

June 2, 2015

To: Plan Holders for Improvements to the Kirksville Regional Airport Kirksville, Missouri Project No. 14-028A-3 Reconstruct Air Carrier Apron (Schedule I), Reconstruct South Apron (Schedule II), and Reconstruct T-Hangar Taxilanes (Schedule III)

Transmitted herewith is Addendum **No. 2** to the Contract Documents, Plans and Specifications dated May 19, 2015 for Improvements to the Kirksville Regional Airport, Kirksville, Missouri, Project No. 14-028A-3.

### **SCHEDULE I:**

### Reconstruct Air Carrier Apron

SCHEDULE II: Reconstruct South Apron

SCHEDULE III: Reconstruct T-Hangar Taxilanes



Sincerely,

Jviation, Inc.

-Dwall

Elizabeth Duvall, P.E. Project Engineer

Addendum No. 2 June 2, 2015 To: Contract Documents, Plans and Specifications Project No. 14-028A-3 Dated: May 19, 2015

### ADDENDUM NO. 2 TO CONTRACT DOCUMENTS, PLANS AND SPECIFICATIONS FOR IMPROVEMENTS TO THE KIRKSVILLE REGIONAL AIRPORT KIRKSVILLE, MISSOURI PROJECT NO. 14-028A-3

To All Bidders: You are requested to make all changes and/or additions contained in this addendum to the Bidding Documents. Failure to acknowledge this Addendum in Proposal shall result in rejection of bid. Bidders are informed that the above referenced Contract Documents, Plans and Specifications are modified as follows as of June 2, 2015:

### 1. <u>CONTRACT DOCUMENTS</u>

Section:	1-2 Notice to Bidders, Contract Work Items, Summary of Approximate Quantities.
Revision:	Replace table in its entirety. This change allows for the alternate bid of using all MO-209 material or the use of P-219 material supplemented with MO-209 material. See attached sheet Section 1-3.
Section: Revision:	1-3 Notice to Bidders, Award of Contract. b. Replace '90' with '120' calendar days for the bid hold period (line 224). See attached sheet Section 1-3.
Section:	Bid Proposal Schedule I / Schedule II / Schedule III sheets (total 6 pages).
Revision:	Replace Bid Proposal Schedule I / II / III sheets with the revised Schedule Ia / IIa / IIIa sheets. These changes allow for the alternate bid of using all MO-209 material or the use of P-219 material supplemented with MO-209 material. See attached sheets Schedule Ia / IIIa / IIIa (Total 6 sheets).

### 2. <u>TECHNICAL SPECIFICATIONS</u>

MO-209: CRUSHED AGGREGATE BASE COURSE

Page: MO-209-1

Revision: Paragraph 2 has been revised and paragraph 3 added to read:

"<u>RECYCLED CONCRETE AGGREGATE BASE - ALTERNATE BID -</u> The MO-209 Crushed Aggregate Base Course shall be used when there is a shortage of recycled concrete as specified under the P-219 Recycled Concrete Aggregate Base specification. The contractor shall use all available recycled concrete prior to using new base rock as specified under this MO-209 specification.

<u>CRUSHED AGGREGATE BASE – ALTERNATE BID –</u> This alternate is for the use of MO-209 Crushed Aggregate Base Course as the base material as specified under this MO-209 specification. "

Page: MO-209-4

Revision: Basis of Payment 209-5.1 has been revised and 209-5.2 added to read:

"209-5.1 <u>RECYCLED CONCRETE AGGREGATE BASE - ALTERNATE BID –</u> Payment shall be made at the contract unit price per square yard for recycled concrete aggregate base course under P219a. This price shall be full compensation for furnishing all materials, for preparing and placing these materials, and for all labor, equipment tools, and incidentals necessary to complete the item.

**209-5.2** <u>CRUSHED AGGREGATE BASE – ALTERNATE BID –</u> Payment shall be made at the contract unit price per square yard for crushed aggregate base course. This price shall be full compensation for furnishing all materials, for preparing and placing these materials, and for all labor, equipment tools, and incidentals necessary to complete the item. It shall also include the disposal of the removed concrete pavement by either hauling and disposal off-site or hauling and dumping of the removed concrete in a location designated by the Airport located approximately one-mile from the project site as directed by the Airport Manager and Engineer. If the latter option is chosen, the material will be required to be placed in a graded manner and may not become higher than the bank elevation as directed by the Airport Manager to the satisfaction of the Engineer and Airport Manager. Disposal Area is approximately 20 feet wide, approximately 10 feet deep, and has a length of approximately <sup>1</sup>/<sub>4</sub> mile."

See attached Revised Specification MO-209 Crushed Aggregate Base Course.

**P-219**: RECYCLED CONCRETE AGGREGATE BASE COURSE

Page: P-219-6

Revision: Basis of Payment, at the end of Paragraph 1 the following has been added to clarify the payment of supplemental MO-209 material when the Recycled Concrete Aggregate Base – Alternate Bid – is chosen: "If MO-209 material is required to supplement the recycled concrete material, it shall be paid for under 6" recycled concrete aggregate base course."

See attached sheets P-219-6 and P-219-7.

### 3. PLAN SET

Sheet: Title: Revision:	G002 Index of Drawings, General Notes, and Summary of approximate Quantities The Summary of Approximate Quantities has been revised to reflect the two Bid Alternates. See attached sheet G002.
Sheet: Title: Revision:	C101 Demolition Plan, Schedule I The location of the existing underground electrical conduit at the north end of the project area was corrected. See attached sheet C101.
Sheet: Title: Revision:	C200 Geometric Plan, Schedule II & III The location of the phasing breaks has been added. See attached sheet C200.
Sheet: Title: Revision:	C201 Geometric Plan, Schedule I The location of the phasing breaks has been added. See attached sheet C201.
Sheet: Title:	C500 Typical Sections
Revision:	The note for the Base material has been revised to clarify the requirements of the two bid alternates.
Revision:	The distance between the Existing Hangars has been corrected from "52.00" to "72.70" on Section B-B (Schedule III). See attached sheet C500.

### 4. <u>QUESTIONS:</u>

1. Can the MO-209 base be used instead of the P-219 material or can the MO-209 be used for phase 1 and then use the crushed concrete for the additional phases?

Answer: Alternate Bids have been added to the project to allow for either:

- a) **RECYCLED CONCRETE AGGREGATE BASE ALTERNATE BID -** The use of P-219 as a base course with the MO-209 material as a supplement for shortages in the P-219 material. It is the intent of this alternate to reuse as much of the existing concrete to be removed for base as possible. When MO-209 material substitution is needed, it will be paid for under the P-219a line item.
- b) CRUSHED AGGREGATE BASE ALTERNATE BID -

The use of MO-209 exclusively as the base material. This alternate will require the Contractor to dispose of all removed concrete pavement at the Contractor's expense by either:

- 1) Haul off all demolished concrete to be disposed of off-site.
- 2) Dump the concrete in a location designated by the Airport located approximately one-mile from the project site as directed by the Airport Manager and Engineer. The material will be required to be placed in a graded manner and may not become higher than the bank elevation. Disposal area is approximately 20 feet wide, approximately 10 feet deep, and has a length of approximately <sup>1</sup>/<sub>4</sub> mile.

See revised plan sheets G002 & C500, specifications MO-209 & P-219, and contract document pages Section 1-2, and Bid Proposal Schedule I / Schedule II / Schedule III sheets.

2. With the phasing splitting the schedules up there is no detail on the plans (demo, geometric, grading, or joint) showing the limits of each phase. This information would be a great help for both bidding and construction. Could you possibly show the limits of these so we know where to remove and replace to for each phase?

Answer: See revised plan sheets C200 and C201.

3. How should the pavement transitions be handled between phases?

*Answer:* The construction barricades shall be placed at the interface between phases as described on sheet G006 under "Other Notes" note 14. It is anticipated that there will be a portion of a panel removed to be paved in the following phase.

4. Can you clarify the striping time requirements?

*Answer:* Permanent striping is to be completed at the end if the project. The temporary Blue tape required per phase 1 must be placed during phase 1 as described on sheet G007 under "Other Notes" note 7 and is for two locations, one during construction and one at the end of phase 1 construction.

### 5. <u>ATTACHMENTS</u>:

- Pre-Bid Agenda and Sign-in Sheet

The last time for questions is Wednesday, June 3, 2015, at 5:00pm central time.

