TOTAL SHEETS: 68 CONTRACT NO. SC071 ITEM 02A

CONSTRUCTION PLANS FOR



BLV PROJECT NO. 2024-04 ILLINOIS PROJECT NO. BLV-5101 AIP PROJECT NO. 3-17-0146-TBD

TERMINAL APRON EXPANSION - PROJECT 1 100% SUBMITTAL **MARCH 1, 2024**







THOMAS W. MORRIS ILLINOIS PE 062-074878 RESPONSIBLE FOR: GI100-GI104 GC001-GC002

GC101-GC105 GC501-GC504 LG101-LG102 CI101 CP501 CP801-CP802 CG101-CG103 CG501-CG508 CG700-CG708

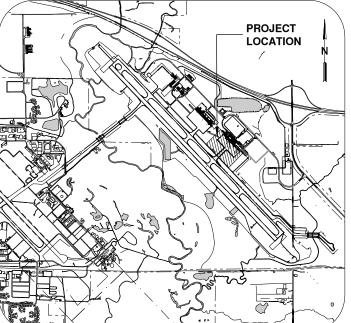


CIVIL ENGINEER: JOSEPH M. GILROY ILLINOIS PE 062-047413 **RESPONSIBLE FOR: CD101** CM101-CM103



ELECTRICAL ENGINEER: ASAD M. BAJWA ILLINOIS PE 062-055662 **RESPONSIBLE FOR: EL101-EL102** EL501-EL506

LOCATION MAP



MIDAMERICA ST. LOUIS AIRPORT

DARREN V. JAMES, AIRPORT DIRECTOR MARCH 1, 2024



- AUBORA II CHICAGO II COLUMBUS OH ■ EDWARDSVILLE, IL ■ INDIANAPOLIS, IN ■ PEORIA, IL
- ROCKFORD, IL SPRINGFIELD, IL ST. LOUIS, MO
- SPRINGFIELD, MO KANSAS CITY, MO

SUBMITTED BY

DATE MARCH 1, 2024

CMT JOB NUMBER: 22001186-00

CONTRACTOR SHALL IDENTIFY SPECIFIC LOCATIONS WHEN SUBMITTING JULIE REQUEST.



JOINT UTILITY LOCATING INFORMATION FOR EXCAVATORS

THE LOCATION, SIZE AND TYPE OF MATERIAL OF EXISTING UNDERGROUND UTILITIES INDICATED ON THE PLANS IS NOT REPRESENTED AS BEING ACUPATE, SUFFICIENT OR COMMETE IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ACTUAL LOCATIONS OF ALL SUCH FACILITIES, INCLUDING SERVICE CONNECTIONS TO UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY UTILITY COMPANIES OF HIS OPERATIONAL PLANS, OBTAIN FROM RESPECTIVE UTILITY COMPANIES OF HIS OPERATIONAL PLANS, OBTAIN FROM RESPECTIVE UTILITY COMPANIES HAD THE WORKING SCHEDULE OF THE COMPANIES FOR REMOVAL OR ADJUSTMENT WHERE REQUIRED IN THE EVENT AN UNEXPECTED UTILITY INTERFERENCE IS ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE UTILITY COMPANY OF JURISDICTION AND THE ONE CALL NOTICE SYSTEM. THE ENGINEER SHALL ALSO BE IMMEDIATELY OTIFIED. ANY SUCH UTILITY OR SERVICES SHALL BE RESTORED TO SERVICE ONCE AND PAID FOR BY THE CONTRACTOR AT NO ADDITIONAL COST TO

CALL J.U.L.I.E. FOR UTILITY INFORMATION AT 811.

CALL 911 IN THE EVENT IN WHICH DAMAGE RESULTS IN THE RELEASE OF NATURAL GAS.

DESIGN INFORMATION

GEOMETRIC CRITERIA

AIRCRAFT APPROACH CATEGORY (AAC): C AIRPLANE DESIGN GROUP (ADG): TAXIWAY DESIGN GROUP (TDG): TAXIWAY SAFETY AREA (TSA): TAXIWAY OBJECT FREE AREA (TOFA): TAXILANE OBJECT FREE AREA (TLOFA) 158' RUNWAY SAFETY AREA (RSA): RUNWAY OBJECT FREE AREA (ROFA):

UTILITY DISCLAIMER

THE LOCATION OF UNDERGROUND UTILITIES AS INDICATED ON THE PLANS HAS BEEN OBTAINED FROM EXISTING RECORDS. NEITHER THE OWNER, NOR THE PROJECT ENGINEER ASSUMES ANY RESPONSIBILITY WHATSOEVER IN RESPECT TO THE ACCURACY, COMPLETENESS, OR SUFFICIENCY OF THE INFORMATION. THERE IS NO GUARANTEE, EITHER EXPRESSED OR IMPLIED. THAT THE LOCATIONS, SIZE, AND TYPE OF MATERIAL OF EXISTING UNDERGROUND UTILITIES INDICATED ARE REPRESENTATIVE OF THOSE TO BE ENCOUNTERED IN THE

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES, INCLUDING SERVICE CONNECTIONS TO UNDERGROUND UTILITIES. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANY AND FAA OF HIS OPERATIONAL PLANS. THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR DETAILED INFORMATION AND ASSISTANCE IN LOCATING UTILITIES. IN THE EVENT AN UNEXPECTED UTILITY INTERFERENCE IS ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE LITHLITY COMPANY THE OWNER AND THE RESIDENT ENGINEER. ANY SUCH MAINS AND/OR SERVICES DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED IMMEDIATELY AT HIS EXPENSE TO THE SATISFACTION OF THE OWNER AND THE ENGINEER.

		SHEET SET INDEX
SHEET NUMBER	SHEET INDEX	SHEET TITLE
1	GI100	COVER SHEET
2	GI101	SHEET INDEX
3	GI102	SUMMARY OF QUANTITIES SITE PLAN
5	GI103 GI104	ILS CRITICAL AREAS
6	GC001	CONSTRUCTION ACTIVITY PLAN NOTES 1
7	GC002	CONSTRUCTION ACTIVITY PLAN NOTES 2
8	GC101	CONSTRUCTION ACTIVITY PLAN - OVERVIEW
9	GC102	CONSTRUCTION ACTIVITY PLAN - PHASE 1
10	GC 103	CONSTRUCTION ACTIVITY PLAN - PHASE 1A
11	GC 104	CONSTRUCTION ACTIVITY PLAN - PHASE 2
12	GC 105	TEMPORARY FENCING PLAN
13	GC501	CAP DETAILS
14	GC502	TEMPORARY FENCING DETAILS 1
15	GC503	TEMPORARY FENCING DETAILS 2
16 17	GC504 LG101	FINAL FENCE DETAILS EROSION CONTROL PLAN 1
18	LG101	EROSION CONTROL PLAN 2
19	LG501	EROSION CONTROL DETAILS
20	CD101	EXISTING CONDITIONS & REMOVALS
21	CS101	PROPOSED IMPROVEMENTS
22	CI101	SERVICE ROAD PLAN & PROFILE SHEET
23	CI501	TPYICAL SECTIONS
24	CP101	JOINTING PLAN
25	CP501	JOINTING DETAILS
26	CP801	STAKING PLAN 1
27	CP802	STAKING PLAN 2
28 29	CG101	GRADING & DRAINAGE PLAN 1 GRADING & DRAINAGE PLAN 2
30	CG102 CG103	GLYCOL IMPROVEMENTS
31	CG103	DETENTION BASIN SB-169 IMPROVEMENT PLAN
32	CG301	UNDERDRAIN PROFILE 1
33	CG302	UNDERDRAIN PROFILE 2
34	CG303	UNDERDRAIN PROFILE 3
35	CG304	UNDERDRAIN PROFILE 4
36	CG305	UNDERDRAIN PROFILE 5
37	CG306	UNDERDRAIN PROFILE 6
38	CG307	UNDERDRAIN PROFILE 7
39 40	CG501 CG502	DRAINAGE DETAILS 1 DRAINAGE DETAILS 2
41	CG502 CG503	DRAINAGE DETAILS 2 DRAINAGE DETAILS 3
42	CG503	DRAINAGE DETAILS 3 DRAINAGE DETAILS 4
43	CG505	DRAINAGE DETAILS 5
44	CG506	DRAINAGE DETAILS 6
45	CG507	TRENCH DRAIN DETAILS
46	CG508	GLYCOL COLLECTION DETAILS
47	CM101	APRON MARKING REMOVAL PLAN
48	CM102	APRON MARKING PLAN 1
49	CM103	APRON MARKING PLAN 2
50	CM501	APRON PAVEMENT MARKING DETAILS
51	CM502	PAVEMENT MARKING & SIGNAGE DETAILS
52 53	EL101 EL102	PROPOSED ELECTRICAL LAYOUT & LIGHTING ENHANCED ELECTRICAL LAYOUT PLAN
54	EL 102	ELECTRICAL DETAILS 1
55	EL501	ELECTRICAL DETAILS 1 ELECTRICAL DETAILS 2
56	EL503	ELECTRICAL DETAILS 3
57	EL504	ELECTRICAL DETAILS 4
58	EL505	ELECTRICAL DETAILS 5
59	EL506	ELECTRICAL DETAILS 6
60	CG700	CROSS SECTION INDEX
61	CG701	APRON EXPANSION CROSS SECTIONS 1
62	CG702	APRON EXPANSION CROSS SECTIONS 2
63	CG703	APRON EXPANSION CROSS SECTIONS 3
64	CG704	APRON EXPANSION CROSS SECTIONS 4 APRON EXPANSION CROSS SECTIONS 5
65 66	CG705 CG706	APRON EXPANSION CROSS SECTIONS 5 APRON EXPANSION CROSS SECTIONS 6
67	CG706	APRON EXPANSION CROSS SECTIONS 6 APRON EXPANSION CROSS SECTIONS 7
	100101	



License No. 184-000613 CONSULTANTS

100% SUBMITTAL MARCH 1, 2024

TERMINAL APRON EXPANSION



MIDAMERICA ST. LOUIS AIRPORT ST. CLAIR COUNTY, IL

MARK	DATE	DESCRIPTION		
BLV PROJECT NO. 2024-04				

IL PROJECT NO. BLV-5101 CMT PROJECT NO: 22001186.00 CAD DWG FILE: 22001186 - GI100.DWG DESIGNED BY: CMT DRAWN BY: CHECKED BY: CMT APPROVED BY: CMT COPYRIGHT: CRAWFORD, MURPHY & TILLY, INC. 2021

SHEET INDEX

GI101 SHEET 2

SUMMARY OF QUANTITIES

BASE BID - TERMINAL APRON EXPANSION - PROJECT 1

	BA SE BID - TERMINAL APRON EXPANSION	- PROJE			
ITEM#	DECORPORTION .		NORTH	SOUTH	TOTAL
ITEM#	DESCRIPTION	UNIT	EXPANSION	EXPANSION	PROJECT
AW 108040	#4/0 XLP-USE CABLE	FOOT	QUANTITY 200.0	QUANTITY 0.0	QUANTITY 200.0
AW 108086	#6 XLP-USE CABLE	FOOT	4,000.0	0.0	4.000.0
AW 108090	#10 XLP-USE CABLE	FOOT	5,000.0	5,500.0	10,500.0
AW 108092	#12 XLP-USE CABLE	FOOT	5,500.0	0.0	5,500.0
AW 108 108	1/C #8 5 KV UG CABLE	FOOT	350.0	270.0	620.0
AW 108706	1/C#6 COUNTERPOISE	FOOT	175.0	270.0	445.0
AW 108960	REMOVE CABLE	FOOT	710.0	0.0	710.0
AW110201	1" PVC DUCT, DIRECT BURY	FOOT	2,325.0	0.0	2,325.0
AW110202	2" PVC DUCT, DIRECT BURY	FOOT	650.0	0.0	650.0
AW110502	2-WAY CONCRETE ENCASED DUCT	FOOT	370.0	400.0	770.0
AW110610	ELECTRICAL HANDHOLE	EACH	3.0	2.0	5.0
AW 125415	MITL-BASE MOUNTED	EACH	3.0	3.0	6.0
AW 125902	REMOVE BASE MOUNTED LIGHT	EACH	1.0	1.0	2.0
AW 150510	ENGINEER'S FIELD OFFICE	L SUM	0.5	0.5	1.0
AW150520	MOBILIZATION	L SUM	0.5	0.5	1.0
AW 152410	UNCLASSIFIED EXCAVATION	CU YD	11,846.0	1,750.0	13,596.0
AW155540	BY-PRODUCT LIME SOIL PROCESSING-12"	TON	300.0 7.094.0	405.0 9.692.0	705.0
AW 155612 AW 156510	SILT FENCE	SQ YD FOOT	1,507.0	1,550.0	16,786.0
AW 156510 AW 156511	DITCH CHECK	EACH	6.0	6.0	3,057.0 12.0
AW 156520	INLET PROTECTION	EACH	1.0	2.0	3.0
AW 156531	EROSION CONTROL BLANKET	SQ YD	2,000.0	2,000.0	4,000.0
AW 161515	TEMPORARY CLASS C FENCE	FOOT	1,150.0	1,900.0	3,050.0
AW 161516	TEMPORARY CLASS C FENCE WITH JERSEY BARRIER	FOOT	405.0	400.0	805.0
AW 161601	TEMPORARY GATE	EACH	1.0	1.0	2.0
AW 162508	CLASS E FENCE 8'	FOOT	265.0	0.0	265.0
AW 209609	CRUSHED AGG. BASE COURSE-9"	SQ YD	6,910.0	9.090.0	16,000.0
AW209611	CRUSHED AGGREGATE BASE COURSE-11"	SQ YD	184.0	285.0	469.0
AW 209706	CRUSHED AGG. SHOULDER - 6"	SQ YD	70.0	0.0	70.0
AW302611	ASPHALT TREATED PERMEABLE SUBBASE	SQ YD	6,910.0	9,090.0	16,000.0
AW302630	ATPS TEST SECTION	EACH	0.5	0.5	1.0
AW 401610	BITUMINOUS SURFACE COURSE	TON	292.0	100.0	392.0
AW 401900	REMOVE BITUMINOUS PAVEMENT	SQ YD	1,613.0	495.0	2,108.0
AW501509	9" PCC PAVEMENT	SQ YD	513.0	769.0	1,282.0
AW501516	16" PCC PAVEMENT	SQ YD	5,573.0	8,319.0	13,892.0
AW501530	PCC TEST BATCH	EACH	0.5	0.5	1.0
AW602510	BITUMINOUS PRIME COAT	GALLON	2,464.0	3,280.0	5,744.0
AW603510	BITUMINOUS TACK COAT	GALLON	218.0	90.0	308.0
AW620520	PAVEMENT MARKING-WATERBORNE	SQ FT	3,600.0	2,875.0	6,475.0
AW620525	PAVEMENT MARKING-BLACK BORDER PAVEMENT MARKING REMOVAL	SQ FT	1,200.0	1,015.0	2,215.0
AW620900		SQ FT	650.0	4,800.0	5,450.0
AW701524	24" RCP, CLASS IV	FOOT	360.0	125.0	485.0
AW701536 AW701900	36" RCP, CLASS IV REMOVE PIPE	FOOT	185.0 74.0	401.0 120.0	586.0 194.0
AW705526	6" PERFORATED UNDERDRAIN W/SOCK	FOOT	1,087.0	1,435.0	2,522.0
AW705635	UNDERDRAIN COLLECTION STRUCTURE	EACH	4.0	7.0	11.0
AW705640	UNDERDRAIN CLEANOUT	EACH	9.0	10.0	19.0
AW751416	TYPE 1 INLET	EACH	1.0	0.0	1.0
AW751417	TYPE 2 INLET	EACH	0.0	2.0	2.0
AW752424	PRECAST REINFORCED CONC. FES 24"	EACH	2.0	5.0	7.0
AW752436	PRECAST REINFORCED CONC. FES 36"	EACH	1.0	1.0	2.0
AW752900	REMOVE END SECTION	EACH	2.0	1.0	3.0
AW754610	PAVED DITCH	FOOT	570.0	100.0	670.0
AW770508	8" SANITARY SEWER	FOOT	394.0	398.0	792.0
AW770518	18" SANITARY SEWER	FOOT	0.0	541.0	541.0
AW770704	SANITARY MANHOLE 4'	EACH	1.0	3.0	4.0
AW770900	REMOVE SANITARY SEWER	FOOT	178.0	20.0	198.0
AW801455	REMOVE 24' TEMPORARY ACCESS ROAD #1 AND STAGING AREA #2	L SUM	1.0	0.0	1.0
AW801958	REMOVE 24' TEMPORARY ACCESS ROAD #2	L SUM	0.0	1.0	1.0
AW801966	3" GRS CONDUIT	FOOT	50.0	0.0	50.0
AW801967	RECEPTACLE PEDESTAL	EACH	5.0	0.0	5.0
AW801968	STRUT FRAMING AND PEDESTAL	L SUM	1.0	0.0	1.0
AW801969	UTILITY SERVICE INSTALLATION	L SUM	1.0	0.0	1.0
AW801971 AW801972	4' X 20' TRENCH DRAIN 8" VALVE & ACTUATOR	EACH	1.0	1.0	2.0
AW801972 AW801979				0.0	
AW801979 AW801980	BASIN SPILLWAY MODIFICATIONS 75KVA DISTRIBUTION TRANSFORMER, 480-208Y/120V, 3PH, 4W	L SUM EACH	1.0	0.0	1.0 1.0
AW801981	DISTRIBUTION PANEL BOARD, 200A, 480/277V, 3PH, 4W, NEMA 3R, 30C		1.0	0.0	1.0
AW801981	POWER PANEL, 200A, 208Y/120V, 3PH, 4W, NEMA 3R	EACH	1.0	0.0	1.0
AW801983	YIELD SIGN AND POST	EACH	1.0	0.0	1.0
AW801992	8" SANITARY FORCEMAIN	FOOT	178.0	0.0	178.0
AW801996	REMOVE FENCE	FOOT	265.0	0.0	265.0
AW801998	NON-FUSIBLE SERVICE DISCONNECT, 200A, 600V, 2-POLE, NEMA 3R	EACH	1.0	0.0	1.0
AW801999	#14 XLP-USE CABLE	FOOT	12,100.0	5,250.0	17,350.0
AW901510	SEEDING	ACRE	4.0	4.0	8.0
AW904510	SODDING	SQ YD	350.0	405.0	755.0
AW908510	MULCHING	ACRE	4.0	4.0	8.0
AW910915	REMOVE ROADWAY SIGN	EACH	1.0	0.0	1.0

SUMMARY OF QUANTITIES

ALTERNATE 1 - TERMINAL APRON EXPANSION - PROJECT 1

ITEM #	DESCRIPTION	UNIT	NORTH EXPANSION AA QUANTITY	SOUTH EXPANSION AA QUANTITY	TOTAL AA QUANTITY
AX108088	#8 XLP-USE CABLE	FOOT	620.0	600.0	1,220.0
AX108090	#10 XLP-USE CABLE	FOOT	850.0	950.0	1,800.0
AX110201	1" PVC DUCT, DIRECT BURY	FOOT	780.0	250.0	1,030.0
AX110202	2" PVC DUCT, DIRECT BURY	FOOT	200.0	250.0	450.0
AX801474	LIGHTING CONTROLLER IN NEMA 3R ENCLOSURE	L SUM	1.0	0.0	1.0
AX801993	60' APRON LIGHT POLE W/FIXTURES	EACH	2.0	1.0	3.0
AX801997	FIBER OPTIC CABLE	FOOT	250.0	0.0	250.0



License No. 184-000613 CONSULTANTS

100% SUBMITTAL MARCH 1, 2024

TERMINAL APRON EXPANSION



MIDAMERICA ST. LOUIS AIRPORT ST. CLAIR COUNTY, IL

MARK	DATE	DESCRIPTION		
BLV P	BLV PROJECT NO. 2024-04			

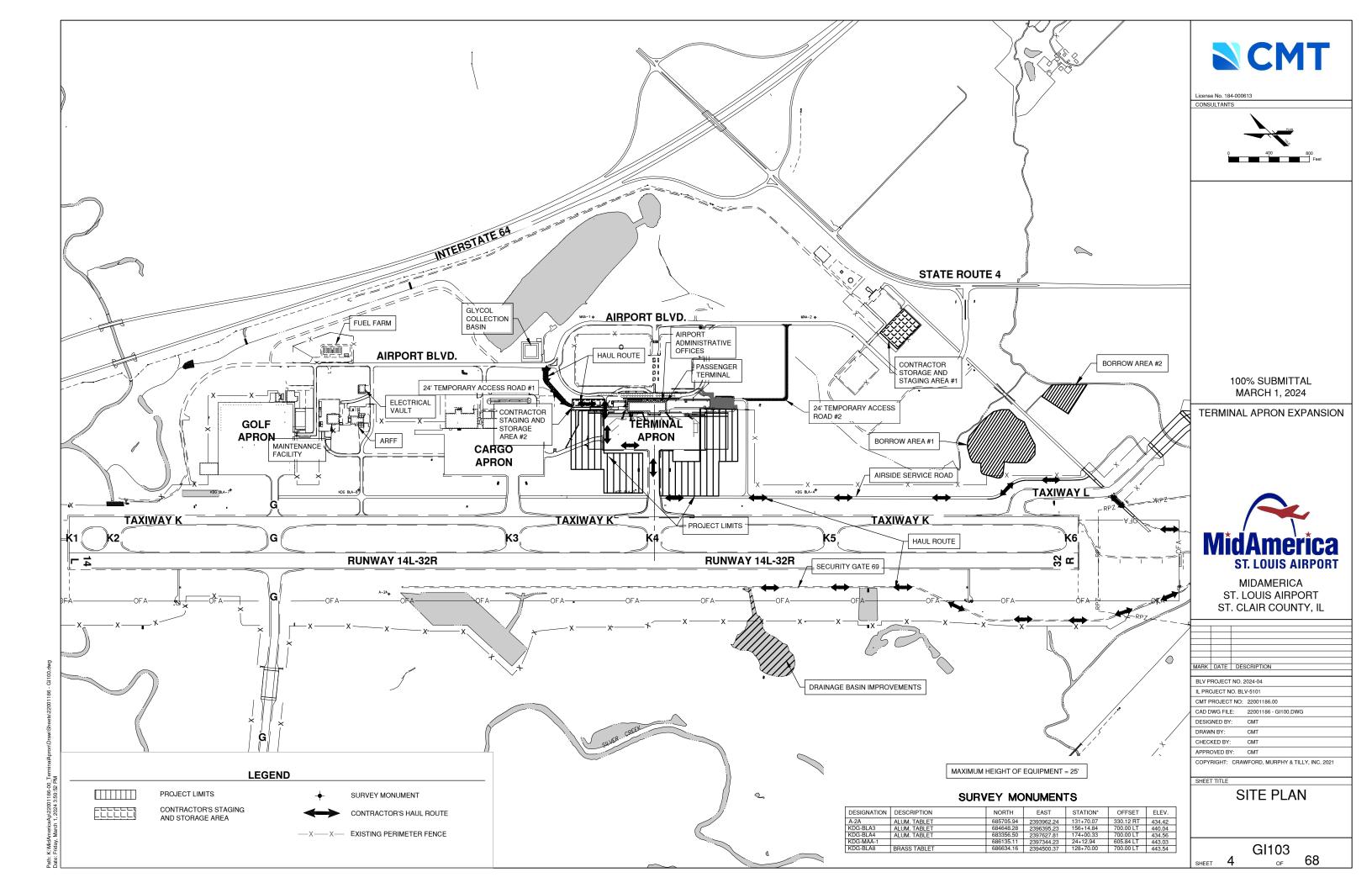
IL PROJECT NO. BLV-5101 CMT PROJECT NO: 22001186.00 CAD DWG FILE: 22001186 - GI100.DWG DESIGNED BY: CMT DRAWN BY: CHECKED BY: CMT

