BID DOCUMENTS COVER SHEET

CONTRACT DOCUMENTS

FOR

L-1061 Roof Replacement Project

AT

Los Medanos College

2700 East Leland Drive

Pittsburg, CA 94565

CONTRA COSTA COMMUNITY COLLEGE DISTRICT

Consist of the following:

ADDENDUM # 1

Drawings & Specification

Gale Associates, Inc.

2570 W. El Camino Real Ste320

Mountain View, CA 94040

3/23/16
CONTRA COSTA COMMUNITY COLLEGE DISTRICT
L-1061 Roof Replacement Project
Los Medanos College
ADDENDUM #1 Date: 03/23/16

NOTICE TO ALL PRE-QUALIFIED CONTRACTORS ONLY

You are hereby notified of the following changes, clarifications and/or modifications to the original Contract Documents, Project Manual, Drawings, Specifications and/or previous Addenda. This Addendum shall supersede the original Contract Documents and previous Addenda wherein it contradicts the same, and shall take precedence over anything to the contrary therein. All other conditions remain unchanged.

This Addendum forms a part of the Contract Documents and modifies the original Contract Documents dated 8/14/15. Acknowledge receipt of this Addendum in space provided on the Bid Proposal Form. Failure to acknowledge may subject Bidder to disqualification.

A. Pre-bid RFIs
None

B. Deletions, Additions, Changes, Revisions

Specifications
1. Section 00300 – Replace Section 00300 Bid Proposal Form in its entirety with the attached Section 00300.
2. Section 07 60 00 – Replace Section 07 60 00 Flashing and Sheet Metal in its entirety with the attached Section 07 60 00.

Drawings
1. Drawing expanded to include 3 additional roof areas. Replace prior bid set drawings with attached Addendum 1 revised set.


D. Pre-Bid Meeting Minutes.

E. Pre-Bid Meeting Sign in Sheet.

F. Aerial view of staging areas and access points.
ADDENDUM #1

If you have any questions regarding this Addendum, please contact:

Jovan Esprit
Contra Costa Community College District
500 Court St., Martinez, CA 94553
Email: jesprit@4cd.edu;
Facsimile: 925-229-6959;

All other terms and conditions of BID are to remain the same.

Gale Associates, Inc.
2570 W. El Camino Real Ste320
Mountain View, CA 94040

[Signature]

Civil Engineer of Record: Alan E. Burnett

END OF ADDENDUM #1
SECTION 00300
BID PROPOSAL FORM

PROJECT NUMBER / NAME: L-1061 Roof Replacement Project

CAMPUS / LOCATION: Los Medanos College, 2700 East Leland Drive, Pittsburg, CA 94565

DISTRICT: CONTRA COSTA COMMUNITY COLLEGE DISTRICT
500 Court St, Martinez, CA 94553

Herein Referred to as "District"

1. INTRODUCTION

   A. The Bidder proposes to perform the Work for the Contract Sum and within the proposed Contract Time, based upon an examination of the site and the Bid and Contract Documents.

   B. The Bidder certifies this Bid is submitted in good faith.

   C. The Bidder agrees that the Contract Sum and other proposed terms will be considered in evaluating Bids and may be negotiated and adjusted before awarding of Contract.

   D. The signed copy of the Certification of the Visit to the Site shall be attached to the Bid Form Submittal.

   E. A fully executed Statement of Bidder's Qualifications signed by an authorized officer of the Bidder submitting the Bid shall be attached to the Bid Form.

   F. A fully executed Non-Collusion Affidavit signed by an authorized officer of the Bidder submitting Bid shall be attached to the Bid Form.

   G. The District shall award the contract to the lowest responsive and responsible Bidder. The evaluation of the low bid shall be based on the total of Item 2.A Base Bid, plus 2.B Add Alternates.

   H. The District reserves the right to award the Additive/Deductive Alternates, if any, through change orders as budget allows within 30 calendar days after the Award of Contract.

Attention is directed to Labor Code Section 1725.5 regarding Department of Industrial Relations (DIR) contractor registration process; registration criteria and implementation of DIR registration requirements. Labor Code Section 1771.7 establishes contractor’s obligation to submit Certified Payroll (CPR) to the Department of Labor and Standards Enforcement (DLSE) and public works monitoring and enforcement. Labor Code Section 1773.3 requires the District to submit a PWC-100 to DIR for all public works contract awarded effective January 1, 2015.
2. **CONTRACT SUM**

   **A. BASE BID**
   For labor, materials, bonds, fixtures, equipment, tools, transportation, services, sales taxes, and other costs necessary to complete the general construction in accordance with the Contract Documents, for a stipulated Contract Sum in the amount of:

   _______________________________________________ Dollars ($__________________________)

   **B. ALTERNATES – ADDITIVE:**

   1.A Mechanical unit area only; Sector 13 & 14 (partial roof Area 1)
   _______________________________________________ Dollars ($__________________________)

   1.B Roof Area 1
   _______________________________________________ Dollars ($__________________________)

   2. Roof Area 2
   _______________________________________________ Dollars ($__________________________)

   3. Roof Area 3
   _______________________________________________ Dollars ($__________________________)

   **C. TOTAL FOR BASE BID PLUS ADD ALTERNATES**

   _______________________________________________ Dollars ($__________________________)

3. **COMPLETION TIME**

   **A.** For establishing the Date of Final Completion the contract time for the Base Bid shall be as indicated in Section 00600, Construction Agreement. This time may be subject to modification to facilitate the work, as mutually agreed upon at a later date.

   **B.** The Bidder certifies that the Bid is based on the Contract Time for completion as stated in Section 00600, Construction Agreement. Bidder further certifies that the Base Bid amount is sufficient to cover all labor, materials, central office and construction site overhead, profit, and all other costs related to the completion of the Project for the entire Project construction time for both the General Contractor and all Subcontractors, as stated above in paragraphs 2 and 3.
4. ADDENDA

A. The Bidder acknowledges receipt of the following Addenda, and certifies the Bid has provided for all modifications and considerations required therein.

   None [ ]
   Addendum No.: ________ dated ______________
   Addendum No.: ________ dated ______________
   Addendum No.: ________ dated ______________

B. List of Additional Addenda Attached: Yes [ ] No [ ].

5. DESIGNATION OF SUBCONTRACTORS

A. The Bidder has set forth a complete list indicating the type of work, name, and business address of each Subcontractor who will perform work in excess of one-half of one percent of the Contract Sum.

B. Any portion of the work in excess of the specified amount having no designated Subcontractor shall be performed by the Bidder.

C. Substitution of listed Subcontractors will not be permitted unless approved in advance by the District.

D. Prior to signing the Contract, the District reserves the right to reject any listed Subcontractor.

Attention is directed to Section 4100 through 4113 of the Public Contract Code concerning Subcontractors, with emphasis on Section 4104, known as the “Subletting and Subcontracting Fair Practices Act, effective July 1, 2014.

<table>
<thead>
<tr>
<th>Type of Work</th>
<th>Subcontractor's Name</th>
<th>Business Address/Phone</th>
<th>CSLB License # and DIR Registration #</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

E. Complete list of Subcontractors is attached: Yes [ ] No [ ]
6. ACCEPTANCE AND AWARD

A. The District reserves the right to reject this Bid and to negotiate changes before or after execution of the Contract. This Bid shall remain open and shall not be withdrawn for a period of 90 days after Bid Opening date.

B. If written notice of acceptance of this Bid is mailed or delivered to the Bidder within 90 days after the date set for the receipt of this Bid, or other time before it is withdrawn, the Bidder will execute and deliver to the District a Contract prepared by District with the required Surety Bonds and Certificates of Insurance, within 10 days after personal delivery or deposit in the mail of the notification of acceptance.

C. Notice of acceptance or request for additional information may be addressed to the Bidder at the address provided.

7. BID SECURITY

A. The required 10 percent (10%) Bid Security for this Bid is attached in the form of:

( ) Bid Bond Issued By: ________________________________

( ) Certified or Cashier's Check No._____________________

Issued by: ________________________________

8. BIDDER'S BUSINESS INFORMATION

B. Individual [ ]:

Personal Name: ________________________________

Business Name: ________________________________

Address: ________________________________

Zip Code: __________

Telephone: ________________________________

Fax Number: ________________________________

C. Partnership [ ]:

Co-partners' Names: ________________________________

Contra Costa Community College District
Los Medanos College
L-1061 Roof Replacement Project
Business Name: ____________________________________________
Address: ________________________________________________
_________________ Zip Code: ______________

Telephone: ______________________________________________
Fax Number: ______________________________________________

D. Corporation [ ]:
Firm Name: ______________________________________________
Address: ________________________________________________
_________________ Zip Code: ______________

Telephone: ______________________________________________
Fax Number: ______________________________________________

State of Incorporation: ____________________________________
President: _______________________________________________
Secretary: _______________________________________________
Treasurer: _______________________________________________
Manager: ________________________________________________

E. Power of Attorney:
Name: ___________________________________________________
Title: ____________________________________________________

F. Contractor License No. ____________ State of ________________

G. Bidder is submitting this proposal on behalf of a Joint Venture. Names, license numbers, and relevant information are given on a separate attachment: Yes [ ] No [ ].

H. Upon request, furnish appropriate documentation to substantiate and/or support the data given.
9. The undersigned hereby certifies under penalty of perjury under the laws of the State of California that all the information submitted by the Bidder in connection with this Bid and all the representations herein made are true and correct.

Executed this ____________ day of ____________________________, 20________

__________________________

CSLB License No.: Exp: DIR Registration No.:

__________________________

Firm Name

__________________________

Signature

__________________________

By (Print or Type Name)

__________________________

Title

End of Section 00300
SECTION 07 60 00
FLASHING AND SHEET METAL

PART 1 - GENERAL

1.01 SECTION INCLUDES
   A. Sheet metal flashings shown on the Drawings

1.02 RELATED WORK
   A. Section 07 52 16 – Modified Bitumen Roofing
   B. Section 07 54 00 – Thermoplastic Membrane Roofing System
   C. Section 07 90 00 – Sealants

1.03 REFERENCES
   A. ASTM A153 – Zinc Coating Hop Dip
   B. SMACNA – Architectural Sheet Metal Manual
   C. MIL-S-687ZB – General Specifications for Soldering Process
   D. AWS D1.1 – Structural Welding Code

1.04 SUBMITTALS
   A. Submit three (3), 6 inch by 6 inch samples, of each type and thickness of sheet metal to be used in the construction.
   B. Submit three (3), samples of gutter assembly and flashings to be used in the construction.
   C. Submit shop drawings with dimensions of all sheet metal details.
   D. Submit mill certification.
   E. Submit manufacturer literature for all accessory items in Part 2 of this Section.

