

**REQUEST FOR BID - 2022 PLUMBING TUCSON FACILITIES**

**FOR**

**ASSOCIATION OF UNIVERSITIES FOR RESEARCH IN  
ASTRONOMY  
(AURA)**

**“NOIRLab PLUMBING UPGRADE TUCSON FACILITIES”**

**Operating the  
National Optical Infra-Red Laboratory  
Tucson, Arizona**

**BIDS MUST BE RECEIVED BY**

**Wednesday, 5/25/2022, 3:00 p.m. MST**

Prepared by:

AURA/CAS  
Sherri Abney, Contracts Officer  
Procurement Office  
950 N. Cherry Avenue  
P. O. Box 26732  
Tucson, AZ 85726-6732

29 April, 2022

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The following items are found on the **AURA/NOIRLab Bid Opportunities webpage**:

- **SAMPLE FIXED PRICE SERVICES CONTRACT**
- **DRAWINGS (as listed in SOW)**

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**SECTION I.**  
**INSTRUCTIONS TO BIDDERS**

**ARTICLE 1.       DEFINITIONS**

1.1 All terms and conditions set forth in the Fixed Price Professional Services Contract template and attachments will be applicable to the final bid.

1.2 Bidding documents include: Request to Bid, Instructions to Bidders, proposed Professional Services Contract, and Scope of Work/Technical Specifications with support documentation, any amendments issued prior to receipt of bids and Vendor's Bid Form.

1.3 Any amendments as issued prior to bid award will become part of the documents when the Fixed Price Professional Services Contract is issued.

1.4 The "Vendor Contract Documents" will consist of the following: Request for Bid, Instructions to Bidders, Vendor's Bid, the written Professional Services Contract between AURA, and the Vendor, the Scope of Work/Technical Specifications with the support documentation, and all amendments and/or modifications incorporated into the documents before their execution.

1.5 The Association of Universities for Research in Astronomy, Inc. is an Arizona non-profit corporation, hereinafter referred to as AURA. The term "AURA" includes its authorized representatives. AURA manages and/or operates astronomy "Centers" under cooperative agreements with the National Science Foundation. One such "Center" is the National Optical Infra-Red Laboratory ("NOIRLab").

1.6 NOIRLab has main facilities located at 950 North Cherry Ave., Tucson, AZ 85719.

1.7 The National Science Foundation, hereinafter referred to as the "NSF", is an agency of the United States of America created under the National Science Foundation Act of 1950. The term "NSF" includes its authorized representatives.

1.8 The "Bidder" is the person or organization who/that submits a Bid in accordance with these Bid Instructions and Procedures and proposes to perform the work described in the Statement of Work and/or specifications, and who/that proposes to perform the work described in the Fixed Price Professional Services Contract. The term "Bidder" may be used in lieu of the term "Contractor" or "Vendor" throughout these Bid documents.

1.9 The term "Subcontractor" means a person or organization, who/that has a direct agreement with the Vendor to furnish labor, or labor and materials, at the site of the work. The term also includes lower tier Contractors of a Subcontractor, but it does not include suppliers who/that furnish materials not worked to a special design according to the drawings and specifications. Nothing contained in the Fixed Price Professional Services Contract Documents shall be deemed or construed to create any contractual relationship between AURA and any Subcontractor as defined above.

## ARTICLE 2. DESCRIPTION OF PROJECT

AURA/NOIRLab is releasing a Request for Bid (RFB) for a plumbing upgrade project at its main facilities located at 950 N Cherry Ave, Tucson, AZ 85719, and closely surrounding area.

## ARTICLE 3. BIDDING PROCEDURES

3.1 Bids shall be prepared on the forms provided in Section VI and include the following:

a. **Completed “Vendors/Contractor’s Bid for Professional Services Contract”**: Bidder must complete in its entirety the contractor bid form labeled, “Section VI, Contractor’s Bid Documents, which will set forth Contractor’s bid on the project.

b. **Completed “Qualification Package”**: Bidder shall fully complete the “Qualification Package” forms which follow Section VI titled, “Contractor’s Bid Documents.” It is very important that Bidder complete in detail the references form included in the Qualification Package. Bidder may include a more detailed written description of the references provided and the work performed for each referenced firm highlighting significant accomplishments, if desired.

c. **License Numbers and Resolution**. The Bidder shall submit with its Bid, the Services Vendor’s License number(s) applicable to the work to be performed, and a copy of a corporate or LLC resolution certified either by the Secretary of the Corporation or by a Member of the LLC that the resolution passed at a meeting of the board of directors of the corporation or by the members of the LLC, validly called, at which a quorum of board members or LLC members were present, indicating who within the Bidder’s organization has legal authority to bind the organization on a contract. The Bidder shall include the information for their organization’s registrations with the Arizona Board of Technical Registration.

3.2 a. Prices quoted in the Bid(s) are to INCLUDE all applicable federal, state and local taxes.

b. Prices are to include the cost of all transportation, materials, equipment, tools, supplies, labor and services necessary or proper for the performance and completion of the work, except such as may be otherwise expressly provided for in the Bid documents.

3.3 In the event of a discrepancy between the prices quoted in the Bid in words and those quoted in figures, the words shall control.

3.4 Submission of the Bid. Subject to the following procedures and requirements, Bids may be submitted electronically or via delivery of a hard copy of the Bid Documents to AURA.

a. **Electronic Submission.** Bidder shall submit the documents described in Article 2.1 above electronically, in PDF format. **The date/time signature-marked no later than the due date and time for receipt of bids for this RFB.** The failure to timely submit these documents to AURA in accordance with these rules shall result in the elimination of Bidder's Bid from consideration.

b. **In case of technical difficulties, a hand delivered copy may be sent to the following address:**

AURA  
950 N. Cherry Avenue  
Tucson, AZ 85719  
Attention: Sherri Abney

3.5 No other forms of submission of Bids will be considered. No other forms of submission for modifications to Bids will be considered. Modifications to Bids submitted may be made electronically or via the delivery of a hard-copy of the modified Bid Documents, if the modified Bid Documents are delivered to AURA in accordance with the rules set forth in 3.4 above on or before the 3:00 o'clock P.M. Mountain Standard Time on the Bid due date.

