

GERALD R. FORD INTERNATIONAL AIRPORT

GRAND RAPIDS, MICHIGAN

**TAXIWAY F & G RECONSTRUCTION (NORTH OF TAXIWAY V, 1,950' X 35');
TAXIWAY F & G AIRFIELD LIGHTING REPLACEMENT**

PROJECT NUMBER C-435

ADDENDUM #2

MARCH 16, 2026

To All Holders of Contract Documents:

Your attention is directed to the following interpretations of, changes in, and additions to the Contract Documents for the above-referenced project. All bid adjustments caused by the content of the Addendum shall include the cost of materials and labor related to the items herein and for any subsequent adjustments to the contract documents to accommodate the work stated herein.

Contractors shall be responsible for the full context of changes, interpretations, and clarifications to both the drawings and specifications and shall take the same into consideration when preparing their bids. Indicate receipt of this Addendum in the space provided within the Proposal.

GENERAL

1. Bid due date has been moved back one week per addendum #1. New bid due date is 3/24/26. This addendum addresses a phase change to remove the temporary taxiway.
2. Addendum No.2 answers questions received 3/6/2026 to 3/13/2026.
3. Question deadline is March 18, 2026.

QUESTIONS AND ANSWERS

- Q: My main questions concern note no. 20 on pages GC102 thru GC105. The note states to “place low profile barricades in turf along TOFA”. Are these being interlocked for that area as well?
- A: The barricades to be used to line the TOFA in the turf along the gravel haul road may be spaced 10’ apart.
- Q: Sheet GC105: It has the note in the key notes but doesn’t show any no. 20’s (do you need barricades on the TOFA line on this page (which this one would actually be a much longer area along the TOFA – or don’t you need these because the haul road is no longer being utilized there)?
- A: No lining of the TOFA is needed in this phase. Keyed note 20 will be deleted from this sheet.

- Q: Could the Engineer consider an option for the concrete contractor to pour the two mainline 17.5ft lanes together eliminating the “E” construction joint with dowel bar and substituting a “C” contraction joint?
- A: Yes that will be allowed if the contractor elects to do so.

SPECIFICATIONS

1. **REPLACE** Table of Contents sheet 5, in its entirety with the **REVISED** Table of Contents sheet 5 provided with this addendum as a separate document.
 - a. Removed item P-401 from the table of contents.
2. **REPLACE** Advertisement, in its entirety with the **REVISED** Advertisement provided with this addendum as a separate document.
 - a. Updated to include specific language for the construction start date.
3. **REPLACE** Quantity Bidding Sheets, in its entirety with the **REVISED** Quantity Bidding Sheets provided with this addendum as a separate document.
 - a. Updated quantities to reflect removal of the temporary taxiway.
4. **REPLACE** Sheet Section 80 Page 4, in its entirety with the **REVISED** Section 80 Page 4 provided with this addendum as a separate document.
 - a. Updated liquidated damages table to reflect the revised phasing sheets.
5. **REPLACE** Sheet D-705-6, in its entirety with the **REVISED** D-705-6 provided with this addendum as a separate document.
 - a. Removed 8” HDPE pay item.
6. **REPLACE** Sheet D-751-5, in its entirety with the **REVISED** D-751-5 provided with this addendum as a separate document.
 - a. Removed yard drain pay item.
7. **DELETE** Specification P-401, in its entirety from the specification document.
 - a. Specification was deleted because of the removal of the temporary taxiway.
8. **REPLACE** specification L-125, in its entirety with the **REVISED** L-125 specification provided with this addendum as a separate document.
 - a. Removed retroreflector pay item.

DRAWINGS

1. **REPLACE** full plan set with **REVISED** plan set. Revisions are denoted with a cloud referenced to Revision 2 dated 3/16/2026 on the drawings. Sheets that have been revised are as follows: **GI002, GI003, GI004, GC100, GC101, GC102, GC103, GC104, GC105, GC106, GC107, GC200, GC501, CE101, CD101, CS101, CG101, CG301, CG601, CP101, CP502, CJ101, XM101, XM103 [NEW], E002, EL101, E301, E400.**

END OF ADDENDUM NO. 2

C&S ENGINEERS, INC.

Attachment A: Contract Specifications

TECHNICAL SPECIFICATIONS

Item Number	Description
P-101	Preparation/Removal of Existing Pavements
P-152	Excavation, Subgrade, and Embankment
P-154	Subbase Course
P-209	Crushed Aggregate Base Course
P-501	Cement Concrete Pavement
P-603	Emulsified Asphalt Tack Coat
P-605	Joint Sealants for Pavements
P-620	Runway and Taxiway Marking
D-705	Pipe Underdrains for Airports
D-751	Manholes, Catch Basins, Inlets and Inspection Holes
DX-800	Soft Digs
T-901	Seeding
T-905	Topsoil
T-908	Mulching
L-105	Modification, Removal, and Demolition of Airfield Lighting Systems
L-108	Underground Power Cable for Airports
L-109	Airport Transformer Vault and Vault Equipment
L-110	Airport Underground Electrical Duct Banks and Conduits
L-115	Electrical Manholes and Junction Structures
L-125	Installation of Airport Lighting Systems
L-126	Maintenance of Airport Lighting Systems

CONTRACT DRAWINGS

See Contract Drawings for sheet list

END OF TABLE OF CONTENTS

ADVERTISEMENT
NOTICE TO BIDDERS
FOR THE CONSTRUCTION OF
TAXIWAY F & G RECONSTRUCTION (NORTH OF TAXIWAY V, 1,950' X 35); TAXIWAY
F & G AIRFIELD LIGHTING REPLACEMENT
AT THE
GERALD R. FORD INTERNATIONAL AIRPORT
GRAND RAPIDS, MI

Sealed proposals for the construction of Contract will be received at the Gerald R Ford International Airport Authority, located on the second floor of the Gerald R Ford International Airport Terminal Building at 5500 44th St SE, Grand Rapids, MI, 49512 until 2pm, local time, March 24, 2026, and there, at said office, at said time, publicly opened and read aloud.

The Contract Documents (consisting of the Advertisement, the Proposal, the Contract Form, and the Specifications) and the Contract Drawings may be obtained only from Microsoft One Drive. A link can be obtained by contacting Laurie Carpenter of C&S Engineers, Inc. at lcarpenter@cscos.com where the Contractor's name, contact name, address, telephone number, and email address will be recorded on the plan holders list. Submitted proposals that were not recorded on the plan holders list shall be considered non-responsive.

After award, the low bidder shall be prepared to hold bid prices for anticipated start of construction expected as late as the Spring of 2027. The execution of the construction Contract is dependent upon the receipt of an FAA grant offer and is expected no earlier than July 2026 if funding is received later than July 31, 2026, the start of construction may be delayed until spring 2027. This Contract does not allow for price escalation in unit bid items. The Contractor shall take this into consideration when preparing unit prices for bidding.

Each proposal must be accompanied by a bid bond, in the amount of five percent (5%) of the total maximum proposal price for the contract in the form and subject to the conditions provided in the Preparation of Proposal.

Every request concerning this project must be emailed to Laurie Carpenter (lcarpenter@cscos.com) at C&S Engineers, Inc., and to be given consideration must be received by 5pm est. on March 18th. Any supplemental instructions will be in the form of written addenda, which, when issued, will be sent and or posted not later than twenty-four (24) hours prior to the date fixed for the opening of bids. All addenda so issued shall become Part of the Contract and acknowledged by Bidder.

A pre-bid conference has been scheduled in order to review the specific requirements of this contract. All prospective bidders are encouraged to attend. The pre-bid conference is scheduled for March 2, 2026 at 3pm at the Gerald R. Ford International Airport Terminal in the international room located on the first floor across from TSA and via Microsoft Teams (Meeting ID: 223 641 766 013 81 Passcode: vC3Pr6t7). A site visit to the project location will follow the meeting at 4:30pm. Names and company of site visit attendees shall be submitted to Laurie Carpenter of C&S Engineers, Inc. at lcarpenter@cscos.com 3 days prior to the meeting.

The Owner reserves the right to waive any informality in the proposal, and to reject any and all proposals.

END OF ADVERTISEMENT

GERALD R. FORD INTERNATIONAL AIRPORT

TAXIWAY F & G RECONSTRUCTION (NORTH OF TAXIWAY V, 1,950' X 35);
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BIDDERS ARE REQUIRED TO COMPLETE ALL FIELDS SHADED.
ALL OTHER FIELDS WILL BE AUTOMATICALLY CALCULATED.
AN EXCEL FILE WILL BE PROVIDED AND THESE SHEETS CAN BE FILLED OUT IN EXCEL OR HARD COPY.
ONLY HARD COPIES SHALL BE RETURNED WITH YOUR PROPOSAL.

ITEM NO	FAA SPEC NO	PAY ITEM NO	DESCRIPTION	QUANTITY	UNITS	UNIT PRICE	TOTAL
BASE BID							
1	C-100	C-100-14.1	CONTRACTOR QUALITY CONTROL PROGRAM (CQCP)	1	LS		
2	C-102	C-102-5.1	INSTALLATION AND REMOVAL OF STORM DRAIN INLET PROTECTION	20	EACH		
3	C-102	C-102-5.2	INSTALLATION AND REMOVAL OF SILT FENCE	4,000	LF		
4	C-105	C-105-6.1	MOBILIZATION (10% MAXIMUM)	1	LS		
5	C-105	C-105-6.2	FIELD OFFICE	1	LS		
6	CX-106	CX-106-3.1	SAFETY, SECURITY AND MAINTENANCE OF TRAFFIC	1	LS		
7	CX-106	CX-106-3.2	INSTALLATION AND REMOVAL OF HAUL ROAD	1,250	LF		
8	P-101	P-101-5.1	PAVEMENT REMOVAL	12,800	SY		
9	P-152	P-152-4.1	UNCLASSIFIED EXCAVATION	9,700	CY		
10	P-154	P-154-5.1	SUBBASE COURSE	2,650	CY		
11	P-154	P-154-5.2	RESHAPE AND RECOMPACT EXISTING SUBBASE MATERIAL	11,100	SY		
12	P-209	P-209-5.1	CRUSHED AGGREGATE BASE COURSE	6,900	CY		
13	P-501	P-501-8.1	CONCRETE PAVEMENT, 10" THICK	14,300	SY		
14	P-620	P-620-5.1	MARKING	19,000	SF		
15	P-620	P-620-5.2	REFLECTIVE MEDIA	470	LB		
16	P-620	P-620-5.3	TEMPORARY MARKING	10,300	SF		
17	P-620	P-620-5.4	MARKING REMOVAL	4,300	SF		
18	D-705	D-705-5.1	6 INCH PERFORATED SMOOTH INTERIOR CORRUGATED HDPE COMPLETE, INCLUDING POROUS BACKFILL AND FILTER FABRIC	4,550	LF		
19	D-705	D-705-5.2	6 INCH NON-PERFORATED SMOOTH INTERIOR CORRUGATED HDPE COMPLETE, INCLUDING POROUS BACKFILL AND FILTER FABRIC	880	LF		

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ITEM NO	FAA SPEC NO	PAY ITEM NO	DESCRIPTION	QUANTITY	UNITS	UNIT PRICE	TOTAL
20	D-751	D-751-5.1	CLEANOUTS	25	EACH		
21	DX-800	DX-800-4.1	SOFT DIGS	2	DAYS		
22	T-901	T-901-5.1	SEEDING	3.5	ACRE		
23	T-905	T-905-5.1	TOPSOIL (OBTAINED ONSITE OR REMOVED FROM STOCKPILE)	2,700	CY		
24	T-908	T-908-5.1	MULCHING	3.5	ACRE		
25	L-105	L-105-7.1	REMOVE EXISTING TAXIWAY EDGE LIGHT AND BASE CAN COMPLETE	85	EACH		
26	L-105	L-105-7.2	REMOVE EXISTING CABLE IN CONDUIT OR DUCT BANK, CONDUIT AND DUCT TO REMAIN	12,500	LF		
27	L-105	L-105-7.3	REMOVE EXISTING CONDUIT	4,500	LF		
28	L-105	L-105-7.4	REMOVE EXISTING DUCT BANK	900	LF		
29	L-105	L-105-7.5	REMOVE AND RELOCATE EXISTING GUIDANCE SIGN, INCLUDING NEW FOUNDATION	9	EACH		
30	L-105	L-105-7.6	REMOVE EXISTING ELECTRICAL HANDHOLE	14	EACH		
31	L-108	L-108-5.1	NO.8 AWG, 5 kV, L-824, TYPE C CABLE, INSTALLED IN NEW OR EXISTING CONDUIT OR DUCT BANK	12,500	LF		
32	L-108	L-108-5.2	NO.6 AWG BARE COUNTERPOISE, GROUND RODS AND TERMINATIONS	4,500	LF		
33	L-109	L-109-7.1	AIRFIELD LIGHTING ELECTRICAL VAULT POWER AND CONTROLS MODIFICATIONS	1	LS		
34	L-109	L-109-7.2	CONSTANT CURRENT REGULATOR REMOVAL AND SALVAGE	1	EACH		
35	L-109	L-109-7.3	CONSTANT CURRENT REGULATOR 10kW, 3-STEP, 6.6A, 480V, L-829	1	EACH		
36	L-110	L-110-5.1	PROPOSED 4-WAY, 4-INCH SCH. 40 PVC, CONCRETE ENCASED DUCTBANK	2,100	LF		
37	L-110	L-110-5.2	1-WAY, 2-INCH, SCH. 40 PVC, CONDUIT DIRECT BURIED	4,500	LF		
38	L-115	L-115-5.1	4' X 4' CONCRETE MANHOLE	14	EACH		

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ITEM NO	FAA SPEC NO	PAY ITEM NO	DESCRIPTION	QUANTITY	UNITS	UNIT PRICE	TOTAL
39	L-125	L-125-5.1	L-861T(L) ELEVATED TAXIWAY EDGE LIGHT AND BASE CAN, INCLUDING ISOLATION TRANSFORMER AND CONNECTIONS	57	EACH		
40	L-125	L-125-5.2	L-861 ELEVATED TAXIWAY EDGE LIGHT ON NEW BASE CAN, INCLUDING ISOLATION TRANSFORMED AND CONNECTIONS. LABOR ONLY, FIXTURES PROVIDED BY AIRPORT	14	EACH		
41	L-126	L-126-5.1	MAINTENANCE OF AIRPORT LIGHTING SYSTEM SYSTEMS, INCLUDING TEMPORARY CONNECTIONS/JUMPERS AND POWER/CONTROLS, AS NEEDED	1	LS		
						TOTAL CONTRACT	

effective date of the written order to suspend work to the effective date of the written order to resume the work. Claims for such compensation shall be filed with the RPR within the time period stated in the RPR's order to resume work. The Contractor shall submit with their own claim information substantiating the amount shown on the claim. The RPR will forward the Contractor's claim to the Owner for consideration in accordance with local laws or ordinances. No provision of this article shall be construed as entitling the Contractor to compensation for delays due to inclement weather or for any other delay provided for in the contract, plans, or specifications.

If it becomes necessary to suspend work for an indefinite period, the Contractor shall store all materials in such manner that they will not become an obstruction nor become damaged in any way. The Contractor shall take every precaution to prevent damage or deterioration of the work performed and provide for normal drainage of the work. The Contractor shall erect temporary structures where necessary to provide for traffic on, to, or from the airport.

80-07 Determination and extension of contract time. The number of calendar days shall be stated in the proposal and contract and shall be known as the Contract Time.

If the contract time requires extension for reasons beyond the Contractor's control, it shall be adjusted as follows:

Contract time based on calendar days. Contract Time based on calendar days shall consist of the number of calendar days stated in the contract counting from the effective date of the Notice to Proceed and including all Saturdays, Sundays, holidays, and non-work days. All calendar days elapsing between the effective dates of the Owner's orders to suspend and resume all work, due to causes not the fault of the Contractor, shall be excluded.

At the time of final payment, the contract time shall be increased in the same proportion as the cost of the actually completed quantities bears to the cost of the originally estimated quantities in the proposal. Such increase in the contract time shall not consider either cost of work or the extension of contract time that has been covered by a change order or supplemental agreement. Charges against the contract time will cease as of the date of final acceptance.

80-08 Failure to complete on time. For each calendar day or working day, as specified in the contract, that any work remains uncompleted after the contract time (including all extensions and adjustments as provided in paragraph 80-07, *Determination and Extension of Contract Time*) the sum specified in the contract and proposal as liquidated damages (LD) will be deducted from any money due or to become due the Contractor or their own surety. Such deducted sums shall not be deducted as a penalty but shall be considered as liquidation of a reasonable portion of damages including but not limited to additional engineering services that will be incurred by the Owner should the Contractor fail to complete the work in the time provided in their contract.

Schedule	Liquidated Damages Cost	Allowed Construction Time
Work Area 0	\$5,700	3
Work Area 1	\$5,700	40
Work Area 1A	\$5,700	25
Work Area 2	\$5,700	40
Work Area 2A	\$5,700	25
Work Area 2B	\$5,700	25
Work Area 3	\$5,700	21

Payment will be made under:

- | | |
|----------------|---|
| Item D-705-5.1 | 6 Inch Perforated Smooth Interior Corrugated HDPE Complete, Including Porous Backfill and Filter Fabric – per linear foot |
| Item D-705-5.2 | 6 Inch Non-Perforated Smooth Interior Corrugated HDPE Complete, Including Porous Backfill and Filter Fabric – per linear foot |

REFERENCES

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

ASTM International (ASTM)

- | | |
|-----------|--|
| ASTM F477 | Standard Specification for Elastomeric Seals (Gaskets) for Joining Plastic Pipe |
| ASTM F758 | Standard Specification for Smooth Wall Poly (Vinyl Chloride) (PVC) Plastic Underdrain Systems for Highway, Airport, and Similar Drainage |
| ASTM F794 | Standard Specification for Poly (Vinyl Chloride) (PVC) Profile Gravity Sewer Pipe & Fittings Based on Controlled Inside Diameter |
| ASTM F949 | Standard Specification for Poly (Vinyl Chloride) (PVC) Corrugated Sewer Pipe with a Smooth Interior and Fittings |

END OF ITEM D-705

METHOD OF MEASUREMENT

751-4.1 Manholes, catch basins, inlets, and inspection holes shall be measured by the unit.

BASIS OF PAYMENT

751-5.1 The accepted quantities of manholes, catch basins, inlets, and inspection holes will be paid for at the contract unit price per each in place when completed. This price shall be full compensation for furnishing all materials and for all preparation, excavation, backfilling and placing of the materials; furnishing and installation of such specials and connections to pipes and other structures as may be required to complete the item as shown on the plans; and for all labor equipment, tools and incidentals necessary to complete the structure.

Payment will be made under:

Item D-751-5.1	Cleanouts - per each
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REFERENCES

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

ASTM International (ASTM)

ASTM A27	Standard Specification for Steel Castings, Carbon, for General Application
ASTM A47	Standard Specification for Ferritic Malleable Iron Castings
ASTM A48	Standard Specification for Gray Iron Castings
ASTM A123	Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products
ASTM A283	Standard Specification for Low and Intermediate Tensile Strength Carbon Steel Plates
ASTM A536	Standard Specification for Ductile Iron Castings
ASTM A897	Standard Specification for Austempered Ductile Iron Castings
ASTM C32	Standard Specification for Sewer and Manhole Brick (Made from Clay or Shale)
ASTM C144	Standard Specification for Aggregate for Masonry Mortar
ASTM C150	Standard Specification for Portland Cement
ASTM C443	Standard Specification for Joints for Concrete Pipe and Manholes, Using Rubber Gaskets.
ASTM C478	Standard Specification for Precast Reinforced Concrete Manhole Sections
ASTM C913	Standard Specification for Precast Concrete Water and Wastewater Structures.

Item L-125 Installation of Airport Lighting Systems

DESCRIPTION

125-1.1 This item shall consist of airport lighting systems furnished and installed in accordance with this specification, the referenced specifications, and the applicable advisory circulars (ACs). The systems shall be installed at the locations and in accordance with the dimensions, design, and details shown in the plans. This item shall include the furnishing of all equipment, materials, services, and incidentals necessary to place the systems in operation as completed units to the satisfaction of the RPR.

EQUIPMENT AND MATERIALS

125-2.1 General.

a. Airport lighting equipment and materials covered by Federal Aviation Administration (FAA) specifications shall be certified under the Airport Lighting Equipment Certification Program in accordance with AC 150/5345-53, current version. FAA certified airfield lighting shall be compatible with each other to perform in compliance with FAA criteria and the intended operation. If the Contractor provides equipment that does not perform as intended because of incompatibility with the system, the Contractor assumes all costs to correct the system for to operate properly.

b. Manufacturer's certifications shall not relieve the Contractor of their responsibility to provide materials in accordance with these specifications and acceptable to the RPR. Materials supplied and/or installed that do not comply with these specifications shall be removed, when directed by the RPR and replaced with materials, which do comply with these specifications, at the sole cost of the Contractor.

c. All materials and equipment used shall be submitted to the RPR for approval prior to ordering the equipment. Submittals consisting of marked catalog sheets or shop drawings shall be provided. Clearly mark each copy to identify pertinent products or models applicable to this project. Indicate all optional equipment and delete non-pertinent data. Submittals for components of electrical equipment and systems shall identify the equipment for which they apply on each submittal sheet. Markings shall be clearly made with arrows or circles (highlighting is not acceptable). The Contractor shall be responsible for delays in the project accruing directly or indirectly from late submissions or resubmissions of submittals.

d. The data submitted shall be sufficient, in the opinion of the RPR, to determine compliance with the plans and specifications. The Contractor's submittals shall be submitted in electronic PDF format, tabbed by specification section. The RPR reserves the right to reject any or all equipment, materials or procedures, which, in the RPR's opinion, does not meet the system design and the standards and codes, specified herein.

e. All equipment and materials furnished and installed under this section shall be guaranteed against defects in materials and workmanship for a period of at least twelve (12) months from final acceptance by the Owner. The defective materials and/or equipment shall be repaired or replaced, at the Owner's discretion, with no additional cost to the Owner.

EQUIPMENT AND MATERIALS

125-2.2 Conduit/Duct. Conduit shall conform to Specification Item L-110 Airport Underground Electrical Duct Banks and Conduits.

125-2.3 Cable and Counterpoise. Cable and Counterpoise shall conform to Item L-108 Underground Power Cable for Airports.

125-2.4 Tape. Rubber and plastic electrical tapes shall be Scotch Electrical Tape Numbers 23 and 88 respectively, as manufactured by 3M Company or an approved equal.

125-2.5 Cable Connections. Cable Connections shall conform to Item L-108 Installation of Underground Cable for Airports.

Lights

125-2.7 Runway and Taxiway Lights. Runway and taxiway lights shall conform to the requirements of AC 150/5345-46. All lighting shall be LED and shall be of size and type indicated, or as required by fixture manufacturer for each lighting fixture required under this contract. Fixtures shall be of colors conforming to the specification for the light concerned or to the standard referenced. Runway and taxiway lights shall be installed as shown in the E-series plans.

125-2.8 Runway and Taxiway Signs. Runway and Taxiway Guidance Signs should conform to the requirements of AC 150/5345-44. Guidance signs shall be installed as shown in the E-series plans.

125-2.9 Runway End Identifier Light (REIL). Not required.

125-2.10 Precision Approach Path Indicator (PAPI). Not required.

125-2.11 Circuit Selector Cabinet. Not used.

125-2.12 Light Base and Transformer Housings. Light Base and Transformer Housings should conform to the requirements of AC 150/5345-42. Light bases shall be the Type, Class, and Size as indicated on the plans. Base plates, cover plates, and adapter plates shall be provided to accommodate various sizes of fixtures.

125-2.13 Isolation Transformers. Isolation Transformers shall be of the Type and size as required for each installation. Transformer shall conform to AC 150/5345-47.

125-2.14 Fixture Hold Down Bolts. Fixture hold down bolts and installations shall adhere to the following requirements: Bolts shall be all-thread, fluoropolymer coated, SAE Grade 5, in accordance with FAA Engineering Brief No. 83. All other bolts shall be all-thread, 18-8, Type 304 stainless steel. Bolt information shall be submitted for approval of the Engineer. Submittal shall specifically identify, as a minimum, the bolt material, dimensions, and threading. Bolt material shall be readily identifiable in the field by appropriate ASTM markings on the bolts or by having material identified on bolt packaging, as approved through the Engineer. Stainless steel bolts shall receive anti seize compound. Grade 5 coated bolts shall not receive any anti-seize compound or lubricant.

125-2.15 High Performance Non-Shrink Grout. Where specified in the plans, a high performance non-shrink grout shall be used for backfill around light bases and conduit. This high performance non-shrink grout shall be Delpatch Elastomeric Concrete by D. S. Brown of North Baltimore, Ohio, Telephone No. 419-257-3561, or approved equivalent. Contractor shall use this product in accordance with the manufacturer's recommendations and warnings. The RPR may require that Contractor have a

representative of the manufacturer onsite to demonstrate the proper use of the product if Contractor cannot demonstrate prior experience.

125-2.16 Salvage Existing Items and Return to Owner. Where specified in the plans, existing fixtures and transformers, and signs shall be returned and delivered to the CRAA maintenance department.

125-2.17 Spare Parts. The Contractor shall furnish the electrical spare parts required to Owner. All spare parts shall be identical to the parts approved and installed in the project.

Provide a quantity of spare light fixtures, transformers, and other components equal to 10%, rounded down, of the installed quantity of each piece of equipment or component in the following list. Deliver spare parts to airport maintenance as directed by the Engineer. Spare parts required are shown in Plan Set on Sheet E001.

INSTALLATION

125-3.1 Installation. The Contractor shall furnish, install, connect and test all equipment, accessories, conduit, cables, wires, buses, grounds and support items necessary to ensure a complete and operable airport lighting system as specified here and shown in the plans.

The equipment installation and mounting shall comply with the requirements of the National Electrical Code and state and local code agencies having jurisdiction.

The Contractor shall install the specified equipment in accordance with the applicable advisory circulars and the details shown on the plans.

a) General Cable Installation Requirements. The primary cable shall enter the light base and transformer housing as shown on the plans. Primary cable slack shall be provided inside the light fixture base as specified in Item L-108. In general, enough slack shall be left in the cable to permit installation aboveground of the connections between the primary cable and the isolating transformer primary leads. A similar length of primary cable slack shall be provided for any unconnected cable installed in a fixture base can. When more than one (1) circuit is installed within the lighting base, each cable shall bear its appropriate circuit identification marker. The transformer secondary leads shall be connected to the lamp leads with a disconnecting plug and receptacle. The secondary connection shall not be taped; the cable connections to the isolating transformer's leads shall be made as specified in Item L-108. Ends of cables shall be sealed with heat shrinkable tubing until the splice is made to prevent the entrance of moisture.

b) Installing Light Fixtures at Existing Bases. At locations indicated on the plans, the Contractor shall install light fixtures at existing fixture bases. This shall include providing the following items, as required and directed by the RPR.

- 1) Remove and salvage existing base cover plates.
- 2) Refurbish and prepare the base flange with flange rings or spacer rings, as required and directed by the Engineer, in order to properly install the specified light fixture.
- 3) Clean out and refurbish the interior of the bases, including conduits.
- 4) Install primary airfield lighting circuit cable.
- 5) Install fixture isolation transformers of proper specified rating and wattage.
- 6) Install specified fixtures.

c) Fixture Ground Requirements. All fixtures shall be bonded to the light base internal ground lug via a #6 AWG stranded copper wire rated for 600V with green XHHW insulation or a braided ground strap of equivalent current rating. The ground wire must be of sufficient length to allow the removal of the light fixture from the light base for routine maintenance. Light fixture manufacturer shall provide a means to attach the ground conductor to the fixture or fixture base plate, as applicable.

d) Demolition. At locations noted on plans, existing light fixtures, bases, signs, foundations, cables and other materials shall be removed. Payment for demolished lights and signs, inclusive of bases, foundations, conduits, and cables shall be made under this item as provided herein. Salvageable materials shall be delivered to the Owner salvage area or disposed of as directed by the Owner.

e) Light Installations In New Concrete Pavement. Install light fixture bases in accordance with the general requirements of paragraph 125-3.1, as shown on the plans, and as noted below. Conduit and base trench shall be filled with a concrete slurry of well graded aggregate mix with a top size aggregate of one inch. This concrete shall have a minimum 28-day compressive strength of 4,000 psi. The aggregate and other material shall meet the requirements of P-610, Concrete For Miscellaneous Structures. See applicable details shown in the plans. Light base setting and leveling jig shall not be removed for 24 hours after placing the encapsulation or until a hard set has occurred when using a high performance grout encapsulation. After installation of the light fixture, the azimuth of the light beam shall not vary more than +1/2 degree from the required direction. The elevation of the light fixture outside edge shall be flush with the surrounding surface elevation such that the elevation of the fixture is not more than +0 inches higher than nor -1/16 inch lower than the elevation of the pavement. If this tolerance is not met, the Contractor shall, at its own expense, remove and replace the light base extension (top section) to the satisfaction of the Engineer. In concrete light bases shall have one, two or more 2 inch threaded metallic hubs for all required conduit entrances, as indicated on the plans. Grommeted conduit entrances are strictly prohibited except where shown on the plans.

Assemble the light fixture in accordance with the manufacturer's instructions. Connect the secondary leads of the transformer to the fixture leads with a disconnecting plug and receptacle conforming to AC 150/5345 26 without taping the joint. Install a lamp of the proper rating in the fixture. Level each fixture as recommended by the manufacturer.

Install in accordance with the general requirements noted in paragraph 125-3.1.

f) Light Installations In Existing Concrete Pavement. Install light fixture bases in accordance with the general requirements of paragraph 125-3.1, as shown on the plans, and as noted below. The pavement core and backfill is included as part of light installation pay item. Conduit trench and base core shall be backfilled in accordance with applicable details shown in the plans.

After installation of the light fixture, the azimuth of the light beam shall not vary more than 1/2 degree from the required direction. The elevation of the light fixture outside edge shall be flush with the surrounding surface elevation such that the elevation of the fixture is not more than +0 inch higher than or -1/16 inch lower than the elevation of the pavement. If this tolerance is not met, the Contractor shall, at its own expense, remove and replace the fixture to the satisfaction of the Engineer.

In-pavement light bases shall have one, two, or more hubs for all required conduit entrances, as indicated on the plans. Grommeted conduit entrances are strictly prohibited except where shown on the plans.

Assemble the light fixture in accordance with the manufacturer's instructions. Connect the secondary leads of the transformer to the fixture leads with a disconnecting plug and receptacle conforming to AC 150/5345 26 without taping the joint. Install a lamp of the proper rating in the fixture. Level each fixture as recommended by the manufacturer.

Install in accordance with the general requirements noted in paragraph 125-3.1.

Assemble the light fixture in accordance with the manufacturer's instructions. Connect the secondary leads of the transformer to the fixture leads with a disconnecting plug and receptacle conforming to AC 150/5345-26 without taping the joint. Install a lamp of the proper rating in the fixture. Level each fixture as recommended by the manufacturer.

Install in accordance with the general requirements noted in paragraph 125-3.1.

125-3.2 Testing. All lights shall be fully tested by continuous operation for not less than 24 hours as a completed system prior to acceptance. The test shall include operating the constant current regulator in each step not less than 10 times at the beginning and end of the 24-hour test. The fixtures shall illuminate properly during each portion of the test.

125-3.3 Shipping and Storage. Equipment shall be shipped in suitable packing material to prevent damage during shipping. Store and maintain equipment and materials in areas protected from weather and physical damage. Any equipment and materials, in the opinion of the RPR, damaged during construction or storage shall be replaced by the Contractor at no additional cost to the owner. Painted or galvanized surfaces that are damaged shall be repaired in accordance with the manufacturer's recommendations.

125-3.4 Elevated and In-pavement Lights. Water, debris, and other foreign substances shall be removed prior to installing fixture base and light.

A jig or holding device shall be used when installing each light fixture to ensure positioning to the proper elevation, alignment, level control, and azimuth control. Light fixtures shall be oriented with the light beams parallel to the runway or taxiway centerline and facing in the required direction. The outermost edge of fixture shall be level with the surrounding pavement. Surplus sealant or flexible embedding material shall be removed. The holding device shall remain in place until sealant has reached its initial set.

METHOD OF MEASUREMENT

125-4.1 Runway and taxiway lights will be measured by the number of each type installed as completed units in place, ready for operation, and accepted by the RPR. Guidance signs will be measured by the number of each type and size installed as completed units, in place, ready for operation, and accepted by the RPR.

BASIS OF PAYMENT

125-5 Payment will be made at the Contract unit price for each complete taxiway light, guidance sign, reflective marker installed by the Contractor and accepted by the RPR. This payment will be full compensation for furnishing all materials and for all preparation, assembly, and installation of these materials, and for all labor, equipment, tools and incidentals necessary to complete this item.

Payment will be made under:

Item L-125-5.1	L-861T(L) Elevated Taxiway Edge Light and Base Can, Including Isolation Transformer and Connections – per each
Item L-125-5.2	Relocate Existing Guidance Sign Complete – per each

Item L-125-5.4	L-853 Unlit Taxiway End Sign on Pavement – per each
Item L-125-5.5	L-858(L) Guidance Sign, Size 3, 2 Module, including Foundation, Base Can, and Transformer – per each
Item L-125-5.6	L-858(L) Guidance Sign, Size 3, 3 Module, including Foundation, Base Can, and Transformer – per each
Item L-125-5.7	L-858(L) Guidance Sign, Size 3, 4 Module, including Foundation, Base Can, and Transformer – per each
Item L-125-5.8	Demolish Sign and Foundation – per each

REFERENCES

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

Advisory Circulars (AC)

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

Engineering Brief (EB)

EB No. 67	Light Sources Other than Incandescent and Xenon for Airport and Obstruction Lighting Fixtures
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END OF ITEM L-125

Attachment B: Contract Drawings



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**CONTRACT DRAWINGS
FOR THE CONSTRUCTION OF**

**TAXIWAY F & G RECONSTRUCTION (NORTH OF TAXIWAY V, 1,950' X 35');
TAXIWAY F & G AIRFIELD LIGHTING REPLACEMENT**

GERALD R. FORD INTERNATIONAL AIRPORT

**GERALD R. FORD INTERNATIONAL AIRPORT AUTHORITY
5500 44TH ST SE, GRAND RAPIDS, MI 49512**

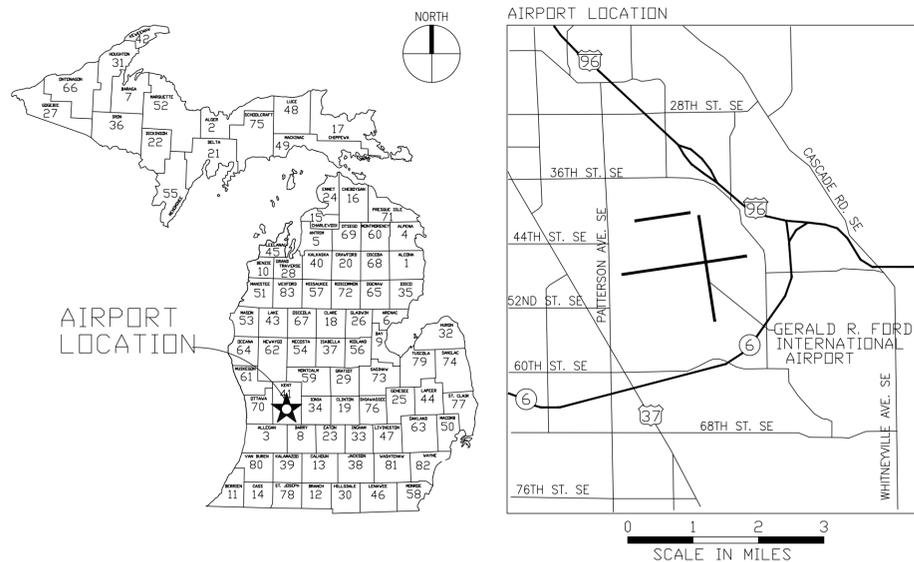
GRR PROJECT: C-435

C&S PROJECT: K19.031.001
K19.031.002

**FEBRUARY 2026
BIDDING DOCUMENTS
(ADDENDUM NO.2)**



GI001



LOCATION MAP

Mar 16, 2026 - 6:16pm
P:\Projects\K19 - Gerald R. Ford Airport\K19031001 - Taxiway F\Design\CADD\Sheet Files\K19031001_LG01.dwg

SHEET NO.	SHEET TITLE	SHEET DESCRIPTION
1	GI001	TITLE SHEET
2	GI002	SHEET INDEX, LEGEND, AND ABBREVIATIONS
3	GI003	GENERAL NOTES
4	GI004	QUANTITIES FOR CANVASS OF BID, SURVEY CONTROL TABLE, ALIGNMENT TABLE, AND EQUALIZATION TABLE
5	GH100	GENERAL PLAN
6	GC100	CONSTRUCTION SAFETY AND PHASING PLAN - OVERALL
7	GC101	CONSTRUCTION SAFETY AND PHASING PLAN - WORK AREA 0
8	GC102	CONSTRUCTION SAFETY AND PHASING PLAN - WORK AREA 1
9	GC103	CONSTRUCTION SAFETY AND PHASING PLAN - WORK AREA 1A
10	GC104	CONSTRUCTION SAFETY AND PHASING PLAN - WORK AREA 2
11	GC105	CONSTRUCTION SAFETY AND PHASING PLAN - WORK AREA 2A
12	GC106	CONSTRUCTION SAFETY AND PHASING PLAN - WORK AREA 2B
13	GC107	CONSTRUCTION SAFETY AND PHASING PLAN - WORK AREA 3
14	GC200	CONSTRUCTION SAFETY AND PHASING PLAN - SPOILS AND BATCH PLANT ACCESS
15	GC501	CONSTRUCTION SAFETY AND PHASING DETAILS
16	CE101	SOIL EROSION AND SEDIMENTATION CONTROL PLAN
17	CE102	SOIL EROSION AND SEDIMENTATION CONTROL PLAN
18	CE501	SOIL EROSION AND SEDIMENTATION CONTROL DETAILS
19	CD101	EXISTING CONDITIONS AND DEMOLITION PLAN
20	CD102	EXISTING CONDITIONS AND DEMOLITION PLAN
21	CD501	EXISTING CONDITIONS AND DEMOLITION DETAILS
22	CS101	GEOMETRY PLAN
23	CS102	GEOMETRY PLAN
24	CG101	GRADING AND DRAINAGE PLAN
25	CG102	GRADING AND DRAINAGE PLAN
26	CG301	PROFILES
27	CG501	GRADING AND DRAINAGE DETAILS
28	CG601	DRAINAGE STRUCTURE TABLES
29	CP101	PAVEMENT JOINT PLAN
30	CP102	PAVEMENT JOINT PLAN
31	CP501	PAVEMENT DETAILS
32	CP502	PAVEMENT DETAILS
33	CP503	PAVEMENT DETAILS
34	CJ101	PAVEMENT ELEVATION PLAN
35	CJ102	PAVEMENT ELEVATION PLAN
36	XM101	MARKING PLAN
37	XM102	MARKING PLAN
38	XM103	MARKING PLAN
39	XM501	MARKING DETAILS
40	E001	GENERAL ELECTRICAL NOTES
41	E002	SUMMARY OF QUANTITIES
42	ED101	DEMOLITION AIRFIELD LIGHTING PLAN - AREA 1
43	ED102	DEMOLITION AIRFIELD LIGHTING PLAN - AREA 2
44	ED103	DEMOLITION AIRFIELD LIGHTING PLAN - AREA 3
45	ED104	DEMOLITION AIRFIELD LIGHTING PLAN - AREA 4
46	ED105	DEMOLITION AIRFIELD LIGHTING PLAN - AREA 5
47	ED106	DEMOLITION AIRFIELD LIGHTING PLAN - AREA 6
48	ED107	DEMOLITION AIRFIELD LIGHTING PLAN - AREA 7
49	EL101	PROPOSED AIRFIELD LIGHTING PLAN - AREA 1
50	EL102	PROPOSED AIRFIELD LIGHTING PLAN - AREA 2
51	EL103	PROPOSED AIRFIELD LIGHTING PLAN - AREA 3
52	EL104	PROPOSED AIRFIELD LIGHTING PLAN - AREA 4
53	EL105	PROPOSED AIRFIELD LIGHTING PLAN - AREA 5
54	EL106	PROPOSED AIRFIELD LIGHTING PLAN - AREA 6
55	EL107	PROPOSED AIRFIELD LIGHTING PLAN - AREA 7
56	E201	AIRFIELD LIGHTING VAULT DEMOLITION PLAN
57	E202	AIRFIELD LIGHTING VAULT PROPOSED PLAN PLAN
58	E301	GENERAL ELECTRICAL DETAILS
59	E302	GENERAL ELECTRICAL DETAILS
60	E303	GENERAL ELECTRICAL DETAILS
61	E304	GENERAL ELECTRICAL DETAILS
62	E305	GENERAL ELECTRICAL DETAILS
63	E306	GENERAL ELECTRICAL DETAILS
64	E307	EXISTING INSTALLATION PHOTOS
65	E400	FIXTURE SCHEDULE

	KEYED NOTE REFERENCE		EXISTING DRAINAGE LINE TO BE REMOVED		TEST BORING LOCATION
	EXISTING AIRPORT PROPERTY LINE		EXISTING UNDERDRAIN TO BE REMOVED		TEST PIT LOCATION
	EXISTING ROADWAY BOUNDARY		EXISTING UNDERGROUND ELECTRIC LINE TO BE REMOVED		PROPOSED SILT FENCE LOCATION
	EXISTING RUNWAY OBJECT FREE AREA		EXISTING SINGLE POST TRAFFIC SIGN TO BE REMOVED		PROPOSED STORM DRAIN INLET PROTECTION
	EXISTING RUNWAY SAFETY AREA		EXISTING RUNWAY OR TAXIWAY EDGE LIGHT TO BE REMOVED		PROPOSED CEMENT CONCRETE PAVEMENT (PARTIAL DEPTH)
	EXISTING TAXIWAY OBJECT FREE AREA		EXISTING AIRFIELD GUIDANCE SIGN TO BE REMOVED		PROPOSED CEMENT CONCRETE PAVEMENT (FULL DEPTH)
	EXISTING TAXILANE OBJECT FREE AREA		EXISTING AIRFIELD GUIDANCE SIGN TO BE REMOVED		PARTIAL DEPTH PAVEMENT TO BE REMOVED
	EXISTING TAXIWAY SAFETY AREA		EXISTING ELECTRICAL MANHOLE TO BE REMOVED		FULL DEPTH PAVEMENT TO BE REMOVED
	EXISTING CONTOUR LINE		EXISTING PULLBOX TO BE REMOVED		BARRICADE LOCATION WITH WORK AREA DESIGNATION
	EXISTING FENCE LINE		EXISTING JUNCTION CAN TO BE REMOVED		WORK AREA LIMITS
	EXISTING DRAINAGE LINE		EXISTING AIRFIELD LIGHTING CABLE IN CONDUIT TO BE REMOVED		FLAGPERSON LOCATION
	EXISTING UNDERDRAIN		EXISTING AIRFIELD LIGHTING CABLE IN CONDUIT TO BE REMOVED		
	EXISTING UNDERDRAIN CLEANOUT		EXISTING AIRFIELD LIGHTING CABLE IN CONDUIT TO BE REMOVED		
	EXISTING CATCH BASIN		EXISTING AIRFIELD LIGHTING CABLE IN CONDUIT TO BE REMOVED		
	EXISTING DRAINAGE MANHOLE		EXISTING AIRFIELD LIGHTING CABLE IN CONDUIT TO BE REMOVED		
	EXISTING WATER LINE		EXISTING AIRFIELD LIGHTING CABLE IN CONDUIT TO BE REMOVED		
	EXISTING WATER VALVE		EXISTING AIRFIELD LIGHTING CABLE IN CONDUIT TO BE REMOVED		
	EXISTING WATER MANHOLE		EXISTING AIRFIELD LIGHTING CABLE IN CONDUIT TO BE REMOVED		
	EXISTING SANITARY LINE		EXISTING AIRFIELD LIGHTING CABLE IN CONDUIT TO BE REMOVED		
	EXISTING SANITARY FORCE MAIN		EXISTING AIRFIELD LIGHTING CABLE IN CONDUIT TO BE REMOVED		
	EXISTING SANITARY MANHOLE		EXISTING AIRFIELD LIGHTING CABLE IN CONDUIT TO BE REMOVED		
	EXISTING UNDERGROUND TELEPHONE LINE		EXISTING AIRFIELD LIGHTING CABLE IN CONDUIT TO BE REMOVED		
	EXISTING FIBER OPTIC LINE		EXISTING AIRFIELD LIGHTING CABLE IN CONDUIT TO BE REMOVED		
	EXISTING TELEPHONE MANHOLE		EXISTING AIRFIELD LIGHTING CABLE IN CONDUIT TO BE REMOVED		
	EXISTING UNDERGROUND ELECTRIC LINE		EXISTING AIRFIELD LIGHTING CABLE IN CONDUIT TO BE REMOVED		
	EXISTING CONCRETE MARKER		EXISTING AIRFIELD LIGHTING CABLE IN CONDUIT TO BE REMOVED		
	EXISTING SINGLE POST TRAFFIC SIGN		EXISTING AIRFIELD LIGHTING CABLE IN CONDUIT TO BE REMOVED		
	EXISTING RUNWAY OR TAXIWAY EDGE LIGHT		EXISTING AIRFIELD LIGHTING CABLE IN CONDUIT TO BE REMOVED		
	EXISTING IN-PAVEMENT EDGE LIGHT		EXISTING AIRFIELD LIGHTING CABLE IN CONDUIT TO BE REMOVED		
	EXISTING AIRFIELD GUIDANCE SIGN		EXISTING AIRFIELD LIGHTING CABLE IN CONDUIT TO BE REMOVED		
	EXISTING WIND CONE		EXISTING AIRFIELD LIGHTING CABLE IN CONDUIT TO BE REMOVED		
	EXISTING ELECTRICAL MANHOLE		EXISTING AIRFIELD LIGHTING CABLE IN CONDUIT TO BE REMOVED		
	EXISTING PULLBOX		EXISTING AIRFIELD LIGHTING CABLE IN CONDUIT TO BE REMOVED		
	EXISTING JUNCTION CAN		EXISTING AIRFIELD LIGHTING CABLE IN CONDUIT TO BE REMOVED		
	EXISTING AIRFIELD LIGHTING CABLE IN CONDUIT		EXISTING AIRFIELD LIGHTING CABLE IN CONDUIT TO BE REMOVED		
	EXISTING DUCT BANK		EXISTING AIRFIELD LIGHTING CABLE IN CONDUIT TO BE REMOVED		
	EXISTING SURVEY CONTROL POINT		EXISTING AIRFIELD LIGHTING CABLE IN CONDUIT TO BE REMOVED		
	EXISTING BENCHMARK LOCATION		EXISTING AIRFIELD LIGHTING CABLE IN CONDUIT TO BE REMOVED		
	IRON ROD FOUND		EXISTING AIRFIELD LIGHTING CABLE IN CONDUIT TO BE REMOVED		

- | | |
|---|--|
| ABAN - ABANDONED
APPROX - APPROXIMATE
ASPH - ASPHALT
B - BASELINE
BLDG - BUILDING
BM - BENCH MARK
C - CENTERLINE
CIP - CAST IRON PIPE
CMP - CORRUGATED METAL PIPE
CONC - CONCRETE
CSP - CORRUGATED STEEL PIPE
DIA - DIAMETER
ELEV - ELEVATION
FND - FOUNDATION
HP - HIGH POINT
INV - INVERT
LT - LEFT
LP - LOW POINT
MAX - MAXIMUM
MIN - MINIMUM
MISC - MISCELLANEOUS
NA - NOT APPLICABLE
OFA - OBJECT FREE AREA
O.C. - ON CENTER
PAVT - PAVEMENT
PC - POINT OF CURVATURE
PCC - PORTLAND CEMENT CONCRETE PAVEMENT
PI - POINT OF INTERSECTION | P - PROPERTY LINE
PT - POINT OF TANGENCY
PVI - POINT OF VERTICAL INTERSECTION
PVC - POINT OF CURVATURE (VERTICAL CURVE)
PVT - POINT OF TANGENCY (VERTICAL CURVE)
R - RADIUS
RCP - REINFORCED CONCRETE PIPE
ROFA - RUNWAY OBJECT FREE AREA
RSA - RUNWAY SAFETY AREA
ROW - RIGHT OF WAY
RPZ - RUNWAY PROTECTION ZONE
RT - RIGHT
RW - RUNWAY
SHDR - SHOULDER
INV - INVERT
SICC - SMOOTH INTERIOR CORRUGATED POLYETHYLENE PIPE
STA - STATION
TOFA - TAXIWAY OBJECT FREE AREA
TSA - TAXIWAY SAFETY AREA
TW - TAXIWAY
TYP - TYPICAL
UD - UNDERDRAIN |
|---|--|

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**TAXIWAY F & G RECONSTRUCTION
 (NORTH OF TAXIWAY V, 1,950' X 35'); TAXIWAY
 F & G AIRFIELD LIGHTING REPLACEMENT
 GERALD R. FORD INTERNATIONAL
 AIRPORT GRAND RAPIDS, MI**

MARK	DATE	DESCRIPTION
△	3/16/2026	ADDENDUM NO.2

REVISIONS	
PROJECT NO:	K19.031.001 & K19.031.002
DATE:	FEBRUARY 2026
DRAWN BY:	B. BUCKINGHAM
DESIGNED BY:	T.J. CORCORAN
CHECKED BY:	K.J. JOST

CONTRACTOR SHALL VERIFY ALL CONDITIONS ON JOB SITE & NOTIFY THE OWNER OF ANY VARIATIONS FROM DIMENSIONS SHOWN ON THESE DRAWINGS BEFORE PROCEEDING WITH ANY CONSTRUCTION.

**SHEET INDEX,
 LEGEND, AND
 ABBREVIATIONS**

GI002
 SHEET NO. 2 OF 65

A1 SHEET INDEX
 SCALE: NOT TO SCALE

A2 LEGEND AND ABBREVIATIONS
 SCALE: NOT TO SCALE

GENERAL CONSTRUCTION NOTES

- THE CONTRACTOR'S ATTENTION IS DIRECTED TO SECTION 70-08, ATTACHMENT A - CONSTRUCTION SAFETY AND PHASING PLAN (CSPP) OF THE GENERAL PROVISIONS.
- THESE DRAWINGS HAVE BEEN PREPARED, IN PART, BASED UPON RECORD DRAWINGS AND/OR CAD FILES FURNISHED BY OTHERS. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, THOSE UTILIZING THE INFORMATION ON THESE DRAWINGS ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY BEFORE USING IT FOR ANY PURPOSE.
- EXISTING UTILITIES WERE TAKEN FROM PLANS OF RECORD. THEY HAVE BEEN SHOWN TO THE EXTENT KNOWN AND ARE OFFERED IN GOOD FAITH SOLELY FOR INFORMATIONAL PURPOSES. THEY MAY NOT REFLECT ACTUAL LOCATIONS AND MAY NOT BE INCLUSIVE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL UTILITIES PRIOR TO THE START OF CONSTRUCTION.
- THE ACTUAL LOCATION AND ELEVATION OF ALL UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION.
- IN THE EVENT OF DAMAGE TO EXISTING UTILITIES OR CABLES, THE RPR AND OWNER SHALL BE NOTIFIED IMMEDIATELY.
- THE CONTRACTOR SHALL REPAIR ALL DAMAGE TO UTILITIES OR CABLES, AS DIRECTED BY THE RPR, IMMEDIATELY AND AT THE CONTRACTOR'S EXPENSE.
- ALL AREAS DISTURBED AS A RESULT OF THE CONTRACTOR'S STAGING AND CONSTRUCTION OPERATIONS SHALL BE RESTORED EQUAL TO OR BETTER THAN ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
- ALL DIRT, DUST, STONES AND LOOSE DEBRIS SHALL BE CONTINUOUSLY REMOVED FROM ALL PAVED SURFACES DURING THIS CONTRACT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE RECONSTRUCTION, REPAIR, AND MAINTENANCE OF ALL EXISTING ACCESS ROADS IMPACTED BY CONSTRUCTION ACTIVITIES. ANY DAMAGE RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED AT THE CONTRACTOR'S SOLE EXPENSE TO A CONDITION EQUAL TO OR BETTER THAN THAT WHICH EXISTED PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
- PROPOSED HAUL ROADS SHALL BE REMOVED UPON COMPLETION OF WORK AND THE AREA RESTORED TO ORIGINAL CONDITION.
- ALL OF THE CONTRACTOR'S OPERATIONS SHALL REMAIN ON AIRPORT PROPERTY AT ALL TIMES. UNDER NO CIRCUMSTANCES WILL THE CONTRACTOR BE ALLOWED ON ADJACENT PROPERTY.
- THIS CONTRACT DOES NOT ALLOW FOR PRICE INCREASES DUE TO ESCALATION IN COST OF UNIT BID ITEMS. THE CONTRACTOR SHALL TAKE THIS INTO CONSIDERATION WHEN PREPARING UNIT PRICES FOR BID.
- THE COST OF ALL FAILING TESTS PERFORMED BY THE OWNER OR ON THE OWNER'S BEHALF SHALL BE BORNE BY THE CONTRACTOR.
- THE OWNER RESERVES THE RIGHT TO ELIMINATE ANY ITEMS OF THE CONTRACT AND PERFORM THESE ITEMS WITH ITS FORCES AND MATERIALS. THE ITEMS TO BE COMPLETED BY THE OWNER WILL BE SPECIFIED PRIOR TO AWARD.
- THE CONTRACTOR SHALL BE AWARE THAT OTHER CONCURRENT PROJECTS WILL BE UNDER CONSTRUCTION ON THE AIRPORT. SPECIFICALLY, THE GSE FUEL FACILITY, TAXIWAY D REHABILITATION, AND TAXIWAY L EXTENSION PROJECTS. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE ACTIVITIES WITH THE OTHER CONTRACTORS ON THE AIRPORT. THE COST OF COORDINATION SHALL BE INCLUDED IN ITEM CX-106.

GENERAL PHASING NOTES

- REFER TO SECTION 70 ATTACHMENT A - CSPP OF THE GENERAL PROVISIONS FOR SPECIFIC OPERATING REQUIREMENTS DURING WORK ON THE AIRFIELD.
- THE CONTRACTOR WILL BE GIVEN THE SPECIFIC NUMBER OF CALENDAR DAYS TO COMPLETE THE WORK AS SHOWN. LIQUIDATED DAMAGES SHALL BE ASSESSED AFTER THE CONTRACT TIME HAS EXPIRED UNLESS THE CONTRACTOR CAN SHOW JUST CAUSE FOR DELAYS. JUST CAUSE WILL BE REVIEWED BY THE RPR AND OWNER. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE JUSTIFICATION FOR WAIVING ANY LIQUIDATED DAMAGES CHARGED.
- PRIOR TO CONSTRUCTION, CONTRACTOR AND RPR SHALL VIDEOTAPE / PHOTOGRAPH ALL HAUL ROADS TO BE USED DURING THE PROJECT. THE INFORMATION SHALL BE PROVIDED TO THE OWNER PRIOR TO NOTICE TO PROCEED. ANY DAMAGE TO THE PAVEMENT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR, PER RPR. ALL COSTS SHALL BE RESPONSIBILITY OF THE CONTRACTOR.
- THE WORK PHASING REQUIRES THE CONTRACTOR TO USE FLAGGERS TO MAINTAIN TRAFFIC, SEE THE GC SERIES FOR REQUIREMENTS. ALL COST OF FLAGGING SHALL BE BORNE BY THE CONTRACTOR AND INCLUDED UNDER ITEM CX-106.
- CONTRACTOR SHALL COORDINATE SCHEDULE, CLOSURES, AND NOTAMS WITH THE RPR PRIOR TO STARTING WORK.
- CONTRACTOR SHALL PROVIDE A CURRENT UPDATED DETAILED SCHEDULE TO THE RPR ON A WEEKLY BASIS.
- CONTRACTOR SHALL HAVE COMPANY IDENTIFICATION DECALS ON BOTH SIDES OF THE VEHICLE CONTAINING THE COMPANY NAME AND MUST BE MARKED WITH FLASHING YELLOW/AMBER BEACONS.

GRADING AND EXCAVATION NOTES

- PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL STRIP AND STOCKPILE ALL MATERIAL SUITABLE FOR TOPSOILING.

- SELECTIVE GRADING SHALL BE REQUIRED AS DIRECTED BY THE RPR.
- QUALITY ASSURANCE TESTS WILL BE MADE BY AND AT THE EXPENSE OF THE OWNER, UNLESS OTHERWISE NOTED. THE COST OF ALL FAILING TESTS SHALL BE BORNE BY THE CONTRACTOR.
- THE QUANTITY OF UNCLASSIFIED EXCAVATION, ITEM P-152, INCLUDES 1,800CY OF UNDERCUT EXCAVATION WHICH WILL BE USED ONLY WHEN DIRECTED BY THE RPR.
- THE QUANTITY OF CRUSHED STONE BASE COURSE, ITEM P-209, INCLUDES 1,800 CY FOR REPLACEMENT OF UNDERCUT EXCAVATION WHICH WILL BE USED ONLY WHEN DIRECTED BY THE RPR.
- THE EXACT LOCATIONS AND DIMENSIONS OF PAVEMENT TO BE RECONSTRUCTED SHALL BE DETERMINED BY THE RPR DURING CONSTRUCTION.
- ALL SPOIL MATERIAL AND EXCESS TOPSOIL SHALL BE DISPOSED OF ON AIRPORT PROPERTY AS SHOWN ON THE CONTRACT DRAWINGS, UNLESS OTHERWISE DIRECTED BY THE AIRPORT AUTHORITIES. NO SPOILS SHALL BE HAULED OFFSITE, EXCEPT CONCRETE TO BE REMOVED.
- EMBANKMENTS SHALL BE CONSTRUCTED WITH SUITABLE ON-SITE MATERIAL UNLESS OTHERWISE DIRECTED BY THE RPR.
- THE LIMIT FOR TOPSOILING, SEEDING, AND MULCHING ARE THE LIMITS OF GRADING SHOWN ON THE GRADING PLANS. ALL AREAS OUTSIDE OF THE GRADING LIMITS WHICH ARE DISTURBED SHALL BE RESTORED BY THE CONTRACTOR AT HIS EXPENSE.
- THE COMBINATION OF SILT/CLAY SOILS AND HIGH NATURAL MOISTURE CONTENTS CREATE THE POTENTIAL FOR LOSS OF STRENGTH UNDER REPETITIVE LOADINGS OR VIBRATION. THE CONTRACTOR SHOULD TAKE THESE FACTORS INTO CONSIDERATION WHEN SELECTING EQUIPMENT, METHODS AND MEANS FOR CONSTRUCTION OF THIS PROJECT, AS WELL AS HAULING EQUIPMENT THAT WILL OPERATE IN THE AREA THROUGHOUT CONSTRUCTION. ANY DAMAGE TO THE SUBGRADE CONDITION AS A RESULT OF CONSTRUCTION OPERATIONS SHALL BE RESTORED TO EQUAL OR BETTER THAN ORIGINAL CONDITION, AS DIRECTED BY THE RPR AND ALL AT THE CONTRACTOR'S EXPENSE.
- TEMPORARY AIR AND WATER POLLUTION, SOIL EROSION AND SILTATION CONTROL WORK PERFORMED FOR PROTECTION OF CONSTRUCTION AREAS OUTSIDE THE CONSTRUCTION LIMITS, SUCH AS BORROW AREAS AND WASTE AREAS, HAUL ROADS, EQUIPMENT AND MATERIAL STORAGE SITES, AND TEMPORARY PLANT SITES, WILL NOT BE MEASURED AND PAID FOR DIRECTLY BUT SHALL BE CONSIDERED AS A SUBSIDIARY OBLIGATION OF THE CONTRACTOR.
- ALL SOIL EROSION AND SEDIMENT CONTROL DEVICES AND MATERIALS SHALL BE IN PLACE PRIOR TO BEGINNING EARTHWORK OPERATIONS AND SHALL BE MAINTAINED UNTIL THE NEW SLOPES ARE STABILIZED WITH SEEDING AND/OR SLOPE PROTECTION.
- TAXIWAY RECONSTRUCTION SHOWN ON THESE PLANS OCCURS OVER AN EXISTING TUNNEL STRUCTURE. NO STRUCTURAL ENGINEERING ANALYSIS OR LOAD CAPACITY CALCULATIONS WERE PERFORMED AS PART OF THIS PROJECT TO EVALUATE THE TUNNEL'S ABILITY TO SUPPORT CONSTRUCTION ACTIVITIES OR FINAL ROADWAY LOADS.
- IT IS ASSUMED THAT THE EXISTING TUNNEL IS IN GOOD STRUCTURAL CONDITION AND CAPABLE OF SUPPORTING PAVEMENT RECONSTRUCTION AND ASSOCIATED CONSTRUCTION EQUIPMENT.
- CONTRACTOR MEANS AND METHODS SHALL NOT EXCEED TYPICAL ROADWAY CONSTRUCTION LOADS. ANY OBSERVED DAMAGE OR UNEXPECTED CONDITIONS RELATED TO THE TUNNEL SHALL BE IMMEDIATELY REPORTED TO THE OWNER.

SURVEY NOTES

- FOR TYPICAL SECTIONS, THE CONTOUR INTERVAL EQUALS 0.2 FOOT.
- THE TOPOGRAPHIC FEATURES SHOWN HEREON WERE COMPILED FROM FIELD SURVEY PERFORMED BY FISHBECK DATED NOVEMBER 6, 2025 AND SUPPLEMENTED ON FEBRUARY 9, 2026.

MARKING NOTES

- REMOVAL OF EXISTING MARKINGS SHALL BE IN ACCORDANCE WITH ITEM P-620.

C

B

A



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C



**TAXIWAY F & G RECONSTRUCTION
 (NORTH OF TAXIWAY V, 1,950' X 35'); TAXIWAY
 F & G AIRFIELD LIGHTING REPLACEMENT
 GERALD R. FORD INTERNATIONAL
 AIRPORT GRAND RAPIDS, MI**

B

A

MARK	DATE	DESCRIPTION
	3/18/2026	ADDENDUM NO.2

REVISIONS	
PROJECT NO:	K19.031.001 & K19.031.002
DATE:	FEBRUARY 2026
DRAWN BY:	B. BUCKINGHAM
DESIGNED BY:	T.J. CORCORAN
CHECKED BY:	K.J. JOST

CONTRACTOR SHALL VERIFY ALL CONDITIONS ON JOB SITE & NOTIFY THE OWNER OF ANY VARIATIONS FROM DIMENSIONS SHOWN ON THESE DRAWINGS BEFORE PROCEEDING WITH ANY CONSTRUCTION.

