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ADDENDUM NO. 2

Date: September 20, 2022
Project Name: Airfield Lighting
Airport: Llano Municipal Airport (AQO)
TxDOT CSJ No.: 2214LLANO
Garver Project No. 21A06091

This addendum shall be a part of the Plans, Contract Documents and Specifications to the same extent as though it were originally included therein, and it shall supersede anything contained in the Plans, Contract Documents, and Specifications with which it might conflict. Acknowledgement of receipt of this addendum must be noted in the appropriate section of the Bid Form included in the Contract Documents.

Bidders must fill out the bid form electronically, print, sign and submit a hardcopy as part of their bid package.

Contractor Questions:

1. Why are the sections on flowable backfill crossed out in the specifications?
 - a. Flowable backfill shall not be utilized in this project.
2. Does the backfill compaction need to meet 95% of the maximum density for soils utilized for backfilling in this project?
 - a. All backfill in the project shall meet the requirements specified in specification P-152, including compaction levels that meet or exceed 95% of the maximum density.
3. Is there a detail for the 2-can and 4-can junction can plazas?
 - a. The revised plan sheets include a junction can plaza detail.
4. What is the estimated utility allowance cost for this project?
 - a. The updated SS-302 specification provides the allowance value for this project.

Revisions or additions made to the Specifications:

A. SPECIFICATIONS

1. Remove the following specifications in their entirety, and replace with the same, attached hereto:
 - a. Specification SS-302 was revised to clarify the estimate utility allowance cost.

Revisions or additions made to the Contract Documents and Plans:

B. PLANS

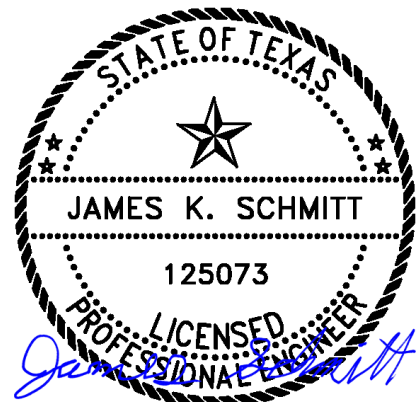
1. Remove the following drawings in their entirety, and replace with the same, attached hereto:
 - a. Drawing No. EN-001 (Sheet 10)
 - b. Drawing No. EL-101 (Sheet 16)
 - c. Drawing No. EL-102 (Sheet 17)
 - d. Drawing No. EL-103 (Sheet 18)
 - e. Drawing No. EL-104 (Sheet 19)
 - f. Drawing No. EL-105 (Sheet 20)
 - g. Drawing No. EL-106 (Sheet 21)
 - h. Drawing No. EL-211 (Sheet 32)

By: James Schmitt

James Schmitt, P.E.
Project Manager

Attachments:

- A. Specifications
 1. SS-302
- B. Plans
 1. EN-001
 2. EL-101
 3. EL-102
 4. EL-103
 5. EL-104
 6. EL-105
 7. EL-106
 8. EL-211



Digitally Signed 09/20/2022

END OF ADDENDUM NO. 2

ITEM SS-302 UTILITY ALLOWANCES

DESCRIPTION

302-1.1 To provide adequate budget and bonding to cover items not precisely determined by the Owner prior to bidding, allow within the proposed Contract Sum, the amounts described in this Section.

302-1.2 Related work:

a. Documents affecting work of this Section include, but are not necessarily limited to, General Provisions, Special Provisions, and other Sections of these Specifications.

b. Other provisions concerning Utility Allowances may be stated in other Sections of these Specifications.

SPECIFIC UTILITY ALLOWANCES

302-2.1 The following utility allowances are included within this Contract:

a. Power Utility Allowance: The power utility, Central Texas Electric Co-op, will summarize their incurred costs for all their work associated with this project prior to bidding. The Engineer will provide copy of the power utility required reimbursement documentation with this section. This allowance item shall match the utility reimbursement amount. The Contractor shall not add additional administration or overhead charges to this allowance; those administration and overhead costs shall be considered subsidiary to the applicable work pay items within the unit price schedule. Costs are estimated to be a maximum of \$15,000.

BASIS OF PAYMENT

302-3.1 Allowance Payments:

Payment will be made under:

Item SS-302-3.1 Power Utility Allowance – per Allowance

END OF ITEM SS-302

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Last plotted by: Schmitt, James K., Plot Date: 9/19/2022 12:44 PM, Plotter used: DWG To PDF, p33

