

June 9, 2023

To: Plan Holders for Improvements to the
Oxnard Airport
Oxnard, California
AIP Project No. 3-06-0179-043-2023
County of Ventura DOA Spec. No. OXR 23-03, Project No. OXR-150

Transmitted herewith is Addendum **No. 1** to the Issued for Bid Contract Documents, Specifications and Plans dated May 25, 2023 for Improvements to the Oxnard Airport.

Schedule I
Reconstruction of Taxiway F

Sincerely,

Jviation, a Woolpert Company



Matt Gilbreath, P.E.
Project Manager

June 9, 2023

To: Contract Documents,
Specifications, and Plans

AIP Project No. 3-06-0179-043-2023

County of Ventura DOA Spec. No. OXR 23-03, Project No. OXR-150

Dated: May 25, 2023

**ADDENDUM NO. 1 TO
CONTRACT DOCUMENTS, SPECIFICATIONS AND PLANS
FOR IMPROVEMENTS TO THE
OXNARD AIRPORT
OXNARD, CALIFORNIA
AIP PROJECT NO. 3-06-0179-043-2023
COUNTY OF VENTURA DOA SPEC. NO. OXR 23-03, PROJECT NO. OXR-150**

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, Specifications and Plans are modified as follows as of June 9, 2023:

1. PRE-BID CONFERENCE

The meeting agenda and sign-in sheet from the Pre-Bid Conference held on June 8, 2023 are included in this addendum.

2. QUESTIONS

1) Question: What is the engineer's estimate for this project?

Answer: The engineer's estimate will not be provided before the bid opening.

**** END OF ADDENDUM NO. 1 ****

Meeting Agenda (Minutes)

Pre-Bid Conference

AIP Project No. 3-06-0179-043-2023

Airport: Oxnard Airport

Project Name: Reconstruction of Taxiway F

County of Ventura Department of Airports (DOA) Spec. No. 23-03, Project No. OXR-150

Date: Thursday, June 8, 2023, 10:00 A.M. PST

Location: ARFF Shelter, 2889 W. 5th St, Oxnard, CA 93030

1. RECORDING OF ATTENDEES

- A. Recording of attendees, firm represented, address and phone number.
- B. Attendees list will be sent to all attendees with Addendum No. 1.

2. INTRODUCTIONS & PROJECT DESCRIPTION

- A. County of Ventura Department of Airports Representatives
 - I. Keith Freitas, Director of Airports
 - II. Dave Nafie, Deputy Director of Airports
 - III. Erin Powers, Projects Administrator
- B. Airport Engineering – Jviation, a Woolpert Company
 - I. Matt Gilbreath, Project Manager
 - II. JD Ingram, Project Director
 - III. Amanda Gross, Project Engineer
- C. Project Schedules (Note: Work to be completed between 0700 to 1900).

SCHEDULE	SCHEDULE NAME	PHASE	CONSTRUCTION TIME
Schedule I	Reconstruction of Taxiway F	Preconstruction Mobilization	10 Calendar Days (2 Night Closures)
		Phase 1	28 Calendar Days
		Phase 2	32 Calendar Days
		Phase 3	20 Calendar Days

- I. Basis of Award (Refer to Division 1-13, Section 12)
 - a. It is the intention of the County to award the contract to the bidder submitting the lowest responsible and responsive bid (based on unit prices and estimated quantities) within the funds available for work included in the base bid which consists of Schedule I. Bidders must offer pricing on all items in all Schedules. The project award is contingent on the availability of funding.
 - b. The maximum construction time allowed for Schedule I is **90 Calendar Days**.
- II. Liquidated Damages (Refer to Division 3-40, Section 80-08)
 - a. For each calendar day, as specified in the contract, that any work remains uncompleted after the contract time (including all extensions and adjustments as provided in the subsection 80-07 titled *Determination and Extension of Contract Time*) the sum specified in the contract and proposal as liquidated damages will be deducted from any money due or to become due the Contractor or his or her surety.
 - b. **Pre-Construction Mobilization:** \$500.00/15 minutes which consists of time for the FAA, Airport Staff, Construction Manager, Resident Engineer, and non-use for the 2 Calendar Days of night closures, \$500/Calendar Day for the phase remainder.

- c. **Schedule I:** \$6,150/calendar day(s) which consists of \$2,500/calendar day(s) for non-use, \$1,950/calendar day(s) for Construction Manager, and \$1,700/calendar day(s) for Resident Engineer.

III. Notable Work Items:

Schedule I			
Item No.	Description	Units	Quantity
P-101a	Demolish Asphalt Pavement	SY	90,000
P-152a	Unclassified Excavation and Haul-Off	CY	15,030
P-152d	Unclassified Excavation and Stockpile Onsite	CY	7,510
P-155a	Lime Treated Subgrade, 16-Inch Depth	SY	63,500
P-156a	Cement Treated Subgrade, 16-Inch Depth	SY	63,500
P-209a	Crushed Aggregate Base Course	CY	11,100
P-401a	Asphalt Surface Course (PG 70-10)	TON	15,100
P-620b	Marking, 2 Coats with Beads (All Colors)	SF	58,300
D-701a	18-inch RCP, Class IV, Complete	LF	570
D-705a	Underdrain Pipe, 6-Inch	LF	9,300
L-110a	Install 1-2" SCH. 40 PVC Conduit, Direct Earth Buried (DEB)	LF	7,400
L-110b	Install 1-2" SCH. 40 PVC Conduit, Concrete Encased (CE)	LF	6,600
L-115a	Install Electrical Pullbox, 4'x4', Aircraft Rated	EA	4
L-125a	Install LED L-861T Taxiway Edge Light, Complete	EA	70
L-125b	Install In-Pavement LED L-852T Taxiway Edge Light, Complete	EA	66
L-125d	Reinstall LED L-858 Guidance Sign, 1,3 Module on New Foundation	EA	8

3. BID OPENING DATE & TIME

- A. Bid proposals will be opened and publicly read at the time indicated in the call for Bids unless the Bid opening has been delayed or canceled. Bidders, their authorized agents, and other interested parties are invited to attend the ~~virtual~~ bid opening. Refer to Section 9 Identification of Bid (Proposal) in the Instruction to Bidders for more information.
- B. Bids must be returned in a sealed envelope and addressed to County of Ventura: Department of Airports, Airport Administration Office Public Counter at the address below. All portions of the bid (e.g. bid bonds) must be delivered and completed by the due date and time.
- C. Late bids will not be accepted or considered.
- D. Due Date: Tuesday, June 27, 2023 at 10:00 A.M. (PST)
- E. Opening Date: Tuesday, June 27, 2023 at 10:00 A.M. (PST)
- F. Delivered to: Public Counter, 2nd Floor Lobby
555 Airport Way, Suite B
Camarillo, CA 93010
- G. Bid security: 5% of bid amount – Division 1-14, Item 19.
- H. Bid proposal: Division 2 (print, fill out, and submit all Division 2 pages).

4. DBE GOALS

- A. 6.2% of Contract Amount. Acceptable DBE firms are not limited to California based firms.

5. COMMUNICATIONS DURING THE PRE-BID PROCESS

- A. All questions must be forwarded in writing to Matt Gilbreath at Jviation, a Woolpert Company via email to Matt.Gilbreath@woolpert.com.
- B. Responses to questions will be sent out to all bidders via an Addendum.
- C. Last day for questions is June 15, 2023 no later than 4:00 p.m. local time.

6. QUALIFICATION OF BIDDERS

- A. Qualifications shall be furnished per Division 2-43 and Division 3-9, Section 20-02. Each bidder shall furnish the Owner satisfactory evidence of his or her competency and financial responsibility to perform the proposed work.
- B. Proposers or Bidders shall have a Class A California Contractors license at the time of award.
- C. Per Public Works Contractor Registration Law (SB 854), Contractors and Subcontractors who intend to Propose (Bid) or perform work on this Project must be registered with the Department of Industrial Relations at the time of Contract award. Information is available at <https://www.dir.ca.gov/faqlist.html>.
- D. Contractor should be aware of the requirement to include certain federal clauses in any of their subconsultant/ lower tier contracts.

7. CRITICAL CONTRACT DATES

- A. Notice to Proceed: TBD (Anticipated in early 2024)
- B. Project Time: 90 Calendar Days
- C. Agency is allowed 120 Calendar Days to award a contract.
- D. Refer to Division 4-85, Item SP-107 Scheduling of Work for more information.

8. BONDING

- A. Payment Bond: CVSS Appendix G, 100% of Bid Amount.
- B. Performance Bond: CVSS Appendix G, 100% of Bid Amount.

9. INSURANCE REQUIREMENTS

- A. Refer to Section 7-4 of the *County of Ventura Standard Specifications* for insurance requirements. Liability Insurance Class Required per VCSS-DOA Section 7-4.2: **L-D**

10. WAGE RATES (DAVIS BACON ACT)

- A. The higher of either the State or Federal wage rates must be paid to employees for this project. Refer to Division 6.
- B. Contractor and all Subcontractors are required to submit certified payrolls.

11. ENGINEER'S FIELD OFFICE

- A. Required. Refer to Division 3-27, Section 60-05 for more information.

12. CONSTRUCTION SAFETY AND PHASING PLAN (CSPP)

- A. Construction Safety and Phasing Plan (CSPP) – Refer to Division 5
- B. The Contractor shall review and adhere to the CSPP prepared by the Engineer.
- C. The Contractor shall submit a Safety Plan Compliance Document (SPCD) (Refer to Division 1-16, Item 23, Division 3-38 Section 80-04.1, and Division 4-59 Item SP-100) to the engineer and airport operations for approval PRIOR to the issuance of Notice to Proceed as required by FAA Advisory Circular (AC) 150/5370-2G “Operational Safety on Airports During Construction.”

13. CONSTRUCTION REQUIREMENTS

- A. Contractor Access and Staging Areas
 - a. Review Construction Safety Overall Phasing Plan (Sheet G051) – Discuss contractor staging area, gate access, and fire hydrant location.
 - b. Review Construction Safety and Phasing Plan (Sheet G050 to G055) – Discuss phases of work and Contractor access.
 - c. Contractor shall stay within phase/project boundaries.

- B. Safety and Security
 - a. Safety Notes and Details (Sheet G050) – Discuss safety, security, and airport operational requirements. Three (3) Lighted Runway Closure Markers to be supplied by Contractor.
 - b. Contractor shall maintain gate guards at all times during construction operations when the access gate is left open.
 - c. Key construction superintendents and any other personnel deemed necessary by the Airport shall be required to complete the driver's construction training and application to obtain an electronic entry card for gate access. The designated construction personnel will be responsible for escorting non-trained construction personnel who will be working within the airfield environment.
 - d. Radios for the project to be supplied by the Contractor. See Division 4-64, SP-100-1.15.
 - e. Radio Frequencies: Oxnard Ground – 121.9, Oxnard Tower – 134.95, CTAF – 134.95
- C. Environmental Measures
 - a. Storm Water Pollution Prevention Plan (SWPPP): A SWPPP is required to be developed as part of this contract. Requirements are listed in the Project Specific Requirements of the specifications, Item SP-102.
 - b. Dust Control: Dust control shall be maintained for the duration of construction activities.
- D. Material Testing
 - a. Quality Assurance by **Engineer** – TBD
 - b. Quality Control by **Contractor** shall not be same firm as QA - The Contractor shall establish a Contractor Quality Control Program (CQCP) in accordance with Item C-100 (Division 3-51) & Division 4-39, Item 5.
 - c. The Contractor Quality Control Program (CQCP) must be approved before construction begins.
- E. Survey
 - a. Survey requirements (Division 3-21, Section 50-07, Division 4-43, Item 18, and SP-100-1.6 Lines, Grades, and Survey Control).
- F. Specifications
 - a. The Ventura County Standard Specifications includes additional provisions as required by the County of Ventura. In the event of a conflict, the County's Standard Specifications, Section 2.5.2, establishes order of precedence.
 - b. FAA Construction Specifications, FAA Advisory Circular 150/5370-10H, is being utilized for this project.
 - c. Mobilization Item C-105a is capped at a maximum of 10%.
 - d. Construction Management Plan (CMP) is required for this project per Division 4-43, Item 19, to be prepared by the Engineer and includes the Contractor's CQCP.
 - e. Partnering Workshop Requirements are listed in the Project Specific Requirements of the specifications, Item SP-108.
- G. Buy America Requirements
 - a. Manufactured goods and steel are required to meet Buy America Requirements of Title 49 U.S.C. Section 50101.
 - b. The FAA maintains a list of equipment that has received waivers from the Buy America preference on their website at: <http://www.faa.gov/airports/aip/buy-american/>.

14. SITE VISIT

- A. There will be an escorted, vehicular site visit following the pre-bid meeting at the Oxnard Airport.
- B. Each contractor will be allowed 1 vehicle with up to 2 occupants on-site during this time period.
- C. Contractors wishing to attend shall meet at 2889 W 5th St., Oxnard, CA 93030. Vehicles will be under continuous escort, and no questions will be answered during the escort.

June 20, 2023

To: Plan Holders for Improvements to the
Oxnard Airport
Oxnard, California
AIP Project No. 3-06-0179-043-2023
County of Ventura DOA Spec. No. OXR 23-03, Project No. OXR-150

Transmitted herewith is Addendum **No. 2** to the Issued for Bid Contract Documents, Specifications and Plans dated May 25, 2023 for Improvements to the Oxnard Airport.