GENERAL NOTES

GI003

SHEET NO. 3 OF 65

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A1 GENERAL NOTES
 SCALE: NOT TO SCALE

ALIGNMENT LINE TABLE							
LINE NO.	ALIGNMENT NAME	START STATION	START NORTHING	START EASTING	END STATION	END NORTHING	END EASTING
L1	TWY B	0+00.00	508,414.38	12,813,907.92	5+00.00	507,919.14	12,813,976.72
L2	TWY F	0+00.00	508,684.28	12,813,555.96	21+00.00	506,604.15	12,813,844.20
L3	TWY G	0+00.00	508,332.15	12,813,587.09	6+00.00	508,414.50	12,814,181.41
L4	TWY J	0+00.00	508,629.47	12,813,309.06	6+00.00	508,711.83	12,813,903.38
L5	TWY V	0+00.00	506,627.76	12,813,514.26	5+00.00	506,696.39	12,814,009.53

C1 ALIGNMENT TABLE
SCALE: NOT TO SCALE

ALIGNMENT NAME	STATION	NORTHING	EASTING
TW F	0+20.4	508664.07	12813558.76
TW J	2+52.08		

ALIGNMENT NAME	STATION	NORTHING	EASTING
TW F	3+53.07	508334.55	12813604.42
TW G	0+17.5		

ALIGNMENT NAME	STATION	NORTHING	EASTING
TW F	20+31.33	506672.17	12813834.78
TW V	3+23.58		

ALIGNMENT NAME	STATION	NORTHING	EASTING
TW B	0+37.42	508377.32	12813913.07
TW G	3+29.1		

ALIGNMENT NAME	STATION	NORTHING	EASTING
TW F	7+15.85	507975.20	12813654.22
TW NJ	0+17.5		

C3 EQUALIZATION TABLE
SCALE: NOT TO SCALE

ITEM NO	FAA SPEC NO.	PAY ITEM NO	DESCRIPTION	QUANTITY	UNITS
1	C-100	C-100-14.1	CONTRACTOR QUALITY CONTROL PROGRAM (CQCP)	1	LS
2	C-102	C-102-5.1	INSTALLATION AND REMOVAL OF STORM DRAIN INLET PROTECTION	20	EACH
3	C-102	C-102-5.2	INSTALLATION AND REMOVAL OF SILT FENCE	4,000	LF
4	C-105	C-105-6.1	MOBILIZATION (10% MAXIMUM)	1	LS
5	C-105	C-105-6.2	FIELD OFFICE	1	LS
6	CX-106	CX-106-3.1	SAFETY, SECURITY AND MAINTENANCE OF TRAFFIC	1	LS
7	CX-106	CX-106-3.2	INSTALLATION AND REMOVAL OF HAUL ROAD	1,250	LF
8	P-101	P-101-5.1	PAVEMENT REMOVAL	12,800	SY
9	P-152	P-152-4.1	UNCLASSIFIED EXCAVATION	9,700	CY
10	P-154	P-154-5.1	SUBBASE COURSE	2,650	CY
11	P-154	P-154-5.2	RESHAPE AND RECOMPACT EXISTING SUBBASE MATERIAL	11,100	SY
12	P-209	P-209-5.1	CRUSHED AGGREGATE BASE COURSE	6,900	CY
13	P-501	P-501-8.1	CONCRETE PAVEMENT, 10" THICK	14,300	SY
14	P-620	P-620-5.1	MARKING	19,000	SF
15	P-620	P-620-5.2	REFLECTIVE MEDIA	470	LB
16	P-620	P-620-5.3	TEMPORARY MARKING	10,300	SF
17	P-620	P-620-5.4	MARKING REMOVAL	4,300	SF
18	D-705	D-705-5.1	6 INCH PERFORATED SMOOTH INTERIOR CORRUGATED HDPE COMPLETE, INCLUDING POROUS BACKFILL AND FILTER FABRIC	4,550	LF
19	D-705	D-705-5.2	6 INCH NON-PERFORATED SMOOTH INTERIOR CORRUGATED HDPE COMPLETE, INCLUDING POROUS BACKFILL AND FILTER FABRIC	880	LF
20	D-751	D-751-5.1	CLEANOUTS	25	EACH
21	DX-800	DX-800-4.1	SOFT DIGS	2	DAYS
22	T-901	T-901-5.1	SEEDING	3.5	ACRE
23	T-905	T-905-5.1	TOPSOIL (OBTAINED ONSITE OR REMOVED FROM STOCKPILE)	2,700	CY
24	T-908	T-908-5.1	MULCHING	3.5	ACRE
25	L-105	L-105-7.1	REMOVE EXISTING TAXIWAY EDGE LIGHT AND BASE CAN COMPLETE	85	EACH
26	L-105	L-105-7.2	REMOVE EXISTING CABLE IN CONDUIT OR DUCT BANK, CONDUIT AND DUCT TO REMAIN	12,500	LF
27	L-105	L-105-7.3	REMOVE EXISTING CONDUIT	4,500	LF
28	L-105	L-105-7.4	REMOVE EXISTING DUCT BANK	900	LF
29	L-105	L-105-7.5	REMOVE AND RELOCATE EXISTING GUIDANCE SIGN, INCLUDING NEW FOUNDATION	9	EACH
30	L-105	L-105-7.6	REMOVE EXISTING ELECTRICAL HANDHOLE	14	EACH
31	L-108	L-108-5.1	NO. 8 AWG, 5 kV, L-824, TYPE C CABLE, INSTALLED IN NEW OR EXISTING CONDUIT OR DUCT BANK	12,500	LF
32	L-108	L-108-5.2	NO. 6 AWG BARE COUNTERPOISE, GROUND RODS AND TERMINATIONS	4,500	LF
33	L-109	L-109-7.1	AIRFIELD LIGHTING ELECTRICAL VAULT POWER AND CONTROLS MODIFICATIONS	1	LS
34	L-109	L-109-7.2	CONSTANT CURRENT REGULATOR REMOVAL AND SALVAGE	1	EACH
35	L-109	L-109-7.3	CONSTANT CURRENT REGULATOR 10kW, 3-STEP, 6.6A, 480V, L-829	1	EACH
36	L-110	L-110-5.1	PROPOSED 4-WAY, 4-INCH SCH. 40 PVC, CONCRETE ENCASED DUCTBANK	2,100	LF
37	L-110	L-110-5.2	1-WAY, 2-INCH, SCH. 40 PVC, CONDUIT DIRECT BURIED	4,500	LF
38	L-115	L-115-5.1	4' X 4' CONCRETE MANHOLE	14	EACH
39	L-125	L-125-5.1	L-861(L) ELEVATED TAXIWAY EDGE LIGHT AND BASE CAN, INCLUDING ISOLATION TRANSFORMER AND CONNECTIONS	57	EACH
40	L-125	L-125-5.2	L-861 ELEVATED TAXIWAY EDGE LIGHT ON NEW BASE CAN, INCLUDING ISOLATION TRANSFORMER AND CONNECTIONS. LABOR ONLY, FIXTURES PROVIDED BY AIRPORT	14	EACH
41	L-126	L-126-5.1	MAINTENANCE OF AIRPORT LIGHTING SYSTEM SYSTEMS, INCLUDING TEMPORARY CONNECTIONS/JUMPERS AND POWER/CONTROLS, AS NEEDED	1	LS

A1 QUANTITIES FOR CANVASS OF BIDS
SCALE: NOT TO SCALE

CONTROL				
POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
100	507319.640	12813331.570	784.859	1/2" x 18" REBAR WITH RED FISHBECK CONTROL POINT CAP, IN GRASSY AREA, 90 FEET NORTHEAST OF NORTHEAST CORNER OF ARFF BUILDING
105	506751.443	12813780.292	783.419	1/2" x 18" REBAR WITH RED FISHBECK CONTROL POINT CAP, NW QUADRANT OF TAXIWAYS F AND V
106	506812.022	12813894.318	782.495	1/2" x 18" REBAR WITH RED FISHBECK CONTROL POINT CAP, NE QUADRANT OF TAXIWAYS F AND V
107	507216.126	12813722.218	781.676	1/2" x 18" REBAR WITH RED FISHBECK CONTROL POINT CAP, SW QUADRANT OF TAXIWAY F AND DRIVE TO ARFF STATION
108	507330.732	12813782.902	781.627	1/2" x 18" REBAR WITH RED FISHBECK CONTROL POINT CAP, NE QUADRANT OF TAXIWAY F AND DRIVE TO ARFF STATION
109	507757.114	12813651.500	781.731	1/2" x 18" REBAR WITH RED FISHBECK CONTROL POINT CAP, WEST SIDE OF TAXIWAY F, SOUTH OF DRIVE TO NORTHERN JET BUILDING
110	507846.848	12813706.178	781.774	1/2" x 18" REBAR WITH RED FISHBECK CONTROL POINT CAP, EAST SIDE OF TAXIWAY F, SOUTH OF DRIVE TO NORTHERN JET BUILDING
111	508218.496	12813586.681	781.731	1/2" x 18" REBAR WITH RED FISHBECK CONTROL POINT CAP, WEST SIDE OF TAXIWAY F, SOUTH OF TAXIWAY G
112	508281.510	12813653.156	781.558	1/2" x 18" REBAR WITH RED FISHBECK CONTROL POINT CAP, SE QUADRANT OF TAXIWAY F AND TAXIWAY G
113	508602.471	12813525.361	782.868	1/2" x 18" REBAR WITH RED FISHBECK CONTROL POINT CAP, SW QUADRANT OF TAXIWAY F AND TAXIWAY J
114	508706.684	12813635.143	783.109	1/2" x 18" REBAR WITH RED FISHBECK CONTROL POINT CAP, NORTH SIDE OF TAXIWAY J, EAST OF TAXIWAY F
115	508447.722	12813971.066	780.368	1/2" x 18" REBAR WITH RED FISHBECK CONTROL POINT CAP, NORTH SIDE OF TAXIWAY G TO TAXIWAY B5 AREA
202	507267.184	12813330.860	787.536	NORTHERLY FLANGE BOLT ON HYDRANT, 60 FEET EAST OF NORTHEAST CORNER OF ARFF BUILDING
203	506811.338	12813845.188	782.433	MAIL NAIL IN NORTHWEST CORNER OF CONCRETE PAD FOR F-V SIGN, NE QUADRANT OF TAXIWAYS F AND V
204	508267.209	12813583.958	781.820	MAIL NAIL IN SOUTHEAST CORNER OF CONCRETE PAD FOR F-G SIGN, WEST SIDE OF TAXIWAY F, NORTH OF NORTHERN JET TAXIWAY

A3 SURVEY CONTROL TABLE
SCALE: NOT TO SCALE



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**TAXIWAY F & G RECONSTRUCTION
(NORTH OF TAXIWAY V, 1,950' X 35'); TAXIWAY
F & G AIRFIELD LIGHTING REPLACEMENT
GERALD R. FORD INTERNATIONAL
AIRPORT GRAND RAPIDS, MI**

MARK	DATE	DESCRIPTION
△	3/16/2026	ADDENDUM NO. 2
△	3/6/2026	ADDENDUM NO. 1

REVISIONS

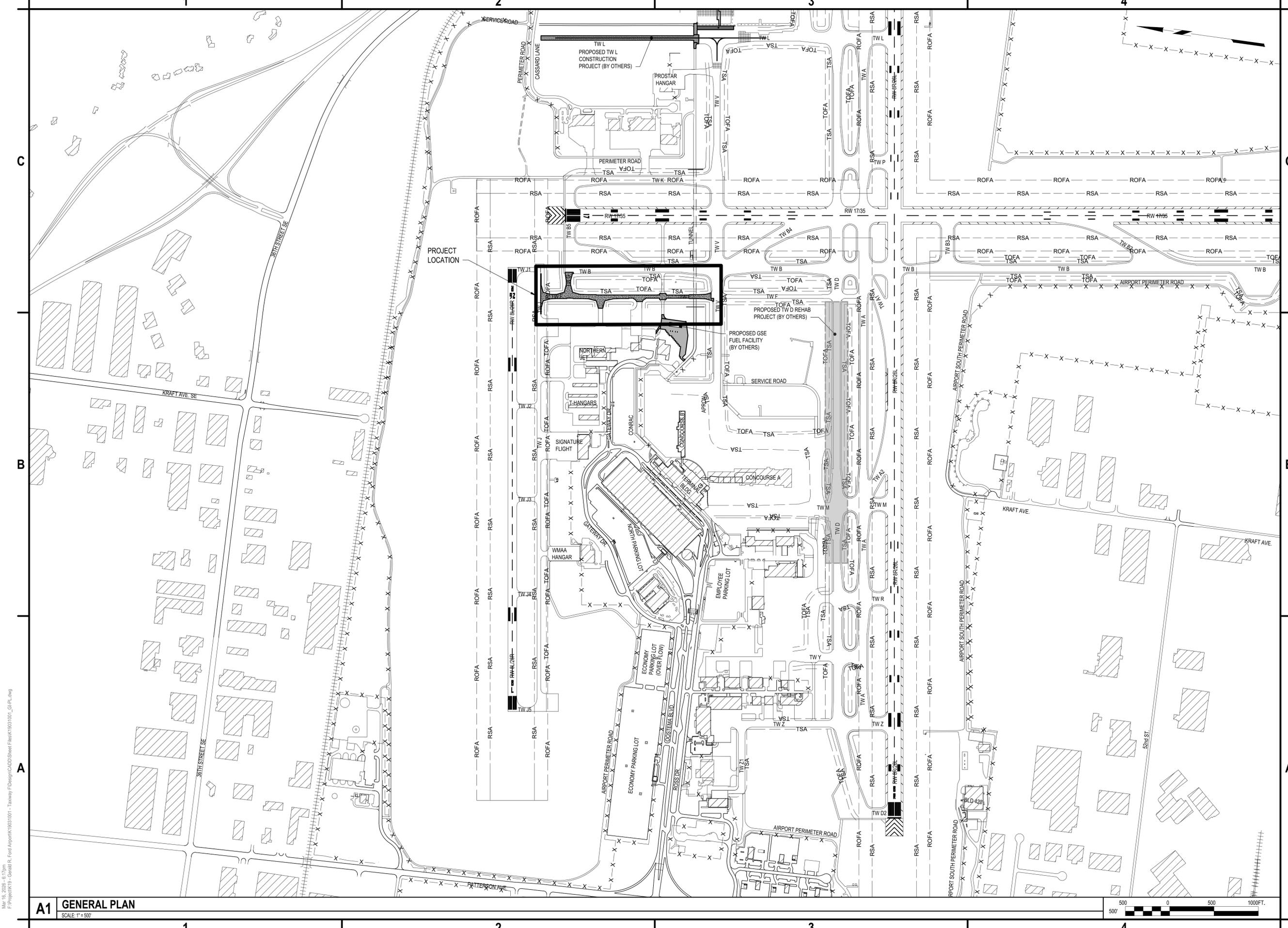
PROJECT NO: K19.031.001 & K19.031.002
DATE: FEBRUARY 2026
DRAWN BY: B. BUCKINGHAM
DESIGNED BY: T.J. CORCORAN
CHECKED BY: K.J. JOST

CONTRACTOR SHALL VERIFY ALL CONDITIONS ON JOB SITE & NOTIFY THE OWNER OF ANY VARIATIONS FROM DIMENSIONS SHOWN ON THESE DRAWINGS BEFORE PROCEEDING WITH ANY CONSTRUCTION.

QUANTITIES FOR CANVASS OF BID, SURVEY CONTROL TABLE, ALIGNMENT TABLE, AND EQUALIZATION TABLE

G1004

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**TAXIWAY F & G RECONSTRUCTION
 (NORTH OF TAXIWAY V, 1,950' X 35'); TAXIWAY
 F & G AIRFIELD LIGHTING REPLACEMENT
 GERALD R. FORD INTERNATIONAL
 AIRPORT GRAND RAPIDS, MI**

MARK	DATE	DESCRIPTION
REVISIONS		
	PROJECT NO:	K19.031.001 & K19.031.002
	DATE:	FEBRUARY 2026
	DRAWN BY:	B. BUCKINGHAM
	DESIGNED BY:	T.J. CORCORAN
	CHECKED BY:	K.J. JOST
<small>CONTRACTOR SHALL VERIFY ALL CONDITIONS ON JOB SITE & NOTIFY THE OWNER OF ANY VARIATIONS FROM DIMENSIONS SHOWN ON THESE DRAWINGS BEFORE PROCEEDING WITH ANY CONSTRUCTION.</small>		

GENERAL PLAN

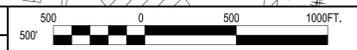
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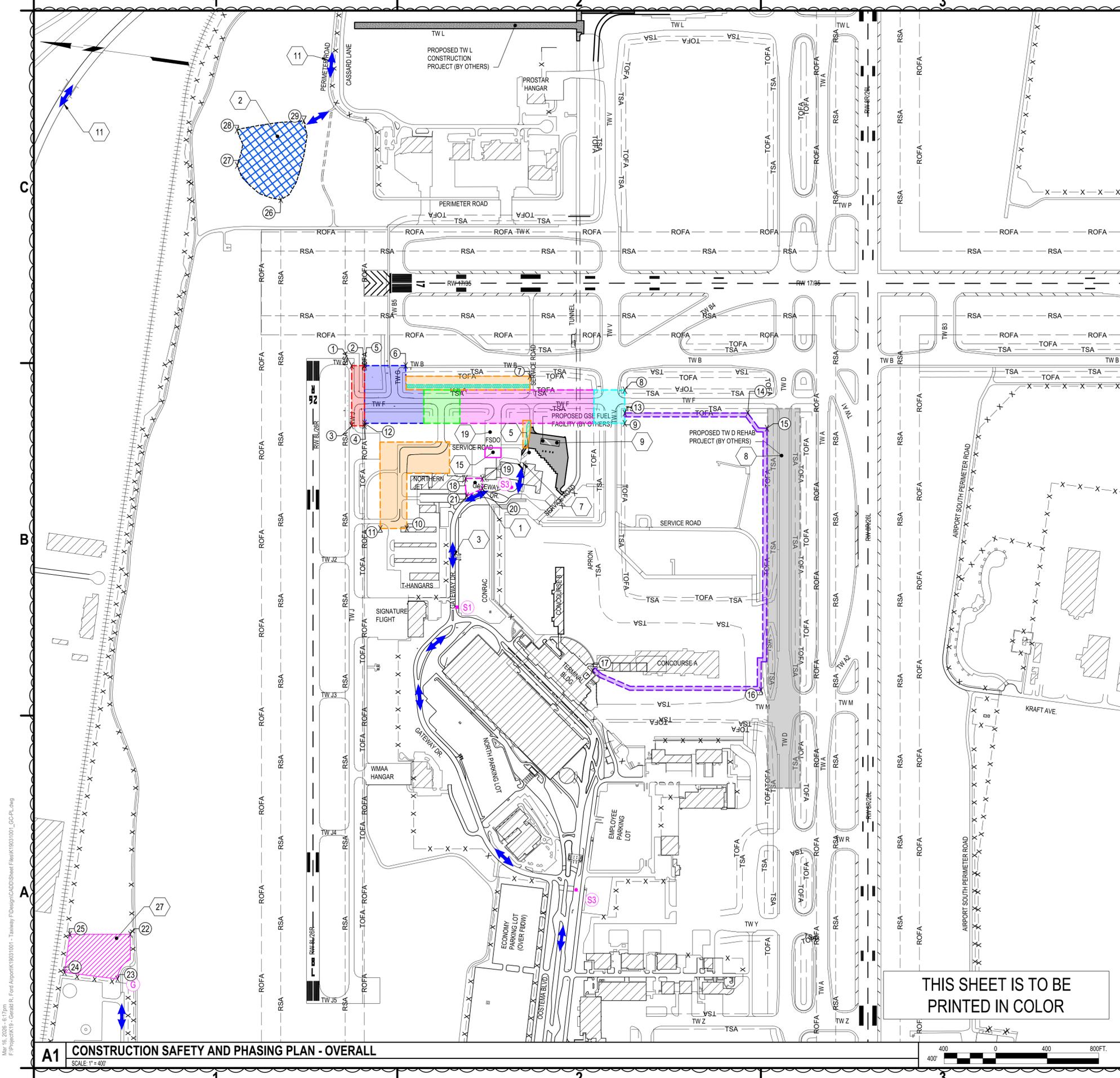
SHEET NO. 5 OF 65

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A1 GENERAL PLAN
 SCALE: 1" = 50'

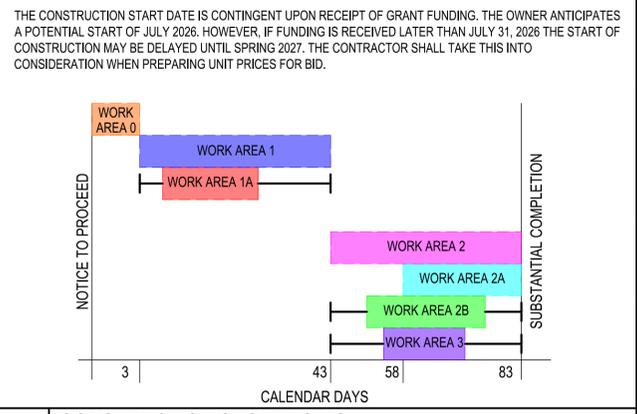




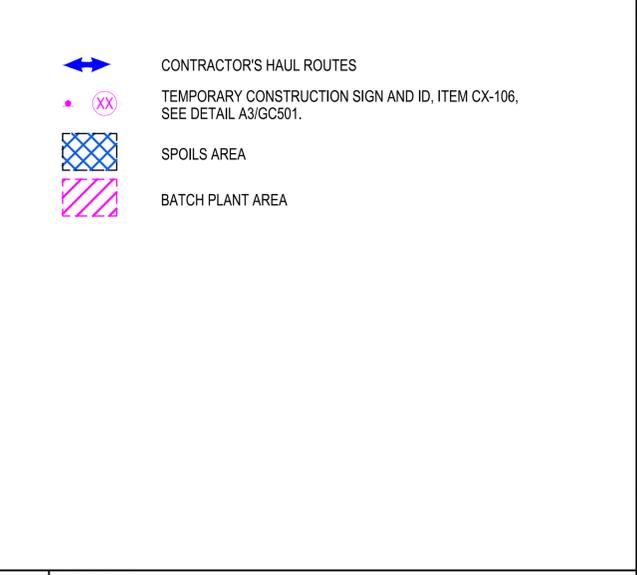
CALENDAR DAYS:
 WORK AREA 0: 3 CALENDAR DAYS
 WORK AREA 1: 40 CALENDAR DAYS
 WORK AREA 1A: 25 CALENDAR DAYS (CONCURRENT WITH WORK AREA 1)
 WORK AREA 2: 40 CALENDAR DAYS
 WORK AREA 2A: 25 CALENDAR DAYS (CONCURRENT WITH WORK AREA 2)
 WORK AREA 2B: 25 CALENDAR DAYS (CONCURRENT WITH WORK AREA 2)
 WORK AREA 3: 21 CALENDAR DAYS (CONCURRENT WITH WORK AREA 2)

THE TOTAL CONTRACT TIME FOR THE CONSTRUCTION OF TAXIWAY F IS 83 CALENDAR DAYS.

THE CONSTRUCTION START DATE IS CONTINGENT UPON RECEIPT OF GRANT FUNDING. THE OWNER ANTICIPATES A POTENTIAL START OF JULY 2026. HOWEVER, IF FUNDING IS RECEIVED LATER THAN JULY 31, 2026 THE START OF CONSTRUCTION MAY BE DELAYED UNTIL SPRING 2027. THE CONTRACTOR SHALL TAKE THIS INTO CONSIDERATION WHEN PREPARING UNIT PRICES FOR BID.



C4 CONSTRUCTION SEQUENCING
 SCALE: NOT TO SCALE

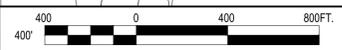


B4 LEGEND
 SCALE: NOT TO SCALE

- CONTRACTOR STAGING AREA AND FIELD OFFICE LOCATION.
- CONTRACTOR SPOILS AREA, FINAL SPOILS LOCATION TO BE APPROVED BY THE RPR. THE GSE FUEL FARM PROJECT WILL ALSO SHARE THE SPOILS AREA. CONTRACTOR SHALL COORDINATE WITH THE CONTRACTOR ON THE CONCURRENT GSE FUEL FARM PROJECT. (MAXIMUM ALLOWABLE HEIGHT IN SPOILS AREA SHALL BE 25').
- CONTRACTOR ACCESS ROUTE TO WORK AREA (TYP.)
- SHARED DRIVE ACCESS ROAD FOR AIRPORT USERS. ACCESS ROAD SHALL BE KEPT CLEAN AND FREE OF DIRT AND DEBRIS THROUGHOUT THE DURATION OF PROJECT.
- CONTRACTOR SHALL UTILIZE GATE 1 TO ACCESS AOA AND WORK AREAS. GATE TO REMAINED CLOSED AT ALL TIMES. DURING HAULING OPERATIONS A CONTRACTOR PROVIDED GATE GUARD SHALL UTILIZED (DK SECURITY OR AIRPORT APPROVED EQUAL) ITEM CX-106.
- CONTRACTOR SHALL COORDINATE WORK WITH CONCURRENT TAXIWAY D REHABILITATION AS REQUIRED BY THE RPR. WHILE WORK IS OCCURRING IN THE INTERSECTION OF TAXIWAY F AND TAXIWAY V, TAXIWAY D MUST BE OPEN TO AIRCRAFT TRAFFIC.
- CONTRACTOR SHALL COORDINATE WITH THE CONTRACTOR ON THE CONCURRENT GSE FUEL FARM PROJECT. THE GSE FUEL FARM PROJECT WILL SHARE AN ACCESS ROAD AND GATE. SHARING OF THE ACCESS ROAD AND GATE SHALL NOT INTERFERE WITH THE PROPOSED PROJECT SCHEDULE.
- HAUL ROUTE TO SPOILS AREA, SEE SHEET GC200.
- GSE FUEL FARM PROJECT STAGING AREA (FOR OTHERS).
- FSDO APRON IS UTILIZED MONTHLY FOR ARFF TRAINING. CONTRACTOR SHALL COORDINATE WITH THE RPR AND ARFF ON DAYS OF TRAINING.
- CONTRACTOR BATCH PLANT AREA, FINAL BATCH PLANT LOCATION TO BE APPROVED BY THE OWNER AND RPR. (MAXIMUM ALLOWABLE BATCH PLANT HEIGHT SHALL BE 80').

A4 KEYED NOTES
 SCALE: NOT TO SCALE

THIS SHEET IS TO BE PRINTED IN COLOR



A1 CONSTRUCTION SAFETY AND PHASING PLAN - OVERALL
 SCALE: 1" = 400'

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**TAXIWAY F & G RECONSTRUCTION
 (NORTH OF TAXIWAY V, 1,950' X 35'); TAXIWAY
 F & G AIRFIELD LIGHTING REPLACEMENT
 GERALD R. FORD INTERNATIONAL
 AIRPORT GRAND RAPIDS, MI**

MARK	DATE	ADDENDUM NO.2	DESCRIPTION
	3/16/2026		

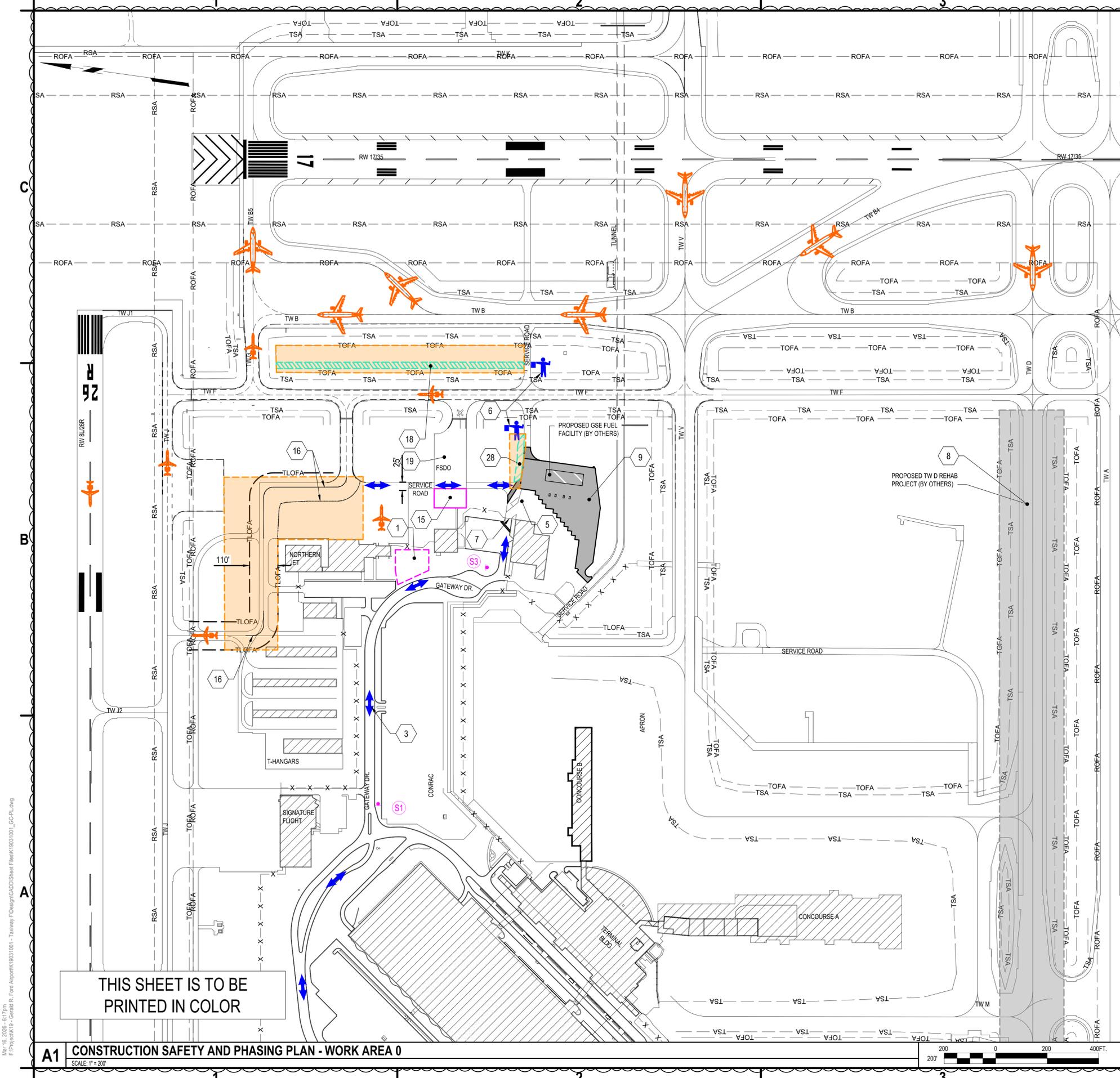
REVISIONS

PROJECT NO:	K19.031.001 & K19.031.002
DATE:	FEBRUARY 2026
DRAWN BY:	B. BUCKINGHAM
DESIGNED BY:	T.J. CORCORAN
CHECKED BY:	K.J. JOST

CONTRACTOR SHALL VERIFY ALL CONDITIONS ON JOB SITE & NOTIFY THE OWNER OF ANY VARIATIONS FROM DIMENSIONS SHOWN ON THESE DRAWINGS BEFORE PROCEEDING WITH ANY CONSTRUCTION.

CONSTRUCTION SAFETY AND PHASING PLAN - OVERALL

GC100
 SHEET NO. 6 OF 65
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WORK AREA 0 - 3 CALENDAR DAYS

CONSTRUCTION:

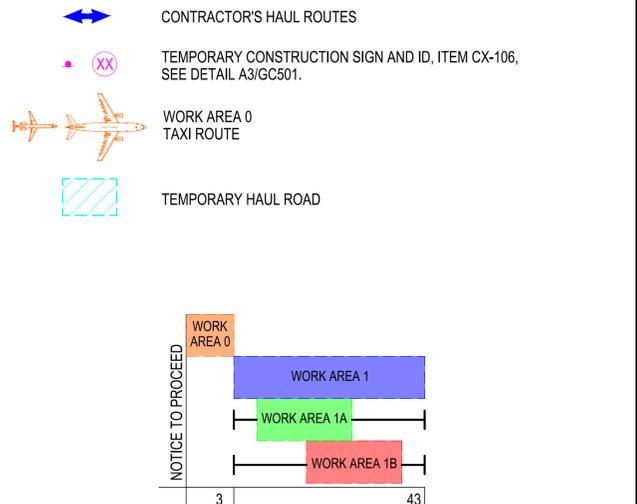
- INSTALLATION OF TEMPORARY HAUL/ACCESS ROADS
- APPLICATION OF TEMPORARY MARKINGS, SEE XM103

CLOSURES & RESTRICTIONS:

- WORK SHALL BE PERFORMED ON THE NORTHERN JET APRON. THE CONTRACTOR SHALL PHASE THE INSTALLATION OF PAVEMENT MARKINGS TO ENSURE ADEQUATE CURING TIME WHILE MAINTAINING UNINTERRUPTED AIRCRAFT ACCESS TO AND FROM THE APRON.

SEE GENERAL NOTES, SHEET GI003, FOR ADDITIONAL CONSTRUCTION SAFETY AND PHASING NOTES.

C4 GENERAL NOTES
SCALE: NOT TO SCALE



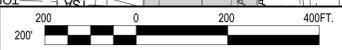
B4 LEGEND/PHASE SEQUENCING
SCALE: NOT TO SCALE

1. CONTRACTOR STAGING AREA AND FIELD OFFICE LOCATION.
3. CONTRACTOR ACCESS ROUTE TO WORK AREA (TYP.)
5. SHARED DRIVE ACCESS ROAD FOR AIRPORT USERS. ACCESS ROAD SHALL BE KEPT CLEAN AND FREE OF DIRT AND DEBRIS THROUGHOUT THE DURATION OF PROJECT.
6. FLAGGER TO GUIDE CONSTRUCTION TRAFFIC ACROSS TAXIWAY F (DK SECURITY OR AIRPORT APPROVED EQUAL). TAXIWAY AIRCRAFT SHALL ALWAYS HAVE THE RIGHT OF WAY. FLAGGERS SHALL BE TRAINED PER THE REQUIREMENTS OF ATTACHMENT A TO SECTION 70, ITEM CX-106.
7. CONTRACTOR SHALL UTILIZE GATE 1 TO ACCESS AOA AND WORK AREAS. GATE TO REMAINED CLOSED AT ALL TIMES. DURING HAULING OPERATIONS A CONTRACTOR PROVIDED GATE GUARD SHALL UTILIZED (DK SECURITY OR AIRPORT APPROVED EQUAL) ITEM CX-106.
8. CONTRACTOR SHALL COORDINATE WORK WITH CONCURRENT TAXIWAY D REHABILITATION AS REQUIRED BY THE RPR. WHILE WORK IS OCCURRING IN THE INTERSECTION OF TAXIWAY F AND TAXIWAY V, TAXIWAY D MUST BE OPEN TO AIRCRAFT TRAFFIC.
9. CONTRACTOR SHALL COORDINATE WITH THE CONTRACTOR ON THE CONCURRENT GSE FUEL FARM PROJECT. THE GSE FUEL FARM PROJECT WILL SHARE AN ACCESS ROAD AND GATE. SHARING OF THE ACCESS ROAD AND GATE SHALL NOT INTERFERE WITH THE PROPOSED PROJECT SCHEDULE.
15. GSE FUEL FARM PROJECT STAGING AREA (FOR OTHERS).
16. PROPOSED TEMPORARY MARKINGS, SEE SHEET XM103. TEMPORARY MARKINGS ON THE NORTHERN JET APRON SHALL BE REMOVED ONCE THE INTERSECTION OF TAXIWAY F AND TAXIWAY G IS OPENED TO AIRCRAFT.
18. CONTRACTOR TEMPORARY HAUL ROAD, SEE DETAIL B3/GC501. HAUL ROAD TO BE REMOVED AT THE COMPLETION OF WORK AREAS 1 AND 1A, ITEM CX-106.
19. FSDO APRON IS UTILIZED MONTHLY FOR ARFF TRAINING, CONTRACTOR SHALL COORDINATE WITH THE RPR AND ARFF ON DAYS OF TRAINING.
28. CONTRACTOR TEMPORARY HAUL ROAD SEE DETAIL B3/GC501. FINAL LOCATION TO BE DETERMINED BY THE RPR. HAUL ROAD SHALL BE REMOVED AT THE COMPLETION OF THE PROJECT, ITEM CX-106.

A4 KEYED NOTES
SCALE: NOT TO SCALE

THIS SHEET IS TO BE PRINTED IN COLOR

A1 CONSTRUCTION SAFETY AND PHASING PLAN - WORK AREA 0
SCALE: 1" = 20'



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38777 Six Mile Road, Suite 202
Livonia, Michigan 48152
Phone: 734-953-2571
Fax: 734-206-7973
www.cscos.com



**TAXIWAY F & G RECONSTRUCTION
(NORTH OF TAXIWAY V, 1,950' X 35'); TAXIWAY
F & G AIRFIELD LIGHTING REPLACEMENT
GERALD R. FORD INTERNATIONAL
AIRPORT GRAND RAPIDS, MI**

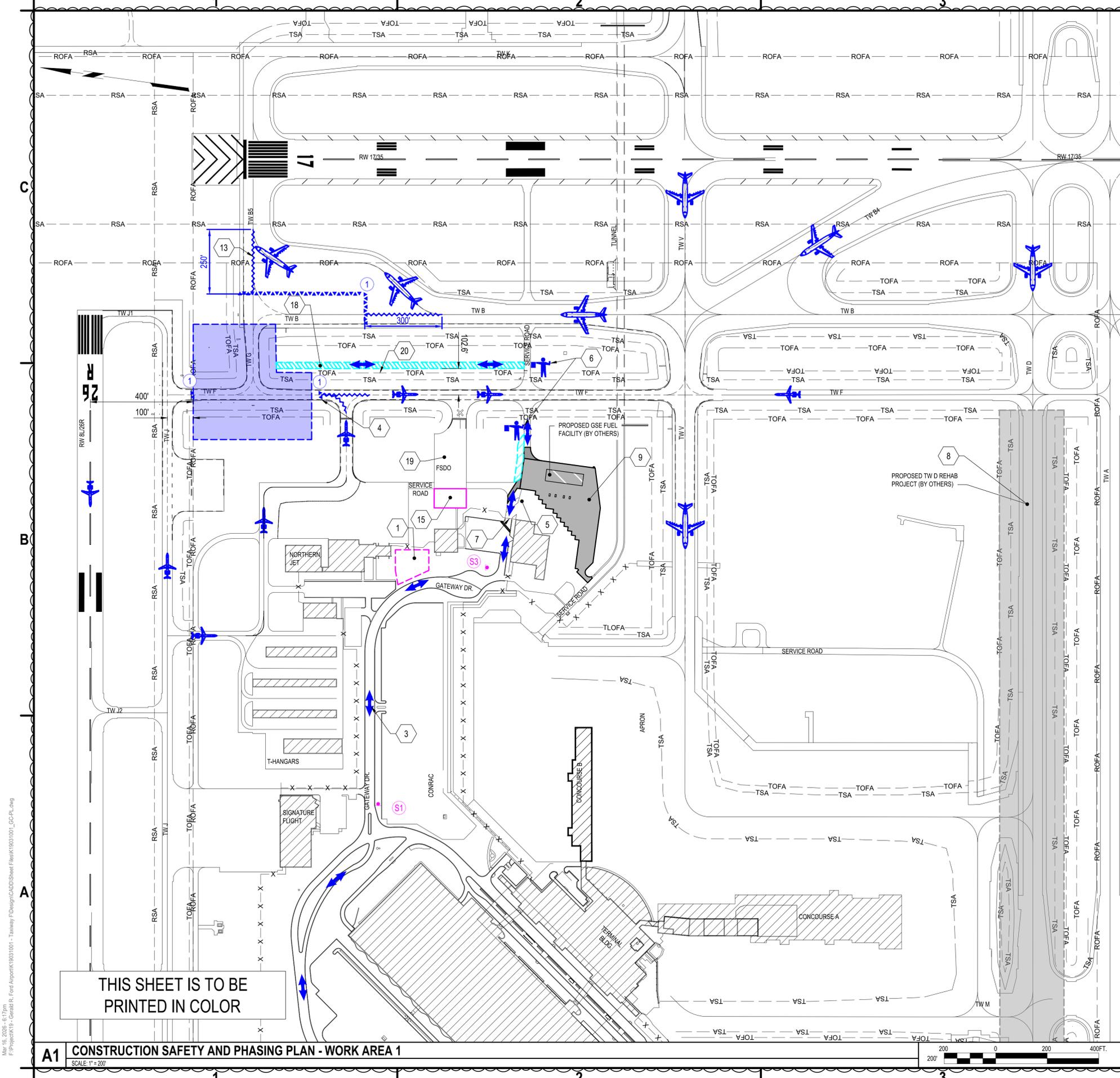
MARK	DATE	DESCRIPTION
△	3/16/2026	ADDENDUM NO.2
REVISIONS		
PROJECT NO: K19.031.001 & K19.031.002		
DATE: FEBRUARY 2026		
DRAWN BY: B. BUCKINGHAM		
DESIGNED BY: T.J. CORCORAN		
CHECKED BY: K.J. JOST		
CONTRACTOR SHALL VERIFY ALL CONDITIONS ON JOB SITE & NOTIFY THE OWNER OF ANY VARIATIONS FROM DIMENSIONS SHOWN ON THESE DRAWINGS BEFORE PROCEEDING WITH ANY CONSTRUCTION.		

CONSTRUCTION SAFETY AND PHASING PLAN - WORK AREA 0

GC101

SHEET NO. 7 OF 65

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WORK AREA 1 - 40 CALENDAR DAYS

CONSTRUCTION:

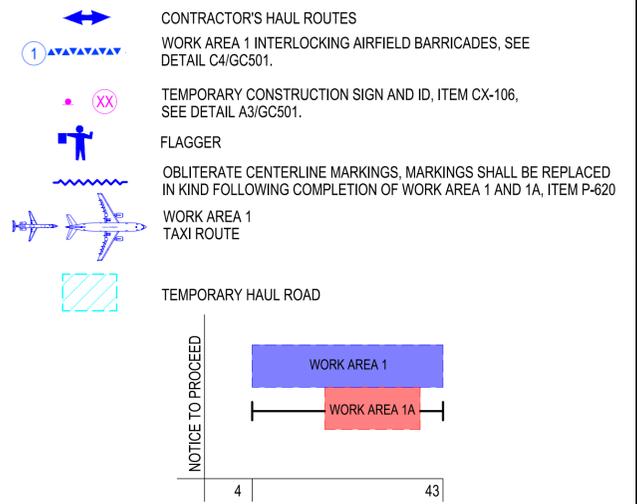
- TURF GRADING AND UNDERDRAIN INSTALLATION
- DEMO AND EXCAVATION FOR PAVEMENT SECTION
- SUBGRADE/AGGREGATE SUBBASE GRADING AND EXCAVATION
- ELECTRICAL DEMO AND INSTALLATION
- PAVING OF CONCRETE SURFACE

TAXIWAY CLOSURES & RESTRICTIONS:

- TAXIWAY F (BETWEEN TWY J AND NORTHERN JET TAXILANE)
- TAXIWAY G (BETWEEN TWY B AND TWY F)
- TAXIWAY B (AT TWY G INTERSECTION), TAXIWAY B TO BE RE-ROUTED THROUGH HOLD BAY AS SHOWN

SEE GENERAL NOTES, SHEET GI003, FOR ADDITIONAL CONSTRUCTION SAFETY AND PHASING NOTES.

C4 GENERAL NOTES
SCALE: NOT TO SCALE



NOTE: WORK AREA CONCURRENCE NOT SHOWN SHALL BE APPROVED IN WRITING BY THE RPR AND OWNER 14 DAYS PRIOR TO WORK BEGINNING IN APPROVED WORK AREAS.

B4 LEGEND/PHASE SEQUENCING
SCALE: NOT TO SCALE

1. CONTRACTOR STAGING AREA AND FIELD OFFICE LOCATION.
3. CONTRACTOR ACCESS ROUTE TO WORK AREA (TYP.)
4. TEMPORARY INTERLOCKING BARRICADES, SEE DETAIL C4/GC501.
5. SHARED DRIVE ACCESS ROAD FOR AIRPORT USERS. ACCESS ROAD SHALL BE KEPT CLEAN AND FREE OF DIRT AND DEBRIS THROUGHOUT THE DURATION OF PROJECT.
6. FLAGGER TO GUIDE CONSTRUCTION TRAFFIC ACROSS TAXIWAY F (DK SECURITY OR AIRPORT APPROVED EQUAL). TAXIING AIRCRAFT SHALL ALWAYS HAVE THE RIGHT OF WAY. FLAGGERS SHALL BE TRAINED PER THE REQUIREMENTS OF ATTACHMENT A TO SECTION 70, ITEM CX-106.
7. CONTRACTOR SHALL UTILIZE GATE 1 TO ACCESS AOA AND WORK AREAS. GATE TO REMAINED CLOSED AT ALL TIMES. DURING HAULING OPERATIONS A CONTRACTOR PROVIDED GATE GUARD SHALL UTILIZED (DK SECURITY OR AIRPORT APPROVED EQUAL) ITEM CX-106.
8. CONTRACTOR SHALL COORDINATE WORK WITH CONCURRENT TAXIWAY D REHABILITATION AS REQUIRED BY THE RPR. WHILE WORK IS OCCURRING IN THE INTERSECTION OF TAXIWAY F AND TAXIWAY Y, TAXIWAY D MUST BE OPEN TO AIRCRAFT TRAFFIC.
9. CONTRACTOR SHALL COORDINATE WITH THE CONTRACTOR ON THE CONCURRENT GSE FUEL FARM PROJECT. THE GSE FUEL FARM PROJECT WILL SHARE AN ACCESS ROAD AND GATE. SHARING OF THE ACCESS ROAD AND GATE SHALL NOT INTERFERE WITH THE PROPOSED PROJECT SCHEDULE.
13. REMOVE CENTERLINE MARKING, ITEM P-620.
15. GSE FUEL FARM PROJECT STAGING AREA (FOR OTHERS).
18. CONTRACTOR TEMPORARY HAUL ROAD, SEE DETAIL B3/GC501. HAUL ROAD TO BE REMOVED AT THE COMPLETION OF WORK AREAS 1 AND 1A, ITEM CX-106.
19. FSDO APRON IS UTILIZED MONTHLY FOR ARFF TRAINING. CONTRACTOR SHALL COORDINATE WITH THE RPR AND ARFF ON DAYS OF TRAINING.
20. PLACE LOW PROFILE BARRICADES IN TURF ALONG THE TOFA, SEE DETAIL C4/GC501.

A4 KEYED NOTES
SCALE: NOT TO SCALE

C&S Companies
C&S Engineers, Inc.
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GERALD R. FORD International Airport

**TAXIWAY F & G RECONSTRUCTION
(NORTH OF TAXIWAY V, 1,950' X 35'); TAXIWAY
F & G AIRFIELD LIGHTING REPLACEMENT
GERALD R. FORD INTERNATIONAL
AIRPORT GRAND RAPIDS, MI**

MARK	DATE	ADDENDUM NO.2	DESCRIPTION
	3/16/2026		

REVISIONS	
PROJECT NO:	K19.031.001 & K19.031.002
DATE:	FEBRUARY 2026
DRAWN BY:	B. BUCKINGHAM
DESIGNED BY:	T.J. CORCORAN
CHECKED BY:	K.J. JOST

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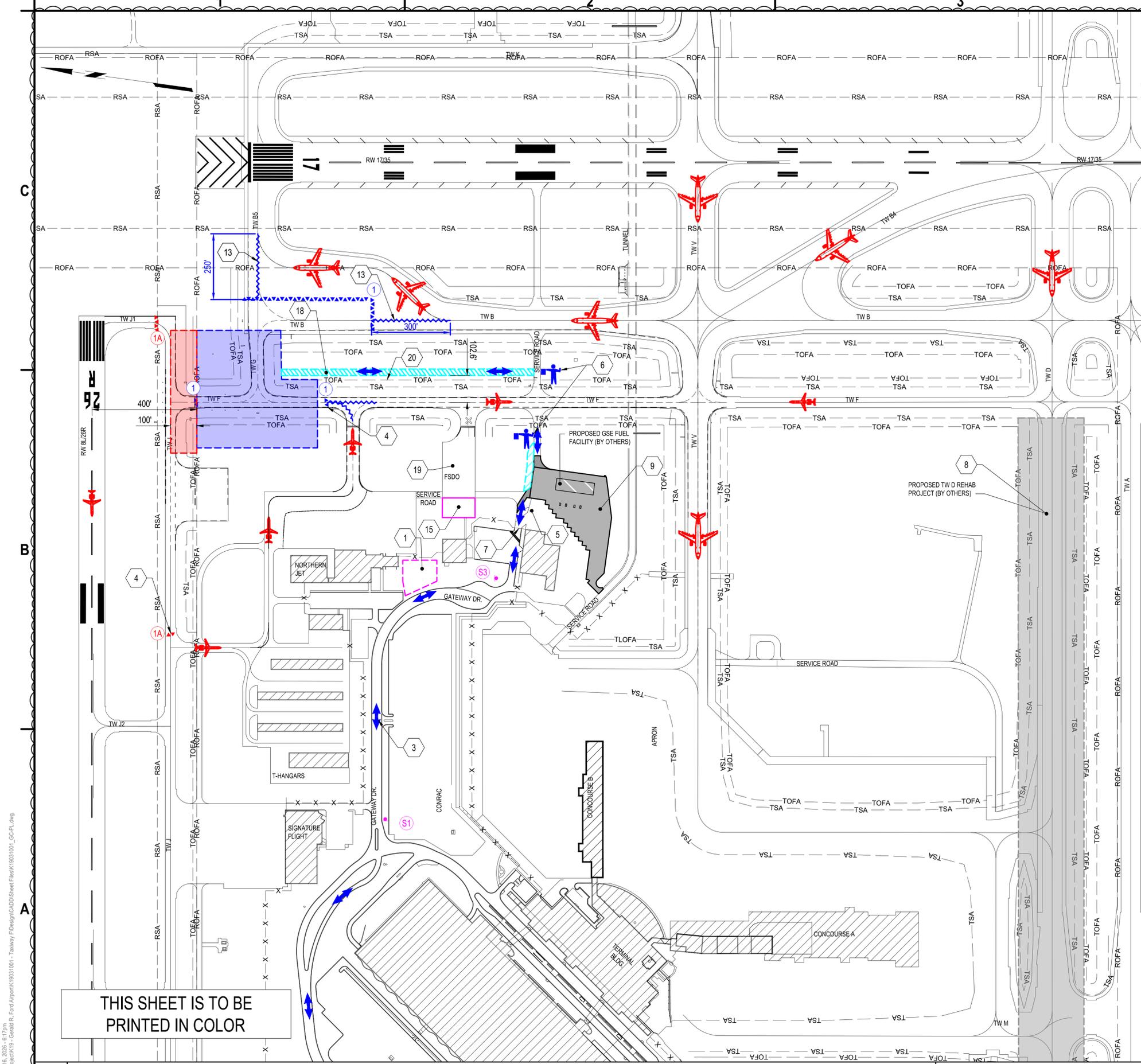
CONSTRUCTION SAFETY AND PHASING PLAN - WORK AREA 1

GC102
SHEET NO. 8 OF 65
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THIS SHEET IS TO BE PRINTED IN COLOR

A1 CONSTRUCTION SAFETY AND PHASING PLAN - WORK AREA 1
SCALE: 1"=20'



WORK AREA 1 - 40 CALENDAR DAYS
CONSTRUCTION:
 - TURF GRADING AND UNDERDRAIN INSTALLATION
 - DEMO AND EXCAVATION FOR PAVEMENT SECTION
 - SUBGRADE/AGGREGATE SUBBASE GRADING AND EXCAVATION
 - ELECTRICAL DEMO AND INSTALLATION
 - PAVING OF CONCRETE SURFACE

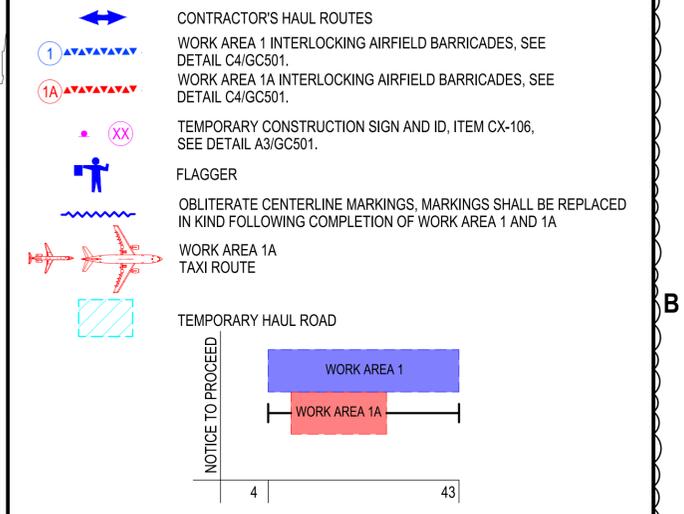
TAXIWAY CLOSURES & RESTRICTIONS:
 - TAXIWAY F (BETWEEN TWY J AND NORTHERN JET TAXILANE)
 - TAXIWAY G (BETWEEN TWY B AND TWY F)
 - TAXIWAY B (AT TWY G INTERSECTION), TAXIWAY B TO BE RE-ROUTED THROUGH HOLD BAY AS SHOWN

WORK AREA 1A - 25 CALENDAR DAYS
TAXIWAY CLOSURES & RESTRICTIONS:
 - TAXIWAY F (BETWEEN TWY J AND NORTHERN JET TAXILANE)
 - TAXIWAY G (BETWEEN TWY B AND TWY F)
 - TAXIWAY B (AT TWY G INTERSECTION), TAXIWAY B TO BE RE-ROUTED THROUGH HOLD BAY AS SHOWN
 - TAXIWAY J (BETWEEN TAXIWAY J1 AND THE T-HANGAR TAXILANE)

TEMPORARY MARKINGS ON THE NORTHERN JET APRON SHALL BE REMOVED ONCE THE INTERSECTION OF TAXIWAY F AND TAXIWAY G IS OPENED TO AIRCRAFT TRAFFIC.

SEE GENERAL NOTES, SHEET GI003, FOR ADDITIONAL CONSTRUCTION SAFETY AND PHASING NOTES.

C4 GENERAL NOTES
 SCALE: NOT TO SCALE



NOTE: WORK AREA CONCURRENCE NOT SHOWN SHALL BE APPROVED IN WRITING BY THE RPR AND OWNER 14 DAYS PRIOR TO WORK BEGINNING IN APPROVED WORK AREAS.

B4 LEGEND/PHASE SEQUENCING
 SCALE: NOT TO SCALE

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- CONTRACTOR ACCESS ROUTE TO WORK AREA (TYP.)
- TEMPORARY INTERLOCKING BARRICADES, SEE DETAIL C4/GC501.
- SHARED DRIVE ACCESS ROAD FOR AIRPORT USERS. ACCESS ROAD SHALL BE KEPT CLEAN AND FREE OF DIRT AND DEBRIS THROUGHOUT THE DURATION OF PROJECT.
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- CONTRACTOR SHALL COORDINATE WITH THE CONTRACTOR ON THE CONCURRENT GSE FUEL FARM PROJECT. THE GSE FUEL FARM PROJECT WILL SHARE AN ACCESS ROAD AND GATE. SHARING OF THE ACCESS ROAD AND GATE SHALL NOT INTERFERE WITH THE PROPOSED PROJECT SCHEDULE.
- REMOVE CENTERLINE MARKING, ITEM P-620.
- GSE FUEL FARM PROJECT STAGING AREA (FOR OTHERS).
- CONTRACTOR TEMPORARY HAUL ROAD, SEE DETAIL B3/GC501. HAUL ROAD TO BE REMOVED AT THE COMPLETION OF WORK AREAS 1 AND 1A, ITEM CX-106.
- FSDO APRON IS UTILIZED MONTHLY FOR ARFF TRAINING, CONTRACTOR SHALL COORDINATE WITH THE RPR AND ARFF ON DAYS OF TRAINING.
- PLACE LOW PROFILE BARRICADES IN TURF ALONG THE TOFA, SEE DETAIL C4/GC501.

A4 KEYED NOTES
 SCALE: NOT TO SCALE



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 (NORTH OF TAXIWAY V, 1,950' X 35'); TAXIWAY
 F & G AIRFIELD LIGHTING REPLACEMENT
 GERALD R. FORD INTERNATIONAL
 AIRPORT GRAND RAPIDS, MI**

MARK	DATE	ADDENDUM NO.2	DESCRIPTION
3/16/2026			

REVISIONS	
PROJECT NO:	K19.031.001 & K19.031.002
DATE:	FEBRUARY 2026
DRAWN BY:	B. BUCKINGHAM
DESIGNED BY:	T.J. CORCORAN
CHECKED BY:	K.J. JOST

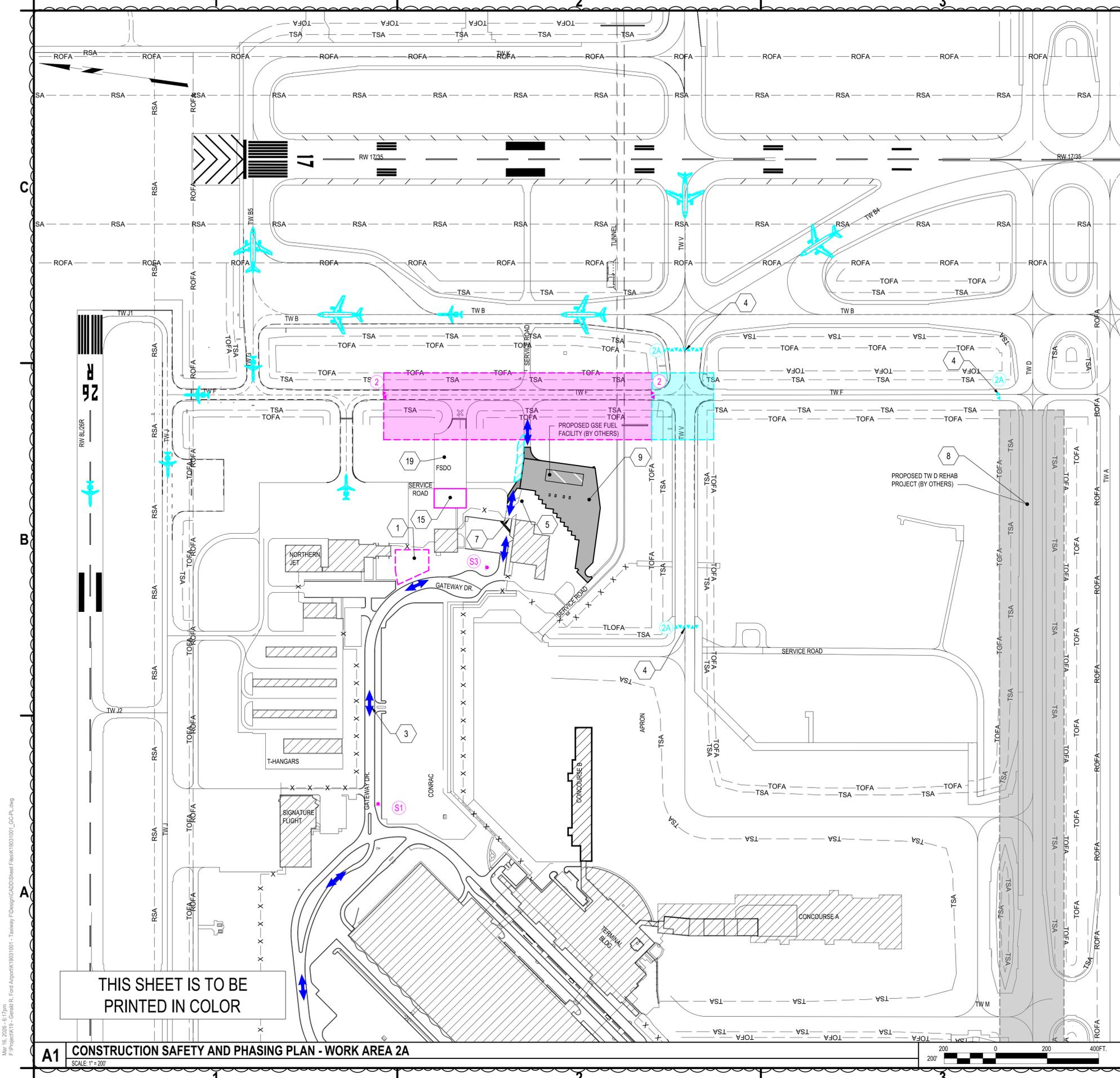
**CONSTRUCTION
 SAFETY AND
 PHASING PLAN -
 WORK AREA 1A**

GC103
 SHEET NO. 9 OF 65
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THIS SHEET IS TO BE
 PRINTED IN COLOR

A1 CONSTRUCTION SAFETY AND PHASING PLAN - WORK AREA 1A
 SCALE: 1" = 20'



WORK AREA 2 - 40 CALENDAR DAYS

CONSTRUCTION:

- TURF GRADING AND UNDERDRAIN INSTALLATION
- DEMO AND EXCAVATION FOR PAVEMENT SECTION
- SUBGRADE/AGGREGATE SUBBASE GRADING AND EXCAVATION
- ELECTRICAL DEMO AND INSTALLATION
- PAVING OF CONCRETE SURFACE

TAXIWAY CLOSURES & RESTRICTIONS:

- TAXIWAY F (BETWEEN NORTHERN JET TAXILANE AND TAXIWAY V)

WORK AREA 2A - 25 CALENDAR DAYS

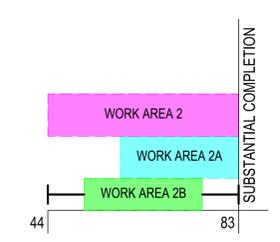
TAXIWAY CLOSURES & RESTRICTIONS:

- TAXIWAY V (BETWEEN CONCOURSE APRON AND TAXIWAY B)
- TAXIWAY F (BETWEEN NORTHERN JET TAXILANE AND TAXIWAY D)

SEE GENERAL NOTES, SHEET GI003, FOR ADDITIONAL CONSTRUCTION SAFETY AND PHASING NOTES.

C4 GENERAL NOTES
SCALE: NOT TO SCALE

- CONTRACTOR'S HAUL ROUTES
- WORK AREA 2 INTERLOCKING AIRFIELD BARRICADES, SEE DETAIL C4/GC501.
- WORK AREA 2A INTERLOCKING AIRFIELD BARRICADES, SEE DETAIL C4/GC501.
- TEMPORARY CONSTRUCTION SIGN AND ID, ITEM CX-106, SEE DETAIL A3/GC501.
- WORK AREA 2A TAXI ROUTE



NOTE: WORK AREA CONCURRENCE NOT SHOWN SHALL BE APPROVED IN WRITING BY THE RPR AND OWNER 14 DAYS PRIOR TO WORK BEGINNING IN APPROVED WORK AREAS.

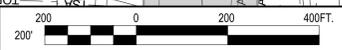
B4 LEGEND/PHASE SEQUENCING
SCALE: NOT TO SCALE

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- CONTRACTOR ACCESS ROUTE TO WORK AREA (TYP.)
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- GSE FUEL FARM PROJECT STAGING AREA (FOR OTHERS).
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A4 KEYED NOTES
SCALE: NOT TO SCALE

THIS SHEET IS TO BE PRINTED IN COLOR

A1 CONSTRUCTION SAFETY AND PHASING PLAN - WORK AREA 2A
SCALE: 1"=20'



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**TAXIWAY F & G RECONSTRUCTION
(NORTH OF TAXIWAY V, 1,950' X 35'); TAXIWAY
F & G AIRFIELD LIGHTING REPLACEMENT
GERALD R. FORD INTERNATIONAL
AIRPORT GRAND RAPIDS, MI**

MARK	DATE	ADDENDUM NO.2	DESCRIPTION
REVISIONS			
	3/16/2026		

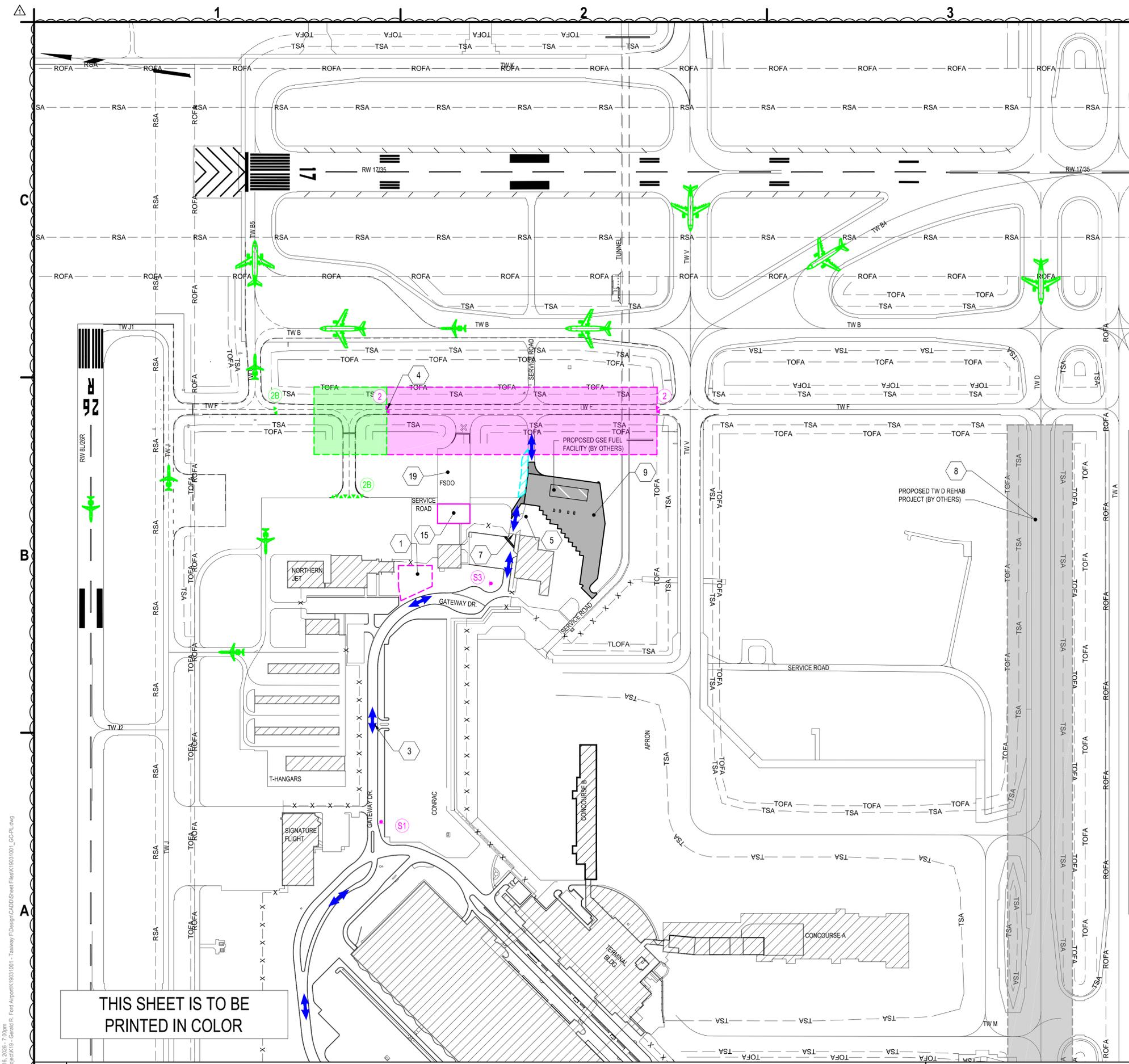
PROJECT NO:	K19.031.001 & K19.031.002
DATE:	FEBRUARY 2026
DRAWN BY:	B. BUCKINGHAM
DESIGNED BY:	T.J. CORCORAN
CHECKED BY:	K.J. JOST

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CONSTRUCTION SAFETY AND PHASING PLAN - WORK AREA 2A

GC105
SHEET NO. 11 OF 65

Mar 16, 2026 - 6:17pm P:\Projects\G - Gerald R. Ford Airport\K19031001 - Taxiway F\Design\CADD\Sheet Files\K19031001_LC0-PL.dwg



WORK AREA 2 - 40 CALENDAR DAYS

CONSTRUCTION:

- TURF GRADING AND UNDERDRAIN INSTALLATION
- DEMO AND EXCAVATION FOR PAVEMENT SECTION
- SUBGRADE/AGGREGATE SUBBASE GRADING AND EXCAVATION
- ELECTRICAL DEMO AND INSTALLATION
- PAVING OF CONCRETE SURFACE

TAXIWAY CLOSURES & RESTRICTIONS:

- TAXIWAY F (BETWEEN NORTHERN JET TAXILANE TO TAXIWAY V)

WORK AREA 2B - 25 CALENDAR DAYS

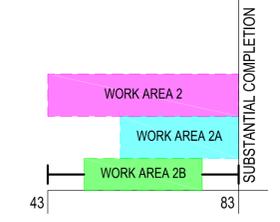
TAXIWAY CLOSURES & RESTRICTIONS:

- NORTHERN JET TAXILANE CONNECTOR

SEE GENERAL NOTES, SHEET GI003, FOR ADDITIONAL CONSTRUCTION SAFETY AND PHASING NOTES.