SYMBOL		ITEM DESCRIPTION	INSTALLATION KEYED NOTES:		CONSTRUCTION NOTES:	
-----		NEW EQUIPMENT			<div>1. THE CONTRACTOR SHALL STAKE THE AIRFIELD LIGHTING SYSTEMS, PRIOR TO INSTALLATION OF ANY TRENCH, CABLE, OR LIGHTING APPARATUS. THE INTENT IS TO STAKE THE INSTALLATION AT THE LOCATIONS INDICATED, NOTING ANY DEVIATION FROM PLAN DIMENSIONS TO THE ENGINEER PRIOR TO INSTALLATION. THE CONTRACTOR SHALL OBTAIN THE SERVICES OF AN EXPERIENCED AND LICENSED SURVEYOR TO PERFORM THIS WORK.</div> <div>2. THE ENGINEER WILL PROVIDE ELECTRONIC CADD FILES TO THE CONTRACTOR FOR THIS STAKING WORK. THE CONTRACTOR SHALL STAKE THE ITEMS AND HIS SURVEYOR SHALL PROVIDE A CADD FILE SUBMITTAL BACK TO THE ENGINEER. BASED UPON THIS SUBMITTAL, THE ENGINEER WILL COORDINATE AND PROVIDE DIRECTIONS ON ANY ADJUSTMENTS NECESSARY TO MEET EXISTING FIELD CONDITION REQUIREMENTS AND COMPLY WITH FAA ADVISORY CIRCULAR REQUIREMENTS ON THE LAYOUT AND SPACING OF EQUIPMENT.</div> <div>3. THE CONTRACTOR AND HIS SURVEYOR SHALL THEN MAKE ANY ELECTRONIC CADD FILE SPACING ADJUSTMENTS AND / OR FIELD STAKING ADJUSTMENTS PRIOR TO INSTALLATION AT NO ADDITIONAL COST TO THE OWNER.</div> <div>4. THE CONTRACTOR SHALL VERIFY EXACT PAVEMENT EDGE DIMENSIONS WITH THIS INITIAL SURVEY WORK.</div> <div>5. THE EXISTING AND THE PROPOSED LOCATIONS OF LIGHTING CABLES ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD LOCATING AND IDENTIFYING THE EXISTING LIGHTING CIRCUITS TO DETERMINE THEIR EXACT ROUTING. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR MAINTAINING THE LIGHTING SYSTEMS IN A WORKING CONDITION UNTIL THE NEW LIGHTING CIRCUITS HAVE BEEN INSTALLED AND TESTED. THE CONTRACTOR SHALL PROACTIVELY AND EXPEDITIOUSLY ACCOMPLISH THIS CABLE IDENTIFICATION WORK PRIOR TO PERFORMING ANY MODIFICATIONS TO THE LIGHTING CIRCUITS. COORDINATE IDENTIFICATION WORK WITH THE OWNER AND ENGINEER AND MAKE ALL CORRECTIONS, ADDITIONS, ETC. ON THE AS-BUILT DRAWINGS.</div> <div>6. THE CONTRACTOR SHALL BE EXTREMELY CAREFUL WHILE EXCAVATING IN THE AREA OF LIGHTING CIRCUITS. ANY CABLE OR CONDUIT / DUCT WHICH IS NICKED OR DAMAGED DURING EXCAVATION SHALL BE PROPERLY AND EXPEDITIOUSLY SPliced OR THE LENGTH OF CABLE AND CONDUIT / DUCT REPLACED. A SPlice OR CONDUIT / DUCT MARKER SHALL BE INSTALLED AT ALL SPlice OR OTHER REPAIR LOCATIONS MORE THAN 2' AWAY FROM A LIGHT, SIGN, HANDHOLE, MANHOLE, OR JUNCTION STRUCTURE. ALL REPAIR AND / OR REPLACEMENT WORK AND MATERIALS SHALL BE SUPPLIED AND INSTALLED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER AND TO THE SATISFACTION OF THE OWNER AND ENGINEER.</div> <div>7. FOR NEW L-824C CABLE INSTALLED ON THIS PROJECT, THE BASIS-OF-DESIGN OUTSIDE DIAMETER THAT WAS USED IS 0.415 INCHES. IF THE CONTRACTOR USES L-824C CABLE WITH A LARGER OUTSIDE DIAMETER, ANY CONDUIT OR DUCT BANK INCREASES IN SIZE NECESSARY TO MAINTAIN CABLE FILL CODE COMPLIANCE SHALL BE INSTALLED AND PAID FOR BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER AND TO THE SATISFACTION OF THE ENGINEER. PAYMENT WILL ONLY BE MADE AT THE BASIS-OF-DESIGN CONDUIT OR DUCT BANK PAY ITEM SHOW ON THE PLANS. AS-BUILT DRAWINGS SHALL BE MARKED UP BY THE CONTRACTOR TO IDENTIFY ANY SIZE CHANGES.</div> <div>8. ALL ELECTRICAL CABLES SHALL BE CLEARLY IDENTIFIED, LABELED, AND TAGGED AT ALL POINTS WHERE THEY ARE AVAILABLE FOR CONNECTIONS OR INSPECTION, INCLUDING, BUT NOT LIMITED TO MANHOLES, HANDHOLES, PULL BOXES, JUNCTION BOXES, AND LIGHT BASES.</div> <div>9. THE CONTRACTOR SHALL PERFORM MEGGER TESTS ON EACH NEW SERIES CIRCUIT AFTER THE ACCEPTANCE TEST PERIOD. MEGGER TESTING REQUIREMENTS SHALL BE SUBSIDIARY TO AND PAID FOR BY L-108 PAY ITEMS.</div> <div>10. THE CONTRACTOR SHALL COORDINATE WITH THE ON-SITE ENGINEER FOR OWNER AND ENGINEER WITNESS OF ALL MEGGER TESTING.</div> <div>11. THE CONTRACTOR SHALL CHECK THE LOAD ON EACH NEW REGULATOR AFTER THE ACCEPTANCE TEST PERIOD.</div> <div>12. THE CONTRACTOR SHALL CALIBRATE EACH NEW REGULATOR FOLLOWING THE PERFORMED WORK.</div> <div>13. LOCKOUT / TAGOUT AND CONSTANT CURRENT REGULATOR CALIBRATION PROCEDURES SHALL BE PAID FOR BY SS-300 PAY ITEMS UNLESS OTHERWISE NOTED.</div> <div>14. CONDUITS AND DUCTS UNDER PAVED AREAS SHALL BE CONCRETE ENCASED.</div> <div>15. CONDUITS AND DUCTS UNDER NON-PAVED AREAS SHALL BE NON-ENCASED, UNLESS OTHERWISE NOTED.</div> <div>16. DURING CONSTRUCTION, PROTECT ALL EQUIPMENT, DUCTS, CONDUITS, CABLES, ETC. THAT ARE TO REMAIN IN PLACE. WHERE EXISTING ITEMS ARE CUT, BROKEN, OR DAMAGED, THE CONTRACTOR SHALL REPLACE OR REPAIR PROACTIVELY AND EXPEDITIOUSLY THE ITEMS WITH THE SAME TYPE OF ORIGINAL MATERIAL AND CONSTRUCTION OR BETTER AT NO ADDITIONAL COST TO THE OWNER AND TO THE SATISFACTION OF THE OWNER AND ENGINEER.</div>	
		EXISTING EQUIPMENT				
		L-861/L-862 RUNWAY EDGE LIGHT, COLOR AS INDICATED				
		BASE MOUNTED LIGHT				
		STAKE MOUNTED LIGHT				
		L-867 LIGHT BASE JUNCTION STRUCTURE, SIZED AS INDICATED				
		JUNCTION STRUCTURE PLAZA, NUMBER AND SIZE OF CANS AS INDICATED				
		L-858 GUIDANCE SIGN, SEE SIGN INDEX				
		L-807 WIND CONE WITH SEGMENTED CIRCLE				
		L-802A ROTATING BEACON				
		L-881 PRECISION APPROACH PATH INDICATOR (PAPI)				
		ELECTRICAL BORE, NUMBER AND SIZE OF CONDUITS AS INDICATED				
		DUCT MARKER				
		3/4" x 10' COPPER CLAD STEEL GROUND ROD				
		SERIES LIGHTING CIRCUIT WITH COUNTERPOISE, NUMBER OF HASH MARKS INDICATES NUMBER OF CABLES				
		CONDUIT CUT/COUPLE POINT				
AFG		ABOVE FINISHED GRADE				
GS		GALVANIZED STEEL				
OFA		OBJECT FREE AREA				
OFZ		OBSTACLE FREE ZONE				
RSA		RUNWAY SAFETY AREA				
TSA		TAXIWAY SAFETY AREA				
PC		POINT OF CURVATURE				
PE		POLYETHYLENE CONDUIT				
PT		POINT OF TANGENCY				
DEB		DIRECT EARTH BURIED				
WP		WEATHERPROOF				
UON		UNLESS OTHERWISE NOTED				
(L)		LED, WHERE INDICATED				
REMOVAL KEYED NOTES:						
	REMOVE EXISTING STAKE MOUNTED EDGE LIGHT.					
	REMOVE EXISTING BASE MOUNTED GUIDANCE SIGN.					
	ABANDON EXISTING DEB ELECTRICAL CIRCUIT IN PLACE.					
	REMOVE EXISTING ELECTRICAL CONDUCTORS FROM EXISTING ELECTRICAL DUCT BANK. ABANDON ELECTRICAL DUCT BANK IN PLACE.					
	REMOVE EXISTING PAPI AND DEMOLISH BASE (ADDITIVE ALTERNATE 1 ONLY).					
