

ITEM#: 27
DATE: 01-24-23
DEPT: PW

COUNCIL ACTION FORM

SUBJECT: PROFESSIONAL SERVICE AGREEMENT FOR 2022/23 AIRPORT IMPROVEMENT PROGRAM (SOUTH APRON REHAB)

BACKGROUND:

The 2022/23 Airport Improvements Program includes work to rehabilitate the south apron at James Herman Banning Ames Municipal Airport. On September 17, 2019, the City conducted a qualifications-based selection process for the development of plans and specifications for this and other airport projects. Bolton & Menk of Ames, Iowa, was determined to be the most qualified firm.

The Federal Aviation Administration (FAA) allows the selection to include current and future projects listed on the solicitation. Each project is conducted under a separate work order approved by the FAA. Therefore, the 2022/23 Airport Improvements Program (South Apron Rehab) Project is the next project ready for design and is noted in the agreement (attached) as Work Order #3.

Below is the budget for this project:

<u>Revenues</u>		<u>Expenses</u>	
FAA Grants (2)	\$828,000	Design/Bidding	\$ 77,000
Airport Improvements Fund	82,800	Const. Inspection, Grant Closeout	107,700
		Construction Estimate	726,100
Total \$910,800		Total \$910,800	

The FAA will only issue grant offers based on actual bids. Therefore, the amounts shown are only estimates until the plans and specifications have been approved and the project is let.

ALTERNATIVES:

1. Approve the professional services agreement for the 2022/23 Airport Improvements Program (South Apron Rehab), Work Order 3, with Bolton & Menk of Ames, Iowa, in the amount not to exceed \$184,700 for the design, bidding, construction inspection, and grant closeout services.
2. Do not approve the professional services agreement with Bolton & Menk and direct staff to solicit other proposals for this project.

CITY MANAGER'S RECOMMENDED ACTION:

The pavement on the south apron is in a deteriorated condition. This project will not only improve the infrastructure near the Terminal Building, but will also be designed to support

the larger aircraft seen at the Airport. **Therefore, it is the recommendation of the City Manager that the City Council adopt Alternative No. 1, as noted above.**



Real People. Real Solutions.

**WORK ORDER #3
TO
PROFESSIONAL SERVICES CONTRACT
(DESIGN, BIDDING, CONSTRUCTION AND GRANT ADMINISTRATION SERVICES)**

RECONSTRUCT SOUTH APRON

**AMES MUNICIPAL AIRPORT
AMES, IOWA**

BETWEEN: The City of Ames,
An Iowa municipal corporation **(CLIENT/SPONSOR)**

AND: Bolton & Menk, Inc. **(CONSULTANT)**

EFFECTIVE DATE: December _____, 2022

RECITALS

1. City owns and operates the Ames Municipal Airport located near Ames, Iowa.
2. This is Work Order #3 to the Professional Services Contract, between City and Bolton & Menk, Inc. The Professional Services Contract effective January 2, 2020, is referred to herein as the “Master Agreement”.

AGREEMENT

DESCRIPTION

The CONSULTANT agrees to provide Design, Bidding, Construction and Grant Administration Services for the Reconstruct South Apron at the Ames Municipal Airport (herein referred to as the **Project**).

PROJECT UNDERSTANDING

This project will include the removal of existing HMA apron pavements, site preparation through grading and drainage improvements and pavement that will serve aircraft utilizing the apron.

This improvement will meet current FAA design criteria from AC 150/5300-13B for Taxiways/Taxilanes and Aprons. The pavement section may include cement treated subgrade, crushed aggregate base course and PCC pavement per design recommendations using FAA FAARFIELD.

The proposed project will be to reconstruct the south apron pavement which includes a 35-foot-wide taxiway and a 25' wide taxilane. New pavement is required to meet the taxiway/taxilane object free area (TOFA/TLOFA) and the taxiway/taxilane safety area (TSA) for airport design group (ADG) II. Apron security lights will be incorporated as part of the project. Funding for the apron pavement will be through Federal AIP Grant, Federal BIL Grant, and Local funds.

To accomplish this project, there will be two grants to apply for and administer, this includes a grant from the FAA AIP program and a grant from the FAA BIL program. It anticipated that there will be two grant applications but the administration will in effect be one grant. There will be one invoice summary reflecting both grants and there will be one set of closeout documentation.

I.A. BASIC SERVICES

For purposes of this Work Order, the Basic Services to be provided by the CONSULTANT are as follows:

1. DESIGN & BIDDING SERVICES

1.1. Project Scoping

Consultant shall confer with the Sponsor on, and ascertain, project requirements, finances, schedules, and other pertinent matters and shall meet with FAA if needed and other concerned agencies and parties on matters affecting the project and shall arrive at a mutual understanding of such matters with the Sponsor. Meetings with the Sponsor shall also determine the need for topographical surveying and pavement/geotechnical testing. It is anticipated that there will be a maximum of 3 meetings with the Sponsor and/or the FAA, to review pavement eligibility and project limits. The consultant will prepare and distribute meeting minutes to all attendees.