Schedule I
Reconstruction of Taxiway F

Sincerely,

Jviation, a Woolpert Company



Matt Gilbreath, P.E.
Project Manager

**ADDENDUM NO. 2 TO
CONTRACT DOCUMENTS, SPECIFICATIONS AND PLANS
FOR IMPROVEMENTS TO THE
OXNARD AIRPORT
OXNARD, CALIFORNIA
AIP PROJECT NO. 3-06-0179-043-2023
COUNTY OF VENTURA DOA SPEC. NO. OXR 23-03, PROJECT NO. OXR-150**

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, Specifications, and Plans are modified as follows as of June 20, 2023:

1. CONTRACT DOCUMENTS/SPECIFICATIONS

Bid Schedule in the Contract Documents – The Bid Schedule has been updated per the Summary of Approximate Quantities table on Sheet G002 that was issued with this addendum. The bid proposal, Division 2-47 through 2-49, has been reissued with the change.

Justification: An updated Bid Schedule has been reissued to account for several updated items and quantities.

Technical Specification L-115 ELECTRICAL MANHOLES AND JUNCTION STRUCTURES: – Under Section 110-5.1 Basis of Payment, the items shall now read,

**“Item L-115a Install FAA Electrical Pullbox, 4’x4’, Aircraft Rated – per each
Item L-115b Install NON-FAA Electrical Pullbox, 3’x3’, Aircraft Rated – per each
Item L-115c Install L-867B Junction Box, Complete – per each”**

The specification page has been reissued with the change.

Justification: The electrical pullboxes were itemized per FAA and NON-FAA pullboxes.

Technical Specification L-125 INSTALLATION OF AIRPORT LIGHTING SYSTEMS: – Under Section 125-5.1 Basis of Payment, the following bid item will be added,

“Item L-125e Remove and Reinstall Unlighted L-858 Billboard Type Sign, on New Foundation, Complete”

The specification page has been reissued with the change.

Justification: A non-lighted sign will be removed and reinstalled during the project.

2. PLAN SET

Sheet G002, INDEX OF DRAWINGS AND SUMMARY OF APPROXIMATE QUANTITIES. The quantities for items L-115a, L-115b, and L-125e were updated in the Summary of Approximate Quantities.

Justification: The quantities were updated for the items that were added to the project.

Sheet E102, ELECTRICAL DEMOLITION PLAN STA. 124+00 TO STA. 137+00 RUNWAY 7/25. A note was added showing the demolition of the 5-2" PVC Duct within the pavement demo limits.

Justification: This duct bank will be demolished during the project.

Sheet E200, ELECTRICAL LAYOUT PLAN STA. 98+00 TO STA. 111+00 RUNWAY 7/25. The reinstatement of an unlighted guidance sign was added to the plans.

Justification: The sign will be removed and reinstalled due to the change in pavement geometry.

Sheet E202, ELECTRICAL LAYOUT PLAN STA. 124+00 TO STA. 137+00 RUNWAY 7/25. The callouts for the pullboxes were updated to show the FAA and NON-FAA electrical pullboxes.

Justification: The FAA and NON-FAA pullboxes are different sizes.

Sheet E251, ELECTRICAL DETAILS. Detail 6 was added to the sheet to show the NON-FAA Pullbox.

Justification: The FAA and NON-FAA pullboxes are different sizes.

Sheet E252, ELECTRICAL DETAILS. Detail 4 was added to the sheet to show the reinstatement of the unlighted billboard sign.

Justification: The unlighted sign will be removed and reinstalled on a new foundation.

Sheet E253, ELECTRICAL DETAILS. Notes were added to Detail 1, Handhole Detail.

Justification: The FAA handholes shall be aircraft rated, and dimensions were added.

3. CONTRACTOR QUESTIONS

- 1) Question: Is Division 2-11 (Subcontractor/Material List), intended for subcontractors that will be used on the project or all subcontractor/suppliers quoting this project? If it is intended for all subcontractors/suppliers quoting this project, where should the prime contractor list selected firms?

Answer: The bidder shall provide information on all subcontractors/material suppliers bidding or quoting on subcontracts for this project on the "Subcontractor/Material Supplier List" in Division 2-11 with the bid submittal. The bidder shall reproduce the Division 2-12 form for additional listings needed beyond the length of the form.

- 2) Question: Can Division 2-15 (DBE Participation Form), be completed and submitted at a later date?

Answer: No, Division 2-15 (DBE Participation Form) must be completed and submitted at bid opening.

- 3) Question: Division 2-29, 2-30, 2-31, 2-32, and 2-33, require information that will be unknown at the time of bid closing. Obtaining the information from subcontractors to fill out these forms will be extremely difficult. Can these 5 forms be completed and submitted at a later date?

Answer: All Division 2 forms should be signed and submitted with the bid proposal, with as much information as possible at that time.

- 4) Question: Can the bid schedule be modified so we don't have to enter the unit price in words. Entering the unit price in words makes it very difficult to handle last minute changes from our sub-contractors. The space allotted on the bid schedule is also not sufficient for writing in in large unit prices.

Answer: No, the unit prices must be entered both in written words and numbers.

- 5) Question: I'm confused by the quantities for the excavation off-haul (P-152a) and excavation on-site quantities (P-152d). Does the quantity of 15,030 CY for P-152a include the quantity of P-152d, 7,510 CY? Which of the following is the proper interpretation?

- A) If no hazardous material is found P-152a would then be 15,030 CY and item P-152d is essentially deleted
- B) If no hazardous material is found P-152a would then be 22,540 CY (15,030 plus 7,510 cy).
- C) If hazardous material is found then P-152a would only be 7,520 CY (15,030 cy minus 7,510cy).

Answer: The current unclassified excavation quantities are estimated at 22,540 CY; since the quantity of PFAS contaminated soil is unknown until testing is completed, the P-152a Unclassified Excavation and Haul-off was estimated at 2/3 of the quantity of unclassified excavation material and the P-152d Unclassified Excavation and Stockpile was estimated at 1/3 of the quantity of unclassified excavation material.

- 6) Question: On Plan Sheet E102, please clarify means and methods for removal of conduit and wire crossing under existing Taxiway F (Taxiway A).

Answer: This duct bank shall be removed during the project. The limits of removal shall be within the pavement removal limits.

- 7) Question: On Plan Sheet E202, is the 5-2" PVC Duct (CE) to be directionally bored under the existing pavement?

Answer: The 5-2" PVC Duct (CE) will not be directionally bored under the existing pavement. This duct will be installed within the proposed pavement limits and tie to the existing duct bank at the edge of the limit.

Note: The explanations to prospective bidders period ended on June 15, 2023 at 4:00 P.M. (local time). Therefore, no more responses will be issued to any questions submitted by prospective bidders.

**** END OF ADDENDUM NO. 2 ****

SCHEDULE I						
Item No.	Description		Units	Estimated Quantity	Unit Price	Total
C-100a	Contractor Quality Control Program (CQCP)	at the unit price of: _____ dollars and _____ cents.	LS	1	\$	\$
C-105a	Mobilization (10% Maximum)	at the unit price of: _____ dollars and _____ cents.	LS	1	\$	\$
SP-100a	Airfield Safety and Traffic Control	at the unit price of: _____ dollars and _____ cents.	LS	1	\$	\$
SP-100b	Construction Staking and Survey Layout	at the unit price of: _____ dollars and _____ cents.	LS	1	\$	\$
SP-100c	Airport Access and Haul Route Repair	at the unit price of: _____ dollars and _____ cents.	SY	4,500	\$	\$
SP-100d	In-Place Drying Techniques	at the unit price of: _____ dollars and _____ cents.	SY	6,400	\$	\$
SP-100e	Subgrade Stabilization, Excavation Below Subgrade	at the unit price of: _____ dollars and _____ cents.	CY	1,300	\$	\$
SP-100f	Multi-Axial Geogrid	at the unit price of: _____ dollars and _____ cents.	SY	2,000	\$	\$
SP-100g	Underground Utility Investigation and Potholing	at the unit price of: _____ dollars and _____ cents.	HR	24	\$	\$
SP-100h	Install Checkpoint Marker	at the unit price of: _____ dollars and _____ cents.	LS	1	\$	\$
SP-100i	Excess Unclassified Excavation Stockpile Management	at the unit price of: _____ dollars and _____ cents.	LS	1	\$	\$
SP-102a	Compliance with Pollution, Erosion, and Siltation Control	at the unit price of: _____ dollars and _____ cents.	LS	1	\$	\$
SP-126a	Demolish Conduit, Cable, and Counterpoise	at the unit price of: _____ dollars and _____ cents.	LF	6,500	\$	\$
SP-126b	Demolish Concrete Encased Conduit, Cable, and Counterpoise	at the unit price of: _____ dollars and _____ cents.	LF	7,200	\$	\$
SP-126c	Remove Existing Cable and Counterpoise	at the unit price of: _____ dollars and _____ cents.	LF	400	\$	\$
SP-126d	Demolish Electrical Pullbox	at the unit price of: _____ dollars and _____ cents.	EA	7	\$	\$
SP-126e	Demolish FAA Pullbox	at the unit price of: _____ dollars and _____ cents.	EA	5	\$	\$
SP-126f	Demolish Airfield Sign and Pad	at the unit price of: _____ dollars and _____ cents.	EA	9	\$	\$
SP-126g	Demolish Elevated Taxiway Edge Light and Can. Salvage Existing Fixture	at the unit price of: _____ dollars and _____ cents.	EA	69	\$	\$
SP-126h	Demolish In-pavement Taxiway Edge Light and Can. Salvage Existing Fixture	at the unit price of: _____ dollars and _____ cents.	EA	71	\$	\$
SP-126i	Demolish Abandoned Waterline, if Encountered	at the unit price of: _____ dollars and _____ cents.	LF	400	\$	\$
SP-126j	Demolish Concrete Valley Gutter	at the unit price of: _____ dollars and _____ cents.	LF	130	\$	\$
P-101a	Demolish Asphalt Pavement	at the unit price of: _____ dollars and _____ cents.	SY	90,000	\$	\$
P-101b	Asphalt Crack Repair (under 1.5" width)	at the unit price of: _____ dollars and _____ cents.	LF	2,100	\$	\$
P-101c	Asphalt Crack Repair (over 1.5" width)	at the unit price of: _____ dollars and _____ cents.	SF	200	\$	\$
P-101d	Cold Mill, Variable Depth (2 inches maximum)	at the unit price of: _____ dollars and _____ cents.	SY	3,500	\$	\$
P-101e	Removal of Existing Underdrain Pipe, Complete	at the unit price of: _____ dollars and _____ cents.	LF	1,120	\$	\$

SCHEDULE I						
Item No.	Description		Units	Estimated Quantity	Unit Price	Total
P-101f	Removal of Underdrain Cleanout, Complete	at the unit price of: _____ dollars and _____ cents.	EA	12	\$	\$
P-101g	Removal of Underdrain Inspection Pit, Complete	at the unit price of: _____ dollars and _____ cents.	EA	3	\$	\$
P-152a	Unclassified Excavation and Haul-Off	at the unit price of: _____ dollars and _____ cents.	CY	15,030	\$	\$
P-152b	Embankment in Place	at the unit price of: _____ dollars and _____ cents.	CY	1,085	\$	\$
P-152c	Subgrade Preparation	at the unit price of: _____ dollars and _____ cents.	SY	140	\$	\$
P-152d	Unclassified Excavation and Stockpile Onsite	at the unit price of: _____ dollars and _____ cents.	CY	7,510	\$	\$
P-155a	Lime Treated Subgrade, 16-Inch Depth	at the unit price of: _____ dollars and _____ cents.	SY	63,500	\$	\$
P-155b	Lime	at the unit price of: _____ dollars and _____ cents.	TON	1,500	\$	\$
P-156a	Cement Treated Subgrade, 16-Inch Depth	at the unit price of: _____ dollars and _____ cents.	SY	63,500	\$	\$
P-156b	Cement	at the unit price of: _____ dollars and _____ cents.	TON	1,250	\$	\$
P-209a	Crushed Aggregate Base Course	at the unit price of: _____ dollars and _____ cents.	CY	11,100	\$	\$
P-401a	Asphalt Surface Course (PG 70-10)	at the unit price of: _____ dollars and _____ cents.	TON	15,100	\$	\$
P-620a	Surface Preparation (Obliteration)	at the unit price of: _____ dollars and _____ cents.	SF	5,450	\$	\$
P-620b	Marking, 2 Coats with Beads (All Colors)	at the unit price of: _____ dollars and _____ cents.	SF	22,000	\$	\$
P-620c	Marking, Single Coat with No Beads (All Colors)	at the unit price of: _____ dollars and _____ cents.	SF	58,300	\$	\$
P-620d	Marking, Single Coat with Beads (All Colors)	at the unit price of: _____ dollars and _____ cents.	SF	12,000	\$	\$
P-620e	12-Foot Single Designation Surface Painted Holding Position Signs	at the unit price of: _____ dollars and _____ cents.	EA	4	\$	\$
P-620f	9-Foot Double Designation Surface Painted Holding Position Signs	at the unit price of: _____ dollars and _____ cents.	EA	3	\$	\$
P-620g	12-Foot Double Designation Surface Painted Holding Position Signs	at the unit price of: _____ dollars and _____ cents.	EA	4	\$	\$
P-621a	Grooving	at the unit price of: _____ dollars and _____ cents.	SY	270	\$	\$
D-701a	18-inch RCP, Class IV, Complete	at the unit price of: _____ dollars and _____ cents.	LF	570	\$	\$
D-705a	Underdrain Pipe, 6-Inch	at the unit price of: _____ dollars and _____ cents.	LF	9,300	\$	\$
D-705b	Underdrain Pipe Cleanout	at the unit price of: _____ dollars and _____ cents.	EA	38	\$	\$
D-751a	Storm Manhole	at the unit price of: _____ dollars and _____ cents.	EA	14	\$	\$
D-751b	Storm Inlet	at the unit price of: _____ dollars and _____ cents.	EA	2	\$	\$
D-751c	Connect to Existing Manhole/Inlet/Cleanout/Underdrain	at the unit price of: _____ dollars and _____ cents.	EA	10	\$	\$
D-751d	Adjust Existing Inlet to Grade	at the unit price of: _____ dollars and _____ cents.	EA	1	\$	\$

