

**CROSSVILLE MEMORIAL AIRPORT
STORAGE HANGAR SITE WORK
Work Authorization Number 02-14**

Date: November 19, 2014

Atkins No. 100000000.00
(Project Identification No.)

It is agreed to undertake the following work pursuant to the terms and condition of the Agreement For Professional Airport Services between the City of Crossville (OWNER) and Atkins (ENGINEER) dated the 25th day of November 2013, and which is incorporated herein by reference and whose terms and conditions shall govern and control this Contract unless stated herein.

Scope of Services:

The ENGINEER shall provide professional services for the *Storage Hangar Site Work* at the Crossville Memorial Airport (the Project). Services of the ENGINEER are more particularly described in Attachment A, "Engineer's Scope of Services".

Time of Performance:

The ENGINEER shall immediately begin work upon receipt of a fully executed Work Authorization and submit the Project Deliverables to the OWNER and the Tennessee Department of Transportation – Aeronautics Department (TAD) no later than 60 calendar days following receipt of an executed Work Authorization. In conducting the work the ENGINEER shall keep the OWNER informed as to the status of the project, anticipated activities, schedule changes, and any known problem areas by submitting weekly project progress reports. Submittal of final Project Deliverables shall be no later than 30 calendar days following receipt of OWNER/TAD comments.

Compensation:

The OWNER shall compensate the ENGINEER under the herein described Scope of Services a lump sum amount of **twenty thousand seven hundred and fifty dollars (\$20,750.00)** for Basic Services as estimated by the ENGINEER and set forth in Attachment B-1, "Engineer's Estimate of Compensation Basic Services". Progress payments to the ENGINEER for Basic Services shall be by an estimate of percent complete.

In addition the OWNER shall compensate the ENGINEER an amount not to exceed **twenty-five thousand two hundred dollars (\$25,200.00)** for Special Services as estimated by the ENGINEER

and set forth in Attachment B-2, "Engineer's Estimate of Compensation Special Services". Payments to the ENGINEER for Special Services shall be made monthly and include charges accumulated the preceding month.

It is agreed that the ENGINEER's Special Services compensation is based on an estimate of the Projects construction duration and associated efforts of the ENGINEER. In the event the construction duration is longer, or requires effort beyond that which is estimated herein the ENGINEER shall be due consideration of additional compensation.

Agreed as to Scope of Services, Time of Performance and Compensation:

OWNER: **City of Crossville**

ENGINEER: **Atkins**

Date: _____

Date: _____

ATTACHMENT A

ENGINEER'S SCOPE OF SERVICES

WORK AUTHORIZATION NO. 02-14 STORAGE HANGAR SITE WORK CROSSVILLE MEMORIAL AIRPORT November 5, 2014

PROJECT DESCRIPTION AND GENERAL SCOPE OF SERVICES

The proposed project will include site work necessary to construct a 100 ft. x 100 ft. storage hangar. Site work shall include the construction of a, approximately 6,000 s.f., aircraft apron, site grading and drainage, sidewalk construction and a storm water detention pond.

Services included are as follows:

- Geotechnical investigation for design.
- Grading and drainage to accommodate storage hangar and associated ramp.
- North, south and east personnel doors shall have 5' sidewalks.
- Engineer to abide by City requirements on storm water retention.
- Engineer to evaluate apron section from latest T-hangar and possibly mimic said section for consistency; bid concrete apron as alternate.
- Engineer to include sod placement for all site work stabilization post paving completion.
- Waste shall be placed on back slopes of newest T-hangars, evenly distributed.
- All bituminous paved surfaces shall be seal coated post specified cure period.