1.2. Project Meetings and Coordination with Sponsor, FAA, etc. Consultant shall coordinate with the subconsultants, sponsor, FAA and other applicable agencies to complete the work elements in Phase 1.

1.2.1. The task includes one meeting at the Airport, attended by the Project Manager. The Consultant will prepare for and conduct up to two (2) meeting at the Airport Sponsor to present the findings of the design phase and any alternatives and recommendations for the project. The result of the meeting(s) will be an agreed upon project design parameters to proceed forward with final construction documents.

1.2.2. Coordination with FAA, Local agencies, subconsultants, etc. The Consultant shall coordinate the project parameters and criteria with the project stakeholders including the FAA, Sponsor, and Project Manager.

- 1.2.3. This task includes one progress meeting per week will be held, one-hour in duration, with all design team members through the duration of the design phase.
- 1.2.4. The consultant will prepare and distribute meeting minutes to all attendees.
- 1.3. Topographical Surveying
 - 1.3.1. Coordination to collect existing data and locate utilities. This task includes data collection, as-built plan set review, and research of available existing survey information in order to gather information on existing topography and utilities. This also includes coordination for field utility locates with the Sponsor, FAA, and IDOT.
 - 1.3.2. Survey control. Survey control will be established and used for design surveys. The Consultant will provide a drawing showing the location of the existing or established control for the project and perform necessary bench loop and traverse procedures to verify accuracy of vertical and horizontal control points. One trip will be required for a two-person survey crew to establish survey control for the project.
 - 1.3.3. Field work. Survey work will include all utilities; pavement center, edges, and intermediate shots; ground shots; lights; signs; drainage structures; and electrical duct markers and hand holes. It is anticipated that the field work will require five trips to the airport by a two-person survey crew.
 - 1.3.4. Convert survey data for design software. This work includes analyzing the topographical surveying data and preparing the data for use with computer modeling. Included are the following separate tasks:
 - Establish design coordinate plan with Sponsor/State to be used for CADD drawings
 - Input raw survey data into the computer program in order to sort data into company standard layers for efficient analyzing
 - Verify survey data from previous project with latest field survey
 - Sort all data points by layers and description for computer modeling
 - Verify surveyor horizontal and vertical control
 - Prepare digital terrain model (DTM) of existing ground contours, pavement edges, roadways, electrical equipment, drainage features, buildings, fences and other miscellaneous entities
 - Generate three-dimensional contour model from the DTM.
 - Prepare and process data for pavement profiles, grading and/or paving cross sections, and drainage features
 - 1.3.5. Limits of Topographic survey are shown in Exhibit II – Survey Limits.
- 1.4. Aeronautical Survey (**Not Required for this Project**)

1.5. Geotechnical Investigation

- 1.5.1. Coordination to schedule geotechnical work. This task includes data collection and review of available geotechnical records in order to gather information on existing soil conditions and past geotechnical or pavement test results. Coordination will be done with the geotechnical subconsultant to schedule work and establish any work constraint parameters.
- 1.5.2. Establish project testing requirements. The Consultant shall determine the type and frequency of geotechnical testing required for the project. The testing shall consider such items as pavement type, design methodology, type of wheel loading, and weight of design aircraft. Determine soil boring locations and frequency of testing. Develop a project sketch showing location and coordinates of borings. Determine soil sampling locations and types of soils testing required.
- 1.5.3. Field work. "Field work will be performed by a qualified geotechnical subconsultant. The geotechnical investigation will include: up to six (6) soil borings to a depth of 10 feet, up to two (2) subgrade standard proctors, up to two (2) California Bearing Ratio for the in-situ soils, up to two (2) California Bearing Ratio (treated with cement at 3% and 5% substitution) for each of the two soil types anticipated and six (6) pavement cores. Field work will be performed by a qualified geotechnical subconsultant." Subconsultant services will be provided by Construction Materials Testing.
- 1.5.4. Analyze data. After receiving the testing report from the geotechnical firm, the Consultant will analyze the data and any existing geotechnical data received from Sponsor, consisting of the following tasks.
 - o Review geotechnical recommendations
 - o Determine appropriate data for pavement design.
 - o Input data for computer modeling with topographical survey data
 - o Prepare pavement data and soil information for incorporation on plan sheets
 - o Evaluate existing pavement sections for potential recycling and reuse
- 1.5.5. Approximate Locations of Soil Borings and Pavement Cores anticipated as part of the geotechnical investigations are shown in Exhibit III – Approximate Locations of Soil Borings and Pavement Cores.

1.6. Project Layout Sheet

Consultant shall complete a project layout sheet that will depict the proposed improvements. Part of the preliminary phase includes establishing the limits of removal, laying out pavement areas by use of appropriate FAA advisory circulars, performing pavement design analysis, and determining drainage patterns.

1.7. FAA Pavement Design Report and Form 5100

This task will consist of using information obtained in the Geotechnical Investigation and calculate the required pavement sections required to support the design vehicle or aircraft using FAA Advisory Circular 150/5320-6G, Airport Pavement Design and Evaluation.