3.6 A Bidder may withdraw its Bid(s), either personally or by written request, at any time prior to the scheduled closing time for receipt of Bids.

3.7 A person, firm or organization who/that have submitted a sub-Bid to a Bidder, or who has quoted on materials to a Bidder, is not disqualified from submitting a sub-Bid or quoting to other Bidders.

3.8 Unless otherwise provided for in any addendum to these Bid Instructions, no Bidder may withdraw, modify or cancel its Bid(s) for a period of one hundred twenty (120) days after the time designated for receipt of Bids.

#### **ARTICLE 4 COMMUNICATION AND QUESTIONS**

Any questions or requests for clarification of this proposal should be directed to:

Sherri Abney, Contracts Officer  
Association of Universities for Research in Astronomy, Inc.  
950 N. Cherry Avenue  
Tucson, AZ 85719  
Ph: 520-318-8103 office, 520-404-6106 cell (working remotely)  
Email: [sabney@aura-astronomy.org](mailto:sabney@aura-astronomy.org)

If unavailable, contact:

Ramona Botkin, Contracts Administrator  
[rbotkin@aura-astronomy.org](mailto:rbotkin@aura-astronomy.org)

**Clarification or direction by other persons at AURA is NOT permitted during the RFB process.**

General or procedural questions can be addressed by telephone/email. Technical or scientific questions must be submitted by email and must be received by the due date for questions on the schedule. All questions and responses will be provided to all parties present at the site visit.

## **ARTICLE 5. EXAMINATION OF DOCUMENTS**

5.1 AURA reserves the right to make additions, deletions, or modifications to the Bid documents in writing by amendment at any time prior to the closing date. If, in the opinion of the Contracts Officer (hereinafter CO), any such change causes an increase in the time required for submission of Bids, the CO may, at her sole discretion, adjust the closing date and time accordingly.

5.2 The Bidder shall examine the Bid documents carefully and, not later than three (3) days prior to the date for receipt of Bids, make a request for interpretation or correction of any ambiguity, inconsistency, or error which it may discover. All requests shall be made in writing, including postal services, next day services and via email, addressed to the AURA CO.

5.3 All interpretations and corrections shall be issued in writing by the AURA CO in the form of an Amendment. The Bidder shall not rely on any interpretation or correction given by any other method.

5.4 Prior to receipt of Bids, addenda, if required, will be mailed to each Bidder who has requested and/or has been sent the Bid documents.

5.5 The failure of any Bidder to receive or examine any form, instrument, amendment or other document, or failure to acquaint itself with existing conditions shall not relieve the Bidder from obligations and responsibilities with respect to its Bid or to the Fixed Price Professional Services Contract. The submission of a Bid shall be taken as prima facie evidence of compliance with this section.

## **ARTICLE 6. REPRESENTATIONS**

6.1 Left intentionally blank.

6.2 By submitting a Bid, each Bidder represents that it is familiar with existing conditions under which the work will be performed.

6.3 a. The Bidder, by submitting its Bid, represents that it has read and understands the Bid documents, and by submitting a Bid acknowledges acceptance of all of the Terms and Conditions of the Bid Documents as defined in 1.2 of these Bid Instructions.

b. Any exceptions to the Professional Services Contract Documents shall be stated on the Vendor's Letterhead, if available, and submitted with its Bid. Exceptions shall be stated clearly and concisely. If the Bidder has exceptions, alternative wording shall be provided for consideration by Bidder to the AURA CO.

c. The Bidder, by submitting a Bid, certifies that the Professional Services Contract Documents, have been reviewed and accepted by the Bidder, or that the Bidder has noted its exceptions to the Professional Services Contract Bid Documents with its Bid.

6.4 The Bidder shall submit with its Bid, the Bidder's License number(s), if applicable to the work to be performed, and a resolution indicating who within the Bidder's organization has authority to bind the organization.

## **ARTICLE 7. SUBSTITUTIONS**

7.1 Each Bidder represents that its Bid is based upon the specifications, materials and equipment described in the Bid documents, unless substitutions have been permitted in advance.

7.2 All Bids containing substitutions shall be accompanied by full and complete technical specifications for approval purposes. The AURA Technical Representative may request such other information as may be required for approval either before or after receipt of bids.

## **ARTICLE 8. N/A**

## **ARTICLE 9. EVALUATION OF BIDS**

9.1 Bids will be opened and evaluated privately after the deadline for receipt of Bids.

9.2 Bids will be evaluated based on the following factors (listed in no particular order):

- Cost to AURA
- Ability to meet technical specifications and scope of work
- Warranties provided by Contractor
- Contractor's qualifications and references
- Ability and history of successful completion of contracts of this type, meeting projected schedules, and overall experience performing similar work
- Material Vendors or Sub-Contractors used
- Exceptions to terms set forth in Vendor Agreement provided by Bidder

9.3 All bidding documents received are considered confidential and will not be released.

9.4 The award of the Fixed Price Professional Services Contract for the work described in the Scope of Work/Technical Specifications, if made by AURA, will be

made to the most responsible and qualified bidder. However, AURA shall determine, at its own discretion, which Bid best meets the requirements and qualifications of the Scope of Work/Technical Specifications and Professional Services Contract and whether it is in the best interests of AURA to accept the Bid. Therefore, Bidder should ensure that all information requested is included in its Bid.

**ARTICLE 10. TIME PERIOD FOR EVALUATION OF BIDS; REJECTION OF BIDS; IRREGULARITIES**

10.1 AURA reserves the right to hold any or all Bids for a period of up to one hundred twenty (120) calendar days.

10.2 AURA shall have the right to take up to one hundred twenty (120) calendar days to evaluate the Bids submitted and to make a decision.

