mm) on to field of the roof.
  4. Install a second ply of modified flashing ply installed over the base flashing ply, 9 inches (228 mm) on to field of the roof. Attach top of membrane to top of wood curb and nail at 8 inches (203 mm) o.c. Apply a three-course application of mastic and mesh at all vertical seams and allow to cure and aluminize.
  5. Install pre-manufactured cover. Fasten sides at 24 inches (609 mm) o.c. with fasteners and neoprene washers. Furnish all joint cover laps with butyl tape between metal covers.
  6. Set equipment on neoprene pad and fasten as required by equipment manufacturer.
- J. Exhaust Fan:
1. Minimum curb height is 8 inches (203 mm) above finished roof height. Prime vertical at a rate of 100 square feet per gallon and allow to dry.
  2. Set cant in bitumen. Run all plies over cant a minimum of 2 inches (50 mm).
  3. Install base flashing ply covering curb with 6 inches (152 mm) on to field of the roof.
  4. Install a second ply of modified flashing ply installed over the base flashing ply, 9 inches (228 mm) on to field of the roof. Attach top of membrane to top of wood curb and nail at 8 inches (203 mm) o.c. Apply a three-course application of mastic and mesh at all vertical seams and allow to cure and aluminize.
  5. Install metal exhaust fan over the wood nailers and flashing to act as counterflashing. Fasten per manufacturer's recommendation.
- K. Passive Vent/Air Intake:
1. Minimum curb height is 8 inches (203 mm) above finished roof height. Prime vertical at a rate of 100 square feet per gallon and allow to dry.
  2. Set cant in bitumen. Run all plies over cant a minimum of 2 inches (50 mm).
  3. Install base flashing ply covering curb with 6 inches (152mm) on to the field of the roof.
  4. Install a second ply of modified flashing ply installed over the base flashing ply, 9 inches (228 mm) on to field of the roof. Attach top of membrane to top of wood curb and nail at 8 inches (203 mm) o.c. Apply a three-course application of mastic and mesh at all vertical seams and allow to cure and aluminize.
  5. Install passive vent/air intake over the wood nailers and flashing to act as counterflashing. Fasten per manufacturer's recommendations.
- L. Roof Drain:

1. Plug drain to prevent debris from entering plumbing.
  2. Taper insulation to drain minimum of 24 inches (609 mm) from center of drain.
  3. Run roof system plies over drain. Cut out plies inside drain bowl.
  4. Set lead/copper flashing (30 inch square minimum) in 1/4 inch bed of mastic. Run lead/copper into drain a minimum of 2 inches (50 mm). Prime lead/copper at a rate of 100 square feet per gallon and allow to dry.
  5. Install base flashing ply (40 inch square minimum) in bitumen.
  6. Install modified membrane (48 inch square minimum) in bitumen.
  7. Install clamping ring and assure that all plies are under the clamping ring.
  8. Remove drain plug and install strainer.
- M. Roof Drain Alternate:
1. Plug drain to prevent debris from entering plumbing.
  2. Taper insulation to drain minimum of 24 inches (609 mm) from center of drain.
  3. Install one base ply (40 inch square minimum) in bitumen.
  4. Set lead/copper flashing (30 inch square minimum) in 1/4 inch (6 mm) bed of mastic. Run lead/copper into drain a minimum of 2 inches (50 mm). Prime lead/copper at a rate of 100 square feet per gallon and allow to dry.
  5. Run roof system plies over drain. Cut out plies inside drain bowl.
  6. Install modified membrane (48 inch square minimum) in bitumen.
  7. Install clamping ring and assure that all plies are under the clamping ring.
  8. Remove drain plug and install strainer.
- N. Plumbing Stack:
1. Minimum stack height is 12 inches (609 mm).
  2. Run roof system over the entire surface of the roof. Seal the base of the stack with elastomeric sealant.
  3. Prime flange of new sleeve. Install properly sized sleeves set in 1/4 inch (6 mm) bed of roof cement.
  4. Install base flashing ply in bitumen.
  5. Install membrane in bitumen.
  6. Caulk the intersection of the membrane with elastomeric sealant.
  7. Turn sleeve a minimum of 1 inch (25 mm) down inside of stack.
- O. Heat Stack:
1. Minimum stack height is 12 inches (609 mm).
  2. Run roof system over the entire surface of the roof. Seal the base of the stack with elastomeric sealant.
  3. Prime flange of new sleeve. Install properly sized sleeves set in 1/4 inch (6 mm) bed of roof cement.
  4. Install base flashing ply in bitumen.
  5. Install modified membrane in bitumen.
  6. Caulk the intersection of the membrane with elastomeric sealant.
  7. Install new collar over cape. Weld collar or install stainless steel draw brand.
- P. Liquid Flashing:
1. Mask target area on roof membrane with tape.
  2. Clean all non-porous areas with isopropyl alcohol.
  3. Apply 32 wet mil base coat of liquid flashing over masked area.
  4. Embed polyester reinforcement fabric into the base coat of the liquid flashing.
  5. Apply 48-64 wet mil top coat of the liquid flashing material over the fabric extending 2 inches (51 mm) past the scrim in all directions.

6. Apply minerals immediately or allow the liquid flashing material to cure 15-30 days and then install reflective coating.

### 3.5 CLEANING

- A. Clean-up and remove daily from the site all wrappings, empty containers, paper, loose particles and other debris resulting from these operations.
- B. Remove asphalt markings from finished surfaces.
- C. Repair or replace defaced or disfigured finishes caused by Work of this section.

