AGENDA ITEM or FINAL CONTRACT REVIEW SUBMITTAL FORM

Agenda Item: Revision One (1) to Amendment No. Four (4) to Cont

Action Requested: Board of County Commissioners' Signature

Parties to the Agreement: Jviation, Inc., Gunnison County and Gunnison CB Regional Airport

Term Begins: **Term Ends:** **Grant Contract #:**

Summary:

There has been a change in cost than previously determined in Amendment #4 of the Jviation and Gunnison County/Airport Contract to rehabilitate TWY A (A1-A3). Revision One outlines these cost changes.

Fiscal Impact: Money is already allocated to project

Submitted by: Stephanie Williams **Submitter's Email Address:** swilliams@gunnisoncounty.org

Finance Review: (●) Required ( ) Not Required

Comments:
Total increase between Amendment 04 and Revision one to Amendment 4 is $16,869.00. ln

Reviewed by: GUNCOUNTY1\lNienhueser Discharge Date: 5/31/2016

County Attorney Review: (●) Required ( ) Not Required

Comments:
ok db 6/1/16

Reveiwed by: GUNCOUNTY1\dBaumgarten Discharge Date: 6/1/2016 Certificate of Insurance Required Yes ( ) No (●)

County Manager Review:

Comments:

Reveiwed by: GUNCOUNTY1\mbirnie Discharge Date: 6/2/2016

(●) Consent Agenda ( ) Regular Agenda ( ) Worksession Time Allotted: 0

Agenda Date: 6/7/2016

Revised April 2015

REVISION ONE (1) TO
AMENDMENT NO. FOUR (4) TO CONTRACT
DATED APRIL 23, 2013
BETWEEN
JVIATION, INC.
AND
GUNNISON COUNTY AND
THE GUNNISON CRESTED BUTTE REGIONAL AIRPORT
GUNNISON, CO

The Sponsor and the Engineer agree to amend their contract for improvements to the Gunnison Crested Butte Regional Airport, Gunnison, CO to include fees for engineering services. The improvement Item is included in the Scope of Work of the original contract. The items covered by this amendment are described as follows:

Rehabilitate TW A (A1-A3) **(Schedule I – Phase I Only)**

The Sponsor agrees to pay the Engineer for the services listed under Article II of the original contract in the following manner:

PART A - BASIC SERVICES

DESIGN

Preliminary Design ..... Lump sum of $15,430.88
Design ..... Lump sum of $70,074.50

BIDDING

Bidding ..... Lump sum of $19,609.50

TOTAL BASIC SERVICES ..... Lump sum of $105,114.88

Method of payment shall be as follows:

Interim payments based on work performed by the Engineer and detailed in a report submitted to the Sponsor with the request for payment. A retainer of ten percent of the total contract amount to be paid upon Notice to Proceed for construction, or, in the event the Sponsor does not elect to proceed with construction, the remaining ten percent to be paid upon receipt of request for payment from the Engineer.

PART B - SPECIAL SERVICES (SOILS AND PAVEMENT INVESTIGATIONS/TOPOGRAPHIC SURVEYS/HYDROLOGIC STUDIES/CONSTRUCTION ADMINISTRATION AND FIELD ENGINEERING)

The maximum estimated SPECIAL SERVICES engineering is as follows:

GEOTECHNICAL INVESTIGATIONS (FOR DESIGN)

Geotechnical Investigations ..... Lump sum of $5,000.00

TOPOGRAPHIC SURVEYS (FOR DESIGN)

Topographic Surveys ..... Lump sum of $7,000.00

AGIS AS-BUILT SURVEYING

AGIS As-Built Surveying ..... Lump sum of $10,000.00

ACCEPTANCE TESTING

Acceptance Testing ..... Lump sum of $20,000.00

If work is abandoned, or terminated, after obtaining approval by the Sponsor and the FAA of the final construction plans and specifications, the Sponsor shall reimburse up to 100 percent of the total lump sum as listed under PART A, and 100 percent of the invoiced costs for soils and pavement investigations, topographic surveys, and hydrological studies, or other studies as listed under PART B.

CONSTRUCTION ADMINISTRATION AND FIELD ENGINEERING

The estimated maximum for CONSTRUCTION ADMINISTRATION and FIELD ENGINEERING is:

Construction Administration ..... Lump sum of $6,029.50
Pre-Construction Coordination ..... Lump sum of $4,804.75
Construction Coordination ..... Lump sum of $41,686.88
Construction Coordination LD's ..... Lump sum of $7,800.00
Post Construction ..... Lump sum of $12,534.75

REVISED TOTAL SPECIAL SERVICES ..... Lump sum of $114,855.88

REVISED AMENDMENT FOUR (4) TOTAL ..... Lump sum of $219,970.76

Method of payment shall be as follows:

For services rendered under PART B - SPECIAL SERVICES, the Sponsor agrees to make monthly payments based upon the work performed by the Engineer, up to 90 percent of the total contract. The final ten percent of the fee shall be due and payable when the project final inspection and the construction report have been completed, and when reproducible "Record Drawings" have been submitted to the Sponsor and when the revised Airport Layout Plan has been approved by the FAA or when the construction work has terminated. The "Record Drawings" and Construction Report shall be submitted within a period of 90 days from end of construction period. This Amendment shall be considered concurrent with completion of audit.

PART C – ASSURANCES

I.
CIVIL RIGHTS ACT OF 1964, TITLE VI – CONTRACTOR CONTRACTUAL REQUIREMENTS

Reference: 49 CFR PART 21

During the performance of this contract, the contractor, for itself, its assignees and successors in interest (hereinafter referred to as the "Engineer") agrees as follows:

- **Compliance with Regulations.** The Engineer shall comply with the Regulations relative to nondiscrimination in federally assisted programs of the Department of Transportation (hereinafter, "DOT") Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time (hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of this contract.

- **Nondiscrimination.** The Engineer, with regard to the work performed by it during the contract, shall not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The Engineer shall not participate either directly or indirectly in the discrimination prohibited by section 21.5 of the Regulations, including employment practices when the contract covers a program set forth in Appendix B of the Regulations.

- **Solicitations for Subcontracts, Including Procurements of Materials and Equipment.** In all solicitations either by competitive bidding or negotiation made by the Engineer for work to be performed under a subcontract, including procurements of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the Engineer of the Engineer's obligations under this contract and the Regulations relative to nondiscrimination on the grounds of race, color, or national origin.

- **Information and Reports.** The Engineer shall provide all information and reports required by the Regulations or directives issued pursuant thereto and shall permit access to its books, records, accounts, other sources of information and its facilities as may be determined by the

Sponsor or the Federal Aviation Administration (FAA) to be pertinent to ascertain compliance with such Regulations, orders, and instructions. Where any information required of an Engineer is in the exclusive possession of another who fails or refuses to furnish this information, the Engineer shall so certify to the sponsor or the FAA, as appropriate, and shall set forth what efforts it has made to obtain the information.

- **Sanctions for Noncompliance.** In the event of the Engineer's noncompliance with the nondiscrimination provisions of this contract, the sponsor shall impose such contract sanctions as it or the FAA may determine to be appropriate, including, but not limited to:

  a. Withholding of payments to the Engineer under the contract until the Engineer complies, and/or
  b. Cancellation, termination, or suspension of the contract, in whole or in part.

- **Incorporation of Provisions.** The Engineer shall include the provisions of paragraphs one through five (*Compliance with Regulations*, *Nondiscrimination*, *Solicitations for Subcontracts*, *Information and Reports*, and *Sanctions for Noncompliance*) in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations or directives issued pursuant thereto. The Engineer shall take such action with respect to any subcontract or procurement as the sponsor or the FAA may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, however, that in the event a Engineer becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, the Engineer may request the Sponsor to enter into such litigation to protect the interests of the sponsor and, in addition, the Engineer may request the United States to enter into such litigation to protect the interests of the United States.

II.
AIRPORT AND AIRWAY IMPROVEMENT ACT OF 1982, SECTION 520 - GENERAL CIVIL RIGHTS PROVISIONS

Reference: Airport and Airway Improvement Act of 1982, Section 520;Title 49 47123;AC 150/5100-15, Para. 10.c.

The Engineer assures that it will comply with pertinent statutes, Executive orders and such rules as are promulgated to assure that no person shall, on the grounds of race, creed, color, national origin, sex, age, or handicap be excluded from participating in any activity conducted with or benefiting from Federal assistance. This provision obligates the tenant/concessionaire/lessee or its transferee for the period during which Federal assistance is extended to the airport a program, except where Federal assistance is to provide, or is in the form of personal property or real property or interest therein or structures or improvements thereon. In these cases the provision obligates the party or any transferee for the longer of the following periods: (a) the period during which the property is used by the airport sponsor or any transferee for a purpose for which Federal assistance is extended, or for another purpose involving the provision of similar services or benefits or (b) the period during which the airport sponsor or any transferee retains ownership or possession of the property. In the case of

Engineers, this provision binds the Engineers from the bid solicitation period through the completion of the contract. This provision is in addition to that required of Title VI of the Civil Rights Act of 1964.

