JESSE VIERTEL MEMORIAL AIRPORT BOONVILLE, MISSOURI

MoDOT Project No. 17-039A-1

Project Description

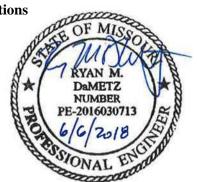
Reconstruct Runway 18-36, North Connecting Taxiway and Turnaround

Replace Existing Medium Intensity Runway Lighting (MIRL) System, Precision Approach Path Indicator (PAPI) Systems, and Runway End Identifier Light (REIL) Systems

Mitigate Runway 36 Approach Surface Obstructions

ADDENDUM NO. 1

June 6, 2018



TO ALL PROSPECTIVE BIDDERS:

- A. You are hereby notified of the following amendments to the Contract Documents/Specifications for the subject project.
 - 1. <u>Table of Contents</u>. This section has been updated to reflect the changes to the various sections noted below.

Updated <u>Table of Contents</u> is included with this addendum for reference.

2. Section 1, <u>Notice to Bidders</u>. This section has been updated to reflect the changes to the various contract pay items and quantities noted in this addendum. The following contract pay items have been revised as follows:

Item No.	Spec.	Item Description	Quantity	<u>Unit</u>
46	L-115	L-867 Junction Box	25	Ea.
56	F-161	Wooden Picket Fence	250	L.F.

Updated Section 1 is included with this addendum for reference.

- 3. Section 18, <u>Wire Fence with Steel Posts (Class C and D Fence)</u>. This section has been renamed <u>Wire Fence with Steel Posts (Class C and D Fence)</u> and <u>Wooden Fence</u>. The following subsection has been added to provide for the new contract pay item Wooden Picket Fence:
 - "161-2.4 Wooden Fencing. Lumber to be used as a permanent structure shall be Southern Pine with lumber to use as pickets shall be Cedar.
 - a. Quality. Posts shall be peeled, sound, straight-grained, free from decay, cracks, and splits; shakes shall not be in excess of 1/4 inch (6 mm) wide and 3 feet (90 cm) long. Checks (lengthwise separations of the wood in a generally radial direction) are not permitted.

- b. Dimensions. All lumber shall be of the dimensions shown on the
- c. Treatment. Structural lumber shall be treated with Ammoniacl Copper Arsenate (ACA or Chormated Copper Arsenate (CCA), with a minimum retention of 0.40 lbs/cf of wood. The treatment, care and preservative shall be in accordance with AWPA P5 "Standard for Waterborne Preservatives"."

Updated Section 18 is included with this addendum for reference.

4. <u>Proposal Form, Page PF-3</u> has been updated to reflect the changes to the various contract pay items and quantities noted in this addendum. The following contract pay items have been revised as follows:

Item No.	Spec.	<u>Item Description</u>	Quantity	<u>Unit</u>
46	L-115	L-867 Junction Box	25	Ea.
<i>56</i>	F-161	Wooden Picket Fence	250	L.F.

Updated Page PF-3 is included with this addendum for reference. <u>PLEASE REPLACE THE ORIGINAL PAGE PF-3 WITH THIS UPDATED VERSION WHEN SUBMITTING YOUR BID.</u>

- B. You are hereby notified of the following amendments to the Construction Plans for the subject project.
 - 1. Sheet 1, Title Sheet. This sheet has been revised to add new Sheet 43A to the Sheet List Table.

Updated Sheet 1 is included with this addendum for reference.

2. Sheet 5, <u>Typical Sections & Summary of Quantities</u>. This sheet has been revised to reflect the changes to the various contract pay items and quantities noted in this addendum. The following contract pay items have been revised as follows:

Item No.	Spec.	<u>Item Description</u>	<u>Quantity</u>	<u>Unit</u>
46	L-115	L-867 Junction Box	25	Ea.
<i>56</i>	F-161	Wooden Picket Fence	250	L.F.

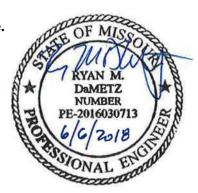
Updated Sheet 5 is included with this addendum for reference.

3. Sheet 10, <u>Clearing Plan.</u> This sheet has been revised to add the removal of the existing fence and the installation of the new 9' tall wooden picket fence. Removal of the existing fence shall be subsidiary to the installation of the new fence.

Updated Sheet 10 is included with this addendum for reference.

4. Sheet 23, Fence Detail. This sheet has been revised to add the Wooden Fence Detail to the sheet.

Updated Sheet 23 is included with this addendum for reference.



5. Sheets 35-36, <u>Lighting Plan.</u> These sheets have been revised to install additional L-867 Junction Boxes along the proposed Runway 18 PAPI circuit.

Updated Sheets 35 and 36 are included with this addendum for reference.

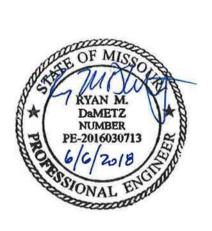
- 6. Sheet 38, <u>Electrical Details</u>. Note 3 has been added to the <u>Cables in Conduit Trenching Detail</u> as follows:
 - "3. Where the cable trench is parallel with pavement the Contractor has the option to install the Counterpoise in a separate trench located 5' off of the pavement edge. Separate trench for the counterpoise shall not be paid for. Installation of Counterpoise shall be paid for as Contract Item "Bare Copper Counterpoise in Same Trench as Conductors". All base cans shall be grounded by connection to the counterpoise system or individual ground rods at each base can."

Updated Sheet 38 is included with this addendum for reference.

7. Sheet 43A, <u>Vault Building Modifications</u>. This sheet has been added to depict the necessary modifications to the vault building itself, which include the removal of the existing pedestrian door, installation of two new pedestrian doors, and installation of an exhaust fan (in addition to the electrical modification already depicted on Sheet 43. All modifications related to the vault building or vault building equipment shall be paid for with the lump sum Contract Item "Vault Modifications, Complete".

New Sheet 43A is included with this addendum for reference.

C. The following site just west of the airport and south of the golf course may be utilized as a batch plant location during construction:





This site availability is contingent upon:

- after construction is complete, the site shall be returned to its original condition at no expense to the City.
- access must be maintained at all times throughout construction for golf carts and maintenance personnel. Contact the golf course for their access requirements.

Alternative batch plant locations on airport property can be made available upon request by the contractor. Any batch plant location shall be returned to its original condition after construction is complete.

- D. A copy of the pre-bid meeting minutes and attendees list is included with this addendum.
- E. <u>IMPORTANT NOTE:</u> All bidders submitting a proposal for this project must use the revised Page PF-3 which is included with this addendum. Please replace the original Page PF-3 with this updated version when submitting a bid.
- F. All bidders must acknowledge receipt of this addendum in the space provided on page PF-4 of the Proposal Form. Failure to acknowledge receipt of an addendum may be cause for rejection of the bid.



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NOTE: Lochner modifications to FAA standard specifications in block.

Central Region Modifications to FAA standard specifications in italics.

SECTION 1 NOTICE TO BIDDERS

CITY OF BOONVILLE, MISSOURI JESSE VIERTEL MEMORIAL AIRPORT

State Block Grant Project No. 17-039A-1

Sealed bids subject to the conditions and provisions presented herein will be received until 11:00 a.m. (CDT), Tuesday, June 12, 2018, and then publicly opened and read at Boonville City Hall, 401 Main Street, Boonville, Missouri 65233, for furnishing all labor, materials, equipment and performing all work necessary to

Reconstruct Runway 18-36, North Connecting Taxiway and Turnaround
Replace Existing Medium Intensity Runway Lighting (MIRL) System, Precision Approach Path Indicator
(PAPI) Systems, and Runway End Identifier Light (REIL) Systems
Mitigate Runway 36 Approach Surface Obstructions

Copies of the bid documents including project drawings and technical specifications are on file and may be inspected at:

Boonville City Hall Lochner

401 Main Street 16105 W. 113th Street

Boonville, MO 65233 Suite 107

Lenexa, KS 66219

Drawings, specifications and other related contract information may be ordered online at www.drexeltech.com or by contacting Drexel Technologies, Inc. at 10840 W. 86th Street, Lenexa, KS 66214, phone (913) 371-4430, fax (913) 371-7128. Checks shall be made payable to "Drexel Technologies" and mailing costs are the responsibility of the purchaser. Drawings, specifications, any addenda and a plan holders list are available at www.drexeltech.com by clicking on "Enter Plan Room".

A prebid conference for this project will be held at 11:00 a.m. (CDT), Thursday, May 31, 2018 at 525 E. Spring Street.

Contract Work Items. This project will involve the following work items and estimated quantities. Prospective bidders are hereby advised that the quantities indicated herein are approximate and are subject to change.

ITEM NO.	SPEC.	ITEM DESCRIPTION	QTY.	UNIT		
MODOT F	PROJECT NO	0. 17-039A-1				
RECONSTRUCT RUNWAY 18-36, NORTH CONNECTING TAXIWAY AND TURNAROUND REPLACE EXISTING MEDIUM INTENSITY RUNWAY LIGHTING (MIRL) SYSTEM, PRECISION APPROACH PATH INDICATOR (PAPI) SYSTEMS, AND RUNWAY END IDENTIFIER LIGHT (REIL) SYSTEMS MITIGATE RUNWAY 36 APPROACH SLOPE OBSTRUCTIONS						
1	MOB	Mobilization	1	L.S.		
2	TEMP	Temporary Marking, Lighting, & Barricades	1	L.S.		
3	P-101	Saw Cut	140	L.F.		
4	P-101	Concrete Pavement and Base Course Removal	2,290	S.Y.		
5	5 P-101 Asphalt Pavement and Base Course Removal		34,732	S.Y.		
6	6 P-101 Pavement Marking Removal		1,505	S.F.		
7	P-101	Remove Existing Underdrain System	1	L.S.		

8	P-101	Remove Existing Drainage Structures	1	L.S.
9	P-101	Remove Existing Electrical System	1	L.S.
10	P-151	Clear and Grub Trees and Brush in Right-of-Way	1.3	Ac.
11	P-151	Clear and Grub Mature Trees on Adjacent Property	4	Ea.
12	P-152	Unclassified Excavation	23,873	C.Y.
13	P-152	Unsuitable Subgrade Removal and Replacement	2,000	C.Y.
	P-155,			
14	P-157,	Treated Subgrade (12")	40,015	S.Y.
	or P-158			
15	P-156	Erosion Control Barrier (Silt Fence)	4,600	L.F.
16	P-156	Erosion Control Barrier (Straw Wattle)	580	L.F.
17	TREC	Erosion Control Blanket (Type 2B)	8,300	S.Y.
18	PTM	Permanent Transition Mat	64	S.F.
19	F-161	Woven Wire Fence, Class C	300	L.F.
20	P-209,	Aggragata Paga Course (6")	40,015	S.Y.
20	P-219	Aggregate Base Course (6")	40,013	5.1.
	P-209,			
21	P-219,	Aggregate Subbase Course (6")	40,015	S.Y.
	or P-154			
22	P-501	P.C.C. Pavement (6")	37,984	S.Y.
23	P-620	Temporary Non-Reflectorized Pavement Marking	23,755	S.F.
24	P-620	Reflectorized Pavement Marking	23,755	S.F.
25	P-620	Non-Reflectorized Pavement Marking	8,043	S.F.
26	D-701	12" RCP	24	L.F.
27	D-701	12" RCP End Section	2	Ea.
28	D-705	Conventional Underdrain (4")	8,385	L.F.
29	D-705	Non-Perforated Outlet Pipe (4")	661	L.F.
30	D-705	Non-Perforated Outlet Pipe (4")(Sch. 80)	154	L.F.
31	D-705	Splash Pad	11	Ea.
32	D-705	Underdrain Cleanout Riser	26	Ea.
33	T-901	Permanent Seeding	32.0	Ac.
34	T-901	Temporary Seeding	32.0	Ac.
35	T-905	Placement of Topsoil (Obtained on Site)	1	L.S.
36	T-908	HydroMulch	30.3	Ac.
37	L-108	Install Cable In Duct (1/c, #8 AWG, 5kV, L-824C)	20,000	L.F.
38	L-108	Install Cable In Duct (1/c, #6 AWG, 600V, L-824C)	600	L.F.
39	L-108	Install Cable In Duct (#10 Bare Copper Ground Wire)	300	L.F.
40	L-108	Bare Copper Counterpoise In Same Trench as Conductors	13,500	L.F.
41	L-109	Vault Modifications, Complete	1	L.S.
42	L-109	Furnish and Install 7.5kW CCR	1	Ea.
43	L-109	Furnish and Install 10kW CCR	12.500	Ea.
44	L-110	2" Electrical Duct and Trench	13,500	L.F.
45	L-110	2-4" PVC, Schedule 40, Concrete Encased Electrical Duct	239	L.F.
46	L-115	L-867 Junction Box (Rev. per Addendum No. 1)	25	Ea.
47	L-125	Retroreflective Markers	36	Ea.
48	L-125	M.I.R.L. (LED), Base Mounted (Red/Green Lens)	16	Ea.
49	L-125	M.I.R.L. (LED), Base Mounted (Clear/Yellow Lens)	39	Ea.
50	L-125	M.I.T.L. (LED), Base Mounted (Blue Lens)	26	Ea.