The following effort will be completed under this task:

- Identify the critical aircraft from the FAA-approved aircraft fleet mix which will be based on data from the FAA's TFMSC database.
- Verify the pavement section based on accepted FAA pavement design programs. The applicable design program to be used is FAA Rigid and Flexible Iterative Elastic Layer Design (FAARFIELD). It is anticipated that a single pavement section for rigid and flexible pavement will be provided for this project.
- Review historic frost design and verify with the geotechnical report.
- Evaluate effects of pavement profile on adjacent operational areas .
- Calculate sub-excavation or undercutting subgrade for stabilization if necessary.
- Prepare Life-Cycle Cost analysis for one rigid and one flexible pavement section.
- Review proposed pavement analysis with FAA Engineer.
- Prepare FAA Pavement Design Form 5100 for the pavement section and submit to the FAA for approval via e-mail.

1.8. Construction Safety and Phasing Plan (CSPP)

Consultant will complete FAA Form 7460-1 and the Construction Safety and Phasing Plan (CSPP), for FAA's Obstruction Evaluation / Airport Airspace Analysis (OE/AAA) website portal. A draft of the CSPP will be submitted with the 90% submittal. Any comments, if any, received at the time of the 90% submittal will be incorporated into the CSPP to become the final CSPP. FAA will upload the data to the OE/AAE website. The 7460 form and CSPP will be prepared according to current FAA Guidelines.

1.9. Modification of Airport Design Standards

As needed, the Consultant will prepare a Request for Modification of Federal Construction Standards if found to be necessary for the project. The Mod to Standards will discuss modifications required under the Bid Packages. The Mod to Standards will be submitted to the Sponsor for acceptance. This document will be forwarded to the FAA for approval along with final plans, contract documents, specifications and the Pavement Design Report (if required).

1.10. Prepare Preliminary Plans, Specifications, Cost Estimate, and Project Budget

Preliminary plans will be prepared for the Project. The plan sheets will be limited to those sheets necessary to carry-out the construction of the proposed project: Reconstruct South Apron. The following list of drawings will be used as a guideline. Additional drawings may be added during the design phase, if required.

General:

- A.01 Title Sheet
- A.02 Legend Sheet
- B.01 Typical Sections & Details Sheet
- C.01 Quantities & Estimate Reference Information

Civil:

- CE.01 Erosion Control Plan
- D.01 Grading Plan
- E.01 Electrical Site Plan
- E.02 Electrical Details Sheet
- G.01 Control and Layout Plan
- J.01 Construction Safety & Phasing Plan
- L.01 Jointing Plan
- M.01 Storm Sewer/Subdrain Plan
- N.01 Pavement Marking Plan
- R.01 Existing Conditions & Removals Plan

1.10.1. Prepare Preliminary Specifications

1.10.2. The Consultant will assemble the technical specifications necessary for the intended work. Standard FAA specifications will be utilized where possible. Additional specifications will be prepared to address work items or materials that are not covered by the FAA specifications.

1.10.3. Prepare preliminary technical specifications

1.10.4. This work includes the preparation of standard and supplemental specifications, necessary to establish the construction requirements of the project. Standard specifications will be assembled and reviewed for relevancy to the project. In addition, supplement specifications will be included, where deemed necessary.

1.10.5. Prepare preliminary contract documents

The Consultant will prepare the preliminary contract documents including invitation for bids, instruction to bidders, proposal, equal employment opportunity clauses, construction contract agreement, performance bond, payment bond, Federal Requirements, Preliminary Bid Schedule, Wage Rates, and general provisions. Preparation will include establishing the location for the bid opening, dates for advertisement, and description of the work schedule. Preliminary contract documents will be prepared as early as possible during the design phase and submitted to the Owner for review by the Owner. Also review and incorporate the Sponsor's general provisions and contract clauses, as required.

1.10.6. Prepare preliminary special provisions

The Consultant will prepare Special Provisions to address, or expand on, conditions that require additional clarification.

1.10.7. 30% Review Set

Following the completion of the preliminary plans and specifications, the Engineer will submit a set of 30% drawings, engineers report to the Sponsor for their review. The project will be reviewed with the FAA to obtain their concurrence with the 30% preliminary design.

The following plan sheets are anticipated to be submitted as part of the 30% review set:

- A.01 Title Sheet
- G.01 Control and Layout Plan
- J.01 Construction Safety & Phasing Plan
- N.01 Pavement Marking Plan

The following sections of the engineer's report are anticipated to be submitted as part of the 30% review:

- Geotechnical report
- Aircraft fleet mix table
- FAARFIELD pavement designs and LCCA
- Pavement Design Form 5100
- Engineer's Opinion of Probably Construction Cost
- Project Budget including Federal and Local shares

1.10.8. 90% Review Set

Following the completion of the 30% review plans, engineers report and specifications, the Engineer will submit a set of 90% drawings, engineers report and specifications to the Sponsor for their review. The project will be reviewed with the FAA to obtain their concurrence with the 90% preliminary design.