### \*\* END OF ADDENDUM NO. 2 \*\*

	ITEM DESCRIPTION	LINITS	SCHEDULE I	SCHEDULE II	SCHEDULE III
TEN NO.	THE DESCRIPTION	UNITS	ESTIMATE	ESTIMATE	ESTIMATE
MO-100a	Mobilization	LS	1	1	1
MO-152a	Unclassified Excavation	CY	550	650	529
MO-152b	Overexcavation and Replacement	SY	533	555	353
P-155a	Lime-Treated Subgrade	SY	10,650	11,100	7,057
P-155b	Lime	TON	240	250	160
MO-156a	Silt Fence	LF	-	-	580
MO-156b	Ditch Check	EA	-	-	1
P-312a	Stabilization Fabric	SY	10,650	11,100	7,057
	6" Portland Cement Concrete				
P-501a	Pavement  (" Portland Compart Congrete Pagel	SY	9,890	10,570	6,683
P-501b	Replacement	SY	242	-	-
MO-601a	Full Depth Pavement Removal	SY	9,560	9,800	6,735
	Concrete Pavement Select Panel				
MO-601b	Removal	SY	242	-	-
MoDOT-609a	Type 3 Rock Lining	CY	-	-	10
MO-620a	(vellow)	SF	264	746	475
	Permanent Airport Pavement Marking				
MO-620b	(black)	SF	533	1,506	950
MO-620c	(blue)	SF	160	-	-
P-640a	Aircraft Tiedown Anchor	EA	27	45	-
MO-701a	18" RCP Storm Pipe - Class V	LF	-	-	248
MO-701b	18" RCP FES - Class V	EA	-	-	1
D-705a	Install 6" Perforated Polyethylene Pipe	LF	-	377	-
D-705b	Install 6" Non-Perforated Polyethylene Pipe	LF	-	78	-
D-751a	Install Aircraft Rated Inlet	EA	-	-	1
D 7541	Install 6-inch Underdrain Inspection			1	
D-/51b		EA	-	1	-
D-/51c	Install 6-inch Underdrain Cleanout	EA	-	2	-
D-751d	Install 6-inch Underdrain Outfall	EA	-	1	-
MO-901a	Seeding with Hydromulch	AC	0.5	0.5	0.5
MO-108a	XHHW or USE	LF	-	860	310
MO-108b	2/0 AWG Aluminum Wire, Type XHHW or USE	LF	-	430	155
MO-110a	Install 1-2" Sch. 40 PVC Conduit (Direct Earth Buried)	LF	_	210	145
10 110	Install 2-2" Sch. 40 PVC Conduit	ID		21.0	
MO-110b	(Concrete Encased)		-	210	-
<b>RECYCLED C</b>	UNCRETE AGGREGATE BASE - AL. 6" Recycled Concrete Aggregate Base	FERNATE B			
P-219a	Course	SY	10,650	11,100	7,057
CRUSHED AG	GREGATE BASE - ALTERNATE BII	)	• *	•	•
MO-209a	6" Aggregate Base Course	SY	10,650	11,100	7,057

### SUMMARY OF APPROXIMATE QUANTITIES

203 <u>Contract Time</u>. The owner has established a contract perform time of 140 Calendar Day(s) from 204 the date of the Notice-to-Proceed. All project work shall be substantially completed within the 205 stated timeframe. This project is subject to liquidated damages as prescribed in the project manual.

206

Bid Security. No bid will be considered unless accompanied by a bid bond secured by an approved
 surety or sureties, payable to the Kirksville, for not less than five (5) percent of the total amount of
 the bid.

210

211 Bonding Requirements. The successful bidder will be required to furnish separate performance 212 and payment bonds each in an amount equal to 100% of the contract price at the time of contract 213 execution.

214

218

221

226

230

215 <u>Award of Contract</u>. The Owner intends to award a contract resulting from this solicitation to the 216 lowest, responsive, responsible bidder, whose offer, conforming to the solicitation, will be most 217 advantageous to, and in the best interest of, the Owner, cost or price and other factors considered.

- 219a.In addition to other factors, bid offers will be evaluated on the basis of advantages220and disadvantages to the Owner that might result from offers received.
- b. The Owner reserves the right to reject any or all proposals and to waive informalities and/or irregularities in the bid offer. Bids may be held by the owner for a period not to exceed 120 calendar days from the date of the bid opening for the purpose of conducting the bid evaluation.
- c. Total bid will be evaluated and awarded as follows: It is the Owner's intent to award
   this bid based on the **TOTAL BASE BID FOR ALL ITEMS, split awards will** <u>not be made.</u>
- The Owner will determine which Schedules and/or Bid Alternates will be awarded 231 d. based on the received bid prices and available funding. The project award will be 232 based on the low bid sum of the federally eligible Schedules and Bid Alternates 233 awarded by the Owner. Not all Schedules and/or Bid Alternates may be awarded. A 234 combination of Schedules and Bid Alternates may be awarded, including only a 235 single Schedule. The numbering of the Schedules or Bid Alternates does not 236 necessarily indicate the order of award. The project award is contingent on the 237 availability of funding. 238

Federal Provision. This project is subject to the following Federal provisions, statutes and
 regulations;

242

239

Airport and Airway Improvement Act of 1982. In accordance with the Davis-Bacon Act, as amended, and the Missouri Prevailing Wage Law, the Contractor will be required to comply with the wage and labor requirements and to pay minimum wages in accordance with the schedule of wage rates established by the United States Department of Labor and the Missouri Division of Labor Standards, respectively. The highest rate between the two (Federal and State) for each job classification shall be considered the prevailing wage.

249

Equal Employment Opportunity and Affirmative Action Requirement. The proposed
 contract is under and subject to 41 CFR Part 60-4 and Executive Order 11246 of September 24,
 1965, as amended, and to the equal opportunity clause and the Standard Federal Equal Employment

## SCHEDULE I

Item No.	Description		Units	Estimated Quantity	Unit Price	Total
MO-100a	Mobilization	at the unit price of:dollars and cents.	LS	1	Ş	\$
MO-152a	Unclassified Excavation	at the unit price of:dollars and cents.	СҮ	550	Ş	\$
MO-152b	Overexcavation and Replacement	at the unit price of:dollars and cents.	SY	533	Ş	\$
P-155a	Lime-Treated Subgrade	at the unit price of:dollars and cents.	SY	10,650	Ş	\$
P-155b	Lime	at the unit price of:dollars and cents.	TON	240	Ş	\$
P-312a	Stabilization Fabric	at the unit price of:dollars and cents.	SY	10,650	Ş	\$
P-501a	6" Portland Cement Concrete Pavement	at the unit price of:dollars and cents.	SY	9,890	Ş	\$
P-501b	6" Portland Cement Concrete Panel Replacement	at the unit price of:dollars and cents.	SY	242	Ş	\$
MO-601a	Full Depth Pavement Removal	at the unit price of:dollars and cents.	SY	9,560	Ş	\$
MO-601b	Concrete Pavement Select Panel Removal	at the unit price of:dollars and cents.	SY	242	Ş	\$
MO-620a	Permanent Airport Pavement Marking (yellow)	at the unit price of:dollars and cents.	SF	264	Ş	\$
MO-620b	Permanent Airport Pavement Marking (black)	at the unit price of:dollars and cents.	SF	533	Ş	\$
MO-620c	Permanent Airport Pavement Marking (blue)	at the unit price of:dollars and cents.	SF	160	Ş	\$
P-640a	Aircraft Tiedown Anchor	at the unit price of:dollars and cents.	EA	27	Ş	\$
MO-901a	Seeding with Hydromulch	at the unit price of:dollars and cents.	AC	0.5	Ş	\$

SCHEDULE I BASE BID - SUBTOTAL \$

SCHEDULE I

Item No. Description Units Units Unit Price Total	Item No. Description	Units	Estimated Quantity	Unit Price	Total
---	----------------------	-------	-----------------------	------------	-------

#### **RECYCLED CONCRETE AGGREGATE BASE - ALTERNATE BID**

P-219a	6" Recycled Concrete Aggregate Base Course	at the unit price of:dollars and cents.	SY	10,650	ş	\$
--------	--	---	----	--------	---	----

### SCHEDULE I RECYCLED CONCRETE AGGREGATE BID - SUBTOTAL \$

#### CRUSHED AGGREGATE BASE - ALTERNATE BID

MO-209a	6" Aggregate Base Course	at the unit price of:dollars and cents.	SY	10,650	Ş	\$	
---------	--------------------------	---	----	--------	---	----	--

SCHEDULE I CRUSHED AGGREGATE BID - SUBTOTAL \$

SCHEDULE I TOTAL (BASE BID PLUS EITHER RECYCLED CONCRETE AGGREGATE OR CRUSHED AGGREGATE BID) \$

## SCHEDULE II

Item No.	Description		Units	Estimated Quantity	Unit Price	Total
MO-100a	Mobilization	at the unit price of:dollars and cents.	LS	1	Ş	Ş
MO-152a	Unclassified Excavation	at the unit price of:dollars and cents.	СҮ	650	Ş	Ş
MO-152b	Overexcavation and Replacement	at the unit price of:dollars and cents.	SY	555	Ş	Ş
P-155a	Lime-Treated Subgrade	at the unit price of:dollars and cents.	SY	11,100	Ş	Ş
P-155b	Lime	at the unit price of:dollars and cents.	TON	250	Ş	\$
P-312a	Stabilization Fabric	at the unit price of:dollars and cents.	SY	11,100	Ş	Ş
P-501a	6" Portland Cement Concrete Pavement	at the unit price of:dollars and cents.	SY	10,570	Ş	\$
MO-601a	Full Depth Pavement Removal	at the unit price of:dollars and cents.	SY	9,800	Ş	Ş
MO-620a	Permanent Airport Pavement Marking (yellow)	at the unit price of:dollars and cents.	SF	746	Ş	\$
MO-620b	Permanent Airport Pavement Marking (black)	at the unit price of:dollars and cents.	SF	1,506	Ş	\$
P-640a	Aircraft Tiedown Anchor	at the unit price of:dollars and cents.	EA	45	Ş	\$
D-705a	Install 6" Perforated Polyethylene Pipe	at the unit price of:dollars and cents.	LF	377	Ş	\$
D-705b	Install 6" Non-Perforated Polyethylene Pipe	at the unit price of:dollars and cents.	LF	78	Ş	\$
D-751b	Install 6-inch Underdrain Inspection Pit	at the unit price of:dollars and cents.	EA	1	Ş	\$
D-751c	Install 6-inch Underdrain Cleanout	at the unit price of:dollars and cents.	EA	2	Ş	\$
D-751d	Install 6-inch Underdrain Outfall	at the unit price of:dollars and cents.	EA	1	Ş	\$
MO-901a	Seeding with Hydromulch	at the unit price of:dollars and cents.	AC	0.5	ş	\$