	REMOVE EXISTING PRIMARY WIND CONE AND DEMOLISH BASE. EXISTING SEGMENTED CIRCLE TO REMAIN.					
	REMOVE EXISTING AIRFIELD ELECTRICAL EQUIPMENT FROM THE EXISTING ELECTRICAL VAULT. EXISTING ELECTRICAL VAULT, UTILITY METER, MAIN DISCONNECT, MAIN POWER PANEL, LIGHT FIXTURES, LIGHT SWITCHES, AND RECEPTACLES TO REMAIN.					
	EXISTING OVERHEAD SECONDARY CONDUCTORS TO REMAIN.					
	EXISTING AIRFIELD BEACON AND BEACON TOWER TO REMAIN.					
	EXISTING POWER POLE AND POLE MOUNTED TRANSFORMER TO REMAIN.					
	EXISTING DROP DOWN POLE AND UTILITY METER TO REMAIN.					
	EXISTING OVERHEAD PRIMARY CONDUCTORS TO REMAIN.					
	EXISTING OVERHEAD SECONDARY CONDUCTORS TO REMAIN.					
	ADDITIVE ALTERNATE 1 ONLY.					
			DEMOLITION NOTES:			
			1. RESTORE THE DEMOLITION WORK AREAS TO MATCH EXISTING CONDITIONS.			
			2. LOCATE, IDENTIFY, AND PROTECT EXISTING SERVICES PASSING THROUGH DEMOLITION AREAS AND SERVING OTHER AREAS OUTSIDE THE DEMOLITION LIMITS. MAINTAIN SERVICES TO AREAS OUTSIDE DEMOLITION LIMITS. WHEN SERVICES MUST BE INTERRUPTED, INSTALL TEMPORARY SERVICES FOR AFFECTED AREAS.			
			3. MAINTAIN AND PROTECT EXISTING SERVICES WHICH TRANSIT THE AREAS AFFECTED BY SELECTIVE DEMOLITION.			
			4. MAINTAIN CIRCUIT CONTINUITY TO ALL EXISTING SYSTEM EQUIPMENT, DEVICES, ETC., TO REMAIN IN USE WHETHER NOTED ON THE PLANS OR NOT. FIELD VERIFY EXISTING ITEMS TO REMAIN IN USE. WIRING FOR EXISTING DEVICES WHICH MUST BE RE-ROUTED OR WHICH ARE PARTIALLY ABANDONED, SHALL BE RECONNECTED TO SERVICE THE REMAINING DEVICES ON THE CIRCUIT.			
			5. THE INTENTION OF THE ELECTRICAL DEMOLITION IS TO DISCONNECT AND REMOVE ALL ELECTRICAL WORK MADE VOID BY THE SCOPE OF THE CONSTRUCTION AND ALTERATION. FIELD VERIFY EXACT MATERIAL QUANTITIES REQUIRED TO BE REMOVED.			
			6. ALL REMOVED MATERIALS, OTHER THAN REMOVED MATERIALS TO BE RELOCATED, OR TURNED OVER TO THE OWNER, SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE PROJECT SITE.			
			7. COORDINATE ALL DEMOLITION WORK WITH ALL OTHER TRADES.			
			8. ALL EXISTING ELECTRICAL WORK AND ASSOCIATED RACEWAY AND WIRING WHICH HAS BEEN MADE OBSOLETE BY THE WORK AND / OR IS SHOWN DASHED ON THE ELECTRICAL DEMOLITION DRAWINGS, SHALL BE DISCONNECTED AND REMOVED, UNLESS OTHERWISE NOTED. AN ATTEMPT HAS BEEN MADE TO INDICATE ALL OF THIS WORK, BUT TOTAL ACCURACY IS NOT GUARANTEED.			
			9. FOR EXISTING ELECTRICAL EQUIPMENT TO BE REMOVED, DEMOLISH ALL EQUIPMENT, DEVICES, CIRCUITS, CONDUITS, BOXES, AND OTHER APPURTENANCES AS REQUIRED FOR A COMPLETE REMOVAL.			
			10. CUT OFF BOLT PROTRUSIONS, REMOVE ANCHORS, ETC. AT CEILING, FLOOR, OR WALL SURFACES AS REQUIRED. NO SUPPORT ITEMS SHALL BE LEFT IN PLACE.			
			11. REMOVE, CAP, AND / OR RELOCATE EQUIPMENT, OUTLETS, CONDUIT, WIRE, ETC., WHETHER INDICATED ON THE DRAWINGS OR NOT, AND AS MAY BECOME NECESSARY BECAUSE OF EXISTING FIELD CONDITIONS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VISIBLY EXAMINE ALL EXISTING AREAS DESIGNATED FOR REMOVAL OR MODIFICATION TO DETERMINE THE CONDUIT AND THE WIRING THAT WILL REQUIRE CAPPING AND / OR REMOVAL. THE CONTRACTOR SHALL BE HELD TO HAVING VISITED THE SITE AND TAKEN ALL EXISTING CONDITIONS INTO CONSIDERATION.			
			12. IN THE DEMOLITION WORK, REMOVE ALL CABLING ASSOCIATED WITH SYSTEMS BEING REMOVED UNDER THIS PROJECT BACK TO SOURCE. NO CABLE SHALL BE LEFT ABANDONED IN PLACE. REMOVE ALL UNUSED AND EMPTY CONDUIT THAT IS EXPOSED OR WITHIN ACCESSIBLE CEILINGS WHICH IS AFFECTED BY AND IS IN THE AREA OF THE WORK OF THIS CONTRACT.			
			13. WHERE ELECTRICAL EQUIPMENT, CONDUIT, BOXES, AND SUPPORTING HARDWARE ARE REMOVED, PATCH AND FINISH THE SURFACE (WALL AND CEILING) AS REQUIRED TO MATCH THE EXISTING, UNLESS OTHERWISE NOTED.			
			14. WHERE BURIED CONDUITS EXTENDING OUT OF A CONCRETE SLAB BECOME ABANDONED, CUT AND GRIND THE CONDUITS OFF FLUSH WITH TOP OF SLAB AND PLUG WITH NON-SHRINK WATERPROOF GROUT FILL.			
			15. IN WALLS OR FLOORS WHERE A FLUSH DEVICE IS BEING REMOVED, BUT THE WALL OR FLOOR REMAINS OR FOR ANY OUTLET WHICH MUST REMAIN, BUT HAS A DEVICE REMOVED, PROVIDE A BLANK METAL COVER OVER THE OUTLET. MATCH THE COLOR AND MATERIAL OF EXISTING REMAINING COVERS IN THE ROOM OR SPACE.			
			16. WHERE WORK IS TO BE PERFORMED ABOVE EXISTING ACCESSIBLE CEILINGS, CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING CEILING TIES AND GRID WITHOUT DAMAGE, STORAGE OF EXISTING TILES AND GRID WHILE WORK IS BEING PERFORMED, AND INSTALLATION OF EXISTING GRID AND TILES AFTER WORK IS COMPLETED.			
			<div>13</div> <div>14</div> <div>15</div> <div>16</div> <div>17</div> <div>18</div> <div>19</div> <div>20</div> <div>21</div> <div>22</div> <div>23</div> <div>24</div> <div>25</div>			
			CAUTION NOTES:			
			1. UNDERGROUND UTILITIES EXIST WITHIN AND ADJACENT TO THE LIMITS OF CONSTRUCTION. AN ATTEMPT HAS BEEN MADE TO LOCATE THESE UTILITIES ON THE PLANS, HOWEVER, ALL EXISTING UTILITIES MAY NOT BE SHOWN AND THE ACTUAL LOCATIONS OF THE UTILITIES MAY VARY FROM THE LOCATIONS SHOWN. PRIOR TO BEGINNING ANY TYPE OF EXCAVATION, THE CONTRACTOR SHALL CONTACT THE UTILITIES INVOLVED AND MAKE ARRANGEMENTS FOR THE LOCATION OF THE UTILITIES ON THE GROUND. THE CONTRACTOR SHALL MAINTAIN THE UTILITY LOCATION MARKINGS UNTIL THEY ARE NO LONGER NECESSARY.			
			2. TEXAS STATE LAW, THE UNDERGROUND FACILITIES DAMAGE PREVENTION ACT, REQUIRES TWO WORKING DAYS ADVANCE NOTIFICATION THROUGH THE TEXAS ONE-CALL SYSTEM CENTER BEFORE EXCAVATING USING MECHANIZED EQUIPMENT OR EXPLOSIVES (EXCEPT IN THE CASE OF AN EMERGENCY). THE ONE-CALL SYSTEM PHONE NUMBER IS 1-800-245-4545. THE CONTRACTOR IS ADVISED THAT THERE IS A SEVERE PENALTY FOR NOT MAKING THIS CALL. NOT ALL UTILITY COMPANIES ARE MEMBERS OF THE TEXAS ONE-CALL SYSTEM; THEREFORE, THE CONTRACTOR IS ADVISED TO CONTACT ALL NON-MEMBER UTILITIES AS WELL AS THE ONE-CALL SYSTEM.			
			ELECTRICAL SAFETY NOTES:			
			1. SERIES CIRCUITS CAN BE DANGEROUS AND / OR FATAL.			
			2. LOCKOUT / TAGOUT PROCEDURES SHALL BE FOLLOWED.			
			3. LIGHTING REGULATORS SHALL BE TURNED OFF, LOCKED, AND TAGGED OUT OF SERVICE BEFORE ANY WORK IS DONE ON THE SERIES CIRCUIT.			
			4. THE ELECTRICAL RESISTANCE AND INSULATION INTEGRITY OF EACH MODIFIED CIRCUIT SHALL BE TESTED BEFORE THE CIRCUIT IS ENERGIZED.			