1.10.9. Prepare Preliminary Cost Estimate

Calculate estimated preliminary quantities for the various work items. Quantities will be consistent with the specifications and acceptable quantity calculation practices. Consultant will then use recent bid prices and industry standards to prepare preliminary cost estimate.

1.11. Prepare Final Plans, Specifications, Cost Estimate, and Project Budget

1.11.1. A final set of plans, specifications and contract documents will be prepared which incorporates revisions, modifications and corrections determined during the Sponsor's review of the 90% submittal.

1.11.2. Prepare Final Cost Estimate

Using the final quantities calculated following the completion of the plans and specifications, the Consultant will prepare the construction cost estimate. The estimate will be based on information obtained from previous projects, contractors, material suppliers, and other databases available.

1.12. Prepare Disadvantaged Business Plan (DBE)

DBE Plan Update: This is applicable for project(s) that fall within a grant year which in Airport uses at least \$250,000 in Federal funds for services that can be completed by Disadvantaged Business Enterprise (DBE) firms. Total DBE eligible costs (prime contracts) estimated to be completed is expected to exceed \$250,000 with this project, thus an updated project-specific DBE goal is required.

The CONSULTANT will update the Disadvantaged Business Enterprise (DBE) program in accordance with 49 CFR Part 26 Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs. Specific tasks will include:

- The CONSULTANT will review the methodology for evaluating the availability of DBE businesses to provide services and products for airport projects for the next three (3) Federal fiscal years.
- The CONSULTANT will review the airport's service area by analyzing the utilization of DBE businesses on previous airport projects.
- The CONSULTANT will prepare a legal advertisement describing the revised DBE utilization goal and methodology.
- The CONSULTANT will deliver the advertisement to the CLIENT to publish in one (1) newspaper as a public notice to provide a public comment period.
- The CONSULTANT will submit the DBE program to the FAA Office of Civil Rights for review and comments.

The CONSULTANT will complete one (1) annual report to FAA Office of Civil Rights as required to report actual DBE accomplishments on the project.

1.13. Prepare Advertisement for Bids and Bid Documents

Consultant shall prepare, reproduce and distribute a total of 10 sets of bidding documents for the project. Consultant will submit a copy to the Sponsor for distribution to the local and selected publications of the pending project. The Sponsor shall pay for the associated cost of advertising. In addition, electronic copies of the bid documents will be made available for download through the Quest Construction Document Network website (QuestCDN). The consultant will also keep a current list of plan holders and distribute this to interested parties upon request. This task includes coordination required to facilitate these requests.

1.14. Respond to Bidders Questions

During the bidding process, the Consultant will be available to clarify bidding issues with contractors and suppliers, and for consultation with the various entities associated with the project. This item also includes contacting bidders to generate interest in the project.

1.15. Prepare and Distribute Addendums

Consultant shall issue addenda as appropriate to interpret, clarify, or change the bidding documents as required by the Sponsor or the FAA. Addenda will be made available to the plan holders either through mail, electronic mail, hand delivering or via facsimile transmission. Any addenda that are generated as a sole result of the Sponsors error or omission will be considered as extra services and the Consultant shall be reimbursed for this effort as an amendment to this contract.

1.16. Bid Opening

The Consultant will attend the bid opening.

1.17. Bid Review and Bid Tabulation

Consultant shall advise Board as to the acceptability of any subcontractors, suppliers, and other persons and organizations proposed by the bidders and as to the acceptability of substitute materials and equipment proposed by bidders. The Consultant shall prepare a spreadsheet that includes all bid items for the purpose evaluating the lowest bidder. The Consultant shall input the as-bid unit prices into the spreadsheet and to verify mathematical computations of the bids. The Consultant will then provide recommendations to the Sponsor as to the name of the Apparent Low Bidder.

1.18. Prepare Recommendation for Award

The Consultant will prepare a recommendation of award for the Sponsor to accept or reject the bids as submitted. If rejection is recommended, the Consultant will supply an explanation for their recommendation and possible alternative actions the Sponsor can pursue to complete the project. Once the Contract Award is made the Consultant will distribute the bid tabulations on request of the Sponsor.

1.19. Prepare Grant Application

The Application may be prepared after the project design has been completed and the bids accepted or the FAA may require the Application to be completed early during the design phase. Preparation of the Application will include the following:

- SF-424
- Prepare FAA Form 5100-100 including Program Narrative, discussing the Purpose and Need of the Work and the Method of Accomplishment
- Sponsor Certification (total of six)

The Consultant will submit the Application to the Sponsor for approval and signatures. After obtaining the necessary signatures, the Sponsor will forward the signed Application to the FAA for further processing.

1.20. Environmental Review, CATEX **(Not Required for this Project)**

An environmental review is required and was conducted for this project. From the FAA's Go Letter: "The FAA determined the proposed project is environmentally Categorically Excluded (CATEX) per paragraph(s) 5-6.4e of FAA Order 1050.1F as it relates to the National Environmental Policy Act (NEPA). No further environmental documentation for this project is needed."