## SCHEDULE II

Item No.	Description		Units	Estimated Quantity	Unit Price	Total
MO-108a	4/0 AWG Aluminum Wire, Type XHHW or USE	at the unit price of:dollars and cents.	LF	860	Ş	\$
MO-108b	2/0 AWG Aluminum Wire, Type XHHW or USE	at the unit price of:dollars and cents.	LF	430	\$	ş
MO-110a	Install 1-2" Sch. 40 PVC Conduit (Direct Earth Buried)	at the unit price of:dollars and cents.	LF	210	\$	\$
MO-110b	Install 2-2" Sch. 40 PVC Conduit (Concrete Encased)	at the unit price of:dollars and cents.	LF	210	\$	\$

SCHEDULE II SUBTOTAL \$

### RECYCLED CONCRETE AGGREGATE BASE - ALTERNATE BID

P-219a	6" Recycled Concrete Aggregate Base Course	at the unit price of:dollars and cents.	SY	11,100	Ş	\$
--------	--	---	----	--------	---	----

### SCHEDULE II RECYCLED CONCRETE AGGREGATE BID - SUBTOTAL \$\_\_\_\_\_

CRUSHED AGGREGATE BASE - ALTERNATE BID								
MO-209a	6" Aggregate Base Course	at the unit price of:dollars and cents.	SY	11,100	Ş	\$		

SCHEDULE II CRUSHED AGGREGATE BID - SUBTOTAL \$

SCHEDULE II TOTAL (BASE BID PLUS EITHER RECYCLED CONCRETE AGGREGATE OR CRUSHED AGGREGATE BID) §

## SCHEDULE III

Item No.	Description		Units	Estimated Quantity	Unit Price	Total
MO-100a	Mobilization	at the unit price of:dollars and cents.	LS	1	Ş	Ş
MO-152a	Unclassified Excavation	at the unit price of:dollars and cents.	СҮ	529	Ş	Ş
MO-152b	Overexcavation and Replacement	at the unit price of:dollars and cents.	SY	353	Ş	Ş
P-155a	Lime-Treated Subgrade	at the unit price of:dollars and cents.	SY	7,057	Ş	Ş
P-155b	Lime	at the unit price of:dollars and cents.	TON	160	Ş	\$
MO-156a	Silt Fence	at the unit price of: dollars and cents.	LF	580	\$	\$
MO-156b	Ditch Check	at the unit price of:dollars and cents.	EA	1	Ş	\$
P-312a	Stabilization Fabric	at the unit price of: dollars and cents.	SY	7,057	Ş	\$
P-501a	6" Portland Cement Concrete Pavement	at the unit price of: dollars and cents.	SY	6,683	Ş	\$
MO-601a	Full Depth Pavement Removal	at the unit price of: dollars and cents.	SY	6,735	Ş	\$
MoDOT-609a	Type 3 Rock Lining	at the unit price of: dollars and cents.	СҮ	10	Ş	\$
MO-620a	Permanent Airport Pavement Marking (yellow)	at the unit price of:dollars and cents.	SF	475	Ş	\$
MO-620b	Permanent Airport Pavement Marking (black)	at the unit price of:dollars and cents.	SF	950	Ş	\$
MO-701a	18" RCP Storm Pipe - Class V	at the unit price of:dollars and cents.	LF	248	Ş	\$
MO-701b	18" RCP FES - Class V	at the unit price of:dollars and cents.	EA	1	Ş	\$
D-751a	Install Aircraft Rated Inlet	at the unit price of:dollars and cents.	EA	1	Ş	\$
MO-901a	Seeding with Hydromulch	at the unit price of:dollars and cents.	AC	0.5	Ş	\$

## SCHEDULE III

Item No.	Description	Units	Estimated Quantity	Unit Price	Total	
MO-108a	4/0 AWG Aluminum Wire, Type XHHW or USE	at the unit price of:dollars and cents.	LF	310	S	\$
MO-108b	2/0 AWG Aluminum Wire, Type XHHW or USE	at the unit price of:dollars and cents.	LF	155	S	\$
MO-110a	Install 1-2" Sch. 40 PVC Conduit (Direct Earth Buried)	at the unit price of:dollars and cents.	LF	145	S	\$

### SCHEDULE III SUBTOTAL §

### RECYCLED CONCRETE AGGREGATE BASE - ALTERNATE BID

P-219a	6" Recycled Concrete Aggregate Base Course	at the unit price of:dollars and cents.	SY	7,057	Ş	\$
--------	--	---	----	-------	---	----

### SCHEDULE III RECYCLED CONCRETE AGGREGATE BID - SUBTOTAL §

CRUSHED AGGR	CRUSHED AGGREGATE BASE - ALTERNATE BID								
MO-209a	6" Aggregate Base Course	at the unit price of:dollars and cents.	SY	7,057	Ş	Ş			

SCHEDULE III CRUSHED AGGREGATE BID - SUBTOTAL \$

SCHEDULE III TOTAL (BASE BID PLUS EITHER RECYCLED CONCRETE AGGREGATE OR CRUSHED AGGREGATE BID) \$\_\_\_\_\_

1 2

4

## ITEM MO-209 CRUSHED AGGREGATE BASE COURSE

### 3 **DESCRIPTION**

5 209.1.1 This work shall consist of furnishing and placing one or more courses of crushed aggregate 6 base on a prepared subgrade in accordance with these specifications and in conformity with the 7 lines, grades, thicknesses and typical cross sections shown on the plans. Aggregate base shall meet 8 the requirements of the 2004 Missouri Standard Specification for Highway Construction (MSSHC), 9 Section 304 - Aggregate Base Course. All construction methods, testing, and acceptance 10 criteria shall be in accordance with the standards included within this Item MO-209.

11

12 <u>RECYCLED CONCRETE AGGREGATE BASE - ALTERNATE BID</u> - The MO-209 Crushed 13 Aggregate Base Course shall be used when there is a shortage of recycled concrete as specified under 14 the P-219 Recycled Concrete Aggregate Base specification. The contractor shall use all available 15 recycled concrete prior to using new base rock as specified under this MO-209 specification.

16

<u>CRUSHED AGGREGATE BASE – ALTERNATE BID</u> – For the use of MO-209 Crushed
 Aggregate Base Course as the base material as specified under this MO-209 specification.

# 1920 MATERIALS

21

209-2.1 AGGREGATE. All materials for aggregate base shall conform to the requirements of the
 2004 (MSSHC), Section 304, for Type 5 Aggregate.

25 The ledge stone from which the aggregate base will be produced has to have source approval from the Missouri Department of Transportation (MoDOT). Prior to use of materials, the contractor 26 27 shall submit the current MoDOT source approval letter to the Engineer for the materials proposed for use during construction. Source approval granted for "all types of highway construction" 28 (Product Code 1005CACP) constitutes approval for all uses. Source approval granted for "all types 29 except PCCP" (Product Code 1005CACM) comprises approval for all uses except Portland cement 30 concrete pavement. Source approval obtained for "all types except PCCP & PCCM" (Product Code 31 1002CAAC) is considered to be approval for all uses except Portland cement concrete. 32

33

The contractor shall submit certified test reports to the Engineer for the gradation of the aggregate base. The certification shall show the appropriate AASHTO test for the material, the test results, and a statement that the material passed or failed. The aggregate shall be sampled and tested for gradation using the following procedures:

- 38
- 39 40

a. Sampling Aggregates. Sampling shall be in accordance with AASHTO T 2.

b. Sieve Analysis of Fine and Coarse Aggregate. The aggregate shall be tested in accordance
with AASHTO T 27 and shall meet the gradation requirements of the MSSHC, Section 1007.

44 c. Material Passing No. 200 Sieve. The aggregate shall be tested in accordance with 45 AASHTO T 11 and meet the requirements of the MSSHC, Section 1007.

46

47 In lieu of the above gradation testing requirements, the contractor may provide documentation from

- 48 MoDOT (District Materials Office) indicating that the material meets specification requirements.
- 49

50 The Engineer may request samples for testing, prior to and during production, to verify the quality 51 of the materials and to ensure conformance with the applicable specifications.

52

54

### 53 **CONSTRUCTION METHODS**

209-3.1 PREPARING UNDERLYING COURSE. The underlying course shall be checked and accepted by the Engineer before placing and spreading operations are started. Any ruts or soft yielding places caused by improper drainage conditions, hauling, or any other cause shall be corrected at the Contractor's expense before the base course is placed thereon. Material shall not be placed on frozen subgrade.