C4 GENERAL NOTES
SCALE: NOT TO SCALE

- CONTRACTOR'S HAUL ROUTES
- WORK AREA 2 INTERLOCKING AIRFIELD BARRICADES, SEE DETAIL C4/GC501.
- WORK AREA 2B INTERLOCKING AIRFIELD BARRICADES, SEE DETAIL C4/GC501.
- TEMPORARY CONSTRUCTION SIGN AND ID, ITEM CX-106, SEE DETAIL A3/GC501.
- WORK AREA 2B TAXI ROUTE



NOTE: WORK AREA CONCURRENCE NOT SHOWN SHALL BE APPROVED IN WRITING BY THE RPR AND OWNER 14 DAYS PRIOR TO WORK BEGINNING IN APPROVED WORK AREAS.

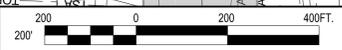
B4 LEGEND/PHASE SEQUENCING
SCALE: NOT TO SCALE

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A4 KEYED NOTES
SCALE: NOT TO SCALE

THIS SHEET IS TO BE PRINTED IN COLOR

A1 CONSTRUCTION SAFETY AND PHASING PLAN - WORK AREA 2B
SCALE: 1" = 20'



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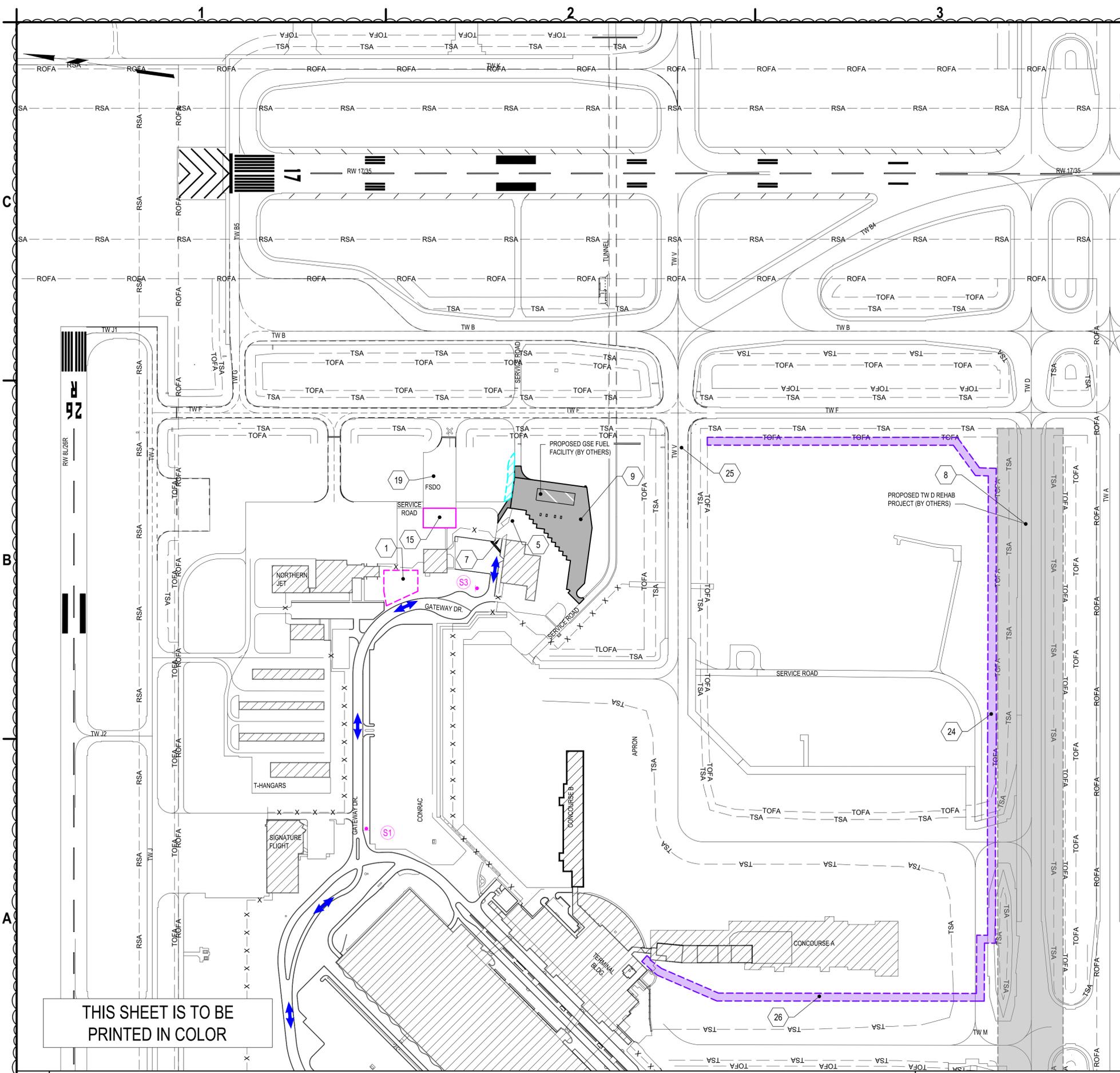
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GERALD R. FORD INTERNATIONAL
AIRPORT GRAND RAPIDS, MI**

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REVISIONS			
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PROJECT NO: K19.031.001 & K19.031.002			
DATE: FEBRUARY 2026			
DRAWN BY: B. BUCKINGHAM			
DESIGNED BY: T.J. CORCORAN			
CHECKED BY: K.J. JOST			
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CONSTRUCTION SAFETY AND PHASING PLAN - WORK AREA 2B

GC106
SHEET NO. 12 OF 65

Mar 16, 2026, 7:00pm P:\Projects\G - Gerald R. Ford Airport\K19031001 - Taxiway F\Design\CADD\Sheet Files\K19031001_LCC-PL.dwg



WORK AREA 3 - 21 CALENDAR DAYS

CONSTRUCTION:

- ELECTRICAL DEMO AND INSTALLATION
- TRENCHING, EXCAVATION, AND BACKFILL FOR DUCT BANK

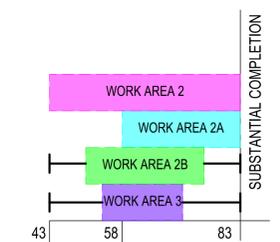
TAXIWAY CLOSURES & RESTRICTIONS:

- IF NEEDED, DAILY CLOSURES TO BE COORDINATED WITH GFIA OPERATIONS.

WORK AREA ACCESS SHALL BE COORDINATED WITH GFIA OPERATIONS. CONTRACTOR SHALL NOT BE PERMITTED TO ACCESS OR BEGIN WORKING IN THIS AREA WITHOUT PRIOR APPROVAL FROM THE OWNER, RPR, AND GFIA OPERATIONS.

C4 GENERAL NOTES
SCALE: NOT TO SCALE

- CONTRACTOR'S HAUL ROUTES
- TEMPORARY CONSTRUCTION SIGN AND ID, ITEM CX-106, SEE DETAIL A3/GC501.



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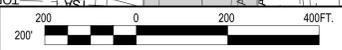
B4 LEGEND/PHASE SEQUENCING
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- GSE FUEL FARM PROJECT STAGING AREA (FOR OTHERS).
- FSDO APRON IS UTILIZED MONTHLY FOR ARFF TRAINING. CONTRACTOR SHALL COORDINATE WITH THE RPR AND ARFF ON DAYS OF TRAINING.
- CONTRACTOR SHALL COORDINATE WITH GFIA OPERATIONS FOR ESCORT TO/FROM WORK AREA.
- CONTRACTOR IS NOT PERMITTED TO CROSS ACTIVE TAXIWAYS WITHOUT ESCORT AND CLEARANCE FROM GFIA OPERATIONS.
- CONTRACTOR IS NOT PERMITTED TO WORK IN THE CONCOURSE APRON WITHOUT ESCORT AND CLEARANCE FROM GFIA OPERATIONS.

A4 KEYED NOTES
SCALE: NOT TO SCALE

THIS SHEET IS TO BE PRINTED IN COLOR

A1 CONSTRUCTION SAFETY AND PHASING PLAN - WORK AREA 3
SCALE: 1" = 20'



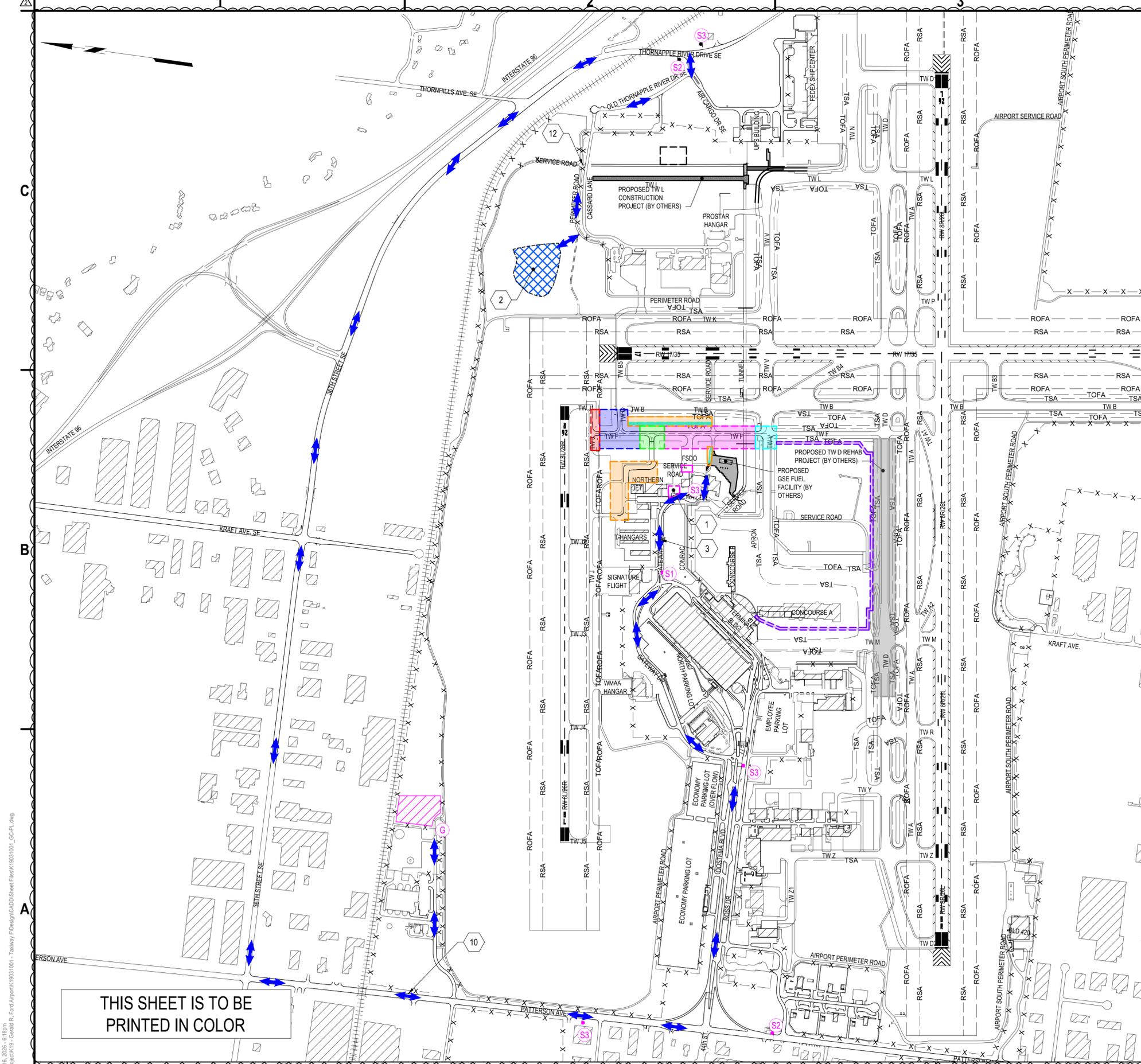
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MARK	DATE	DESCRIPTION
△	3/16/2026	ADDENDUM NO.2
REVISIONS		
PROJECT NO: K19.031.001 & K19.031.002		
DATE: FEBRUARY 2026		
DRAWN BY: B. BUCKINGHAM		
DESIGNED BY: T.J. CORCORAN		
CHECKED BY: K.J. JOST		
CONTRACTOR SHALL VERIFY ALL CONDITIONS ON JOB SITE & NOTIFY THE OWNER OF ANY VARIATIONS FROM DIMENSIONS SHOWN ON THESE DRAWINGS BEFORE PROCEEDING WITH ANY CONSTRUCTION.		

CONSTRUCTION SAFETY AND PHASING PLAN - WORK AREA 3

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1. THE CONTRACTOR SHALL GRADE THE SPOILS AREA TO DRAIN AS APPROVED BY THE RPR. EQUIPMENT WITHIN THE SPOILS AREA MAY NOT EXCEED 25 FEET IN HEIGHT.
2. THE CONTRACTOR SHALL TOPSOIL AND HYDROSEED THE SPOILS AREA PER SPECIFICATION C-102, INCIDENTAL TO THE CONTRACT.
3. THE CONTRACTOR SHALL PROVIDE A SWEEPER TRUCK TO SWEEP HAUL ROUTES AND WORK SITE PAVEMENTS CLEAN OF DUST, STONES AND DEBRIS AT ALL TIMES.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE, SWEEPING AND DUST CONTROL OF THE HAUL ROUTE ORIGINATING AT THE PROJECT SITE UP-TO AND INCLUDING GATEWAY DRIVE, PATTERSON AVENUE, THORNAPPLE ROAD AND THE ACCESS ROAD TO THE SPOILS AREA LIMITS. THE CONTRACTOR SHALL PROVIDE SWEEPING AND DUST CONTROL ON HAUL ROUTES AND SPOILS AREA AS DIRECTED BY THE RPR.

C4 SPOILS AREA GENERAL NOTES

SCALE: NOT TO SCALE

- CONTRACTOR'S HAUL ROUTES
- TEMPORARY CONSTRUCTION SIGN AND ID, ITEM CX-106, SEE DETAIL A3/GC501.
- SPOILS AREA
- BATCH PLANT AREA

B4 LEGEND

SCALE: NOT TO SCALE

1. CONTRACTOR STAGING AREA AND FIELD OFFICE LOCATION.
2. CONTRACTOR SPOILS AREA, FINAL SPOILS LOCATION TO BE APPROVED BY THE RPR. THE GSE FUEL FARM PROJECT WILL ALSO SHARE THE SPOILS AREA. CONTRACTOR SHALL COORDINATE WITH THE CONTRACTOR ON THE CONCURRENT GSE FUEL FARM PROJECT. (MAXIMUM ALLOWABLE HEIGHT IN SPOILS AREA SHALL BE 25').
3. CONTRACTOR ACCESS ROUTE TO WORK AREA (TYP.)
10. CONTRACTOR ACCESS ROUTE TO AND FROM SPOILS AREA (TYP.).
12. AOA ACCESS POINT TO SPOILS AREA THROUGH EXISTING BADGE READER GATE 80. CONTRACTOR SHALL COORDINATE GATE GUARD SECURITY WITH ONGOING CONSTRUCTION EFFORTS FROM OTHER PROJECTS AT THE AIRPORT. COST SHALL BE INCLUDED IN THE CX-106 SAFETY AND SECURITY.



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**TAXIWAY F & G RECONSTRUCTION
 (NORTH OF TAXIWAY V, 1,950' X 35'); TAXIWAY
 F & G AIRFIELD LIGHTING REPLACEMENT
 GERALD R. FORD INTERNATIONAL
 AIRPORT GRAND RAPIDS, MI**

MARK	DATE	ADDENDUM NO.2	DESCRIPTION
△	3/16/2026	ADDENDUM NO.2	
REVISIONS			
PROJECT NO: K19.031.001 & K19.031.002			
DATE: FEBRUARY 2026			
DRAWN BY: B. BUCKINGHAM			
DESIGNED BY: T.J. CORCORAN			
CHECKED BY: K.J. JOST			
CONTRACTOR SHALL VERIFY ALL CONDITIONS ON JOB SITE & NOTIFY THE OWNER OF ANY VARIATIONS FROM DIMENSIONS SHOWN ON THESE DRAWINGS BEFORE PROCEEDING WITH ANY CONSTRUCTION.			

**CONSTRUCTION
 SAFETY AND
 PHASING PLAN -
 SPOILS AND BATCH
 PLANT ACCESS**

GC200

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THIS SHEET IS TO BE
 PRINTED IN COLOR

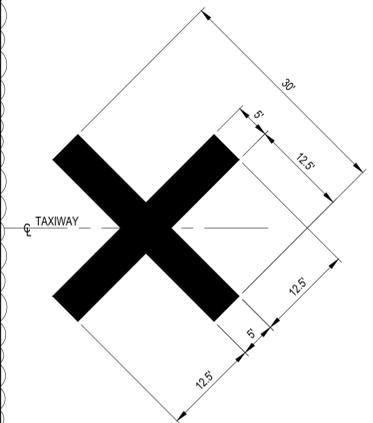
A1 CONSTRUCTION SAFETY AND PHASING PLAN - SPOILS AND BATCH PLANT ACCESS

A4 KEYED NOTES

SCALE: NOT TO SCALE

WORK AREA							
POINT NO.	DESCRIPTION	NORTHING	EASTING	LATITUDE	LONGITUDE	ELEV. (FT.)	MAX HEIGHT
1	WORK AREA	508,701.71	12,813,829.94	N42° 53' 24.24"	W85° 31' 18.39"	782.00	25 FEET
2	WORK AREA	508,602.64	12,813,843.68	N42° 53' 23.27"	W85° 31' 18.19"	780.00	25 FEET
3	WORK AREA	508,637.52	12,813,367.61	N42° 53' 23.55"	W85° 31' 24.59"	784.39	25 FEET
4	WORK AREA	508,538.51	12,813,381.34	N42° 53' 22.57"	W85° 31' 24.39"	782.91	25 FEET
5	WORK AREA	508,602.64	12,813,843.68	N42° 53' 23.27"	W85° 31' 18.19"	780.00	25 FEET
6	WORK AREA	508,285.85	12,813,887.84	N42° 53' 20.14"	W85° 31' 17.53"	780.93	25 FEET
7	WORK AREA	507,318.16	12,813,939.46	N42° 53' 10.59"	W85° 31' 16.66"	781.00	25 FEET
8	WORK AREA	506,573.40	12,813,935.19	N42° 53' 03.23"	W85° 31' 16.58"	785.00	25 FEET
9	WORK AREA	506,537.63	12,813,678.51	N42° 53' 02.85"	W85° 31' 20.02"	785.00	25 FEET
10	WORK AREA	508,103.40	12,812,638.14	N42° 53' 18.17"	W85° 31' 34.29"	786.00	25 FEET
11	WORK AREA	508,307.19	12,812,610.01	N42° 53' 20.18"	W85° 31' 34.70"	787.00	25 FEET
12	WORK AREA	508,541.21	12,813,400.95	N42° 53' 22.60"	W85° 31' 24.12"	782.35	25 FEET
13	WORK AREA	506,548.73	12,813,757.95	N42° 53' 02.97"	W85° 31' 18.96"	785.00	25 FEET
14	WORK AREA	505,601.86	12,813,889.59	N42° 52' 53.63"	W85° 31' 17.02"	788.00	25 FEET
15	WORK AREA	505,438.22	12,813,793.10	N42° 52' 52.00"	W85° 31' 18.28"	788.00	25 FEET
16	WORK AREA	505,204.00	12,811,774.14	N42° 52' 49.41"	W85° 31' 45.36"	784.00	25 FEET
17	WORK AREA	506,522.11	12,811,743.80	N42° 53' 02.43"	W85° 31' 46.01"	785.00	25 FEET
18	STAGING	507,704.33	12,813,085.69	N42° 53' 14.29"	W85° 31' 28.20"	785.00	25 FEET
19	STAGING	507,575.56	12,813,103.58	N42° 53' 13.02"	W85° 31' 27.94"	785.00	25 FEET
20	STAGING	507,564.55	12,813,024.35	N42° 53' 12.90"	W85° 31' 29.00"	785.00	25 FEET
21	STAGING	507,676.09	12,812,953.07	N42° 53' 13.99"	W85° 31' 29.98"	785.00	25 FEET
22	BATCH PLANT	509,798.22	12,809,226.00	N42° 53' 34.44"	W85° 32' 20.44"	791.00	80 FEET
23	BATCH PLANT	509,848.99	12,808,868.42	N42° 53' 34.90"	W85° 32' 25.25"	791.00	80 FEET
24	BATCH PLANT	510,264.43	12,808,863.10	N42° 53' 39.00"	W85° 32' 25.40"	791.00	80 FEET
25	BATCH PLANT	510,264.10	12,809,161.29	N42° 53' 39.04"	W85° 32' 21.39"	791.00	80 FEET
26	SPOILS	509,423.99	12,815,029.52	N42° 53' 31.54"	W85° 31' 02.41"	770.00	25 FEET
27	SPOILS	509,796.35	12,815,245.19	N42° 53' 35.25"	W85° 30' 59.58"	770.00	25 FEET
28	SPOILS	509,835.24	12,815,516.52	N42° 53' 35.67"	W85° 30' 55.94"	770.00	25 FEET
29	SPOILS	509,331.74	12,815,659.54	N42° 53' 30.71"	W85° 30' 53.93"	770.00	25 FEET

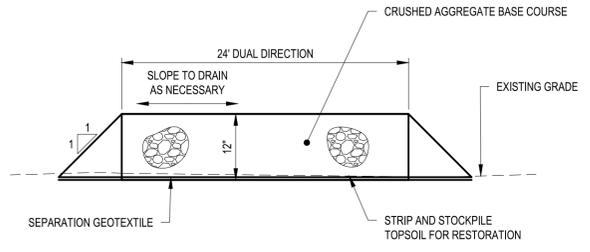
A1 WORK AREAS - POINT TABLES (AIRSPACE CASE)
SCALE: NOT TO SCALE



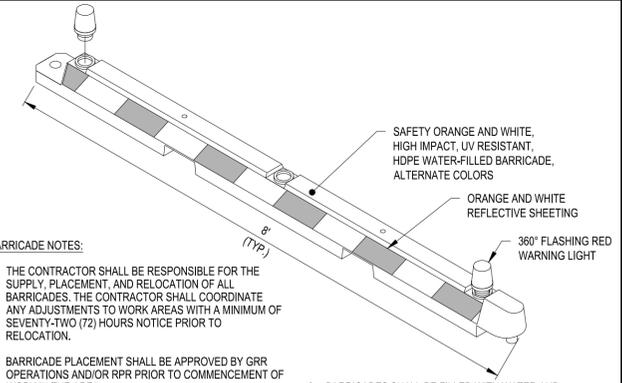
- NOTES:**
- CLOSED TAXIWAY MARKINGS SHALL BE PAINTED ON THE PAVEMENT SURFACE AND SHALL BE YELLOW.
 - CLOSED TAXIWAY MARKINGS SHALL BE SECURED TO PREVENT MOVEMENT BY PROP WASH, JET BLAST, OR OTHER WIND CURRENTS.

C3 CLOSED TAXIWAY MARKING DETAIL
SCALE: NOT TO SCALE

- NOTE:**
- PAYMENT FOR ALL MATERIALS, LABOR AND EQUIPMENT USED TO CONSTRUCT THE HAUL ROAD SHALL BE INCLUDED IN ITEM CX-106.
 - THE ROAD SHALL BE REMOVED AND THE SURFACE GRADED AND RESTORED TO ORIGINAL CONDITION AFTER CONSTRUCTION. SITE RESTORATION SHALL INCLUDE REMOVAL OF GRANULAR MATERIALS, GEOTEXTILE, TOPSOIL REPLACEMENT AND SEEDING AND MULCHING. NO ADDITIONAL PAYMENT SHALL BE MADE FOR ROAD REMOVAL AND RESTORATION.
 - THE CONTRACTOR MAY, AT ITS DISCRETION AND WITH APPROVAL FROM THE RPR, CONSTRUCT ADDITIONAL WIDTH; HOWEVER NO ADDITIONAL COMPENSATION WILL BE PROVIDED FOR ANY WIDTH EXCEEDING 24 FEET.

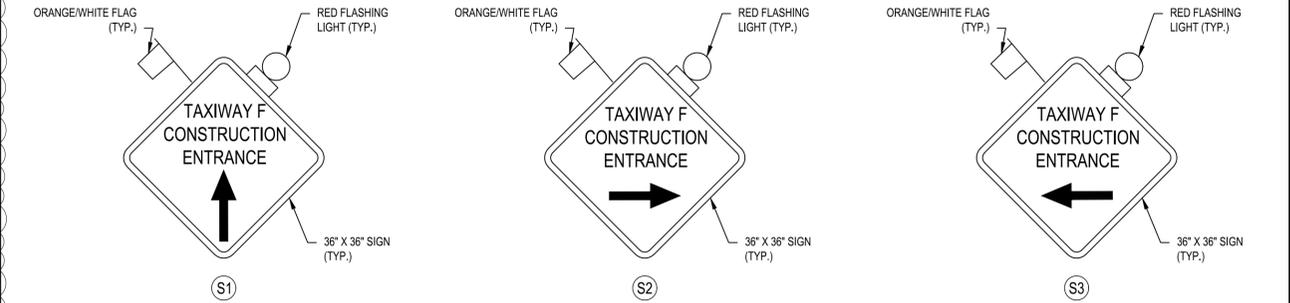


B3 TEMPORARY HAUL ROAD DETAIL
SCALE: NOT TO SCALE



- BARRICADE NOTES:**
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SUPPLY, PLACEMENT, AND RELOCATION OF ALL BARRICADES. THE CONTRACTOR SHALL COORDINATE ANY ADJUSTMENTS TO WORK AREAS WITH A MINIMUM OF SEVENTY-TWO (72) HOURS NOTICE PRIOR TO RELOCATION.
 - BARRICADE PLACEMENT SHALL BE APPROVED BY GRR OPERATIONS AND/OR RPR PRIOR TO COMMENCEMENT OF WORK IN THE AREA.
 - BARRICADES SHALL BE 6" X 8" AIRPORT LOW PROFILE BARRICADE AS MANUFACTURED BY NEUBERT AERO CORP., OR 10" X 8" RRM LOW PROFILE AIRPORT BARRIER AS MANUFACTURED BY SHERWIN INDUSTRIES, INC., OR APPROVED EQUAL.
 - BARRICADES SHALL EXTEND TO EDGES OF PAVEMENT UNLESS OTHERWISE SHOWN. EXACT LOCATIONS SHALL BE DETERMINED DURING CONSTRUCTION.
 - COORDINATE ARFF ACCESS WITH AIRPORT OPERATIONS.
 - BARRICADES SHALL BE FILLED WITH WATER AND INTERLOCKED WITH EACH OTHER. BARRICADES WHICH HAVE TO BE MOVED DAILY MAY BE ANCHORED TO THE PAVEMENT BY AN ALTERNATE METHOD APPROVED BY AIRPORT OPERATIONS OR THE RPR.
 - IN AREAS OF JET BLAST, USE METAL STRAPS AND EXPANSION ANCHORS OR OTHER METHOD APPROVED BY RPR TO SECURE BARRICADES TO THE PAVEMENT.
 - WARNING LIGHTS SHALL BE ATTACHED TO EACH BARRICADE.
 - ALL COSTS ASSOCIATED WITH THIS ITEM SHALL BE INCLUDED IN ITEM CX-106.

C4 INTERLOCKING AIRFIELD BARRICADE DETAIL
SCALE: NOT TO SCALE



- NOTES:**
- ALL COSTS RELATING TO CONSTRUCTION TRAFFIC SIGNAGE ARE INCIDENTAL TO ITEM CX-106, SAFETY, SECURITY AND MAINTENANCE OF TRAFFIC.
 - SIGN TO INCLUDE UNIQUE IDENTIFIER TO RECONSTRUCTION OF TAXIWAY D PROJECT (PROJECT TIMELINE ANTICIPATED TO OVERLAP WITH THAT OF OTHER PROJECTS).
 - SIGN LETTERS ARE TO BE BLACK, MINIMUM HEIGHT OF 3", AND BE A BOLD LETTERING STYLE.
 - SIGN MUST BE LOCATED HIGH ENOUGH TO ALLOW EASY VIEWING FROM ALL CONSTRUCTION VEHICLES ENTERING THE CONSTRUCTION SITE.
 - THE CONTRACTOR MUST COORDINATE THE EXACT PLACEMENT AND LOCATION OF ALL CONSTRUCTION TRAFFIC SIGNS WITH THE ENGINEER AND AIRPORT OPERATIONS.
 - SIGN MOUNTING PER MDOT STANDARD SPECIFICATIONS.
 - ARROW DIRECTIONS ON SIGNS WILL VARY.

A3 CONSTRUCTION SIGN DETAIL
SCALE: NOT TO SCALE



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(NORTH OF TAXIWAY V, 1,950' X 35'); TAXIWAY
F & G AIRFIELD LIGHTING REPLACEMENT
GERALD R. FORD INTERNATIONAL
AIRPORT GRAND RAPIDS, MI**

MARK	DATE	DESCRIPTION
2	3/16/2026	ADDENDUM NO. 2

REVISIONS

PROJECT NO.:	K19.031.001 & K19.031.002
DATE:	FEBRUARY 2026
DRAWN BY:	L.A. WASHINGTON
DESIGNED BY:	T.J. CORCORAN
CHECKED BY:	K.J. JOST

CONTRACTOR SHALL VERIFY ALL CONDITIONS ON JOB SITE AND NOTIFY THE OWNER OF ANY VARIATIONS FROM DIMENSIONS SHOWN ON THESE DRAWINGS BEFORE PROCEEDING WITH ANY CONSTRUCTION.

**CONSTRUCTION
SAFETY AND
PHASING DETAILS**

GC501

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GERALD R. FORD INTERNATIONAL
AIRPORT GRAND RAPIDS, MI**

MARK	DATE	DESCRIPTION
△	3/16/2026	ADDENDUM NO.2
△	3/6/2026	ADDENDUM NO.1

REVISIONS	
PROJECT NO:	K19.031.001 & K19.031.002
DATE:	FEBRUARY 2026
DRAWN BY:	B. BUCKINGHAM
DESIGNED BY:	T.J. CORCORAN
CHECKED BY:	K.J. JOST

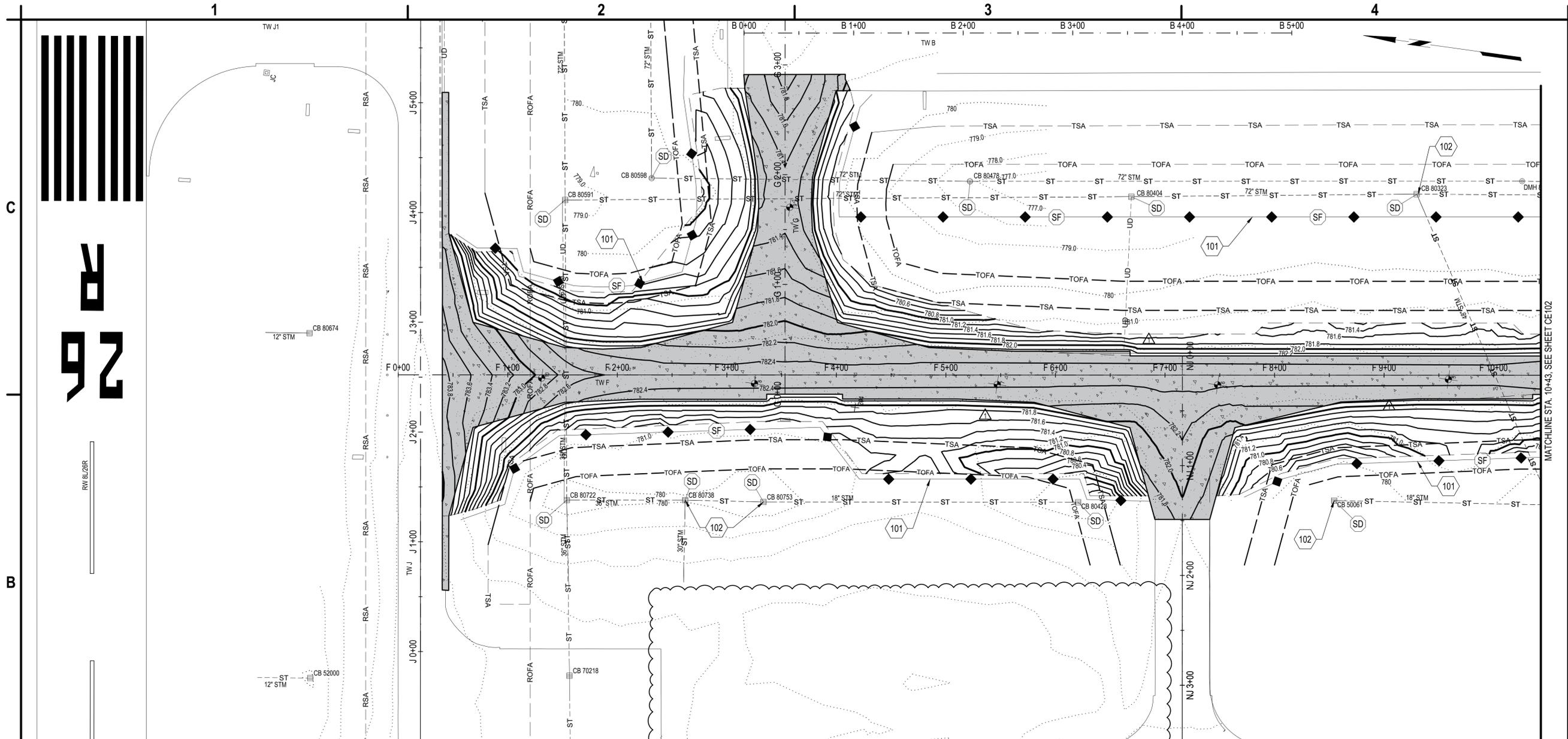
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**SOIL EROSION AND
SEDIMENTATION
CONTROL PLAN**

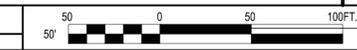
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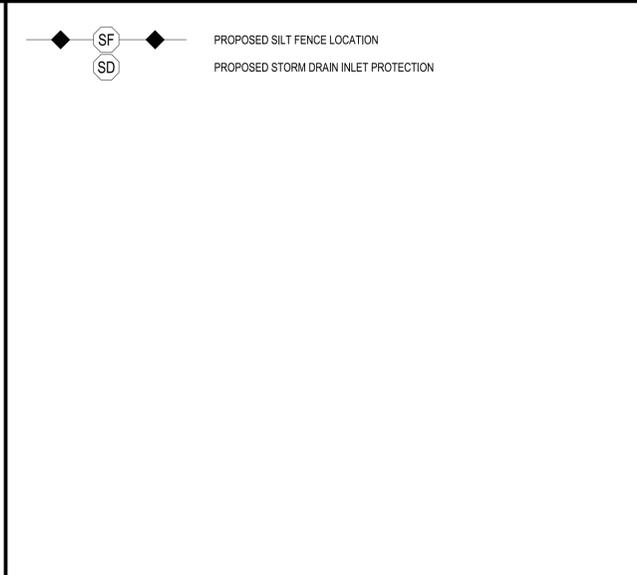
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B1 SOIL EROSION AND SEDIMENTATION CONTROL PLAN
SCALE: 1" = 50'



101. SILT FENCE, ITEM C-102. SEE DETAIL A2/CE501.
102. STORM DRAIN INLET PROTECTION, ITEM C-102. SEE DETAIL A3/CE501.



- THE FOLLOWING EROSION CONTROL PROCEDURES SHALL BE ADHERED TO BY THE CONTRACTOR:
- INSTALL TEMPORARY SILT FENCE BARRIERS AS SHOWN ON THE PLAN AND AT ALL EXISTING STORMWATER CATCH BASINS WITHIN THE WORK AREA TO PREVENT SEDIMENT MIGRATION. ALL SILT FENCE BARRIERS SHALL BE INSTALLED IN ACCORDANCE WITH THE DETAILS SHOWN ON THE PLANS.
 - ALL SILT FENCES SHALL BE REPLACED WHENEVER THEY BECOME CLOGGED OR INOPERABLE.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE & REMOVAL OF TEMPORARY SEDIMENTATION CONTROLS.
 - THE CONTRACTOR MUST CONTROL DUST DURING CONSTRUCTION DURING EARTHWORK OPERATIONS, WATER SPREADING EQUIPMENT SHALL BE PROVIDED BY THE CONTRACTOR AND WATER APPLIED AS NECESSARY AND AS DIRECTED BY THE OWNER IN ORDER TO CONTROL DUST.
 - DIRT OR DEBRIS LEFT ON LOCAL PUBLIC ROADS AND AIRPORT PAVED SURFACES AS A RESULT OF THIS CONSTRUCTION PROJECT SHALL BE REMOVED & ROAD SURFACES CLEANED BY THE CONTRACTOR ON A CONTINUOUS BASIS USING A CONTRACTOR PROVIDED SWEEPER TRUCK.
 - ALL DISTURBED AREAS (EXCEPT AREAS TO BE PAVED OR BUILT UPON) SHALL BE TOPSOILED TO A MINIMUM 4" DEPTH & SEEDING IN ACCORDANCE WITH T-109 IMMEDIATELY AFTER FINE GRADING TAKES PLACE & AS SOON AS PHYSICALLY POSSIBLE.
 - THE CONTRACTOR IS RESPONSIBLE FOR THE MAINTENANCE OF DOWNSTREAM STORM SEWERS, DITCHES & CULVERTS. SILT BUILD-UP FOUND TO BE A RESULT OF THIS SITE CONSTRUCTION WORK SHALL BE REMOVED FROM DOWNSTREAM CULVERTS BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER.
 - IN ADDITION TO STORM WATER DISCHARGES, THE FOLLOWING NON-STORM WATER DISCHARGES MAY CONTRIBUTE TO THE RUN-OFF FROM THE SITE:
 - WATER FROM WATER SERVICE FLUSHINGS
 - WATER USED TO WASH DOWN CONSTRUCTION VEHICLES (NO DETERGENTS)
 - WATER USED FOR DUST CONTROL
 - UNCONTAMINATED GROUNDWATER
 - THE ABOVE NON-STORM WATER FLOWS SHALL BE TREATED IN THE SAME MANNER AS STORM WATER FLOWS INDICATED HEREIN.
 - PRIOR TO OPENING WORK AREAS TO AIR TRAFFIC, THE ADJACENT SILT FENCE NEEDS TO BE REMOVED OR RELOCATED IF IN THE TOFA BY THE CONTRACTOR.

A1 KEYED NOTES
SCALE: NOT TO SCALE

A2 LEGEND
SCALE: NOT TO SCALE

A3 EROSION CONTROL NOTES
SCALE: NOT TO SCALE

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GERALD R. FORD INTERNATIONAL
AIRPORT GRAND RAPIDS, MI**

△	3/6/2026	ADDENDUM NO.1
MARK	DATE	DESCRIPTION

REVISIONS	
PROJECT NO:	K19.031.001 & K19.031.002
DATE:	FEBRUARY 2026
DRAWN BY:	B. BUCKINGHAM
DESIGNED BY:	T.J. CORCORAN
CHECKED BY:	K.J. JOST

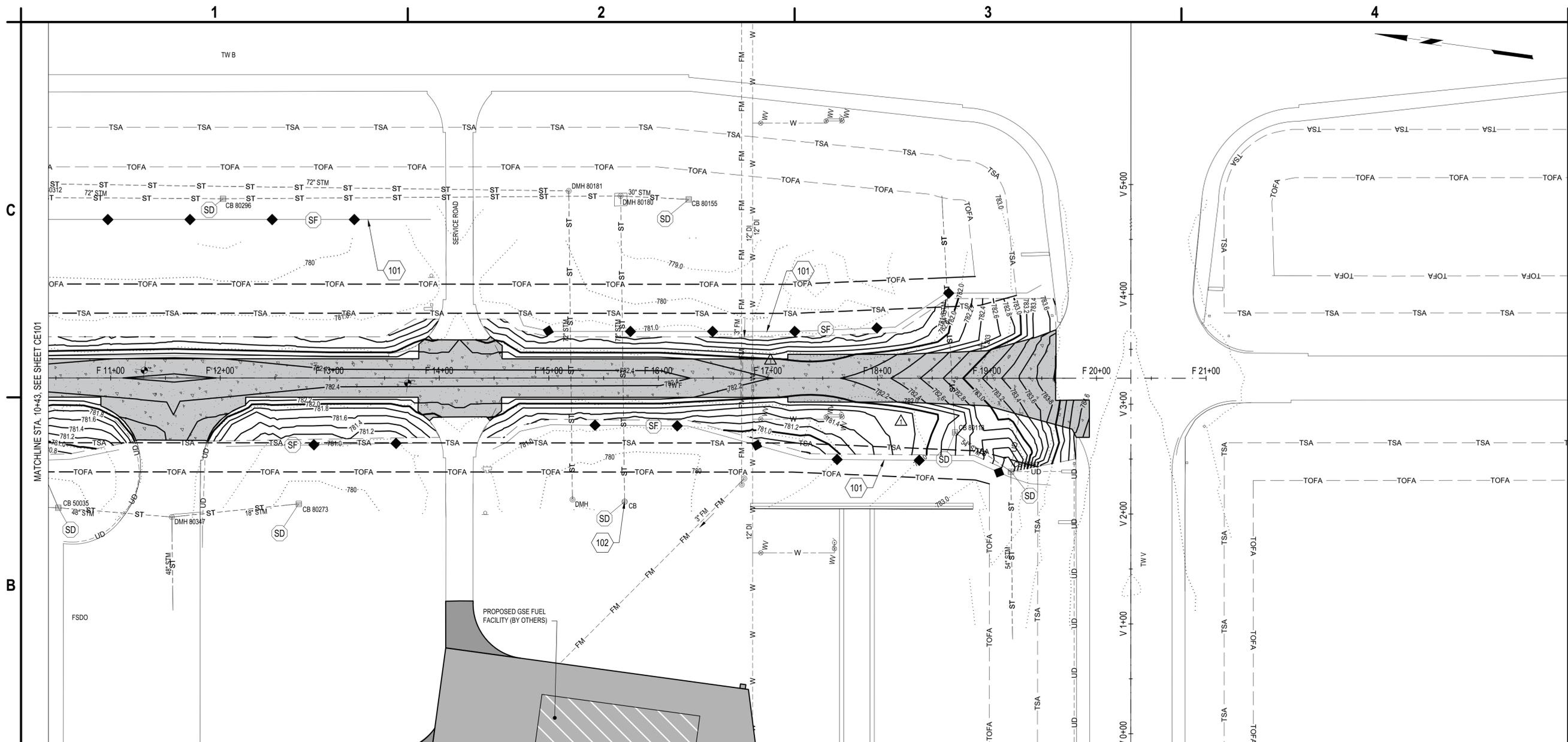
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**SOIL EROSION AND
SEDIMENTATION
CONTROL PLAN**

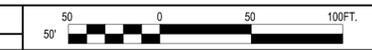
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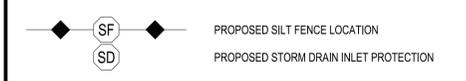
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B1 SOIL EROSION AND SEDIMENTATION CONTROL PLAN
SCALE: 1" = 50'



- 101. SILT FENCE, ITEM C-102. SEE DETAIL A2/CE501.
- 102. STORM DRAIN INLET PROTECTION, ITEM C-102. SEE DETAIL A3/CE501.



THE FOLLOWING EROSION CONTROL PROCEDURES SHALL BE ADHERED TO BY THE CONTRACTOR:

1. INSTALL TEMPORARY SILT FENCE BARRIERS AS SHOWN ON THE PLAN AND AT ALL EXISTING STORMWATER CATCH BASINS WITHIN THE WOK AREA TO PREVENT SEDIMENT MIGRATION. ALL SILT FENCE/SOCK BARRIERS SHALL BE INSTALLED IN ACCORDANCE WITH THE DETAILS SHOWN ON THE PLANS.
2. ALL SILT FENCES/SOCKS SHALL BE REPLACED WHENEVER THEY BECOME CLOGGED OR INOPERABLE.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE & REMOVAL OF TEMPORARY SEDIMENTATION CONTROLS.
4. THE CONTRACTOR MUST CONTROL DUST DURING CONSTRUCTION DURING EARTHWORK OPERATIONS, WATER SPREADING EQUIPMENT SHALL BE PROVIDED BY THE CONTRACTOR AND WATER APPLIED AS NECESSARY AND AS DIRECTED BY THE OWNER IN ORDER TO CONTROL DUST.
5. DIRT OR DEBRIS LEFT ON LOCAL PUBLIC ROADS AND AIRPORT PAVED SURFACES AS A RESULT OF THIS CONSTRUCTION PROJECT SHALL BE REMOVED & ROAD SURFACES CLEANED BY THE CONTRACTOR ON A CONTINUOUS BASIS USING A CONTRACTOR PROVIDED SWEEPER TRUCK.
6. ALL DISTURBED AREAS (EXCEPT AREAS TO BE PAVED OR BUILT UPON) SHALL BE TOPSOILED TO A MINIMUM 4" DEPTH & SEEDING IMMEDIATELY AFTER FINE GRADING TAKES PLACE & AS SOON AS PHYSICALLY POSSIBLE.
7. THE CONTRACTOR IS RESPONSIBLE FOR THE MAINTENANCE OF DOWNSTREAM STORM SEWERS, DITCHES & CULVERTS. SILT BUILD-UP FOUND TO BE A RESULT OF THIS SITE CONSTRUCTION WORK SHALL BE REMOVED FROM DOWNSTREAM CULVERTS BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER.
8. IN ADDITION TO STORM WATER DISCHARGES, THE FOLLOWING NON-STORM WATER DISCHARGES MAY CONTRIBUTE TO THE RUN-OFF FROM THE SITE:
 - WATER FROM WATER SERVICE FLUSHINGS
 - WATER USED TO WASH DOWN CONSTRUCTION VEHICLES (NO DETERGENTS)
 - WATER USED FOR DUST CONTROL
 - UNCONTAMINATED GROUNDWATER
9. THE ABOVE NON-STORM WATER FLOWS SHALL BE TREATED IN THE SAME MANNER AS STORM WATER FLOWS INDICATED HEREIN.
10. PRIOR TO OPENING WORK AREAS TO AIR TRAFFIC, THE ADJACENT SILT FENCE NEEDS TO BE REMOVED OR RELOCATED IF IN THE TOFA BY THE CONTRACTOR.

A1 KEYED NOTES
SCALE: NOT TO SCALE

A2 LEGEND
SCALE: NOT TO SCALE

A3 EROSION CONTROL NOTES
SCALE: NOT TO SCALE

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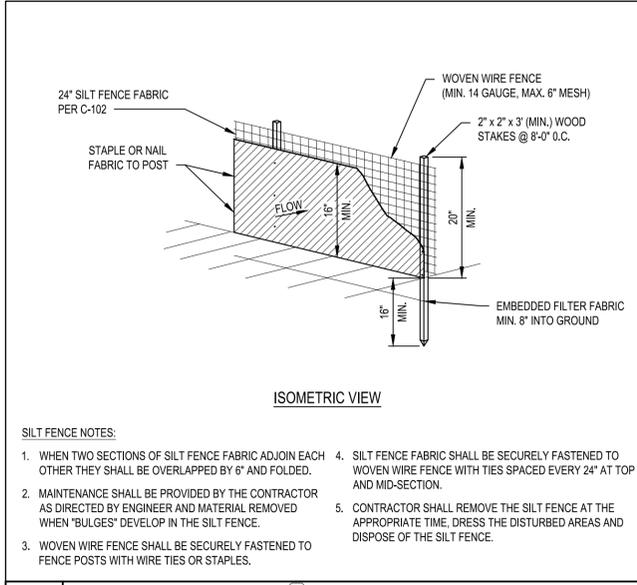


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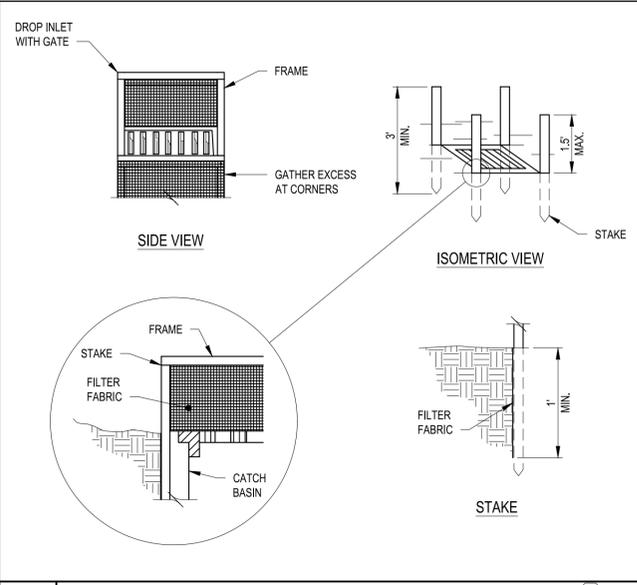
**TAXIWAY F & G RECONSTRUCTION
 (NORTH OF TAXIWAY V, 1,950' X 35'); TAXIWAY
 F & G AIRFIELD LIGHTING REPLACEMENT
 GERALD R. FORD INTERNATIONAL
 AIRPORT GRAND RAPIDS, MI**

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- SILT FENCE NOTES:**
1. WHEN TWO SECTIONS OF SILT FENCE FABRIC ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY 6\"/>
 - 2. MAINTENANCE SHALL BE PROVIDED BY THE CONTRACTOR AS DIRECTED BY ENGINEER AND MATERIAL REMOVED WHEN \"BULGES\" DEVELOP IN THE SILT FENCE.
 - 3. WOVEN WIRE FENCE SHALL BE SECURELY FASTENED TO FENCE POSTS WITH WIRE TIES OR STAPLES.
 - 4. SILT FENCE FABRIC SHALL BE SECURELY FASTENED TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24\"/>
 - 5. CONTRACTOR SHALL REMOVE THE SILT FENCE AT THE APPROPRIATE TIME, DRESS THE DISTURBED AREAS AND DISPOSE OF THE SILT FENCE.

A2 SILT FENCE DETAIL (SF)
 SCALE: NOT TO SCALE



- SILT FENCE INLET PROTECTION NOTES:**
1. FILTER FABRIC SHALL MEET THE SPECIFICATION REQUIREMENTS, ITEM C-102. BURLAP MAY BE USED FOR SHORT TERM APPLICATIONS.
 2. CUT FABRIC FROM A CONTINUOUS ROLL TO ELIMINATE JOINTS. IF JOINTS ARE NEEDED THEY WILL BE OVERLAPPED TO THE NEXT STAKE.
 3. STAKE MATERIALS WILL BE STANDARD 2\"/>
 - 4. SPACE STAKES EVENLY AROUND INLET 3 FEET APART AND DRIVE A MINIMUM 18 INCHES DEEP. SPANS GREATER THAN 3 FEET MAY BE BRIDGED WITH THE USE OF WIRE MESH BEHIND THE FILTER FABRIC FOR SUPPORT.
 - 5. FABRIC SHALL BE EMBEDDED 1 FOOT MINIMUM BELOW GROUND AND BACKFILLED. IT SHALL BE SECURELY FASTENED TO THE STAKES AND FRAME.
 - 6. A 2\"/>
 - 7. COIR ROLL SHALL BE PLACED ALONG THE FRONT OF THE INLET TO THE CATCH BASIN EXTENDING ACROSS THE ENTIRE WIDTH OF THE INLET TO THE CONCRETE GUTTER APRON LIMITS ON BOTH SIDE OF THE CATCH BASIN INLET. COIR ROLL SHALL BE WEIGHTED DOWN AS NEEDED WITH SAND BAGS OR EQUAL.

A3 STORM DRAIN INLET PROTECTION DETAIL (IN TURF) (SD)
 SCALE: NOT TO SCALE

MARK	DATE	DESCRIPTION
REVISIONS		
PROJECT NO: K19.031.001 & K19.031.002		
DATE: FEBRUARY 2026		
DRAWN BY: B. BUCKINGHAM		
DESIGNED BY: T.J. CORCORAN		
CHECKED BY: K.J. JOST		
CONTRACTOR SHALL VERIFY ALL CONDITIONS ON JOB SITE & NOTIFY THE OWNER OF ANY VARIATIONS FROM DIMENSIONS SHOWN ON THESE DRAWINGS BEFORE PROCEEDING WITH ANY CONSTRUCTION.		

**SOIL EROSION AND
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 CONTROL DETAILS**

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**TAXWAY F & G RECONSTRUCTION
 (NORTH OF TAXWAY V, 1,950' X 35'); TAXWAY
 F & G AIRFIELD LIGHTING REPLACEMENT
 GERALD R. FORD INTERNATIONAL
 AIRPORT GRAND RAPIDS, MI**

MARK	DATE	DESCRIPTION
△	3/16/2026	ADDENDUM NO. 2
△	3/6/2026	ADDENDUM NO. 1

REVISIONS	
PROJECT NO:	K19.031.001 & K19.031.002
DATE:	FEBRUARY 2026
DRAWN BY:	B. BUCKINGHAM
DESIGNED BY:	T.J. CORCORAN
CHECKED BY:	K.J. JOST

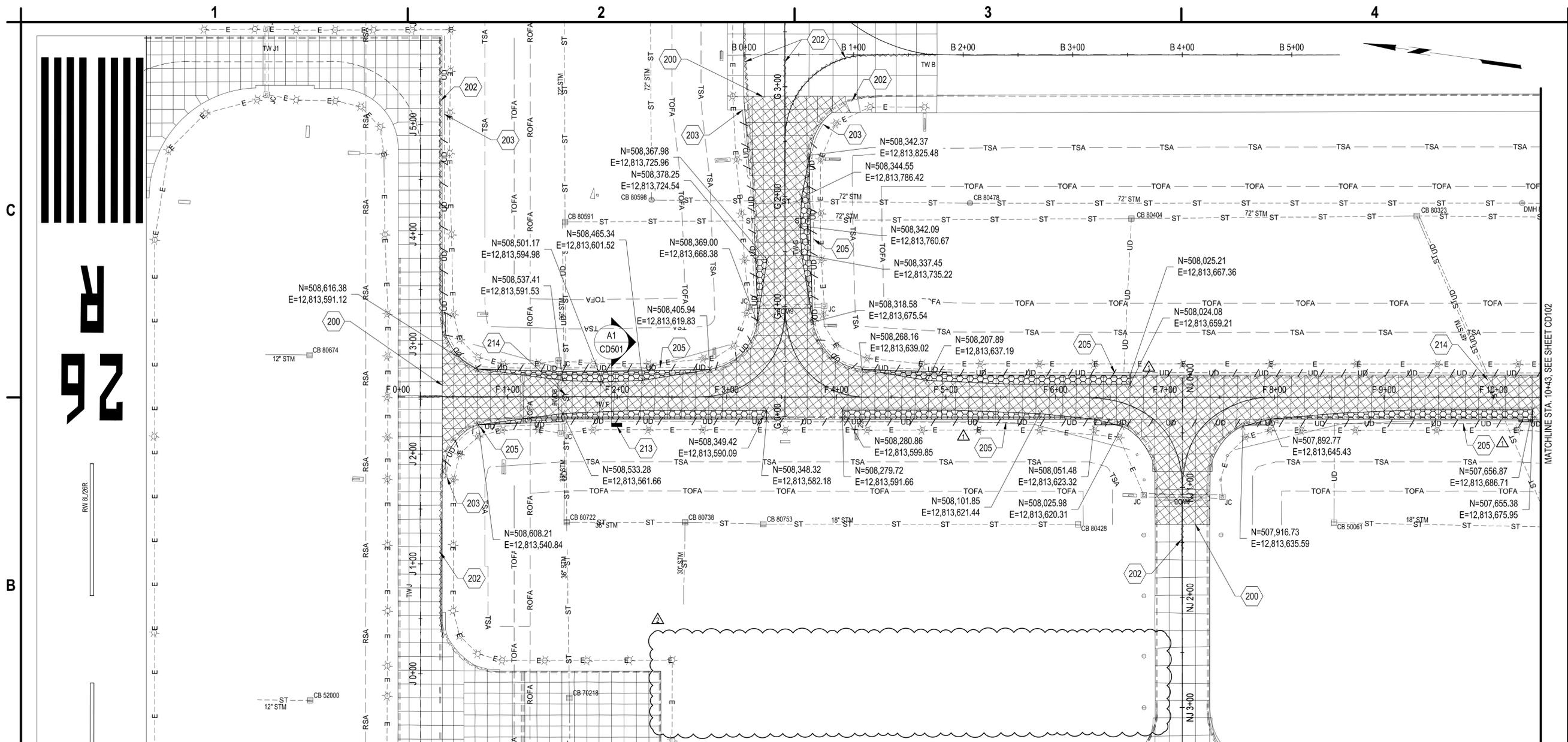
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**EXISTING
 CONDITIONS AND
 DEMOLITION PLAN**

CD101

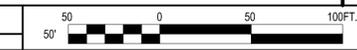
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B1 EXISTING CONDITIONS AND DEMOLITION PLAN

SCALE: 1" = 50'



- A1 KEYED NOTES**
 SCALE: NOT TO SCALE
- 200. SAWCUT PAVEMENT FULL DEPTH (TYP.), INCIDENTAL TO ITEM P-101. SEE DETAIL B1/CD501.
 - 202. OBLITERATE EXISTING PAVEMENT MARKINGS PER SPECIFICATION P-620. ALL SURFACE PREPARATION SHALL BE CONSIDERED INCIDENTAL TO ITEM P-620 (TYP.).
 - 203. LIMIT OF UNDERDRAIN REMOVAL.
 - 205. REMOVE UNDERDRAIN AND CLEANOUTS IF FOUND, INCIDENTAL TO ITEM P-101.
 - 213. TYPICAL TAXIWAY PAVEMENT DEMOLITION SECTION, SEE DETAIL A1/CD501.
 - 214. PROTECT EXISTING UTILITY IN PLACE, CONTRACTOR SHALL NOT USE POWER DRIVEN CONCRETE BREAKING EQUIPMENT WITHIN 20 FEET.

- A2 LEGEND**
 SCALE: NOT TO SCALE
- PARTIAL DEPTH PAVEMENT SECTION REMOVAL, ITEM P-101 AND ITEM P-152. SEE DETAILS C1&B1/CD501.
 - FULL DEPTH PAVEMENT SECTION REMOVAL, ITEM P-101 AND ITEM P-152. SEE DETAILS B3&B1/CD501.
 - STORMWATER CATCH BASIN TO REMAIN.

- A3 DEMOLITION NOTES**
 SCALE: NOT TO SCALE
1. ELECTRICAL WORK IS SHOWN FOR INFORMATIONAL PURPOSES ONLY. REFER TO ED SERIES FOR ALL ELECTRICAL DEMOLITION WORK. REFER TO EL SERIES FOR ALL LIGHTING, POWER DISTRIBUTION AND CABLING WORK.
 2. REFER TO CG SERIES FOR LIMITS OF PROPOSED DRAINAGE AND UTILITIES.
 3. THE CONTRACTOR SHALL DOUBLE SAWCUT FULL DEPTH PAVEMENT PRIOR TO THE REMOVAL OF EXISTING CONCRETE AND ASPHALT PAVEMENTS. SAWCUTS SHALL BE A MINIMUM OF 12-INCHES APART.
 4. EXISTING DRAINAGE STRUCTURE TABLE, SEE A1/CG601.

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 (NORTH OF TAXIWAY V, 1,950' X 35'); TAXIWAY
 F & G AIRFIELD LIGHTING REPLACEMENT
 GERALD R. FORD INTERNATIONAL
 AIRPORT GRAND RAPIDS, MI**

MARK	DATE	ADDENDUM NO.1	DESCRIPTION
	3/6/2026		

REVISIONS

PROJECT NO.:	K19.031.001 & K19.031.002
DATE:	FEBRUARY 2026
DRAWN BY:	B. BUCKINGHAM
DESIGNED BY:	T.J. CORCORAN
CHECKED BY:	K.J. JOST

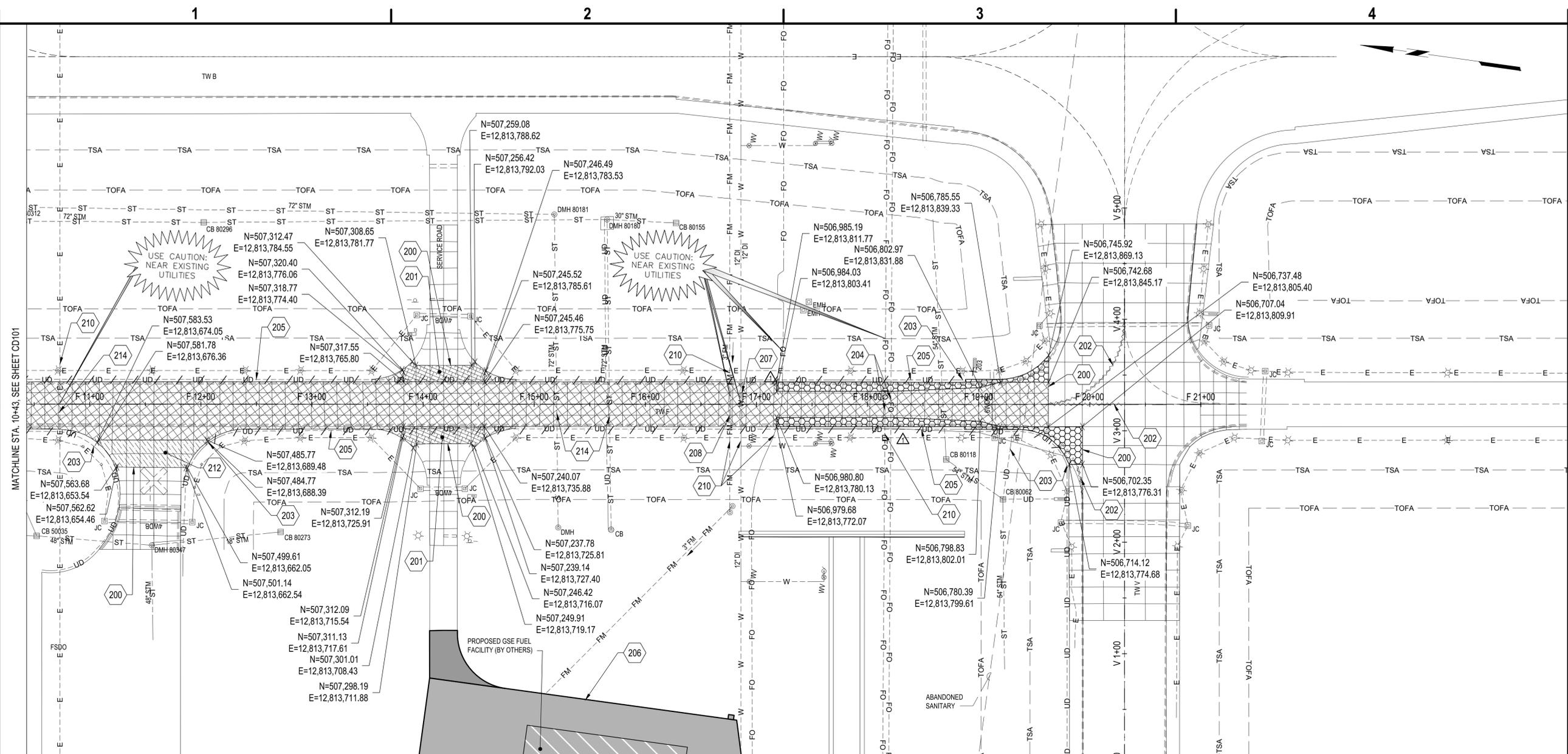
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**EXISTING
 CONDITIONS AND
 DEMOLITION PLAN**

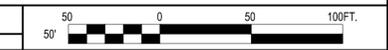
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B1 EXISTING CONDITIONS AND DEMOLITION PLAN
 SCALE: 1" = 50'



- 200. SAWCUT PAVEMENT FULL DEPTH (TYP.), INCIDENTAL TO ITEM P-101. SEE DETAIL B1/CD501.
- 201. PARTIAL DEPTH PCC PAVEMENT REMOVAL, SEE TYPICAL PAVEMENT SECTION C3 AND B1/CD501.
- 202. OBLITERATE EXISTING PAVEMENT MARKINGS PER SPECIFICATION P-620. ALL SURFACE PREPARATION SHALL BE CONSIDERED INCIDENTAL TO ITEM P-620 (TYP.).
- 203. LIMIT OF UNDERDRAIN REMOVAL.
- 204. PROTECT EXISTING COMMUNICATION CABLE IN PLACE (TYP.).
- 205. REMOVE UNDERDRAIN AND CLEANOUTS IF FOUND, INCIDENTAL TO ITEM P-101.
- 206. GSE FUEL FARM FACILITY PROJECT (BY OTHERS).
- 207. PROTECT EXISTING WATERMAIN IN PLACE (TYP.).
- 208. PROTECT EXISTING FORCEMAIN IN PLACE (TYP.).
- 210. CONTRACTOR TO SOFT DIG EXISTING UTILITY PRIOR TO BEGINNING CONSTRUCTION, ITEM DX-800.
- 212. PARTIAL DEPTH PCC PAVEMENT REMOVAL, SEE TYPICAL PAVEMENT SECTION C4 AND B1/CD501.
- 214. PROTECT EXISTING UTILITY IN PLACE, CONTRACTOR SHALL NOT USE POWER DRIVEN CONCRETE BREAKING EQUIPMENT WITHIN 20 FEET.