### 3.6 PROTECTION

- A. Provide traffic ways, erect barriers, fences, guards, rails, enclosures, chutes and the like to protect personnel, roofs and structures, vehicles and utilities.
- B. Protect exposed surfaces of finished walls with tarps to prevent damage.
- C. Plywood for traffic ways required for material movement over existing roofs shall be not less than 5/8 inch (16 mm) thick.
- D. In addition to the plywood listed above, an underlayment of minimum 1/2 inch (13 mm) recover board is required on new roofing.
- E. Special permission shall be obtained from the Manufacturer before any traffic shall be permitted over new roofing.

### 3.7 FIELD QUALITY CONTROL

- A. Inspection: Provide manufacturer's field observations at start-up and at intervals of approximately 30 percent, 60 percent and 90 percent completion. Provide a final inspection upon completion of the Work.
  1. Warranty shall be issued upon manufacturer's acceptance of the installation.
  2. Field observations shall be performed by a Sales Representative employed full-time by the manufacturer and whose primary job description is to assist, inspect and approve membrane installations for the manufacturer.
  3. Provide observation reports from the Sales Representative indicating procedures followed, weather conditions and any discrepancies found during inspection.
  4. Provide a final report from the Sales Representative, certifying that the roofing system has been satisfactorily installed according to the project specifications, approved details and good general roofing practice.

END OF SECTION



## **ASBESTOS SURVEY REPORT**

**Site:**

**STAUFFER MIDDLE SCHOOL  
11985 OLD RIVER SCHOOL ROAD  
DOWNEY, CALIFORNIA 90242**

**Client:**

**DOWNEY UNIFIED SCHOOL DISTRICT  
11627 BROOKSHIRE AVENUE  
DOWNEY, CALIFORNIA 90241**

**Consultant:**

**ADAPTIVE BUILDING GROUP, INC.  
1050 LAKES DRIVE, SUITE 225  
WEST COVINA, CALIFORNIA 91790**

**ABG Project Number: 230080**

**December 7, 2023**

**Prepared by:**

A handwritten signature in blue ink, appearing to read "Raul Garcia", is positioned above the printed name.

**Raul Garcia  
Certified Asbestos Consultant #05-3783**



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## 1.0 SCOPE OF SERVICES

Adaptive Building Group, Inc. (ABG) performed an Asbestos building materials inspection at Stauffer Middle School, located at 11985 Old School Road., Downey, California, to identify the types of waste generated on site during demolition and/or renovation of the building. The survey included sampling for asbestos-containing materials (ACM). The purpose of the survey was to locate and identify building materials and components for the presence of ACM. The survey included a visual inspection of building materials comprising the property and the acquisition and analysis of bulk samples from suspect and homogeneous building materials for detectable levels of asbestos.

On December 6, 2023, ABG inspector Mr. Raul Garcia, Certified Asbestos Consultant (CAC), sampled the site. Mr. Garcia has completed the requisite training for asbestos accreditation at a state approved training provider under TSCA Title II. Mr. Garcia's State of California CAC number is 05-3783, exp. May 19, 2024. Copies of the Certification of all inspectors is in Appendices.

## 2.0 EXECUTIVE SUMMARY

The following table is a summary of all ACM determined through laboratory analysis to contain asbestos or presumed ACM:

<u>STAUFFER MIDDLE SCHOOL</u> <u>11985 OLD RIVER SCHOOL ROAD, DOWNEY, CALIFORNIA</u> EXECUTIVE SUMMARY			
MATERIAL	LOCATION	CONTAMINANT	ESTIMATED QUANTITY
DARK GREY WATERPROOF ROOFING WITH MASTIC	THROUGHOUT ALL BREEZEWAY	ASBESTOS	~700 SF
SF = square feet      LF = linear feet			

## 3.0 ASBESTOS

ABG provided a representative asbestos survey at the identified building in general accordance with the referenced agreement and as outlined below:

1. Review any existing asbestos reports relating to the site, if available.
2. Survey the site building(s).
3. Identify accessible suspect asbestos-containing materials (ACM) in general accordance with the USEPA NESHAP, (40 CFR, Part 61).
4. Collect and analyse bulk samples of suspect materials.
5. Quantify any asbestos containing materials and record location.

### 3.1 Asbestos Inspection Report

ABG visually inspected the site for the presence of suspect ACM. Materials that were hidden, not accessible (i.e., boilers, areas of safety concern), or when sampled would damage the integrity of the structure or component (i.e., electrical wiring), were not sampled as part of this inspection. **ABG did not sample materials that were visibly identified as non-asbestos (fibrous glass, foam rubber, wood, etc.).** The

asbestos inspection consisted of three steps: 1) a visual inspection of the site(s); 2) a determination of homogeneous areas with suspect surfacing, thermal system insulation, and miscellaneous materials; and 3) sampling accessible, friable, and non-friable, suspect materials.

Friable materials are materials that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. Non-friable materials are materials that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. Non-friable materials, when subjected to sanding, grinding, cutting, or abrading, may become friable.

### **3.1.1 Homogeneous Areas**

Prior to sampling, ABG identified homogeneous areas to facilitate a sampling strategy. A homogeneous sampling area is described as one or more areas with suspect material similar in appearance and texture that have the same installation date and function. Homogeneous areas are further classified as Surfacing Materials, Thermals System Insulation (TSI), and/or Miscellaneous Materials with notations regarding their friability and condition. The actual number of samples collected from each homogeneous sampling area varies, dependent upon material type and the professional judgment of the inspector.

