Airport Name: Joplin Regional
Project No.: 3-29-0037-xx
County: Jasper

AVIATION PROJECT CONSULTANT AGREEMENT
(FEDERAL ASSISTANCE)
(Revision 04/11/2018)

THIS AGREEMENT is entered into by Crawford Murphy and Tilly (hereinafter) the "Consultant"), and the City of Joplin, MO, (hereinafter the "Sponsor").

WITNESSETH:

WHEREAS, the Sponsor has selected the Consultant to perform professional services to accomplish a project at the Joplin Regional Airport; and

WHEREAS, the Federal Aviation Administration (FAA) is not a party to this Agreement, FAA land acquisition, environmental, planning, design, and construction criteria, and other requirements will be utilized unless specifically approved otherwise by the FAA; and

WHEREAS, the Sponsor intends to accomplish a project at the Joplin Regional Airport as listed in Exhibit I of this Agreement, entitled "Project Description", which is attached hereto and made a part of this Agreement.

NOW, THEREFORE, in consideration of the payments to be made and the covenants set forth in this Agreement to be performed by the Sponsor, the Consultant hereby agrees that it shall faithfully perform the professional services called for by this Agreement in the manner and under the conditions described in this Agreement.

(1) DEFINITIONS: The following definitions apply to these terms, as used in this Agreement:

(A) "SPONSOR" means the owner of the airport referenced above.

(B) “SPONSOR’S REPRESENTATIVE” means the person or persons designated in Section (23)(A) of this agreement by the Sponsor to represent the Sponsor in negotiations, communications, and various other contract administration dealings with the Consultant.

(C) Not Used.

(D) "CONSULTANT" means the firm providing professional services to the Sponsor as a party to this Agreement.

(E) "CONSULTANT'S REPRESENTATIVE" means the person or persons designated in Section (23)(B) of this agreement by the Consultant to represent that firm in negotiations, communications, and various other contract administration dealings with the Sponsor.

(F) "DELIVERABLES" means all drawings and documents prepared in performance of this Agreement, to be delivered to and become the property of the Sponsor pursuant to the terms and conditions set out in Section (12) of this Agreement.

(G) "DISADVANTAGED BUSINESS ENTERPRISE (DBE)" means an entity owned and controlled by a socially and economically disadvantaged individual as defined in 49 Code of Federal Regulations (CFR) Part 26, which is certified as a DBE firm in Missouri by MoDOT. Appropriate businesses owned and controlled by women are included in this definition.

(H) "FAA" means the Federal Aviation Administration within the United States Department of Transportation (USDOT), headquartered at Washington, D.C., which acts through its authorized representatives.

(I) "INTELLECTUAL PROPERTY" consists of copyrights, patents, and any other form of intellectual property rights covering any data bases, software, inventions, training manuals, systems design or other proprietary information in any form or medium.

(J) "SUBCONSULTANT" means any individual, partnership, corporation, or joint venture to which the Consultant, with the written consent of the Sponsor, subcontracts any part of the professional services under this Agreement but shall not include those entities which supply only materials or supplies to the Consultant.

(K) "SUSPEND" the services means that the services as contemplated herein shall be stopped on a temporary basis. This stoppage will continue until the Sponsor either decides to terminate the project or reactivate the services under the conditions then existing.

(L) "TERMINATE", in the context of this Agreement, means the cessation or quitting of this Agreement based upon the action or inaction of the Consultant, or the unilateral cancellation of this Agreement by the Sponsor.

(M) "USDOT" means the United States Department of Transportation, headquartered at Washington, D.C., which acts through its authorized representatives.

(N) "SERVICES" includes all professional engineering and related services and the furnishing of all equipment, supplies, and materials in conjunction with such services as are required to achieve the broad purposes and general objectives of this Agreement.

(2) SCOPE OF SERVICES:

(A) The services covered by this Agreement shall include furnishing the professional, technical, and other personnel and the equipment, material and all other things necessary to accomplish the proposed project detailed in Exhibit I of this Agreement.

(B) The specific services to be provided by the Consultant are set forth in Exhibit II of this Agreement, entitled "Scope of Services," which is attached hereto and made a part of this Agreement.

(3) ADDITIONAL SERVICES: The Sponsor reserves the right to direct additional services not described in Exhibit II as changed or unforeseen conditions may require. Such direction by the Sponsor shall not be a breach of this Agreement. In this event, a Supplemental Agreement will be negotiated and executed prior to the Consultant performing the additional or changed services, or incurring any additional cost for those additional services. Any changes in the maximum compensation and fee, or time and schedule of completion, will be covered in the Supplemental Agreement. Supplemental Agreements must be approved by FAA to ensure additional funding is available.

(4) INFORMATION AND SERVICES PROVIDED BY THE SPONSOR:

(A) At no cost to the Consultant and in a timely manner, the Sponsor will provide available information of record which is pertinent to this project to the Consultant upon request. In addition, the Sponsor will provide the Consultant with the specific items or services set forth in Exhibit III of this Agreement, entitled "Services Provided by the Sponsor", which is attached hereto and made a part of this Agreement. The Consultant shall be entitled to rely upon the accuracy and completeness of such information, and the Consultant may use such information in performing services under this Agreement.

(B) The Consultant shall review the information provided by the Sponsor and will as expeditiously as possible advise the Sponsor of any of that information which the Consultant believes is inaccurate or inadequate or would otherwise have an effect on its design or any of its other activities under this Agreement. In such case, the Consultant shall provide new or verified data or information as necessary to meet the standards required under this Agreement. Any additional work required of the Consultant as the result of inaccurate or inadequate information provided by the Sponsor will be addressed per the provisions of Section (3) of this Agreement. The Consultant shall not be liable for any errors, omissions, or deficiencies resulting from inaccurate or inadequate information furnished by the Sponsor which inaccuracies or inadequacies are not detected by the Consultant, unless the errors should have been detected by the Consultant through reasonable diligence.

(5) RESPONSIBILITY OF THE CONSULTANT:

(A) The Consultant shall comply with applicable local, state and federal laws and regulations governing these services, as published and in effect on the date of this Agreement. The Consultant shall provide the services in accordance with the criteria

and requirements established and adopted by the Sponsor; and if none are expressly established in this Agreement, published manuals and policies of FAA which shall be furnished by the Sponsor upon request; and, absent the foregoing, manuals and policies of the FAA, as published and in effect on the date of this Agreement.

(B) Without limiting the foregoing, land acquisition, environmental, planning, design and construction criteria will be in accordance with the information set out in Exhibit II of this Agreement.

(C) The Consultant shall be responsible for the professional quality, technical accuracy, and the coordination of designs, drawings, specifications, and other services furnished under this Agreement. At any time during construction of the Sponsor project associated with this Agreement or during any phase of work performed by others on said project that is based upon data, plans, designs, or specifications provided by the Consultant, the Consultant shall prepare any data, plans, designs, or specifications needed to correct any negligent acts, errors, or omissions of the Consultant or anyone for whom it is legally responsible in failing to comply with the foregoing standard. The services necessary to correct such negligent acts, errors, or omissions shall be performed without additional compensation, even though final payment may have been received by the Consultant. The Consultant shall provide such services as expeditiously as is consistent with professional performance. Acceptance of the services will not relieve the Consultant of the responsibility to correct such negligent acts, errors, or omissions.

(D) Completed design reports, plans and specifications, plans and specifications submitted for review by permit authorities, and plans and specifications issued for construction shall be signed, sealed, and dated by a Professional Engineer registered in the State of Missouri. Incomplete or preliminary plans or other documents, when submitted for review by others, shall not be sealed, but the name of the responsible engineer, along with the engineer's Missouri registration number, shall be indicated on the design report, plans and specifications or included in the transmittal document. In addition, the phrase "Preliminary - Not for Construction," or similar language, shall be placed on the incomplete or preliminary plan(s) in an obvious location where it can readily be found, easily read, and not obscured by other markings, as a disclosure to others that the design report, plans and specifications are incomplete or preliminary. When the design report, plans and specifications are completed, the phrase "Preliminary - Not for Construction" or similar language shall be removed and the design report, plans and specifications shall thereupon be sealed.

(E) The Consultant shall cooperate fully with the Sponsor’s activities on adjacent projects as may be directed by the Sponsor. This shall include attendance at meetings, discussions, and hearings as requested by the Sponsor. The minimum number and location of meetings shall be defined in Exhibit II.

(F) In the event any lawsuit or court proceeding of any kind is brought against the Sponsor, arising out of or relating to the Consultant's activities or services performed under this Agreement or any project of construction undertaken employing the deliverables provided by the Consultant in performing this Agreement, the Consultant

shall have the affirmative duty to assist the Sponsor in preparing the Sponsor's defense, including, but not limited to, production of documents, trials, depositions, or court testimony. Any assistance given to the Sponsor by the Consultant will be compensated at an amount or rate negotiated between the Sponsor and the Consultant as will be identified in a separate agreement between the Sponsor and the Consultant. To the extent the assistance given to the Sponsor by the Consultant was necessary for the Sponsor to defend claims and liability due to the Consultant's negligent acts, errors, or omissions, the compensation paid by the Sponsor to the Consultant will be reimbursed to the Sponsor.

(6) NO SOLICITATION WARRANTY: The Consultant warrants that it has not employed or retained any company or person, other than a bona fide employee working for the Consultant, to solicit or secure this Agreement, and that it has not paid or agreed to pay any company or person, other than a bona fide employee, any fee, commission, percentage, brokerage fee, gifts, or any other consideration, contingent upon or resulting from the award or making of this Agreement. For breach or violation of this warranty, the Sponsor will have the right to terminate this Agreement without liability, or at its discretion, to deduct from the Agreement price or consideration, or otherwise recover, the full amount of such fee, commission, percentage, brokerage fee, gifts, or contingent fee, plus costs of collection including reasonable attorney's fees.

(7) DISADVANTAGED BUSINESS ENTERPRISE (DBE) REQUIREMENTS:

(A) DBE Goal: The following DBE goal has been established for this Agreement. The dollar value of services and related equipment, supplies, and materials used in furtherance thereof which is credited toward this goal will be based on the amount actually paid to DBE firms. The goal for the percentage of services to be awarded to DBE firms is 0% of the total Agreement dollar value.

(B) Eligibility of DBE's: Only those firms currently certified as DBE's by MoDOT, City of St. Louis/Lambert Airport Authority, Metro, City of Kansas City, and Kansas City Area Transportation Authority are eligible to participate as DBEs on this contract. A list of these firms is available on MoDOT's Office of External Civil Rights webpage at the following address under the MRCC DBE Directory:

http://www.modot.org/business/contractor_resources/External_Civil_Rights/DBE_program.htm

(C) Consultant's Certification Regarding DBE Participation: The Consultant's signature on this Agreement constitutes the execution of all DBE certifications which are a part of this Agreement. The Consultant shall not discriminate on the basis of race, color, national origin, or sex in the performance of this Agreement. The Consultant shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT assisted contracts. Failure by the Consultant to carry out these requirements is a material breach of this Agreement, which may result in the termination of this Agreement or such other remedy as the Sponsor deems appropriate, which may include, but is not limited to: withholding monthly progress payments; assessing

sanctions; liquidated damages; and/or disqualifying the Consultant from future bidding as non-responsible.

1. Policy: It is the policy of the USDOT and the Sponsor that businesses owned by socially and economically disadvantaged individuals (DBEs) as defined in 49 CFR Part 26 have the maximum opportunity to participate in the performance of contracts financed in whole or in part with federal funds. Thus, the requirements of 49 CFR Part 26 apply to this Agreement.

2. Obligation of the Consultant to DBEs: The Consultant agrees to assure that DBEs have the maximum opportunity to participate in the performance of this Agreement and any subconsultant agreement financed in whole or in part with federal funds. In this regard the Consultant shall take all necessary and reasonable steps to assure that DBEs have the maximum opportunity to compete for and perform services. The Consultant shall not discriminate on the basis of race, color, religion, creed, disability, sex, age, or national origin in the performance of this Agreement or in the award of any subsequent subconsultant agreement. The Consultant shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of USDOT assisted agreements and contracts. Failure by the Consultant to carry out these requirements is a material breach of this Agreement, which may result in the termination of this Agreement or such other remedy, as the recipient deems appropriate.

3. Geographic Area for Solicitation of DBEs: The Consultant shall seek DBEs in the same geographic area in which the solicitation for other Subconsultants is made. If the Consultant cannot meet the DBE goal using DBEs from that geographic area, the Consultant shall, as a part of the effort to meet the goal, expand the search to a reasonably wider geographic area.

4. Determination of Participation Toward Meeting the DBE Goal: DBE participation shall be counted toward meeting the goal as follows:

A. Once a firm is determined to be a certified DBE, the total dollar value of the subconsultant agreement awarded to that DBE is counted toward the DBE goal set forth above.

B. The Consultant may count toward the DBE goal a portion of the total dollar value of a subconsultant agreement with a joint venture eligible under the DBE standards equal to the percentage of the ownership and control of the DBE partner in the joint venture.

C. The Consultant may count toward the DBE goal expenditures to DBEs who perform a commercially useful function in the completion of services required in this Agreement. A DBE is considered to perform a commercially useful function when the DBE is responsible for the execution of a distinct element of the services specified in the Agreement and the carrying out of those responsibilities by actually performing, managing and supervising the services involved and providing the desired product.

D. A Consultant may count toward the DBE goal its expenditures to DBE firms consisting of fees or commissions charged for providing a bona fide service, such as professional, technical, consultant, or managerial services and assistance in the procurement of essential personnel, facilities, equipment, materials or supplies required for the performance of this Agreement, provided that the fee or commission is determined by the Sponsor to be reasonable and not excessive as compared with fees customarily allowed for similar services.

E. The Consultant is encouraged to use the services of banks owned and controlled by socially and economically disadvantaged individuals.

5. Replacement of DBE Subconsultants: The Consultant shall make good faith efforts to replace a DBE Subconsultant who is unable to perform satisfactorily with another DBE Subconsultant. Replacement firms must be approved by the Sponsor and FAA.