- PARTIAL DEPTH PAVEMENT SECTION REMOVAL, ITEM P-101 AND ITEM P-152. SEE DETAILS C1&B1/CD501.
- FULL DEPTH PAVEMENT SECTION REMOVAL, ITEM P-101 AND ITEM P-152. SEE DETAILS B3&B1/CD501.
- STORMWATER CATCH BASIN TO REMAIN.

1. ELECTRICAL WORK IS SHOWN FOR INFORMATIONAL PURPOSES ONLY. REFER TO ED SERIES FOR ALL ELECTRICAL DEMOLITION WORK. REFER TO EL SERIES FOR ALL LIGHTING, POWER DISTRIBUTION AND CABLING WORK.
2. REFER TO CG SERIES FOR LIMITS OF PROPOSED DRAINAGE AND UTILITIES.
3. THE CONTRACTOR SHALL DOUBLE SAWCUT FULL DEPTH PAVEMENT PRIOR TO THE REMOVAL OF EXISTING CONCRETE AND ASPHALT PAVEMENTS. SAWCUTS SHALL BE A MINIMUM OF 12-INCHES APART.
4. NO HYDRAULIC, PNEUMATIC OR VIBRATORY EQUIPMENT SHALL BE USED FOR PAVEMENT DEMOLITION OVER EXISTING UTILITIES AND BETWEEN TW F STA. 16+50 TO STA. 19+00. PAVEMENT DEMOLITION AT TW F TUNNEL: NO HYDRAULIC, PNEUMATIC, OR VIBRATORY DEMOLITION EQUIPMENT SUCH AS HOE RAMS, GUILLOTINES AND JACKHAMMERS SHALL BE USED FOR DEMOLITION BETWEEN TW F STA. 16+50 TO STA. 19+00. PCC PAVEMENT SLABS SHALL BE SAWCUT AT JOINTS TO FULL DEPTH, LIFTED OUT AND REMOVED. CONTRACTOR SHALL SUBMIT A LIST OF EQUIPMENT TO BE USED IN THE AREAS OVER THE TUNNEL.
5. EXISTING DRAINAGE STRUCTURE TABLE, SEE A1/CG601.

A1 KEYED NOTES
 SCALE: NOT TO SCALE

A2 LEGEND
 SCALE: NOT TO SCALE

A3 DEMOLITION NOTES
 SCALE: NOT TO SCALE

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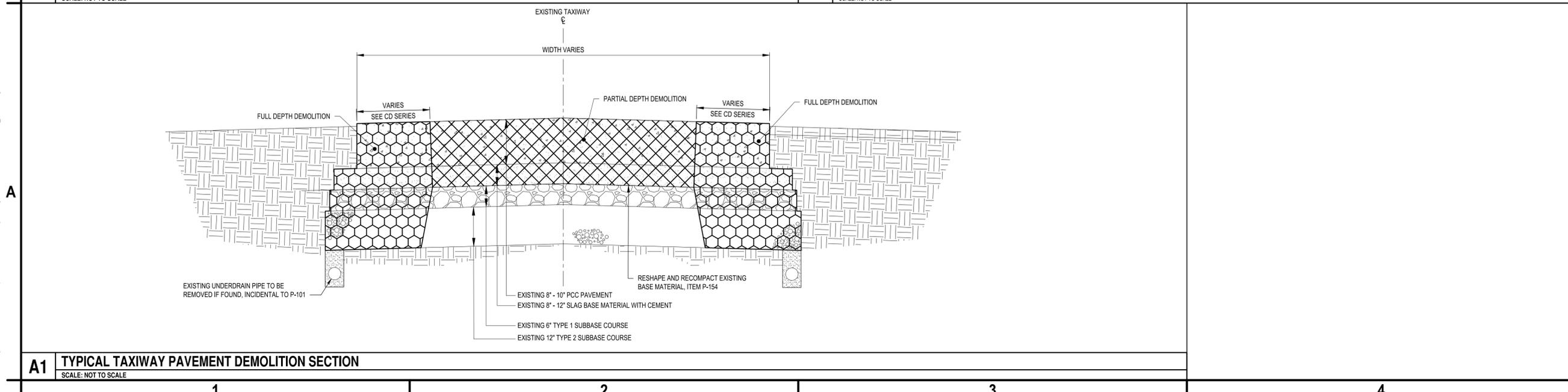
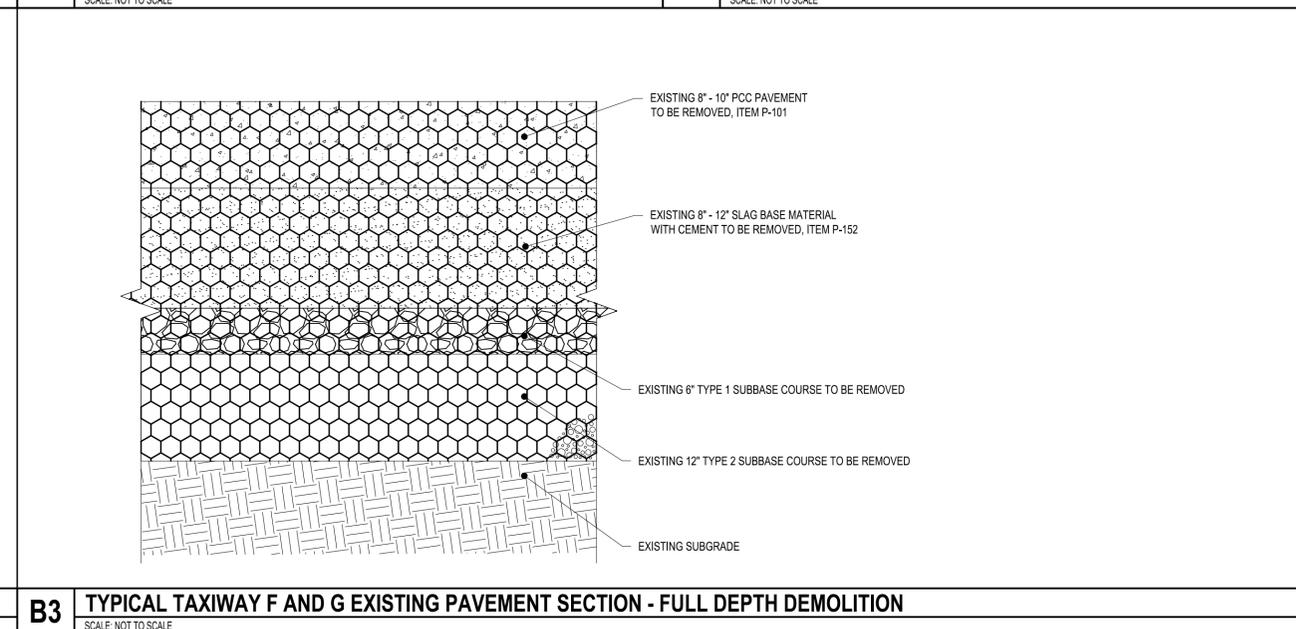
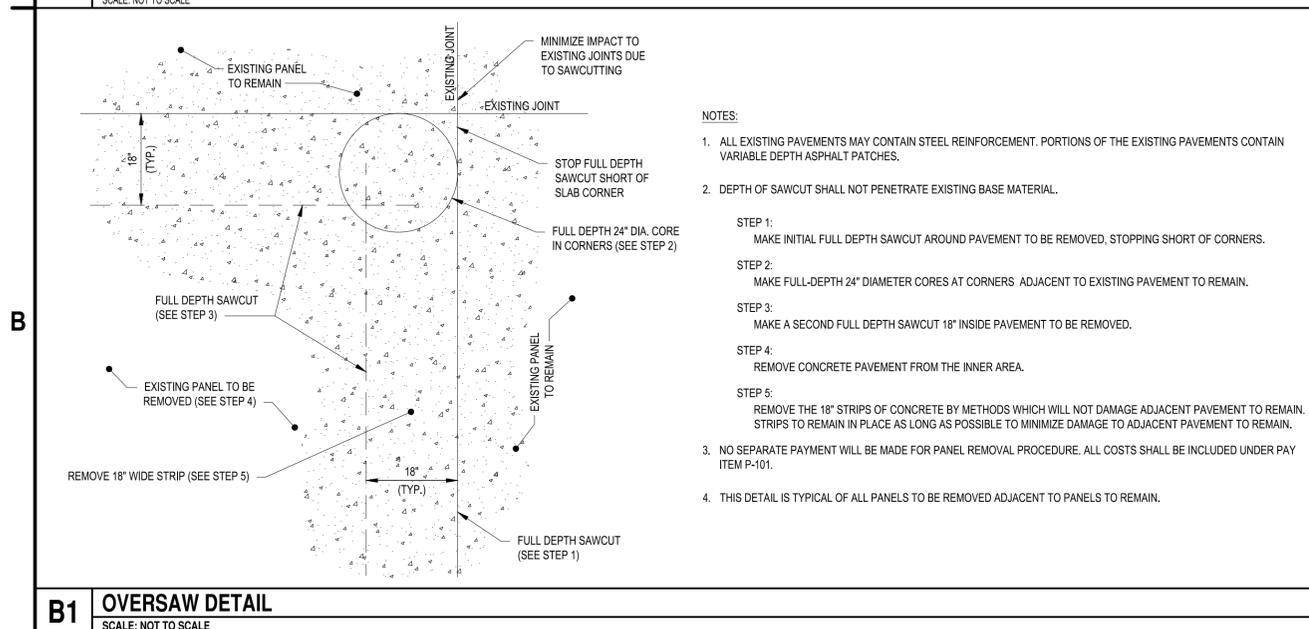
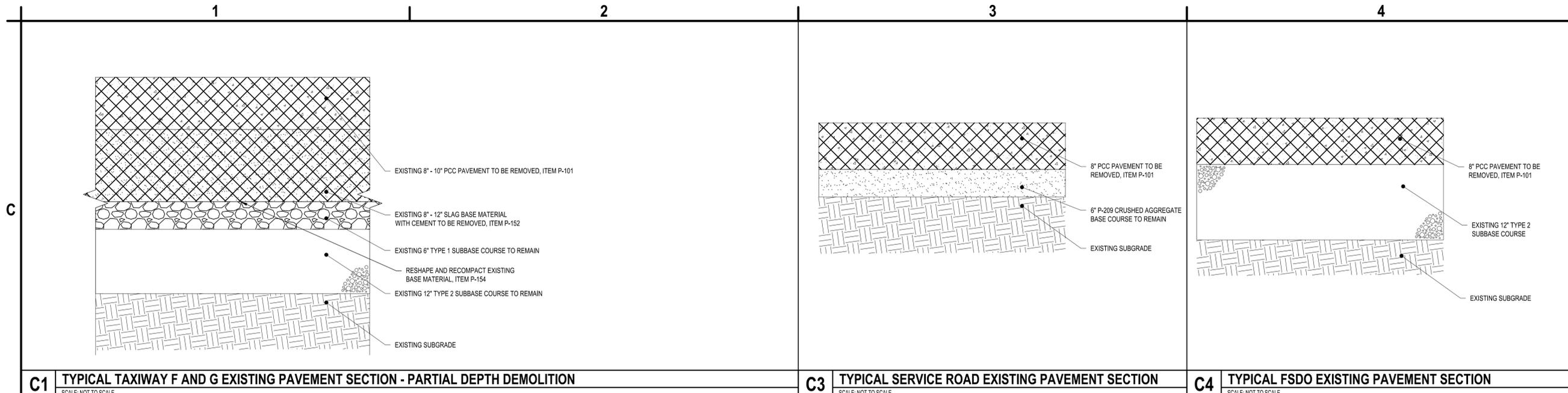
**TAXIWAY F & G RECONSTRUCTION
(NORTH OF TAXIWAY V, 1,950' X 35'); TAXIWAY
F & G AIRFIELD LIGHTING REPLACEMENT
GERALD R. FORD INTERNATIONAL
AIRPORT GRAND RAPIDS, MI**

MARK	DATE	DESCRIPTION
REVISIONS		
PROJECT NO: K19.031.001 & K19.031.002		
DATE: FEBRUARY 2026		
DRAWN BY: B. BUCKINGHAM		
DESIGNED BY: T.J. CORCORAN		
CHECKED BY: K.J. JOST		
CONTRACTOR SHALL VERIFY ALL CONDITIONS ON JOB SITE & NOTIFY THE OWNER OF ANY VARIATIONS FROM DIMENSIONS SHOWN ON THESE DRAWINGS BEFORE PROCEEDING WITH ANY CONSTRUCTION.		

**EXISTING
CONDITIONS AND
DEMOLITION DETAILS**

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 AIRPORT GRAND RAPIDS, MI**

MARK	DATE	DESCRIPTION
△	3/18/2026	ADDENDUM NO.2
△	3/6/2026	ADDENDUM NO.1

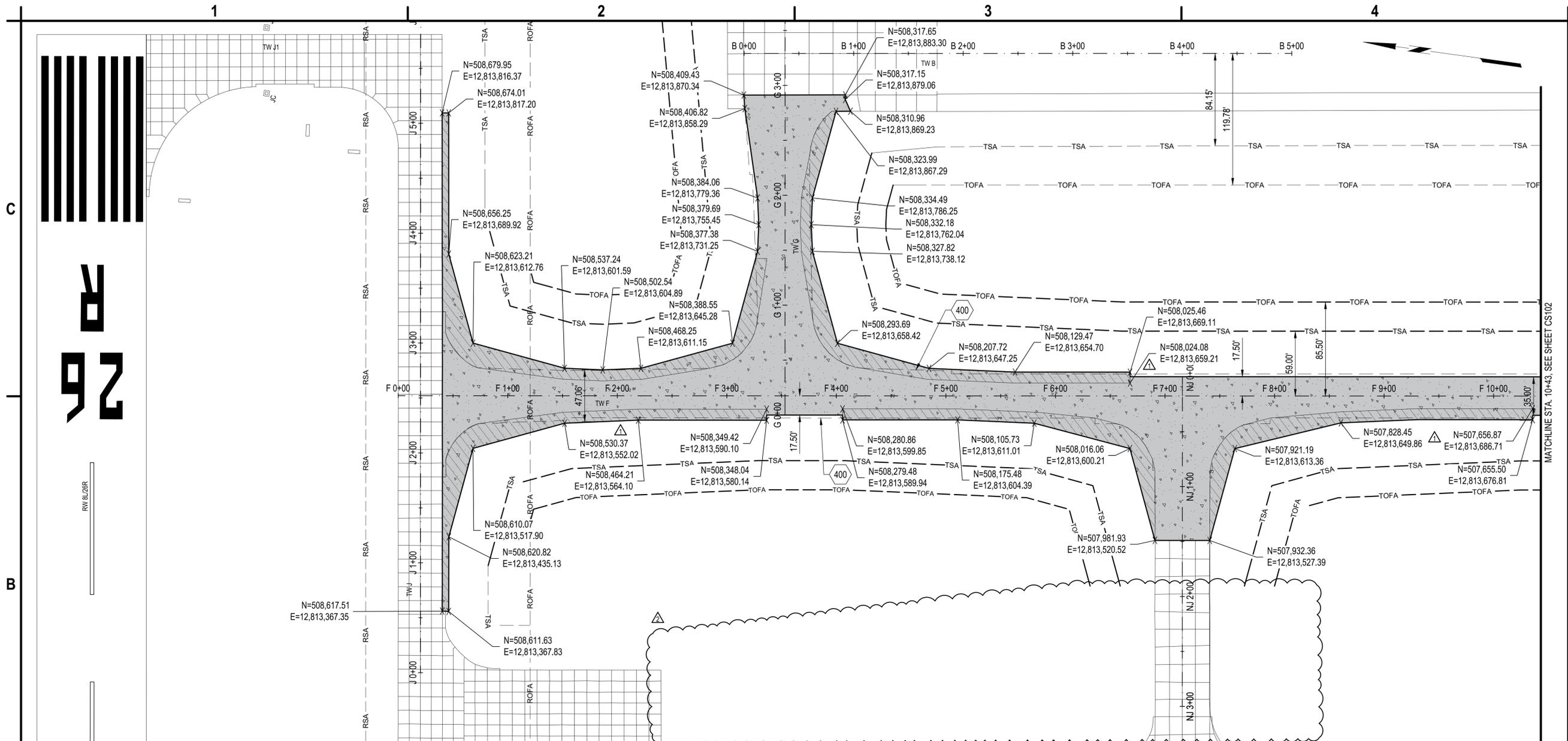
REVISIONS	
PROJECT NO:	K19.031.001 & K19.031.002
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GEOMETRY PLAN

CS101

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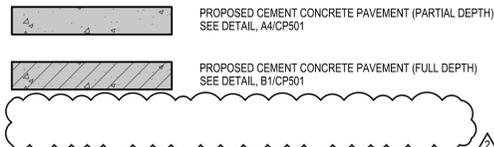


B1 GEOMETRY PLAN

SCALE: 1" = 50'



400. EXISTING EDGE OF PAVEMENT



NOTES:

- REFER TO THE CG SERIES FOR DRAINAGE WORK.
- REFER TO EL SERIES FOR ELECTRICAL PLAN FOR ALL WORK ASSOCIATED WITH SITE LIGHTING, POWER DISTRIBUTION AND CABLING.

A1 KEYED NOTES

SCALE: NOT TO SCALE

A2 LEGEND

SCALE: NOT TO SCALE

A3 GEOMETRY NOTES

SCALE: NOT TO SCALE

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AIRPORT GRAND RAPIDS, MI**

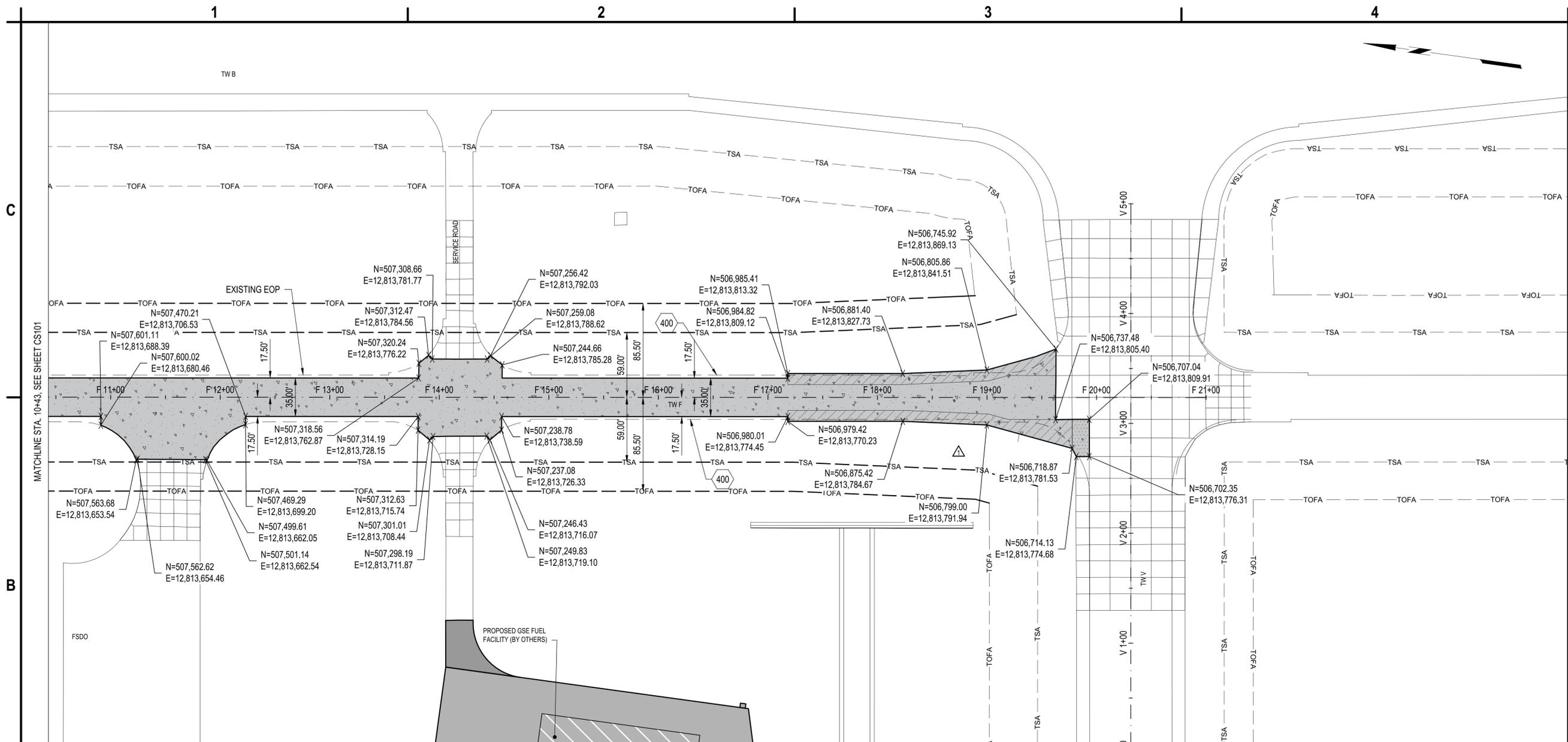
MARK	DATE	DESCRIPTION
△	3/6/2026	ADDENDUM NO.1
REVISIONS		
PROJECT NO: K19.031.001 & K19.031.002		
DATE: FEBRUARY 2026		
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GEOMETRY PLAN

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B1 GEOMETRY PLAN

SCALE: 1" = 50'



400. EXISTING EDGE OF PAVEMENT

-  PROPOSED CEMENT CONCRETE PAVEMENT (PARTIAL DEPTH)
SEE DETAIL, A4/CP501
-  PROPOSED CEMENT CONCRETE PAVEMENT (FULL DEPTH)
SEE DETAIL, B1/CP501
-  PANEL TO BE REPLACED IN KIND, APPROXIMATE DEPTH IS 14". PANEL REPLACEMENT SHALL BE PAID FOR UNDER P-501 CONCRETE PAVEMENT, 10" THICK

NOTES:

1. REFER TO THE CG SERIES FOR DRAINAGE WORK.
2. REFER TO EL SERIES FOR ELECTRICAL PLAN FOR ALL WORK ASSOCIATED WITH SITE LIGHTING, POWER DISTRIBUTION AND CABLING.

A1 KEYED NOTES

SCALE: NOT TO SCALE

A2 LEGEND

SCALE: NOT TO SCALE

A3 GENERAL NOTES

SCALE: NOT TO SCALE

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△	3/16/2026	ADDENDUM NO.2
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REVISIONS	
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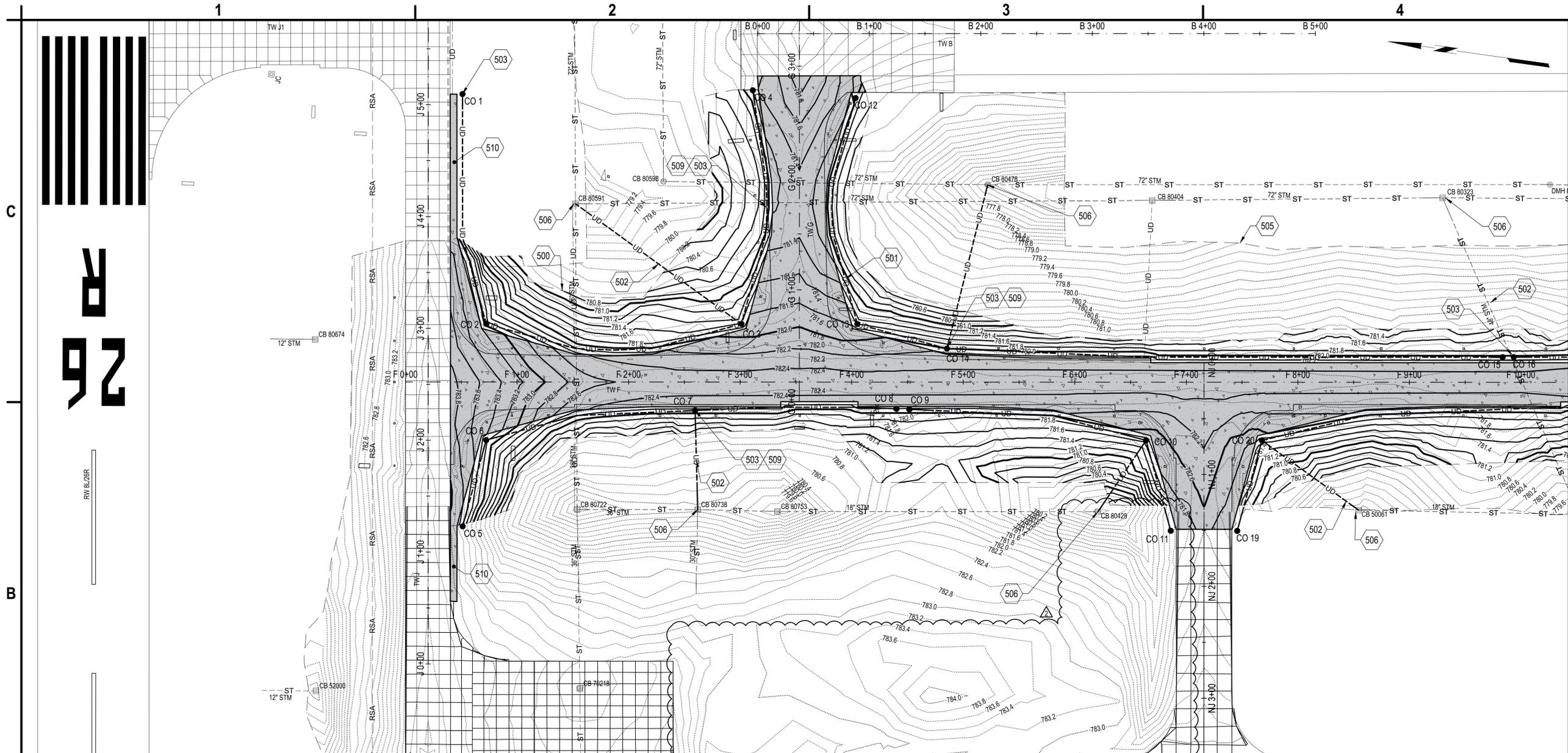
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GRADING AND DRAINAGE PLAN

CG101

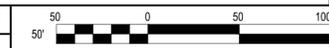
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B1 GRADING AND DRAINAGE PLAN

SCALE: 1" = 50'



- 500. GRADING LIMIT LINE.
- 501. 6-INCH PERFORATED CORRUGATED HDPE DRAINAGE TUBING UNDERDRAIN, ITEM D-705. SEE DETAIL A2/CG501.
- 502. 6-INCH NON-PERFORATED CORRUGATED HDPE DRAINAGE TUBING UNDERDRAIN, ITEM D-705. SEE DETAIL A1/CG501.
- 503. CLEANOUT, ITEM D-705. SEE DETAIL A3/CG501.
- 505. SURVEY LIMIT LINE.
- 506. CONNECT UNDERDRAIN TO STRUCTURE, ITEM D-705. SEE DETAIL B1/CG501
- 509. UNDERDRAIN CONNECTION LAYOUT, SEE DETAIL B3/CG501
- 510. MATCH EXISTING PAVEMENT GRADE AT TIE-IN AND PROVIDE SLOPE ON PROPOSED PAVEMENT THAT MATCHES THE TRANSVERSE SLOPE OF THE ADJACENT TAXWAY

A4 KEYED NOTES

SCALE: NOT TO SCALE

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△	3/6/2026	ADDENDUM NO.1
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REVISIONS	
PROJECT NO:	K19.031.001 & K19.031.002
DATE:	FEBRUARY 2026
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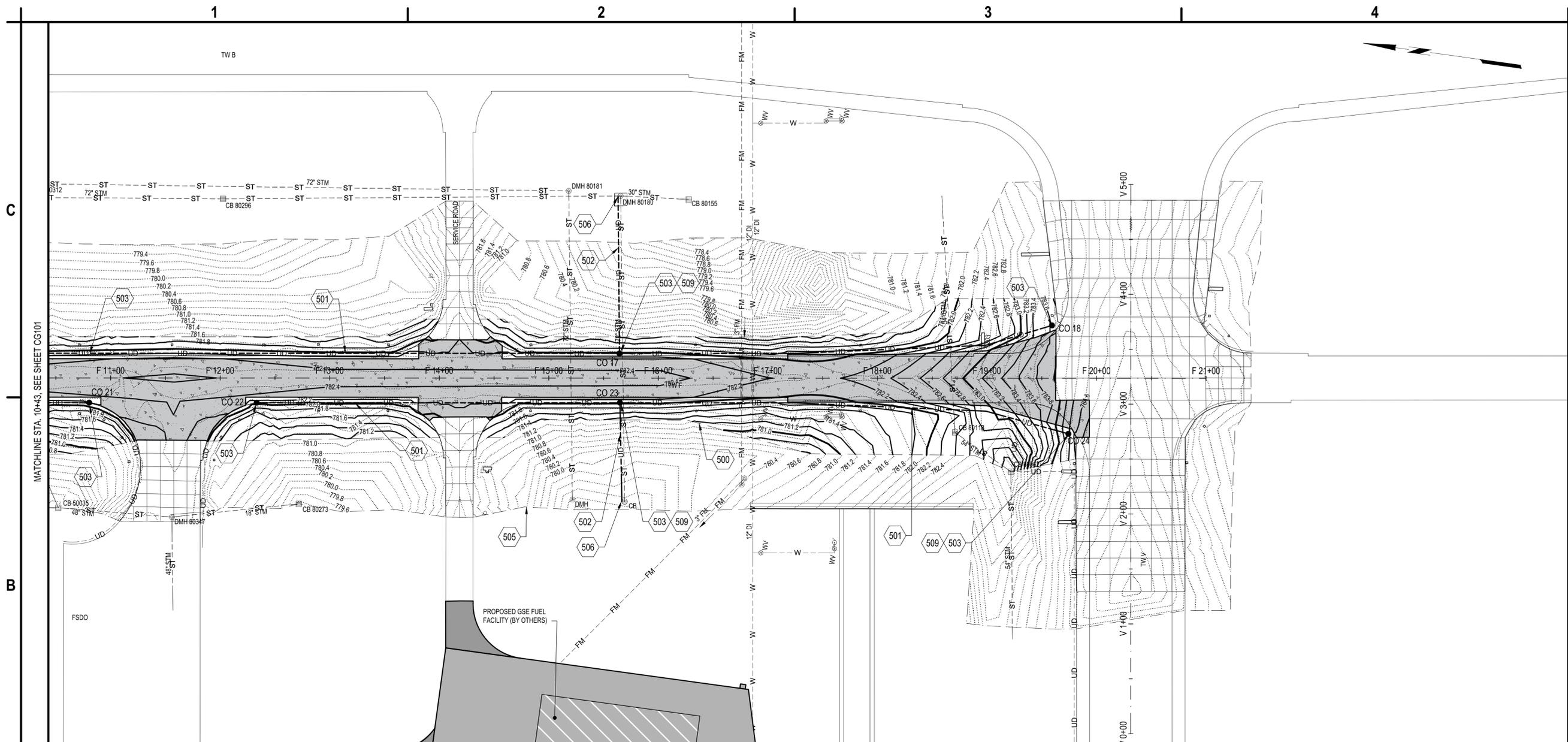
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GRADING AND DRAINAGE PLAN

CG102

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B1 GRADING AND DRAINAGE PLAN

SCALE: 1" = 50'



- 500. GRADING LIMIT LINE.
- 501. 6-INCH PERFORATED CORRUGATED HDPE DRAINAGE TUBING UNDERDRAIN, ITEM D-705. SEE DETAIL A2/CG501.
- 502. 6-INCH NON-PERFORATED CORRUGATED HDPE DRAINAGE TUBING UNDERDRAIN, ITEM D-705. SEE DETAIL A1/CG501.
- 503. CLEANOUT, ITEM D-705. SEE DETAIL A3/CG501.
- 505. SURVEY LIMIT LINE.
- 506. CONNECT UNDERDRAIN TO STRUCTURE, ITEM D-705. SEE DETAIL B1/CG501
- 509. UNDERDRAIN CONNECTION LAYOUT, SEE DETAIL B3/CG501

A1 KEYED NOTES

SCALE: NOT TO SCALE

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 AIRPORT GRAND RAPIDS, MI**

MARK	DATE	DESCRIPTION
△	3/16/2026	ADDENDUM NO.2

REVISIONS

PROJECT NO:	K19.031.001 & K19.031.002
DATE:	FEBRUARY 2026
DRAWN BY:	B. BUCKINGHAM
DESIGNED BY:	T.J. CORCORAN
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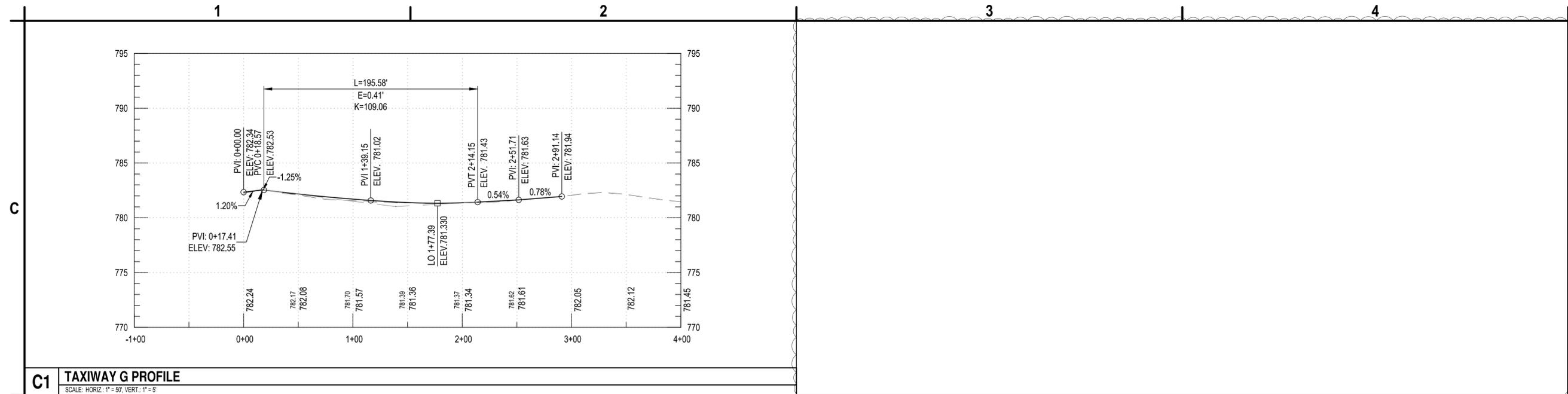
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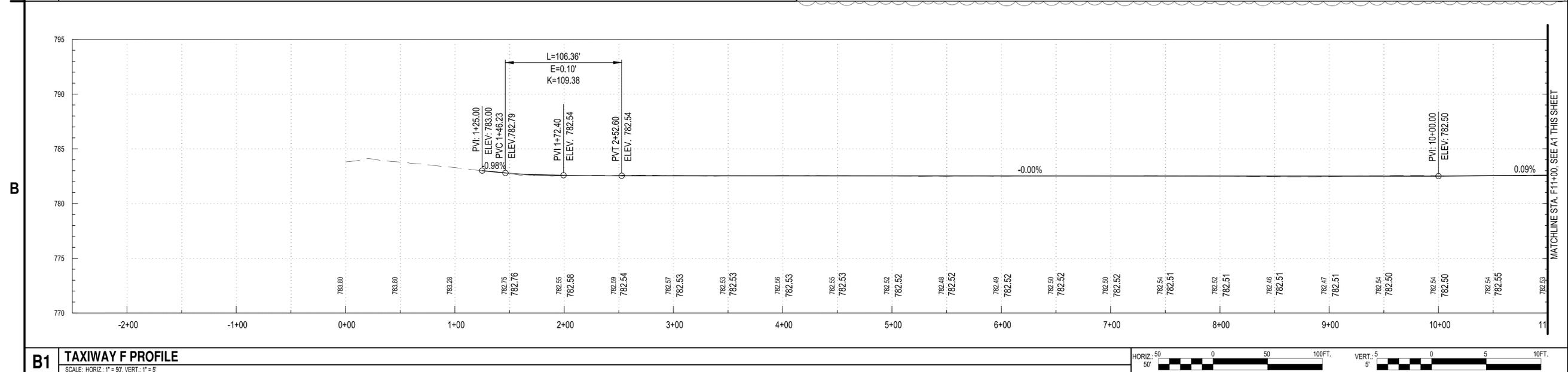
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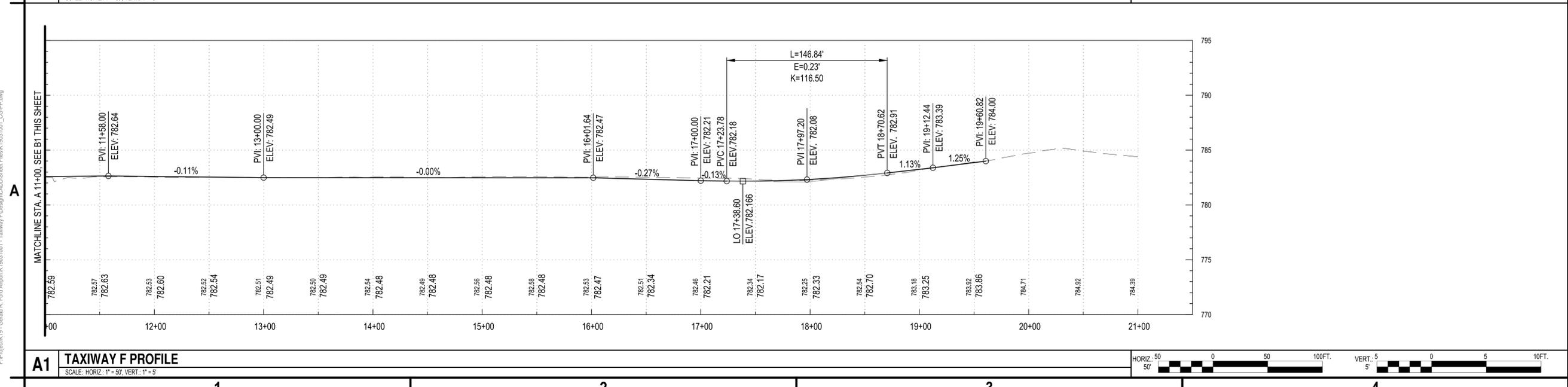
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C1 TAXIWAY G PROFILE
 SCALE: HORIZ. 1" = 50', VERT. 1" = 5'



B1 TAXIWAY F PROFILE
 SCALE: HORIZ. 1" = 50', VERT. 1" = 5'



A1 TAXIWAY F PROFILE
 SCALE: HORIZ. 1" = 50', VERT. 1" = 5'



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AIRPORT GRAND RAPIDS, MI**

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GRADING AND DRAINAGE DETAILS

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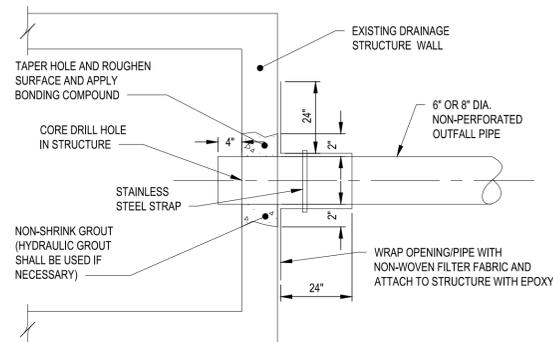
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C

B

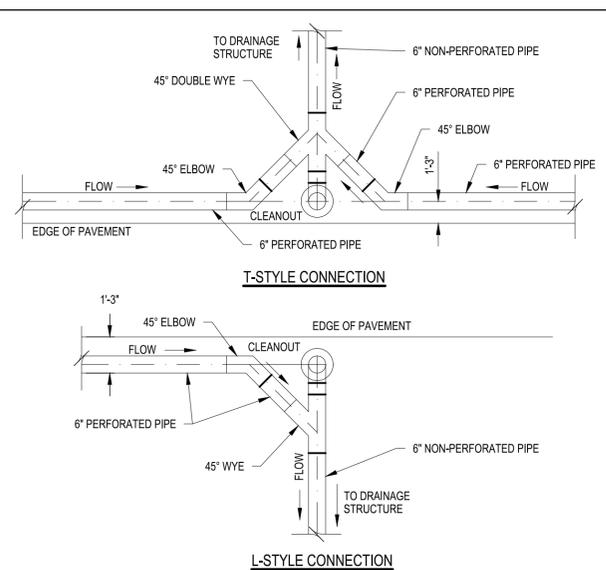
B



- NOTES:**
- WHERE REQUIRED, CONTRACTOR SHALL PROVIDE WYE JOINTS TO CONNECT UNDERDRAIN PIPE TO INLET STRUCTURE AT SPECIFIED ELEVATION.
 - NO SEPARATE PAYMENT WILL BE MADE FOR UNDERDRAIN CONNECTIONS.

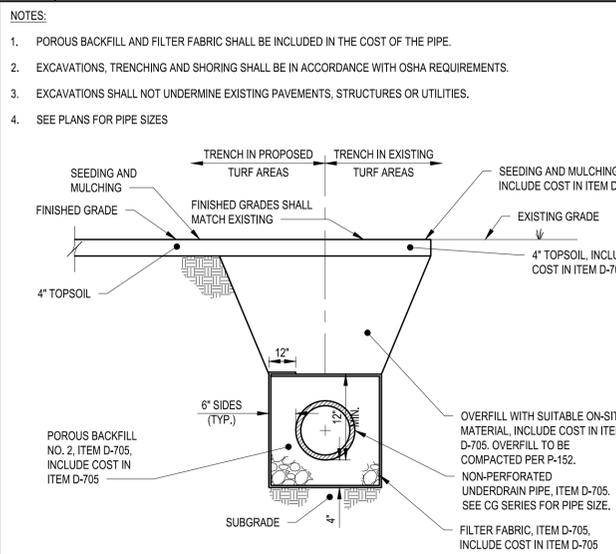
B1 UNDERDRAIN CONNECTION TO EXISTING STRUCTURE

SCALE: NOT TO SCALE



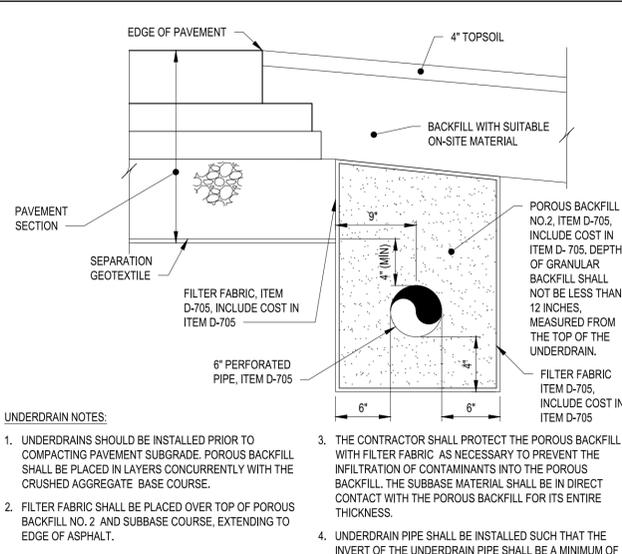
B3 UNDERDRAIN CONNECTIONS LAYOUT DETAIL

SCALE: NOT TO SCALE



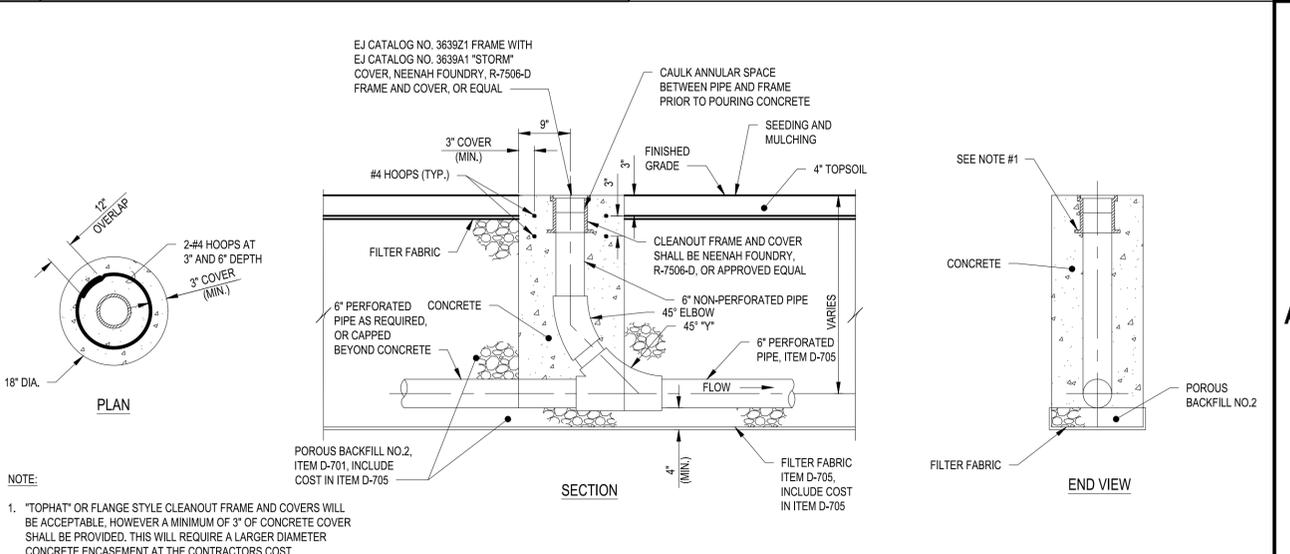
A1 NON-PERFORATED HDPE PIPE TRENCHING DETAIL

SCALE: NOT TO SCALE



A2 UNDERDRAIN PIPE AT PAVEMENT EDGE DETAIL

SCALE: NOT TO SCALE



A3 UNDERDRAIN CLEANOUT DETAIL

SCALE: NOT TO SCALE

1 2 3 4

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EXISTING STRUCTURE TABLE			
STRUCTURE	COORDINATES	ELEV.	INVERTS
CB 50035	N: 507625.70 E: 12813583.32	RIM: 779.41' SUMP: 767.81'	48" RCP (S) INV. 767.81' 18" RCP (N) INV. 767.81' 48" RCP (NE) INV. 767.81'
CB 50061	N: 507822.29 E: 12813560.06	RIM: 779.05' SUMP: 768.95'	6" HDPE (E) INV. 774.95' 6" HDPE (W) INV. 775.05' 6" HDPE (SE) INV. 773.95' 18" RCP (S) INV. 768.95'
CB 80062	N: 506768.93 E: 12813735.53	RIM: 782.00' SUMP: 768.40'	54" RCP (NE) INV. 768.40' 6" HDPE (S) INV. 774.50' 6" HDPE (E) INV. 774.50' 54" RCP (W) INV. 768.40'
CB 80118	N: 506824.46 E: 12813763.79	RIM: 782.38' SUMP: 768.78'	54" RCP (E) INV. 768.78' 54" RCP (SW) INV. 768.78'
CB 80155	N: 507094.41 E: 12813940.54	RIM: 775.87' SUMP: 771.57'	30" RCP (N) INV. 771.57' 6" HDPE (W) INV. 772.07'
CB 80273	N: 507408.85 E: 12813617.04	RIM: 779.33' SUMP: 769.63'	18" RCP (N) INV. 769.63'
CB 80296	N: 507515.55 E: 12813882.59	RIM: 776.22' SUMP: 757.12'	72" RCP (S) INV. 757.22' 72" RCP (N) INV. 757.12' 6" HDPE (E) INV. 771.82'
CB 80323	N: 507785.96 E: 12813846.98	RIM: 777.71' SUMP: 760.17'	72" RCP (S) INV. 760.17' 48" RCP (SW) INV. 766.36' 72" RCP (N) INV. 760.17' 6" HDPE (SW) INV. 774.34'
CB 80404	N: 508043.64 E: 12813808.84	RIM: 774.49' SUMP: 759.09'	72" RCP (S) INV. 759.09' 72" RCP (N) INV. 759.09'
CB 80428	N: 508053.42 E: 12813526.43	RIM: 779.11' SUMP: 774.26'	18" RCP (N) INV. 774.26'
CB 80478	N: 508191.58 E: 12813802.46	RIM: 777.12' SUMP: 767.12'	72" RCP (S) INV. 767.12' 72" RCP (N) INV. 767.12'
CB 80591	N: 508555.22 E: 12813734.72	RIM: 779.14' SUMP: 759.04'	36" RCP (W) INV. 769.79' 72" RCP (S) INV. 759.04' 72" RCP (E) INV. 759.04'
CB 80598	N: 508479.81 E: 12813765.34	RIM: 779.67' SUMP: 766.82'	72" RCP (S) INV. 766.87' 72" RCP (E) INV. 766.82'
CB 80722	N: 508516.18 E: 12813464.12	RIM: 779.28' SUMP: 770.68'	36" RCP (W) INV. 770.68' 36" RCP (S) INV. 770.68' 36" RCP (E) INV. 770.68'
CB 80738	N: 508409.12 E: 12813478.96	RIM: 779.92' SUMP: 770.92'	30" RCP (W) INV. 770.92' 18" RCP (S) INV. 770.92' 36" RCP (N) INV. 770.92'
CB 80753	N: 508338.02 E: 12813487.15	RIM: 779.20' SUMP: 771.80'	18" RCP (S) INV. 771.80' 18" RCP (N) INV. 771.80'
DMH 80180	N: 507156.37 E: 12813935.11	RIM: 778.55' SUMP: 760.55'	30" RCP (S) INV. 760.55' 72" RCP (N) INV. 760.55' 72" RCP (W) INV. 760.55'
DMH 80181	N: 507203.94 E: 12813933.09	RIM: 780.23' SUMP: 768.33'	72" RCP (W) INV. 768.33' 72" RCP (N) INV. 768.33'
DMH 80312	N: 507692.35 E: 12813871.89	RIM: 777.79' SUMP: 767.59'	72" RCP (S) INV. 767.59' 72" RCP (N) INV. 767.59'
DMH 80347	N: 507521.93 E: 12813589.23	RIM: 782.11' SUMP: 768.66'	18" RCP (S) INV. 768.71' 48" RCP (W) INV. 768.71' 48" RCP (N) INV. 768.66'

PROPOSED STRUCTURE TABLE			
STRUCTURE	COORDINATES	ELEV.	INVERTS
CO 1	N: 508669.07 E: 12813817.99	RIM: 782.00'	6" HDPE (W) INV. 778.70'
CO 2	N: 508619.74 E: 12813617.35	RIM: 782.91'	6" HDPE (NE) INV. 777.66' 6" HDPE (S) INV. 777.66'
CO 3	N: 508393.14 E: 12813648.75	RIM: 781.65'	6" HDPE (E) INV. 776.48' 6" HDPE (NW) INV. 776.48' 6" HDPE (NE) INV. 776.48'
CO 4	N: 508411.67 E: 12813857.07	RIM: 781.25'	6" HDPE (W) INV. 777.55'
CO 5	N: 508615.78 E: 12813435.14	RIM: 783.39'	6" HDPE (E) INV. 779.55'
CO 6	N: 508605.48 E: 12813514.42	RIM: 783.25'	6" HDPE (W) INV. 779.15' 6" HDPE (SE) INV. 779.15'
CO 7	N: 508423.60 E: 12813566.42	RIM: 782.13'	6" HDPE (N) INV. 777.25' 6" HDPE (S) INV. 777.25' 6" HDPE (W) INV. 777.25'
CO 8	N: 508245.00 E: 12813592.75	RIM: 782.07'	6" (N) INV. 778.15'
CO 9	N: 508233.52 E: 12813593.84	RIM: 782.16'	6" HDPE (S) INV. 778.22'
CO 10	N: 508019.52 E: 12813595.59	RIM: 781.71'	6" HDPE (N) INV. 777.14' 6" HDPE (SW) INV. 777.14' 6" (NW) INV. 777.14'
CO 11	N: 507986.45 E: 12813518.51	RIM: 780.45'	6" HDPE (NE) INV. 777.56'
CO 12	N: 508319.52 E: 12813862.90	RIM: 780.89'	6" HDPE (W) INV. 777.03'
CO 13	N: 508290.22 E: 12813663.01	RIM: 781.63'	6" HDPE (NE) INV. 776.20' 6" HDPE (S) INV. 776.20'
CO 14	N: 508207.62 E: 12813652.29	RIM: 782.00'	6" HDPE (N) INV. 776.53' 6" HDPE (S) INV. 776.53' 6" HDPE (E) INV. 776.53'
CO 15	N: 507713.15 E: 12813713.24	RIM: 782.06'	6" HDPE (N) INV. 778.52'
CO 16	N: 507703.24 E: 12813714.62	RIM: 782.06'	6" HDPE (S) INV. 778.22'
CO 17	N: 507137.68 E: 12813792.99	RIM: 782.03'	6" HDPE (N) INV. 776.51' 6" HDPE (S) INV. 776.51' 6" HDPE (E) INV. 776.51'
CO 18	N: 506750.08 E: 12813872.56	RIM: 783.62'	6" HDPE (NW) INV. 778.80'
CO 19	N: 507927.42 E: 12813526.65	RIM: 781.26'	6" HDPE (E) INV. 776.99'
CO 20	N: 507916.62 E: 12813609.79	RIM: 781.70'	6" HDPE (S) INV. 776.57' 6" HDPE (W) INV. 776.57' 6" HDPE (SW) INV. 776.57'

PROPOSED STRUCTURE TABLE			
STRUCTURE	COORDINATES	ELEV.	INVERTS
CO 21	N: 507610.99 E: 12813681.97	RIM: 782.19'	6" HDPE (N) INV. 778.14'
CO 22	N: 507459.59 E: 12813702.95	RIM: 782.08'	6" HDPE (S) INV. 778.22'
CO 23	N: 507131.11 E: 12813748.66	RIM: 782.04'	6" HDPE (S) INV. 776.90' 6" HDPE (N) INV. 776.90' 6" HDPE (W) INV. 776.90'
CO 24	N: 506721.71 E: 12813776.86	RIM: 784.36'	6" HDPE (N) INV. 778.96'



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**TAXIWAY F & G RECONSTRUCTION
(NORTH OF TAXIWAY V, 1,950' X 35'); TAXIWAY
F & G AIRFIELD LIGHTING REPLACEMENT
GERALD R. FORD INTERNATIONAL
AIRPORT GRAND RAPIDS, MI**

MARK	DATE	DESCRIPTION
△	3/16/2026	ADDENDUM NO.2
REVISIONS		
PROJECT NO: K19.031.001 & K19.031.002		
DATE: FEBRUARY 2026		
DRAWN BY: B. BUCKINGHAM		
DESIGNED BY: T.J. CORCORAN		
CHECKED BY: K.J. JOST		
CONTRACTOR SHALL VERIFY ALL CONDITIONS ON JOB SITE & NOTIFY THE OWNER OF ANY VARIATIONS FROM DIMENSIONS SHOWN ON THESE DRAWINGS BEFORE PROCEEDING WITH ANY CONSTRUCTION.		

**DRAINAGE
STRUCTURE TABLES**

CG601

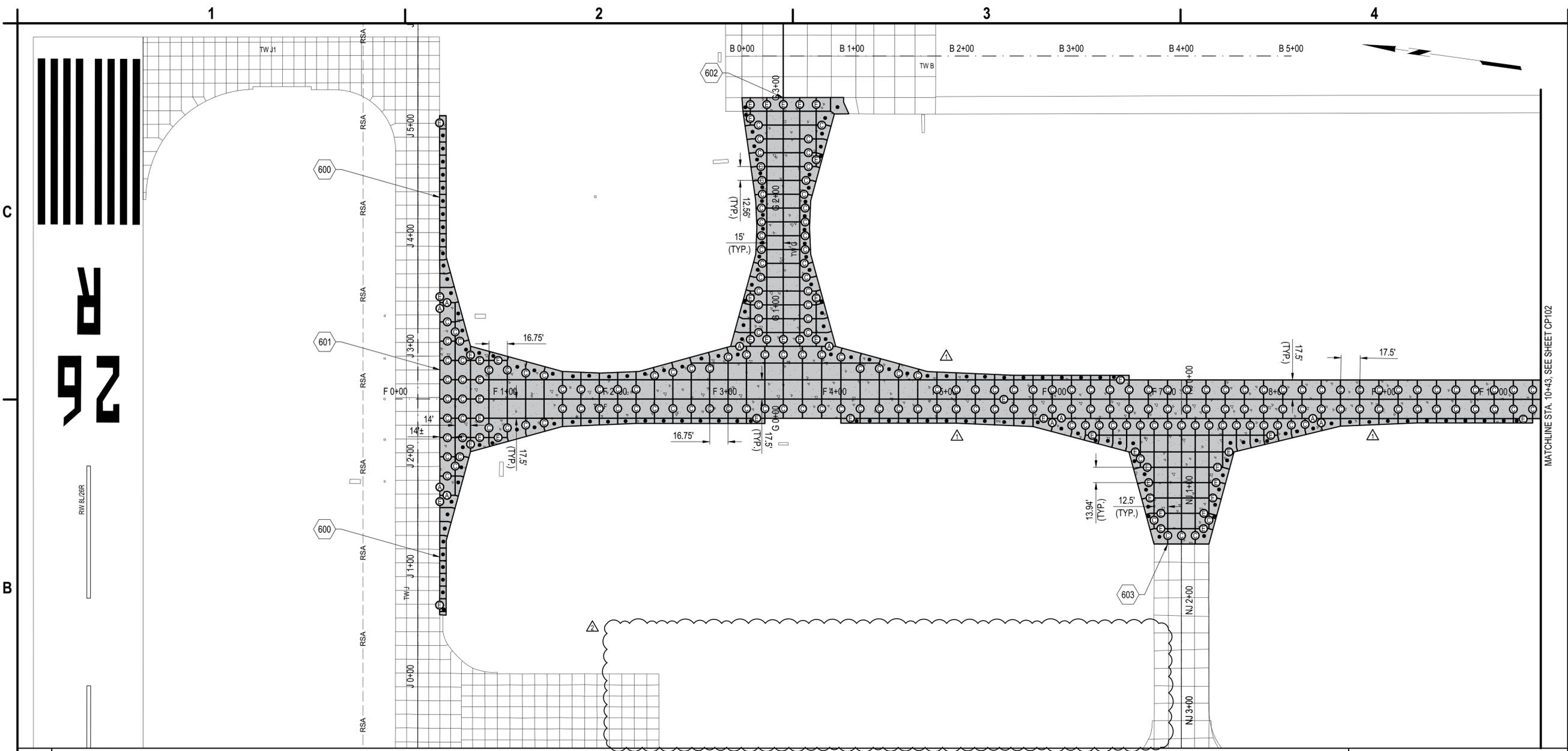
SHEET NO. 28 OF 65

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A1 EXISTING DRAINAGE STRUCTURE TABLE
SCALE: NOT TO SCALE

A3 PROPOSED DRAINAGE STRUCTURE TABLE
SCALE: NOT TO SCALE

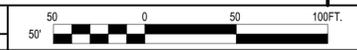


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 GERALD R. FORD INTERNATIONAL
 AIRPORT GRAND RAPIDS, MI**

B1 PAVEMENT JOINT PLAN
 SCALE: 1" = 50'



- A1 KEYED NOTES**
 SCALE: NOT TO SCALE
- 600. MATCH EXISTING CONCRETE PAVEMENT
 - 601. MEET EXISTING PAVEMENT, SEE DETAIL A1/CP503
 - 602. MEET EXISTING PAVEMENT, SEE DETAIL A2/CP502
 - 603. MEET EXISTING PAVEMENT, SEE DETAIL B3/CP503

- A2 LEGEND AND JOINTING NOTES**
 SCALE: NOT TO SCALE
- (A) THICKENED EDGE ISOLATION JOINT, SEE DETAIL B2/CP501
 - (E) CONSTRUCTION JOINT WITH DOWEL BAR, C1/CP501
 - (C) CONTRACTION JOINT WITH DOWEL BASKET, SEE DETAIL C3/CP501
 - (Z) CONSTRUCTION JOINT WITH TIE BAR
 - IRREGULAR REINFORCED PAVEMENT SLABS, SEE DETAIL C1/CP502
- PROPOSED CEMENT CONCRETE PAVEMENT

- A3 CONCRETE JOINTING NOTES**
 SCALE: NOT TO SCALE
1. SEE ADDITIONAL CONCRETE PAVING NOTES ON A1/CP502.
 2. SPALLING ALONG EXISTING PAVEMENT SHALL BE REPAIRED WITH DELPATCH MATERIAL BY DS BROWN, OR APPROVED EQUAL. NO ADDITIONAL PAYMENT WILL BE MADE FOR DAMAGE DONE TO CONCRETE TO REMAIN.
 3. ALL JOINT CONSTRUCTION AND JOINT SEALING SHALL BE CONSIDERED INCIDENTAL TO THE CONCRETE PAVEMENT CONSTRUCTION, NO SEPARATE PAYMENT WILL BE MADE

MARK	DATE	DESCRIPTION
△	3/18/2026	ADDENDUM NO. 2
△	3/6/2026	ADDENDUM NO. 1

REVISIONS

PROJECT NO:	K19.031.001 & K19.031.002
DATE:	FEBRUARY 2026
DRAWN BY:	B. BUCKINGHAM
DESIGNED BY:	T.J. CORCORAN
CHECKED BY:	K.J. JOST

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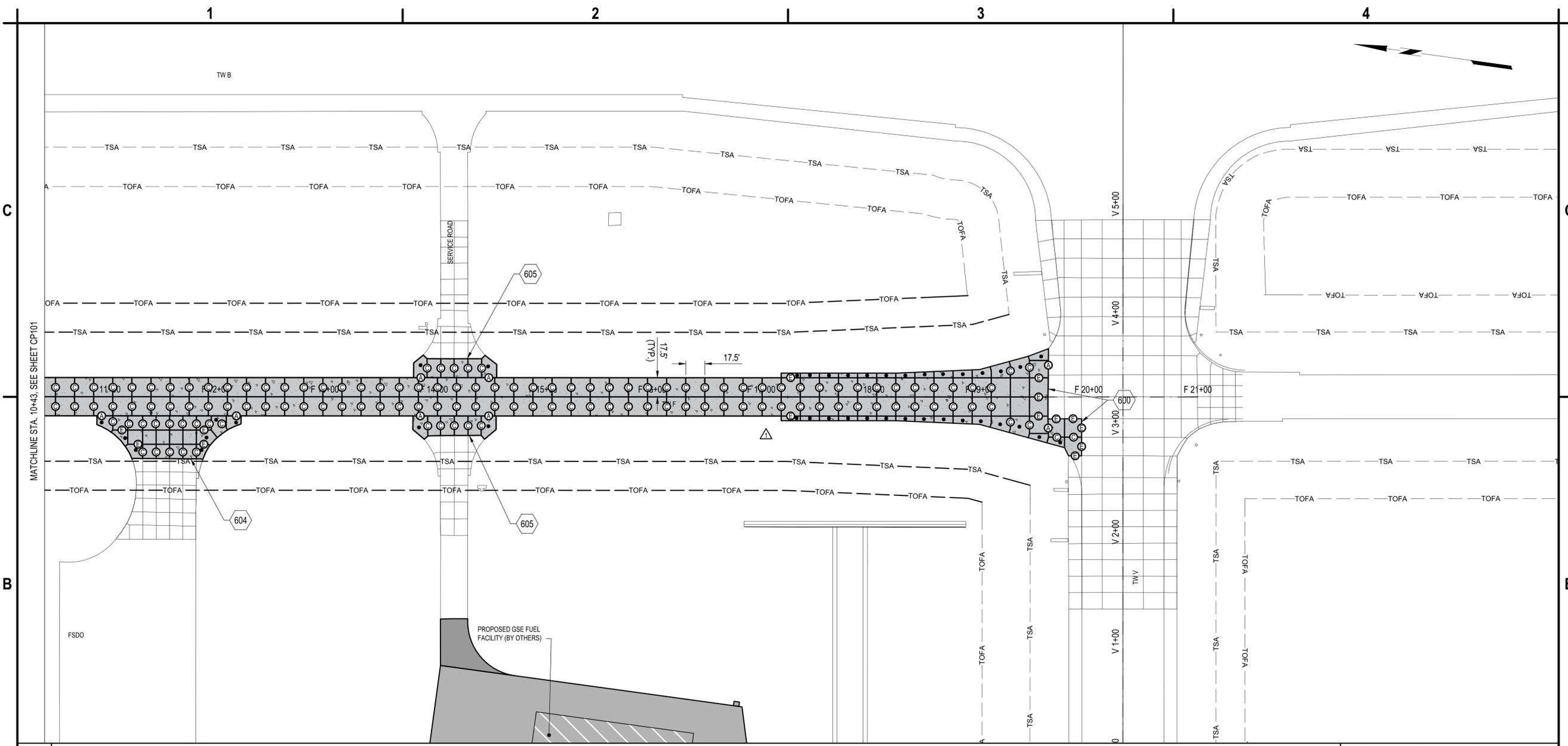
PAVEMENT JOINT PLAN

CP101

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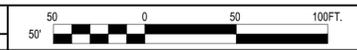


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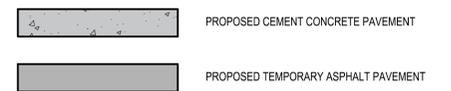
**TAXIWAY F & G RECONSTRUCTION
 (NORTH OF TAXIWAY V, 1,950' X 35'); TAXIWAY
 F & G AIRFIELD LIGHTING REPLACEMENT
 GERALD R. FORD INTERNATIONAL
 AIRPORT GRAND RAPIDS, MI**

B1 PAVEMENT JOINT PLAN
 SCALE: 1" = 50'



600. MATCH EXISTING CONCRETE PAVEMENT
 604. MEET EXISTING PAVEMENT, SEE DETAIL B1/CP503
 605. MEET EXISTING PAVEMENT, SEE DETAIL A3/CP503

- (A) THICKENED EDGE ISOLATION JOINT, SEE DETAIL B2/CP501
- (E) CONSTRUCTION JOINT WITH DOWEL BAR, C1/CP501
- (C) CONTRACTION JOINT WITH DOWEL BASKET, SEE DETAIL C3/CP501
- IRREGULAR REINFORCED PAVEMENT SLABS, SEE DETAIL C1/CP502



1. SEE ADDITIONAL CONCRETE PAVING NOTES ON A1/CP502.
2. SPALLING ALONG EXISTING PAVEMENT SHALL BE REPAIRED WITH DELPATCH MATERIAL BY DS BROWN, OR APPROVED EQUAL. NO ADDITIONAL PAYMENT WILL BE MADE FOR DAMAGE DONE TO CONCRETE TO REMAIN.