### **3.1.2 Sampling Strategy**

ABG's sampling strategy incorporated AHERA requirements, quantities of suspect material, and the inspector's judgment to aid in the identification of suspect ACM. ABG's sampling strategy was to identify and collect accessible suspect ACM in general accordance with the USEPA NESHAP, (40 CFR, Part 61). If the analytical results indicated that all the samples collected per homogeneous area did not contain asbestos, then the homogeneous area (material) was considered non-asbestos containing. However, if the analytical results of one or more of the samples collected per homogeneous area indicated that asbestos was present in quantities greater than one percent asbestos, all the homogeneous area (material) was treated as an asbestos-containing material regardless of other analytical results. If the analytical results of one or more of the samples collected per homogeneous area indicated that asbestos was present in quantities less than or equal to one percent asbestos, all the homogeneous area (material) was treated as an asbestos-containing construction material regardless of other analytical results. Actual collection of a bulk asbestos sample involves physically removing approximately one square inch (1 in<sup>2</sup>) of the material and placing it in an airtight sample container marked with a unique identification number.

### **3.1.3 Laboratory Analytical Results**

ABG submitted the bulk samples to Micron Laboratories located at 3565 Lexington Ave, El Monte California for analysis of asbestos using polarized light microscopy (PLM). PLM analysis utilizes EPA Method 40CFR, Part 763, Appendix E to Subpart E and EPA 600/R-93-116, Visual Area Estimation to determine the asbestos content of the bulk samples collected at the site. LA Testing Huntington Beach is accredited by the National Voluntary Laboratory Accreditation Program for asbestos fiber analysis (NVLAP # 200294-0).

The following table is a summary of the suspect ACM that has been determined, through laboratory analysis and/or assumed, to contain asbestos:



<p align="center"><b>STAUFFER MIDDLE SCHOOL</b>  <b>11985 OLD RIVER SCHOOL ROAD, DOWNEY, CALIFORNIA</b>  <b>ASBESTOS-CONTAINING MATERIALS</b></p>							
MATERIAL	LOCATION	SAMPLE NUMBER	NESHAP CATEGORY	CAL/OSHA CLASS	FRIABLE <sup>(1)</sup>	QUANTITY <sup>(2)</sup>	ASBESTOS CONTENT
DARK GREY WATERPROOF ROOFING WITH MASTIC	BREEZEWAY	1-1 THROUGH 1-19	II	II	N	APPROX. ~700 SF	2% CHRYSOTILE
<p>sf = Square Feet, ND = Non-Detect, NA = Not Applicable, lf = Linear Feet, mf = Mechanical Fittings, SF = sheet flooring NF = Non-friable, F = Friable, PACM = Presumed Asbestos Containing Material</p> <p><sup>(1)</sup> Friability is based only on conditions that were observed during ABG's inspection of the site.</p> <p><sup>(2)</sup> Actual quantities should be field verified.</p>							

Any material that contains greater than one percent (1.0%) asbestos is considered an ACM and is categorized as either friable ACM or non-friable ACM. However, registration with Cal/OSHA is required for contractors and employers that remove asbestos having an asbestos fiber content of more than 0.1% and 100 square feet or more of surface area of asbestos-containing construction material (ACCM). Friable ACM is categorized as regulated asbestos-containing material (RACM). There are two categories of non-friable materials: Category I non-friable ACM and Category II non-friable ACM.

- Category I non-friable ACM is any asbestos-containing packing, gasket, resilient floor covering or asphalt roofing product which contains more than one percent asbestos.
- Category II non-friable ACM is any material, excluding Category I non-friable ACM, containing more than one percent asbestos.

Cal/OSHA assigns classes to materials in order to differentiate between the requirements of different removal, operations and maintenance operations, and custodial activities performed on or around ACM.

- Class I: activities involving the removal of TSI and surfacing ACM.
- Class II: activities involving the removal of ACM which is not TSI or surfacing material.
- Class III: repair and maintenance operations, in which ACM (including TSI, surfacing, and miscellaneous materials) is likely to be disturbed.
- Class IV: maintenance and custodial activities during which employees contact, but do not disturb ACM and activities to clean up dust, waste, and debris resulting from Class I, II, and III activities.

The following tables are a summary of the suspect ACM that have been determined, through laboratory analysis, to not contain asbestos:

<p style="text-align: center;"><u>STAUFFER MIDDLE SCHOOL</u>  <u>11985 OLD RIVER SCHOL ROAD DOWNEY, CALIFORNIA</u>  NON-ASBESTOS CONTAINING BUILDING MATERIALS</p>			
HA NO.	MATERIAL	LOCATION	SAMPLE NUMBER
NON- APPLICABLE			

Details of sample analysis are included in Appendix A, which contains a listing of all analysed samples, sample locations, and analytical results relating to the site. Asbestos analytical results are reported as percentage and type. Other common non-asbestos components may also be noted in the analytical report.

State and local requirements may differ from NESHAP requirements. Consult with appropriate agencies prior to commencing abatement and/or demolition activities.

**4.0 ASSUMPTIONS AND LIMITATIONS**

The results, findings, conclusions, and recommendations expressed in this report are based solely on conditions noted during the inspection days of the ABG assessment of the site. Qualifications for the field personnel and analytical laboratory reports are provided in the appendices. As the user of this report, the Client and respective contractors are advised of the following limitations on the information presented in this report.