51	L-125	New 1 Module (LED) Lighted L-858R Sign (Size 1, Style 2)	2	Ea.
52	L-125	New 2 Module (LED) Lighted L-858R Sign (Size 1, Style 2)	2	Ea.
53	L-125	Furnish and Install REIL System	2	Ea.
54	L-125	Furnish 4-Box PAPI System	2	Ea.
55	L-125	Install 4-Box PAPI System	2	Ea.
56	F-161	Wooden Picket Fence (Added per Addendum No. 1)	250	L.F.

Contract Time. The owner has established a contract performance time of **one hundred fifty** (**150**) calendar days from the date of the Notice-to-Proceed. All project work shall be substantially completed within the stated timeframe. This project is subject to liquidated damages as prescribed in the project manual.

Bid Security. No bid will be considered unless accompanied by a certified check or cashier's check on any bank or trust company insured by the Federal Deposit Insurance Corporation, payable to **City of Boonville**, for not less than five (5) percent of the total amount of the bid, or by a bid bond secured by an approved surety or sureties, payable to the owner, for not less than five (5) percent of the total amount of the bid.

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

Award of Contract. All proposals submitted in accordance with the instructions presented herein will be subject to evaluation. Bids may be held by the **City of Boonville** for a period not to exceed **ninety** (90) calendar days from the date of the bid opening for the purpose of conducting the bid evaluation.

Award of contract will be based on the lowest aggregate sum proposal submitted from those bidders that are confirmed as being responsive and responsible. If more than one base bid is listed in the Proposal Form, the bidder may bid on Base Bid No. 1 and/or Base Bid No. 2. The owner reserves the right to select any one of the combinations of the base bid(s) and alternate bid(s), which in the judgment of the owner, best serves the owner's interest. The right is reserved, as the **City of Boonville** may require, to reject any bid and all bids.

Award of contract is contingent upon the owner receiving Federal-funding assistance under the State Block Grant Program.

Federal Provisions. This project is subject to the following Federal provisions, statutes and regulations:

Equal Employment Opportunity - Executive Order 11246 and 41 CFR Part 60: The Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth within the supplementary provisions. The successful Bidder shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin.

Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity:

- 1. The Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth within the supplementary provisions.
- 2. The goals and timetables for minority and female participation, expressed in percentage terms for the contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

Timetables

Goals for minority participation for each trade: 4.0% (Cooper County)

Goals for female participation in each trade: 6.9%.

These goals are applicable to all of the contractor's construction work (whether or not it is Federal or federally-assisted) performed in the covered area. If the contractor performs construction work in a geographical area

located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor is also subject to the goals for both its federally involved and non-federally involved construction.

The contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

- 3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs (OFCCP) within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address, and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.
- 1. As used in this notice and in the contract resulting from this solicitation, the "covered area" is **City of Boonville, Cooper County, Missouri.**

<u>Certification of Nonsegregated Facilities – 41 CFR Part 60</u>: A certification of Nonsegregated Facilities must be submitted prior to the award of a federally-assisted construction contract exceeding \$10,000 which is not exempt from the provisions of the Equal Opportunity Clause.

Contractors receiving federally assisted construction contract awards exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity Clause will be required to provide for the forwarding of the notice to prospective subcontractors for supplies and construction contracts where the subcontracts exceed \$10,000 and are not exempt from the provisions of the Equal Opportunity Clause. The penalty for making false statements in offers is prescribed in 18 U.S.C. 1001.

<u>Disadvantaged Business Enterprise – 49 CFR Part 26:</u> The requirements of 49 CFR Part 26, Regulations of the U.S. Department of Transportation, apply to this contract. It is the policy of MoDOT and the City to practice nondiscrimination based on race, color, sex or national origin in the award or performance of this contract. All firms qualifying under this solicitation are encouraged to submit bids/proposals regardless of their business size or ownership. Awards of this contract will be conditioned upon satisfying the requirements of this section. These requirements apply to all bidders, including those who qualify as a DBE. The owner's award of this contract is condition upon the bidder satisfying the good faith effort requirements of 49 CFR §26.53. A DBE contract goal of 13.00 percent has been established for this contract. The <u>non-DBE</u> bidder shall subcontract 13.00 percent of the dollar value of the base bid(s), excluding any additive alternates, to disadvantaged business enterprises (DBE) or make good faith efforts to meet the DBE contract goal. <u>The bidder and any subcontractor who qualifies as a DBE who subcontracts work to another non-DBE firm must subtract the amount of the non-DBE contract from the total DBE work counted toward the goal, as defined in 49 CFR Part 26.55.</u>

The apparent successful competitor will be required to submit the following information as a condition of bid responsiveness: (1) the names and addresses of DBE firms that will participate in the contract; (2) a description of the work that each DBE firm will perform; (3) the dollar amount of the participation of each DBE firm participating; (4) written statement from bidder that attests their commitment to use the DBE firm(s) listed under (1) above to meet the owner's project goal; and (5) if the contract goal is not met, evidence of good faith efforts undertaken by the bidder, as described in Appendix A to 49 CFR Part 26.

The apparent successful competitor must provide written confirmation of participation from each of the DBE firms listed in their commitment with the proposal documents as a condition of bid responsiveness.

<u>Davis-Bacon Act, as amended – 29 CFR Part 5:</u> The Contractor is required to comply with wage and labor provisions and to pay minimum wages in accordance with the current schedule of wage rates established by the United States Department of Labor included in the supplementary provisions.

In addition, the contractor will also be required to comply with the wage and labor requirements and pay minimum wages in accordance with the schedule of wage rates established by the Missouri Division of Labor Standards included in the Supplementary Provisions.

The highest rate between the two (Federal and State) for each job classification shall be considered the prevailing wage.

<u>Debarment, Suspension, Ineligibility and Voluntary Exclusion – 49 CFR Part 29</u>: The bidder certifies, by submission of a proposal or acceptance of a contract, that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

<u>Foreign Trade Restriction – 49 CFR Part 30:</u> The Bidder and Bidder's subcontractors, by submission of an offer and/or execution of a contract, is required to certify that it:

- a. is not owned or controlled by one or more citizens of a foreign country included in the list of countries that discriminate against U.S. firms published by the Office of the United States Trade Representative (USTR);
- b. has not knowingly entered into any contract or subcontract for this project with a person that is a citizen or national of a foreign country on said list, or is owned or controlled directly or indirectly by one or more citizens or nationals of a foreign country on said list; or
- c. has not procured any product nor subcontracted for the supply of any product for use on the project that is produced in a foreign country on said list.

<u>Buy American Certificate – Aviation Safety and Capacity Act of 1990</u>: This contract is subject to the "Buy American Preferences" of the Aviation Safety and Capacity Act of 1990. Prospective Bidders are required to certify that steel and manufactured products have been produced in the United States and to clearly identify those items produced or manufactured outside of the United States.

Additional Provisions:

Modification to the project documents may only be made by written addendum by the Owner or Owner's authorized Representative.

The proposal must be made on the forms provided within the bound project manual. Bidders must supply all required information prior to the time of bid opening.

SECTION 18

ITEM F-161

WIRE FENCE WITH STEEL POSTS (CLASS C AND D FENCE) AND WOODEN FENCE (Revised per Addendum No. 1)

DESCRIPTION

161-1.1 This item covers the requirements for furnishing materials and constructing new wire fences and gates with steel posts and new wooden fences in accordance with the details included herein and as shown on the plans. The class of wire fence to be erected shall be either Class C, woven wire fencing surmounted by two strands of barbed wire, or Class D, four strands of barbed wire, as indicated on the plans and in the bid proposal. (**Revised per Addendum No. 1**)

MATERIALS

161-2.1 Wire.

- **a. Woven wire (zinc-coated).** The woven wire fencing shall be 7-bar, 26 inch (66 cm) field fence with top and bottom wires No. 10 gauge, and filler and stay wires No. 12-1/2 gauge. Stay wires shall be spaced 6 inch (150 mm) apart. All wire shall be smooth galvanized steel wire conforming to ASTM A116. All wires shall be twice-dipped and spaced as shown on the plans.
- **b. Barbed wire (zinc-coated).** Zinc-coated barbed wire shall be 2-strand twisted No. 12-1/2 gauge galvanized steel wire with 4-point barbs of No. 14 gauge galvanized steel wire. All wire shall conform to ASTM A121, Type A. The barbs shall be spaced approximately 5 inches (125 mm) apart.
- **c. Barbed wire (copper-covered).** Copper-covered steel barbed wire shall conform to ASTM A121, Type A.
- **d. Barbed wire (aluminum-coated).** Aluminum-coated steel barbed wire shall be 2-strand twisted No. 12-1/2 gauge. The 4-point barbs of No. 14 gauge aluminum-coated steel wire shall be spaced approximately 5 inches (125 mm) apart. The steel wire shall have a tensile strength of between 60,000 and 80,000 pounds per square inch (413 400 and 551 200 kPa) and the aluminum coating shall have a minimum weight of 0.30 ounces per square foot (0.07 km/ m²) of wire surface on the No. 12-1/2 gauge line wire and 0.25 ounces per square foot (0.06 kg/m²) of wire surface on the No. 14 gauge barbs.
- **e. Bracing wire (zinc-coated).** Wire used for cable bracing shall be No. 9 smooth galvanized soft wire.
- **161-2.2 Fence posts, gates, rails, braces, and accessories.** These items, when specified, shall conform to the requirements of Federal Specification RR-F-191 and shall be zinc-coated.
- **161-2.3 Concrete.** Concrete shall be of a commercial grade with a minimum 28-day compressive strength of 2500 psi.
- 161-2.4 Wooden Fencing. Lumber to be used as a permanent structure shall be Southern Pine with lumber to use as pickets shall be Cedar.
- a. Quality. Posts shall be peeled, sound, straight-grained, free from decay, cracks, and splits; shakes shall not be in excess of 1/4 inch (6 mm) wide and 3 feet (90 cm) long. Checks (lengthwise separations of the wood in a generally radial direction) are not permitted.

b. Dimensions. All lumber shall be of the dimensions shown on the

c. Treatment. Structural lumber shall be treated with Ammoniacl Copper Arsenate (ACA or Chormated Copper Arsenate (CCA), with a minimum retention of 0.40 lbs/cf of wood. The treatment, care and preservative shall be in accordance with AWPA P5 "Standard for Waterborne Preservatives". (Added per Addendum No. 1)

CONSTRUCTION METHODS

161-3.1 General. The fence shall be constructed in accordance with the details on the plans and as specified here using new materials. All work shall be performed in a workmanlike manner satisfactory to the Engineer. Before starting work or at the request of the Contractor, the Engineer shall establish and mark the property line or fence line. The Contractor shall span the opening below the fence with barbed wire at all locations where it is not practical to conform the fence to the general contour of the ground surface because of natural or manmade features such as drainage ditches. The new fence shall be permanently tied to the terminals of existing fences whenever required by the Engineer. The finished fence shall be plumb, taut, true to line and ground contour, and complete in every detail. When directed, the Contractor shall stake down the woven wire fence at several points between posts.

