Procurement and Contracting Services

Request for Bids for the Removal and Replacement of One Roof on Campus at the Gender and Women’s Studies Building

ADDENDUM #1

Please mark all proposal submission Envelopes with the following information

Sealed RFB # S272401
Due on November 22nd, 2023 no later than 2:00 PM, MS
The timeline for RFB # S270401 has been amended as follows:

**Section 3.3:**

*Original Schedule*
- 10/16/2023 Issuance of RFB
- 10/25/2023 Vendors Visit University Site(s) at 8:00 AM, MST
- 10/27/2023 Technical Questions/Inquiries due no later than 12:00 PM, MST
- 11/09/2023 RFB is Due November 9th, 2023, no later than 2:00 PM, MST

*Revised to:*
- 10/16/2023 Issuance of RFB
- 10/25/2023 Vendors Visit University Site(s) at 8:00 AM, MST
- 10/27/2023 Technical Questions/Inquiries due no later than 12:00 PM, MST
- 11/22/2023 RFB is Due November 22nd, 2023, no later than 2:00 PM, MST

**Section 3.8: Proposal Submission and Subsequent Action**

All dates within the entire section 3.8 are revised to November 22nd, 2023 no later than 2:00PM MST.

The attached Technical Questions were submitted prior to the close of the technical question period on October 27, 2023 at 12:00PM MST:

1. Walk paths/walk pads: Are you requiring Walk path protection at access areas and, to and around serviceable equipment?
   a) No walk pads required.

2. Clarification: C-block rubber mounts. Is the manufacturer C-Port?
   a) Durablock is acceptable and can be purchased from several vendors such as Grainger.

3. Section 5.2.3 note calls for the UA to disconnect, raise, and reconnect all AC equipment, electrical and plumbing equipment to necessary 8” above roof deck. Will the UA provide new sheet metal curbs for all AC units currently setting on wood sleepers?
   a) Yes.

4. Section 5.2.3. Will the UA provide new sheet metal curbs for all duct penetrations thru roof?
   a) Yes. Where needed.
5. Is new sheet metal coping cap required at all parapet walls?
   a) Yes, please provide this in your proposal.

6. Do scuppers require like for like replacement (no downspouts) or will new scuppers require downspouts routed to grade?
   a) Please provide a proposal using new scuppers and downspouts.

7. Are existing sheet metal gutters to be replaced with new?
   a) Yes.

8. Is an allowance to be included for structural deck replacement?
   a) Yes, please include in your proposal.

9. Is there an asbestos report on file that confirms no is ACM present on roof system to require any necessary abatement.
   a) Yes. Please inquire through Bobby for report.

10. Are the duct work, gas lines, conduits, plumbing, and electrical equipment at roof top and parapet walls to be moved by U of A and coordinated with roofers work during time of renovation?
    a) Yes, UAFM will remove/relocate/extend all these areas while working and coordinating with the contractor.

11. Is there only one layer of existing roofing system? Please confirm that deck is plywood substrate?
    a) Core Cuts were highly recommended to be done by the vendor. Areas that the UA cored came out with 1 layer on the North side and 2 layers on the south side.

12. What type of insulation will we be installing (ISO) 2.6 times two or dens deck, or cover board?
    a) ISO will be the insulation.

13. What is the scope of work/detail for the existing roof hatch?
    a) Existing Hatch will be removed and deleted permanently.

14. What are the taper system details or drawings for the layout?
a) Vendors to provide taper design. There is an existing through preliminary walk done by Polyglass.

15. Please confirm ¼” OR ½” tapered system required for upper roof area. RFB document Section 5.2.3 indicates “…1/2” tapered cricket insulation is required…”

a) Please provide a ¼” tapered system.

16. What area has been dedicated for material storage?

a) Area will have to be coordinated with Parking and Transportation. We are requesting the South/West Corner of the building where there is a service permit parking spot.

17. What type of schedule is planned for the project? Night work? Weekends?

a) The job needs to be complete by June 30 2024. Night work and Weekends may be permitted.