10.3 AURA reserves the right to accept or reject any or all Bids or any combination thereof, to withhold an award for any reason it may determine, or to waive any irregularities or informalities in the Bids or in the submission of Bids.

**ARTICLE 11. FORM OF AGREEMENT**

The form of agreement that will be used shall be a "Fixed Price Professional Services Agreement." A template of the above mentioned contract and the terms and conditions incorporated by reference into said agreement may be found at AURA/NOIRLab Bid Opportunities webpage: <http://auracas.aura-astronomy.org/?q=node/103>. The final form of agreement presented to the Contractor selected to perform the work may vary from the template format attached hereto, depending on the Bid documents submitted by Contractor and other facts and circumstances deemed relevant by AURA.

**ARTICLE 12. LAW**

The laws of the state of Arizona shall govern the interpretation of these Bid Documents and the interpretation of the Fixed Price Professional Services Contract.

**ARTICLE 13. CONTRACTING WITH SMALL BUSINESSES, MINORITY-OWNED FIRMS AND WOMEN'S BUSINESS ENTERPRISES**

AURA encourages small businesses, minority owned firms and women's business enterprises to bid on AURA jobs that they are qualified to bid on. Contractors seeking to bid on "AURA/NOIRLab JANITORIAL AND CUSTODIAL SERVICES" project are encouraged to utilize, as much as possible, small businesses, minority owned firms and women's business enterprises as subcontractors.

**ARTICLE 14. AURA/NOIRLab BID OPPORTUNITIES WEB PAGE DISPLAYING BID OPPORTUNITIES; DUTY OF BIDDER TO CHECK WEB PAGE; PARTICIPATION IN PRE-BID MEETING AND PUBLICATION OF NAMES OF ATTENDEES WHO ATTENDED PRE-BID MEETINGS ON AURA/CAS BID OPPORTUNITIES WEB PAGE**



AURA has established a Web page to display AURA bid opportunities. The link to the webpage is: <http://auracas.aura-astronomy.org/?q=node/103>

The AURA/CAS Bid Opportunities Web page will display all pending RFB, RFPs, etc., issued by the AURA/CAS as well as any amendments issued to such RFBs, RFP's, etc. In addition, AURA shall display the name and contact information for any company which attends an AURA/NOIRLab pre-bid meeting on the AURA/CAS Bid Opportunities Web page for the purpose of apprising prospective subcontractors and the public which firms attended the pre-bid meeting(s). This will enable interested subcontractors to contact such firms for purposes of supplying subcontract prices. It shall be the Bidder's obligation to check the AURA/CAS Bid Opportunities Web page to view and obtain copies of amendments and announcements related to the RFB they seek to bid on.

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## Section II

### Plumbing Upgrade RFB SCHEDULE

RFB released/posted:	Friday, 4/29/2022
Walk Through (optional)**:	Tuesday, 5/10/2022 (time to be determined)
Pre-bid questions due:	Friday, 5/13/2022, 3:00 p.m. MST
Answers distributed:	Wednesday, 5/18/2022, by 3:00 p.m. MST
Bids Due:	Wednesday, 5/25/2022, 3:00 p.m. MST
Decision made:	Wednesday, 6/1/2022
Contract Awarded:	Estimated 6/15/2022, depending on approval from NSF

\*\* For this project, there will be one optional pre-bid site visit/walk through. The meeting site is 950 N. Cherry Ave., Tucson, AZ 85719 (Southeast corner of N. Cherry Ave. and 2<sup>nd</sup> St.). Parking is available in the visitors parking area on the south side of the building. Bidders are requested to assemble in the lobby of the NOIRLab headquarters, checking in with the administrative assistant upon arrival.

After a brief meeting with the AURA/NOIRLab personnel, attendees will then walk the property with the staff.

Bidders should notify the AURA Contract Administrator, Ramona Botkin at [RBotkin@aura-astronomy.org](mailto:RBotkin@aura-astronomy.org) at least two (2) working days PRIOR to the meeting date to provide confirmation of their attendance and obtain direction if needed.

Discussions had during the walk through will NOT be recorded or posted. It is highly recommended that at least one representative from each bidding company attend the walk through, but it is not mandatory in order to offer a bid.

## SECTION III

### SCOPE OF WORK/TECHNICAL SPECIFICATIONS

#### GENERAL SPECIFICATIONS PLUMBING UPGRADE/REPAIR TUCSON FACILITIES

##### Situation:

Most domestic cold, hot, and hot water piping throughout the building are original galvanized steel piping. The galvanized piping has exceeded its useful life and is now failing. Significant failures have occurred in the past and are now becoming pervasive with the worst degradation to the domestic hot water system.

We are requesting bids for repair and replacement of old pipes in our main facilities at 950 N. Cherry Ave., Tucson, AZ.

##### Scope of Work:

1. Follow detailed plans and drawings provided by customer. Plans are broken down in 4 phases.
2. Copper pipe will be used as the replacement.
3. Replace the existing galvanized steel cold water mains stemming from the main water entrance and extending down the various corridors on the first floor and basements as needed to reach the main restroom groups, remaining drinking fountains, and make-up lines to the hydronic chilled and hot water systems. The scope of piping replacement will end in the corridors and extend into existing restrooms as the majority of this piping is entombed within existing wall concrete walls. New isolation valves will be strategically placed to better isolate the water system when future repairs are needed.
4. Abandon the existing domestic hot water system almost in entirety and provide local point of use water heaters at the individual restrooms. AURA has already anticipated this measure and has procured several water heaters.
5. Ensure to meet or exceed industry standard practices and plumbing codes.
6. Provide a schedule for every phase of work being done.