The Contractor shall arrange the work so that construction of the new fence will immediately follow the removal of existing fences. The length of unfenced section at any time shall not exceed 300 feet (90 m). The work shall progress in this manner and at the close of the working day the newly constructed fence shall be tied to the existing fence.

161-3.2 Clearing fence line. The site of the fence shall be sufficiently cleared of obstructions, and surface irregularities. The fence line shall be graded so that the fence will conform to the general contour of the ground. The fence line shall be cleared to a minimum width of 5 feet (1.5 m) on each side of the centerline of the fence. This clearing shall consist of the removal of all stumps, brush, rocks, trees, or other obstructions that will interfere with proper construction of the fence. Stumps within the cleared area of the fence shall be grubbed or excavated. The bottom of the fence shall be placed a uniform distance above ground, as specified in the plans. When shown on the plans or as directed by the Engineer, the existing fences which interfere with the new fence location shall be removed by the Contractor as a part of the construction work unless such removal is listed as a separate item in the bid schedule. All holes remaining after post and stump removal shall be refilled with suitable soil, gravel, or other suitable material and compacted with tampers.

The work shall include the handling and disposal of all material cleared, excavated or removed, regardless of the type, character, composition, or condition of such material encountered.

161-3.3 Installing posts. All posts shall be spaced as shown on the plans. Corner, brace, anchor, end, and gate posts shall be set in concrete as shown on the plans. The top of the concrete shall be slightly above the ground surface, trowel finished, and sloped to drain. Post holes of full depth and size for the concrete shall be provided. All line posts may be either driven or set in dug holes to a depth of 3 feet (1 m). All post setting shall be done carefully and to true alignment. Dirt removed for placing posts, anchor bars, flanges, etc., shall be replaced, tamped, and leveled. When posts are driven, care shall be exercised to prevent marring or buckling of the posts. Damaged posts shall be replaced at the Contractor's expense. No extra compensation will be made for rock excavation.

161-3.4 Bracing. All corner, anchor, end, and gate posts shall be braced as shown on the plans. Anchor posts shall be set at approximately 500 feet (150 meters) intervals and braced to the adjacent posts.

- 161-3.5 Installing wire. All barbed wire and woven wire shall be placed on the side of the post away from the airport, or as directed by the Engineer, at the height indicated on the plans. The woven wire shall be carefully stretched and hung without sag and with true alignment. Care shall be taken not to stretch the wire so tightly that it will break in cold weather or pull up corner and brace posts. All horizontal wires shall be fastened securely to each post by fasteners or clips designed for use with the posts furnished. The woven wire shall be wrapped around end, corner, and gate posts, and the ends of all horizontal wires shall be tied with snug, tight twists. The wire shall be secured to prevent slipping up and down the post. Barbed wire strands shall be stretched and each strand secured to each post to prevent slipping out of line or becoming loose. At end, corner, and gate posts the barbed wire shall be securely wrapped and anchored once about the post from outside and secured against slipping by tying the ends with snug, tight twists. However, on spans of less than 100 feet (30 m) both ends of the span need not be wrapped around the posts. The bottom wire of the woven wire fencing shall clear the ground by not more than 4 inches (100 mm) or less than one inch (25 mm) at any place.
- **161-3.6 Splicing wire.** Splices in barbed and woven wire will be permitted if made with an approved galvanized bolt-clamp splice or a wire splice made as follows: The ends of each wire shall be carried 3 inches (75 mm) past the splice tool and wrapped around the other wire for at least six turns in opposite directions. After the tool is removed, the space occupied by it shall be closed by pulling the ends together. The unused ends of the wire shall be cut close to make a neat, workmanlike job.
- **161-3.7 Installing gates.** The gates shall be hung on gate fittings as shown on the plans. They shall be attached in such a manner that the gate cannot be lifted off the hinges. Gates shall be erected to swing in the direction indicated and shall be provided with gate stops, as specified or as shown on the plans. Gates shall be erected at locations shown on the plans.
- **161-3.8 Existing fence connections.** Wherever the new fence joins an existing fence, either at a corner or at the intersection of straight fence lines, a corner or anchor post shall be set at the junction and braced and anchored the same as herein described for corner posts.

If the connection is made at other than the corner of the new fence, the last span of the old fence shall contain a brace span.

161-3.9 Cleaning up. The Contractor shall remove from the vicinity of the completed work all tools, buildings, equipment, etc., used during construction. All disturbed areas shall be seeded per T-901.

METHOD OF MEASUREMENT

161-4.1 Fences, Class C (Steel Posts) *and wooden fences* shall be measured in place from outside to outside of end posts or corner posts and shall be the length of fence actually constructed, except for the space occupied by the gates. (*Revised per Addendum No. 1*)

BASIS OF PAYMENT

161-5.1 Payment shall be made at the contract unit price per linear foot for Class C wire fence *and wooden fences*. This price shall be full compensation for furnishing all materials and for all preparation, erection, and installation of these materials, and for all labor, equipment, tools, and incidentals necessary to complete the item. (*Revised per Addendum No. 1*)

Payment will be made under:

Woven Wire Fence, Class C

- Per Linear Foot

Wooden Picket Fence (Added per Addendum No. 1)

- Per Linear Foot

MATERIAL REQUIREMENTS

ASTM A116 Standard Specification for Metallic-Coated, Steel Woven Wire Fence Fabric
ASTM A121 Standard Specification for Metallic-Coated Carbon Steel Barbed Wire
FAA-STD-019 Lightning and Surge Protection, Grounding, Bonding and Shielding
Requirements for Facilities and Electronic Equipment

FED SPEC RR-F-191/Gen

Fencing, Wire, and Post Metal (and Gates, Chain-link Fence Fabric, and Accessories) (General Specification)

END OF ITEM F-161

41	L-109	Vault Modifications, Complete	1 L.S.		
42	L-109	Furnish and Install 7.5kW CCR	1 Ea.		
43	L-109	Furnish and Install 10kW CCR	1 Ea.		
44	L-110	2" Electrical Duct and Trench	13,500 L.F.		
45	L-110	2-4" PVC, Schedule 40, Concrete Encased Electrical Duct	239 L.F.		
46	L-115	L-867 Junction Box (Rev. per Addendum No. 1)	25 Ea.		
47	L-125	Retroreflective Markers	36 Ea.		
48	L-125	M.I.R.L. (LED), Base Mounted (Red/Green Lens)	16 Ea.		
49	L-125	M.I.R.L. (LED), Base Mounted (Clear/Yellow Lens)	39 Ea.		
50	L-125	M.I.T.L. (LED), Base Mounted (Blue Lens)	26 Ea.		
51	L-125	New 1 Module (LED) Lighted L- 858R Sign (Size 1, Style 2)	2 Ea.		
52	L-125	New 2 Module (LED) Lighted L- 858R Sign (Size 1, Style 2)	2 Ea.		
53	L-125	Furnish and Install REIL System	2 Ea.		
54	L-125	Furnish 4-Box PAPI System	2 Ea.		
55	L-125	Install 4-Box PAPI System	2 Ea.		
56	F-161	Wooden Picket Fence (Added per Addendum No. 1)	250 L.F.		
Total	Bid				

ACKNOWLEDGEMENTS BY BIDDER

- a. By submittal of a proposal, the BIDDER acknowledges and accepts that the quantities established by the OWNER are an approximate estimate of the quantities required to fully complete the Project and that the estimated quantities are principally intended to serve as a basis for evaluation of bids. The BIDDER further acknowledges and accepts that payment under this contract will be made only for actual quantities and that quantities will vary in accordance with the General Provisions subsection entitled "Alteration of Work and Quantities".
- b. The BIDDER acknowledges and accepts that the Bid Documents are comprised of the documents identified within the General Provisions. The BIDDER further acknowledges that each the individual documents that comprise the Bid Documents are complementary to one another and together establishes the complete terms, conditions and obligations of the successful BIDDER.
- c. As evidence of good faith in submitting this proposal, the undersigned encloses a bid guaranty in the form of a certified check, cashier's check or bid bond in the amount of 5% of the bid price. The BIDDER acknowledges and accepts that refusal or failure to accept award and execute a contract within the terms and conditions established herein will result in forfeiture of the bid guaranty to the owner as a liquidated damage.
- d. The BIDDER acknowledges and accepts the OWNER'S right to reject any or all bids.

Sheet List Table

Sheet Number | Sheet Title

TITLE SHEET

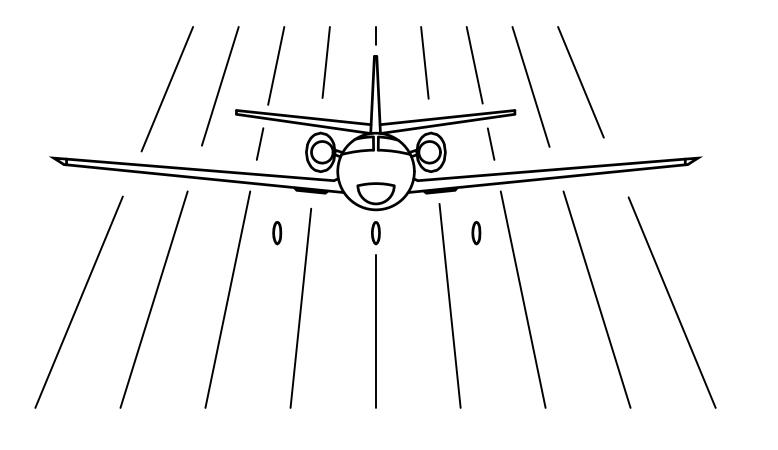
CONSTRUCTION PLANS FOR JESSE VIERTEL MEMORIAL AIRPORT

MODOT PROJECT NO. 17-039A-1

GENERAL DESCRIPTION OF PROJECT:

RECONSTRUCT RUNWAY 18-36,

NORTH CONNECTING TAXIWAY AND NORTH TURNAROUND REPLACE EXISTING MEDIUM INTENSITY RUNWAY LIGHTING (MIRL) SYSTEM, PRECISION APPROACH PATH INDICATOR (PAPI) SYSTEMS, AND RUNWAY END IDENTIFIER LIGHT (REIL) SYSTEMS MITIGATE RUNWAY 36 APPROACH SLOPE OBSTRUCTIONS



MAY 2018

	2	GENERAL LAYOUT	
	3	SAFETY PLAN	
	4	BORING LOGS	
	5	TYPICAL SECTIONS & SUMMARY OF QUANTITIES	
	6-9	DEMOLITION PLAN	
	10	CLEARING PLAN	
	11-15	RUNWAY 18-36 PLAN AND PROFILE	
	16-17	TAXIWAY PLAN AND PROFILE	
	18-21	GRADING PLAN	
	22	DRAINAGE & EROSION CONTROL DETAILS	
	23	FENCE DETAIL	
	24-27	JOINT PLAN	
	28	JOINT DETAILS	
	29-32	PAVEMENT MARKING PLAN	
	33-34	PAVEMENT MARKING DETAILS	
	35-37	LIGHTING PLAN	
	38-39	ELECTRICAL DETAILS	
	40	REIL DETAILS	
	41	PAPI DETAILS	
	42	SIGN DETAILS	
	43	VAULT MODIFICATIONS	1
	43A	VAULT BUILDING MODIFICATIONS)
7	44-66	RUNWAY 18-36 CROSS SECTIONS	