III.
DISADVANTAGED BUSINESS ENTERPRISES
Reference: 49 CFR Part 26

- **Contract Assurance (§26.13)** - The Engineer or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Engineer shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT assisted contracts. Failure by the Engineer to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy, as the recipient deems appropriate.

- **Prompt Payment (§26.29)** - The prime Engineer agrees to pay each subcontractor under this prime contract for satisfactory performance of its contract no later than ***Fifteen (15)*** days from the receipt of each payment the prime Engineer receives from Sponsor. The prime Engineer agrees further to return retainage payments to each subcontractor within Fifteen (15) days after the subcontractor's work is satisfactorily completed. Any delay or postponement of payment from the above referenced time frame may occur only for good cause following written approval of the Board. This clause applies to both DBE and non-DBE subcontractors.

IV.
LOBBYING AND INFLUENCING FEDERAL EMPLOYEES
Reference: 49 CFR Part 20, Appendix A

- No Federal appropriated funds shall be paid, by or on behalf of the Engineer, 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 the making of any Federal grant and the amendment or modification of any Federal grant.

- 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 any Federal grant, the Engineer shall complete and submit Standard Form-LLL, "Disclosure of Lobby Activities," in accordance with its instructions.

V.
ACCESS TO RECORDS AND REPORTS
Reference: 49 CFR Part 18.36(i); FAA Order 5100.38

The Engineer shall maintain an acceptable cost accounting system. The Engineer agrees to provide the Sponsor, the Federal Aviation Administration and the Comptroller General of the United States or any of their duly authorized representative's access to any books, documents, papers, and records of the Engineer which are directly pertinent to the specific contract for the purpose of making audit, examination, excerpts and transcriptions. The Engineer agrees to maintain all books, records and reports required under this contract for a period of not less than three years after final payment is made and all pending matters are closed.

VI.
BREACH OF CONTRACT TERMS
Reference: 49 CFR Part 18.36

Any violation or breach of terms of this contract on the part of the Engineer or their subcontractors may result in the suspension or termination of this contract or such other action that may be necessary to enforce the rights of the parties of this agreement. The duties and obligations imposed by the Contract Documents and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by law.

VII.
RIGHTS TO INVENTIONS
Reference: 49 CFR Part 18.36(i)(8); FAA Order 5100.38

All rights to inventions and materials generated under this contract are subject to regulations issued by the FAA and the Sponsor of the Federal grant under which this contract is executed.

VIII.
TRADE RESTRICTION CLAUSE
Reference: 49 CFR Part 30.13; FAA Order 5100.38

The Engineer or subcontractor, by submission of an offer and/or execution of a contract, certifies that it:

a. is not owned or controlled by one or more citizens of a foreign country included in the list of countries that discriminate against U.S. firms published by the Office of the United States Trade Representative (USTR);

b. has not knowingly entered into any contract or subcontract for this project with a person that is a citizen or national of a foreign country on said list, or is owned or controlled directly or indirectly by one or more citizens or nationals of a foreign country on said list;

c. has not procured any product nor subcontracted for the supply of any product for use on the project that is produced in a foreign country on said list.

Unless the restrictions of this clause are waived by the Secretary of Transportation in accordance with 49 CFR 30.17, no contract shall be awarded to a Engineer or subcontractor who is unable to certify to the above. If the Engineer knowingly procures or subcontracts for the supply of any product or service of a foreign country on said list for use on the project, the Federal Aviation Administration may direct through the Sponsor cancellation of the contract at no cost to the Government.

Further, the Engineer agrees that, if awarded a contract resulting from this solicitation, it will incorporate this provision for certification without modification in each contract and in all lower tier subcontracts. The Engineer may rely on the certification of a prospective subcontractor unless it has knowledge that the certification is erroneous.

The Engineer shall provide immediate written notice to the sponsor if the Engineer learns that its certification or that of a subcontractor was erroneous when submitted or has become erroneous by reason of changed circumstances. The subcontractor agrees to provide written notice to the Engineer if at any time it learns that its certification was erroneous by reason of changed circumstances.

This certification is a material representation of fact upon which reliance was placed when making the award. If it is later determined that the Engineer or subcontractor knowingly rendered an erroneous certification, the Federal Aviation Administration may direct through the Sponsor cancellation of the contract or subcontract for default at no cost to the Government.

Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by this provision. The knowledge and information of an Engineer is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

This certification concerns a matter within the jurisdiction of an agency of the United States of America and the making of a false, fictitious, or fraudulent certification may render the maker subject to prosecution under Title 18, United States Code, Section 1001.

IX.
TERMINATION OF CONTRACT
Reference: 49 CFR Part 18.36(i)(2); FAA Order 5100.38

- The Sponsor may, by written notice, terminate this contract in whole or in part at any time, either for the Sponsor's convenience or because of failure to fulfill the contract obligations. Upon receipt of such notice services shall be immediately discontinued (unless the notice directs otherwise) and all materials as may have been accumulated in performing this contract, whether completed or in progress, delivered to the Sponsor.

- If the termination is for the convenience of the Sponsor, an equitable adjustment in the contract price shall be made, but no amount shall be allowed for anticipated profit on unperformed services.

- If the termination is due to failure to fulfill the Engineer's obligations, the Sponsor may take over the work and prosecute the same to completion by contract or otherwise. In such case, the Engineer shall be liable to the Sponsor for any additional cost occasioned to the Sponsor thereby.

- If, after notice of termination for failure to fulfill contract obligations, it is determined that the Engineer had not so failed, the termination shall be deemed to have been effected for the convenience of the Sponsor. In such event, adjustment in the contract price shall be made as provided in paragraph 2 of this clause.

- The rights and remedies of the sponsor provided in this clause are in addition to any other rights and remedies provided by law or under this contract.

X.
CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION
Reference: 49 CFR Part 29; FAA Order 5100.38

The bidder/offeror certifies, by submission of this proposal or acceptance of this contract, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency. It further agrees by submitting this proposal that it will include this clause without modification in all lower tier transactions, solicitations, proposals, contracts, and subcontracts. Where the bidder/offeror/Engineer or any lower tier participant is unable to certify to this statement, it shall attach an explanation to this solicitation/proposal.

XI.
OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970
Reference: 20 CFR part 1910

All contracts and subcontracts that result from this solicitation incorporate the following provisions by reference, with the same force and effect as if given in full text. The contractor has full responsibility to monitor compliance to the referenced statute or regulation. The contractor must address any claims or disputes that pertain to a referenced requirement directly with the Federal Agency with enforcement responsibilities.

XII.
CLEAN AIR AND WATER POLLUTION CONTROL

(Reference: 49 CFR § 18.36(i)(12)) Note, when the DOT adopts 2 CFR 200, this reference will change to 2 CFR § 200 Appendix II(G))

Contractors and subcontractors agree:

a. That any facility to be used in the performance of the contract or subcontract or to benefit from the contract is not listed on the Environmental Protection Agency (EPA) List of Violating Facilities;

b. To comply with all the requirements of Section 114 of the Clean Air Act, as amended, 42 U.S.C. 1857 et seq. and Section 308 of the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq. relating to inspection, monitoring, entry, reports, and information, as well as all other requirements specified in Section 114 and Section 308 of the Acts, respectively, and all other regulations and guidelines issued thereunder;

c. That, as a condition for the award of this contract, the contractor or subcontractor will notify the awarding official of the receipt of any communication from the EPA indicating that a facility to be used for the performance of or benefit from the contract is under consideration to be listed on the EPA List of Violating Facilities;

d. To include or cause to be included in any construction contract or subcontract which exceeds $100,000 the aforementioned criteria and requirements.

XIII.
CONTRACT WORKHOURS AND SAFETY STANDARDS ACT REQUIREMENTS

(Reference: 2 CFR § 200 Appendix II (E))

- **Overtime Requirements.** No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic, including watchmen and guards, in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

- **Violation; Liability for Unpaid Wages; Liquidated Damages.** In the event of any violation of the clause set forth in paragraph (1) above, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph 1 above, in the sum of $10 for each calendar day on which such individual was

required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph 1 above.

- **Withholding for Unpaid Wages and Liquidated Damages.** The Federal Aviation Administration or the Sponsor shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any monies payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph 2 above.

- **Subcontractors.** The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraphs 1 through 4 and also a clause requiring the subcontractor to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1 through 4 of this section.