SCHEDULE I						
Item No.	Description		Units	Estimated Quantity	Unit Price	Total
D-754a	Construct Concrete Valley Gutter and Apron	at the unit price of: _____ dollars and _____ cents.	LF	130	\$	\$
T-901a	Seeding	at the unit price of: _____ dollars and _____ cents.	AC	12	\$	\$
T-905a	Topsail (Imported)	at the unit price of: _____ dollars and _____ cents.	CY	4,650	\$	\$
L-108a	Install #8 AWG, L-824C, 5000V, Wire	at the unit price of: _____ dollars and _____ cents.	LF	20,500	\$	\$
L-108b	Install #6 AWG, Bare Copper Counterpoise Including Ground Rods and Terminations	at the unit price of: _____ dollars and _____ cents.	LF	14,250	\$	\$
L-110a	Install 1-2" SCH. 40 PVC Conduit, Direct Earth Buried (DEB)	at the unit price of: _____ dollars and _____ cents.	LF	7,400	\$	\$
L-110b	Install 1-2" SCH. 40 PVC Conduit, Concrete Encased (CE)	at the unit price of: _____ dollars and _____ cents.	LF	6,600	\$	\$
L-110c	Install 5-2" SCH. 40 PVC Conduit, Concrete Encased (CE)	at the unit price of: _____ dollars and _____ cents.	LF	100	\$	\$
L-110d	Concrete Encase Existing FAA Line Under Proposed Pavement	at the unit price of: _____ dollars and _____ cents.	LF	400	\$	\$
L-115a	Install FAA Electrical Pullbox, 4'x4', Aircraft Rated	at the unit price of: _____ dollars and _____ cents.	EA	3	\$	\$
L-115b	Install NON-FAA Electrical Pullbox, 3'x3', Aircraft Rated	at the unit price of: _____ dollars and _____ cents.	EA	1	\$	\$
L-115c	Install L-867B Junction Box, Complete	at the unit price of: _____ dollars and _____ cents.	EA	2	\$	\$
L-125a	Install LED L-861T Taxiway Edge Light, Complete	at the unit price of: _____ dollars and _____ cents.	EA	70	\$	\$
L-125b	Install In-Pavement LED L-852T Taxiway Edge Light, Complete	at the unit price of: _____ dollars and _____ cents.	EA	66	\$	\$
L-125c	Install LED L-858 Guidance Sign, Size 1, 2 Module, Complete	at the unit price of: _____ dollars and _____ cents.	EA	1	\$	\$
L-125d	Reinstall LED L-858 Guidance Sign, Size 1, 3 Module on New Foundation, Complete	at the unit price of: _____ dollars and _____ cents.	EA	8	\$	\$
L-125e	Remove and Reinstall Unlighted L-858 Billboard Type Sign, on New Foundation, Complete	at the unit price of: _____ dollars and _____ cents.	EA	1	\$	\$
CVSS DOA 9-4	Execution of Release on Contract	at the unit price of: _____ dollars and _____ cents.	LS	1	\$	\$

SCHEDULE I TOTAL \$ _____

307
308
309

METHOD OF MEASUREMENT

310 **115-4.1** Electrical manholes and junction structures shall be measured by each unit completed in place and
311 accepted. The following items shall be included in the price of each unit: All required excavation and
312 dewatering;; sheeting and bracing; all required backfilling with on-site materials; restoration of all surfaces and
313 finished grading and turfing; all required connections; temporary cables and connections; and ground rod
314 testing

315
316 **115-4.2** Manhole elevation adjustments shall be measured by the completed unit installed, in place, completed,
317 and accepted. Separate measurement shall not be made for the various types and sizes.

318

BASIS OF PAYMENT

319

320
321 **115-5.1** The accepted quantity of electrical manholes and junction structures will be paid for at the Contract
322 unit price per each, complete and in place. This price shall be full compensation for furnishing all materials and
323 for all preparation, excavation, backfilling and placing of the materials, furnishing and installation of
324 appurtenances and connections to duct banks and other structures as may be required to complete the item as
325 shown on the plans and for all labor, equipment, tools and incidentals necessary to complete the structure.

326

327 **115-5.2** Payment shall be made at the contract unit price for manhole elevation adjustments. This price shall be
328 full compensation for furnishing all materials and for all preparation, assembly, and installation of these
329 materials, and for all labor, equipment, tools, and incidentals necessary, including but not limited to, spacers,
330 concrete, rebar, dewatering, excavating, backfill, topsoil, sodding and pavement restoration, where required, to
331 complete this item as shown in the plans and to the satisfaction of the RPR.

332

333 Payment will be made under:

334

335

Item L-115a	Install FAA Electrical Pullbox, 4'x4', Aircraft Rated – per each
Item L-115b	Install NON-FAA Electrical Pullbox, 3'x3', Aircraft Rated – per each
Item L-115c	Install L-867B Junction Box, Complete – per each

341

342

REFERENCES

343

344 The publications listed below form a part of this specification to the extent referenced. The publications are
345 referred to within the text by the basic designation only.

346

347 American National Standards Institute / Insulated Cable Engineers Association (ANSI/ICEA)

348

349 ANSI/IEEE STD 81 IEEE Guide for Measuring Earth Resistivity, Ground Impedance, and Earth
350 Surface Potentials of a Ground System

351

352 Advisory Circular (AC)

353 AC 150/5345-7 Specification for L-824 Underground Electrical Cable for Airport Lighting
354 Circuits

355

356 AC 150/5345-26 Specification for L-823 Plug and Receptacle, Cable Connectors

141 Payment will be made under:

- | | | |
|------|--------|--|
| Item | L-125a | Install LED L-861T Taxiway Edge Light, Complete – per each |
| Item | L-125b | Install In-Pavement LED L-852T Taxiway Edge Light, Complete – per each |
| Item | L-125c | Install LED L-858 Guidance Sign, Size 1, 2 Module, Complete – per each |
| Item | L-125d | Reinstall LED L-858 Guidance Sign, Size 1, 3 Module, Complete – per each |

- | | | |
|------|--------|---|
| Item | L-125e | Remove and Reinstall Unlighted L-858 Billboard Type Sign, on New Foundation, Complete |
|------|--------|---|

143

144 **REFERENCES**

145

146 The publications listed below form a part of this specification to the extent referenced. The publications are
147 referred to within the text by the basic designation only.

148

149 Advisory Circulars (AC)

- | | | |
|-----|----------------|--|
| 150 | AC 150/5340-18 | Standards for Airport Sign Systems |
| 151 | AC 150/5340-26 | Maintenance of Airport Visual Aid Facilities |
| 152 | AC 150/5340-30 | Design and Installation Details for Airport Visual Aids |
| 153 | AC 150/5345-5 | Circuit Selector Switch |
| 154 | AC 150/5345-7 | Specification for L-824 Underground Electrical Cable for Airport Lighting Circuits |
| 155 | AC 150/5345-26 | Specification for L-823 Plug and Receptacle, Cable Connectors |
| 156 | AC 150/5345-28 | Precision Approach Path Indicator (PAPI) Systems |
| 157 | AC 150/5345-39 | Specification for L-853, Runway and Taxiway Retroreflective Markers |
| 158 | AC 150/5345-42 | Specification for Airport Light Bases, Transformer Housings, Junction Boxes, and |
| 159 | AC 150/5345-44 | Specification for Runway and Taxiway Signs |
| 160 | AC 150/5345-46 | Specification for Runway and Taxiway Light Fixtures |
| 161 | AC 150/5345-47 | Specification for Series to Series Isolation Transformers for Airport Lighting Systems |
| 162 | AC 150/5345-51 | Specification for Discharge-Type Flashing Light Equipment |
| 163 | AC 150/5345-53 | Airport Lighting Equipment Certification Program |

164

165 Engineering Brief (EB)

- | | | |
|-----|-----------|--|
| 166 | EB No. 67 | Light Sources Other than Incandescent and Xenon for Airport and Obstruction Lighting
167 Fixtures |
|-----|-----------|--|

168

169

****END OF ITEM L-125****

SUMMARY OF APPROXIMATE QUANTITIES				
ITEM NO.	ITEM DESCRIPTION	UNITS	SCHEDULE I	
			ESTIMATE	AS BUILT
C-100a	Contractor Quality Control Program (CQCP)	LS	1	
C-105a	Mobilization (10% Maximum)	LS	1	
SP-100a	Airfield Safety and Traffic Control	LS	1	
SP-100b	Construction Staking and Survey Layout	LS	1	
SP-100c	Airport Access and Haul Route Repair	SY	4,500	
SP-100d	In-Place Drying Techniques	SY	6,400	
SP-100e	Subgrade Stabilization, Excavation Below Subgrade	CY	1,300	
SP-100f	Multi-Axial Geogrid	SY	2,000	
SP-100g	Underground Utility Investigation and Potholing	HR	24	
SP-100h	Install Checkpoint Marker	LS	1	
SP-100i	Excess Unclassified Excavation Stockpile Management	LS	1	
SP-102a	Compliance with Pollution, Erosion, and Siltation Control	LS	1	
SP-126a	Demolish Conduit, Cable, and Counterpoise	LF	6,500	
SP-126b	Demolish Concrete Encased Conduit, Cable, and Counterpoise	LF	7,200	
SP-126c	Remove Existing Cable and Counterpoise	LF	400	
SP-126d	Demolish Electrical Pullbox	EA	7	
SP-126e	Demolish FAA Pullbox	EA	5	
SP-126f	Demolish Airfield Sign and Pad	EA	9	
SP-126g	Demolish Elevated Taxiway Edge Light and Can. Salvage Existing Fixture	EA	69	
SP-126h	Demolish In-pavement Taxiway Edge Light and Can. Salvage Existing Fixture	EA	71	
SP-126i	Demolish Abandoned Waterline, if Encountered	LF	400	
SP-126j	Demolish Concrete Valley Gutter	LF	130	
P-101a	Demolish Asphalt Pavement	SY	90,000	
P-101b	Asphalt Crack Repair (under 1.5" width)	LF	2,100	
P-101c	Asphalt Crack Repair (over 1.5" width)	SF	200	
P-101d	Cold Mill, Variable Depth (2 inches maximum)	SY	3,500	
P-101e	Removal of Existing Underdrain Pipe, Complete	LF	1,120	
P-101f	Removal of Underdrain Cleanout, Complete	EA	12	
P-101g	Removal of Underdrain Inspection Pit, Complete	EA	3	
P-152a	Unclassified Excavation and Haul-Off	CY	15,030	
P-152b	Embankment in Place	CY	1,085	
P-152c	Subgrade Preparation	SY	140	
P-152d	Unclassified Excavation and Stockpile Onsite	CY	7,510	
P-155a	Lime Treated Subgrade, 16-Inch Depth	SY	63,500	
P-155b	Lime	TON	1,500	
P-156a	Cement Treated Subgrade, 16-Inch Depth	SY	63,500	
P-156b	Cement	TON	1,250	
P-209a	Crushed Aggregate Base Course	CY	11,100	
P-401a	Asphalt Surface Course (PG 70-10)	TON	15,100	
P-620a	Surface Preparation (Obliteration)	SF	5,450	
P-620b	Marking, 2 Coats with Beads (All Colors)	SF	22,000	
P-620c	Marking, Single Coat with No Beads (All Colors)	SF	58,300	
P-620d	Marking, Single Coat with Beads (All Colors)	SF	12,000	
P-620e	12-Foot Single Designation Surface Painted Holding Position Signs	EA	4	
P-620f	9-Foot Double Designation Surface Painted Holding Position Signs	EA	3	
P-620g	12-Foot Double Designation Surface Painted Holding Position Signs	EA	4	
P-621a	Grooving	SY	270	
D-701a	18-inch RCP, Class IV, Complete	LF	570	
D-705a	Underdrain Pipe, 6-Inch	LF	9,300	
D-705b	Underdrain Pipe Cleanout	EA	38	
D-751a	Storm Manhole	EA	14	
D-751b	Storm Inlet	EA	2	
D-751c	Connect to Existing Manhole/Inlet/Cleanout/Underdrain	EA	10	
D-751d	Adjust Existing Inlet to Grade	EA	1	
D-754a	Construct Concrete Valley Gutter and Apron	LF	130	
T-901a	Seeding	AC	12	
T-905a	Topsoil (Imported)	CY	4,650	
L-108a	Install #8 AWG, L-824C, 5000V, Wire	LF	20,500	
L-108b	Install #6 AWG, Bare Copper Counterpoise Including Ground Rods and Terminations	LF	14,250	
L-110a	Install 1-2" SCH. 40 PVC Conduit, Direct Earth Buried (DEB)	LF	7,400	
L-110b	Install 1-2" SCH. 40 PVC Conduit, Concrete Encased (CE)	LF	6,600	
L-110c	Install 5-2" SCH. 40 PVC Conduit, Concrete Encased (CE)	LF	100	
L-110d	Concrete Encase Existing FAA Line Under Proposed Pavement	LF	400	
L-115a	Install FAA Electrical Pullbox, 4'x4', Aircraft Rated	EA	3	
L-115b	Install NON-FAA Electrical Pullbox, 3'x3', Aircraft Rated	EA	1	
L-115c	Install L-867B Junction Box, Complete	EA	2	
L-125a	Install LED L-861T Taxiway Edge Light, Complete	EA	70	
L-125b	Install In-Pavement LED L-852T Taxiway Edge Light, Complete	EA	66	
L-125c	Install LED L-858 Guidance Sign, Size 1, 2 Module, Complete	EA	1	
L-125d	Reinstall LED L-858 Guidance Sign, Size 1, 3 Module on New Foundation, Complete	EA	8	
L-125e	Remove and Reinstall Unlighted L-858 Billboard Type Sign, on New Foundation, Complete	EA	1	
CVSS DOA 9-4	Execution of Release on Contract	LS	1	