I. BASIC SERVICES

1. PRELIMINARY DESIGN PHASE

- A. Consult with OWNER to clarify and define OWNER's requirements for the Project and review available data.
- B. Advise OWNER as to the necessity of OWNER's providing or obtaining from others data or services required for the Project other than those provided for herein by the ENGINEER and act as OWNER's representative in connection with any such services.
- C. Provide analyses of OWNER's needs to perform planning surveys, site evaluations and comparative studies of prospective alternatives and solutions.
- D. Prepare schematic layouts, sketches and conceptual design criteria with appropriate exhibits to indicate clearly the considerations involved and the solutions available to OWNER and setting forth ENGINEER's findings.
- E. Examine viable alternatives and advise the OWNER of those that are compatible with the budget and schedule requirements.
- F. Attend a pre-design conference/project kick-off meeting at the Project site with the OWNER, State, and other interested parties to review the requirements and schedule for the Project.
- G. Prepare preliminary design documents consisting of final design criteria, preliminary drawings and outline specifications.
- H. Based on the information contained in the preliminary design documents and data from site investigations, submit an updated opinion of Project quantities and an Engineer's opinion of probable construction cost.
- I. Furnish three (3) copies of the above preliminary design documents and present and review them with OWNER and state.

2. FINAL DESIGN PHASE

- A. OWNER will review and accept preliminary design documents as to concept. On the basis of the acceptance of the preliminary design documents ENGINEER will prepare for incorporation in the Contract Documents final drawings to show the character and extent of the Project (hereinafter called "Drawings") and all related Specifications.
- B. Furnish to OWNER such documents and design data as may be required for, and assist in the preparation of, the required documents so that OWNER may apply for approvals of such governmental authorities as have jurisdiction over design criteria applicable to the Project, and assist in obtaining such approvals by participating in submissions to and negotiations with appropriate authorities.
- C. Advise OWNER of any adjustments to the latest Project quantities caused by changes in scope or design requirements of the Project and furnish a revised opinion of probable quantities and opinion of probable construction cost based on the Drawings and Specifications.
- D. Prepare bid forms for review and approval as to form and concept by OWNER, its legal counsel and other advisors. As appropriate, the agreement and bond forms, general provisions, special provisions, (invitations to bid and instructions to bidders will be provided to the ENGINEER by the OWNER). All of the above documents, plus bid documentation, bond(s), and the drawings and specifications constitute the Contract Document.
- E. Furnish five copies of the above documents and present and review them with OWNER, State, and other interested parties.

3. BID AND AWARD PHASE

- A. Assist OWNER in advertising for and obtaining bids from prime contractors for construction, materials, equipment and services for the Project.
- B. Assist OWNER in conducting and attend a pre-bid conference at the Project site.
- C. Consult with and advise OWNER as to the acceptability of subcontractors and other persons and organizations proposed by the prime contractor(s) (hereinafter called "Contractor(s)") for those portions of the work as to which such acceptability is required by the bidding documents.
- D. Consult with and advise OWNER as to the acceptability of substitute materials and equipment proposed by Contractor(s) when substitution prior to the award of contracts is allowed by the bidding documents.
- E. Assist OWNER in evaluating bids or proposals and in assembling and awarding contracts.
- F. Recommend to the OWNER based on ENGINEER's review of the bids, the Contractor that is most responsive to the Project requirements.
- G. Prepare conformed documents incorporating addendum(s), if any issued during the bidding phase, and final contract documents to be issued for construction.

4. CONSTRUCTION ADMINISTRATION PHASE

During the Construction Phase ENGINEER shall:

- A. Consult with and advise OWNER and act as his representative as provided in the Contract Documents.
- B. Review and approve (or take other appropriate action in respect of) Shop Drawings as that term is defined in the Contract Documents and samples, the result of tests and inspections and other data which each Contractor is required to submit, but only for conformance with the design concept of the Project and compliance with the information given in the Contract Documents (Such review and approval or other action shall not extend to means, methods, sequences, techniques or procedures of construction or to safety precautions and programs incident thereto); determine the acceptability of substitute materials and equipment proposed by Contractor(s); and receive and review (for general content as required by the Specifications)

maintenance and operating instructions, schedules, guarantees, bonds and certificates of inspection which are to be assembled by Contractor(s) in accordance with the Contract Documents. It is agreed to here that the ENGINEER will not be required to review more than two submittals from the Contractor for each item requiring a submittal without additional compensation.