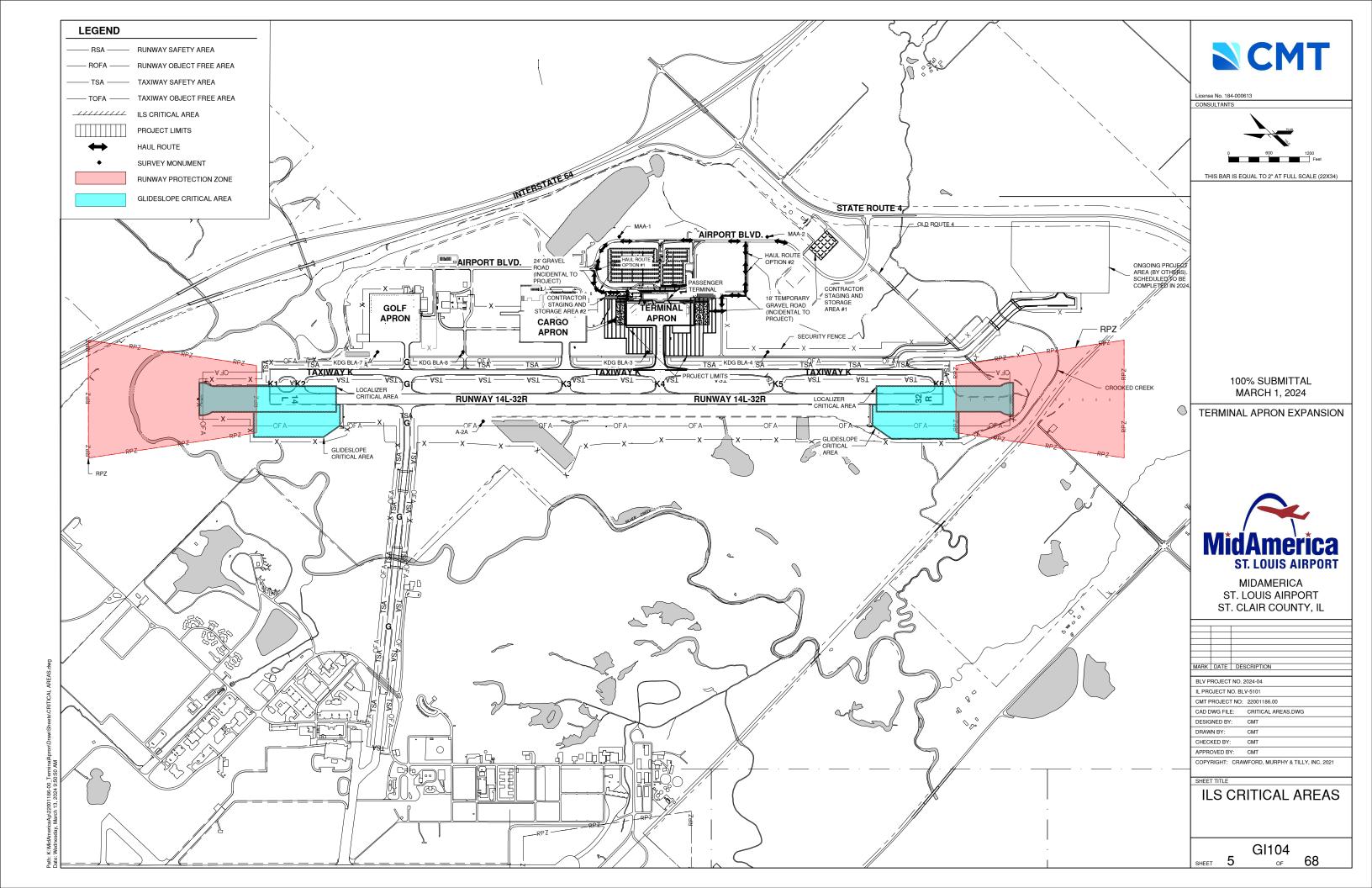
APPROVED BY: CMT

COPYRIGHT: CRAWFORD, MURPHY & TILLY, INC. 2021

SUMMARY OF QUANTITIES

GI102 SHEET 3 OF





CONSTRUCTION ACTIVITY PLAN GENERAL NOTES:

- The CAP Notes sheets are considered part of the CSPP. The full CSPP is located in the appendix of the Project Manual.
- The contractor and all subcontractors shall follow the requirements of the airport's approved Construction Safety and Phasing Plan (CSPP), FAA AC 150/5370-2 (latest version), and all airport safety and security requirements
- Prior to the start of construction, the contractor shall submit to the airport for approval a Safety Plan Compliance Document (SPCD) in accordance with FAA AC 150/5370-2 (latest version). No construction activity shall begin until the airport has approved the SPCD.
- The CSPP covers operational safety. The contractor shall be responsible for the individual safety of their personnel and meeting OSHA requirements. In addition, the contractor shall provide a company safety plan prior to the pre-bid meeting.
- Prior to the start of construction, the contractor shall sign the SWPPP certification
- All contractor costs associated with the requirements listed on this sheet shall be considered incidental to the contract unless a specific pay item is provided

1. Coordination:

- Before beginning any construction activity on the airport, the contractor shall become aware of and understand the safety requirements and hazards described in the federal aviation administration advisory circular (AC) 150/5370-2 operational safety on airports during construction (current version). The contractor shall also be responsible to effectively communicate this information to their contract personnel and sub-contractors. A copy of the AC will be provided to the contractor as part of the project documentation and reviewed at a pre-construction meeting prior to start of any work. Reference specification section 40-09. Attendance at the pre-construction meeting is mandatory. The contractor's cost of preparing for and attending this meeting is incidental to the contract.
- Before the pre-construction meeting, the contractor shall supply the airport with a complete work schedule, which will be reviewed at the pre-construction meeting. The schedule shall include a separate line item for each item of work, as well as a start and completion date for each item. The schedule shall be updated on a weekly basis at the mandatory progress/coordination meeting per the project documentation.
- During construction, the contractor shall attend a weekly progress coordination meeting conducted per the project documentation. The owner, engineer and contractor shall at a minimum be in attendance. Operational safety on airports shall be a standing agenda item during the progress/coordination meetings throughout the duration of construction project.
- Scope or schedule changes the owner and/or engineer will call such coordination conferences as may seem expedient to them for the purpose of assuring coordination of the work covered by this contract and/or scope or schedule changes. The contractor shall
- Airport tenant coordination the owner and/or engineer will coordinate with airport tenants and airlines to notify them of closures and hazards on the airfield due to construction
- FAA ATO coordination coordination has taken place with the faa technical staff to locate FAA facilities and equipment on the airport. FAA facilities exist within the limits of construction and shall be protected during construction. The ATO contact for this project is Andy Atchley (817) 222-4053.
- Air Traffic Control Tower (ATCT) coordination the plans have been coordinated with the ATCT. No exceptions taken
- TSA coordination the plans have been coordinated with the TSA. No exceptions taken.
- Other projects may be ongoing at the airport during the time of this project. The contractor shall coordinate with other contractors performing work. Any conflicts will be resolved by the airport.
- 10. The contractor shall coordinate, for approval, any proposed changes to the approved project schedule, CAP or CSPP with the airport. This includes any proposed changes to phasing, sequencing, and project delays. Changes that may require further aeronautical review by the FAA, or modification of the approved schedule, CAP or CSPP and/or the critical points shown in the contract documents will require the contractor to submit revisions for approval on FAA Form 7460-1 through the OEAAA system requiring further airspace review and approval from the FAA
- 11. Approval of contractor proposed changes to the CAP or CSPP is not assured.

2. Phasing:

- During performance of this project, the airport runways, taxiways, and aircraft parking aprons shall remain in use by aircraft to the maximum extent possible. The project shall be phased to reduce operational impacts at the airport. The overall scope will be bid as one package with two separate work phase
- There will be no restrictions on work hours during the project. These restrictions are:
 - Phase 1: There shall be no restrictions on work hours for Phase 1.
 - Phase 1A: There shall be no restrictions on work hours for Phase 1A.
 - Phase 2: There shall be no restrictions on work hours for Phase 2.

Prior to opening payements to aircraft, the contractor shall thoroughly sweep and clean the pavements, remove all equipment, and verify that there are no slopes greater than 5% or drop offs greater than 3 inches inside the safety area in accordance with FAA AC 150/5370-2G. Airport operations shall be notified, and the payement shall be inspected and approved for use. Airport operations must approve the pavement condition and the pavement must be opened to aircraft traffic no later than the planned and agreed-to reopening time. The contractor shall allow sufficient time for airport operations to complete their inspection.

- The phasing has been organized to minimize impact to airport operations
- The phasing as noted below reflects the work scheduled during each phase along with requirements placed on the phase. All work shall be completed according to the sequence restrictions placed on each phase reflected below and the construction activity plan sheets

Phase Details:

Phase 1: Shall be completed within the overall construction calendar days (146 consecutive calendar days). All other phases shall occur concurrently with Phase 1

Phase 1A: Shall be completed within 10 consecutive calendar days, concurrent with

Phase 2: Shall be completed within 14 consecutive calendar days, concurrent with the overall construction calendar days. Phase 2 will include work inside of the Taxiway

3. Areas and Operations Affected by the Construction Activity:

- Areas of work and staging are shown on the construction activity plan sheets. Aircraft tions shall always have priority over any and all of the contractor's ope
- All runways and taxiways shall be kept open to aircraft traffic during construction except as noted on the construction activity plan sheets. Airport operations is responsible for the coordination of all movement area and non-movement area closures.
- The contractor, at the direction of the airport, may be required to provide and maintain an emergency response route through the work area for airport emergency vehicles. The emergency response route must be clearly defined, graded to prevent ponding and able to support the frequent use by Airport Rescue and Fire Fighting (ARFF) vehicles. Construction vehicles shall give way to emergency vehicles at all times. Parking or staging of any construction equipment or stockpiling of materials blocking the road or access to the road is prohibited. The plans have been coordinated with the ARFF facility and no exceptions were
- Access to all fire hydrants and stand pipes shall be maintained at all times. Any impact to utilities that would interfere with ARFF operations shall be coordinated and approved by ARFF personnel prior to the execution of such activities
- Maximum height of contractor's equipment in the work area is restricted to 25-feet above ground elevation unless otherwise noted in the plans. Any equipment over 25-feet necessary to complete the work will require submittal of an FAA Form 7460-1 and requires an airspace review. FAA airspace review will require submittal by the contractor of a separate FAA Form 7460-1 for each piece of equipment that exceeds he maximum height and for each work area as noted in the construction activity plan sheets for the areas the equipment will occupying.
- Approach and departure surface construction activities shall not adversely affect the approach and departure surfaces of active runways under the phasing plan. Work areas shall be cleared for a 25' height limit via 7460. The contractor shall ensure that all work or staging areas be cleared of any object that may penetrate the 25' height limit at any times runway 14L-32R is open throughout the project.
- No stockpiling of material will be allowed within any active runway, taxiway, or taxilane object free areas. The contractor shall coordinate and receive approval from airport operations, through the construction management team, before stockpiling any material
- Material stockpiles, if approved, may not obstruct the line-of-sight between the airport ATCT and any active portion of the AOA. Properly stockpiled loose material capable of being displaced must be constrained to prevent its movement as a result of aircraft jet blast or wind conditions.
- Airport operations shall be responsible for notification and issuance of NOTAMs throughout the duration of construction
- The tables presented below reflect the scheduled work affecting airport runways during each phase and their status for that phase

Operational Impact Table - 14L-32R

ELEMENT	EXISTING	PHASE 1	PHASE 1A	PHASE 2
Runway 14L-32R				
ADG	V	V	V	V
Width	150	150	150	150
RSA	250*	250*	250*	250*
ROFA	400*	400*	400*	400*

Measured from runway centerline

Operational Impact Table - Taxiway K

ELEMENT	EXISTING	PHASE 1	PHASE 1A	PHASE 2
Taxiway K				
ADG	V	V	V	V
Width	75	75	75	75
TSA	214*	214*	214*	214*
TOFA	285*	285*	285*	285*

Measured from taxiway centerline

Operational Impact Table - Taxiway K4

ELEMENT	EXISTING	PHASE 1	PHASE 1A	PHASE 2
Taxiway K4				
ADG	V	V	V	III
Width	100	100	100	100
TSA	107*	107*	107*	59*
TOFA	160*	160*	160*	85.5*

* Measured from taxiway centerline

No cranes anticipated for this project. If required, contractor shall notify the airport and engineer. The equipment must be airspaced by FAA

4. Protection of Navigation Aids (NAVAIDs) :

There are no anticipated impacts to NAVAIDs. See NAVAID Facilities Table below

NAVAID Facilities Table - Runway 32R

ELEMENT	EXISTING	PHASE 1	PHASE 1A	PHASE 2
Runway 32R	Active	Active	Active	Active
Localizer	Active	Active	Active	Active
Glide Slope	Active	Active	Active	Active
MALSR	Active	Active	Active	Active
PAPI	Active	Active	Active	Active

NAVAID Facilities Table - Runway 14L

ELEMENT	EXISTING	PHASE 1	PHASE 1A	PHASE 2
Runway 14L	Active	Active	Active	Active
Localizer	Active	Active	Active	Active
Glide Slope	Active	Active	Active	Active
MALSR	Active	Active	Active	Active
PAPI	Active	Active	Active	Active

5. Contractor Access :

- The project includes some work areas that are located inside the Aircraft Operations Area (AOA). No personal vehicles of contractor's employees will be allowed inside the secured area of the airport. All material deliveries shall be received in the staging area reserved by the contractor. No delivery trucks will be allowed access to a secured area of the airport beyond this staging area. Stockpiled materials and equipment are not permitted within the active runway safety area and object free zone. The contractor shall receive approval fron the engineer and FAA prior to locating stockpiles or equipment within the object free area. safety area, or object free zone. No stockpile within the staging area shall be greater than 25-ft in height. No stockpile within the work zone shall be greater than 15-ft in height.
- When any vehicle, other than one that has prior approval from the airport operator, must travel over any portion of an aircraft movement area, it shall be escorted and properly identified. To operate in those areas during daylight hours, the vehicle must have a flag or beacon attached to it. Any vehicle operating on the movement areas during hours of darkness or reduced visibility must be equipped with a yellow flashing dome-type light in accordance with FAA AC 150/5210-5D.
- All construction vehicles shall be clearly identified for control purposes by prominently displaying the company name on each side of the vehicle on the driver and passenger doors. Vehicles shall also be escorted by a properly marked and equipped vehicle. The identification logos are to be no less than 12"x12", and readable from a distance of 250 feet They shall be printed or pasted on and must be commercially made. Magnetic signs are also acceptable. In addition, vehicles must display identification media, as specified in the approved security plan
- All contractor vehicles shall have an operable fire extinguisher located inside the vehicle.
- All vehicle operators having access to the movement area must be familiar with airport procedures for the operation of ground vehicles and the consequences of noncom or be escorted by someone who is. As part of the badging process, the contractor shall undergo training for movement within the aircraft movement area. In addition, the contractor shall be briefed on areas they are allowed to move freely and areas where
- 6. Refer to specification SP-9 for badging requirements.
- Vehicular traffic located in or crossing an active movement area must have a working two-way radio in contact with the control tower or be escorted by a person in radio contact with the tower. The driver, through personal observation, shall confirm that no aircraft is approaching the vehicle position. Construction personnel may operate in a movement area without two-way radio communication provided a NOTAM is issued closing the area and the area is properly marked to prevent incursions. Two-way radio communications are required between contractors and the Airport Traffic Control Tower (ATCT) (Scott tower frequency: 128.25 / Scott ground frequency 119.20). Continuous monitoring is required.
- Control of gates the contractor shall be responsible for maintaining the security of the access gates by keeping the access gate locked or guarded at all times. Should the contractor fail, at any time, to keep the access gate locked or guarded, there shall be a fine of \$500.00 assessed to the contractor plus any fines levied against the airport for the contractor's actions, for each occurrence that the contractor fails to maintain the security of the access gate. All fines assessed to the contractor shall be deducted from any monies
- The contractor shall obtain all necessary permits and temporary easements for the public access road(s) shown on the construction activity plan and shall comply with all requirements, load restrictions and traffic control signage required by the city, county township and IDOT
- 10. The contractor shall keep a record of the names of all employees, including subcontractor employees, entering the job site on a daily basis
- When the contractor is not working, equipment shall be properly stored at the staging area. The contractor may only store equipment and materials at the locations shown on the construction activity plan.
- 12. All pavements, drives or any other areas utilized by the contractor for haul roads or storage areas shall be maintained and repaired to the same condition or better than they were prior to beginning the work. No additional compensation will be made for this work.
- The contractor shall ensure all vehicle and equipment operators utilized on the project are properly trained on the use and operation of the vehicle or equipment.
 - The contractor shall notify the Aircraft Rescue and Fire Fighting (ARFF) facility if construction activities will require the blockage of emergency access to the airport.
- The airport reserves the right to restrict access to certain areas of the airport or airfield at time due to operational requirements

Wildlife Management:

- The contractor shall maintain the construction sites, haul routes and storage areas in compliance with industry best management practices to avoid creating wildlife attractants of
- 2. The contractor shall be responsible to mitigate any standing water caused by any construction or contractor activities within 24 hours of an event
- No food or food related debris are to be left or stored within the airport air operations area including any alternative. AOA construction staging. At the contractors staging and storage area outside the AOA, all drums or containers used to hold trash and debris shall be clearly labeled "trash" and be emptied regularly.
- The contractor shall immediately report any damage to gates or fences. access gates shall remain closed when the contractor is not working. The contractor shall be responsible for repairs to any gates or fences caused by negligence of the contractor.
- The contractor shall notify the airport immediately of any wildlife sightings

7. Foreign Object Debris (FOD) Management & Dust Control:

- The contractor shall become familiar with the requirements of airfield work and Foreign Object and Debris (FOD) Management including dust control. This item shall be specifically addressed in the contractors SPCD as detailed in the project documentation. Reference FAA AC 150/1510-24. Foreign Object Debris (FOD) Management for further instruction
- The contractor shall not place waste and loose material in active movement areas. Materials tracked on these areas shall immediately be removed
- Properly stockpiled loose material capable of being displaced must be constrained to prevent its movement as a result of aircraft jet blast or wind conditions
- The contractor shall ensure all loads are secured and/or covered during transport and be loaded such that no spillage occurs during transit
- Haul routes, access roads, and any part of active aprons, or taxiways used by construction traffic shall be kept continuously clean at all times. A minimum of one (1) each, mechanical sweeper and vacuum truck shall be kept on site at all times during the life of this contract per the project documentation. The contractor shall also show evidence of availability of replacement equipment meeting the same within two (2) hours of an equipment breakdow or to supplement staged equipment should it be deemed necessary by airport operations for continued contractor operations.
- All sweeper operators shall be trained and badged for unescorted access to the AOA. All personnel who will operate equipment inside the AOA shall receive driver training from airport operations prior to operating on the airfield. Sweeper crews shall monitor all ATCT communications and be attentive of all airport activities and aircraft movemen
- The contractor shall maintain construction areas, including haul roads, staging areas, and adjacent airfield payements in a clean condition and shall not allow any sizable accumulation of debris in the construction area. In addition to the mechanical sweeper and vacuum, the contractor shall utilize whatever other equipment and means necessary to eep these routes free and clear of dust, debris, mud, etc
- 8. In such a situation where a significant amount of debris is deposited on active pavements the contractor shall immediately notify the airport and engineer
- Airport operations reserves the right to suspend contractor operations when at its discretion the contractor's dust control and FOD management becomes ineffective.

Hazardous Materials (HAZMAT) Management:

- The contractor shall develop a hazardous materials (HAZMAT) management and response plan. Copies of this plan shall be maintained on the jobsite.
- The contractor shall also develop a HAZMAT communication plan. The plan shall list and include copies of Material Safety Data Sheets (MSDS) for all hazardous materials being handled on the jobsite. Copies of this plan shall be maintained at all staging and storage areas and on the jobsite. Copies of the plan shall also be submitted to airport operat
- The contractor shall not refuel equipment within the AOA. The contractor shall maintain on hand a spill response kit to expeditiously contain and clean-up spills resulting from fuel or hydraulic fluid leaks, consistent with their HAZMAT management and response plan
- The contractor shall notify the airport operations immediately in the event a release of hazardous material occurs or if signs of potential contamination by hazardous materials are encountered during excavation or other construction activities.

(NOTES CONTINUE ON SHEET GC002)



License No. 184-000613

CONSULTANTS

100% SUBMITTAL MARCH 1, 2024

TERMINAL APRON EXPANSION



MIDAMERICA ST. LOUIS AIRPORT ST. CLAIR COUNTY. IL

	MARK	DATE	DESCRIPTION				
•							
	BLV PROJECT NO. 2024-04						
	IL PROJECT NO. BLV-5101						
	CMTF	ROJECT	NO: 22001186.00				

CAD DWG FILE: 22001186 - GC000.DWG DESIGNED BY: CMT DRAWN BY: CMT

CHECKED BY: CMT

PPROVED BY: CMT COPYRIGHT: CRAWFORD, MURPHY & TILLY, INC. 202

CONSTRUCTION **ACTIVITY PLAN** NOTES 1

GC001

_{SHEET} 6

(NOTES CONTINUED FROM SHEET GC001)

9. Notification of Construction Activities:

- All work which may impact airport operations shall be coordinated through the construction management team with airport operations.
- The contractor shall supply a 24-hour contact list for at least two (2) representatives who shall be authorized to correct any unsafe conditions which may arise during off hours, in a timely manner. The list shall be supplied to all parties prior to construction.
- Contacts for this project are as follows:

Airport Operations & Management Airport Director - Darren James Assistant Airport Director - Jennifer Hogancamp Manager - Airport Public Safety - John Whisenant Airport Operations Center (AOC)	(618) 566-5240 (618) 566-5241 (618) 566-5225 (618) 566-5233
Engineering & Planning Engineering & Planning - Dan Trapp, P.E. Airport Engineer - Ethan Sisk	(618) 566-5322 (618) 566-5359
Airport Maintenance Airport Maintenance - Brian Gieseking	(618) 566-5211
Engineer Project Manager - Ty Sander, P.E. Project Engineer - Tom Morris, P.E.	(314) 571-9066 (314) 571-9080

- The contractor shall provide a minimum 72-hour notice to airport operations prior to commencing any work affecting operations so that proper NOTAMs may be issued by the
- Any deactivation of water lines or hydrants, rerouting of access routes, or use of hazardous materials on the airfield shall be coordinated and approved by the airport's ARFF personnel
- Airport operations shall be responsible for coordination with local ATO/technical operations personnel. Shutdown of any NAVAID (airport or FAA owned) shall be coordinated with the FAA ATO 45 days prior to the proposed shutdown. The contractor shall provide an additional seven days advance notice to the airport to coordinate with the FAA ATO tech ops office responsible for the FAA facilities
- NOTAMs will be issued and updated by airport operations with the latest airport construction information. Before beginning any construction activity, the contractor must through airport operations, give notice using the NOTAM system of proposed location, time and date of commencement of construction. The contractor shall coordinate all work through the construction management team with airport operations. Compliance with airport NOTAM shall be addressed within the contractor's SPCD. The NOTAM system will be supplemented with an appropriate aeronautical construction notice disseminated to the ATC, all tenants and ARFF personnel. Upon completion of work and return of all such areas to standard conditions, the contractor must, through airport operations, verify the cancellation of all associated notices issued via the NOTAM system
- Airport operations is responsible for coordination and notification to the FAA under 14 CFR Part 77 and 157. The airport through the engineer has submitted for review, the critical points and equipment heights for various routes and areas affected by this work under the FAA's 7460 airspace review and obstruction evaluation procedures
- An FAA airspace review will require the contractor to submit for review at least 45-days prior to anticipated use a separate FAA Form 7460-1 for each piece of equipment that exceeds the maximum height and for each work area as noted in the CAP sheets for the
- 10. In the event of an emergency, the contractor shall first call 911, then immediately notify the engineer and the AOC.