STATE OF TEXAS

JAMES K. SCHMITT

125073

LICENSED PROFESSIONAL ENGINEER

Digitally Signed 09/20/2022

LLANO MUNICIPAL AIRPORT LLANO, TX

AIRFIELD LIGHTING

LIGHTING LEGEND & GENERAL NOTES

JOB NO.: 21A06091
DATE: APRIL 2022
DESIGNED BY: JKS
DRAWN BY: DAG

BAR IS ONE INCH ON ORIGINAL DRAWING
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DRAWING NUMBER
EN-001

SHEET NUMBER
10

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STATE OF TEXAS
JAMES K. SCHMITT
125073
PROFESSIONAL ENGINEER
Digitally Signed 09/20/2022

BY	JKS			
DESCRIPTION	ADDENDUM NO. 2			
DATE	9/20/22			
REV.	1			

LLANO MUNICIPAL AIRPORT
LLANO, TX

AIRFIELD LIGHTING

LIGHTING LEGEND & GENERAL NOTES

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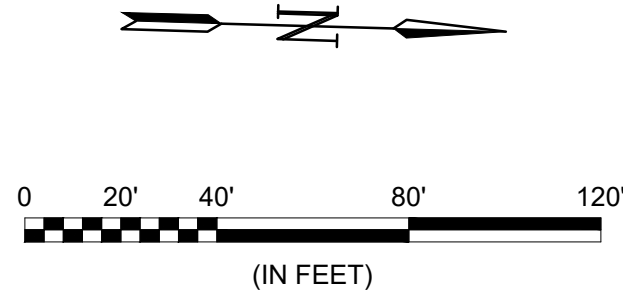
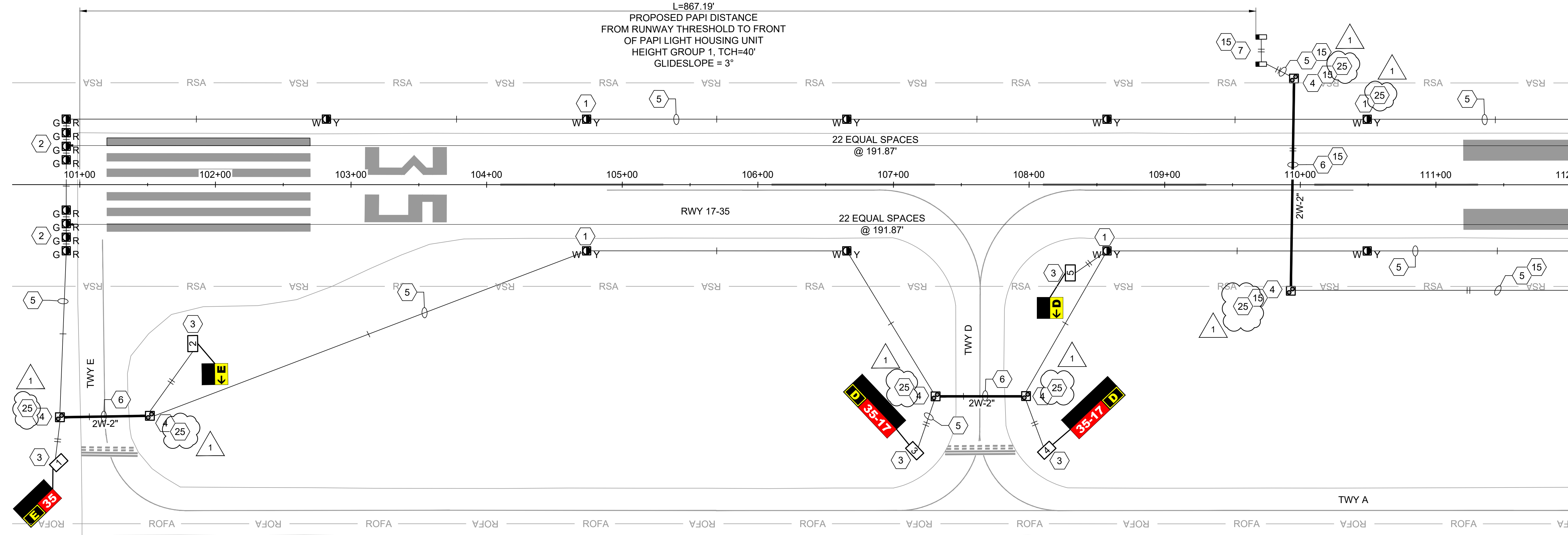
SHEET NUMBER
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Last plotted by: Schmitt, James K. Plot Style: AECmono.ctb Plot Scale: 1" = 1' Plot Date: 9/19/2022 2:28 PM Plotter used: DWG To PDF.pc3

INSTALLATION KEYED NOTES:

- 1 INSTALL NEW L-861(L) BASE MOUNTED LED RUNWAY EDGE LIGHT. (TYPICAL)
- 2 INSTALL NEW L-861E(L) BASE MOUNTED LED RUNWAY THRESHOLD/END LIGHT. (TYPICAL OF 4)
- 3 INSTALL NEW L-858(L) BASE MOUNTED LED GUIDANCE SIGN.
- 4 INSTALL NEW 2-CAN ELECTRICAL JUNCTION CAN PLAZA.
- 5 INSTALL NEW TRENCH TYPE "A". (TYPICAL)
- 6 INSTALL NEW 2-WAY 2"C DIRECTIONAL BORE.
- 7 INSTALL NEW L-881(L) LED PAPI SYSTEM.
- 15 ADDITIVE ALTERNATE 1 ONLY.
- 25 INSTALL NEW CONDUIT DRAIN AND GRAVEL SUMP.

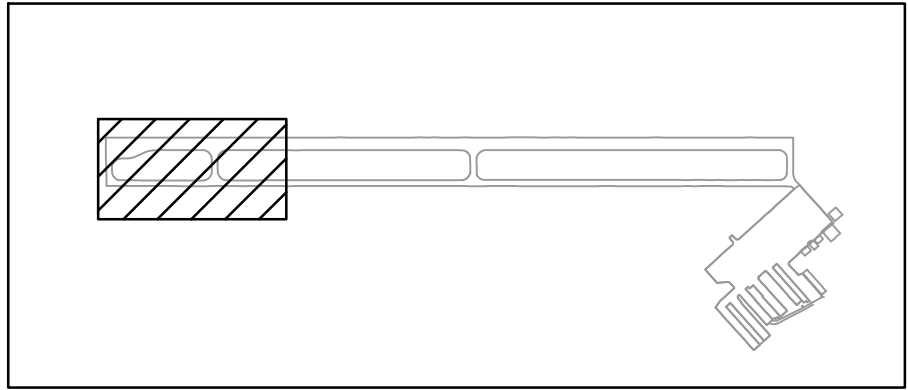
L=867.19'
PROPOSED PAPI DISTANCE
FROM RUNWAY THRESHOLD TO FRONT
OF PAPI LIGHT HOUSING UNIT
HEIGHT GROUP 1, TCH=40'
GLIDESLOPE = 3°



GENERAL NOTES:

- SEE SHEET EN-001 FOR LEGEND, CONSTRUCTION NOTES, CAUTION NOTES, ELECTRICAL SAFETY NOTES, AND DEMOLITION NOTES.
- SEE THE EL-201 SERIES FOR LIGHTING INSTALLATION DETAILS.
- EXISTING CIRCUIT ROUTING IS APPROXIMATE. IF ROUTING DIFFERS IN THE FIELD, COORDINATE WITH ENGINEER.

KEYMAP



MATCHLINE SHEET EL-102

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STATE OF TEXAS
JAMES K. SCHMITT
125073
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 09/20/2022

REV.	DATE	DESCRIPTION	BY
1	9/20/22	ADDENDUM NO. 2	JKS

CITY OF LLANO
LLANO MUNICIPAL AIRPORT
LLANO, TX

AIRFIELD LIGHTING

LIGHTING
INSTALLATION PLAN 1

JOB NO.: 21A06091
DATE: APRIL 2022
DESIGNED BY: JKS
DRAWN BY: DAG

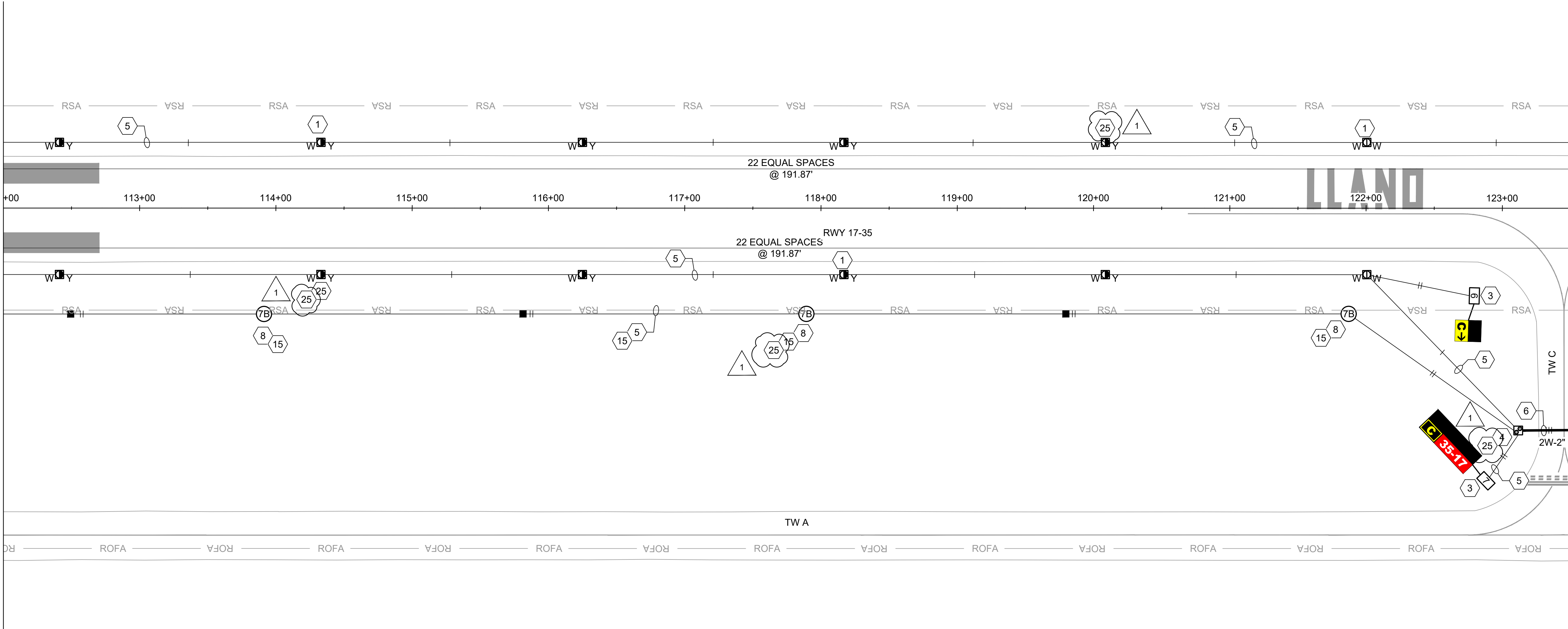
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DRAWING NUMBER
EL-101