A1 KEYED NOTES
 SCALE: NOT TO SCALE

A2 LEGEND AND JOINTING NOTES
 SCALE: NOT TO SCALE

A3 CONCRETE JOINTING NOTES
 SCALE: NOT TO SCALE

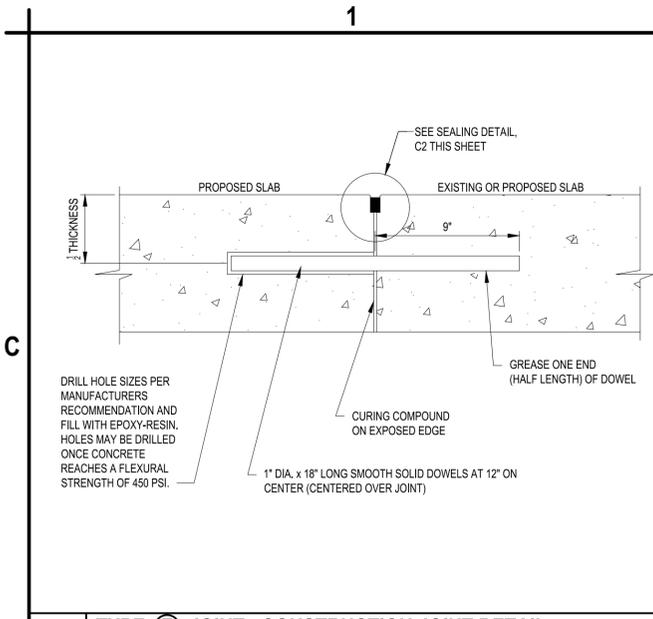
MARK	DATE	DESCRIPTION
△	3/6/2026	ADDENDUM NO. 1
REVISIONS		
PROJECT NO: K19.031.001 & K19.031.002		
DATE: FEBRUARY 2026		
DRAWN BY: B. BUCKINGHAM		
DESIGNED BY: T.J. CORCORAN		
CHECKED BY: K.J. JOST		
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PAVEMENT JOINT PLAN

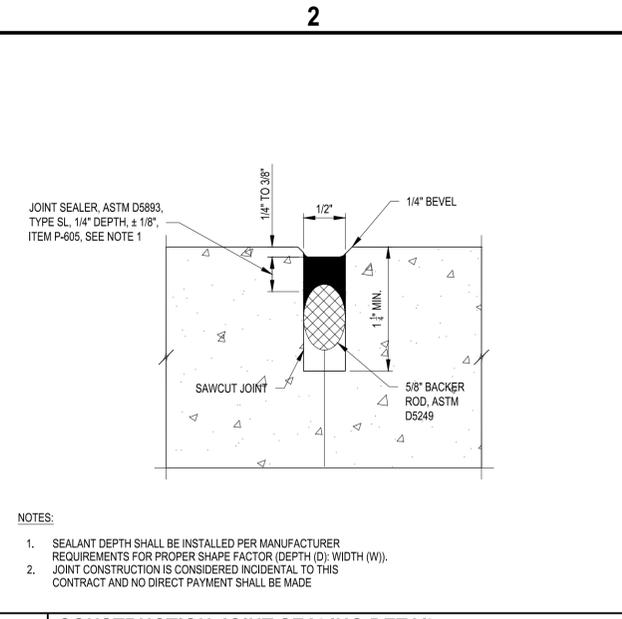
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SHEET NO. 30 OF 65

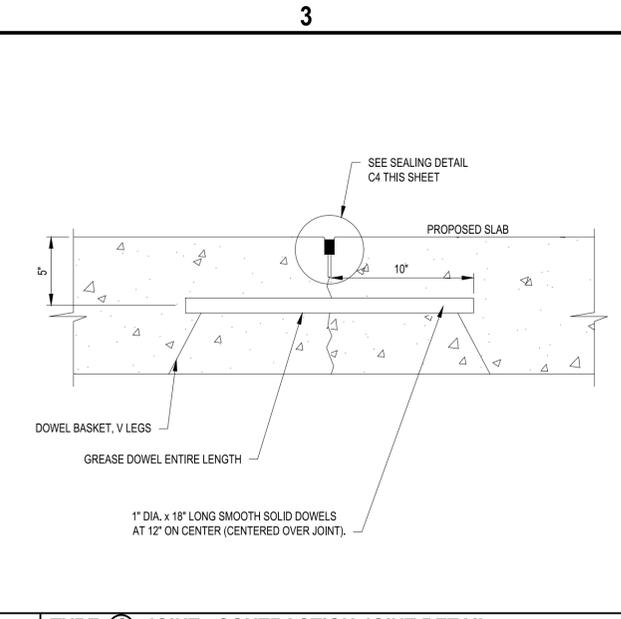
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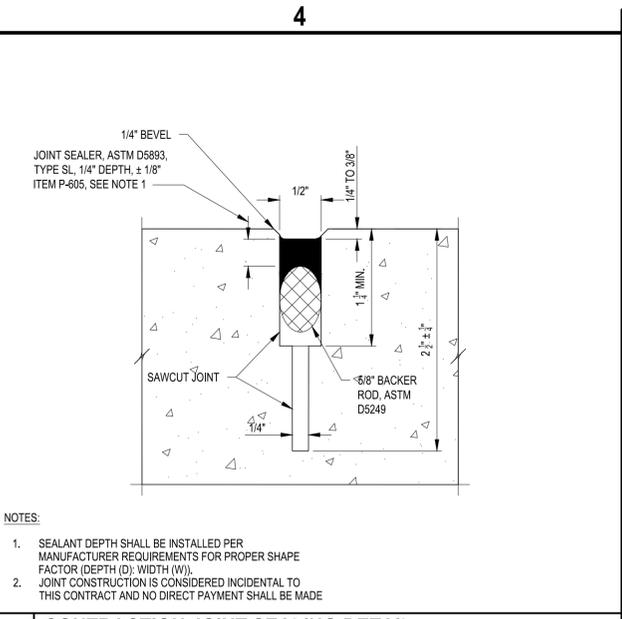
C1 TYPE (E) JOINT - CONSTRUCTION JOINT DETAIL
SCALE: NOT TO SCALE



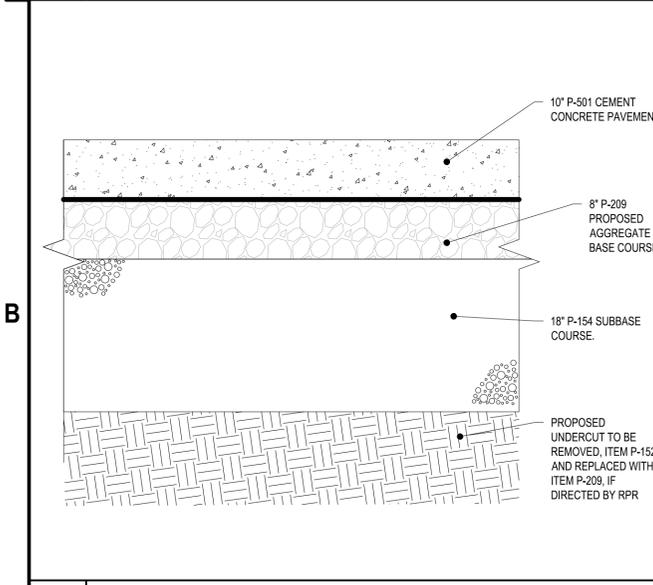
C2 CONSTRUCTION JOINT SEALING DETAIL
SCALE: NOT TO SCALE



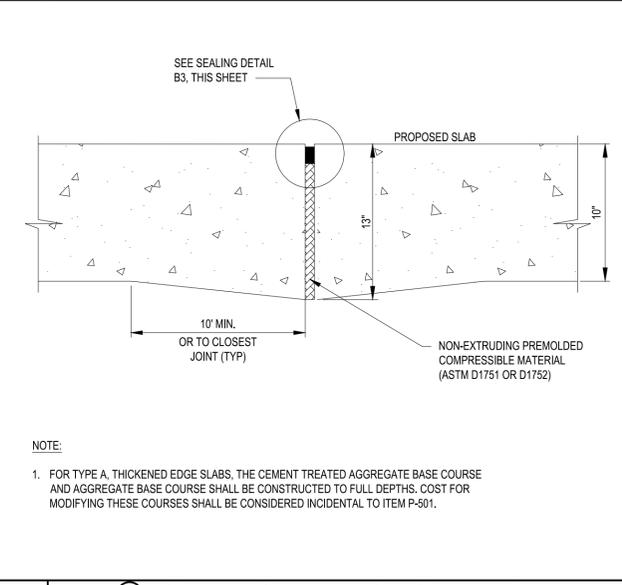
C3 TYPE (C) JOINT - CONTRACTION JOINT DETAIL
SCALE: NOT TO SCALE



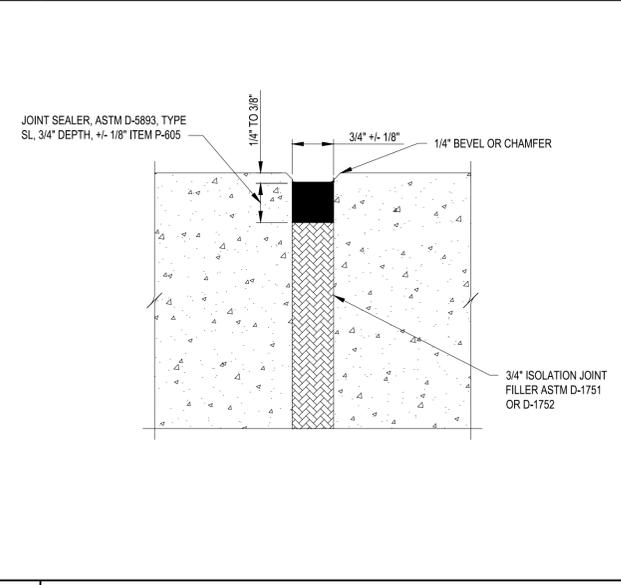
C4 CONTRACTION JOINT SEALING DETAIL
SCALE: NOT TO SCALE



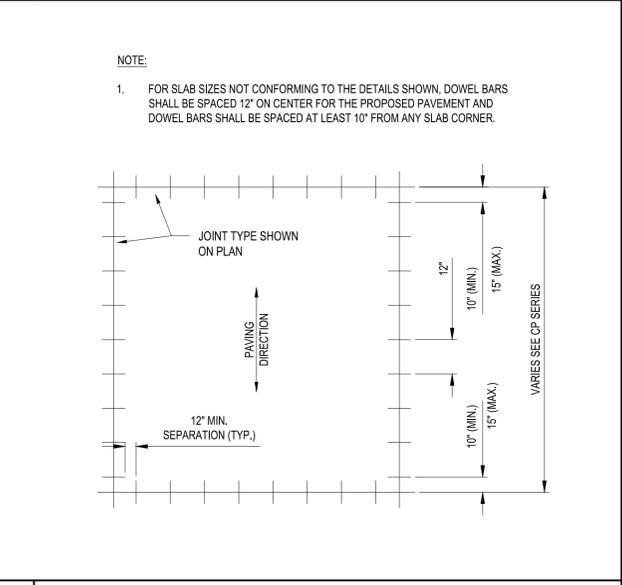
B1 FULL DEPTH PAVEMENT SECTION
SCALE: NOT TO SCALE



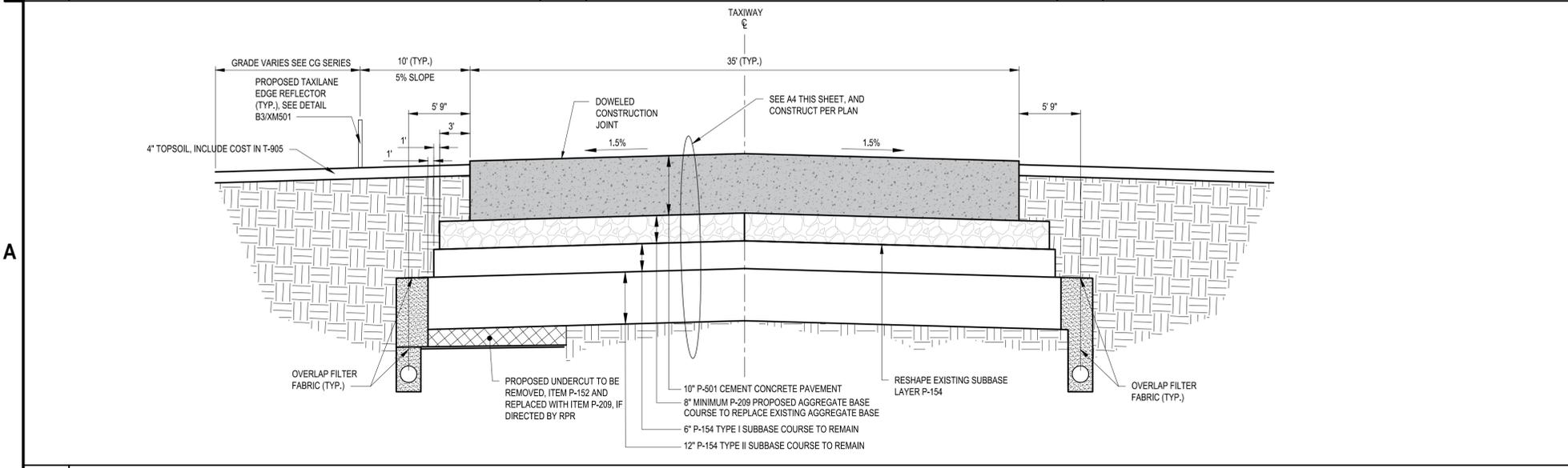
B2 TYPE (A) JOINT - THICKENED EDGE JOINT DETAIL
SCALE: NOT TO SCALE



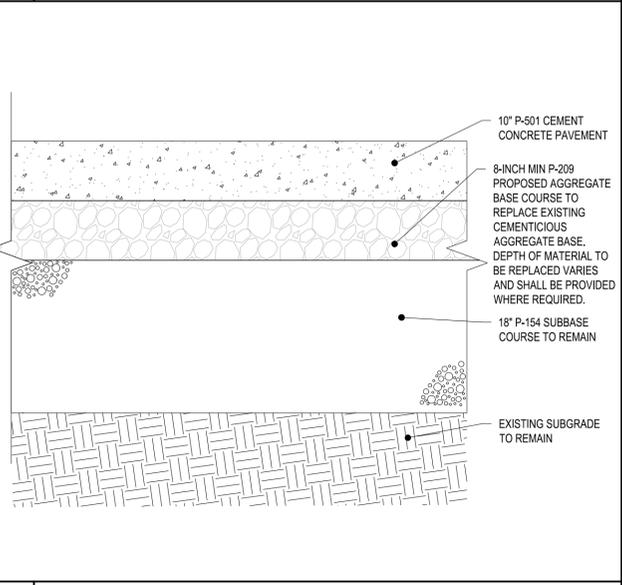
B3 ISOLATION JOINT SEALING DETAIL
SCALE: NOT TO SCALE



B4 DOWEL POSITION AT JOINT EDGE DETAIL
SCALE: NOT TO SCALE



A1 TYPICAL TAXIWAY PAVEMENT SECTION
SCALE: NOT TO SCALE



A4 PARTIAL DEPTH PAVEMENT SECTION
SCALE: NOT TO SCALE



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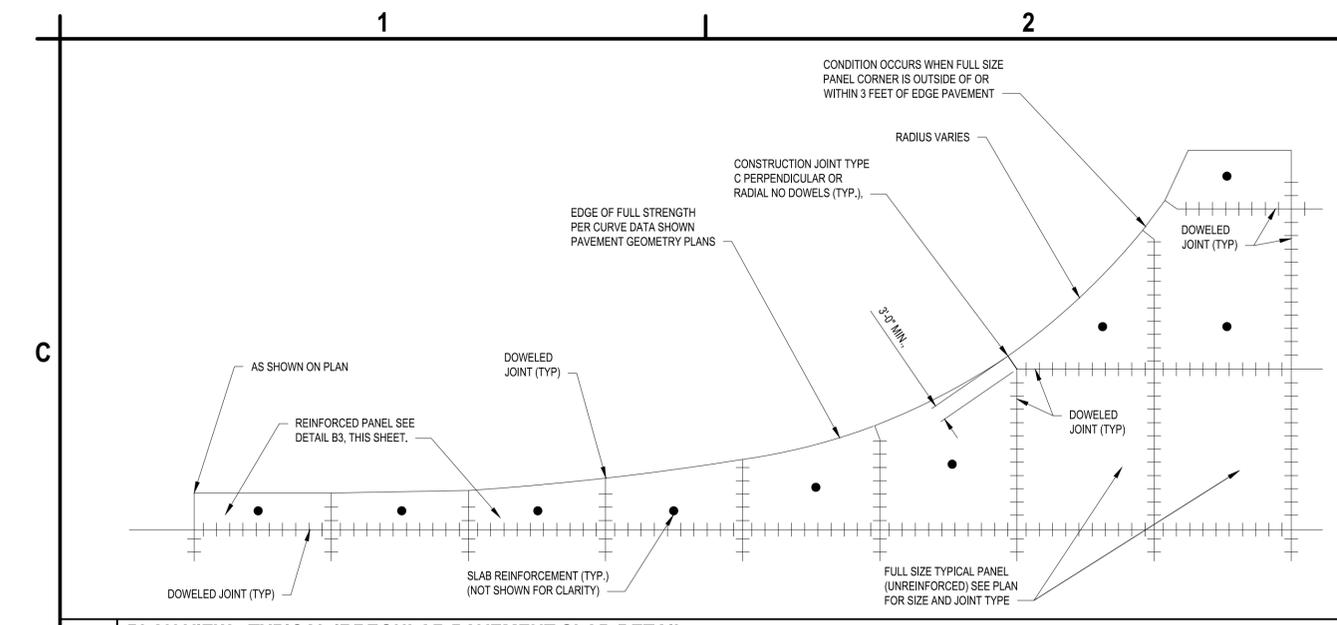


**TAXIWAY F & G RECONSTRUCTION
(NORTH OF TAXIWAY V, 1,950' X 35'); TAXIWAY
F & G AIRFIELD LIGHTING REPLACEMENT
GERALD R. FORD INTERNATIONAL
AIRPORT GRAND RAPIDS, MI**

MARK	DATE	DESCRIPTION
REVISIONS		
PROJECT NO: K19.031.001 & K19.031.002		
DATE: FEBRUARY 2026		
DRAWN BY: B. BUCKINGHAM		
DESIGNED BY: T.J. CORCORAN		
CHECKED BY: K.J. JOST		
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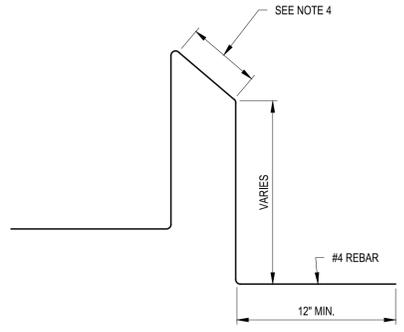
PAVEMENT DETAILS

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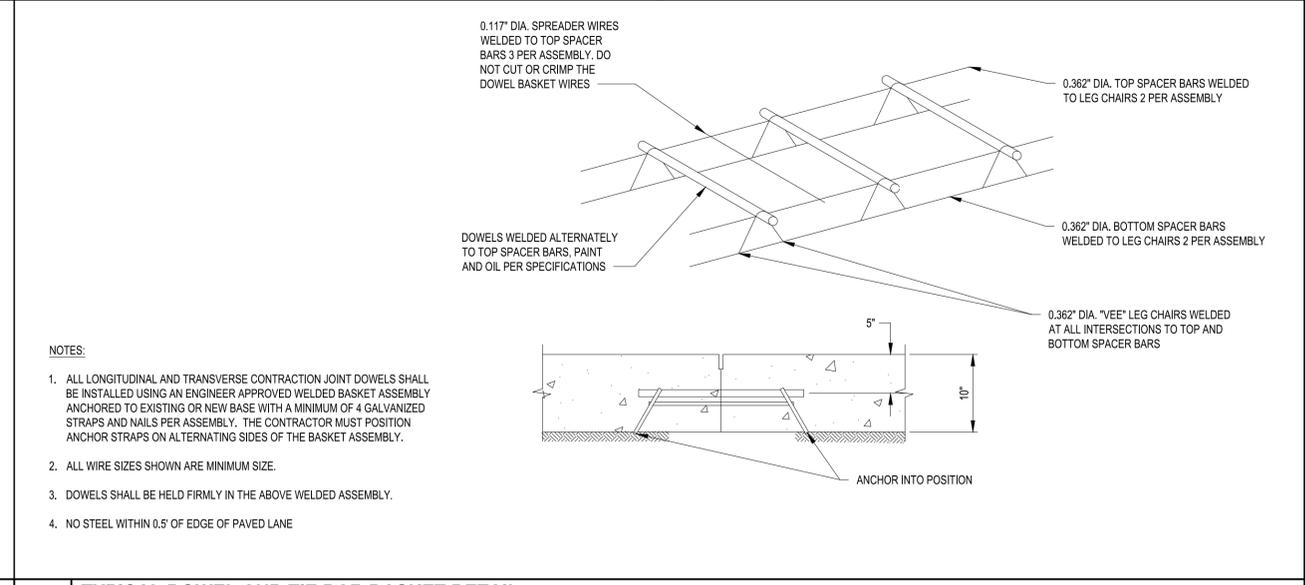
C1 PLAN VIEW - TYPICAL IRREGULAR PAVEMENT SLAB DETAIL
SCALE: NOT TO SCALE

- DOWELS SHALL BE EPOXY COATED PER ASTM 1078 IN ACCORDANCE WITH TECHNICAL SPECIFICATION P-501 PRIOR TO DELIVERY TO THE SITE.
- DOWELS FOR 10" CONCRETE PAVEMENT SHALL BE SOLID SMOOTH STEEL BARS, 1" Ø, 18" IN LENGTH FOR FULL STRENGTH, SPACED EVENLY AT 12" O.C.
- DOWELS SHALL BE LIGHTLY GREASED WITH A THIN COAT OF HIGH MELTING POINT GREASE OR AN APPROVED EQUIVALENT FROM MANUFACTURER PRIOR TO INSTALLATION ALONG CONTRACTION JOINTS.
- AFTER INSERTION AND GROUTING IN PLACE OF DOWELS ALONG CONSTRUCTION JOINTS, FREE END SHALL BE GREASED AS DESCRIBED IN NOTE 3 ABOVE.
- ALL CONSTRUCTION JOINT DOWELS SHALL BE GANG-DRILLED AND EPOXY GROUTED. INSERTION EQUIPMENT WILL NOT BE PERMITTED.
- DRILLING METHOD FOR DOWELS SHALL BE CAPABLE OF MAINTAINING DRILL HOLES PARALLEL TO THE CONCRETE SURFACE AND PERPENDICULAR TO THE JOINT DIRECTION. DRILL HOLES SHALL BE ACCURATELY LAID OUT SO THAT THE MAXIMUM DEVIATION DOES NOT EXCEED 3/8" FT HORIZONTALLY. DRILL HOLE DIAMETER TO BE OF SUFFICIENT SIZE TO ACCEPT THE TYPE AND SIZE OF REQUIRED DOWEL.
- AFTER DRILLING IS COMPLETE AND PRIOR TO THE INSTALLATION OF THE DOWELS, THE DRILLED HOLES SHALL BE THOROUGHLY CLEANED TO REMOVE DRILLING DUST, CONCRETE CHIPS AND ANY OTHER MATERIAL THAT MAY HINDER PROPER BONDING.
- CONTRACTOR WILL NOT BE PERMITTED TO DIP DOWEL IN EPOXY BEFORE INSERTING DOWEL. EPOXY GROUT SHALL BE INJECTED UNIFORMLY INTO THE BACK OF THE HOLE TO FILL THE ENTIRE CIRCUMFERENCE OF THE DRILLED DOWEL HOLE. CONTRACTOR TO INJECT SUFFICIENT AMOUNT OF EPOXY MATERIAL IN THE HOLE SO THAT A SLIGHT AMOUNT WILL BE FORCED OUT WHEN THE DOWEL IS INSERTED AND TAPPED IN PLACE. THE CONTRACTOR IS PERMITTED TO USE SMALL WEDGES TO PROVIDE SUPPORT TO THE DOWELS TO KEEP THEM IN THEIR PROPER LOCATION UNTIL THE EPOXY MATERIAL HARDENS. THE TOLERANCE FOR DOWEL ALIGNMENT IN EITHER THE HORIZONTAL OR VERTICAL PLANE IS 1/4" PER FOOT OF DOWEL BAR.
- ALL LONGITUDINAL AND TRANSVERSE CONTRACTION JOINT DOWELS SHALL BE INSTALLED USING AN ENGINEER APPROVED WELDED BASKET ASSEMBLY ANCHORED TO THE BASE WITH A MINIMUM OF 4 GALVANIZED STRAPS AND NAILS PER ASSEMBLY. THE CONTRACTOR MUST POSITION ANCHOR STRAPS ON ALTERNATING SIDES OF THE BASKET ASSEMBLY WITHOUT CUTTING OR CRIMPING THE DOWEL BASKET TIE WIRES.
- A TRANSVERSE CONSTRUCTION JOINT SHALL BE INSTALLED AT A PLANNED JOINT WHEN PAVING OPERATIONS ARE INTERRUPTED FOR MORE THAN A HALF AN HOUR (30 MINUTES). IF AN INTERRUPTION OCCURS BETWEEN PLANNED JOINTS, THE FRESH CONCRETE SHALL BE REMOVED BACK TO THE PREVIOUSLY INSTALLED JOINT. NO ADDITIONAL JOINTS WILL BE ALLOWED BETWEEN THE JOINTS SHOWN WITHIN THESE CONSTRUCTION DOCUMENTS.
- EDGES OF CONCRETE SLABS SHALL BE COVERED WITH AN APPROVED CURING MATERIAL AT THE SAME TIME AS THE SURFACE IS CURED. AT FORMED LOCATIONS, SLAB SIDES SHALL BE CURED WHEN FORMS ARE REMOVED.



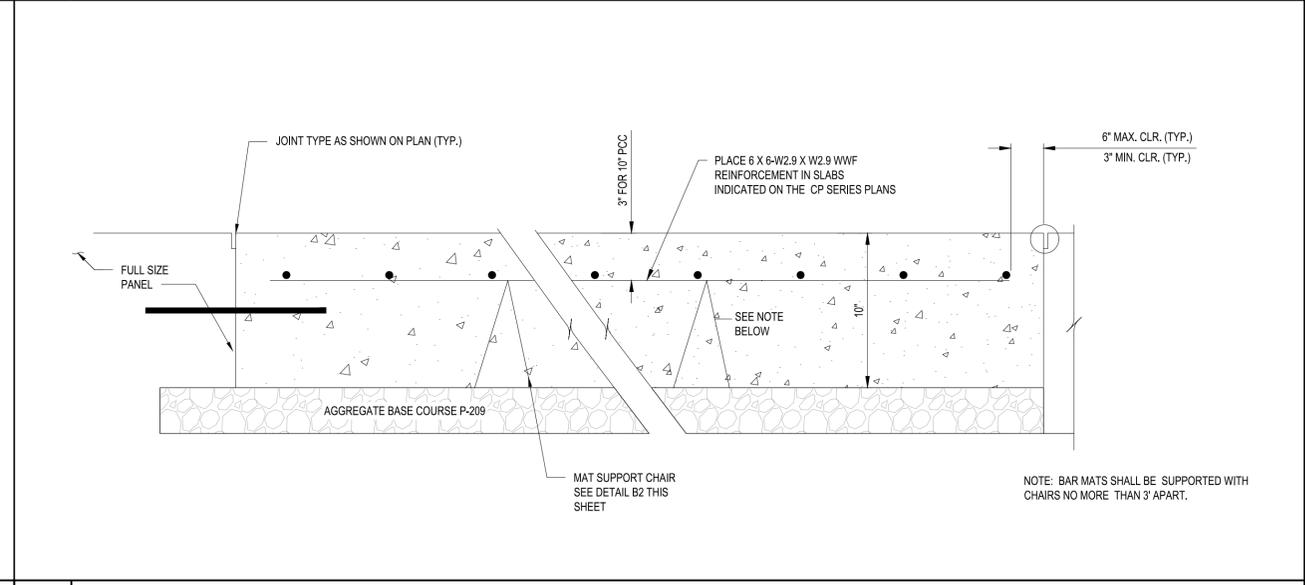
- NOTES:
- CHAIR SHALL BE FIRMLY ANCHORED TO GRADE.
 - THE NUMBER OF CHAIRS USED SHALL BE SUFFICIENT TO FULLY SUPPORT REINFORCEMENT MAT AT THE PROPER HEIGHT DURING PLACEMENT OF CONCRETE.
 - A SIMILAR CHAIR MAY BE USED, AS APPROVED BY THE DESIGNER.
 - LENGTH AS REQUIRED TO FULLY SUPPORT REINFORCEMENT MAT.

B2 MAT SUPPORT CHAIR DETAIL
SCALE: NOT TO SCALE



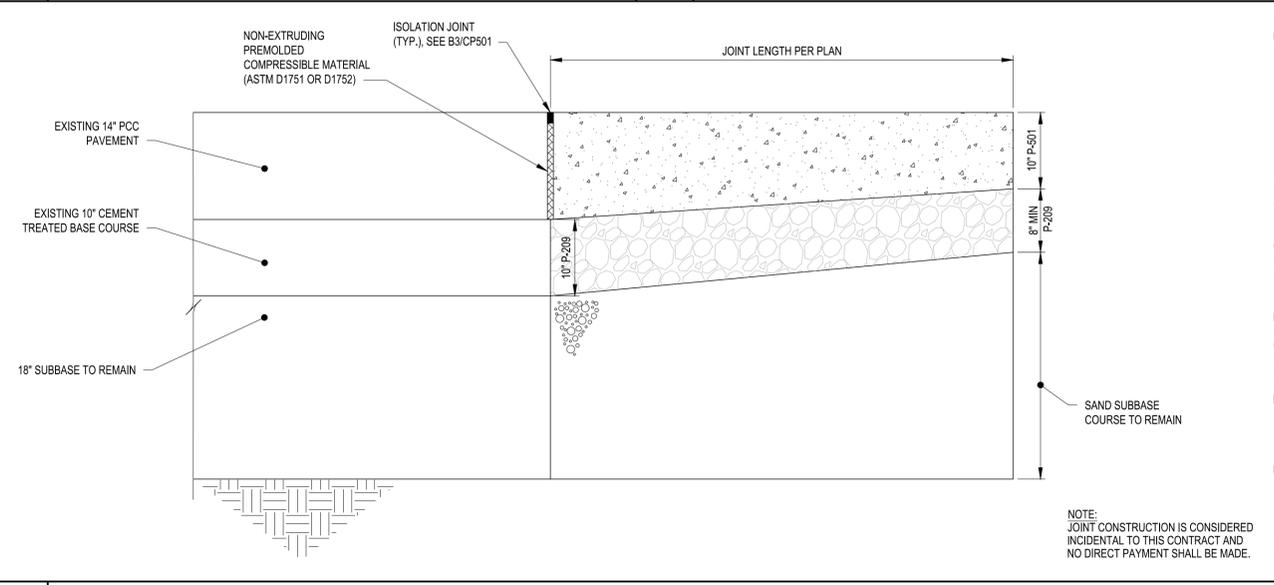
- NOTES:
- ALL LONGITUDINAL AND TRANSVERSE CONTRACTION JOINT DOWELS SHALL BE INSTALLED USING AN ENGINEER APPROVED WELDED BASKET ASSEMBLY ANCHORED TO EXISTING OR NEW BASE WITH A MINIMUM OF 4 GALVANIZED STRAPS AND NAILS PER ASSEMBLY. THE CONTRACTOR MUST POSITION ANCHOR STRAPS ON ALTERNATING SIDES OF THE BASKET ASSEMBLY.
 - ALL WIRE SIZES SHOWN ARE MINIMUM SIZE.
 - DOWELS SHALL BE HELD FIRMLY IN THE ABOVE WELDED ASSEMBLY.
 - NO STEEL WITHIN 0.5' OF EDGE OF PAVED LANE

C3 TYPICAL DOWEL AND TIE BAR BASKET DETAIL
SCALE: NOT TO SCALE



B3 IRREGULAR CONCRETE SLABS REINFORCING
SCALE: NOT TO SCALE

- IN THICKENED EDGE AREAS WHERE DOWELS OR REINFORCING STEEL ARE REQUIRED, PROVIDE ADDITIONAL SUPPORT AS APPROVED BY THE ENGINEER TO MAINTAIN THE SAME DEPTH FROM THE SURFACE AS FOR FULL STRENGTH OR REDUCED STRENGTH THICK CONCRETE PAVEMENT.
- CONCRETE IN REINFORCED PANELS SHALL BE PLACED IN ONE COURSE. ALL WELDED WIRE FABRIC SHALL BE INSTALLED USING DESIGNER APPROVED HI-CHAIRS ANCHORED TO THE BASE COURSE AT A MAXIMUM OF 3' ON CENTER. THE WELDED WIRE FABRIC MUST RETAIN ITS SPECIFIED POSITION DURING THE PLACEMENT OF THE CONCRETE.
- THE CONTRACTOR WILL NOT BE PERMITTED TO VIBRATE THE WELDED WIRE FABRIC DOWN FROM THE TOP AFTER THE CONCRETE IS POURED.
- THE COST OF MODIFYING THE UNDERLYING PAVEMENT COURSES TO ACCOMMODATE THE CONCRETE PAVEMENT THICKENED EDGE IS INCIDENTAL TO ITEM P-501. NO SEPARATE PAYMENT WILL BE MADE FOR NECESSARY MODIFICATIONS.
- ALL JOINT SEALANT RESERVOIRS SHOWN ON THIS SHEET SHALL BE VERIFIED BY THE SEALANT MANUFACTURER PRIOR TO CONSTRUCTION. REFER TO SPECIFICATIONS FOR FURTHER INFORMATION
- ALL JOINTS MUST BE ADEQUATELY CLEANED AFTER SAWCUTTING, IMMEDIATELY PRIOR TO THE INSTALLATION OF THE JOINT SEALANT.
- INITIAL CONTRACTION JOINTS SAWCUTS SHALL BE MADE AS SOON AS IS PRACTICABLE WITHOUT DAMAGING THE PAVEMENT SURFACE PER THE REQUIREMENTS OF ACI. CURING COMPOUND SHALL BE APPLIED IN THE INITIAL SAWCUT.
- ALL JOINT CONSTRUCTION MATERIALS AND JOINT SEALER SHALL BE IN ACCORDANCE WITH FAA SPECS P-501 AND P-605 UNLESS OTHERWISE NOTED.
- SEALANT RESERVOIR SHAPE FACTOR, W/D, SHALL BE PER THE MANUFACTURER'S RECOMMENDATIONS.
- ALL WORK AND MATERIALS REQUIRED FOR JOINTS ARE INCIDENTAL TO PCC PAVEMENT PAY ITEMS.
- SAWCUT WIDTH SHALL BE 1/2" WIDE OR THE WIDTH OF THE EXISTING CONTRACTION OR CONSTRUCTION JOINTS AND 3/4" WIDE FOR EXPANSION JOINTS. NO EXTRA PAYMENT WILL BE MADE FOR CLEANING OF SAWCUTS, BACKER ROD OR SEALANT IN JOINTS EXCEEDING DETAILED WIDTHS.



A2 PROPOSED CONCRETE PAVEMENT TRANSITION TO EXISTING CONCRETE PAVEMENT AT TAXIWAY B AND TAXIWAY V
SCALE: NOT TO SCALE

A1 CONCRETE PAVING NOTES
SCALE: NOT TO SCALE



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(NORTH OF TAXIWAY V, 1,950' X 35'); TAXIWAY
F & G AIRFIELD LIGHTING REPLACEMENT
GERALD R. FORD INTERNATIONAL
AIRPORT GRAND RAPIDS, MI**

MARK	DATE	DESCRIPTION
Δ	3/16/2026	ADDENDUM NO.2
REVISIONS		
PROJECT NO: K19.031.001 & K19.031.002		
DATE: FEBRUARY 2026		
DRAWN BY: B. BUCKINGHAM		
DESIGNED BY: T.J. CORCORAN		
CHECKED BY: K.J. JOST		
CONTRACTOR SHALL VERIFY ALL CONDITIONS ON JOB SITE & NOTIFY THE OWNER OF ANY VARIATIONS FROM DIMENSIONS SHOWN ON THESE DRAWINGS BEFORE PROCEEDING WITH ANY CONSTRUCTION.		

PAVEMENT DETAILS

CP502

SHEET NO. 32 OF 65

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 GERALD R. FORD INTERNATIONAL
 AIRPORT GRAND RAPIDS, MI**

MARK	DATE	DESCRIPTION
△	3/16/2026	ADDENDUM NO.2
△	3/6/2026	ADDENDUM NO.1

REVISIONS	
PROJECT NO:	K19.031.001 & K19.031.002
DATE:	FEBRUARY 2026
DRAWN BY:	B. BUCKINGHAM
DESIGNED BY:	T.J. CORCORAN
CHECKED BY:	K.J. JOST

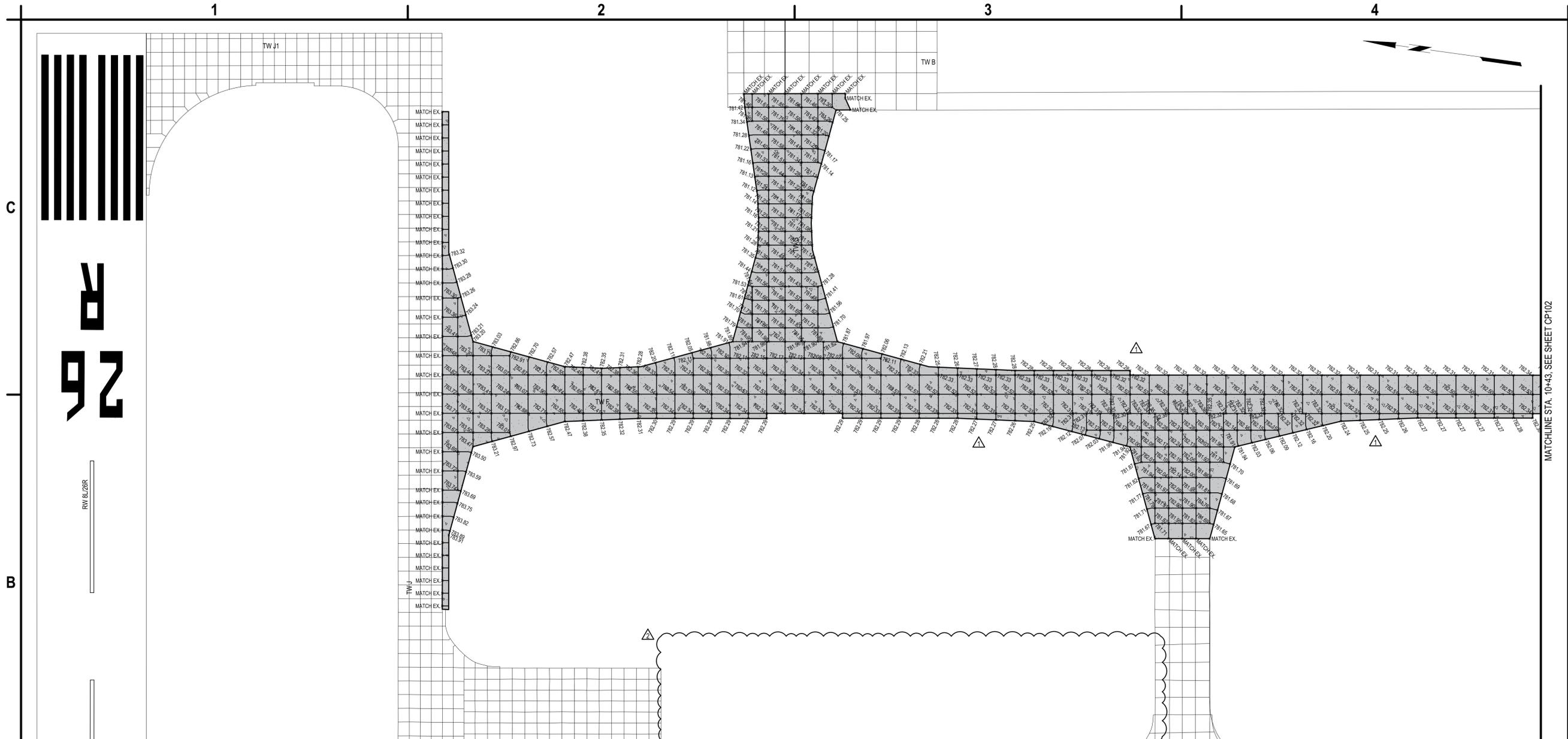
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**PAVEMENT
 ELEVATION PLAN**

CJ101

SHEET NO. 34 OF 65

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B1 PAVEMENT ELEVATION PLAN

SCALE: 1" = 50'

	POINT ELEVATION
	PROPOSED CEMENT CONCRETE PAVEMENT
	PROPOSED TEMPORARY ASPHALT PAVEMENT

A2 LEGEND

SCALE: NOT TO SCALE

1. SEE CS SERIES SHEETS FOR GEOMETRY LAYOUT.
2. SEE CP SERIES FOR JOINT LAYOUT PLAN.

A3 SHEET NOTES

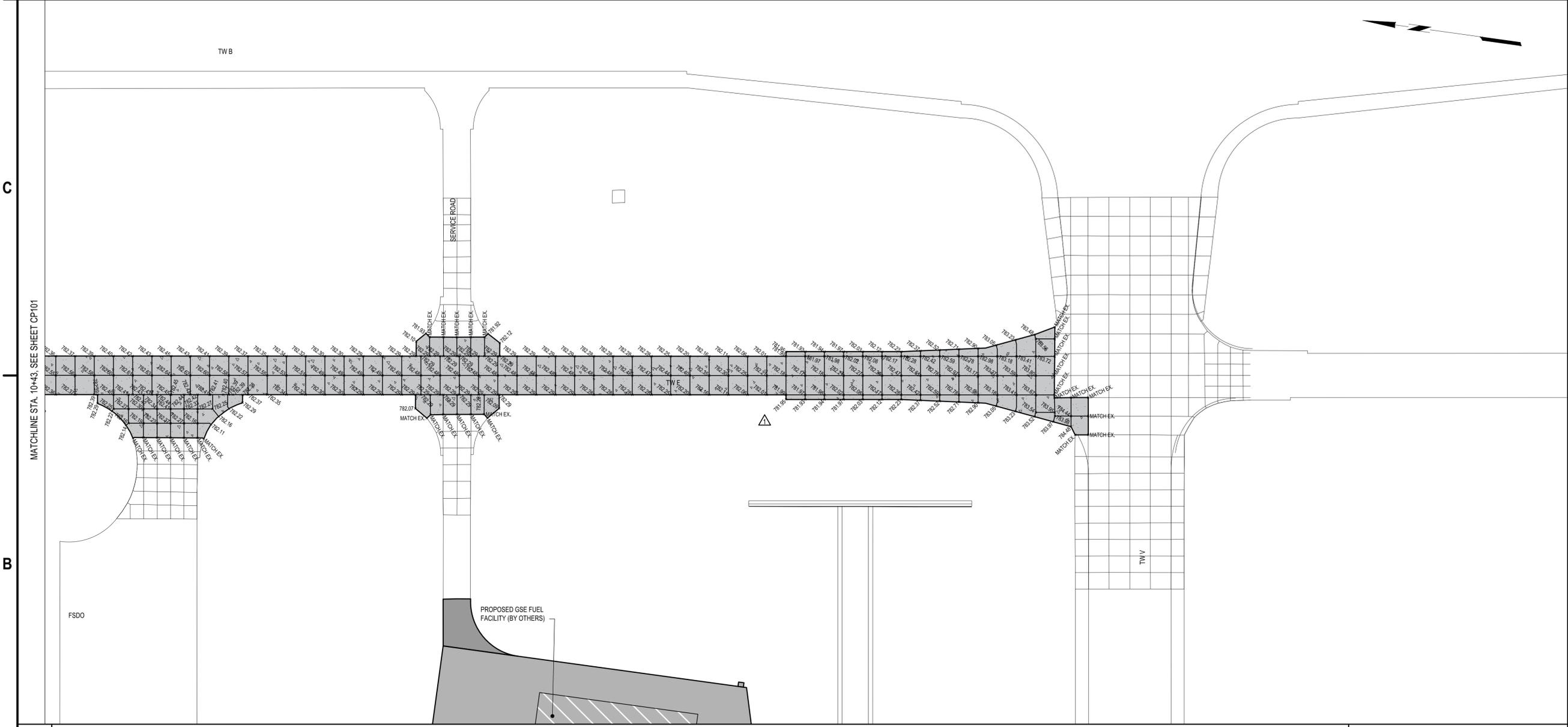
SCALE: NOT TO SCALE

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B1 PAVEMENT ELEVATION PLAN

SCALE: 1" = 50'



Mar 16, 2026, 6:21 pm
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A2 LEGEND
SCALE: NOT TO SCALE

782.33 POINT ELEVATION

PROPOSED CEMENT CONCRETE PAVEMENT

A3 SHEET NOTES
SCALE: NOT TO SCALE

1. SEE CS SERIES SHEETS FOR GEOMETRY LAYOUT.
2. SEE CP SERIES FOR JOINT LAYOUT PLAN.



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AIRPORT GRAND RAPIDS, MI**

MARK	DATE	DESCRIPTION
△	3/6/2026	ADDENDUM NO.1
REVISIONS		
PROJECT NO: K19.031.001 & K19.031.002		
DATE: FEBRUARY 2026		
DRAWN BY: B. BUCKINGHAM		
DESIGNED BY: T.J. CORCORAN		
CHECKED BY: K.J. JOST		
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PAVEMENT
ELEVATION PLAN

CJ102

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GERALD R. FORD INTERNATIONAL
AIRPORT GRAND RAPIDS, MI**

MARK	DATE	DESCRIPTION
△	3/16/2026	ADDENDUM NO.2
△	3/6/2026	ADDENDUM NO.1

REVISIONS	
PROJECT NO:	K19.031.001 & K19.031.002
DATE:	FEBRUARY 2026
DRAWN BY:	B. BUCKINGHAM
DESIGNED BY:	T.J. CORCORAN
CHECKED BY:	K.J. JOST

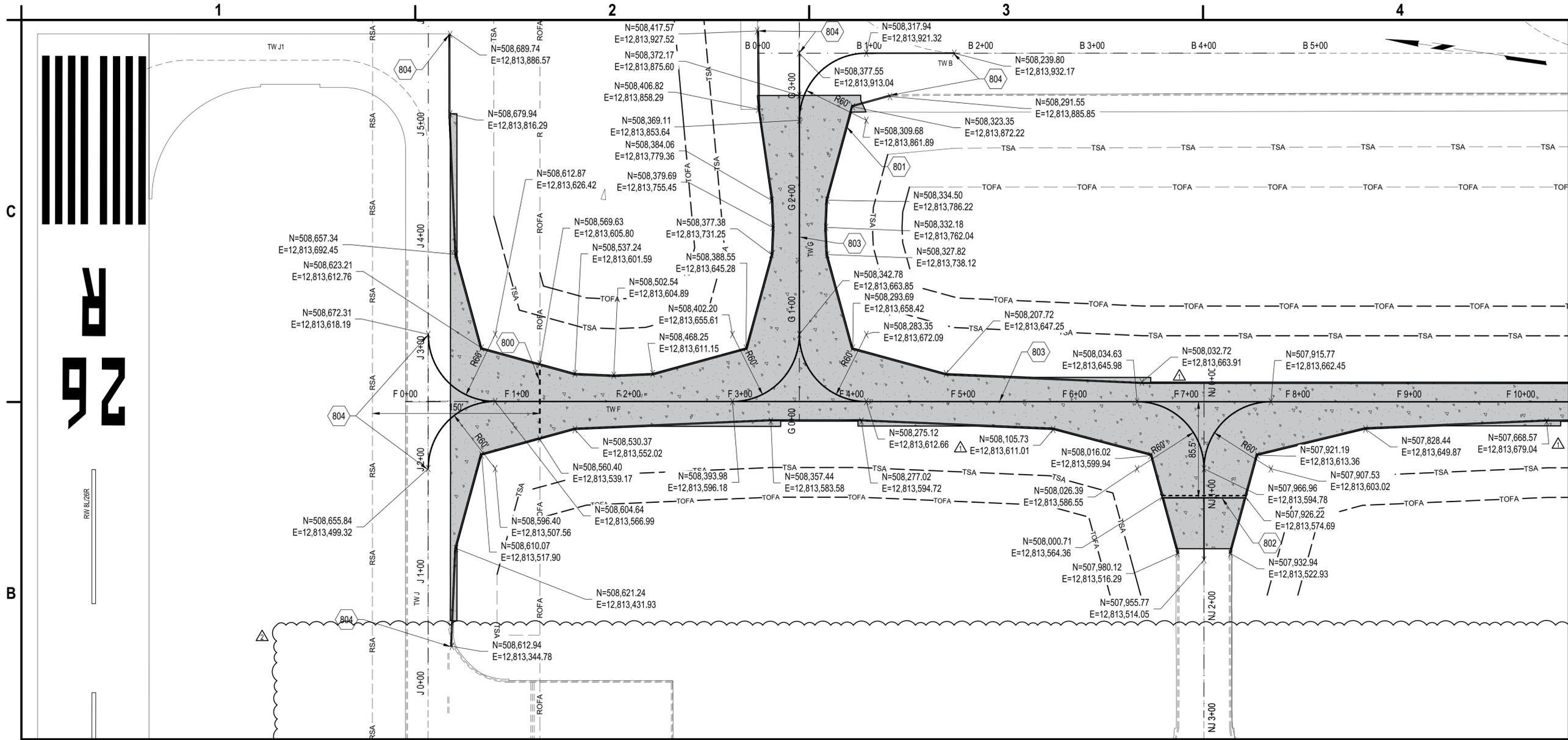
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MARKING PLAN

XM101

SHEET NO. 36 OF 65

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MATCHLINE, SEE SHEET XM103



B1 MARKING PLAN

SCALE: 1" = 50'

- 800. INTERMEDIATE HOLDING POSITION MARKING, YELLOW, SEE DETAIL A1/XM501
- 801. CONTINUOUS TAXIWAY EDGE MARKING, YELLOW WITH 6" WIDE BLACK BORDER, ITEM P-620. SEE DETAIL A2/XM501
- 802. NON-MOVEMENT AREA BOUNDARY MARKING, YELLOW, SEE DETAIL A3/XM501
- 803. TAXIWAY CENTERLINE MARKING, 12" WIDE, YELLOW WITH 6" WIDE BLACK BORDER, ITEM P-620, SEE DETAIL A1/XM501
- 804. PROPOSED MARKING TO MEET EXISTING MARKING
- 805. TEMPORARY TAXILANE CENTERLINE MARKING 6-INCH WIDE. TEMPORARY MARKINGS ON THE NORTHERN JET APRON SHALL BE REMOVED ONCE THE INTERSECTION OF TAXIWAY F AND TAXIWAY G IS OPENED TO AIRCRAFT TRAFFIC

A1 KEYED NOTES

SCALE: NOT TO SCALE

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 AIRPORT GRAND RAPIDS, MI**

MARK	DATE	DESCRIPTION
△	3/6/2026	ADDENDUM NO.1

REVISIONS	
PROJECT NO:	K19.031.001 & K19.031.002
DATE:	FEBRUARY 2026
DRAWN BY:	B. BUCKINGHAM
DESIGNED BY:	T.J. CORCORAN
CHECKED BY:	K.J. JOST

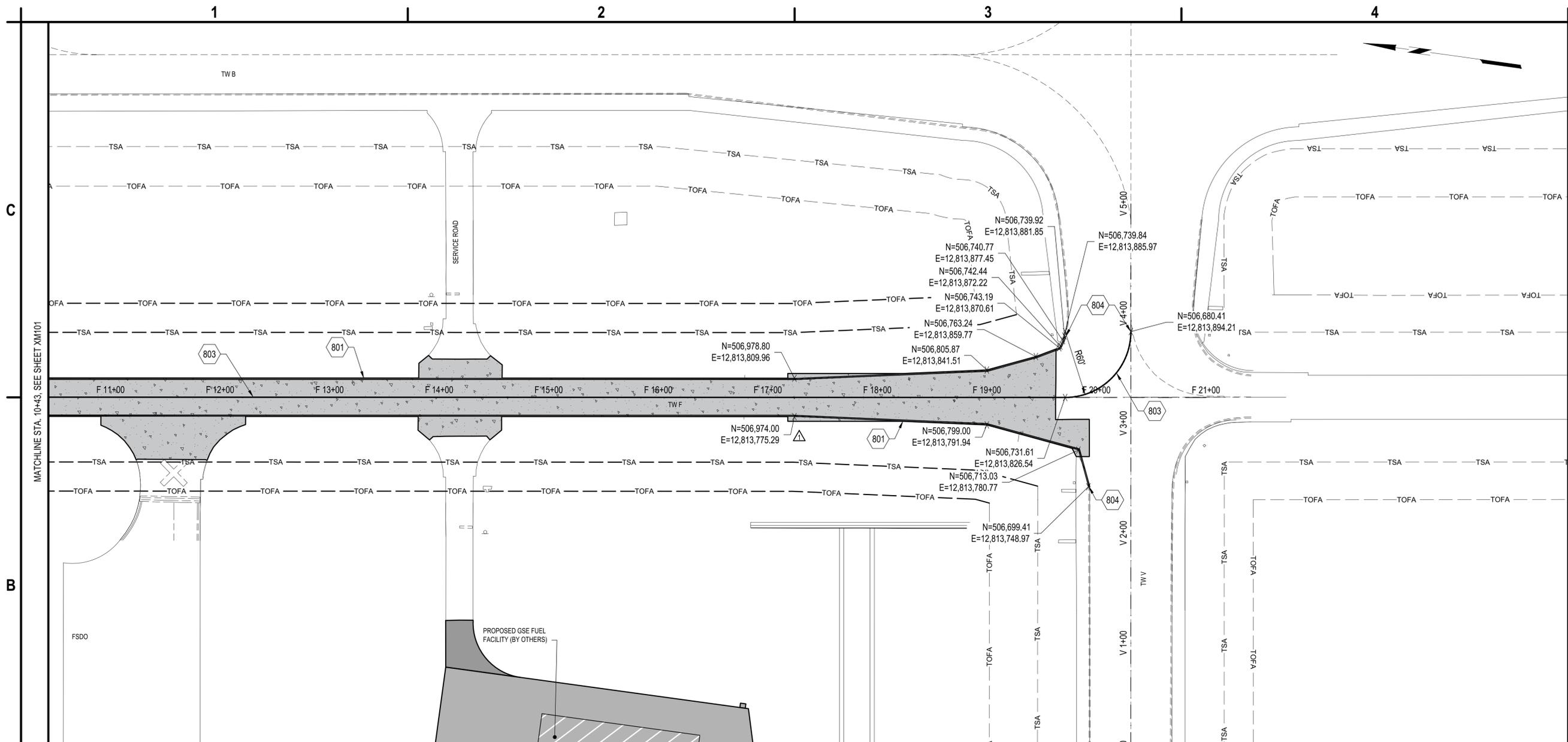
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MARKING PLAN

XM102

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B1 MARKING PLAN

SCALE: 1" = 50'



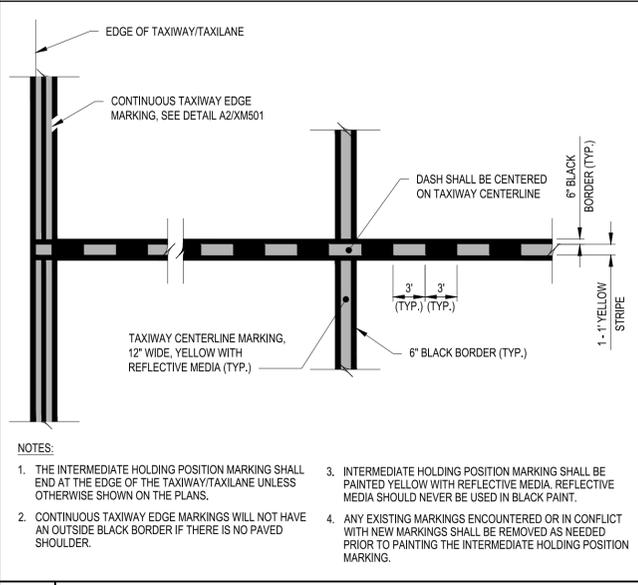
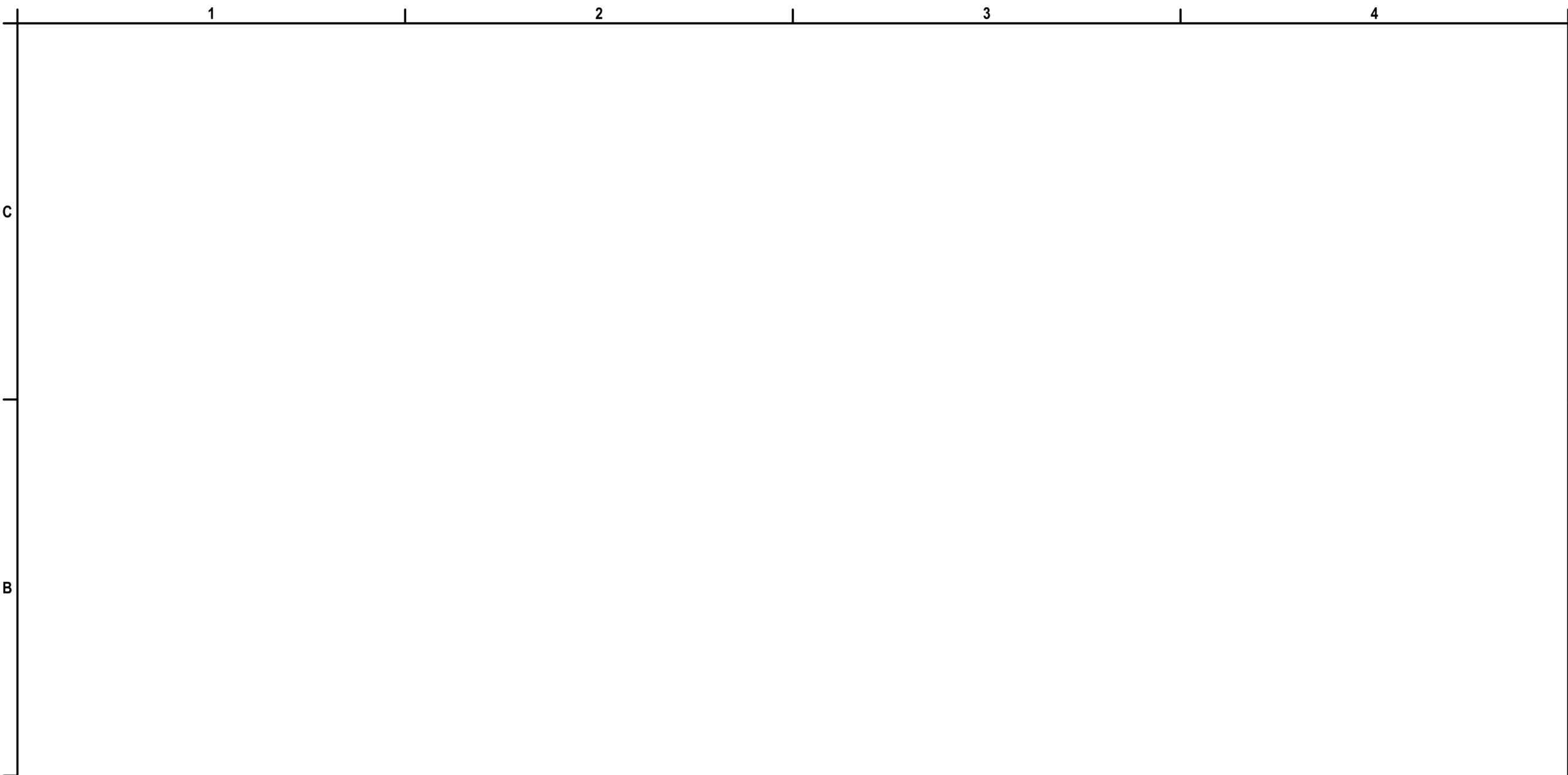
- 801. CONTINUOUS TAXIWAY EDGE MARKING, YELLOW WITH 6" WIDE BLACK BORDER, ITEM P-620. SEE DETAIL A2/XM501
- 803. TAXIWAY CENTERLINE MARKING, 12" WIDE, YELLOW WITH 6" WIDE BLACK BORDER, ITEM P-620, SEE DETAIL A1/XM501
- 804. PROPOSED MARKING TO MEET EXISTING MARKING

A1 KEYED NOTES

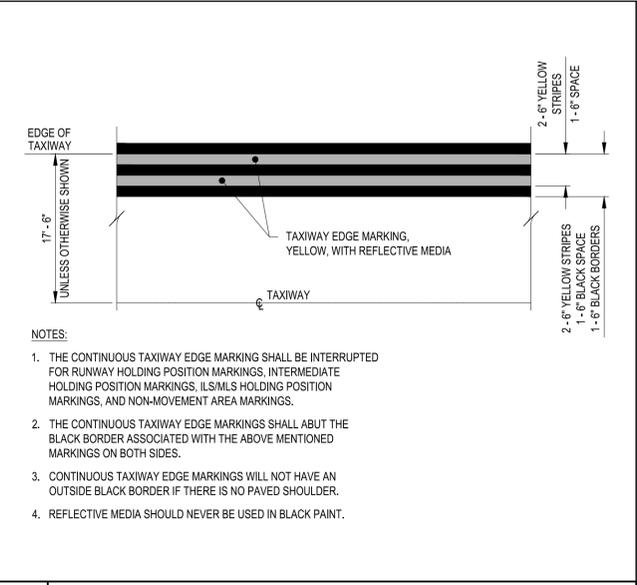
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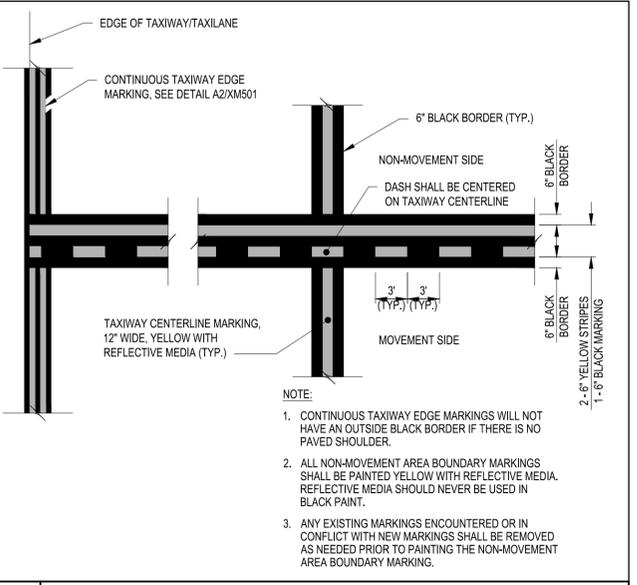
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A1 INTERMEDIATE HOLDING POSITION MARKING DETAIL
SCALE: NOT TO SCALE



A2 CONTINUOUS TAXIWAY EDGE MARKING DETAIL
SCALE: NOT TO SCALE



A3 NON-MOVEMENT AREA BOUNDARY MARKING DETAIL
SCALE: NOT TO SCALE



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**TAXIWAY F & G RECONSTRUCTION
 (NORTH OF TAXIWAY V, 1,950' X 35'); TAXIWAY
 F & G AIRFIELD LIGHTING REPLACEMENT
 GERALD R. FORD INTERNATIONAL
 AIRPORT GRAND RAPIDS, MI**

MARK	DATE	DESCRIPTION
REVISIONS		
PROJECT NO: K19.031.001 & K19.031.002		
DATE: FEBRUARY 2026		
DRAWN BY: B. BUCKINGHAM		
DESIGNED BY: T.J. CORCORAN		
CHECKED BY: K.J. JOST		
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MARKING DETAILS

XM501

SHEET NO. 39 OF 65

GENERAL ELECTRICAL NOTES:

- 1. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE LATEST ADOPTED VERSION OF THE NATIONAL ELECTRICAL CODE... 15. THE CONTRACTOR SHALL COORDINATE ALL WORK WITH THE SAFETY AND PHASING PLANS... 16. THE CONTRACTOR SHALL COMPLY WITH THE AIRPORT MAINTENANCE 'LOCK-OUT/TAG-OUT' PROCEDURES AND NFPA 70E... 17. FOR ANY LIGHT FIXTURE, SIGN, OR STRUCTURE INSTALLED OR RELOCATED UNDER THIS CONTRACT... 18. THE CONTRACTOR SHALL CONDUCT INSULATION RESISTANCE TO GROUND (MEGGER) TESTS ON ALL AIRFIELD LIGHTING CIRCUITS... 19. WHEN PREPARING RECORD DRAWINGS, ALL ITEMS SHALL BE SHOWN IN THEIR ACTUAL INSTALLED LOCATIONS... 20. WHEN ENTERING EXISTING MANHOLES OR STRUCTURES... 21. ONLY THIRD PARTY CERTIFIED MANUFACTURERS, LISTED IN AC 150/5345-53... 22. A MINIMUM OF THREE COPIES OF INSTRUCTION BOOKS MUST BE SUPPLIED WITH EACH TYPE OF EQUIPMENT...