2. CONSTRUCTION ADMINISTRATION

2.1. Pre-Construction Meeting

Consultant will arrange for and conduct the pre-construction meeting. The Project Manager and the Resident Engineer will establish this meeting to review Local, Federal Aviation Administration (FAA) and project specific requirements prior to commencing construction. The meeting will be conducted at the Airport and will include the Sponsor/Owner, IDOT (if available), Subconsultants, FAA ADO (if available), Contractor, Subcontractors and utility companies. This task will include:

- Scheduling the meeting, sending invitations, providing meeting materials and pre-meeting exhibit and material preparation.
- Obtain and review the project construction schedules from the contractor or contractors prior to presentation at the preconstruction meeting. The Owner should be provided copies of all construction schedules.
- Prior to preconstruction meeting, furnish the name of the Project Engineer with qualifications for approval by the Owner. Project Engineer means Engineer as defined in Section 10 (Section 10-18) of the General Provisions of the construction documents.
- Preside at the preconstruction meeting, prepare a detailed record of the meeting. Meeting minutes will be submitted to the Owner and all participants.
- Provide Contractor with a list of required submittals to be provided by Contractor and discussed at the meeting.
- Provide Contractor with additional copies of Construction Documents and digital data (Project Drawings) as requested.

2.2. Initial Construction Layout

The construction control/verification survey subtask will include a survey crew to establish construction field control for the project. This will include establishment of horizontal and vertical control for construction staking (by contractor) as per the Project Manual.

2.3. Prepare Construction Management Plan (CMP)

The Resident Project Representative (RPR) will obtain the Contractor's Quality Control (QC) Program. After reviewing the QC Program, the Project Engineer will prepare the construction management plan which will outline materials testing requirements as set forth in the construction documents and contained in FAA Advisory Circular 150/5370-10H. The plan will summarize the types and frequency of testing required for quality acceptance in addition to the credentials of those performing the testing.

The Construction Management Plan (CMP) will be prepared in accordance with the AC 150/5370-12B and AIP Sponsor Guide Section 1000, submitted to the Sponsor and FAA, and followed throughout construction.

2.4. Prepare Contract Manuals

The Consultant is required to check that the construction contracts are in order, verify Contractor has met DBE goals (or made valid good faith effort), Contractor has provided proof of insurance, the bonds have been completed, and the Owner, Contractor and applicable Agencies has been provided with adequate copies of the executed Contract Manual to include the Agreement and all addenda.

The Contract Documents will be updated to include all addenda items issued during bidding as necessary and adequate copies provided to the Contractor. Clerical will prepare the quantity sheets, field book, testing sheets, construction report format, etc. for use by the RPR.

2.5. Construction Management Services

The Consultant will provide Construction Administration Services the scope of which is based on the following:

- The Consultant and Client agree that construction engineering services furnished shall be to the extent necessary to determine compliance with plans and specifications, including necessary general supervision of Resident Project Representative Services authorized by the Client.
- The Consultant and Client agree that the Construction Engineering Services provided by the Consultant may actually be required to continue and exceed beyond the construction time element stated in the Client's agreement with the construction Contractor. When the extent of these construction services beyond the control of the Consultant occurs, the Client agrees that Consultant will be reimbursed for additional Construction Engineering Services in excess of the specified construction time period at a mutually acceptable fee negotiated at the time all the pertinent circumstances are known.
- Nothing herein shall be construed as imposing upon the Consultant's responsibility for the construction means, methods, techniques, sequences, safety programs, and procedures used by contractors.
- The Consultant agrees that Resident Project Representative services furnished under this Contract shall be to observe the work and to determine compliance with the plans and specifications, including representing the Client in coordination of construction activities among contractors and between contractors and utilities, and to accommodate the reasonable requirements of the Client on and around areas of construction.
- When the Consultant is on the site, documentation will be maintained regarding construction progress and delays, quantities and percentages of work, tests performed, observations made and work accepted, problems encountered and instructions given to contractors, field changes and adjustments approved, and other records required or otherwise necessary to maintain a record of the work.

The Consultant agrees to provide Construction Administration Services that include the following:

- 2.5.1. Check and monitor construction activities and certify that all project work completed under observation of the Resident Project Representative is in substantial compliance with the plans, specifications and contract documents including any modifications by Change Order or otherwise, that all required tests were performed, and that such work is recommended for acceptance.
- 2.5.2. Provide interpretation of plans and specifications as requested.
- 2.5.3. Supervise and coordinate Subconsultant contracts for field observation and testing.
- 2.5.4. Review shop drawings and certificates submitted by contractors for compliance with design concepts, as required by the applicable sections of the technical specifications. In addition, submittals will be checked for Buy American compliance.
- 2.5.5. Review all periodic and final pay requests and explanation of variation between Contract and final quantities prepared by Resident Project Representative. Coordinate Contractor approval and signature and submit to Client for approval.
- 2.5.6. Review weekly Construction Progress and Inspection Reports (FAA Form 5370-1) as prepared by Resident Project Representative and submit to Owner and applicable Agencies. Reports will include a several photos of construction activities of the week. These reports shall begin the week the Contractor is on-site through the week the final inspection occurs. Reports will be submitted weekly to the FAA via PDF.
- 2.5.7. Prepare, review and process Field Orders, Change Orders to include a cost estimate, cost/price analysis, record of negotiations, review and evaluation of “Contractor’s Request for Extension of Contract Time” and make recommendations regarding approval to the Client. Notify the Contractor that no work can start until approved by the Client.
- 2.5.8. Coordinate on-site inspections of construction as requested. Make recommendations for acceptance or modification of work
- 2.5.9. Monitor that all testing required by the specifications is performed. Review and approve all materials reports prepared by the Resident Project Representative and/or Subconsultants.
- 2.5.10. Maintain record drawings from redline or working drawings prepared by Resident Project Representative as accumulated during the course of construction to show “Record Drawing” conditions.
- 2.5.11. Retain and review payroll reports of each contractor and subcontractor and monitor Contractor’s compliance with paying employees as per established Federal Davis Bacon requirements.
- 2.5.12. Monitor Contractor’s compliance with Disadvantaged Business Enterprise (DBE) program (i.e. determine that the firms on the job are as stated in the plan. Determine that the volume of work and equipment used complies with the plan.) Report deviations to the Sponsor.

2.6. Resident Project Representative (RPR)

The Client as part of this agreement authorizes Resident Engineering Services and the Consultant agrees to provide a Resident Project Representative, materials acceptance testing, and staking services in the execution of the Construction Engineering Services for the project work. The Client and Consultant agree that the Consultant may employ the Resident Project Representative on other work during periods of temporary job shutdown when such services are not required by this project. Normally, the Resident Project Representative will give intermittent part-time service on this project when construction is in progress to include temporary interruptions due to weather or mechanical failure.

For this Project **Full-Time** Resident Project Representative services will be provided. It is anticipated the Project will be completed within **50 Working Days**. This will include six (6) field visits by the Project Manager. The number of working days will be confirmed at the 90% plans. If the working days need modification from the amount in the contract, then an Amendment will be done at that time.

Resident Project Representative Services shall be completed in accordance with the attached Exhibit I-1, and shall include, but are not limited to, the following:

- 2.6.1. Coordinate with the Testing Subconsultant to perform acceptance tests required to be provided by the Client in the construction Contract Documents. Subconsultant services will be provided by Construction Materials Testing.
- 2.6.2. Coordinate with Contractor regarding schedule, work progress, quality of work, and notify contractor of equipment and methods which do not comply with the Contract requirements. The Resident Project Representative shall notify the Client in the event that the Contractor elects to continue the use of questioned equipment and methods. Conduct wage rate interviews and provide to Project Engineer.
- 2.6.3. Maintain daily records of the Contractor's progress and activities during the course of construction, to include progress of all work. These records document work in progress, quality and quantity of materials delivered, test locations and results, instructions provided the Contractor, weather, equipment use, labor requirements, safety problems, and changes required.
- 2.6.4. Evaluate and discuss potential Field Orders and Change Orders with the Contractor as necessary.
- 2.6.5. Evaluate possible material substitutions as requested by the Contractor.
- 2.6.6. Prepare, process and distribute to Project Engineer weekly Construction Progress and Inspection Reports (FAA Form 5370-1). Reports will include a several photos of construction activities of the week. These reports shall begin the week the Contractor is on-site through the week the final inspection occurs. Reports will be submitted weekly to the FAA via PDF.
- 2.6.7. Measure and compute as-built quantities of all materials incorporated in the work and items of work completed and maintain an item record account.
- 2.6.8. Prepare periodic Pay Requests for review by the Project Engineer and Contractor.
- 2.6.9. Monitor the contractor's compliance with airport operations to include coordination with airport manager, hangar owners and airport users, Construction Safety Phasing Plan (CSPP) and with the Contractors Safety Plan Compliance Document (SPCD).

- 2.6.10. Coordinate the necessary construction staking/layout schedule as needed by the Contractor.
- 2.6.11. Perform other services as reasonably required by the Client and as outlined in the Contract Documents.
- 2.7. Final Inspection and Documentation
 - 2.7.1. Final Inspection

The Consultant will schedule and conduct a final inspection with the Sponsor, Contractor, FAA representatives to determine whether the project has reached substantial completion and the work is in accordance with the plans and specifications. The Consultant will document items found to be deficient.
 - 2.7.2. Final Punch List