SHEET
NUMBER **16**

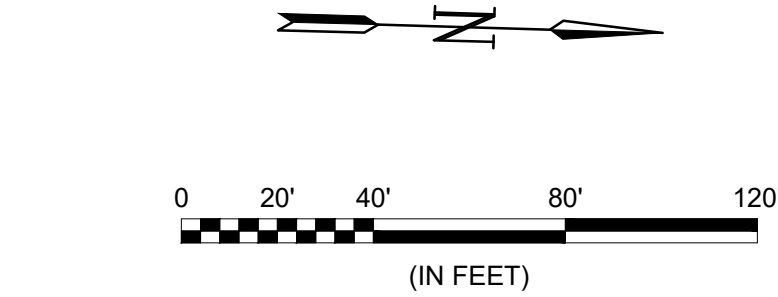
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Last plotted by: Schmitt, James K., Plot Style: AECmono.ctb, Plot Scale: 1" = 1', Plot Date: 9/19/2022 2:25 PM, Plotter used: DWG To PDF, pc3

MATCHLINE SHEET EL-101



INSTALLATION KEYED NOTES:

- 1 INSTALL NEW L-861(L) BASE MOUNTED LED RUNWAY EDGE LIGHT. (TYPICAL)
- 3 INSTALL NEW L-858(L) BASE MOUNTED LED GUIDANCE SIGN.
- 4 INSTALL NEW 2-CAN ELECTRICAL JUNCTION CAN PLAZA.
- 5 INSTALL NEW TRENCH TYPE "A". (TYPICAL)
- 6 INSTALL NEW 2-WAY 2\"C DIRECTIONAL BORE.
- 8 INSTALL NEW L-867B ELECTRICAL JUNCTION STRUCTURE.
- 15 ADDITIVE ALTERNATE 1 ONLY.
- 25 INSTALL NEW CONDUIT DRAIN AND GRAVEL SUMP.

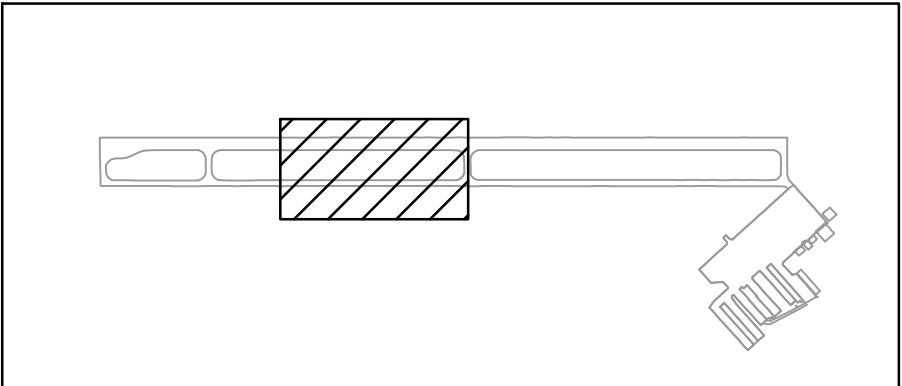


GENERAL NOTES:

- SEE SHEET EN-001 FOR LEGEND, CONSTRUCTION NOTES, CAUTION NOTES, ELECTRICAL SAFETY NOTES, AND DEMOLITION NOTES.
- SEE THE EL-201 SERIES FOR LIGHTING INSTALLATION DETAILS.
- EXISTING CIRCUIT ROUTING IS APPROXIMATE. IF ROUTING DIFFERS IN THE FIELD, COORDINATE WITH ENGINEER.



KEYMAP



MATCHLINE SHEET EL-103 (BASE BID) / SHEET EL-105 ADDITIVE ALTERNATE 1)

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BY	JKS			
DESCRIPTION	ADDENDUM NO. 2			
DATE	9/20/22			
REV.	1			

LLANO MUNICIPAL AIRPORT
LLANO, TX

AIRFIELD LIGHTING

LIGHTING INSTALLATION PLAN 2

JOB NO.: 21A06091
DATE: APRIL 2022
DESIGNED BY: JKS
DRAWN BY: DAG

BAR IS ONE INCH ON ORIGINAL DRAWING
0" 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
EL-102

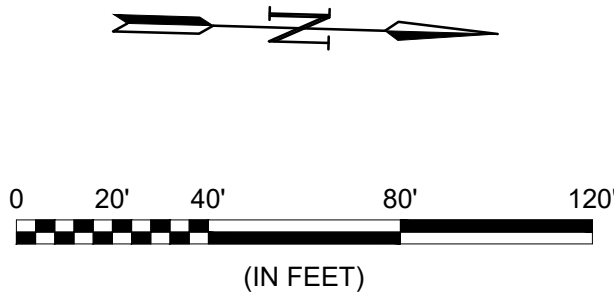
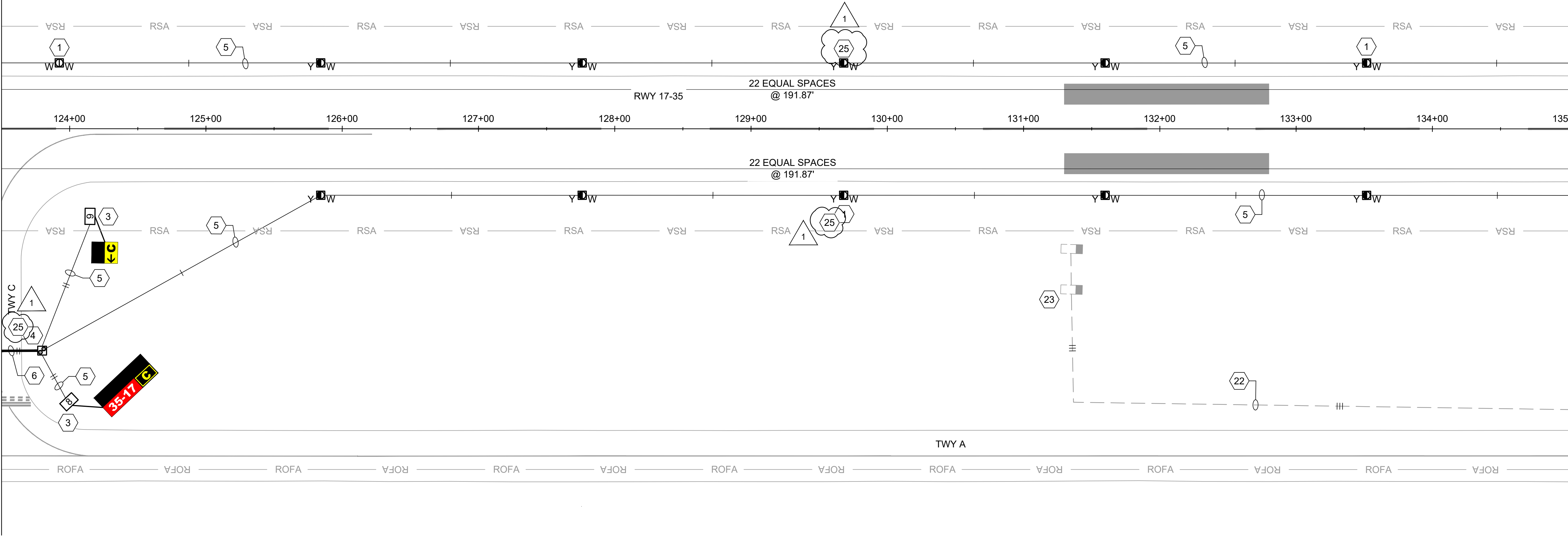
SHEET NUMBER
17

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Last plotted by: Schmitt, James K., Plot Style: AECmono.ctb, Plot Scale: 1"=1', Plot Date: 9/19/2022 2:24 PM, Plotter used: DWG To PDF.pc3

INSTALLATION KEYED NOTES:

- 1 INSTALL NEW L-861(L) BASE MOUNTED LED RUNWAY EDGE LIGHT. (TYPICAL)
- 3 INSTALL NEW L-858(L) BASE MOUNTED LED GUIDANCE SIGN.
- 4 INSTALL NEW 2-CAN ELECTRICAL JUNCTION CAN PLAZA.
- 5 INSTALL NEW TRENCH TYPE "A". (TYPICAL)
- 6 INSTALL NEW 2-WAY 2"C DIRECTIONAL BORE.
- 22 INSTALL NEW CONDUCTORS IN EXISTING CONDUIT.
- 23 CONNECT NEW CONDUIT AND CONDUCTORS TO THE EXISTING PAPI POWER UNIT.
- 25 INSTALL NEW CONDUIT DRAIN AND GRAVEL SUMP.