1. The data and findings presented in this report are valid as of the date when the survey was performed. The passage of time, manifestation of latent conditions or occurrence of future events may require further exploration at the site, analysis of the data, and reevaluation of the findings, observations, and conclusions expressed in the report.
2. The data reported and the findings, observations, and conclusions expressed in the report are limited by the Scope of Work presented.
3. Subsurface investigations were not included in ABG’s assessment of the site. Subsurface investigations may uncover the presence of infrastructure utilities that may contain hazardous materials. Safety can care should be used when uncovering subsurface infrastructure utilities in order to not disturb any potential hazardous materials.
4. Unless otherwise stated in the report, because of the limitations stated above, the findings observations, and conclusions expressed by ABG in this report are not, and should not be, considered an opinion concerning the compliance of any past or present owner or operator of the site with any federal, state, or local law or regulation.
5. No warranty or guarantee, express or implied, is made with respect to the data or the reported findings, observations, and conclusions, all of which, however, accurately reflect site conditions in existence at the time of investigation.
6. ABG reports present professional opinions and findings of a scientific and technical nature. While attempts were made to relate the data and findings to applicable environmental laws and regulations,

the report shall not be construed to offer legal opinion as to the requirements of, nor compliance with, environmental laws, rules, regulations, or policies of federal, state, or local governmental agencies. Any use constitutes acceptance of the limits of ABG's liability. ABG's liability extends only to those parties contracted to complete this project and not to any other parties who may obtain the Report. Legal issues raised by the report should be reviewed by appropriate legal counsel.

## 5.0 DISCLAIMER AND RECOMMENDATIONS

Current federal and state regulations require only workers and/or contractors who have been properly trained in the correct handling of asbestos building materials or lead-containing building components can conduct any repair, renovation, and/or demolition activities. All environmental work should proceed under the guidance or direction of an independent State Certified Consultant.

**Asbestos-Containing Building Materials** – Current federal and state regulations (SCAQMD Rule 1403) require if during any renovation or demolition activities during which asbestos-containing building materials will be disturbed, then only contractors who have been properly trained in the correct handling of asbestos-containing building materials conduct any repair, removal, and/or demolition activities. A SCAQMD notification will have to be submitted and approved for any removal of 100 square feet or 160 linear feet of asbestos-containing building materials. If any asbestos-containing building materials becomes damaged or disturbed during any construction activities, then a SCAQMD Procedure-5 work plan should be written and approved prior to any asbestos removal activity. All environmental work should proceed under the guidance or direction of an independent State Certified Consultant.

The recommendations in this report are professional opinions based solely on visual observations and analytical analyses, as described in this report. Any opinions or recommendations presented herein apply to site conditions existing at the time of our investigation and cannot necessarily apply to site changes, of which this office is not aware of and/or has not had the opportunity to evaluate.

**Lead Containing Building Components** – Cal/OSHA requires that all workers be properly protected when working with any painted building component containing any level of lead in accordance with Title 8 CCR Section 1532.1. All removal work should proceed under all requirements pertaining to lead containing paint removal activities.

## 6.0 DEFINITIONS

The following is a list of acronyms commonly used in the asbestos industry:

ACBM	Asbestos Containing Building Material
ACM	Asbestos Containing Material
ACCM	Asbestos Containing Construction Material
AHERA	Asbestos Hazard Emergency Response Act
AIHA	American Industrial Hygiene Association
ANSI	American National Standards Institute
ASHAA	Asbestos School Hazard Abatement Act
ASHARA	Asbestos School Hazard Abatement Reauthorization Act

ASTM	American Society of Testing and Materials
CAA	Clean Air Act
CAC	Certified Asbestos Consultant
CERCLA	Comprehensive Environmental Response, Compensation & Liability Act
CIH	Certified Industrial Hygienist
DOT	Department of Transportation
f/cc	fibers per cubic centimeter
HEPA	High Efficiency Particulate Air
HVAC	Heating, Ventilation and Air Conditioning
LBP	Lead-Based Paint
NESHAP	National Emissions Standards for Hazards Air Pollutants
NIBS	National Institute of Building Sciences
NIOSH	National Institute of Occupational Safety and Health
NIST	National Institute of Standards and Technology
NVLAP	National Voluntary Laboratory Accreditation Program
OSHA	Occupational Safety and Health Administration
PCB	Polychlorinated Biphenyl
PCM	Phase Contract Microscopy
PEL	Permissible Exposure Limit
PLM	Polarized Light Microscopy
RACM	Regulated Asbestos Containing Material
RCRA	Resource Conservation and Recovery Act
TEM	Transmission Electron Microscopy
TSCA	Toxic Substance Control Act
XRF	X-Ray Fluorescence

## 7.0 REFERENCES

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (USEPA)** - Resource Conservation and Recovery Act, 40 CFR Parts 260 to 279;

**USEPA** - National Emission Standards for Hazardous Air Pollutants, 40 CFR 61 Subpart M;

**USEPA** - AHERA Asbestos-Containing Materials in Schools Rule, 40 CFR 763 Subpart E;

**USEPA** - Method for the Determination of Asbestos in Bulk Building Materials, EPA/600/R-93/116;

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT (SCAQMD)** - Asbestos Emissions from Demolition/Renovation Activities, Rule 1403;