##### 1<sup>st</sup> Phase :

- Fix corrossions spot on header. Line 1 has a 2" ball valve in place and plugged. First, test valve if still in working order. All copper fittings will be Pro Press. This will be the starting point for the first phase of the project. From this point, a 2" copper line will run upward to ceiling to the determined height by plumber then turn southward to hallway. Then plumber will make

opening in the block wall. The pipe then turns eastward keeping close to north wall above ceiling tile and below beams. Ceiling above drop ceiling is metal and hangers can be installed into it for hanging pipe. Across from Rm-142 pipe will make a turn to south, where some form will need to be removed and ceiling cut out for a drop in the wall to basement.

- In the basement, B-30 pipe will come out of wall and turn south, then west and south again mounting to strut work that is in place. Pipe will continue to south wall making a turn to the east. Piping running east at about 9' will drop 10" using two 45 degree fittings and continue to run 2'-3' then turn south and going through wall, which plumbing will core drill from other side in B-21. Plumber will determine all this. B-21 pipe will turn east; plumber will determine distance. Then go south, mounted on strut work that is in place. Will continue to south wall making turn west and down, then south out the screened opening.
- Outside of B21 pipe will be mounted on strut work that is in place at lowest point determined by plumber, because of another 2" pipe to mount above it being Line 3. On line 1 there will be a 2"x3/4" T about 4' south of screen going down and into B-23, which will then go upward, and tie into old 1/2" pipe using a dielectric union. In this, line a 3/4" ball valve determined by plumber. Back outside the 2" line will run to south wall making a turn to the east per plan. At this point, there is a 2" T. The line going up with 2" ball valve will be core drilled through wall at determined height by plumber per plan to meet the inside beam work in RM 15 where it needs to be mounted, pipe clamps will be needed.
- This pipe will go to the south wall of Rm 15 to the block wall that needs an opening determined by plumber to Rm 30. This area cannot be core drilled with water and dust needs to be controlled. It will run along support beam above crane beam in rm-30 to the south, meeting the deck that runs east. Pipe will follow deck beam to the east behind the support poles for deck. Before the east wall, pipe will turn south at determined height by plumber going through block wall into RM 20. Clamps needed.
- In RM 20 pipe will go upward to height determined by plumber for meeting the 3/4" copper line coming from Rm 27 that is in place with 2"x 3/4". Following the 3/4" line down to a manageable height, install a 3/4" ball valve. Hangers needed.
- After, the 2" line will go southward to a 2"x2"x2" T. Off T 2" line goes to the east and makes connection with pipe in place with dielectric union per plan. Off T going southward it will make it finally connection using 2"x2"x3/4" T with a ball valve and dielectric connection. The end will have a 2" ball valve and plug.
- Back outside, where the T is for this line connection, a 2" line will continue eastward per plan feet then will go upward using strut that is in place. Then will continue eastward to a 2"x2"x 3/4" drop to new hose bib and make

connection to old pipe using dielectric union. At 2"x2"x3/4" T pipe will continue to east to a 2"x2" 1" T 1" line going down to make connection to cooling tower with a 1" ball valve at a manageable height. At top, 2" ball valve and plug to end line. (On the strut that is in place clamps needed. On the outside drops 3/4 "and the 1" mounting will be needed.) When making connection shut off water valve outside of Rm-56.

## **2<sup>nd</sup> Phase :**

- Line 3 is a newer line that comes off the header in Rm-137 and goes into concrete to the south. It is under the slab of Rm-136 and under ground in the Patio area where it makes a turn to the east and going into B-30.
- From there it runs to south wall. At this point, a connection is made, using a 2" x 2" x 1" T. The 1" line will need a 1" valve installed and connected to the 1" hose bib line.
- Then turns east to where it turns south and goes through wall into B-21.
- In B-21 pipe does make a turn back to west then south. To a T in line where a 2" line runs off into B-20. In B-20 2" line T's with the 2" continuing east to a valve and plug. This is where the new 2" copper line will start. This line will go to east wall and turn south, to turn east, go through wall, and carry on down the removed hot water line run. Outside of B-14 in hallway there will be 2"x2"x3/4" T. New copper 3/4" line will run down hallway to make connection with dielectric unions to the old lines.
- The 2" continues eastward. It will make the connection per plan for bathrooms and service sinks and water heater hook up. Cold water line to heater needs a valve and flex connection. Also new hot water lines coming out of supplied water heater to make connection to old line using dielectric union. Line continues after this point, to the next connection, a 3/4"x2"x2" T in hallway by B-9. This 3/4", line will run down hallway to tie into old line for a hose bib. At the end of line, install a 2" ball valve and plug. When it is time to make connections, shut off gate valve in B-21 Back to B-20 where 2" line T's there is a 1 1/2" line running south. There will be a repair to line after valve. There is corrosion on pipe.
- Then new connection to the 3/4" copper lines for makeup water for boilers. Per picture supplied and plans. Also, install a hose b. valve. Ball valves control water shut off at this point. Back to B-21, after the 2' T there is a 2" "valve and plug. From this point, new 2" copper line starts next run.
- New line will continue to south wall where it will turn west for 2'-3' then south through screened opening.
- Going out the screen opening, the line needs to be above 1<sup>st</sup> phase line. Continue to south wall mounting to strut work that is in place. At south wall, will turn to east per plan footage, then go up. Plumber will determine height

and goes through wall. This wall will need to be core drilled from outside by plumber.

- Going through wall into Rm-15 to south to determine distance. 4'-5' makes a turn and runs to west wall mounting on beam work. Plumber to supply brackets.
- At west wall, turns south to determine distance 8'-9' then turns west and goes through wall into Rm-13.
- At this point, remove old hot water line and use the path of it to run new water line through west wall. Cap or plug old hot water line.
- In Rm-13 new water line will T 2"x2"x1 1/2" with valve and dielectric union to old line. Line will continue through west wall and have a 2" valve installed before wall. This line does need to go under the beam in place.
- In hallway off Rm-13, running north new water line continues with new mounting hardware. Off this line T 2"x2"x1/2" there will be a cold 1/2" connection using dielectric union to old line.
- Then continuing north a 2"x2"x1 1/4" T cold line with dielectric union to old line.
- Then continuing north a 2" x2"x3/4" T cold line to new water heater supplied. Connected with flex connection and valve for inlet.
- Then continuing north a 2" x2"x1" T cold line with dielectric union to old line.
- Then continuing north a 2"x2"x3/4" T cold line with dielectric union to old line.
- Then line ends with 2" ball valve and plug. Hot water lines as planned.
- When making these connections shut off main water supply and plugged or cap old waterline, because we need to turn main water valve back on.

