ADDENDUM NO. 1

BID AND CONTRACT DOCUMENTS

FOR

BID No. 16P16

CHAFFEY COMMUNITY COLLEGE DISTRICT
CENTER FOR THE ARTS BUILDING B &
CENTER FOR THE ARTS BUILDING C
(CA-B & CA-C)
ROOFING PROJECT
RANCHO CUCAMONGA, CALIFORNIA

CHAFFEY COMMUNITY COLLEGE DISTRICT
5885 Haven Avenue
Rancho Cucamonga, CA 91737
The following changes, additions, deletions, clarifications, or corrections shall become part of the Bid and Contract Documents for Chaffey Community College District Bid No. 16P16, Center for the Arts Building B & C (CA-B & CA-C) Roofing Project at the Chaffey College Rancho Cucamonga Campus, first advertised February 29, 2016. All other terms, specifications, and conditions remain the same. Each bidder is responsible for transmitting this information to all affected subcontractors and suppliers prior to the opening of bids. Each bidder shall acknowledge receipt of this Addendum on its Bid Form.

Modifications are identified by “clouds” and the following: Deletions strike-through Insertions/Substitutions italic-underlined.

ITEM No. 1: ADD the CONTRACTORS QUESTIONS & ANSWERS

Item No. AD-1.1 / RFC #16P-1

Question:
Are there any as built drawings of the buildings?

Answer:
No.

Item No. AD-1.2 / RFC #16P6-2

Question:
What is the existing roofing system on each building?

Answer:
Unknown.

ITEM No. 2: PROJECT TECHNICAL SPECIFICATIONS

Item No. AD-2.1

1. DELETE existing Specification Section 075419 SIMULATED STANDING SEAM PVC ROOFING dated August 3, 2015 and REPLACE with the revised specification 075419 SIMULATED STANDING SEAM PVC ROOFING dated March 8, 2016.

Item No. 3 / Information and Additions:

The following changes or clarifications have been made to the specifications on the above referenced job. Please be advised, and adjust your bids accordingly.

1. Add: Contractor shall weld Décor profile end caps fashioned from pieces of membrane to the top and bottom of each profile.

2. Add: Contractor shall install dimension gutter leaf screen sloped to fit across the top
of the gutter per the enclosed detail on National Roofing Consultants, Inc. Pre-Bid Addenda #1 dated March 21, 2016 (2 pages). Support leaf screens using custom fabricated clad metal tabs and secure the leaf screens to the tabs.

3. **Information**: Existing gutters have sheet metal gutter liners installed. Remove and discard existing liners and replace with PVC clad gutter liners

4. **Information**: Asbestos tests confirm **negative**. See attached Limited Asbestos Inspection from Patriot Environmental dated February 17, 2016, (7 pages).

**END OF ADDENDUM NO. 1 INCLUDING REFERENCED ENCLOSURES**

Enclosures:

1. New Contract Documents Issued:
   b. Pre-Bid Addenda #1 from National Roofing Consultants, Inc. dated March 21, 2016 (2 pages).
   c. Patriot Environmental Laboratory Services, Inc. Limited Asbestos Inspection dated February 17, 2016 (7 pages).
PART 1 – GENERAL

1.1 SUMMARY
A. Section Includes:
   1. Tear off of existing BUR roof and insulation.
   2. Upgrading of deteriorated or damaged steel substrate. Include covering over of
      420 square feet of existing steel substrate in bid. Unused replacement steel shall
      be credited back to the Owner. Provide unit costs for replacement of 20' x 12''
      wide panel substrate in excess of 420 square feet.
   3. Reroofing with a fully adhered felt-backed single ply PVC system over R-7.8
      insulation and ¼” Dens Deck fire retardant board with simulated standing seam
      profile, and air barrier. Application shall identically match completed projects
      at Social Sciences, Language Arts, and Business Education Bldgs.
   4. Installation of new PVC clad sheet metal gutters.
   5. Water testing of existing downspouts.
   6. Note: Tear off and disposal of asbestos-containing materials must be performed
      in accordance with government codes and regulations (see Asbestos Report).

1.2 REFERENCES
A. American Society for Testing and Materials (ASTM)
B. Factory Mutual Research Corporation (FM)
C. Federal Specification (FS)

1.3 SYSTEM DESCRIPTION
A. Fully adhered single ply membrane and flashings with heat-welded laps and decorative
   profile to provide a continuous waterproof membrane. Assembly includes rigid
   insulation and protection board.

