

Amendment #1 to
AGREEMENT
For
PROFESSIONAL ENGINEERING SERVICES
Between
THE CITY OF COLUMBIA, MISSOURI
And
BURNS & MCDONNELL ENGINEERING COMPANY, INC.

This Amendment No. 1 is made as of the date of the last signatory noted below, between the **City of Columbia** (hereinafter "City"), and **Burns & McDonnell Engineering Company, Inc.**, (hereinafter "Engineer").

RECITALS

- A. WHEREAS, on February 19, 2018, City Council passed Ordinance 023488 authorizing the City to enter a contract with Engineer for Design of Runway 2-20 Pavement Repairs at the Columbia Regional Airport, (COU) in Columbia, Missouri. ("the Contract");
- B. WHEREAS, on February 21, 2018, the City and Engineer entered into a contract for Design of Runway 2-20 Pavement Repairs at the Columbia Regional Airport, (COU) in Columbia, Missouri. ("the Contract");
- C. WHEREAS, a significant portion of the funding for the design and construction of the runway repairs, including funding for the Contract, comes through a grant ("the Grant") funded by the Federal Aviation Administration ("FAA");
- D. WHEREAS, the FAA has identified additional work involving the Relocation of Wind Measuring Equipment at COU that it wishes to have completed through the same grant;
- E. WHEREAS, the FAA has determined that a separate bidding process for the added work is not economically valuable, therefore authorized amendments to existing contracts funded by the Grant;

F. WHEREAS, Engineer has the ability and resources to perform the **Design and Construction Services for the Relocation of Wind Measuring Equipment Project** (hereinafter called the ADDED PROJECT); and

G. WHEREAS, the Parties hereto, therefore, desire to formally amend the Contract with this First Amendment (hereinafter "First Amendment") and desire to be bound by the terms contained in the Contract as amended by the First Amendment in order to address the additional work identified by the FAA.

THEREFORE, the parties substitute Paragraphs 2.1.1, 5.3, 6.1 below for the corresponding paragraphs of the Contract:

2.1.1 Perform professional engineering services as set forth in:

(a) Attachment A - "Scope of Basic Services for the Proposed Runway 2-20 Pavement Repairs," dated December 1, 2017 (hereinafter referred to as "2-20 Pavement Repairs Scope of Basic Services"); and

(b) Attachment E - "Scope of Basic Services for the Proposed Relocate Wind Measuring Equipment," dated August 28, 2018 (hereinafter referred to as "Wind Measuring Scope of Basic Services");

Collectively, the 2-20 Pavement Repairs Scope of Basic Services and the Wind Measuring Scope of Basic Services are referred herein as "Scope of Basic Services".

5.3 Notice to Proceed and Completion Deadline

5.3.1 Services for the 2-20 Pavement Repairs Scope of Basic Services shall be started within 10 calendar days of Notice to Proceed and completed within one hundred forty (140) calendar days from the issuance of the Notice to Proceed.

5.3.2 Services for the 2-20 Pavement Repairs Scope of Basic Services shall be started within 10 calendar days of Notice to Proceed, with phases completed in accordance with Table A of the Wind Measuring Scope of Basic Services.

5.3.3 CITY shall have the right to establish performance times for individual phases or elements of the PROJECT or the ADDED PROJECT by

delivering a written schedule setting out the performance times to the ENGINEER.

6.1 Amount of Payment

6.1.1 For services performed, CITY agrees to pay ENGINEER the sum of the amounts determined as follows:

6.1.1.1 Fixed Lump Sum Payment: For tasks denoted in B.1-B.3 of Exhibit A, payment shall be made based on a fixed lump sum payment as stated in Exhibit B. Total payment for the 2-20 Pavement Repairs Scope of Basic Services shall not exceed four hundred eight thousand and one hundred seventy-nine dollars (\$408,179.00).

6.1.1.2 Fixed Lump Sum Payment: For tasks denoted in B.1-B.3 of Exhibit E, payment shall be made based on a fixed lump sum payment as stated in Exhibit F. Total payment for tasks denoted in B.1-B.3 of Exhibit E shall not exceed forty-nine thousand two hundred sixty-three dollars (\$49,263.00).

6.1.1.3 Work Performed Payment: For tasks denoted in B.4 of Exhibit E, the amount to be paid to the ENGINEER by the CITY as full remuneration for the performance of all services called for in this Agreement will be on the basis of the ENGINEER's actual costs plus a fixed fee of two thousand six hundred forty-seven dollars and eighty-one cents (\$2,647.81), except that the combined costs and fee will not exceed a maximum amount payable of thirty-three thousand two hundred forty-five dollars (\$33,245.00). Payment under the provisions of this Agreement is limited to those costs incurred in accordance with generally accepted accounting principles to the extent they are considered necessary to the execution of the item of service.

6.1.1.4 Total payments for the 2-20 Pavement Repairs Scope of Basic Services, the Wind Measuring Scope of Basic Services and all other expenses and costs to CITY under this Agreement and described herein shall not exceed four hundred ninety thousand and six hundred eighty-seven dollars (\$490,687.00), and such payments shall constitute

complete compensation for all services and payment of expenses to be rendered under this Agreement.

6.1.2 It is expressly understood that in no event will the total amount paid to ENGINEER under the terms of this Agreement, or any amendment thereto, exceed the sum set forth in paragraph 6.1.1.4 unless otherwise agreed to in writing between the parties in advance of the provision of such services.

7.18 Agreement Documents

This Agreement includes the following attachment or exhibits, which are incorporated herein by reference:

Attachment/Exhibit	Description
A	Scope of Work dated 12/1/17 for 2-20 Pavement Repairs Scope of Basic Services
B	Summary of Costs dated 12/1/17 for 2-20 Pavement Repairs Scope of Basic Services
C	Federal Provisions
D	Work Authorization Affidavit
E	Scope of Work dated 8/28/18 for Wind Measuring Scope of Basic Services
F	Summary of Costs dated 8/28/18 for Wind Measuring Scope of Basic Service

In the event of a conflict between the terms of the attachment and the terms of this Agreement, the terms of this Agreement control.

The parties make no other change to the Contract; all other terms continue to apply.

City of Columbia, Missouri


By: _____
Mike Matthes, City Manager

Date: _____

ATTEST:

By: _____
Sheela Amin, City Clerk

APPROVED AS TO FORM:

By: _____
Nancy Thompson, City Counselor/JKM 

I hereby certify that this Agreement is within the purpose of the appropriation to which it is to be charged, that is, account ~~55416288~~ 604990 AP126, and that there is an unencumbered balance to the credit of such account sufficient to pay therefore.