1.05 STORAGE
   A. Stack performed material to prevent twisting, bending, or abrasion, and provide ventilation.
B. Prevent contact with materials during storage, which may cause discoloration, staining or damage.

PART 2 - PRODUCTS

2.01 SHEET MATERIALS

A. Sheet Metal
   1. 22 gauge galvanized steel: ASTM A123 and A525.

B. Lead
   1. Minimum weight of 4 pounds per square foot.

C. Steel bars
   1. ASTM A36.

2.02 FINISHES

A. Not applicable.

2.03 ACCESSORIES

A. Fasteners
   1. Sheet Metal-to-Wood Blocking: No.12, 1-1/2 inch minimum long Stubbs stainless steel nails, annular-thread shank.
   2. Sheet Metal-to-Sheet Metal: No. 10, 1 inch long stainless steel sheet metal screws with metal capped neoprene washers.
   4. Unistrut: 3/8 inch diameter lag bolts, 3 inch long minimum.

B. Solder
   1. 50% tin and 50% lead.
   2. Flux: ASTM B32

C. Sealant and Backer Rod
   1. Refer to Section 07 90 00 – Sealants.

D. Miscellaneous
2. Cold galvanized compound: Zinc-rich, spray-applied compound.


4. Drain Pipes: Schedule 40 cast iron, wall thickness ¼ in.

2.04 FABRICATION SCHEDULE

A. All sheet metal to be 22 gauge galvanized steel except as noted below.

B. Lead

1. Plumbing Vent Flashings and Caps

2.05 FABRICATION

A. Form sections true to shape, accurate in size, square and free from distortion or defects.

B. Form pieces to maximum length of 8 feet.

C. Mechanically fasten and solder watertight joints, splices and transitions which are not designed for expansion.

1. Fasten metal for strength and watertightness by solid riveting, welding or forming double lock seams.

2. Sealant for water tightness by soldering: after soldering, immediately remove all traces of acid or flux with appropriate neutralizer, followed by repeated washing and scrubbing.

3. Sealant-filled joints may not be substituted for solder joints: Use sealant as indicated on the Drawings.

D. Do not fabricate any sheet metal components without approved shop drawings and fabrication samples.

PART 3 - EXECUTION

3.01 INSPECTION

A. Field measure site conditions prior to fabricating Work Notify Architect/Engineer immediately of any inconsistency between existing conditions and the drawings.

B. Beginning of installation means acceptance of existing conditions.

3.02 PREPARATION
A. Allow substrates to dry thoroughly. Do not proceed with flashing application if moisture content of exposed wood is above 19%.

B. Clean debris from all substrates.

3.03 INSTALLATION

A. General

1. Proceed with sheet metal installation in conjunction with roofing and flashing in each area.

2. Do not dilute primers, coatings, or sealants.

3. Keep containers closed except when removing materials from them.

4. Field fabricate sheet metal following the same criteria set forth in Paragraph 2.05 – FABRICATION.

5. Except as otherwise specifically shown on the Drawings or approved shop drawings, conform to the drawing details included in the SMACNA manual.

6. Comply with Military Specification MIL-S-6872B entitled, "General Specifications for Soldering Process" when forming soldered joints. Use conduction soldering methods. Areas to be joined shall be cleaned of all oil, grease, pencil marks, paint, dirt or other foreign substances. Remove all burrs using files, grinding stones or other methods. Hold parts in place using clamps, jigs and supports or by self-fixturing. If parts are tack-soldered to hold them in place, the area of tack-soldering shall be reworked into the final soldering. Parts cannot be allowed to move during the soldering process.

7. All corners, transition and termination pieces shall be mechanically fastened and soldered to provide strength and a weatherproof connection.

8. Apply sealant over the head when using pop rivets for fastening

9. All sheet metal edges shall be hemmed 1/4 inch minimum.

10. Roof deck flanges shall be 4 inches wide minimum.

11. Set roof flanges in roof cement and nail 3 inches on center staggered.

12. Prime and flash all roof flanges (top and bottom) in accordance with this Specification.

13. Flux shall be applied to all surfaces that will receive solder. Flux-cored solder shall not be used. Flux shall be fluid when heated and be effective
in removing oxides and other impurities from the joint. Flux should be readily displaced by the molten solder.

14. Areas to be joined shall be heated above the liquious temperature of the solder. To deliver maximum heat, the copper bit of the soldering iron shall be applied at the right angle so that the flat side of the iron's bit provides maximum contact area. Solder shall be applied to the joint and not the bit of the iron. Allow solder to flow in place to provide a minimum 1 inch final width of solder over the joint. Joint shall not be disturbed until it has been allowed to completely cool. After soldering, completely remove all flux and acid by washing and scrubbing with a neutralizing agent.

B. Hook Strips

1. Hook strips shall be formed with a 3 inch face and a 3/4 inch kick, bent out at a 60° angle to the face (or 30° to the wall).

2. Secure continuous hook strips to wood blocking with nails spaced at 6 inches on center.

3. Provide 1/8 inch butt joints between hook strip sections.

C. Securement Clips

1. Securement clips shall be 6 inches long, 2 inches wide, and hemmed along each side of the long dimension.

2. Secure clips to substrate with specified fasteners. Use a minimum of two (2) clips. Space clips 32" o.c. minimum.

3. Bend clips a minimum of 1 inch over bottom drip edge of counterflashing and crimp tightly.

D. Counterflashing

1. Install counterflashing in accordance with approved shop drawings and manufacturer's product data to comply with specified performance requirements. Reglet and counter flashing components shall be true to line, without buckling, creasing, warp or bind in finished surfaces.

2. Coordinate counterflashing at roof surfaces with roofing work to provide weather tight condition at roof terminations.

3. Isolate dissimilar materials to prevent electrolysis. Separate bituminous coating.

4. Secure counterflashing using continuous cleats, clips and fasteners in accordance with product data and as indicated.
E. Skirt Flashing

1. Skirt flashings shall be formed with a 4 inch face and a ¾ inch kick, bent out a 60° angle to the face (or 30° to the wall).

2. Secure skirt flashings to the existing counterflashings with stainless steel rivets at all areas where existing counterflashings are being reused. Clean existing counterflashings and apply sealant over rivets.

F. Gravel Stop and Edge Metal

1. Secure continuous hook strips with the specified fasteners as previously specified.

2. Form gravel stop/edge metal cover plates to the dimensions indicated.

3. Apply asphalt primer to both the top and bottom sides of the roof deck flanges.

4. Provide 6 inch wide cover plates, set in full bed of sealant over all 1/8-inch butt joints in sheet metal sections. Hem edges of cover plates to fit snugly against fascias. Stagger butt joints between the hook strips and the fascias.

G. Sleeve Flashing and Storm Hoods

1. Storm hood and sleeve flashing shall be formed with locked and soldered seams. Sleeves shall have integral deck flanges with hemmed edges to the configurations shown on the Drawings. Storm hood shall counterflash sleeves flashing 3 inches, minimum.

2. Secure sleeve flashings to wood blocking and flash into roof system.

3. Storm hood shall be secured to exhaust pipe with stainless steel band clamp. Set storm hood in full bed of sealant.

H. Vent Pipes

1. Provide new vent pipe sleeve with integral roof deck flange and cap. All seams shall be locked and soldered.

2. Slide sleeve over vent pipe and secure and flash flange to wood blocking. Set cap in full bed of sealant over top of vent pipe.

3. Prior to installing flashing extend vent pipes as required in accordance with acceptable plumbing standards and codes.
I. Mechanical Unit Cover Fasteners

1. Secure existing light mechanical unit covers to wood curbs with Number 10 stainless steel wood screws with integral metal-capped neoprene washers. Install screws at 12 inches on center, maximum, with a minimum of two screws per side of curb.

2. Secure mechanical unit to curb using 1/4 inch lag bolts installed through EPDM gasketed metal cap washer. Set EPDM gasket in bed of polyurethane sealant.

K. Vent, Duct, and Fan Flashings

1. Contractor shall provide samples or shop drawing for new vent, duct, and pan flashing with sheet metal covers. Do not fabricate prior to approval of samples and shop drawings.

2. Flashings shall be fabricated to be vandal resistant with solid welds.

END OF SECTION
ROOF REPLACEMENT

COLLEGE COMPLEX
LOS MEDANOS COLLEGE
2700 EAST LELAND ROAD
PITTSBURG, CALIFORNIA

PREPARED FOR
CONTRA COSTA COMMUNITY COLLEGE DISTRICT

SCOPE OF PROJECT

1. REMOVE EXISTING BUILT-UP ROOFS AND UNDERLYING LIGHT WEIGHT CONCRETE TOPPING SLABS.
2. INSTALL FLUID-APPLIED WATERPROOFING ON EXISTING CONCRETE DECKS.
3. INSTALL NEW TAPERED INSULATION.
4. INSTALL NEW SINGLE-PLY AND MODIFIED BITUMEN ROOF SYSTEMS AS SHOWN ON THE DRAWINGS.
5. LIFTS/RELOCATE MECHANICAL EQUIPMENT AS REQUIRED TO INSTALL THE NEW ROOF SYSTEMS. THREE MECHANICAL UNITS WILL BE REPLACED BY ANOTHER DISTRICT-RETAIINED CONTRACTOR.
6. ALTERNATES ROOF REPLACEMENT IN CONJUNCTION WITH MECHANICAL UNIT REPLACEMENTS BY ANOTHER DISTRICT-RETAIINED CONTRACTOR.