1.4 SUBMITTALS
A. Submittal Procedures:
   1. Product Data:
      a. Roofing materials, sealants and accessories.
   2. Assurance/Control Submittals:
      a. Certificates: Manufacturer's certificate that components and products
         as a system meet or exceed specified standards and comply with
         referenced standards. Certificate to include membrane thickness.
      b. Qualification Documentation: Manufacturer's certification indicating
         roofing applicator qualifications complying with requirements
         specified in Paragraph entitled "Applicator Qualifications" of this
         Section.
      c. Manufacturer's certification letter acknowledging receipt of
         specifications, intent to issue warranty and intent to perform field
         audits/inspections as outlined in Section 1.8A.4.
d. Manufacturer's Field Reports: Submit the following reports directly to the College from Manufacturer's Roofing Quality Control Inspector, with copy to Contractor:
   (1) Preparatory inspection.
   (2) Initial inspection.
   (3) Follow-up.
   (4) Final inspection.

1.5 QUALITY ASSURANCE

A. Manufacturer: Company specializing in manufacturing the products specified in this section with a minimum of 25 years experience.

B. Applicator
   1. Company specializing in applying specified roofing with a minimum of 10 years documented experience or with principle Owner having a combined ownership and application experience of 15 years and approved by the materials manufacturer.
   2. Product manufacturer shall confirm company as licensed applicators.

C. Single Source Responsibility: Roofing system materials and components shall be supplied and warranted by roofing system manufacturer for specified system and manufacturer's warranty and shall be in compliance with specified regulatory requirements.
   1. Membrane to have no formulation changes in the last ten (10) years as certified by the manufacturer.
   2. Membrane manufacturer shall certify the membrane thickness supplied shall be the exact thickness as specified. ASTM (+/-) mil thickness tolerances do not apply and are not acceptable.
   3. Membrane shall have a minimum of thirty (30) mils of waterproofing polymers above the reinforcements as documented by a third party source.
   4. Manufacturer must have an established program for recycling membrane at the end of its useful life. The membrane manufacturer must provide three (3) instances in which they have done so.
   5. Membrane manufacturer to confirm in writing that they directly manufacture the roofing membrane (private labeled membranes are not acceptable).

D. Work of this section to conform to manufacturer's instructions.

E. Regulatory Requirements for Roof Assembly:
   1. Fire Regulations: Roofing contractor shall be responsible for meeting safety and fire regulations. A certified fire extinguisher of adequate size shall be on the roof near the work.
   2. Safety barriers shall be erected around chute to dumpster for demolition and ladder. Warning tape shall be placed at material storage location and roof edges where roofing is in progress.
   3. Roofing contractor shall be responsible to meet OSHA and Cal-OSHA requirements for safety of all involved and around buildings.
      a. Workers shall be properly restrained from falling.
      b. Contractor shall erect safety fall protection around the perimeters of the building.
      c. Contractor shall submit safety procedures to the College for approval.
   4. Hazardous materials shall be disposed of according to government regulations. See hazardous materials report.
F. Compliance to Specifications

1. Roofing foreman shall have a copy of these specifications on the job at all times during application and shall refer to same for proper application methods.

2. Whenever specification items found herein are less stringent than the roofing manufacturer's published specifications, the manufacturer's minimum requirements shall be followed. The College will invite the roofing manufacturer's representative to the pre-construction conference, and the representative will visit the work in progress.

3. Written specifications submitted to the roofing contractor do not relieve the roofing contractor of his obligation to thoroughly check the size, substrate, slope and other conditions of the roof.

4. Contractor must provide submittals of roofing materials including MSDS information five (5) days prior to pre-construction conference, for the purpose of review and approval by NRC prior to the start of the work.

G. Pre-Installation Meeting:

1. Convene a pre-installation meeting at Project Site one week prior to commencing work of this Section.

2. Require attendance of parties directly affecting work of this Section.

3. Review preparation and installation procedures and coordinating and scheduling required with related work.

4. Agenda:
   a. Tour, inspect and discuss condition of substrate, roof gutters, etc. and other preparatory work performed by other trades.
   b. Review roofing system requirements (drawings, specifications and other contract documents).
   c. Review required submittals, both completed and yet to be completed.
   d. Review and finalize construction schedule related to roofing work and verify availability of materials, installer's personnel, equipment and facilities needed to make progress and avoid delays.
   e. Review requirements for Manufacturer's Roofing Quality Control Inspector inspections, other inspections, testing, certifying and material usage accounting procedures.
   f. Review weather and forecasted weather conditions, and procedures for coping with unfavorable conditions, including possibility of temporary roofing.
   g. Review safety precautions relating to roofing installation.
   h. Review environmental procedures.
   i. Notification: The roofing contractor shall give 72 hours prior notice to consulting service before starting application and shall notify the same each time work is to be performed. Lack of notification of work schedule changes shall result in compensation for NRC's lost time and expenses.
   j. Final/Punch List
      (1) Consulting service shall be notified upon completion of roof and shall return and do final/punch list.