### **3<sup>rd</sup> Phase:**

- In Rm-137 the header with lines 1, 2, 3. (Line 2 is the 3<sup>rd</sup> phase.) Remove the 2"x 3" adapter and gate valve. Remove the 3" galvanized pipe going up and out wall to hallway.
- Plumber will install a new 2" ball valve for new 2" line. That will follow the path of old pipe. Plumber will determine heights.
- In the ceiling outside of Rm-137, the 2" copper line will turn east and run along north side of hallway.
- At Rm-143, line will turn south over hallway then line turns back east at this point. 2"x 2"x 1/2" T will connect to old pipe using dielectric union and ball valve.
- Line continues east and at Rm-146 2"x 2" x 1 1/2" T and ball valve and dielectric union connection to old pipe. Rm-146 has a service door in ceiling.
- Line continues east to Rm-160. There a 2" x 2" x 1/2" T and ball valve connects to copper line that is there. The 1/2" line goes down to sink and will need to be reconnected.

- At this point line will end with a 2" ball valve and be plugged.

#### **4<sup>th</sup> Phase:**

- Galvanized water line in B-60 needs to be replaced with copper piping. Piping will go through wall and new connections made to new copper line going along building to driveway. At this point line will need to go underground in a sleeve to AFO building.
- Connection made for piping to run along wall to X-9 where it will go through wall and connection made for sinks and toilets.
- Outside piping will continue along wall to X-15 go through wall and make connection to copper line inside.
- Galvanized 3" water line needs replacement from valve in B-40 with 2" galvanized water line into B-67.
- Connections made to supply bathrooms and drinking fountains with new galvanized lines.
- Galvanized 2" water line will continue into B-65, B-66 connections made to new galvanized that is in place.
- Galvanized 2" water line will go through ceiling to Rm-75 and connections made to supply bathrooms and EWR.

#### **Site Conditions**

- A. Regular working hours for NOIRLab are from 8:00 a.m. to 5:00 p.m. Be mindful of staff that might be working around working areas. Staff will be told in advance when phases of plumbing work will start.
- B. The Contractor shall be responsible for removing all work debris and garbage from the complex at the end of the work day and ensure area is free of obstruction from material or equipment that may cause a hazard.
- C. A designated area in the vicinity can be provided to the Contractor for staging and storage of materials. If the Contractor desires to install a trailer on the job site, AFO may be able to provide a location.
- D. Contractor shall at all times keep their work area free from accumulation of waste material or rubbish, and prior to completion of work, remove any rubbish, tools and equipment.
- E. Upon completion of the work, the contractor shall leave the work area and job premises in a clean, neat and in safe condition.

#### **Codes and Standards – Safety**

- A. Contractor(s) shall comply with the requirements of all applicable provisions of the latest edition of the Uniform Building Code as well as other applicable State and National Codes.

- B. Contractor(s) shall be aware of and comply with all OSHA requirements and regulations.
- C. Contractor(s) shall provide its employees with all safety and personnel protective equipment that may be required for the specified work.
- D. Contractor(s) shall take all measures necessary to protect his employees and AURA personnel in adjacent areas from injury related to this work. Appropriate barricades and signage shall be utilized to cordon off areas as needed. The adjoining facilities will be in use during the performance of this contract.
- E. Fall protection measures shall be provided by Contractor to his employees in compliance with OSHA regulations.
- F. The Contractor is responsible for the proper protection of his materials and equipment until the completion of the project. This includes any necessary protection from inclement weather.
- G. Project involves risks associated with elevated work platforms and coating materials. Contractor to provide safety/risk management plans for review by AURA.

### **Drawing List**

The enclosed drawings may have minor inconsistencies or errors but provide a working basis to understand the project and proposed changes or modifications.

- A. Phase 1 drawings
- B. Phase 2 drawings
- C. Phase 3 drawings
- D. Phase 4 drawings

Drawings are available on the website as well.

### **Warranty**

All materials and workmanship to be warranted for a minimum of 3 years.



**SECTION IV.**

**VENDOR'S/CONTRACTOR'S BID DOCUMENTS  
FIXED PRICE PROFESSIONAL SERVICES CONTRACT**

DATE: \_\_\_\_\_

Project: Plumbing TUC Upgrade  
2022PlumbingTUC N00015459C

TO: Procurement/Contracts Office  
AURA/CAS  
Attn: Sherri Abney  
950 N. Cherry Avenue  
Tucson, AZ 85719  
Email: [sabney@aura-astronomy.org](mailto:sabney@aura-astronomy.org)

1. By submitting this Bid, the Undersigned accepts all of the terms and conditions of the Bidding Documents as defined in 1.2 of the Instructions to Bidders.
2. In compliance with AURA's Request for Bid No. N00015459C and Instructions to Bidders, the Undersigned hereby proposes to furnish all labor, materials, equipment and supplies to perform the work for AURA's Project, titled, "Plumbing TUC Upgrade" in accordance with the Scope of Work/Technical Specifications, and pertinent Fixed Price Professional Services Contract Documents.
3. The Undersigned hereby specifies that the work shall be begin within \_\_\_\_\_ **calendar days** after signing the Fixed Price Service Agreement and receiving a written notice to proceed.
4. In accordance with the above completion schedule (Paragraph 3) and attached scope of work and technical specifications, the Undersigned hereby proposes to accomplish the work described above for the TOTAL of:

Title of Project: **Plumbing TUC Upgrade**  
Fixed Price Service Agreement:

Total cost: \_\_\_\_\_ (\$ \_\_\_\_\_ )

5. To facilitate the bid review process, please provide below a general cost breakdown of the bid total in Paragraph 4 above. Note that costs may include both material and labor or can be separated into cost for material and cost for labor. If an item that is listed is not included in this project, please enter a value of zero for this category.