DRAWING NO. TITLE
A1.0 TITLE SHEET, GENERAL NOTES, ABBREVIATIONS AND LEGEND
A20.0 OVERALL ROOF DEMOLITION PLAN (BASE SCOPE)
A20.1 OVERALL ROOF DEMOLITION PLAN (ALTERNATE 1A)
A20.2 OVERALL ROOF DEMOLITION PLAN (ALTERNATE AREAS 1 TO 3)
A21.0 OVERALL ROOF PLAN (BASE SCOPE)
A22.0 ROOF PLAN - ALTERNATE 1A
A23.0 ROOF PLAN - ALTERNATE AREAS 1 TO 3
A24.0 ROOF PLAN - AREA 2 (SECTOR 10)
A25.0 ROOF PLAN - SECTORS 13 & 14
A26.0 ROOF PLAN - AREA 1
A27.0 ROOF PLAN - AREA 3
A10.40 ROOF DETAILS
A10.41 ROOF DETAILS
A10.42 ROOF DETAILS
A10.43 ROOF DETAILS
A10.44 ROOF DETAILS
Asbestos and Lead Survey

HVAC Equipment Replacement
Roof Sectors 10, 13, and 14
Los Medanos College
Pittsburg, California
March 4, 2016
RGA-Terracon Project No. R1167276

Prepared for:
Contra Costa Community College District
Martinez, California

Prepared by:
RGA-Terracon Consultants, Inc.
Emeryville, CA
March 4, 2016

Contra Costa Community College District
500 Court Street
Martinez, California 94553

Attn: Kelly Johnson
Critical Solutions, Inc.
E: kellyj@csipm.com

Re: Asbestos and Lead Survey
HVAC Equipment Replacement
Roof Sectors 10, 13, & 14 College Complex
Los Medanos College
Pittsburg, California
Terracon Project No. R1167276

Dear District:

Terracon Consultants, Inc. (Terracon), formerly RGA Environmental, Inc, is pleased to submit the attached report for the above referenced site. The purpose of this report is to summarize the results of the Pre-replacement Asbestos and Lead Survey of HVAC equipment conducted on February 29, 2016. This survey was conducted in general accordance with our proposal dated February 24, 2016. We understand that this survey was requested due to planned replacement of the subject HVAC equipment on portions of the roof system of the College Complex.

Terracon appreciates the opportunity to provide this service to the District. If you have any questions regarding this report please contact the undersigned at 510-547-7771.

Sincerely,

Terracon Consultants, Inc.

Michael Harrington, CSST, DHS Lead Technician III (Env)

Marlin V. Bryant, CAC, DHS Lead, CIEC Senior Project Manager
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APPENDIX A IDENTIFIED ASBESTOS CONTAINING MATERIALS BY HOMOGENEOUS AREA (HA)  
APPENDIX B ASBESTOS SURVEY SAMPLE LOCATION SUMMARY  
APPENDIX C ASBESTOS ANALYTICAL LABORATORY DATA  
APPENDIX D LEAD IN PAINT ANALYTICAL LABORATORY DATA  
APPENDIX E TERRACON PERSONNEL CREDENTIALS  
APPENDIX F PHOTOGRAPHS  
APPENDIX G SAMPLE LOCATION DRAWINGS
EXECUTIVE SUMMARY

Terracon Consultants, Inc. (Terracon) conducted an asbestos and lead survey of HVAC equipment located on HVAC Roof Sectors 10, 13, and 14 of the College Complex at Los Medanos College in Pittsburg, California. Terracon understands that this survey was requested due to the planned replacement of the described HVAC equipment. The purpose of this survey was to sample and identify suspected hazardous materials including asbestos-containing materials (ACM) and lead in paint that may require special handling if disturbed and/or may require special packaging and documentation prior to disposal as waste. The survey was performed on February 29, 2016 by Michael Harrington, a California certified asbestos and lead inspector with Terracon, in accordance with our proposal dated February 24, 2016 and the industry standard asbestos and lead sampling protocols.

During the asbestos portion of the survey, Terracon collected a total of 60 bulk samples from among 24 homogeneous materials (HMs) suspected to be asbestos containing material (ACM). The analytical laboratory reported six (6) of the HMs analyzed as containing detectable asbestos content.

The following asbestos containing materials were identified as a result of laboratory analysis:

<table>
<thead>
<tr>
<th>Material Description</th>
<th>Material Location</th>
<th>Estimated Quantity*</th>
</tr>
</thead>
<tbody>
<tr>
<td>HA 05 Black Wrap</td>
<td>Sector 10 – North – 2-inch OD fiberglass insulated pipe</td>
<td>100 square feet</td>
</tr>
<tr>
<td>HA 06 Silver/Black Wrap</td>
<td>Sector 10 – Northeast – Elbows, Tees, and Valves</td>
<td>100 square feet</td>
</tr>
<tr>
<td>HA 16 Black/White Cloth Wrap</td>
<td>Sector 14 – North – Valves insulated with foam</td>
<td>100 square feet</td>
</tr>
<tr>
<td>HA 18 Black/Gray Coating</td>
<td>Sector 14</td>
<td>100 square feet</td>
</tr>
<tr>
<td>HA 19 Asphalt Roofing</td>
<td>Sector 14 – Northwest – Curb at base of HVAC Unit</td>
<td>100 square feet</td>
</tr>
<tr>
<td>HA 20 Black/Gray Mastic</td>
<td>Sector 14 – North Roof penetrations at base of pipes</td>
<td>100 square feet</td>
</tr>
</tbody>
</table>

HA – Homogeneous Area

During the lead in paint portion of the survey, Terracon collected a total of five (5) samples of suspected lead containing paint from building components. The analytical laboratory reported quantifiable amounts of lead in all samples submitted and analyzed. Two (2) of the paint samples were reported to have greater than 0.50% (equal to 5000 parts per million) by weight which is the threshold established by the US EPA Housing and Urban Development (HUD) for defining “Lead-Based Paint.” The two (2) “Lead Based Paints” present include pink paint on a steel beam in Sector 10 (10,600 ppm) and grey paint on metal ducting in Sector 14 (6,930 ppm).
1.0 INTRODUCTION
Terracon Consultants, Inc. (Terracon), formerly RGA Environmental, Inc, conducted an asbestos and lead survey of Roof HVAC Sectors 10, 13, and 14 of the College Complex of Los Medanos College in Pittsburg, California. The survey was conducted on February 29, 2016 by Terracon personnel in accordance with Terracon proposal dated February 24, 2016. The HVAC equipment, piping and roof penetrations in the specified Sectors 10, 13, and 14 were surveyed, for homogeneous areas of suspect asbestos-containing materials (ACM) and suspected lead containing paint. Although reasonable effort was made to survey accessible suspect materials, additional suspect but un-sampled materials could be located in walls, in voids, or in other concealed areas. Suspect asbestos and lead containing materials were collected in general accordance with the industry standard protocols and California regulations. All samples were delivered to accredited laboratories for analysis.

1.1 Project Objective
We understand this asbestos and lead survey was requested due to planned replacement of HVAC equipment in the specified roof sectors of the College Complex.

1.2 Reliance
This report is for the exclusive use of the Contra Costa Community College District (District) or the project being discussed. Reliance by any other party on this report is prohibited without written authorization of Terracon and the District. Reliance on this report by the District and all authorized parties will be subject to the terms, conditions, and limitations stated in the proposal, this report, and Terracon’s Agreement for Services. The limitations of liability defined in Terracon’s Agreement for Services is the aggregate limit of Terracon’s liability to the District.

2.0 BUILDING DESCRIPTION
The survey area included the HVAC equipment located in Roof HVAC Sectors 10, 13, and 14 of the College Complex as described in drawings provided to Terracon by the District. The main roof fields of the College Complex were survey in 2015 and were reported to contain 15% asbestos in roofing felts and miscellaneous asbestos containing concrete residue in pea gravel aggregate. These materials were not re-sampled as part of this survey.
3.0 FIELD ACTIVITIES

The survey was conducted by Mr. Michael Harrington, a California certified asbestos and lead inspector with Terracon. Copies of the Terracon personnel credentials are provided in Appendix D. The survey was conducted in general accordance with applicable industry standards and regulations regarding sample collection of the respective suspected hazardous materials.

3.1 Visual Assessment

Survey activities were initiated with review of available mechanical drawings of site equipment followed by a visual inspection to identify homogeneous areas of suspect asbestos and lead containing materials. A homogeneous area (HA) for asbestos or lead containing paint consists of building materials or coatings that appear similar throughout in terms of color and texture with consideration given to the date of application. Interior assessment was conducted in visually accessible areas of the building.

3.2 Physical Assessment

A physical assessment of each HA of suspect ACM and painted surface were conducted to assess the friability and/or condition of the materials. A friable material is defined by the USEPA as a material which can be crumbled, pulverized, or reduced to powder by hand pressure when dry. Friability was assessed by physically touching suspect materials. The condition of painted surfaces are generally described as Intact, Fair, or Poor

3.3 Sample Collection

Based on results of the visual observation, bulk samples of suspect ACM were collected in general accordance with USEPA AHERA sampling protocols. Samples of suspect materials were collected from randomly selected locations in each homogeneous area. Bulk samples were collected using wet methods as applicable to reduce the potential for fiber release. Samples were placed in sealable containers and labeled with unique sample numbers using an indelible marker.

The selection of sample locations and frequency of sampling were based on Terracon's observations and the assumption that like materials in the same area are homogeneous in content.

3.4 Sample Analysis
Asbestos & Lead Survey
HVAC Replacement – LMC College Complex ■ Pittsburg, California
February 29, 2016 ■ Terracon Project No. R1167276

**Asbestos** - Bulk samples were analyzed by Quantem Laboratories (Quantem) of Oklahoma City, Oklahoma. Quantem is accredited under the National Institute of Standards and Technology’s National Voluntary Laboratory Accreditation Program (NVLAP). When None Detected (ND) appears in this report, it should be interpreted as meaning no asbestos was observed in the sample material above the reliable limit of detection for the PLM method. Note that under EPA assessment criteria, if a single sample of a homogeneous material test positive for asbestos, all areas of that homogeneous material are considered to be asbestos containing.

**Lead** - Paint chip samples of predominant paints and coating were collected using a hand scraper or chisel and were placed into individual plastic sampling containers. Each sample was provided a discrete sample number, which was recorded on a chain of custody form. The samples were transported under chain of custody procedures to Quantem Laboratories of Oklahoma City, Oklahoma. All paint samples were analyzed for lead content using the Flame Atomic Absorption spectroscopy in accordance to EPA Method SW846-7420.