XIV
FEDERAL FAIR LABOR STANDARDS ACT (FEDERAL MINIMUM WAGE)
Reference: 29 USC § 201, et seq.

All contracts and subcontracts that result from this solicitation incorporate the following provisions by reference, with the same force and effect as if given in full text. The contractor has full responsibility to monitor compliance to the referenced statute or regulation. The contractor must address any claims or disputes that pertain to a referenced requirement directly with the Federal Agency with enforcement responsibilities.

XV
TEXTING WHEN DRIVING
References: Executive Order 13513, DOT Order 3902.10

In accordance with Executive Order 13513, "Federal Leadership on Reducing Text Messaging While Driving" (10/1/2009) and DOT Order 3902.10 "Text Messaging While Driving" (12/30/2009), FAA encourages recipients of Federal grant funds to adopt and enforce safety policies that decrease crashes by distracted drivers, including policies to ban text messaging while driving when performing work related to a grant or sub-grant.

The Contractor must promote policies and initiatives for employees and other work personnel that decrease crashes by distracted drivers, including policies to ban text messaging while driving. The Contractor must include these policies in each third party subcontract involved on this project.

All other terms and conditions of the original contract shall remain in effect.

IN WITNESS WHEREOF, the parties hereto have affixed their signatures this _____ day of _____ 201__.

SPONSOR:
GUNNISON COUNTY AND
THE GUNNISON CRESTED BUTTE REGIONAL AIRPORT
GUNNISON, CO

By: _____

Attest: _____

ENGINEER:
JVIATION, INC.

By: _____

JVIATION®

April 20, 2016

Mr. Rick Lamport, Airport Manager
Gunnison-Crested Butte Regional Airport
519 West Rio Grande
Gunnison, CO 81230

Re: Revision 1 to Amendment 4
Gunnison-Crested Butte Regional Airport
Project Number 3-08-0030-50 Taxiway A Rehabilitation

Dear Mr. Lamport:

During the performance of the Taxiway A Rehabilitation Project several elements of the project scope were revised and Jviation has prepared the included Revision 1 to Amendment 4 to document these changes. These changes resulted from a decreased design/construction elements funded by the FAA due to limited funding availability and the extended construction duration reimbursed by the contractor.

The changes to the agreed project amendment are described as follows:

Change 01 - Due to limited funding the award of the Taxiway A Rehabilitation was limited. This revision incorporates the reduced duration to 20 Calendar days for the construction of only a portion of Schedule I.

Rehabilitate TW A (A1-A3) (Schedule I – Phase I Only)

The Sponsor agrees to pay the Engineer for the services listed under Article II of the original contract in the following revised manner:

Part B - Construction Coordination..... Lump sum of ~~$66,355.88~~$41,686.88

Change 02 - Due to the contractor's failure to complete the project work on time the Construction Coordination efforts were extended beyond the original 20 Calendar days. Following review with the contractor and airport an agreed liquidated damages has been deducted from the contractor and shall be paid to the engineer for expenses incurred as follows:

Rehabilitate TW A (A1-A3) (Schedule I – Phase I Only)

The Sponsor agrees to pay the Engineer for the additional services listed under Article II of the original contract in the following manner:

Part B - Construction Coordination LD's..... Lump sum of $7,800.00

Main 303.524.3030
Fax 303.524.3031
900 S. Broadway | Suite 350 | Denver, CO | 80209
JVIATION.COM

The total reimbursement due for services under Contract Amendment Four (4) shall be revised to:

REVISED AMENDMENT FOUR (4) TOTAL..... Lump sum of $219,970.76

Following our review of these revisions with the Ron Neihoff of the FAA it has been determined the scope of design/construction elements not constructed under this project will be eligible for reimbursement and have been included in the AIP 51 Runway Rehabilitation Project.

Please let me know if you have any questions or concerns with the proposed change. Thank you for this opportunity.

Sincerely,

JVIATION, INC.

Jeremy K. Lee, P.E.
Project Manager

cc: File

Main 303.524.3030
Fax 303.524.3031

900 S. Broadway | Suite 350 | Denver, CO | 80209
JVIATION.COM

SCOPE OF WORK FOR
GUNNISON-CRESTED BUTTE REGIONAL AIRPORT
GUNNISON, CO

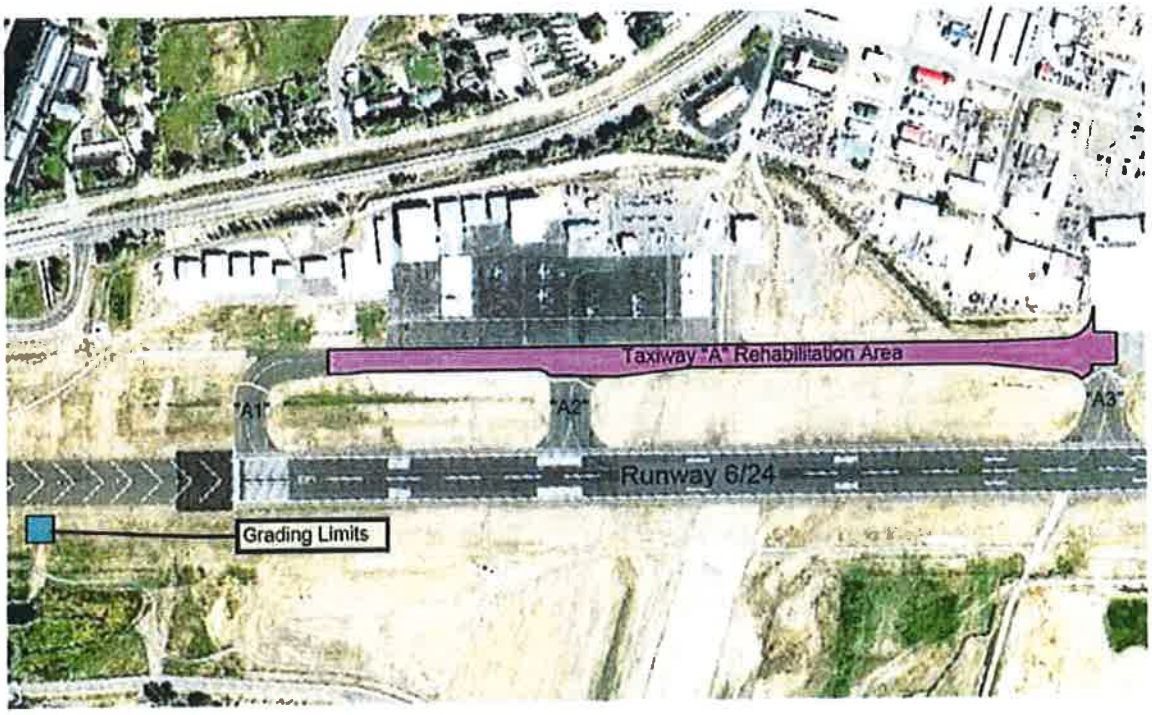
Taxiway A Rehabilitation (Between TWs A1 and A3)
AIP Project No. 3-08-0030-050

This project will consist of preparing construction plans, contract documents, technical specifications, a construction safety and phasing plan and the engineer's design report for the project described below. Bidding services will also be provided, followed by construction administration, preparation of a construction management plan, onsite construction coordination, and preparation of record drawings and the final construction report.

DESCRIPTION:

The existing surface of Taxiway A between Taxiways A1 and A3 consists of heavily worn and distressed asphalt pavement with alligator, block, and linear cracking. Taxiway A between Taxiways A2 and A3 underwent its last major rehabilitation in 2002, while Taxiway A between Taxiways A1 and A2 has not seen any major rehabilitation since 1992. Additionally, a small section of the original concrete from Taxiway A3 remains in place, and is severely damaged by ASR and linear cracking. In order to prevent further damage and ensure the safety of taxiing aircraft on this section of Taxiway A, the concrete at Taxiway A3 will be removed and rebuilt, and the remaining areas will be milled and overlaid.

In addition to the pavement overlay, a nonstandard section of earthwork inside the safety area to the south of the Runway 6 blast pad will be re-graded to bring the area back into compliance.



The improvements described above are eligible for federal participation under the Airport Improvement Program (AIP).

The Engineering fees will be broken into two parts:

Part A – Basic Services

1) Preliminary Design Phase
2) Design Phase
3) Bidding Phase

Part B – Special Services

4) Construction Administration Phase
5) Pre-Construction Phase
6) Construction Coordination Phase (Field Engineering)
7) Post Construction Phase

Special Considerations

The proposed pavement investigation and topographical survey for design, Quality Assurance (QA) testing, and as-built survey will be performed by subconsultants and included in Part B – Special Services. Parts A and B and the phases are described in more detail below. Based on the Engineer's preliminary cost estimate, the estimated construction cost is approximately $1.1 million.