TAXIWAY 1 CROSS SECTIONS

TAXIWAY 2 CROSS SECTIONS

TAXIWAY 3 CROSS SECTIONS

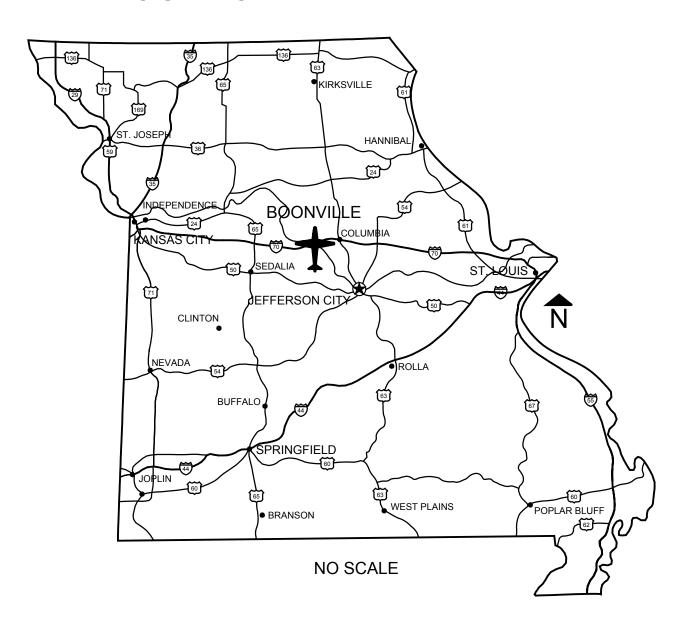
TAXIWAY 4 CROSS SECTIONS

71-72

Runway End Coordinates				
THRESHOLD	EXISTING	ULTIMATE		
Runway 18	38-57-07.92 N, 92-40-55.55 W	38-57-16.08 N, 92-40-54.70 W		
Runway 36	38-56-28.52 N, 92-40-59.67 W	38-56-26.82 N, 92-40-59.85 W		
Source: FAA Aviation Systems Standards Branch (AVN) (http://avnwww.jccbi.gov)				

Airport Data				
EXISTING	ULTIMATE			
715.0'	725.0'			
B-II	Same			
Beechcraft Super King Air 350	Cessna Citation Encore (Model 560)			
38-56-48.20 N, 92-40-57.60 W	38-56-51.45 N, 92-40-57.28 W			
(RNAV)GPS/VOR	(RNAV)GPS-LPV			
89° F	Same			
AWOS-III	Same			
Rotating Beacon	Same			
General Aviation	Same			
T48N, R16W/ 4, 8 and 9	T48N, R16W/ 4, 5, 8 and 9			
11561.01A	Same			
Cooper (MO)	Same			
206.611	259.231 (See Sheet 10 of 11)			
	715.0' B-II Beechcraft Super King Air 350 38-56-48.20 N, 92-40-57.60 W (RNAV)GPS/VOR 89° F AWOS-III Rotating Beacon General Aviation T48N, R16W/ 4, 8 and 9 11561.01A Cooper (MO)			

LOCATION MAP



Runway Data

Airport Reference Code (ARC)

FAR Part 77 Approach Use Type

Approach Visibility Minimums

unway Safety Area (RSA)

Runway Pavement Material

Runway Markings

Runway Gradient

Runway Lighting

Taxiway Width

Γaxiway Lighting

Runway Object Free Area (OFA)

Runway Obstacle Free Zone (OFZ)

Touchdown Zone Elevation (TDZE)

Accelerate-Stop Distance Available (ASDA)

akeoff Run Available (TORA)

anding Distance Available (LDA)

Takeoff Distance Available (TODA)

Aeronautical Survey Required for Approach

Runway Pavement Strength (Thousands of lbs.)

RUNWAY DETAILS

Runway Azimuth

Runway Dimensions

RUNWAY 18-36

184.67° True 4.67° True

4,600' x 150'

4,600' x 500'

4,400' x 400'

12,500 (SW)

.08%

SW- Single Wheel Gear; NP- Non Precision; NVG- Non Vertical Guidance; VG- Vertical Guidance

MIRL/REIL

Reflectors

NVG

1-Mile

-.08%

PAPI-4L

715.0'

GPS/VOR GPS/VOR GPS GPS-LPV

Same

725.0'

Same

Same

Same

Same

Same Same

Same

Same

5,600' x 150'

5,400' x 400'

30,000 (SW)

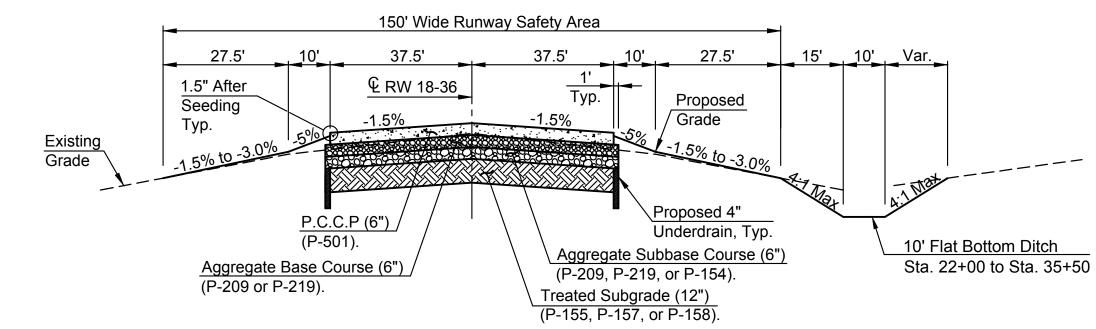
Same Same

0.3% -0.3%

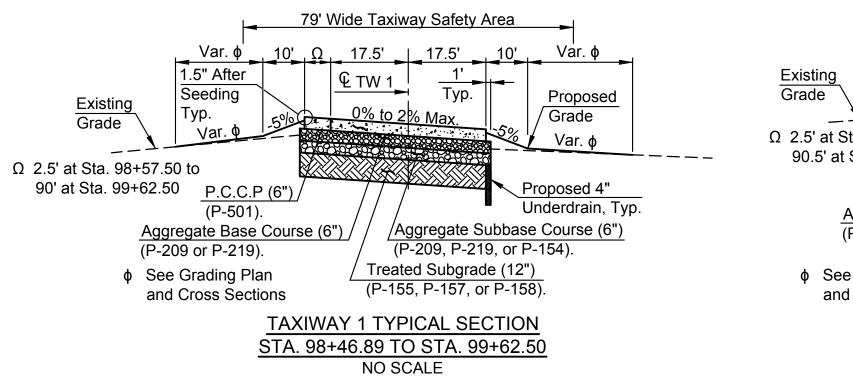
PROJECT NO. DRAWN BY 4/9/2018 CHECKED BY 4/9/2018 ADDENDUM #1 6/6/2018

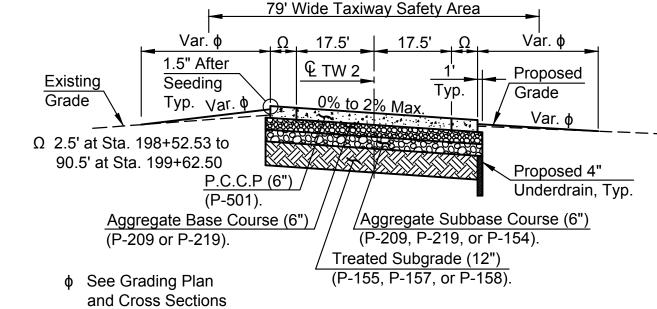
TITLE SHEET

ITEM	SPEC	ITEM DESCRIPTION		QUANTITY	
NO.	SPEC	ITEM DESCRIPTION	UNIT	ESTIMATED	AS-CONST.
REPLAC PRECISI AND RU	E EXISTING NON APPROACTION OF THE PROPERTY OF	VAY 18-36, NORTH CONNECTING TAXIWAY AND TURNAROU IEDIUM INTENSITY RUNWAY LIGHTING (MIRL) SYSTEM, IH PATH INDICATOR (PAPI) SYSTEMS, DENTIFIER LIGHT (REIL) SYSTEMS IS APPROACH SLOPE OBSTRUCTIONS			
1	MOB	Mobilization	L.S.	1	
2	TEMP	Temporary Marking, Lighting, & Barricades	L.S.	1	
3	P-101	Saw Cut	L.F.	140	
4	P-101	Concrete Pavement and Base Course Removal	S.Y.	2,290	
5	P-101	Asphalt Pavement and Base Course Removal	S.Y.	34,732	
6	P-101	Pavement Marking Removal	S.F.	1,505	
7	P-101	Remove Existing Underdrain System	L.S.	1	
8	P-101	Remove Existing Drainage Structures	L.S.	1	
9	P-101	Remove Existing Electrical System	L.S.	1	
10	P-151	Clear and Grub Trees and Brush in Right-of-Way	Ac.	1.3	
11	P-151	Clear and Grub Mature Trees on Adjacent Property	Ea.	4	
12	P-152	Unclassified Excavation (See Earthwork Table)	C.Y.	23,873	
13	P-152	Unsuitable Subgrade Removal and Replacement	C.Y.	2,000	
14	P-155, P-157, or P-158	Treated Subgrade (12")	S.Y.	40,015	
15	P-156	Erosion Control Barrier (Silt Fence)	L.F.	4,600	
16	P-156	Erosion Control Barrier (Straw Wattle)	L.F.	580	<u></u>
17	TREC	Erosion Control Blanket (Type 2B)	S.Y.	8,300	
18	PTM	Permanent Transition Mat	S.F.	64	
19	F-161	Woven Wire Fence, Class C	L.F.	300	
20	P-209, P-219	Aggregate Base Course (6")	S.Y.	40,015	
21	P-209, P-219, or P-154	Aggregate Subbase Course (6")	S.Y.	40,015	
22	P-501	P.C.C. Pavement (6")	S.Y.	37,984	
23	P-620	Temporary Non-Reflectorized Pavement Marking	S.F.	23,755	
24	P-620	Reflectorized Pavement Marking	S.F.	23,755	
25	P-620	Non-Reflectorized Pavement Marking	S.F.	8,043	
26	D-701	12" RCP	L.F.	24	
27	D-701	12" RCP End Section	Ea.	2	
28	D-705	Conventional Underdrain (4")	L.F.	8,385	
29	D-705	Non-Perforated Outlet Pipe (4")	L.F.	661	
30	D-705	Non-Perforated Outlet Pipe (4")(Sch. 80)	L.F.	154	
31	D-705	Splash Pad	Ea.	11	
32	D-705	Underdrain Cleanout Riser	Ea.	26	
33	T-901	Permanent Seeding	Ac.	32.0	
34	T-901	Temporary Seeding	Ac.	32.0	
35	T-905	Placement of Topsoil (Obtained on Site)	L.S.	1	
36	T-908	HydroMulch	Ac.	30.3	
37	L-108	Install Cable In Duct (1/c, #8 AWG, 5kV, L-824C)	L.F.	20,000	
38	L-108	Install Cable In Duct (1/c, #6 AWG, 600V, L-824C)	L.F.	600	
39	L-108	Install Cable In Duct (#10 Bare Copper Ground Wire)	L.F.	300	
40	L-108	Bare Copper Counterpoise In Same Trench as Conductors Vault Modifications, Complete	L.F.	13,500	
41	L-109	Vault Modifications, Complete	L.S.	1	
42	L-109	Furnish and Install 10kW CCR	Ea.	1	
43	L-109 L-110	Furnish and Install 10kW CCR 2" Electrical Duct and Trench	Ea. L.F.	13,500	
4445	L-110 L-110	2-4" PVC, Schedule 40, Concrete Encased Electrical Duct	L.F.	239	
46	L-115	L-867 Junction Box (Rev. per Addendum No. 1)	Ea.	25	
47	L-115 L-125	Retroreflective Markers	Ea.	36	
48	L-125 L-125	M.I.R.L. (LED), Base Mounted (Red/Green Lens)	Ea.	16	
49	L-125 L-125	M.I.R.L. (LED), Base Mounted (Clear/Yellow Lens)	Ea.	39	
50	L-125 L-125	M.I.T.L. (LED), Base Mounted (Blue Lens)	Ea.	26	
51	L-125 L-125	New 1 Module (LED) Lighted L-858R Sign (Size 1, Style 2)	Ea.	20	
52	L-125 L-125	New 2 Module (LED) Lighted L-858R Sign (Size 1, Style 2)	Ea.	2	
53	L-125 L-125	Furnish and Install REIL System	Ea.	2	
54	L-125	Furnish 4-Box PAPI System	Ea.	2	
55	L-125	Install 4-Box PAPI System	Ea.	2	
- U			_u.		