### 4.0 ASBESTOS SURVEY RESULTS

During the asbestos portion of the survey, Terracon collected a total of 60 bulk samples from among 24 homogeneous materials (HMs) suspected to be asbestos containing material (ACM). The analytical laboratory reported six (6) of the HMs analyzed as containing detectable asbestos content. Any additional suspect ACM discovered during future construction activities that are not clearly identified in this survey report should be assumed to be ACM until they can be appropriately tested. The following asbestos containing materials were identified as a result of laboratory analysis or assumed to be asbestos containing:

<table>
<thead>
<tr>
<th>Material Description</th>
<th>Material Location</th>
<th>Estimated Quantity*</th>
</tr>
</thead>
<tbody>
<tr>
<td>HA 05 Black Wrap</td>
<td>Sector 10 – North – 2-inch OD fiberglass insulated pipe</td>
<td>100 square feet</td>
</tr>
<tr>
<td>HA 06 Silver/Black Wrap</td>
<td>Sector 10 – Northeast – Elbows, Tees, and Valves</td>
<td>100 square feet</td>
</tr>
<tr>
<td>HA 16 Black/White Cloth Wrap</td>
<td>Sector 14 – North – Valves insulated with foam</td>
<td>100 square feet</td>
</tr>
<tr>
<td>HA 18 Black/Gray Coating</td>
<td>Sector 14 – Piping and Fittings</td>
<td>100 square feet</td>
</tr>
<tr>
<td>HA 19 Asphalt Roofing</td>
<td>Sector 14 – Northwest – Curb at base of HVAC Unit</td>
<td>100 square feet</td>
</tr>
<tr>
<td>HA 20 Black/Gray Mastic</td>
<td>Sector 14 – North Roof penetrations at base of pipes</td>
<td>100 square feet</td>
</tr>
</tbody>
</table>

A summary of the classification, condition and approximate quantity of identified ACM is presented in Appendix A. The summary of sample locations is presented in Appendix B. Laboratory analytical reports are included in Appendix C.

Terracon can provide the Client with a proposal for developing asbestos abatement specifications (project design) and for performing abatement oversight and air monitoring upon request.
5.0 LEAD IN PAINT SURVEY RESULTS

During the lead in paint portion of the survey, Terracon collected a total of five (5) samples of suspected lead containing paint from building components. The analytical laboratory reported quantifiable amounts of lead in all samples submitted and analyzed. Two (2) of the paint samples were reported to have greater than 0.50% (equal to 5000 parts per million) by weight which is the threshold established by the US EPA Housing and Urban Development (HUD) for defining “Lead-Based Paint.” In the following Table III, lead in paint samples reported at greater than 5,000 ppm are marked with yellow highlight.

<table>
<thead>
<tr>
<th>Sample Number</th>
<th>Material Description and Location</th>
<th>Condition</th>
<th>Lead % (ppm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>L-1</td>
<td>Yellow paint on metal pipe – Sector 10</td>
<td>Fair</td>
<td>&lt;49.1</td>
</tr>
<tr>
<td>L-2</td>
<td>Pink paint on metal beam – Sector 10</td>
<td>Fair</td>
<td>10,600</td>
</tr>
<tr>
<td>L-3</td>
<td>Grey Paint on rubber – Sector 10</td>
<td>Fair</td>
<td>1,120</td>
</tr>
<tr>
<td>L-4</td>
<td>Grey paint on metal – Sector 14</td>
<td>Fair</td>
<td>6,930</td>
</tr>
<tr>
<td>L-5</td>
<td>Silver coating – Sector 13</td>
<td>Fair</td>
<td>155</td>
</tr>
</tbody>
</table>

Ppm – Parts per million

6.0 LIMITATIONS/GENERAL COMMENTS

Terracon did not perform sampling which required demolition or destructive activities such as knocking holes in walls, dismantling of equipment or removal of protective coverings. Reasonable efforts to access suspect materials within known areas of restricted access (e.g., crawl spaces) were made; however, confined spaces or areas which may pose a health or safety risk to Terracon personnel were not sampled.

This survey was conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions in the same locale. The results, findings, conclusions, and recommendations expressed in this report are based on conditions observed during our survey of the HVAC equipment. The information contained in this report is relevant to the date on which this survey was performed, and should not be relied upon to represent conditions at a later date. This report has been prepared on behalf of and exclusively for use by the Contra Costa Community College District for specific application to their project as discussed. This report is not a bidding document. Contractors or consultants reviewing this report must draw their own conclusions regarding further investigation.
or remediation deemed necessary. Terracon does not warrant the work of regulatory agencies, laboratories, or other third parties supplying information which may have been used in the preparation of this report. No warranty, express or implied is made.
APPENDIX A  
College Complex – HVAC Sectors 10, 13, 14  
Asbestos and Lead Survey  
Los Medanos College, Pittsburg, California

**Identified Asbestos Containing Materials by Homogeneous Area (HA)**

<table>
<thead>
<tr>
<th>HA No.</th>
<th>Material Description</th>
<th>Material Location</th>
<th>% and Type Asbestos**</th>
<th>NESHAP Classification</th>
<th>Condition</th>
<th>Estimated Quantity*</th>
</tr>
</thead>
<tbody>
<tr>
<td>05</td>
<td>Black Wrap</td>
<td>Sector 10 – North - 2-inch OD pipe insulated with fiberglass</td>
<td>40% Chrysotile</td>
<td>Cat. I Non Friable</td>
<td>Good</td>
<td>Sq. Ft.</td>
</tr>
<tr>
<td>06</td>
<td>Silver/Black Wrap</td>
<td>Sector 10 – Northeast – Elbows, Tees, and Valve</td>
<td>15% Chrysotile</td>
<td>Cat. I Non Friable</td>
<td>Good</td>
<td>Sq. Ft.</td>
</tr>
<tr>
<td>16</td>
<td>Black/White Cloth Wrap</td>
<td>Sector 14 – North – Valves insulated with foam</td>
<td>30% Chrysotile</td>
<td>Cat. I Non Friable</td>
<td>Good</td>
<td>Sq. Ft.</td>
</tr>
<tr>
<td>18</td>
<td>Black/Gray Coating</td>
<td>Sector 14 -</td>
<td>30% Chrysotile</td>
<td>Cat. I Non Friable</td>
<td>Good</td>
<td>Sq. Ft.</td>
</tr>
<tr>
<td>19</td>
<td>Asphalt Roofing</td>
<td>Sector 14 – Northwest - Curb at base of HVAC unit</td>
<td>20% Chrysotile</td>
<td>Cat. I Non Friable</td>
<td>Good</td>
<td>Sq. Ft.</td>
</tr>
<tr>
<td>20</td>
<td>Black/Gray Mastic</td>
<td>Sector 14 – North – Roof penetrations at base of pipes</td>
<td>20% Chrysotile</td>
<td>Cat. I Non Friable</td>
<td>Good</td>
<td>Sq. Ft.</td>
</tr>
</tbody>
</table>

*Estimated quantities are based on a cursory field evaluation. Actual quantities may vary significantly, especially if asbestos containing materials are present in hidden and/or inaccessible areas not evaluated as part of this survey.

**% & Type Asbestos** = this column contains both the analytical result of the sample with the highest concentration of asbestos detected in the samples that make up the HA and the types of asbestos identified.

The materials listed in this table have been sampled and determined to contain asbestos in concentrations greater than 1%. When disturbed, various federal, state and local regulations may apply. These materials should be monitored for damage over time and repaired as necessary by appropriately trained personnel. Removal may be necessary before renovations and in most cases before a demolition. See Appendix B for a summary of samples collected. See Appendix C for copies of the laboratory analytical reports.
APPENDIX B

College Complex – HVAC Sectors 10, 13, 14
Asbestos and Lead Survey
Los Medanos College, Pittsburg, California