SHEET LIST DESCRIPTION			
SHEET NO.	SHEET NAME	DRAWING NUMBER	SHEET DESCRIPTION
1	G001	1586-DOA	COVER SHEET
2	G002	1587-DOA	INDEX OF DRAWINGS & SUMMARY
3	G003A	1588-DOA	GENERAL NOTES
4	G003B	1589-DOA	GENERAL NOTES
5	G004	1590-DOA	MASTER LEGEND & ABBREVIATION
6	G005	1591-DOA	SURVEY CONTROL PLAN
7	G006	1592-DOA	GEOTECHNICAL INVESTIGATION PLAN
8	G007	1593-DOA	SOIL BORING LOGS
9	G008	1594-DOA	SOIL BORING LOGS
10	G009	1595-DOA	SOIL BORING LOGS
11	G010	1596-DOA	SOIL BORING LOGS
12	G011	1597-DOA	SOIL BORING LOGS
13	G050	1598-DOA	CONSTRUCTION SAFETY NOTES & DETAILS
14	G051	1599-DOA	CONSTRUCTION SAFETY OVERALL PHASING PLAN
15	G052	1600-DOA	CONSTRUCTION SAFETY AND PHASING PLAN SCHEDULE I PRECONSTRUCTION MOBILIZATION
16	G053	1601-DOA	CONSTRUCTION SAFETY AND PHASING PLAN SCHEDULE I, PHASE 1
17	G054	1602-DOA	CONSTRUCTION SAFETY AND PHASING PLAN SCHEDULE I, PHASE 2
18	G055	1603-DOA	CONSTRUCTION SAFETY AND PHASING PLAN SCHEDULE I, PHASE 3
19	G100	1604-DOA	ENVIRONMENTAL REQUIREMENTS
20	C100	1605-DOA	DEMOLITION PLAN STA. 98+00 TO STA. 111+00 RUNWAY 7/25
21	C101	1606-DOA	DEMOLITION PLAN STA. 111+00 TO STA. 124+00 RUNWAY 7/25
22	C102	1607-DOA	DEMOLITION PLAN STA. 124+00 TO STA. 137+00 RUNWAY 7/25
23	C103	1608-DOA	DEMOLITION PLAN STA. 137+00 TO STA. 150+00 RUNWAY 7/25
24	C104	1609-DOA	DEMOLITION PLAN STA. 150+00 TO STA. 163+00 RUNWAY 7/25
25	C150	1610-DOA	DEMOLITION DETAILS
26	C200	1611-DOA	GEOMETRIC LAYOUT PLAN STA. 98+00 TO STA. 111+00 RUNWAY 7/25
27	C201	1612-DOA	GEOMETRIC LAYOUT PLAN STA. 111+00 TO STA. 124+00 RUNWAY 7/25
28	C202	1613-DOA	GEOMETRIC LAYOUT PLAN STA. 124+00 TO STA. 137+00 RUNWAY 7/25
29	C203	1614-DOA	GEOMETRIC LAYOUT PLAN STA. 137+00 TO STA. 150+00 RUNWAY 7/25
30	C204	1615-DOA	GEOMETRIC LAYOUT PLAN STA. 150+00 TO STA. 163+00 RUNWAY 7/25
31	C220	1616-DOA	TYPICAL SECTIONS
32	C221	1617-DOA	TYPICAL SECTIONS
33	C222	1618-DOA	TYPICAL SECTIONS
34	C223	1619-DOA	TYPICAL SECTIONS
35	C300	1620-DOA	OVERALL GRADING PLAN
36	C301	1621-DOA	GRADING PLAN STA. 98+00 TO STA. 111+00 RUNWAY 7/25
37	C302	1622-DOA	GRADING PLAN STA. 111+00 TO STA. 124+00 RUNWAY 7/25
38	C303	1623-DOA	GRADING PLAN STA. 124+00 TO STA. 137+00 RUNWAY 7/25
39	C304	1624-DOA	GRADING PLAN STA. 137+00 TO STA. 150+00 RUNWAY 7/25
40	G305	1625-DOA	GRADING PLAN STA. 150+00 TO STA. 163+00 RUNWAY 7/25
41	C400	1626-DOA	SPOT ELEVATION PLAN STA. 98+00 TO STA. 111+00 RUNWAY 7/25
42	C401	1627-DOA	SPOT ELEVATION PLAN STA. 111+00 TO STA. 124+00 RUNWAY 7/25
43	C402	1628-DOA	SPOT ELEVATION PLAN STA. 124+00 TO STA. 137+00 RUNWAY 7/25
44	C403	1629-DOA	SPOT ELEVATION PLAN STA. 137+00 TO STA. 150+00 RUNWAY 7/25
45	C404	1630-DOA	SPOT ELEVATION PLAN STA. 150+00 TO STA. 163+00 RUNWAY 7/25
46	C405	1631-DOA	PCC VALLEY GUTTER
47	C500	1632-DOA	PAVEMENT PLAN AND PROFILE STA. 98+00 TO STA. 111+00 TAXIWAY F
48	C501	1633-DOA	PAVEMENT PLAN AND PROFILE STA. 111+00 TO STA. 124+00 TAXIWAY F
49	C502	1634-DOA	PAVEMENT PLAN AND PROFILE STA. 124+00 TO STA. 137+00 TAXIWAY F
50	C503	1635-DOA	PAVEMENT PLAN AND PROFILE STA. 137+00 TO STA. 150+00 TAXIWAY F
51	C504	1636-DOA	PAVEMENT PLAN AND PROFILE STA. 150+00 TO STA. 163+00 TAXIWAY F
52	C600	1637-DOA	UNDERDRAIN AND STORM SEWER LAYOUT PLAN STA. 98+00 TO STA. 111+00 RUNWAY 7/25
53	C601	1638-DOA	UNDERDRAIN AND STORM SEWER LAYOUT PLAN STA. 111+00 TO STA. 124+00 RUNWAY 7/25
54	C602	1639-DOA	UNDERDRAIN AND STORM SEWER LAYOUT PLAN STA. 124+00 TO STA. 137+00 RUNWAY 7/25
55	C603	1640-DOA	UNDERDRAIN AND STORM SEWER LAYOUT PLAN STA. 137+00 TO STA. 150+00 RUNWAY 7/25
56	C604	1641-DOA	UNDERDRAIN AND STORM SEWER LAYOUT PLAN STA. 150+00 TO STA. 163+00 RUNWAY 7/25
57	C650	1642-DOA	UNDERDRAIN AND STORM SEWER DETAILS
58	C651	1643-DOA	UNDERDRAIN AND STORM SEWER DETAILS
59	C652	1644-DOA	UNDERDRAIN AND STORM SEWER DETAILS
60	C700	1645-DOA	PAVEMENT GROOVING PLAN
61	C750	1646-DOA	PAVEMENT GROOVING DETAILS
62	C800	1647-DOA	PAVEMENT MARKING PLAN STA. 98+00 TO STA. 111+00 RUNWAY 7/25
63	C801	1648-DOA	PAVEMENT MARKING PLAN STA. 111+00 TO STA. 124+00 RUNWAY 7/25
64	C802	1649-DOA	PAVEMENT MARKING PLAN STA. 124+00 TO STA. 137+00 RUNWAY 7/25
65	C803	1650-DOA	PAVEMENT MARKING PLAN STA. 137+00 TO STA. 150+00 RUNWAY 7/25
66	C804	1651-DOA	PAVEMENT MARKING PLAN STA. 150+00 TO STA. 163+00 RUNWAY 7/25
67	C850	1652-DOA	PAVEMENT MARKING DETAILS
68	C851	1653-DOA	PAVEMENT MARKING DETAILS
69	C900	1654-DOA	SEEDING AND EROSION CONTROL PLAN STA. 98+00 TO STA. 111+00 RUNWAY 7/25
70	C901	1655-DOA	SEEDING AND EROSION CONTROL PLAN STA. 111+00 TO STA. 124+00 RUNWAY 7/25
71	C902	1656-DOA	SEEDING AND EROSION CONTROL PLAN STA. 124+00 TO STA. 137+00 RUNWAY 7/25
72	C903	1657-DOA	SEEDING AND EROSION CONTROL PLAN STA. 137+00 TO STA. 150+00 RUNWAY 7/25
73	C904	1658-DOA	SEEDING AND EROSION CONTROL PLAN STA. 150+00 TO STA. 163+00 RUNWAY 7/25
74	C950	1659-DOA	EROSION CONTROL DETAIL

SHEET LIST DESCRIPTION			
SHEET NO.	SHEET NAME	DRAWING NUMBER	SHEET DESCRIPTION
75	E001	1660-DOA	ELECTRICAL LEGEND AND GENERAL NOTES
76	E100	1661-DOA	ELECTRICAL DEMOLITION PLAN STA. 98+00 TO STA. 111+00 RUNWAY 7/25
77	E101	1662-DOA	ELECTRICAL DEMOLITION PLAN STA. 111+00 TO STA. 124+00 RUNWAY 7/25
78	E102	1663-DOA	ELECTRICAL DEMOLITION PLAN STA. 124+00 TO STA. 137+00 RUNWAY 7/25
79	E103	1664-DOA	ELECTRICAL DEMOLITION PLAN STA. 137+00 TO STA. 150+00 RUNWAY 7/25
80	E104	1665-DOA	ELECTRICAL DEMOLITION PLAN STA. 150+00 TO STA. 163+00 RUNWAY 7/25
81	E200	1666-DOA	ELECTRICAL LAYOUT PLAN STA. 98+00 TO STA. 111+00 RUNWAY 7/25
82	E201	1667-DOA	ELECTRICAL LAYOUT PLAN STA. 111+00 TO STA. 124+00 RUNWAY 7/25
83	E202	1668-DOA	ELECTRICAL LAYOUT PLAN STA. 124+00 TO STA. 137+00 RUNWAY 7/25
84	E203	1669-DOA	ELECTRICAL LAYOUT PLAN STA. 137+00 TO STA. 150+00 RUNWAY 7/25
85	E204	1670-DOA	ELECTRICAL LAYOUT PLAN STA. 150+00 TO STA. 163+00 RUNWAY 7/25
86	E250	1671-DOA	ELECTRICAL DETAILS
87	E251	1672-DOA	ELECTRICAL DETAILS
88	E252	1673-DOA	ELECTRICAL DETAILS
89	E253	1674-DOA	ELECTRICAL DETAILS

APPROXIMATE EARTHWORK VOLUME SUMMARY		
AREA DESCRIPTION	CUT (CY)	FILL (CY)
SCHEDULE I		
TAXIWAY F RECONSTRUCTION	15,840	1,085
OVEREXCAVATION FOR TOPSOIL PLACEMENT (4-INCH DEPTH)	6,700	0
SCHEDULE I SUBTOTAL	22,540	1,085
PROJECT TOTAL	22,540	1,085

EARTHWORK NOTES:

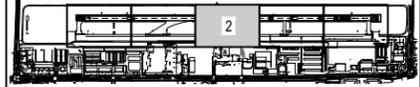
- EARTHWORK VOLUMES ARE RAW AND UNADJUSTED. EARTHWORK QUANTITIES MAY VARY ±10% DEPENDING ON THE SOIL CONDITIONS ENCOUNTERED AND/OR THE ACTUAL SWELL/SHRINK FACTORS.
- QUANTITIES PROVIDED ARE ESTIMATES BASED ON THE AVAILABLE INFORMATION AT THE TIME; CONTRACTOR TO DETERMINE QUANTITIES VIA SURVEY.
- THE CONTRACTOR WILL BE REQUIRED TO STOCKPILE THE PFAS CONTAMINATED UNCLASSIFIED EXCAVATION ONSITE WITHIN THE AIRPORT BOUNDARY AT THE LOCATION SHOWN ON SHEET G051 PER SP-100-1.30 AND P-152D. THE CONTRACTOR WILL BE PERMITTED TO HAUL THE CLEARED, UNCONTAMINATED UNCLASSIFIED EXCAVATION MATERIAL OFFSITE PER P-152A.