If more room is needed, a separate page may be used/attached for the cost breakdown.

6. The cost of the bid guaranty (if required) is:  
\_\_\_\_\_ DOLLARS(\$\_\_\_\_\_).

7. The cost of the performance bond (if required) is:  
\_\_\_\_\_ DOLLARS(\$\_\_\_\_\_).

8. The cost of the payment bond (if required) is:  
\_\_\_\_\_ DOLLARS(\$\_\_\_\_\_).

9. The amount allocated to taxes is:  
\_\_\_\_\_ DOLLARS (\$\_\_\_\_\_).

\_\_\_\_\_  
(Legal Name of individual, firm or Corporation Bidding)

\_\_\_\_\_  
(Complete Business Address)

\_\_\_\_\_  
(Signature of Authorized Representative)

\_\_\_\_\_  
(Title)

## Qualification Package

### ASSOCIATION OF UNIVERSITIES FOR RESEARCH IN ASTRONOMY, INC.

#### CONTRACTOR/CONSULTANT QUALIFICATIONS

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This form is used to obtain information from Contractors/Consultants about their qualifications. The information that is used to evaluate them is taken from this form as well as from other sources, including but not limited to the proposal submitted by Contractor/Consultant, performance evaluations, any additional data requested by the Association of Universities for Research in Astronomy, Inc., outside research and interviews with the most highly qualified Contractors/Consultants and their references.

#### GENERAL INSTRUCTIONS

This form presents the qualifications for a specific contract. Carefully comply with instructions when preparing and submitting this form. Be as concise as possible and provide all information pertaining to this project and contract.

#### DEFINITIONS

**Association of Universities for Research in Astronomy, Inc. (AURA):** AURA is a consortium of universities, and educational and other non-profit institutions that operates world-class astronomical observatories that AURA terms "centers." AURA's members are 42 U.S. institutions and 5 international affiliates. AURA views itself as acting on behalf of the science communities that are served by its centers, and as a trustee and advocate for the centers' missions.

**Contractor/Consultant: (Contractor):** A company or individual providing goods and/or services required for a program or project.

**Discipline:** Primary technical capabilities of key personnel, as evidenced by academic degree, professional registration, certification, and/or extensive experience.

**Key Personnel:** Individuals who will have major contract responsibilities demonstrated through unusual or unique expertise, e.g. architects, engineers.

**National Optical Infra-Red Laboratory (NOIRLab):** main facilities are located at 950 N. Cherry Ave., Tucson, AZ 85719.

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## **SPECIFIC INSTRUCTIONS**

### **Contract-Specific Qualifications**

#### **Section A. Contract Information.**

##### **Contractor Point of Contact.**

1 - 5. Name, Title, Name of Contractor, Telephone Number, Fax (Facsimile) Number and E-mail (Electronic Mail) Address. Provide information for a representative of the contractor that AURA may contact for additional information.

#### **Section B. Sub-Contractor Information.**

6 - 8. List any sub-contractors (if applicable). Provide Company name, address, and role in this contract. Then provide the firm's name, full mailing address, and a brief description of the role of each firm's performance activities in this contract. The named subcontractors and outside associates or consultants must be used. Any changes warrant approval by the AURA contracting officer. If needed, attach an additional sheet in the same format as Section C.

#### **Section C. Business References**

#### **Section D. Representations and Certifications**

The Contractor is requested to check the appropriate boxes making the Representations and Certifications of the project a formal part of its pre-qualification. Failure to provide this information will prevent your company from being pre-qualified.

9. Small Business and Small Disadvantaged Business Contracting Program. AURA maintains a Small Business and Small Disadvantaged Business Contracting Program. Check Business Size as Small or Large as defined. Check as many that apply under the Business Classification. Check one under Business Status, for IRS reporting requirements.

10. Identification Numbers. Enter appropriate D-U-N-S Number and Federal Employee Identification Number and (Central Contractor Registration Number) (or Social Security Number, if appropriate).

#### **Section E. Debarment/Suspension Status**

The Contractor is required to read and certify the understanding of the debarment procedure and process.

11-12. Signature and Date: Signature and Date of an authorized representative attests that the information provided is current and factual.

13-14. Name, Title, and Address.

## **Section F. Byrd Anti-Lobbying Amendment Certification**

The Contractor is required to read and certify that it has not used federal appropriated funds to pay anyone for influencing an agency or a member or employee of Congress in connection with the award of any federal contracts, grants, loans or agreements.

15-17. Signature, Date and Title: Signature and title of an authorized representative who certifies to the truthfulness of the statements set forth therein.

## **Section G. Qualification of Corporate Signature**

Signature of the qualified person authorized, empowered, and directed on behalf of the Contractor to make and execute bids, offers, and contracts is required.

18-19. Signature and Date: Signature and Date of Contractor's officer to attest that the officer signing the Bid Documents is authorized to make and execute bids, offers, and contracts binding upon this corporation for the offer and sale of goods and/or services by this corporation in the course of its business in an amount specified in the Contractor's Bid Document.

20-21. Name, Title, and Address.

## **Section H. Qualification of Limited Liability Company Signature**

Signature of the qualified person authorized, empowered, and directed on behalf of the Contractor to make and execute bids, offers, and contracts is required.

22-23. Signature and Date: Signature and Date: Signature and Date of Contractor's member/ manager/officer to attest that the individual signing the Bid Documents is authorized to make and execute bids, offers, and contracts binding upon this limited liability company for the offer and sale of goods and/or services by this limited liability company in the course of its business in an amount specified in the Contractor's Bid Document.