10. Inspection Requirements:

- All construction activity within the Air Operations Area (AOA) will be subject to continuous monitoring by airport operations personnel who are fully trained in Part 139, airfield construction management requirements and airfield operating procedures.
- The contractor shall conduct inspections at least daily, but more frequently when conditions dictate, a template checklist for inspections is provided in Appendix D of AC 150/5370-2G. This document is also included as Appendix B in this CSPP. Inspections shall include but not be limited to, barricade locations, barricade lighting, light and sign operation, runway and taxiway closure markers, covers on taxiway guidance signs, and FOD (foreign object debris) potential affecting active airfield pavements.
- The airports construction management team is responsible for all construction inspection regarding contract compliance. All construction areas will be inspected by airport operations
- Re-opening of payements after a construction activity or other closure will only be approved by airport operations and will only be approved on the basis that the contractor has met the requirement for opening airfield pavements as outlined in the contract. The contractor shall include sufficient time within the allowable scheduled closure requirements to commodate inspection of pavements to be opened by airport operations.

11. Underground Utilities:

- The contractor is required to comply with all airport safety provisions, and permit and certification requirements such as underground utility mark-out, electrical circuit shutdown welding, confined-space, etc.
- It will be necessary for the contractor to make a field investigation to determine the exact location of the underground utilities. The location of underground utilities as indicated on the plans has been obtained from existing records. Neither the owner nor engineer assumes any responsibility in respect to the accuracy, completeness, or sufficiency of the information. Any utility, including airfield electrical cable and lights damaged by the

contractor shall be repaired by the contractor at its own expense in a manner which is satisfactory to the engineer and to the owner of the utility. Any repairs that must be made by the owner of the utility shall have the cost reimbursed to the utility by the contractor Airfield lighting cables damaged by the contractor shall be repaired by a qualified electrician

- All work must be coordinated with airport operations personnel including dates of construction and proposed construction methods for determining existing cable and utility
- 4. The contractor is responsible for locating, marking, and protecting all utilities, impacted by construction activities. Prior to construction the contractor shall notify the utility company, the airport, and other airport tenants of it's operational plans and make arrangements for detailed information and assistance in locating utilities. The list of utility companies to contact can be found in the project documentation. This procedure shall be followed for all construction activities in all areas.
- Before initiating any digging, drilling or excavation on airport property, the contractor shall call J.U.L.I.E. and contact the local FAA office to arrange for utility locates.
- The contractor shall take care when working in the vicinity of existing airport lighting systems. Should the contractor damage any airport lighting system, the contractor shall immediately contact airport operations and the engineer. The contractor shall immediately repair or replace the damaged system. Any repairs or replacement shall be to the satisfaction of the airport.
- 7. The contractor shall use extreme caution when working in areas near FAA underground cables. The contractor shall notify airport operations personnel a minimum of 72 hours prior to construction in these areas to ensure no FAA utilities will be impacted. any FAA equipment or utilities damaged during construction shall be replaced by the contractor at no expense to the owner or the FAA.
- Damaged FAA cables/equipment shall be repaired as approved by FAA technical operations personnel. Airport operations will notify the local FAA technical operations personnel, FAA 139 inspector and the FAA state airport engineer in the event of an unscheduled lighting interruption.
- Utility contacts for this project are as follows

Water SLM Water Commission City of Mascoutah	(618) 566-7100 (618) 566-2964 ext. 108
Oity of Mascodian	(010) 300-2904 EXt. 100
Electric	
City of Mascoutah	(618) 566-2964 ext. 108
Ameren (Electric)	(309) 945-5695
<u>Gas</u>	
Ameren (Gas)	(618) 236-6242
Sanitary Sewer	
	(0.10) =00 0001
City of Mascoutah	(618) 566-2964 ext. 108

City of Mascoutah	(618) 566-2964	ext.
Communication		
Frontier (Copper & Fiber)	(217) 243-0211	
Everstream (Fiber)	(314) 722-0052	
Clearwave (Fiber)	(618) 841-2600	
Charter	(636) 387-6633	

- The airport reserves the right to temporarily suspend contractor activities for airport operations and emergencies at no additional cost to the airport. The contractor shall comply with all airport requirements and direction provided by airport personnel in the event of an urgent operational need or emergency.
- 2. Incursion onto or across an active runway, safety area, approach area, or taxiway safety area without prior approval of airport operations is a serious violation that will subject the contractor to the maximum fine allowed by the Federal Aviation Administration. Any violations of FAA rules and regulations may directly subject the contractor to those fines imposed by the FAA.
- At no time shall contractor personnel or contractor vehicles cross any barricade line without prior Air Traffic Control Tower (ATCT) permission
- The airport reserves the right to suspend work in the event the contractor violates airport requirements, construction safety and phasing requirements, the CSPP, or the SPCD; and will only allow the contractor to proceed with the work when the contractor takes documented corrective action to prevent future violations
- Failure of the contractor (including employees) or any of his subcontractors (including employees) to comply with airport instructions, the CSPP, the SPCD, or any of the other requirements of the airport while operating on airport property, shall be subject to the

First offense - the vehicle operator will receive a loss of driving privileges on the airport. In addition, any fines or penalties imposed on the airport as a result of the incident will be assessed to the contractor.

Second offense - the vehicle operator will receive a loss of driving privileges on the airport. In addition, any fine or penalties imposed on the airport as a result of the

Third offense - work will be suspended. The contractor (including employees) and any of his subcontractors (including employees) who will operate ground vehicles on the airport shall successfully complete, for a second time, formalized airport safety training, to be conducted by airport staff. When the contractor's employees have completed airport safety training to the satisfaction of the owner, work may continue at the discretion of the

13. Special Conditions:

- Airport runways, taxiways and ramp areas shall remain in use by aircraft to the maximum extent possible during the project. The contractor's operation shall be controlled to minimize disturbance to aircraft area including dust control procedures and debris control
- The contractor shall provide and maintain lighting, and/or signs adjacent to the work area or any lighting and signage affected by electrical work related to the contract worl
- The contractor, construction employees, sub-contractors, delivery and haul operators, or any other support workers required to enter the aircraft operations area related to contract work shall wear a reflective safety vest, day or night.
- The contractor shall coordinate all artificial lighting activities and proposed locations with the airport operations prior to the implementation of any artificial lighting on the project. Care shall be taken to shield the Air Traffic Control Tower from any high intensity site lighting during nighttime or other work activities utilizing artificial lighting
- In the event of an unexpected weather event the contractor is required prior to leaving the area - to ensure the site is secure and free from equipment or material having the potential of being dislodged contributing to a DOD/debris hazard to aircraft or personnel and equipment operating on the airport. Additionally, the contractor shall ensure all barricades and hazard lighting are in place prior to vacating the site
- Following a weather event the contractor shall police the work area(s) restoring barricades hazard lighting, and other safety measures. in addition, the contractor shall mitigate any potential hazards including standing water to the satisfaction of airport operations and the
- In the event of an emergency, airport operations may request the contractor temporarily suspend work activities, and may request the contractor vacate the work site, until the emergency event is satisfactory addressed. Upon receiving such notification, the contractor shall immediately suspend work operations and remain or relocate as directed by airport

Runway and Taxiway Visual Aids:

- Existing airfield lighting systems shall be kept in operation during the construction unless otherwise specified or with prior approval from airport operations. The contractor shall provide a plan for temporary splices of primary cable to the construction management team prior to interrupting any circuit. Coordinate with construction management and electrical naintenance prior to the start of any work.
- The contractor shall cover elevated lights if lighting circuit must be maintained for active
- The contractor shall de-energize or cover lights for all closed taxiways during pavement closures. Temporarily covering or de-energizing airfield signage as shown on the construction activity plan sheets shall be implemented immediately upon the initiation of each
- All temporary or permanent runway and taxiway visual aids shall conform to the requirements of the most recent edition of FAA AC 150/5340-1.
- The contractor shall install taxiway closure markers as shown on the construction activity plans. The taxiway closure markers shall be placed at all runway/taxiway or taxiway/taxiway intersections at the entrance to the closed taxiways. At intersecting taxiways, the contractor shall place barricades as shown on the construction activity plan sheets. The barricades shall be located outside the safety area. Low profile barricades with flashers shall be placed at the spacing shown on the construction activity plans for each phase
- All runway hold signs shall remain operational and uncovered at all times throughout the

Marking and Signs for Access Route:

Contractor shall clearly mark all access and haul routes. Signs will be in accordance with AC 150/5340-18. The contractor shall set up a lathe line as noted on the construction activity plan sheets for each particular phase and work area to indicate areas off-limits for contractor's vehicles and personnel. Lath lines shall be offset a minimum of 107 feet from taxiway centerlines and 250 feet from runway centerlines unless noted otherwise on the construction activity plans. The contractor shall include flag rope strung between each lath.

Hazard Marking and Lighting:

- The contractor shall place and maintain barricades marking the closure of various work areas as shown on the construction activity plan sheets. Each barricade must be equipped with battery or solar operated red flashing lights.
- Marking and lighting of closed, deceptive, or hazardous areas is required as directed by the airport including prominently marking open trenches and excavations at the construction site and lighting these obstacles during hours of restricted visibility and darkness in accordance with FAA AC 150/5370-2G.
- The contractor shall submit to the construction management team and the airport a name and phone number of two individuals who will be available on a 24-hour call basis for emergency barricade and barricade lighting maintenance as well as maintenance and repair of temporary electrical systems and wiring.
- All Air Operations Areas (AOA) not in compliance with FAA Part 139 shall be closed, secured and appropriate notification disseminated. Access to hazardous areas shall be restricted and all hazards shall be marked with barricades and flashing red lights in order to make the hazard obvious to aircraft, personnel, and vehicles as shown in the construction drawings.
- Pavement markings leading into closed areas as shown on the construction activity plan sheets shall be removed or obscured by the contractor during all phases. Pavement marking shall be replaced as shown on the plan-
- Hazards such as open utility covers, areas under repair and stockpiled materials shall be marked and lighted with cones or barricades.

- Barricades and signs that are affixed to the pavement surface must be frangible at grade level or as low as possible, but not to exceed 3 inches above the ground. Non-frangible hazard barricades such as concrete barriers, 12x12 railroad ties and/or metal-drum-type barricades are not to be use in aircraft movement areas.
- The contractor personnel shall be educated as to the dangers of jet blast. The contractor shall ensure adequate distance for aircraft engine blast protection within the work site is
- All barricades must be weighted to the pavement surface to prevent displacement from property wash, jet blast, wing vortex, or other surface wind currents.
- 10. Barricades and red flashing lights are required for taxiway closures as shown in construction
- Construction drawings may direct the contractor to supply and place signs and other construction barricades to completely enclose a stage or construction area. All barricades temporary markers, and other objects placed adjacent to active safety areas shall not exceed 18" For other areas in the object free area (OFA) a 5' vertical and horizontal clearance must be maintained. Safety areas associated with any open runway, taxiway, or taxilane must be as low as possible to the ground; of low mass; easily collapsible upon contact with an aircraft or any of its components. Barricade locations are shown on the drawings.
- The contractor shall supply and place flashing red lights and barricades marked with diagonal, alternating orange and white stripes as shown on the construction activity plans
- Any advisory sign warning employees of an active movement area must be low mass and collapsible. If installed within an active pavement object free area, it must be less than 18 inches.

17. Work Zone Lighting for Nighttime Construction:

- The contractor shall provide adequate lighting during nighttime construction
- Artificial area lighting shall consist of vehicle or pole mounted floodlights of sufficient number to illuminate the work area. Vehicle headlights will only be allowed in addition to the area
- Artificial area lighting shall not interfere with air traffic or ATCT operations.
- Placement and aiming of artificial lighting shall be approved by the airport prior to start of

18. Protection of Areas and Surfaces:

- The contractor must comply with all safety requirements and specific airport requirements including permits for open-flame welding or torch cutting operations and airfield lighting o electrical power interruptions.
- If, during construction, an emergency is declared by the airport, the contractor shall abide by all instructions from airport operations
- Electrical blasting caps are not permitted within 1,000 feet of the airport property. Flare pots are not permitted within the air operations area
- All debris shall be disposed of off airport property unless otherwise specified in the contract
- When modifications to the security fencing are required the contractor shall sequence the work in order to maintain a secured perimeter at all times. Prior to initiating the work, the contractor shall submit a phasing plan for review and approval by the airport indicating how a fully secured perimeter will be maintained. When possible, all new security fencing shall be installed and approved by the airport prior to the removal of existing security fencing. If it is not possible to sequence the fencing to maintain a fully secured perimeter the contractor shall provide a 24-hour security guard, utilizing the airport's approved security contractor to monitor any temporary openings in the security fencing. Temporary openings that are monitored by a security contractor shall not exceed 30' in width

19. BLV Badging Requirements:

See specification SP-9 for badging requirements.



License No. 184-000613

CONSULTANTS

100% SUBMITTAL MARCH 1, 2024

TERMINAL APRON EXPANSION



MIDAMERICA ST. LOUIS AIRPORT ST. CLAIR COUNTY. IL

MARK	DATE	DES	SCRIPTION			
BLV P	ROJECT	NO. 2	2024-04			
IL PROJECT NO. BLV-5101						
CMTF	CMT PROJECT NO: 22001186.00					
CAD	WG FILE	Ξ:	22001186 - GC000.DWG			
DESIG	NED BY	:	CMT			
DRAW	N RY		CMT			

COPYRIGHT: CRAWFORD, MURPHY & TILLY, INC. 2021

CMT

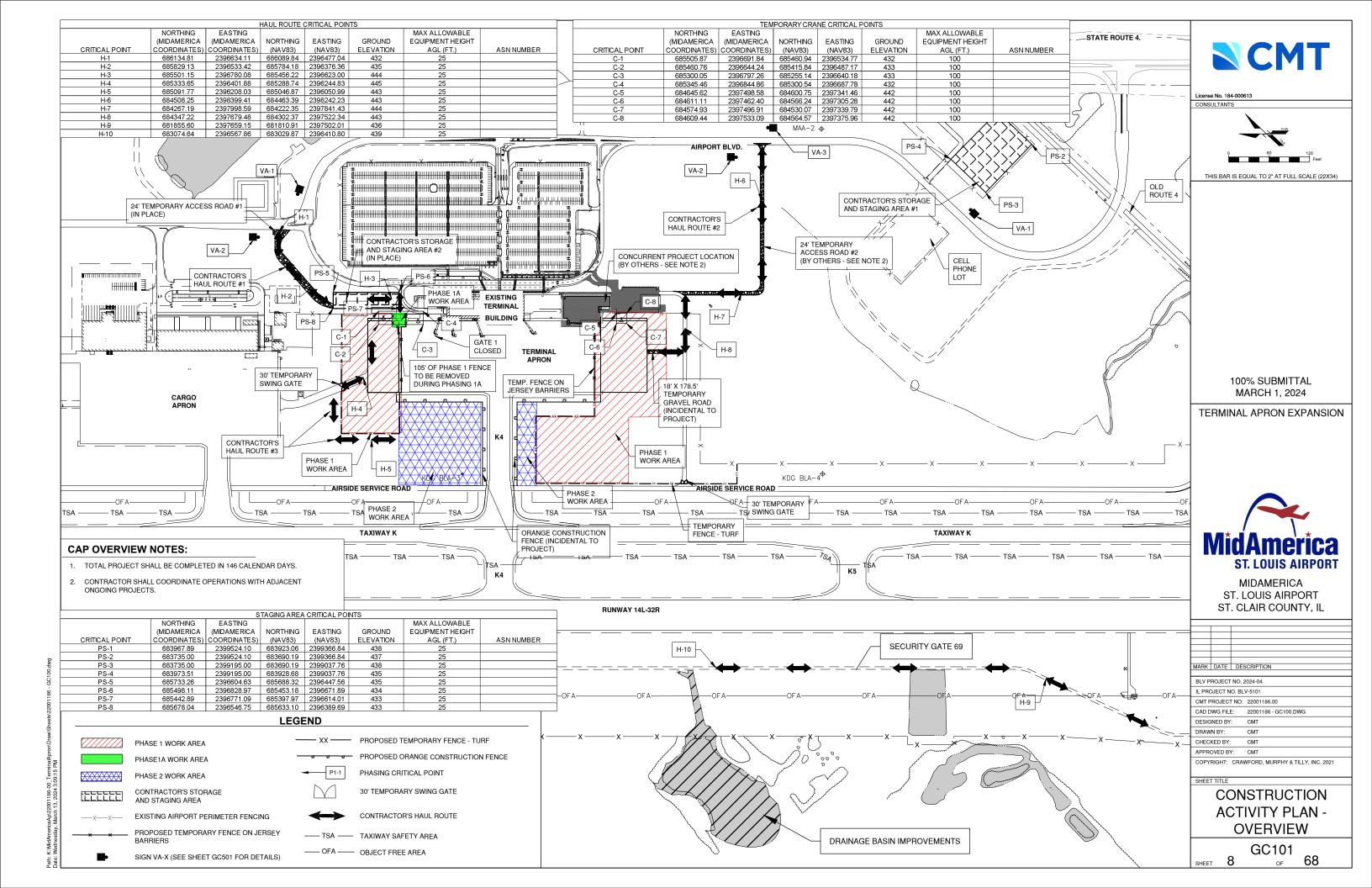
CMT

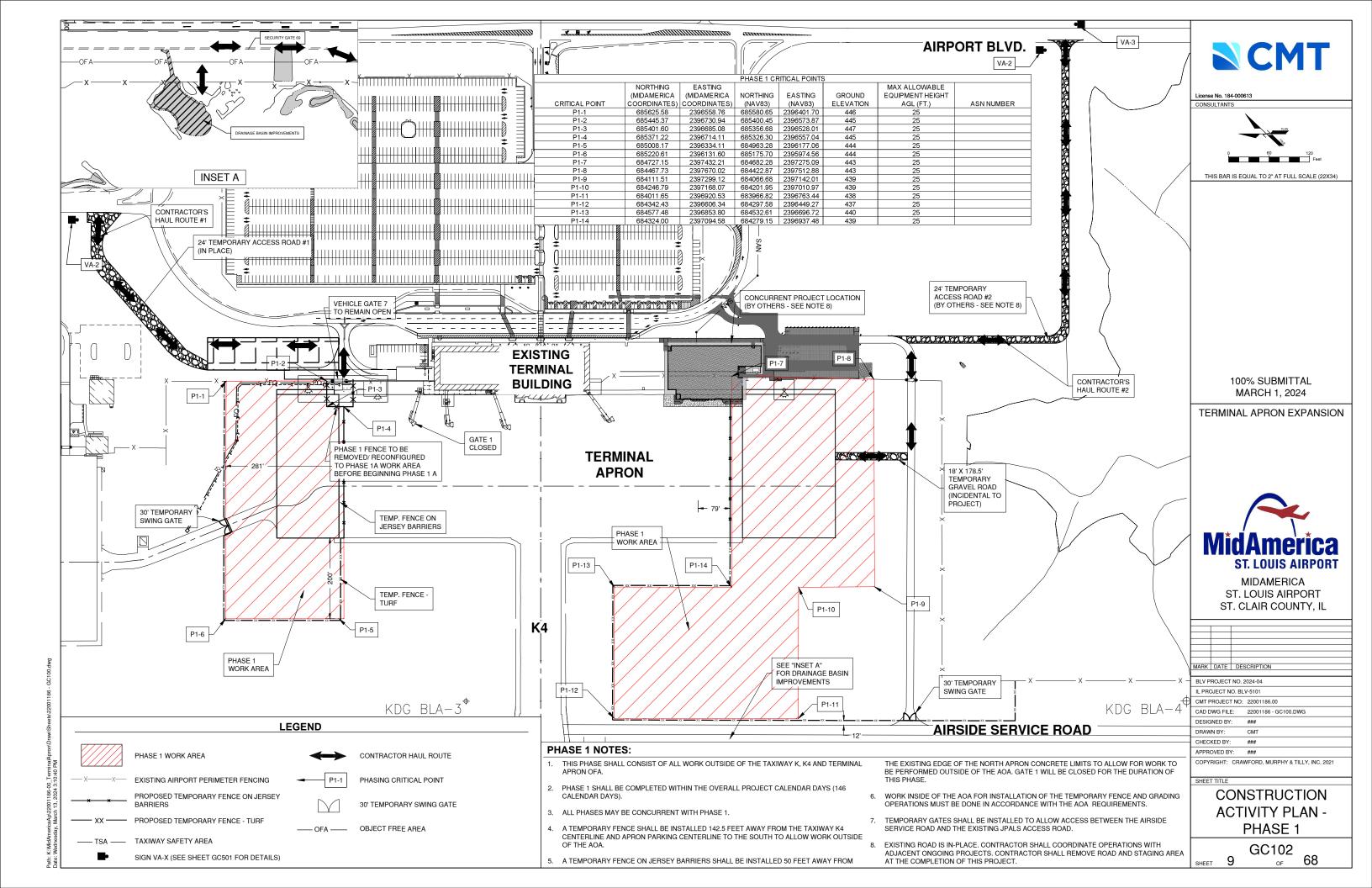
CHECKED BY:

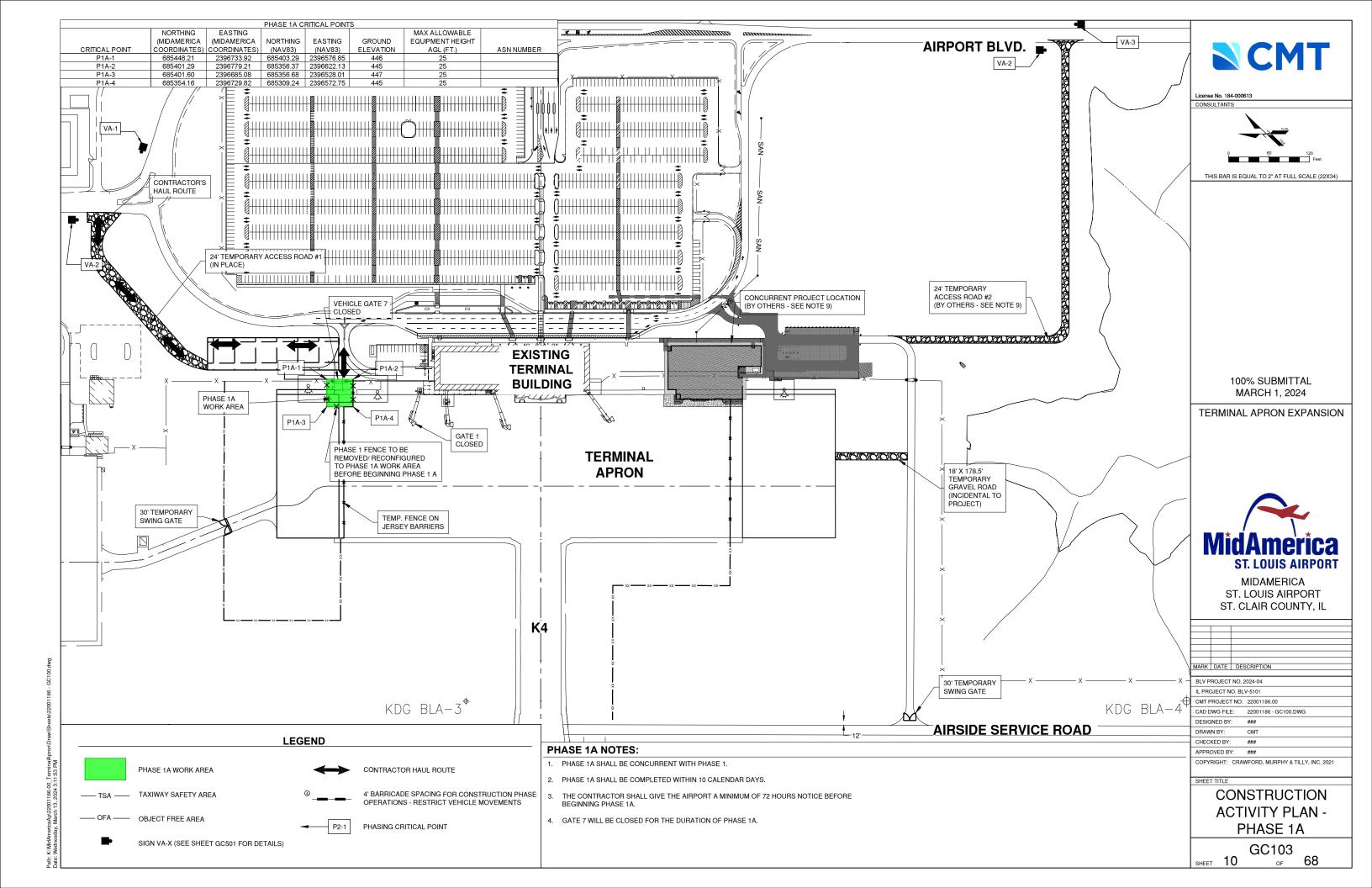
PPROVED BY:

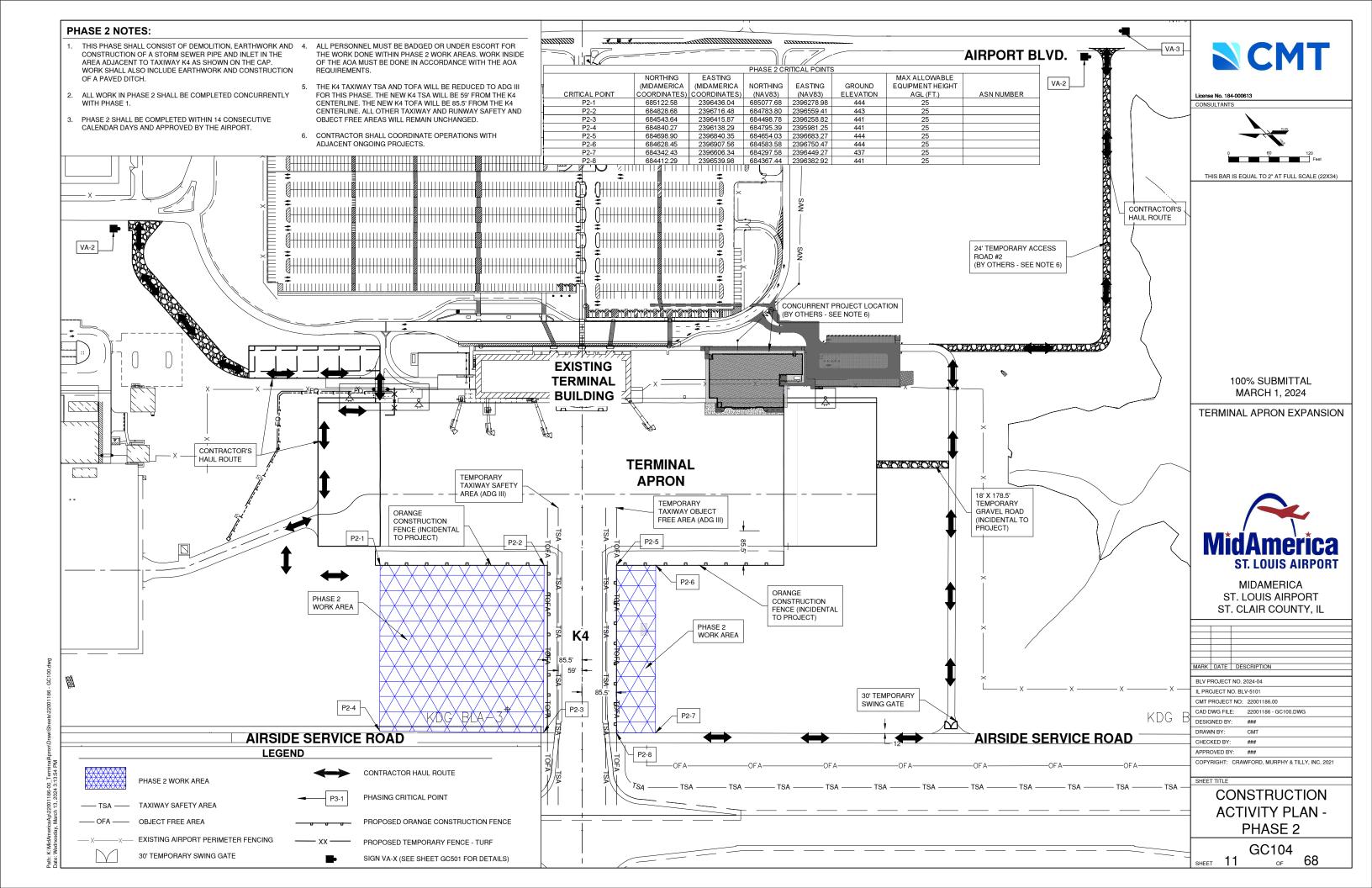
CONSTRUCTION **ACTIVITY PLAN** NOTES 2

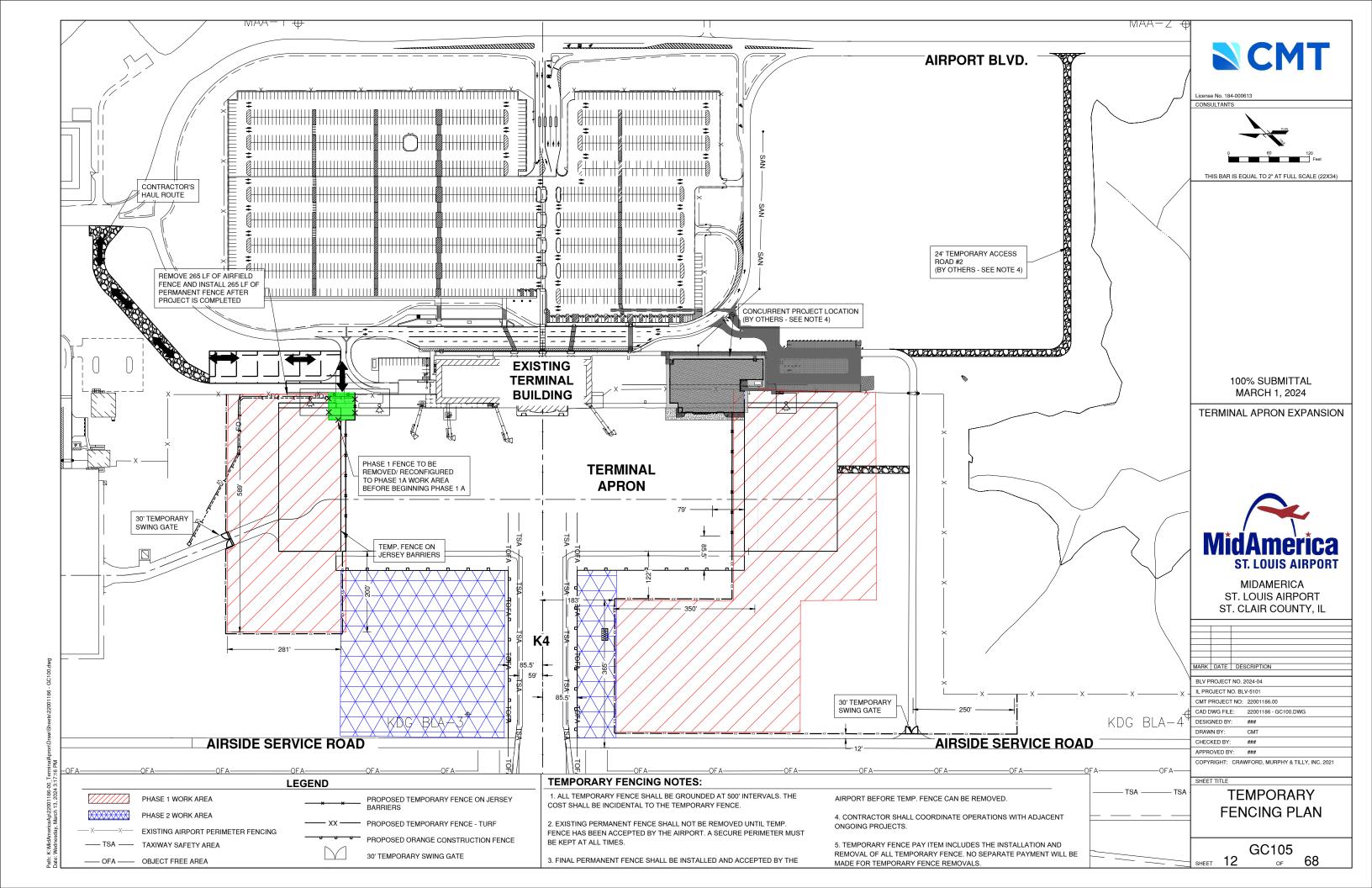
GC002

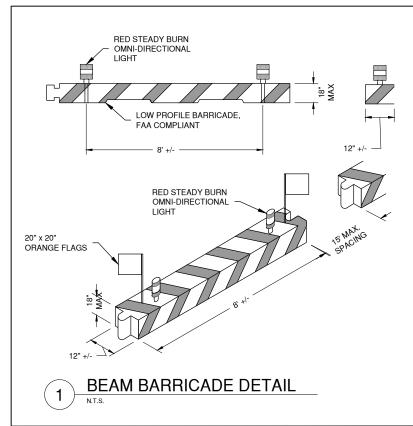






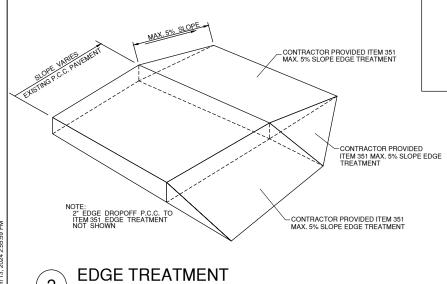


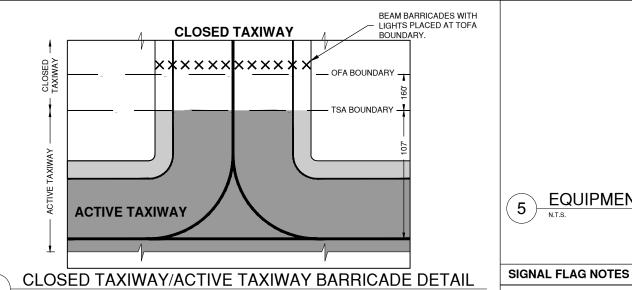




BEAM BARRICADE NOTES

- BARRICADE SHALL BE WEIGHTED TO WITHSTAND DISPLACEMENT BY WIND, JET OR PROP BI AST
- 2. BARRICADE MUST BE OF LOW MASS AND EASILY COLLAPSIBLE UPON CONTACT WITH AN AIRCRAFT.
- 3. NO SEPARATE PAYMENT WILL BE MADE FOR THIS ITEM. COSTS SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.
- 4. PLACE AS SHOWN IN PLANS AND AS DIRECTED BY THE ENGINEER.
- 5. BARRICADES SHALL BE COMPLIANT WITH FAA AC 150/5370-2 (LATEST VERSION).
- 6. THE CONTRACTOR MAY USE THE LIMITED NUMBER OF BLV SUPPLIED BARRICADES BUT MUST MAINTAIN THE LIGHTS AND <code>FLAGS</code> REQUIRED.





CONSTRUCTION VEHICLE ACCESS

VA-1 _30" x 30"



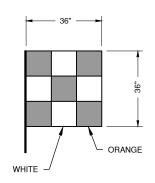
CONSTRUCTION VEHICLE ACCESS

VA-2 30" x 30" VA-3 30" x 30"

CONSTRUCTION ACCESS SIGN DETAILS

EDGE TREATMENT NOTES

- EDGE TREATMENT MUST BE IN PLACE ANYTIME TAXIWAY IS TO BE OPEN TO AIRCRAFT TRAFFIC AT THE END OF EACH WORK PERIOD. THIS INCLUDES THE TIME TO COMPLETE ALL CLEAN UP AND OBTAIN INSPECTION AND APPROVAL BY AIRPORT OPERATIONS.
- 2. EDGE TREATMENT MUST BE USED ON ALL PHASES OF CONSTRUCTION DONE WITHIN THE PHASE 1 WORK LIMITS.
- 3. CONTRACTOR SHALL MAINTAIN AREA WITHIN WORK LIMITS SUCH THAT NO DROPOFFS OF GREATER THAN 3" EXISTING WHEN TAXIWAY IS OPENED TO AIRCRAFT TRAFFIC.
- 4. MAXIMUM SLOPES SHALL NOT EXCEED 5 PERCENT WHEN THE TAXIWAY IS OPEN TO AIRCRAFT TRAFFIC.
- 5. EDGE TREATMENT SHALL BE COMPACTED ACCORDING TO ITEM 351.
- 6. ALL COST ASSOCIATED WITH EDGE TREATMENT SHALL BE CONSIDERED INCIDENTAL TO THE CONTACT.
- ANY AGGREGATE SURFACES MUST BE COVERED WITH A SECURED BLANKET OR OTHER APPROVED MATERIAL PRIOR TO OPENING THE TAXIWAY TO AIRCRAFT OPERATIONS. MATERIAL AND METHOD OF SECURING SHALL BE APPROVED BY AIRPORT OPERATIONS PRIOR TO THE RE-OPENING TIME.

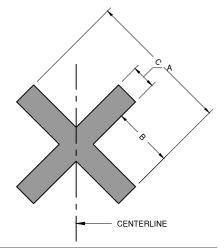




EQUIPMENT & VEHICLE SIGNAL FLAG

N.T.S. (ORANGE / WHITE)

- ALL CONTRACTOR VEHICLES AND EQUIPMENT SHALL DISPLAY COMPANY LOGO PLACARDS AND FLAG.
- WHEN WORKING PRIOR TO DAWN OR AFTER DUSK, A
 360 DEGREE ROTATING AMBER BEACON IS
 REQUIRED ON ALL EQUIPMENT AND TRUCKS.
- CONTRACTOR SHALL REPLACE FLAGS THAT ARE



'			
DIMENSION SYMBOL TYPE	Α	В	С
CLOSED TAXIWAY	5'-0"	12'-6"	30'-0"
CLOSED RUNWAY	10'-0"	25'-0"	60'-0"

NON-LIGHTED CLOSURE MARKER

NOTES

6

- CLOSURE MARKERS SHALL BE SOLID YELLOW.
- 2. MARKERS SHALL BE PLACED ON TAXIWAYS AT THE RUNWAY INTERSECTIONS INSIDE THE RUNWAY SAFETY
- 3. MARKERS SHALL BE PLACED ON RUNWAYS TO COVER THE NUMERALS ON BOTH ENDS.
- MARKERS MAY BE CONSTRUCTED OF FABRIC, COLORED PLASTIC, PAINTED SHEETS OF PLYWOOD OR SIMILAR MATERIALS.
- MARKERS SHALL BE SECURED TO PREVENT MOVEMENT BY PROP WASH, JET BLAST OR OTHER WIND CURRENTS. METHODS OF SECURING THE MARKERS SHALL NOT PROTRUDE MORE THAN 3" ABOVE THE PAVEMENT.

100% SUBMITTAL MARCH 1, 2024

TERMINAL APRON EXPANSION



MIDAMERICA ST. LOUIS AIRPORT ST. CLAIR COUNTY, IL

/ARK	DATE	DES	CRIPTION					
BLV PROJECT NO. 2024-04								
IL PRO	IL PROJECT NO. BLV-5101							
CMTF	ROJECT	NO:	22001186.00					
CAD	WG FILE	≣:	22001186 - GC500.DWG					
DESIG	DESIGNED BY: CMT							
DRAW	DRAWN BY: CMT							
CHEC	KED BY:		CMT					
APPROVED BY: CMT								
COPY	COPYRIGHT: CRAWFORD, MURPHY & TILLY, INC. 2021							

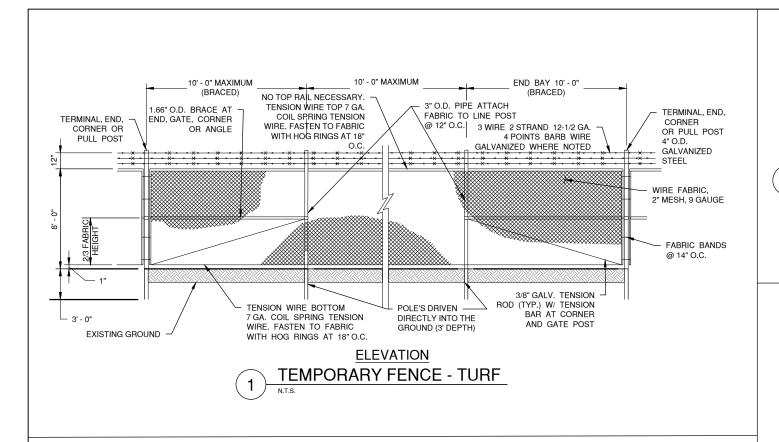
SHEET TITL

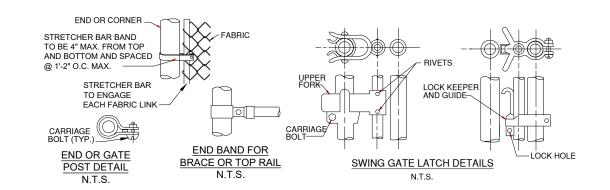
CAP DETAILS

68

GC501 SHEET 13 OF

Path: K:WildAmericaAp/22001186-00_TerminalApron\Draw\Sheets\22001186 - GC500





LINE POSTS	SIZE & WEIGHTS
SECTION	LBS./L.F.
PIPE TYPE A 2.375" O.D.	3.65
TERMINAL POSTS	SIZE & WEIGHTS

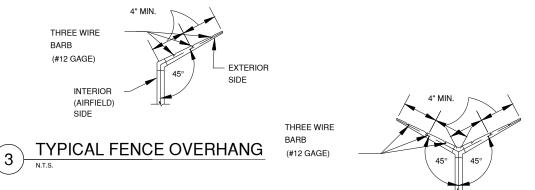
SECTION

PIPE TYPE A 2.875" O.D.

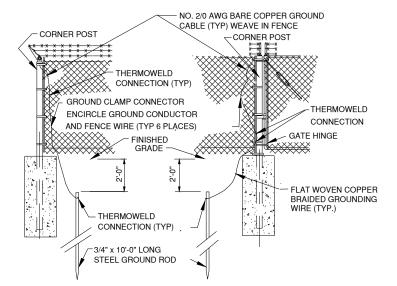
SECTION	LBS./L.F.
PIPE TYPE A 1.66" O.D.	2.27
HORIZONTAL BRACES	SIZE & WEIGHTS
SECTION	LBS./L.F.
	PIPE TYPE A 1.66" O.D. HORIZONTAL BRACES

GATE POST SIZE			
GATE OPENING	PIPE TYPE A SIZE		
24 FT.	6.625" O.D.		

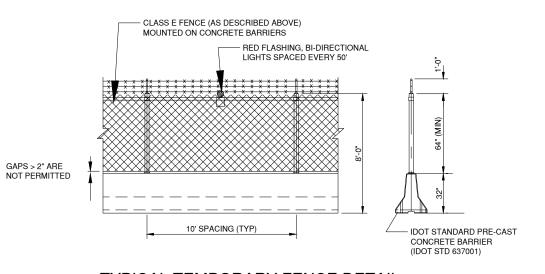




AOA/TENANT FENCE OVERHANG



TYPICAL FENCE GROUNDING DETAIL



TYPICAL TEMPORARY FENCE DETAIL (WHEN CONSTRUCTED ON EXISTING PAVEMENT) 6



100% SUBMITTAL MARCH 1, 2024

TERMINAL APRON EXPANSION



MIDAMERICA ST. LOUIS AIRPORT ST. CLAIR COUNTY, IL

MARK	DATE	DES	SCRIPTION			
BLV PR	OJECT	NO. 2	2024-04			
IL PRO	JECT N	O. BL	V-5101			
CMT PF	CMT PROJECT NO: 22001186.00					
CAD DV	CAD DWG FILE: 22001186 - GC500.DWG					
DESIGN	DESIGNED BY: CMT					
DRAWN	DRAWN BY: CMT					
CHECK	CHECKED BY: CMT					
APPRO	APPROVED BY: CMT					
COPYR	COPYRIGHT: CRAWFORD, MURPHY & TILLY, INC. 2021					

TEMPORARY FENCE **DETAILS 1**

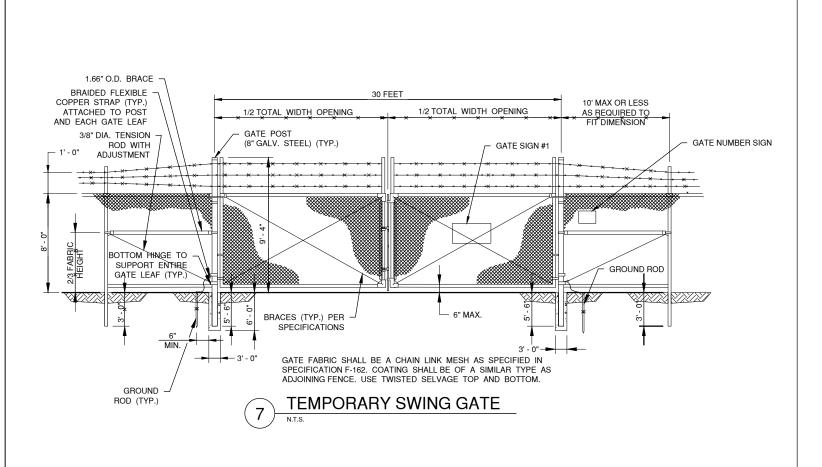
GC502 68 SHEET 14 OF

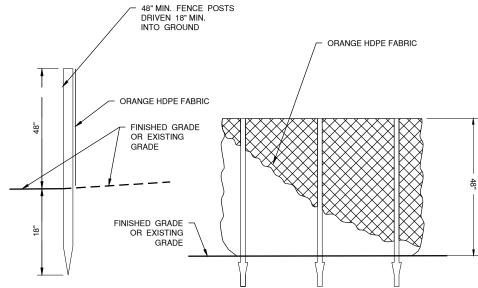
LBS./L.F.

GATE FRAMES

PIPE TYPE A 1.66" O.D.

SIZE & WEIGHTS

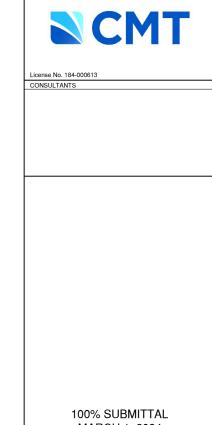




ORANGE CONSTRUCTION FENCE DETAIL

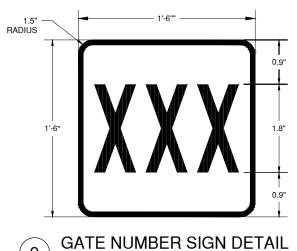
NOTES:

INCIDENTAL TO PROJECT.