RE-ISSUE ENTIRE SHEET

ISSUED FOR BID		
THESE DRAWINGS ARE FOR BIDDING PURPOSES ONLY. THEY WERE PREPARED BY OR UNDER THE SUPERVISION OF:		
JOHN DUANE INGRAM	PE - C 058505	5/25/2023
NAME	REG. NO.	DATE
FOR AND ON BEHALF OF JVIATION, A WOOLPERT COMPANY		

Printed June 20, 2023 @ 3:13 PM by Grooms, Amanda
 C:\OXR\AIP\043 Taxiway F Reconstruction\CAD\PIANS\00-CX-043-G002-NDX.dwg

			DES: T.A.R.	ISSUE RECORD			RECONSTRUCTION OF TAXIWAY F	INDEX OF DRAWINGS & SUMMARY				SHEET NAME
			DR: R.L.B.	NO.	BY	DATE						DESCRIPTION
			CH: C.L.G.	1	J.D.I.	5/25/2023		ISSUED FOR BID		SHEET NO.		
			APP: J.D.I.	2	J.D.I.	06/20/2023		ADDENDUM NO. 2		2 of 89		
			Exhibit 2							DRAWING NO.		
										1587-DOA		
										AIP PROJECT NO. 3-06-0179-043-2023		
										JVIATION PROJ. NO. 2023.OXR.01		
										SPEC. NO. DOA 23-03		
										COUNTY PROJ. NO. OXR-150		

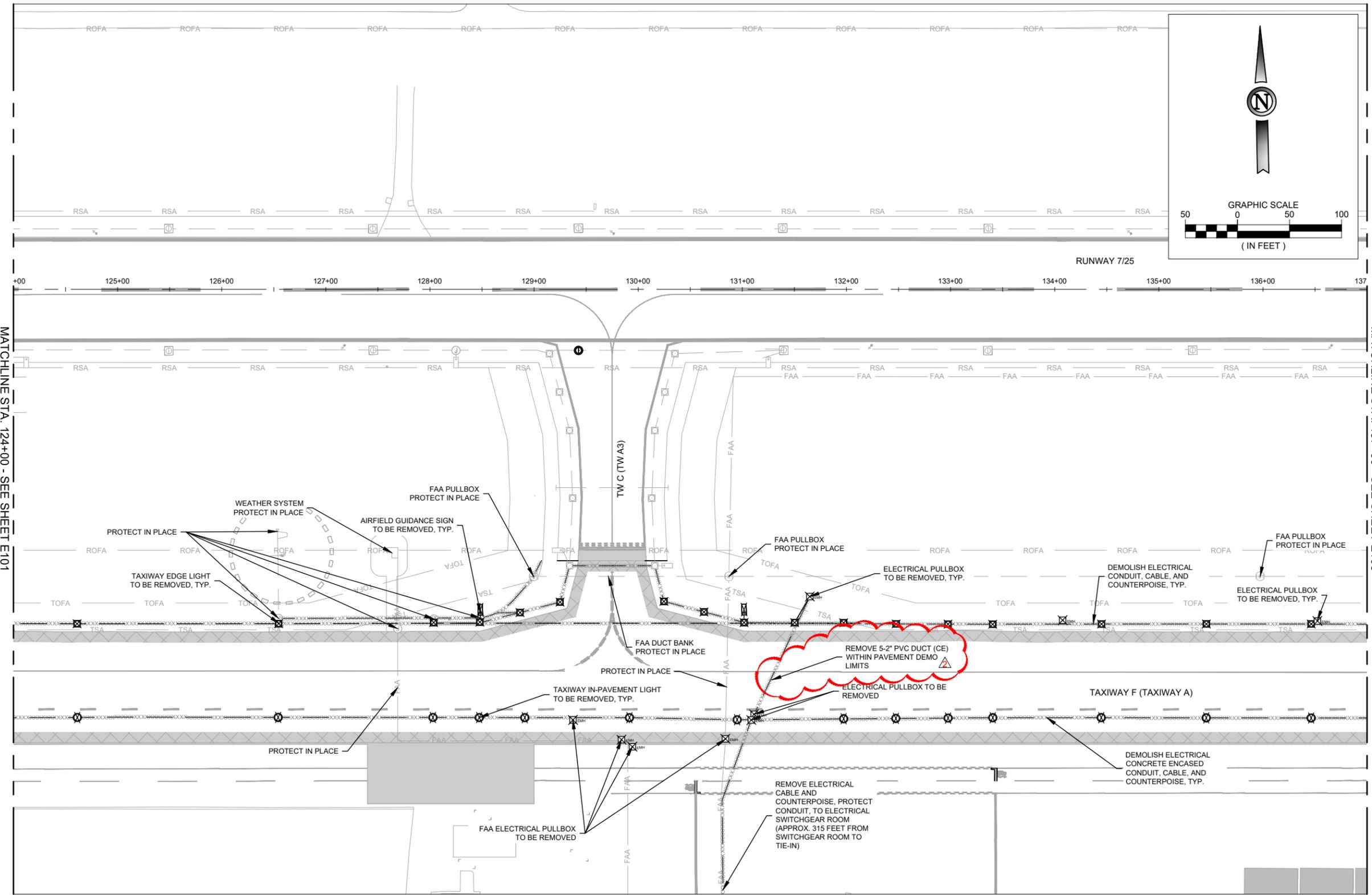


ELECTRICAL DEMOLITION LEGEND

- EXISTING ELECTRICAL DIRECT EARTH BURIED (DEB)
- EXISTING ELECTRICAL CONCRETE ENCASED (CE)
- XXXXXX REMOVE ELECTRICAL DIRECT EARTH BURIED (DEB)
- XXXXXX REMOVE ELECTRICAL CONCRETE ENCASED (CE)
- ⊗ REMOVE TW IN-PAVEMENT LIGHT
- ⊗ REMOVE TW EDGE LIGHT
- ⊗ REMOVE HANDHOLE/PULLBOX
- ⊗ REMOVE JUNCTION BOX
- ⊗ REMOVE GUIDANCE SIGN

NOTES

1. SEE SHEET E001 FOR ELECTRICAL LEGEND AND NOTES.
2. SEE SHEETS E200 THRU E204 FOR ELECTRICAL PLANS.
3. SEE SHEETS E250 THRU E254 FOR ELECTRICAL DETAILS.
4. SEE SHEETS C100 THRU C104 FOR CIVIL DEMOLITION.
5. CONTRACTOR TO USE SURVEY CONTROL POINTS AS SHOWN ON SHEET G005 SURVEY CONTROL LAYOUT.
6. CONTRACTOR SHALL LOCATE AND PROTECT ALL EXISTING UTILITIES.



ISSUED FOR BID

THESE DRAWINGS ARE FOR BIDDING PURPOSES ONLY. THEY WERE PREPARED BY OR UNDER THE SUPERVISION OF:

ZACHARY C. AMBARIANTZ PE - E 19382 5/25/2023
 NAME REG. NO. DATE
 FOR AND ON BEHALF OF JVIATION, A WOOLPERT COMPANY

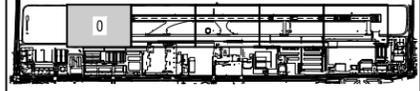


DES: T.A.R.		ISSUE RECORD			
DR: R.L.B.	NO.	BY	DATE	DESCRIPTION	
CH: C.L.G.	1	J.D.I.	5/25/2023	ISSUED FOR BID	
APP: J.D.I.	2	J.D.I.	6/20/2023	ADDENDUM NO. 2	
				Exhibit 2	

RECONSTRUCTION OF TAXIWAY F

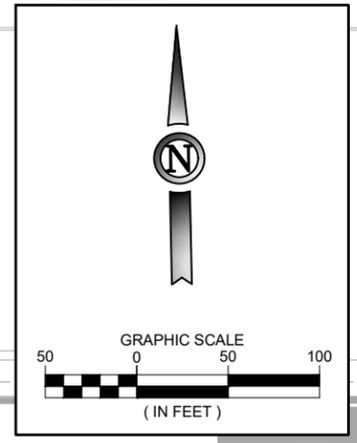
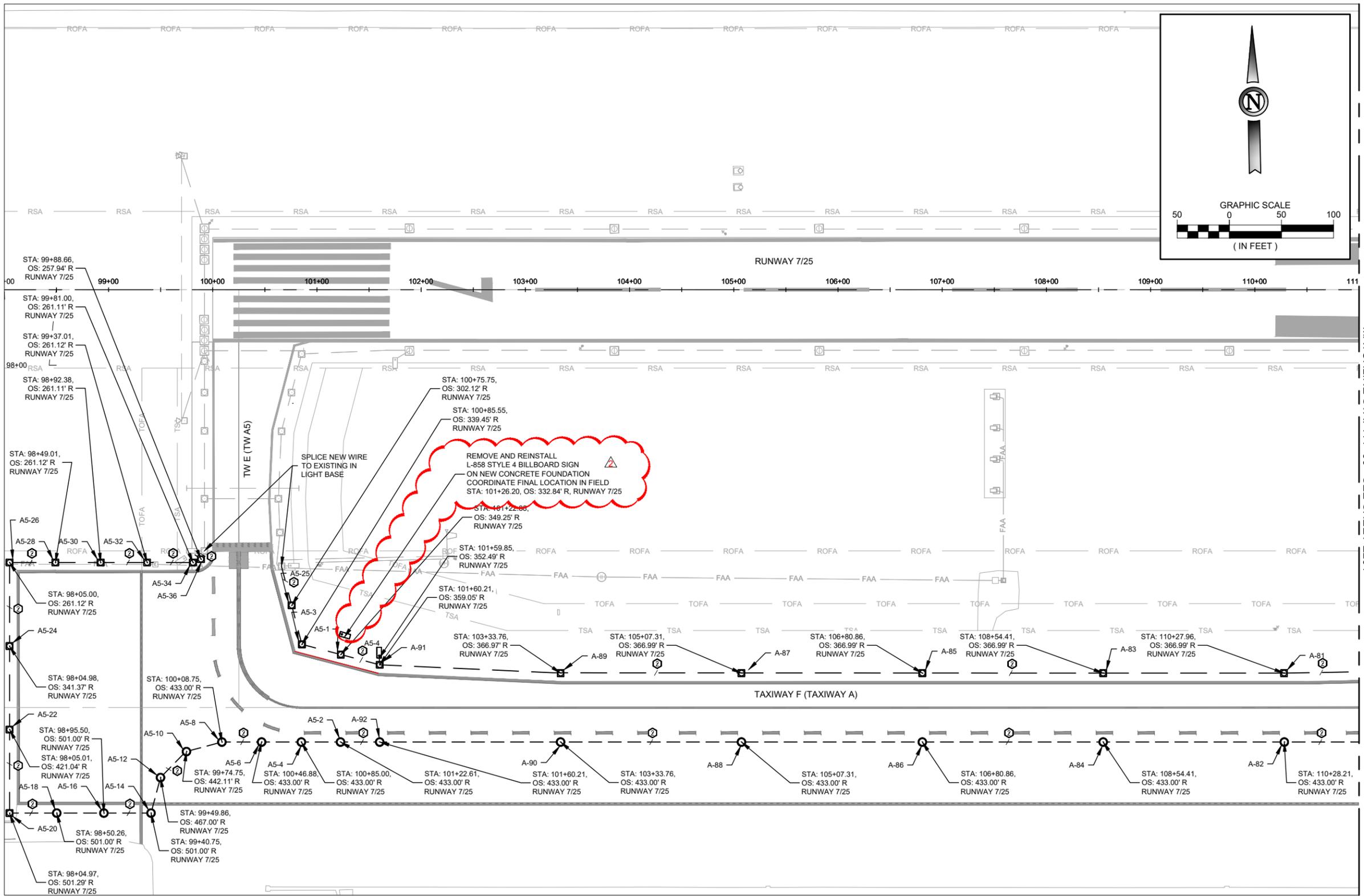
ELECTRICAL DEMOLITION PLAN				SHEET NAME
STA. 124+00 TO STA. 137+00				E102
RUNWAY 7/25				SHEET NO.
DRAWING NO.				78 of 89
AIP PROJECT NO. 3-06-0179-043-2023	JVIATION PROJ. NO. 2023.OXR.01	SPEC. NO. DOA 23-03	COUNTY PROJ. NO. OXR-150	DRAWING NO. 1663-DOA

Plotted June 20, 2023 @ 3:46 PM by Ambariantz, Zach
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NOTES

- SEE SHEET E001 FOR ELECTRICAL LEGEND AND GENERAL NOTES.
- SEE SHEETS E100 THRU E104 FOR ELECTRICAL DEMOLITION.
- SEE SHEETS E250 THRU E254 FOR ELECTRICAL DETAILS.
- CONTRACTOR TO USE SURVEY CONTROL POINTS AS SHOWN ON SHEET G005 SURVEY CONTROL LAYOUT.
- SEE SHEETS G052 THRU G055 FOR CONSTRUCTION PHASING.
- CONTRACTOR SHALL LOCATE AND PROTECT ALL EXISTING UTILITIES.
- FAA HANDHOLES SHALL BE JENSEN PRECAST PB4848 WITH TORSION HINGED COVER, OR APPROVED EQUAL. THE 4/0 B.C. GROUND LOOP SHOW IN DETAILS 1 AND 2 ON SHEET E254 SHALL BE CONSIDERED INCIDENTAL TO THE FAA HANDHOLE INSTALLATION.