GROUNDING NOTES:

- 1. GROUND ALL NON-CURRENT-CARRYING METAL PARTS OF ELECTRICAL EQUIPMENT BY USING CONDUCTORS SIZED AND ROUTED PER NFPA 70 (NEC), ARTICLE 250. 2. ALL GROUND CONNECTIONS TO BUSES, PANELS, ETC., SHALL BE MADE WITH PRESSURE TYPE SOLDERLESS LUGS AND GROUND CLAMPS... 3. THE RESISTANCE TO GROUND OF THE VAULT GROUNDING SYSTEM WITH THE COMMERCIAL POWER LINE NEUTRAL DISCONNECTED SHALL NOT EXCEED 10 OHMS. 4. THE RESISTANCE TO GROUND OF THE COUNTERPOISE SYSTEM, OR AT ISOLATED LOCATIONS, SUCH AS AIRPORT BEACON, SHALL NOT EXCEED 25 OHMS.

SPARE PARTS NOTES:

- 1. THE SPARE PARTS TABLE ON THIS SHEET LISTS THE ELECTRICAL SPARE PARTS REQUIRED TO BE FURNISHED BY THE CONTRACTOR... 2. THE QUANTITY OF SPARE PARTS PROVIDED SHALL BE A MINIMUM OF 10% OF THE QUANTITY REQUIRED BY THE PROJECT TO BE INSTALLED... 3. CONTRACTOR TO PROVIDE A SHOP DRAWING SUBMITTAL LISTING THE SPARE PARTS TO BE PROVIDED FOR EACH ITEM BASED UPON THE MANUFACTURER'S RECOMMENDED SPARE PARTS... 4. SPARE PARTS SHALL BE DELIVERED TO A LOCATION ON THE AIRPORT DESIGNATED BY THE AIRPORT...

Table with 2 columns: ITEM TYPE, SPARE PARTS REQUIRED. Includes categories like ELEVATED FIXTURES and MISCELLANEOUS with specific part requirements.

ABBREVIATIONS:

Table mapping abbreviations to full names, such as ADJ (ADJUSTABLE), ALCMS (AIRFIELD LIGHTING CONTROL AND MONITORING SYSTEM), and MTL (MEDIUM INTENSITY TAXIWAY LIGHT).

C B A

C B A



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TAXIWAY F&G RECONSTRUCTION (NORTH OF TAXIWAY V, 1,950' X 36'); TAXIWAY F&G AIRFIELD LIGHTING REPLACEMENT GERALD R. FORD INTERNATIONAL AIRPORT GRAND RAPIDS, MI

Table with columns: MARK, DATE, DESCRIPTION. Includes revision information and project details like PROJECT NO: K19.031.001.

GENERAL ELECTRICAL NOTES

E001 SHEET NO. 40 OF 65

Mar 13, 2026 - 11:04am C:\Users\Administrator\temp\AcPublish_730121\F&G E Misc.dwg

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SUMMARY OF QUANTITIES

ITEM NUMBER	ITEM DESCRIPTION	UNIT	SPEC. NUMBER	FINAL QUANTITY
1	REMOVE EXISTING TAXIWAY EDGE LIGHT AND BASE CAN COMPLETE	EACH	L-105-7.1	85
2	REMOVE EXISTING CABLE IN CONDUIT OR DUCT BANK, CONDUIT AND DUCT TO REMAIN	LF	L-105-7.2	12,500
3	REMOVE EXISTING CONDUIT	LF	L-105-7.3	4500
4	REMOVE EXISTING DUCT BANK	LF	L-105-7.4	900
5	REMOVE AND RELOCATE EXISTING GUIDANCE SIGN, INCLUDING NEW FOUNDATION	EACH	L-105-7.5	9
6	REMOVE EXISTING ELECTRICAL HANDHOLE	EACH	L-105-7.6	14
7	NO 8 AWG, 5 kV, L-824, TYPE C CABLE, INSTALLED IN NEW OR EXISTING CONDUIT OR DUCT BANK	LF	L-108-5.1	12,500
8	NO.6 AWG BARE COUNTERPOISE, GROUND RODS AND TERMINATIONS	LF	L-108-5.2	4500
9	AIRFIELD LIGHTING ELECTRICAL VAULT POWER AND CONTROLS MODIFICATIONS	LSUM	L-109-7.1	1
10	CONSTANT CURRENT REGULATOR REMOVAL AND SALVAGE	EACH	L-109-7.2	1
11	CONSTANT CURRENT REGULATOR 10KW, 3-STEP, 6.6A, 480V, L-829	EACH	L-109-7.3	1
12	PROPOSED 4-WAY, 4-INCH SCH. 40 PVC, CONCRETE ENCASED DUCTBANK	LF	L-110-5.1	2100
13	1-WAY, 2-INCH, SCH. 40 PVC, CONDUIT DIRECT BURIED	LF	L-110-5.2	4500
14	4' X 4' CONCRETE MANHOLE	EACH	L-115-5.1	14
15	L-861(L) ELEVATED TAXIWAY EDGE LIGHT AND BASE CAN, INCLUDING ISOLATION TRANSFORMER AND CONNECTIONS	EACH	L-125-5.1	57
16	L-861 ELEVATED TAXIWAY EDGE LIGHT ON NEW BASE CAN, INCLUDING ISOLATION TRANSFORMER AND CONNECTIONS. LABOR ONLY, FIXTURES PROVIDED BY AIRPORT	EACH	L-125-5.2	14
17	MAINTENANCE OF AIRPORT LIGHTING SYSTEM SYSTEMS, INCLUDING TEMPORARY CONNECTIONS/JUMPERS AND POWER/CONTROLS, AS NEEDED	LSUM	L-126-5.1	1

2



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 GERALD R. FORD INTERNATIONAL AIRPORT GRAND RAPIDS, MI**

2	8/16/2026	ADDENDUM NO.2
1	3/6/2026	ADDENDUM NO.1

MARK	DATE	DESCRIPTION
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REVISIONS

PROJECT NO: K19.031.001
 DATE: FEBRUARY 2026
 DRAWN BY: A. ALZAMLI
 DESIGNED BY: A. RAHMAN
 CHECKED BY: E. ESSOF

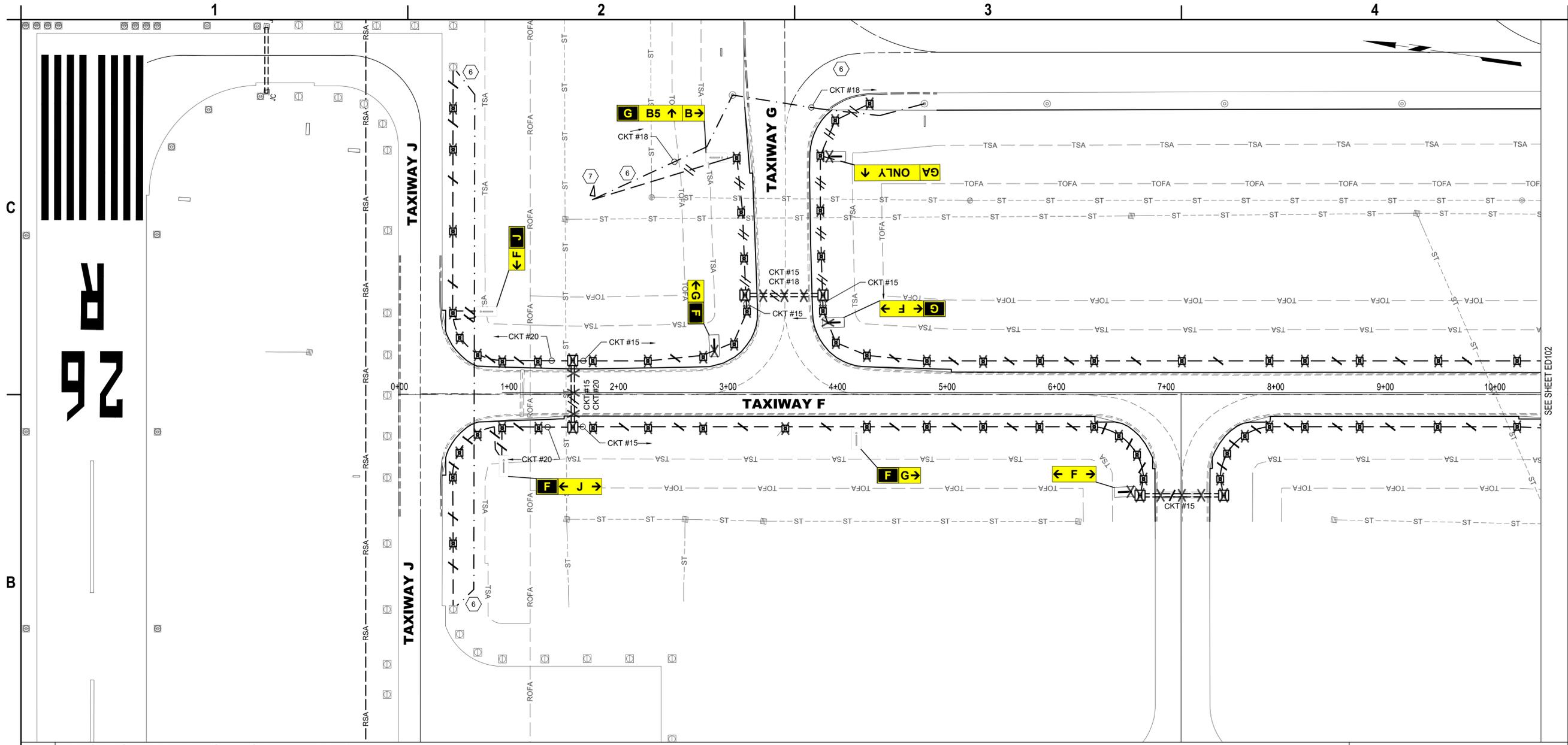
SUMMARY OF QUANTITIES

E002

SHEET NO. 41 OF 65

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GERALD R. FORD INTERNATIONAL AIRPORT GRAND RAPIDS, MI

B1 DEMOLITION AIRFIELD LIGHTING PLAN - AREA 1
 SCALE: 1" = 50'



A1 LEGEND
 SCALE: NOT TO SCALE

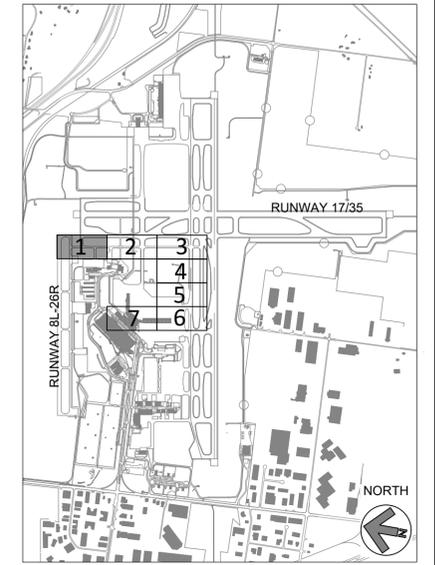
	EXISTING L-824 5KV CABLE IN CONDUIT TO REMAIN
	L-824 5KV CABLE IN EXISTING CONDUIT, TO BE REMOVED AND REPLACED. HASH MARKS INDICATE NUMBER OF CABLES, CKT # = CIRCUIT DESIGNATOR (SEE GENERAL NOTE 5)
	EXISTING ELECTRICAL DUCT BANK
	EXISTING DUCT BANK TO BE REMOVED AND REPLACED
	TEMPORARY JUMPER CABLE
	EXISTING RUNWAY EDGE LIGHT TO REMAIN
	EXISTING TAXIWAY EDGE LIGHT TO REMAIN
	EXISTING TAXIWAY EDGE LIGHT, REMOVE AND REPLACE
	EXISTING AIRFIELD GUIDANCE SIGN TO REMAIN
	EXISTING AIRFIELD GUIDANCE SIGN, REMOVE AND RELOCATE
	EXISTING SINGLE BASE CAN TO BE REMOVED
	EXISTING ELECTRICAL HANDHOLE TO REMAIN
	EXISTING ELECTRICAL MANHOLE TO REMAIN
	EXISTING ELECTRICAL HANDHOLE TO BE REMOVED AND REPLACED

A2 GENERAL NOTES
 SCALE: NOT TO SCALE

- SEE E001 FOR GENERAL ELECTRICAL NOTES AND ABBREVIATIONS.
- EXACT ROUTING OF CABLES THROUGH EXISTING INFRASTRUCTURE SHALL BE FIELD VERIFIED.
- ALL EXISTING CIRCUITS TO REMAIN OPERATIONAL SHALL BE PROTECTED IN PLACE. PROVIDE JUMPERS, AS NEEDED. JUMPERS SHALL BE INCIDENTAL TO PROPOSED L-824 WIRING.
- DURING DEMOLITION, OR MODIFICATIONS OF EXISTING CONDUITS, DUCT BANKS, MANHOLES, HANDHOLES, OR JUNCTION CANS, CONTRACTOR SHALL IDENTIFY CIRCUITS, OTHER THAN CIRCUIT 15 THAT ARE WITHIN THOSE UNDERGROUND ITEMS AND SHALL PROTECT, REPLACE OR REROUTE, AS NEEDED DURING CONSTRUCTION. COSTS SHALL BE INCIDENTAL TO PROPOSED L-824 WIRING.
- 5KV WIRING REMOVAL SHALL INCLUDE ALL EXISTING COUNTERPOISE, GROUND RODS AND ASSOCIATED ITEMS. THIS REMOVAL SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED INCIDENTAL TO THE REMOVAL OF THE EXISTING 5KV WIRING.

A3 KEYED NOTES
 SCALE: NOT TO SCALE

- APPROXIMATE LOCATION OF EXISTING AIRFIELD LIGHTING ELECTRICAL VAULT. SEE SHEET E201 FOR DEMOLITION SCOPE OF WORK. EXACT ROUTING OF "HOMERUN" CONDUITS AND DUCT BANKS TO VAULT SHALL BE FIELD DETERMINED.
- REMOVE AND REPLACE TAXIWAY F&G "HOMERUN" CIRCUIT #15 FROM EXISTING DUCTBANKS. ALL OTHER CIRCUITS SHALL BE PROTECTED IN PLACE.
- REMOVE AND STORE EXISTING GUIDANCE SIGN FOR REINSTALLATION. DEMO EXISTING FOUNDATION AND PROVIDE NEW FOUNDATION AS SHOWN IN DETAILS.
- ALL PROPOSED AND EXISTING WIRING TO BE PROPERLY IDENTIFIED, RACKED, AND TAGGED IN EACH MANHOLE ENTERED DURING CONSTRUCTION. PROVIDE A MINIMUM OF ONE (1) LOOP OF WIRING IN EACH MANHOLE FOR EACH NEW CIRCUIT HOMERUN WIRE. CLEAN HOMERUN MANHOLES. ANY DEWATERING SHALL BE INCIDENTAL TO INSTALLATION OF NEW WIRING.
- CONTRACTOR SHALL LOCATE CIRCUIT #15 HOMERUN CONNECTION AT TW-F EDGE LIGHTS AND DISCONNECT AS REQUIRED. PROVIDE SPLICES AND JUMPER WIRING TO COMPLETE THE CIRCUITS AS NEEDED.
- CONTRACTOR SHALL PROVIDE JUMPER WIRING TO KEEP EXISTING CIRCUITS OPERATIONAL DURING CONSTRUCTION. EXACT ROUTING TO BE FIELD VERIFIED. PROTECT JUMPER WIRING AS REQUIRED AND APPROVED BY AIRPORT AND ENGINEER.
- EXISTING WIND CONE AND TO REMAIN AND BE PROTECTED DURING CONSTRUCTION. EXISTING 5KV WIRING AND TRANSFORMER TO BE REPLACED. PROVIDE TEMPORARY JUMPER TO CIRCUIT #18.



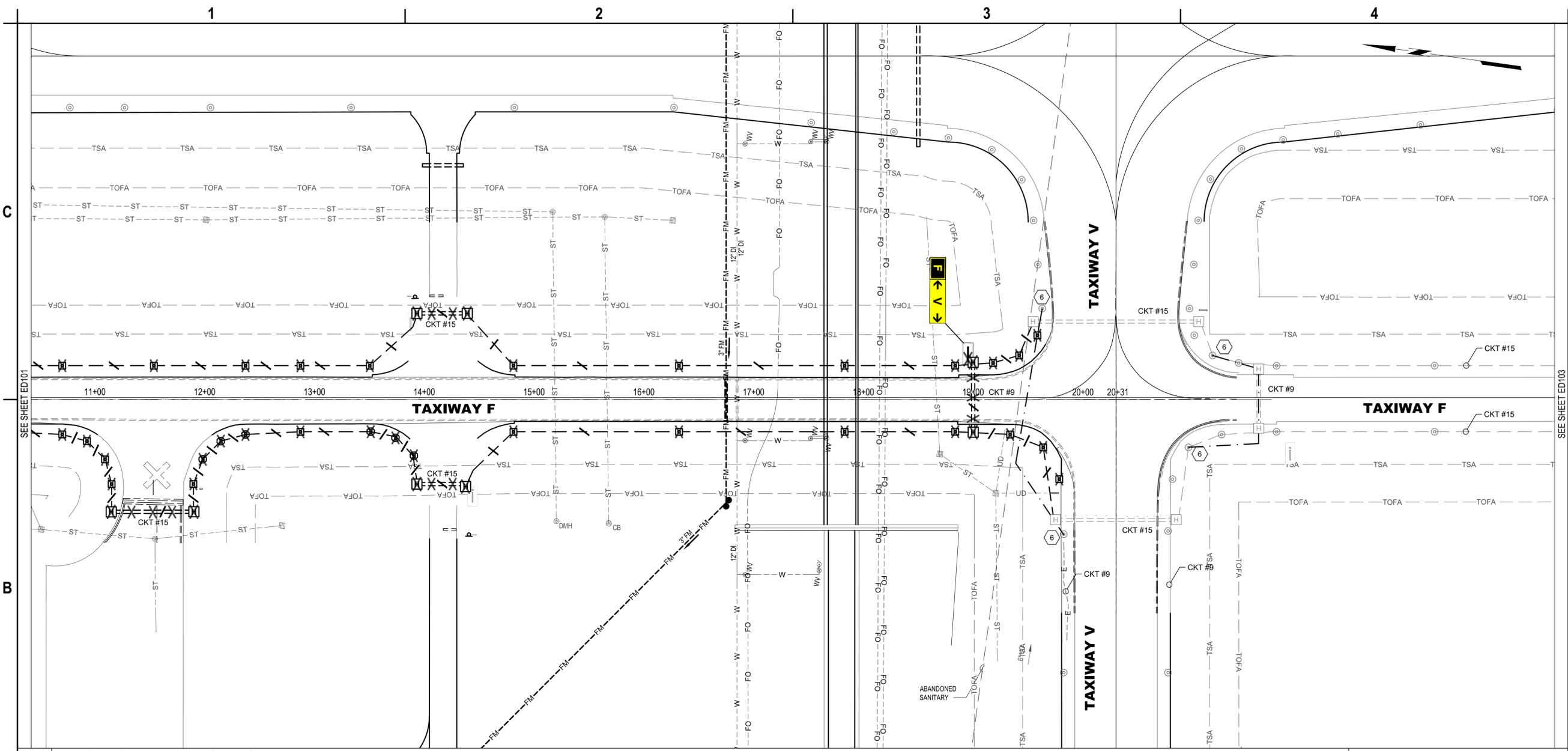
MARK	DATE	DESCRIPTION
	3/6/2026	ADDENDUM NO.1
REVISIONS		
PROJECT NO: K19.031.001		
DATE: FEBRUARY 2026		
DRAWN BY: A. ALZAMLI		
DESIGNED BY: A. RAHMAN		
CHECKED BY: E. ESSOF		

DEMOLITION AIRFIELD LIGHTING PLAN - AREA 1

ED101

SHEET NO. 42 OF 65

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B1 DEMOLITION AIRFIELD LIGHTING PLAN - AREA 2
SCALE: 1" = 50'

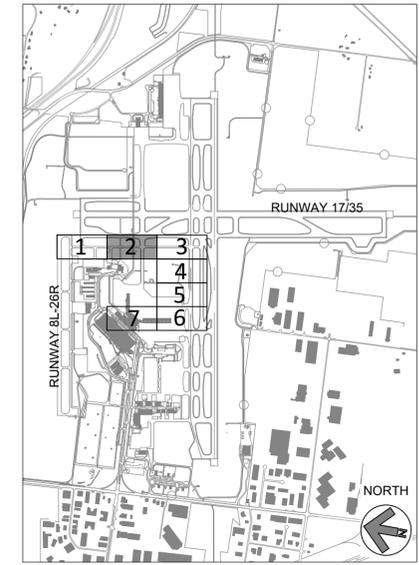


A1 LEGEND
SCALE: NOT TO SCALE

	EXISTING L-824 5KV CABLE IN CONDUIT TO REMAIN
	L-824 5KV CABLE IN EXISTING CONDUIT, TO BE REMOVED AND REPLACED. HASH MARKS INDICATE NUMBER OF CABLES. CKT # = CIRCUIT DESIGNATOR (SEE GENERAL NOTE 5)
	EXISTING ELECTRICAL DUCT BANK
	EXISTING DUCT BANK TO BE REMOVED AND REPLACED
	TEMPORARY JUMPER CABLE (6)
	EXISTING RUNWAY EDGE LIGHT TO REMAIN
	EXISTING TAXIWAY EDGE LIGHT TO REMAIN
	EXISTING TAXIWAY EDGE LIGHT, REMOVE AND REPLACE
	EXISTING AIRFIELD GUIDANCE SIGN TO REMAIN
	EXISTING AIRFIELD GUIDANCE SIGN, REMOVE AND RELOCATE (3)
	EXISTING SINGLE BASE CAN TO BE REMOVED
	EXISTING ELECTRICAL HANDHOLE TO REMAIN
	EXISTING ELECTRICAL MANHOLE TO REMAIN
	EXISTING ELECTRICAL HANDHOLE TO BE REMOVED

- A2** GENERAL NOTES
SCALE: NOT TO SCALE
- SEE E001 FOR GENERAL ELECTRICAL NOTES AND ABBREVIATIONS.
 - EXACT ROUTING OF CABLES THROUGH EXISTING INFRASTRUCTURE SHALL BE FIELD VERIFIED.
 - ALL EXISTING CIRCUITS TO REMAIN OPERATIONAL SHALL BE PROTECTED IN PLACE. PROVIDE JUMPERS, AS NEEDED. JUMPERS SHALL BE INCIDENTAL TO PROPOSED L-824 WIRING.
 - DURING DEMOLITION, OR MODIFICATIONS OF EXISTING CONDUITS, DUCT BANKS, MANHOLES, HANDHOLES, OR JUNCTION CANS, CONTRACTOR SHALL IDENTIFY CIRCUITS, OTHER THAN CIRCUIT 15 THAT ARE WITHIN THOSE UNDERGROUND ITEMS AND SHALL PROTECT, REPLACE OR REROUTE, AS NEEDED DURING CONSTRUCTION. COSTS SHALL BE INCIDENTAL TO PROPOSED L-824 WIRING.
 - 5KV WIRING REMOVAL SHALL INCLUDE ALL EXISTING COUNTERPOISE, GROUND RODS AND ASSOCIATED ITEMS. THIS REMOVAL SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED INCIDENTAL TO THE REMOVAL OF THE EXISTING 5KV WIRING.

- A3** KEYED NOTES
SCALE: NOT TO SCALE
- APPROXIMATE LOCATION OF EXISTING AIRFIELD LIGHTING ELECTRICAL VAULT. SEE SHEET E201 FOR DEMOLITION SCOPE OF WORK. EXACT ROUTING OF "HOMERUN" CONDUITS AND DUCT BANKS TO VAULT SHALL BE FIELD DETERMINED.
 - REMOVE AND REPLACE TAXIWAY F&G "HOMERUN" CIRCUIT #15 FROM EXISTING DUCTBANKS. ALL OTHER CIRCUITS SHALL BE PROTECTED IN PLACE.
 - REMOVE AND STORE EXISTING GUIDANCE SIGN FOR REINSTALLATION. DEMO EXISTING FOUNDATION AND PROVIDE NEW FOUNDATION AS SHOWN IN DETAILS.
 - ALL PROPOSED AND EXISTING WIRING TO BE PROPERLY IDENTIFIED, RACKED, AND TAGGED IN EACH MANHOLE ENTERED DURING CONSTRUCTION. PROVIDE A MINIMUM OF ONE (1) LOOP OF WIRING IN EACH MANHOLE FOR EACH NEW CIRCUIT HOMERUN WIRE. CLEAN HOMERUN MANHOLES. ANY DEWATERING SHALL BE INCIDENTAL TO INSTALLATION OF NEW WIRING.
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 - CONTRACTOR SHALL PROVIDE JUMPER WIRING TO KEEP EXISTING CIRCUITS OPERATIONAL DURING CONSTRUCTION. EXACT ROUTING TO BE FIELD VERIFIED. PROTECT JUMPER WIRING AS REQUIRED AND APPROVED BY AIRPORT AND ENGINEER.
 - EXISTING WIND CONE AND TO REMAIN AND BE PROTECTED DURING CONSTRUCTION. EXISTING 5KV WIRING AND TRANSFORMER TO BE REPLACED. PROVIDE TEMPORARY JUMPER TO CIRCUIT #18.



KEY PLAN

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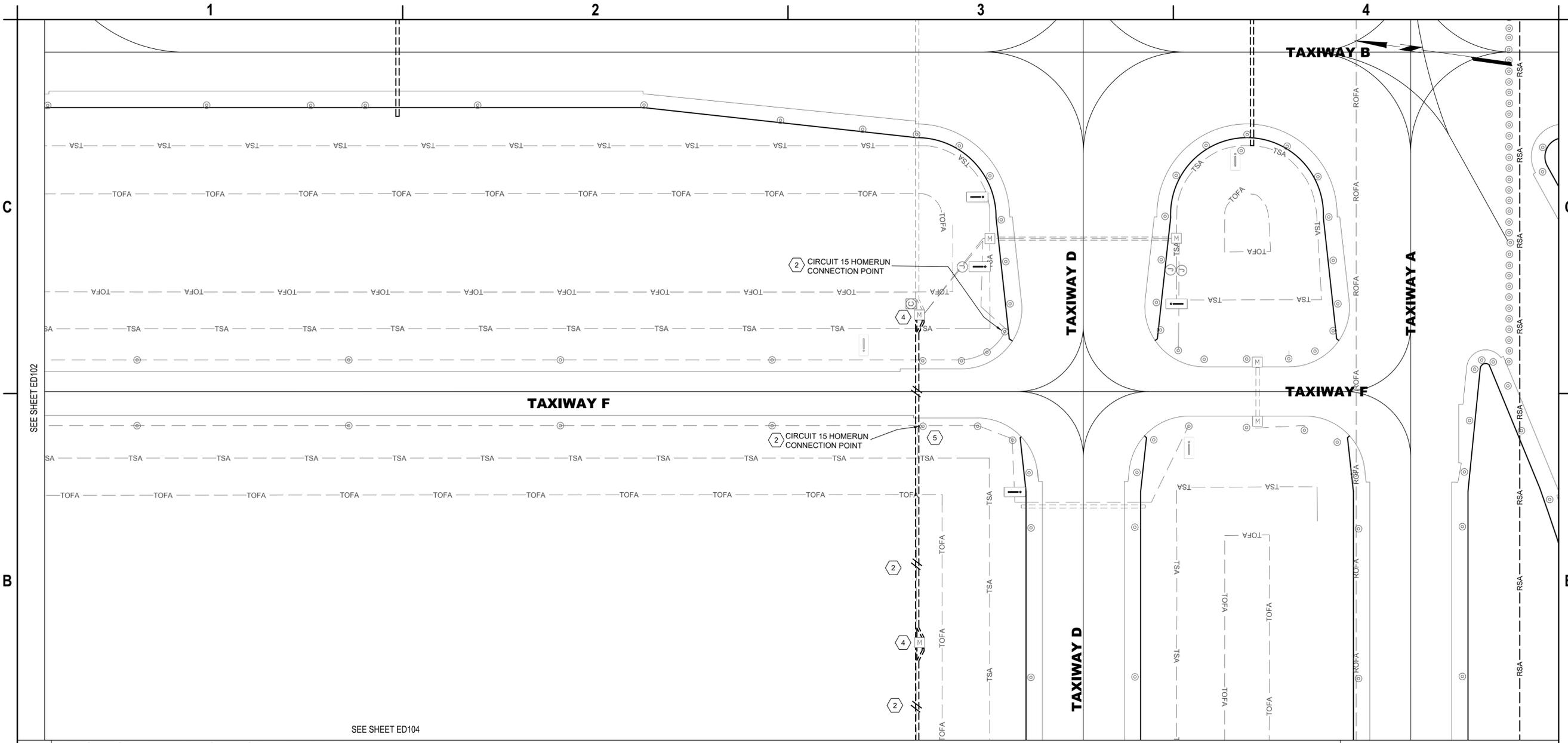


**TAXIWAY F&G RECONSTRUCTION (NORTH OF TAXIWAY V, 1,950' X 36'); TAXIWAY F&G AIRFIELD LIGHTING REPLACEMENT
GERALD R. FORD INTERNATIONAL AIRPORT GRAND RAPIDS, MI**

MARK	DATE	DESCRIPTION
	3/6/2026	ADDENDUM NO.1
REVISIONS		
PROJECT NO: K19.031.001		
DATE: FEBRUARY 2026		
DRAWN BY: A. ALZAMLI		
DESIGNED BY: A. RAHMAN		
CHECKED BY: E. ESSOF		

DEMOLITION AIRFIELD LIGHTING PLAN - AREA 2

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**TAXIWAY F&G RECONSTRUCTION (NORTH OF TAXIWAY V, 1,950' X 36'); TAXIWAY F&G AIRFIELD LIGHTING REPLACEMENT
 GERALD R. FORD INTERNATIONAL AIRPORT GRAND RAPIDS, MI**

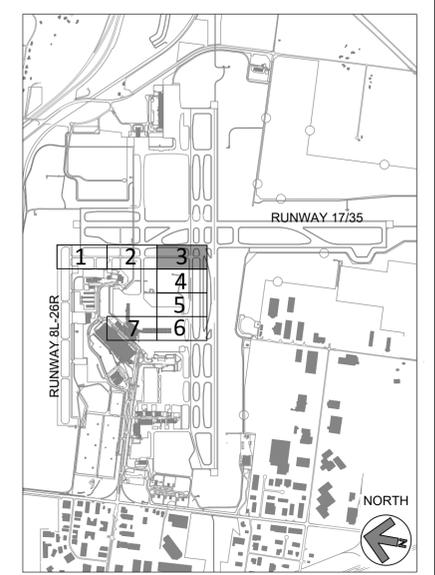
B1 DEMOLITION AIRFIELD LIGHTING PLAN - AREA 3
 SCALE: 1" = 50'



—	EXISTING L-824 5KV CABLE IN CONDUIT TO REMAIN
—	L-824 5KV CABLE IN EXISTING CONDUIT, TO BE REMOVED AND REPLACED. HASH MARKS INDICATE NUMBER OF CABLES, CKT # = CIRCUIT DESIGNATOR (SEE GENERAL NOTE 5)
---	EXISTING ELECTRICAL DUCT BANK
---	EXISTING DUCT BANK TO BE REMOVED AND REPLACED
—	TEMPORARY JUMPER CABLE (6)
⊠	EXISTING RUNWAY EDGE LIGHT TO REMAIN
⊙	EXISTING TAXIWAY EDGE LIGHT TO REMAIN
⊠	EXISTING TAXIWAY EDGE LIGHT, REMOVE AND REPLACE
—	EXISTING AIRFIELD GUIDANCE SIGN TO REMAIN
⊠	EXISTING AIRFIELD GUIDANCE SIGN, REMOVE AND RELOCATE (3)
⊠	EXISTING SINGLE BASE CAN TO BE REMOVED
⊠	EXISTING ELECTRICAL HANDHOLE TO REMAIN
⊠	EXISTING ELECTRICAL MANHOLE TO REMAIN
⊠	EXISTING ELECTRICAL HANDHOLE TO BE REMOVED AND REPLACED

- SEE E001 FOR GENERAL ELECTRICAL NOTES AND ABBREVIATIONS.
- EXACT ROUTING OF CABLES THROUGH EXISTING INFRASTRUCTURE SHALL BE FIELD VERIFIED.
- ALL EXISTING CIRCUITS TO REMAIN OPERATIONAL SHALL BE PROTECTED IN PLACE. PROVIDE JUMPERS, AS NEEDED. JUMPERS SHALL BE INCIDENTAL TO PROPOSED L-824 WIRING.
- DURING DEMOLITION, OR MODIFICATIONS OF EXISTING CONDUITS, DUCT BANKS, MANHOLES, HANDHOLES, OR JUNCTION CANS, CONTRACTOR SHALL IDENTIFY CIRCUITS, OTHER THAN CIRCUIT 15 THAT ARE WITHIN THOSE UNDERGROUND ITEMS AND SHALL PROTECT, REPLACE OR REROUTE, AS NEEDED DURING CONSTRUCTION. COSTS SHALL BE INCIDENTAL TO PROPOSED L-824 WIRING.
- 5KV WIRING REMOVAL SHALL INCLUDE ALL EXISTING COUNTERPOISE, GROUND RODS AND ASSOCIATED ITEMS. THIS REMOVAL SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED INCIDENTAL TO THE REMOVAL OF THE EXISTING 5KV WIRING.

- APPROXIMATE LOCATION OF EXISTING AIRFIELD LIGHTING ELECTRICAL VAULT. SEE SHEET E201 FOR DEMOLITION SCOPE OF WORK. EXACT ROUTING OF "HOMERUN" CONDUITS AND DUCT BANKS TO VAULT SHALL BE FIELD DETERMINED.
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- EXISTING WIND CONE AND TO REMAIN AND BE PROTECTED DURING CONSTRUCTION. EXISTING 5KV WIRING AND TRANSFORMER TO BE REPLACED. PROVIDE TEMPORARY JUMPER TO CIRCUIT #18.



A1 LEGEND
 SCALE: NOT TO SCALE

A2 GENERAL NOTES
 SCALE: NOT TO SCALE

A3 KEYED NOTES
 SCALE: NOT TO SCALE

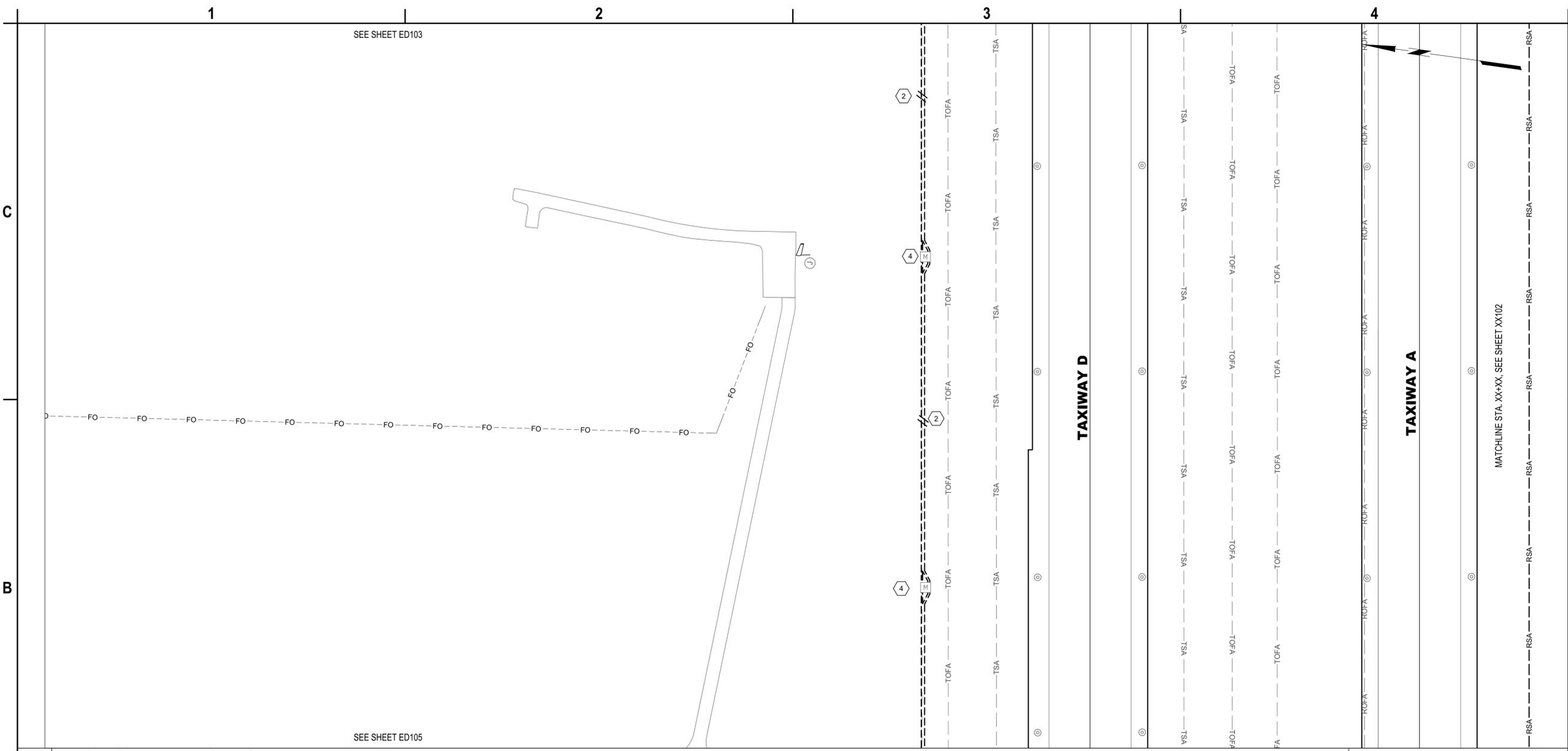
DATE	3/6/2026	ADDENDUM NO.1
MARK		DESCRIPTION
REVISIONS		
PROJECT NO.	K19.031.001	
DATE:	FEBRUARY 2026	
DRAWN BY:	A. ALZAMLI	
DESIGNED BY:	A. RAHMAN	
CHECKED BY:	E. ESSOF	

DEMOLITION AIRFIELD LIGHTING PLAN - AREA 3

ED103

SHEET NO. 44 OF 65

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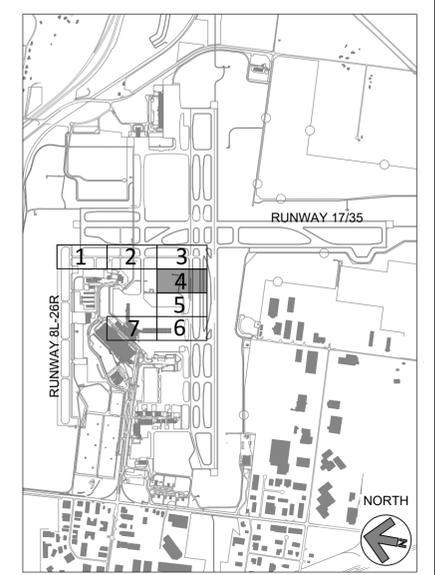
TAXIWAY F&G RECONSTRUCTION (NORTH OF TAXIWAY V, 1,950' X 36'); TAXIWAY F&G AIRFIELD LIGHTING REPLACEMENT
GERALD R. FORD INTERNATIONAL AIRPORT GRAND RAPIDS, MI

B1 DEMOLITION AIRFIELD LIGHTING PLAN - AREA 4
 SCALE: 1" = 50'

—	EXISTING L-824 5KV CABLE IN CONDUIT TO REMAIN
—	L-824 5KV CABLE IN EXISTING CONDUIT, TO BE REMOVED AND REPLACED. HASH MARKS INDICATE NUMBER OF CABLES, CKT # = CIRCUIT DESIGNATOR (SEE GENERAL NOTE 5)
---	EXISTING ELECTRICAL DUCT BANK
---	EXISTING DUCT BANK TO BE REMOVED AND REPLACED
---	TEMPORARY JUMPER CABLE (6)
⊠	EXISTING RUNWAY EDGE LIGHT TO REMAIN
⊙	EXISTING TAXIWAY EDGE LIGHT TO REMAIN
⊠	EXISTING TAXIWAY EDGE LIGHT, REMOVE AND REPLACE
—	EXISTING AIRFIELD GUIDANCE SIGN TO REMAIN
—	EXISTING AIRFIELD GUIDANCE SIGN, REMOVE AND RELOCATE (3)
⊠	EXISTING SINGLE BASE CAN TO BE REMOVED
⊠	EXISTING ELECTRICAL HANDHOLE TO REMAIN
⊠	EXISTING ELECTRICAL MANHOLE TO REMAIN
⊠	EXISTING ELECTRICAL HANDHOLE TO BE REMOVED

- A2 GENERAL NOTES**
 SCALE: NOT TO SCALE
- SEE E001 FOR GENERAL ELECTRICAL NOTES AND ABBREVIATIONS.
 - EXACT ROUTING OF CABLES THROUGH EXISTING INFRASTRUCTURE SHALL BE FIELD VERIFIED.
 - ALL EXISTING CIRCUITS TO REMAIN OPERATIONAL SHALL BE PROTECTED IN PLACE. PROVIDE JUMPERS, AS NEEDED. JUMPERS SHALL BE INCIDENTAL TO PROPOSED L-824 WIRING.
 - DURING DEMOLITION, OR MODIFICATIONS OF EXISTING CONDUITS, DUCT BANKS, MANHOLES, HANDHOLES, OR JUNCTION CANS, CONTRACTOR SHALL IDENTIFY CIRCUITS, OTHER THAN CIRCUIT 15 THAT ARE WITHIN THOSE UNDERGROUND ITEMS AND SHALL PROTECT, REPLACE OR REROUTE, AS NEEDED DURING CONSTRUCTION. COSTS SHALL BE INCIDENTAL TO PROPOSED L-824 WIRING.
 - 5KV WIRING REMOVAL SHALL INCLUDE ALL EXISTING COUNTERPOISE, GROUND RODS AND ASSOCIATED ITEMS. THIS REMOVAL SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED INCIDENTAL TO THE REMOVAL OF THE EXISTING 5KV WIRING.

- A3 KEYED NOTES**
 SCALE: NOT TO SCALE
- APPROXIMATE LOCATION OF EXISTING AIRFIELD LIGHTING ELECTRICAL VAULT. SEE SHEET E201 FOR DEMOLITION SCOPE OF WORK. EXACT ROUTING OF "HOMERUN" CONDUITS AND DUCT BANKS TO VAULT SHALL BE FIELD DETERMINED.
 - REMOVE AND REPLACE TAXIWAY F&G "HOMERUN" CIRCUIT #15 FROM EXISTING DUCTBANKS. ALL OTHER CIRCUITS SHALL BE PROTECTED IN PLACE.
 - REMOVE AND STORE EXISTING GUIDANCE SIGN FOR REINSTALLATION. DEMO EXISTING FOUNDATION AND PROVIDE NEW FOUNDATION AS SHOWN IN DETAILS.
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MARK	DATE	DESCRIPTION
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PROJECT NO: K19.031.001		
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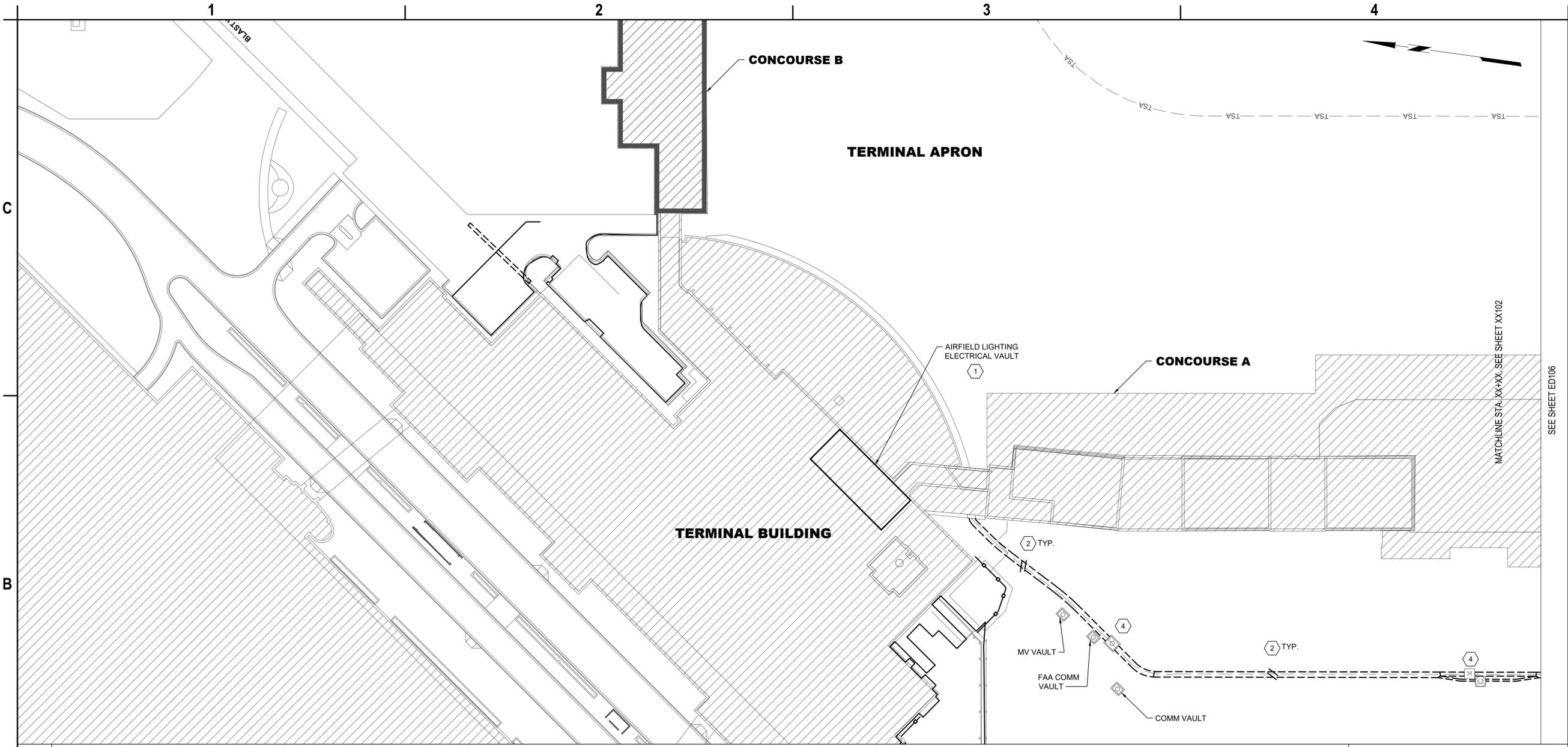
DEMOLITION AIRFIELD LIGHTING PLAN - AREA 4

ED104

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B1 DEMOLITION AIRFIELD LIGHTING PLAN - AREA 7
SCALE: 1" = 50'



A1 LEGEND
SCALE: NOT TO SCALE

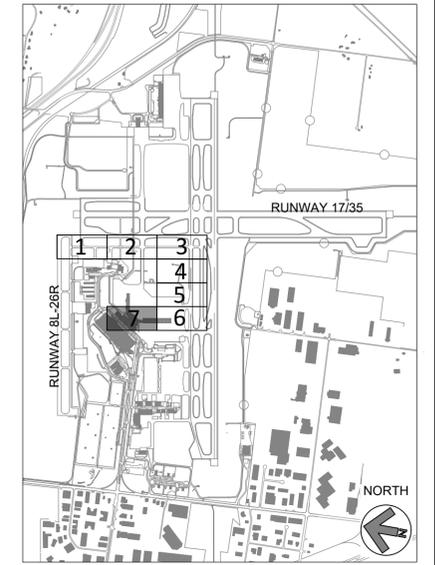
	EXISTING L-824 5KV CABLE IN CONDUIT TO REMAIN
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	EXISTING ELECTRICAL DUCT BANK
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	EXISTING TAXIWAY EDGE LIGHT TO REMAIN
	EXISTING TAXIWAY EDGE LIGHT, REMOVE AND REPLACE
	EXISTING AIRFIELD GUIDANCE SIGN TO REMAIN
	EXISTING AIRFIELD GUIDANCE SIGN, REMOVE AND RELOCATE (3)
	EXISTING SINGLE BASE CAN TO BE REMOVED
	EXISTING ELECTRICAL HANDHOLE TO REMAIN
	EXISTING ELECTRICAL MANHOLE TO REMAIN
	EXISTING ELECTRICAL HANDHOLE TO BE REMOVED AND REPL

A2 GENERAL NOTES
SCALE: NOT TO SCALE

- SEE E001 FOR GENERAL ELECTRICAL NOTES AND ABBREVIATIONS.
- EXACT ROUTING OF CABLES THROUGH EXISTING INFRASTRUCTURE SHALL BE FIELD VERIFIED.
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A3 KEYED NOTES
SCALE: NOT TO SCALE

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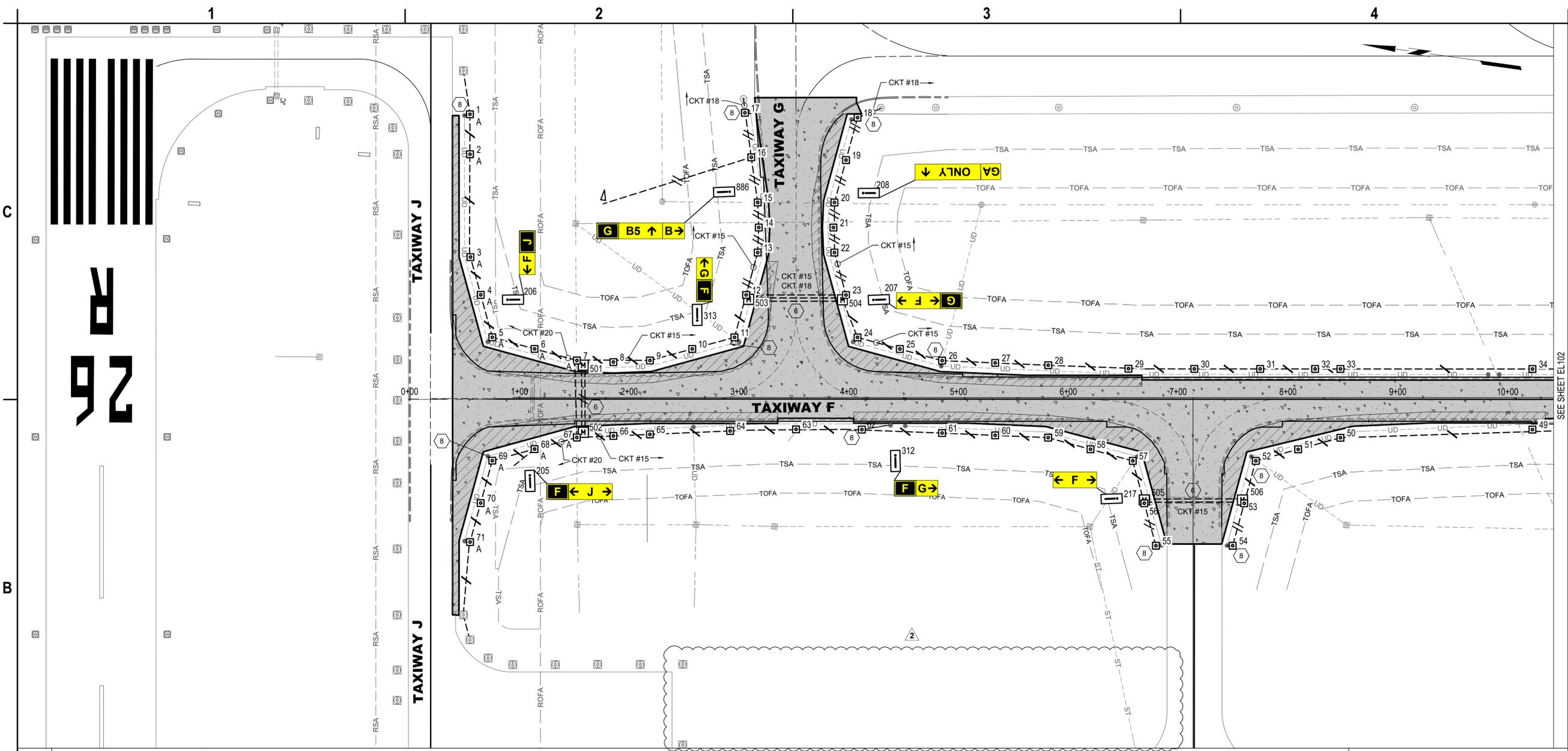
DEMOLITION AIRFIELD LIGHTING PLAN - AREA 7

ED107

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B1 PROPOSED AIRFIELD LIGHTING PLAN - AREA 1
SCALE: 1" = 50'



A1 LEGEND
SCALE: NOT TO SCALE

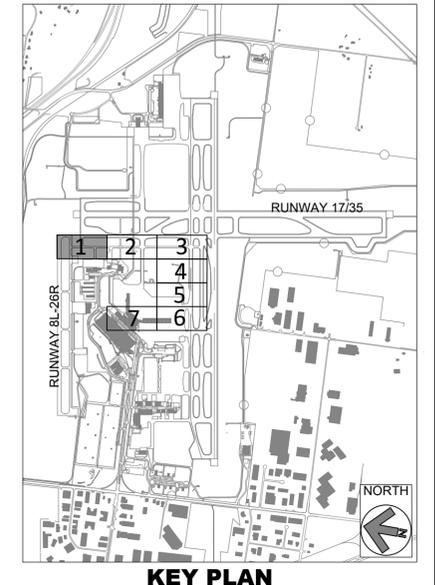
	CKT#
	EXISTING ELECTRICAL DUCT BANK
	PROPOSED ELECTRICAL DUCT BANK
	EXISTING RUNWAY/TAXIWAY EDGE LIGHT TO REMAIN
	PROPOSED L-861T(L) ELEVATED OMNI-DIRECTIONAL MEDIUM INTENSITY TAXIWAY EDGE LIGHT (MITL) INSTALLED ON EXISTING BASE CA. "A" DENOTES QUARTZ FIXTURE. "1" DENOTES FIXTURE NUMBER
	EXISTING AIRFIELD GUIDANCE SIGN TO REMAIN
	PROPOSED AIRFIELD GUIDANCE SIGN, PROVIDE NEW ISOLATION TRANSFORMER
	EXISTING SINGLE BASE CAN TO REMAIN
	EXISTING ELECTRICAL HANDHOLE TO REMAIN
	EXISTING ELECTRICAL MANHOLE TO REMAIN
	PROPOSED ELECTRICAL 4' X 4' MANHOLE
	PROPOSED RETROREFLECTIVE 20" MARKER

A2 GENERAL NOTES
SCALE: NOT TO SCALE

- SEE E001 FOR GENERAL ELECTRICAL NOTES AND ABBREVIATIONS.
- EXACT ROUTING OF CABLES THROUGH EXISTING INFRASTRUCTURE SHALL BE FIELD VERIFIED.
- ALL CIRCUIT FEEDERS TO GUIDANCE SIGNS SHALL CONSIST OF 2/C L-824 5KV CABLES.
- ALL EXISTING CIRCUITS TO REMAIN OPERATIONAL SHALL BE PROTECTED IN PLACE. PROVIDE JUMPERS, AS NEEDED. JUMPERS SHALL BE INCIDENTAL TO PROPOSED L-824 WIRING.
- DURING DEMOLITION, OR MODIFICATIONS OF EXISTING CONDUITS, DUCT BANKS, MANHOLES, HANDHOLES, OR JUNCTION CANS, CONTRACTOR SHALL IDENTIFY CIRCUITS, OTHER THAN CIRCUIT 15 THAT ARE WITHIN THOSE UNDERGROUND ITEMS AND SHALL PROTECT, REPLACE OR REROUTE, AS NEEDED DURING CONSTRUCTION. COSTS SHALL BE INCIDENTAL TO PROPOSED L-824 WIRING.

A3 KEYED NOTES
SCALE: NOT TO SCALE

- APPROXIMATE LOCATION OF EXISTING AIRFIELD LIGHTING ELECTRICAL VAULT. SEE SHEET E202 FOR PROPOSED SCOPE OF WORK. EXACT ROUTING OF "HOMERUN" CONDUITS AND DUCTBANKS TO VAULT SHALL BE FIELD DETERMINED.
- TAXIWAY F&G "HOMERUN" CABLES IN EXISTING DUCTBANK. PROPOSED L-824 CABLES FOR CIRCUIT #15 SHALL BE INSTALLED IN EXISTING CONDUIT. ALL OTHER CIRCUITS SHALL BE PROTECTED IN PLACE.
- TAXIWAY F&G CABLES IN EXISTING CONDUIT. PROPOSED L-824 5KV CABLES FOR CIRCUIT #15, AS MARKED, SHALL BE INSTALLED IN EXISTING CONDUITS AND DUCT BANKS. ALL OTHER CIRCUITS SHALL BE PROTECTED IN PLACE.
- ALL PROPOSED AND EXISTING WIRING TO BE PROPERLY IDENTIFIED, RACKED, AND TAGGED IN EACH MANHOLE ENTERED DURING CONSTRUCTION. PROVIDE A MINIMUM OF ONE (1) LOOP OF WIRING IN EACH MANHOLE FOR EACH NEW CIRCUIT HOMERUN WIRE. CLEAN HOMERUN MANHOLES. ANY DEWATERING SHALL BE INCIDENTAL TO INSTALLATION OF NEW WIRING.
- INSTALL A 4-WAY, 4-INCH DUCT BANK BETWEEN EXISTING MANHOLES TO SERVE NEW TAXIWAY F/G WORK, AS SHOWN.
- ALL NEW MANHOLES SHALL INCLUDE A 4-WAY DUCT BANK CONSISTING OF FOUR 4" CONDUITS. MANHOLES SHALL BE 4' X 4' SQUARE SPRING LOADED LIDS.
- REMOVE JUMPER WIRING AND RECONNECT EXISTING WINDCONE TO CIRCUIT#15 WITH NEW WIRING AND TRANSFORMER
- CONNECT NEW TAXIWAY EDGE LIGHTS TO NEW UNDERDRAIN SYSTEM WHERE INDICATED. COORDINATE EXACT CONNECTION POINTS IN FIELD. MAINTAIN CONTINUITY OF UNDERDRAIN SYSTEM AND VERIFY PROPER SLOPE FOR DRAINAGE PRIOR TO BACKFILL.