H. Quality Control

1. All work is to be performed under the full time observation of National Roofing Consultants (NRC), 118 Lincoln Ave, Pomona CA 91767 909/620-0177.

2. Responsibility for Payment: The College will provide and make payment to NRC for all daily observation, however, the roofing contractor will be responsible (by whatever arrangements are mutually agreed upon between the roofing contractor and the College) for observation costs incurred as the result of unapproved time delays and observation costs incurred when work is not performed as scheduled.
3. 1" test cuts of welds shall be taken twice daily by roofing contractor and surrendered to College representative or inspector. Test sample shall be cut perpendicular to the lap. Areas from which test cuts have been taken shall be repaired.
   a. Repair or remove and replace membrane components that do not comply with specified requirements.

I. Change Orders
1. If a bidder sees work that bidder feels is part of the scope, but feels is not listed in specifications, bidder shall raise that question at the pre-bid conference. The College will then clarify the scope or specification question at that time, or by addendum to the specifications. Attendance at the pre-bid conference is mandatory.
2. The Quality Control Observer does not have authority to permit specification changes. Any information or assistance provided by the same does not relieve the roofing contractor of strict compliance with specifications, drawings and material manufacturer's requirements. NRC does not assume responsibility, such as water damage, which is normally the roofing contractor's. Bidders are required to meet the specifications at time of bid. The work will be observed according to the specifications.
3. No change orders covering cost additions to meet manufacturer's requirements will be accepted. The roofing contractor is responsible to meet all manufacturer's requirements, which are more stringent than the issued job specifications. Costs to improve existing conditions, i.e. minimum curb height, lead drain flashings, crickets, etc. are to be included in the bid. Compliance with manufacturer recommendations shall apply only as directed by these specifications. The contractor shall identify those items that apply with the material manufacturer.
4. Any variance from the specifications shall be by written change order or written instruction from the College only. Work in the area of question shall terminate until authorization to proceed has been given.
5. Bidder wishing to submit an alternate or equal material must do so five (5) days prior to bid due date. Failure to do so will disqualify bid. Include written proof in the form of ASTM and FS number, type, UL ratings and manufacturer's specification number.

1.6 DELIVERY, STORAGE AND HANDLING
A. Deliver materials in manufacturer's original containers, dry, undamaged, seals and labels intact.
B. Store materials in weather-protected environment, clear of ground and moisture.
C. Protect adjacent materials and surfaces against damage from roofing work. Do not store materials on previously completed roofing.

1.7 PROJECT CONDITIONS OR SITE CONDITIONS
A. Environmental Requirements:
   1. Do not apply membrane during inclement weather. When air temperature is expected to fall below 40°F, follow specified Cold Weather Application Procedures.
   2. Do not expose materials vulnerable to water or sun damage in quantities greater than can be weatherproofed during same day.
B. Moisture: Wet materials shall not be applied nor shall roofing application proceed when moisture is on roof or deck.
C. Water tightness: Roofing contractor shall be responsible for maintaining roof in a watertight condition at all times. Interior damage caused by leakage during roof application shall be the responsibility of the roofing contractor.

D. Building Protection
1. Tear-off and debris transit must not disturb operations of Owner. Enclosed chutes and other methods shall be used to contain dust and debris.
2. The building exterior must be protected from damage, markings or spillage by the use of tarpaulins or protective sheeting.
3. The contractor will be responsible for damage to sprinkler heads, grass, shrubs, trees or grounds including curbs and sidewalks. Protective covers shall be utilized under any equipment that would damage or stain any surface.