MARCH 1, 2024

TERMINAL APRON EXPANSION



(PLACE BACK-TO-BACK ON EACH SIDE OF FENCE TO THE RIGHT OF GATE FROM PUBLIC POV)

FIFI D - BLACK LETTER STYLE - BLACK REFLECTIVE HELVETICA MEDIUM LETTER HEIGHT - 9" BORDER - 1/2" PLACE ON FENCE NEXT TO GATE

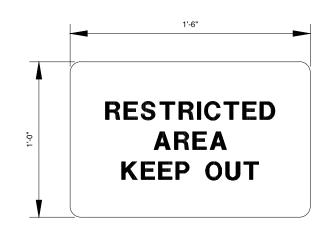
SIGN SHALL BE INSTALLED AT A HEIGHT OF 6'-0" FROM GROUND TO BOTTOM OF SIGN THIS GATE IS PART OF THE AIRPORT SECURITY LINE AS REQUIRED BY FEDERAL LAW AND SHALL BE KEPT **CLOSED WHEN NOT IN USE.**

3'-0"

GATE SIGN #1 DETAIL (10

(PLACE ON/FACING PUBLIC SIDE OF EACH GATE)

FIELD - BLACK LETTER STYLE - WHITE REFLECTIVE HELVETICA MEDIUM
LETTER HEIGHT - 1 1/2" PLACE ON GATE SIGN SHALL BE INSTALLED AT A HEIGHT OF 4'-0" FROM GROUND TO BOTTOM OF SIGN



FENCE SIGN DETAIL

LETTER STYLE - RED, REFLECTIVE HELVETICA MEDIUM LETTER HEIGHT - 2" SIGN TO FACE AWAY FROM AIRFIELD OPERATIONS AREA & SECURED AREA. PLACE EVERY 300' OF FENCE. SIGN SHALL BE INSTALLED AT A HEIGHT OF 5'-6" FROM GROUND TO BOTTOM OF SIGN



MIDAMERICA ST. LOUIS AIRPORT ST. CLAIR COUNTY, IL

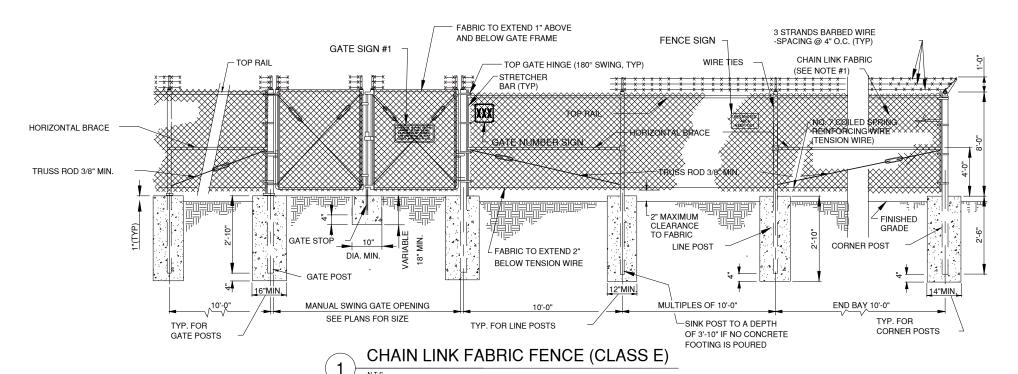
MARK	DATE	DES	SCRIPTION
BLV P	ROJECT	NO.	2024-04
IL PR	DJECT N	O. BL	V-5101
CMT PROJECT NO:			22001186.00
CAD DWG FILE:			22001186 - GC500.DWG
DESIG	NED BY	:	СМТ
DRAW	/N BY:		СМТ
CHECKED BY:			СМТ
APPR	OVED B	Y:	СМТ
COPY	RIGHT:	CRA	WFORD, MURPHY & TILLY, INC. 2021
SHEE	T TITLE		

TEMPORARY FENCE DETAILS 2

GC503 SHEET 15



(PLACE ON/FACING PUBLIC SIDE OF FENCE) FIELD - WHITE REFLECTIVE



FENCE NOTES:

- 1. CHAIN LINK FABRIC TO BE #9 GAUGE ZINC COATED.
- 2. CONTINUOUS FENCE SHALL BE GROUNDED AT INTERVALS NOT TO EXCEED 500'. THERE SHALL BE A GROUND WITHIN 100' OF GATES IN EACH SECTION OF FENCE ADJACENT TO THE GATE.
- 3. BARBED WIRE EXTENSION ARMS SHALL POINT TO EXTERIOR AND SHALL SUPPORT A MINIMUM DEAD LOAD OF 400 POUNDS FROM END OF ARM.
- 4. BOTTOM TENSION WIRE SHALL BE STRETCHED TAUT FROM TERMINAL POST AND SECURELY FASTENED TO EACH INTERMEDIATE POST 6" ABOVE THE GROUND LINE.
- 5. TOP AND BOTTOM SELVAGES OF FENCE TO HAVE A TWISTED AND BARBED FINISH.

- 6. ALL BOLTS ON ALL GATES, HINGES AND HARDWARE MUST BE NON-REMOVABLE.
- 7. IT IS PERMITTED TO SUBSTITUTE STEEL PIPE, TYPE "A", AS SPECIFIED IN 162-2.3 (a)(2), FOR STEEL PIPE, TYPE "A".
- 8. UTILIZE IDOT DIVISION OF AERONAUTICS, ILLINOIS STANDARD SPECIFICATIONS FOR AIRPORTS.



License No. 184-000613

CONSULTANTS

100% SUBMITTAL MARCH 1, 2024

TERMINAL APRON EXPANSION



MIDAMERICA ST. LOUIS AIRPORT ST. CLAIR COUNTY, IL

	MARK	DATE	DESCRIPTION	
	BLV P	ROJECT	NO. 2024-04	
Г	II DD	JECT N	O BLV 5101	

CMT PROJECT NO: 22001186.00

CAD DWG FILE: 22001186 - GC500.DWG DESIGNED BY: CMT

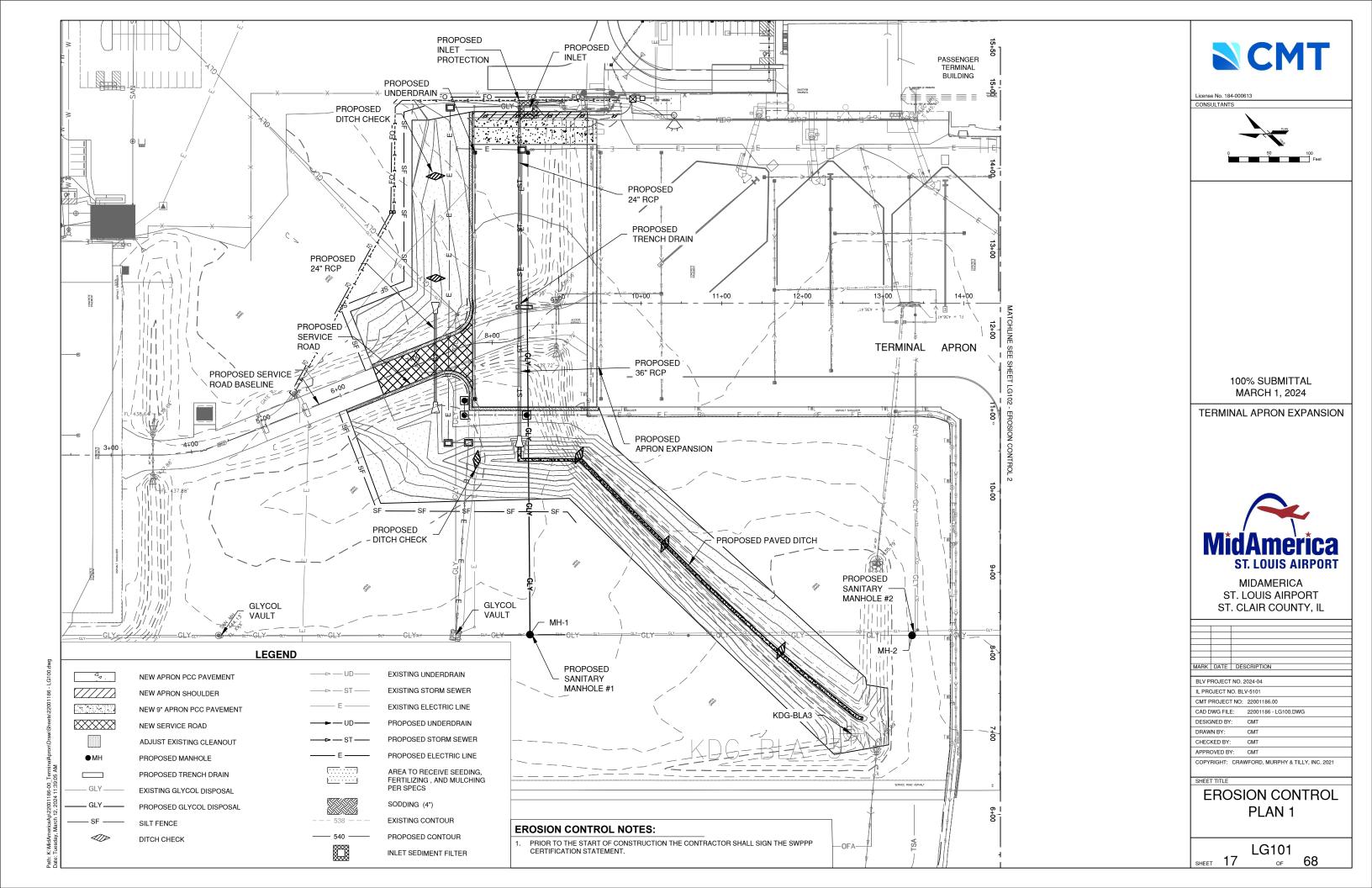
DRAWN BY: CHECKED BY: CMT APPROVED BY:

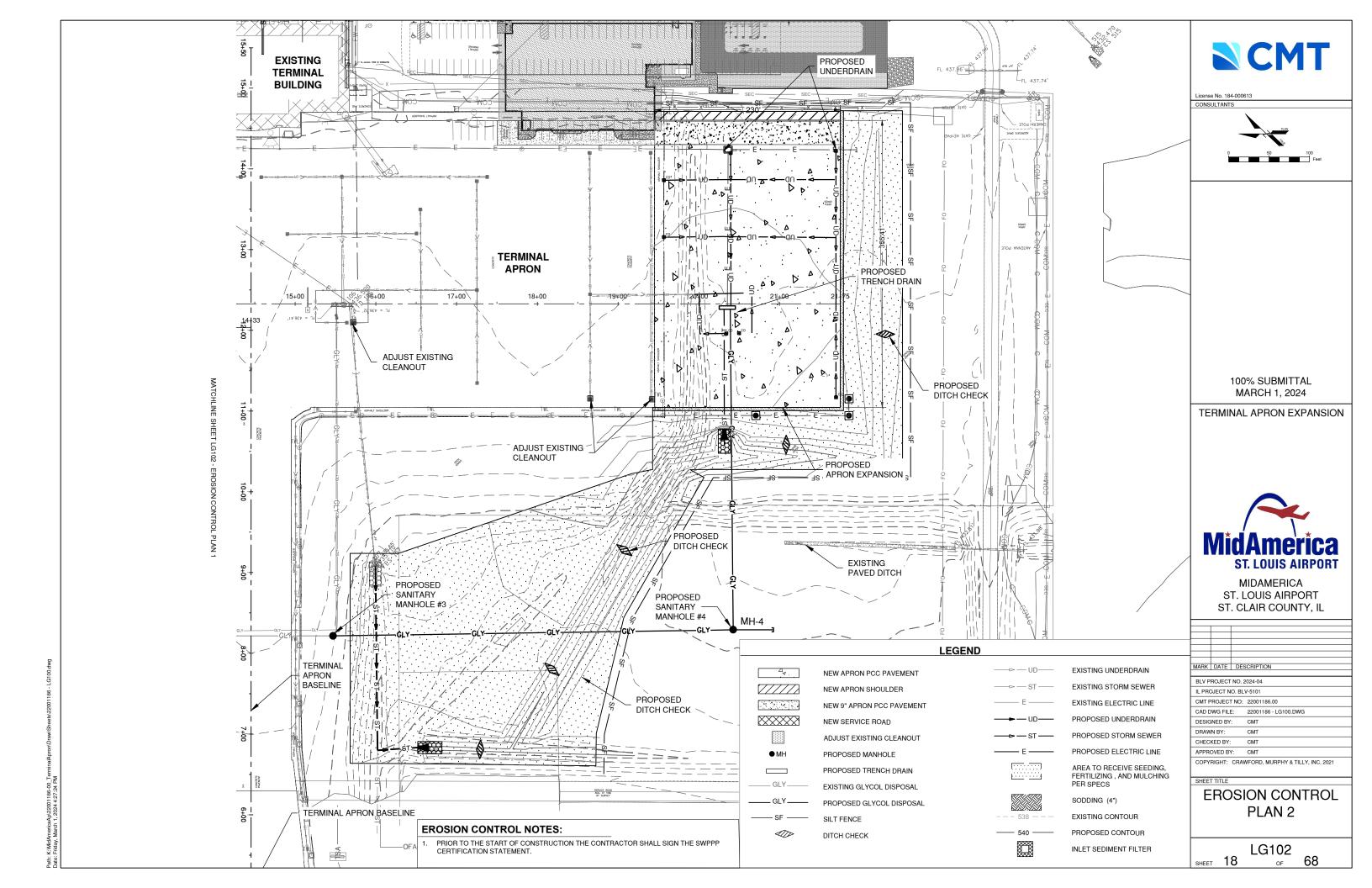
COPYRIGHT: CRAWFORD, MURPHY & TILLY, INC. 2021

FINAL FENCE DETAILS

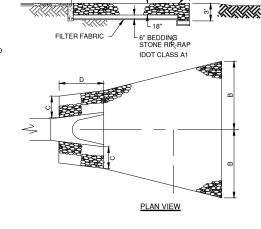
68

GC504 SHEET 16





- FILTER CLOTH TO BE FASTENED SECURELY TO FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
- 2. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVER-LAPPED BY 6" MIN. AND FOLDED.
- 3. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE. MAINTENANCE, WHICH INCLUDES THE REPLACEMENT OF DAMAGED FENCE SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE EROSION CONTROL FENCE.



A (MIN.)

INSIDE DIAMETER STORM SEWER	MIN. DIMENSION (FT)				
(IN.)	Α	В	С	D	
12" thru 24"	15	4	1.5	4	
27" thru 30"	18	5	2.0	6	
36" thru 48"	22	6	2.5	8	
54" thru 60"	25	7	3.0	10	

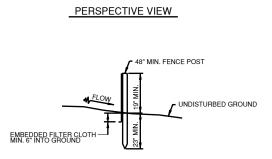
MAINTENANCE NOTES:

- 1. INSPECT RIP RAP AFTER STORM EVENTS FOR STONE DISPLACEMENT AND FOR EROSION AT THE SIDES AND ENDS OF THE APRON
- 2. TAKE NEEDED REPAIRS IMMEDIATELY; USE APPROPRIATE SIZE STONE, AND DO NOT PLACE THEM ABOVE FINISHED GRADE.
- 3. THE ENGINEER SHALL DETERMINE THE FINAL RIP-RAP CONFIGURATION IN
- 4. COST OF RIP-RAP SHALL BE INCIDENTAL TO FLARED END SECTION WORK.
- 5. RIP RAP SHALL ONLY BE INSTALLED AT DOWNSTREAM END OF CULVERT

RIP RAP AT END SECTIONS

STONE RIP-RAP IDOT CLASS A4 UNLESS OTHERWISE SPECIFIED

ON PLAN



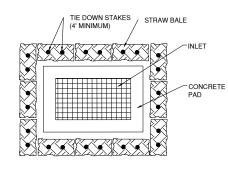
SECTION

SILT FENCE DETAIL

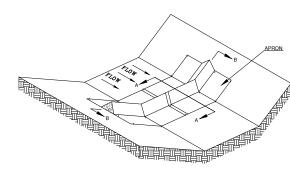
POSTS: STEEL EITHER T OR U TYPE OR 2" HARDWOOD

FILTER CLOTH: FILTER X. MIRAF100X, STABILINKA T140N OR EQUAL

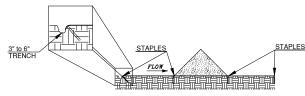
PREFABRICATED UNIT: GEOFAB ENVIROFENCE, GSI SILT FENCE WITH REINFORCING MESH



INLET EROSION PROTECTION DETAIL

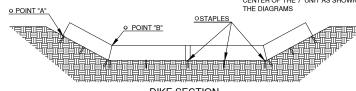


SILT DIKE UNIT CUT SECTION



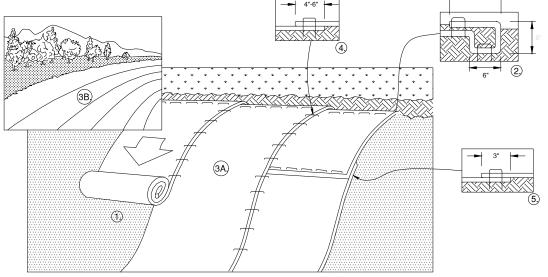
DETAIL A-A

OSTAPLES SHALL BE PLACED WHERE THE UNITS OVERLAP AND IN THE CENTER OF THE 7' UNIT AS SHOWN ON



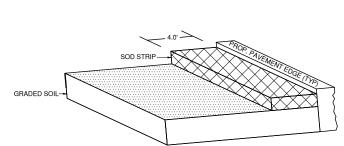
DIKE SECTION DETAIL B-B

SILT DIKE DITCH CHECK



- 1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
- 2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12*
 PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE BLANKET.
- 3. ROLL THE BLANKETS (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS PER MANUFACTURES RECOMMENDATION.
- 4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH MINIMUM 6" OVERLAP. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE SEAM STITCH ON THE PREVIOUSLY INSTALLED BLANKET.
- 5. CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE BI ANKET WIDTH
- 6. PLACE STAPLES/STAKES PER MANUFACTURE RECOMMENDATION FOR THE APPROPRIATE SLOPE BEING APPLIED.

1. IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.



SOD STRIP DETAIL

100% SUBMITTAL MARCH 1, 2024 TERMINAL APRON EXPANSION

CMT

License No. 184-000613

CONSULTANTS

MIDAMERICA ST. LOUIS AIRPORT ST. CLAIR COUNTY, IL

ST. LOUIS AIRPORT

MARK	DATE	DES	SCRIPTION				
BLV	BLV PROJECT NO. 2024-04						
IL PF	ROJECT N	O. BL	V-5101				
CMT	PROJEC [*]	T NO:	22001186.00				
CAD	DWG FILI	E:	22001186 - LG500.DWG				
DES	GNED BY	:	CMT				
DRA	WN BY:		CMT				
CHE	CKED BY:		CMT				
APPI	ROVED B	Y:	CMT				

EROSION CONTROL DETAILS

COPYRIGHT: CRAWFORD, MURPHY & TILLY, INC. 2021

LG501

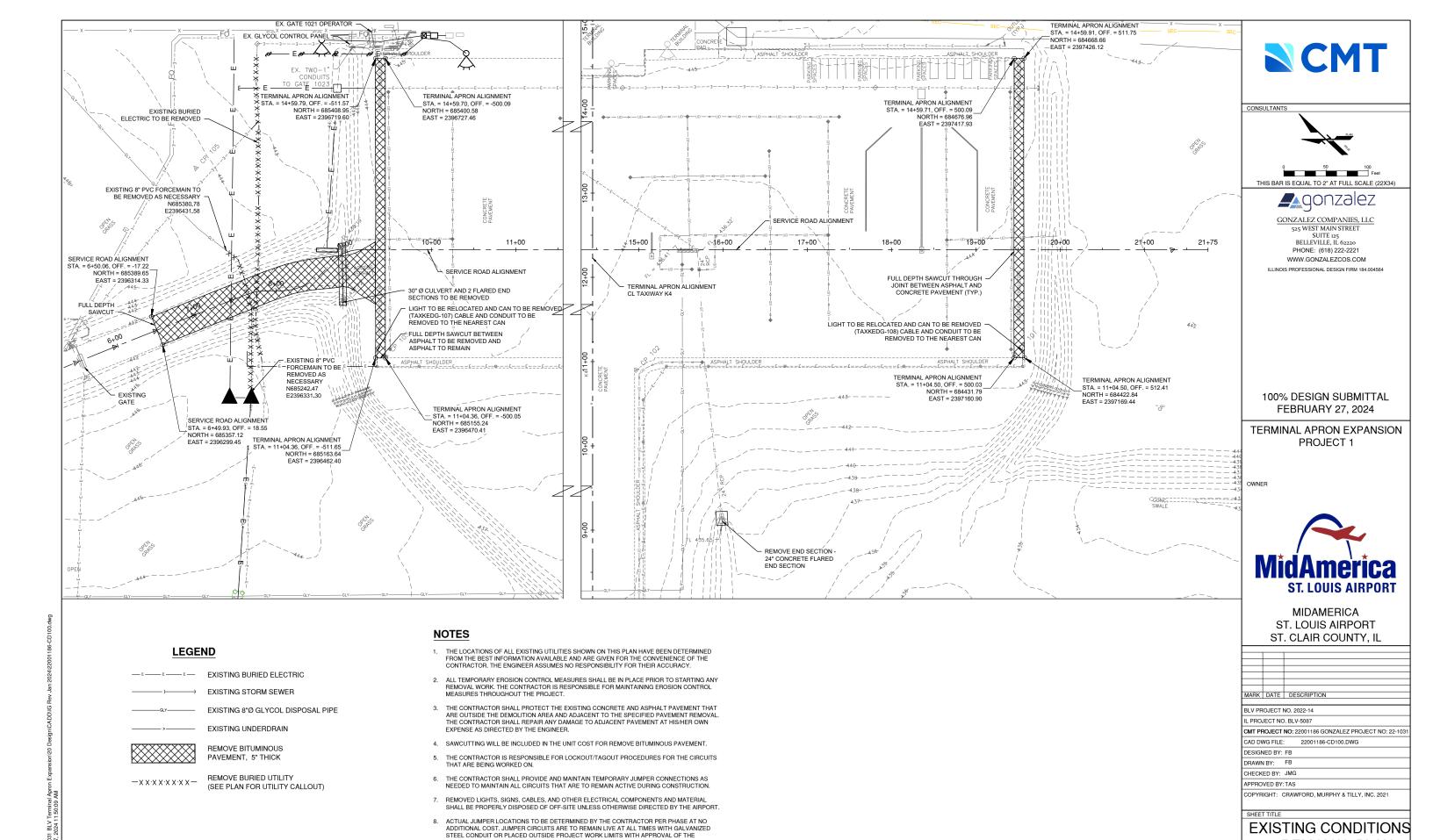
EROSION CONTROL BLANKET

O POINT "A" MUST BE HIGHER THAN

AROUND THE ENDS.