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TAXIWAY F&G RECONSTRUCTION (NORTH OF TAXIWAY V, 1,950' X 36'); TAXIWAY F&G AIRFIELD LIGHTING REPLACEMENT
GERALD R. FORD INTERNATIONAL AIRPORT GRAND RAPIDS, MI

MARK	DATE	DESCRIPTION
Δ	9/16/2026	ADDENDUM NO.2
▲	3/6/2026	ADDENDUM NO.1

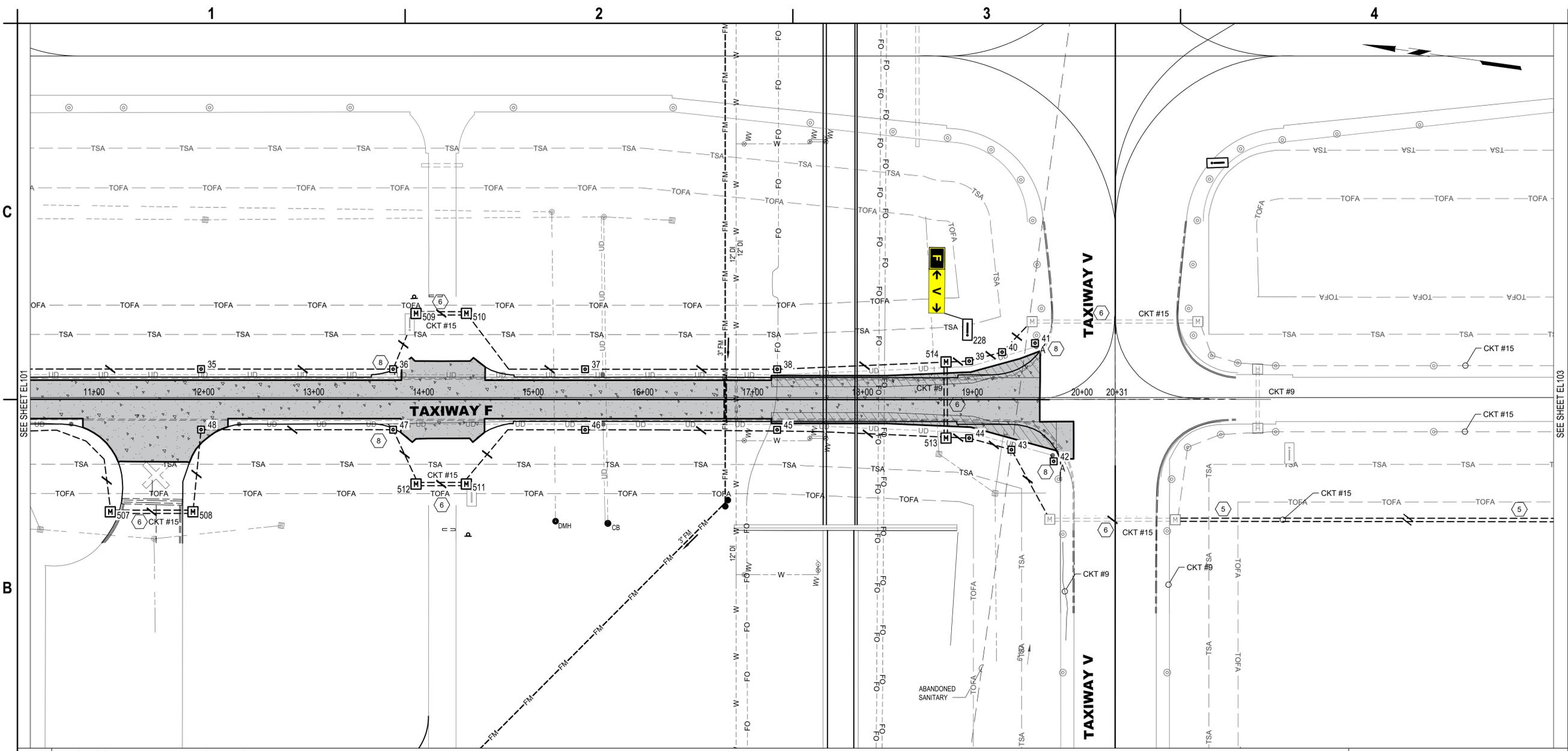
REVISIONS

PROJECT NO: K19.031.001
DATE: FEBRUARY 2026
DRAWN BY: A. ALZAMLI
DESIGNED BY: A. RAHMAN
CHECKED BY: E. ESSOF

PROPOSED AIRFIELD LIGHTING PLAN - AREA 1

EL101

SHEET NO. 49 OF 65

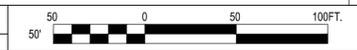


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TAXIWAY F&G RECONSTRUCTION (NORTH OF TAXIWAY V, 1,950' X 36'); TAXIWAY F&G AIRFIELD LIGHTING REPLACEMENT
GERALD R. FORD INTERNATIONAL AIRPORT GRAND RAPIDS, MI

B1 PROPOSED AIRFIELD LIGHTING PLAN - AREA 2
 SCALE: 1" = 50'

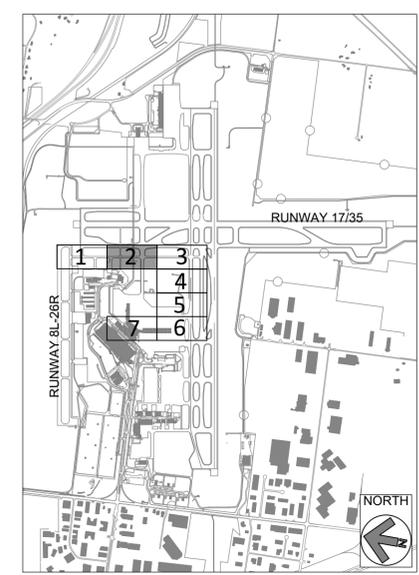


A1 LEGEND
 SCALE: NOT TO SCALE

	CKT#
	PROPOSED L-824 5KV CABLE IN 2" PVC CONDUIT. HASH MARKS INDICATE NUMBER OF NEW L-824 CABLES INSTALLED IN CONDUIT. CKT # = CIRCUIT DESIGNATOR
	EXISTING ELECTRICAL DUCT BANK
	PROPOSED ELECTRICAL DUCT BANK
	EXISTING RUNWAY/TAXIWAY EDGE LIGHT TO REMAIN
	PROPOSED L-861T(L) ELEVATED OMNI-DIRECTIONAL MEDIUM INTENSITY TAXIWAY EDGE LIGHT (MITL) INSTALLED ON EXISTING BASE CA. "A" DENOTES QUARTZ FIXTURE. "1" DENOTES FIXTURE NUMBER
	EXISTING AIRFIELD GUIDANCE SIGN TO REMAIN
	PROPOSED AIRFIELD GUIDANCE SIGN, PROVIDE NEW ISOLATION TRANSFORMER
	EXISTING SINGLE BASE CAN TO REMAIN
	EXISTING ELECTRICAL HANDHOLE TO REMAIN
	EXISTING ELECTRICAL MANHOLE TO REMAIN
	PROPOSED ELECTRICAL 4' X 4' MANHOLE
	PROPOSED RETROREFLECTIVE 20" MARKER

- A2 GENERAL NOTES**
 SCALE: NOT TO SCALE
- SEE E001 FOR GENERAL ELECTRICAL NOTES AND ABBREVIATIONS.
 - EXACT ROUTING OF CABLES THROUGH EXISTING INFRASTRUCTURE SHALL BE FIELD VERIFIED.
 - ALL CIRCUIT FEEDERS TO GUIDANCE SIGNS SHALL CONSIST OF 2/C L-824 5KV CABLES.
 - ALL EXISTING CIRCUITS TO REMAIN OPERATIONAL SHALL BE PROTECTED IN PLACE. PROVIDE JUMPERS, AS NEEDED. JUMPERS SHALL BE INCIDENTAL TO PROPOSED L-824 WIRING.
 - DURING DEMOLITION, OR MODIFICATIONS OF EXISTING CONDUITS, DUCT BANKS, MANHOLES, HANDHOLES, OR JUNCTION CANS, CONTRACTOR SHALL IDENTIFY CIRCUITS, OTHER THAN CIRCUIT 15 THAT ARE WITHIN THOSE UNDERGROUND ITEMS AND SHALL PROTECT, REPLACE OR REROUTE, AS NEEDED DURING CONSTRUCTION. COSTS SHALL BE INCIDENTAL TO PROPOSED L-824 WIRING.

- A3 KEYED NOTES**
 SCALE: NOT TO SCALE
- APPROXIMATE LOCATION OF EXISTING AIRFIELD LIGHTING ELECTRICAL VAULT. SEE SHEET E202 FOR PROPOSED SCOPE OF WORK. EXACT ROUTING OF "HOMERUN" CONDUITS AND DUCTBANKS TO VAULT SHALL BE FIELD DETERMINED.
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MARK	DATE	DESCRIPTION
▲	3/6/2026	ADDENDUM NO.1
REVISIONS		
PROJECT NO: K19.031.001		
DATE: SEPTEMBER 2025		
DRAWN BY: A. ALZAMLI		
DESIGNED BY: A. RAHMAN		
CHECKED BY: E. ESSOF		

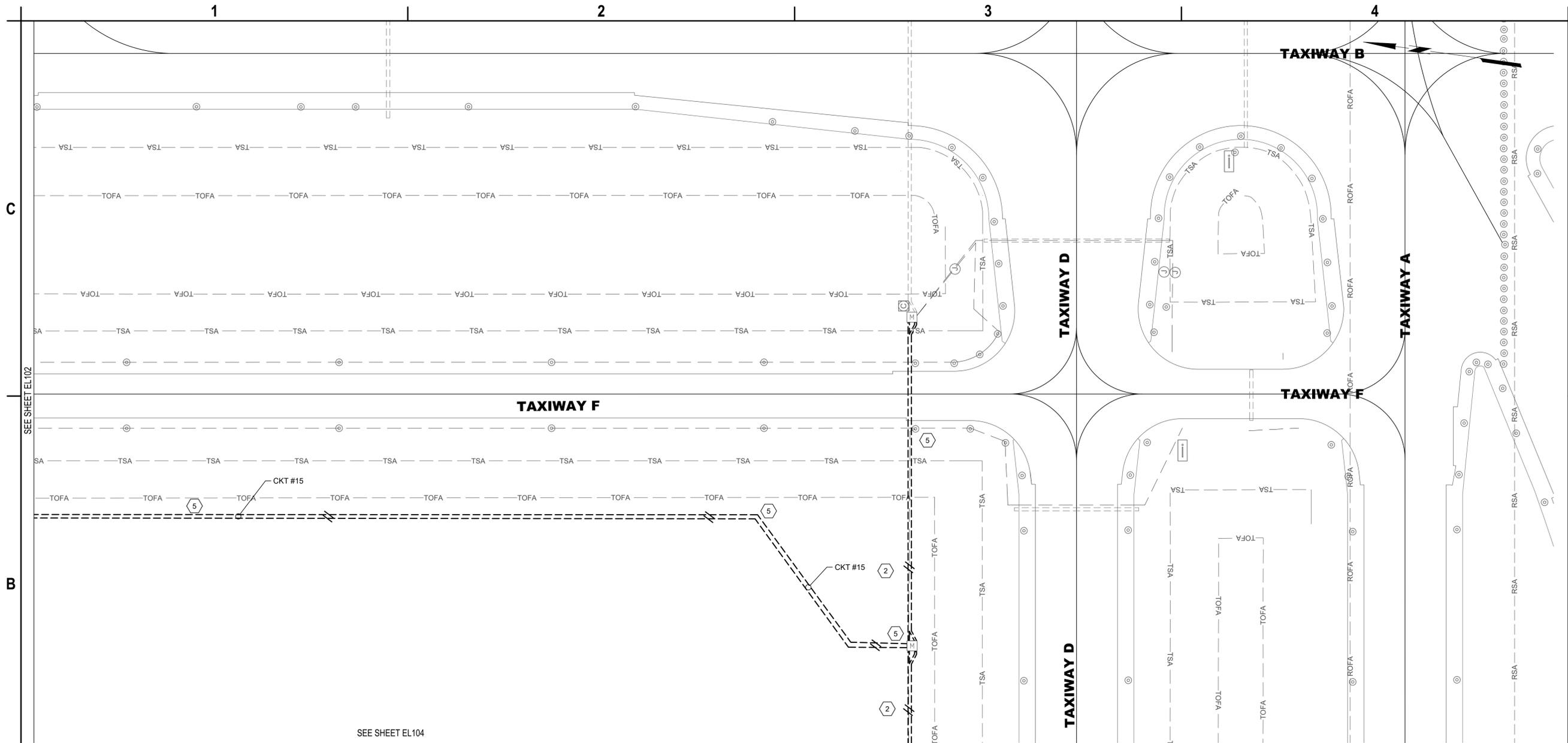
PROPOSED AIRFIELD LIGHTING PLAN - AREA 2

EL102

SHEET NO. 50 OF 65

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B1 PROPOSED AIRFIELD LIGHTING PLAN - AREA 3
SCALE: 1" = 50'

	CKT#
	EXISTING ELECTRICAL DUCT BANK
	PROPOSED ELECTRICAL DUCT BANK
	EXISTING RUNWAY/TAXIWAY EDGE LIGHT TO REMAIN
	PROPOSED L-861T(L) ELEVATED OMNI-DIRECTIONAL MEDIUM INTENSITY TAXIWAY EDGE LIGHT (MITL) INSTALLED ON EXISTING BASE CA. "A" DENOTES QUARTZ FIXTURE. "1" DENOTES FIXTURE NUMBER
	EXISTING AIRFIELD GUIDANCE SIGN TO REMAIN
	PROPOSED AIRFIELD GUIDANCE SIGN, PROVIDE NEW ISOLATION TRANSFORMER
	EXISTING SINGLE BASE CAN TO REMAIN
	EXISTING ELECTRICAL HANDHOLE TO REMAIN
	EXISTING ELECTRICAL MANHOLE TO REMAIN
	PROPOSED ELECTRICAL 4' X 4' MANHOLE
	PROPOSED RETROREFLECTIVE 20' MARKER

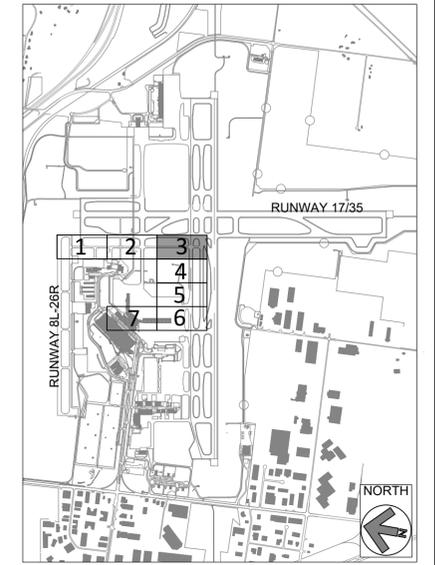
A1 LEGEND
SCALE: NOT TO SCALE

- SEE E001 FOR GENERAL ELECTRICAL NOTES AND ABBREVIATIONS.
- EXACT ROUTING OF CABLES THROUGH EXISTING INFRASTRUCTURE SHALL BE FIELD VERIFIED.
- ALL CIRCUIT FEEDERS TO GUIDANCE SIGNS SHALL CONSIST OF 2/C L-824 5KV CABLES.
- ALL EXISTING CIRCUITS TO REMAIN OPERATIONAL SHALL BE PROTECTED IN PLACE. PROVIDE JUMPERS, AS NEEDED. JUMPERS SHALL BE INCIDENTAL TO PROPOSED L-824 WIRING.
- DURING DEMOLITION, OR MODIFICATIONS OF EXISTING CONDUITS, DUCT BANKS, MANHOLES, HANDHOLES, OR JUNCTION CANS, CONTRACTOR SHALL IDENTIFY CIRCUITS, OTHER THAN CIRCUIT 15 THAT ARE WITHIN THOSE UNDERGROUND ITEMS AND SHALL PROTECT, REPLACE OR REROUTE, AS NEEDED DURING CONSTRUCTION. COSTS SHALL BE INCIDENTAL TO PROPOSED L-824 WIRING.

A2 GENERAL NOTES
SCALE: NOT TO SCALE

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A3 KEYED NOTES
SCALE: NOT TO SCALE



KEY PLAN



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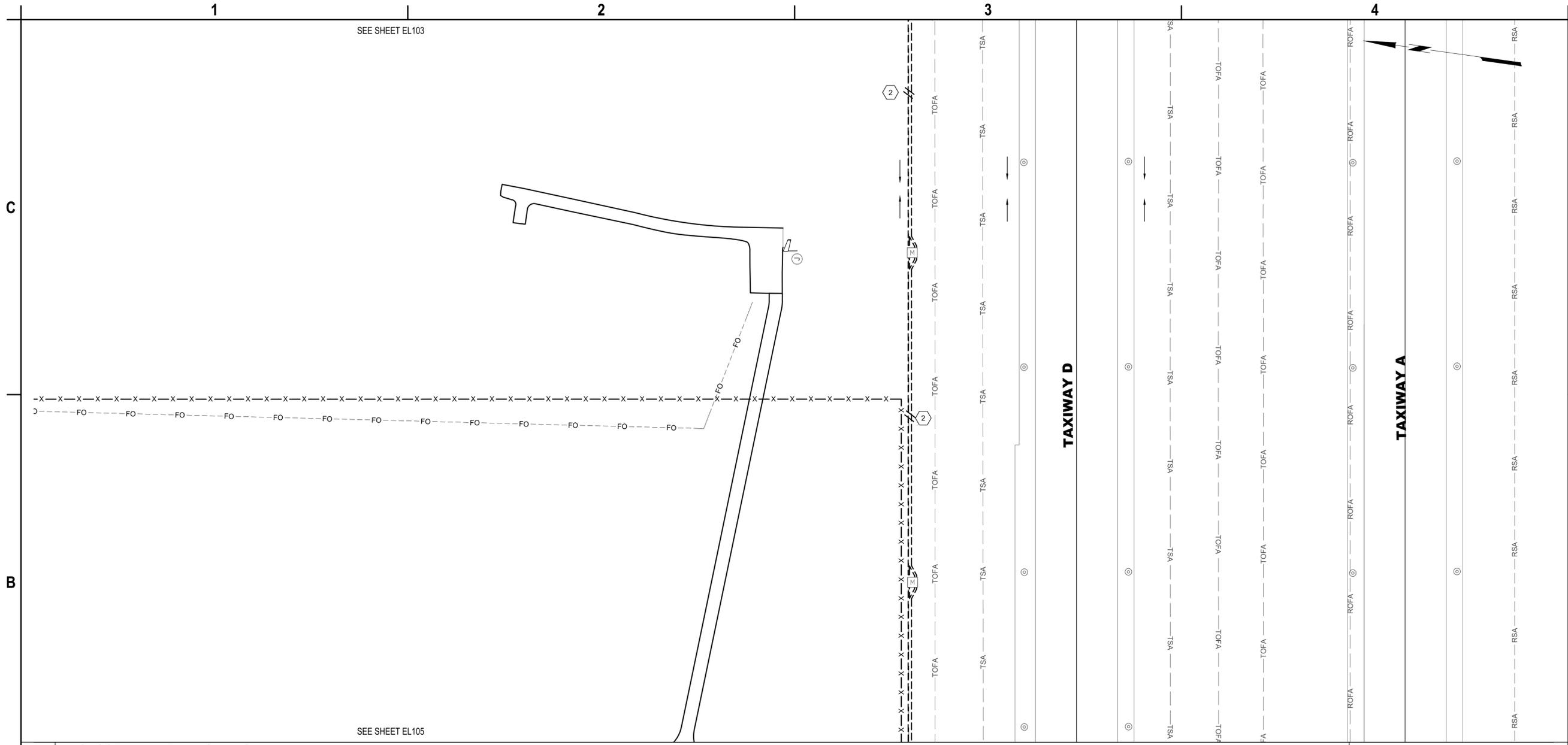


TAXIWAY F&G RECONSTRUCTION (NORTH OF TAXIWAY V, 1,950' X 36'); TAXIWAY F&G AIRFIELD LIGHTING REPLACEMENT
GERALD R. FORD INTERNATIONAL AIRPORT GRAND RAPIDS, MI

MARK	DATE	DESCRIPTION
▲	3/6/2026	ADDENDUM NO.1
REVISIONS		
PROJECT NO: K19.031.001		
DATE: FEBRUARY 2026		
DRAWN BY: A. ALZAMLI		
DESIGNED BY: A. RAHMAN		
CHECKED BY: E. ESSOF		

PROPOSED AIRFIELD LIGHTING PLAN - AREA 3

EL103
SHEET NO. 51 OF 65



B1 PROPOSED AIRFIELD LIGHTING PLAN - AREA 4
SCALE: 1" = 50'



A1 LEGEND
SCALE: NOT TO SCALE

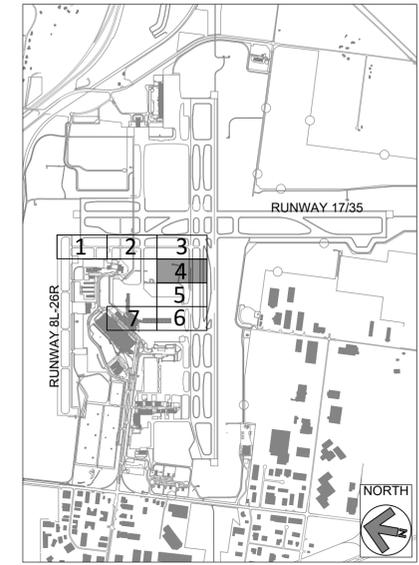
	CKT#
	HASH MARKS INDICATE NUMBER OF NEW L-824 CABLES INSTALLED IN CONDUIT, CKT # = CIRCUIT DESIGNATOR
	EXISTING ELECTRICAL DUCT BANK
	PROPOSED ELECTRICAL DUCT BANK
	EXISTING RUNWAY/TAXIWAY EDGE LIGHT TO REMAIN
	PROPOSED L-861T(L) ELEVATED OMNI-DIRECTIONAL MEDIUM INTENSITY TAXIWAY EDGE LIGHT (MITL) INSTALLED ON EXISTING BASE CA. "A" DENOTES QUARTZ FIXTURE. "1" DENOTES FIXTURE NUMBER
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	EXISTING SINGLE BASE CAN TO REMAIN
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	EXISTING ELECTRICAL MANHOLE TO REMAIN
	PROPOSED ELECTRICAL 4' X 4' MANHOLE
	PROPOSED RETROREFLECTIVE 20" MARKER

A2 GENERAL NOTES
SCALE: NOT TO SCALE

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A3 KEYED NOTES
SCALE: NOT TO SCALE

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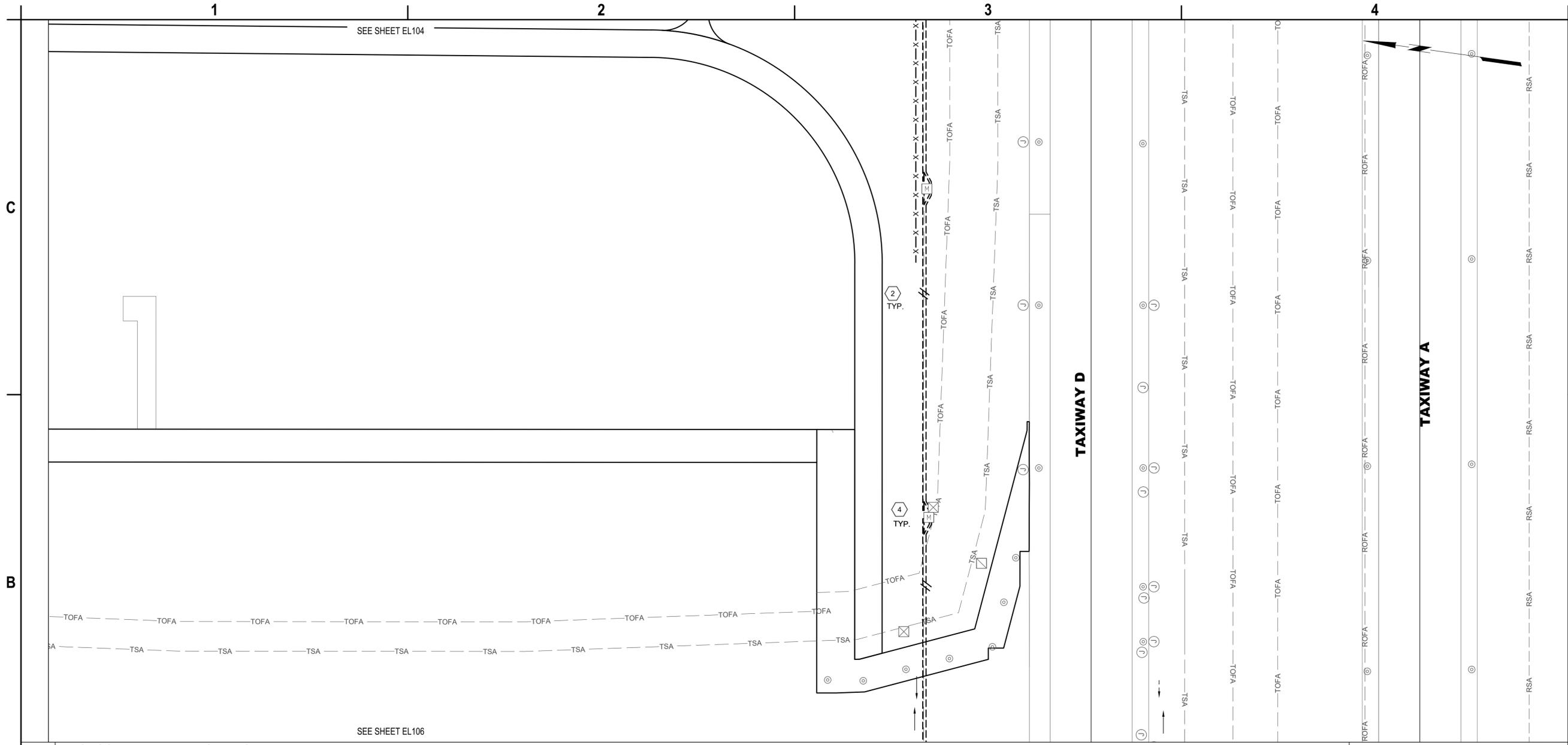
TAXIWAY F&G RECONSTRUCTION (NORTH OF TAXIWAY V, 1,950' X 36'); TAXIWAY F&G AIRFIELD LIGHTING REPLACEMENT
GERALD R. FORD INTERNATIONAL AIRPORT GRAND RAPIDS, MI

MARK	DATE	DESCRIPTION
▲	3/6/2026	ADDENDUM NO.1
REVISIONS		
PROJECT NO: K19.031.001		
DATE: FEBRUARY 2026		
DRAWN BY: A. ALZAMLI		
DESIGNED BY: A. RAHMAN		
CHECKED BY: E. ESSOF		

PROPOSED AIRFIELD LIGHTING PLAN - AREA 4

EL104
SHEET NO. 52 OF 65

Mar 13, 2026 - 11:42am
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B1 PROPOSED AIRFIELD LIGHTING PLAN - AREA 5
SCALE: 1" = 50'



A1 LEGEND
SCALE: NOT TO SCALE

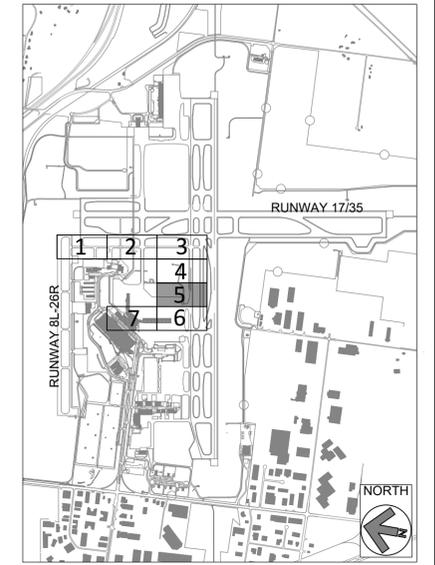
	CKT#
	EXISTING ELECTRICAL DUCT BANK
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	PROPOSED RETROREFLECTIVE 20" MARKER

A2 GENERAL NOTES
SCALE: NOT TO SCALE

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A3 KEYED NOTES
SCALE: NOT TO SCALE

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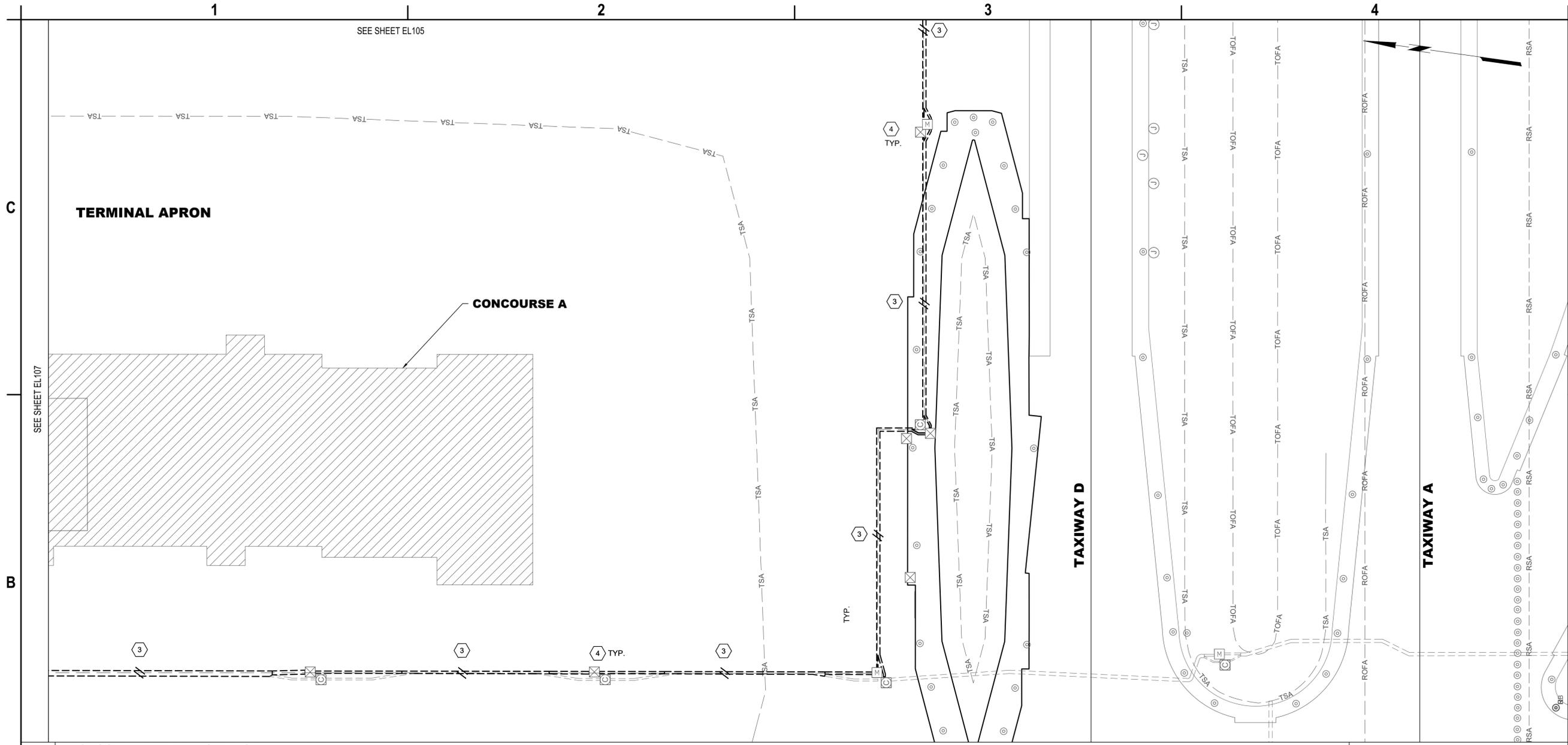
TAXIWAY F&G RECONSTRUCTION (NORTH OF TAXIWAY V, 1,950' X 36'); TAXIWAY F&G AIRFIELD LIGHTING REPLACEMENT
GERALD R. FORD INTERNATIONAL AIRPORT GRAND RAPIDS, MI

MARK	DATE	DESCRIPTION
▲	3/6/2026	ADDENDUM NO.1
REVISIONS		
PROJECT NO: K19.031.001		
DATE: FEBRUARY 2026		
DRAWN BY: A. ALZAMLI		
DESIGNED BY: A. RAHMAN		
CHECKED BY: E. ESSOF		

PROPOSED AIRFIELD LIGHTING PLAN - AREA 5

EL105
SHEET NO. 53 OF 65

Mar 13, 2026 - 11:42am
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B1 PROPOSED AIRFIELD LIGHTING PLAN - AREA 6
SCALE: 1" = 50'



A1 LEGEND
SCALE: NOT TO SCALE

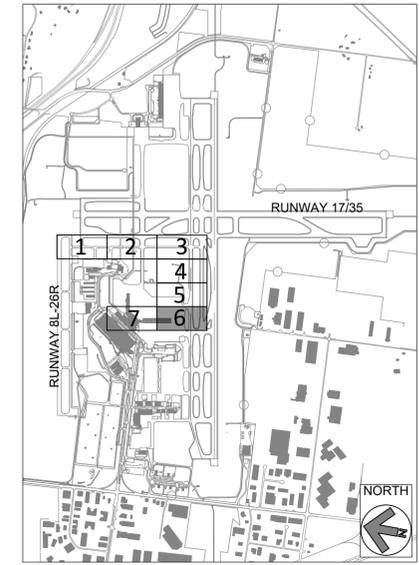
	PROPOSED L-824 5KV CABLE IN 2" PVC CONDUIT. HASH MARKS INDICATE NUMBER OF NEW L-824 CABLES INSTALLED IN CONDUIT. CKT # = CIRCUIT DESIGNATOR
	EXISTING ELECTRICAL DUCT BANK
	PROPOSED ELECTRICAL DUCT BANK
	EXISTING RUNWAY/TAXIWAY EDGE LIGHT TO REMAIN
	PROPOSED L-861T(L) ELEVATED OMNI-DIRECTIONAL MEDIUM INTENSITY TAXIWAY EDGE LIGHT (MITL) INSTALLED ON EXISTING BASE CA. "A" DENOTES QUARTZ FIXTURE. "1" DENOTES FIXTURE NUMBER
	EXISTING AIRFIELD GUIDANCE SIGN TO REMAIN
	PROPOSED AIRFIELD GUIDANCE SIGN, PROVIDE NEW ISOLATION TRANSFORMER
	EXISTING SINGLE BASE CAN TO REMAIN
	EXISTING ELECTRICAL HANDHOLE TO REMAIN
	EXISTING ELECTRICAL MANHOLE TO REMAIN
	PROPOSED ELECTRICAL 4' X 4' MANHOLE
	PROPOSED RETROREFLECTIVE 20" MARKER

A2 GENERAL NOTES
SCALE: NOT TO SCALE

- SEE E001 FOR GENERAL ELECTRICAL NOTES AND ABBREVIATIONS.
- EXACT ROUTING OF CABLES THROUGH EXISTING INFRASTRUCTURE SHALL BE FIELD VERIFIED.
- ALL CIRCUIT FEEDERS TO GUIDANCE SIGNS SHALL CONSIST OF 2/C L-824 5KV CABLES.
- ALL EXISTING CIRCUITS TO REMAIN OPERATIONAL SHALL BE PROTECTED IN PLACE. PROVIDE JUMPERS, AS NEEDED. JUMPERS SHALL BE INCIDENTAL TO PROPOSED L-824 WIRING.
- DURING DEMOLITION, OR MODIFICATIONS OF EXISTING CONDUITS, DUCT BANKS, MANHOLES, HANDHOLES, OR JUNCTION CANS, CONTRACTOR SHALL IDENTIFY CIRCUITS, OTHER THAN CIRCUIT 15 THAT ARE WITHIN THOSE UNDERGROUND ITEMS AND SHALL PROTECT, REPLACE OR REROUTE, AS NEEDED DURING CONSTRUCTION. COSTS SHALL BE INCIDENTAL TO PROPOSED L-824 WIRING.

A3 KEYED NOTES
SCALE: NOT TO SCALE

- APPROXIMATE LOCATION OF EXISTING AIRFIELD LIGHTING ELECTRICAL VAULT. SEE SHEET E202 FOR PROPOSED SCOPE OF WORK. EXACT ROUTING OF "HOMERUN" CONDUITS AND DUCTBANKS TO VAULT SHALL BE FIELD DETERMINED.
- TAXIWAY F&G "HOMERUN" CABLES IN EXISTING DUCTBANK. PROPOSED L-824 CABLES FOR CIRCUIT #15 SHALL BE INSTALLED IN EXISTING CONDUIT. ALL OTHER CIRCUITS SHALL BE PROTECTED IN PLACE.
- TAXIWAY F&G CABLES IN EXISTING CONDUIT. PROPOSED L-824 5KV CABLES FOR CIRCUIT #15, AS MARKED, SHALL BE INSTALLED IN EXISTING CONDUITS AND DUCT BANKS. ALL OTHER CIRCUITS SHALL BE PROTECTED IN PLACE.
- ALL PROPOSED AND EXISTING WIRING TO BE PROPERLY IDENTIFIED, RACKED, AND TAGGED IN EACH MANHOLE ENTERED DURING CONSTRUCTION. PROVIDE A MINIMUM OF ONE (1) LOOP OF WIRING IN EACH MANHOLE FOR EACH NEW CIRCUIT HOMERUN WIRE. CLEAN HOMERUN MANHOLES. ANY DEWATERING SHALL BE INCIDENTAL TO INSTALLATION OF NEW WIRING.
- INSTALL A 4-WAY, 4-INCH DUCT BANK BETWEEN EXISTING MANHOLES TO SERVE NEW TAXIWAY F/G WORK, AS SHOWN.
- ALL NEW MANHOLES SHALL INCLUDE A 4-WAY DUCT BANK CONSISTING OF FOUR 4" CONDUITS. MANHOLES SHALL BE 4' X 4' SQUARE SPRING LOADED LIDS.
- REMOVE JUMPER WIRING AND RECONNECT EXISTING WINDCONE TO CIRCUIT#15 WITH NEW WIRING AND TRANSFORMER
- CONNECT NEW TAXIWAY EDGE LIGHTS TO NEW UNDERDRAIN SYSTEM WHERE INDICATED. COORDINATE EXACT CONNECTION POINTS IN FIELD. MAINTAIN CONTINUITY OF UNDERDRAIN SYSTEM AND VERIFY PROPER SLOPE FOR DRAINAGE PRIOR TO BACKFILL.



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TAXIWAY F&G RECONSTRUCTION (NORTH OF TAXIWAY V, 1,950' X 36'); TAXIWAY F&G AIRFIELD LIGHTING REPLACEMENT
GERALD R. FORD INTERNATIONAL AIRPORT GRAND RAPIDS, MI

MARK	DATE	DESCRIPTION
▲	3/6/2026	ADDENDUM NO.1
REVISIONS		
PROJECT NO: K19.031.001		
DATE: FEBRUARY 2026		
DRAWN BY: A. ALZAMLI		
DESIGNED BY: A. RAHMAN		
CHECKED BY: E. ESSOF		

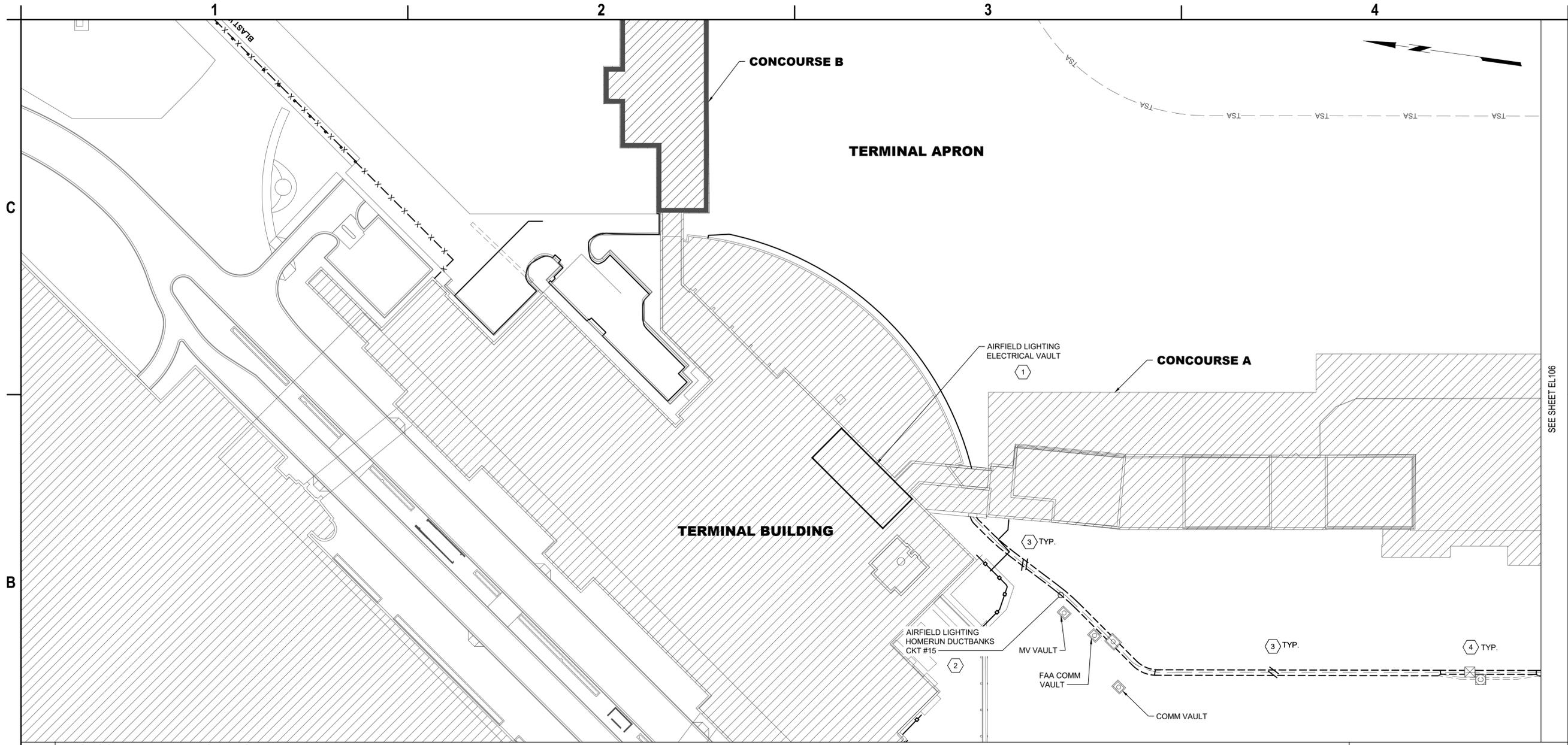
PROPOSED AIRFIELD LIGHTING PLAN - AREA 6

EL106

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B1 PROPOSED AIRFIELD LIGHTING PLAN - AREA 7
SCALE: 1" = 50'

A1 LEGEND
SCALE: NOT TO SCALE

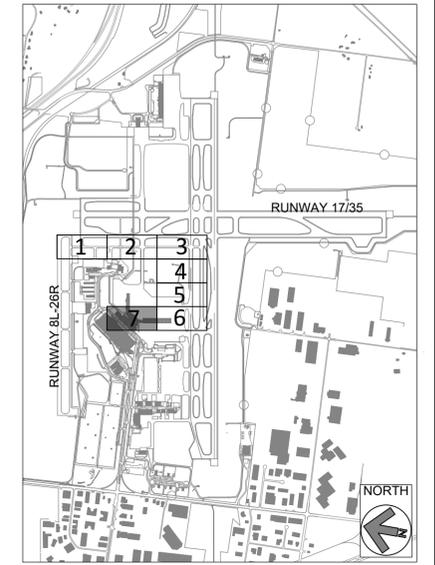
	PROPOSED L-824 5KV CABLE IN 2" PVC CONDUIT. HASH MARKS INDICATE NUMBER OF NEW L-824 CABLES INSTALLED IN CONDUIT. CKT # = CIRCUIT DESIGNATOR
	EXISTING ELECTRICAL DUCT BANK
	PROPOSED ELECTRICAL DUCT BANK
	EXISTING RUNWAY/TAXIWAY EDGE LIGHT TO REMAIN
	PROPOSED L-861T(L) ELEVATED OMNI-DIRECTIONAL MEDIUM INTENSITY TAXIWAY EDGE LIGHT (MITL) INSTALLED ON EXISTING BASE CA. "A" DENOTES QUARTZ FIXTURE. "1" DENOTES FIXTURE NUMBER
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	EXISTING SINGLE BASE CAN TO REMAIN
	EXISTING ELECTRICAL HANDHOLE TO REMAIN
	EXISTING ELECTRICAL MANHOLE TO REMAIN
	PROPOSED ELECTRICAL 4' X 4' MANHOLE
	PROPOSED RETROREFLECTIVE 20" MARKER

A2 GENERAL NOTES
SCALE: NOT TO SCALE

- SEE E001 FOR GENERAL ELECTRICAL NOTES AND ABBREVIATIONS.
- EXACT ROUTING OF CABLES THROUGH EXISTING INFRASTRUCTURE SHALL BE FIELD VERIFIED.
- ALL CIRCUIT FEEDERS TO GUIDANCE SIGNS SHALL CONSIST OF 2/C L-824 5KV CABLES.
- ALL EXISTING CIRCUITS TO REMAIN OPERATIONAL SHALL BE PROTECTED IN PLACE. PROVIDE JUMPERS, AS NEEDED. JUMPERS SHALL BE INCIDENTAL TO PROPOSED L-824 WIRING.
- DURING DEMOLITION, OR MODIFICATIONS OF EXISTING CONDUITS, DUCT BANKS, MANHOLES, HANDHOLES, OR JUNCTION CANS, CONTRACTOR SHALL IDENTIFY CIRCUITS, OTHER THAN CIRCUIT 15 THAT ARE WITHIN THOSE UNDERGROUND ITEMS AND SHALL PROTECT, REPLACE OR REROUTE, AS NEEDED DURING CONSTRUCTION. COSTS SHALL BE INCIDENTAL TO PROPOSED L-824 WIRING.

A3 KEYED NOTES
SCALE: NOT TO SCALE

- APPROXIMATE LOCATION OF EXISTING AIRFIELD LIGHTING ELECTRICAL VAULT. SEE SHEET E202 FOR PROPOSED SCOPE OF WORK. EXACT ROUTING OF "HOMERUN" CONDUITS AND DUCTBANKS TO VAULT SHALL BE FIELD DETERMINED.
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- ALL PROPOSED AND EXISTING WIRING TO BE PROPERLY IDENTIFIED, RACKED, AND TAGGED IN EACH MANHOLE ENTERED DURING CONSTRUCTION. PROVIDE A MINIMUM OF ONE (1) LOOP OF WIRING IN EACH MANHOLE FOR EACH NEW CIRCUIT HOMERUN WIRE. CLEAN HOMERUN MANHOLES. ANY DEWATERING SHALL BE INCIDENTAL TO INSTALLATION OF NEW WIRING.
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GERALD R. FORD INTERNATIONAL AIRPORT GRAND RAPIDS, MI

MARK	DATE	DESCRIPTION
▲	3/6/2026	ADDENDUM NO.1
REVISIONS		
PROJECT NO: K19.031.001		
DATE: FEBRUARY 2026		
DRAWN BY: A. ALZAMLI		
DESIGNED BY: A. RAHMAN		
CHECKED BY: E. ESSOF		

PROPOSED AIRFIELD LIGHTING PLAN - AREA 7

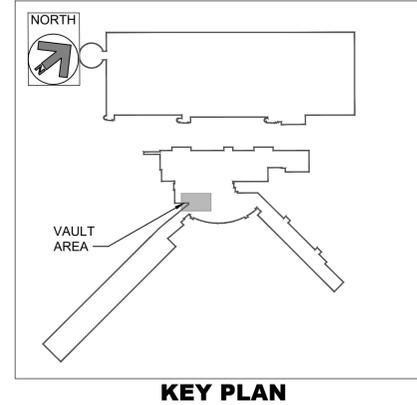
EL107

SHEET NO. 55 OF 65

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REGULATOR SCHEDULE			
CIRCUIT #	CIRCUIT NAME	RATINGS	NOTES
1	TWY A - CENTER	15KW, 3-STEP, 6.6A, 480V, L-829	TO REMAIN
2	TWY A - EAST	15KW, 3-STEP, 6.6A, 480V, L-829	TO REMAIN
3	TWY A - WEST	15KW, 3-STEP, 6.6A, 480V, L-829	TO REMAIN
4	RWY 8R - 26L	15KW, 5-STEP, 6.6A, 480V, L-828	TO REMAIN
5	RWY 8R - 26L RGL'S	7.5KW, 3-STEP, 6.6A, 480V, L-828	TO REMAIN
6	RWY 17 - 35	15KW, 3-STEP, 6.6A, 480V, L-828	TO REMAIN
7	RWY 17 - 35 RGL'S	7.5KW, 3-STEP, 6.6A, 480V, L-828	TO REMAIN
8	TWY K	15KW, 3-STEP, 6.6A, 480V, L-829	TO REMAIN
9	TWY V & B	15KW, 3-STEP, 6.6A, 480V, L-829	TO REMAIN
10	TWY A - 1	4KW, 3-STEP, 6.6A, 480V, L-829	TO REMAIN
11	TWY A - 2	4KW, 3-STEP, 6.6A, 480V, L-829	TO REMAIN
12	TWY D - WEST	20KW, 3-STEP, 6.6A, 480V, L-829	TO REMAIN
13	-----	-----	-----
14	TWY B - SOUTH	15KW, 3-STEP, 6.6A, 480V, L-829	TO REMAIN
15	TWY F & G	15KW, 3-STEP, 6.6A, 480V, L-829	TO BE REPLACED
16	TWY D - EAST	15KW, 3-STEP, 6.6A, 480V, L-829	TO REMAIN
17	TWY D - CENTER	15KW, 3-STEP, 6.6A, 480V, L-829	TO REMAIN
18	TWY B - NORTH	7.5KW, 3-STEP, 6.6A, 480V, L-829	TO REMAIN
19	TWY J - WEST	10KW, 3-STEP, 6.6A, 480V, L-829	TO REMAIN
19S	SPARE	30KW, 5-STEP, 6.6A, 480V, L-829	TO REMAIN
20	TWY J - EAST	10KW, 3-STEP, 6.6A, 240V, L-829	TO REMAIN
20S	SPARE	30KW, 5-STEP, 6.6A, 480V, L-828	TO REMAIN
21	RWY 8L - 26R	20KW, 3-STEP, 6.6A, 240V, L-828	TO REMAIN
22	TWY B - 4	4KW, 3-STEP, 6.6A, 480V, L-829	TO REMAIN
23	-----	-----	-----
24	-----	-----	-----
25	TWY V - EAST, L, N	10KW, 3-STEP, 6.6A, 480V, L-829	TO REMAIN



KEY PLAN

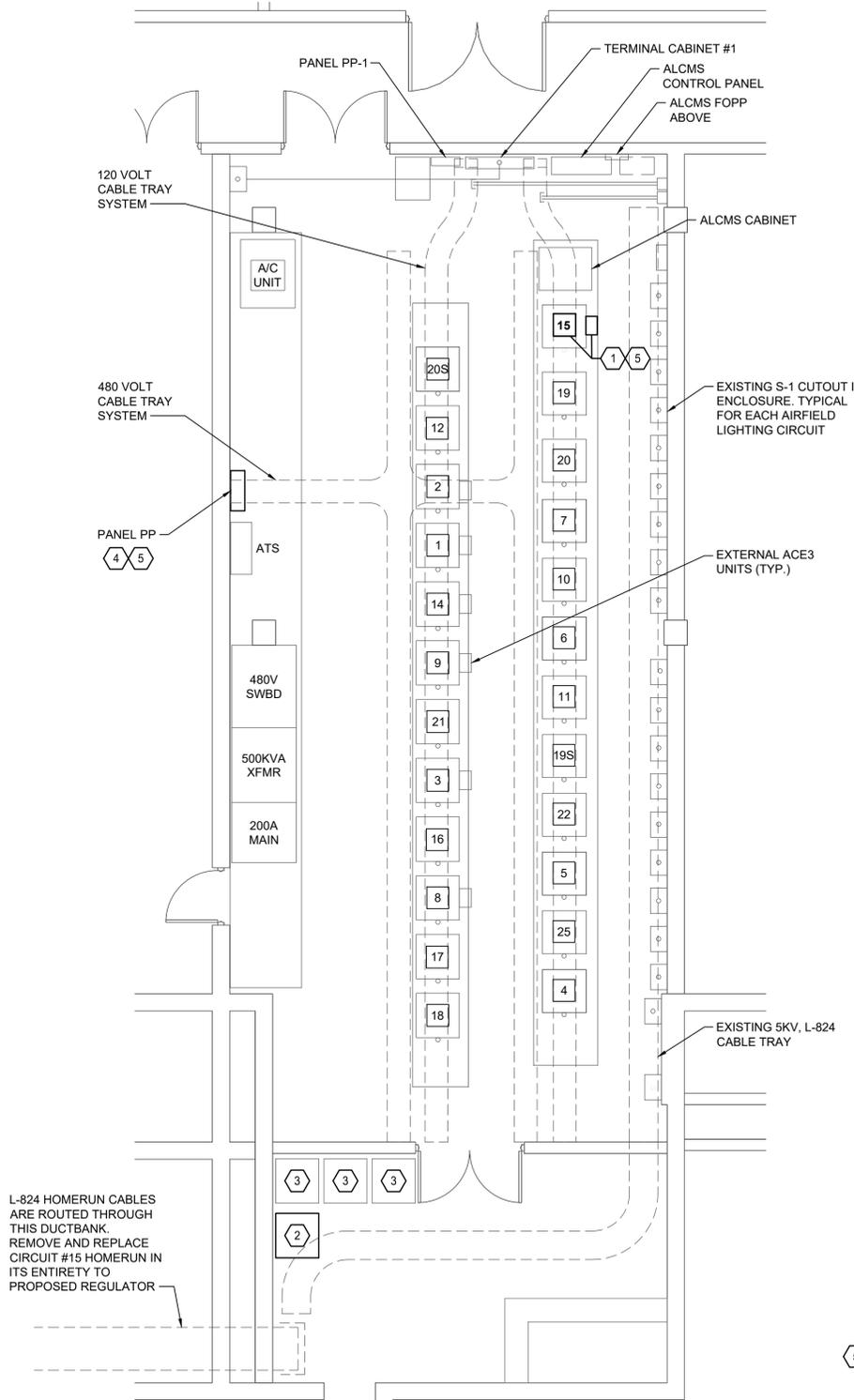
GENERAL NOTES:

- EXISTING CONSTANT CURRENT REGULATOR BEING REPLACED SHALL BE RELOCATED AS SHOWN ON THE PLANS. EXACT LOCATION TO BE CONFIRMED WITH THE AIRPORT. REMOVAL AND REPLACEMENT SHALL BE DONE AT THE SAME TIME TO MINIMIZE DOWN TIME AND ONLY AFTER AIRFIELD CIRCUIT HAS BEEN COMPLETELY REPLACED, TESTED, MEGGERED, AND ACCEPTED BY AIRPORT AND ENGINEER.
- CONTRACTOR SHALL FOLLOW ALL AIRPORT LOCK-OUT-TAG-OUT PROCEDURES WHILE WORKING IN THE AIRFIELD LIGHTING ELECTRICAL VAULT.
- ANY DOWN TIME FOR AIRFIELD CIRCUITS SHALL BE APPROVED IN ADVANCE, IN WRITING, AND SHALL BE COMPLETED WITHIN A SINGLE TIME PERIOD, WHICH SHALL BE ESTIMATED BY THE CONTRACTOR AND APPROVED BY THE AIRPORT AND ENGINEER.

KEYED NOTES:

- EXISTING CIRCUIT 15, TWY F&G CCR AND ACE3 UNIT TO BE DISCONNECTED FROM EXISTING POWER, CONTROLS AND GROUNDING AND RELOCATED TO
- EXISTING CIRCUIT 15, TWY F&G CCR TO BE RELOCATED TO THIS LOCATION AND LEFT DISCONNECTED FROM POWER, CONTROLS AND GROUNDING.
- EXISTING SPARE REGULATORS TO REMAIN.
- EXISTING PANEL "PP". RATED 277/480V, 3-PHASE, 4-WIRE, WITH 500A MCB. SEE SCHEDULE THIS SHEET.
- EXISTING CIRCUIT BREAKER AND WIRING FOR TAXIWAY CIRCUIT 15, TO TW F&G CCR TO BE REPLACED. CONDUITS TO BE REUSED AND EXTENDED OR MODIFIED AS NEEDED FOR INSTALLATION OF NEW CCR.

EXISTING PANEL "PP" SCHEDULE												
DESIGNATION: PANEL "PP" LOCATION: BLDG 100, ROOM 028 VOLTAGE: 480/277 VOLTS PHASE: 3 PHASE, 4 WIRE						MAIN: 500 AMP MAIN CIRCUIT BREAKER BUS RATING: 600 AMP PANEL MOUNTING: SURFACE AIC RATING: 18 KAIC						
CKT. NO.	LOAD DESCRIPTION	CKT. BKR.			KVA			CKT. BKR.			LOAD DESCRIPTION	CKT. NO.
		KVA	AMPS	POLE	A	B	C	AMPS	POLE	KVA		
1	CKT. 4 RUNWAY 8R-26L	16.62	80	2	33.24			80	2	16.62	CKT. 5 RUNWAY 8R-26L RGLS	2
3	CKT. 4 RUNWAY 8R-26L	16.62	80		33.24			80		16.62	CKT. 5 RUNWAY 8R-26L RGLS	4
5	CKT. 19 BACK-UP 30KW CCR	16.62	80	2			33.24	80	2	16.62	CKT. 6 RUNWAY 17-35	6
7	CKT. 19 BACK-UP 30KW CCR	16.62	80		33.24			80		16.62	CKT. 6 RUNWAY 17-35	8
9	CKT. 7 RUNWAY 17-35 RGLS	16.62	80	2			29.27	40	2	12.65	CKT. 17 TAXIWAY D-CENTER	10
11	CKT. 7 RUNWAY 17-35 RGLS	16.62	80				29.27	40		12.65	CKT. 17 TAXIWAY D-CENTER	12
13	CKT. 16 TAXIWAY D-EAST	13.1	40	2	27.91			60	2	14.81	CKT. 12 TAXIWAY D-WEST	14
15	CKT. 16 TAXIWAY D-EAST	13.1	40		27.91			60		14.81	CKT. 12 TAXIWAY D-WEST	16
17	CKT. 3 TAXIWAY A-WEST	8.86	40	2			17.72	40	2	8.86	CKT. 1 TAXIWAY A-CENTER	18
19	CKT. 3 TAXIWAY A-WEST	8.86	40		17.72			40		8.86	CKT. 1 TAXIWAY A-CENTER	20
21	CKT. 2 TAXIWAY A-EAST	8.86	40	2		13.29		20	2	4.43	SPARE	22
23	CKT. 2 TAXIWAY A-EAST	8.86	40			13.29		20		4.43	SPARE	24
25	CKT. 18 TAXIWAY B-NORTH	4.43	20	2	13.29			40	2	8.86	CKT. 14 TAXIWAY B-SOUTH	26
27	CKT. 18 TAXIWAY B-NORTH	4.43	20		13.29			40		8.86	CKT. 14 TAXIWAY B-SOUTH	28
29	CKT. 8 TAXIWAY K	8.86	40	2			17.72	40	2	8.86	CKT. 9 TAXIWAY V & B	30
31	CKT. 8 TAXIWAY K	8.86	40		17.72			40		8.86	CKT. 9 TAXIWAY V & B	32
33	CKT. 15 TAXIWAY F & G	8.86	40	2		17.72		40	2	8.86	SPARE	34
35	CKT. 15 TAXIWAY F & G	8.86	40			17.72		40		8.86	SPARE	36
37	NB WME ASOS	4.43	20	1	8.86			20	2	4.43	TOWER PANEL	38
39	NB WME ASOS	4.43	20	1		8.86		20	2	4.43	TOWER PANEL	40
41	CKT. 10 TAXIWAY A-1	4.43	20	1			8.86	20	2	4.43	CKT. 22 TAXIWAY B-4	42
43	CKT. 10 TAXIWAY A-1	4.43	20	1	8.86			20		4.43	CKT. 22 TAXIWAY B-4	44
45	CKT. 11 TAXIWAY A-2	4.43	20	1		11.07		30	2	6.64	CKT. 25 TAXIWAY V-EAST, L, N	46
47	CKT. 11 TAXIWAY A-2	4.43	20	1		11.07		30		6.64	CKT. 25 TAXIWAY V-EAST, L, N	48
49					0.00							50
51						0.00						52
53							0.00					54
55					0.00							56
57						0.00						58
59							0.00					60
TOTAL CONNECTED LOAD:		160.84	154.65	148.89	TOTAL =			464.38				



AIRFIELD LIGHTING ELECTRICAL VAULT DEMOLITION PLAN

SCALE: N.T.S.

RS&H
 RS&H Michigan, Inc.
 436 S. MAIN STREET
 PLYMOUTH, MICHIGAN 48170
 PH: 734-456-7069
 FAX: 1-800-464-4358
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TAXIWAY F&G RECONSTRUCTION (NORTH OF TAXIWAY V, 1,950' X 36'); TAXIWAY F&G AIRFIELD LIGHTING REPLACEMENT
GERALD R. FORD INTERNATIONAL AIRPORT GRAND RAPIDS, MI

MARK	DATE	DESCRIPTION
3/6/2026		ADDENDUM NO.1

REVISIONS

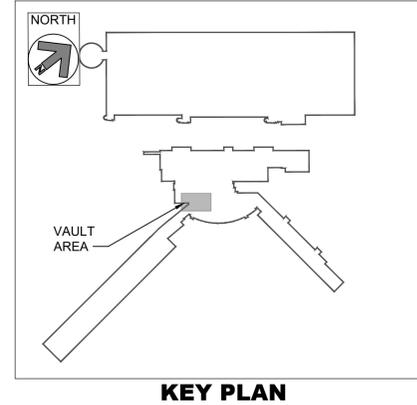
PROJECT NO: K19.031.001
 DATE: FEBRUARY 2026
 DRAWN BY: A. ALZAMLI
 DESIGNED BY: A. RAHMAN
 CHECKED BY: E. ESSOF

AIRFIELD LIGHTING VAULT DEMOLITION PLAN

E201

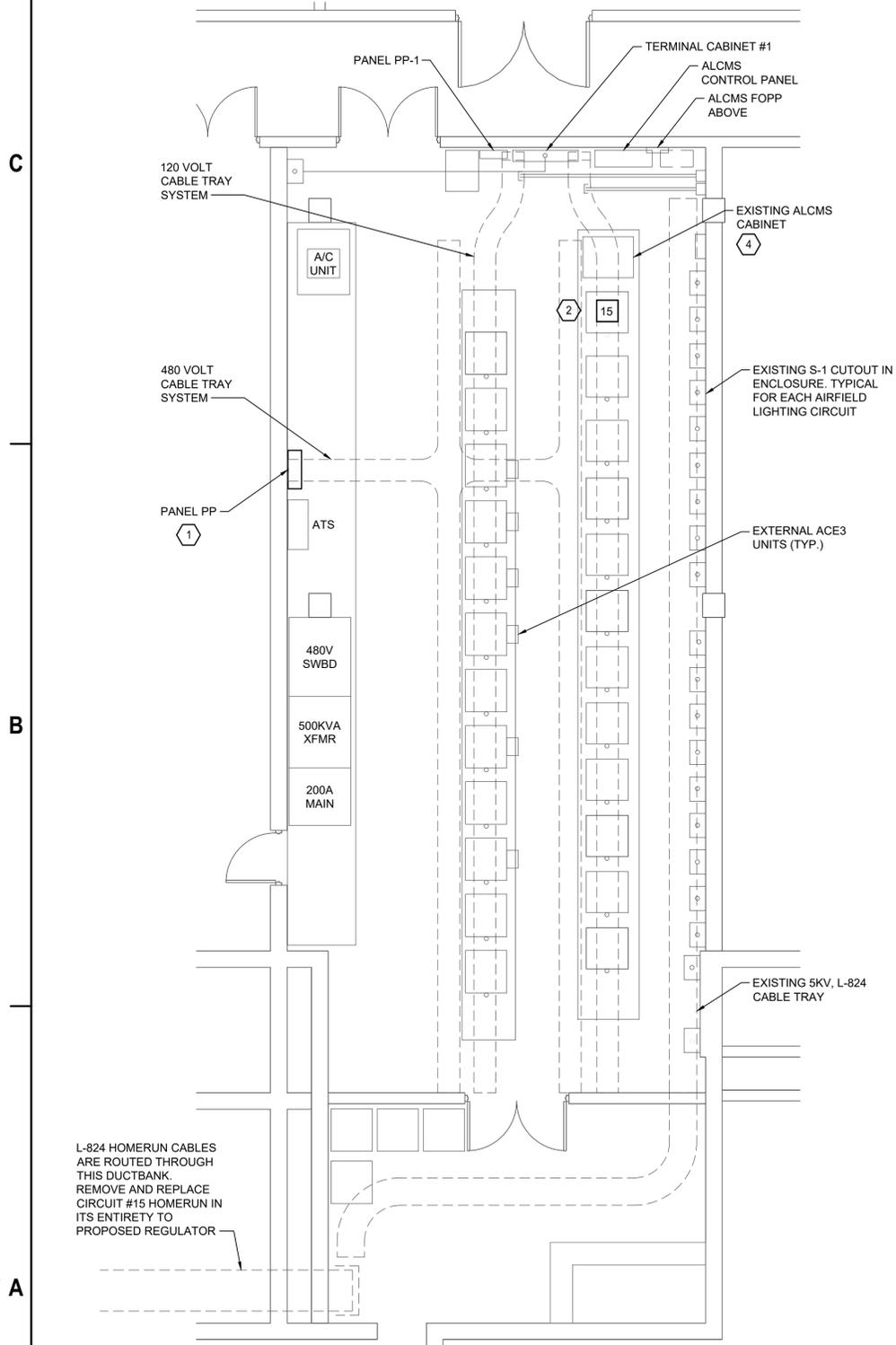
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PROPOSED REGULATOR SCHEDULE			
CIRCUIT #	CIRCUIT NAME	RATINGS	NOTES
15	TWY F&G	10KW, 3-STEP, 6.6A, 480V, L-829	① ③ ④



KEY PLAN

EXISTING PANEL "PP" SCHEDULE												
DESIGNATION: PANEL "PP"						MAIN: 500 AMP MAIN CIRCUIT BREAKER						
LOCATION: BLDG 100, ROOM 028						BUS RATING: 600 AMP						
VOLTAGE: 480/277 VOLTS						PANEL MOUNTING: SURFACE						
PHASE: 3 PHASE, 4 WIRE						AIC RATING: 18 KAIC						
CKT. NO.	LOAD DESCRIPTION	KVA	AMPS	POLE	KVA	AMPS	POLE	KVA	LOAD DESCRIPTION	CKT. NO.		
1	CKT. 4 RUNWAY 8R-26L	16.62	80	2	33.24			80	2	16.62	CKT. 5 RUNWAY 8R-26L RGLS	2
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7	CKT. 19 BACK-UP 30KW CCR	16.62	80		33.24			80		16.62	CKT. 6 RUNWAY 17-35	8
9	CKT. 7 RUNWAY 17-35 RGLS	16.62	80	2				29.27	40	2	12.65	CKT. 17 TAXIWAY D-CENTER
11	CKT. 7 RUNWAY 17-35 RGLS	16.62	80					29.27	40		12.65	CKT. 17 TAXIWAY D-CENTER
13	CKT. 16 TAXIWAY D-EAST	13.1	40	2	27.91			60	2	14.81	CKT. 12 TAXIWAY D-WEST	14
15	CKT. 16 TAXIWAY D-EAST	13.1	40		27.91			60		14.81	CKT. 12 TAXIWAY D-WEST	16
17	CKT. 3 TAXIWAY A-WEST	8.86	40	2				17.72	40	2	8.86	CKT. 1 TAXIWAY A-CENTER
19	CKT. 3 TAXIWAY A-WEST	8.86	40		17.72			40		8.86	CKT. 1 TAXIWAY A-CENTER	20
21	CKT. 2 TAXIWAY A-EAST	8.86	40	2				13.29	20	2	4.43	SPARE
23	CKT. 2 TAXIWAY A-EAST	8.86	40					13.29	20		4.43	SPARE
25	CKT. 18 TAXIWAY B-NORTH	4.43	20	2	13.29			40	2	8.86	CKT. 14 TAXIWAY B-SOUTH	26
27	CKT. 18 TAXIWAY B-NORTH	4.43	20		13.29			40		8.86	CKT. 14 TAXIWAY B-SOUTH	28
29	CKT. 8 TAXIWAY K	8.86	40	2				17.72	40	2	8.86	CKT. 9 TAXIWAY V & B
31	CKT. 8 TAXIWAY K	8.86	40		17.72			40		8.86	CKT. 9 TAXIWAY V & B	32
33	CKT. 15 TAXIWAY F & G	8.86	40	2				17.72	40	2	8.86	SPARE
35	CKT. 15 TAXIWAY F & G	8.86	40					17.72	40		8.86	SPARE
37	NB WME ASOS	4.43	20	1	8.86			20	2	4.43	TOWER PANEL	38
39	NB WME ASOS	4.43	20	1	8.86			20		4.43	TOWER PANEL	40
41	CKT. 10 TAXIWAY A-1	4.43	20	1				8.86	20	2	4.43	CKT. 22 TAXIWAY B-4
43	CKT. 10 TAXIWAY A-1	4.43	20	1	8.86			20		4.43	CKT. 22 TAXIWAY B-4	44
45	CKT. 11 TAXIWAY A-2	4.43	20	1				11.07	30	2	6.64	CKT. 25 TAXIWAY V-EAST, L, N
47	CKT. 11 TAXIWAY A-2	4.43	20	1				11.07	30		6.64	CKT. 25 TAXIWAY V-EAST, L, N
49					0.00							50
51					0.00							52
53								0.00				54
55					0.00							56
57								0.00				58
59								0.00				60
TOTAL CONNECTED LOAD:					160.84	154.65	148.89	TOTAL = 464.38				



L-824 HOMERUN CABLES ARE ROUTED THROUGH THIS DUCTBANK. REMOVE AND REPLACE CIRCUIT #15 HOMERUN IN ITS ENTIRETY TO PROPOSED REGULATOR

1 AIRFIELD LIGHTING ELECTRICAL VAULT PROPOSED PLAN
E201 SCALE: N.T.S

GENERAL NOTES:

- EXISTING CONSTANT CURRENT REGULATOR BEING REPLACED SHALL BE RELOCATED AS SHOWN ON THE PLANS. EXACT LOCATION TO BE CONFIRMED WITH THE AIRPORT. REMOVAL AND REPLACEMENT SHALL BE DONE AT THE SAME TIME TO MINIMIZE DOWN TIME AND ONLY AFTER AIRFIELD CIRCUIT HAS BEEN COMPLETELY REPLACED, TESTED, MEGGERED, AND ACCEPTED BY AIRPORT AND ENGINEER.
- CONTRACTOR SHALL FOLLOW ALL AIRPORT LOCK-OUT-TAG-OUT PROCEDURES WHILE WORKING IN THE AIRFIELD LIGHTING ELECTRICAL VAULT.
- ANY DOWN TIME FOR AIRFIELD CIRCUITS SHALL BE APPROVED IN ADVANCE, IN WRITING, AND SHALL BE COMPLETED WITHIN A SINGLE TIME PERIOD, WHICH SHALL BE ESTIMATED BY THE CONTRACTOR AND APPROVED BY THE AIRPORT AND ENGINEER.