6. Verification of DBE Participation: Prior to the release of the retained percentage by the Sponsor, the Consultant shall file a list with the Sponsor showing the DBEs used and the services performed. The list shall show the actual dollar amount paid to each DBE that is applicable to the percentage participation established in this Agreement. Failure on the part of the Consultant to achieve the DBE participation specified in this Agreement may result in sanctions being imposed on the Sponsor for noncompliance with 49 CFR Part 26. If the total DBE participation is less than the goal amount stated by the Sponsor, the Sponsor may sustain damages, the exact extent of which would be difficult or impossible to ascertain. Therefore, in order to liquidate such damages, the monetary difference between the amount of the DBE goal dollar amount and the amount actually paid to the DBEs for performing a commercially useful function will be deducted from the Consultant's payments as liquidated damages. If this Agreement is awarded with less than the goal amount stated above by the Sponsor, that lesser amount shall become the goal amount and shall be used to determine liquidated damages. No such deduction will be made when, for reasons beyond the control of the Consultant, the DBE goal amount is not met.

7. Documentation of Good Faith Efforts to Meet the DBE Goal: The Agreement goal established by the Sponsor is stated above in Subsection (7)(A). The Consultant must document the good faith efforts it made to achieve that DBE goal, if the agreed percentage specified in Subsection (7)(C)(8) below is less than the percentage stated in Subsection (7)(A). Good faith efforts to meet this DBE goal amount may include such items as, but are not limited to, the following:

A. Attended a meeting scheduled by the Sponsor to inform DBEs of contracting or consulting opportunities.

B. Advertised in general circulation trade association and socially and economically disadvantaged business directed media concerning DBE

subcontracting opportunities.

C. Provided written notices to a reasonable number of specific DBEs that their interest in a subconsultant agreement is solicited in sufficient time to allow the DBEs to participate effectively.

D. Followed up on initial solicitations of interest by contacting DBEs to determine with certainty whether the DBEs were interested in subconsulting work for this Agreement.

E. Selected portions of the services to be performed by DBEs in order to increase the likelihood of meeting the DBE goal (including, where appropriate, breaking down subconsultant agreements into economically feasible units to facilitate DBE participation).

F. Provided interested DBEs with adequate information about plans, specifications and requirements of this Agreement.

G. Negotiated in good faith with interested DBEs, and did not reject DBEs as unqualified without sound reasons based on a thorough investigation of their capabilities.

H. Made efforts to assist interested DBEs in obtaining any bonding, lines of credit or insurance required by the Sponsor or by the Consultant.

I. Made effective use of the services of available disadvantaged business organizations, minority contractors' groups, disadvantaged business assistance offices, and other organizations that provide assistance in the recruitment and placement of DBE firms.

8. DBE Participation Obtained by Consultant: The Consultant has obtained DBE participation and agrees to use DBE firms to complete at least 0% of the total services to be performed under this Agreement, by dollar value. All DBE firms which the Consultant intends to use, including DBE firm participation above and beyond the goal established in Subsection (7)(A), and the type and dollar value of the services each DBE will perform, is as follows:

(A) DBE NAME AND ADDRESS	(B) TYPE OF DBE SERVICE	(C) DOLLAR VALUE OF DBE SUB-CONTRA	(D) PERCENT APPLICABLE TO DBE GOAL	(E) DOLLAR AMOUNT APPLICABLE TO DBE GOAL	(F) PERCENT OF TOTAL CONTRACT (C / TOTAL CONTRACT AMOUNT)
TOTAL DBE PARTICIPATION N/A				$0.00	0%

9. Good Faith Efforts to Obtain DBE Participation: If the Consultant's agreed DBE goal amount as specified in Subsection (7)(C)(8) is less than the Sponsor's DBE goal given in Subsection (7)(A), then the Consultant certifies good faith efforts were taken by Consultant in an attempt to obtain the level of DBE participation set by the Sponsor in Subsection (7)(A). Documentation of the Consultant's good faith efforts is to be submitted with this Agreement to the Sponsor and a copy submitted to FAA.

(8) SUBCONSULTANTS:

(A) The Consultant agrees that except for those firms and for those services listed below, there shall be no transfer of engineering services performed under this Agreement without the written consent of the Sponsor. Subletting, assignment, or transfer of the services or any part thereof to any other corporation, partnership, or individual is expressly prohibited. Any violation of this clause will be deemed cause for termination of this Agreement.

EXCEPTIONS (Subconsultant information):

List all Subconsultant(s) to be used for any piece of work outlined in this agreement, excluding DBE Firms listed in the DBE Participation Subsection (7)(C)(8), DBE Participation Obtained by Consultant, in this agreement. If none, write "N/A" in the first row of the first column.

FIRM NAME	COMPLETE ADDRESS	NATURE OF SERVICES	SUBCONTRACT AMOUNT
Palmerton & Parrish	12958 State Highway 47 Marthasville, MO 63357	Geotechnical Investigation	$14,500.00

(B) The Consultant agrees and shall require the selected Subconsultants to maintain books, documents, papers, accounting records, and other evidence pertaining to direct costs and expenses incurred under the Agreement and to make such materials available at their offices at reasonable times during the Agreement period and for three (3) years from the date of final payment under the Agreement for inspection by the Sponsor or any of its authorized representatives (or any authorized representative of the FAA or the federal government), and copies thereof shall be furnished.

(C) Unless waived or modified by the Sponsor, the Consultant agrees to require, and shall provide evidence to the Sponsor, that those Subconsultants shall maintain commercial general liability, automobile liability, professional liability and worker's compensation and employer's liability insurance, or alternatively, a comparable umbrella insurance policy submitted to and approved by FAA, for not less than the period of services under such subconsultant agreements, and in an amount equal to the Sponsor's sovereign immunity caps as stated in section 537.600 RSMo and subsequently adjusted by the Missouri Department of Insurance. If the statutory limit of liability for a

type of liability specified in this section is repealed or does not exist, the minimum coverage shall not be less than the following amounts:

1. Commercial General Liability: $500,000.00 per person up to $3,000,000.00 per occurrence;

2. Automobile Liability: $500,000.00 per person up to $3,000,000.00 per occurrence;

3. Worker's Compensation in accordance with the statutory limits; and Employer's Liability: $1,000,000.00; and

4. Professional Liability: $1,000,000.00, each claim and in the annual aggregate.

(D) The subletting of the services will in no way relieve the Consultant of its primary responsibility for the quality and performance of the services to be performed hereunder, and the Consultant shall assume full liability for the services performed by its Subconsultants.

(E) The payment for the services of any Subconsultants will be reimbursed at cost by the Sponsor in accordance with the submitted invoices for such services, as set forth in Section (9), entitled "Fees and Payments".

(F) The Consultant agrees to furnish a list of any MoDOT-approved DBE Subconsultants under this Agreement upon the request of the Sponsor or FAA. Further, the Consultant agrees to report to the Sponsor on a monthly basis the actual payments made by the Consultant to such DBE Subconsultants.

(G) The Consultant agrees that any agreement between the Consultant and any Subconsultant shall be an actual cost plus fixed fee agreement if the amount of the agreement between the Consultant and Subconsultant exceeds Twenty-Five Thousand Dollars ($25,000). Subconsultant agreements for amounts of $25,000 or less may be lump sum or actual cost plus fixed fee as directed by the Sponsor.

(9) FEES AND PAYMENTS:

(A) The Consultant shall not proceed with the services described herein until the Consultant receives written authorization in the form of a Notice to Proceed from the Sponsor.

(B) The amount to be paid to the Consultant by the Sponsor as full remuneration for the performance of all services called for in this Agreement will be on the following basis, except that the lump sum fee for labor, overhead and profit plus other costs will not exceed a maximum amount payable of **$661,455** which is shown in Exhibit IV, "Derivation of Consultant Project Costs", and Exhibit V, "Engineering Basic and Special Services-Cost Breakdown" attached hereto and made a part of this Agreement. 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.

(C) The Consultant's fee shall include the hourly salary of each associate and employee, salary-related expenses, general overhead, and direct non-salary costs as allowed by 48 CFR Part 31, the Federal Acquisition Regulations (FAR), and 23 CFR 172, Procurement, Management, and Administration of Engineering and Design Related Services. The hourly salary of each associate and employee is defined as the actual productive salaries expended to perform the services. The other billable costs for the project are defined as follows:

1. Salary-related expenses are additions to payroll cost for holidays, sick leave, vacation, group insurance, worker's compensation insurance, social security taxes (FICA), unemployment insurance, disability taxes, retirement benefits, and other related items.

2. General overhead cost additions are for administrative salaries (including non-productive salaries of associates and employees), equipment rental and maintenance, office rent and utilities, office maintenance, office supplies, insurance, taxes, professional development expenses, legal and audit fees, professional dues and licenses, use of electronic computer for accounting, and other related items.

3. Direct non-salary costs incurred in fulfilling the terms of this Agreement, such as but not limited to travel and subsistence, subcontract services, reproductions, computer charges, materials and supplies, and other related items, will be charged at actual cost without any override or additives.

4. The additions to productive salaries for Items in Subsections (9)(C) 1 and 2 will be established based on the latest audit.

5. The Consultant shall provide a detailed man hour/cost breakdown for each phase of the project indicating each job classification with base wage rates and the number of hours associated with each phase. The breakdown shall include work activities and be in sufficient detail to reflect the level of effort involved. This information shall be attached hereto and made a part of this Agreement as Exhibit V "Engineering Basic and Special Services -Cost Breakdown".

6. The Consultant shall provide a detailed breakdown of all Subconsultant fees, including overhead and profit, when requested by the Sponsor and/or FAA. Once the cumulative amount to be paid to a Subconsultant by the Consultant, as full remuneration for the performance of services, as called for in this Agreement and any supplemental agreements hereafter, equals or exceeds Twenty-Five Thousand Dollars ($25,000), submittal of a separate Exhibit IV, "Derivation of Consultant Project Costs" and Exhibit V, "Engineering Basic and Special Services-Cost Breakdown", prepared to solely reflect the Subconsultant’s fees shall be attached hereto and made a part of this Agreement, subject to the process described in Section (3) of this Agreement. These Exhibits prepared to reflect the Subconsultant’s fees shall be labeled Exhibit IV-A and

Exhibit V-A, respectively.

7. The Consultant shall provide a detailed breakdown of all travel expense, living expense, reproduction expense, and any other expense that may be incurred throughout the project. These expenses must be project specific and not covered in or by an overhead rate.

8. The property and equipment used on this project such as automotive vehicles, survey equipment, office equipment, etc., shall be owned, rented, or leased by the Consultant, and charges will be made to the project for the use of such property at the rate established by company policies and practices. Approval of the Sponsor and FAA will be required prior to acquisition of reimbursable special equipment.

9. The Consultant agrees to pay each Subconsultant under this Agreement for satisfactory performance of its contract no later than 15 days from the Consultant's receipt of each payment the Consultant receives from the Sponsor. The Consultant agrees further to return retainage payments to each Subconsultant within 15 days after the Subconsultant'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 Subconsultants.

(D) The Consultant shall submit an invoice for services rendered to the Sponsor not more than once every month. A progress summary indicating the current status of the services shall be submitted along with each invoice. Upon receipt of the invoice and progress summary, the Sponsor will, as soon as practical, but not later than 30 days from receipt, pay the Consultant for the services rendered, including the proportion of the fixed fee earned as reflected by the estimate of the portion of the services completed as shown by the progress summary, less partial payments previously made. A late payment charge of one and one half percent (1.5%) per month shall be assessed for those invoiced amounts not paid, through no fault of the Consultant, within 30 days after the Sponsor 's receipt of the Consultant's invoice. The Sponsor will not be liable for the late payment charge on any invoice which requests payment for costs which exceed the proportion of the maximum amount payable earned as reflected by the estimate of the portion of the services completed, as shown by the progress summary. The payment, other than the fixed fee, will be subject to final audit of actual expenses incurred during the period of the Agreement.

(E) The Sponsor may hold a percentage of the amount earned by the Consultant, not to exceed two percent (2%), until 100% of services as required by Section (2), "Scope of Services," of this Agreement are completed and have been received and approved by the Sponsor and FAA. The payment will be subject to final audit of actual expenses during the period of the Agreement. Upon completion and acceptance of all services required by Section (2), "Scope of Services," the two percent (2%) retainage will be paid to the Consultant. As an alternative to withholding two percent (2%) retainage as set forth above, the Sponsor may accept a letter of credit or the establishment of an escrow account in the amount of said retainage and upon such other terms and conditions

as may be acceptable to the Sponsor and the Consultant. If a letter of credit or escrow account is not acceptable to the Sponsor, then the percent retainage will control.

(10) PERIOD OF SERVICE:

(A) The services, and if more than one, then each phase thereof, shall be completed in accordance with the schedule contained in Exhibit VI, "Performance Schedule," attached hereto and made a part of this Agreement. The Consultant and the Sponsor will be required to meet this schedule.

(B) The Consultant and Sponsor will be required to meet the schedules in this Agreement. The Sponsor will grant time extensions for delays due to unforeseeable causes beyond the control of and without fault or negligence of the Consultant and no claim for damage shall be made by either party. Requests for extensions of time shall be made in writing by the Consultant before that phase of work is scheduled to be completed, stating fully the events giving rise to the request and justification for the time extension requested. The anticipated date of completion of the work, including review time, is stated in Exhibit VI of this Agreement. An extension of time shall be the sole allowable compensation for any such delays, except as otherwise provided in Section (3) for additional/changed work and differing/unforeseen conditions. Any extensions or additional costs shall be subject to FAA approval.

(C) As used in this provision, the term "delays due to unforeseeable causes" include but are not limited to the following:

1. War or acts of war, declared or undeclared;

2. Flooding, earthquake, or other major natural disaster preventing the Consultant from performing necessary services at the project site, or in the Consultant's offices, at the time such services must be performed;

3. The discovery on the project of differing site conditions, hazardous substances, or other conditions which, in the sole judgment of the Sponsor, justifies a suspension of the services or necessitates modifications of the project design or plans by the Consultant;

4. Court proceedings;

5. Changes in services or extra services.

(11) TERMINATION OF AGREEMENT – 2 CFR § 200 Appendix II(B):

(A) Termination for Convenience:

1. The Sponsor may, by written notice to the Consultant, terminate this Agreement for its convenience and without cause or default on the part of the Consultant. Upon receipt of the notice of termination, except as explicitly directed by

the Sponsor, the Consultant must immediately discontinue all services affected.

2. Upon termination of the Agreement, the Consultant must deliver to the Sponsor all data, surveys, models, drawings, specifications, reports, maps, photographs, estimates, summaries, and other documents and materials prepared by the Consultant under this Agreement, whether complete or partially complete.

3. The Sponsor agrees to make just and equitable compensation to the Consultant for satisfactory work completed up through the date the Consultant receives the termination notice. Compensation will not include anticipated profit on non-performed services.