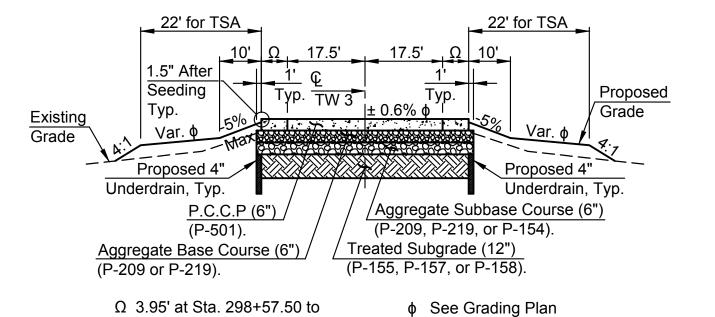


RUNWAY 18-36 TYPICAL SECTION STA. 10+00 TO STA. 50+00 NO SCALE

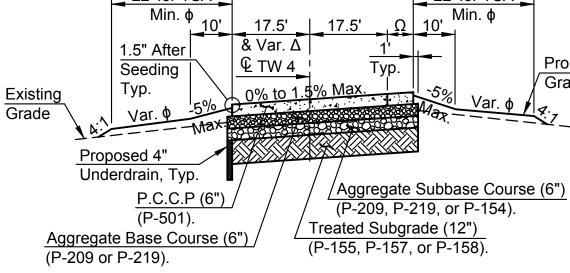




TAXIWAY 2 TYPICAL SECTION STA. 198+42.57 TO STA. 199+62.50 NO SCALE



NO SCALE



90.5' at Sta. 299+62.50 and Cross Sections **TAXIWAY 3 TYPICAL SECTION** STA. 298+37.54 TO STA. 299+62.50

Δ Varies, 7.50' to 17.71' from Sta. 397+26.52 to Sta. 398+19.98 φ See Grading Plan

and Cross Sections

22' for TSA

Ω 2.20' at Sta. 396+41.67 25.53 at Sta. 397+73.25 10.02 at Sta. 398+78.19 30.50 at Sta. 399+48.00 73.00 at Sta. 399+60.47

Proposed

Grade

TAXIWAY 4 TYPICAL SECTION STA. 396+31.68 TO STA. 399+62.50 NO SCALE

EARTHWORK					
AREA	ON-SITE EXCAVATION CU. YDS.		COMPACTED EMBANKMENT ** CU. YDS.		
	UNCLASSIFIED EXCAVATION	REVISED	COMMON	REVISED	
Runway 18-36	23,873		4,774		
Disposal Area	0		19,099		
Total	23,873		23,873		

* No shrinkage allowance is included in this quantity.



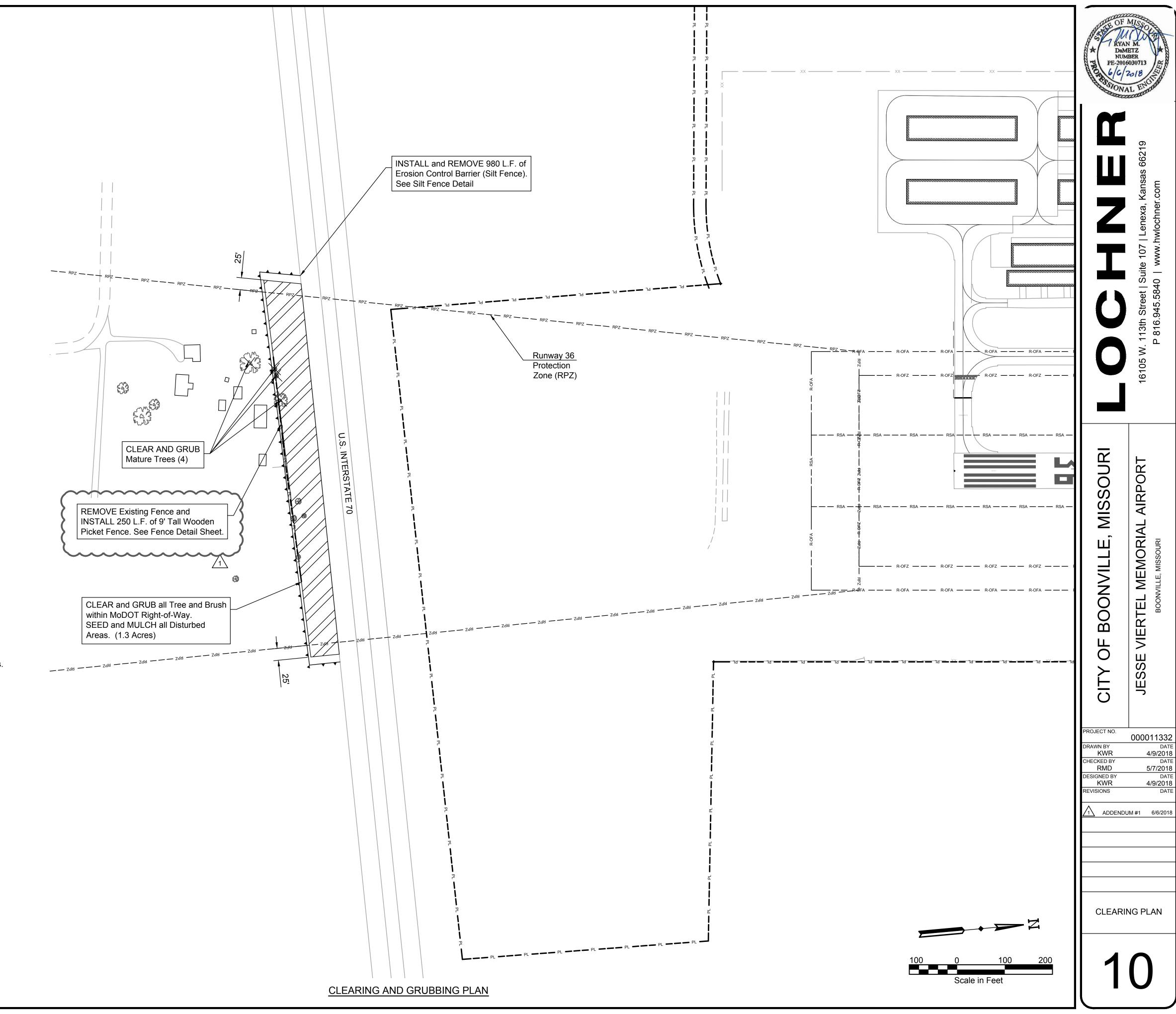
/. 113th Street | Suite P 816.945.5840 | v

OURI **AIRPORT** . MEMORIAL , VIERTEL

PROJECT NO. 000011332 DRAWN BY KWR 4/9/2018 CHECKED BY RMD 4/9/2018

DESIGNED BY KWR REVISIONS 1 ADDENDUM #1 6/6/2018

TYPICAL SECTIONS & SUMMARY OF QUANTITIES



VIERTEL

000011332

4/9/2018

DATE 4/9/2018

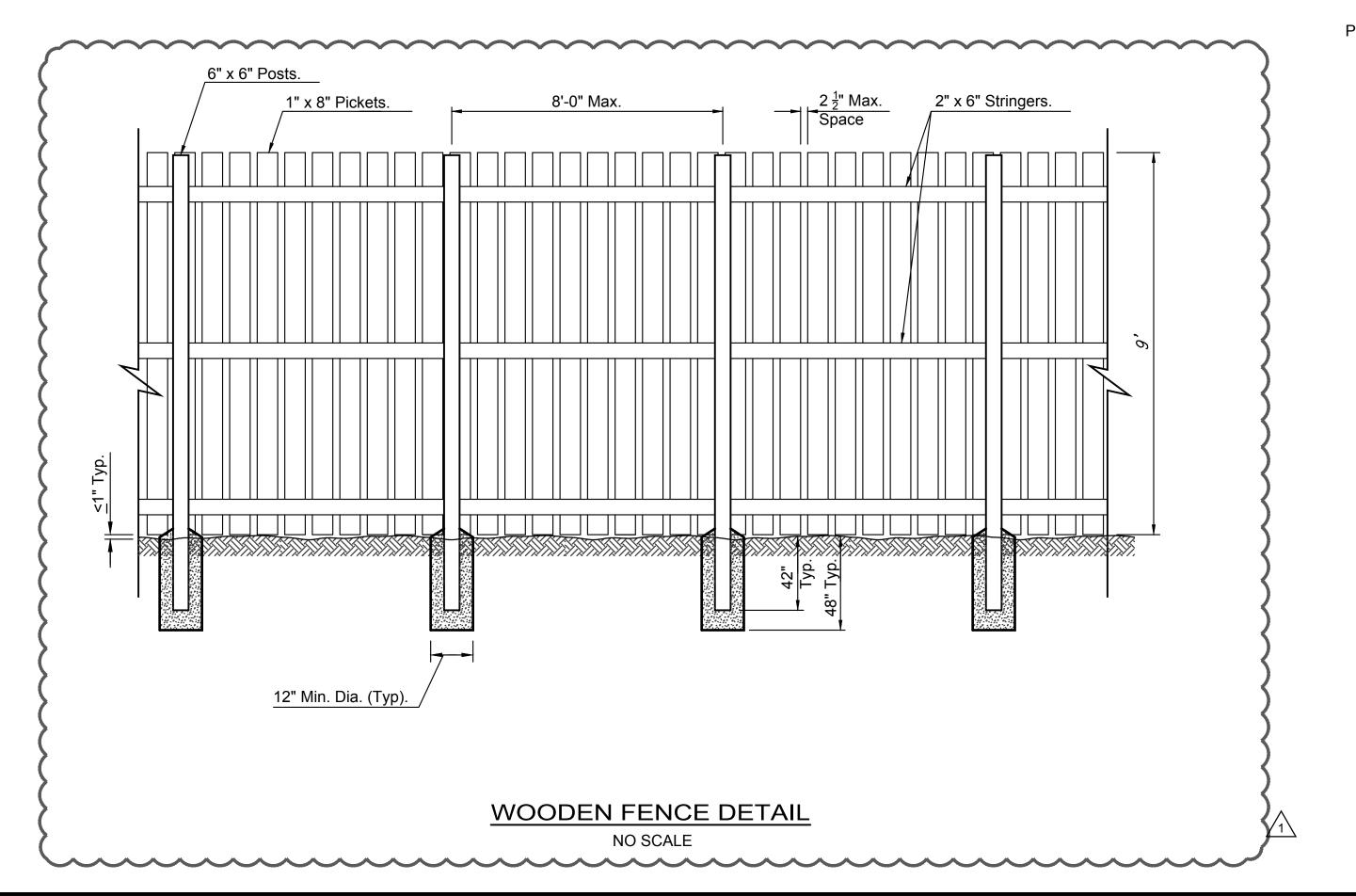
DEMOLITION NOTES:

- 1. The Contractor shall obtain all required Federal, State, and Local Permits Required for Demolition Activities. The Contractor shall give a copy of all Permits and Forms for this Project to the Engineer prior to the start of Demolition Activities. Demolition and Disposal of all Structures and Miscellaneous Items shall be in accordance with the State of Missouri regulations.
- 2. At the Completion of Demolition Activities, the Entire Disturbed Area shall be Smooth Graded with Material capable of Sustaining Growth of Mowable Grass. All Hard-Packed areas shall be Scarified and Suitable material spread across these areas prior to Seeding and Mulching Operations.