PART A – BASIC SERVICES

Part A – Basic Services will consist of the preliminary design phase, design phase, and bidding phase.

1.0 Preliminary Design Phase

1.1 Preliminary Meetings with the Sponsor and FAA. Meetings with the Sponsor and the FAA will take place to determine critical dates, establish the proposed design schedule, AIP development schedule and scope meeting schedule, determine the feasibility of the proposed work and to establish the need for topographical surveying and pavement investigation/geotechnical testing. Various meetings during the design phase will also be conducted to review the progress of the design and discuss construction details, proposed time frame of the construction, and special requirements of the project. A preliminary meeting was held at Gunnison-Crested Butte Regional Airport to discuss the need for a preliminary design report to establish the approach to the project. Any additional preliminary meetings will be conducted by conference call.

1.2 Project Development. This task includes establishing the scope of work for the Taxiway A rehabilitation project after meetings with the Sponsor and the FAA. The technical requirements of the project will be reviewed in order to determine the specific elements needed. Each item of the scope will be described in detail, and subconsultant tasks will also be included

1.3 Coordinate Topographical Surveying. This task includes preparing the requirements for the topographical survey, establishing the limits of work, and scheduling the survey. Topographical survey will include the existing pavement and surrounding areas of Taxiway A. Negotiating with the surveying firm for a cost for the work is also included in this item. The applicable requirements of AC 150/5300-18B – General Guidance and Specifications for Submission of Aeronautical Surveys to NGS: Field Data Collection and Geographic Information System (GIS) Standards will be followed to ensure compliance with FAA requirements.

1.4 Coordinate Pavement Investigation. This task includes preparing the requirements for the pavement sampling, establishing the limits of the work area, and scheduling time for testing to be completed. Negotiating with the geotechnical firm for a cost for the work is included in this item. To supplement the geotechnical investigation, the airport will provide historical geotechnical reports for the engineer's review.

1.5 Disadvantaged Business Enterprise (DBE) Program. A three year DBE goal will be established for the Airport and will include the construction of this project. The current state highway certified DBE listings and area contractors will be researched to determine the availability of potential DBE contractors. Preliminary construction estimates will be prepared and the potential DBE work items established. DBE goal work sheets will be finalized for the Sponsor and submitted to the FAA Civil Rights Office for approval. The Engineer will also complete the reporting of accomplishments through the federal system. .

1.6 Grant Applications. This task consists of preparing the federal grant application, which will be submitted during the initial portion of the project. Preparation of the federal application will include the following:

- Prepare Federal 424 form
- Prepare Project Funding Summary

- Prepare Program Narrative, discussing the Purpose and Need of the work and the Method of Accomplishment
- Project Sketch (11"x17")
- Prepare Preliminary Cost Estimate
- Exhibit "A" Property Map (See Item 1.7 below)
- Environmental Checklist (See Item 1.8 below)
- Attach the current Grant Assurances

The Engineer will submit the grant applications to the Sponsor for approval and signatures. After obtaining the necessary signatures, the signed applications will be sent to the FAA for further processing.

1.7 Exhibit "A" Property Map. The Engineer will submit the airport property map, including land parcels, ownership description, recording information (County records of Book and Page Numbers) and FAA interest and acquisition dates. It is anticipated that there will not be any updates for this project. One copy of the Exhibit "A" (11" x 17") will be submitted with each copy of the grant application. The current AIP Project Number will be shown on the submitted Exhibit "A", which is being updated as part of the current master plan.

1.8 Environmental Checklist. The environmental checklist will be completed by the Engineer, and addresses how the project affects the environment as defined under federal guidelines for environmental assessments.

2.0 Design Phase

2.1 Preliminary Contract Documents and Special Provisions. The Engineer will prepare the preliminary Contract Documents including the invitation for bids, instruction to bidders, proposal, equal employment opportunity clauses, construction contract agreement, performance bond, payment bond, 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 Sponsor for review by the Sponsor's attorney. The most current Gunnison County general conditions and contract clauses will be incorporated as required.

The Engineer will prepare Special Provisions to address or expound on conditions that require additional clarification. They will include, but not be limited to, the following items:

- Work Schedule
- Additional Quality Control Requirements
- Pre-Construction Conference
- Sequencing of the Work
- Accident Prevention
- Underground Cables/Utilities
- Guarantees/Insurance/Taxes/Permits
- Contracts/Subcontracts
- Additional DBE Information
- Liquidated Damages

- Additional Acceptance Testing Issues
- Grade Control and Surface Tolerance for Paving Work
- Special Testing Considerations
- Project Closeout Forms

2.2 Analyze Pavement Investigation/Geotechnical Testing Data. After receiving the geotechnical testing data (both new and historical), the Engineer will analyze the data and perform the following tasks:

- Evaluate the existing conditions and summarize for inclusion in the Engineer's design report.
- Determine appropriate data for the pavement design form(s). It is anticipated that multiple pavement design forms will be required for this project.
- Input data for computer modeling with topographical survey data.
- Prepare pavement information for incorporation on the construction drawings.

2.3 Analyze Topographical Survey Data. This work includes analyzing the topographical surveying data and preparing the data for use with computer modeling. Included are the following separate tasks:

- Input raw survey data into the computer program in order to sort data into company standard layers for efficient analysis.
- Verify survey data from as-built conditions.
- Sort all data points by layers and description for computer modeling.
- Prepare Triangulated Integrated Network (TIN - surface model) of existing ground contours, pavement edges, applicable taxiway and apron edge lighting, and other miscellaneous entities.
- Generate three-dimensional contour model from TIN.
- Prepare and process data for spot elevations, grading and/or paving cross sections, and drainage features.

2.4 Pavement Design. This task will consist of calculating the pavement sections, providing an explanation of the design, and submitting to the FAA for review. Pavement designs for aircraft pavements will be calculated in accordance with FAA Advisory Circular 150/5320-6E, Airport Pavement Design and Evaluation.

2.5 Inventory Existing Utilities. This task includes reviewing record drawings and consulting with the local utility companies to identify all utilities within the project site. The Sponsor will also provide their most current utility files.

2.6 Drainage Plan. This task will consist of verifying the existing surface drainage to ensure compliance with standard engineering practices, local requirements, and in accordance with the *FAA Advisory Circular 150/5320-5D, Airport Drainage Design.*

2.7 Preliminary Plans. Preliminary plans will be prepared depicting the project layout, existing facilities, existing utilities, electrical ducts, storm drainage inlets and culverts, and grading and drainage plans. The following list of drawings will be used as a guideline. Additional drawings may be added during the design phase if required.

- **Cover Sheet (1 Sheet)** – Project title, project/grant numbers, funding agencies.
- **Index of Drawings and Summary of Quantities (1 Sheet)** – Lists all the drawings in the plan set, and a table of approximate quantities and earthwork calculations.
- **General Notes & Master Legend (1 Sheet)** – General notes, legends, and abbreviations.
- **Survey Control Plan (1 Sheet)** – Depicts overall survey control for the project.
- **Project Layout Plan (1 Sheet)** – Depicts overall airport layout and schematically identifies key project elements, including contractor access, storage and staging areas.
- **Construction Phasing Plan (2 Sheets)** – Identifies to the contractor the phasing requirements and operating procedures for the project.
- **Pavement Investigation Plan (1 Sheet)** – Identifies pavement and geotechnical data relevant to the project.
- **Demolition Plan (3 Sheets)** – Depicts the demolition limits for the project.
- **Geometric Plans (3 Sheets)** – Depicts the geometric limits for the project.
- **Typical Sections and Pavement Edge Details (1 Sheet)** – Illustrates cross sections for the project and includes any necessary details.
- **Grading and Drainage Plans (4 Sheets)** – Depicts the site grading and drainage layout for the project.
- **Plan and Profile (3 Sheets)** – Plan and profile of the taxiways.
- **Spot Elevation Plan (3 Sheets)** – Depicts the grading spot elevations for the project.
- **Pavement Marking and Sign Plan (3 Sheets)** – Depicts the striping and sign layout for the taxiways.
- **Pavement Marking and Sign Details (2 Sheets)** – Specifies striping and sign details for the project.
- **Crack Repair Details (1 Sheet)** – Specifies crack repair details for the project.
- **Erosion Control (2 Sheets)** – Depicts the limits of required seeding and erosion control, including details.

Based on this list, the plan set is expected to be comprised of approximately 33 sheets.

2.8 Prepare Preliminary Contract Documents. This task will include preparing the preliminary Contract Documents including the invitation for bids, instruction to bidders, proposal, equal employment opportunity clauses, construction contract agreement, performance bond, payment bond, 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 Sponsor for review by the County Attorney's Office and Purchasing Department.