60

64

61 **209-3.2 MIXING.** The aggregate shall be uniformly blended during crushing operations or mixed 62 in a plant. The plant shall blend and mix the materials to meet the specifications and to secure the 63 proper moisture content for compaction.

65 **209-3.3 PLACING.** The crushed aggregate base material shall be placed on the moistened 66 subgrade in layers of uniform thickness with a mechanical spreader. The maximum depth of a 67 compacted layer shall be 6 inches. If the total depth of the compacted material is more than 6 68 inches, it shall be constructed in two or more layers. In multi-layer construction, the base course 69 shall be placed in approximately equal-depth layers.

70

The previously constructed layer should be cleaned of loose and foreign material prior to placing the next layer. The surface of the compacted material shall be kept moist until covered with the next layer.

74

209-3.4 COMPACTION. Immediately upon completion of the spreading operations, the crushed
 aggregate shall be thoroughly compacted. The number, type, and weight of rollers shall be sufficient
 to compact the material to the required density.

78

81

The moisture content of the material during placing operations shall not be below, nor more than 2percentage points above, the optimum moisture content as determined by ASTM D 698.

82 **209-3.5 ACCEPTANCE SAMPLING AND TESTING FOR DENSITY.** Aggregate base 83 course shall be accepted for density on a lot basis. A lot will consist of one day's production where it 84 is not expected to exceed 2400 square yards. A lot will consist of one-half day's production where a 85 day's production is expected to consist of between 2400 and 4800 square yards.

86

Each lot shall be divided into two equal sublots. One test shall be made for each sublot. Sampling
locations will be determined by the Engineer on a random basis in accordance with statistical
procedures contained in ASTM D 3665.

- 90
- 91 Each lot will be accepted for density when the field density is at least 100 percent of the maximum

92 density of laboratory specimens prepared from samples of the base course material delivered to the

- 93 job site. The specimens shall be compacted and tested in accordance with ASTM D 698. The in-
- place field density shall be determined in accordance with ASTM D 1556, D 2167 or ASTM D 6938.

If the specified density is not attained, the entire lot shall be reworked and/or recompacted and two additional random tests made. This procedure shall be followed until the specified density is reached.

97

In lieu of the core method of field density determination, acceptance testing may be accomplished using a nuclear gage in accordance with ASTM D 6938 using the Direct Transmission Method. Calibration and operation of the gage shall be in accordance with the requirements of the manufacturer. The operator of the nuclear gage must show evidence of training and experience in the use of the instrument. The gage shall be standardized daily in accordance with ASTM D 6938.

103

104 If a nuclear gage is used for density determination, two random readings shall be made for each105 sublot.

209-3.6 FINISHING. The surface of the aggregate base course shall be finished by blading or
 with automated equipment especially designed for this purpose.

109

106

In no case will the addition of thin layers of material be added to the top layer of base course to meet grade. If the elevation of the top layer is 1/2 inch or more below grade, the top layer of base shall be scarified to a depth of at least 3 inches, new material added, and the layer shall be blended and recompacted to bring it to grade. If the finished surface is above plan grade, it shall be cut back to grade and rerolled.

115

Type 5 aggregate base is intended to provide some drainage and shall not be segregated. Trimmed Type 5 aggregate base may not be reused until it is verified as meeting the required specifications. Base material contaminated to such an extent that it no longer complies with the specifications shall

- be removed and replaced with satisfactory material at the expense of the contractor.
- 120

209-3.7 SURFACE TOLERANCES. The finished surface shall not vary more than 3/8 inch
 when tested with a 16-foot straightedge applied parallel with or at right angles to the centerline. Any
 deviation in excess of this amount shall be corrected by the Contractor at the Contractor's expense.

124

125 The Contractor shall provide a 16-foot straight edge for the Engineer at all times, to verify 126 smoothness.

120

209-3.8 THICKNESS CONTROL. The completed thickness of the base course shall be within 128 1/2 inch of the design thickness. Four determinations of thickness shall be made for each lot of 129 material placed. The lot size shall be consistent with that specified in paragraph 3.5. Each lot shall be 130 divided into four equal sublots. One test shall be made for each sublot. Sampling locations will be 131 determined by the Engineer on a random basis in accordance with procedures contained in ASTM 132 D 3665. Where the thickness is deficient by more than 1/2 inch, the Contractor shall correct such 133 areas at no additional cost by excavating to the required depth and replacing with new material. 134 Additional test holes may be required to identify the limits of deficient areas. 135

136

138

137 Lift thickness testing may also be performed via survey at no cost to the Sponsor.

139 209-3.9 MAINTENANCE. The base course shall be maintained in a condition that will meet all 140 specification requirements until the work is accepted. Equipment used in the construction of an 141 adjoining section may be routed over completed portions of the base course, provided no damage results and provided that the equipment is routed over the full width of the base course to avoid rutting or uneven compaction.

144

145 If a prime coat is specified in the contract, the contractor will be required to apply the prime coat on 146 any completed portion of the aggregate base as soon as practicable, or as otherwise specified. 147 However, the contractor will not be permitted to apply prime if the moisture in the top 2 inches of 148 the aggregate base exceeds the higher of either (1) the average of the optimum moisture as 149 determined by the standard compaction test and the absorption of the plus No. 4 fraction, or (2) 150 two-thirds of the optimum moisture as determined by the standard compaction test.

151

At the discretion of the engineer, proof rolling may be required by a loaded tandem axle truck on top of the aggregate base course to determine the level of stability. If the condition of the aggregate base course is not satisfactory, it should be given more time to cure or be reworked to put it into the proper condition for overlay.

156

### 157 METHOD OF MEASUREMENT

158

**209-4.1** The quantity of crushed aggregate base course to be paid for will be determined by
measurement of the number of square yards of material actually constructed and accepted by the
Engineer as complying with the plans and specifications.

# 162163 BASIS OF PAYMENT

164

165 209-5.1 <u>RECYCLED CONCRETE AGGREGATE BASE - ALTERNATE BID –</u> Payment shall
 166 be made at the contract unit price per square yard for recycled concrete aggregate base course under
 167 P-219a. This price shall be full compensation for furnishing all materials, for preparing and placing
 168 these materials, and for all labor, equipment tools, and incidentals necessary to complete the item.
 169

209-5.2 <u>CRUSHED AGGREGATE BASE – ALTERNATE BID –</u> Payment shall be made at the 170 contract unit price per square yard for crushed aggregate base course. This price shall be full 171 172 compensation for furnishing all materials, for preparing and placing these materials, and for all labor, equipment tools, and incidentals necessary to complete the item. It shall also include the disposal of 173 174 the removed concrete pavement by either hauling and disposal off-site or hauling and dumping of the removed concrete in a location designated by the Airport located approximately one-mile from 175 the project site as directed by the Airport Manager and Engineer. If the latter option is chosen, the 176 material will be required to be placed in a graded manner and may not become higher than the bank 177 elevation as directed by the Airport Manager to the satisfaction of the Engineer and Airport 178 179 Manager. Disposal Area is approximately 20 feet wide, approximately 10 feet deep, and has a length of approximately 1/4 mile. 180

181

182 Payment will be made under:

- 183
- 184Item MO-2096" Aggregate Base Course per square yard
- 185 186
- 180

### \*\*END OF ITEM MO-209\*\*

required to identify the limits of deficient areas.

225 Lift thickness testing may also be performed via survey at no cost to the Sponsor.

219-4.11 Traffic. Equipment used in construction may be routed over completed portions of the
base course, provided there is no damage to the base course. The equipment shall be routed evenly
over the full width of the base course to avoid rutting or uneven compaction.

230

226

231 219-4.12 Maintenance. The base course shall be maintained until the base course is completed and
 232 accepted. Maintenance will include immediate repairs to any defects and shall be repeated as often as
 233 necessary to keep the completed work intact. The Contractor, at his or her expense, will rework any
 234 area of the recycled concrete aggregate base course that is damaged.

235 236

238

### 237 METHOD OF MEASUREMENT

239 219-5.1 The quantity of 6 inch recycled concrete aggregate base course will be determined by
240 measurement of the number of square yards of material actually constructed and accepted as
241 complying with the plans and specifications.

242 243

245

### 244**BASIS OF PAYMENT**

246 219-6.1 Payment shall be made at the contract unit price per square yard for 6 inch recycled concrete 247 aggregate base course. This price shall be full compensation for furnishing all materials, for 248 preparing and placing these materials, and for all labor, equipment tools, and incidentals necessary to 249 complete the item. If MO-209 material is required to supplement the recycled concrete material, it 250 shall be paid for under 6" recycled concrete aggregate base course.