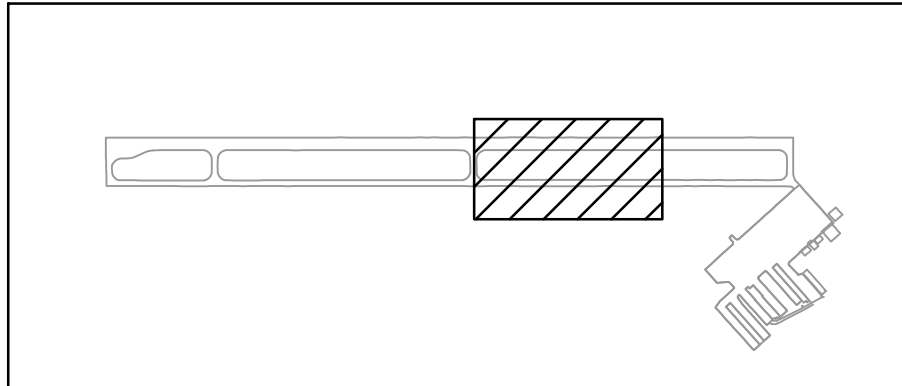
MATCHLINE SHEET EL-102



GENERAL NOTES:

- SEE SHEET EN-001 FOR LEGEND, CONSTRUCTION NOTES, CAUTION NOTES, ELECTRICAL SAFETY NOTES, AND DEMOLITION NOTES.
- SEE THE EL-201 SERIES FOR LIGHTING INSTALLATION DETAILS.
- EXISTING CIRCUIT ROUTING IS APPROXIMATE. IF ROUTING DIFFERS IN THE FIELD, COORDINATE WITH ENGINEER.

KEYMAP



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STATE OF TEXAS
JAMES K. SCHMITT
125073
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 09/20/2022

REV.	DATE	DESCRIPTION	BY
1	9/20/22	ADDENDUM NO. 2	JKS

LLANO MUNICIPAL AIRPORT
LLANO, TX

AIRFIELD LIGHTING

LIGHTING
INSTALLATION
PLAN 3 (BASE BID)

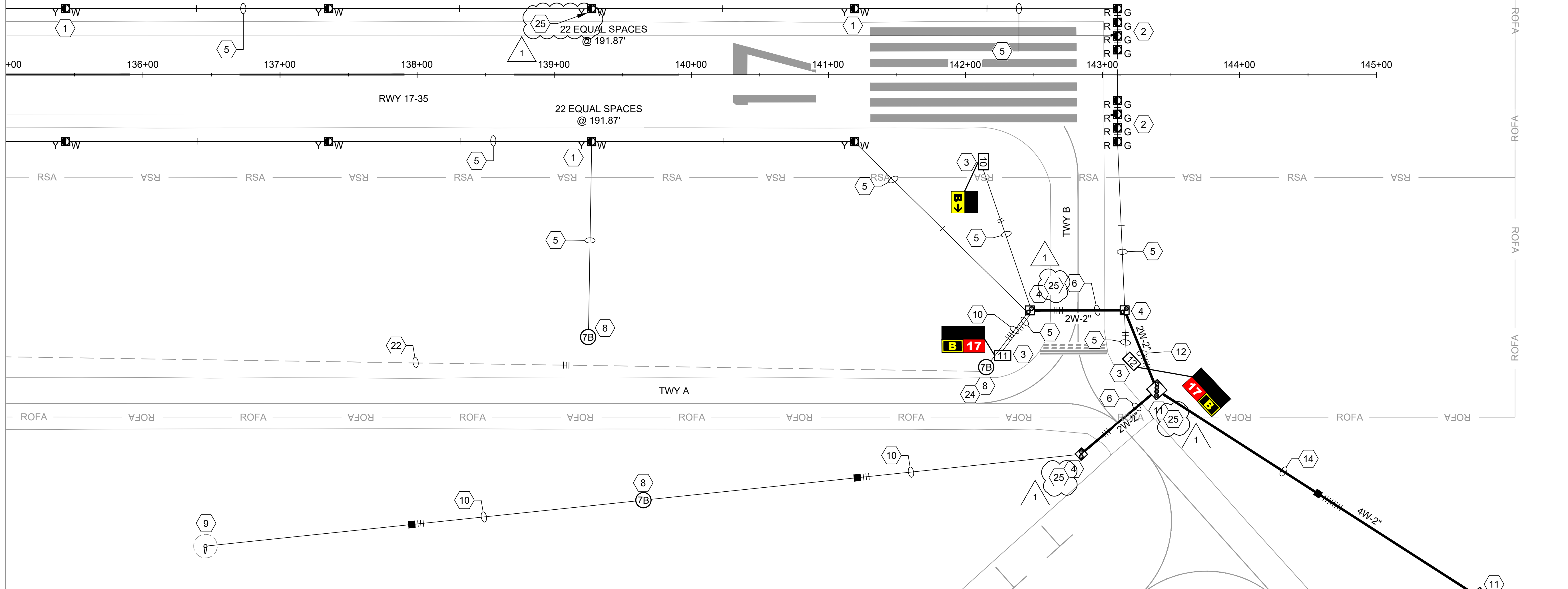
JOB NO.: 21A06091
DATE: APRIL 2022
DESIGNED BY: JKS
DRAWN BY: DAG

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
EL-103

SHEET
NUMBER **18**

MATCHLINE SHEET EL-103



INSTALLATION KEYED NOTES:

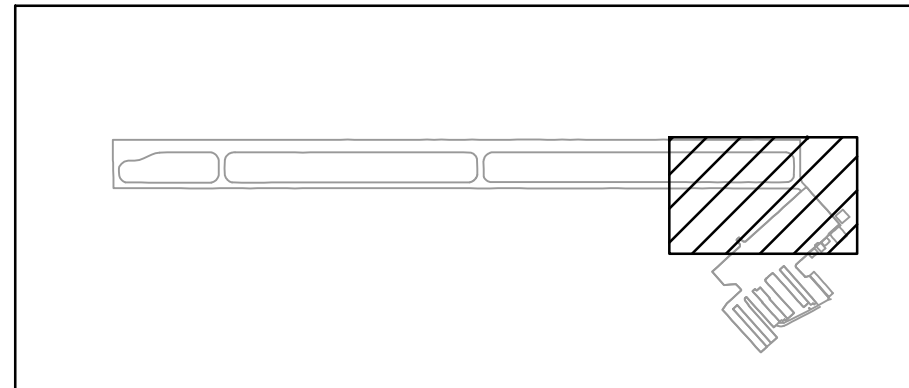
- | | | | |
|----|--|----|--|
| 1 | INSTALL NEW L-861(L) BASE MOUNTED LED RUNWAY EDGE LIGHT. (TYPICAL) | 13 | INSTALL NEW AIRFIELD ELECTRICAL VAULT. |
| 2 | INSTALL NEW L-861E(L) BASE MOUNTED LED RUNWAY THRESHOLD/END LIGHT. (TYPICAL OF 4) | 14 | CONSTRUCT NEW 4-WAY 2" NON-ENCASED ELECTRICAL DUCT BANK. |
| 3 | INSTALL NEW L-858(L) BASE MOUNTED LED GUIDANCE SIGN. | 16 | INSTALL NEW ELECTRICAL CIRCUIT CONNECTIONS TO EXISTING AIRFIELD BEACON TOWER. |
| 4 | INSTALL NEW 2-CAN ELECTRICAL JUNCTION CAN PLAZA. | 17 | INSTALL NEW UTILITY METER BASE, MOUNTED TO THE EXISTING DROP DOWN POLE. UTILITY TO INSTALL NEW METER IN NEW BASE. |
| 5 | INSTALL NEW TRENCH TYPE "A". (TYPICAL) | 18 | INSTALL NEW 1-WAY 2" NON-ENCASED CONDUIT CONTAINING NEW SECONDARY CONDUCTORS. |
| 6 | INSTALL NEW 2-WAY 2" DIRECTIONAL BORE. | 19 | UTILITY TO INSTALL NEW OVERHEAD SECONDARY CONDUCTORS. |
| 8 | INSTALL NEW L-867B ELECTRICAL JUNCTION STRUCTURE. | 20 | INSTALL NEW NON-ENCASED 1-WAY 1" NON-ENCASED CONDUIT CONTAINING NEW ANTENNA COMMUNICATION CABLE. |
| 9 | INSTALL NEW L-801(L) LED PRIMARY WIND CONE. RE-FURBISH AND RE-PAINT THE EXISTING SEGMENTED CIRCLE. | 21 | MOUNT ANTENNA TO TOP OF EXISTING HANGAR. INSTALL NEW JUNCTION BOX, 1"GRSC, SPD, AND GROUND ROD FOR LIGHTNING PROTECTION. |
| 10 | INSTALL NEW TRENCH TYPE "B". (TYPICAL) | 22 | INSTALL NEW CONDUCTORS IN EXISTING CONDUIT. |
| 11 | INSTALL NEW 4-CAN ELECTRICAL JUNCTION CAN PLAZA. | 24 | CONNECT NEW L-867B ELECTRICAL JUNCTION STRUCTURE TO THE EXISTING CONDUIT. |
| 12 | CONSTRUCT NEW 2-WAY 2" NON-ENCASED ELECTRICAL DUCT BANK. | 25 | INSTALL NEW CONDUIT DRAIN AND GRAVEL SUMP. |