2.9 Preliminary Technical Specifications. The Engineer will assemble the technical specifications necessary for the intended work. Standard FAA specifications will be utilized where possible; with the guidance of the current edition of FAA Advisory Circular 150/5370-10G, Standards for Specifying Construction of Airports and the relevant Northwest Mountain Region modifications. Additional specifications will be prepared to address work items or materials that are not covered by the FAA specifications. All modifications to FAA standards will be documented and submitted to the FAA for review and acceptance, as applicable.

The following FAA Advisory Circular standards shall be utilized as a basis for design.

- AC 150/5300-13A Airport Design
- AC 150/5320-6E Airport Pavement Design
- AC 150/5370-10G Standards for Specifying Construction
- AC 150/5320-5D Airport Drainage Design
- AC 150/5340-1L Airport Markings

The standard FAA specifications to be utilized will include, but not be limited to, the following items:

- Item P-151 Clearing and Grubbing
- Item P-152 Excavation, Subgrade, and Embankment
- Item P-153 Controlled Low-Strength Material (CLSM)
- Item P-156 Temporary Air and Water Pollution, Soil Erosion and Siltation Control
- Item P-209 Crushed Aggregate Base Course
- Item P-401 Hot Mix Asphalt (HMA) Pavements
- Item P-603 Bituminous Tack Coat
- Item P-620 Runway and Taxiway Marking
- Item T-901 Seeding

The added non-standard technical specifications will include but not be limited to the following items:

- Item P-140 Pavement Removal
- Item P-159 Watering

2.10 Compile/Submit Permits. Special use permits that can be identified during the design phase of the project will be identified in the Special Provisions of the Contract Documents for the Contractor's benefit. The Contractor will be responsible for any special use permits including any surface discharge requirements and the Storm Water Management Construction Plan Permit. The Sponsor will pay for or reimburse the costs for permits and/or application fees to the Engineer.

2.11 Calculate Estimated Quantities and Provide Estimate of Probable Construction Cost. The Engineer will calculate all necessary quantities for the various work items. Quantities will be consistent with the specifications and acceptable quantity calculation practices. Using the final quantities calculated following the completion of the plans and specifications, the Engineer will prepare the construction cost estimate. The estimate will be based on information obtained from previous projects, contractors, material suppliers, and other databases available.

2.12 Coordinate Phases for Construction. This task involves meeting with the Gunnison-Crested Butte Regional Airport staff and users to discuss the operations of the airport and help determine how the construction phasing of the project will affect these operations. This also includes coordination with other projects scheduled during the construction duration. From these meetings, a complete construction phasing plan will be developed to be depicted within the construction drawings. The phasing plan will also be included in the Construction Safety and Phasing Plan.

2.13 Construction Safety and Phasing Plan (CSPP). A Construction Safety and Phasing Plan will be developed to ensure safety compliance when coordinating construction activities with airport operations. Potential safety hazards and their respective mitigation procedures will be outlined. The plan will be developed in accordance with the requirements of FAA Advisory Circular (AC) 150/5370-2F, Operational Safety on Airport During Construction. A proposed construction phasing plan that meets the requirements of the AC and the operational needs of the airport will be developed as part of the CSPP and included in the project plans for bidding. The CSPP will address the following items, and any details that cannot be identified during design will be included in the Safety Plan Compliance Document (SPCD) prior to construction.

- Coordination
- Phasing
- Areas And Operations Affected by the Construction Activity
- Protection of Navigation Aids (NAVAIDs)
- Contractor Access
- Wildlife Management
- Foreign Object Debris (FOD) Management
- Hazardous Material (Hazmat) Management
- Notification of Construction Activities
- Inspection Requirements
- Underground Utilities
- Penalties
- Special Conditions
- Runway and Taxiway Visual Aids
- Marking and Signs for Access Routes
- Hazard Markings and Lightings
- Protection of Runway and Taxiway Areas
- Other Limitations on Construction

Jviation will submit a draft of the CSPP to the FAA when plans are 25%-30% complete, and the completed document to the FAA with the 95% plan submittal for review and approval prior to the project bidding process. It is anticipated that the document will require one resubmittal to the FAA following their initial review.

2.14 Design Engineer's Report and Modification of Standards. During the preparation of the preliminary plans and specifications, a design report will be prepared according to the current FAA Northwest Mountain Region Design Report guidelines. The report will include the summary of the project, schedule for the completion of the design, bidding and construction of the work, and a detailed description of the work. Modifications to the FAA standards for the project will be compiled and presented to the FAA and Sponsor at 75% complete, and will be included in the design report. The design report will also contain any alternative design concepts that were investigated and evaluated. The project cost estimate will be included with the report. One copy of the Final Engineer's Report will be sent to the Sponsor and the FAA.

2.15 Plans Review at 75%, and 95% Complete. During various stages of the completion of the plans and specifications, the Engineer will submit a set of drawings and specifications to the Sponsor for their review, according to the design schedule. An onsite meeting will be scheduled for the 75% plans in hand review to make a final inspection of the project. The project will also be reviewed with the FAA to obtain their concurrence with the design.

2.16 In-House Quality Control. Prior to the final set of Construction Drawings, Specifications and Contract Documents being submitted to the FAA and the Sponsor, a thorough in-house quality control review of the documents will be conducted. This process will include an independent review by the Engineer's Quality Control Manager (a licensed Engineer) of the Construction Drawings, Specifications and Contract Documents being submitted. Revisions to the Construction Drawings, Specifications and Contract Documents will be made based on the comments offered during the review.

2.17 Prepare and Submit Final Plans and Specifications. A final set of Construction Drawings (11" x 17"), Technical Specifications, Contract Documents, Engineer's Design Report and a standalone copy of the Construction Safety and Phasing Plan (CSPP) will be prepared and submitted to the FAA and Sponsor. An electronic copy (pdf) of the CSPP will also be submitted to the FAA for internal agency coordination. These documents shall incorporate all revisions, modifications and corrections determined during the FAA and Sponsor final review.

3.0 Bidding Phase

3.1 Advertise for Bids. Required advertisement dates and bidding dates will be established. The Engineer will submit notification, on behalf of the Sponsor, to the local and selected publications for the upcoming project. Invitations for bids will be emailed to selected firms to ensure local contractors, DBE firms, and material suppliers are aware of the pending project. The applicable requirements under the current DBE Program shall be adhered to in the solicitation. Project documents will be made available electronically via Jviation's website.

3.2 Prepare/Conduct Pre-Bid Meeting. The Engineer will prepare for and conduct the mandatory pre-bid meeting with potential contractors and the Sponsor to review the project and answer questions pertaining to the project. The meeting will be held at the airport and will include a site inspection.

3.3 Prepare Addenda. Any necessary addenda will be issued to clarify and modify the project as required, based on questions or comments that may arise from potential contractors during the bidding process. Any necessary addenda will be reviewed with the FAA and Sponsor prior to issuing. The addenda will meet all design and construction standards as required by the FAA, and will include the minutes from the pre-bid meeting. Addenda will be made available to the plan holders through e-mail, via pdf files, which shall include any revised plans and/or specifications.

3.4 Consult with Prospective Bidders. During the bidding process, the Engineer 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.

3.5 Conduct Bid Opening. The Engineer will attend and facilitate the bid opening at the Sponsor's location.

3.6 Review Bid Proposals. The Engineer will review all the bid proposals submitted and generate the bid tabulation. An analysis of the bid prices, DBE participation, and contractor's qualification for the work will be completed. Copies of the bid tabulation will be furnished to the Sponsor and the FAA.

3.7 Prepare Recommendation of Award. The Engineer will prepare a Recommendation of Award for the Sponsor to accept or reject the bids as submitted. If rejection is recommended, the Engineer will supply an explanation for the recommendation and possible alternative actions the Sponsor can pursue to complete the project. A copy of the Recommendation of Award will also be furnished to the FAA.

PART B – SPECIAL SERVICES

Part B – Special Services will consist of construction administration for office support, pre-construction coordination, providing on-site construction coordination, and post construction/project close out, and special considerations.

4.0 Construction Administration Phase

4.1 Prepare Construction Contract and Documents. This item accounts for the Engineer's in-house efforts during and immediately after the project construction. The Engineer will prepare the Notice of Award, Notice to Proceed and Contract Agreements for the Sponsor's approval and signatures. Appropriate copies will be submitted to the successful Contractor(s) for their signatures. The Engineer will update the project documents to include all addenda issued during bidding and make five copies of the plans and specifications for the Contractor's use during construction. A copy of the Notice of Award and Notice to Proceed will be furnished to the FAA.