ASBESTOS SURVEY SAMPLE LOCATION SUMMARY

<table>
<thead>
<tr>
<th>HA No./Sample No.</th>
<th>Material Description</th>
<th>Material Location</th>
<th>% and Type of Asbestos**</th>
<th>NESHAP Classification</th>
<th>Condition</th>
<th>Estimated Quantity*</th>
</tr>
</thead>
<tbody>
<tr>
<td>01/1, 2, 3</td>
<td>Roof Mastic</td>
<td>Sector 10 – W/SW/N – Pitch Pot - Large Black</td>
<td>ND</td>
<td>NA</td>
<td>Good</td>
<td>NA</td>
</tr>
<tr>
<td>02/4, 5, 6</td>
<td>Roof Mastic</td>
<td>Sector 10 – W/S/N – Pitch Pot – Small Grey</td>
<td>ND</td>
<td>NA</td>
<td>Good</td>
<td>NA</td>
</tr>
<tr>
<td>03/7, 8, 9</td>
<td>HVAC Tape</td>
<td>Sector 10 – S/SW/N</td>
<td>ND</td>
<td>NA</td>
<td>Good</td>
<td>NA</td>
</tr>
<tr>
<td>04/10, 11, 12</td>
<td>HVAC Cloth</td>
<td>Sector 10 - East</td>
<td>ND</td>
<td>NA</td>
<td>Good</td>
<td>NA</td>
</tr>
<tr>
<td>05/13, 14, 15</td>
<td>Black Wrap</td>
<td>Sector 10 – North - 2-inch OD pipe insulated with fiberglass (ND)</td>
<td>40% Chrysotile</td>
<td>Cat. I Non Friable</td>
<td>Good</td>
<td>100 Sq. Ft.</td>
</tr>
<tr>
<td>06/16, 17, 18</td>
<td>Silver/Black Wrap</td>
<td>Sector 10 – Northeast – Elbows, Tees, and Valve with white insulation (ND)</td>
<td>15% Chrysotile</td>
<td>Cat. I Non Friable</td>
<td>Good</td>
<td>100 Sq. Ft.</td>
</tr>
<tr>
<td>07/19, 20, 21</td>
<td>HVAC Tape</td>
<td>Sector 10 – N/E/W</td>
<td>ND</td>
<td>NA</td>
<td>Good</td>
<td>NA</td>
</tr>
<tr>
<td>08/22, 23, 24</td>
<td>Black/white Coating</td>
<td>Sector 10 – North Valve – over black foam insulation</td>
<td>ND</td>
<td>NA</td>
<td>Good</td>
<td>NA</td>
</tr>
<tr>
<td>09/25, 26, 27</td>
<td>Roof Mastic</td>
<td>Sector 14 – Large Pitch Pot</td>
<td>ND</td>
<td>NA</td>
<td>Good</td>
<td>NA</td>
</tr>
<tr>
<td>10/28, 29, 30</td>
<td>Roof Mastic</td>
<td>Sector 14 – Small Pitch Pot</td>
<td>ND</td>
<td>NA</td>
<td>Good</td>
<td>NA</td>
</tr>
<tr>
<td>11/31, 32, 33</td>
<td>White Cloth/Tape</td>
<td>Sector 14 – Center White cloth over silver tape on HVAC unit</td>
<td>ND</td>
<td>NA</td>
<td>Good</td>
<td>NA</td>
</tr>
<tr>
<td>12/34, 35, 36</td>
<td>Black Cloth</td>
<td>Sector 14 – North – Black cloth on HVAC Unit</td>
<td>ND</td>
<td>NA</td>
<td>Good</td>
<td>NA</td>
</tr>
<tr>
<td>13/37, 38, 39</td>
<td>Yellow Insulation</td>
<td>Sector 14 – W/E/E – Fiberglass on Pipes</td>
<td>Not Submitted</td>
<td>NA</td>
<td>Good</td>
<td>NA</td>
</tr>
<tr>
<td>14/40, 41, 42</td>
<td>Yellow Insulation</td>
<td>Sector 14 – W/W/W Fiberglass on Fittings</td>
<td>Not Submitted</td>
<td>NA</td>
<td>Good</td>
<td>NA</td>
</tr>
<tr>
<td>15/43, 44, 45</td>
<td>Black Foam</td>
<td>Sector 14 – W/W/W Black Foam</td>
<td>Not Submitted</td>
<td>NA</td>
<td>Good</td>
<td>NA</td>
</tr>
<tr>
<td>16/46, 47, 48</td>
<td>Black/White Cloth Wrap</td>
<td>Sector 14 – North – Valves insulated with foam</td>
<td>30% Chrysotile</td>
<td>Cat. I Non Friable</td>
<td>Good</td>
<td>100 Sq. Ft.</td>
</tr>
<tr>
<td>17/49, 50, 51</td>
<td>Black Cloth</td>
<td>Sector 14 – East – Patch on mechanical unit</td>
<td>ND</td>
<td>NA</td>
<td>Good</td>
<td>NA</td>
</tr>
<tr>
<td>18/52, 53, 54</td>
<td>Black/Gray Coating</td>
<td>Sector 14 – Piping and Fittings</td>
<td>30% Chrysotile</td>
<td>Cat. I Non Friable</td>
<td>Good</td>
<td>100 Sq. Ft.</td>
</tr>
<tr>
<td>HA No./Sample No.</td>
<td>Material Description</td>
<td>Material Location</td>
<td>Material Location Details</td>
<td>% and Type Asbestos**</td>
<td>NESHAP Classification</td>
<td>Condition</td>
</tr>
<tr>
<td>-------------------</td>
<td>----------------------</td>
<td>-------------------</td>
<td>--------------------------</td>
<td>-----------------------</td>
<td>-----------------------</td>
<td>-----------</td>
</tr>
<tr>
<td>19/55, 56, 57</td>
<td>Asphalt Roofing</td>
<td>Sector 14 – Northwest - Curb at base of HVAC unit</td>
<td>Asphalt Roofing</td>
<td>20%</td>
<td>Chrysotile</td>
<td>Good</td>
</tr>
<tr>
<td>20/58, 59, 60</td>
<td>Black/Gray Mastic</td>
<td>Sector 14 – North – Roof penetrations at base of pipes</td>
<td>Black/Gray Mastic</td>
<td>20%</td>
<td>Chrysotile</td>
<td>Good</td>
</tr>
<tr>
<td>21/61, 62, 63</td>
<td>Roof Mastic</td>
<td>Sector 13 – Base of HVAC Supports Pitch Pots</td>
<td>Roof Mastic</td>
<td>ND</td>
<td>NA</td>
<td>Good</td>
</tr>
<tr>
<td>22/64, 65, 66</td>
<td>HVAC Tape</td>
<td>Sector 13 – N/S/W – Metal HVAC Ducting</td>
<td>HVAC Tape</td>
<td>ND</td>
<td>NA</td>
<td>Good</td>
</tr>
<tr>
<td>23/67, 68, 69</td>
<td>Black Coating</td>
<td>Sector 13 – Black paint on Foam Insulation</td>
<td>Black Coating</td>
<td>ND</td>
<td>NA</td>
<td>Good</td>
</tr>
<tr>
<td>24/70, 71, 72</td>
<td>White Insulation</td>
<td>Sector 13 – Pipe Elbows - Fiberglass</td>
<td>White Insulation</td>
<td>ND</td>
<td>NA</td>
<td>Good</td>
</tr>
</tbody>
</table>

ND = None Detected
APPENDIX C

ASBESTOS ANALYTICAL LABORATORY DATA
## Polarized Light Microscopy Asbestos Analysis Report

<table>
<thead>
<tr>
<th>QuanTEM Sample ID</th>
<th>Client Sample ID</th>
<th>Composition</th>
<th>Color / Description</th>
<th>Asbestos (%)</th>
<th>Non-Asbestos Fiber (%)</th>
<th>Non Fibrous</th>
</tr>
</thead>
<tbody>
<tr>
<td>001</td>
<td>01-MG5-01</td>
<td>Homogeneous</td>
<td>Black</td>
<td>Asbestos Not Present</td>
<td>Cellulose 10</td>
<td>Tar</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Roof Mastic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>002</td>
<td>01-MG5-02</td>
<td>Homogeneous</td>
<td>Black</td>
<td>Asbestos Not Present</td>
<td>Cellulose 15</td>
<td>Tar</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Roof Mastic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>003</td>
<td>01-MG5-03</td>
<td>Homogeneous</td>
<td>Black</td>
<td>Asbestos Not Present</td>
<td>Cellulose 15</td>
<td>Tar</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Roof Mastic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>004</td>
<td>02-MG5-04</td>
<td>Homogeneous</td>
<td>Black</td>
<td>Asbestos Not Present</td>
<td>Cellulose 8</td>
<td>Tar</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Roof Mastic</td>
<td></td>
<td>Glass Fiber 15</td>
<td></td>
</tr>
<tr>
<td>005</td>
<td>02-MG5-05</td>
<td>Homogeneous</td>
<td>Black</td>
<td>Asbestos Not Present</td>
<td>Cellulose 10</td>
<td>Tar</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Roof Mastic</td>
<td></td>
<td>Wollastonite 10</td>
<td></td>
</tr>
<tr>
<td>006</td>
<td>02-MG5-06</td>
<td>Homogeneous</td>
<td>Black</td>
<td>Asbestos Not Present</td>
<td>NA</td>
<td>Tar</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Roof Mastic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>007</td>
<td>03-SC5-07</td>
<td>Homogeneous</td>
<td>Silver/Tan</td>
<td>Asbestos Not Present</td>
<td>Cellulose 75</td>
<td>Paint Binder</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Duct Tape</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

QuanTEM is a NVLAP accredited PLM laboratory (Lab Code: 101959-0). This report relates only to the specific items tested. NVLAP accreditation applies only to analysis performed utilizing EPA/600/M4-82-020 and EPA/600/R-93/116 methods. This report may not be used to claim product endorsement by NVLAP or any agency of the US Government. This report may not be reproduced except in full, without the written approval of the laboratory.
Polarized Light Microscopy Asbestos Analysis Report

<table>
<thead>
<tr>
<th>QuanTEM Sample ID</th>
<th>Client Sample ID</th>
<th>Composition</th>
<th>Color / Description</th>
<th>Asbestos (%)</th>
<th>Non-Asbestos Fiber (%)</th>
<th>Non Fibrous</th>
</tr>
</thead>
<tbody>
<tr>
<td>008</td>
<td>03-SC5-08</td>
<td>Homogeneous</td>
<td>Silver/Tan Duct Tape</td>
<td>Asbestos Not Present</td>
<td>Cellulose 75</td>
<td>Paint Binder</td>
</tr>
<tr>
<td>009</td>
<td>03-SC5-09</td>
<td>Homogeneous</td>
<td>Silver/Tan Duct Tape</td>
<td>Asbestos Not Present</td>
<td>Cellulose 75</td>
<td>Paint Binder</td>
</tr>
<tr>
<td>010</td>
<td>04-WP1-10</td>
<td>Homogeneous</td>
<td>Gray Cloth</td>
<td>Asbestos Not Present</td>
<td>Glass Fiber 100</td>
<td></td>
</tr>
<tr>
<td>011</td>
<td>04-WP1-11</td>
<td>Homogeneous</td>
<td>Gray Cloth</td>
<td>Asbestos Not Present</td>
<td>Glass Fiber 100</td>
<td></td>
</tr>
<tr>
<td>012</td>
<td>04-WP1-12</td>
<td>Homogeneous</td>
<td>Gray Cloth</td>
<td>Asbestos Not Present</td>
<td>Glass Fiber 100</td>
<td></td>
</tr>
<tr>
<td>013</td>
<td>05-PI4-13</td>
<td>Layered</td>
<td>Black Wrap</td>
<td>Asbestos Present Chrysotile</td>
<td>Glass Fiber 10</td>
<td>Tar</td>
</tr>
</tbody>
</table>