MATCHLINE STA. 111+00 - SEE SHEET E201

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ZACHARY C. AMBARIANTZ PE - E 19382 5/25/2023
 NAME REG. NO. DATE
 FOR AND ON BEHALF OF JVIATION, A WOOLPERT COMPANY



DES: T.A.R.		ISSUE RECORD			
NO.	BY	DATE	DESCRIPTION		
1	J.D.I.	5/25/2023	ISSUED FOR BID		
2	J.D.I.	6/20/2023	ADDENDUM NO. 2		
DR: R.L.B.					
CH: C.L.G.					
APP: J.D.I.					

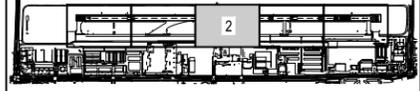
RECONSTRUCTION OF TAXIWAY F

ELECTRICAL LAYOUT PLAN
 STA. 98+00 TO STA. 111+00
 RUNWAY 7/25

SHEET NAME
E200
 SHEET NO.
81 of 89
 DRAWING NO.
1666-DOA

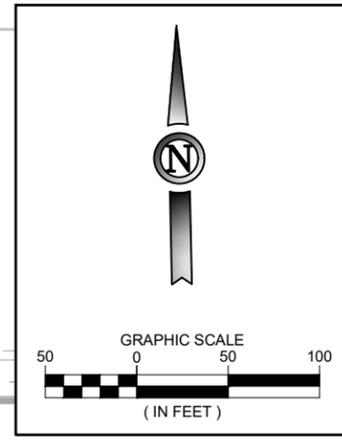
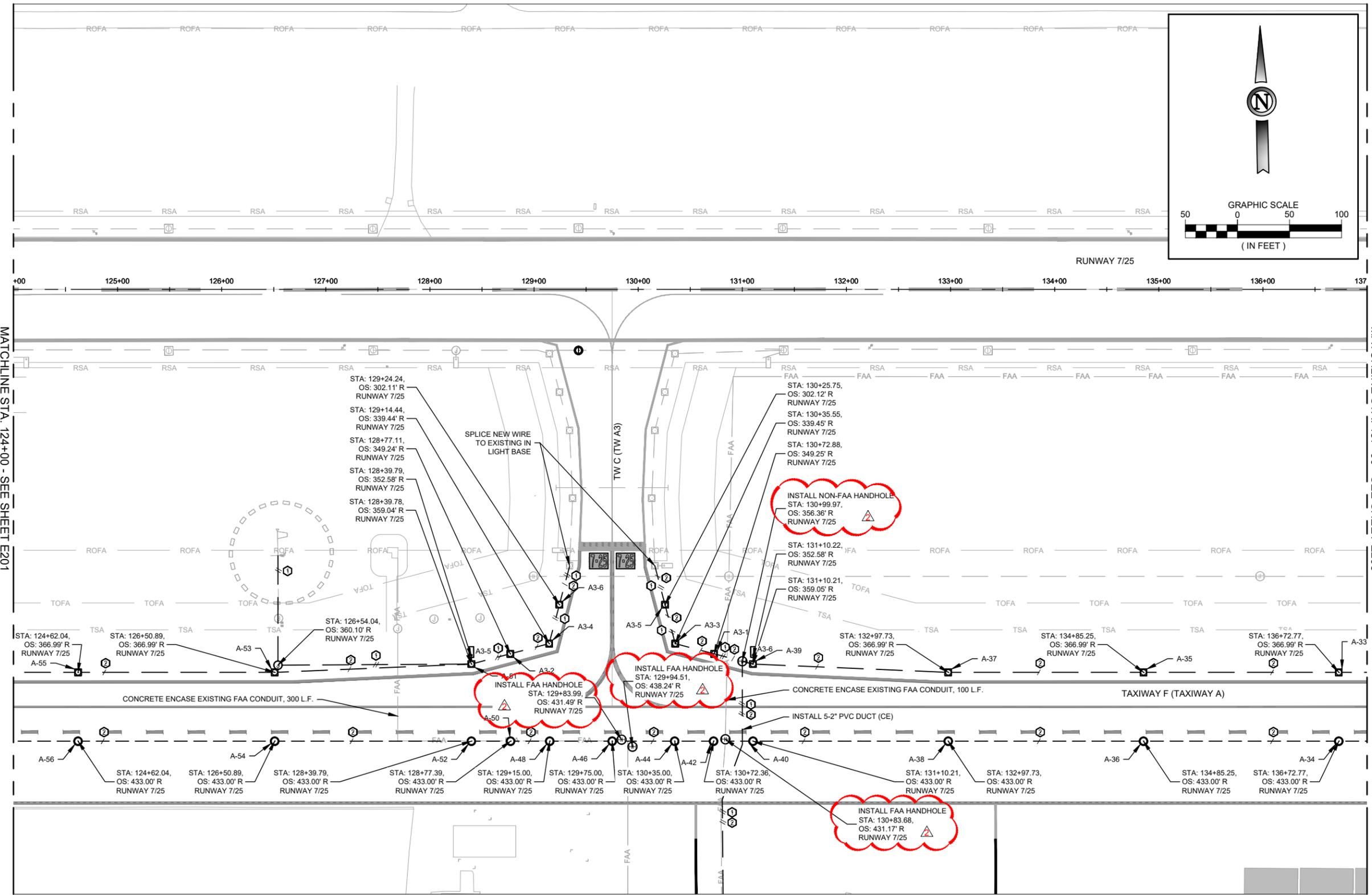
AIP PROJECT NO. 3-06-0179-043-2023
 JVIATION PROJ. NO. 2023.OXR.01
 SPEC. NO. DOA 23-03
 COUNTY PROJ. NO. OXR-150

Plotted June 20, 2023 @ 3:46 PM by Ambariantz, Zach
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NOTES

- SEE SHEET E001 FOR ELECTRICAL LEGEND AND GENERAL NOTES.
- SEE SHEETS E100 THRU E104 FOR ELECTRICAL DEMOLITION.
- SEE SHEETS E250 THRU E254 FOR ELECTRICAL DETAILS.
- CONTRACTOR TO USE SURVEY CONTROL POINTS AS SHOWN ON SHEET G005 SURVEY CONTROL LAYOUT.
- SEE SHEETS G052 THRU G055 FOR CONSTRUCTION PHASING.
- CONTRACTOR SHALL LOCATE AND PROTECT ALL EXISTING UTILITIES.
- FAA HANDHOLES SHALL BE JENSEN PRECAST PB4848 WITH TORSION HINGED COVER, OR APPROVED EQUAL. THE 4/0 B.C. GROUND LOOP SHOWN IN DETAILS 1 AND 2 ON SHEET E254 SHALL BE CONSIDERED INCIDENTAL TO THE FAA HANDHOLE INSTALLATION.



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NO.	BY	DATE	DESCRIPTION		
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DR: R.L.B.					
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APP: J.D.I.					

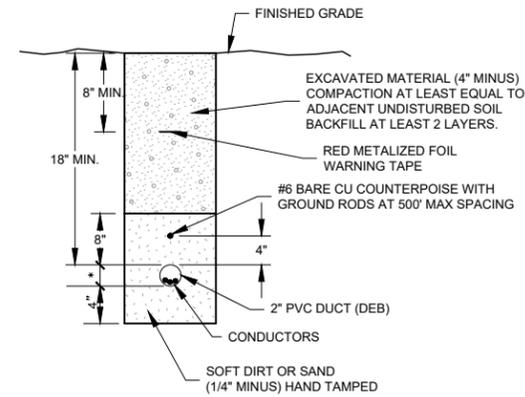
RECONSTRUCTION OF TAXIWAY F

ELECTRICAL LAYOUT PLAN
 STA. 124+00 TO STA. 137+00
 RUNWAY 7/25

SHEET NAME
E202
 SHEET NO.
83 of 89
 DRAWING NO.
1668-DOA

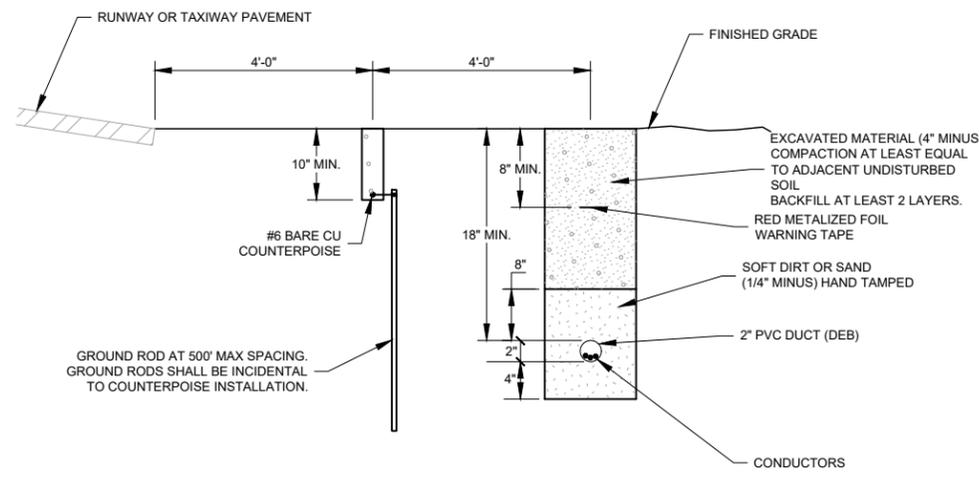
AIP PROJECT NO. 3-06-0179-043-2023
 JVIATION PROJ. NO. 2023.OXR.01
 SPEC. NO. DOA 23-03
 COUNTY PROJ. NO. OXR-150

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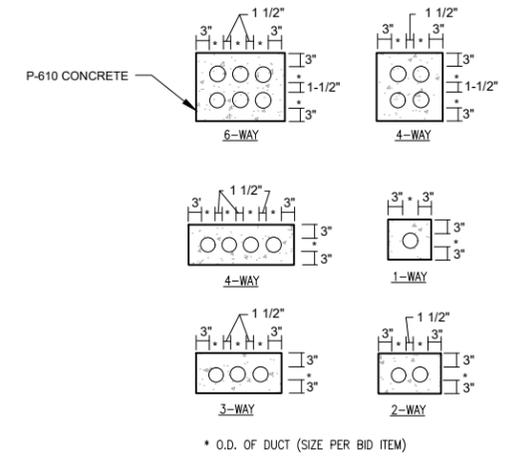
1 DUCT TRENCH (DEB) DETAIL
N.T.S.

NOTE:
THIS DETAIL SHALL BE USED FOR ALL
CONDUIT NOT INSTALLED PARALLEL TO
RUNWAY OR TAXIWAY PAVEMENT.



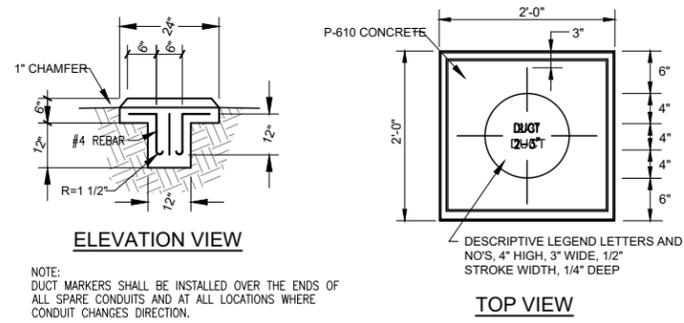
2 DUCT TRENCH (DEB) PARALLEL TO TAXIWAY PAVEMENT DETAIL
N.T.S.

NOTE:
THIS DETAIL SHALL BE USED FOR ALL
CONDUIT INSTALLED PARALLEL TO RUNWAY
OR TAXIWAY PAVEMENT.



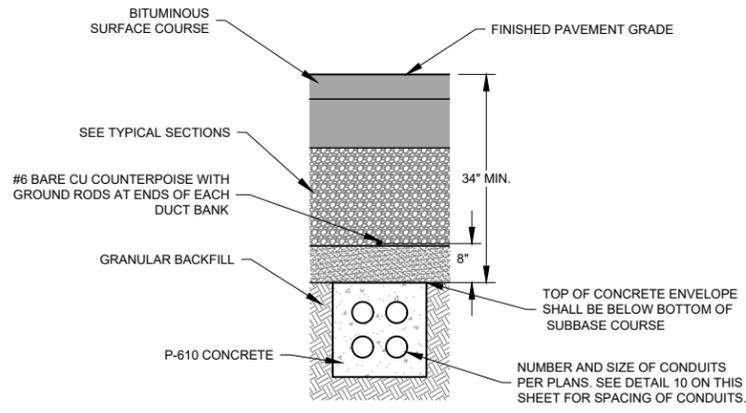
3 DUCT SPACING (CE) DETAIL
N.T.S.