E. Clean Up: Premises shall be kept clean daily during application and left clean when roof is completed.

1.8 WARRANTY
A. Manufacturer's Warranty
1. Roofing manufacturer's no dollar limit non-prorated warranty to provide roofing repairs or correction of all roof leaks stemming from material defects, contractor workmanship and ordinary wear and tear of elements. Guaranty shall not exclude damage from natural occurrences (i.e., wind and hail), ponding water, subsequent work properly performed in accord with manufacturer's standard recommended practices and procedures or specified causes. The warranty shall not obligate the owner to maintenance requirements as a condition of the warranty.
2. Warranty Period:
   a. Roofing system 20 years
3. Include materials and workmanship for the following items within Warranty:
   a. PVC membrane
   b. Metal flashings and accessories supplied by roofing system manufacturer.
4. Include the following additional items within Warranty.
   a. Roofing inspection by Manufacturer's Roofing Quality Control Inspector between 22 and 24 months after date of final acceptance.
   b. Roofing manufacturer will provide unlimited repairs during warranty period with no cost limitation for those items covered by the warranty.
   c. Temporary emergency repairs may be made by the College without voiding any warranty provisions so long as they are in compliance with the manufacturer's warranty and maintenance requirements.
   d. Attach copy of record document roof plan drawings and roof detail drawings, if available, to Warranty.
5. Wind Coverage
   a. Warranty shall cover wind gusts up to 90 miles per hour.

B. Contractor's Guarantee
1. Roofing contractor shall provide to the College a written guarantee against defects of workmanship and maintain roof in a watertight condition for a period of two (2) years from final acceptance by the College. Roofing contractor shall submit guarantee form with bid for review by the College.
PART 2 – PRODUCTS

2.1 MATERIALS

A. Membrane

1. The roofing system shall be a fully adhered, fiberglass reinforced polyvinyl chloride membrane with a lacquer coating and felt backing. Material components shall all come from one (1) manufacturer, shall have a U/L Class A fire rating, and shall be manufacturer's current published specification.

2. Membrane shall be certified by the manufacturer to be within two (2) mils of the specified membrane thickness as stated in this section.

3. Membrane shall have a minimum of thirty (30) mils of waterproofing material above the reinforcements as documented by third party testing.

4. Color: Light grey by Sarnafil

B. Note: These specifications are based upon Sika Sarnafil roofing manufacturer's specifications. Proprietary materials referred to in these specifications are listed as a standard of desired quality and are not the only acceptable material(s) as determined by the Owner.

C. Approved Products


D. Summary of Materials: Materials shall not be less than the following per 100 square feet.

Base Bid:

1. Adhesive 011 lbs
2. Insulation (1.5" isocyanurate) 049 lbs
3. Dens Deck Underlayment (¼") 111 lbs
4. PVC Membrane 068 lbs

TOTAL APPROXIMATE WEIGHT 239 lbs

E. Standards: All materials shall conform to the following

1. PVC Membrane: Sarnafil G410-FB: 60 mils (minimum), heat-welded polyvinyl chloride sheet roofing with non-woven fiberglass reinforced membrane with an acrylic coating and 9 oz felt backing fabricated as part of the membrane sheet. ASTM D-4434-96, Type II, Grade I.

2. Décor Profile: A 1 ¼" x ½" x 10' Sarnafil PVC extrusion used to emulate the appearance of a standing seam rib roof system.

3. Paint: Dunn-Edwards Flex Tex FTX10 or approved equal; color to match existing.

4. Polyurethane Sealant: One (1) part polyurethane sealant, Vulkem, Sikaflex or other approved equal.


9. Clad Eave Metal: No rise 25-gauge 4" x 4" galvanized steel metal factory, laminated with 20 mils polyvinyl chloride.

10. Clad Rake Metal: 1" rise 25-gauge 4" x 4" galvanized steel metal factory, laminated with 20 mils polyvinyl chloride.

11. Insulation: 1.5" polyisocyanurate with fiberglass facers. ASTM C-1289.

12. Insulation Fasteners: Manufacturers required fasteners.

13. Flashing Membrane: PVC membrane of specified thickness to be used for flashing, including asphaltic-resistant flashing membrane.
15. Foam Adhesive: Manufacturer's approved adhesive.
16. Miscellaneous materials: Materials required or supplied by the manufacturer.
17. Gutters: 24-gauge galvanized sheet metal factory clad with 20 mils PVC. Contractor shall verify dimensions in the field.
18. Leaf Screens: ¼" galvanized steel mesh secured with steel metal screws.
19. Support Brackets: 1/8" THICK minimum, galvanized steel sheet metal or minimum two gauges heavier than gutter.
21. Air Barrier: A 10 mil (0.25mm) thick polyethylene vapor retarder/air retarder. Sarnavap-10 is supplied in a folded panel that is rolled onto a core. The core width is 5' (1.5m). When unrolled off the core and unfolded, the sheet dimensions are 20' (6.9m) wide by 100' (33m) long.