- C. Value engineering evaluations will be considered a submittal for that particular item and evaluation will be limited to review of conformance to design concept and acceptability of the proposed item to the Project and all of its parts in the same manner as any other submittal.
- D. Issue necessary interpretations and clarifications of the Contract Documents and in connection therewith prepare change orders as required; notify OWNER of the need for any special inspection or testing of the work and advise OWNER of the cost thereof and; upon approval, to require special inspection or testing of the work; act as initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the work thereunder and make recommendations on all claims of Contractor(s) relating to the acceptability of the work or the interpretation of the requirements of the Contract Documents pertaining to the execution and progress of the work. ENGINEER shall not be liable for the results of any such interpretations or recommendations rendered by him in good faith.
- E. Based on ENGINEER's on-site observations as an experienced and qualified design professional, and from information provided by the Resident Project Representative and/or survey data, determine the amounts owing to Contractor(s) and recommend in writing payments to Contractor(s) in such amounts. Such recommendations of payment will constitute a representation to OWNER, based on such observations and review, that the work has progressed to the point indicated, and that, to the best of ENGINEER's knowledge, information and belief, the quality of such work is in accordance with the Contract Documents (subject to a final evaluation upon completion, to the results of any subsequent tests called for in the Contract Documents, and to any qualifications stated in his recommendation), and that payment of the amount recommended is due Contractor(s).
- F. Conduct an inspection to determine if the Project is substantially complete and a final inspection to determine if the work has been completed in accordance with the

Contract Documents and if each Contractor has fulfilled all of his obligations thereunder so that ENGINEER may recommend, in writing, final payment to the Contractor(s) and may give written notice to OWNER and the Contractor(s) that the work is acceptable (subject to any conditions therein expressed), but any such recommendation and notice shall be subject to the limitations expressed in paragraph 5F above.

- G. ENGINEER shall not be responsible for the acts or omissions of any Contractor, or subcontractor, or any of the Contractor(s)' or subcontractors' agents or employees or any other persons (except ENGINEER's own employees and agents) at the site or for otherwise performing any of the Contractor(s)' work; however, nothing contained in the above paragraphs 5A through 5G, inclusive, shall be construed to release ENGINEER from liability for failure to properly perform duties undertaken by him in the Contract Documents.

II. **OWNER'S RESPONSIBILITIES**

OWNER shall:

- A. Provide all criteria and full information as to OWNER's requirements for the Project, including design objectives and constraints, space, capacities, and performance requirements, flexibility and expendability, and any budgetary limitations; and furnish copies of all design and construction standards which OWNER will require to be included in the drawings and specifications.
- B. Assist ENGINEER by placing at his disposal all available information pertinent to the Project including previous reports and any other data relative to design or construction of the Project.
- C. Furnish to ENGINEER upon his request, as required for performance of ENGINEER's Scope of Services, any existing available data in the OWNER's possession prepared by the OWNER or by others, including without limitation core borings, probes and subsurface explorations, hydrographic surveys, laboratory tests and inspections of samples, materials and equipment; appropriate professional interpretations of all of the foregoing; environmental assessment and impact statements; property, boundary, easement, right-of-way, topographic and utility surveys; property description;

zoning, deed and other land use restriction; and other special data or consultations, all of which ENGINEER may rely upon in performing his services.

- D. Arrange for access to and make all provisions for ENGINEER to enter upon public and private property as required for ENGINEER to perform his services.
- E. Examine all studies, reports, sketches, drawings, specifications, proposals and other documents presented by ENGINEER, obtain advice as OWNER deems appropriate and render in writing decisions pertaining thereto within a reasonable time so as not to delay the services of ENGINEER.
- F. Furnish approvals and permits from all governmental authorities having jurisdiction over the Project and such approvals and consents from others as may be necessary for completion of the Project with the assistance of the ENGINEER and pay any permit fees.
- G. Provide such accounting, independent cost estimating and insurance counseling services as may be required for the Project, such legal services as OWNER may require pertaining to the Project.
- H. Give prompt written notice to ENGINEER whenever OWNER observes or otherwise becomes aware of any development that affects the scope or timing of ENGINEER's services, or any defect in the work of Contractor(s).
- I. Bear all costs incident to compliance with the requirements of this Section.