* O.D. OF DUCT (SIZE PER BID ITEM)

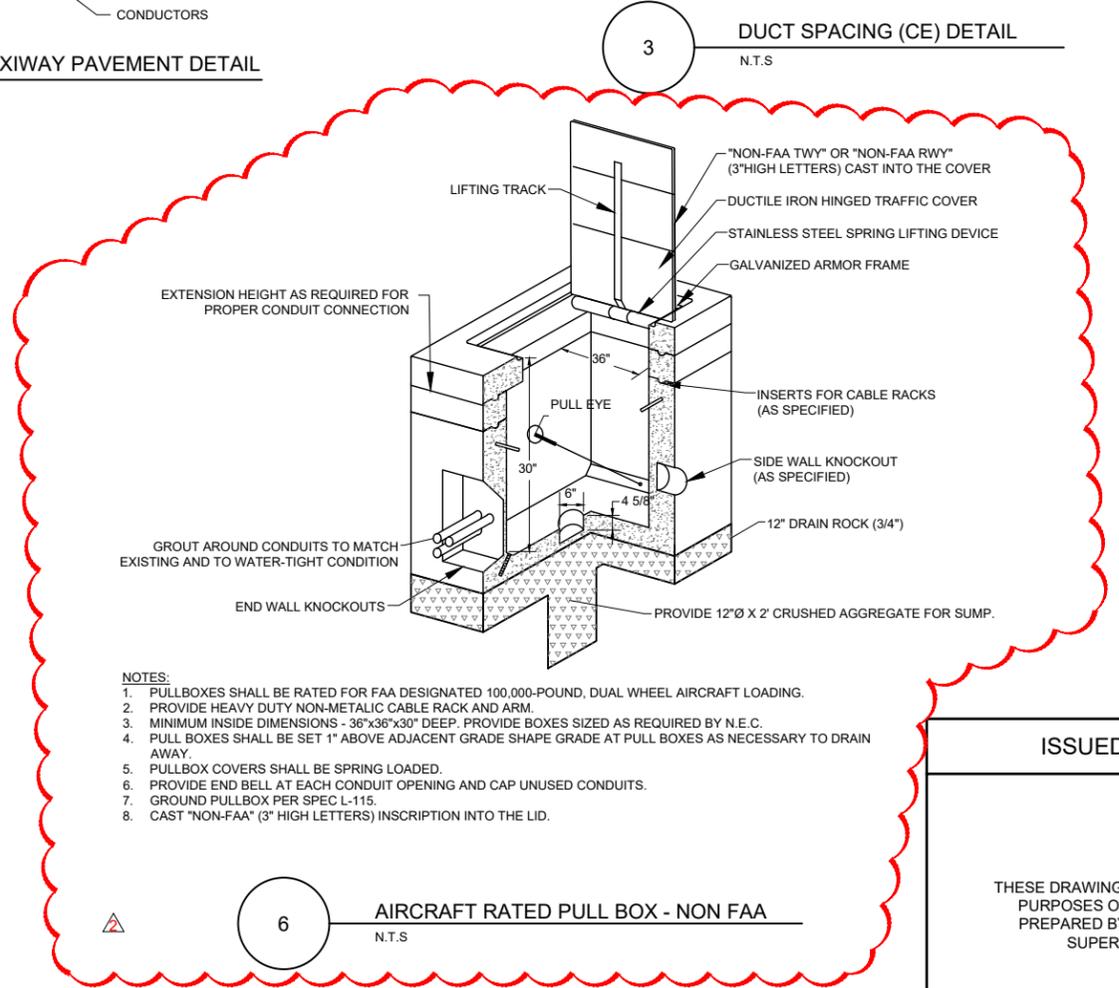


4 DUCT MARKER DETAIL
N.T.S.

NOTE:
DUCT MARKERS SHALL BE INSTALLED OVER THE ENDS OF
ALL SPARE CONDUITS AND AT ALL LOCATIONS WHERE
CONDUIT CHANGES DIRECTION.



5 DUCT TRENCH (CE) DETAIL
N.T.S.



6 AIRCRAFT RATED PULL BOX - NON FAA
N.T.S.

- NOTES:
- PULLBOXES SHALL BE RATED FOR FAA DESIGNATED 100,000-POUND, DUAL WHEEL AIRCRAFT LOADING.
 - PROVIDE HEAVY DUTY NON-METALIC CABLE RACK AND ARM.
 - MINIMUM INSIDE DIMENSIONS - 36"x36"x30" DEEP. PROVIDE BOXES SIZED AS REQUIRED BY N.E.C.
 - PULL BOXES SHALL BE SET 1" ABOVE ADJACENT GRADE SHAPE GRADE AT PULL BOXES AS NECESSARY TO DRAIN AWAY.
 - PULLBOX COVERS SHALL BE SPRING LOADED.
 - PROVIDE END BELL AT EACH CONDUIT OPENING AND CAP UNUSED CONDUITS.
 - GROUND PULLBOX PER SPEC L-115.
 - CAST "NON-FAA" (3" HIGH LETTERS) INSCRIPTION INTO THE LID.

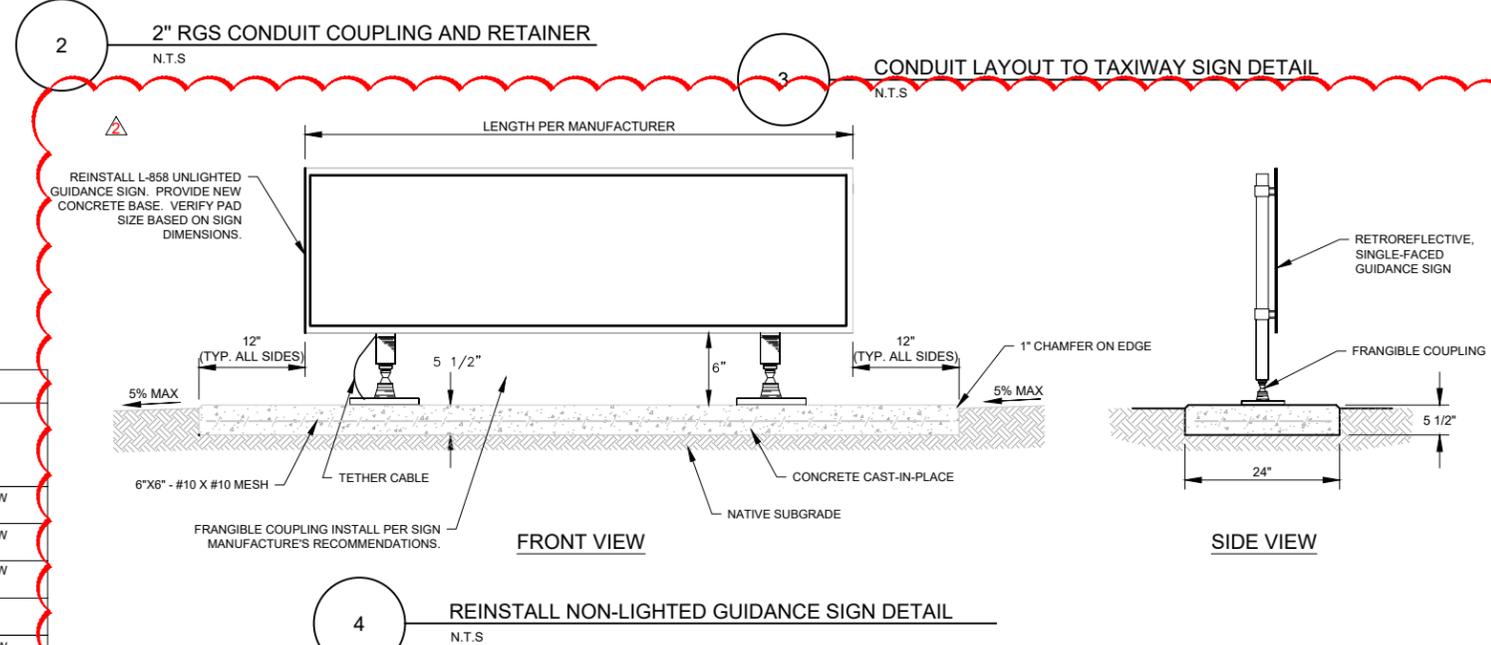
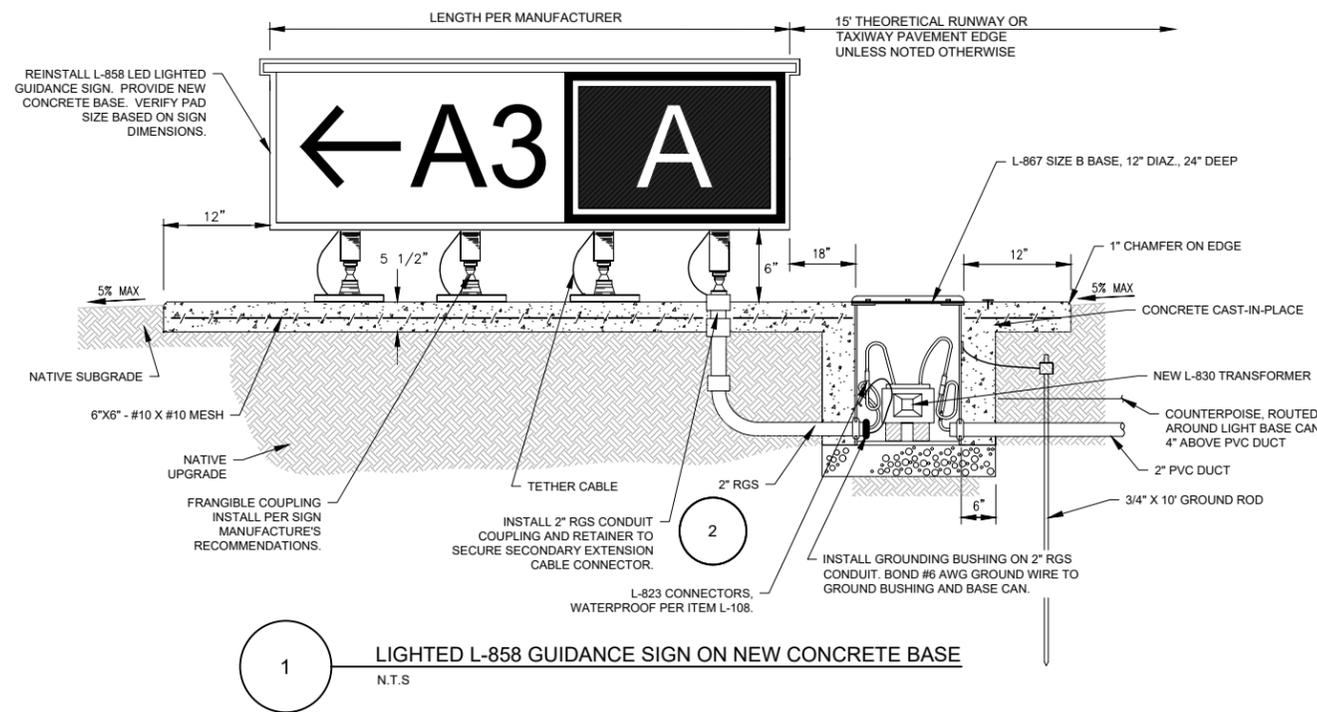
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ZACHARY C. AMBARIANTZ PE - E 19382 5/25/2023
NAME REG. NO. DATE
FOR AND ON BEHALF OF JVIATION, A WOOLPERT COMPANY

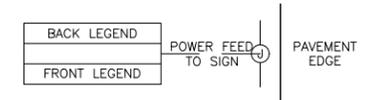
Printed June 20, 2023 @ 3:46 PM by Ambariantz, Zach
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	OXNARD AIRPORT OXNARD, CA 	DES: T.A.R.	ISSUE RECORD				RECONSTRUCTION OF TAXIWAY F	ELECTRICAL DETAILS				SHEET NAME E251
		DR: R.L.B.	NO.	BY	DATE	DESCRIPTION		AIP PROJECT NO. 3-06-0179-043-2023				JVIATION PROJ. NO. 2023.OXR.01
		CH: C.L.G.	1	J.D.I.	5/25/2023	ISSUED FOR BID					DRAWING NO. 1672-DOA	
		APP: J.D.I.		J.D.I.	6/20/2023	ADDENDUM NO. 2						



AIRPORT GUIDANCE SIGNS								
SIGN #	SIGN LEGEND		L-858 SIGN TYPE		MODULES	SIZE	CIRCUIT	NOTES
	FRONT	BACK	FRONT	BACK				
A1-4	← A1 A	A	Y/L	L	3	1	2	INSTALL EXISTING SIGN ON NEW CONCRETE FOUNDATION
A2-5	← A2 A	A	Y/L	L	3	1	2	INSTALL EXISTING SIGN ON NEW CONCRETE FOUNDATION
A2-6	A	A A2→	L	L/Y	3	1	2	INSTALL EXISTING SIGN ON NEW CONCRETE FOUNDATION
A2-7	ILS	ILS	R	Y	2	1	1	INSTALL NEW SIGN, COMPLETE
A3-5	← A3 A	A	Y/L	L	3	1	2	INSTALL EXISTING SIGN ON NEW CONCRETE FOUNDATION
A3-6	A	A A3→	L	L/Y	3	1	2	INSTALL EXISTING SIGN ON NEW CONCRETE FOUNDATION
A4-5	↖ A4 A	A	Y/L	L	3	1	2	INSTALL EXISTING SIGN ON NEW CONCRETE FOUNDATION
A4-6	A	A A4↘	L	L/Y	3	1	2	INSTALL EXISTING SIGN ON NEW CONCRETE FOUNDATION
A5-4	A	A A5→	L	L/Y	3	1	2	INSTALL EXISTING SIGN ON NEW CONCRETE FOUNDATION