PART III EXECUTION

3.1 INSPECTION AND PREPARATION

A. Inspection
1. Installer shall examine substrates and conditions under which roofing work is to be performed and shall notify the College in writing of unsatisfactory conditions.
2. Do not proceed with roofing work until unsatisfactory conditions have been corrected in a manner acceptable to the College.
3. Inspect surfaces over which roofing and flashing are to be applied. Do not install roofing over surfaces until they are clean, dry and free of all dirt and debris and in acceptable condition to receive new roofing materials. Voids greater than 1/4" are not permitted in surface to receive roofing membrane and flashing.
4. Build perimeter curbs to accommodate height of insulation or raise existing curbs to required height 8" above the finished membrane.

B. Protrusions
1. Install and secure items which pass through roof prior to application of roofing.

C. Remove existing roof system, down to the existing substrate. Take care to minimize damage to substrate.
1. Where steel decking is deteriorated or weakened, use a wire brush or grinder to remove rust down to white metal and then coat with rust inhibitive paint. After that, secure flat 18-gauge metal over the deteriorated or compromised areas at 4" O.C. New metal shall straddle 6" all ways over area to be reinforced. Include 420 square feet of minimum 18-gauge steel substrate in the base bid. Bid replacement of steel in excess of 420 square feet as a unit cost per 12" wide sheet, 20' long (material and labor). Unused sheets shall be credited back to the College. Deck shall be clean, smooth and dry.
2. Remove and dispose of all pitch pockets and contents. Clean contaminants off of penetration.
3. Before commencing work, all surfaces shall be smooth, clean, dry and free of any debris that would adversely effect the installation of the membrane.
4. Dispose of debris per Federal, State and Local requirements.

D. Rusted but uncompromised substrate should be wire brushed or sanded and painted with rust inhibitive paint.
E. Before commencing work, the College representative, together with the roofing contractor, shall inspect and approve the deck conditions as well as gutters, vent outlets and others, etc.

F. Verify that the work of other trades has been properly completed.

G. Do not install materials in conditions of inclement weather.

3.2 EQUIPMENT
A. Maintain all equipment and tools in good working order.
   1. Have two (2) approved fire extinguishers at each work station.

3.3 GENERAL INSTALLATION
A. Total installation concept:
   1. A total and new roofing system has been specified. A patched-up, chopped-up, spliced or added-to or added-on roofing system will not be acceptable under any circumstances.
   2. If a section of roof requires re-working or patching, the entire area or section of roofing shall be replaced. This shall mean from edge or expansion joint to edge or expansion joint in both directions.

B. Watertight imperative:
   1. The work specified herein shall not preclude use of procedures that will maintain the building watertight; therefore, Contractor, while conforming to Contract Documents, shall utilize skill and all necessary procedures to keep unwanted water out of the building while construction is in progress.
   2. At the end of each work day's roofing installation and prior to the onset of inclement weather, the new section of roofing shall be temporarily sealed with cut-offs to unfinished substrates, projections through the roof, and surrounding intersections so that no moisture can enter roofing or into structure before work resumes. Remove cut-offs before work resumes.

C. Coordination: Coordinate work such that insulation and interplies can be totally covered with complete roofing assembly (including cap sheet) to a waterproof condition at the end of a day's working session and prior to the onset of inclement weather. "Phased" application of roofing membrane plies is not permitted.

3.4 GUTTERS
A. Water test all downspouts before and after application to assure unrestricted flow.

B. Remove existing sheet metal gutter liners and replace with new specified PVC clad gutters per manufacturers requirements. Contractor shall verify dimensions of new gutter in the field and receive approval from NRC. New gutter shall be properly sloped and supported and shall not hold standing water.

C. PVC field membrane shall extend over the perimeter wood nailer and secured to the nailer, then terminated with PVC clad edge metal.

D. General:
   1. Install gutters with dimensions to match existing gutters.
   2. Butt gutter lengths together and weld cover strips.
   3. Install gutters in one piece or minimum 20' long sections.
   4. Provide positive slope to downspouts where possible or install level.
      a. Water test gutters immediately after placement. **Gutters that hold standing water shall be corrected prior to final attachment to beams.**
5. Attach gutters at 24” using box non-corrosive nails. Support gutters using brackets secured with sheet metal screws placed at 2’ on center.

6. Install specified leaf screens. Note: Sections of leaf screen placed over gutter outlets shall be engineered for quick removal to facilitate cleaning of gutter outlet.

3.5 FLASHINGS

A. Pipe or Conduit Penetrations
   1. Remove and discard metal flashings and apply aluminum tape around penetrations, if required, or use cone or prefabricated boot. Seal tape with PVC flashing membrane and clamp off top with a hose clamp. Seal the clamp with polyurethane sealant. Missing, broken or damaged safety caps shall be replaced. Include costs in base bid. Contractor will replace all safety caps broken as a result of his work at his own expense.