4. The Sponsor further agrees to hold the Consultant harmless for errors or omissions in documents that are incomplete as a result of the termination action under this clause.

(B) Termination for Default:

1. Either party may terminate this Agreement for cause if the other party fails to fulfill its obligations that are essential to the completion of the work per the terms and conditions of the Agreement. The party initiating the termination action must allow the breaching party an opportunity to dispute or cure the breach.

2. The terminating party must provide the breaching party seven days advance written notice of its intent to terminate the Agreement. The notice must specify the nature and extent of the breach, the conditions necessary to cure the breach, and the effective date of the termination action. The rights and remedies in this clause are in addition to any other rights and remedies provided by law or under this agreement.

3. Termination by the Sponsor:

a. The Sponsor may terminate this Agreement, in whole or in part, for the failure of the Consultant to:

i. Perform the services within the time specified in this Agreement or by Sponsor-approved extension;

ii. Make adequate progress so as to endanger satisfactory performance of the Project; or

iii. Fulfill the obligations of the Agreement that are essential to the completion of the Project.

b. Upon receipt of the notice of termination, the Consultant must immediately discontinue all services affected unless the notice directs otherwise. Upon termination of the Agreement, the Consultant must deliver to the Sponsor all data, surveys, models, drawings, specifications, reports, maps, photographs,

estimates, summaries, and other documents and materials prepared by the Consultant under this Agreement, whether complete or partially complete.

c. The Sponsor agrees to make just and equitable compensation to the Consultant for satisfactory work completed up through the date the Consultant receives the termination notice. Compensation will not include anticipated profit on non-performed services.

d. The Sponsor further agrees to hold Consultant harmless for errors or omissions in documents that are incomplete as a result of the termination action under this clause.

e. If, after finalization of the termination action, the Sponsor determines the Consultant was not in default of the Agreement, the rights and obligations of the parties shall be the same as if the Sponsor issued the termination for the convenience of the Sponsor.

4. Termination by Consultant:

a. The Consultant may terminate this Agreement in whole or in part, if the Sponsor:

i. Defaults on its obligations under this Agreement;

ii. Fails to make payment to the Consultant in accordance with the terms of this Agreement; or

iii. Suspends the Project for more than one hundred eighty (180) days due to reasons beyond the control of the Consultant.

b. Upon receipt of a notice of termination from the Consultant, the Sponsor agrees to cooperate with the Consultant for the purpose of terminating the Agreement or a portion thereof, by mutual consent. If the Sponsor and Consultant cannot reach mutual agreement on the termination settlement, the Consultant may, without prejudice to any rights and remedies it may have, proceed with terminating all or parts of this Agreement based upon the Sponsor's breach of the Agreement.

c. In the event of termination due to Sponsor breach, the Consultant is entitled to invoice the Sponsor and to receive full payment for all services performed or furnished in accordance with this Agreement and all justified reimbursable expenses incurred by the Consultant through the effective date of termination action. The Sponsor agrees to hold the Consultant harmless for errors or omissions in documents that are incomplete as a result of the termination action under this clause.

(12) OWNERSHIP OF DRAWINGS AND DOCUMENTS:

(A) All drawings and documents prepared in performance of this Agreement shall be delivered to and become the property of the Sponsor upon suspension, abandonment, cancellation, termination, or completion of the Consultant's services hereunder; provided, however,

1. The Consultant shall have the right to their future use with written permission of the Sponsor;

2. The Consultant shall retain its rights in its standard drawing details, designs, specifications, CADD files, databases, computer software, and any other proprietary property; and

3. The Consultant shall retain its rights to intellectual property developed, utilized, or modified in the performance of the services subject to the following:

A. Copyrights. Sponsor, as the contracting agency, reserves a royalty-free, nonexclusive and irrevocable license to reproduce, publish or otherwise use, and to authorize others to use, for Governmental purposes:

I. The copyright in any works developed under this Agreement, or under a subgrant or contract under this Agreement; and

II. Any rights of copyright to which Sponsor, its Consultant or Subconsultant purchases ownership with payments provided by this Agreement.

B. Patents. Rights to inventions made under this Agreement shall be determined in accordance with 37 CFR Part 401. The standard patent rights clause at 37 CFR § 401.14, as modified below, is hereby incorporated by reference.

I. The terms "to be performed by a small business firm or domestic nonprofit organization" shall be deleted from paragraph (g)(1) of the clause;

II. Paragraphs(g)(2) and (g)(3) of the clause shall be deleted; and

III. Subsection (l) of the clause, entitled "communication" shall read as follows: "(l) Communication. All notifications required by this clause shall be submitted to the Sponsor ".

IV. The following terms in 37 CFR 401.14 shall for the purpose of this Agreement have the following meaning:

Contractor - Consultant

Government and Federal Agency - Sponsor

Subcontractor - Subconsultant

4. Basic survey notes, design computations, and other data prepared under this Agreement shall be made available for use by the Sponsor without further compensation and without restriction or limitation on their use.

(B) Electronically Produced Documents:

1. Electronically produced documents will be submitted to the Sponsor, and FAA in data files compatible with MicroStation V8i (specify CADD version) and Adobe PDF. The Consultant makes no warranty as to the compatibility of the data files beyond the above specified release or version of the stated software.

2. Because data stored on electronic media can deteriorate undetected or be modified without the Consultant's knowledge, the electronic data files submitted to the Sponsor will have an acceptance period of 60 calendar days after receipt by the Sponsor. If during that period the Sponsor finds any errors or omissions in the files, the Consultant will correct the errors or omissions as a part of this Agreement. However, any changes requested by the Sponsor during the 60 calendar day acceptance period that constitute Additional Services under Section (3) shall be compensated in accordance with the terms of the Agreement. The Consultant will not be responsible for maintaining copies of the submitted electronic data files after the acceptance period.

3. Any changes requested after the acceptance period will be considered additional services for which the Consultant shall be reimbursed at the hourly rates established herein plus the cost of materials.

4. The data on the electronic media shall not be considered the Consultant's instrument of service. Only the submitted hard copy documents with the Consultant Engineer's seal on them will be considered the instrument of service. The Consultant's nameplate shall be removed from all electronic media provided to the Sponsor.

(C) The Sponsor may incorporate any portion of the deliverables into a project other than that for which they were performed, without further compensation to the Consultant; provided however, that (1) such deliverables shall thereupon be deemed to be the work product of the Sponsor, and the Sponsor shall use same at its sole risk and expense; and (2) the Sponsor shall remove the Consultant's name, seal, endorsement, and all other indices of authorship from the deliverables.

(13) DECISIONS UNDER THIS AGREEMENT AND DISPUTES:

(A) The Sponsor will determine the acceptability of the drawings, specifications, and estimates and all other deliverables to be furnished, and will decide the questions that may arise relative to the proper performance of this Agreement. The determination of acceptable deliverables may occur following final payment, and as late as during the construction of the project which decisions shall be conclusive, binding and incontestable, if not arbitrary, capricious or the result of fraud.

(B) The Sponsor will decide all questions which may arise as to the quality, quantity, and acceptability of services performed by Consultant and as to the rate of progress of the services; all questions which may arise as to the interpretation of the plans and specifications; all questions as to the acceptable fulfillment of the Agreement on the part of the Consultant; the proper compensation for performance or breach of the Agreement; and all claims of any character whatsoever in connection with or growing out of the services of the Consultant, whether claims under this Agreement or otherwise. The Sponsor's decisions shall be conclusive, binding and incontestable if not arbitrary, capricious or the result of fraud.

(C) If the Consultant has a claim for payment against the Sponsor which in any way arises out of the provisions of this Agreement or the performance or non-performance hereunder, written notice of such claim must be made within sixty (60) days of the Consultant's receipt of payment for the retained percentage. Notwithstanding Section (23) of this Agreement, the notice of claim shall be personally delivered or sent by certified mail to the Sponsor. The notice of claim shall contain an itemized statement showing completely and fully the items and amounts forming the basis of the claim and the factual and legal basis of the claim.

(D) Any claim for payment or an item of any such claim not included in the notice of claim and itemized statement, or any such claim not filed within the time provided by this provision shall be forever waived, and shall neither constitute the basis of nor be included in any legal action, counterclaim, set-off, or arbitration against the Sponsor.

(E) The claims procedure in Subsections (13)(C) and (D) does not apply to any claims of the Sponsor against the Consultant. Further, any claims of the Sponsor against the Consultant under this Agreement are not waived or estopped by the claims procedure in Subsections (13)(C) and (D).

(F) Not withstanding Subsections (13)(A) through (E) above, in the event of any material dispute hereunder, both parties agree to pursue, diligently and in good faith, a mutually acceptable resolution.

(14) SUCCESSORS AND ASSIGNS: The Sponsor and the Consultant agree that this Agreement and all agreements entered into under the provisions of this Agreement shall be binding upon the parties hereto and their successors and assigns.

(15) INDEMNIFICATION RESPONSIBILITY:

(A) The Consultant agrees to save harmless the Sponsor, and the FAA from all liability, losses, damages, and judgments for bodily injury, including death and property damage to the extent due to the Consultant's negligent acts, errors, or omissions in the services performed or to be performed under this Agreement, including those negligent acts, errors, or omissions of the Consultant's employees, agents, and Subconsultants.

(B) The Consultant shall be responsible for the direct damages incurred by the Sponsor as result of the negligent acts, errors, or omissions of the Consultant or anyone for whom the Consultant is legally responsible, and for any losses or costs to repair or remedy construction as a result of such negligent acts, errors or omissions; provided, however, the Consultant shall not be liable to the Sponsor for such losses, costs, repairs and/or remedies which constitute betterment of or an addition of value to the construction or the project.

(C) Neither the Sponsor's review, approval or acceptance of or payment for any services required under this Agreement, nor the termination of this Agreement prior to its completion, will be construed to operate as a waiver of any right under this Agreement or any cause of action arising out of the performance of this Agreement. This indemnification responsibility survives the completion of this Agreement, as well as the construction of the project at some later date, and remains as long as the construction contractor may file or has pending a claim or lawsuit against the Sponsor on this project arising out of the Consultant's services hereunder.

(16) INSURANCE:

(A) The Consultant shall maintain commercial general liability, automobile liability, and worker's compensation and employer's liability insurance in full force and effect to protect the Consultant from claims under Worker's Compensation Acts, claims for damages for personal injury or death, and for damages to property from the negligent acts, errors, or omissions of the Consultant and its employees, agents, and Subconsultants in the performance of the services covered by this Agreement, including, without limitation, risks insured against in commercial general liability policies.

(B) The Consultant shall also maintain professional liability insurance to protect the Consultant against the negligent acts, errors, or omissions of the Consultant and those for whom it is legally responsible, arising out of the performance of professional services under this Agreement.

(C) The Consultant's insurance coverages shall be for not less than the following limits of liability:

1. Commercial General Liability: $500,000.00 per person up to $3,000,000.00 per occurrence;

2. Automobile Liability: $500,000.00 per person up to $3,000,000.00 per occurrence;

3. Worker's Compensation in accordance with the statutory limits; and Employer's Liability: $1,000,000.00; and

4. Professional ("Errors and Omissions") Liability: $1,000,000.00, each claim and in the annual aggregate.

(D) In lieu of the minimum coverage stated in Subsections (16)(C)(1) and (C)(2) above, the Consultant may obtain insurance at all times in an amount equal to the Sponsor's sovereign immunity caps as stated in section 537.600 RSMo and subsequently adjusted by the Missouri Department of Insurance. If the statutory limit of liability for a type of liability specified in this section is repealed or does not exist, the Consultant shall obtain insurance with the minimum coverage stated in Subsections (16)(C)(1) and (C)(2) above.

(E) The Consultant shall, upon request at any time, provide the Sponsor with certificates of insurance evidencing the Consultant's commercial general or professional liability ("Errors and Omissions") policies and evidencing that they and all other required insurance is in effect, as to the services under this Agreement.

(F) Any insurance policy required as specified in Section (16) shall be written by a company which is incorporated in the United States of America or is based in the United States of America. Each insurance policy must be issued by a company authorized to issue such insurance in the State of Missouri.

(17) CONSTRUCTION PHASE OF THE PROJECT:

(A) This Agreement does not include construction phase services. Review of shop drawings and other construction phase services can be added by Supplemental Agreement after design has been completed and the construction contract period has been determined.

(B) Because the Consultant has no control over the cost of labor, materials, equipment, or services furnished by others, or over the construction contractor(s)' methods of determining prices, or over competitive bidding or market conditions, any of the Consultant's opinions of probable project costs and/or construction cost, if provided for herein, are to be made on the basis of the Consultant's experience and qualifications and represent the Consultant's best judgment as an experienced and qualified design professional, familiar with the construction industry, but the Consultant cannot and does not guarantee that proposals, bids, or actual total project costs and/or construction costs will not vary from opinions of probable costs prepared by the Consultant.

(C) The Consultant shall not have control over or charge of and shall not be responsible for construction means, methods, techniques, sequences, or procedures,

or for safety precautions and programs in connection with the construction work, since these are solely the construction contractor(s)' responsibility under the construction contract(s). The Consultant shall not be responsible for the construction contractor(s)' schedules or failure to carry out the construction work in accordance with the construction contract(s). The Consultant shall not have control over or charge of acts of omissions of the construction contractor(s), or any of its or their subcontractors, agents, or employees, or of any other persons performing portions of the construction work.

(18) NONDISCRIMINATION ASSURANCE: During the performance of this Agreement, the Consultant, for itself, its assignees, and successors in interest (hereinafter referred to as the "Consultant") agrees as follows:

(A) Compliance With Regulations: The Consultant will comply with the "Title VI List of Pertinent Nondiscrimination Acts and Authorities", as they may be amended from time to time, which are herein incorporated by reference and made a part of this Agreement. In addition, the Consultant shall comply with all state statutes related to nondiscrimination.

(B) Nondiscrimination: The Consultant, with regard to the work performed by it during the Agreement, will not discriminate on the grounds of race, color, or national origin in the selection and retention of Subconsultants, including procurements of materials and leases of equipment. The Consultant will not participate directly or indirectly in the discrimination prohibited by the Nondiscrimination Acts and Authorities, including employment practices when the Agreement 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 Consultant for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential Subconsultant or supplier will be notified by the Consultant of the Consultant’s obligations under this Agreement and the Nondiscrimination Acts and Authorities on the grounds of race, color, or national origin.