**U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT (HUD)** - Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing, Chapter 7: Lead-Based Paint Inspection, 1997 Revision;

**OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA)** – 29 Code of Federal Regulations (CFR) 1926.1101, Asbestos; **OSHA** – 29 CFR 1926.62, Lead;

**CALIFORNIA DIVISION OF OCCUPATIONAL SAFETY AND HEALTH (DOSH)** - Title 8 of the California Code of Regulations (8 CCR) - 1529, Asbestos; and

**DOSH** - 8 CCR - 5198, Lead.

# **APPENDIX A**

## **ASBESTOS LABORATORY ANALYTICAL REPORT**



## ***Micron Environmental Labs, Inc.***

3565 Lexington Ave • El Monte, California 91731 • Phone (626) 454-4782 • Fax (626) 602-9661

**Report Date:** December 7, 2023

Adaptive Building Group, Inc.  
Attn: Raul Garcia  
1050 Lakes Drive, Suite 225  
West Covina, CA 91790

**Subject:** PLM Report for Analysis of Bulk Samples  
Laboratory Report #: 10123079  
Client Reference: 230080/DUSD - Stauffer MS  
11985 Old River School Rd

Dear Mr. Garcia,

This report is a summary of the analytical results for 38 bulk sample(s) received by the laboratory on 12/7/2023. The analyses were conducted using polarized light microscopy (PLM) in accordance with EPA Interim Method of The Determination of Asbestos in Bulk Insulation Samples as presented in 40 CFR Appendix E to Subpart E of Part 763 (7-01-07 Edition) and EPA Test Method 600/R-93/116 (July 1993). Quantification of percent content is by Calibrated Visual Estimation (CVES) expressed in units of percent area. Samples that contain distinct separable layers are analyzed by layer unless a composite has been requested. The laboratory analyzes samples submitted according to the customer submitted sample log and will analyze additional layers (when observed) upon request. CVES are calibrated using standard reference materials as part of the laboratory's internal and external quality control and proficiency programs. Micron Environmental recommends the use of Transmission Electron Microscopy (TEM) for samples comprised of non-friable organic binder when asbestos is not detected by PLM, as fibers may exist in these matrices but below the resolution capability of the polarized light microscope.

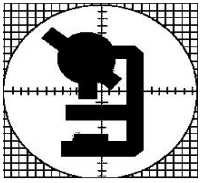
Micron Environmental labs, Inc. is accredited by the NIST National Voluntary Laboratory Accreditation Program (NVLAP), laboratory code 200294-0 and California's Environmental Laboratory Accreditation Program (Waterboards), laboratory code 2297, for this analysis. Micron Environmental Labs, Inc. is responsible for the accuracy in this report, but is not liable for the accuracy of sample information supplied to us by the customer or for the interpretation of this report. Samples are tested in as-received condition and may be affected by external factors and/or handling prior to submittal to Micron. Unless otherwise noted, samples were received in acceptable condition. Samples are retained for a period of thirty days unless otherwise specified or requested by the customer.

This report must not be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the US Government. Micron Environmental Laboratories, Inc. is committed to customer confidentiality and will not share information regarding this report or related affiliations to a third party without express approval from the customer, unless required to do so by law. In the event we are legally required to share confidential information, the customer will be notified of the specific information that was shared.

Should you have any questions regarding the reported results or analytical methods used to derive them, please feel free to contact the laboratory at (626) 454-4782. Thank you for choosing Micron Environmental Labs, Inc. for your testing needs.

Sincerely,

Daniel Gamez  
Laboratory Director



# Micron Environmental Labs, Inc.

3565 Lexington Ave. TEL: 626-454-4782  
El Monte, CA 91731 FAX: 626-602-9661

Reference Analytical Methods: 40CFR763 App E to Subpart E

EPA 600/R-93/116

NIST-NVLAP Lab Code No. 200294-0

California ELAP Waterboards Cert. No. 2297

## Test Report Bulk Asbestos by PLM

Micron Report No. 10123079

Report Date: December 7, 2023

Cust. Project: 230080/DUSD - Stauffer MS  
11985 Old River School Rd

Microscopist: David Soliman

Customer: Raul Garcia  
Adaptive Building Group, Inc.  
1050 Lakes Drive, Suite 225  
West Covina, CA 91790

Date Collected: 12/6/2023

Date Received: 12/7/2023

Date Analyzed: 12/7/2023

No. of Samples: 38

Cust ID No. Micron ID No.	Sample Description and Location	Asbestos Detected?	Analytical Results	QC'd?
<b>S 1-1</b> 1044901 Layer#: 1 Sample Color: black  Comments:	Dark Grey Waterproof Roofing N/W End Near Rm 5 Roof	No	20% Cellulose 5% Fibrous Glass 20% Mineral Filler 55% Organic Binders	
<b>S 1-1</b> 1044901 Layer#: 2 Sample Color: silver,black  Comments:	Mastic N/W End Near Rm 5 Roof	No	100% Organic Binders	
<b>S 1-2</b> 1044902 Layer#: 1 Sample Color: black  Comments:	Dark Grey Waterproof Roofing NW Side Near Rm 55-57 Roof	Yes	2% Chrysotile 18% Cellulose 5% Fibrous Glass 20% Mineral Filler 55% Organic Binders	
<b>S 1-2</b> 1044902 Layer#: 2 Sample Color: silver,black  Comments:	Mastic NW Side Near Rm 55-57 Roof	No	100% Organic Binders	
<b>S 1-3</b> 1044903 Layer#: 1 Sample Color: black  Comments:	Dark Grey Waterproof Roofing NW Side Near Rm 54 Roof	No	20% Cellulose 5% Fibrous Glass 20% Mineral Filler 55% Organic Binders	