POINT "B" TO ENSURE THAT WATER FLOWS OVER THE DIKE AND NOT

SHEET 19

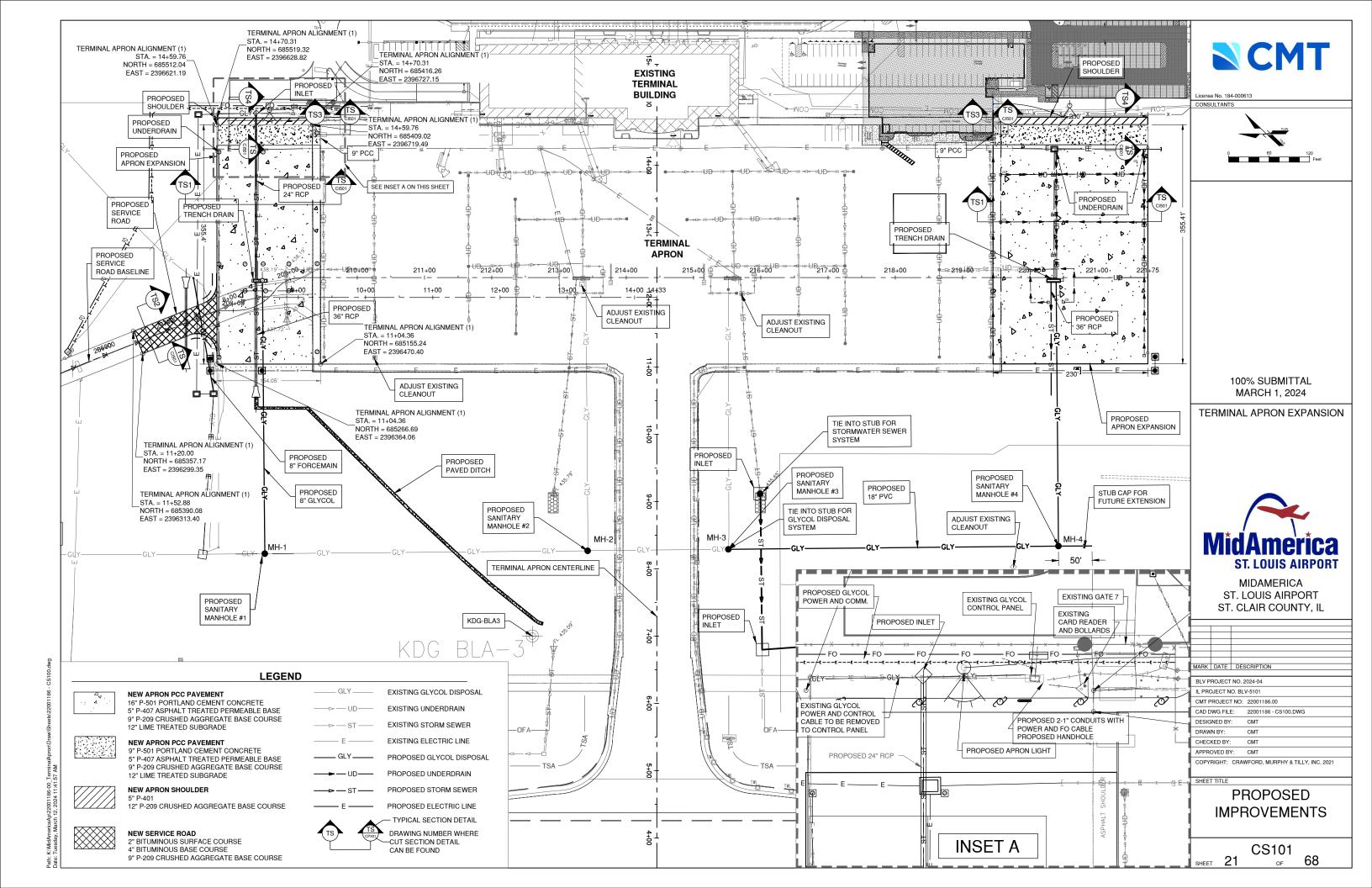


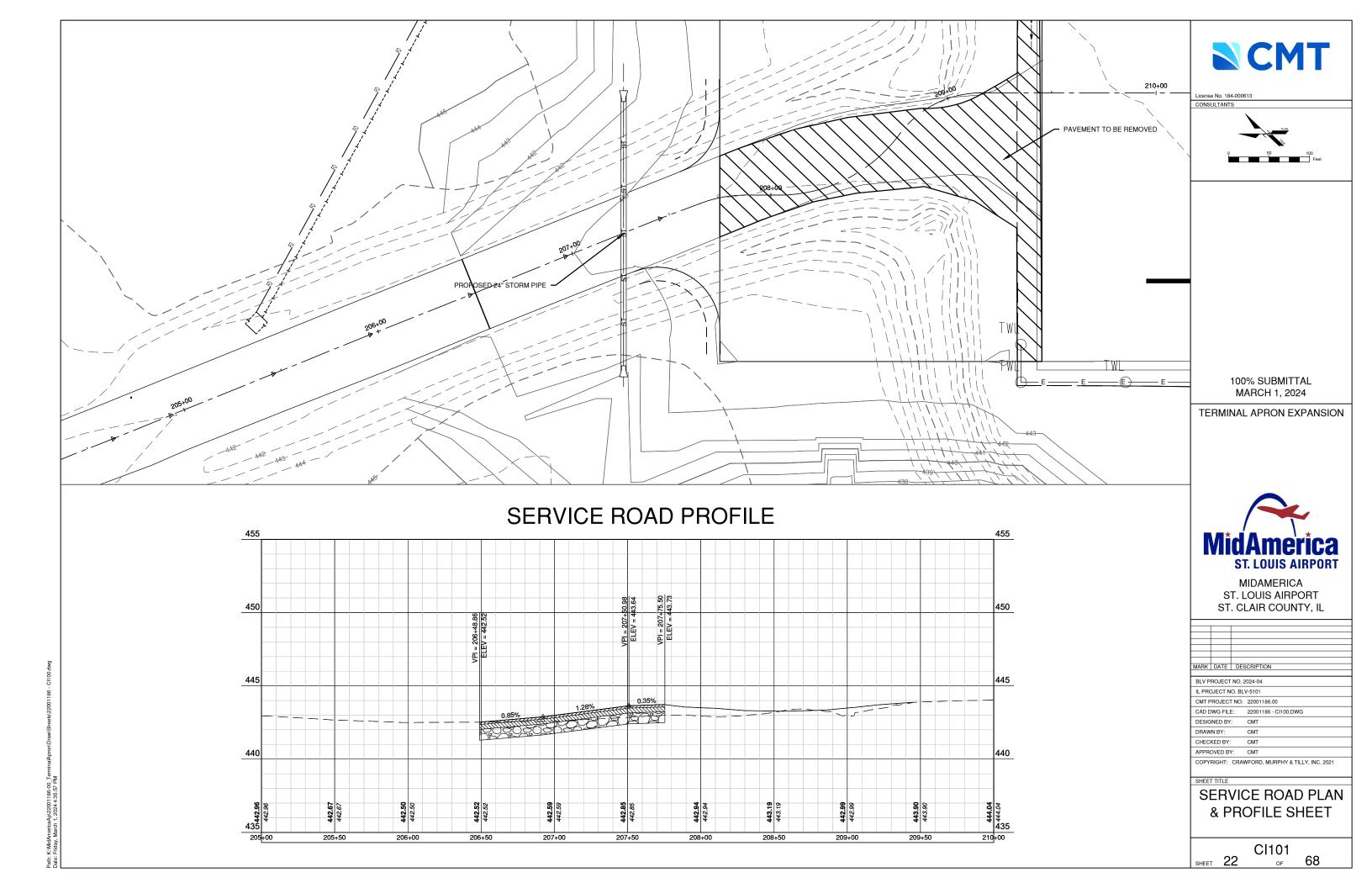
RESIDENT ENGINEER

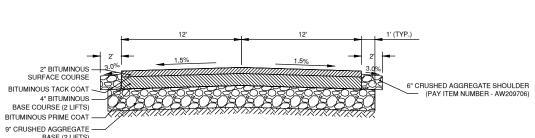
SHEET 20

CD101

& REMOVAL PLAN







SERVICE ROAD TYPICAL SECTION

NT.S.

License No. 184-000613

CONSULTANTS

ER

06)

100% SUBMITTAL MARCH 1, 2024

TERMINAL APRON EXPANSION



MIDAMERICA ST. LOUIS AIRPORT ST. CLAIR COUNTY, IL



SHEET TITLE

TYPICAL SECTIONS

68

CI501

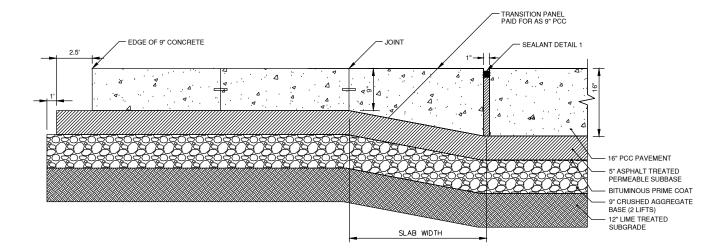
EDGE OF CONCRETE
APRON WITHOUT
PAVED SHOULDER.
CONSTRUCT 1.5" EDGE
DROP TO TURF.

VARIES

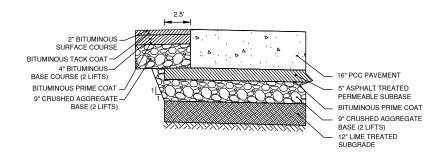
16" PCC PAVEMENT
5" ASPHALT TREATED
PERMEABLE SUBBASE
BITUMINOUS PRIME COAT
9" CRUSHED AGGREGATE
BASE (2 LIFTS)
12" LIME TREATED
SUBGRADE

GEOTEXTILE FABRIC
(INCIDENTAL TO
PROJECT)
6" PERFORATED PVC
WEILTER FABRIC SLEEVE

APRON TYPICAL SECTION



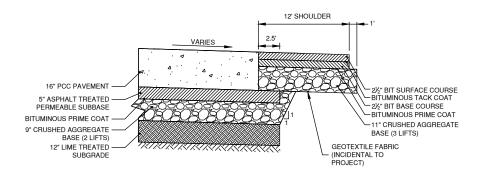
THICKENED EDGE AT 9" PCC



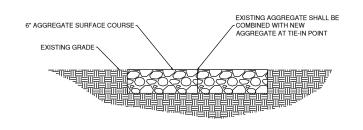
TYPICAL SECTION AT SERVICE ROAD

AT CONNECTION TO APRON

NTS.



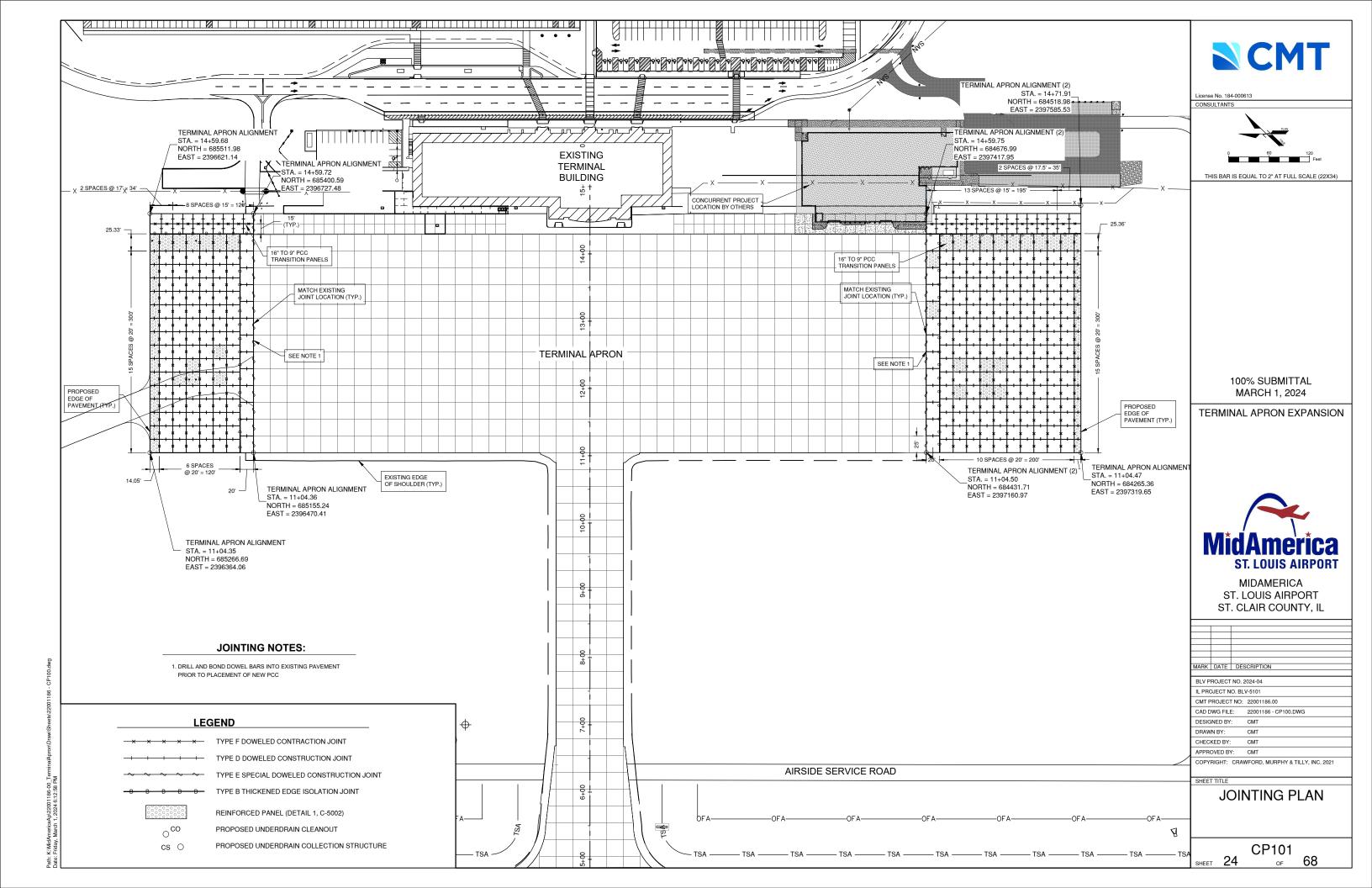
4 TYPICAL SHOULDER SECTION

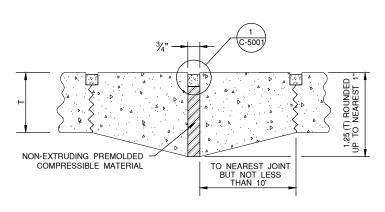


TYPICAL SECTION AT SERVICE ROAD

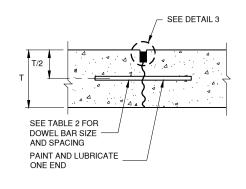
AT EXISTING SERVICE ROAD

N.T.S.

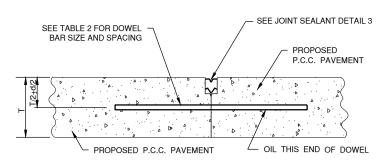




TYPE B THICKENED EDGE B B B B

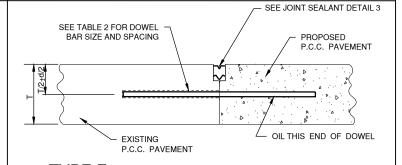


TYPE C **DOWELED** 2 SYMBOL X X X X



TYPE D DOWELED CONSTRUCTION JOINT 3

WHEN ABUTTING TO EXISTING CONCRETE, DRILL INTO EXISTING SLAB, INSERT DOWEL, AND EPOXY.

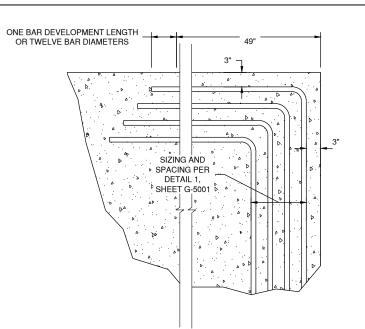


TYPE E SPECIAL DOWELED CONSTRUCTION JOINT SYMBOL ~~~~~

JOINTING NOTES:

N.T.S.

1. SEE DOWEL BAR TABLE ON THIS SHEET FOR SIZE AND SPACING OF DOWEL BARS



A-1 REINFORCED BAR TERMINATION DETAIL

TOP AND BOTTOM

EACH A-1 REINFORCED JOINT PANEL CORNER

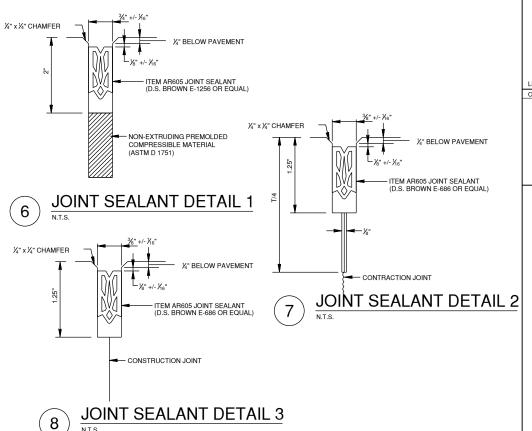
TABLE 1				
PAVEMENT THICKNESS T - INCHES	DEPTH OF CONTRACTION JOINT INITIAL SAW CUT I, INCHES $I=(T/3) \pm 1/4$ "			
9	3.00"			
16	5.33"			

TABLE 2							
PAVEMENT	DOW	EL BAR DET	AILS	TIE BAR DETAILS			
THICKNESS T - INCHES	DIA.	LENGTH	SPACING	BAR SIZE	LENGTH	SPACING	
9	1"	18"	12"	#5	30"	30"	
16	1 - 1/4"	20"	15"	#5	30"	30"	

WELDED	WIRE FABRIC
SLAB THICKNESS	SUGGESTED FABRIC SIZE
9"	6 x 6 - W 2.9 x W 2.9 OR 4 x 4 - W 2.1 x W 2.1
16"	6 x 6 - W 5.5 x W 5.5

WIRE FABRIC NOTES:

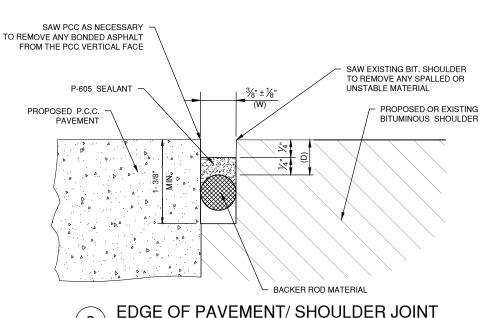
- 1. PANELS TO BE REINFORCED WITH WIRE FABRIC DENOTED WITH HATCHING ON THE JOINTING PLAN DRAWINGS.
- 2. WIRE FABRIC SHALL BE PLACED AT THE VERTICAL POSITION OF T/4 + 1" AS SHOWN.
- 3. WHEN A STRUCTURE IS LOCATED WITHIN A PANEL, WIRE FABRIC SHALL BE PLACED TO WITHIN 3" OF THE STRUCTURE.
- 4. MINIMUM WWF LAP IS 18 INCHES.
- 5. ALL WELDED WIRE FABRIC SHALL BE GRADE 60.
- 6. THE AREA OF WELDED WIRE FABRIC SHALL PROVIDE AT LEAST 0.05% OF REINFORCEMENT AREA TO UNIT CONCRETE AREA, ASSUMING



JOINT SEALANT DETAIL

JOINTING NOTES:

- 1. ALL EDGES OF NEW SLABS, FREE STANDING OR CLOSURE, SHALL BE EDGED WITH AN APPROVED TOOL HAVING A CHAMFER OF 1/4" TO FACILITATE SAWING OF THE SEALANT RESERVOIR. A CHAMFER
- 2. THE INITIAL SAWCUT FOR ALL LONGITUDINAL & TRANSVERSE CONTRACTION JOINTS SHALL BE SAWED AS SOON AS POSSIBLE AFTER PLACEMENT OF THE PAVEMENT.
- 3. ALL TIE BARS & MESH SHALL BE SECURELY HELD IN PLACE BY SUPPORT PINS OR OTHER APPROVED METHODS TO PREVENT SHIFTING DURING & AFTER CONCRETE PLACEMENT.
- 4. TIE BARS SHALL BE DEFORMED BARS IN CONFORMANCE WITH THE SPECIFICATIONS.
- 5. THE INITIAL SAWCUT SHALL BE MADE TO THE 1/8" WIDTH INDICATED. INITIAL SAWING TO THE DIMENSIONS OF THE SECOND SAWCUT WILL NOT BE ALLOWED.





License No. 184-000613

CONSULTANTS

100% SUBMITTAL MARCH 1, 2024

TERMINAL APRON EXPANSION



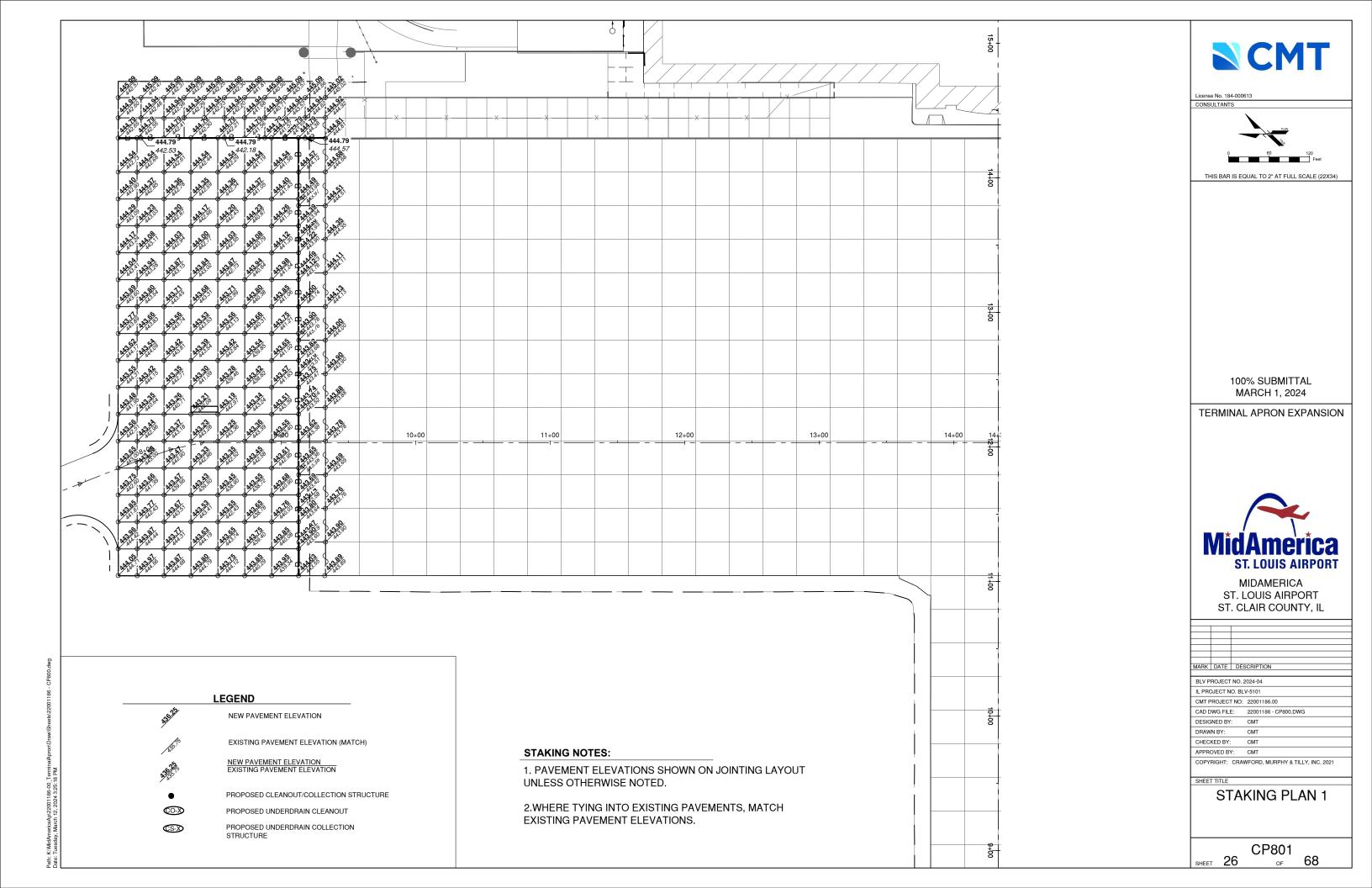
MIDAMERICA ST. LOUIS AIRPORT ST. CLAIR COUNTY, IL

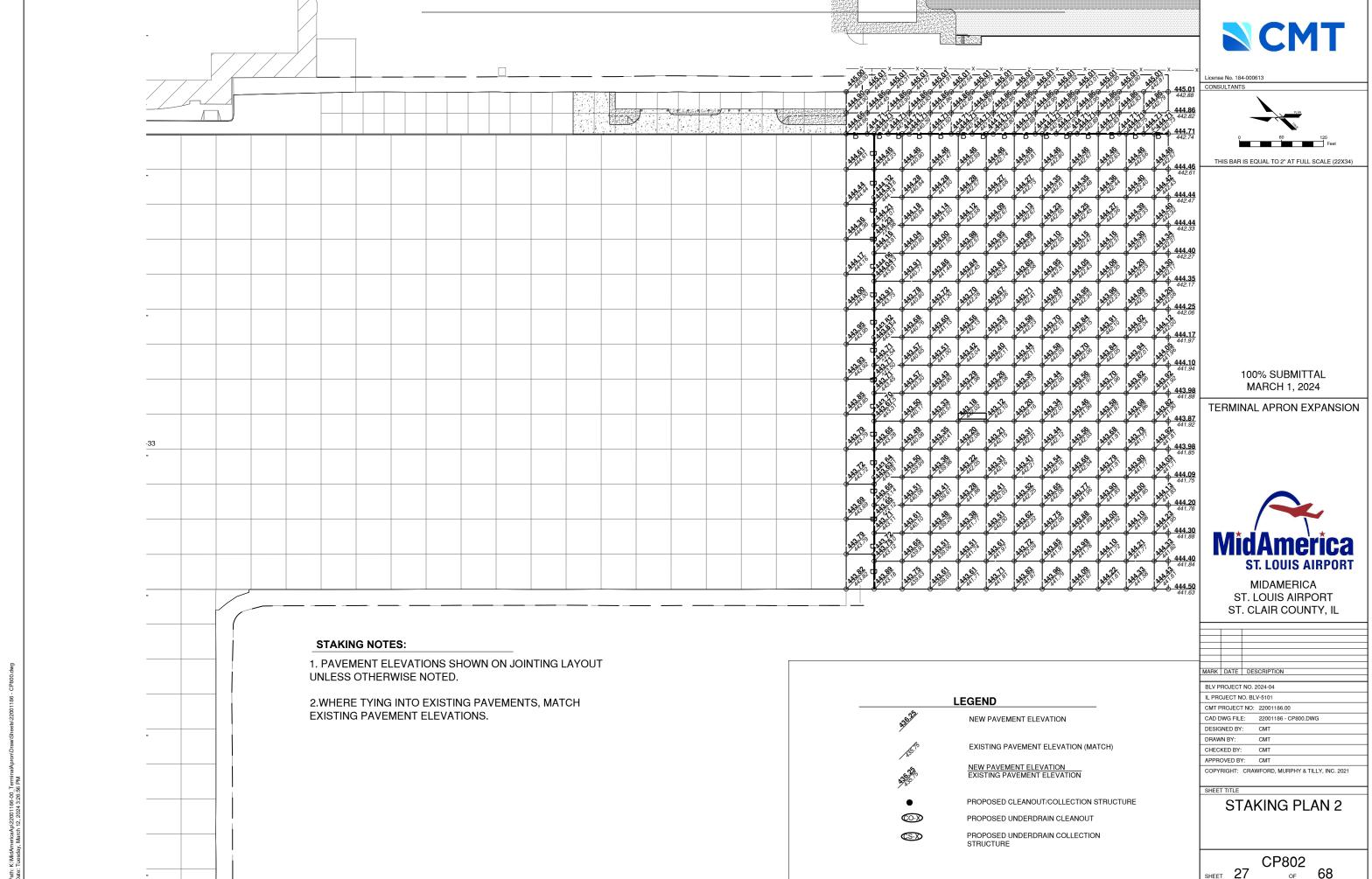
MARK	DATE	DES	SCRIPTION		
BLV P	ROJECT	NO. 2	2024-04		
IL PR	OJECT N	O. BL	V-5101		
CMT	PROJECT	T NO:	22001186.00		
CAD DWG FILE:			22001186 - CP500.DWG		
DESIGNED BY:		:	CMT		
DRAWN BY:			CMT		
CHEC	CMT				
APPROVED BY: CMT					
COPY	RIGHT:	CRAV	VFORD, MURPHY & TILLY, INC. 2021		
SHEE	T TITLE				