END OF ATTACHMENT A

ATTACHMENT B-1

Engineer's Estimate of Compensation

Basic Services

Atkins

November 5, 2014

TAD Number 18-555-0738-04

Project Number: 18-555-0139-04

SECTION A : BASIC FEE FOR CROSSVILLE HANGER PROJECT				NUMBER OF SHEETS	NUMBER OF HOURS	HOURLY RATE UNIT COST	EXTENDED COST	TOTAL COST
1. PROJECT PRELIMINARY DESIGN								
A. SR. PROJECT MANAGER					8	\$55.00	\$440.00	
B. PROJECT ENGINEER					8	\$35.00	\$280.00	
C. ARCHITECT PM (E16)						\$72.00	\$0.00	
D. ARCHITECT (A) (E11)						\$35.00	\$0.00	
E. STRUCTURAL						\$60.00	\$0.00	
F. STRUCTURAL								
G. MECHANICAL								
H. ELECTRICAL ENGINEER (EE)						\$47.90	\$0.00	
I. PLUMBING						\$63.00	\$0.00	
						\$0.00	\$0.00	
F. SENIOR AVIATION PLANNER (SAP)						\$0.00	\$0.00	
G. AVIATION PLANNER (AP)						\$0.00	\$0.00	
H. ENVIRONMENTAL PLANNER (EP)						\$0.00	\$0.00	
I. DESIGNER (D)						\$0.00	\$0.00	
J. SECRETARIAL/TYPIST (S)						\$0.00	\$0.00	
K. RESIDENT PROJECT REP. (RPR)						\$0.00	\$0.00	
PROJECT DEVELOPMENT PHASE DIRECT LABOR:							\$720.00	
COMBINED OVERHEAD:				157.60%			\$1,134.72	
J. DOCUMENTS SETS				0		\$0.10	\$0.00	
K. SHIPPING SETS						\$15.50	\$0.00	
L. TRIPS MILES				0		\$0.470	\$0.00	
M. FLIGHTS				0		\$750.00	\$0.00	
N. TRAVEL SUBSTINENCE				0		\$0.00	\$0.00	
PROJECT DEVELOPMENT PHASE EXPENSES:							\$0.00	
SUBTOTAL:								\$1,854.72
OPERATING MARGIN:				13%				\$241.11
FCCM (APPLIED TO DIRECT LABOR ONLY):				0.00%				\$0.00
TOTAL PROJECT PRELIMINARY DESIGN PHASE:								\$2,096.00
2. DESIGN PHASE + QA/QC								
A. SR. PROJECT MANAGER					11	\$55.00	\$605.00	
B. PROJECT ENGINEER					73	\$35.00	\$2,555.00	
C. ARCHITECT PM (E16)						\$72.00	\$0.00	
D. ARCHITECT (A) (E11)						\$35.00	\$0.00	
E. STRUCTURAL						\$60.00	\$0.00	
F. STRUCTURAL						\$35.00	\$0.00	
G. MECHANICAL						\$40.05	\$0.00	
H. ELECTRICAL ENGINEER (EE)						\$47.90	\$0.00	
I. PLUMBING						\$44.00	\$0.00	
J. SECRETARIAL/TYPIST (S)					0	\$0.00	\$0.00	
K. RESIDENT PROJECT REP. (RPR)					0	\$0.00	\$0.00	
DESIGN PHASE DIRECT LABOR:							\$3,160.00	
COMBINED OVERHEAD:				157.60%			\$4,980.16	
L. TOTAL PLAN SHEETS (50%) SETS				5	14	\$2.50	\$175.00	
M. SHIPPING (50%) SETS				0	0	\$45.00	\$0.00	
N. TOTAL SPEC SHEETS (90%) SETS				0	0	\$0.10	\$0.00	
O. TOTAL PLAN SHEETS (90%) SETS				5	15	\$2.50	\$187.50	
P. SHIPPING (90%) SETS				1	0	\$45.00	\$45.00	
Q. TOTAL SPEC SHEETS (FINAL) SETS				0	0	\$0.10	\$0.00	
R. TOTAL PLAN SHEETS (FINAL) SETS				0	0	\$2.50	\$0.00	
S. SHIPPING (FINAL) SETS				0	0	\$45.00	\$0.00	
T. TRIPS MILES				0	0	\$0.470	\$0.00	
U. FLIGHTS					0	\$750.00	\$0.00	
V. TRAVEL SUBSTINENCE					0	\$50.00	\$0.00	
DESIGN PHASE EXPENSES:							\$407.50	
SUBTOTAL:								\$8,547.66
OPERATING MARGIN:				13%				\$1,111.20
FCCM (APPLIED TO DIRECT LABOR ONLY):				0.00%				\$0.00
TOTAL DESIGN PHASE:								\$9,659.00