18. Will we (the roofers) be responsible for parking permits?

a) Yes, as stated in the RFB, contractors are responsible for acquiring parking permits for the site. FM is not responsible for providing spots or providing temporary parking for vendors, nor do we have the authorization to do so.

19. Will the AC Units be replaced and who will be responsible for building curbs?

a) AC units will be reused. FM Welding and Sheet Metals Shops will be building the curbs.

20. Who will be responsible for banding the curbs?

a) FM Will be responsible for all structing of units.

21. What will the blocks under the pipes be replaced with?

a) Blocks will be replaced with Rubber Durablocks/C-Blocks.

22. Will the plywood need to be replaced?

a) Vendors should budget for percentage of plywood replacement. Areas will need to be replaced.

23. Where can we set-up?
a) Area will have to be coordinated with Parking and Transportation. We are requesting the South/West Corner of the building where there is a service permit parking spot.

24. Is there a warranty requirement in the RFB?
   a) Yes, section 5.2.5. 5-year Vendor. 20-year Manufacturer.

25. Will the phone lines be removed?
   a) Yes.

26. Are there any existing drawings available?
   a) There are no drawings showing roof plan.

27. Updated RFB to remove PVC and changed to TPO.
   a) Yes.

28. I believe it was decided to do a ¼” taper.
   a) Yes.

29. Will we be eliminating the existing hatch?
   a) Yes.

End of addendum, all else remains the same.
Polarized Light Microscope (PLM) Analysis for Asbestos in Bulk Sample

**Job Number:** 202310406

**Client:** UNIVERSITY of ARIZONA

**Job:** Womens Studies #438

**Method:** Fiberquant Internal SOP

**Report Date:** 11/2/2023

**Date Analyzed:** 11/2/2023

Each bulk sample is first dissected under a 7-30x magnification stereo-microscope. This examination is used to determine the general type of sample, how many and what type of layers it has, and initial estimates of fiber types and quantities. Second, liquid media mounts are made of each layer - such mounts may be of selected fibers (used solely for identification purposes) or may be representative of the layer as a whole (used for quantitation purposes). The mounts may be made in a synthetic Canadian balsam, one of several solvents, or in refractive index oils (media of known refractive index).

Generally, a variety of different mounts are made: some optimized for fiber visibility, some optimized for fiber identification, and some optimized for fiber quantitation. The mounted slides are then examined at 50-400x magnification on a Nikon Labphot-pol microscope. Optical characteristics are used to identify each observed fiber type; the optical data are contained for each sample on its detail analysis sheet, attached.

Current EPA and NESHAP regulations designate a result of 51% asbestos as “negative” or “non-regulated” and >1% asbestos as “positive” or “regulated.” Samples containing layers that have been determined to be “positive” may have to be handled differently during a renovation or demolition than samples whose layers have been determined to be “negative.” OSHA under CFR 1926.1101 regulates work done involving any detectable concentration of asbestos.

The method of fiber identification and quantitation is the “Standard Operating Procedures for the Analysis of Asbestos in Bulk Samples using Polarized Light Microscopy”, Chapter 7 of the Quality Assurance and Management Manual. This SOP and its associated reporting have been designed to satisfy all requirements in both EPA Method 600/M4-82-020 (The Interim Method) and EPA Method 600/R-93/116 (The New Method). The Interim Method is the required method for AHERA (US EPA 40 CFR Pt. 763), but this method calls for the reporting of composited results of multi-layered samples that is no longer an acceptable reporting practice in most circumstances. Current EPA rules, such as NESHAP (US EPA 40 CFR Pt. 61), as well as NVLAP accreditation policies, call for separate reporting for each layer of multi-layered samples. The New Method contains the same procedures for identification and quantification of asbestos as does the Interim Method, except that multi-layered samples are reported to comply with the latest US EPA rule. Fiberquant not only reports the asbestos content of each layer of multi-layered samples separately (satisfying current EPA and NVLAP reporting requirements), but Fiberquant also reports what percentage of the sample each layer comprises. Therefore, the results may be arithmetically composited to satisfy the reporting requirements of the Interim Method. The method of fiber quantitation is an estimation technique in which the analyst’s quantitation is routinely calibrated by reference quantitation standards, and which has been shown to be equivalent in precision and accuracy to point counting. Friability is estimated for the purposes of deciding when to point count. Friabilities determined in the field take precedence over those determined in the laboratory. Those sample layers which are friable and estimated by the analyst to contain <1% asbestos are point counted using 400 points. Such point counting is required by NESHAP (National Emission Standards for Hazardous Air Pollutants, Nov 1990) in order to rely on analytical results that are ≤1%. The coefficient of variation for the estimation quantitation technique is 100% in the range 0-5%.