7 RYAN M.
DaMETZ
NUMBER
PE-2016030713

FENCE DETAIL

10' 10' 12' POST TOP BARBED WIRE $- \times \times \times$ 6" TYP. FABRIC (VARIABLE SPACED CLOSED MESH NEXT TO GROUND) LINE POST 7" BRACE (1 1/4 " I.D.) CONCRETE — CONCRETE ~CONCRETE CONCRETE **END POST** /(2" I.D.) — END POST (2" I.D.) CONCRETE LINE POST **12" ▼** CORNER OR PULL POST ASSEMBLY **END POST ASSEMBLY**



GENERAL NOTES:

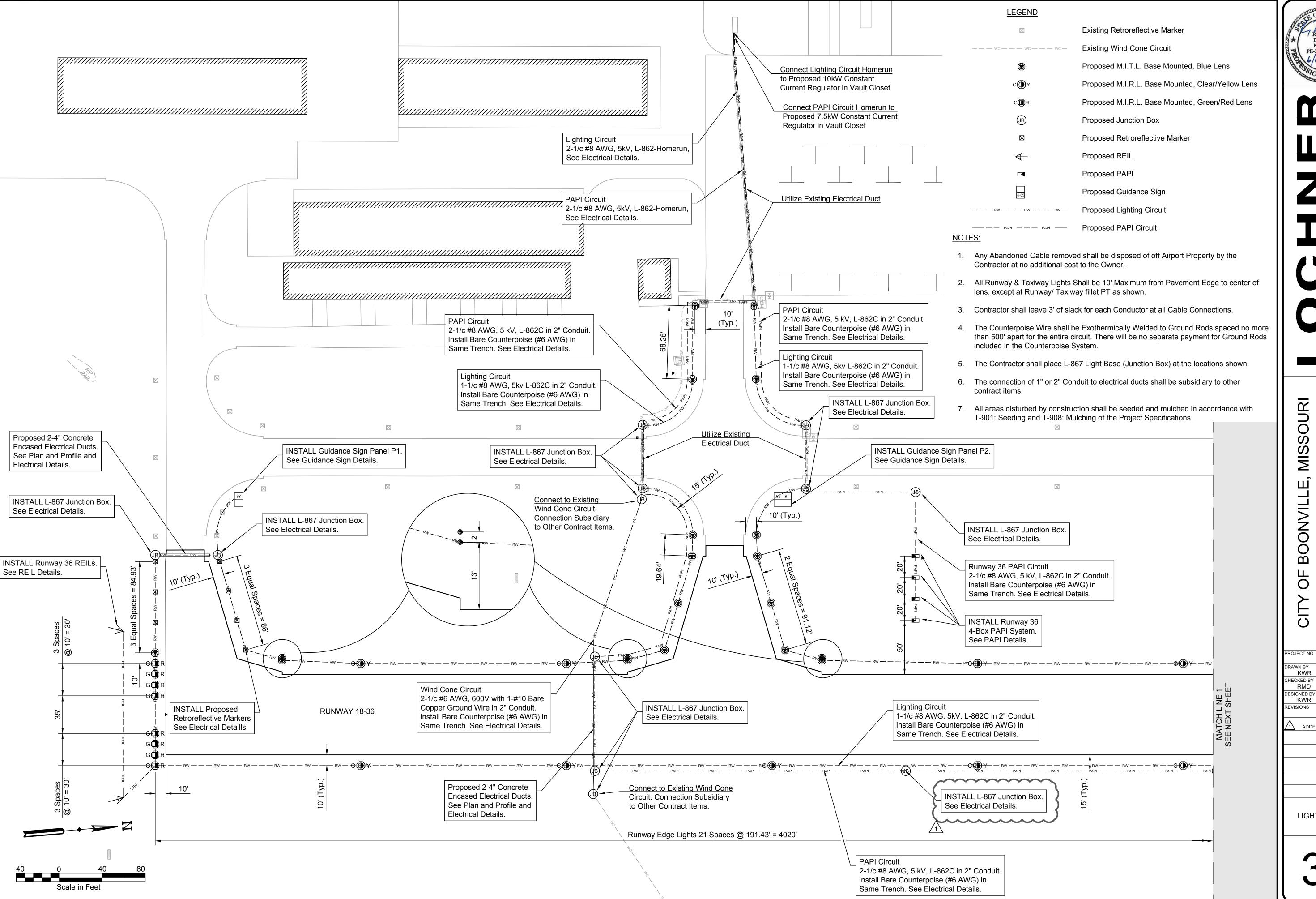
STEEL LINE POSTS SHALL BE OF AN APPROVED "U", "Y", "T" OR CHANNEL SECTION, NOTCHED OR STUDDED WITH AN ANCHOR PLATE. POST PUNCHED WITH HOLES OR SELF FASTENING LUGS WILL NOT BE PERMITTED.

STAPLES SHALL BE SCREW SHANK TYPE OR EQUIVALENT (1-1/4" MINIMUM LENGTH)

STRETCHED FABRIC AND BARBED WIRE ON OUTSIDE OF POST ON CORNERS AND CURVES.

ATTACHMENT OF FABRIC TO STEEL LINE POSTS IN ACCORDANCE WITH MANUFACTURE'S RECOMMENDATION.

PULL POST ASSEMBLY TO BE INSTALLED AT 500' INTERVALS.



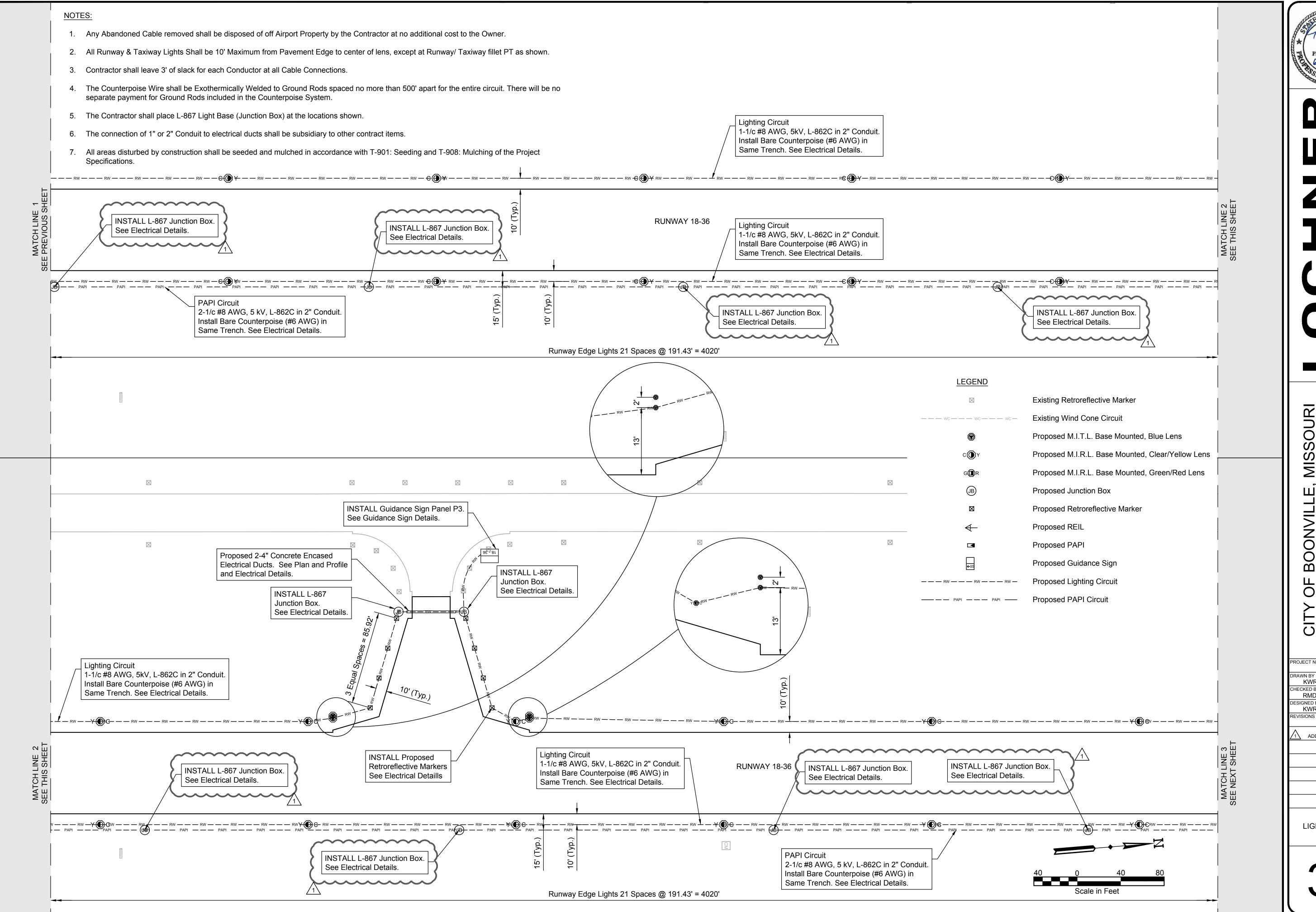
DaMETZ NUMBER PE-2016030713

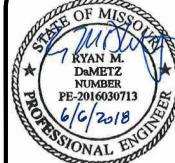
ORT MEMORIAL RTEL

> 000011332 4/9/2018 5/7/2018 DATE 4/9/2018

ADDENDUM #1 6/6/2018

LIGHTING PLAN





ORT MEMORIAL ERTEL

PROJECT NO. 000011332 4/9/2018 KWR CHECKED BY DESIGNED BY 4/9/2018

KWR ADDENDUM #1 6/6/2018

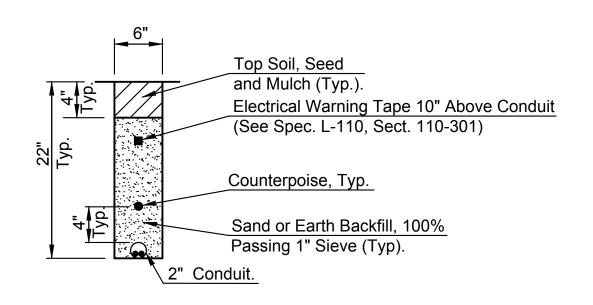
LIGHTING PLAN

SOIL MOUNTED RETROREFLECTIVE MARKER DETAIL

No Scale

NOTES:

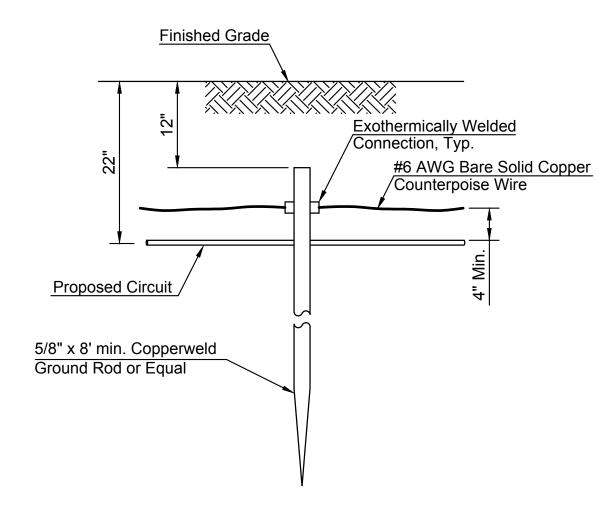
- The Retroreflective Marker Shall be Flexible or Mounted with a Frangible Fitting with a Breakaway Point of No More than 3 Inches Above Grade.
- 2. If a Flexible Marker is Used the Blue Reflective Marking Must Extend to at Least 2 Inches Above Grade.
- 3. New Retroreflective Marker Shall Match Existing Retroreflective Markers.