JOINT DETAILS

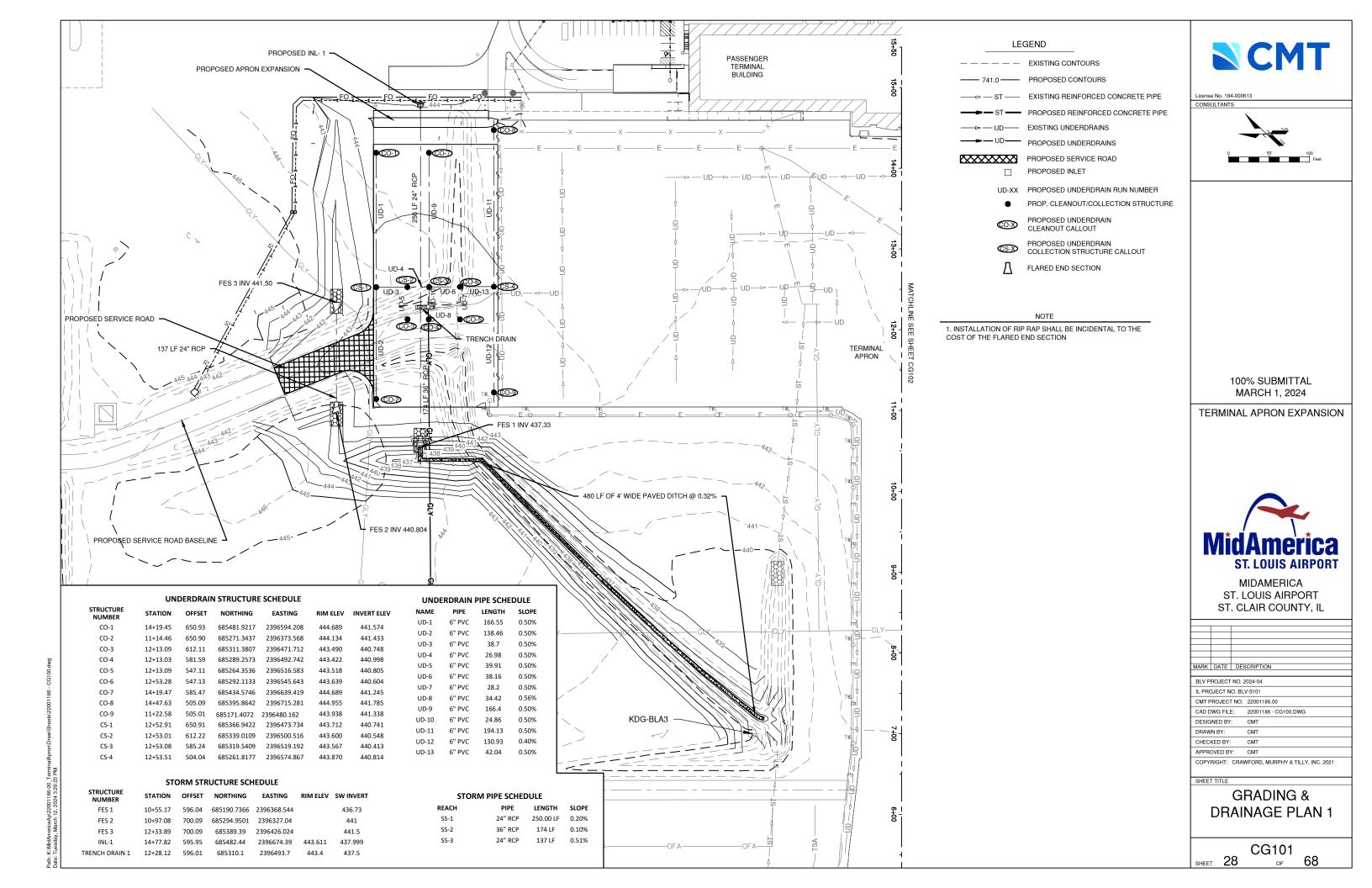
CP501 SHEET **25**

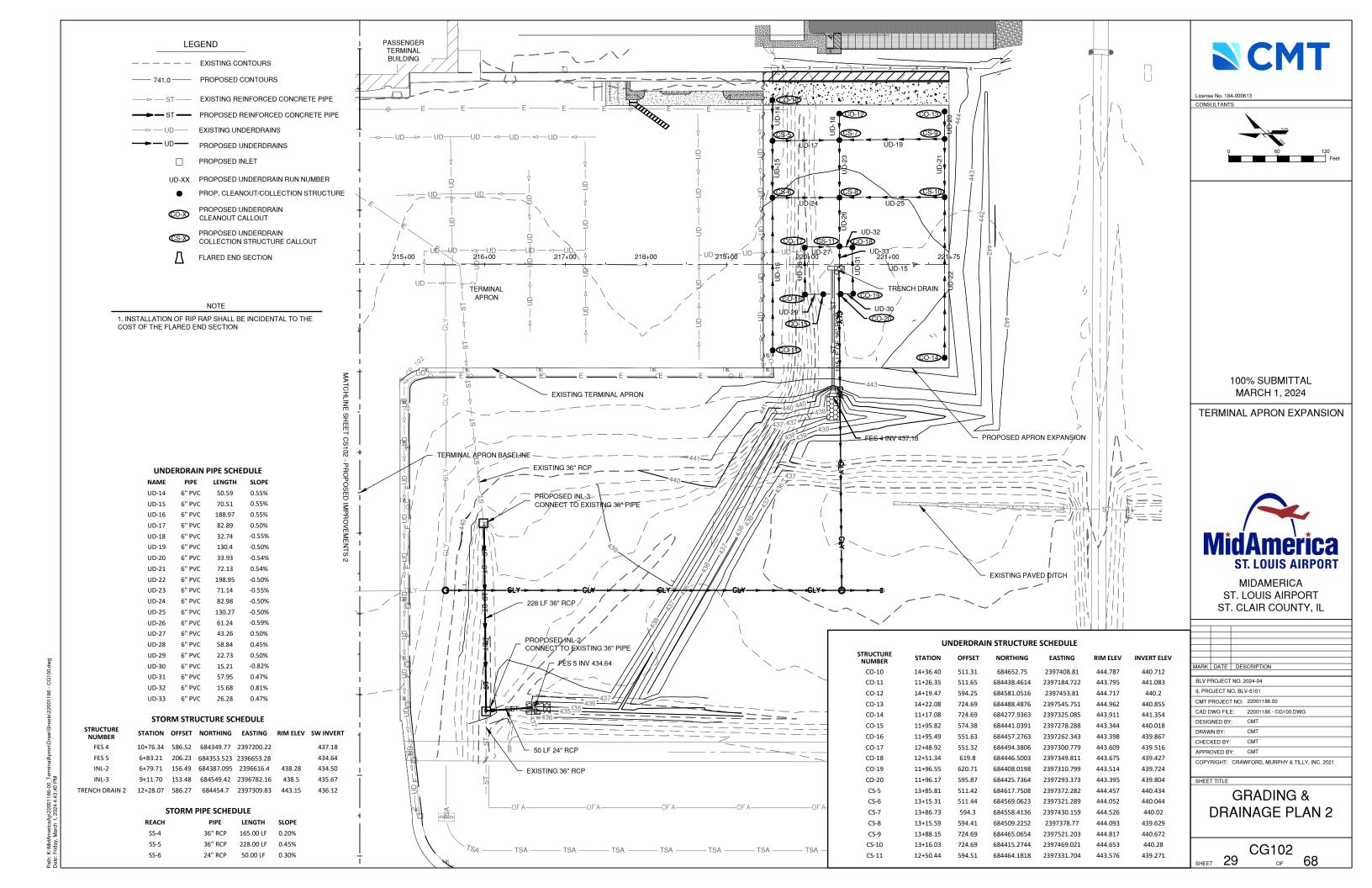
68

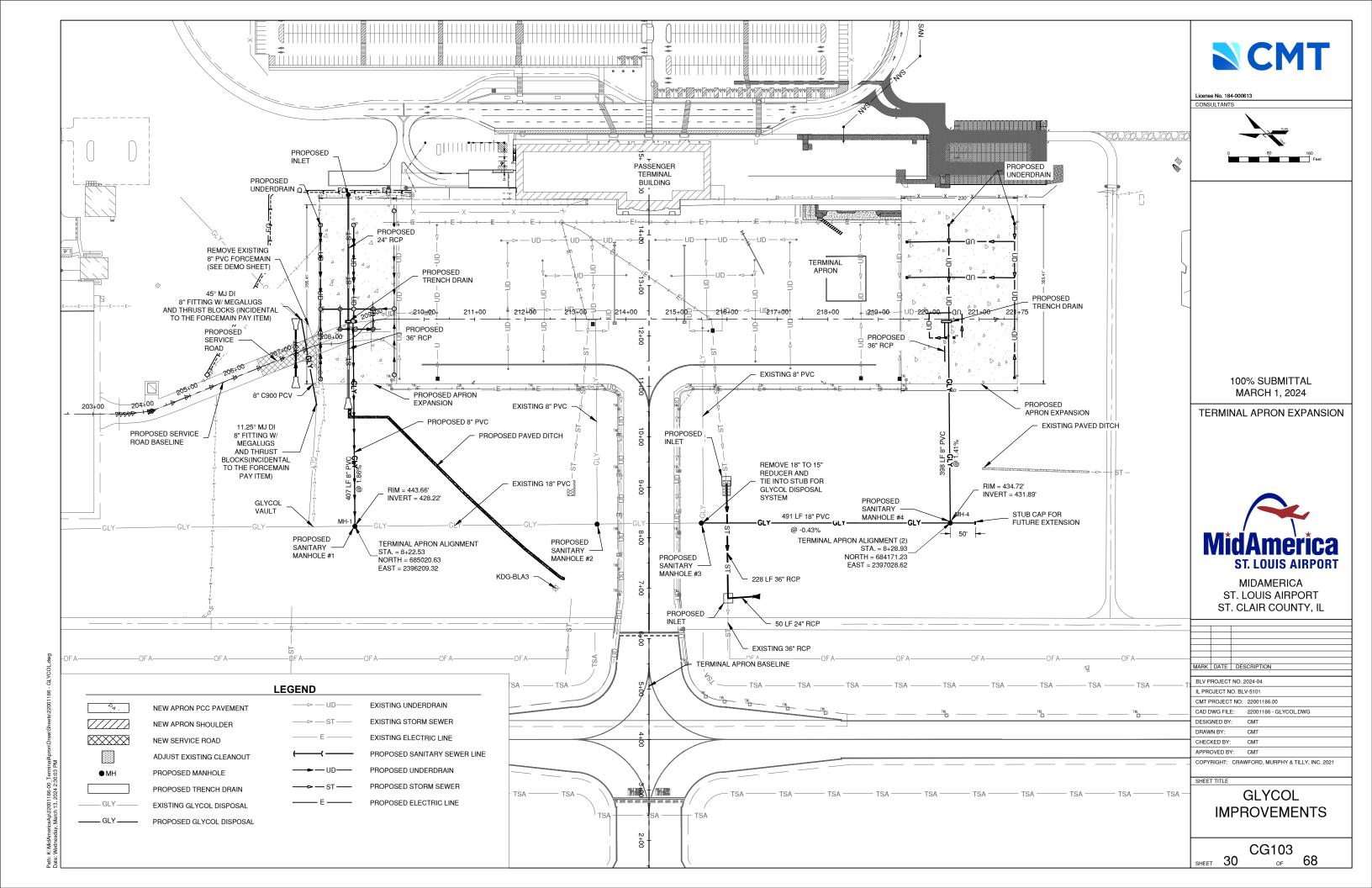


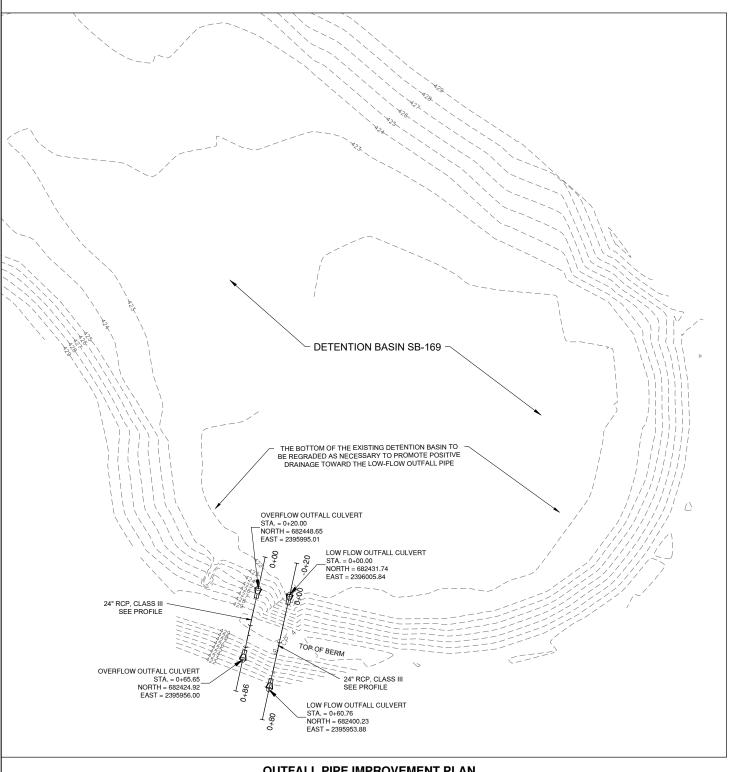


68







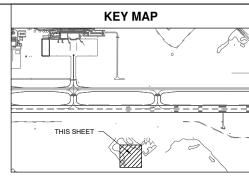


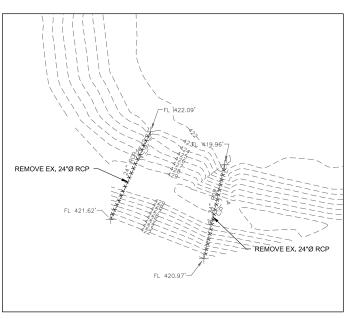
OUTFALL PIPE IMPROVEMENT PLAN

NOTES

Path: I:\Projects\2022\22-1031 BLV Terminal Date: Monday, March 18, 2024 11:58:20 AM

1. ALL COSTS ASSOCIATED WITH RIPRAP, FILTER FABRIC, AND CUTOFF WALLS ARE TO BE INCLUDED IN THE CONTRACT PRICE FOR THE FLARED END SECTIONS



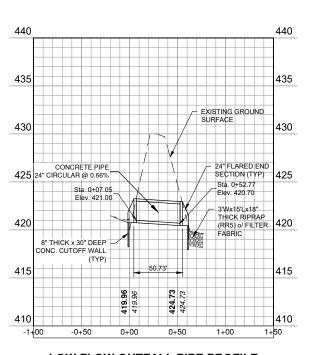


OUTFALL PIPE REMOVAL PLAN

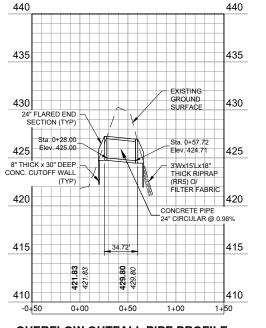
LEGEND

OUTFALL CULVERT

-x x·x x·x x·x x - REMOVE EXISTING OUTFALL CULVERT



LOW FLOW OUTFALL PIPE PROFILE



OVERFLOW OUTFALL PIPE PROFILE





THIS BAR IS EQUAL TO 2" AT FULL SCALE (22X34)

_qonzalez

GONZALEZ COMPANIES, LLC 525 WEST MAIN STREET SUITE 125 BELLEVILLE, IL 62220 PHONE: (618) 222-2221 WWW.GONZALEZCOS.COM ILLINOIS PROFESSIONAL DESIGN FIRM 184.004564

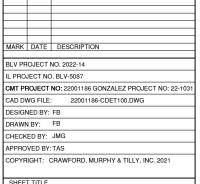
100% DESIGN SUBMITTAL FEBRUARY 27, 2024

TERMINAL APRON EXPANSION PROJECT 1

OWNER

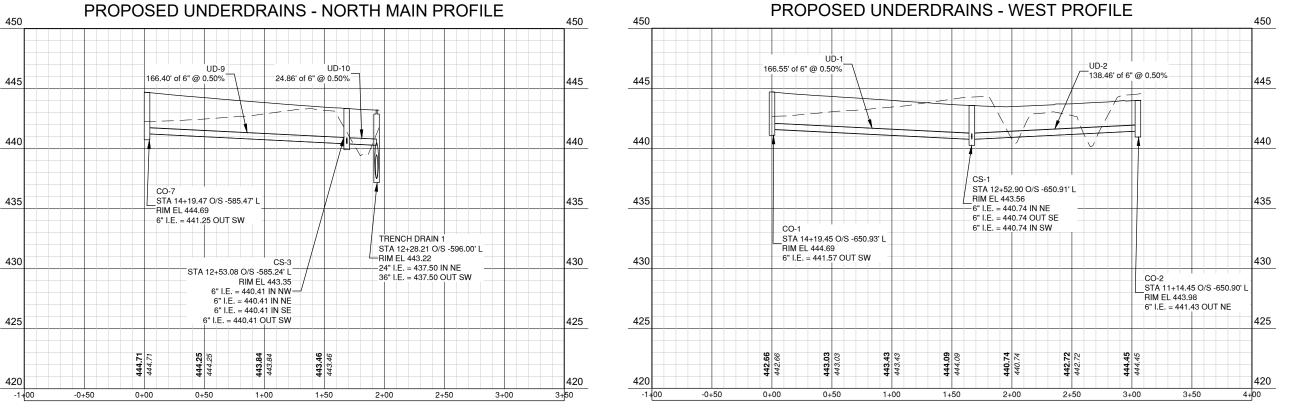


MIDAMERICA ST. LOUIS AIRPORT ST. CLAIR COUNTY, IL



DETENTION BASIN SB-169 IMPROVEMENT **PLAN**

CG201 SHEET 31



PROPOSED STORM SEWERS - NORTH MAIN PROFILE

TRENCH DRAIN 1 STA 12+28.21 O/S -596.00' L

3+00

24" I.E. = 437.50 IN NE 36" I.E. = 437.50 OUT SW

3+50

4+00

4+50

-RIM EL 443.22

249.60' of 24" @ 0.20%

STA 14+77.82 O/S -595.95' L

RIM EL 443.52 24" I.E. = 438.00 OUT SW

0+50

1+00

1+50

2+00

2+50

0+00

-0+50

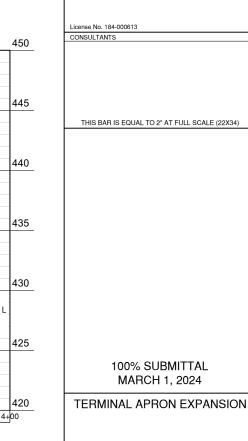
173.05' of 36" @ 0.10%

STA 10+55.17 O/S -596.04' L RIM EL 440.75 36" I.E. = 437.33 IN NE

5+00

5+50

6+00





450

445

440

435

430

425

420

6+50



MIDAMERICA ST. LOUIS AIRPORT ST. CLAIR COUNTY, IL

MARK	DATE	DES	SCRIPTION
BLV P	ROJECT	NO. 2	2024-04
IL PROJECT NO. BLV			V-5101
CMT PROJECT NO:			22001186.00
CAD DWG FILE:		≣:	22001186 - CG300 NEW.DWG
DESIGNED BY:		:	###
DRAWN BY:			CMT
CHECKED BY:			###
APPROVED BY:			###