Asbestos fibers are point counted using 400 points. Such point counting is required by NESHAP (National Emission Standards for Hazardous Air Pollutants, Nov. 1990) in order to rely on analytical results that are ≤1%. The coefficient of variation for the estimation quantitation technique is 100% in the range 0-5%.

Floor tiles present a special problem for PLM asbestos analysis. Floor tile can contain chrysotile fibers so thin that they cannot be resolved by optical methods. In such a case, we may observe a percentage of asbestos which is lower than the actual percentage, or not observe asbestos at all when some is present. For this reason, floor tiles reported as negative should be confirmed to be negative using transmission electron microscope (TEM) analysis. Likewise, vermiculite insulation materials containing traces of asbestiform asbestos present a problem for routine PLM analysis – the amphiboles are sometimes present in trace amounts inhomogeneously distributed. For this reason, loose vermiculite samples reported as negative should be confirmed to contain no amphibole using hydroseparation techniques.

The samples were analyzed under the following ongoing quality assurance program: Blank samples are routinely analyzed to maintain contamination-free materials. Each analyst has at least a bachelor’s degree in physical science, and has also completed extensive training specific to asbestos analysis for 1-3 months before being allowed to analyze client samples. Qualitative reference samples are routinely analyzed to assure that analysts...
can identify asbestos and asbestos-look-alike fibers. Quantitative reference samples are routinely analyzed to calibrate and characterize the estimation procedure. Microscope alignment is checked each day. Refractive index oils are calibrated at least quarterly. At least 10% of client samples are re-analyzed from scratch by a different analyst than the original, and any discrepancies are resolved for the sample and similar sample types before the results are reported. All quality checks performed for these samples were in control except as detailed in the "Analytical Notes" below. All analysts participate in interlab round robins and proficiency testing to assure competence. Fiberquant is accredited by NVLAP (Lab code #101031) for the analysis of bulk samples for asbestos using PLM. Accreditation does not imply endorsement by the EPA, any other United States governmental agency or any private agency or association. Each lab analysis refers only to the sample tested, and may not, due to the sampling process, be representative of the material sampled. This report may not be reproduced except in full, without the approval of Fiberquant Analytical Services.

Some results may have been calculated using client supplied data, such as volume or area sampled, for which Fiberquant assumes no liability for accuracy.