Director of Finance

ENGINEER

(Seal)

**Burns & McDonnell Engineering
Company, Inc.**

By:  _____

Name: David G. Hadel

Title: Manager, Aviation Services

Date: 10/9/18

ATTEST:

By: _____

Name: _____

Design of Runway 2-20 Repairs

Exhibit A

Scope of Basic Services Dated 12/1/2017

EXHIBIT "A"
12/1/2017
SCOPE OF BASIC SERVICES
FOR
THE PROPOSED RUNWAY 2-20 PAVEMENT REPAIRS
AT
COLUMBIA REGIONAL AIRPORT

A. PROJECT NAME:

1. **Project Name:** Design of Runway 2-20 Pavement Repairs at the Columbia Regional Airport (COU) in Columbia, Missouri.
2. **Description of Improvements:** The proposed improvements are shown on EXHIBIT No. 1. The description of planned improvements is described herein as follows:
 - a. Runway 2-20 (South of the Runway 13-31 Safety Area): Demolish pavement located at each end of the runway and at each connector taxiway intersection of the runway.
 - b. Runway 2-20 (South of the Runway 13-31 Safety Area): Construct new portland cement concrete (PCC) pavement at each end of the runway and at each connector taxiway intersection of the runway.
 - c. Runway 2-20: Provide additional storm drainage features as necessary for proper drainage of the underlying subgrade (if necessary).
 - d. Runway 2-20: Provide new pavement markings for the entire length of Runway 2-20 (6,500' x 150' - including those areas not specifically repaired) to maintain a uniform color of striping throughout.
 - e. Runway 2-20: Groove new concrete pavement on the Runway 2-20 surface. Note that the new taxiway connector surface shall not require grooving.
 - f. Navigational Aids may include the following based on project conditions:
 - i. Runway edge lighting for Runway 2-20.
 - ii. Taxiway edge lighting for the adjacent connector taxiways.
 - iii. Runway and Taxiway guidance signs.

B. DESCRIPTION OF SERVICES TO BE PERFORMED

CONSULTANT has developed the following Scope of Services to perform engineering services for the aforementioned project. The Scope of Services is defined as follows:

1. **Preliminary Design Phase:** This phase includes activities for defining the scope of the project and establishing preliminary requirements. The elements of work for this task include:
 - a. Perform onsite visual observations to determine the extent of the improvements to Runway 2-20. Attendees for the CONSULTANT include Project Manager, Project Civil Engineer and Project Electrical Engineer.
 - b. Perform Non-Destructive Testing (NDT) with a Falling-Weight Deflectometer (FWD) for the intersections identified for repair within the footprint of Runway 2-20. This will produce a "heat map" of the existing Runway and will provide potential geotechnical boring locations based on decreased modulus values.

- c. Prepare Scope of Work for Geotechnical Services as necessary based on the NDT results.
1. Perform Geotechnical exploratory investigation including pavement coring / boring in approximately thirteen (13) locations and random test pits as necessary outside of the Runway 2-20 footprint. Additional locations may be identified for identifying problem areas based on the NDT testing.
 2. Perform laboratory tests on soil samples obtained from the work area. Tests to include the following:
 - a. Moisture Content
 - b. Dry Unit Weight
 - c. Sieve Analysis
 - d. Atterberg Limits
 - e. Unconfined Compression
 - f. Swell Pressure
 - g. Consolidation
 - h. Compaction Characteristics
 - i. Chemical Analysis for pH, Sulfates & Sulfides
 3. Prepare a Geotechnical Report containing a description of the drilling and sampling program, a description of the geology and subsurface conditions encountered, groundwater conditions, typed boring logs with a boring location plan, and results of the laboratory testing program. The Geotechnical Report shall contain geotechnical recommendations for the design and construction of pavement and earthwork for the proposed project.
- d. Prepare a Scope of Work for Topographical Surveying Services. In general, the work will include:
1. Establish Runway 2-20 baselines and set control points.
 2. Establish horizontal control in NAD 83 coordinates.
 3. Establish vertical control at the airport based on USGS datum.
 4. Establish benchmarks for construction.
 5. Obtain spot elevations of existing slabs on Runway 2-20 in selected repair locations based on NDT testing and geotechnical investigation.
 6. Collect exploratory investigation data of utilities in the work area as obtained from the Missouri One Call System, airport personnel, FAA personnel, record drawings, and utility company personnel.
- e. Develop a Preliminary Cost Estimate and submit to the SPONSOR for budgeting purposes. Monitor and report changes in the project budget throughout the project.
- f. Develop a preliminary schedule for construction and submit to the SPONSOR for review. Monitor and report changes to the schedule throughout the project.
- g. Prepare preliminary site plans for development of construction phasing and coordination with the City, Airlines, ATC, FAA Technical Operations Group, and FBOs.

- h. Prepare a preliminary design report per FAA Central Region AIP Guide Section 920. Design Report will include considerations for incremental phasing of the project work.
 - i. Evaluate the Taxiway A2 connector direct access to the runway and provide alternatives and a recommendation. This analysis shall be included in the Design Report.
 - j. Analysis of existing Runway 2-20 profile and recommendations to address the profile, as necessary, based upon survey information and associated analysis. This analysis shall be included in the Design Report.
 - k. Prepare FAA Pavement Design Form 5100-100. A life cycle cost evaluation for the pavement sections designed will be developed and a recommended section presented.
 - l. Prepare and submit FAA forms 7460-1. Anticipate submittals for construction work areas, staging areas, haul routes, and construction phasing scenarios.
 - m. Prepare a preliminary Construction Safety and Phasing Plan (CSPP) per AC 150/5370-2F. The CSPP, contract drawings, and associated bid form will be developed to reflect the following:
 - 1. A single Base Bid Package with multiple phases for each repair area identified as requiring repairs. This CSPP will be submitted at the preliminary 30 percent level of completion of plans and specifications.
 - n. Prepare documents for a CATEX.
 - o. Attend and conduct a preliminary design meeting with the SPONSOR and FAA at the FAA Central Region office. Attendees for the CONSULTANT will include the Project Manager, Lead Project Civil Engineer, Pavement Engineer, and Project Electrical Engineer, if necessary.
2. Design Phase: This phase will include the activities required to develop the project design documents showing the character and scope of work to be performed by Contractors on the project. The design of this project is based on the FAA Standards contained on the list found at <https://www.faa.gov/airports/aip/media/aip-pfc-checklist.pdf>.
- The specific tasks that will be performed in this phase include:
- a. Prepare construction Bid Documents. The anticipated drawing list may include the following:
 - 1. Cover Sheet
 - 2. Index, Legend, Abbreviations, and Summary of Quantities
 - 3. Grid Layout Plan
 - 4. Access and Safety Plans
 - 5. Overall and Construction Phasing Plans
 - 6. Maintenance of Traffic Plans
 - 7. Pavement Sections and Details
 - 8. Demolition Plans
 - 9. Repair Layout Plan and Profiles
 - 10. Jointing Layout Plans

11. Jointing Details
 12. Rigid Pavement Elevation Plans
 13. Underdrain Plan, Profiles, and Details
 14. Pavement Marking Plans
 15. Pavement Marking Details
 16. Miscellaneous Details.
 17. Runway and Taxiway Connector Cross Sections
 18. Miscellaneous Electrical Drawings and Details.
- b. Prepare a Missouri Department of Natural Resources (MoDNR) Erosion Control Permit & Construction Storm Water Pollution Prevention Plan (SWPPP).
 - c. Prepare project technical specifications.
 - d. Prepare Standard FAA and SPONSOR front-end documents outlining bid procedures and processes in accordance with FAA and City of Columbia procurement regulations.
 - e. Revise the preliminary cost estimate for the final engineer's estimate of probable cost.
 - f. Revise the preliminary construction schedule.
 - g. Prepare the final design report following FAA Central Region AIP Guide Section 920.
 - h. Prepare the final Construction Safety and Phasing Plan (CSPP).
 - i. Perform an internal Quality Review by the designers of the project.
 - j. Perform an internal Quality Review by the independent senior level review team.
 - k. Revise drawings and specifications per internal Quality Review comments.
 - l. SPONSOR AND FAA 100% Review: Submitted documents will include:
 1. Two sets (each) of the project manual (including specifications).
 2. Two sets (each) of full size contract drawings.
 3. Two sets (each) of final design report.
 4. One set (each) of half-size plans for review.
 - m. Meet with SPONSOR at Columbia Regional Airport with three (3) representatives of the CONSULTANT's team during plan production as an interim review of the project status.
 - n. Revise 100% contract documents per SPONSOR and FAA review comments and resubmit to SPONSOR and FAA for bidding. Provide an electronic copy of project manual and construction drawings to SPONSOR for filing and use for distribution to contractors.
3. Bidding & Construction Award Phase: This phase will include basic services to assist the SPONSOR with bidding of the contract documents and reviewing and award of the bid, including the following activities:
- a. Assist SPONSOR with advertising of the project.
 - b. Attend and conduct a pre-bid meeting with the SPONSOR. Attendees for the CONSULTANT will include the Project Manager, Project Civil Engineer, and Pavement Engineer.
 - c. Prepare any Addenda for the Project.