CABLES IN CONDUIT TRENCHING DETAIL No Scale

NOTES:

- 1. Depth of Trenches Shall be as Shown Above Unless Otherwise Specified on the Plans.
- 2. Sand Backfill May be Waived by the Engineer if the Existing Soil Meets the Backfill requirements. All Disturbed Surfaces Shall be Restored to Their Original Condition Including Returfing; Cost is Incidental to Trenching.
- 3. Where the cable trench is parallel with pavement the Contractor has the option to install the Counterpoise in a separate trench located 5' off of the pavement edge. Separate trench for the couterpoise shall not be paid for. Installation of Counterpoise shall be paid for as Contract Item "Bare Copper Couterpoise in Same Trench as Conductors". All base cans shall be grounded by connection to the counterpoise system or individual ground rods at each base can.

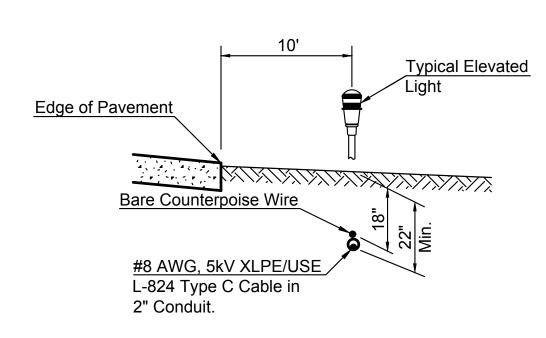


NOTES:

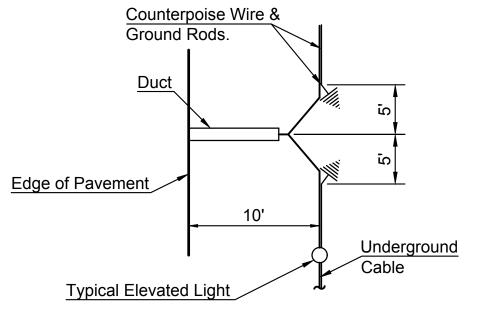
- The Resistance to Ground of the Counterpoise Grounding System Shall Not Exceed 25 OHMS.
- 2. Cost of Ground Rods is Incidental to the Associated Items Requiring Grounding.
- 3. Counterpoise Ground Rods Shall be Placed at 500' Apart for the Entire Length of Circuit.
- 4. The counterpoise conductor shall be bonded to each metallic light base, mounting stake, and metallic airfield lighting component.

GROUND ROD DETAIL

No Scale



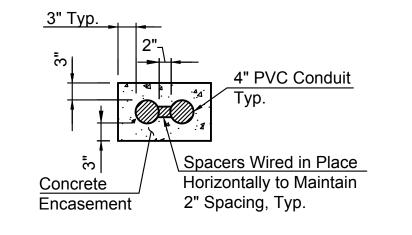
PROFILE VIEW

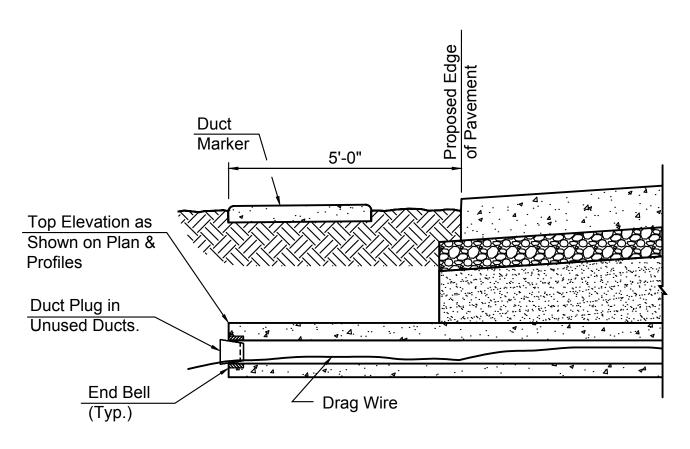


PLAN VIEW

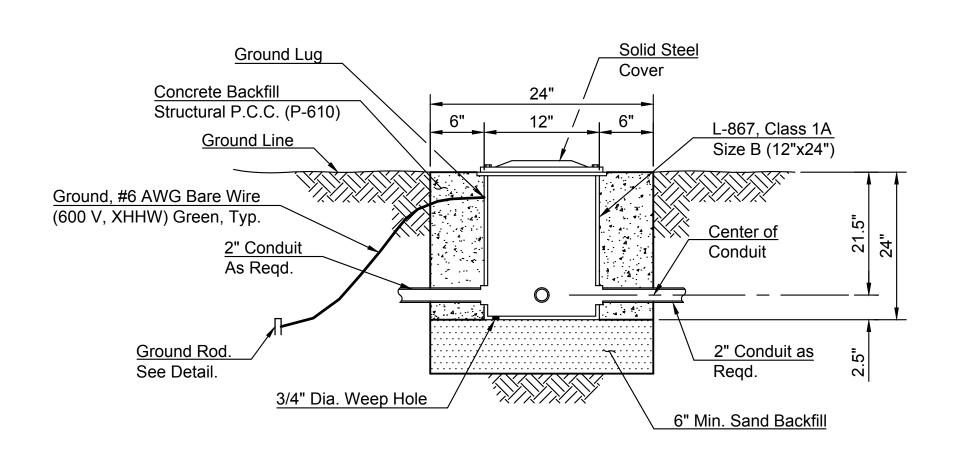
Counterpoise Shall Be Connected to a Ground Rod at 500' Maximum Spacing.

LIGHT AND CABLE INSTALLATION DETAIL FOR CABLE IN CONDUIT No Scale









TYPICAL L-867 JUNCTION BOX

No Scale

RYAN M.
DaMETZ
NUMBER
PE-2016030713
6/G/20/8

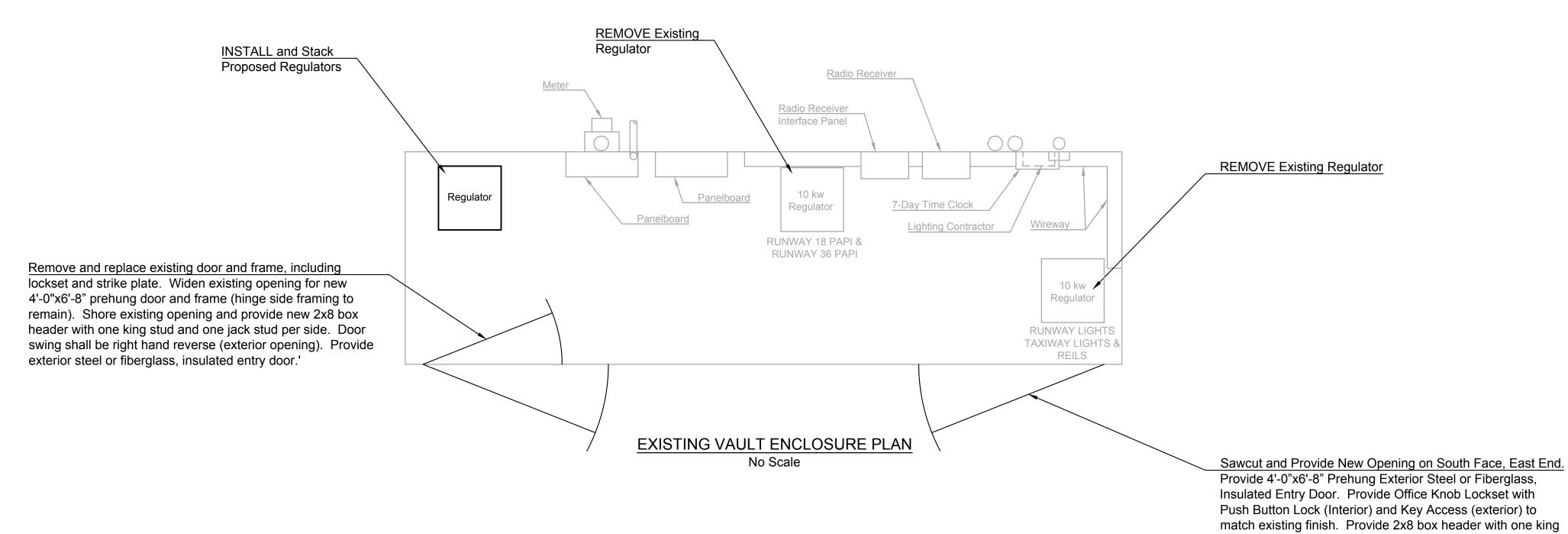
16105 W. 113th Street | Suite 107 | Lenexa, Kansas 66219
P 816 945 5840 | www hwlochner.com

SOURI

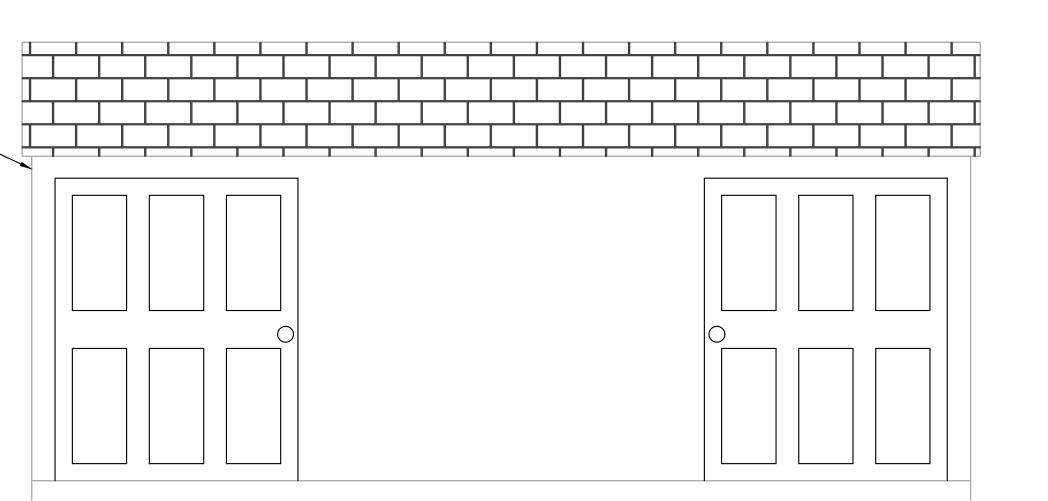
38

VAULT BUILDING MODIFICATIONS

43A

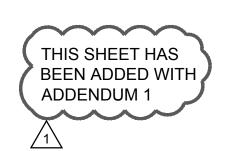


Provide Wall Mounted Exhaust Fan [200 cfm] and Discharge Through Side Wall. Fan Shall Be Controlled by a Line Voltage Thermostat. When Temperature Rises Above the Setpoint, the Fan Shall be Energized.



EXISTING VAULT ENCLOSURE ELEVATION

No Scale



stud and one jack stud per side. Door swing shall be left

hand reverse (exterior opening).