# Test Report

## Bulk Asbestos by PLM

Report Date: *Dec 7, 2023*  
 Micron Report No.: *10123079*

Microscopist: *David Soliman*

Cust ID No. Micron ID No.	Sample Description and Location	Asbestos Detected?	Analytical Results	QC'd?
<b>S 1-3</b> 1044903 Layer#: 2 Sample Color: silver,black	Mastic NW Side Near Rm 54 Roof	No	100% Organic Binders	
Comments:				
<b>S 1-4</b> 1044904 Layer#: 1 Sample Color: black	Dark Grey Waterproof Roofing NW Side Near Rm 45 Roof	Yes	2% Chrysotile 18% Cellulose 5% Fibrous Glass 20% Mineral Filler 55% Organic Binders	X
Comments:				
<b>S 1-4</b> 1044904 Layer#: 2 Sample Color: silver,black	Mastic NW Side Near Rm 45 Roof	No	100% Organic Binders	
Comments:				
<b>S 1-5</b> 1044905 Layer#: 1 Sample Color: black	Dark Grey Waterproof Roofing NW Side South Corner Roof	Yes	2% Chrysotile 18% Cellulose 5% Fibrous Glass 20% Mineral Filler 55% Organic Binders	
Comments:				
<b>S 1-5</b> 1044905 Layer#: 2 Sample Color: silver,black	Mastic NW Side South Corner Roof	No	100% Organic Binders	
Comments:				
<b>S 1-6</b> 1044906 Layer#: 1 Sample Color: black	Dark Grey Waterproof Roofing NW Side Near Rm 44 Roof	Yes	2% Chrysotile 18% Cellulose 5% Fibrous Glass 20% Mineral Filler 55% Organic Binders	
Comments:				
<b>S 1-6</b> 1044906 Layer#: 2 Sample Color: silver,black	Mastic NW Side Near Rm 44 Roof	No	100% Organic Binders	
Comments:				

# Test Report

## Bulk Asbestos by PLM

Report Date: Dec 7, 2023  
 Micron Report No.: 10123079

Microscopist: David Soliman

Cust ID No. Micron ID No.	Sample Description and Location	Asbestos Detected?	Analytical Results	QC'd?
<b>S 1-7</b> 1044907 Layer#: 1 Sample Color: black	Dark Grey Waterproof Roofing Center Near Rm 35-37 Roof	Yes	2% Chrysotile 18% Cellulose 5% Fibrous Glass 20% Mineral Filler 55% Organic Binders	
Comments:				
<b>S 1-7</b> 1044907 Layer#: 2 Sample Color: silver,black	Mastic Center Near Rm 35-37 Roof	No	100% Organic Binders	
Comments:				
<b>S 1-8</b> 1044908 Layer#: 1 Sample Color: black	Dark Grey Waterproof Roofing Center Near Rm 34 Roof	Yes	2% Chrysotile 18% Cellulose 5% Fibrous Glass 20% Mineral Filler 55% Organic Binders	X
Comments:				
<b>S 1-8</b> 1044908 Layer#: 2 Sample Color: silver,black	Mastic Center Near Rm 34 Roof	No	100% Organic Binders	
Comments:				
<b>S 1-9</b> 1044909 Layer#: 1 Sample Color: black	Dark Grey Waterproof Roofing Center Near Cafeteria Roof	No	20% Cellulose 5% Fibrous Glass 20% Mineral Filler 55% Organic Binders	
Comments:				
<b>S 1-9</b> 1044909 Layer#: 2 Sample Color: silver,black	Mastic Center Near Cafeteria Roof	No	100% Organic Binders	
Comments:				
<b>S 1-10</b> 1044910 Layer#: 1 Sample Color: black	Dark Grey Waterproof Roofing Center West Side Quad Area Roof	No	20% Cellulose 5% Fibrous Glass 20% Mineral Filler 55% Organic Binders	X
Comments:				

# Test Report

## Bulk Asbestos by PLM

Report Date: *Dec 7, 2023*  
 Micron Report No.: *10123079*

Microscopist: *David Soliman*

Cust ID No. Micron ID No.	Sample Description and Location	Asbestos Detected?	Analytical Results	QC'd?
<b>S 1-10</b> 1044910 Layer#: 2 Sample Color: silver,black	Mastic Center West Side Quad Area Roof	No	100% Organic Binders	
Comments:				
<b>S 1-11</b> 1044911 Layer#: 1 Sample Color: black	Dark Grey Waterproof Roofing Center Quad Area Picnic Tables Roof	Yes	2% Chrysotile 18% Cellulose 5% Fibrous Glass 20% Mineral Filler 55% Organic Binders	X
Comments:				
<b>S 1-11</b> 1044911 Layer#: 2 Sample Color: silver,black	Mastic Center Quad Area Picnic Tables Roof	No	100% Organic Binders	
Comments:				
<b>S 1-12</b> 1044912 Layer#: 1 Sample Color: black	Dark Grey Waterproof Roofing Center Quad Area Picnic Tables Roof	Yes	2% Chrysotile 18% Cellulose 5% Fibrous Glass 20% Mineral Filler 55% Organic Binders	
Comments:				
<b>S 1-12</b> 1044912 Layer#: 2 Sample Color: silver,black	Mastic Center Quad Area Picnic Tables Roof	No	100% Organic Binders	
Comments:				
<b>S 1-13</b> 1044913 Layer#: 1 Sample Color: black	Dark Grey Waterproof Roofing East Quad Near Garden Roof	Yes	2% Chrysotile 18% Cellulose 5% Fibrous Glass 20% Mineral Filler 55% Organic Binders	
Comments:				
<b>S 1-13</b> 1044913 Layer#: 2 Sample Color: silver,black	Mastic East Quad Near Garden Roof	No	100% Organic Binders	
Comments:				