SECTION A : BASIC FEE FOR AIRPORT DEVELOPMENT (Continued)				NUMBER OF SHEETS	NUMBER OF HOURS	HOURLY RATE UNIT COST	TOTAL COST
3. BID PHASE							
A. SR. PROJECT MANAGER					4	\$55.00	\$220.00
B. PROJECT ENGINEER					8	\$35.00	\$280.00
C. ARCHITECT PM (E16)						\$72.00	\$0.00
D. ARCHITECT (A) (E11)						\$35.00	\$0.00
E. STRUCTURAL						\$60.00	\$0.00
F. STRUCTURAL						\$35.00	\$0.00
G. MECHANICAL						\$37.31	\$0.00
H. ELECTRICAL ENGINEER (EE)						\$47.90	\$0.00
I. PLUMBING						\$44.00	\$0.00
J. SECRETARIAL/TYPIST (S)						\$0.00	\$0.00
K. RESIDENT PROJECT REP. (RPR)						\$0.00	\$0.00
BID PHASE DIRECT LABOR:							\$500.00
COMBINED OVERHEAD:				157.60%			\$788.00
L. SPEC BOOKS	SETS	0	0			\$0.10	\$0.00
M. ISSUED FOR BID DRAWINGS	SETS	5	15			\$2.50	\$187.50
N. SHIPPING	SETS					\$45.00	\$0.00
O. TRIPS	MILES	0	0			\$0.47	\$0.00
P. FLIGHTS			0			\$750.00	\$0.00
Q. TRAVEL SUBSTINENCE			0			\$0.00	\$0.00
BID PHASE EXPENSES:							\$187.50
SUBTOTAL:							\$1,475.50
OPERATING MARGIN:				13%			\$191.82
FCCM (APPLIED TO DIRECT LABOR ONLY):				0.00%			\$0.00
TOTAL BID PHASE:							\$1,667.00
4. CONSTRUCTION PHASE							
A. SR. PROJECT MANAGER					10	\$55.00	\$550.00
B. PROJECT ENGINEER					54	\$35.00	\$1,890.00
C. ARCHITECT PM (E16)						\$72.00	\$0.00
D. ARCHITECT (A) (E11)						\$35.00	\$0.00
E. STRUCTURAL						\$60.00	\$0.00
F. STRUCTURAL						\$35.00	\$0.00
G. MECHANICAL						\$37.31	\$0.00
H. ELECTRICAL ENGINEER (EE)						\$47.90	\$0.00
I. PLUMBING						\$63.00	\$0.00
J. SECRETARIAL/TYPIST (S)						\$0.00	\$0.00
K. RESIDENT PROJECT REP. (RPR)						\$0.00	\$0.00
CONSTRUCTION PHASE DIRECT LABOR:							\$2,440.00
COMBINED OVERHEAD:				157.60%			\$3,845.44
J. DOCUMENTS	SETS	2	50			\$0.10	\$10.00
K. SHIPPING						\$45.00	\$90.00
L. TRIPS	MILES	120	1			\$0.470	\$56.400
M. FLIGHTS			0			\$750.00	\$0.00
N. TRAVEL SUBSTINENCE			1			\$50.00	\$50.00
CONSTRUCTION PHASE EXPENSES:							\$206.40
SUBTOTAL:							\$6,491.84
OPERATING MARGIN:				13%			\$843.94
FCCM (APPLIED TO DIRECT LABOR ONLY):				0.00%			\$0.00
TOTAL CONSTRUCTION PHASE:							\$7,336.00
BASIC FEE FOR CROSSVILLE HANGER PROJECT							
PROJECT DEVELOPMENT PHASE					\$2,096.00	10%	
DESIGN PHASE					\$9,659.00	47%	
BID PHASE					\$1,667.00	8%	
CONSTRUCTION PHASE					\$7,336.00	35%	
TOTAL SECTION A:							\$20,750.00
TOTAL BASIC ENGINEERING FEE (Sections A and B):							\$20,750.00