JESSE VIERTEL MEMORIAL AIRPORT BOONVILLE, MISSOURI

Reconstruct Runway 18-36, North Connecting Taxiway, and Turnaround

Replace Existing Medium Intensity Runway Lighting (MIRL) System, Precision Approach Path Indicator (PAPI) Systems, and Runway End Identifier Light (REIL) Systems

Mitigate Runway 36 Approach Obstructions

MoDOT PROJECT NO. 17-039A-1 LOCHNER JOB NO. 000011332

PRE-BID MEETING MINUTES
Thursday, May 31, 2018 at 11:00 a.m. (CDT)

I. Introduction of Attendees:

II. Bidding Process:

A. Time and Location:

1. Proposals will be received until 11:00 A.M. (CDT), Tuesday, June 12, 2018 and then publicly opened at:

Boonville City Hall 401 Main Street Boonville, MO 65233

Bids received after this time will not be considered.

- 2. Bids may be held by the City of Boonville for a period not to exceed ninety (90) calendar days from the date of the bid opening. Award of contract is contingent upon the City receiving Federal funding assistance from the Federal Aviation Administration (FAA) and Missouri Department of Transportation (MoDOT).
- 3. The intentions are to execute contracts after receiving concurrence in award from the FAA, and then to proceed with construction as soon as practicable.
- 4. Envelopes containing bids must be sealed and addressed as shown on Page 2-1 in the <u>Instructions To Bidders</u> of the Contract Documents/Specifications.

B. Contract Provisions:

- 1. Mandatory contract provisions are identified in Section 3 and Section 4 of the Contract Documents.
- 2. The EEO goals for this contract are on Page 1-3, 4.0% minority participation and 6.9% female participation in each trade.

- 3. The DBE goal for this project, as described on Page 1-4, is to subcontract 13.00% of the dollar value of the prime contract to DBEs. It is the responsibility of the Contractor to meet this 13.00% goal. If the DBE goal is not met, there needs to be substantial documentation of good faith effort (as described on Pages 4-25 through 4-26) in attempts to attain the DBE goal. The DBE Form is located on Page PF-12 in the Proposal Section.
- 4. Sixty percent (60%) of the cost of materials or supplies purchased from a DBE regular dealer may be counted. If the materials or supplies are obtained from a DBE manufacturer, 100% of the cost may be counted toward the goal.
- 5. This contract is subject to the "Buy American Preferences" of the Aviation Safety and Capacity Act of 1990. Prospective Bidders are required to certify that steel and manufactured products have been produced in the United States per the certification included in the Proposal Section on Pages PF-8 through PF-10.
- 6. The Contractor and all Subcontractors will be required to pay minimum wage rates as established by the United State Department of Labor and Missouri Division of Labor Standards. Minimum wage requirements are identified on the current wage rates included at the end of Section 4. If there is a discrepancy between the two published wage rates, the higher of the two will be used as the requirement.
- 7. Proposers shall provide a statement of qualifications with their proposal of past similar work, a financial statement, and a statement of plant and equipment proposed for use on the project. In lieu of the financial statement, Contractors may provide evidence that they are pre-qualified with MoDOT for similar work and are on the current MoDOT bidders list.
- 8. The Contractor and his/her Subcontractors will be required to provide certificates of insurance for at least the minimum amounts specified in Section 4: Supplementary Provisions, Part C: Local Provisions.
- 9. As part of your proposal, you are required to complete the Worker Eligibility Verification Affidavit on Page PF-11. Note also that you are required to submit with your proposal a completed copy of the first page and a valid copy of the signature page of your E-Verify Memorandum of Understanding.
- 10. The Contractor is required to provide a 10-hour OSHA construction safety program for all employees who will be on-site at the Project as provided on Page 4-19.
- 11. Prior to procurement and upon the successful bidder's request, the City of Boonville will provide the successful bidder a state tax exempt certification.

C. Contract Proposal Forms:

- 1. Proposals must be submitted on the Contract Proposal Form (Pages PF-1 through PF-13). A separate Proposal Form section should be provided by Drexel Technologies for the submittal of bid.
- 2. When completing the Proposal Form, the unit price needs to be written in numerical form in the column under the header "Unit Price" and the extension (quantity x unit price) needs to be written in numerical form. All bidders submitting proposals must acknowledge receipt of all addendums issued in the space provided in the Proposal on Pages PF-4 and PF-5. Page PF-13 needs to be completed and signed. If for some reason any of the pages of the Proposal Form are changed by addendum, replace the page that was revised in your submittal.

- 3. The bidder shall submit all required DBE information, as contained on the DBE form located on Page PF-12 of the Proposal Form with their bid.
- 4. The Buy American Certification on Pages PF-8 through PF-10 needs to be completed by the contractor.
- 5. A Bid Bond guarantee will be required with each bid as a certified check or a bid bond in the amount of five (5) percent of the total amount of the bid, made payable to the City of Boonville. Include the Bid Bond with your Proposal Form in the sealed envelope.
- 6. The successful bidder will be required to execute the Contract Agreement, the Performance Bond and the Payment Bond. The bonds will be in the amount of 100% of the contract price.

III. Project Description:

- A. The project consists of:
 - Reconstruct Runway 18-36, North Connecting Taxiway, and Turnaround
 - Replace Existing Medium Intensity Runway Lighting (MIRL) System, Precision Approach Path Indicator (PAPI) Systems, and Runway End Identifier Light (REIL) Systems
 - Mitigate Runway 36 Approach Obstructions
- B. The total contract period for construction is one hundred fifty (150) calendar days. Liquidated damages are set at \$2,000.00 per calendar day. Delays due to weather and other factors out of the control of the Contractor that are above and beyond a typical season may be requested in writing as a reason for contract period extension. The request should be made as soon as the Contractor is aware of an issue with the construction period. The Contractor shall also make every attempt to make up any lost days by working extended periods during the day and/or weekends.
- C. Lochner will provide Construction Observation and acceptance testing throughout the project. The Contractor shall provide Quality Control Measures as outlined in the Contract Documents/Specifications, specifically Section 100 of the General Provisions and Section 21, Item P-501 Portland Cement Concrete (PCC) Pavement. Please note the aggregate testing requirements for Alkali-Silica Reactivity (ASR) as outlined in Section 501-2.1.a. of the P-501 Specification. If intending to use fly ash in mitigating ASR, only Class F or N fly ash is acceptable.
- D. Contractor's access roads, haul roads, and staging areas are shown on the Construction Safety and Phasing Plan (CSPP). The Contractor is responsible for restoring any access roads, haul roads, and staging areas to their original, pre-construction condition at no additional cost to the Owner.
- E. All bidders should carefully review the Construction Safety and Phasing Plan (CSPP) in the Appendix of the Project Manual. Closed Runway Markings and Low Profile Barricades shall be placed as shown on Sheet 3, Safety Plan prior to the start of any work. The Contractor's Safety Plan Compliance Document (SPCD) will also be required prior to the start of construction.
- F. The Contractor is responsible for implementation of the Stormwater Pollution Prevention Plan (SWPPP) contained in the Appendix of the Project Manual. Sheets 18-21 of the Plans show the erosion control measures necessary for the Project.
- G. Proposed typical pavement section for the Runway and Taxiways consists of:
 - 6" PCC Pavement (P-501)
 - 6" Base Course (P-209 or P-219)

- 6" Subbase Course (P-154, P-209, or P-219)
- 12" Treated Subgrade (P-155, P-157, or P-158)
 - o Lime, CKD, or Fly Ash
- 6" Compacted Subgrade (P-152)
- H. The main runway and taxiway pavements shall be produced with the use of slip form paving equipment. Odd shaped sections of pavement shall be produced with side form paving equipment.
- I. If GPS controlled equipment is used to construct the subgrade, Contractor shall have the area surveyed and approved by the Engineer prior to placement of subbase course.
- J. The ¼" chamfer as shown on the Pavement Joint Details (Sheet 28) shall be constructed in order to protect the pavement joint during snow removal operations.
- K. Concrete incentive pay is available for this project based on strength and thickness up to 106% of each lot. This may be used to off-set lots requiring less than 100% pay for strength and thickness. However, the total product of the contract unit price and the total number of square yards of concrete shall not exceed 100% pay. Payment in excess of 100% based on strength and thickness may not be used to offset reduction in payment due to smoothness.
- L. Waste material resulting from this Project shall be disposed of off Airport property per General Note No. 6, Sheet 2 of the Plans. Excess earthwork shall be placed in the Disposal Area as shown on Sheet 18 of the Plans.
- M. It is the Contractor's responsibility to locate existing utilities prior to construction by contacting Missouri One Call at 1-800-DIG-RITE. Any damage to existing utilities shall be repaired by the Contractor at no additional cost to the Owner.
- N. Access to water may be achieved by way of the fire hydrants. The Contractor may obtain a meter from the City. All costs shall be at the Contractor's expense. Contact the City for water rates.
- O. Type 2 B erosion control blanket to be utilized adjacent to proposed pavement for a width of 8 feet as shown on the Grading Plans in lieu of mulch material. HydroMulch as specified in specification Item T-908 shall be utilized elsewhere.
- P. Furnishing and Installing 4-Box PAPI systems are broken out into two separate pay items. This is due to the City potentially furnishing the PAPI equipment on their own (if this happens, the furnish pay item will be underrun to 0). Installation shall include all necessary concrete and labor. Furnishing the PAPI system shall include all PAPI equipment.
- Q. Furnishing and Installing REIL systems are all encompassed into one pay item.
- R. The Contractor shall have a representative on site during the FAA flight check for the new PAPI and REIL systems.

IV. Additional Notes:

A. During construction, the first pay estimate shall be processed when necessary. All subsequent pay estimates will only be processed once the prime contractor has submitted lien releases from their subcontractors.

V. Optional Site Visit for Attendees.

JESSE VIERTEL MEMORIAL AIRPORT BOONVILLE, MISSOURI

Reconstruct Runway 18-36, North Connecting Taxiway, and Turnaround

Replace Existing Medium Intensity Runway Lighting (MIRL) System, Precision Approach Path Indicator (PAPI) Systems, and Runway End Identifier Light (REIL) Systems

Mitigate Runway 36 Approach Obstructions

MoDOT PROJECT NO. 17-039A-1 LOCHNER JOB NO. 000011332

ATTENDEES LIST FOR PRE-BID MEETING Thursday, May 31, 2018 at 11:00 a.m. (CDT)

NAME	COMPANY	PHONE	EMAIL
Ryan DaMetz	Lochner	(816) 945-5861	rdametz@hwlochner.com
Chris Flageolle	Lochner	(816) 945-5863	cflageolle@hwlochner.com
RONALD Rollins	1 = R Engineering 1	C 816896 3251	7701879915@ 56cglob2/net
Paul Ideken	Idehen Inc	816-364-3976	paul @ ideken ~ et
Michael Schmidt	Strukel Elatric	913-544-5032	Mike. Strukeling @ cht. net
Star Holder	GOLNE'S GENERAL CONT. JIM	_573-785-1501	Kyleygcia hot Mail, COM
KEVIN JONES	1	573.635.6229	Kjonese capital Paving mo. com

NAME	COMPANY	<u>PHONE</u>	EMAIL
CHRIS LANDWEVER	FSS	573-445 853	chris and droemensapp.com
Andy Baker	Ess	573-445-8331	andy. baker Denerysapp.com
Leday Romy	Rapp / Revererest Elec	573-8645110	Electric Rnpp Rad : General
Lyle Letage	MODOT	513-526-557	1 Kyle lepoge @ modot no gov
DON STEPHENSON	MED WEST HEAVY	816-623-9680	don & mw heavy . com
Ryan Porter	Lehman Construction LLC	573-796-8101	quotes @lehman construction Ilcocom
SETH NORMENT	PHILLIPS HALDY	573-301-2690	estimating@phillipshardy.com
Phillip Raines	Phillips Hardy	573-808-7604	praines@phillips hardy.com
Austin Bross	Chester Bross	573-798-2221	awbross 2 @gmail. com
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