251

254

255 256

252 Payment will be made under:253

P-219a 6" Recycled Concrete Aggregate Base Course – per square yard

### 257 **TESTING REQUIREMENTS**

- 258 259
- 259 ASTM C29 Standard Test Method for Bulk Density ("Unit Weight") and Voids in 260 Aggregate 261 262 ASTM C88 Standard Test Method for Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate 263 264 265 ASTM D75 Standard Practice for Sampling Aggregates 266 ASTM C117 Standard Test Method for Materials Finer than 75 µm (No. 200) Sieve in 267 268 Mineral Aggregates by Washing
- 268

270 271 272	ASTM C131	Standard Test Method for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine
273 274 275	ASTM C136	Standard Test Method for Sieve or Screen Analysis of Fine and Coarse Aggregate
276 277 278	ASTM D698	Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft <sup>3</sup> (600 kN-m/m <sup>3</sup> ))
278 279 280 281	ASTM D1556	Standard Test Method for Density and Unit Weight of Soil in Place by the Sand Cone Method
281 282 283 284	ASTM D1557	Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft <sup>3</sup> (2700 kN-m/m <sup>3</sup> ))
285 286 287	ASTM D2167	Standard Test Method for Density and Unit Weight of Soil in Place by the Rubber-Balloon Method
287 288 289 200	ASTM D2419	Standard Test Method for Sand Equivalent Value of Soils and Fine Aggregate
290 291	ASTM D3665	Standard Practice for Random Sampling of Construction Materials
292 293 294 205	ASTM D4318	Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils
295 296 297 208	ASTM D4643	Standard Test Method for Determination of Water (Moisture) Content of Soil by Microwave Oven Heating
298 299 300	ASTM D4718	Standard Practice for Correction of Unit Weight and Water Content for Soils Containing Oversize Particles
301 302 303	ASTM D4791	Standard Test Method for Flat Particles, Elongated Particles, or Flat and Elongated Particles in Coarse Aggregate
304 305 306 307	ASTM D6938	Standard Test Method for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)
308 309		**END OF ITEM P-219**
310		
311		

	181						_						EXIS	STING GRADE ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
SHEET	SHEET	DEX OF DRAM					_						×	ידעינדעדעדעדער 2
NO.							_							PR
2	G001 COVER SHEET G002 INDEX OF DRAWINGS, GENERAL N	IOTES AND SUMMARY	OF APPROXIN	MATE QUANTITIE	S		_						~	
3	G003 SURVEY CONTROL PLAN												(5)	СИТ
5	G004 BORING MAP, BORING LOGS AND G005 CONSTRUCTION LAYOUT AND SAFE	NOTES					_							
6	G006 CONSTRUCTION SAFETY DRAWING,	OVERALL SCHEDULE	S											
7	G007 CONSTRUCTION SAFETY DRAWING,	SCHEDULE I, PHASE	E 1											
9	G009 CONSTRUCTION SAFETY DRAWING,	SCHEDULES II AND	III, PHASE 3				_							4" LOWER CUT FOR TOPSOIL REPLACEM
10	G010 CONSTRUCTION SAFETY DRAWING,	SCHEDULES II AND	III, PHASE 4											IN CUT AREA (1)
11	C100 DEMOLITION PLAN, SCHEDULE II ( C101 DEMOLITION PLAN SCHEDULE I	& III					_							4" TOPSOIL REPLACEMENT (6) 12 LIME SUBGRADI
13	C102 DEMOLITION PLAN, SCHEDULE III													
14	C200 GEOMETRIC PLAN, SCHEDULE II &	i III												<u> → TOTAL CUT (PAY) </u>
16	C202 GEOMETRIC PLAN, SCHEDULE III													
17	C300 GRADING AND SPOT ELEVATION P	LAN, SCHEDULE II &	k										L	UNCLASSIFIED VOLUME
18	C302 GRADING AND SPOT ELEVATION P C302 GRADING AND SPOT ELEVATION P	LAN, SCHEDULE II					_							A volume topsoil at cut (strippe)
20	C400 STORM SEWER PLAN AND PROFIL	E – STORM LINE A												(PAID AS 4" DEEP, PLAN AREA OF
21	C450 STORM DRAINAGE DETAILS						_							(PAID AS 4" DEEP, PLAN AREA OF
23	C500 TYPICAL SECTIONS												(1)+(	$2 \neq 3$ = total volume <u>cut</u> (paid as mo-
24	C600 CONCRETE JOINT PLAN, SCHEDUL	E    &											EARTHWO	rk quantities = $(7)$ volume of cut + $(2)$ .
26	C602 CONCRETE JOINT PLAN, SCHEDUL	E III											_	
27	C650 CONCRETE JOINT DETAILS												Ľ	(6) 12" LIME TREATED SUBGRADE PREF
28	C651 CONCRETE JOINT DETAILS C700 PAVEMENT MARKING PLAN						_							
30	C750 PAVEMENT MARKING AND TIE-DO	WN DETAILS												
31	C800 EROSION CONTROL PLAN						_							GOOZ
02							1							_
		APPROXIMAT												GENERAL NOTES
ITEM NO.	ITEM DESCRIPTION	N	UNITS	ESTIMATE	ESTIMATE	ESTIMATE	1							
MO-100a	Mobilization		LS	1	1	1	]						ENGINE	ER FROM WORK IN PLACE.
MO-152a	Unclassified Excavation		CY	550	650	529	4						2. CONSTR	ON AIRPORTS DURING CONSTRUCTION
MO-152b	Overexcavation and Replacement		SY	533	555	353	-						3 THE CO	
P-155h	Lime-Treated Subgrade		TON	10,650	250	160	1						4. THE CO	INTRACTOR SHALL BE REQUIRED TO FIELD VERIEV TO
MO-156a	Silt Fence		LF		-	580	1						COMMEN	NCING WORK.
<u>MO-156</u> b	Ditch Check		EA	-	-	1	1						5. THE CC	NTRACTOR SHALL PROVIDE MATERIAL SUBMITTALS FC
P-312a	Stabilization Fabric		SY	10,650	11,100	7,057	1						6. CONTRA	CTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO
P-501a	6" Portland Cement Concrete Pavern	ent	SY	9,890	10,570	6,683	4						SHALL	BE MADE AT NO ADDITIONAL COST TO THE SPONSOF
P-501b	6" Portland Cement Concrete Panel F	(eplacement	SY	242	-	-	-						7. THE PR IN THE	COJECT PAY ITEMS PROVIDED ARE TO BE INCLUSIVE CONTRACT DOCUMENTS. ALL WORK NOT IDENTIFIED
MO-601b	Concrete Pavement Select Panel Rem	oval	SY	242			1						CONSID PROJEC	ERED REQUIRED WORK TO COMPLETE THE PROJECT, T PAY ITEMS PROVIDED.
MoDOT-60	9a Type 3 Rock Lining		CY	-	-	10	1						8. ALL PA	VEMENT REMOVAL SHALL BE MEASURED AND PAID T'
MO-620a	Permanent Airport Pavement Markin	g (yellow)	SF	264	746	475	]						9. IF THE	CONTRACTOR CHOOSES TO OVERBUILD PAVEMENT LA
MO-620b	Permanent Airport Pavement Markin	g (black)	SF	533	1,506	950	4						THE PL	ANS FOR CONSTRUCTIBILITY, NO PAYMENT WILL BE
MO-620c	Permanent Airport Pavement Markin	g (blue)	SF	160	-	-	4						10. ALL WA PROJEC	STE MATERIALS SHALL BE REMOVED FROM THE AIRP T. UNLESS OTHERWISE SPECIFIED.
P-640a MO 701	Aircraft Tiedown Anchor		EA IE	27	45	-	4							
MO-701b	18" RCP FFS - Class V		EA	-	-	<u>240</u> 1	1							SURVEY NOTES
D-705a	Install 6" Perforated Polyethylene Pipe	2	LF	-	377	-	1						1. TWO WEE	KS PRIOR TO START OF CONSTRUCTION, THE CONTR
D-705b	Install 6" Non-Perforated Polyethyler	e Pipe	LF	-	78	-	]						PRE-CON CRITICAL	AREAS DETERMINED BY THE ENGINEER. THE SURVEY
D-751a	Install Aircraft Rated Inlet		EA	-	-	1	4						SURFACE	CONTROL AND SHALL PROVIDE SUFFICIENT SHOTS T . SURVEY SHALL BE PROVIDED TO THE ENGINEER IN
D-751b	Install 6-inch Underdrain Inspection I	Pit	EA	-	1	-	4						ARE REQ	UNRED. THIS SURVEY WILL BE USED TO DETERMINURED. THIS SURVEY WILL BE INCIDENTAL TO MOBILI
D-751c	Install 6-inch Underdrain Cleanout		EA EA	-	2	-	-						FOR ADD	UTIONAL SURVEY INFORMATION.
/51d 	Seeding with Hydromylch		AC	- 05	05	- 05	1						2. BEFORE	AND DURING THE PROJECT, ANY DISCREPANCIES IN
MO-108a	4/0 AWG Aluminum Wire, Type XF	IHW or USE	LF		860	310	1							VEY PROVIDED TO THE ENGINEER FOR DRE CONSTR
MO-108b	2/0 AWG Aluminum Wire, Type XF	IHW or USE	LF	-	430	155	1						SHALL BI	E PROVIDED TO THE ENGINEER FOR PRE-CONSTRUCT E PROVIDED ELECTRONICALLY AND SHALL INCLUDE F
MO-110a	Install 1-2" Sch. 40 PVC Conduit (Di	rect Earth Buried)	LF	-	210	145	<b>_</b>							NO, AND DESCRIPTIONS (PNEZD, COMMA DELINEATED
-MO-1105	Install 2-2" Sch. 40 PVC Concluit (Co	insiete Encased)		-	210		k ≜						4. FIELD SU CONFORM	MANCE WITH PLAN GRADES, ALIGNMENTS, AND GRADE
RECYCLEI	D CONCRETE AGGREGATE BAS	E - ALTERNAT		10,650	11.100	7.057	$+$ $\setminus$						5. ALL REQ	UIRED SURVEY WILL BE INCIDENTAL TO OTHER BID I
r-219a	AGGREGATE BASE - ALTERNA	TE BID	51	10,050	11,100	/,05/	1)						6. THE HOR VERTICAL	ZONTAL AND VERTICAL COORDINATES ARE BASED OF DATUM NAVD 88.
MO-209a	6" Aggregate Base Course		SY	10,650	11,100	7,057	] /							
					<u> </u>	~	/							
			I		$C \setminus I$			DES: T.A.R			ISSUE RECOF			4
		∎®	ΚII	ĸκ	$\Sigma V$			DR: J.A.C.	1 E.S.	DATE 0 05/19/2015	ISSUED FOR BID	DESCRIPTION		RECONSTRUCT APRON AND
<b>_</b> )\									E.S.	D 06/02/2015	ADDENDUM N	0.2		T-HANGAR TAXILANES
		-	RFG	ION		RPO	RT	UR. U.L.G						1
		11						APP: FSD		_				1