4.2 Office Assistance. Office Engineering staff, CAD personnel, and administrative staff will be required to assist the Resident Engineer as necessary during construction. Specific items to be accomplished include compiling and sending additional information requested from the office to the project site, providing secondary engineering opinions on issues arising during construction, maintaining project files as necessary (field files are mirrored in the office for continuity) and various other items necessary in the day-to-day operations.

4.3 Requests for Reimbursement. The Engineer will prepare periodic cost estimates during construction and submit to the Sponsor for review/approval (item 6.6). The Engineer will also prepare FAA requests for reimbursement of funds in accordance with FAA Grant Payment and Sponsor Financial Reporting Policy, and submit to the Sponsor for transmittal to the FAA. Payment requests will include engineering invoices and contractor pay applications.

4.4 Weekly/Monthly Reports. The Project Manager will review progress reports weekly and monthly.

4.5 Material Submittal Review. Material submittal data will be reviewed and approved by office personnel if the Resident Engineer is unable to make final determination of compliance.

4.6 Change Orders/Supplemental Agreements. Administrative and drafting personnel will assist with change orders and supplemental agreements as necessary.

5.0 Pre-Construction Coordination Phase

5.1 Prepare Project Files. Administrative staff will prepare the quantity sheets, testing sheets, construction report format, and all project files for use in the field. Both electronic and hard copies will be prepared for use by the Resident Engineer.

5.2 Prepare/Conduct Pre-Construction Meeting. The Engineer will schedule the pre-construction meeting and inform all necessary parties. The Project Manager and the Resident Engineer will establish a pre-construction meeting agenda to review FAA and project specific requirements prior to commencing construction. The meeting will be conducted at the Airport and will include the Project Manager, Resident Engineer, Sponsor, FAA (if available), Contractor, subcontractors, and airport tenants affected by the construction.

5.3 Safety Plan Compliance Document (SPCD). The bid documents will address the requirement for the contractor to submit a Safety Plan Compliance Document (SPCD). The intent of the SPCD is to detail how the contractor will comply with the CSPP (see item 2.12). Following award of the project to the successful contractor and prior to the issuance of the Notice to Proceed (NTP), the Engineer will review the SPCD and provide comments and ultimately approval of the document. It is anticipated that the document will require one resubmittal by the contractor to address any missing information.

5.4 Construction Management Plan (CMP). The Resident Engineer will obtain the Contractor's Quality Control Plan (QC). After reviewing the QC Plan, the Engineer will prepare the Construction Management Plan (CMP), which requires data to be extracted from the QC Plan and combined with Sponsor information and Engineer information for project responsibilities. A preliminary copy of the CMP will be submitted to the Sponsor and the FAA. After the FAA's review, the CMP may be revised or issued to the Contractor for use.

6.0 On-Site Construction Coordination Phase

This phase will consist of providing one full time Resident Engineer during construction of the entire project. It will be the responsibility of the Engineer to have sufficient on-site construction coordination to ensure that the project is completed according to good construction practice and is consistent with the Engineer's direction. The construction is estimated to take a total of 40 calendar days. Overhead costs, travel costs, and per diem are in addition to the engineering hours expended.

6.1 Field Inspection/Coordination. The Project Manager will make on-site visits, as required, to deal with construction issues as necessary for the duration of the project. It is estimated that the Project Manager will be required to make two site visits for the project. A Principal or Senior Consultant specializing in construction will also visit the project.

6.2 Resident Engineering. The Resident Engineer will be on-site full time for the project and will work approximately 12 hours per day. It is assumed that the Engineer will be able to complete daily documentation in the course of the 12-hour day and that total inspection on-site time is anticipated to be 35 calendar days.

6.3 Review Construction Submittals. The construction coordination will consist of reviewing and approving the shop drawings and material submittal data from the Contractor. The Resident Engineer will review copies of the Contractor's survey data for pavement grades and will review other construction items for general compliance with the construction documents.

6.4 Review Contractor Payroll Forms. The Resident Engineer will be required to make employee interviews and review the Contractor's weekly payroll records for compliance with Davis-Bacon Wage Determinations as required by the FAA. The Engineer will note any discrepancies and return payroll forms to the Contractor for correction.

6.5 Calculate Construction Quantities. The Resident Engineer will maintain record of the progress and will review the quantity records with the Contractor on a periodic basis.

6.6 Periodic Cost Estimates. The Resident Engineer will prepare the Periodic Cost Estimates and review the quantities with the Contractor. The Engineer, Sponsor and Contractor will resolve discrepancies or disagreements with the Contractor's records.

6.7 Prepare Daily Reports. The Resident Engineer will maintain a daily log of the construction activities and compile construction photos for the duration of time on site.

6.8 Prepare/Submit Weekly Reports. The Resident Engineer will prepare a weekly status report using the FAA's standard form. The report will be submitted electronically to the Sponsor, the FAA, and the office.

6.9 Review QC/QA Results Provided by Contractor/Engineer. The Resident Engineer will review testing results and coordinate revisions to the QC/QA submittals. The Contractor will be responsible for Quality Control and the Engineer's Testing Firm for Quality Assurance submittals performed as part of the acceptance testing required by the technical specifications. Should any additional testing need to be accomplished, this will be coordinated with the Contractor who will be responsible for completion. The reviews will occur on a weekly basis (more frequently during paving) and at project completion prior to submittal to the FAA.

7.0 Post Construction Coordination Phase

This phase will consist of project close out and site cleanup.

7.1 Conduct Final Inspection. The Project Manager and Resident Engineer, along with the Sponsor, and the FAA (if available) will conduct the final inspection. All acceptance test summaries must be approved by the FAA prior to scheduling the final inspection.

7.2 Coordinate Final Survey. The Resident Engineer will coordinate with the contractor for the final survey after the construction is completed.

7.3 Prepare Clean-up Item List. The Engineer will ensure the Contractor has removed all construction equipment and construction debris from the airport, that all access points have been re-secured (fences repaired, gates closed and locked, keys returned, etc.) and the site is clean.

7.4 Engineering Record Drawings. The Engineer will prepare markups of the Issued for Construction drawings indicating modifications made during construction. All drafting for the final record drawings will be prepared by the office drafting personnel, and the Resident Engineer will review for accuracy. One hard copy (11 x 17) and electronic copies (AutoCAD 2014 and pdf) will be submitted to the Sponsor and the FAA.

7.5 Final Construction Report. The Resident Engineer will prepare the final construction report according to the current Northwest Mountain Region's Construction/Final Report guidance, and it will be reviewed by the Project Manager. Administrative staff will also provide assistance in the preparation of the document. One copy of the Final Construction Report will be furnished to the Sponsor and the FAA following review of the draft report and completion of requested revisions.

7.6 Summarize Project Costs. The Engineer will be required to obtain all administrative expenses, engineering fees and costs, surveying costs, testing costs and construction costs associated with the project and assemble a total project summary. The summary will be compared with the available funding.

7.7 Assist with Project Audit. When requested by the Sponsor or the FAA, the Engineer will assist with the project or year-end audit. The Engineer will provide files requested that are pertinent to the project cost and completion.

Special Considerations

The following special considerations are required for this project and will be completed by subconsultants to the Engineer. The cost for this work will be included in the Engineering contract agreement with the Sponsor and the costs are in addition to the Engineering fees.

Conduct Topographical Surveying. Survey will be required in order to complete the design for the project. Survey shall include the following:

- Verification of the existing pavement and ground elevations and infrastructure located within the project area.
- Other miscellaneous features required for design.
- The area being surveyed for this project is approximately 5 acres.
- During design, there may be the need to verify other existing survey information or extend the limits of the existing survey.

The applicable requirements of AC 150/5300-18B – General Guidance and Specifications for Submission of Aeronautical Surveys to NGS: Field Data Collection and Geographic Information System (GIS) Standards will be followed to ensure compliance with FAA requirements.

Pavement Investigation. The existing pavement will be cored to determine the proper rehabilitative design procedures. This investigation will include the following:

- Visual inspection of the pavement areas.
- Pavement coring for examination (3 cores).
- Historical geotechnical results will be used to classify soil properties.

A final pavement report will be completed. This will include a write up with conclusions/ recommendations, testing area map, and photos of the cores.

Acceptance Testing. Acceptance testing will be performed under the direct supervision of engineering field personnel. All acceptance test summaries must be accepted by the FAA prior to final inspection. Certified materials technicians will perform the necessary material acceptance testing for the following items, as detailed in the project specifications:

- Item P-401 Hot Mix Asphalt (HMA) Pavements

Conduct AGIS As-Built Surveying. Survey will be required at the completion of construction of the project. Survey shall include the following:

- Verification of new pavement and infrastructure ground elevations located within the project area for use within AGIS.
- The area being surveyed for this project is approximately 5 acres.