**Job Analysis Notes:**

<table>
<thead>
<tr>
<th>Sample Number</th>
<th>Lab Number</th>
<th>Apparent Sample Type *</th>
<th>Asbestos Detected Yes or No</th>
</tr>
</thead>
<tbody>
<tr>
<td>438-110123-01</td>
<td>2023-10406-1</td>
<td>Roofing</td>
<td>Asbestos Detected? No</td>
</tr>
<tr>
<td>Layer # 1</td>
<td>white</td>
<td>coating</td>
<td>no asbestos detected</td>
</tr>
<tr>
<td>Layer # 2</td>
<td>silver</td>
<td>paint</td>
<td>no asbestos detected</td>
</tr>
<tr>
<td>Layer # 3</td>
<td>black</td>
<td>roof ply/bitumen</td>
<td>no asbestos detected</td>
</tr>
<tr>
<td>Layer # 4</td>
<td>black</td>
<td>roof ply/bitumen</td>
<td>no asbestos detected</td>
</tr>
<tr>
<td>Layer # 5</td>
<td>black</td>
<td>roof ply/bitumen</td>
<td>no asbestos detected</td>
</tr>
<tr>
<td>Layer # 6</td>
<td>black</td>
<td>roof ply/bitumen</td>
<td>no asbestos detected</td>
</tr>
<tr>
<td>438-110123-02</td>
<td>2023-10406-2</td>
<td>Roofing</td>
<td>Asbestos Detected? No</td>
</tr>
<tr>
<td>Layer # 1</td>
<td>white</td>
<td>coating</td>
<td>no asbestos detected</td>
</tr>
<tr>
<td>Layer # 2</td>
<td>silver</td>
<td>paint</td>
<td>no asbestos detected</td>
</tr>
<tr>
<td>Layer # 3</td>
<td>black</td>
<td>roof ply/bitumen</td>
<td>no asbestos detected</td>
</tr>
<tr>
<td>Layer # 4</td>
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<td>roof ply</td>
<td>no asbestos detected</td>
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<tr>
<td>Layer # 5</td>
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<td>roof ply/bitumen</td>
<td>no asbestos detected</td>
</tr>
<tr>
<td>Layer # 6</td>
<td>black</td>
<td>roof ply/bitumen</td>
<td>no asbestos detected</td>
</tr>
</tbody>
</table>

* Apparent Sample Types and Apparent Layer Types are as they appeared to the analyst. Since many types of materials appear similar after sampling damage, the apparent type of material may not be the actual type of material.
## PLM Analysis Details

### Sample: 438-110123-01

- **Lab Number:** 2023-10406
- **Sampled:** 11/1/2023
- **Condition:** acceptable
- **Analyzed By:** DMS
- **Apparent Smp Type:** Roofing
- **Homogeneous:** No
- **Asbestos Detected:** No
- **Non-Fibrous Components (in approx. decreasing order):** bitumen, filler, polymer

### Layers

<table>
<thead>
<tr>
<th>#</th>
<th>Layer Type</th>
<th>%</th>
<th>Color</th>
<th>Friability</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>coating</td>
<td>9</td>
<td>white</td>
<td>1 n.d.</td>
</tr>
<tr>
<td>2</td>
<td>paint</td>
<td>1</td>
<td>silver</td>
<td>1 n.d.</td>
</tr>
<tr>
<td>3</td>
<td>roof ply/bitumen</td>
<td>35</td>
<td>black</td>
<td>1 10-20%</td>
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<tr>
<td>4</td>
<td>roof ply/bitumen</td>
<td>20</td>
<td>black</td>
<td>1 n.d. 10-20%</td>
</tr>
<tr>
<td>5</td>
<td>roof ply/bitumen</td>
<td>20</td>
<td>black</td>
<td>1 n.d. 10-20%</td>
</tr>
<tr>
<td>6</td>
<td>roof ply/bitumen</td>
<td>15</td>
<td>black</td>
<td>1 n.d. 20-30%</td>
</tr>
</tbody>
</table>

### Total %: 100

- **Overall %: 5-10% 10-20%**

### Fiber Identification:

- glass fiber
- cellulose fiber

### Refractive Index Determinations

<table>
<thead>
<tr>
<th>Oil</th>
<th>Col Par</th>
<th>Col Per</th>
<th>RI Par</th>
<th>RI Per</th>
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</thead>
<tbody>
<tr>
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</table>

### Sample Analytical Note


### Sample: 438-110123-02

- **Lab Number:** 2023-10406
- **Sampled:** 11/1/2023
- **Condition:** acceptable
- **Analyzed By:** DMS
- **Apparent Smp Type:** Roofing
- **Homogeneous:** No
- **Asbestos Detected:** No
- **Non-Fibrous Components (in approx. decreasing order):** bitumen, filler, polymer