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

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### Polarized Light Microscopy Asbestos Analysis Report

| QuanTEM Lab No. | Client: RGA Environmental | M. Bryant  
| Date Received: | 03/02/2016 | 1466 66th Street  
| Account Number: | C018 | Emeryville, CA 94608  
| Date Analyzed: | 03/03/2016 |  
| Received By: | Rachel Brooks |  
| Analyzed By: | Gayle Ooten |  
| Methodology: | EPA/600/R-93/116 |  
| Project Location: | Sector 10-13-14 |  
| Project Number: | R1167276 |  
| QuanTEM Sample ID | Client Sample ID | Composition | Color / Description | Asbestos (%) | Non-Asbestos Fiber (%) | Non Fibrous |
| 013a | Layered | Yellow Insulation | Asbestos Not Present | Glass Fiber | 100 |
| 014 | 05-PI4-14 | Layered | White Wrap | Asbestos Not Present | Cellulose | 100 |
| 014a | Layered | Yellow Insulation | Asbestos Not Present | Glass Fiber | 100 |
| 015 | 05-PI4-15 | Homogeneous | Yellow Insulation | Asbestos Not Present | Glass Fiber | 100 |
| 016 | 06-PI5-16 | Layered | Silver/Black Wrap | Asbestos Present | Glass Fiber | 30 Tar Silicone Binder |
| 016a | Layered | Gray Insulation | Asbestos Not Present | Glass Fiber | 25 CaCO3 |
| 017 | 06-PI5-17 | Layered | White Wrap | Asbestos Not Present | Glass Fiber | 40 Binder |

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

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### Polarized Light Microscopy Asbestos Analysis Report

**QuanTEM Lab No.:** 260460  
**Account Number:** C018  
**Date Received:** 03/02/2016  
**Received By:** Rachel Brooks  
**Date Analyzed:** 03/03/2016  
**Analyzed By:** Gayle Ooten  
**Methodology:** EPA/600/R-93/116

**Client:** RGA Environmental  
**M. Bryant**  
1466 66th Street  
Emeryville, CA 94608

**Project:** Critical Solutions- Los Medanos College  
**Project Location:** Sector 10-13-14  
**Project Number:** R1167276

<table>
<thead>
<tr>
<th>QuanTEM Sample ID</th>
<th>Client Sample ID</th>
<th>Composition</th>
<th>Color / Description</th>
<th>Asbestos (%)</th>
<th>Non-Asbestos Fiber (%)</th>
<th>Non Fibrous</th>
</tr>
</thead>
<tbody>
<tr>
<td>017a</td>
<td></td>
<td>Layered</td>
<td>White Insulation</td>
<td>Asbestos Not Present</td>
<td>Glass Fiber</td>
<td>25 CaCO3</td>
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<tr>
<td>018</td>
<td>06-PI5-18</td>
<td>Layered</td>
<td>Black/White Wrap</td>
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<td>25 Tar Binder</td>
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<tr>
<td>018a</td>
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<td>Layered</td>
<td>White Insulation</td>
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<td>25 CaCO3</td>
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<tr>
<td>019</td>
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<td>Silver Sealant</td>
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<td>Silicone</td>
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</table>

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**Date Analyzed:** 03/03/2016  
**Analyzed By:** Gayle Ooten  
**Methodology:** EPA/600/R-93/116  

### QuanTEM Sample ID | Client Sample ID | Composition | Color / Description | Asbestos (%) | Non-Asbestos Fiber (%) | Non Fibrous
--- | --- | --- | --- | --- | --- | ---
022 | 08-PI5-22 | Homogeneous | Black Insulation | Asbestos Not Present | NA | Foam
023 | 08-PI5-23 | Homogeneous | Black Insulation | Asbestos Not Present | NA | Foam
024 | 08-PI5-24 | Homogeneous | Black Insulation | Asbestos Not Present | NA | Foam

---

**Client:** RGA Environmental  
**M. Bryant**  
1466 66th Street  
Emeryville, CA 94608  

**Project:** Critical Solutions- Los Medanos College  
**Project Location:** Sector 10-13-14  
**Project Number:** R1167276

---

**Date of Report:** 3/3/2016  
**Gayle Ooten, Analyst**

---

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<tr>
<th>HM#</th>
<th>Material Description</th>
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<tr>
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<td></td>
<td>02-MG5-06</td>
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<td>05-PI4-15</td>
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<td>HVAC Tape</td>
<td>07-SC7-19</td>
<td>Sector 10- North</td>
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Relinquished By: Michael Harrington  Signature: [Signature]  Date/Time: 2-29-16
Received By: [Signature]  Date/Time: [Date/Time]
Relinquished By: [Signature]  Date/Time: [Date/Time]
Received By: [Signature]  Date/Time: [Date/Time]
### Polarized Light Microscopy Asbestos Analysis Report

**QuanTEM Lab No.** 260472  
**Account Number:** C018  
**Date Received:** 03/02/2016  
**Received By:** Rachel Brooks  
**Date Analyzed:** 03/02/2016  
**Analyzed By:** Gayle Ooten  
**Methodology:** EPA/600/R-93/116  
**Project:** Critical Solutions-Los Medanos College  
**Project Location:** N/A  
**Project Number:** R1167276

<table>
<thead>
<tr>
<th>Sample ID</th>
<th>Color / Description</th>
<th>Composition</th>
<th>Asbestos (%)</th>
<th>Non-Asbestos Fiber (%)</th>
<th>Non Fibrous</th>
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</thead>
<tbody>
<tr>
<td>001</td>
<td>Black/Gray Roof Mastic</td>
<td>Homogeneous</td>
<td>Asbestos Not Present</td>
<td>Cellulose</td>
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<td>Cellulose</td>
<td>15</td>
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<tr>
<td>007</td>
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<td>Homogeneous</td>
<td>Asbestos Not Present</td>
<td>Cellulose</td>
<td>40</td>
</tr>
</tbody>
</table>

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### Polarized Light Microscopy Asbestos Analysis Report

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<thead>
<tr>
<th>QuanTEM Lab No.</th>
<th>Account Number</th>
<th>Client</th>
<th>M. Bryant</th>
<th>Project Location</th>
<th>Project Number</th>
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<tbody>
<tr>
<td>260472</td>
<td>C018</td>
<td>RGA Environmental</td>
<td>1466 66th Street</td>
<td>N/A</td>
<td>R1167276</td>
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</tbody>
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**Received By:** Rachel Brooks  
**Date Received:** 03/02/2016  
**Date Analyzed:** 03/02/2016  
**Analyzed By:** Gayle Ooten  
**Methodology:** EPA/600/R-93/116

<table>
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<tr>
<th>Sample ID</th>
<th>Client Sample ID</th>
<th>Composition</th>
<th>Color / Description</th>
<th>Asbestos (%)</th>
<th>Non-Asbestos Fiber (%)</th>
<th>Non Fibrous</th>
</tr>
</thead>
<tbody>
<tr>
<td>008</td>
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<td>Black/White Pipe Wrap</td>
<td>Asbestos Present Chrysotile 30</td>
<td>NA</td>
<td>Tar Binder</td>
</tr>
</tbody>
</table>

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### Polarized Light Microscopy Asbestos Analysis Report

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**Date Received:** 03/02/2016  
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**Date Analyzed:** 03/02/2016  
**Analyzed By:** Gayle Ooten  
**Methodology:** EPA/600/R-93/116

#### Client Information
- **Client:** RGA Environmental  
- **Project:** Critical Solutions-Los Medanos College

#### Project Details
- **Project Location:** N/A  
- **Project Number:** R1167276

#### Sample Details

<table>
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<th>Client Sample ID</th>
<th>Composition</th>
<th>Color / Description</th>
<th>Asbestos (%)</th>
<th>Non-Asbestos Fiber (%)</th>
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<td>Asbestos Present Chrysotile 30</td>
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<td>Black/Gray Coating</td>
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<td>Tar</td>
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</table>

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QuanTEM Lab No. 260472  
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Received By: Rachel Brooks  
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**Polarized Light Microscopy Asbestos Analysis Report**

QuanTEM Lab No. 260472  
Account Number: C018  
Date Received: 03/02/2016  
Received By: Rachel Brooks

**Client:** RGA Environmental  
M. Bryant  
1466 66th Street  
Emeryville, CA 94608

**Methodology:** EPA/600/R-93/116  
Date Analyzed: 03/02/2016  
Analyzed By: Gayle Ooten  
Project: Critical Solutions-Los Medanos College  
Project Location: N/A  
Project Number: R1167276

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<th>Color / Description</th>
<th>Asbestos (%)</th>
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</table>

Gayle Ooten, Analyst  
3/2/2016

Date of Report

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## Critical Solutions - Los Medanos College - Sector 10-13-19

### Project #: R1167276
Sampled By: M. Harrison
Sampling Date: 2-29-16

Sample(s) sent to: □ RGA □ EMSL □ Other Quantum TAT □ Rush □ 24HRS □ 3-5 days

*** FAX OR E-MAIL REPORT TO: SEE ABOVE PROJECT MANAGER (PM) ***
*** ADDITIONAL REPORT RECIPIENT(S): ***

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<th>Material Description</th>
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<th>Pitch Pot Type</th>
<th>Sample ID</th>
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<td>11</td>
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<td>HVAC Tape</td>
<td>Silver</td>
<td>11 SC5 31</td>
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Relinquished By: M.H.  
Received By: M.H.  
Date/Time: 2-29-16
Signature: M.H.  
Date/Time: 3/2 10:00

1466 66th Street Emeryville CA 94608 Tel: (510) 547-7771 Fax: (510) 547-1983
**Critical Solutions - Los Medanos College, Sec. 10-13-14**

**Project Name/Address/Building No.:**

**Project #:** R116.2726

**Sampled By:** M. Haermston

**Sampling Date:** 2-29-16

**Sample(s) sent to:**
- RGA
- EMSL
- Other: Quantum

**TAT:**
- Rush
- 24HRS
- 3-5 days

---

**ACM BULK SAMPLE DATA SHEET**

- PLM Analysis (Analyze all samples)
- Stop Analysis at First Positive
- Point Count Analysis (400-point)

---

**Material Description:** Pipe Insulation

<table>
<thead>
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<tbody>
<tr>
<td>YR 144</td>
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<td>38</td>
<td>E</td>
<td></td>
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<td>39</td>
<td>E</td>
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**Material Description:** Insulation Elbow Valve

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<tr>
<td>14 P154</td>
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<tr>
<td>40</td>
<td>W</td>
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<td>W</td>
<td></td>
</tr>
<tr>
<td>43</td>
<td>W</td>
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**Material Description:** Insulation Flange

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**Material Description:** Cloth Valve

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<td>14 M154</td>
<td>Sector 14 N</td>
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<tr>
<td>16</td>
<td>N</td>
<td></td>
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---