The applicable requirements of AC 150/5300-18B – General Guidance and Specifications for Submission of Aeronautical Surveys to NGS: Field Data Collection and Geographic Information System (GIS) Standards will be followed to ensure compliance with FAA requirements.

Detailed Engineering Fee Breakout

AIRPORT: Gunnison-Crested Butte Regional Airport
LOCATION: Gunnison, Colorado

AIP PROJECT NUMBER: 3-08-0030-50
5/12/2015

PROJECT DESCRIPTION: Schedule I Taxiway A Rehabilitation (Between TWs A1 and A3) and Schedule II Runway 6 Safety Area Grading

PHASE	PART A - BASIC SERVICES	Originally Proposed Fee		Independent Fee Analysis		Reconciled Assumptions IFE		Negotiated Fee
1.0	Preliminary Design Phase	$ 10,176.00		$ 27,282.00		$ 20,463.25		**$ 15,430.88**
2.0	Design Phase	$ 62,520.00		$ 121,221.00		$ 104,871.50		**$ 70,074.50**
3.0	Bidding Phase	$ 18,082.00		$ 20,784.00		$ 14,004.50		**$ 19,609.50**
SUB-TOTAL PART A BASIC SERVICES		$ 90,778.00		$ 169,287.00		$ 139,339.25		**$ 105,114.88**
PHASE	**PART B - SPECIAL SERVICES**							
4.0	Construction Administration Phase	$ 4,110.00		$ 27,840.00		$ 18,640.00		**$ 6,029.50**
5.0	Pre-Construction Coordination Phase	$ 4,091.00		$ 13,122.00		$ 9,123.25		**$ 4,804.75**
6.0	On-Site Construction Coordination Phase	$ 61,442.00		$ 70,311.00		$ 53,740.00		**$ 66,355.88**
7.0	Post Construction Coordination Phase	$ 11,721.00		$ 17,207.00		$ 12,742.25		**$ 12,534.75**
SUB	Geotechnical Investigation	$ 5,000.00		$ 12,000.00		$ 5,000.00		**$ 5,000.00**
SUB	Design Surveying	$ 7,000.00		$ 10,000.00		$ 7,000.00		**$ 7,000.00**
SUB	AGIS As-Built Surveying	$ 10,000.00		$ 12,000.00		$ 10,000.00		**$ 10,000.00**
SUB	Acceptance Testing	$ 20,000.00		$ 20,000.00		$ 9,000.00		**$ 20,000.00**
SUB-TOTAL PART B SPECIAL SERVICES		$ 123,364.00		$ 171,480.00		$ 125,245.50		**$ 131,724.88**
TOTAL ENGINEERING FEES		**$ 214,142.00**	70%	**$ 340,767.00**		**$ 264,584.75**	90%	**$ 236,839.75**

PART A - BASIC SERVICES

Item No.		Principal Engineer	Senior Consultant	Project Manager III	Project Manager I	Engineer / Planner II	Electrical Engineer	Associate Engineer	Designer III	Planner I	CADD Tech II	Administrative Support	Total Hours	Misc. Costs	Cost Summary
1.0	**Preliminary Design Phase**	$235.00	$225.00	$220.00	$150.00	$140.00	$140.00	$125.00	$140.00	$120.00	$95.00	$85.00			
1.1	Preliminary Meetings with the Sponsor and FAA	8		8		12							28		$5,320.00
1.2	Project Development	1		3								2	6		$1,105.00
1.3	Coordinate Topographical Surveying			4	12								16		$2,680.00
1.4	Coordinate Pavement Investigation			2	4								6		$1,040.00
1.5	Disadvantaged Business Enterprise (DBE) Program			2		3						1	6		$945.00
1.6	Grant Applications			1				3			1	1	6		$805.00
1.7	Exhibit "A" Property Map			1							3		4		$505.00
1.8	Environmental Checklist			2		12							14		$2,120.00
	Estimated Total Man-hours	9	0	23	16	27	0	3	0	0	4	4	86		
	Summary Costs	$2,115.00	$0.00	$5,060.00	$2,400.00	$3,780.00	$0.00	$405.00	$0.00	$0.00	$380.00	$340.00		$0.00	
1.90	**Reimbursables**														
1.91	Miscellaneous													$500.00	$500.00
1.92	Auto Rental												0 Days	$70.00	$0.00
1.93	Mileage			375									375 Mi	$0.565	$211.88
1.94	Lodging			1									1 Days	$77.00	$77.00
1.95	Per Diem	1		1									2 Days	$46.00	$92.00
1.96	Travel and Airline Costs												0 Days	$0.00	$0.00
1.97	Field Vehicle			1									1 Days	$70.00	$70.00
1.98	Office Vehicle												0 Trips	$70.00	$0.00
													Total Preliminary Design Phase		$15,430.88

Checks

PART A - BASIC SERVICES (CONT.)

Item No		Principal Engineer	Senior Consultant	Project Manager III	Project Manager I	Engineer / Planner II	Electrical Engineer	Associate Engineer	Designer III	Planner I	CADD Tech II	Administrative Support	Total Hours	Misc Costs	Cost Summary
2.0	**Design Phase**	$225.00	$225.00	$220.00	$150.00	$140.00	$140.00	$135.00	$140.00	$120.00	$95.00	$85.00			
2.1	Preliminary Contract Documents and Special Provisions			2		4							6		$1,000.00
2.2	Analyze Pavement Investigation/Geotechnical Testing Data			3		6							9		$1,590.00
2.3	Analyze Topographic Survey Data					2		16					18		$2,440.00
2.4	Pavement Design			1		8							9		$1,340.00
2.5	Inventory Existing Utilities					1		8					9		$1,220.00
2.6	Drainage Plan					5					2		7		$890.00
2.7	Preliminary Plans			4		20		48			140		209		$23,055.00
2.8	Preliminary Contract Documents			8		20						2	30		$4,730.00
2.9	Preliminary Technical Specifications			8		20						2	30		$4,730.00
2.10	Compile/Submit Permits			2		4					2		8		$1,190.00
2.11	Calculate Estimated Quantities and Provide Estimate of Probable Construction Cost					2		8					10		$1,360.00
2.12	Coordinate Phases for Construction			2		4					4		10		$1,380.00
2.13	Construction Safety and Phasing Plan (CSPP)			4		20					8		32		$4,440.00
2.14	Design Engineer's Report and Modification of Standards			12		18							30		$5,160.00
2.15	Plans Review at 75%, and 95% Complete					4		4			8		16		$1,860.00
2.16	In House Quality Control			24									24		$5,280.00
2.17	Prepare and Submit Final Plans and Specifications			4		16		16			8	4	48		$6,380.00
	Estimated Total Man-hours	**0**	**0**	**74**	**0**	**154**	**0**	**97**	**0**	**0**	**172**	**8**	**505**		
	Summary Costs	**$0.00**	**$0.00**	**$16,280.00**	**$0.00**	**$21,560.00**	**$0.00**	**$13,095.00**	**$0.00**	**$0.00**	**$16,340.00**	**$680.00**		**$0.00**	
2.90	**Reimbursables**														
2.91	Miscellaneous													$500.00	$500.00
2.92	Auto Rental												0 Days	$70.00	$0.00
2.93	Mileage			750		750							1500 Mi	$0.57	$847.50
2.94	Lodging			2		2							4 Days	$77.00	$308.00
2.95	Per Diem			2		2							4 Days	$46.00	$184.00
2.96	Travel and Airline Costs												0 Trips	$0.00	$0.00
2.97	Field Vehicle			2		2							4 Days	$70.00	$280.00
2.98	Office Vehicle												0 Days	$70.00	$0.00
														Total Design Phase	**$70,074.50**
															Checks

Item No		Principal Engineer	Senior Consultant	Project Manager III	Project Manager I	Engineer / Planner II	Electrical Engineer	Associate Engineer	Designer III	Planner I	CADD Tech II	Administrative Support	Total Hours	Misc Costs	Cost Summary
3.0	**Bidding Phase**	$225.00	$225.00	$220.00	$150.00	$140.00	$140.00	$135.00	$140.00	$120.00	$95.00	$85.00			
3.1	Advertise for Bids			4		8						8	20		$2,680.00
3.2	Prepare/Conduct Pre-Bid Meeting			12									12		$2,640.00
3.3	Prepare Addenda			4		12					16		32		$4,080.00
3.4	Consult with Prospective Bidders			4		8							12		$2,000.00
3.5	Conduct Bid Opening			12									12		$2,040.00
3.6	Review Bid Proposals			4		12							16		$2,560.00
3.7	Prepare Recommendation of Award			2		2						2	6		$890.00
	Estimated Total Man-hours	**0**	**0**	**42**	**0**	**42**	**0**	**0**	**0**	**0**	**16**	**10**	**110**		
	Summary Costs	**$0.00**	**$0.00**	**$9,240.00**	**$0.00**	**$5,880.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$1,520.00**	**$850.00**		**$0.00**	
3.90	**Reimbursables**														
3.91	Miscellaneous													$500.00	$500.00
3.92	Auto Rental												0 Days	$70.00	$0.00
3.93	Mileage			750		750							1500 Mi	$0.57	$847.50
3.94	Lodging			2		2							4 Days	$77.00	$308.00
3.95	Per Diem			2		2							4 Days	$46.00	$184.00
3.96	Travel and Airline Costs												0 Trips	$0.00	$0.00
3.97	Field Vehicle			2		2							4 Days	$70.00	$280.00
3.98	Office Vehicle												0 Days	$70.00	$0.00
														Total Bidding Phase	**$19,609.50**
															Checks