APP: E.S.D

	2

MENT	ED GRADE			N 4" LES TOPSOII (INCIDE (INCIDE (INCIDE PAY SPECIFIED SPECIFIED NKKMENT) POSED GRA	S FILL (5) FOR REPLACEMENT NTAL TO MO-15	2)		
PED) F CUT) TRIPPED F FILL) - 152a) VOLUM EP (PAI EP (PAI SSIFI ME C NOT	$\begin{array}{c} \underline{\text{TOT}}\\ \hline \end{array} \\ \hline $ \\ \hline \end{array} \\ \hline \end{array}  \\ \hline  \\ \hline \end{array} \\ \hline  \\ \hline  \\ \hline  \\ \hline \end{array} \\ \hline \\ \hline \end{array} \\ \hline \end{array}  \\ \hline  \\ \hline \end{array} \\ \hline \end{array} \\ \hline \end{array} \\ \hline \end{array}  \\ \hline  \\ \hline   \\ \hline  \\ \hline \end{array} \\ \hline  \\ \hline	AL FILL ( EMBANKM + TOPSOIL AND UND (INCIDENT = TOTAL VC	(NC ENT REPI ER ( AL T DILUM	DPAY) VOLUME (N LACEMENT A UT (NOT P O MO-152) E FILL BELOW FILL	OT PAID) BOVE FILL AID) AREAS.			
S CTUAL Q DRY CIR PAYING THE EX FOR TH TO EXIS OR. E OF A D WITH T, AND TO NE	UANTITIES WILL BE DETERMINED CULAR (AC) 150/5370-2F, OPE FOR ALL NECESSARY PERMITS. ISTING PAVEMENT GRADES PRIOF E ENGINEER'S APPROVAL PRIOR STING FACILITIES OR ROADS. REF LL WORK TO BE PERFORMED AS A SPECIFIC PAY ITEM IS TO BE IS TO BE INCIDENTAL TO THE I AT LINE DIMENSIONS.	BY THE ERATIONAL R TO TO PAIR S SHOWN COST OF						
LAYERS MADE RPORT	BEYOND THE DIMENSIONS SHO FOR THIS ADDITIONAL MATERIAL PROPERTY AT NO COST TO THE R SHALL PROVIDE THE ENGINE	WN ON	[		ISSUE			
VS OF J (EY SHA (EY SHA (EY SHA (F) TO ACC IN ELE MINE IF IILIZATIO EE SEC N EXIST NGINEER TRUCTIO POINT ED FOR UPON F DE TOLE ) ITEMS.	ALL PAVEMENT AREAS AND OTHE LL BE PERFORMED USING SPEC CURATELY REPRESENT THE EXIS TORNIC FORMAT THAT IS ACCEL ANY MODIFICATIONS TO DESIGN N. PRE-CONSTRUCTION SURVEY TION 50 OF THE CONTRACT DO ING CONDITIONS DISCOVERED BY X. N SURVEYS AND VERIFICATION S NUMBERS, NORTHING, EASTINGS MAT). EQUEST SO THAT PERIODIC CHI ERANCES CAN BE REVIEWED.	R IFIED TTABLE GRADES SHALL CUMENTS ( THE SURVEYS , ECKS FOR			1330E			-
ON THE	E HORIZONTAL DATUM NAD 83 A	X OF D	RA	ELIZABET NAM FO WING ND SU	HS.DUVALL E R AND ON BEF S, MMARY	PE REG IALF OF J\	2008002153 05/19/2015 . NO. DATE /IATION , INC. SHEET NAME G002	5
	OF APPRC AIP PROJ. NO. 14-028A-3	DXIMAT JVIATION 2015-		QUAN 0J. NO. (-01	TITIES DATE: 05/19/20 <sup>7</sup>	15	SHEET NO. 2 of 32	



		-		
			RUNWAY 18/36	
PTH CO	NCRETE REMOVAL			
LIMITS			TAXIWAY "A"	
NORTHIN	IG EASTING			
: 1550821.	.99 E: 1628600.88			RAIL
1550889	52 F: 1628820.60			-1 <sup>63</sup>
1550000	CE E 1000001.40			CHINK
1 1 2 2 0 6 6 9.	E: 1628601.48			HO
: 1550908.	.71 E: 1628801.59		KEYMAP	J
: 1550908.	.57 E: 1628821.21			
1550962	21 E: 1628818.25		DEMOLITION LEG	END
: 1550970.	.53 E: 1628818.25			
: 1550969.	.87 E: 1628802.15		FULL DEPTH CC	NCRETE REMOVAL
: 1551046.	.33 E: 1628802.80		LIMILS (MO-60.	(a)
1551045	68 F: 1628846 70			
1551005			FULL DEPTH AS	PHALT REMOVAL
1: 1551065.	40 E: 1628846.83		LIMITS (MO-60	la) (SEE NOTE 10)
: 1551065.	.40 E: 1628848.90			
: 1551101.	.20 E: 1628849.50		FULL DEPTH SI	DEWALK REMOVAL
: 1551101.	.67 E: 1628803.27		LIMITS (MO-60	la)
1551216	17 E: 1628804 37			
. 1001210.	E. 1628604.57			
: 1551217.	.81 E: 1628604.40		NOTES	
: 1551177.	.22 E: 1628604.01		NOTES	
: 1551177.	.25 E: 1628601.72		1. ANY PAVEMENT DAMAGED DURING I	REMOVAL OUTSIDE
1551122	95 E: 1628603.48		THE PROPOSED REMOVAL LIMITS S	HALL BE SQUARED
1001122.		1	COSTS ASSOCIATED WITH THE ADDI	TIONAL REMOVAL
: 1551123.	4U E: 1628569.05	1	AND RECONSTRUCTION SHALL BE 1	THE RESPONSIBILITY
: 1551118.	.64 E: 1628562.99	1	OF THE CONTRACTOR.	
: 1551098.	46 E: 1628563.63	1	2. CONTRACTOR SHALL LOCATE AND F	PROTECT ALL
: 1551101	13 F: 1628523.53	1	EXISTING UTILITIES AND ELECTRICAL	SYSTEMS DURING
. 1551001.		1	CONSTRUCTION.	
: 1551098.	oi E: 1628523.49	1	3. ANY PAINT DAMAGED OUTSIDE OF	REMOVAL LIMITS TO
: 1551038.	.80 E: 1628522.72	1	BE RESTORED TO ORIGINAL CONDIT	IONS AT THE
: 1551036.	71 E: 1628522.64	1	EXPENSE OF THE CONTRACTOR.	
: 1551038.	.68 E: 1628542.84		4. IF EXISTING PAVEMENT IS DAMAGED	) BY HAUL
1551025	90 E: 1628562.66		OPERATIONS, THE CONTRACTOR SH	ALL REPAIR
. 1001020.			PAVEMENT AT NO ADDITIONAL COST	TO THE SPONSOR.
: 1551038.	.40 E: 1628562.70		5. DOUBLE SAW CUT ALL CONCRETE	TO PROTECT
: 1551019.	.04 E: 1628561.73		REMAINING PANELS, ANY DAMAGE 1	O ADJACENT
: 1551025.	.77 E: 1628582.46		CONTRACTOR'S EXPENSE. SEE DET.	AIL 1, SHEET C651
: 1550957.	.56 E: 1628600.00		FOR DEMOLITION AROUND HANGARS	S.
1550057	50 E: 1628601.07			E END DRADER
. 1550357.			OFF-SITE DISPOSAL OF ALL WASTE	MATERIALS
: 1550950.	.37 E: 1628601.95		GENERATED FROM THE PROJECT TH	HAT IS NOT
: 1550930.	.91 E: 1628601.80		COSTS ARE INCIDENTAL TO RESPEC	TIVE REMOVAL BID
: 1550885.	.19 E: 1628601.43		ITEM.	
: 1550865.	.33 E: 1628601.31			
1551036	13 E: 1628804.64		APPROXIMATE ONLY.	STINGS ARE
. 1551250.	E. 1028804.04			
: 1551246.	.23 E: 1628804.87		<ol> <li>PAVEMENT REMOVAL SHALL BE MEA TO NEAT LINE DIMENSIONING</li> </ol>	ASURED AND PAID
I: 1551286.	.02 E: 1628824.17		TO NEAT LINE DIMENSIONING.	
: 1551286.	.12 E: 1628814.83		9. REMOVAL OF ALL AIRCRAFT TIE-DO	WNS SHALL BE
: 1551314.	.36 E: 1628814.92		CONSIDERED INCIDENTAL TO THE P	AVEMENT REMOVAL.
. 1551312	54 E: 1628823.82		10. FULL DEPTH REMOVAL INCLUDES R	EMOVAL OF ANY
. 1551512.	E. 1020023.02		UNDERLYING CONCRETE OR ASPHAI	T BASES. SOME
			CONCRETE PAVEMENT TO BE REMO	VED. SEE SHEET
PTH AS	SPHALT REMOVAL		GO04 FOR EXISTING PAVEMENT THI	CKNESS.
LIMITS	S TABLE			
	IC FASTING			
· 1550000	52 E- 1638930 60	1		. m
. 1000009.			GRAPHIC SCAL	_E 5 50
: 1550906.	89 E: 1628820.75	1		50
: 1550962.	.21 E: 1628821.92	1		
: 1550970.	.68 E: 1628821.99	1	( TREAT )	,
: 1551153	.94 E: 1628804.04	1	( 11, 1221 )	
1661160	05 E. 1608907.67	1		חוא
. 1001152.	E: 1020023.03	1		
: 1551164.	.99 E: 1628823.74	1		
: 1551166.	.04 E: 1628804.07	1		
		1		
PTH SID	EWALK REMOVAL			
	S TABLE			
CIVILI C		1	THESE DRAWINGS ARE FO	
NORTHIN	IG EASTING	1	PURPOSES ONLY THE	YWERE
: 1550974.	.08 E: 1628802.16	1	PREPARED BY OR UND	ER THE
: 1550974.	.63 E: 1628822.01		SUPERVISION O	F:
1550985	75 E 1628823.64	1		
. 1550303.	75 5 4000012.04			
: 1550985.	.35 E: 1628813.04	1		
: 1551231.	.03 E: 1628819.60	1		
: 1551231.	.00 E: 1628824.34	1		
: 1551238.	95 E: 1628819.67	1		2008002152 05/40/2044
: 1551239	79 F: 1628824.42	1		
	EI 1020027.72	<b>_</b>		
			FOR AND ON BEHALF OF JV	IATION, INC.
		-		
				SHEET NAME
<u> </u>	-			C101
١D	l D	PENIOLITION	N PLAN	0101
			IEI	
				SHEET NO.
	AIP PROJ. NO.	JVIATION PR	OJ. NO. DATE:	10 of 00
	14-028A-3	2015-IRk	-01 05/19/2015	12 01 32