(D) Information and Reports: The Consultant 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 FAA to be pertinent to ascertain compliance with such Nondiscrimination Acts and Authorities and instructions. Where any information required of the Consultant is in the exclusive possession of another who fails or refuses to furnish the information, the Consultant will so certify to the Sponsor, or the FAA, as appropriate, and will set forth what efforts it has made to obtain the information.

(E) Sanctions for Noncompliance: In the event of a Consultant’s noncompliance with the nondiscrimination provisions of this Agreement, the Sponsor will impose such contract sanctions as it, or the FAA may determine to be appropriate, including, but not limited to:

1. Withholding payments to the Consultant under this Agreement until the Consultant complies; and/or

2. Cancelling, terminating, or suspending this Agreement, in whole or in part.

(F) Incorporation of Provisions: The Consultant will include these nondiscrimination provisions in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The Consultant will take 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, that if the Consultant becomes involved in, or is threatened with litigation by a Subconsultant or supplier because of such direction, the Consultant may request the Sponsor or the United States to enter into such litigation to protect the interests of the Sponsor or United States.

(H) Title VI List of Pertinent Nondiscrimination Acts and Authorities: During the performance of this Agreement, the Consultant, for itself, its assignees, and successors in interest (hereinafter referred to as the "Consultant") agrees to comply with the following nondiscrimination statutes and authorities, including, but not limited to:

1. Title VI of the Civil Rights Act of 1964 (42 USC § 2000d *et seq*., 78 stat. 252) (prohibits discrimination on the basis of race, color, national origin);

2. 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);

3. The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (42 USC § 4601) (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);

4. Section 504 of the Rehabilitation Act of 1973 (29 USC § 794 *et seq*.), as amended (prohibits discrimination on the basis of disability); and 49 CFR Part 27;

5. The Age Discrimination Act of 1975, as amended (42 USC § 6101 *et seq*.) (prohibits discrimination on the basis of age);

6. 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);

7. 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);

8. 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 USC §§ 12131-12189) as implemented by U.S. Department of Transportation regulations at 49 CFR Parts 37 and 38;

9. The FAA's nondiscrimination statute (49 USC § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);

10. Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures nondiscrimination 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;

11. 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); and

12. Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 USC § 1681 *et seq*.).

(19) APPROVAL: This Agreement is made and entered into subject to the approval of FAA.

(20) AVIATION FEDERAL AND STATE CLAUSES:

(A) Civil Rights – 49 USC § 47123: The Consultant agrees to 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 disability be excluded from participating in any activity conducted with or benefiting from Federal assistance. This provision binds the Consultant and any subconsultants from the solicitation period through the completion of the Agreement. This provision is in addition to that required of Title VI of the Civil Rights Act of 1964.

(B) Trade Restriction Certification – 49 U.S.C. § 50104, 49 CFR Part 30:

1. By execution of this Agreement, the Consultant certifies that with respect to this Agreement, the Consultant:

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 as 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 included on the list of countries that discriminate against U.S. firms as published by the USTR; and

C. has not entered into any subcontract for any product to be used on the project that is produced in a foreign country included on the list of countries that discriminate against U.S. firms published by the USTR.

2. 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.

3. The Consultant must provide immediate written notice to the Sponsor if the Consultant learns that its certification or that of a subconsultant was erroneous when submitted or has become erroneous by reason of changed circumstances. The Consultant must require subconsultants provide immediate written notice to the Consultant if at any time it learns that its certification was erroneous by reason of changed circumstances.

4. 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 Consultant or subconsultant:

A. who is owned or controlled by one or more citizens or nationals of a foreign country included on the list of countries that discriminate against U.S. firms published by the USTR; or

B. whose subconsultants are owned or controlled by one or more citizens or nationals of a foreign country on such USTR list; or

C. who incorporates in the public works project any product of a foreign country on such USTR list.

5. 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 Consultant is

not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

6. The Consultant agrees that it will incorporate this provision for certification without modification in all lower tier subcontracts. The Consultant may rely on the certification of a prospective subconsultant that it is not a firm from a foreign country included on the list of countries that discriminate against U.S. firms as published by USTR, unless the Consultant has knowledge that the certification is erroneous.

7. This certification is a material representation of fact upon which reliance was placed when entering into this Agreement. If it is later determined that the Consultant or subconsultant knowingly rendered an erroneous certification, the FAA may direct through the Sponsor cancellation of the Agreement for default at no cost to the Sponsor, or the FAA.

(C) Eligible Employees - Executive Order 07-13:

1. The Consultant shall comply with all the provisions of Executive Order 07-13, issued by the Honorable Matt Blunt, Governor of Missouri, on the sixth (6th) day of March, 2007. This Executive Order, which promulgates the State of Missouri's position to not tolerate persons who contract with the state engaging in or supporting illegal activities of employing individuals who are not eligible to work in the United States, is incorporated herein by reference and made a part of this Agreement. By signing this Agreement, the Consultant hereby certifies that any employee of the Consultant assigned to perform services under this Agreement is eligible and authorized to work in the United States in compliance with federal law. In the event the Consultant fails to comply with the provisions of Executive Order 07-13, or in the event the Sponsor has reasonable cause to believe that the Consultant has knowingly employed individuals who are not eligible to work in the United States in violation of federal law, the Sponsor reserves the right to impose such contract sanctions as it may determine to be appropriate, including but not limited to contract cancellation, termination or suspension in whole or in part or both.

2. The Consultant shall include the above-provision concerning said Executive Order within every subcontract. The Consultant shall take such action with respect to any subcontract as the Sponsor may direct as a means of enforcing such provisions, including sanctions for noncompliance.

(D) Texting While Driving – Executive Order 13513, DOT Order 3902.10:

1. 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.

2. In support of this initiative, the Sponsor encourages the Consultant to promote policies and initiatives for its employees and other work personnel

that decrease crashes by distracted drivers, including policies that ban text messaging while driving motor vehicles while performing work activities associated with the project. The Consultant must include the substance of this clause in all sub-tier contracts exceeding Three Thousand Five Hundred Dollars ($3,500) and involve driving a motor vehicle in performance of work activities associated with the project.

(E) Veteran's Preference – 49 USC § 47112(c): In the employment of labor (except in executive, administrative, and supervisory positions), the Consultant and all subconsultants must give preference to covered veterans as defined within Title 49 U.S.C. § 47112. Covered veterans include Vietnam era veterans, Persian Gulf veterans, Afghanistan-Iraq war veterans, disabled veterans, and small business concerns (as defined by 15 U.S.C. § 632) owned and controlled by disabled veterans. This preference only applies when there are covered veterans readily available and qualified to perform the work to which the employment relates.

(F) Federal Fair Labor Standards Act (Federal Minimum Wage) – 29 USC § 201, et seq.: All contracts and subcontracts that result from this Agreement incorporate by reference the provisions of 29 CFR Part 201, the Federal Fair Labor Standards Act (FLSA), with the same force and effect as if given in full text. The FLSA sets minimum wage, overtime pay, recordkeeping, and child labor standards for full and part-time workers. The Consultant has full responsibility to monitor compliance to the above-referenced statute and regulation. The Consultant must address any claims or disputes that arise from this requirement directly with the U.S. Department of Labor – Wage and Hour Division.

(G) Occupational Safety and Health Act of 1970 – 20 CFR Part 1910: All contracts and subcontracts that result from this Agreement incorporate by reference the requirements of 29 CFR Part 1910 with the same force and effect as if given in full text. The Consultant must provide a work environment that is free from recognized hazards that may cause death or serious physical harm to the employee. The Consultant retains full responsibility to monitor its compliance and its subconsultants' compliance with the applicable requirements of the Occupational Safety and Health Act of 1970 (20 CFR Part 1910). The Consultant 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.

(H) Energy Conservation Requirements – 2 CFR § 200, Appendix II(H): The Consultant and any subconsultants agree to comply with mandatory standards and policies relating to energy efficiency as contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act (42 U.S.C. 6201 *et seq*.).

(I) Debarment and Suspension (Non-Procurement) – 2 CFR Part 180 (Subpart C), 2 CFR Part 1200, DOT Order 4200.5 DOT Suspension & Debarment Procedures & Ineligibility:

1. By executing this Agreement, the Consultant certifies that neither it nor its principals are presently debarred or suspended by any Federal

department or agency from participation in this Agreement.

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

A. Checking the System for Award Management at website: https://www.sam.gov.

B. Collecting a certification statement similar to the statement in Subsection (20)(I)1.

C. Inserting a clause or condition in the covered transaction with the lower tier Subcontractor.

3. If the Sponsor, or FAA later determines that a lower tier participant failed to disclose to a higher tier that it was excluded or disqualified at the time it entered the covered transaction, the Sponsor or the FAA may pursue any available remedy, including suspension or debarment of the non-compliant participant.

(J) Lobbying and Influencing Federal Employees – 31 U.S.C. § 1352, 2 CFR § 200, Appendix II(J), 49 CFR Part 20, Appendix A:

1. The Consultant certifies by execution of this Agreement, to the best of its knowledge and belief, that:

A. No Federal appropriated funds have been paid or will be paid, by or on behalf of the Consultant, 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 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.

B. 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 Consultant shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

C. The Consultant shall require that the language of this Subsection (20)(F) be included in the award documents for all sub-awards at all tiers (including subcontracts, sub-grants, and contracts under grants, loans, and cooperative

agreements) and that all sub-recipients shall certify and disclose accordingly.

2. 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 prerequisitive for making or entering into this transaction imposed by Section 1352, Title 31, United States Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than Ten Thousand Dollars ($10,000) and not more than One Hundred Thousand Dollars ($100,000) for each such failure.

(K) Contract Workhours and Safety Standards Act Requirements – 2 CFR § 200 Appendix II (E)):

1. Overtime Requirements: No contractor or subcontractor contracting for any part of the Agreement 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 Subsection (20)(K)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 Sponsor and/or the United States 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 Subsection (20)(K)1. above, in the sum of Ten Dollars ($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 Subsection (20)(K)1. above.

3. Withholding for Unpaid Wages and Liquidated Damages: The FAA 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 Subsection (20)(K)2. above.

4. Subcontractors: The contractor or subcontractor shall insert in any subcontracts the clauses set forth in this Subsection (20) 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 this Subsection (20).

(L) Breach of Contract Terms Sanctions - 2 CFR §200 Appendix II(A): Any violation or breach of the terms of this Agreement on the part of the Consultant or any Subconsultant may result in the suspension or termination of this Agreement or such other action that may be necessary to enforce the rights of the parties of this Agreement. The Sponsor will provide the Consultant written notice that describes the nature of the breach and corrective actions the Consultant must undertake in order to avoid termination of this Agreement. The Sponsor reserves the right to withhold payments to the Consultant until such time the Consultant corrects the breach or the Sponsor elects to terminate this Agreement. The Sponsor's notice will identify a specific date by which the Consultant must correct the breach. The Sponsor may proceed with termination of this Agreement if the Consultant fails to correct the breach by deadline indicated in the Sponsor's notice. The duties and obligations imposed by the Agreement 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.

(M) Clean Air and Water Pollution Control – 2 CFR 200 § 200, Appendix II(G): The Consultant agrees:

1. To comply with all applicable standards, orders, and regulations issued pursuant to the Clean Air Act (42 U.S.C. § 740-7671q) and the Federal Water Pollution Control Act, as amended (33 U.S.C. § 1251-1387); and

2. To report any violation to the Sponsor immediately upon discovery. The Sponsor assumes responsibility for notifying the Environmental Protection Agency and the FAA.

(N) Seismic Safety – 49 CFR Part 41: Not Used.

(O) Right to Inventions - 2 CFR §200 Appendix II(F), 37 CFR § 401: Not Used.

(P) Certification of Consultant Regarding Tax Delinquency and Felony Convictions: The Consultant certifies that it is not a corporation that:

1. Has any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability; or

2. Was convicted of a criminal violation under any Federal law within the preceding twenty-four (24) months.

(21) ACTIONS: No action may be brought by either party hereto concerning any matter, thing, or dispute arising out of or relating to the terms, performance, non-performance, or otherwise of this Agreement except in the Circuit Court of Warren County, Missouri. The parties agree that this Agreement is entered into at Joplin, Missouri and substantial elements of its performance will take place or be delivered at Joplin

Regional Airport, Missouri, by reason of which the Consultant consents to venue of any action against it in Warren County, Missouri. The Consultant shall cause this provision to be incorporated into all of its agreements with, and to be binding upon, all Subconsultants of the Consultant in the performance of this Agreement.

(22) AUDIT OF RECORDS: For purpose of an audit, the Consultant shall maintain all those records relating to direct costs and expenses incurred under this Agreement, including but not limited to invoices, payrolls, bills, receipts, etc. These records must be available at all reasonable times to the Sponsor, the FAA, and the Comptroller General of the United States or their designees and representatives, at the Consultant's offices, at no charge, during the Agreement period and any extension thereof, and for the three (3) year period following the date of final payment made under this Agreement. If the Sponsor has notice of a potential claim against the Consultant and/or the Sponsor based on the Consultant's services under this Agreement, the Consultant, upon written request of the Sponsor, shall retain and preserve its records until the Sponsor has advised the Consultant in writing that the disputed claim is resolved.

(23) NOTICE TO THE PARTIES: All notices or communications required by this Agreement shall be made in writing and shall be effective upon receipt by the Sponsor or the Consultant at their respective addresses of record. Letters or other documents which are prepared in 8.5 x 11 inch format may be delivered by telefax, provided that an original is received at the same address as that to which that telefax message was sent, within three (3) business days of the telefax transmission. Either party may change its address of record by written notice to the other party.

(A) Notice to the Sponsor: Notices to the Sponsor shall be addressed and delivered to the following Sponsor's representative, who is hereby designated by the Sponsor as its primary authorized representative for administration, interpretation, review, and enforcement of this Agreement and the services of the Consultant hereunder:

NAME AND TITLE OF SPONSOR'S REPRESENTATIVE	Bart Srarkey		
SPONSOR'S NAME	City of Joplin, MO		
SPONSOR'S ADDRESS	602 S Main St., Joplin, MO 64801		
PHONE	(417) 623-0262	FAX	
E-MAIL ADDRESS	bstarkey@Joplinmo.org		

The Sponsor reserves the right to substitute another person for the individual named at any time, and to designate one or more other representatives to have authority to act upon its behalf generally or in limited capacities, as the Sponsor may now or hereafter deem appropriate. Such substitution or designations shall be made by the Sponsor in a

written notice to the Consultant.