- d. Respond to questions during the bidding phase.
- e. Attend the bid opening and tabulate bids, analyze and provide recommendations to the SPONSOR. The recommendation letter will address the following items:
 - 1. Bid Date.
 - 2. Summarized bid tabulation.
 - 3. Evaluation of unit price extensions and total base bids.
 - 4. Addendums and acknowledgements.
 - 5. Additional insured cost, if any.
 - 6. DBE utilization, DBE Letter of Intent, DBE goal, and Good Faith Effort (GFE), review of GFE for compliance with the Sponsor's approved program.
 - 7. Buy American compliance.
 - 8. Tentative list of subcontractors.
 - 9. Confirm Bidders signatures.
 - 10. Bid Guarantee.
 - 11. Prequalification requirements, if any.
 - 12. Pre-Bid meeting (if used).
 - 13. Review of contractor qualifications.
 - 14. Debarment list verification.
 - 15. Recommendation of award.
- f. Assist SPONSOR with preparing contract documents.
- g. Assist SPONSOR with preparing grant application documents.

4. CONSTRUCTION PHASE SERVICES: This work will be determined upon completion of the project design. Construction Phase Services are not provided in this Scope of Work.

c. ESTIMATED TIME OF COMPLETION:

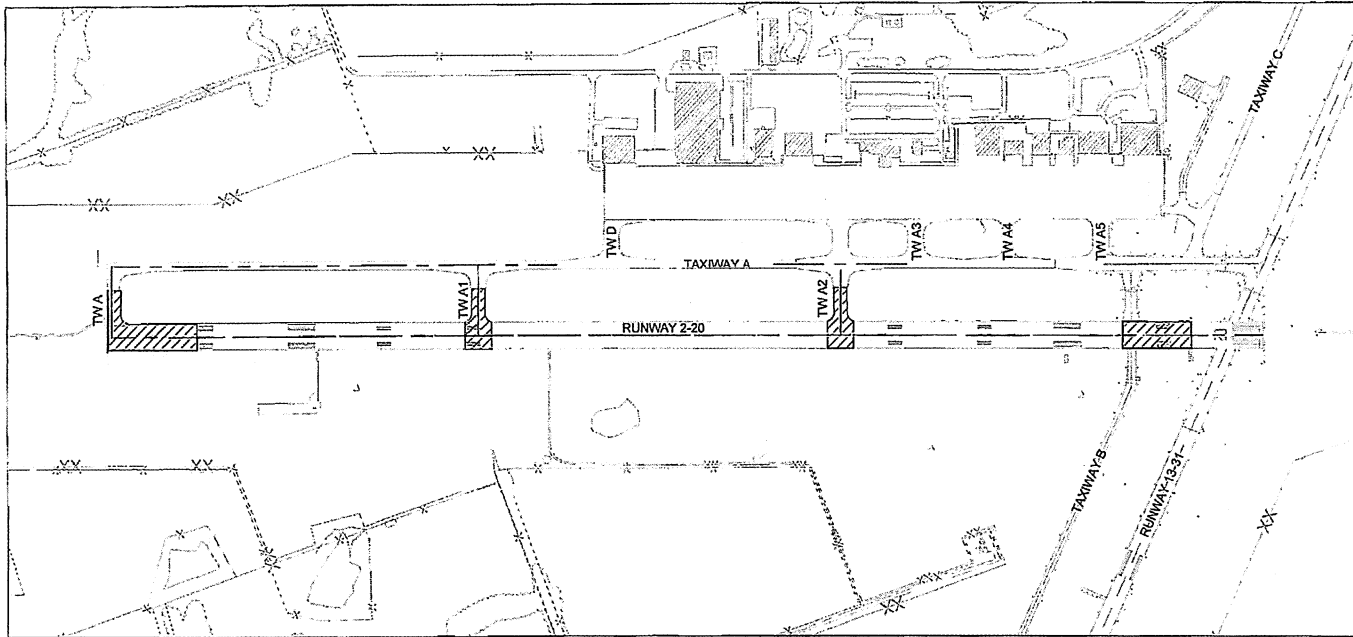
- 1. The time to complete the Scope of Services for Items identified in B.1. and B.2 of this Scope of Work is estimated at One Hundred Forty (140) calendar days from the Notice to Proceed (NTP).
- 2. Table A identifies the planned schedule to complete the Scope of Services for items identified in B.1-B.2 of this Scope of Work.

TABLE A

Item	Duration (Calendar Days)
Preliminary Design Phase	60 Days from the Notice to Proceed date
Design Phase	80 Days from the FAA acceptance of preliminary design report
TOTAL CALENDAR DAYS	140

END OF SCOPE OF BASIC SERVICES

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LEGEND:

 ISOLATED REPAIRS
 APPROXIMATE LOCATIONS



**BURNS
MCDONNELL**

date 11-16-17
 designed R. LORTON

COLUMBIA REGIONAL AIRPORT
EXHIBIT NO. 1
RUNWAY 2-20 ISOLATED REPAIRS

project	
contract	
dwg. no.	EX-1
rev.	

Design of Runway 2-20 Repairs

Exhibit B

Summary of Costs dated 12/1/17

DERIVATION OF CONSULTANT PROJECT COSTS
SUMMARY OF COSTS
DESIGN OF RUNWAY 2-20 PAVEMENT REPAIRS
COLUMBIA REGIONAL AIRPORT
DESIGN SERVICES
BASIC AND SPECIAL SERVICES
December 1, 2017

1 **DIRECT SALARY COSTS:**

TITLE	HOURS	RATE/HOUR	COST (\$)		
			Office	Field	Contract
Principal	60.00	\$68.00	\$4,080.00	\$0.00	\$0.00
Project Manager	237.00	\$55.00	\$13,035.00	\$0.00	\$0.00
Sr. Civil Eng.	410.00	\$45.00	\$18,450.00	\$0.00	\$0.00
Staff Civil Eng.	414.00	\$38.00	\$15,732.00	\$0.00	\$0.00
Asslst. Civil Eng.	32.00	\$34.50	\$1,104.00	\$0.00	\$0.00
Assoc. Electrical Eng.	0.00	\$55.00	\$0.00	\$0.00	\$0.00
Sr. Electrical Eng.	76.00	\$48.00	\$3,648.00	\$0.00	\$0.00
Staff Electrical Eng.	74.00	\$38.00	\$2,812.00	\$0.00	\$0.00
Sr. Tech.	564.00	\$35.00	\$19,740.00	\$0.00	\$0.00
Staff CADD Tech.	0.00	\$26.50	\$0.00	\$0.00	\$0.00
Geotechnical Eng.	32.00	\$57.00	\$1,824.00	\$0.00	\$0.00
Clerical	137.00	\$21.00	\$2,877.00	\$0.00	\$0.00
	2,036.00				
Total Direct Salary Costs			\$83,302.00	\$0.00	\$0.00