TOTAL PART A - BASIC SERVICES $105,114.88

PART B - SPECIAL SERVICES

Item No		Principal Engineer	Senior Consultant	Project Manager III	Project Manager I	Engineer / Planner II	Electrical Engineer	Associate Engineer	Designer III	Planner I	CADD Tech II	Administrative Support	Total Hours	Misc Costs	Cost Summary
4.0	**Construction Administration Phase**	$235.00	$225.00	$220.00	$150.00	$140.00	$140.00	$135.00	$140.00	$120.00	$95.00	$85.00			
4.1	Prepare Construction Contract and Documents			1		2						2	5		$670.00
4.2	Office Assistance			1		2							3		$500.00
4.3	Periodic Cost Estimates and Requests for Reimbursement					2						4	6		$620.00
4.4	Weekly/Monthly Reports					2							2		$280.00
4.5	Material Submittal Review					4		4					8		$1,100.00
4.6	Change Orders/Supplemental Agreements			1		2		2				2	7		$940.00
	Estimated Total Man-hours	**0**	**0**	**3**	**0**	**14**	**0**	**6**	**0**	**0**	**0**	**8**	**31**		
	Summary Costs	**$0.00**	**$0.00**	**$660.00**	**$0.00**	**$1,960.00**	**$0.00**	**$810.00**	**$0.00**	**$0.00**	**$0.00**	**$680.00**		**$0.00**	
4.90	**Reimbursables**														
4.91	Miscellaneous													$300.00	$300.00
4.92	Auto Rental												0 Days	$70.00	$0.00
4.93	Mileage			750		750							1500 Mi	$0.57	$847.50
4.94	Lodging			2		2							4 Days	$77.00	$308.00
4.95	Per Diem			2		2							4 Days	$46.00	$184.00
4.96	Travel and Airline Costs												0 Trips	$0.00	$0.00
4.97	Field Vehicle			2		2							4 Days	$70.00	$280.00
4.98	Office Vehicle												0 Days	$70.00	$0.00
													Total Construction Administration Phase		$6,029.50

Checks

Item No		Principal Engineer	Senior Consultant	Project Manager III	Project Manager I	Engineer / Planner II	Electrical Engineer	Associate Engineer	Designer III	Planner I	CADD Tech II	Administrative Support	Total Hours	Misc Costs	Cost Summary
5.0	**Pre-Construction Coordination Phase**	$235.00	$225.00	$220.00	$150.00	$140.00	$140.00	$135.00	$140.00	$120.00	$95.00	$85.00			
5.1	Prepare Project Files							1				2	3		$305.00
5.2	Prepare/Conduct Pre-Construction Meeting			8									8		$1,760.00
5.3	Safety Plan Compliance Document (SWCD)			1		2							3		$500.00
5.4	Construction Management Plan (CMP)			1		6						2	9		$1,220.00
	Estimated Total Man-hours	**0**	**0**	**10**	**0**	**8**	**0**	**1**	**0**	**0**	**0**	**4**	**23**		
	Summary Costs	**$0.00**	**$0.00**	**$2,200.00**	**$0.00**	**$1,120.00**	**$0.00**	**$135.00**	**$0.00**	**$0.00**	**$0.00**	**$340.00**		**$0.00**	
5.90	**Reimbursables**														
5.91	Miscellaneous													$200.00	$200.00
5.92	Auto Rental												0 Days	$70.00	$0.00
5.93	Mileage			375		375							750 Mi	$0.57	$423.75
5.94	Lodging			1		1							2 Days	$77.00	$154.00
5.95	Per Diem			1		1							2 Days	$46.00	$92.00
5.96	Travel and Airline Costs												0 Trips	$0.00	$0.00
5.97	Field Vehicle			1		1							2 Days	$70.00	$140.00
5.98	Office Vehicle												0 Days	$70.00	$0.00
													Total Pre-Construction Coordination Phase		$4,804.75

Checks

Item No		Principal Engineer $235.00	Senior Consultant $225.00	Project Manager III $220.00	Project Manager I $150.00	Engineer / Planner II $140.00	Electrical Engineer $140.00	Associate Engineer $135.00	Designer III $140.00	Planner I $120.00	CADD Tech II $95.00	Administrative Support $85.00	Total Hours	Misc. Costs	Cost Summary
6.0	**On-Site Construction Coordination Phase**														
6.1	Field Inspection/Coordination			10									10		$2,200.00
6.2	Resident Engineering					360							360		$50,400.00
6.3	Review Construction Submittals			4									4		$880.00
6.4	Review Contractor Payroll Forms			2									2		$440.00
6.5	Calculate Construction Quantities			2									2		$440.00
6.6	Periodic Cost Estimates			4									4		$880.00
6.7	Prepare Daily Reports			2									2		$440.00
6.8	Prepare/Submit Weekly Reports			2								4	6		$780.00
6.9	Review QC/QA Results provided by Contractor/Engineer			4									4		$880.00
	Estimated Total Man-hours	**0**	**0**	**30**	**0**	**360**	**0**	**0**	**0**	**0**	**0**	**4**	**394**		
	Summary Costs	**$0.00**	**$0.00**	**$6,600.00**	**$0.00**	**$50,400.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$340.00**		**$0.00**	
6.90	**Reimbursables**														
6.91	Miscellaneous												0 Days	$500.00	$500.00
6.92	Auto Rental												0 Days	$70.00	$0.00
6.93	Mileage			375		2100							2775 Mi	$0.57	$1,567.88
6.94	Lodging			1		35							36 Days	$77.00	$2,772.00
6.95	Per Diem			1		35							36 Days	$46.00	$1,656.00
6.96	Travel and Airline Costs												0 Trips	$0.00	$0.00
6.97	Field Vehicle			1		35							36 Days	$70.00	$2,520.00
6.98	Office Vehicle												0 Days	$70.00	$0.00
													Total Construction Coordination Phase		$66,355.88

Checks

Item No		Principal Engineer $235.00	Senior Consultant $225.00	Project Manager III $220.00	Project Manager I $150.00	Engineer / Planner II $140.00	Electrical Engineer $140.00	Associate Engineer $135.00	Designer III $140.00	Planner I $120.00	CADD Tech II $95.00	Administrative Support $85.00	Total Hours	Misc. Costs	Cost Summary
7.0	**Post Construction Coordination Phase**														
7.1	Conduct Final Inspection							8					8		$1,080.00
7.2	Coordinate Final Survey			4									4		$880.00
7.3	Coordinate and Process AGIS As-Built Survey			5	10						5		20		$3,075.00
7.4	Prepare Clean-up Item List							4					4		$540.00
7.5	Engineering Record Drawings			2				8			10		20		$2,470.00
7.6	Final Construction Report			2				8				4	14		$1,860.00
7.7	Summarize Project Costs			1				4					5		$760.00
7.8	Assist with Project Audit			1				4					5		$760.00
	Estimated Total Man-hours	**0**	**0**	**15**	**10**	**0**	**0**	**36**	**0**	**0**	**15**	**4**	**80**		
	Summary Costs	**$0.00**	**$0.00**	**$3,300.00**	**$1,500.00**	**$0.00**	**$0.00**	**$4,860.00**	**$0.00**	**$0.00**	**$1,425.00**	**$340.00**		**$0.00**	
7.90	**Reimbursables**														
7.91	Miscellaneous												0 Days	$300.00	$300.00
7.92	Auto Rental												0 Days	$70.00	$0.00
7.93	Mileage			375				375					750 Mi	$0.57	$423.75
7.94	Lodging			1				1					2 Days	$77.00	$154.00
7.95	Per Diem			1				1					2 Days	$46.00	$92.00
7.96	Travel and Airline Costs												0 Trips	$0.00	$0.00
7.97	Field Vehicle			1				1					2 Days	$70.00	$140.00
7.98	Office Vehicle												0 Days	$70.00	$0.00
													Total Post Construction Coordination Phase		$12,534.75

Checks

TOTAL PART B - SPECIAL SERVICES $89,724.88