SIGN TYPE LEGEND	
Y	- BLACK LEGEND ON YELLOW BACKGROUND (L-858Y DIRECTIONAL)
R	- WHITE LEGEND ON RED BACKGROUND (L-858R-MANDATORY)
L	- YELLOW LEGEND ON BLACK BACKGROUND (L-858L-LOCATION)
B	- WHITE LEGEND ON BLACK BACKGROUND (L-858B - RDR)



- NOTES:**
- ALL SIGNS SHALL BE EQUIPPED WITH LED TYPE LIGHTING WHICH COMPLIES WITH THE REQUIREMENTS OF FAA ENGINEERING BRIEF 67D.
 - ALL NEW SIGNS SHALL CONFORM TO AC 150/5345-44, LIGHTED, SIZE 1, STYLE 2. NUMBER OF SIGN MODULES SHALL BE AS REQUIRED FOR LEGEND.
 - THE DETAILS SHOWN IN THE PLANS PROVIDE THE MINIMUM REQUIREMENTS FOR SIGN INSTALLATIONS. THE CONTRACTOR SHALL USE STANDARDS APPLICABLE FOR THE PARTICULAR SIGN MANUFACTURER. THE BOLTING PATTERN, METHOD OF ANCHORING, ETC., SHALL BE PER THE SIGN MANUFACTURER'S RECOMMENDATIONS AND SHALL BE APPROVED BY THE ENGINEER.
 - ALL SIGNS SHALL BE FURNISHED WITH TETHERS. TETHERS SHALL BE 1/8" STAINLESS STEEL AIRCRAFT CABLE WITH A FORMED EYE ON BOTH ENDS. THE TETHER SHALL BE ATTACHED TO THE SIGN AND BASE BY BEING SANDWICHED BETWEEN TWO STAINLESS STEEL FENDER WASHERS, WITH A 1/2" MINIMUM STAINLESS STEEL BOLT. THE TETHER SHALL BE OF SUFFICIENT LENGTH TO HAVE A MINIMUM OF 6" SLACK WHEN ATTACHED BETWEEN THE SIGN AND THE SIGN BASE. ALL TETHERS SHALL BE THE SAME LENGTH.
 - ALL SIGNS SHALL BE ORIENTED SUCH THAT THE LONGITUDINAL CENTERLINE OF THE SIGN IS PERPENDICULAR TO THE RESPECTIVE TAXIWAY/RUNWAY CENTERLINE, UNLESS OTHERWISE NOTED.
 - THE ACTUAL SIGN DIMENSIONS MAY VARY FROM THOSE SHOWN. THE BASE SIZE SHALL BE ADJUSTED TO MATCH THE SIGN.
 - THE CONCRETE SHALL COMPLY WITH SPECIFICATION P-610.
 - CONCRETE STEEL REINFORCEMENT SHALL BE TYPE ASTM A615 GRADE 60. ALL REINFORCEMENT SHALL HAVE A 2" MINIMUM CONCRETE COVER. REINFORCEMENTS MAY BE ADJUSTED TO MISS INTERFERENCES.
 - ALL ANCHOR BOLTS SHALL BE A-36 STEEL, HOT DIP GALVANIZED WHEN CAST INTEGRALLY WITH THE CONCRETE PAD OR STAINLESS STEEL EXPANSION ANCHORS.
 - THE BONDING CONDUCTOR AND SIGN TETHER SHALL NOT BE ATTACHED AT THE SAME ANCHOR BOLT. AN APPROVED MECHANICAL OR COMPRESSION LUG SHALL BE USED TO CONNECT THE BONDING CONDUCTOR TO THE SIGN FLANGE AND SIGN.
 - LAYOUT OF SIGN LEGENDS BY SIGN MANUFACTURER SHALL BE APPROVED BY THE ENGINEER PRIOR TO FABRICATION.
 - INSTALL SIGNS AND FOUNDATIONS LEVEL. PROVIDE GRADING AS REQUIRED. NO ADDITIONAL PAYMENT WILL BE MADE FOR SIGN GRADING.
 - BID ITEM FOR LIGHTED SIGNS SHALL INCLUDE PVC CONDUIT EXTENDED ONE FOOT BEYOND CONCRETE PAD.
 - LOCATION GIVEN FOR SIGNS DENOTES THE MIDDLE OF THE SIGN EDGE ON THE SIDE CLOSEST TO THE RUNWAY OR TAXIWAY EDGE.

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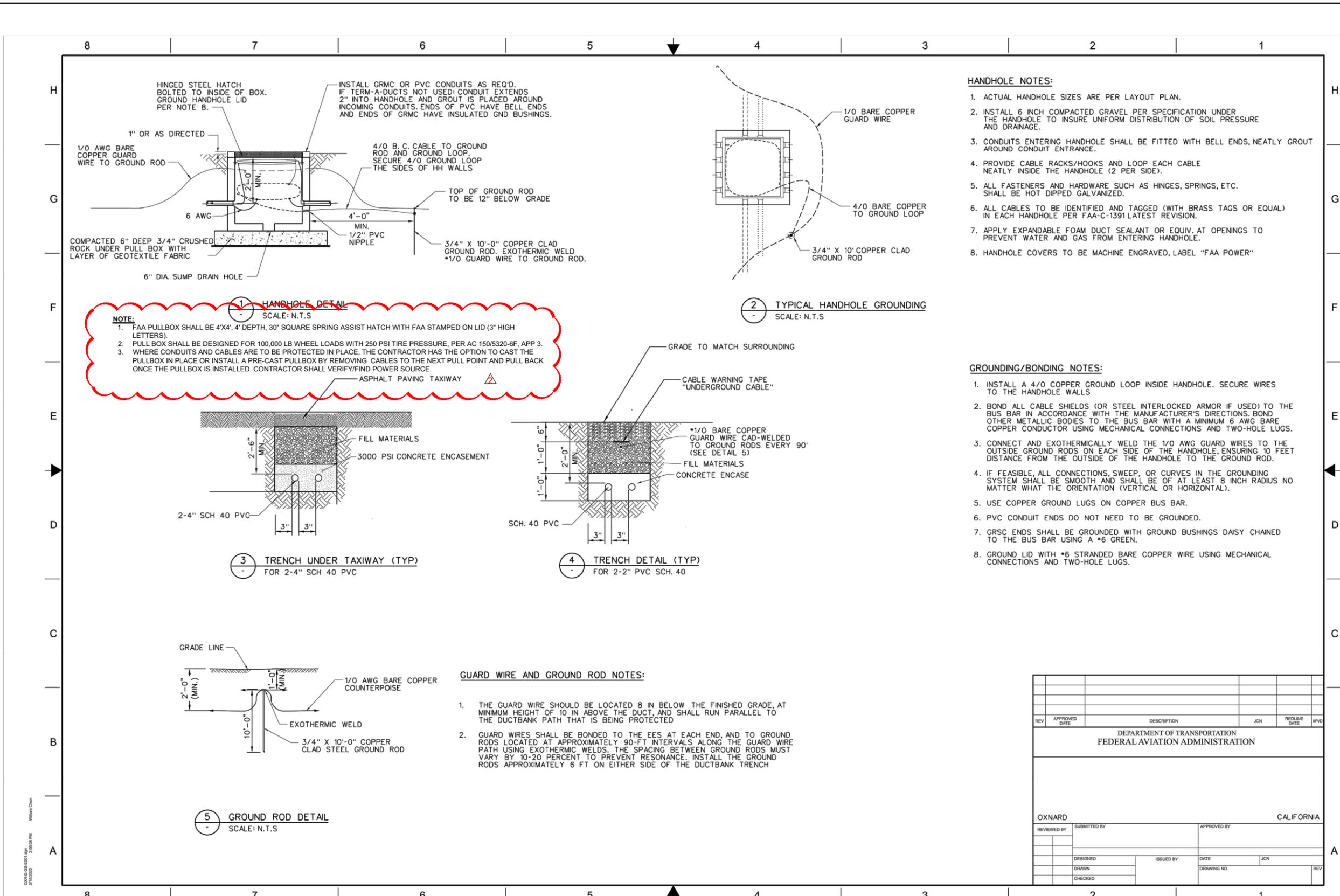
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ZACHARY C. AMBARIANTZ PE - E 19382 5/25/2023
 NAME REG. NO. DATE
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			DES: T.A.R.	ISSUE RECORD		RECONSTRUCTION OF TAXIWAY F	ELECTRICAL DETAILS				SHEET NAME E252	
			DR: R.L.B.	NO.	BY		DATE	DESCRIPTION	AIP PROJECT NO. 3-06-0179-043-2023			
			CH: C.L.G.	1	J.D.I.	5/25/2023	ISSUED FOR BID	JVIATION PROJ. NO. 2023.OXR.01				DRAWING NO. 1673-DOA
			APP: J.D.I.	2	J.D.I.	6/20/2023	ADDENDUM NO. 2	SPEC. NO. DOA 23-03				
							COUNTY PROJ. NO. OXR-150					

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HANDHOLE NOTES:

1. ACTUAL HANDHOLE SIZES ARE PER LAYOUT PLAN.
2. INSTALL 6 INCH COMPACTED GRAVEL PER SPECIFICATION UNDER THE HANDHOLE TO INSURE UNIFORM DISTRIBUTION OF SOIL PRESSURE AND DRAINAGE.
3. CONDUITS ENTERING HANDHOLE SHALL BE FITTED WITH BELL ENDS, NEATLY GROUT AROUND CONDUIT ENTRANCE.
4. PROVIDE CABLE RACKS/HOOKS AND LOOP EACH CABLE NEATLY INSIDE THE HANDHOLE (2 PER SIDE).
5. ALL FASTENERS AND HARDWARE SUCH AS HINGES, SPRINGS, ETC. SHALL BE HOT DIPPED GALVANIZED.
6. ALL CABLES TO BE IDENTIFIED AND TAGGED (WITH BRASS TAGS OR EQUAL) IN EACH HANDHOLE PER FAA-C-1391 LATEST REVISION.
7. APPLY EXPANDABLE FOAM DUCT SEALANT OR EQUIV. AT OPENINGS TO PREVENT WATER AND GAS FROM ENTERING HANDHOLE.
8. HANDHOLE COVERS TO BE MACHINE ENGRAVED, LABEL "FAA POWER"

GROUNDING/BONDING NOTES:

1. INSTALL A 4/0 COPPER GROUND LOOP INSIDE HANDHOLE. SECURE WIRES TO THE HANDHOLE WALLS.
2. BOND ALL CABLE SHIELDS (OR STEEL INTERLOCKED ARMOR IF USED) TO THE BUS BAR IN ACCORDANCE WITH THE MANUFACTURER'S DIRECTIONS. BOND OTHER METALLIC BODIES TO THE BUS BAR WITH A MINIMUM 6 AWG BARE COPPER CONDUCTOR USING MECHANICAL CONNECTIONS AND TWO-HOLE LUGS.
3. CONNECT AND EXOTHERMICALLY WELD THE 1/0 AWG GUARD WIRES TO THE OUTSIDE GROUND RODS ON EACH SIDE OF THE HANDHOLE, ENSURING 10 FEET DISTANCE FROM THE OUTSIDE OF THE HANDHOLE TO THE GROUND ROD.
4. IF FEASIBLE, ALL CONNECTIONS, SWEEP, OR CURVES IN THE GROUNDING SYSTEM SHALL BE SMOOTH AND SHALL BE OF AT LEAST 8 INCH RADIUS NO MATTER WHAT THE ORIENTATION (VERTICAL OR HORIZONTAL).
5. USE COPPER GROUND LUGS ON COPPER BUS BAR.
6. PVC CONDUIT ENDS DO NOT NEED TO BE GROUNDED.
7. GRSC ENDS SHALL BE GROUNDED WITH GROUND BUSHINGS DAISY CHAINED TO THE BUS BAR USING A #6 GREEN.
8. GROUND LID WITH #6 STRANDED BARE COPPER WIRE USING MECHANICAL CONNECTIONS AND TWO-HOLE LUGS.

GUARD WIRE AND GROUND ROD NOTES:

1. THE GUARD WIRE SHOULD BE LOCATED 8 IN BELOW THE FINISHED GRADE, AT MINIMUM HEIGHT OF 10 IN ABOVE THE DUCT, AND SHALL RUN PARALLEL TO THE DUCTBANK PATH THAT IS BEING PROTECTED.
2. GUARD WIRES SHALL BE BONDED TO THE EES AT EACH END, AND TO GROUND RODS LOCATED AT APPROXIMATELY 90-FT INTERVALS ALONG THE GUARD WIRE PATH USING EXOTHERMIC WELDS. THE SPACING BETWEEN GROUND RODS MUST VARY BY 10-20 PERCENT TO PREVENT RESONANCE. INSTALL THE GROUND RODS APPROXIMATELY 6 FT ON EITHER SIDE OF THE DUCTBANK TRENCH

REV	APPROVED DATE	DESCRIPTION	JCN	REDLINE DATE	RPVD
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION					
OXNARD			CALIFORNIA		
REVIEWED BY	SUBMITTED BY	APPROVED BY			
DESIGNED	ISSUED BY	DATE	JCN		
DRAWN		DRAWING NO			
CHECKED					

ISSUED FOR BID

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APP: J.D.I.				Exhibit 2

RECONSTRUCTION OF TAXIWAY F

ELECTRICAL DETAILS			
AIP PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
3-06-0179-043-2023	2023.OXR.01	DOA 23-03	OXR-150

SHEET NAME
E253
 SHEET NO.
89 of 89
 DRAWING NO.
1674-DOA