2 **LABOR AND GENERAL ADMINISTRATIVE OVERHEAD:**

Percentage of Direct Salary Costs @	218.64%	Office	\$182,131.49		
Percentage of Direct Salary Costs @	0.00%	Field		\$0.00	
Percentage of Direct Salary Costs @	0.00%	Contract			\$0.00

3 **SUBTOTAL:**

Items 1 and 2			\$265,433.49	\$0.00	\$0.00
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4 **FIXED FEE:**

10.00%	% of Item 3 Subtotal		\$26,543.35	\$0.00	\$0.00
	Subtotal		\$291,976.84	\$0.00	\$0.00

5 **OUT-OF-POCKET EXPENSES:**

a. Transportation (Office Staff)	2,200.00 miles @	\$0.535 / Mile =	\$1,177.00		
b. Transportation (Field Staff)	0.00 Miles @	\$0.535 / Mile=		\$0.00	
c. Per Diem (meals) office (per day)	10.00 days @	\$10.00 / day=	\$100.00		
d. Per Diem (lodging) office (per day)	0.00 days @	\$77.00 / day=	\$0.00		
e. Per Diem field (meal & Lodging) : per day	0.00 days @	\$123.00 / day =		\$0.00	
f. Comp. hrs: (N/A)	638.00 Hours @	\$0.00 / Hour =	\$0.00		
g. Comp. hrs: (N/A)	1,398.00 Hours @	\$0.00 / Hour =	\$0.00		
h. Copies, Printing, & Shipping		=	\$7,791.61	\$0.00	\$0.00
Total Out-of-Pocket Expenses			\$9,068.61	\$0.00	\$0.00

6 **SUBCONTRACT COSTS:**

a. RDM Intl. (NDT)	=	\$0.00	\$0.00	\$49,952.00
b. ESS (Survey)	=	\$0.00	\$0.00	\$25,981.55
c. ESS (Geotech)	=	\$15,500.00	\$0.00	\$0.00
c. Connico (Estimating)	=	\$15,700.00	\$0.00	\$0.00
Subtotal		\$31,200.00	\$0.00	\$75,933.55

7 **MAXIMUM TOTAL FEE:**

Items 1, 2, 3, 4, 5 and 6			\$332,245.45	\$0.00	\$75,933.55
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TOTAL:	SUMMARY	\$408,179.00
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SUMMARY

Exhibit V
ENGINEERING BASIC AND SPECIAL SERVICES-COST BREAKDOWN
SUMMARY OF COSTS
DESIGN OF RUNWAY 2-20 PAVEMENT REPAIRS
COLUMBIA REGIONAL AIRPORT
DESIGN SERVICES
BASIC AND SPECIAL SERVICES
December 1, 2017

Classification:	Principal	Project Manager	Sr. Civil Eng.	Staff Civil Eng.	Assist. Civil Eng.	Assoc. Electrical Eng.	Sr. Electrical Eng.	Staff Electrical Eng.	Sr. Tech.	Staff CADD Tech.	Geotechnical Eng.	Clerical	Other Costs
Gross Hourly Rate:	\$238.34	\$192.78	\$157.73	\$133.19	\$120.92	\$192.78	\$168.24	\$133.19	\$122.68	\$92.88	\$198.79	\$73.61	
A. BASIC SERVICES													
1 PRELIMINARY DESIGN	18.00	62.00	190.00	134.00			4.00	40.00	180.00		32.00	23.00	(1, 2, 3, 4, 5)
Total =	\$4,280.17	\$11,952.19	\$29,958.08	\$17,847.66			\$672.97	\$5,327.66	\$19,628.22		\$6,393.18	\$1,692.93	\$7,814.41
2 DESIGN DOCUMENTS	42.00	138.00	208.00	230.00	32.00		42.00	34.00	380.00			98.00	(1, 2, 3, 4, 5)
Total =	\$175,539.50	\$10,010.39	\$28,603.25	\$32,807.17	\$30,634.05	\$3,869.56	\$7,066.16	\$4,628.61	\$46,617.03			\$7,066.16	\$6,337.20
3 BUILDING SERVICES		37.00	12.00	50.00			30.00		24.00			18.00	(1, 2, 3, 4, 5)
Total =	\$25,918.45	\$7,132.76	\$1,992.72	\$6,659.58			\$5,047.28		\$2,944.23			\$1,324.91	\$917.00
4 N/A													(1, 2, 3, 4, 5)
Total =													
5 N/A													(1, 2, 3, 4, 5)
Total =													
PART A SUBTOTAL =	\$301,045.45												
B.													
1 RDM Int. (NDT)													(1, 2, 3, 4, 5)
Total =	\$49,952.00												\$49,952.00
2 ESS (Survey)													(1, 2, 3, 4, 5)
Total =	\$25,981.65												\$25,981.65
3 ESS (Geotech)													(1, 2, 3, 4, 5)
Total =	\$15,500.00												\$15,500.00
4 Concre (Estimating)													(1, 2, 3, 4, 5)
Total =	\$15,700.00												\$15,700.00
5 N/A													(1, 2, 3, 4, 5)
Total =													
PART B SUBTOTAL =	\$107,133.55												
GRAND TOTAL =	\$408,179.00												
(1) Mileage, Motel and Meals (3) Computer Services (5) Other (Identify) (2) Equipment, Materials and Supplies (4) Vendor Services													

EXHIBIT V SUMMARY

Design of Runway 2-20 Repairs

Exhibit C

Federal Provisions

FEDERAL CONTRACT PROVISIONS FOR A/E AGREEMENTS

ALL REFERENCES MADE HEREIN TO "CONTRACTOR", "BIDDER", AND "OFFEROR" SHALL PERTAIN TO THE ARCHITECT/ENGINEER (A/E). ALL REFERENCES MADE HEREIN TO "SUBCONTRACTOR" SHALL PERTAIN TO ANY AND ALL SUBCONSULTANTS UNDER CONTRACT WITH THE A/E.

ALL REFERENCES MADE HEREIN TO "SPONSOR" SHALL PERTAIN TO THE STATE, CITY, AIRPORT AUTHORITY OR OTHER PUBLIC ENTITY EXECUTING THE CONTRACT WITH THE A/E.

ACCESS TO RECORDS AND REPORTS

Reference: 2 CFR § 200.326, 2 CFR § 200.333

The contractor must maintain an acceptable cost accounting system. The contractor agrees to provide the Sponsor, the Federal Aviation Administration, and the Comptroller General of the United States or any of their duly authorized representatives access to any books, documents, papers, and records of the contractor which are directly pertinent to the specific contract for the purpose of making audit, examination, excerpts and transcriptions. The contractor 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.

CIVIL RIGHTS – GENERAL

Reference: 49 USC § 47123

The contractor agrees that it will comply with pertinent statutes, Executive Orders and such rules as are promulgated to ensure 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 binds the contractors 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.

This provision also obligates the tenant/concessionaire/lessee or its transferee for the period during which Federal assistance is extended to the airport through the Airport Improvement Program, except where Federal assistance is to provide, or is in the form of personal property; real property or interest therein; 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.

CIVIL RIGHTS – TITLE VI ASSURANCES

1) Title VI Solicitation Notice

Reference: Appendix 4 of FAA Order 1400.11, Nondiscrimination in Federally-Assisted Programs at the Federal Aviation Administration

The **(Name of Sponsor)**, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders that it will affirmatively ensure that any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award.