(B) Notice to the Consultant: Notices to Consultant shall be addressed and delivered to Consultant's representative, as follows:

NAME AND TITLE OF CONSULTANT'S REPRESENTATIVE	Ty Sander, P.E.		
CONSULTANT'S NAME	Crawford Murphy and Tilly		
CONSULTANT'S ADDRESS	One S. Memorial Drive, Suite 500 St Louis, MO 63102		
PHONE	(314) 436-5500	FAX	(314) 436-0723
E-MAIL ADDRESS	tsander@cmtengr.com		

The Consultant reserves the right to substitute another person for the individual named at any time, and to designate one or more other representatives to have authority to act upon its behalf generally or in limited capacities, as the Consultant may now or hereafter deem appropriate. Such substitutions or designations shall be made by the Consultant's president or chief executive officer in a written notice to the Sponsor.

(24) LAW OF MISSOURI TO GOVERN: This Agreement shall be construed according to the laws of the State of Missouri. The Consultant shall comply with all local, state, and federal laws and regulations which govern the performance of this Agreement.

(25) CONFIDENTIALITY: The Consultant agrees that the Consultant's services under this Agreement are a confidential matter between the Consultant and the Sponsor. The Consultant shall not disclose any aspect of the Consultant's services under this Agreement to any other person, corporation, governmental entity, or news media, excepting only to Consultant's lawyers, accountants, insurers, and such employees, Subconsultants, and agents as may be necessary to allow them to perform services for the Consultant in the furtherance of this Agreement, without the prior approval of the Sponsor; provided, however, that any confidentiality and non-disclosure requirements set out herein shall not apply to any of the Consultant's services or to any information which (1) is already in the public domain or is already in the Consultant's possession at the time the Consultant performs the services or comes into possession of the information; (2) is received from a third party without any confidentiality obligations; or (3) is required to be disclosed by governmental or judicial order. Any disclosure pursuant to a request to the Sponsor under Chapter 610, RSMo, shall not constitute a breach of this Agreement. The content and extent of any authorized disclosure shall be coordinated fully with and under the direction of the Sponsor, in advance.

(26) SOLE BENEFICIARY: This Agreement is made for the sole benefit of the parties hereto and nothing in this Agreement shall be construed to give any rights or benefits to anyone other than the Sponsor and the Consultant.

(27) SEVERABILITY AND SURVIVAL:

(A) Any provision or part of this Agreement held to be void or unenforceable under any law or regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon the Sponsor and the Consultant.

(B) All express representations, indemnifications, or limitations of liability made or given in this Agreement will survive the completion of all services by the Consultant under this Agreement or the termination of this Agreement for any reason.

(28) PAYMENT BOND: In the event that any subconsultants are used to supply at least fifty thousand dollars ($50,000) worth of materials and/or labor not within the scope of environmental assessment services or licensed professional services as defined by chapter 327, RSMo, the Consultant shall require any such subconsultants to provide laborers and materialmen with adequate bond security. Payment bonds shall be executed by any such subconsultants with the subconsultant as principal and a surety company authorized to do business in the State of Missouri as surety, and any agent executing the same on behalf of a subconsultant or surety company must attach a current Power of Attorney setting forth sufficient execution authority. Said payment bonds must be acceptable to the Sponsor to cover all materials used, all labor performed, and all insurance premiums necessary to comply with Section 107.170, RSMo, and must be provided to the Sponsor prior to the performance of such subconsultant services under this Agreement.

(29) AMENDMENTS: Any change in this Agreement, whether by modification or supplementation, must be accomplished by a formal contract amendment signed and approved by the duly authorized representative of the Sponsor and the Consultant.

(30) ATTACHMENTS: The following Exhibits and other documents are attached to and made a part of this Agreement:

(A) Exhibit I: Project Description.

(B) Exhibit II: Scope of Services.

(C) Exhibit IIA: Current FAA Advisory Circulars, Standards, Guidance and Engineering Briefs.
(D) Exhibit III: Services Provided by the Sponsor.
(E) Exhibit IV: Derivation of Consultant Project Costs.
(F) Exhibit V: Engineering Basic and Special Services - Cost Breakdown.
(G) Exhibit VI: Performance Schedule

Attachment A Survey Limit Exhibit
Attachment B CMT Geotechnical RFP
Attachment C Palmerton and Parrish Geotechnical Proposal

IN WITNESS WHEREOF, the parties hereto have entered into this Agreement, executed by their respective proper officials, on the date last written below.

Executed by the **Consultant** the 3rd day of August, 2023.

Executed by the **Sponsor** the _____ day of _____, 20____.

Consultant:

By: _____
Signature

Title: Sr. Vice President

ATTEST:

By: _____
Signature

Title: Project Engineer

Sponsor:

By: _____
Signature

Title: _____

ATTEST:

By: _____
Signature

Title: _____

EXHIBIT I

PROJECT DESCRIPTION

1. Rehabilitate Runway 13-31 (6,500' x 150'), including transitions to connecting taxiways and runway 18-36. The scope of work is more thoroughly detailed in Exhibit II and the list of line items in Exhibits IV and V.

2. The design phase will determine the optimal rehabilitation technique. The engineer will develop the technique's specifics after evaluating the results of the geotechnical investigations and NDT testing (previously performed by others).

   Generally, the rehabilitation will include pavement repairs, variable depth milling, and a bituminous overlay designed by the FAARFIELD software. The extent of full and partial-depth pavement repairs depends on the final geotechnical and NDT testing results.

3, Construct surface drainage, turfing, and ancillary improvements associated with the above modifications.

4. Apply runway precision instrument (PI) markings on runway 13-31 and, as required, markings on connecting taxiways.

5. Install a subsurface drainage system for the runway.

6. Install high-intensity runway lighting (H.I.R.L.) system on runway 13-31 for non-precision instrument criteria, medium-intensity taxiway lights (M.I.T.L.) on the connecting taxiway transition segments, lighted wind cones, electrical vault modifications, and miscellaneous equipment.

7. Install new lighted runway guidance signs (not previously replaced on recent 2016/2017/2018 AIP projects), including hold position signs on connecting taxiway E. Install taxiway directional signs (not included on recent ‘16/17/18 projects) as required.

8. Review existing ERGL system and recommend/design modifications to improve the reliability of the power supply for the existing installations.

EXHIBIT II

SCOPE OF SERVICES

The Consultant, in consideration of the payment on the part of the Sponsor, agrees to perform the engineering services enumerated as follows:

The Consultant will perform a topographical survey and geotechnical investigation required for project design and produce the Engineer's design report, construction plans, construction documents/technical specifications, tabulation of construction quantities, and the Engineer's opinion of probable construction costs.

The Consultant will assist the Sponsor with preparing any addenda during the bidding process and conduct the prebid meeting. All services will be performed following all applicable federal, state, and local laws, ordinances, regulations, and codes, together with good engineering practice and relevant FAA advisory circulars (ACs), standards, guidance, and/or agency orders and changes/revisions current at the time of execution of this Agreement including but not limited to those listed on attached EXHIBIT IIA. The improvements being designed on the project shall be consistent with a current and approved Airport Layout Plan.

The Consultant shall not proceed with services until a notice-to-proceed is received from the Sponsor.

The following is a detailed description of the specific services required by this Agreement.

I PRELIMINARY DESIGN PHASE SERVICES

A Perform site inspections and attend scoping meetings with Sponsor for project formulation.

B Develop a preliminary engineer's opinion of probable construction cost and project budget.

C Attend Kick-off meeting with FAA and City officials to discuss project scope, formulation, process, and coordination efforts.

D The Engineer shall review all available data (reports, original drawings, etc.) pertaining to existing conditions of the site and ongoing construction projects that will impact the proposed improvements. The new design shall conform to Airport and FAA airfield work standards.

E The Airport will make available its files of documents upon written request by the Engineer.

II BASIC DESIGN PHASE SERVICES

A The Engineer shall furnish all plant, labor (including any required professional disciplines), materials, and equipment to perform all operations in connection with the task stated herein.

B Full staff for design will include the following:

1 1 near full-time Senior Project Engineer
2 2 full-time Senior Engineer
3 2 full-time Engineers
4 1 full-time Senior Technician
5 1 full-time Technicians

C Provide design to rehabilitate distressed airfield pavement for Runway 13-31. Provide transitions to all intersecting pavements.

D Provide Pavement design for each pavement area to be constructed/reconstructed utilizing the latest Airport aircraft fleet mix.

E Determine subgrade suitability for new pavement placement and remedial measures where unfavorable subgrade conditions prevail. Provide design, details, and specifications for subgrade undercut and replacement materials, where required.

F Evaluate the condition of existing bituminous pavement and determine repairs before overlay.

G Design new PCC pavement and bituminous shoulders, including geometry, grading, and drainage. Include design and details for installing underdrains for runway and taxiway pavements.

H Provide evaluation and recommendation for construction phasing. The Engineer shall develop construction phasing options to minimize impacts on airport operations. Provide all design and details of construction phasing, including air and vehicle traffic maintenance.

I Provide design and details of all permanent and temporary pavement markings. The plan shall include removing and restriping all Runway 13-31 pavement markings as required to comply with Advisory Circular No. 150/5340-1.

J Provide design, details, and specifications of all demolition and removals, including adjustments of frames and covers to accommodate new grades where applicable. Demolition specifications shall include saw cuts and details for the pavement removal.

K Provide design and details of all pavement penetrations (light fixtures, manholes, inlets, electrical handholes, concrete bases for Airport and FAA equipment), including adjustments of frames and covers to grade.

L Provide design and details of all required airfield lighting and signage improvements, including any necessary modifications or enhancements to the electrical system and vault evaluation and improvements.

M Provide design and details of temporary electrical and signage work needed to facilitate construction phasing and keep adjacent taxiways operational.

N Provide standard details and specifications for the following stop-gap repairs to repair damage to pavements adjacent to the reconstruction limits.

1 Fast-track full slab and partial slab replacement
2 Full depth patches
3 Partial depth patches
4 Crack routing and sealing and joint sealing.

O Evaluate the reuse of demolished pavement.

P Identify on the plans the type and age of construction of the removal pavement. This information shall be in a form that enables the Contractor to determine the most effective method of pavement removal.

Q Provide delineation of limits of work, including locations of staging areas, haul routes and material waste areas. This will be an AOA construction project with work inside the airfield security perimeter.

R The Engineer shall submit a stormwater management permit and provide design and details of best management practice facilities to meet minimum requirements stipulated by the Missouri DNR or applicable local permitting. Assume pavement reconstruction and rehabilitation areas will be considered routine maintenance and exempt from water quality technical criteria.

S Provide erosion and sediment control plans, notes, specifications, and details meeting the minimum requirements stipulated by the Missouri DNR.

T The Engineer shall recommend to the Airport any pre-procurement of light cans or other materials that may have longer lead times and could impact the construction schedule.

U FAA Order 5100.1G Modification to Agency Airport Design, Construction, and Equipment Standards (MOS) requires a unique MOS to be submitted for construction specifications for each AIP-funded project. The Engineer shall prepare a draft MOS for each FAA specification (as applicable). The Airport will submit the MOS for approval through the Airport GIS system.

V The draft MOS request must include a certification that:

1 Modifications to materials, construction, or equipment standards will provide a product that will meet FAA standards for acceptance and that the finished product will perform for its intended design life, based on historical data.
2 Modifications to standards will provide an acceptable level of safety.
3 The proposed modification must conform to local laws and regulations (if applicable).
4 Unique local conditions require the MOS.

W Calculate and record volumes for bulk earthwork removal and fill, topsoil stripping, off-site topsoil, sodding, demolished pavement, and removed aggregate/millings. Identify structural versus shoulder fill. Calculate necessary volumes of undercut and backfilling.

III PREPARE A PRELIMINARY DESIGN REPORT

A Prepare a preliminary design report (bound) bearing the Engineer's seal. As a minimum, the design report will include the following:

1 Description of work (including AIP participation limits).
2 Listing of applicable design standards and Advisory Standards.
3 Design Considerations for airport Operational Safety.
4 Summary of the design computations.
5 Justification for selection of design materials.
6 Life Cycle cost analysis (if applicable) and recommendations.
7 Identification of modifications to FAA standards along with the reason(s) and justifications.
8 Summary of a preliminary project budget, including an engineer's opinion of probable construction cost.
9 Coordination with FAA regarding the ILS system, PAPI system, and incorporation of any necessary work into the contract.

B Other items for possible inclusion in the report are as follows but not limited to:

1 Predesign meeting minutes.
2 Site Conditions, including photographs. Pavement design calculations and proposed typical sections.
3 Geotechnical investigation and laboratory test results.
4 Analysis of alternatives (life cycle) and recommendations.
5 Drainage analysis/calculations.
6 Pavement marking analysis.
7 Hold sign design.
8 Seeding/top soiling considerations.
9 Sodding considerations
10 Lighting system design/calculations
11 PAPI & REIL elevation adjustment, placement/aiming calculations.
12 Analysis of Part 77 obstruction criteria as applied to this site.
13 Utility Evaluation.

14 A list of proposed modifications to design/construction standards and other FAA criteria, complete with the reason(s) and justifications.
15 Erosion control and SWPPP.
16 An engineer's opinion of probable construction cost.
17 Miscellaneous work items.
18 Summary of recommendations.

IV PREPARE CONSTRUCTION PLANS

A Prepare construction plans and contract documents/technical specifications following current FAA standards and regulations, all applicable codes, and other criteria.

B The construction plans will be incorporated into the Contract Documents/Technical Specifications and delineate the improvements in the project. The construction plans will generally include the following plan drawings:

1 Title sheet with project name/description, location map, index of sheets, and runway data table.
2 General airport layout plan with safety/construction phasing plan.
3 General notes and summary of quantities (separate Local Only and FAA specification items).
4 Sign plan/details for runway hold signs.
5 Demolition and clearing/grubbing plan.
6 Perimeter fencing access gate plan and details for construction equipment access.
7 Typical pavement sections.
8 Development of non-standard pavement sections and grades.
9 Development of transition sections
10 Runway 13-31 plans and profiles to restore crown and grade.
11 Plan and profiles for connecting taxiways and intersecting Runway 18-36.
12 Pavement joint layout plan and jointing details if PCC pavement is selected for part of the improvements, such as adjacent to runway 18-36, which is concrete.
13 General site grading plan/specific grading and surface drainage plans for the runway and connecting taxiways.
14 Runway plan and profiles
15 Drainage calculations for existing system and downstream.
16 Drainage plan
17 Drainage details.
18 Permanent and temporary erosion control plan and details
19 Subsurface drainage plans and profiles for runway and intersecting taxiways.
20 Runway and connecting taxiway transition lighting plans and details.
21 Runway counterpoise system
22 New airfield lighted wind cone and details, including voltage power from the vault.
23 Airport lighting electrical vault plan modification and details.