The Consultant will prepare a punch list correspondence including the deficient items and will forward this correspondence to the Contractor requiring correction of the items and request a schedule for completion. The Consultant will send a copy to the Sponsor and include a copy in the Grant Closeout Report.
 - 2.7.3. Final Construction Certifications
 - 2.7.4. Once all of the punch list items have been completed to the satisfaction of the Sponsor and FAA, the Consultant will prepare a Certification of Construction Acceptance for the project. This certification will also be included in the Grant Closeout Report. Assemble documentation for the project closeout report once the project is complete. This will include gathering all construction documentation, supplemental agreements (if applicable), weekly reports, pay requests, testing result summaries, final certification documentation, and change orders in preparation for closeout.
- 2.8. As-Built Plans

The project team will collaboratively assemble a set of as-built plans for the project. The as-built plans will include field constructed conditions included as part of this Project including any field surveying required to compute final quantities and the drawings will become record information. The Consultant shall provide Owner and FAA reproducible "Record Drawings" in digital format.
- 2.9. Update Airport Layout Plan

CONSULTANT shall update the Airport Layout Plan (ALP) to depict as-built conditions as a result of the project. These will include updating sheets as required to reflect the work completed on the reconfigured taxiways/taxilanes. The CONSULTANT will attempt to obtain the previous ALP CAD drawings to create a baseline in developing the as-built ALP. If the previous ALP drawings cannot be obtained, the CONSULTANT will develop an ALP based on the as-built conditions. If the digital copy of the existing ALP is not available, this will be considered additional work to re-create a digital copy of the ALP. A scope and fee will be developed at that time. The CLIENT will then submit a PDF copy to FAA for review and comment. CONSULTANT will address the comments received from the FAA one time and provide a PDF copy of the ALP for CLIENT and FAA signature.

2.10. Project Closeout

Prepare the closeout documentation in accordance with the AIP Sponsor Guide Section 1600. The CONSULTANT may prepare the closeout document within 90 days of final payment to the contractor. Closeout documentation shall include, but may not be limited to, the following:

- a. Sponsor Cover Letter
- b. Final Project Cost Summary
- c. Final SF-271 Form, Outlay Report and Request for Reimbursement for Construction Projects
- d. Final SF-425 Form, Federal Financial Report
- e. Final Construction Report
- f. Record Drawings

Assemble documentation for the project closeout once the project is complete. This will include gathering all construction documentation, supplemental agreements (if applicable), weekly reports, pay requests, testing result summaries, final certification documentation, and change orders in preparation for grant closeout. The closeout elements include a project summary, final certifications, summary of grant payments, and outlay report. This work includes preparation of the documentation, coordination with the Airport and FAA for review, and preparation of final documents for Airport approval. The CLIENT will furnish copies of all administrative costs, as well as paperwork related to previous grant reimbursement (drawdown) requests.

I.B. ADDITIONAL SERVICES

Consulting services performed other than those authorized under Section I.A. shall not be considered part of the Basic Services and may be authorized by the Sponsor as Additional Services. Additional Services consist of those services, which are not generally considered to be Basic Services; or exceed the requirements of the Basic Services; or are not definable prior to the commencement of the project; or vary depending on the technique, procedures or schedule of the project contractor. Additional services may consist of the following:

1. Additions to the project outside of this scope.
2. Any construction surveying required for the Project.
3. Additional geotechnical investigation required for the Project.
4. Hosting a pre-bid meeting.
5. Update Airfield Signage Plans.
6. Additional Field Investigation required beyond those specified.
7. Completion of additional special studies not identified in Section I.A..
8. Periodic completion of grant reimbursement requests (i.e. Credit Applications).
9. Attendance of additional meetings beyond those identified in the above scope.
10. All other services not specifically identified in Section I.A.

I.C. CONSIDERATION

The services described above in Section I.A. BASIC SERVICES shall be provided as follows:

TASK 1 – DESIGN SERVICES	\$ 77,000.00 (lump sum)
TASK 2 – CONSTRUCTION ENGINEERING	\$ 107,700.00 (hourly not to exceed)
TOTAL AUTHORIZED FEE	\$ 184,700.00

Funding Layout:

Estimated Federal AIP/BIL Share (90%)	\$ 166,230.00
Estimated Local Share (10%)	\$ 18,470.00

Progress payments shall be made in accordance with the fee schedule attached and Section 3 of the Master Agreement.

I.D. SCHEDULE

The consulting services authorized under Section I.A. will be performed under the following schedule or as authorized by the CLIENT as the BASIC SERVICES proceed.

TASK	SERVICE DESCRIPTION	DATE
1	DESIGN AND BIDDING	December 2022 – March 2023
	30% Submittal	January 6, 2023
	90% Submittal	February 9, 2023
	Bid Opening	March 17, 2023
	Grant Application	On or before March 31, 2023
2	CONSTRUCTION	August 2023 – July 2024

I.E. AUTHORIZATION

City of Ames

Bolton & Menk, Inc.