2) Title VI Clauses for Compliance with Nondiscrimination Requirements

Reference: Appendix A of Appendix 4 of FAA Order 1400.11, Nondiscrimination in Federally-Assisted Programs at the Federal Aviation Administration

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

- a) **Compliance with Regulations:** The contractor (hereinafter includes consultants) will comply with the **Title VI List of Pertinent Nondiscrimination Statutes and Authorities**, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
- b) **Non-discrimination:** The contractor, with regard to the work performed by it during the contract, will 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 contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR part 21.
- c) **Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor's obligations under this contract and the Acts and the Regulations relative to Non-discrimination on the grounds of race, color, or national origin.
- d) **Information and Reports:** The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will 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 to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the sponsor or the Federal Aviation Administration, as appropriate, and will set forth what efforts it has made to obtain the information.
- e) **Sanctions for Noncompliance:** In the event of a contractor's noncompliance with the Non-discrimination provisions of this contract, the sponsor will impose such contract sanctions as it or the Federal Aviation Administration may determine to be appropriate, including, but not limited to:

- i. Withholding payments to the contractor under the contract until the contractor complies; and/or
 - ii. Cancelling, terminating, or suspending a contract, in whole or in part.
- f) **Incorporation of Provisions:** The contractor will include the provisions of paragraphs a) through f) in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as the sponsor or the Federal Aviation Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the sponsor to enter into any litigation to protect the interests of the sponsor. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

3) Title VI List of Pertinent Nondiscrimination Authorities

Reference: Appendix E of Appendix 4 of FAA Order 1400.11, Nondiscrimination in Federally-Assisted Programs at the Federal Aviation Administration

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d *et seq.*, 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin);
- 49 CFR part 21 (Non-discrimination In Federally-Assisted Programs of The Department of Transportation—Effectuation of Title VI of The Civil Rights Act of 1964);
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 *et seq.*), as amended, (prohibits discrimination on the basis of disability); and 49 CFR part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 *et seq.*), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act of 1990, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131 – 12189) as implemented by Department of Transportation regulations at 49 CFR parts 37 and 38;

- The Federal Aviation Administration's Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures non-discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 et seq).

DISADVANTAGED BUSINESS ENTERPRISE

Reference: 49 CFR part 26

Contract Assurance (§ 26.13) - The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT assisted contracts. Failure by the contractor 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 contractor agrees to pay each subcontractor under this prime contract for satisfactory performance of its contract no later than thirty (30) calendar days from the receipt of each payment the prime contractor receives from the Sponsor. The prime contractor agrees further to return retainage payments to each subcontractor within thirty (30) calendar 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 Sponsor. This clause applies to both DBE and non-DBE subcontractors.

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 U.S. Department of Labor – Wage and Hour Division.

LOBBYING AND INFLUENCING FEDERAL EMPLOYEES

Reference: 49 CFR part 20, Appendix A

The bidder or offeror certifies by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

- 1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the bidder or offeror, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- 2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

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

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 U.S. Department of Labor – Occupational Safety and Health Administration.

RIGHT TO INVENTIONS

Reference: 2 CFR § 200 Appendix II(F)

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

TRADE RESTRICTION CLAUSE

Reference: 49 CFR part 30

The contractor 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 contractor or subcontractor who is unable to certify to the above. If the contractor 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 contractor 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 contractor may rely on the certification of a prospective subcontractor unless it has knowledge that the certification is erroneous.

The contractor shall provide immediate written notice to the sponsor if the contractor 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 contractor 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 contractor 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 a contractor 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.

TEXTING WHEN DRIVING

(References: Executive Order 13513, and 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.

VETERAN'S PREFERENCE

Reference: 49 USC § 47112(c)

In the employment of labor (except in executive, administrative, and supervisory positions), preference must be given to Vietnam era veterans, Persian Gulf veterans, Afghanistan-Iraq war veterans, disabled veterans, and small business concerns owned and controlled by disabled veterans as defined in Title 49 United States Code, Section 47112. However, this preference shall apply only where the individuals are available and qualified to perform the work to which the employment relates.

PROVISIONS APPLICABLE TO CONTRACTS EXCEEDING \$10,000

TERMINATION OF CONTRACT

Reference: 2 CFR § 200 Appendix II(B)

- a) 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 must 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.
- b) If the termination is for the convenience of the Sponsor, an equitable adjustment in the contract price will be made, but no amount will be allowed for anticipated profit on unperformed services.
- c) If the termination is due to failure to fulfill the contractor's obligations, the Sponsor may take over the work and prosecute the same to completion by contract or otherwise. In such case, the contractor is liable to the Sponsor for any additional cost occasioned to the Sponsor thereby.
- d) If, after notice of termination for failure to fulfill contract obligations, it is determined that the contractor had not so failed, the termination will be deemed to have been effected for the convenience of the Sponsor. In such event, adjustment in the contract price will be made as provided in paragraph 2 of this clause.
- e) 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.

PROVISIONS APPLICABLE TO CONTRACTS EXCEEDING \$25,000

DEBARMENT AND SUSPENSION (NON-PROCUREMENT)

References: 2 CFR part 180 (Subpart C), 2 CFR part 1200, DOT Order 4200.5 DOT Suspension & Debarment Procedures & Ineligibility

CERTIFICATE REGARDING DEBARMENT AND SUSPENSION (BIDDER OR OFFEROR)

By submitting a bid/proposal under this solicitation, the bidder or offeror certifies that at the time the bidder or offeror submits its proposal that neither it nor its principals are presently debarred or suspended by any Federal department or agency from participation in this transaction.

CERTIFICATION REGARDING DEBARMENT AND SUSPENSION (SUCCESSFUL BIDDER REGARDING LOWER TIER PARTICIPANTS)

The successful bidder, by administering each lower tier subcontract that exceeds \$25,000 as a "covered transaction", must verify each lower tier participant of a "covered transaction" under the project is not presently debarred or otherwise disqualified from participation in this federally assisted project. The successful bidder will accomplish this by:

1. Checking the System for Award Management at website: <https://www.sam.gov>.
2. Collecting a certification statement similar to the Certificate Regarding Debarment and Suspension (Bidder or Offeror), above.
3. Inserting a clause or condition in the covered transaction with the lower tier contract

If the FAA later determines that a lower tier participant failed to tell a higher tier that it was excluded or disqualified at the time it entered the covered transaction, the FAA may pursue any available remedy, including suspension and debarment.

PROVISIONS APPLICABLE TO CONTRACTS EXCEEDING \$100,000

BREACH OF CONTRACT TERMS

Reference 2 CFR § 200 Appendix II(A)

Any violation or breach of terms of this contract on the part of the contractor or its 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 are in addition to, and not a limitation of, any duties, obligations, rights and remedies otherwise imposed or available by law.

CLEAN AIR AND WATER POLLUTION CONTROL

References: 49 CFR § 18.36(i)(12) and 2 CFR § 200 Appendix II(G)

Contractors and subcontractors agree:

1. 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;
2. 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;
3. 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;
4. To include or cause to be included in any construction contract or subcontract which exceeds \$100,000 the aforementioned criteria and requirements.

CONTRACT WORKHOURS AND SAFETY STANDARDS ACT REQUIREMENTS

Reference: 2 CFR § 200 Appendix II (E)

1. 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.

2. 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.

3. 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.

4. 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.

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Design of Runway 2-20 Repairs

Exhibit D

Work Authorization Affidavit

NOTICE TO VENDORS
Section 285.525 – 285.550 RSMo Effective January 1,
2009

Effective January 1, 2009 and pursuant to RSMo 285.530 (1), No business entity or employer shall knowingly employ, hire for employment, or continue to employ an unauthorized alien to perform work within the state of Missouri.