# Test Report

## Bulk Asbestos by PLM

Report Date: Dec 7, 2023  
 Micron Report No.: 10123079

Microscopist: David Soliman

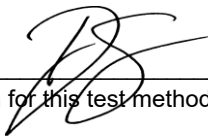
Cust ID No. Micron ID No.	Sample Description and Location	Asbestos Detected?	Analytical Results	QC'd?
<b>S 1-14</b> 1044914 Layer#: 1 Sample Color: black	Dark Grey Waterproof Roofing East Near Rm 24 Roof	Yes	2% Chrysotile 18% Cellulose 5% Fibrous Glass 20% Mineral Filler 55% Organic Binders	
Comments:				
<b>S 1-14</b> 1044914 Layer#: 2 Sample Color: silver,black	Mastic East Near Rm 24 Roof	No	100% Organic Binders	
Comments:				
<b>S 1-15</b> 1044915 Layer#: 1 Sample Color: black	Dark Grey Waterproof Roofing East Middle Roof	Yes	2% Chrysotile 18% Cellulose 5% Fibrous Glass 20% Mineral Filler 55% Organic Binders	
Comments:				
<b>S 1-15</b> 1044915 Layer#: 2 Sample Color: silver,black	Mastic East Middle Roof	No	100% Organic Binders	
Comments:				
<b>S 1-16</b> 1044916 Layer#: 1 Sample Color: black	Dark Grey Waterproof Roofing East Side Near Rm 23 Roof	Yes	2% Chrysotile 18% Cellulose 5% Fibrous Glass 20% Mineral Filler 55% Organic Binders	
Comments:				
<b>S 1-16</b> 1044916 Layer#: 2 Sample Color: silver,black	Mastic East Side Near Rm 23 Roof	No	100% Organic Binders	
Comments:				
<b>S 1-17</b> 1044917 Layer#: 1 Sample Color: black	Dark Grey Waterproof Roofing East Side Near Bathrooms Roof	Yes	2% Chrysotile 18% Cellulose 5% Fibrous Glass 20% Mineral Filler 55% Organic Binders	
Comments:				

# Test Report Bulk Asbestos by PLM

Report Date: Dec 7, 2023  
 Micron Report No.: 10123079

Microscopist: David Soliman

Cust ID No. Micron ID No.	Sample Description and Location	Asbestos Detected?	Analytical Results	QC'd?
<b>S 1-17</b> 1044917 Layer#: 2 Sample Color: silver,black	Mastic East Side Near Bathrooms Roof	No	100% Organic Binders	
Comments:				
<b>S 1-18</b> 1044918 Layer#: 1 Sample Color: black	Dark Grey Waterproof Roofing East Side Near Rm 11-12 Roof	Yes	2% Chrysotile 18% Cellulose 5% Fibrous Glass 20% Mineral Filler 55% Organic Binders	
Comments:				
<b>S 1-18</b> 1044918 Layer#: 2 Sample Color: silver,black	Mastic East Side Near Rm 11-12 Roof	No	100% Organic Binders	
Comments:				
<b>S 1-19</b> 1044919 Layer#: 1 Sample Color: black	Dark Grey Waterproof Roofing East Side Near Front Gate Roof	Yes	2% Chrysotile 18% Cellulose 5% Fibrous Glass 20% Mineral Filler 55% Organic Binders	
Comments:				
<b>S 1-19</b> 1044919 Layer#: 2 Sample Color: silver,black	Mastic East Side Near Front Gate Roof	No	100% Organic Binders	
Comments:				

Microscopist: 

The limit of detection for this test method is less than one percent (<1%) asbestos by calibrated visual area estimate.



**ADAPTIVE**  
Building Group

**ASBESTOS BULK SAMPLE SHEET / CQC**

Client Name: DUSD - Stauffer MS

Project Location: 11985 Old river school RD

Date: 12/6/23 Sampled By: R. Garcia

Project Number: 230080 Priority:  <sup>3</sup> 24 HR  72 HR

Analytical Method:  PLM:  TEM:  Other:  Email to: ABGResults@adaptive-corp.com  
*on 909-942-0012 ext*

HA NUMBER	SAMPLE NUMBER	MATERIAL DESCRIPTION (Size/Color)	SAMPLE LOCATION	MATERIAL LOCATION	CONDITION F/NF	QUANTITY
S	1-1	DARK grey water proof roofing w/mastic	N/W NEAR RMS END	Roof	NF	700 LB
	1-2		NW side NEAR RM 55-57			
	1-3		NW side NEAR RM 54			
	1-4		NW side NEAR RM 45			
	1-5		NW side SOUTH CORNER			
	1-6		NW side NEAR RM 44			
	1-7		Center NEAR RM 35-37			
	1-8		Center NEAR RM 34			
	1-9		Center NEAR cafeteria			
	1-10		Center west side Quad AREA			