3.6 CLAD EDGE METAL

A. At rakes, leave existing combination metal edge and fascia metal in position and slide insulation and/or Dens Deck underlayment board underneath flange of existing metal and secure. Install new PVC clad rake metal over the top and secure with fasteners at 6" O.C. After that apply cover strip per manufacturer's requirements.

B. At eaves, remove and discard existing metal edge.

C. Install new PVC clad edge metal and then seal metal with flashing membrane per manufacturer's requirements.
   1. Provide a 4" lap at corners and seal between laps with membrane flashing cover strips.
   2. Provide a clad metal fascia plate over each membrane welding strip at each joint

3.7 INSULATION/UNDERLAYMENT BOARD

A. Insulation
   1. Mechanically fasten insulation and underlayment board together using manufacturer's recommended fastening system, except at overhangs, use manufacturer's approved foam adhesive. Fasten at a rate defined by FM 1-90, or manufacturer requirements.
   2. Do not install wet, damaged or warped insulation boards.
   3. Install boards with staggered joints in one direction.
   4. Install boards snug. Gaps between boards shall not exceed ¼". Fill gaps in excess of ¼" with foam.

B. Underlayment Board
   1. Install boards over insulation using specified mechanical fasteners at manufacturer's required schedule or foam at overhangs.
   2. Apply additional foam adhesive around perimeters and in corners as required by membrane manufacturer. Also apply additional foam or fasteners at vertical transitions as required by manufacturer.

C. For vapor drive leaving the building, the vapor retarder shall be laid directly over the deck with all side and end joints sealed in accordance with the manufacturer's instructions. The vapor retarder shall be sealed to all penetrations and terminations. The vapor retarder may be loosely laid or adhered with an adhesive supplied or recommended by the same manufacturer. The insulation or recover board must be mechanically fastened in this case.

3.8 ROOFING MEMBRANE

A. The system is to be primarily fully adhered with adhesive but may require mechanical fastening at the perimeter. Adjacent sheets shall have minimum lap areas of 3" when
machine welding and 4" when hand welding. Welding equipment shall be provided by or approved by manufacturer. Conform to manufacturer's requirements around roof perimeters. All completed welded seams shall be checked after cooling using a round screwdriver or other suitable blunt object. Visible evidence that welding is proceeding acceptably is smoke during the welding process, shiny membrane and an uninterrupted flow of black material from the edge of completed joints.

B. Over the properly installed and prepared substrate, Sarnacol 2121 adhesive shall be poured out of the pail and spread using notched ¼" x ¼" x ¼" (6 x 6 x 6mm) rubber squeegees. The 2121 adhesive shall be applied at a rate according to Sika Sarnafil requirements. No adhesive is applied to the back of the G410 feltback membrane. Do not allow adhesive to skin-over or surface-dry prior to installation of G410 feltback membrane.

C. The G410 feltback roof membrane is unrolled immediately into the wet 2121 adhesive. Adjacent rolls overlap previous rolls by 3" (75 mm). This process is repeated throughout the roof area. Immediately after application into adhesive, each roll shall be pressed firmly into place with a water-filled, foam-covered lawn roller by frequent rolling in two directions. Do not allow adhesive to skin-over or surface-dry prior to installation of G410 feltback membrane.

D. Install two rows of fasteners with 2" discs at the perimeter and spaced 12" on center in lieu of the perimeter bar for the sloped application. Each row of fasteners is to be installed with a flashing membrane cover strip. Membrane shall be installed with seams running vertical ridge to eave and covered by the Décor Profile.

E. Décor Profiles:

<p>| Number of Décor Profiles between | Approximate On Center Distance Between |</p>
<table>
<thead>
<tr>
<th>Membrane Overlaps</th>
<th>Décor Profiles</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>25&quot; (63.5cm)</td>
</tr>
</tbody>
</table>

3.9 WALK PADS
A. Install fully adhered/welded PVC walk pads as stipulated. Pads shall be adhered with adhesive except for 2" around the perimeter, which shall be heat welded. Assure that no air is entrapped between the walk pad and the membrane.

3.10 CLEAN-UP/TOUCH-UP/CLOSE-OUT
A. Paint all new and existing metal, including vents and rusted gutter components with specified paint in a minimum of two (2) coats. Color to be specified by College.

B. Protect membrane from damage and wear during remainder of roof installation period. When remaining installation will not affect finished sections, inspect membrane for deterioration and damage and correct.

C. Water test all downsputs in the presence of the College representative to assure free flow. Route downsputs with restricted flow.