As a condition for the award of any contract or grant in excess of five thousand dollars by the state or by any political subdivision of the state to a business entity, or for any business entity receiving a state administered or subsidized tax credit, tax abatement, or loan from the state, the business entity shall, by sworn affidavit and provision of documentation, affirm its enrollment and participation in a federal work authorization program with respect to the employees working in connection with the contracted services. Every such business entity shall sign an affidavit affirming that it does not knowingly employ any person who is an unauthorized alien in connection with the contracted services. [RSMO 285.530 (2)]

An employer may enroll and participate in a federal work authorization program and shall verify the employment eligibility of every employee in the employer's hire whose employment commences after the employer enrolls in a federal work authorization program. The employer shall retain a copy of the dated verification report received from the federal government. Any business entity that participates in such program shall have an affirmative defense that such business entity has not violated subsection 1 of this section. [RSMO 285.530 (4)]

For vendors that are not already enrolled and participating in a federal work authorization program, E-Verify is an example of this type of program. Information regarding E-Verify is available at:
http://www.dhs.gov/xprevprot/programs/gc_1185221678150.shtm.

CITY OF COLUMBIA, MISSOURI
WORK AUTHORIZATION AFFIDAVIT
PURSUANT TO 285.530 RSMo
(FOR ALL BIDS IN EXCESS OF \$5,000.00)

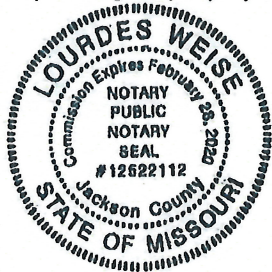
Effective 1/1/2009

County of Jackson)
) ss.
State of Missouri)

My name is Kathy Newman. I am an authorized agent of Burns & McDonnell Eng (Bidder). This business is enrolled and participates in a federal work authorization program for all employees working in connection with services provided to the City of Columbia. This business does not knowingly employ any person who is an unauthorized alien in connection with the services being provided.

Documentation of participation in a federal work authorization program is attached to this affidavit.

Furthermore, all subcontractors working on this contract shall affirmatively state in writing in their contracts that they are not in violation of Section 285.530.1 RSMo and shall not thereafter be in violation. Alternatively, a subcontractor may submit a sworn affidavit under penalty of perjury that all employees are lawfully present in the United States.



Kathy Newman

Affiant

Kathy Newman

Printed Name

Subscribed and sworn to before me this 19th day of January, 2018.

Lourdes Weis

Notary Public

EXHIBIT "E"
8/28/2018
SCOPE OF BASIC SERVICES
FOR
THE PROPOSED RELOCATE WIND MEASURING EQUIPMENT
AT
COLUMBIA REGIONAL AIRPORT

A. PROJECT NAME:

1. **Project Name:** Design and Construction Services for the Relocate Wind Measuring Equipment at the Columbia Regional Airport (COU) in Columbia, Missouri. This work, as requested by the Federal Aviation Administration (FAA), will be a supplemental agreement to the Runway 2-20 Pavement Repairs project AIP 3-29-0022-046.
2. **Description of Improvements:** The proposed improvements footprint is shown on EXHIBIT 1. The description of planned improvements is described herein as follows:
 - a. Runway Visibility Zone (RVZ) Grading in the vicinity of existing Wind Measuring Equipment (WME).
 - b. Remove existing WME and demolish foundation.
 - c. Install existing equipment on a new foundation.
 - d. Install new underground control cables, conduits and handholes associated with relocation of the system.
 - e. Install new Equipment Rack.

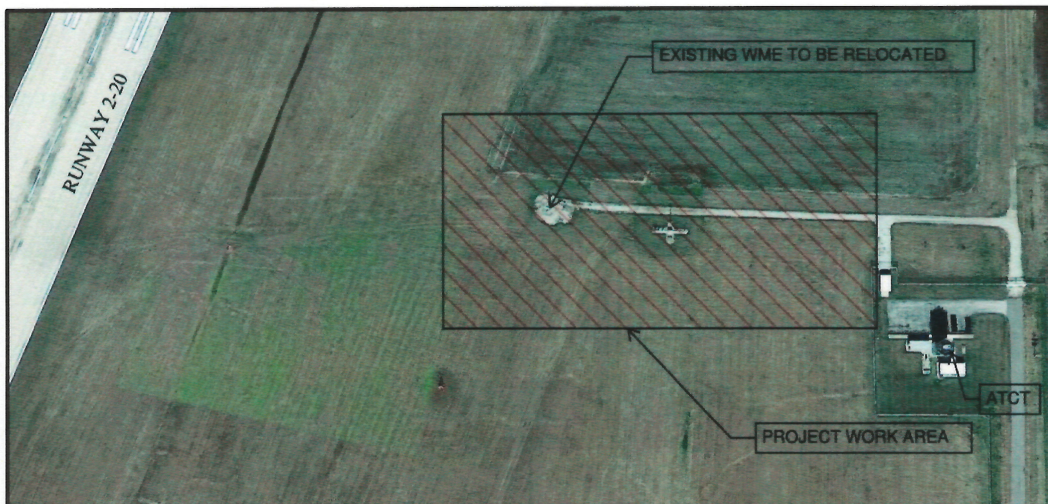


EXHIBIT 1

B. DESCRIPTION OF SERVICES TO BE PERFORMED

ENGINEER has developed the following Scope of Services to perform engineering services for the aforementioned project. The Scope of Services is defined as follows:

1. Preliminary Design Phase: This phase includes activities for defining the scope of the project and establishing preliminary requirements. The elements of work for this task include:
 - a. Perform onsite visual observations to determine the extent of the improvements for the RVZ Grading and relocation of the existing WME. Attendees for the ENGINEER include Senior Civil Engineer and Senior Electrical Engineer.
 - b. Gather documentation, identify FAA (Airports Division and Technical Operations Division) requirements, and identify potential concerns.
 - c. Meeting with Owner, FAA Tech Ops, FAA Airport Division at the FAA Central Region office.
 - d. Prepare and submit FAA forms 7460-1. Anticipate submittals for construction work areas, staging areas, haul routes, and construction phasing scenarios.

2. Design Phase: This phase will include the activities required to develop the project design documents showing the character and scope of work to be performed by Contractors on the project. The design of this project is based on the FAA Standards contained on the list found at <https://www.faa.gov/airports/aip/media/aip-pfc-checklist.pdf>.