				RUNW	/AY 18/36	
EOME	TRY TABLE			TAX	WAY "A"	
NORTHIN	IG EASTING					
I: 1550822	.00 E: 1628600.81				AIRPORT T	RAIL
1550820	.00 E: 1628820.27					163
1550069	.52 E: 1628820.60					CHINA
: 1551046	.04 E: 1628822.66				KFYMAP	15.H
: 1551045	.68 E: 1628846.70					-////
: 1551065	.40 E: 1628846.83			GEOM	ETRIC LEG	END
1551065	.40 E: 1628848.90					
: 1551101	.20 E: 1628849.50				PROPOSED 6" F	PCCP (P-501a)
: 1551101	.49 E: 1628823.16		7			
: 1551215	.99 E: 1628824.20			<b>.</b>		PAET TIE DOWN
1551245	.98 E: 1628823.90			,	FROFUSED AIRC	NAFT HE-DOWN
I: 1551312	.54 E: 1628823.82					
: 1551314	.36 E: 1628814.92		NOTES			
: 1551286	.12 E: 1628814.83					DE AT EDOE OF
: 1551246	.23 E: 1628804.87		PCCP L	JNLESS OTHE	ERWISE NOTED.	RE AT EDGE OF
: 1551216	.17 E: 1628804.37		2. SEE SH	IEETS GOO6	THRU GO10 FO	R CONSTRUCTION
1551217	.81 E: 1628604.40		PHASING	3.		
1551177	22 E: 1628604.01		3. SEE SH	IEET C500 F	OR TYPICAL PA	/EMENT SECTIONS.
1. 1351177	.2.3 E: 1020001.85 .95 E: 1628603.48		4. SEE SH	IEETS C600	THRU C602 FO	R CONCRETE JOINT
: 1551123	.40 E: 1628569.05		6 CEF CU	IFFT 0700 5		
: 1551118	.64 E: 1628562.99		INFORM	ATION.	ON FAVEMENT I	
: 1551098	.46 E: 1628563.63		7. ANY PA	VEMENT DAM	AGED DURING F	REMOVAL OUTSIDE
: 1551098	.81 E: 1628523.49		THE PR OFF TO	OPOSED REI THE SATISF	MOVAL LIMITS SI ACTION OF THE	HALL BE SQUARED ENGINEER. ALL
: 1551101	.53 E: 1628523.51		COSTS AND RF	ASSOCIATED	WITH THE ADDI ON SHALL BE T	TIONAL REMOVAL THE RESPONSIBILITY
: 1551199	.69 E: 1628504.40		OF THE	CONTRACTO	R.	
: 1551038	.80 E: 1628522.72		8. CONTRA	CTOR SHALL	LOCATE AND F	ROTECT ALL
1: 1551035	.96 E: 1628522.70		CONSTR	UCTION. CO	NTRACTOR SHAL	L COORDINATE ALL
1551038	.40 E: 1628562.70		UIILIIY	LOCATES.		
1550997	51 E: 1628602.40		<ol> <li>CONTRA AND IN:</li> </ol>	CTOR SHALL SPECTION PI	. PROTECT UNDE	ERDRAIN CLEANOUTS
: 1550957	.17 E: 1628601.99		10. PROPOS	SED PCCP A	ROUND HANGAR	S SHALL TIF TO
: 1550957	.19 E: 1628599.99		EXISTIN	G BUILDING	FINISHED FLOOF	PAVEMENT LIMITS.
: 1550938	.17 E: 1628501.81					
NORTHIN : 1550830 : 1550860 : 1550842 : 1550878 : 1550988 : 1550988 : 1550926 : 1550956 : 1550938 : 1550938 : 1550974 : 1550834	NG         EASTING           .04         E:         1628623.49           .25         E:         1628623.60           .04         E:         1628623.60           .14         E:         1628623.93           .35         E:         1628624.03           .24         E:         1628624.03           .24         E:         1628624.36           .25         E:         1628624.36           .24         E:         1628624.36           .24         E:         1628624.47           .33         E:         1628624.80           .80         F:         1628624.70		25	GR		Е 50
1: 1550853	.00 E: 1628759.10					
1: 1550865	.01 E: 1628759.21			(	IN FEET )	
: 1550882	.90 E: 1628777.48			100		
: 1550901	.11 E: 1628759.53			199		<u></u>
1550913	.11 E: 1628759.64					
1: 1550930	21 E: 1628//7.91					
1: 1000949	.21 E: 1628/59.9/					
: 1550979	.09 E: 1628778.35					
1: 1550997	.31 E: 1628760.41		Т	HESE DRA		
: 1551221	.68 E: 1628607.24			PREPARI	ED BY OR UND	DER THE
: 1551198	.45 E: 1628632.03			SL	JPERVISION O	F:
1: 1551244	.45 E: 1628632.45					
: 1551259	.45 E: 1628632.58					
: 1551305	.45 E: 1628633.00					
: 1551282	.68 E: 1628607.79				_	000000450 55050
			ELIZABET	H S. DUVALL	PE-	2008002153 05/19/201
			FO		REG NBEHALF OF	INC. DATE
			10		0, 0,	
						SHEET NAME
				ı		C201
чU	GE			•		
		SCHEDU				SHEET NO.
	AIP PROJ. NO.	JVIATION PR	OJ. NO.	DATE:	/2015	15 of 32
	14-UZÖA-J	1 2015-IRP	<u>-UI</u>	i UD/19/	2010	



Addendum No. 2 June 2, 2015 To: Contract Documents, Plans and Specifications Project No. 14-028A-3 Dated: May 19, 2015

### ADDENDUM NO. 1 ATTACHMENT 1

Pre-Bid Agenda and Sign-In Sheet



### KIRKSVILLE REGIONAL AIRPORT

RECONSTRUCT AIR CARRIER APRON (SCHEDULE I) RECONSTRUCT SOUTH APRON (SCHEDULE II) RECONSTRUCT T-HANGAR TAXILANES (SCHEDULE III) MoDOT PROJECT NO. 14-028A-3 / AIR 156-028A DATE: MAY 28, 2015 TIME: 1:00 P.M.

### **PRE-BID CONFERENCE**

### 1. RECORDING OF ATTENDEES

- A. Recording of attendees, firm represented, address, phone number and email.
- B. Attendance list and Agenda will be sent to all plan holders.