**Relinquished By:**

**Received By:**

**Signature:**

**Date/Time:** 2-29-16 10:00
**ACM BULK SAMPLE DATA SHEET**

- **PM - S. Steiner**: ssstein@terracon.com
- **PM - M. Bryant**: mbryant@terracon.com
- **PM - M. Benefield**: mbenefield@terracon.com
- **PM - W. Frieszell**: wfrieszell@terracon.com
- **PM - K. Schroeter**: kschroeter@terracon.com
- **PM - T. McKeigh**: tmckeigh@terracon.com
- **PM - B. Gills**: bgills@terracon.com
- **PM - M. Bishop**: mbishop@terracon.com
- **PM - K. Pilgrim**: kpilgrim@terracon.com

---

**Critical Solutions - Los Medanos College**

**Project Name/Address/Building No.**
- **Project#**: R1167276
- **Sample(s) sent to**: □ RGA □ EMSL □ Other  Quantum  TAT □ Rush □ 24HRS □ 3-5 days

***FAX OR E-MAIL REPORT TO: SEE ABOVE PROJECT MANAGER (PM)***

***ADDITIONAL REPORT RECIPIENT(S):***

---

<table>
<thead>
<tr>
<th>HMI#</th>
<th>Material Description</th>
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<tr>
<td>17</td>
<td>Insulation Black cloth patch</td>
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<td>18</td>
<td>Coating Black/Gray</td>
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<tr>
<td>19</td>
<td>Roofing HVAC Curb</td>
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<tr>
<td>20</td>
<td>Pipe Point Mastic</td>
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</tbody>
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**Sample ID**
- **17 M15 49 Sector 14 East**
- **18 SC552 Sector 14**
- **19 RFS 55 Sector 14 NW**
- **20 RF458 Sector 14 North**

---

**Relinquished By**
- **Signature**: M.H.

**Received By**
- **Signature**: Date/Time: 2-29-16

1466 66th Street Emeryville CA 94608 Tel: (510) 547-7771 Fax: (510) 547-1983
# Polarized Light Microscopy Asbestos Analysis Report

QuanTEM Lab No. 260485
Account Number: C018
Date Received: 03/02/2016
Received By: Rachel Brooks

Client: RGA Environmental
M. Bryant
1466 66th Street
Emeryville, CA 94608

Project: Critical Solutions-Los Medanos College
Project Location: Sec 10-13-14
Project Number: R1167276

Analyzed By: Gayle Ooten
Methodology: EPA/600/R-93/116

## Sample Compositions

<table>
<thead>
<tr>
<th>Client Sample ID</th>
<th>Color / Description</th>
<th>Asbestos (%)</th>
<th>Non-Asbestos Fiber (%)</th>
<th>Non Fibrous</th>
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<tbody>
<tr>
<td>001 21-61</td>
<td>Homogeneous Black Roof Mastic</td>
<td>Asbestos Not Present</td>
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<td>Tar</td>
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<td>Asbestos Not Present</td>
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<td>Tar</td>
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<tr>
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<td>Homogeneous Black Roof Mastic</td>
<td>Asbestos Not Present</td>
<td>Cellulose 15</td>
<td>Tar</td>
</tr>
<tr>
<td>004 22-SC5-64</td>
<td>Homogeneous Silver Duct Tape</td>
<td>Asbestos Not Present</td>
<td>Cellulose 60 Paint Binder</td>
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<tr>
<td>005 22-SC5-65</td>
<td>Homogeneous Silver Duct Tape</td>
<td>Asbestos Not Present</td>
<td>Cellulose 60 Paint Binder</td>
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<tr>
<td>006 22-SC5-66</td>
<td>Homogeneous Silver Duct Tape</td>
<td>Asbestos Not Present</td>
<td>Cellulose 60 Paint Binder</td>
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<tr>
<td>007 23-MI5-67</td>
<td>Homogeneous Black Insulation</td>
<td>Asbestos Not Present</td>
<td>NA Foam Paint</td>
<td></td>
</tr>
</tbody>
</table>

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

QuanTEM is a NVLAP accredited PLM laboratory (Lab Code: 101959-0). This report relates only to the specific items tested. NVLAP accreditation applies only to analysis performed utilizing EPA/600/M4-82-020 and EPA/600/R-93/116 methods. This report may not be used to claim product endorsement by NVLAP or any agency of the US Government. This report may not be reproduced except in full, without the written approval of the laboratory.
# Polarized Light Microscopy Asbestos Analysis Report

**QuanTEM Lab No.** 260485  
**Account Number:** C018  
**Date Received:** 03/02/2016  
**Received By:** Rachel Brooks  
**Date Analyzed:** 03/02/2016  
**Analyzed By:** Gayle Ooten  
**Methodology:** EPA/600/R-93/116

---

<table>
<thead>
<tr>
<th>QuanTEM Sample ID</th>
<th>Client Sample ID</th>
<th>Composition</th>
<th>Color / Description</th>
<th>Asbestos (%)</th>
<th>Non-Asbestos Fiber (%)</th>
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<td>008</td>
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<td>Asbestos Not Present</td>
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<td>White Insulation</td>
<td>Asbestos Not Present</td>
<td>Glass Fiber 100</td>
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</table>

**Client:** RGA Environmental  
**M. Bryant**  
1466 66th Street  
Emeryville, CA 94608

**Project:** Critical Solutions-Los Medanos College  
**Project Location:** Sec 10-13-14  
**Project Number:** R1167276

---

Signed: Gayle Ooten, Analyst  
**Date of Report:** 3/2/2016

---

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

QuanTEM is a NVLAP accredited PLM laboratory (Lab Code: 101959-0). This report relates only to the specific items tested. NVLAP accreditation applies only to analysis performed utilizing EPA/600/M4-82-020 and EPA/600/R-93/116 methods. This report may not be used to claim product endorsement by NVLAP or any agency of the US Government. This report may not be reproduced except in full, without the written approval of the laboratory.
### ACM BULK SAMPLE DATA SHEET

- **PLM Analysis (Analyze all samples)**
- **Stop Analysis at First Positive**
- **Point Count Analysis (400-point)**

---

**Project Name/Address/Building No.**: Critical Solutions - Los Medanos College, Sec 10-13-14

**Project #:** R1167276  **Sampled By:**  **Sampling Date:** 2-29-16

**Sample(s) sent to:**  
- [ ] RGA  
- [ ] EMSL  
- [ ] Other Quantum  
- □ TAT  
- □ Rush  
- □ 24HRS  
- □ 3-5 days

**FAX OR E-MAIL REPORT TO:** SEE ABOVE PROJECT MANAGER (PM)

**ADDITIONAL REPORT RECIPIENT(S):**

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<th>HM#</th>
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<th>Place</th>
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<td></td>
</tr>
<tr>
<td>22</td>
<td>HVAC tape silver</td>
<td></td>
<td>Site</td>
<td></td>
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<tr>
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<td></td>
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<tr>
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</tr>
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<td>23</td>
<td>Mech insulation</td>
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**Relinquished By:**

**Received By:**

**Relinquished By:**

**Received By:**

---

1466 66th Street Emeryville CA 94608 Tel: (510) 547-7771 Fax: (510) 547-1983
Environmental Chemistry Analysis Report

QuanTEM Set ID: 260467
Date Received: 03/02/16
Received By: Rachel Brooks
Date Sampled: 
Time Sampled: 
Analyst: CR
Date of Report: 3/3/2016

AIHA ID: 101352

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Authorized Signature: Cherry Rossen, Technical Manager

Note: Sample results have not been corrected for blank values.

This report applies only to the standards or procedures indicated and to the specific samples tested. It is not indicative of the qualities of apparently identical or similar products or procedures, nor does it represent an ongoing assurance program unless so noted. These reports are for the exclusive use of the client and are not to be reproduced without specific written permission. QuanTEM is not responsible for user-supplied data used in calculations.

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

Wipe materials must meet ASTM E1792 criteria. Method detection limits and resultant reporting limits may not be valid for non-ASTM E1792 wipe material.

EPA Method 7000B (1) = EPA 600/R-93/200 Preparation Modified. EPA 7000B Analysis Modified
EPA Method 7082 (2) = EPA 600/R-93/200 Preparation Modified. EPA 7082 Analysis Modified
Supplemental Report
QAQC Results

QA ID: 13818 Date: 3/3/2016
Test: Lead Matrix: Paint

Approved By: Cherry Rossen Date Approved: 3/3/2016

Notes:

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<td>260434-001</td>
<td>0.080</td>
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Recovery Data:

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<th>Result + Spike</th>
<th>% Recovery</th>
<th>Dup. Result + Spike</th>
<th>% Dup. Recovery</th>
<th>% Spike RPD</th>
</tr>
</thead>
<tbody>
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<td>LCS-P1</td>
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<td>2.100</td>
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<td>0.5</td>
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<td>LCS-P2</td>
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<td>2.980</td>
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<td>2.180</td>
<td>110.1</td>
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<td>260434-001</td>
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<td>2.080</td>
<td>125.0</td>
<td>2.180</td>
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Authorized Signature: ____________________________________________
Cherry Rossen, Technical Manager
<table>
<thead>
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<th>Sample ID</th>
<th>Paint Description and Sample Location</th>
<th>Condition (U/F/P)</th>
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<tr>
<td>L-1</td>
<td>Yellow Substrate: Pipe Component:</td>
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</tr>
<tr>
<td>L-2</td>
<td>Pink Substrate: Beam Component:</td>
<td>F</td>
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<tr>
<td>L-3</td>
<td>Grey Substrate: Rubber Component:</td>
<td>F</td>
</tr>
<tr>
<td>L-4</td>
<td>Grey Substrate: Metal Component:</td>
<td>F</td>
</tr>
<tr>
<td>L-5</td>
<td>Silver Substrate: Coating Component:</td>
<td>F</td>
</tr>
</tbody>
</table>

**Relinquished By:** M. Harrington  
**Received By:**  
**Signature:**  
**Date/Time:** 2-29-16

**1466 66th Street Emeryville CA 94608 Tel: (510) 547-7771 Fax: (510) 547-1983**
APPENDIX E

TERRACON PERSONNEL CREDENTIALS
hereby certifies that

Marlin V. Bryant

has met all the specific standards and qualifications of the re-certification process, including continued professional development, and is hereby re-certified as a

CIEC

Council-certified Indoor Environmental Consultant

This certificate expires on December 31, 2016.