D. Perform College representative and manufacturer final inspections.

E. After final inspections, College representative shall determine an appropriate time for a complete pressure washing of the membrane to locate any potential leaks. Washing shall be completed with the applicator present to repair any identified problems.
F. Correct deficiencies or remove membrane that does not comply with manufacturer requirements. Membrane shall be free of damage or any condition that may prohibit or delay warranty implementation.

G. Clean spillage or traffic marring using cleaning agents and procedures recommended by the manufacturer.

END OF SECTION 07 54 19
Reroofing Specifications

Simulated Standing Seam PVC Roofing

Section 07 54 19
PRE-BID ADDENDA #1

Raymond C. Buford

 CLIENT: Chaffey College
 5885 Haven Avenue
 Rancho Cucamonga, CA

 CONTACT: Sarah Riley
 909.652.6176
 sarah.riley@chaffey.edu

 JOB: Center for the Arts, Buildings B & C

March 21, 2016

The following changes or clarifications have been made to the specifications on the above referenced job. Please be advised, and adjust your bids accordingly.

1. **Add:** Contractor shall weld Décòr profile end caps fashioned from pieces of membrane to the top and bottom of each profile.

2. **Add:** Contractor shall dimension gutter leaf screens sloped to fit across the top of the gutter per the enclosed detail. Support leaf screens using custom fabricated clad metal tabs and secure the leaf screens to the tabs.

END
Galvanized metal Flanges welded to mesh

1/4" x 1/4" Galvanized metal mesh

Support leaf screen w/ strips of clad metal welded to the PVC liner.

PVC liner.

LEAF GUARD PROFILE

LEAF GUARD
(NOT TO SCALE)
February 17, 2016

Sarah Riley
Chaffey College
5885 Haven Ave.
Rancho Cucamonga, CA 91737

Re: Limited Asbestos Inspection
Chaffey College - Center of the Arts Buildings B and C
5885 Haven Ave.
Rancho Cucamonga, CA 91737

Project No: OC83844

Dear Ms. Riley,

On February 16, 2016, California DOSH Certified Site Surveillance Technician, Mr. Victor Ruiz (CSST 03-3510) of Patriot Environmental Laboratory Services, Inc. (Patriot) performed a limited asbestos inspection at the above subject property located in Rancho Cucamonga, California. The purpose of the inspection was to determine if asbestos is present in any of roofing materials soon to be disturbed during an upcoming renovation in Arts Building B and C at the subject property.

Summary of Findings

No asbestos was detected in the building materials sampled.

*see attached drawing

Property Description

The subject property is a college building structure. The subject building is a single-story wood and cinder block frame building set on a cement slab foundation.

Scope of Work

On February 16, 2016, Mr. Victor Ruiz, (CSST 03-3510) of Patriot conducted a limited asbestos inspection at the subject property. The exterior roof of the buildings was visually inspected for the purpose of inventorying any suspect asbestos containing materials soon to be disturbed during an upcoming renovation at the subject property. Once the inventory of suspect materials was created, physical bulk samples were collected of the materials from representative locations. Samples were collected in airtight containers. Upon collection, sample numbers, descriptions, and collection locations were entered on to a chain of custody for transportation to Patriot's NVLAP accredited laboratory.
Sampled Suspect Materials

Samples of the following suspect materials were collected:

| White Rolled Roof Core | Roof Mastic | -- |

Sample Protocol/Analysis

Samples were collected in accordance with the Asbestos School Hazard Emergency Response Act (40 CFR 763 Subpart E) as mandated by Cal/OSHA (Title 8 Section 1529) and South Coast Air Quality Management District (Rule 1403).

Physical bulk samples were analyzed by Patriot. Patriot is accredited by the National Voluntary Laboratory Accreditation Program (200358-0). The method of analysis was Polarized Light Microscopy (EPA 600/M4-82-020).

Recommendations

No asbestos was detected in the building materials sampled. Therefore, no recommendations are warranted at this time.

Disclaimer

Limited destructive sampling was conducted at the subject property. If additional suspect materials are discovered during renovation, all work should cease until a Certified Asbestos Consultant is contracted to ascertain the possibility of asbestos content. This inspection was performed in accordance with current regulations and state of the art practices. The inventory of asbestos containing materials and determination of their condition are based upon conditions observed at the time of inspection. Patriot does not assume responsibility for future regulatory changes or changes in the condition of the building.

Enclosed is the laboratory analysis report. Please contact our office if there are any questions regarding this inspection.