### 2. INTRODUCTIONS & PROJECT DESCRIPTION

- A. Airport Representatives
  - Glenn Balliew Director, Kirksville Public Works & Kirksville Regional Airport
- B. Airport Engineering Jviation, Inc.
  - Ryan Lorton, P.E. Project Manager
  - Elizabeth Duvall, P.E.- Project Engineer
- C. MoDOT Aviation
  - Tamara Pitts Project Manager
- D. Project Schedules
  - Schedule I Reconstruct Air Carrier Apron
  - Schedule II Reconstruct South Apron
  - Schedule III Reconstruct T-Hangar Taxilanes
- E. Addendum No. 1 has been issued revising both the Federal and State Wage Rates.

### F. Work Items

			SCHEDULE I	SCHEDULE II	SCHEDULE III
TENTINO.	TIEW DESCRIPTION	UNITS	ESTIMATE	ESTIMATE	ESTIMATE
MO-100a	Mobilization	LS	1	1	1
MO-152a	Unclassified Excavation	CY	550	650	529
MO-152b	Overexcavation and Replacement	SY	533	555	353
P-155a	Lime-Treated Subgrade	SY	10,650	11,100	7,057
P-155b	Lime	TON	240	250	160
MO-156a	Silt Fence	LF	-	-	580
MO-156b	Ditch Check	EA	-	-	1
MO-209a	6" Aggregate Base Course	SY	1,530	1,590	4,257
P-219a	6" Recycled Concrete Aggregate Base Course	SY	9,120	9,510	2,800
P-312a	Stabilization Fabric	SY	10,650	11,100	7,057
P-501a	6" Portland Cement Concrete Pavement	SY	9,890	10,570	6,683
P-501b	6" Portland Cement Concrete Panel Replacement	SY	242	-	-
MO-601a	Full Depth Pavement Removal	SY	9,560	9,800	6,735
MO-601b	Concrete Pavement Select Panel Removal	SY	242	-	-
MoDOT-					
609a	Type 3 Rock Lining	CY	-	-	10
MO-620a	Permanent Airport Pavement Marking (yellow)	SF	264	746	475
MO-620b	Permanent Airport Pavement Marking (black)	SF	533	1,506	950
MO-620c	Permanent Airport Pavement Marking (blue)	SF	160	-	-
P-640a	Aircraft Tiedown Anchor	EA	27	45	-
MO-701a	18" RCP Storm Pipe - Class V	LF	-	-	248
MO-701b	18" RCP FES - Class V	EA	-	-	1
D-705a	Install 6" Perforated Polyethylene Pipe	LF	-	377	-
D-705b	Install 6" Non-Perforated Polyethylene Pipe	LF	-	78	-
D-751a	Install Aircraft Rated Inlet	EA	-	-	1
D-751b	Install 6-inch Underdrain Inspection Pit	EA	-	1	-
D-751c	Install 6-inch Underdrain Cleanout	EA	-	2	-
D-751d	Install 6-inch Underdrain Outfall		-	1	-
MO-901a	Seeding with Hydromulch		0.5	0.5	0.5
MO-108a	4/0 AWG Aluminum Wire, Type XHHW or USE		-	860	310
MO-108b	2/0 AWG Aluminum Wire, Type XHHW or USE		-	430	155
	Install 1-2" Sch. 40 PVC Conduit (Direct Earth				
MO-110a	Buried)	LF	-	210	145
MO-110b	Install 2-2" Sch. 40 PVC Conduit (Concrete Encased)	LF	-	210	-

### 3. BID OPENING

А.	Date:	Tuesday, June 9, 2015 at 3:00 P.M. (CST)
В.	Location:	City of Kirksville City Council Chambers Kirksville City Hall 201 S. Franklin Kirksville, MO 63501
C.	Bid Bond: 20-10 Bid Guaranty.	5% of bid amount – Section 2, Instructions to Bidders, Paragraph 4 and Section
D.	Contract Proposal:	Proposal Form starts on page B-1. Submit pages B-1 through B-25 with bid.
E.	Award: Contract.	Notice to Bidders, Section 1, Page 3 and Section 30 Award and Execution of
		<b>NOTE:</b> Bid Hold is <u>120</u> Calendar Days. Section 1, Page 3, Award of Contract. B. states 90 calendar days and this shall be changed to 120 calendar days.

### 4. DBE GOALS

A. 3% of Contract Amount.

### 5. <u>ESTIMATED</u> CRITICAL CONTRACT DATES

- A. Contract Award: Summer/Fall 2015 (ESTIMATED) –The signature of the bidder on the proposal form indicates that within thirty (30) calendar days from acceptance of its bid offer it will execute a contract with the Owner and, if indicated in this solicitation, furnish a project specific Certificate of Insurance naming the Owner as Additional Insured, furnish Performance and Payment Bonds and any other documents required by the Contract Documents.
- B. Notice to Proceed: Fall 2015 (ESTIMATED), Refer to Section 80-2.

Project Time: 140 Calendar Days.

### 6. LIQUIDATED DAMAGES

A. As compensation for non-use, the Contractor shall be assessed a liquidated damage of **\$750/calendar** day(s) for each day that the work remains uncompleted beyond the contract period.

Phase	Liquidated Damages Cost	Allowed Construction Time
Phase 1	\$750/Calendar Day(s)	35 Calendar Days
Phase 2	\$750/Calendar Day(s)	35 Calendar Days
Phase 3	\$750/Calendar Day(s)	35 Calendar Days
Phase 4	\$750/Calendar Day(s)	35 Calendar Days

### SECTION 80-08 FAILURE TO COMPLETE ON TIME.

Please see Phasing Sheets G005 thru G010 of the Construction Drawings for more information on the scheduling/sequencing of work.

Permitting the Contractor to continue and finish the work or any part of it after the time fixed for its completion, or after the date to which the time for completion may have been extended, will in no way operate as a waiver on the part of the Owner of any of its rights under the contract.

### 7. BONDING

- A. Payment Bond: 100% of Bid Amount, Refer to Section 30-6
- B. Performance Bond: 100% of Bid Amount, Refer to Section 30-6

### 8. BUY AMERICAN REQUIREMENTS

A. See Section 4 – Supplementary Provisions, Part A Federal and State Provisions, subpart 5 for Buy American Requirements. Buy American Certification is required to be submitted as part of the Bid Proposal Form.

### 9. INSURANCE REQUIREMENTS

Refer to Section 4, Part C Local Provisions, Paragraph 15 for Contractor's Insurance requirements.

A. The Contractor shall pay for and maintain during the life of this contract adequate Workmen's Compensation, Public Liability and Property Damage Insurance. The Contractor is charged with the responsibility for adequate and proper coverage for all his subcontract operations. Contractor shall furnish to the Sponsor satisfactory proof of carriage of the insurance required.

### 10. FEDERAL AND STATE WAGE RATES (DAVIS BACON ACT)

A. The higher of the Federal wage and State wage rates are required for this project for work completed. Refer to Section 4, Part D Federal and State Wage Rates.

### **11. ENGINEER'S FIELD OFFICE**

A. Refer to Section 60-5, for requirements.

### 12. MISCELLANEOUS

- A. Construction Materials: Sales Tax Exemption. Refer to Section 4, Part C Local Provisions, Paragraph 17 Sales and Use Taxes.
- B. Contractor Access and Haul Route- Review the Phasing sheets. The Contractor shall be responsible for any damage to existing facilities or roads regardless of legal load. Repairs shall be made at no additional cost to the sponsor.
- C. Acceptance Testing: All acceptance testing for this project is the responsibility of the Engineer at no additional cost to the Contract except where specifically stated in the specifications.
- D. Waste Area- Contractor shall dispose of all waste materials offsite.
- E. Questions will be taken via written format only to Jviation, Inc. until Wednesday, June 3, 2015 5:00 p.m. (CST).

### 13. QUESTIONS

### **14. PROJECT SITE TOUR**

	₽		931 Wildwood Drive, Suite 101 Jefferson City, MO 65109 Phone: 573.636.3200 Fax: 573.636.3201
			Pre-Bid Meeting Sign In
Meeting Date / Location:	May 28, 2015 / Kirksville Regional Airpor	Project Name:	Schedule I: Reconstruct Air Carrier Apron Schedule II: Reconstruct South Apron Schedule III: Reconstruct T-Hangar Taxilanes
lime: I:UU p.m.		MoDOT Project #:	14-028A-3 / AIR 156-028A
Name	Сотралу	Telephone No.	E-mail
Ryan B. Lorton	Jviation	573-418-1450	<u>Ryan.Lorton@iviation.com</u>
Elizabeth Duvall	Jviation	573-469-3011	<u>Elizabeth.Duvall@jviation.com</u>
Glenn Balliew	Kirksville	660-665-5020	gballiew@kirksvillecity.com
KEVIN LEAHIC	CHESTER BROSS CONST. CO.	573 - 221 - 5958	Kevinten her Lachast mail. Com
DON STEPHENSOR	Mid West Heavy	816-623-9680	don @ m w hravy . com
Brenden Hendell	Ideker Inc.	Ble 390 4617	Ddag Te@hothail.com
Bab Miller	W.L. Miller Co.	(217) 847-3316	
BRIAN BURKS	EMERY SAPP & SONS, INC.	(573) 445 - 8331	brian, burks concersapp.com
Frank Millaherril	RIFICIVILE REACH MUX	1000 - 663 - 3604	Mint Huching 22 and 1. Con
Kara Minalevich	Mihaleuch Concetu	660-665-9419	kara @ adventurestudenttravel.con