GENERAL NOTES:

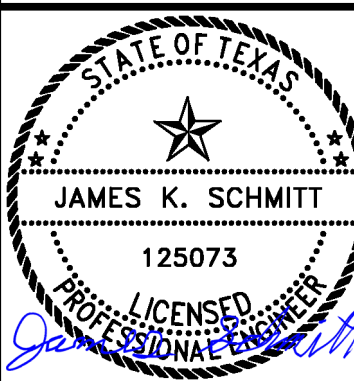
- SEE SHEET EN-001 FOR LEGEND, CONSTRUCTION NOTES, CAUTION NOTES, ELECTRICAL SAFETY NOTES, AND DEMOLITION NOTES.
- SEE THE EL-201 SERIES FOR LIGHTING INSTALLATION DETAILS.
- EXISTING CIRCUIT ROUTING IS APPROXIMATE. IF ROUTING DIFFERS IN THE FIELD, COORDINATE WITH ENGINEER.



KEYMAP



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Digitally Signed 09/20/2022

REV.	DATE	DESCRIPTION	BY
1	9/20/22	ADDENDUM NO. 2	JKS



LLANO MUNICIPAL
AIRPORT
LLANO, TX

LIGHTING
INSTALLATION PLAN 4
(BASE BID)

JOB NO.: 21A06091
DATE: APRIL 2022
DESIGNED BY: JKS
DRAWN BY: DAG

BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
EL-104

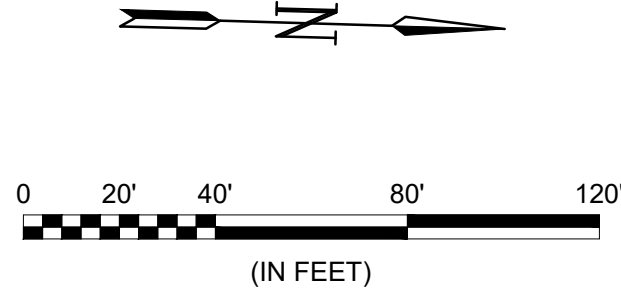
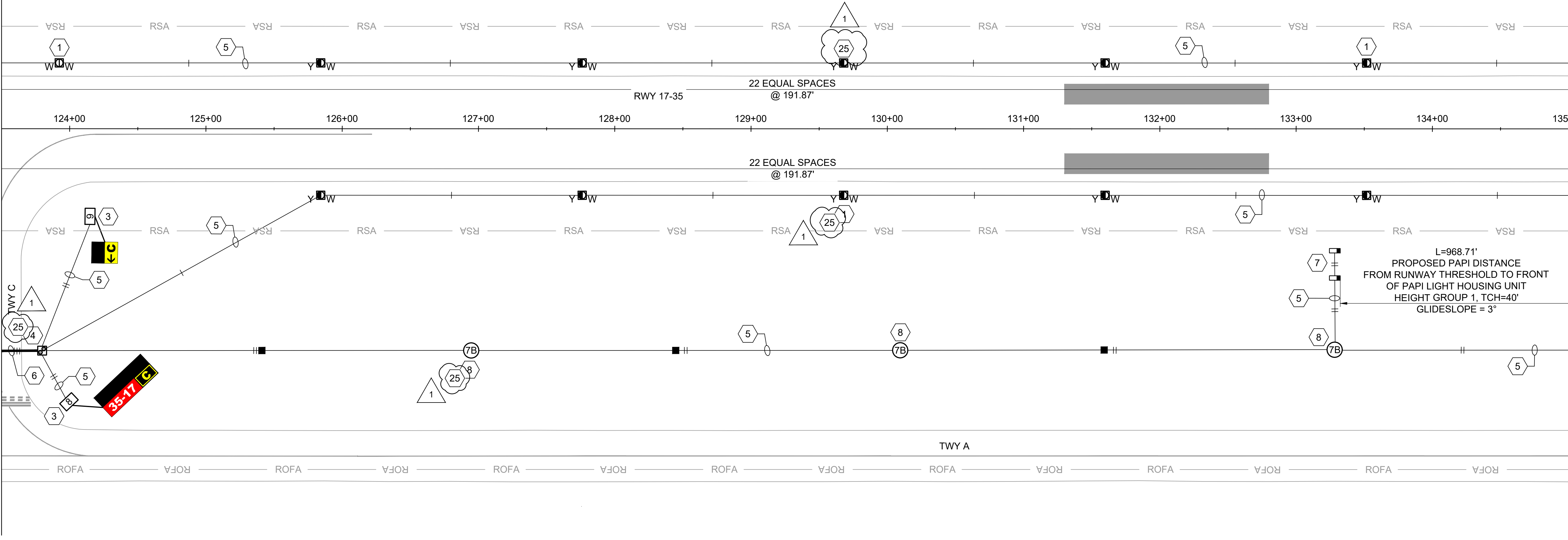
SHEET
NUMBER **19**

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INSTALLATION KEYED NOTES:

- 1 INSTALL NEW L-861(L) BASE MOUNTED LED RUNWAY EDGE LIGHT. (TYPICAL)
- 3 INSTALL NEW L-858(L) BASE MOUNTED LED GUIDANCE SIGN.
- 4 INSTALL NEW 2-CAN ELECTRICAL JUNCTION CAN PLAZA.
- 5 INSTALL NEW TRENCH TYPE "A". (TYPICAL)
- 6 INSTALL NEW 2-WAY 2"C DIRECTIONAL BORE.
- 7 INSTALL NEW L-881(L) LED PAPI SYSTEM.
- 8 INSTALL NEW L-867B ELECTRICAL JUNCTION STRUCTURE.
- 25 INSTALL NEW CONDUIT DRAIN AND GRAVEL SUMP.

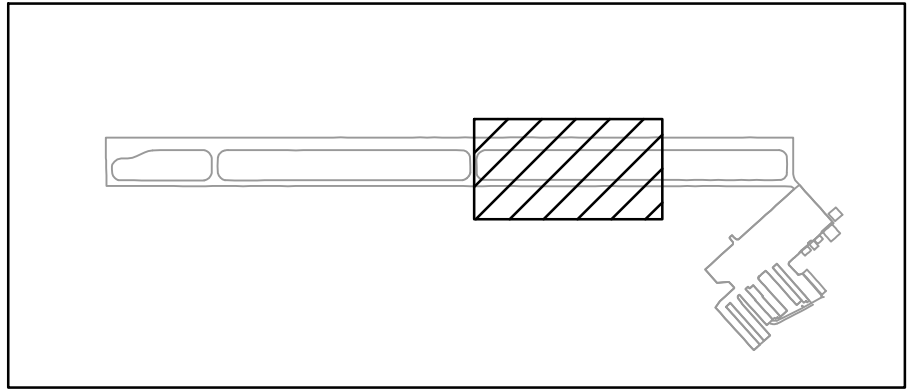
MATCHLINE SHEET EL-102




GENERAL NOTES:

- SEE SHEET EN-001 FOR LEGEND, CONSTRUCTION NOTES, CAUTION NOTES, ELECTRICAL SAFETY NOTES, AND DEMOLITION NOTES.
- SEE THE EL-201 SERIES FOR LIGHTING INSTALLATION DETAILS.
- EXISTING CIRCUIT ROUTING IS APPROXIMATE. IF ROUTING DIFFERS IN THE FIELD, COORDINATE WITH ENGINEER.