Relinquished By: [Signature] Date: 12/6/23 Time: 4:19 PM  
 Received By: Lorraine Guenaro Date: 12/7/23 Time: 8:00 am  
Lorraine Guenaro



**ADAPTIVE**  
Building Group

**ASBESTOS BULK SAMPLE SHEET / COC**

Client Name: DUSD - Stauffer Middle School

Project Location: 11985 Old River School Rd - Downey CA

Date: 12/6/23 Sampled By: R. Garcia

Project Number: 230080 Priority:  <sup>3</sup> ~~24~~ HR  72 HR  
SAME DAY

Analytical Method:  PLM  TEM:  Other:  Email to: ABGResults@adaptive-corp.com  
OR 909-942-0012

HA NUMBER	SAMPLE NUMBER	MATERIAL DESCRIPTION (Size/Color)	SAMPLE LOCATION	MATERIAL LOCATION	CONDITION F/NF	QUANTITY
S	1-11	DARK grey water proof roofing w/ mastic	Center Quad. Area picnic tables	Roof	NF	cont. 700 LF
	1-12		↓			
	1-13		EAST Quad NEAR garden			
	1-14		EAST NEAR RM 24			
	1-15		EAST Middle			
	1-16		EAST side Rear RM 23			
	1-17		EAST side NEAR Bathrooms			
	1-18		EAST side NEAR RM 11-12			
	1-19		EAST side NEAR front gate			
	1-20					

Relinquished By		Date	12/6/23	Time	4:79 PM
Received By	Lorraine Guerrero Lorraine Guerrero	Date	12/7/23	Time	8:00 am

# **APPENDIX B**

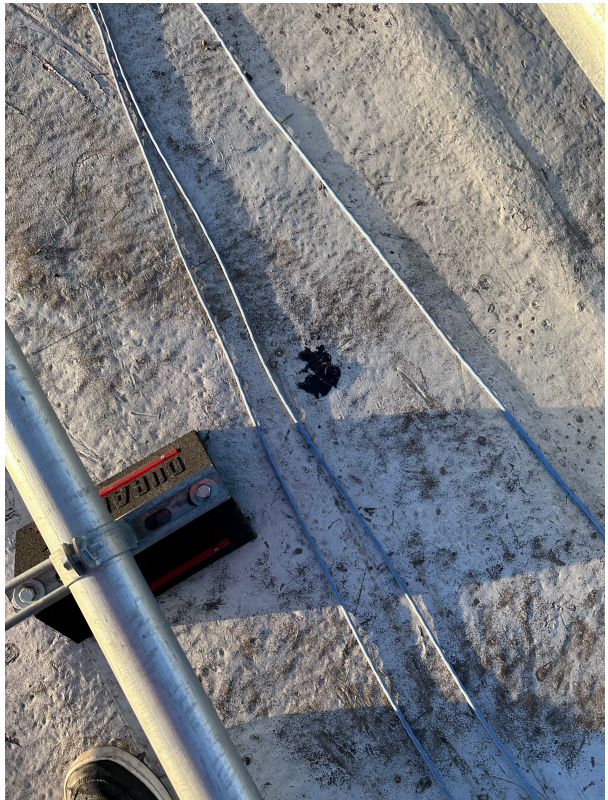
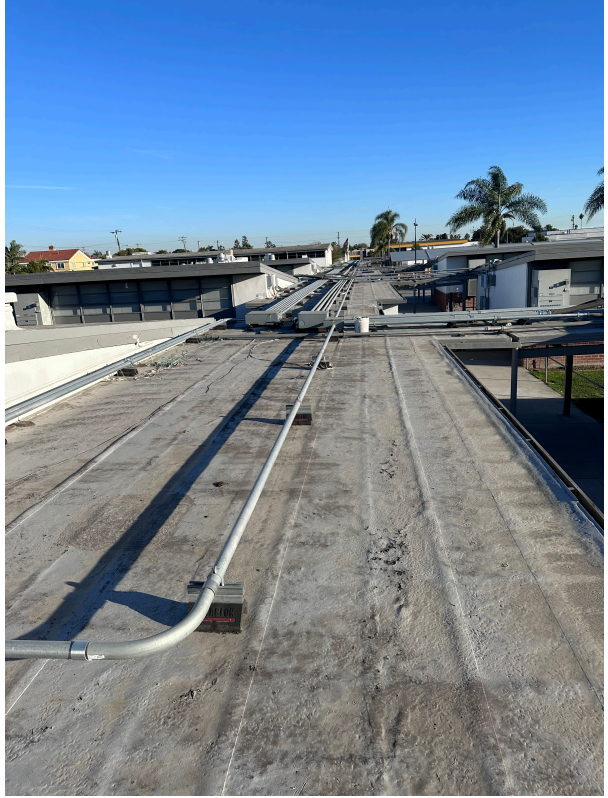
## **SAMPLE LOCATIONS MAPS**





**APPENDIX C**  
**PHOTOGRAPHS**









**APPENDIX D**  
**QUALIFICATIONS**

State of California  
Division of Occupational Safety and Health  
**Certified Asbestos Consultant**

**Raul Garcia Jr.**

Name



Certification No. 05-3783

Expires on 05/19/24

This certification was issued by the Division of Occupational Safety and Health as authorized by Sections 7180 et seq. of the Business and Professions Code.