24-25. Name, Title, and Address.

## **Section I. Certification that no Conflict of Interest Exists.**

The Contractor is required to read and certify that no organizational conflict of interest exists as defined in the certification form.

26-28 Signature of authorized representative, date and printed name of authorized representative and title of authorized representative.

## **Section J. Additional Information**

Use this section to provide additional information specifically requested or to address selection criteria not covered by the information provided.

## **Section K. Declarations**

29. Signature and Date: Signature and Date of Contractor's officer to attest that the information contained in the Bid Documents is true and correct and to confirm that the Contractor understands its statements in the Bid Documents are subject to investigation and that dishonest answers may be grounds for disqualification and may subject the Contractor and its representative to criminal and civil liability.

(The remainder of this page is left intentionally blank)

**Section A. Contract Information**

Contractor Point of Contact

- 1. Name and Title: \_\_\_\_\_
- 2. Name of company: \_\_\_\_\_
- 3. Telephone number: \_\_\_\_\_
- 4. E-mail address: \_\_\_\_\_

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**Section B. Sub-contractor (ONLY if applicable)**

- 6. Company Name: \_\_\_\_\_
- 7. Address: \_\_\_\_\_
- 8. Role in this contract: \_\_\_\_\_

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**Section C. BUSINESS REFERENCES:**

On a separate sheet of paper, list five customers for whom your business is currently providing the same or similar services as those covered in the scope of work/technical specifications described in Section III of this RFB. Include all information requested below.

Please provide: the name of the business, the point of contact name and email contact information, the address, their phone and fax numbers and the type of project completed for the references:

**You may include any other information or documentation that may assist AURA in evaluating your qualifications.**

## D. REPRESENTATIONS AND CERTIFICATIONS

The contractor, by checking the appropriate boxes makes the following Representations and Certifications as a part of its bid (proposal). Submitted in response to the request identified above:

### 9. Small Business/Small Disadvantaged Business Contracting Program

AURA maintains a "Small Business" and a "Small Disadvantaged Business" Contracting Program. Please check the appropriate circles below.

#### Business Size (check one)

- Small A domestic concern that is independently owned and operated, is not dominant in the field of its operations, qualifies under the criteria covering annual receipts set forth in Section 3 of the Small Business Act and does not employ more than 500 employees.
- Large A domestic concern which, including domestic and foreign divisions and affiliates, normally employs 500 or more persons, is independently or publicly owned or controlled and operated, and which may be division of another domestic or foreign concern.

#### Business Classification (check as many as are applicable)

- Minority 51% of business is owned by one or more socially and economically-disadvantaged individuals and whose management and daily business operations are controlled by one or more of such individuals.
- Socially and economically disadvantaged individuals including, Black Americans, Hispanic Americans, Native Americans, Asian-Pacific Americans, Asian-Indian Americans, and other minorities, or any other individual found to be disadvantages pursuant to Section 8(a) of the Small Business Act.
- Native Americans include American Indians, Eskimos, Aleuts, and Native Hawaiians. Asian-Pacific Americans include United States citizens whose origins are Guam, the U.S. Trust Territories of the Pacific, Northern Marianas, Laos, Cambodia, and Taiwan.
- For assistance in determining your business size and socially and economically disadvantaged status, contact the nearest office of the Small Business Administration.
- Women-Owned A business that is at least 51% owned, controlled and operated by a woman or women.





**WARNING: Failure to provide this information will prevent Contractor from being qualified and being considered for the work covered by this RFB.**

**E. DEBARMENT/SUSPENSION STATUS –**

Contractor certifies to the best of its knowledge and belief that it and its principals:

(a) are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from a covered transaction by any Federal department or agency;

(b) have not within a three year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, state or local) transaction or contract under a public transaction; violation of Federal or state antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(c) are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (federal, State or local) with commission of any of the offenses enumerated in paragraph b of this certification; and

(d) have not within a three year period preceding this proposal for bid had one or more public transactions (Federal, state or local ) terminated for cause or default.

The Contractor agrees to provide immediate notice to the AURA/SOLIS Contracting Officer in the event of being suspended, debarred, or declared ineligible by any department or Federal Agency, or upon receipt of a notice of proposed debarment that is received after the submission of the bid or offer, but prior to the award of the purchase order or contract.

**CERTIFICATION**

The Contractor hereby certifies that he or she has read the above Debarment/Suspension Status requirements and that he or she understands and will comply with these requirements.

Please advise this facility as soon as possible when the status of your company changes from that indicated above.

11. SIGNATURE OF AUTHORIZED REPRESENTATIVE:

\_\_\_\_\_

12. DATE SIGNED: \_\_\_\_\_

13. NAME AND TITLE OF SIGNER (PRINT OR TYPE):

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14. ADDRESS: \_\_\_\_\_

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**F. BYRD ANTI-LOBBYING AMENDMENT CERTIFICATION (31 U.S.C. §1352)**

(To be signed with each bid or offer exceeding \$100,000.00)

Contractor certifies, to the best of its knowledge and belief that:

(1) No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of congress, or an employee of a Member of congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form LLL, "Disclosure of Lobbying Activities," in accordance with its instructions to the [as amended by "Government wide Guidance for New Restrictions on Lobbying, "61 Fed. Reg. 1413 (1/19/96). Note Language in paragraph (2) herein has been modified in accordance with Section 10 of the lobbying disclosure Act of 1995 (P.L. 104-65, to be codified at 2 U.S. C. 1601 *et seq.*)].

(3) Contractor shall require that the language of this certification be included in the award documents for all sub-awards at all tiers including subcontracts, sub-grants, and contracts under grants, loans, and cooperative agreements and that all sub-recipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. § 1352 (as amended by the Lobbying Disclosure Act of 1995). Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such expenditure or failure.

**CERTIFICATION**

Contractor certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, contractor understands and agrees that the provisions of 31 U.S.C. A 3801 *et seq.*, apply to this certification and disclosure, if any.