The specific tasks that will be performed in this phase include:

- a. Prepare construction Documents. The anticipated drawing list may include the following:
 1. Cover Sheet (ENGINEER Creates)
 2. Electrical Legend (ENGINEER Creates)
 3. Demolition Plan (ENGINEER Creates)
 4. Grading & Drainage Plan (ENGINEER Creates)
 5. Communications Site Plan (ENGINEER Creates)
 6. Surface Weather System (SWS) Site Plan (FAA-provided to be site adapted by ENGINEER)
 7. Surface Weather System (SWS) Foundation Details (FAA-provided to be site adapted by ENGINEER)
 8. Surface Weather System (SWS) Tower Assembly Details (FAA-provided to be site adapted by ENGINEER)
 9. Surface Weather System (SWS) Manhole Details – Sheet 1 (FAA-provided to be site adapted by ENGINEER)
 10. Surface Weather System (SWS) Manhole Details – Sheet 2 (FAA-provided to be site adapted by ENGINEER)
 11. Surface Weather System (SWS) Underground ducts (FAA-provided to be site adapted by ENGINEER)

12. Surface Weather System (SWS) Electrical and Grounding Details (FAA-provided to be site adapted by ENGINEER)
 13. Surface Weather System (SWS) Equipment Rack (FAA-provided to be site adapted by ENGINEER)
 14. Miscellaneous Details (ENGINEER Creates)
- b. Prepare project technical specifications. Project technical specifications to be provided by the FAA in Word format and modified by the ENGINEER for the requirements of this project.
 - c. Prepare Engineer's Estimate of probable cost.
 - d. Perform an internal Quality Review by the designers of the project.
 - e. Perform an internal Quality Review by the designated independent senior level review team.
 - f. Revise drawings and specifications per internal Quality Review comments.
 - g. Respond to Sponsor and FAA Reviews: Submitted electronic documents will include Technical Specifications and Contract Drawings for the following submittals:
 1. 50% Review.
 2. 90% Review.
 3. 100% Review.
3. Bidding & Construction Award Phase: Bidding & Construction Award Phase Services are not provided in this Scope of Work as it is understood this work will be issued as a Change Order to an existing construction contract – Runway 2-20 Pavement Repairs AIP 3-29-0022-046.
 4. Construction Phase Services: The project duration for the Runway 2-20 Pavement Repairs project as-bid is 85 calendar days. The number of additional calendar days to be added at the end of the as-bid 85 calendar days of the existing contract for this additional work has not yet been determined. However, the preliminary estimated additional days on site (not including material and procurement time) for the Wind Measuring Equipment work is 10 additional working days.

The tasks that will be performed in this phase include:

- a. Construction Administration Services – Office Staff:
 1. Perform shop drawing reviews, material certifications and “Buy American” verifications as received from the Contractor. The Consultant estimates 3 original shop drawings will be reviewed. It is assumed 33% of the initial submittals will need to be resubmitted by the contractor and re-reviewed by the Consultant. It is assumed 4-hours per review (includes administrative processing). As a result, 4 shop drawings are estimated for a total of 16 hours.
 2. Respond to field issues throughout the duration of the project (approximately 2 weeks). It is assumed this effort will require 10 hours per week for 2 weeks equating to 20 hours.

3. Coordinate and review weekly progress reports (field diaries, weather reports, DBE reports, labor report and equipment reports) as received from the Resident Representative.
4. Coordinate and review weekly test reports.
5. Project Management: This effort is assumed to require 5 hours per week for a project duration of approximately 2 weeks for a not to exceed total of 10 hours.

b. Construction Administration Services – Field Staff:

1. Provide a Senior Resident Representative, (SRR) on site for 10 working days for 10 hours per day for a duration of 100 hours. The SSR will be responsible for the following reporting:
 - i. Weekly Reports on FAA Form 5370-1: Tests reports including types of tests taken, applicable standards, location of tests, tests results (highlighting those tests which fail specification requirements), provisions for failed tests, and specification requirements shall be recorded and filed in a timely and orderly manner and shall be made available for review by the Sponsor and the FAA. A photo log showing the progress of the project will also be included. The weekly Reports will be submitted on a weekly basis to the Sponsor and the FAA.
 - ii. Final Report: At the conclusion of the project, the Consultant shall submit a final test and quality control report documenting the results of all tests performed. Those tests that failed or did not meet the applicable test standard shall be highlighted and corrective action/retesting noted. The reports shall include the pay reductions applied and justification of accepting any out-of-tolerance materials.
 - iii. Wage Rate Interviews and DBE Compliance Reports: These reports will be conducted on a random basis as work progresses throughout the duration of the project.

c. Subconsultant Material Testing. The Consultant will provide, through the services of a certified and accredited material testing laboratory, all quality assurance testing in accordance with the Contract Documents.

c. **ESTIMATED TIME OF COMPLETION:**

1. The time to complete the Scope of Services for Items identified in B.1. and B.2 of this Scope of Work is estimated at thirty (30) calendar days from the Notice to Proceed (NTP) for the 50% submittal. It is assumed that the FAA will have a twenty-one (21) calendar day review period for the review of the 50% submittal.
2. The time to respond to the FAA 50% comments and submit the 90% submittal is estimated at sixty (60) calendar days from the receipt of the FAA 50% comments. It is assumed that the FAA will have a forty-five (45) calendar day review period for the review of the 90% submittal.

3. The time to respond to the FAA 90% comments and submit the 100% submittal is estimated at twenty-one (21) calendar days from the receipt of the FAA 90% comments. It is assumed that the FAA will have a twenty-one (21) calendar day review period for the review of the 90% submittal.
4. The time to respond to the 100% comments and prepare the final sealed drawing is estimated at fourteen (14) calendar days from the receipt of the 100% comments.
5. Table A identifies the estimated schedule to complete the Scope of Services for items identified in B.1-B.2 of this Scope of Work.

TABLE A

Item		Duration (Calendar Days)
50% Submittal	Preliminary Design and Design Phase	30 Days from the Notice to Proceed date
90% Submittal		60 Days from Receipt of FAA 50% Comments
100% Submittal		21 Days from Receipt of FAA 90% Comments
Final Sealed Submittal		14 Days from Receipt of FAA 100% Comments
Calendar Days to be added to 85 Calendar Day Contract	Construction Phase Services	Additional working days on site estimated at 10 days as stated in this Scope of Services.

END OF SCOPE OF BASIC SERVICES

SUMMARY EXHIBIT F-1

DERIVATION OF CONSULTANT PROJECT COSTS

SUMMARY OF COSTS

Columbia Regional Airport

Relocate Wind Measuring Equipment Design & Construction Phase Services

Columbia, Missouri

BASIC & SPECIAL SERVICES

August 28, 2018

1 DIRECT SALARY COSTS

TITLE	HOURS	RATE/HR	COST (\$)	
			Office	Field
Principal	4.00	\$ 68.00	\$ 272.00	\$ -
Project Manager	19.00	\$ 54.30	\$ 1,031.70	\$ -
Sr. Civil Eng.	35.00	\$ 45.00	\$ 1,575.00	\$ -
Staff Civil Eng.	3.00	\$ 39.00	\$ 117.00	\$ -
Sr. Electrical Eng.	58.00	\$ 54.00	\$ 3,132.00	\$ -
Staff Electrical Eng.	46.00	\$ 38.00	\$ 1,748.00	\$ -
Structural Engineer	32.00	\$ 55.00	\$ 1,760.00	\$ -
Sr. Tech	107.00	\$ 35.00	\$ 3,745.00	\$ -
Clerical	18.00	\$ 21.00	\$ 378.00	\$ -
Principal	2.00	\$ 68.00	\$ -	\$ 136.00
Project Manager	11.00	\$ 54.30	\$ -	\$ 597.30
Sr. Civil Eng.	6.00	\$ 45.00	\$ -	\$ 270.00
Sr. Electrical Eng.	21.00	\$ 54.00	\$ -	\$ 1,134.00
Staff Electrical Eng.	5.00	\$ 38.00	\$ -	\$ 190.00
Resident Observer	100.00	\$ 57.50	\$ -	\$ 5,750.00
Clerical	7.00	\$ 21.00	\$ -	\$ 147.00
Total Hours	474.00			
Total Direct Salary Costs			\$ 13,758.70	\$ 8,224.30

2 LABOR & GENERAL ADMINISTRATIVE OVERHEAD

Percentage of Direct Salary Cost: (Office Rate)	221.95%	\$ 30,537.43	
Percentage of Direct Salary Cost: (Field Rate)	221.95%		\$ 18,253.83