24 Four-box PAPI adjustment plan and details / or new fixtures
25 Runway and connecting taxiway marking plans and details.
26 Grooving plan and details
27 Miscellaneous ancillary details.
28 Cross sections.

V PREPARE CONTRACT DOCUMENTS/TECHNICAL SPECIFICATIONS.

A The Engineer shall prepare construction specifications that include project requirements. Generally, FAA Advisory Circular No. 150/5370-10H, Standards for Specifying Construction of Airports, will be used as a guide for preparing the project specifications. Format for the specifications shall conform to FAA Advisory Circular No. 150/5370-10H. The Engineer shall verify the correctness and applicability of any portion of the standards utilized in the project specifications.

B Complete, comprehensive, and customized specifications are required for the project. The Engineer shall investigate and specify using locally available construction materials and practices when practical.

C Inspections and testing by the Contractor and the Airport shall be fully detailed as part of the Contractor's Quality Control responsibility. The Engineer shall provide detailed section-specific requirements for testing and inspection for each item of work during all phases of construction, from submittals, through procurement, fabrication, installation, start-up, testing and balancing, and final acceptance. These testing and inspection requirements shall be clearly identified in each section of the technical specifications, preferably in a stand-alone section named the Contractor Quality Control Requirements" (Generally C-110).

VI DELIVERABLES

A All documents, including design reports, drawings, specifications, construction schedules, cost estimates, construction schedules, and calculations, shall be prepared following the guidelines and standards outlined in the FAA AIP Sponsor Guide

B Final documents, including drawings and each title page of the Specifications, Calculations, Design Report, and Cost Estimate, shall be certified with the seal and signature of the Engineer. Professional registration in the State of Missouri is required.

C 30% (Design Report), 90%, and 100% Submittal Documents

1 Design Submittals shall comply with standard FAA requirements defined in the AIP Sponsor Guide.
2 A design review meeting will be held within 15 days of receipt of the 30% (Design Report), 90%, and 100% submittals.

D Conformed Set Submittal Documents

1 The Conformed Set submittal shall be prepared and submitted after construction proposals have been received by the Airport. Conformed Drawings and Specifications shall remove revision clouds and incorporate changes made via addendum during the construction procurement phase.

2 All conformed set documents shall be sealed and signed by a Registered Professional Engineer in the State of Missouri.

E Cost Estimate and Construction Cost Control.

1 The Engineer shall prepare a Construction Cost Estimate Report for the project per the requirements of the FAA AIP Sponsor Guide. The estimate shall be thorough enough to allow the Airport to identify costs associated with all significant work elements. The cost estimate shall be detailed so that it can be readily utilized by the Airport in the event a negotiated type of contract is procured for the construction work. The Engineer shall submit estimate forms for approval by the Airport.

2 The Engineer shall prepare a Cost Reconciliation after bids are received.

F Drawings

1 The Engineer shall prepare all construction drawings to thoroughly define all project requirements. Drawings shall be prepared on CADD to the uniform standard policies and procedures for design and drafting work as established by the Sponsor.

2 Drawing size shall be 22" x 34", fully legible when reduced to half size.

G Submit Construction Plans, Contract Documents/Technical Specifications, Engineer's opinion of probable construction costs, and project budget to the Sponsor and FAA for review and comments. The Sponsor and FAA will each be provided with one (1) copy of each document.

H Finalize Construction Plans and Contract Documents/Technical Specifications with consideration of preliminary review comments from the Sponsor and FAA.

I Submit a final, sealed/signed copy to the Sponsor and the FAA (one copy each) of the following documents:

1 Design Report
2 Construction Plans
3 Contract Documents/Technical Specifications

4 Engineer's Opinion of Probable Construction Cost and Project Budget

VII FRONT-END AND BIDDING PHASE SERVICES

A Assist the Sponsor with the advertisement for bids and send "Notice to Bidders" to prospective contractors. (Sponsor shall place advertisements in appropriate media.)

B Print and distribute Construction Plans and Contract Documents/Technical Specifications to plan holding houses and prospective Bidders.

C Answer questions, clarify points, and prepare addenda as necessary about the Construction Plans and Contract Documents/Technical Specifications during the bidding phase.

D Attend and conduct the pre-bid meeting and record minutes.

E Attend and conduct the bid opening, tabulate and analyze bid results, review contractor qualifications, and recommend contract award to the Sponsor.

F Preparation of revised contract drawings (Conformed) incorporating changes made during construction procurement.

VIII TOPOGRAPHIC, UTILITY, AND SURVEY PHASE SERVICES

A The Engineer shall evaluate existing topographic and utility survey data and perform additional topographic and utility surveys as necessary. Prepare maps showing all surface features, including utilities, structures, pavement markings, pavement type, and joints, as necessary to complete the final design.

B Survey all manholes, inlets, cleanouts, and structures, and record any markings on the covers. Determine pipe type, inverts, and pipe diameters of all gravity utility lines within the project area. Verification of non-gravity utility lines through the use of office files and previous projects will not be acceptable. Collect all non-gravity utility lines located within the project area. The utility survey should begin with "record" information and be corrected by field survey.

C All surveys shall be in survey feet for both horizontal and vertical measurements.

D Horizontal and vertical control traverses will be recovered and/or established using conventional surveying and/or RTK/GPS methods. The control will be tied to the Missouri State Plane (NAD 83). Vertical control shall be based on NAVD 88. Survey control will be linked to existing PACS and SACS if present at the Airport.

E Spot elevations shall be collected accurately to 0.01 feet on pavement surfaces and 0.1 feet on turf. Collecting spot elevations on the pavement surface is limited to equipment accurate to 0.01 feet. GPS equipment is not allowed for elevation shots on the pavement surface.

Additionally, spot elevations collected on hard surfaces, including but not limited to concrete sign bases, concrete light bases, concrete foundations, and concrete drainage structures, shall be collected accurately to 0.01 feet.

F Establish runway and connecting taxiways baselines. Establish/set three (3) long-term control points along the length of the work area for use throughout the design and construction phases of the project. The control point shall be along unobstructed sightlines for frequent backchecks.

G Establish three (3) benchmarks along the project site for use during the project's design and construction phases that will be included in the plans. The benchmarks shall be along unobstructed sightlines for frequent backchecks.

H Obtain topography and above-ground features within the survey limits, as shown in the attachment.

I Collect horizontal and vertical spot elevation data (using x, y, and z coordinate format) along the runway and intersecting taxiway pavement surfaces at the accuracy described above and frequency described as follows:

1 For runway pavement, elevation tolerance = 0.01 foot.

a 50-foot centers along the runway centerline
b On 25-foot centers, transverse to the centerline
c Collect the asphalt roll-off at the edge of the pavement
d Collect the edge drop at the pavement/ground interface

e Collect elevations 10 feet off the edge of the pavement, including the ends.
f Pick up all interfaces with other pavements
g Pick up all grade breaks, increasing the frequency of data point collection (x, y, and z coordinates) necessary to accurately capture the pavement's 3-dimensional surface in electronic format.

2 For intersecting taxiway pavement; elevation tolerance = 0.01 foot:

a On 50-foot centers along the taxiway centerline
b On 25-foot centers, transverse to the centerline
c Collect the asphalt roll-off at the edge of the pavement
d Collect any edge drop at the pavement/ground interface
e Collect elevations 10 feet off the edge of the pavement, including the ends.
f Pick up all interfaces with other pavements
g Pick up all grade breaks, increasing the frequency of data point collection (x, y, and z coordinates) necessary to accurately capture the pavement's 3-dimensional surface in electronic format.

3 For turf shots, elevation, tolerance = 0.10 foot:

a On 50-foot centers along the runway centerline
b On 50-foot centers, transverse to the centerline
c Collect ground shot immediately at the edge of the pavement
d Collect elevations 10 feet off the edge of the pavement, including the end of the pavement.
e Pick up all grade breaks, increasing the frequency of collected data in x, y, and z format to accurately represent the 3-dimensional surface in electronic file format.

J Collect drainage structure details and piping within the limits of the project scope of work and extend the survey to pick up the downstream connections and end-of-pipe elevations necessary to perform a drainage design. The drainage structures shall be opened and detailed on a hand sketch, showing all horizontal and vertical connections and positively identifying the flow in and out of the network.

K Locate all existing runway and taxiway and taxiway lights, signs, and PAPI units, distinguishing between the base construction.

L Locate all manmade improvements and utilities, utility flag markings by Airport and local utilities, boring drill holes by the geotechnical subconsultant, and display on-site drawings.

M The surveyor will provide CMT a complete set of reduced and checked field notes, including a digital copy of the drawing in Microstation Version 8i format and Bentley Survey Suite. A PDF of the sealed survey drawing shall also be provided.

N All crews shall have airport radios and monitor the ground frequency. All activities shall be coordinated 48 hours in advance with the Airport Manager. All equipment operation at the Airport shall be clearly marked with a 3' x 3' orange and white checkered flag and/or amber flashing light.

O Maintain insurance coverage as required by the Airport.

IX GEOTECHNICAL PHASE SERVICES

A Perform a geotechnical subsurface investigation and report.

B See the unique scope of work for subsurface geotechnical investigation. (Attached on CMT Letterhead))

CONSTRUCTION SERVICES

These services can be added by Supplemental Agreement per Section (17) of this Agreement.

Notes:
For Final documents that must be sealed, signed, and dated, electronic submittal is

acceptable to the FAA when the Consultant has electronic signature capabilities.

Electronic submittal is acceptable to the FAA for documents not required to be sealed, signed, and dated.

EXHIBIT IIA
CURRENT FAA ADVISORY CIRCULARS REQUIRED FOR USE IN AIP FUNDED PROJECTS

Updated April 18, 2019

View the most current versions of these ACs and any associated changes at http://www.faa.gov/airports/resources/advisory_circulars/ and https://www.faa.gov/regulations_policies/advisory_circulars/.

NUMBER	TITLE
70/7460-1L Change 2	Obstruction Marking and Lighting
150/5000-9A	Announcement of Availability Report No. DOT/FAA/PP/92-5, Guidelines for the Sound Insulation of Residences Exposed to Aircraft Operations
150/5000-17	Critical Aircraft and Regular Use Determination
150/5020-1	Noise Control and Compatibility Planning for Airports
150/5070-6B Changes 1-2	Airport Master Plans
150/5070-7 Change 1	The Airport System Planning Process
150/5100-13B	Development of State Standards for Non-Primary Airports
150/5100-17, Changes 1-7	Land Acquisition and Relocation Assistance for Airport Improvement Program Assisted Projects
150/5200-28F	Notices to Airmen (NOTAMS) for Airport Operations
150/5200-30D Change 1	Airport Field Condition Assessments and Winter Operations Safety
150/5200-31C Changes 1-2	Airport Emergency Plan
150/5210-5D	Painting, Marking, and Lighting of Vehicles Used on an Airport
150/5210-7D	Aircraft Rescue and Fire Fighting Communications
150/5210-13C	Airport Water Rescue Plans and Equipment
150/5210-14B	Airport Rescue Fire Fighting Equipment, Tools, and Clothing
150/5210-15A	Airport Rescue and Firefighting Station Building Design
150/5210-18A	Systems for Interactive Training of Airport Personnel
150/5210-19A	Driver's Enhanced Vision System (DEVs)
150/5220-10E	Guide Specification for Aircraft Rescue and Fire Fighting (ARFF.) Vehicles

150/5220-16E Change 1	Automated Weather Observing Systems (AWOS) for Non-Federal Applications
150/5220-17B	Aircraft Rescue and Fire Fighting (ARFF.) Training Facilities
150/5220-18A	Buildings for Storage and Maintenance of Airport Snow and Ice Control Equipment and Materials
150/5220-20A	Airport Show and Ice Control Equipment
150/5220-21C	Aircraft Boarding Equipment
150/5220-22B	Engineered Materials Arresting Systems (EMAS) for Aircraft Overruns
150/5220-23	Frangible Connections
150/5220-24	Foreign Object Debris Detection Equipment
150/5220-25	Airport Avian Radar Systems
150/5220-26 Changes 1-2	Airport Ground Vehicle Automatic Dependent Surveillance-Broadcast (ADS-B) Out Squitter Equipment
150/5300-13A Change 1	Airport Design
150/5300-14C	Design of Aircraft Deicing Facilities
150/5300-15A	Use of Value Engineering for Engineering and Design of Airport Grant Projects
150/5300-16A	General Guidance and Specifications for Aeronautical Surveys: Establishment of Geodetic Control and Submission to the National Geodetic Survey
150/5300-17C Change 1	Standards for Using Remote Sensing Technologies in Airport Surveys
150/5300-18B Change 1	General Guidance and Specifications for Submission of Aeronautical Surveys to NGS: Field Data Collection and Geographic Information System (GIS.) Standards
105/5320-5D	Airport Drainage Design
150/5320-6F	Airport Pavement Design and Evaluation
150/5320-12C Changes 1-8	Measurement, Construction, and Maintenance of Skid Resistant Airport Pavement Surfaces
150/5320-15A	Management of Airport Industrial Waste
150/5320-17A	Airfield Pavement Surface Evaluation and Rating Manuals
150/5235-4B	Runway Length Requirements for Airport Design
150/5335-5C	Standardized Method of Reporting Airport Pavement Strength-PCN
150/5340-1L	Standards for Airport Markings