Charles F. Wiles, Executive Director

Certificate Number

This certificate remains the property of the American Council for Accredited Certification.
APPENDIX F

SITE PHOTOGRAPHS
Asbestos & Lead Survey
HVAC Replacement ■ Los Medanos College
Photos taken: February 29, 2016 ■ Terracon Project No. R1167276

Photo #1  Sector 10
Photo #2  Sector 10
Photo #3  Sector 10
Photo #4  Sector 10
Photo #5  Sector 10
Photo #6  Sector 10
Asbestos & Lead Survey
HVAC Replacement ❖ Los Medanos College
Photos taken: February 29, 2016 ❖ Terracon Project No. R1167276

Photo #7  Sector 10

Photo #8  Sector 10

Photo #9  Sector 10

Photo #10  Sector 10

Photo #11  Sector 10

Photo #6  Sector 10
Asbestos & Lead Survey
HVAC Replacement ■ Los Medanos College
Photos taken: February 29, 2016 ■ Terracon Project No. R1167276

Photo #13 Sector 10

Photo #14 Sector 10

Photo #15 Sector 10

Photo #16 Sector 10

Photo #17 Sector 14

Photo #6 Sector 14
Asbestos & Lead Survey
HVAC Replacement ▪ Los Medanos College
Photos taken: February 29, 2016 ▪ Terracon Project No. R1167276

Photo #25  Sector 13
Photo #26  Sector 13

Photo #27  Sector 13
Photo #28  Sector 14

Photo #29  Sector 14
Photo #6   Sector 14
APPENDIX G

SAMPLE LOCATION DIAGRAMS
AGENDA
PRE-BID MEETING & SITE WALK (MANDATORY)

=====================================================================================================================  
PROJECT NUMBER/NAME:  L-1061- Roof Replacement Project  
CAMPUS:  Los Medanos College at 2700 E Leland Rd, Pittsburg, CA 94565  
DATE:  March 14, 2016  
TIME:  10:00 AM  
LOCATION:  Los Medanos College - PS2 20  

Important Note: An on-site job walk follows the meeting. Attendance at the job walk for this project is mandatory. At completion of the job walk, be sure to obtain a Certification of Site Visit (Section 00450), signed by the District. This signed form must be submitted with your bid.

1. Opening Remarks – Rob Mohr, Construction Manager  
   • Introductions  
   • DIR Registration requirement

2. Project Team Members

<table>
<thead>
<tr>
<th>Name</th>
<th>Role and Company</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kelly Johnson</td>
<td>Project Manager - Critical Solutions, Inc. (CSI)</td>
</tr>
<tr>
<td>Rob Mohr</td>
<td>Construction Manager - Critical Solutions, Inc. (CSI)</td>
</tr>
<tr>
<td>Alan E. Burnett</td>
<td>CIVIL ENGINEER - GALE ASSOCIATES, INC.</td>
</tr>
<tr>
<td>Marlin Bryant</td>
<td>Hazardous Materials Testing - RGA Environmental/</td>
</tr>
<tr>
<td></td>
<td>Terracon Consultants, Inc.</td>
</tr>
<tr>
<td>Russell Holt</td>
<td>Buildings and Grounds (B&amp;G) Manager, LMC</td>
</tr>
<tr>
<td></td>
<td>Inspector of Record (TBD)</td>
</tr>
</tbody>
</table>

3. Brief Project Description

In general, the Work consists of removal of existing built-up roofs and underlying light weight concrete topping slab (see Hazardous Materials Report), application of a fluid applied membrane, installation of new tapered insulation, and installation of single-ply and modified bitumen roof systems on the College Complex Roof Area 1 as shown in drawings and specifications prepared by Gale Associates. The Work requires raising existing piping system and other associated equipment as required to install the new roof system. Also included is the need to protect the roof and occupied building and common spaces below from water intrusion during adverse weather conditions. Note there is a staging and laydown area for material and
equipment that will be available for contractor use. The College Complex is located at Los Medanos College, 2700 East Leland Drive, Pittsburg, CA.

- Timeline (calendar days):
  - Estimated NTP – Thursday May 12, 2016
  - Duration to Substantial Completion – 100 Calendar Days

4. Project Work Restrictions
- See attached for staging and access to the roof.
- Work, including roof abatement and installation of new roof to be coordinated with other contractor who will be performing mechanical work during the contract period.
- Refer to General Conditions Section 00700

5. Bid Phase Communications & Correspondence
- All questions related to this Project must be in writing and directed to:

  Jovan Esprit, Contracts Manager
  Contra Costa Community College District
  500 Court St., Martinez, CA 94553
  Email: jesprit@4cd.edu
  Facsimile: 925-370-6517

6. Addenda Update
- Pending; alternates for additional roof areas at adjacent mechanical unit replacement work.

7. Bid Phase Schedule Milestones
- Last day for RFI: March 18, 2016, 2:00 PM
- Last Addendum Issued: March 23, 2016, 2:00 PM
- Bid Opening: April 4, 2016, prior to 2:00 PM
- Award of Contract: April 28, 2016
- Notice to Proceed: May 12, 2016

8. Bid Opening
- **Bids must be received at the Contra Costa Community College District Office at 500 Court St, Martinez, CA by Monday, April 4, 2016 prior to 2:00 PM.**
  - All bids will be time stamped at the reception counter in the building lobby.
  - Any bid received after the bid opening time will be rejected.
  - An announcement will be made at the 2-minute mark prior to the bid opening deadline.

9. Bid Package
- Review your bid package carefully before submitting it. Be sure to include all required documentation.

10. Contract Duration Discussion
- See Section 00600, Construction Agreement
- 100 Calendar Days to Substantial Completion (SC) – LDs $500/Calendar day beyond SC
- 60 Calendar Days between SC and Final Completion – LDs $250/Calendar day beyond FC
11. Substitution requests MUST comply with Contract Documents
   • Within three (3) work days of bid opening on District form; acceptance at District’s sole discretion – form is provided on page 4 of section 01340 Administrative Forms & Logs.

12. Site Job Walk
   • Review Construction Site
   • Distribute signed Certificate of Site Visit forms
# PRE-BID MEETING
## SIGN-IN SHEET

**PROJECT TITLE:** L-1061 - Roof Replacement Project

**DATE / TIME:** March 14, 2016 at 10:00 AM

**LOCATION:** Los Medanos College

<table>
<thead>
<tr>
<th>COMPANY NAME</th>
<th>NAME</th>
<th>TITLE</th>
</tr>
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<tbody>
<tr>
<td>Best Contracting</td>
<td>Michael Kenyon</td>
<td>Sales</td>
</tr>
<tr>
<td>Service</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Please provide business card</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Office Phone</strong></td>
<td>516 866 7246</td>
<td></td>
</tr>
<tr>
<td><strong>Cell Phone</strong></td>
<td>516 866 7277</td>
<td></td>
</tr>
<tr>
<td><strong>Email Address</strong></td>
<td><a href="mailto:ryank@bestcontracting.com">ryank@bestcontracting.com</a></td>
<td></td>
</tr>
<tr>
<td>Solano County Roofing</td>
<td>Wolfgang Folk</td>
<td>Estimator</td>
</tr>
<tr>
<td><strong>Please provide business card</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Office Phone</strong></td>
<td>707-864-6000</td>
<td></td>
</tr>
<tr>
<td><strong>Cell Phone</strong></td>
<td>707-249-6205</td>
<td></td>
</tr>
<tr>
<td><strong>Email Address</strong></td>
<td>wolfk @ sbcglobal. net</td>
<td></td>
</tr>
<tr>
<td>B&amp;M Tessor Off</td>
<td>Nathaniel Renteria</td>
<td>Estimator</td>
</tr>
<tr>
<td><strong>Please provide business card</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Office Phone</strong></td>
<td>(925) 755-9505</td>
<td></td>
</tr>
<tr>
<td><strong>Cell Phone</strong></td>
<td>(925) 978-6661</td>
<td></td>
</tr>
<tr>
<td><strong>Email Address</strong></td>
<td>Nathaniel-renteria @ yahoo.com</td>
<td></td>
</tr>
</tbody>
</table>

Page 1 of 2
## Pre-Bid Meeting Sign-In Sheet

**Project Title:** L-1061 - Roof Replacement Project

**Date / Time:** March 14, 2016 at 10:00 AM

**Location:** Los Medanos College

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Name</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stronger Building S.</td>
<td>Ismael Avila</td>
<td>Senior Stimulator</td>
</tr>
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Please provide business card

<table>
<thead>
<tr>
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<th>Number</th>
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<tbody>
<tr>
<td>Office Phone</td>
<td>(510) 487-8369</td>
</tr>
<tr>
<td>Cell Phone</td>
<td>(415) 823-6355</td>
</tr>
<tr>
<td>Email Address</td>
<td><a href="mailto:ismael@strongerbuilding.com">ismael@strongerbuilding.com</a></td>
</tr>
</tbody>
</table>

| Andrys Roofing Co. | Ramon Castaneda | Superintendent |

Please provide business card

<table>
<thead>
<tr>
<th>Phone Type</th>
<th>Number</th>
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<tbody>
<tr>
<td>Office Phone</td>
<td>(510) 777-1180</td>
</tr>
<tr>
<td>Cell Phone</td>
<td>(408) 593-0077</td>
</tr>
<tr>
<td>Email Address</td>
<td><a href="mailto:jon@andysoofing.com">jon@andysoofing.com</a></td>
</tr>
</tbody>
</table>

| Joseph Murphy    | Jose Lazano     | Project Manager   |

Please provide business card

<table>
<thead>
<tr>
<th>Phone Type</th>
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</thead>
<tbody>
<tr>
<td>Office Phone</td>
<td>925 - 735-3000</td>
</tr>
<tr>
<td>Cell Phone</td>
<td>985 - 551-1273</td>
</tr>
<tr>
<td>Email Address</td>
<td><a href="mailto:josel@jmccgc.com">josel@jmccgc.com</a></td>
</tr>
</tbody>
</table>
Los Medanos College

Option 1
Staging area and roof access

Option 2a & b
Approximately 10’x20’ staging area/access to sector 10.
Coordinate use with mechanical contractor

Option 3 access for main roof - fence off from student access path

Roof Access: fence off from campus pedestrian traffic.