By: _____
 John Haila Date
 Mayor

By:  _____ 12/6/2022
 Ronald A. Roetzel, P.E. Date
 Aviation Services Manager

Attest: _____
 Renee Hall Date
 City Clerk

Attachments:

- Exhibit I – Project Fee Breakdown
- Exhibit II – Survey Limits
- Exhibit III – Approximate Locations of Soil Borings and Pavement Cores



PROJECT FEE ESTIMATE

CLIENT: Ames Municipal Airport	DATE: 11/24/2022
PROJECT: Reconstruct South Apron	PREPARED BY: JPR/RAR

Task	Task Description	Estimated Person Hours Required							Totals
		Sr. Eng.	Sr. Eng.	Design Eng.	Eng. Tech.	Surveyor	Planner	Admin.	
1	Design & Bid Administration								
1.1	Project Scoping	2	6	8	0	0	0	0	16
1.2	Project Meetings and Coordination	4	20	10	0	0	0	4	38
1.3	Topographical Survey	0	0	6	0	30	0	0	36
1.4	Aeronautical Survey								
1.5	Geotechnical Investigation	0	1	4	0	0	0	0	5
1.6	Project Layout Sheet	0	4	8	0	0	0	0	12
1.7	FAA Design Report and Form 5100	0	2	8	0	0	0	2	12
1.8	Construction Safety and Phasing Plan (CSPP)	0	4	16	0	0	0	2	22
1.9	Modification of Airport Design Standards	0	2	6	0	0	0	2	10
1.10	Prepare Prelim. Plans, Specs., and Cost Est.	0	16	70	20	0	0	4	110
1.11	Prepare Final Plans, Specs., and Cost Est.	2	16	36	24	0	0	4	82
1.12	Prepare Disadvantaged Business Plan (DBE)	0	1	2	0	0	0	8	11
1.13	Prepare Advertisement for Bids and Bid Docs	0	2	6	0	0	0	8	16
1.14	Respond to Bidders Questions	0	4	6	0	0	0	4	14
1.15	Prepare and Distribute Addendums	0	2	6	0	0	0	4	12
1.16	Bid Opening	0	6	6	0	0	0	4	16
1.17	Bid Review and Bid Tabulation	0	4	4	0	0	0	4	12
1.18	Prepare Recommendation for Award	0	2	4	0	0	0	4	10
1.19	Prepare Grant Application	0	8	12	0	0	0	4	24
1.20	Environmental Review, CATEx								
Total Person Hours		8	100	218	44	30	0	58	458
Total Direct Labor Cost		\$512.00	\$5,400.00	\$7,194.00	\$1,100.00	\$1,590.00	\$0.00	\$1,566.00	\$17,362.00
Overhead		\$1,127.88	\$11,895.66	\$15,847.66	\$2,423.19	\$3,502.61	\$0.00	\$3,449.74	\$38,246.75
Subtotal Labor Cost									\$55,608.75
Fixed Fee x Subtotal Labor Cost									\$8,341.31
Total Task 1 (Fixed Lump Sum)									\$63,950.06
Direct Expenses									
		Electrical Engineering							\$5,000.00
		Geotechnical Investigation							\$8,000.00
Total Expenses Task 1									\$13,000.00
Subtotal Task 1									\$76,950.06
		ROUNDED TASK 1:							\$77,000.00

Task	Task Description	Estimated Person Hours Required							Totals
		Sr. Eng.	Sr. Eng.	Design Eng.	Eng. Tech.	Surveyor	Planner	Admin.	
2	Construction Administration								
2.1	Pre-Construction Meeting	0	4	4	0	0	0	4	12
2.2	Initial Construction Layout	0	2	4	0	8	0	0	14
2.3	Prepare Construction Management Plan (CMP)	0	2	6	0	0	0	2	10
2.4	Prepare Contract Manuals	0	2	4	0	0	0	4	10
2.5	Construction Management Services	8	16	8	0	0	0	4	36
2.6	Resident Project Representative Services								
Number of Days		0	6	50	0	0	0	0	
Hours Per Day		10	10	10	10	10	10	10	
Total Hours		0	60	500	0	0	0	0	560
2.7	Final Inspection and Documentation	0	4	4	0	0	0	2	10
2.8	As-Built Plans	0	2	4	8	0	0	4	18
2.9	Update Airport Layout Plan	0	2	4	8	0	8	0	22
2.10	Project Closeout	4	4	4	8	0	0	4	24
Total Person Hours		12	98	542	24	8	8	24	716
Total Direct Labor Cost		\$768.00	\$5,292.00	\$17,886.00	\$600.00	\$424.00	\$360.00	\$648.00	\$25,978.00
Overhead		\$1,691.83	\$11,657.75	\$39,401.07	\$1,321.74	\$934.03	\$793.04	\$1,427.48	\$57,226.94
Subtotal Labor Cost									\$83,204.94
Fixed Fee x Subtotal Labor Cost									\$12,480.74
Total Task 2 (Cost Plus a Fixed Fee, NTE)									\$95,685.68
Direct Expenses									
		Electrical Engineering							\$2,000.00
		Geotechnical Investigation							\$10,000.00
Total Expenses Task 2									\$12,000.00
Subtotal Task 2									\$107,685.68
		ROUNDED TASK 2:							\$107,700.00
		TOTAL PROJECT FEE							\$184,700.00