150/5340-5D	Segmented Circle Airport Marker System
150/5340-18F	Standards for Airport Sign Systems
150/5340-26C	Maintenance of Airport Visual Aid Facilities
150/5340-30J	Design and Installation Details for Airport Visual Aids
150/5345-3G	Specification for L-821, Panels for the Control of Airport Lighting
150/5345-5B	Circuit Selector Switch
150/5345-7F	Specification for L-824 Underground Electrical Cable for Airport Lighting Circuits
150/5345-10H	Specification for Constant Current Regulators and Regulator Monitors
150/5345-12F	Specification for Airport and Heliport Beacons
150/5345-13B	Specification for L-841 Auxiliary Relay Cabinet Assembly for Pilot Control of Airport Lighting Circuits
150/5345-26D	FAA Specification for L-823 Plug and Receptacle, Cable Connectors
150/5345-27E	Specification for Wind Cone Assemblies
150/5345-28G	Precision Approach Path Indicator (PAPI) Systems
150/5345-39D	Specification for L-853, Runway and Taxiway Retroreflective Markers
150/5345-42H	Specification for Airport Light Bases, Transformer Housings, Junction Boxes, and Accessories
150/5345-43J	Specification for Obstruction Lighting Equipment
150/5345-44K	Specification for Runway and Taxiway Signs
150/5345-45C	Low-Impact Resistant (LIR) Structures
150/5345-46E	Specification for Runway and Taxiway Light Fixtures
150/5345-47C	Specification for Series to Series Isolation Transformers for Airport Lighting Systems
150/5345-49D	Specification L-854, Radio Control Equipment
150/5345-50B	Specification for Portable Runway and Taxiway Lights
150/5345-51B	Specification for Discharge-Type Flasher Equipment
150/5345-52A	Generic Visual Glideslope Indicators (GVGI.)
150/5345-53D	Airport Lighting Equipment Certification Program
150/5345-54B	Specification for L-884, Power and Control Unit for Land and Hold Short Lighting Systems

150/5345-55A	Specification for L-893, Lighted Visual Aid to Indicate Temporary Runway Closure
150/5345-56B	Specification for L-890 Airport Lighting Control and Monitoring System (ALCMS.)
150/5360-12F	Airport Signing & Graphics
150/5360-13A	Airport Terminal Planning
150/5360-14A	Access to Airports by Individuals with Disabilities
150/5370-2G	Operational Safety on Airports During Construction
150/5370-10H	Standard Specifications for Construction of Airports
150/5370-11B	Use of Nondestructive Testing in the Evaluation of Airport Pavements
150-5370-12B	Quality Management for Federally Funded Airport Construction Projects
150/5370-13A	Off-Peak Construction of Airport Pavements Using Hot-Mix Asphalt
150/5370-15B	Airside Applications for Artificial Turf
150/5370-16	Rapid Construction of Rigid (Portland Cement Concrete) Airfield Pavements
150/5370-17	Airside Use of Heated Pavement Systems
150/5390-2C	Heliport Design
150/5395-1B	Seaplane Bases
150/5380-6C	Guidelines and Procedures for Maintenance of Airport Pavements
150/5380-7B	Airport Pavement Management Program
150/5380-9	Guidelines and Procedures for Measuring Airfield Pavement Roughness
MoDOT	MoDOT DBE Program- http://www.modot.org/ecr/index.htm

EXHIBIT III

SERVICES PROVIDED BY THE SPONSOR

The Sponsor, as a part of this Agreement, shall provide the following:

1. Assist the Consultant in arranging to enter upon public and private property as required for the Consultant to perform his services.

2. Obtain approvals and permits from all governmental entities having jurisdiction over the project and such approvals and consents from others as may be necessary for the completion of the project.

3. Prompt written notice to the Consultant whenever the Sponsor observes or knows of any development that affects the scope or timing of the Consultant's services.

4. One (1) copy of existing plans, standard drawings, bid item numbers, reports, or other data the Sponsor may have on file concerning this project.

6. Resolve all property issues involving construction and adjacent landowners

7. Pay publishing costs for advertisements of notices, public hearings, request for proposals, and other similar items. The Sponsor shall pay for all permits and licenses that may be required by local, state, or federal authorities and shall secure the necessary land easements and/or rights-of-way required for the project.

8. Issue Notice to Airmen (NOTAM's) through the applicable F.A.A. Flight Service Station.

9. Disadvantaged business enterprise (DBE) goals for the project based upon proposed bid items, quantities, and opinions of construction costs.

10. Guidance for assembling bid package to meet Sponsor's bid letting requirements.

11. Designate the contact person (see Section (23)(A)).

12. Pay costs for title searches.

EXHIBIT IV a

DERIVATION OF CONSULTANT PROJECT COSTS

EXHIBIT IV (a)

DERIVATION OF CONSULTANT PROJECT COSTS
JOPLIN REGIONAL AIRPORT
JOPLIN, MISSOURI
REHABILITATION OF RUNWAY 13-31
FEE SUMMARY
January 31, 2023

	Fee	Hours
Rehabilitation of Runway 13-31	$620,633.13	4,320
Front End and Bidding Services	$40,822.04	242
Total	**$661,455.00**	**4,562**

EXHIBIT IV b

DERIVATION OF CONSULTANT PROJECT COSTS

EXHIBIT IV (b)

DERIVATION OF CONSULTANT PROJECT COSTS

JOPLIN REGIONAL AIRPORT
JOPLIN, MISSOURI
REHABILITATION OF RUNWAY 13-31
PRELIMINARY AND BASIC DESIGN PHASE SERVICES
January 31, 2023

1 DIRECT SALARY COSTS:

TITLE	HOURS	RATE/HOUR	COST ($)
Principal	40	98.40	$3,936.00
Senior Project Engineer	398	79.33	$31,573.34
Project Manager	0	63.00	$0.00
Senior Engineer	1134	46.69	$52,946.46
Engineer	1240	35.40	$43,896.00
Senior Planner	0	44.97	$0.00
Planner	0	35.45	$0.00
Registered Land Surveyor	132	47.34	$6,248.88
Senior Technician	734	44.22	$32,457.48
Technician	642	30.78	$19,760.76
Clerk/Secretary	0	28.99	$0.00
	4,320		

Total Direct Salary Costs = $190,818.92

2 LABOR AND GENERAL ADMINISTRATIVE OVERHEAD:

Percentage of Direct Salary Costs @ 172.26 % = $328,704.67

3 SUBTOTAL:

Items 1 and 2 = $519,523.59

4 PROFIT:

15 % of Item 3 Subtotal = $77,928.54

Subtotal $597,452.13

5 OUT-OF-POCKET EXPENSES:

a. Mileage	4600	Miles @	$0.655	/ Mile =	$3,013.00
b. Meals Design	14	Days @	$32.00	/ Day =	$448.00
c. Meals Survey	16	Days @	$45.00	/ Day =	$720.00
d. Motel	28	Nights @	$125.00	/ Night=	$3,500.00
e. Printing and Shipping				=	$1,000.00

Total Out-of-Pocket Expenses = $8,681.00

6 SUBCONTRACT COSTS:

a. Topographic Survey (Perform In-House) =
b. Geotechnical Consultant = $14,500.00

= $14,500.00

7 MAXIMUM TOTAL FEE:

Items 1, 2, 3, 4, 5 and 6 = $620,633.13

EXHIBIT IV c

DERIVATION OF CONSULTANT PROJECT COSTS

EXHIBIT IV (c)

DERIVATION OF CONSULTANT PROJECT COSTS

JOPLIN REGIONAL AIRPORT
JOPLIN, MISSOURI
REHABILITATION OF RUNWAY 13-31
FRONT END DOCUMENTS AND BIDDING PHASE SERVICES

January 31, 2023

1 DIRECT SALARY COSTS:

TITLE	HOURS	RATE/HOUR	COST ($)
Principal	0	98.40	$0.00
Senior Project Engineer	58	79.33	$4,601.14
Project Manager	0	63.00	$0.00
Senior Engineer	86	46.69	$4,015.34
Engineer	86	35.40	$3,044.40
Senior Planner	0	44.97	$0.00
Planner	0	35.45	$0.00
Registered Land Surveyor	0	47.34	$0.00
Senior Technician	6	44.22	$265.32
Technician	6	30.78	$184.68
Clerk/Secretary	0	28.99	$0.00
	242		

Total Direct Salary Costs = $12,110.88

2 LABOR AND GENERAL ADMINISTRATIVE OVERHEAD:

Percentage of Direct Salary Costs @ 172.26 % = $20,862.20

3 SUBTOTAL:

Items 1 and 2 = $32,973.08

4 PROFIT:

15 % of Item 3 Subtotal = $4,945.96

Subtotal $37,919.04

5 OUT-OF-POCKET EXPENSES:

a. Mileage	1800	Miles @	$0.655	/ Mile =	$1,179.00
b. Meals	7	Days @	$32.00	/ Day =	$224.00
c. Motel	0	Nights @	$112.00	/ Night=	$0.00
d. Printing and Shipping				=	$1,500.00

Total Out-of-Pocket Expenses = $2,903.00

6 SUBCONTRACT COSTS:

a. = $0.00

= $0.00

7 MAXIMUM TOTAL FEE:

Items 1, 2, 3, 4, 5 and 6 = $40,822.04

EXHIBIT V

ENGINEERING BASIC AND SPECIAL SERVICES-COST BREAKDOWN

Exhibit V

JOPLIN REGOINAL AIRPORT
JOPLIN, MISSOURI

PRELIMINARY, BASIC, FRONT-END, BIDDING, SURVEY AND GEOTECHNICAL SERVICES
REHABILITATION OF RUNWAY 13-31
January 31, 2023

Classification: Gross Hourly Rate:		Principal $308.09	Senior Project Engineer $248.38	Project Manager $197.25	Senior Engineer $146.19	Engineer $110.84	Senior Planner $140.80	Planner $110.99	Registered Land Surveyor $148.22	Senior Technician $138.45	Technician $96.37	Clerk/ Secretary $90.77	Other Costs
A. DESIGN SERVICES													
1. Rehabilitation of Runway 13-31:													
Project Management (status reports, project coordination, invoicing)			40		60								
7460-1 Submittal			8		24	24				12	12		
Coordinate surveys, geotechnical investigation, add results to project manual.			4		36	36							
Tenant Coordination Meeting			12		12	12							
Coordinate with FAA tech ops			12		12	12							
Review record drawings			4		32	32				24	24		
Design Report			24		140	140				60	60		
Cover Sheet/Title Block					4	4				8	8		
Index, Legends, Sum of Quantities Sheets			6		12	12				8	8		
Construction Safety and Phasing Plan (CSPP)			24		100	100				40	40		
General Notes			8		20	20				20	20		
Demolition Sheets			8		40	60				60	60		
Pavement Geometry/Typical Sections			8		60	100				60	60		
Site Grading and Drainage, Details			40		90	120				60	60		
Cross Sections					20	100				20	20		
Layout/Pavement Marking Plans			6		60	60				60	60		
Pavement Marking Details					12	24				60	60		
Electrical Layout and Details			40		90	90				30	30		
Electrical Vault Modifications			40		20	20							
Field check survey and plans			24		12	16							
Prepare quantities and cost estimates			6		30	30				60	60		
Prepare project technical specifications			24		120	120							
Internal quality control review		40	40		60	40							
Address Sponsor/FAA comments and seal sheets			12		60	60				60	60		
Total hours =	4,072	40	390	0	1126	1232	0	0	0	642	642	0	(1,2,3,4,5)
Total =	$580,519.10	$12,323.58	$96,868.76	$0.00	$164,605.35	$136,551.24	$0.00	$0.00	$0.00	$88,886.43	$61,870.74	$0.00	$19,413.00
2. Front End Specifications and Bidding - Phase 1:													
Prepare agenda and attend pre-design meeting			12		12	12							
Site Visits, Field Review			24		20	20							
Prepare Front End Specifications			2		6	8							
Permit review and applications			2		4	6							
Send plans to contractors and answer questions			2		6	12							
Addendum Issuance (if necessary)			2		8	18				6	6		
Conduct pre-bid meeting and send out minutes (inc. travel)			12		12	4							
Assist sponsor with the bid opening (inc. travel)					12								
Review bids, prepare bid tab, and recommend award			2		6	6							
Total hours =	242	0	58	0	86	86	0	0	0	6	6	0	(1,2,3,4,5)
Total =	$40,822.04	$0.00	$14,406.12	$0.00	$12,571.99	$9,531.99	$0.00	$0.00	$0.00	$830.71	$578.23	$0.00	$2,903.00
3. Ground Survey													
Establish Horizontal and Vertical Control Points									8	8			
Cross Section Runway at 50' Intervals with 25' Grid									32	32			
Locate Topographic Features - lights, signs, etc.									12	12			
Obtain Inverts on Drainage Structures									8	8			
Prepare Topographic Map with Surface Model									40				
Civil Coordination			8		8	8							
Travel Time from Springfield, IL to JLN									32	32			
Total hours =	248	0	8	0	8	8	0	0	132	92	0	0	(1,2,3,4,5)
Total =	$40,114.03	$0.00	$1,987.05	$0.00	$1,169.49	$886.70	$0.00	$0.00	$19,565.18	$12,737.62	$0.00	$0.00	$3,768.00

TOTAL = $661,455.18

(1) Mileage, Motel and Meals
(2) Equipment, Materials and Supplies
(3) Computer Services
(4) Vendor Services
(5) Printing and Shipping

EXHIBIT VI

PERFORMANCE SCHEDULE

The Consultant agrees to proceed with services immediately upon receipt of written Notice to Proceed (NTP) by the Sponsor and to employ such personnel as required to complete the scope of services per the following time schedule:

BASIC DESIGN PHASE SERVICES

A.	Preliminary Phase	As Required
B.	Design Phase	
1.	Submittal of Preliminary Design Report	**(45)** calendar days after receipt of NTP.
2.	Plans & Specifications	
a.	Submittal of Preliminary 90% plans and Contract Documents/Specifications for review (allow 45 days for FAA review)	**(90)** calendar days after receipt of NTP.
b.	Submittal of 100% Plans and Contract Documents/Specifications for review (allow 45 days for FAA review)	**(120)** calendar days after receipt of NTP. or (14) days after Receipt of review comments (FAA & Sponsor)
c.	Submittal of Final Design Report and Plans and Contract Documents/ Specifications for bidding	**(14)** calendar days after receipt of review comments (FAA & Sponsor)
C.	Bidding Phase	As Required
a.	Submittal of Conformed Plans and Contract Documents/ Specifications for bidding	**(14)** calendar days after receipt of award of contract

SPECIAL SERVICES

A.	Surveys	
1.	Submittal of Preliminary Survey Files and Notes	**(45)** calendar days after receipt of NTP

B. Geotechnical

1.	Submittal of Preliminary Design Report	**(45)** calendar days after receipt of NTP

CONSTRUCTION SERVICES

1.	Construction Services	As Required

ATTACHMENT A

SURVEY LIMITS


JOPLIN REGIONAL
Need proposal for CMT to do Runway Surveys
Legend
1" = 850 +- Approximate Scale
Use dimensions
7500'
500'
500'
500'
Joplin Regional Airport
Sunset Creek Park
Sunset Park
North Main Street Baptist Church
Yttrium NFT
Mizzou Aviation
Joplin Public Safety Training Facility
Digital Planet Studio
Google Earth
© 2022 Google
2000 ft

ATTACHMENT B

CMT GEOTECHNICAL RFP

January 10, 2023

Brandon Parrish
Palmerton & Parrish, Inc.
4168 W. Kearney St.
Springfield, MO 65803

Re: ***GEOTECHNICAL INVESTIGATION***
Joplin Regional Airport
Reconstruct Runway 13-31

Crawford, Murphy & Tilly, Inc. (CMT) has been retained by the City of Joplin, MO, to design the above-referenced project. The scope of this project is to reconstruct the general aviation apron.