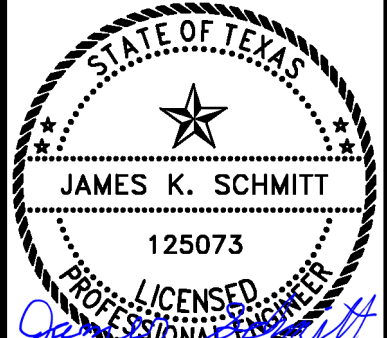
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MATCHLINE SHEET EL-106




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James K. Schmitt
125073
PROFESSIONAL ENGINEER
State of Texas
Digitally Signed 09/20/2022

BY	JKS			
DESCRIPTION	ADDENDUM NO. 2			
DATE	9/20/22			
REV.	1			



LLANO MUNICIPAL
AIRPORT
LLANO, TX

AIRFIELD LIGHTING

LIGHTING
INSTALLATION
PLAN 3 (ADDITIVE
ALTERNATE 1)

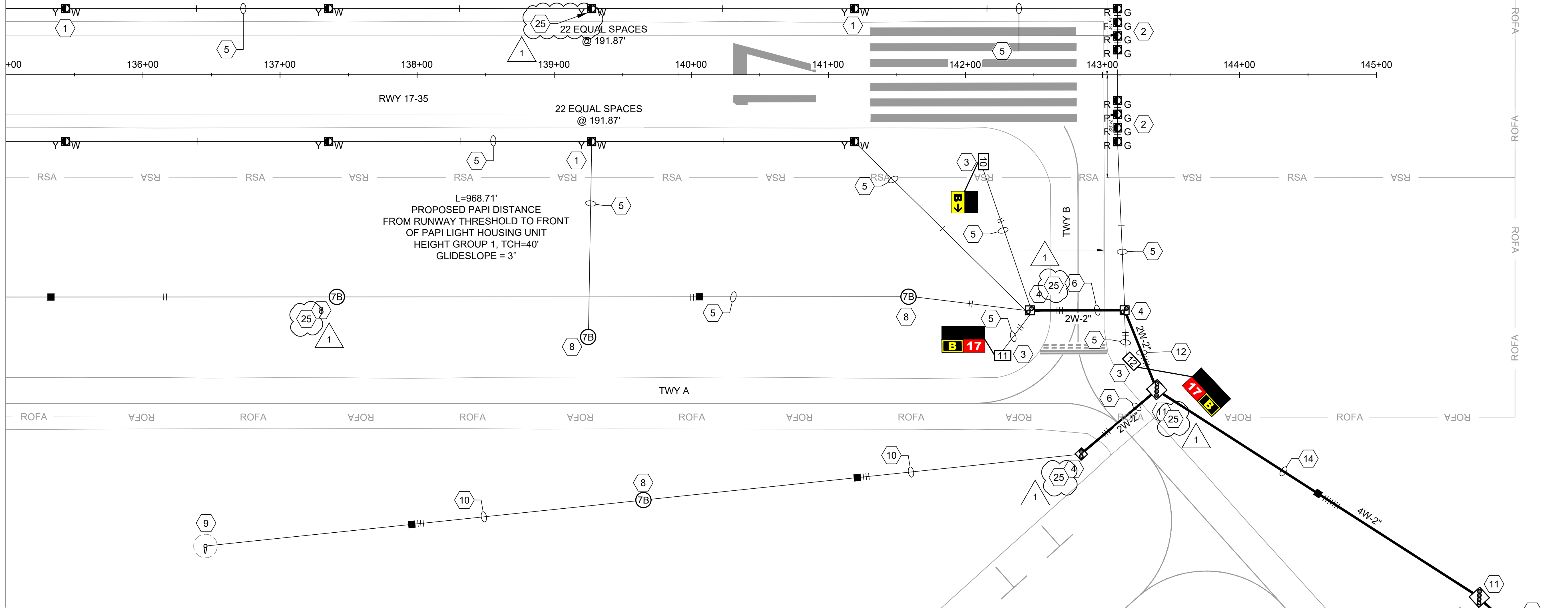
JOB NO.: 21A06091
DATE: APRIL 2022
DESIGNED BY: JKS
DRAWN BY: DAG

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
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DRAWING NUMBER
EL-105

SHEET
NUMBER **20**

MATCHLINE SHEET EL-105



INSTALLATION KEYED NOTES:

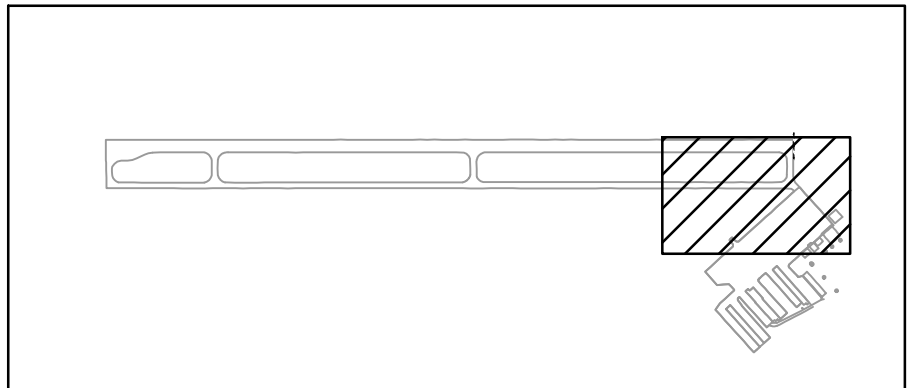
- | | | | |
|----|--|----|---|
| 1 | INSTALL NEW L-861(L) BASE MOUNTED LED RUNWAY EDGE LIGHT. (TYPICAL) | 13 | INSTALL NEW AIRFIELD ELECTRICAL VAULT. |
| 2 | INSTALL NEW L-861E(L) BASE MOUNTED LED RUNWAY THRESHOLD/END LIGHT. (TYPICAL OF 4) | 14 | CONSTRUCT NEW 4-WAY 2" C NON-ENCASED ELECTRICAL DUCT BANK. |
| 3 | INSTALL NEW L-858(L) BASE MOUNTED LED GUIDANCE SIGN. | 16 | INSTALL NEW ELECTRICAL CIRCUIT CONNECTIONS TO EXISTING AIRFIELD BEACON TOWER. |
| 4 | INSTALL NEW 2-CAN ELECTRICAL JUNCTION CAN PLAZA. | 17 | INSTALL NEW UTILITY METER BASE, MOUNTED TO THE EXISTING DROP DOWN POLE. UTILITY TO INSTALL NEW METER IN NEW BASE. |
| 5 | INSTALL NEW TRENCH TYPE "A". (TYPICAL) | 18 | INSTALL NEW 1-WAY 2" C NON-ENCASED CONDUIT CONTAINING NEW SECONDARY CONDUCTORS. |
| 6 | INSTALL NEW 2-WAY 2" C DIRECTIONAL BORE. | 19 | UTILITY TO INSTALL NEW OVERHEAD SECONDARY CONDUCTORS. |
| 8 | INSTALL NEW L-867B ELECTRICAL JUNCTION STRUCTURE. | 20 | INSTALL NEW NON-ENCASED 1-WAY 1" C NON-ENCASED CONDUIT CONTAINING NEW ANTENNA COMMUNICATION CABLE. |
| 9 | INSTALL NEW L-801(L) LED PRIMARY WIND CONE. RE-FURBISH AND RE-PAINT THE EXISTING SEGMENTED CIRCLE. | 21 | MOUNT ANTENNA TO TOP OF EXISTING HANGAR. INSTALL NEW JUNCTION BOX, 1" GRSC, SPD, AND GROUND ROD FOR LIGHTNING PROTECTION. |
| 10 | INSTALL NEW TRENCH TYPE "B". (TYPICAL) | 25 | INSTALL NEW CONDUIT DRAIN AND GRAVEL SUMP. |
| 11 | INSTALL NEW 4-CAN ELECTRICAL JUNCTION CAN PLAZA. | | |
| 12 | CONSTRUCT NEW 2-WAY 2" C NON-ENCASED ELECTRICAL DUCT BANK. | | |

GENERAL NOTES:

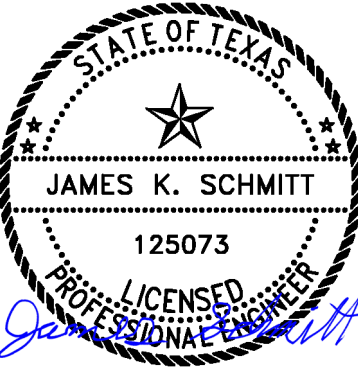
- SEE SHEET EN-001 FOR LEGEND, CONSTRUCTION NOTES, CAUTION NOTES, ELECTRICAL SAFETY NOTES, AND DEMOLITION NOTES.
- SEE THE EL-201 SERIES FOR LIGHTING INSTALLATION DETAILS.
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Digitally Signed 09/20/2022

REV.	DATE	DESCRIPTION	BY
1	9/20/22	ADDENDUM NO. 2	JKS



LLANO MUNICIPAL
AIRPORT
LLANO, TX

AIRFIELD LIGHTING

LIGHTING
INSTALLATION PLAN 4
(ADDITIVE
ALTERNATE 1)

JOB NO.: 21A06091
DATE: APRIL 2022
DESIGNED BY: JKS
DRAWN BY: DAG

BAR IS ONE INCH ON
ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET,
ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
EL-106

SHEET
NUMBER **21**