KEYED NOTES:

- REPLACE EXISTING 2-POLE CIRCUIT BREAKER FOR TAXIWAY CIRCUIT 15 WITH NEW 40A, 2-POLE CIRCUIT BREAKER (EVEN IF SAME SIZE). REPLACE WIRING BETWEEN PANEL "PP" TO NEW CCR WITH 2#8 THWN, #10G IN EXISTING CONDUITS (EVEN IF SAME SIZE). EXTEND CONDUITS (RIGID AND FLEXIBLE) AS NEEDED FOR INSTALLATION OF NEW CCR. REPLACE GROUND WIRE BETWEEN CCR AND GROUND BUS TO MATCH EXISTING.
- PROPOSED 10KW, 480V, 6.6A, 3-STEP CCR SHALL BE ADB SAFEGATE (WITH ACE3, IRMS, INPUT POWER MONITOR) OR EQUAL. CONTRACTOR SHALL REESTABLISH PRIMARY POWER, CONTROLS AND SKV "HOMERUN" COMPLETE AND OPERATIONAL. ANY ITEMS REQUIRED FOR REPLACEMENT SHALL BE PROVIDED. TRANSFER NAMEPLATES FROM OLD CCR TO NEW CCR. NEW CCR SHALL BE COMPLETELY COMPATIBLE WITH EXISTING ALCMS AND SHALL MATCH ALL EXISTING CONTROLS, TESTING AND MONITORING CAPABILITIES. REPROGRAM NEW CCR WITH EXISTING ALCMS, AS NEEDED.
- EXISTING CONTROL WIRING AND CONDUITS SHALL BE REUSED AND EXTENDED, AS NEEDED, TO ACCOMMODATE NEW CCR CONNECTION POINTS.
- EXISTING ALCMS SYSTEM SHALL BE MODIFIED TO SHOW NEW TW F&G GEOMETRY ON ALL SCREENS. EXISTING CCR CONTROL TO BE TIED TO NEW CCR.



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GERALD R. FORD INTERNATIONAL AIRPORT GRAND RAPIDS, MI

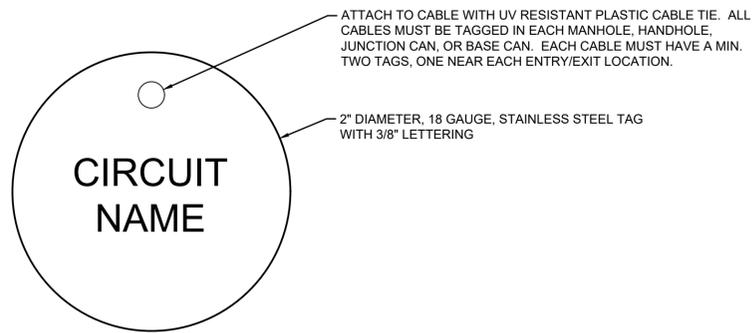
MARK	DATE	DESCRIPTION
1	3/6/2026	ADDENDUM NO.1
REVISIONS		
PROJECT NO: K19.031.001		
DATE: FEBRUARY 2026		
DRAWN BY: A. ALZAMLI		
DESIGNED BY: A. RAHMAN		
CHECKED BY: E. ESSOF		

AIRFIELD LIGHTING VAULT PROPOSED PLAN

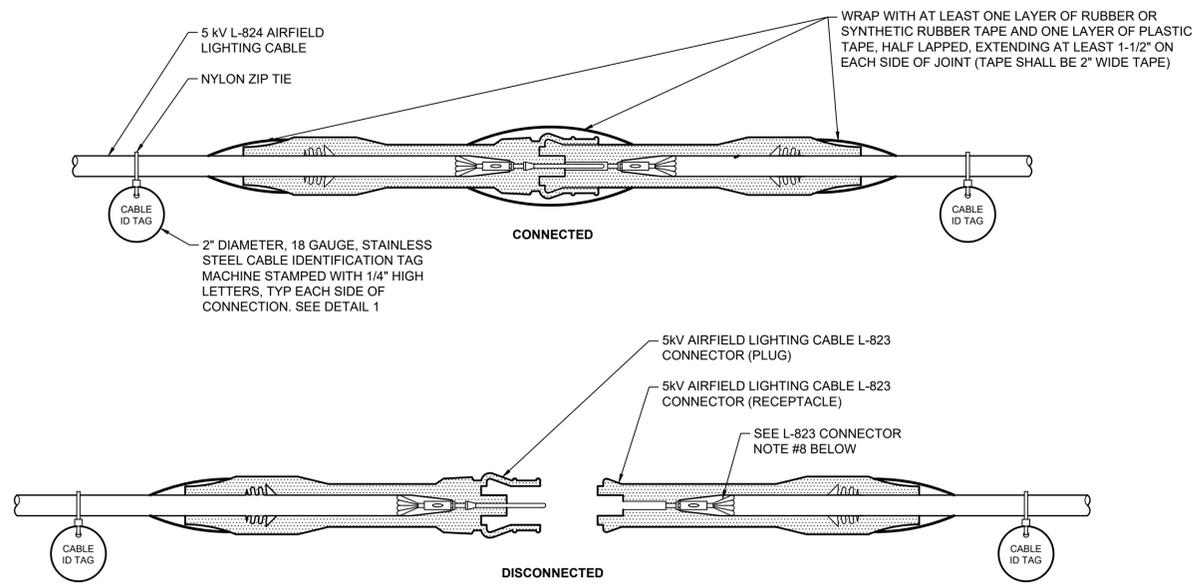
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TAXIWAY CABLE TAGGING SCHEDULE	
EXISTING CIRCUIT DESIGNATION	PROPOSED CIRCUIT NAME
TAXIWAY F&G	TW F&G CKT. 15



1 **CABLE ID TAG AND TAGGING SCHEDULE DETAIL**
E301 SCALE: N.T.S



L-823 CONNECTOR NOTES:

- L-823 CONNECTOR MUST BE INTEGRO "COMPLETE KIT" (PART 11805-01) OR EQUIVALENT.
- COORDINATE OUTSIDE DIAMETER OF EACH CABLE TYPE WITH ITS RESPECTIVE CONNECTOR KIT IN ORDER TO ASSURE WATERTIGHT CONNECTION BETWEEN CABLES AND CONNECTOR BOOTS.
- FOLLOW ALL CONNECTOR MANUFACTURER'S CABLE CLEANING, CABLE PREPARATION, AND CONNECTOR INSTALLATION INSTRUCTIONS.
- CONTRACTOR MUST USE CRIMPING TOOL MANUFACTURED BY, OR SPECIFICALLY RECOMMENDED BY, CONNECTOR MANUFACTURER WHEN INSTALLING CONNECTOR PINS AND CONNECTOR RECEPTACLES. TURN OVER CRIMPING TOOL TO AIRPORT UPON PROJECT COMPLETION.
- ATTACH CABLE IDENTIFICATION TAGS ON BOTH SIDES OF CONNECTION.
- ATTACH CABLE IDENTIFICATION TAG TO CABLE WITH NYLON ZIP TIE, TIGHTEN ZIP TIE TO HOLD CABLE IDENTIFICATION TAG IN PLACE WITHOUT COMPRESSING CABLE INSULATION, TRIM OFF EXCESS ZIP TIE AFTER TIGHTENING.
- COORDINATE CIRCUIT NAMING CONVENTION OF CABLE IDENTIFICATION TAGS, ALONG WITH SIZE OF CABLE IDENTIFICATION TAGS, WITH OWNER PRIOR TO ORDERING AND INSTALLING CABLE IDENTIFICATION TAGS.
- USE PROPERLY SIZED AIRFIELD LIGHTING CABLE INSULATION STRIPPER/PENCILER (RIPLEY UTILITY TOOL WS 49 SERIES OR APPROVED EQUIVALENT) TO REMOVE INSULATION, KNIVES OR BOX CUTTERS MUST NOT BE USED. TURN OVER INSULATION STRIPPER/PENCILER TOOL TO AIRPORT UPON PROJECT COMPLETION.

2 **L-823 5kV AIRFIELD LIGHTING CABLE CONNECTOR DETAIL**
E301 SCALE: N.T.S



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GERALD R. FORD INTERNATIONAL AIRPORT GRAND RAPIDS, MI**

MARK	DATE	DESCRIPTION
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Δ	3/6/2026	ADDENDUM NO.1
REVISIONS		
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DESIGNED BY: A. RAHMAN		
CHECKED BY: E. ESSOF		

GENERAL ELECTRICAL DETAILS

E301

SHEET NO. 58 OF 65

1

2

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B

A

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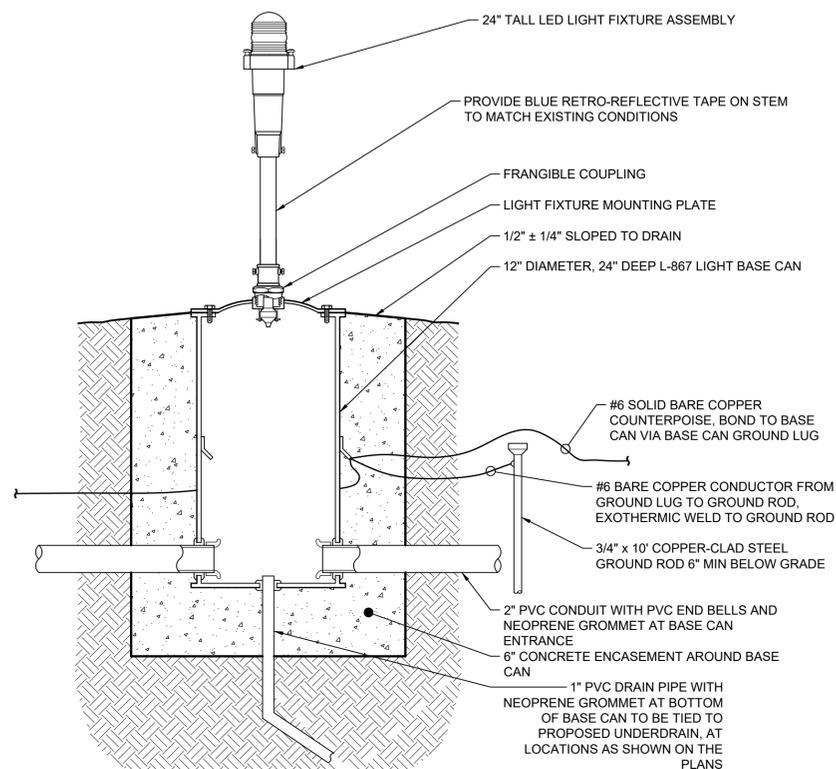
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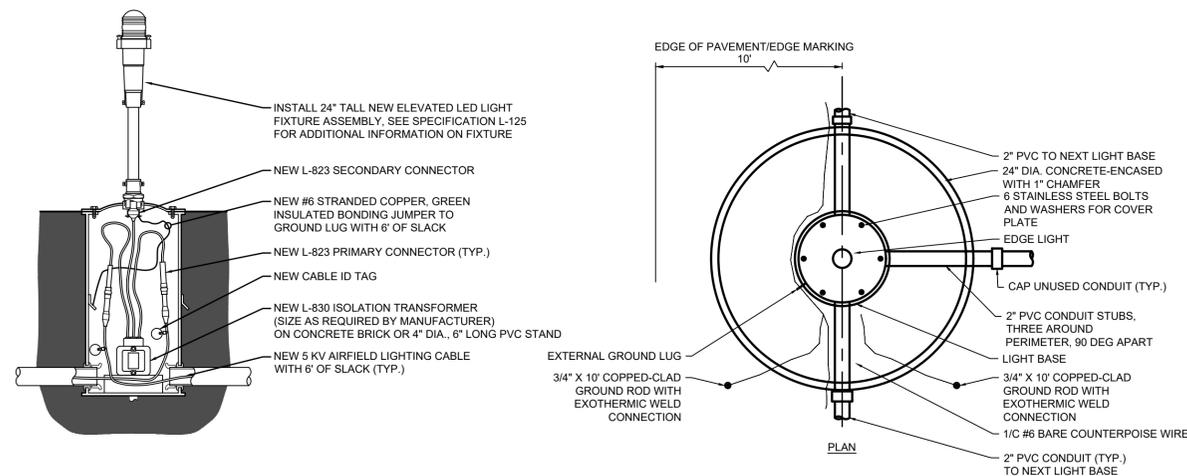
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GERALD R. FORD INTERNATIONAL AIRPORT GRAND RAPIDS, MI



ELEVATED TAXIWAY LIGHT NOTES:

1. FIXTURE STEMS SHALL BE PROVIDED WITH RETRO-REFLECTIVE TAPE, TO MATCH EXISTING FIXTURES.
2. PROVIDE ALL NEW HARDWARE.
3. USE ANTI-SEIZE COMPOUND ON ALL BOLTS.
4. EXISTING FIXTURE ASSEMBLIES, BASE CANS, AND TRANSFORMERS THAT ARE REMOVED SHALL BE TURNED OVER TO THE AIRPORT. IF AIRPORT ELECTS NOT TO KEEP THEM, CONTRACTOR SHALL PROPERLY REMOVE OFF SITE.
5. EXISTING WIRING THAT IS REMOVED SHALL BE DISPOSED OFF SITE.
6. NEW LED LIGHTING SHALL NOT HAVE ARCTIC KITS.

1 PROPOSED ELEVATED TAXIWAY EDGE LIGHT IN TURF DETAIL
 SCALE: N.T.S.



2 ELEVATED LIGHT FIXTURE ELECTRICAL CONNECTIONS DETAILS
 SCALE: N.T.S.

ELEVATED FIXTURE SCHEDULE			
DESCRIPTION	FIXTURE TYPE	MOUNTING TYPE	FIXTURE MOUNTING HEIGHT
TAXIWAY EDGE LIGHT	L-861(L)	BASE	24'

MARK	DATE	DESCRIPTION
△	3/6/2026	ADDENDUM NO.1

REVISIONS

PROJECT NO:	K19.031.001
DATE:	FEBRUARY 2026
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GENERAL ELECTRICAL DETAILS

E302

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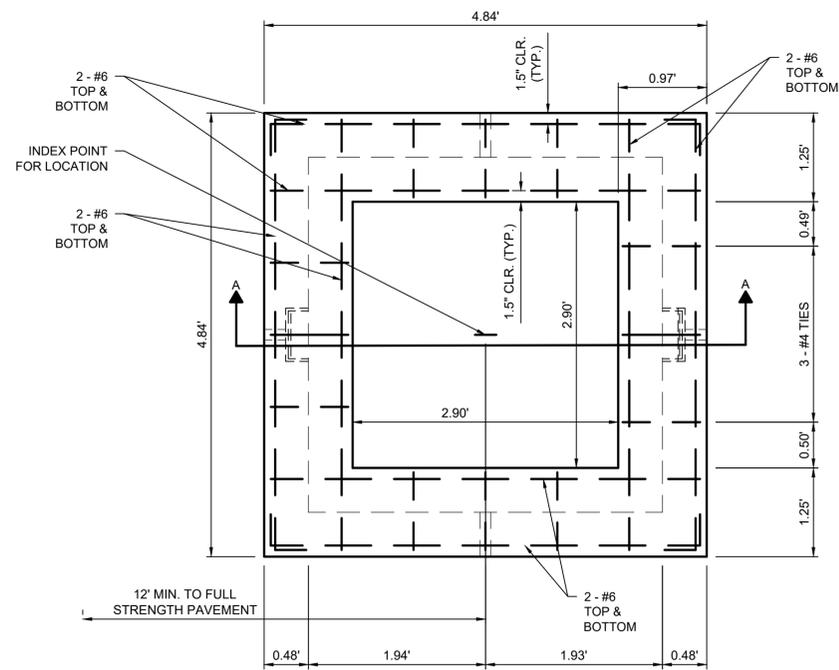
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GENERAL ELECTRICAL DETAILS

E303

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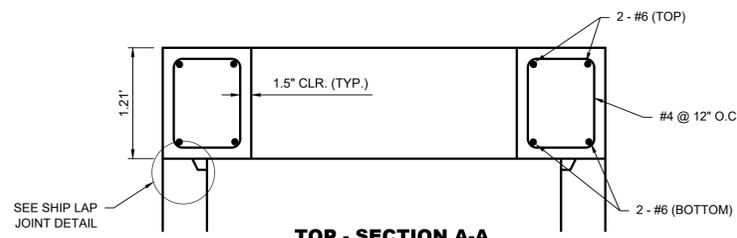


NOTES:

- SHOP DWG. OF HANDHOLE REQUIRED - B777-300ER SERIES MAIN GEAR DESIGN LOAD CONC. TO HAVE 5000 PSI (MIN) COMPRESSIVE STRENGTH @ 28 DAYS.
- ALL ENTRANCES MUST BE WATERPROOFED & GROUTED SMOOTH ON THE INSIDE.
- ALL HANDHOLES SHALL BE INSTALLED WITH NEW GROUND RODS.
- PROPOSED HANDHOLES SHALL BE FAA APPROVED.

PLAN VIEW

NTS

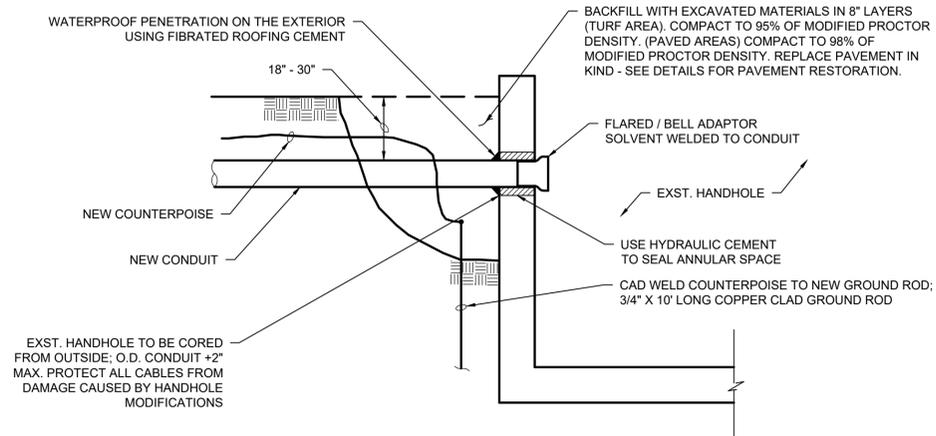


TOP - SECTION A-A

NTS

1 HANDHOLE DETAIL

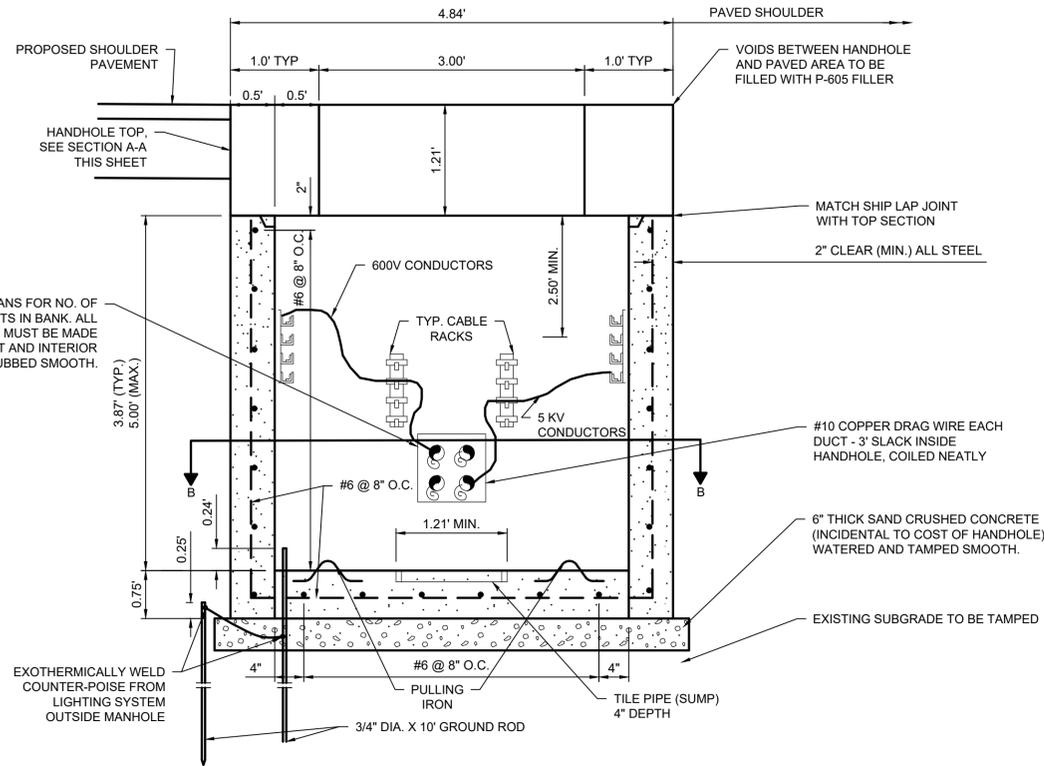
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4 CONDUIT PENETRATION OF EXISTING HANDHOLE DETAIL

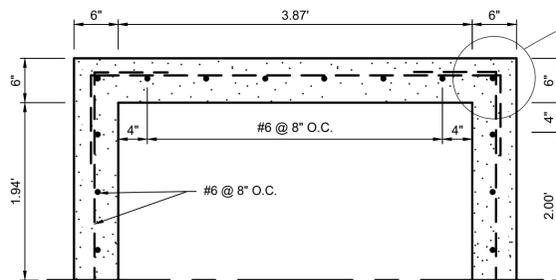
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ALL MATERIALS, LABOR, EQUIPMENT AND RESTORATION ARE TO BE CONSIDERED AS INCIDENTAL TO ITEM L-110.



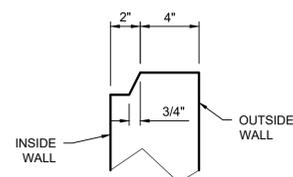
2 HANDHOLE - BOTTOM SECTION

NTS



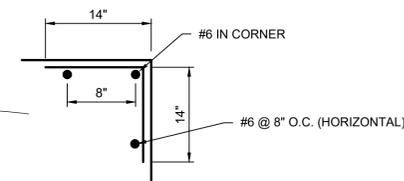
HANDHOLE BOTTOM - SECTION B-B

NTS



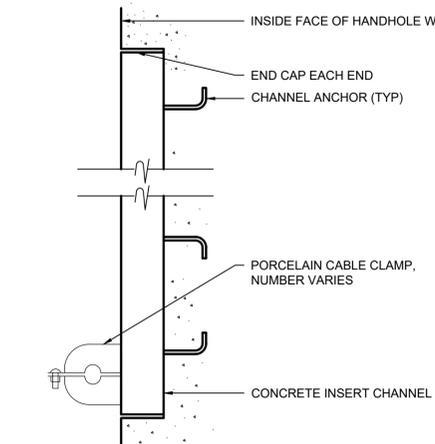
5 SHIP LAP JOINT DETAIL

NTS



3 CORNER REINFORCEMENT

NTS



6 CABLE SUPPORT BRACKET

NTS

NOTE: ALL COMPONENTS TO BE OF SAME MANUFACTURER

NOTES:

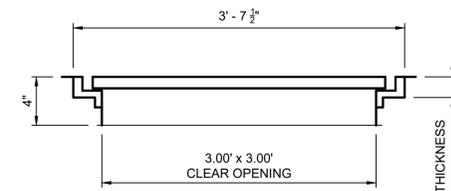
- INSTALL IN TURF AREA AS SHOWN ON THE SITE PLANS.
- BOND GROUND WIRE TO ALL EXPOSED METAL.
- BOND COUNTERPOISE WIRE TO GROUND RODS TO MAINTAIN THE COMBINED COUNTERPOISE/GROUND SYSTEM USED FOR GROUNDING EXISTING LIGHTS, EQUIPMENT, ETC.
- COST OF PULLING IRONS, SPLIT DUCTS WHERE REQUIRED, CABLE SUPPORT RACKS, GROUND RODS AND CONNECTIONS ARE INCIDENTAL TO HANDHOLES AND NO SEPERATE PAYMENT WILL BE MADE.

1

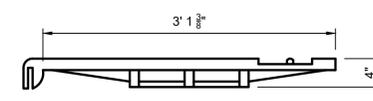
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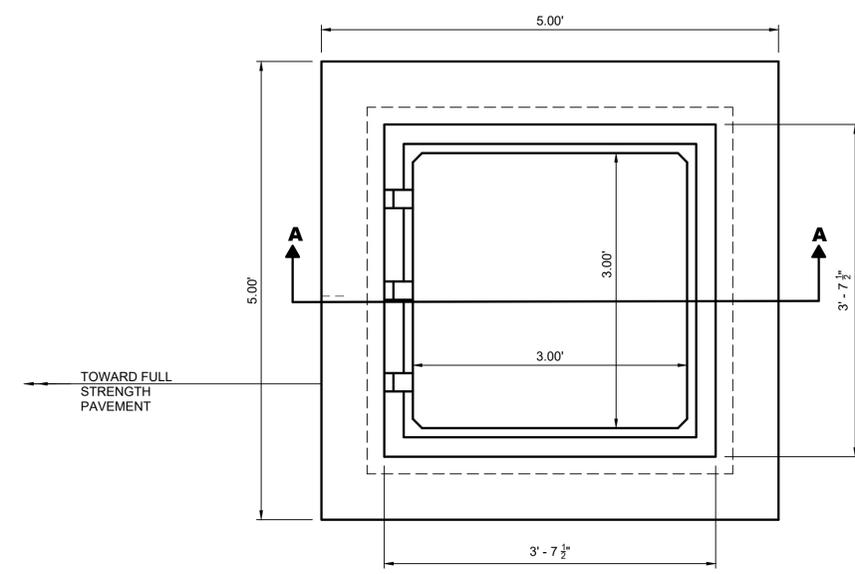
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SECTION A-A
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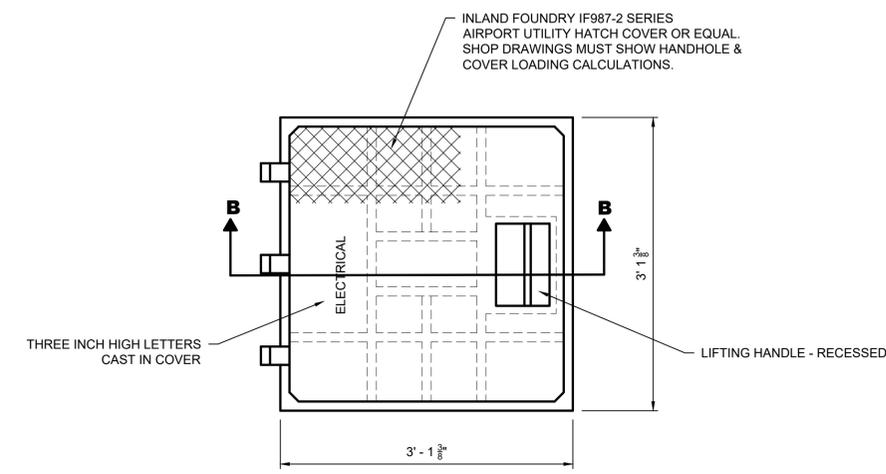


SECTION B-B



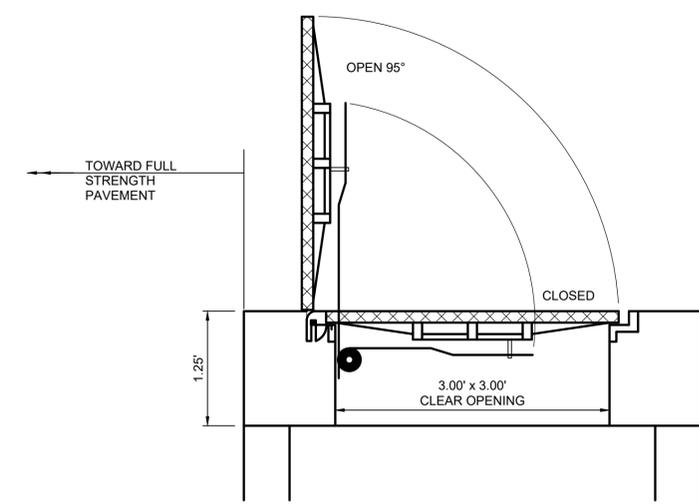
PLAN VIEW

1 FRAME AND HATCH COVER DETAIL
NTS
AIRCRAFT RATED
SPRING ACTUATED



PLAN VIEW

2 HATCH COVER DETAIL
NTS



3 SPRING LIFT ASSEMBLY
NTS

NOTES:

- HOLD OPEN BAR AND HOLD DOWN BOLTS ARE REQUIRED.
- COVER AND SPRING SHALL BE CAPABLE OF REMOVAL.
- MANHOLE COVER MUST BE SUITABLE FOR SPRING HARDWARE SUPPLIED.
- BOND COUNTERPOISE SYSTEM TO COVER.
- ALL METAL COMPONENTS TO BE HOT DIPPED GALVANIZED AND SPOT-PAINTED IN FIELD AFTER INSTALLATION.



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GERALD R. FORD INTERNATIONAL AIRPORT GRAND RAPIDS, MI

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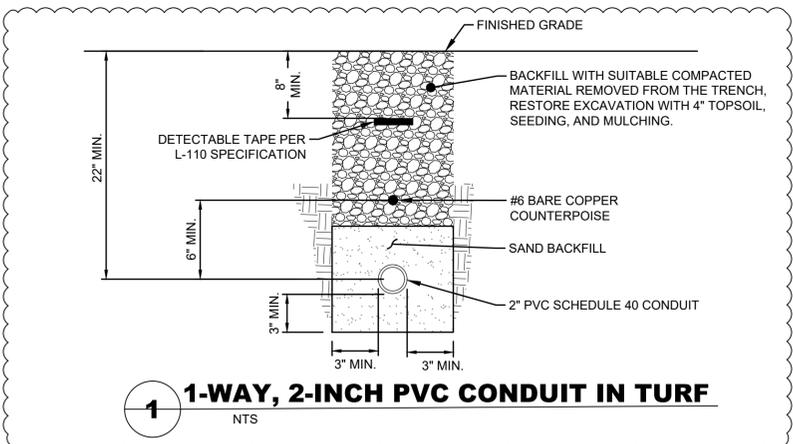
GENERAL ELECTRICAL DETAILS

E304

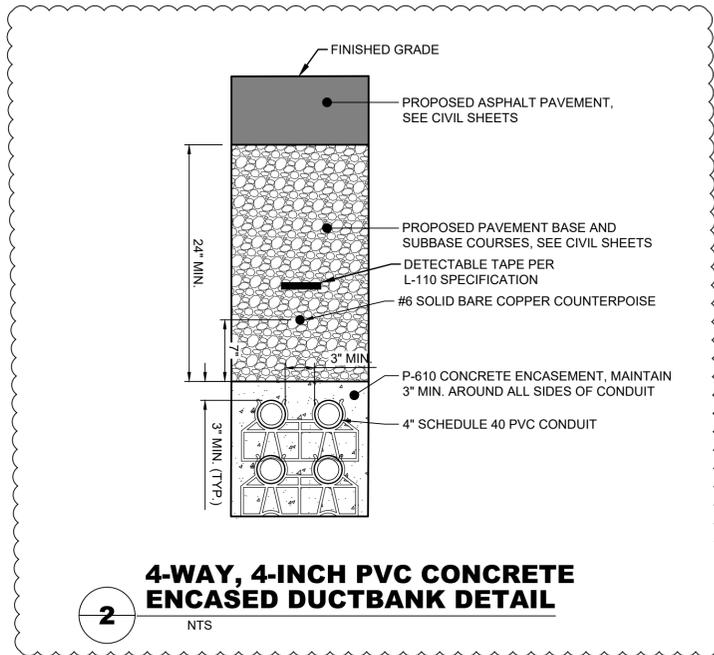
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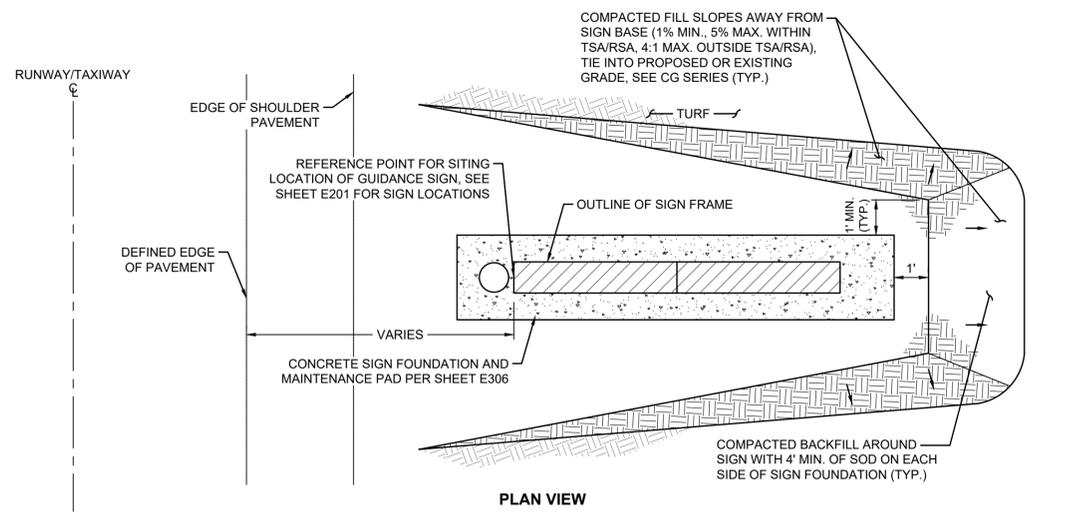
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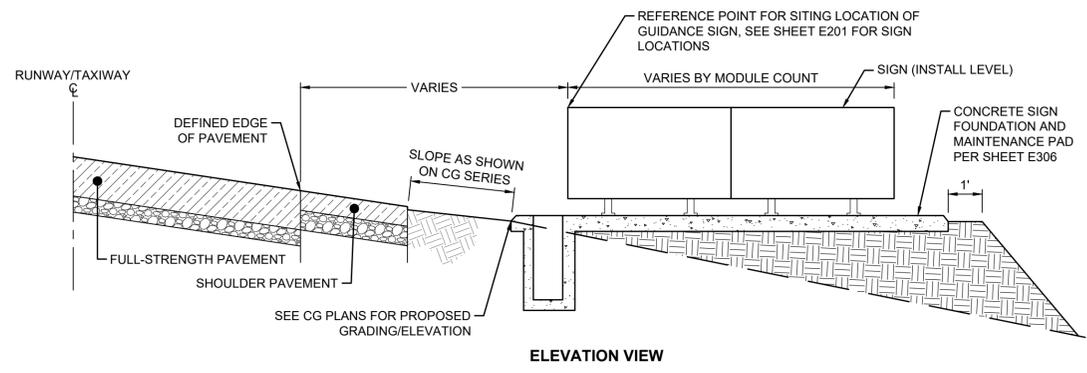
1 1-WAY, 2-INCH PVC CONDUIT IN TURF
NTS



2 4-WAY, 4-INCH PVC CONCRETE ENCASED DUCTBANK DETAIL
NTS

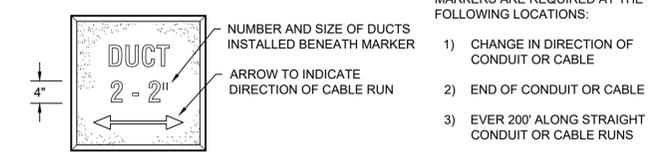
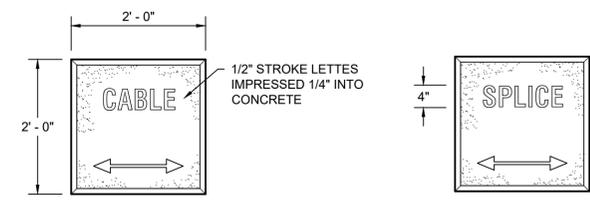


3 AIRFIELD SIGN GRADING AND FILL DETAIL
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ELEVATION VIEW

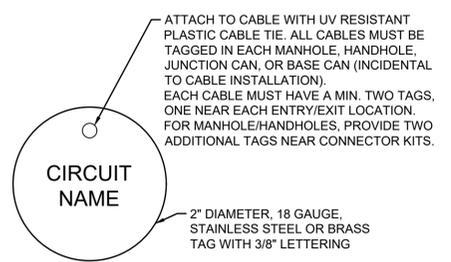
3 AIRFIELD SIGN GRADING AND FILL DETAIL
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4 DUCT BANK AND CABLE MARKER DETAIL
NTS

MARKERS ARE REQUIRED AT THE FOLLOWING LOCATIONS:

- 1) CHANGE IN DIRECTION OF CONDUIT OR CABLE
- 2) END OF CONDUIT OR CABLE
- 3) EVERY 200' ALONG STRAIGHT CONDUIT OR CABLE RUNS



5 CABLE ID TAG
NTS

CABLE ID TAG NOTES:

1. COORDINATE CIRCUIT NAMING CONVENTION OF CABLE IDENTIFICATION TAGS, ALONG WITH SIZE OF CABLE IDENTIFICATION TAGS, WITH OWNER PRIOR TO ORDERING AND INSTALLING CABLE IDENTIFICATION TAGS.

CONDUIT AND DUCT NOTES:

1. THE MINIMUM DISTANCE BETWEEN TOP OF CONDUIT IN DUCT BANK AND COUNTERPOISE SHALL BE 4".
2. GRADING, SODDING, AREA RESTORATION, AND DEWATERING FOR THE INSTALLATION OF BASE CANS, MANHOLES, DUCT BANKS OR CONDUITS IS INCIDENTAL TO THE RESPECTIVE PAY ITEM. THE CONTRACTOR SHALL BE RESPONSIBLE TO PAY FOR AND OBTAIN ANY AND ALL PERMITS REQUIRED FOR DEWATERING.
3. THE P-610 CONCRETE AROUND CONDUITS, DUCTS AND BASE CANS SHALL BE COMPLETELY CONSOLIDATED BY MECHANICAL MEANS AND SHALL BE FREE OF ANY VOIDS.
4. ALL DUCTS SHALL BE SECURELY FASTENED IN PLACE DURING CONSTRUCTION AND PROGRESS OF THE WORK AND SHALL BE PLUGGED TO PREVENT SEEPAGE OF GROUT, WATER OR DIRT. ANY DUCT SECTION HAVING A DEFECTIVE JOINT SHALL NOT BE INSTALLED. DUCTS SHALL BE SUPPORTED AND SPACED APART USING APPROVED SPACERS AT INTERVALS NOT TO EXCEED 5 FEET.
5. ALL LOOSE MATERIAL SHALL BE REMOVED FROM ALL EXCAVATIONS FOR ELECTRICAL EQUIPMENT, RACEWAYS, MANHOLES, PADS, ETC. THE BOTTOM OF THE EXCAVATION SHALL BE COMPACTED TO 95% COMPACTION IN ACCORDANCE WITH ASTM D1557 PRIOR TO THE INSTALLATION OF THE ELECTRICAL ITEM AND BACKFILL.
6. THE CONTRACTOR SHALL INSTALL A NYLON PULL WIRE IN EACH UNUSED DUCT OR CONDUIT INSTALLED AND PLUG OR CAP THE DUCT. THE WIRE SHALL BE SECURELY ATTACHED TO THE PLUG/CAP AT EACH END OF THE DUCT OR CONDUIT. NEW PULL WIRES SHALL BE INSTALLED IN EACH UNUSED DUCT OR CONDUIT IN DUCT BANK EXTENSIONS.
7. ALL CONDUITS, DUCT AND DUCT BANKS SHOWN AS CONCRETE-ENCASED SHALL BE ENCASED IN P-610 CONCRETE COMPRESSIVE STRENGTH, WITH NOT LESS THAN 3" OF COVER AROUND ALL SIDES.
8. ALL CONDUITS AND DUCTS INSTALLED UNDER FULL-STRENGTH (STRUCTURAL) PAVEMENT SHALL BE CONCRETE-ENCASED. EXTEND CONCRETE ENCASEMENT 5' BEYOND EDGE OF STRUCTURAL PAVEMENT UNLESS OTHERWISE NOTED.

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CHECKED BY: E. ESSOF		

GENERAL ELECTRICAL DETAILS

E305

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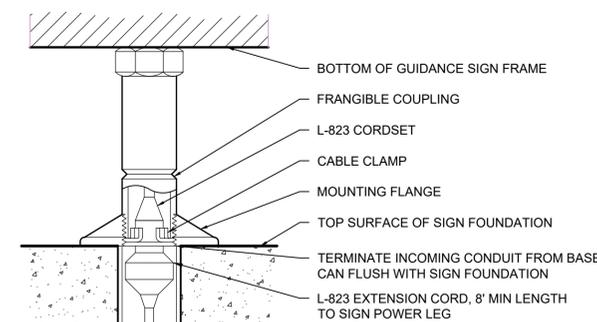
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GENERAL ELECTRICAL DETAILS

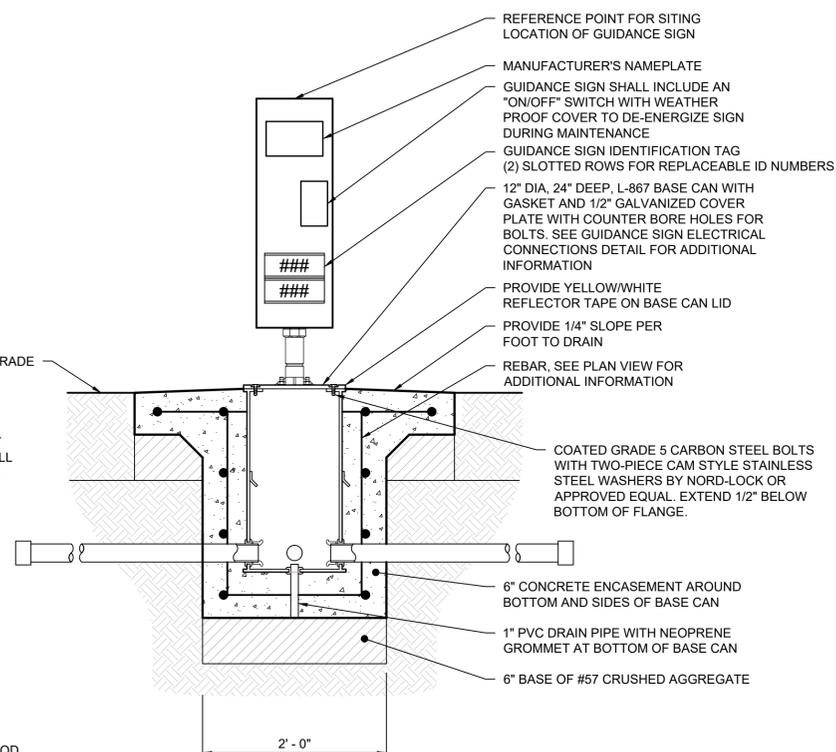
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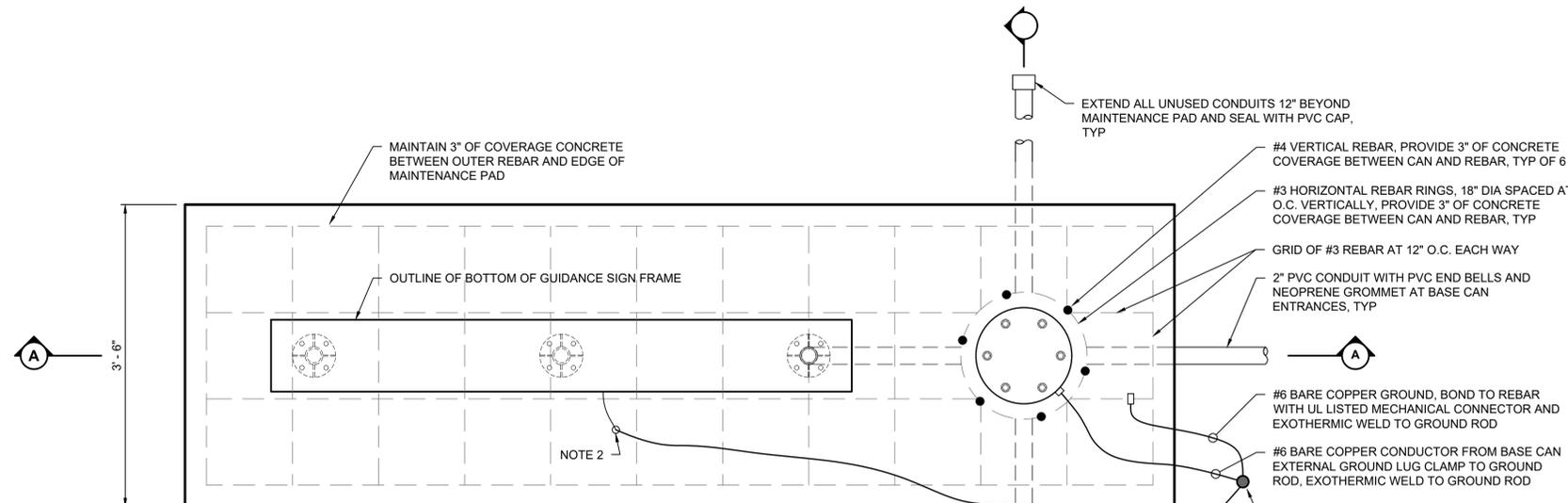
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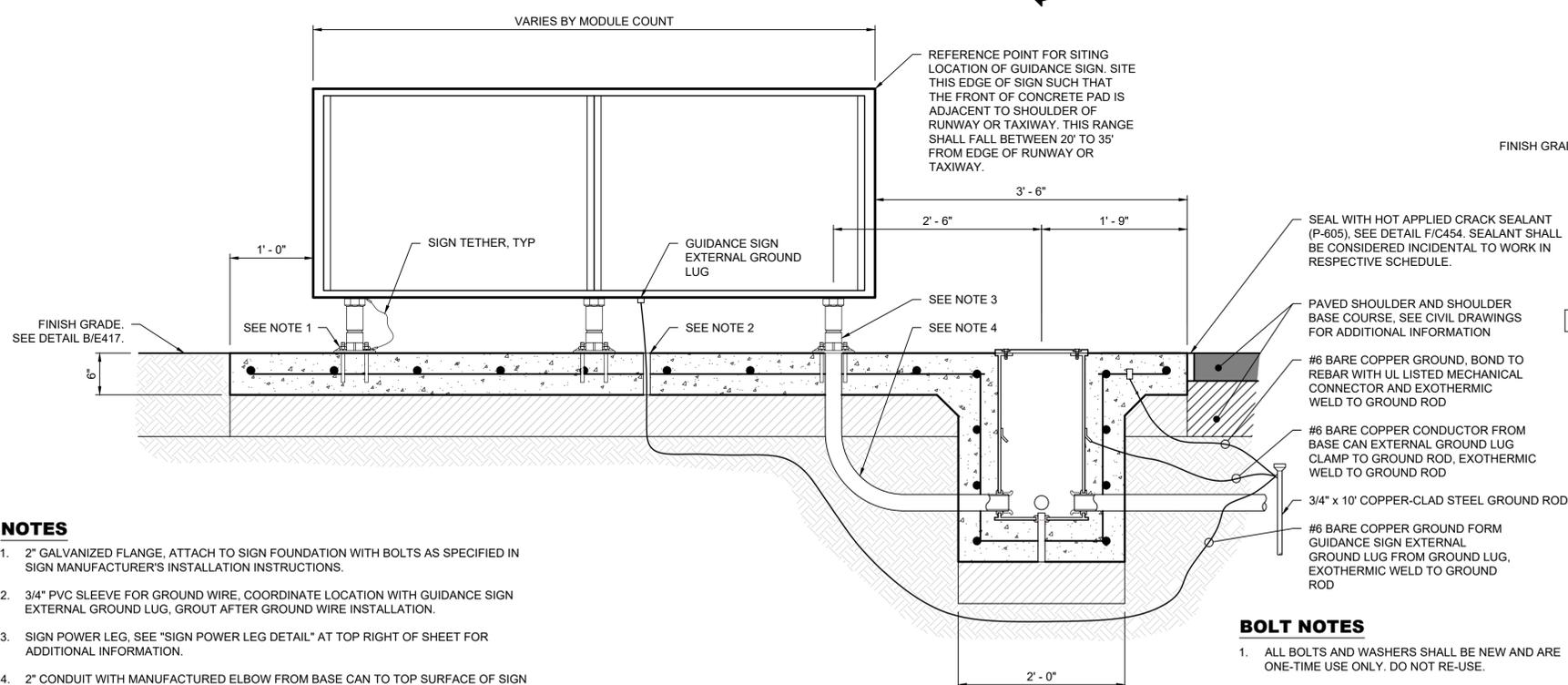
SIGN POWER LEG DETAIL



SECTION "B - B"



PLAN VIEW



SECTION "A - A"

NOTES

- 2" GALVANIZED FLANGE, ATTACH TO SIGN FOUNDATION WITH BOLTS AS SPECIFIED IN SIGN MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- 3/4" PVC SLEEVE FOR GROUND WIRE, COORDINATE LOCATION WITH GUIDANCE SIGN EXTERNAL GROUND LUG, GROUT AFTER GROUND WIRE INSTALLATION.
- SIGN POWER LEG, SEE "SIGN POWER LEG DETAIL" AT TOP RIGHT OF SHEET FOR ADDITIONAL INFORMATION.
- 2" CONDUIT WITH MANUFACTURED ELBOW FROM BASE CAN TO TOP SURFACE OF SIGN FOUNDATION, COORDINATE CONDUIT TYPE (PVC OR RGS) WITH SIGN MANUFACTURER'S INSTALLATION INSTRUCTIONS. PROVIDE ADAPTERS AND COUPLINGS AS REQUIRED.
- COUNTERPOISE ASSOCIATED WITH INCOMING CONDUIT TO GUIDANCE SIGN SHALL NOT BE BONDED TO GUIDANCE SIGN BASE CAN. TERMINATE INCOMING COUNTERPOISE, VIA EXOTHERMIC WELD, TO DEDICATED 3/4" x 10' COPPER CLAD STEEL GROUND ROD.
- THE DETAILS SHOWN ON THIS SHEET, PLUS ANY ADDITIONAL REQUIREMENTS ASSOCIATED WITH THE GUIDANCE SIGN MANUFACTURER'S INSTALLATION INSTRUCTIONS, SHALL BE CONSIDERED INCIDENTAL TO THE GUIDANCE SIGN PAY ITEM.
- CONTRACTOR SHALL MATCH EXISTING INSTALLATIONS AT AIRPORT. ANY DETAILS SHOWN ON GUIDANCE SIGN SHEETS NOT MATCHING EXISTING INSTALLATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE AIRPORT AND ENGINEER FOR FINAL INSTALLATION INSTRUCTIONS.

BOLT NOTES

- ALL BOLTS AND WASHERS SHALL BE NEW AND ARE ONE-TIME USE ONLY. DO NOT RE-USE.
- NEW BOLTS SHALL BE OF SAME MANUFACTURER AND TYPE.
- USE CALIBRATED TORQUE WRENCH TO TIGHTEN BOLTS. DO NOT USE IMPACT WRENCH TO AVOID STRIPPING BOLTS.
- SUBMIT BOLT TORQUE SETTINGS TO THE RPR PRIOR TO INSTALLATION.
- RPR MAY WITNESS BOLT TORQUING.

1 LIGHTED AIRFIELD GUIDANCE SIGN RELOCATION DETAILS

NTS

C

C

EXISTING TW F&G, CIRCUIT 15, 2-POLE, 40A CIRCUIT BREAKER TO BE REMOVED AND REPLACED.



1 EXISTING PANEL "PP"
E308 SCALE:N.T.S

- 1. EXISTING BREAKER FOR TW F&G TO BE REPLACED

B

B



2 EXISTING TW F&G REGULATOR
E308 SCALE:N.T.S

- 1. EXISTING TW F&G, CIRCUIT #15 REGULATOR TO BE REPLACED. EXISTING ACE3 UNIT TO BE REMOVED AND TURNED OVER TO THE AIRPORT

A

A

EXISTING TW F&G REGULATOR AND ACE UNIT TO BE REMOVED

EXISTING ALCMS CONTROL CABINET



3 EXISTING TW F&G REGULATOR AND ALCMS CABINET
E308 SCALE:N.T.S

- 1. EXISTING TW F&G, CIRCUIT #15 REGULATOR TO BE REPLACED. EXISTING ALCMS TO BE REPROGRAMMED FOR NEW CCR AND NEW TW F&G GEOMETRY



4 EXISTING "HOMERUN" WIRING ENTRANCE INTO VAULT BASEMENT
E308 SCALE:N.T.S

- 1. EXISTING TW F&G "HOMERUN" WIRING TO BE REPLACED VIA EXISTING DUCT BANKS, PULLBOX, AND OVERHEAD WIREWAY.



RS&H Michigan, Inc.
436 S. MAIN STREET
PLYMOUTH, MICHIGAN 48170
PH: 734-456-7069
FAX: 1-800-464-4358
www.rsandh.com



TAXIWAY F&G RECONSTRUCTION (NORTH OF TAXIWAY V, 1,950' X 36'); TAXIWAY F&G AIRFIELD LIGHTING REPLACEMENT
GERALD R. FORD INTERNATIONAL AIRPORT GRAND RAPIDS, MI

MARK	DATE	DESCRIPTION
▲	3/6/2026	ADDENDUM NO.1
REVISIONS		
PROJECT NO: K19.031.001		
DATE: FEBRUARY 2026		
DRAWN BY: A. ALZAMLI		
DESIGNED BY: A. RAHMAN		
CHECKED BY: E. ESSOF		

EXISTING INSTALLATION PHOTOS

E307

TAXIWAY EDGE LIGHT SCHEDULE						TAXIWAY EDGE LIGHT SCHEDULE					
FIXTURE ID	NORTHING	EASTING	FIXTURE TYPE	BASE CAN	REFERENCE DRAWING	FIXTURE ID	NORTHING	EASTING	FIXTURE TYPE	BASE CAN	REFERENCE DRAWING
1	508664.27	12813819.74	L-861(T)	L-867B	EL101	37	507154.14	12813795.72	L-861(T)	L-867B	EL102
2	508659.26	12813783.79	L-861(T)	L-867B	EL101	38	506980.99	12813819.75	L-861(T)	L-867B	EL102
3	508645.97	12813691.31	L-861(T)	L-867B	EL101	39	506808.77	12813851.15	L-861(T)	L-867B	EL102
4	508631.98	12813658.65	L-861(T)	L-867B	EL101	40	506780.20	12813863.38	L-861(T)	L-867B	EL102
5	508616.27	12813621.94	L-861(T)	L-867B	EL101	41	506751.63	12813875.62	L-861(T)	L-867B	EL102
6	508576.67	12813616.80	L-861(T)	L-867B	EL101	42	506719.98	12813771.59	L-861(T)	L-867B	EL102
7	508537.07	12813611.65	L-861(T)	L-867B	EL101	43	506759.48	12813776.73	L-861(T)	L-867B	EL102
8	508503.91	12813614.81	L-861(T)	L-867B	EL101	44	506799.18	12813781.88	L-861(T)	L-867B	EL102
9	508471.15	12813620.79	L-861(T)	L-867B	EL101	45	506973.44	12813765.27	L-861(T)	L-867B	EL102
10	508434.44	12813636.51	L-861(T)	L-867B	EL101	46	507146.68	12813741.26	L-861(T)	L-867B	EL102
11	508397.73	12813652.22	L-861(T)	L-867B	EL101	47	507319.91	12813717.26	L-861(T)	L-867B	EL102
12	508392.59	12813691.82	L-861(T)	L-867B	EL101	48	507493.15	12813693.25	L-861(T)	L-868B	EL102
13	508387.44	12813731.42	L-861(T)	L-867B	EL101	49	507666.39	12813669.24	L-861(T)	L-867B	EL101
14	508389.60	12813754.07	L-861(T)	L-867B	EL101	50	507838.60	12813637.85	L-861(T)	L-867B	EL101
15	508393.69	12813776.46	L-861(T)	L-867B	EL101	51	507875.36	12813622.12	L-861(T)	L-867B	EL101
16	508405.12	12813816.30	L-861(T)	L-867B	EL101	52	507912.01	12813606.41	L-861(T)	L-867B	EL101
17	508416.43	12813855.52	L-861(T)	L-867B	EL101	53	507917.16	12813566.81	L-861(T)	L-867B	EL101
18	508314.17	12813865.28	L-861(T)	L-867B	EL101	54	507922.30	12813527.21	L-861(T)	L-867B	EL101
19	508319.30	12813825.68	L-861(T)	L-867B	EL101	55	507991.57	12813517.62	L-861(T)	L-867B	EL101
20	508324.43	12813786.08	L-861(T)	L-867B	EL101	56	508007.34	12813554.31	L-861(T)	L-867B	EL101
21	508322.27	12813763.42	L-861(T)	L-867B	EL101	57	508023.11	12813591.01	L-861(T)	L-867B	EL101
22	508318.18	12813741.02	L-861(T)	L-867B	EL101	58	508062.71	12813596.15	L-861(T)	L-867B	EL101
23	508302.46	12813704.31	L-861(T)	L-867B	EL101	59	508102.31	12813601.30	L-861(T)	L-867B	EL101
24	508286.74	12813667.60	L-861(T)	L-867B	EL101	60	508150.22	12813596.68	L-861(T)	L-867B	EL101
25	508247.14	12813662.46	L-861(T)	L-867B	EL101	61	508198.51	12813592.14	L-861(T)	L-867B	EL101
26	508207.55	12813657.47	L-861(T)	L-867B	EL101	62	508271.31	12813585.22	L-861(T)	L-867B	EL101
27	508159.39	12813662.03	L-861(T)	L-867B	EL101	63	508330.77	12813577.18	L-861(T)	L-867B	EL101
28	508111.23	12813666.48	L-861(T)	L-867B	EL101	64	508390.00	12813567.47	L-861(T)	L-867B	EL101
29	508038.43	12813673.41	L-861(T)	L-867B	EL101	65	508461.94	12813554.35	L-861(T)	L-867B	EL101
30	507978.98	12813681.45	L-861(T)	L-867B	EL101	66	508494.71	12813548.37	L-861(T)	L-867B	EL101
31	507919.54	12813689.69	L-861(T)	L-867B	EL101	67	508527.47	12813542.39	L-861(T)	L-867B	EL101
32	507870.02	12813696.55	L-861(T)	L-867B	EL101	68	508564.18	12813526.67	L-861(T)	L-867B	EL101
33	507847.18	12813699.72	L-861(T)	L-867B	EL101	69	508600.89	12813510.95	L-861(T)	L-867B	EL101
34	507873.94	12813723.72	L-861(T)	L-867B	EL101	70	508606.03	12813471.35	L-861(T)	L-867B	EL101
35	507500.70	12813747.73	L-861(T)	L-867B	EL102	71	508610.76	12813434.96	L-861(T)	L-867B	EL101
36	507327.46	12813771.74	L-861(T)	L-867B	EL102						



GUIDANCE SIGN SCHEDULE				
GUIDANCE SIGN ID	NORTHING	EASTING	BASE CAN	REFERENCE DRAWING
228	506813.62	12813874.21	L-867B	EL102
217	508032.37	12813555.20	L-867B	EL101
312	508237.90	12813566.20	L-867B	EL101
207	508277.16	12813703.30	L-867B	EL101
208	508299.66	12813798.15	L-867B	EL101
886	508420.31	12813782.61	L-867B	EL101
313	508433.46	12813662.73	L-867B	EL101
205	508565.16	12813502.45	L-867B	EL101
206	508607.24	12813657.64	L-867B	EL101

MANHOLE SCHEDULE			
FIXTURE ID	NORTHING	EASTING	REFERENCE DRAWING
501	508530.69	12813608.23	EL101
502	508522.24	12813547.93	EL101
503	508389.65	12813688.18	EL101
504	508304.97	12813699.52	EL101
505	508007.72	12813557.35	EL101
506	507919.11	12813569.63	EL101
507	507564.73	12813607.96	EL102
508	507490.16	12813618.40	EL102
509	507313.81	12813824.72	EL102
510	507268.29	12813831.13	EL102
511	507247.29	12813677.76	EL102
512	507292.40	12813671.24	EL102
513	506820.02	12813779.02	EL102
514	506829.50	12813847.37	EL102

KEYED NOTES

① L-861(T) QUARTZ WILL BE PROVIDED BY AIRPORT

SIGN #	EXISTING LEGEND		ARROW DESIGNATION		CIRCUIT NO.	ORIGINAL MANUFACTURER	FAA SIZE	FAA STYLE	QTY. OF MODULES	REFERENCE DRAWING	SIGN FOUNDATION	NOTES
	FRONT - A	BACK - B	FRONT	BACK								
	313	← G F	█	270								
205	F ← J →	█	270 90	-	20	LUMACURVE	2	2	3	EL101	NEW	REMOVE, STORE, AND RELOCATE EXISTING GUIDANCE SIGN
206	← F J	█	270	-	20	LUMACURVE	2	2	2	EL101	NEW	REMOVE, STORE, AND RELOCATE EXISTING GUIDANCE SIGN
312	F → G	█	90	-	15	LUMACURVE	2	2	2	EL101	NEW	REMOVE, STORE, AND RELOCATE EXISTING GUIDANCE SIGN
217	← F →	█	270 90	-	15	LUMACURVE	2	2	2	EL101	NEW	REMOVE, STORE, AND RELOCATE EXISTING GUIDANCE SIGN
207	G ← F →	█	270 90	-	15	LUMACURVE	2	2	3	EL101	NEW	REMOVE, STORE, AND RELOCATE EXISTING GUIDANCE SIGN
208B	GA ONLY ↑	█	0	-	15	LUMACURVE	2	2	4	EL101	NEW	REMOVE, STORE, AND RELOCATE EXISTING GUIDANCE SIGN
886	G B5 ↑ B →	█	0 90	-	15	LUMACURVE	2	2	4	EL101	NEW	REMOVE, STORE, AND RELOCATE EXISTING GUIDANCE SIGN
228	F ← V →	█	270 90	-	15	LUMACURVE	2	2	3	EL102	NEW	REMOVE, STORE, AND RELOCATE EXISTING GUIDANCE SIGN

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TAXIWAY F&G RECONSTRUCTION (NORTH OF TAXIWAY V, 1,950' X 36'); TAXIWAY F&G AIRFIELD LIGHTING REPLACEMENT
GERALD R. FORD INTERNATIONAL AIRPORT GRAND RAPIDS, MI

MARK	DATE	DESCRIPTION
Δ	9/16/2026	ADDENDUM NO.2
Δ	3/6/2026	ADDENDUM NO.1

REVISIONS
 PROJECT NO: K19.031.001
 DATE: FEBRUARY 2026
 DRAWN BY: A. ALZAMLI
 DESIGNED BY: A. RAHMAN
 CHECKED BY: E. ESSOF

FIXTURE SCHEDULE

E400

Mar 13, 2026 - 11:43am
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