We request a proposal from you to perform the geotechnical investigation for the design phase of this project based on the scope of work outlined below.

Geotechnical Investigation

1. Coordinate daily on-airport activities with the Airport through CMT.
2. Coordinate with the Airport, CMT, and utilities for utility locations. In addition to calling Missouri One Call, the City will need to be notified of the sub-surface sampling areas so that any Airport owned utilities can be located.
3. The vehicles used during the geotechnical work should be equipped with a flashing/rotating amber beacon or an orange & white checkered flag.
4. Perform the work following the appropriate ASTM standard tests.
   Conduct fifteen (15) soil borings at the locations shown in the boring plan to a depth of ten (10) feet or until auger refusal, whichever is shallower, and perform sub-surface exploration to determine the thickness of the pavement, the aggregate base, and water table elevation (if water is present). The diameter of the pavement cores shall be large enough to allow for soil sampling with a minimum diameter of six inches.
5. We know the surface layer of the runway consists of variable-depth asphalt full length.
6. Be advised that an undefined portion of Runway 13-31 is a "sandwich pavement," a non-standard pavement structure consisting of one or more layers of rigid or flexible pavement below the aggregate base layer.
7. Backfill auger holes and patch pavement with a cold bituminous mix or non-shrink grout.
8. Center two cores on wide crack locations if possible.
9. Perform a soil classification for all boring locations (ASTM D 2487).
10. Create a boring log for all boring locations. The boring logs should include the following:
    a. Location
    b. Date performed
    c. Type of exploration
    d. Surface elevation (to be determined from a survey by others)
    e. Depth of materials
    f. Sample identification numbers
    g. Classification

Gateway Tower One Memorial Drive Suite 500 St. Louis, Missouri 63102 **PHONE** 314.436.5500 **FAX** 314.436.0723 cmtengr.com Engineers and Consultants

h. Water table
i. Standard penetration test (SPT)

11. Collect bulk samples from two (2) shallow test pits for laboratory testing. PPI will locate the test pits based on the soil types encountered at the boring locations and will be responsible for providing the necessary equipment for digging the test pits.
12. For each test pit, perform the following soil tests.
    a. Particle-Size Analysis using ASTM D 421 or ASTM D 422 as appropriate
    b. Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils (ASTM D 4318)
    c. Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (ASTM D 698)
    d. Standard Test Method for CBR (California Bearing Ration of Laboratory-Compacted Soils (ASTM D 1883)
    e. Standard Test Method for Shrinkage Factors of Soils by the Wax Method (ASTM D 4943)
    f. Natural soil (in-situ) moisture content.
13. Provide a written report describing the soils encountered within the project limits and the relevant test results necessary for the project's design.
14. The report should be in a format suitable for insertion into the Preliminary Design Report, with the information also included as an attachment to the Construction Specifications.
15. The report shall include (as a minimum) the following:
    a. Location diagram of boring locations.
    b. Summary of Borings.
    c. CBR results.
    d. A table summarizing the test results.
    e. Compaction recommendations for use under a flexible bituminous pavement.
    f. Sealed by a professional engineer.
16. The final deliverable shall consist of a single file PDF of the report.

If you are interested in performing this work, please submit a cost proposal to this office as soon as possible. The proposal may use standard hourly rates with a not to exceed amount. The sub-agreement with CMT will be in CMT's format and prepared by CMT. A sample copy of this agreement is available upon request. The sub-agreement will include payment to sub-consultants on a pay-when-paid basis.

If you have any questions, you may contact me at 314-571-9056. You may also contact me by e-mail at dnauman@cmtengr.com.

Sincerely,
CRAWFORD, MURPHY & TILLY, INC.

Dave Nauman, P.E.
Project Manager

Enclosure: Attachment 1 – Soil Boring Plan



JOPLIN AIRPORT
REHABILITATION RUNWAY
13-31
SUBSURFACE INVESTIGATIVE
EFFORT
JANUARY 10, 2023

15 TOTAL BORINGS TO A DEPTH OF 10' OR REFUSAL

AND

2 BULK SAMPLES

ATTACHMENT C

PROPOSAL FROM PALMERTON
AND PARRISH

PALMERTON & PARRISH, INC.
4168 W. KEARNEY ST.
SPRINGFIELD, MO 65803
Ph: (417) 864-6000
www.ppimo.com

PROFESSIONAL SERVICES AGREEMENT

January 10, 2023

Crawford, Murphy & Tilly, Inc.
Gateway Tower
One Memorial Drive
Suite 500
St. Louis, MO 63102

Attention: Mr. Dave Nauman
dnauman@cmtengr.com

RE: PROPOSAL FOR GEOTECHNICAL INVESTIGATION
Joplin Regional Airport – Runway 13-31 Reconstruction
Joplin, Missouri

Dear Mr. Nauman:

Palmerton & Parrish, Inc. (PPI) appreciates the opportunity to submit this proposal for a geotechnical investigation for the proposed new reconstruction of the existing Runway 13-31 at the Joplin Regional Airport (JLN) in Joplin, Missouri. As requested by Crawford, Murphy & Tilly, Inc. (CMT), PPI's scope of work will include the following:

- Perform fifteen (15) pavement cores/soil borings on the existing pavement at locations to be selected by CMT. The purpose of the pavement cores is to evaluate the thickness/type of the pavement and base course, if present. Soil borings will extend to a depth of 10 ft., or refusal, whichever is shallower. Soil samples will be obtained using a split spoon sampler while performing the Standard Penetration Test (SPT) in accordance with ASTM D1586 at approximate 2.5 to 5-ft. intervals. Previous cores within this area indicate a layered pavement system as thick as 18-inches;
- Groundwater depth, if encountered, will be recorded;
- Once the soil borings are drilled, two (2) offset holes will be drilled adjacent to the runway with hollow stem augers to obtain bulk samples for additional laboratory testing;
- Perform laboratory testing on samples collected from drilled borings (SPT samples and bulk samples); Moisture Content Test, Atterberg Limits, Swell Test (if applicable), Grain Size Analysis, Standard Proctor and Laboratory CBR Test; and
- Preparation of a Geotechnical Engineering Report addressing the existing soil conditions and pavement types/thicknesses, summary of laboratory tests and provide recommendations for subgrade preparation and soil stabilization (if recommended).

PPI will provide the scope of services outlined above for a lump sum cost of Fourteen Thousand Five Hundred Dollars (**$14,500.00**). The projected cost is also based upon the following:

- Right-of-entry, if required, will be obtained by others prior to PPI's mobilizations;
- Boring locations will be staked in the field by PPI using a site plan provided by CMT with existing field features presented on the site plan;
- PPI will notify the Missouri One Call System to locate and mark public utilities;
- Prior to mobilization PPI will coordinate with the Airport, CMT and FFA tech ops to locate private utilities;
- Field activities will commence between Monday through Friday during normal business hours (8 a.m. to 5 p.m.). If night time work is required, additional charges will apply; and
- Samples will be stored and held at PPI's Springfield Laboratory for 30 days past the date of report publication, at which time, the samples will be discarded.

PPI will notify the Client if unanticipated conditions encountered during the field investigation merit a change in scope beyond that discussed in this proposal. In any event, we will not exceed projected costs without your prior approval.

PAYMENT TERMS

An invoice will be submitted once the report is issued, and due on a paid when paid basis.

TERMS & CONDITIONS OF SERVICE

Please call our Springfield office at (417) 864-6000 if you have any questions regarding this proposal or if you need additional information.

To authorize this proposal, please sign one copy and return a fully executed copy to our office or provide a separate CMT contract for PPI signature.

Client acknowledges that it has reviewed the General Conditions and any attachments or exhibits attached hereto, which are expressly made a part of and incorporated into this Agreement by reference.

If this Agreement satisfactorily sets forth your understanding of our agreement, please sign in the space provided below.

PALMERTON & PARRISH, INC.

By 
Brandon Parrish, PE
Vice President

Attachments:
General Conditions

By signing below, you acknowledge you have full authority to bind Client to the terms of the Agreement. Your signature below authorizes and accepts the terms set forth herein:

CLIENT

Signature: _____

Name: _____

Title: _____

Date: _____

Additional Information

Additional Contact Information
[if different from above]

Report Transmittal Instructions:
[email(s) for distribution list]

Invoice Transmittal Instructions:
[email(s) for invoice(s); hard copy requested, etc.]

Other Information:

GENERAL CONDITIONS

STANDARD OF CARE

PPI shall perform its services consistent with the professional skill and care ordinarily provided by consultants practicing in the same or similar locality under the same or similar circumstances ("Standard of Care"). PPI shall perform its services as expeditiously as is consistent with such professional skill and care and the orderly progress of the Project. PPI makes no warranties or guarantees, express or implied, under this Agreement or otherwise in connection with PPI's services. Notwithstanding any other representations made elsewhere in this Agreement or in the execution of the Project, this Standard of Care shall not be modified.

CODE COMPLIANCE

PPI shall review applicable laws, codes, and regulations and, in the provision of its Services, shall respond to such requirements imposed by the governmental authorities having jurisdiction over the Project and reasonably known to PPI at the time services are provided. Client acknowledges that the requirements of federal, state, and local laws, rules, codes, ordinances, and regulations, including, but not limited to, the Americans with Disabilities Act, are subject to various and possible contradictory interpretations. PPI will use reasonable professional efforts and judgment to correctly interpret and apply such requirements. PPI, however, cannot and does not warrant or guarantee that its services and documents will comply with all such interpretations and requirements.

LIMITATION OF LIABILITY

In recognition of the relative risks and benefits of the Project to both Client and PPI, the risks have been allocated such that the Client agrees, to the fullest extent permitted by law, the total liability, in the aggregate, of PPI, PPI's officers, directors, partners, employees, agents, and subconsultants, to Client, and anyone claiming by, through, or under Client for any claims, losses, costs, or damages whatsoever, including without limitation attorneys' fees and costs and expert witness fees and costs arising out of, resulting from or in any way related to this Project or Agreement from any cause or causes, including but not limited to negligence, professional errors and omissions, strict liability, breach of contract, or breach of warranty, shall not exceed the total compensation received by PPI or twenty-five thousand dollars ($25,000), whichever is greater.

MUTUAL INDEMNITY

PPI and Client each agree to indemnify the other against liability, damages, costs and expenses including reasonable attorney's fees and expenses recoverable under applicable law (collectively "Damages") that are caused to the other due to the negligence of the indemnifying party, but only to the extent of the indemnifying party's negligence. Neither PPI nor Client shall be required to indemnify the other to the extent Damages arise from or are caused by the indemnified party's own negligence (whether sole, concurrent, or contributory). Neither PPI nor Client shall have a duty to provide the other an up-front defense of any claim.

OWNERSHIP OF DOCUMENTS

All documents prepared or furnished by PPI pursuant to this Agreement are instruments of PPI's professional service, and PPI shall retain ownership and property interest therein, including all copyrights. Upon payment in full for services rendered, PPI grants Client a license to use instruments of PPI's professional service for the purpose of constructing, occupying, or maintaining the Project. Reuse or modification of any such documents by Client, without PPI's written permission, or use of documents after termination, shall be at Client's sole risk, and Client agrees to indemnify, defend, and hold PPI harmless from all claims, damages, and expenses, including attorneys' fees, arising out of such reuse by Client or by others acting through Client.

DISCLAIMER OF THIRD PARTY RELIANCE

Nothing contained in this Agreement shall create a contractual relationship or a cause of action in favor of a third party against either the Client or PPI.

DISPUTE RESOLUTION

Any claim, dispute, or other matter in question arising out of or related to this Agreement shall be subject to a meet-and-confer session as a condition precedent to mediation.

Client and PPI shall endeavor to resolve claims, disputes, and other matters in question during the meet-and-confer session. The meet-and-confer session shall be attended by Client and PPI or their authorized representatives who shall have the authority to bind the parties. The meet-and-confer session shall take place within thirty (30) days after a request by either party, unless the parties mutually agree otherwise. Prior to the meet-and-confer session, the parties shall exchange relevant information that will assist in resolving the claim, dispute, or controversy.

If the parties reach a mutually acceptable resolution, they shall prepare appropriate documentation memorializing the resolution. If the parties cannot reach a mutually acceptable resolution, they shall proceed to mediation as a condition precedent to binding dispute resolution. If the parties do not resolve a dispute through mediation, the parties shall mutually agree on a method of binding dispute resolution, either litigation in a court of competent jurisdiction or arbitration.

INSURANCE

PPI maintains insurance, which PPI deems to be adequate. Certificates of Insurance evidencing such coverage will be provided, if requested.

GOVERNING LAW

The Agreement shall be governed by the Laws of the State of Missouri.

TIMELY NOTICE FOR CMT SERVICES

It is the responsibility of the Client or for the Client to direct the Contractor to provide timely notice to PPI of readiness for inspection and testing services.

Client shall indemnify and hold PPI and its subconsultants harmless from and against damages, losses, and judgments arising from claims by Client or any third parties, including reasonable attorneys' fees and expenses recoverable under applicable law, related to the services or activities PPI did not provide or in which PPI did not participate, for reasons including but not limited to, the lack of notification of readiness for services or Client direction to reduce services.

CONSTRUCTION RESPONSIBILITIES

Client understands and acknowledges that: (1) PPI has no control over, charge of, or responsibility for construction activities or jobsite safety on the Project; (2) Contractor shall be solely responsible for, and have control over, construction means, methods, techniques, sequences and procedures, jobsite safety, and security; and (3) PPI shall not be responsible for the Contractor's failure to perform the Work in accordance with the requirements of the Contract Documents.