### Layers

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<th>Layer Type</th>
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<th>Color</th>
<th>Friability</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>coating</td>
<td>14</td>
<td>white</td>
<td>1 n.d.</td>
</tr>
<tr>
<td>2</td>
<td>paint</td>
<td>1</td>
<td>silver</td>
<td>1 n.d.</td>
</tr>
<tr>
<td>3</td>
<td>roof ply/bitumen</td>
<td>45</td>
<td>black</td>
<td>1 10-20%</td>
</tr>
<tr>
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<td>10</td>
<td>black</td>
<td>1 n.d. 60-70%</td>
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<td>5</td>
<td>roof ply/bitumen</td>
<td>15</td>
<td>black</td>
<td>1 n.d. 10-20%</td>
</tr>
<tr>
<td>6</td>
<td>roof ply/bitumen</td>
<td>15</td>
<td>black</td>
<td>1 n.d. 10-20%</td>
</tr>
</tbody>
</table>

### Total %: 100

- **Overall %: 5-10% 10-20%**

### Fiber Identification:

- glass fiber
- cellulose fiber

### Refractive Index Determinations

<table>
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<tr>
<th>Oil</th>
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</table>

### Sample Analytical Note

### Analysis Request/Chain-of-Custody Form

**Fiberquant Analytical Services**
5025 S. 33rd St.;
Phoenix, AZ 85040; Phone: 602-276-6139; FAX: 602-276-4558;
info@fiberquant.com

**Analysis Request/Chain-of-Custody Form**

Submitted by (Company) **Armando Jimenez**
Address **Risk Management PO Box 210300**
City, State, Zip Code **Tucson, AZ 85721-0300**
Phone 520-476-2654 FAX 520-621-3706
Email armando jimenez@arizona.edu

Invoice to (Company) **Same as above**
Address **Attention: Meghann Caskey**
City, State, Zip Code
Phone 520-621-1790 FAX

Contact (print) **Armando Jimenez**
Sampled by (signature) **Armando Jimenez**
Job Number or Project Name **Womens Studies #438**
PO Number **661472**

### Turn-around-time (choose one)

- **Urg** Rush: **< 3 hrs**
- 1-3 days
- 15-30 days

### Asbestos by PLM

- Method > Improved □ or Interim □
- Analyze > All □ or ATDF □
- If ATDF then > by Layer □ or by Sample □
- Single Layer Protocol > Yes □ or No □
- Turn-around-time: 1-3 days

### Asbestos by PCM

- Method > 7400(Area) □ ORM (Personal) □
- Turn-around-time: 24hr

### Asbestos by TEM

- in Air □
- AHERA □ Mod. AHERA □
- in Water □
- Water □ Sludge □
- in Bulk (Annex2) □
- Chatfield □ Full Quant □
- in Dust □
- Vacuum Dust (ASTM D-5759) □
- Turn-around-time: 5-10d

### Pb by FLAA

- Analyze > Pb □ Other □
- Matrix > MECE □
- Check here certifying wipes used are ASTM E1779 compliant □
- Turn-around-time: 2-3 days

### Fungi

- Air Sample □
- Zef □ Ablar □ Obh □
- Bulk □
- Sample □ Swab □
- Tape Lift □
- Qualitative (% type) □ or Quantitative (type/col2) □
- Turn-around-time: 1-2 days

### Soot

- ASTM D6602-03B □
- Optical □
- Optical & TEM □
- Turn-around-time: 3-5days

### Other

- Call
- Call

**Sample #: (1 per line)**

<table>
<thead>
<tr>
<th>Sample Date</th>
<th>Sample Time</th>
<th>Vol. or Area</th>
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<tbody>
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<td>1) 438-110123-01</td>
<td>North side/roofing material</td>
<td></td>
</tr>
<tr>
<td>2) 438-110123-02</td>
<td>South side/roofing material</td>
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</tr>
<tr>
<td>3)</td>
<td></td>
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1) Relinquished by: [Signature]
   Date: 11/21/22
   Time: 11:23

2) Received by: [Signature]
   Date: 11/21/22
   Time: 11:23

3) Relinquished by: [Signature]
   Date: 11/21/22
   Time: 11:23

4) Received by: [Signature]
   Date: 11/21/22
   Time: 11:23

**Note:** Data completed by client (including number and identity of samples) is assumed to be correct until it is verified at time of sample preparation.