ATTACHMENT B-2

Engineer's Estimate of Compensation

Special Services

Atkins

November 5, 2014

Project Number:

18-555-0139-04

TAD Number

18-555-0738-04

ESTIMATED ADDITIONAL SERVICES - IF AUTHORIZED BY OWNER (ESTIMATED BUDGETS)

SECTION C: GEOTECHNICAL INVESTIGATION FOR DESIGN

1. Geotechnical investigations for design (KS Ware)	\$6,000.00
2. AIRPORT LAYOUT PLAN	\$0.00
3. AIRPORT LAYOUT PLAN UPDATE	\$0.00
4. RUNWAY JUSTIFICATION STUDY	\$0.00
5. GRANT CLOSEOUT / S&D FINAL COSTS	\$0.00

TOTAL SECTION C: \$6,000.00

SECTION D: SURVEY (TASK 4)

0	DAYS OF DESIGN SURVEY				
0	DAYS OF CONSTRUCTION SURVEY				
0	TOTAL DAYS OF SURVEY				
1. 3-MAN SURVEY CREW (1 PARTY CHIEF, 1 INSTRUMENT MAN, 1 RODMAN)					
REGULAR	0	HRS @	\$50.25 / HR =		\$0.00
OVERTIME	0	HRS @	\$64.75 / HR =		\$0.00
2. SURVEY MANAGER	0	HRS @	\$0.00 / HR =		\$0.00
4. SURVEY PROCESSOR	0	HRS @	\$0.00 / HR =		\$0.00

DIRECT LABOR TOTAL SECTION D: \$0.00

COMBINED OVERHEAD: 145.00% \$0.00

5. AUTO EXPENSES 0 DAYS @ 250 MILES/DAY @ \$0.470 = \$0.00

6. PER DIEM 0 DAYS @ \$50.00 / DAY / PERSON = \$0.00

EXPENSES TOTAL SECTION D: \$0.00

SUBTOTAL: \$0.00

OPERATING MARGIN: 13% \$0.00

FCCM (APPLIED TO DIRECT LABOR ONLY): 0.00% \$0.00

TOTAL SECTION D: \$0.00

SECTION E: ENVIRONMENTAL

1. ADEM PERMITTING (NPDES)	\$0.00
2. COE 404 PERMITTING	\$0.00
3. ENVIRONMENTAL ASSESSMENT	\$0.00
4. WETLAND DELINEATION SURVEY	\$0.00

TOTAL SECTION E: \$0.00

SECTION F: RESIDENT PROJECT REPRESENTATIVE

1. RESIDENT PROJ. REPS	30	DAYS @	8	HRS @	\$28.90 / HR =	\$6,935.04
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DIRECT LABOR TOTAL SECTION F: \$6,935.04

COMBINED OVERHEAD: 145.00% \$10,055.81

2. AUTO EXPENSES 0 DAYS @ 250 MILES/DAY @ \$0.470 = \$0.00

3. PER DIEM 0 DAYS @ \$0.00 / DAY = \$0.00

EXPENSES TOTAL SECTION F: \$0.00

SUBTOTAL: \$16,990.85

OPERATING MARGIN: 13% \$2,208.81

FCCM (APPLIED TO DIRECT LABOR ONLY): 0.00% \$0.00

TOTAL SECTION F: \$19,200.00

TOTAL ESTIMATED ADDITIONAL SERVICES (Sections C through F) \$25,200.00

SECTION G: ADDITIONAL PROJECT EXPENSES (IF REQUIRED)

1. DBE PLAN UPDATE FOR PROJECT (FOR FAA PROJECT FUNDING OF \$250,000 OR MORE)	\$0.00
2. NEWSPAPER ADVERTISING	\$0.00
3. PAVEMENT ANALYSIS AND TESTING	\$0.00
4. GEOTECHNICAL EVALUATION (TASK 4)	\$0.00
5. CONSTRUCTION TESTING	\$0.00

TOTAL SECTION G: \$0.00

TOTAL ESTIMATED ADDITIONAL SERVICES (Sections C through G) \$25,200.00

TOTAL - FEE PROPOSAL (Includes Basic Fee + Estimated Add'l Services) \$45,950.00