15. SIGNATURE OF AUTHORIZED REPRESENTATIVE:

\_\_\_\_\_

16. DATE SIGNED:

\_\_\_\_\_

17. NAME AND TITLE OF SIGNER (PRINT OR TYPE):

\_\_\_\_\_

**G. QUALIFICATION OF CORPORATE SIGNATURE**

(To be completed if Contractor is a corporation.)

\_\_\_\_\_, incorporated in the  
(Name of Corporation)

State of \_\_\_\_\_.

RESOLVED THAT:

\_\_\_\_\_, \_\_\_\_\_  
(Name) (Title)

of this corporation is hereby authorized, empowered, and directed, for and on behalf of this corporation and its corporate name, to make and execute bids, offers, and contracts binding upon this corporation for the offer and sale of goods and/or services by this corporation in the course of its business in an amount up to:

\_\_\_\_\_ DOLLARS (\$\_\_\_\_\_)

\_\_\_\_\_

**CERTIFICATION**

I hereby certify that I am a/the duly elected and qualified \_\_\_\_\_, of the above named corporation, that the forgoing is a true and correct statement of a resolution adopted at a meeting of the Board of Directors of said corporation, and that the foregoing resolution is in full force and effect, and has not been withdrawn, repealed, amended, or canceled.

IN WITNESS WHEREOF I have hereto set my hand on behalf of said corporation.

18. SIGNATURE OF OFFICER: \_\_\_\_\_

19. DATE SIGNED: \_\_\_\_\_

20. NAME AND TITLE OF SIGNER (PRINT OR TYPE):

\_\_\_\_\_  
\_\_\_\_\_

21. ADDRESS: \_\_\_\_\_

\_\_\_\_\_

**H. QUALIFICATION OF LIMITED LIABILITY COMPANY SIGNATURE**

(To be completed if Contractor is a limited liability company.)

\_\_\_\_\_, organized in  
the

(Name of Limited Liability Company)

State of \_\_\_\_\_.

RESOLVED THAT:

\_\_\_\_\_, \_\_\_\_\_  
(Name) (Title)

of this limited liability company is hereby authorized, empowered, and directed, for and on behalf of this limited liability company and its limited liability name, to make and execute bids, offers, and contracts binding upon this limited liability company for the offer and sale of goods and/or services by this limited liability company in the course of its business in an amount up to:

\_\_\_\_\_ DOLLARS (\$\_\_\_\_\_)

**CERTIFICATION**

I hereby certify that I am (i) a member or (ii) a/the duly elected and qualified/appointed \_\_\_\_\_, of the above named limited liability company, that the foregoing is a true and correct statement of a resolution adopted at a meeting of the members/managers of said limited liability company, and that the foregoing resolution is in full force and effect, and has not been withdrawn, repealed, amended, or canceled.

IN WITNESS WHEREOF, I have hereto set my hand on behalf of said limited liability company.

22. SIGNATURE OF MEMBER/MANAGER/OFFICER: \_\_\_\_\_

23. DATE SIGNED: \_\_\_\_\_

24. NAME AND TITLE OF SIGNER (PRINT OR TYPE):  
\_\_\_\_\_  
\_\_\_\_\_

25. ADDRESS: \_\_\_\_\_  
\_\_\_\_\_

#### **I. CONFLICTS OF INTEREST CERTIFICATION**

(a) Contractor warrants that to the best of its knowledge and belief, and except as otherwise disclosed, it does not have any organizational conflict of interest which is defined as a situation in which the nature of work under a proposed contract and the prospective contractor's organizational, financial, contractual or other interest are such that:

- (i) award of the contract may result in or be the result of an unfair competitive advantage;
- (ii) the Contractor's objectivity in performing the contract work may be impaired; or
- (iii) that the Contractor has disclosed all relevant information and requested AURA to make a determination with respect to this Contract.

(b) Contractor agrees that if, after award, it discovers an organizational conflict of interest with respect to this Contract, it shall make an immediate and full disclosure in writing to the AURA Contracts Officer which shall include a description of the action which the Contractor has taken or intends to take to eliminate or neutralize the conflict. The AURA Contracts Officer may, however, terminate the contract for the convenience of AURA, if it would be in the best interests of AURA to do so.

(c) In the event the Contractor was aware of an organizational conflict of interest before the award of this contract and intentionally did not disclose the conflict to the AURA Contracts Officer, the Contracts Officer may terminate the Contract for default.

(d) Contractor shall require a conflict of interest disclosure or representation from subcontractors and consultants who may be in a position to influence the advice or assistance rendered to AURA and shall include any necessary provisions to eliminate or neutralize conflicts of interest in such consultant agreements or subcontracts involving performance or work under this Contract.

I declare under penalty of perjury that all statements and information contained in this document and any accompanying documents are true and correct, with full knowledge that all statements made in this document and any accompanying documents are subject to investigation and that any false or dishonest answer to any question may be grounds for disqualification from this solicitation or termination of any award and expose me and the represented organization to both civil and criminal liability.

26. \_\_\_\_\_  
Signature of Authorized Officer/Member/Representative

27. \_\_\_\_\_  
Printed Name and Title

28. Date: \_\_\_\_\_



**J. ADDITIONAL INFORMATION**

PROVIDE ANY ADDITIONAL INFORMATION AS REQUESTED. ATTACH ADDITIONAL SHEETS AS NEEDED.

**K. DECLARATION**

29. I declare under penalty of perjury that all statements and information contained in this document and any accompanying documents are true and correct, with full knowledge that all statements made in this document any accompanying documents are subject to investigation and that any false or dishonest answer to any question may be grounds for disqualification from this solicitation and expose me and the represented organization to both civil and criminal liability.

\_\_\_\_\_  
SIGNATURE OF AUTHORIZED REPRESENTATIVE

\_\_\_\_\_  
Date

\_\_\_\_\_  
Print Name