3 SUBTOTAL

Summary of Items No. 1 and No. 2:		\$ 44,296.13	\$ 26,478.13
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4 FIXED FEE

Percentage:	10.00%	\$ 4,429.61	\$ 2,647.81
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5 SUBTOTAL

Summary of Items No. 1, No. 2 & No. 4:		\$ 48,725.75	\$ 29,125.95
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SUMMARY EXHIBIT F-1

DERIVATION OF CONSULTANT PROJECT COSTS

SUMMARY OF COSTS

Columbia Regional Airport

Relocate Wind Measuring Equipment Design & Construction Phase Services

Columbia, Missouri

BASIC & SPECIAL SERVICES

August 28, 2018

6 OUT OF POCKET EXPENSES

OFFICE & FIELD	No. of Units	Units	Cost/Unit			
Travel: Mileage	330.00	Miles	\$ 0.545	\$	179.85	
Food: Per Day	2.00	Per Day	\$ 51.00	\$	102.00	
Lodging: Per Diem	0.00	Per Day	\$ 104.13	\$	-	
Rental Vehicle	0.00	Per day	\$ 65.00	\$	-	
Airline	0.00	Each	\$ 0.00	\$	-	
Printing, Shipping & Misc.				\$	255.40	
Subtotal				\$	537.25	\$ -

FIELD	No. of Units	Units	Cost/Unit			
Travel: Mileage	950.00	Miles	\$ 0.545		\$	517.75
Food: Per Day	10.00	Per Day	\$ 51.00		\$	510.00
Lodging: Per Diem	10.00	Per Day	\$ 104.13		\$	1,041.30
Rental Vehicle	0.00	Per day	\$ 65.00		\$	-
Airline	0.00	Each	\$ 0.00		\$	-
Printing, Shipping & Misc.					\$	50.00
Subtotal				\$	-	\$ 2,119.05

Summary of Out of Pocket Expenses: \$ 537.25 \$ 2,119.05

7 SUBCONSULTANTS

Material Testing: ESS				\$	-	\$ 2,000.00
Subtotal				\$	-	\$ 2,000.00

8 MAXIMUM TOTAL FEE

Subtotal				\$	49,263.00	\$ 33,245.00
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TOTAL	\$	82,508.00
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SUMMARY ATTACHMENT F-2
 DERIVATION OF CONSULTANT PROJECT COSTS
 SUMMARY OF COSTS
 Columbia Regional Airport
 Relocate Wind Measuring Equipment Design and Construction Phase Services
 Columbia, Missouri
 BASIC AND SPECIAL SERVICES
 August 28, 2018

			Principal	Project Manager	Sr. Civil Eng.	Staff Civil Eng.	Sr. Electrical Eng.	Staff Electrical Eng.
Gross Hourly Rates			\$ 240.82	\$ 192.30	\$ 159.37	\$ 138.12	\$ 191.24	\$ 134.58
BASIC SERVICES								
Total =	1	Preliminary Design:	0.0	5.0	21.0	0.0	13.0	4.0
		\$ 9,190.37	\$ -	\$ 961.50	\$ 3,346.67	\$ -	\$ 2,486.10	\$ 538.30
Total =	2	Design Services	4.0	14.0	14.0	3.0	45.0	42.0
		\$ 40,072.64	\$ 963.27	\$ 2,692.21	\$ 2,231.11	\$ 414.35	\$ 8,605.72	\$ 5,652.15
PART A SUBTOTAL			\$ 49,263.00					
SPECIAL SERVICES								
Total =	1	Construction Administration (Office)	0.0	0.0	0.0	0.0	0.0	0.0
		\$ 8,762.61	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total =	2	Construction Phase Services (Field)	0.0	0.0	0.0	0.0	0.0	0.0
		\$ 22,482.39	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total =	3	Material Testing: ESS	0.0	0.0	0.0	0.0	0.0	0.0
		\$ 2,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
PART B SUBTOTAL			\$ 33,245.00					
PART A & PART B TOTAL			\$ 82,508.00					

SUMMARY ATTACHMENT F-2
 DERIVATION OF CONSULTANT PROJECT COSTS
 SUMMARY OF COSTS
 Columbia Regional Airport
 Relocate Wind Measuring Equipment Design and Construction Phase Services
 Columbia, Missouri
 BASIC AND SPECIAL SERVICES
 August 28, 2018

			Structural Engineer	Sr. Tech	Clerical	Principal	Project Manager	Sr. Civil Eng.
Gross Hourly Rates			\$ 194.78	\$ 123.95	\$ 74.37	\$ 240.82	\$ 192.30	\$ 159.37
BASIC SERVICES								
Total =	1	Preliminary Design:	3.0	8.0	0.0	0.0	0.0	0.0
		\$ 9,190.37	\$ 584.34	\$ 991.61	\$ -	\$ -	\$ -	\$ -
Total =	2	Design Services	29.0	99.0	18.0	0.0	0.0	0.0
		\$ 40,072.64	\$ 5,648.61	\$ 12,271.12	\$ 1,338.67	\$ -	\$ -	\$ -
PART A SUBTOTAL								
SPECIAL SERVICES								
Total =	1	Construction Administration (Office)	0.0	0.0	0.0	2.0	11.0	6.0
		\$ 8,762.61	\$ -	\$ -	\$ -	\$ 481.64	\$ 2,115.31	\$ 956.19
Total =	2	Construction Phase Services (Field)	0.0	0.0	0.0	0.0	0.0	0.0
		\$ 22,482.39	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total =	3	Material Testing: ESS	0.0	0.0	0.0	0.0	0.0	0.0
		\$ 2,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
PART B SUBTOTAL								
PART A & PART B TOTAL								

SUMMARY ATTACHMENT F-2
 DERIVATION OF CONSULTANT PROJECT COSTS
 SUMMARY OF COSTS
 Columbia Regional Airport
 Relocate Wind Measuring Equipment Design and Construction Phase Services
 Columbia, Missouri
 BASIC AND SPECIAL SERVICES
 August 28, 2018

			Sr. Electrical Eng.	Staff Electrical Eng.	Resident Observer	Clerical	Other Costs
Gross Hourly Rates			\$ 191.24	\$ 134.58	\$ 203.63	\$ 74.37	
BASIC SERVICES							
Total =	1	Preliminary Design:	0.0	0.0	0.0	0.0	Sum: (1, 2, 3, 4, & 5)
		\$ 9,190.37	\$ -	\$ -	\$ -	\$ -	\$ 281.85
Total =	2	Design Services	0.0	0.0	0.0	0.0	Sum: (1, 2, 3, 4, & 5)
		\$ 40,072.64	\$ -	\$ -	\$ -	\$ -	\$ 255.40
PART A SUBTOTAL							
SPECIAL SERVICES							
Total =	1	Construction Administration (Office)	21.0	5.0	0.0	7.0	Sum: (1, 2, 3, 4, & 5)
		\$ 8,762.61	\$ 4,016.00	\$ 672.88	\$ -	\$ 520.59	\$ -
Total =	2	Construction Phase Services (Field)	0.0	0.0	100.0	0.0	Sum: (1, 2, 3, 4, & 5)
		\$ 22,482.39	\$ -	\$ -	\$ 20,363.34	\$ -	\$ 2,119.05
Total =	3	Material Testing: ESS	0.0	0.0	0.0	0.0	Sum: (1, 2, 3, 4, & 5)
		\$ 2,000.00	\$ -	\$ -	\$ -	\$ -	\$ 2,000.00
PART B SUBTOTAL							
PART A & PART B TOTAL							