Sincerely,

Chris Blake
Certified Asbestos Consultant No. 01-3027

Enclosure: Laboratory Results

Sample Location Drawing
## Certificate of Analysis

### PLM Asbestos Identification

**Chaffey College**
Sarah Riley
5885 Haven Ave.
Rancho Cucamonga, CA 91737

- **Date Received:** 2/16/2016
- **Number of Samples:** 12
- **Material Description:**
  - Location: Roof at Bldg C West
  - Lab/Client ID/Layer: 599628-001
  - Material Description: Rolled Roof Core Sample
  - Color: Black White
  - Composition (%): 60% Tar, 15% Glass Fibers, 10% Foam, 15% Cellulose
  - **Total Asbestos:** None Detected

- **Location:** Roof at Bldg C S East
  - Lab/Client ID/Layer: 599628-002
  - Material Description: Rolled Roof Core Sample
  - Color: Black White
  - Composition (%): 60% Tar, 15% Glass Fibers, 10% Foam, 15% Cellulose
  - **Total Asbestos:** None Detected

- **Location:** Roof at Bldg C North
  - Lab/Client ID/Layer: 599628-003
  - Material Description: Rolled Roof Core Sample
  - Color: Black White
  - Composition (%): 60% Tar, 15% Glass Fibers, 10% Foam, 15% Cellulose
  - **Total Asbestos:** None Detected

- **Location:** Roof at Bldg C Penetrations
  - Lab/Client ID/Layer: 599628-004
  - Material Description: Roof Mastic
  - Color: Black White
  - Composition (%): 100% Tar
  - **Total Asbestos:** None Detected

- **Location:** Roof at Bldg C Edges
  - Lab/Client ID/Layer: 599628-005
  - Material Description: Roof Mastic
  - Color: Black White
  - Composition (%): 100% Tar
  - **Total Asbestos:** None Detected
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<tr>
<th>Lab/Client ID/Layer</th>
<th>Location</th>
<th>Material Description</th>
<th>Color</th>
<th>Composition (%)</th>
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<td>Roof at Bldg C Flashing</td>
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<td>599628-007</td>
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<td>Rolled Roof Core Sample</td>
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Total Asbestos: None Detected
## Certificate of Analysis

**PLM Asbestos Identification**

Chaffey College  
Sarah Riley  
5885 Haven Ave.  
Rancho Cucamonga, CA 91737  
Report Number: 599628  
Project Number: OC83844  
Project Name: Chaffey College - Center of the Arts Buildings B  
Project Location: 5885 Haven Avenue  
Rancho Cucamonga, CA 91737

Date Collected: 2/16/2016  
Date Received: 2/16/2016  
Date Analyzed: 2/17/2016  
Date Reported: 2/17/2016  
Collected By: Victor Ruiz  
Claim Number:  
PO Number:  
Number of Samples: 12

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**Total Asbestos**  
None Detected

Ian Reyes - Approved By  
Raul Lanuza - Analyst

bulk sample(s) submitted was (were) analyzed in accordance with the procedure outlined in the US Federal Register 40 CFR 763, Subpart F, Appendix A; EPA-600/R-93/116 (Method for Determination of Asbestos in Building Materials), and EPA-600/M4-82-020 (US EPA Interim Method for the Determination of Asbestos in Bulk Insulation Samples). Samples were analyzed using Calibrated Visual Estimations (CVES); therefore, results may not be reliable for samples of low asbestos concentration levels. Samples of wall systems containing discrete and separable layers are analyzed separately and reported as composite unless specifically requested by the customer to report analytical results for individual layers. This report applies only to the items tested. Results are representative of the samples submitted and may not represent the entire material from which the samples were collected. “None Detected” means that no asbestos was observed in the sample. “<1%” (less than one percent) means that asbestos was observed in the sample but the concentration is below the quantifiable level of 1%. This report was issued by a NIST/NVLAP (Lab Code 200358-0) and CADOHS-ELAP (Cert. No. 2540) accredited laboratory and may not be reproduced, except in full without the expressed written consent of Patriot Environmental Laboratory Services, Inc. This report may not be used to claim product certification, approval or endorsement by NIST, NVLAP, ELAP or any government agency.
# ASBESTOS FIELD BULK SAMPLE COC

**Project Name:** Clarey College Center of the Arts Bldg B & C  
**Project Address:** 5885 Haven Ave  
**City:** Pancho Cucamonga  
**Project #:** EC83844

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**FEB 16 AM 10:29**

Samples Relinquished By: [Signature]  
Date/Time: 2/17/17 8:30 AM

Samples Relinquished By: [Signature]  
Date/Time: 2/17/17 10:30 AM