UNDERDRAIN PROFILE 1

68

COPYRIGHT: CRAWFORD, MURPHY & TILLY, INC. 2021

CG301 SHEET 32

450

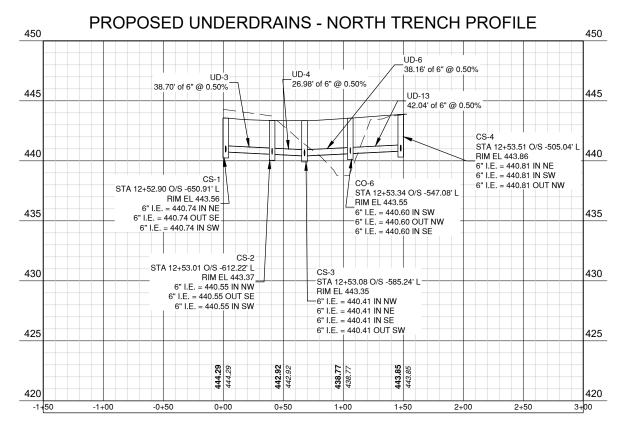
445

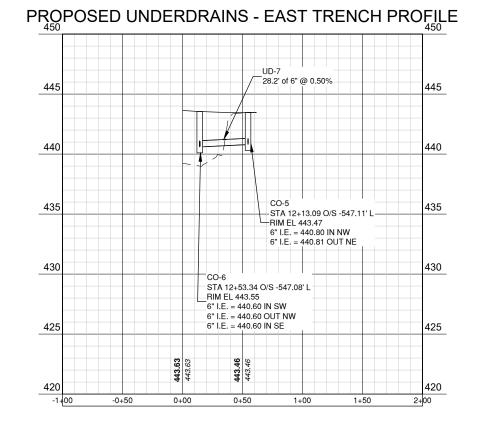
440

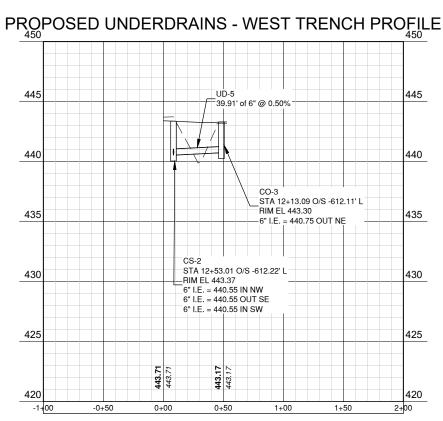
435

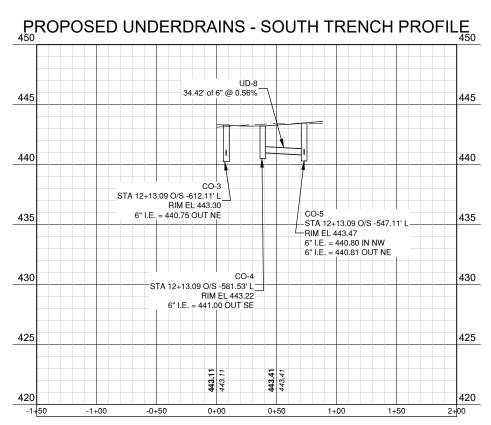
430

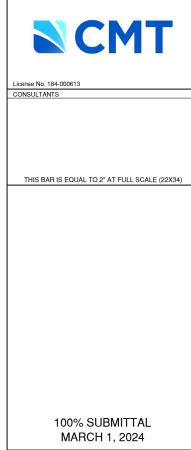
425











TERMINAL APRON EXPANSION



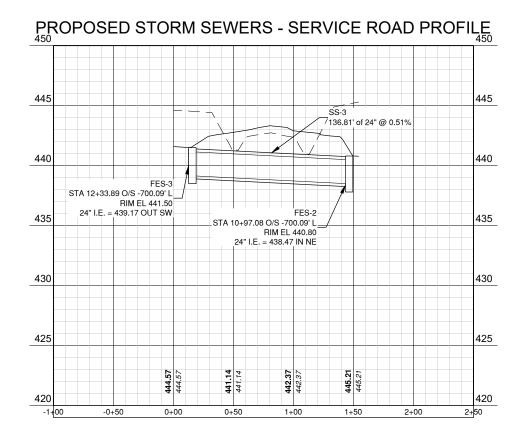
MIDAMERICA ST. LOUIS AIRPORT ST. CLAIR COUNTY, IL

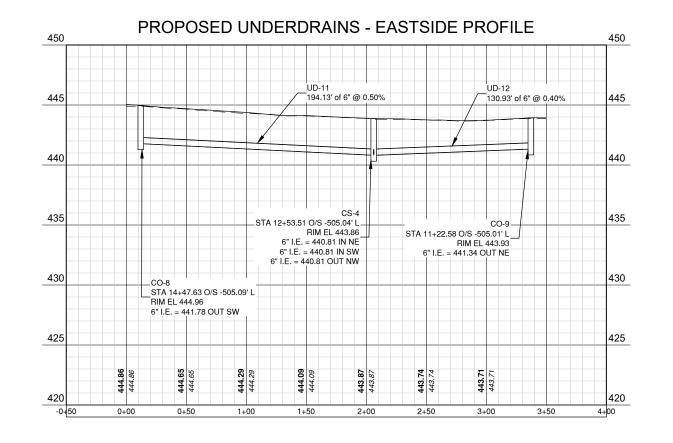
144516	DATE	D.F.(ODIDTION			
MARK	DATE	DES	SCRIPTION			
BLV P	BLV PROJECT NO. 2024-04					
IL PRO	DJECT N	O. BL	V-5101			
CMT F	ROJEC	T NO:	22001186.00			
CAD	CAD DWG FILE:		22001186 - CG300 NEW.DWG			
DESIG	DESIGNED BY:		###			
DRAW	DRAWN BY:		CMT			
CHEC	CHECKED BY:		###			
APPR	APPROVED BY:		###			
COPY	RIGHT:	CRAV	WFORD, MURPHY & TILLY, INC. 2021			

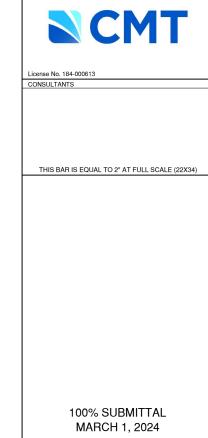
SHEET TITL

UNDERDRAIN PROFILE 2

CG302 sheet 33 of 68







TERMINAL APRON EXPANSION



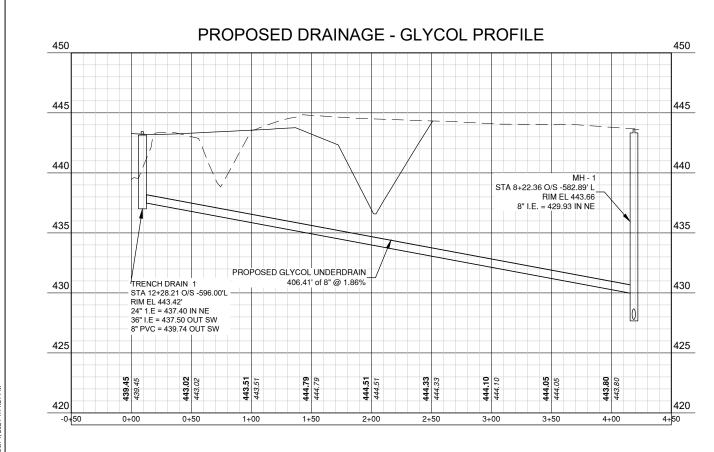
MIDAMERICA ST. LOUIS AIRPORT ST. CLAIR COUNTY, IL

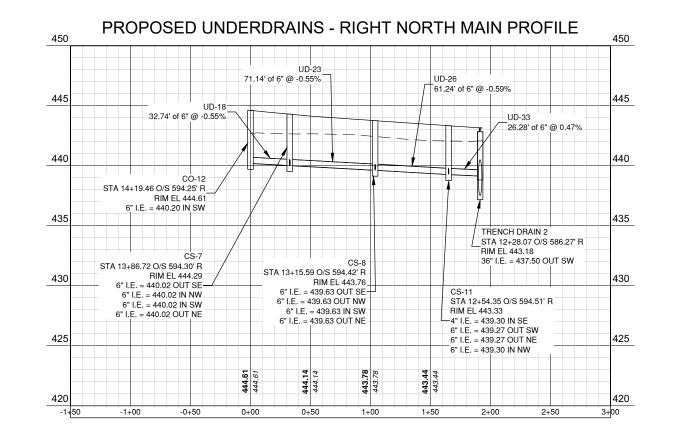


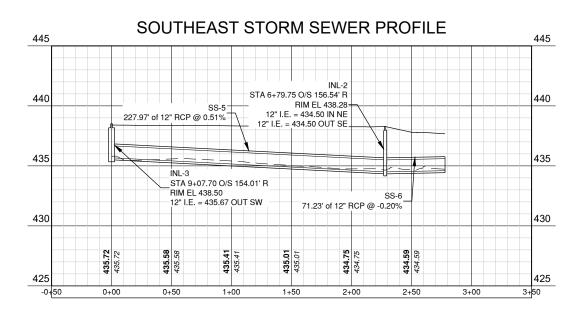
SHEET TITLE

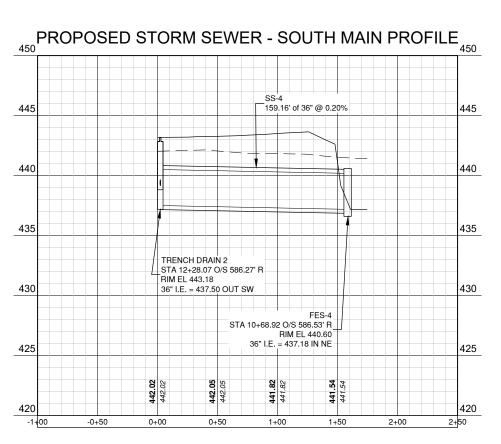
UNDERDRAIN PROFILE 3

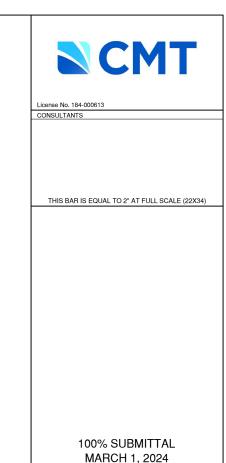
CG303 of 68











TERMINAL APRON EXPANSION



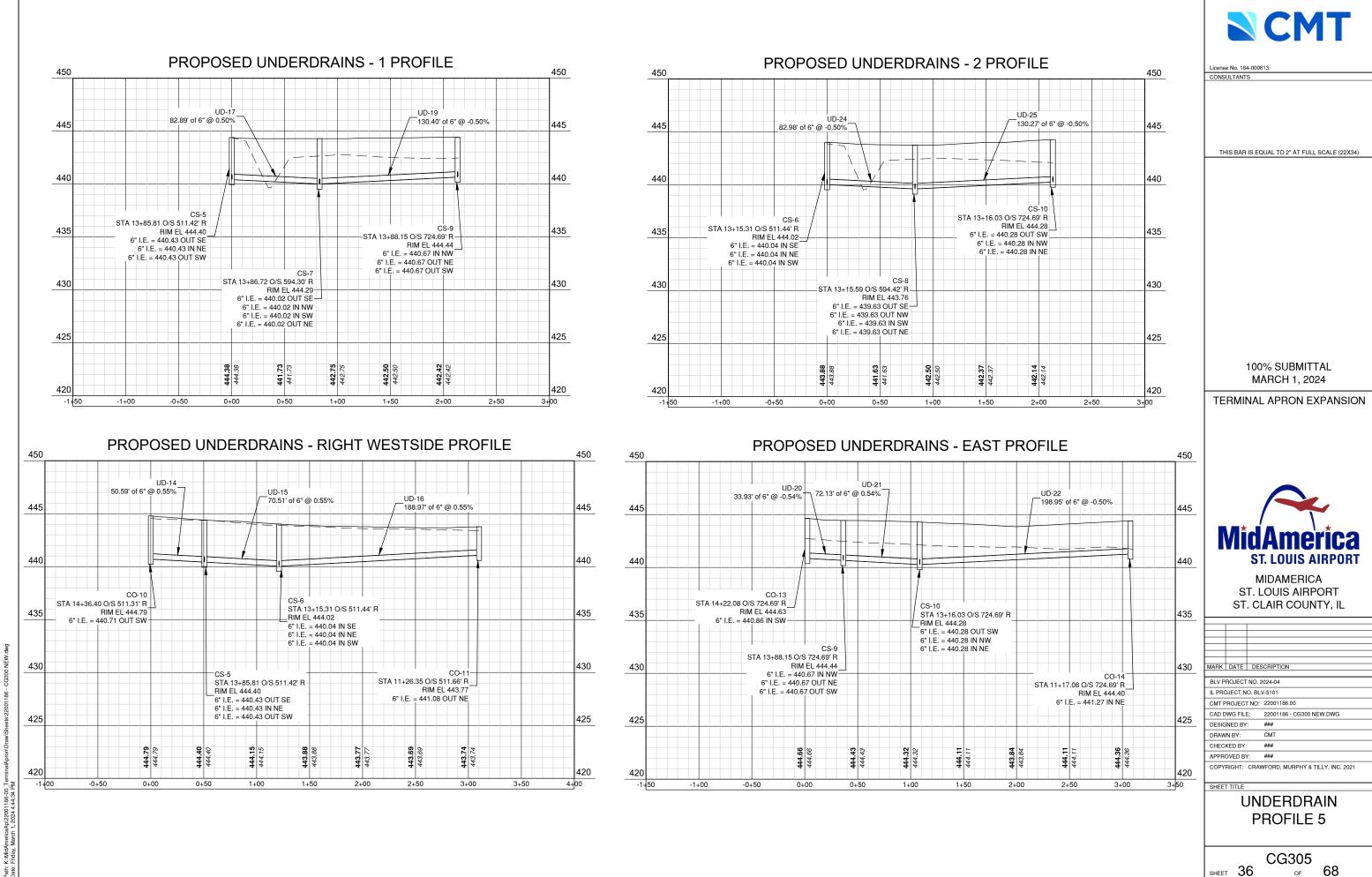
MIDAMERICA ST. LOUIS AIRPORT ST. CLAIR COUNTY, IL

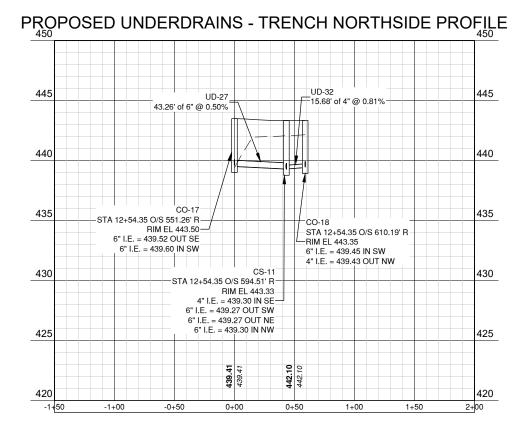
MARK	DATE	DES	SCRIPTION
BLV P	ROJECT	NO.	2024-04
IL PRO	DJECT N	O. BL	V-5101
CMT PROJECT NO:		NO:	22001186.00
CAD DWG FILE:		Ξ:	22001186 - CG300 NEW.DWG
DESIGNED BY:		:	###
DRAWN BY:			CMT
CHECKED BY:			###
APPR	APPROVED BY:		###
COPY	RIGHT:	CRA	WFORD, MURPHY & TILLY, INC. 2021

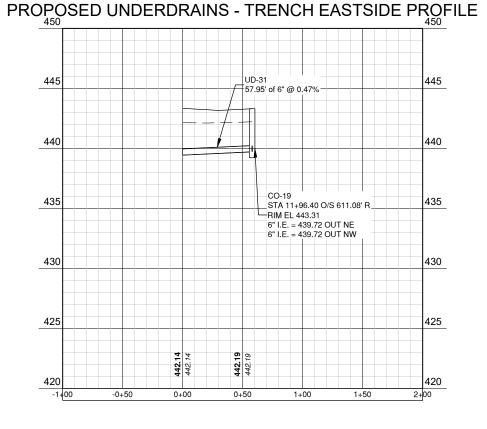
SHEET TITLE

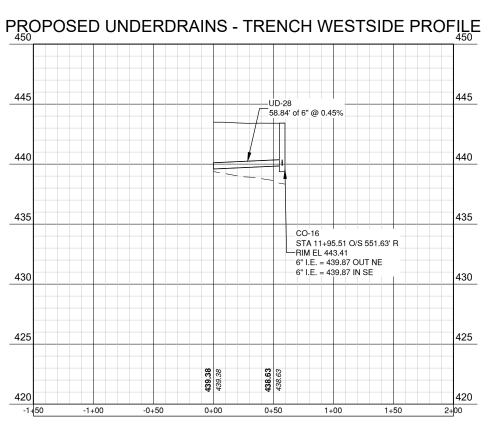
UNDERDRAIN PROFILE 4

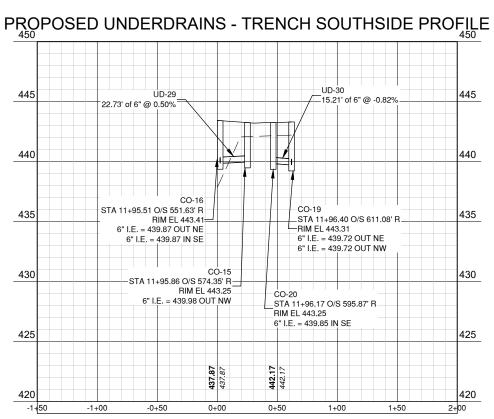
CG304 SHEET 35 OF 68

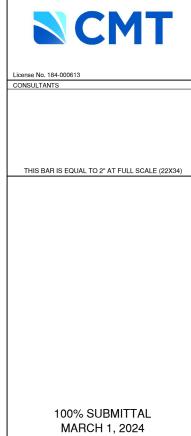












TERMINAL APRON EXPANSION



MIDAMERICA ST. LOUIS AIRPORT ST. CLAIR COUNTY, IL

MARK	DATE	DES	SCRIPTION
BLV PI	ROJECT	NO. 2	2024-04
IL PRO	JECT N	O. BL	V-5101
CMT PROJECT NO:			22001186.00
CAD DWG FILE:			22001186 - CG300 NEW.DWG
DESIGNED BY:			###
DRAWN BY:			CMT
CHECKED BY:			###
APPROVED BY:			###

SHEET TITLE

UNDERDRAIN PROFILE 6

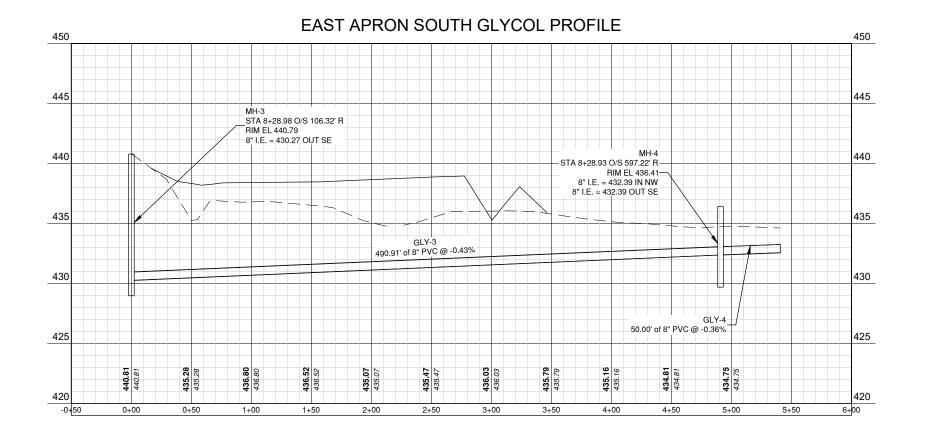
COPYRIGHT: CRAWFORD, MURPHY & TILLY, INC. 2021

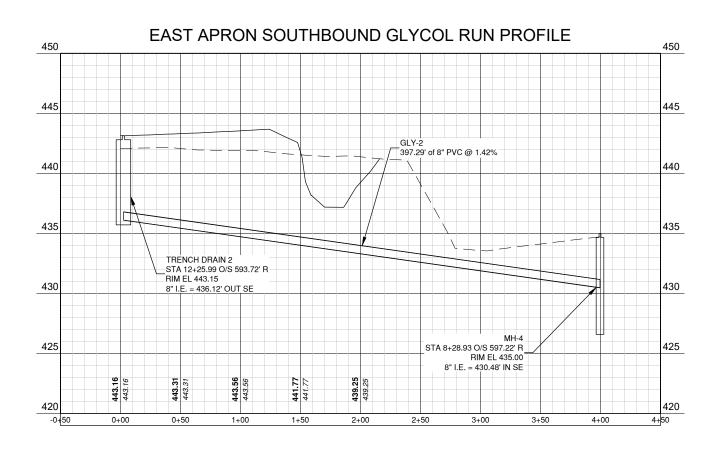
37 CG306

Path: K:WildAmericaApi22001186-00_TerminalAproniDrawiSheets\22001186 - CG300 NEW.dv Date: Eriday March 1 2024 444130 DM

SHEET **37**

o 68







THIS BAR IS EQUAL TO 2" AT FULL SCALE (22X34)

100% SUBMITTAL MARCH 1, 2024

TERMINAL APRON EXPANSION



MIDAMERICA ST. LOUIS AIRPORT ST. CLAIR COUNTY, IL

MARK	DATE	DESCRIPTION					
BLV P	BLV PROJECT NO. 2024-04						

IL PROJECT NO. BLV-5101 CMT PROJECT NO: 22001186.00

CAD DWG FILE: 22001186 - CG300 NEW.DWG

DESIGNED BY: ### DRAWN BY: CHECKED BY: ###

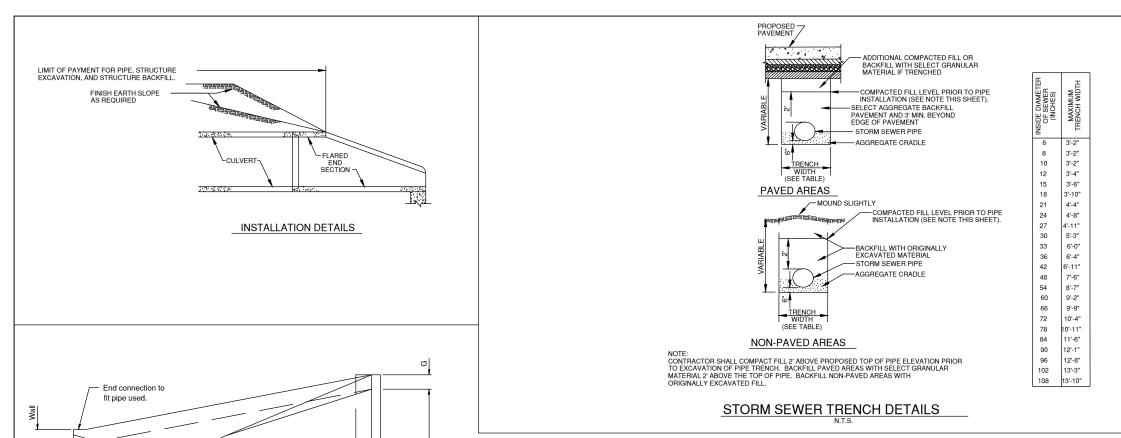
APPROVED BY: ### COPYRIGHT: CRAWFORD, MURPHY & TILLY, INC. 2021

SHEET TITLE

UNDERDRAIN PROFILE 7

68

CG307 SHEET 38



GENERAL NOTES All slope ratios are expressed as units of vertical displacement to units of horizontal displacement All dimensions are in inches (millimeters) unless otherwise shown. **PLAN**

(100)

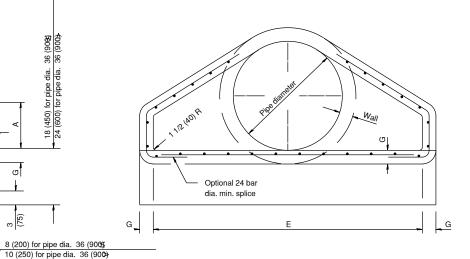
Same reinforcement as

Precast or cast in

place end block.

circular Class IV, Wall B reinforced concrete pipe.

2 - No. 4 (No. 13) bars



PIPE DIA.	APPROX. QTY. lbs. (kg)	WALL	Α	В	С	D	E	G	R	APPROX. SLOPE
12 (300)	530 (240)	2 (51)	4 (102)	24 (610)	4'-07/8" (1.241 m)	6'-07/8" (1.851 m)	24 (610)	2 (51)	9 (229)	1:2.4
15	740	2½	6	27	3'-10"	6'-1"	30	2½	11	1:2.4
(375)	(335)	(57)	(152)	(686)	(1.168 m)	(1.854 m)	(762)	(57)	(280)	
18	990	2½	9	27	3'-10"	6'-1"	36	2½	12	1:2.4
(450)	(450)	(64)	(229)	(686)	(1.168 m)	(1.854 m)	(914)	(64)	(305)	
21	1280	2¾	9	35	38	6'-1"	3'-6"	2¾	13	1:2.4
(525)	(580)	(70)	(229)	(889)	(965)	(1.854 m)	(1.067 m)	(70)	(330)	
24	1520	3	9½	3'-7½"	30	6'-1½"	4'-0"	3	14	1:2.5
(600)	(690)	(76)	(241)	(1.105 m)	(762)	(1.867 m)	(1.219 m)	(76)	(356)	
27	1930	3½	10½	4'-0"	25½	6'-1½"	4'-6"	3¼	14½	1:2.4
(675)	(875)	(83)	(267)	(1.219 m)	(648)	(1.867 m)	(1.372 m)	(83)	(368)	
30	2190	3½	12	4'-6"	19¾	6'-1¾"	5'-0"	3½	15	1:2.5
(750)	(995)	(89)	(305)	(1.375 m)	(502)	(1.874 m)	(1.524 m)	(89)	(381)	
33	3200	3¾	13½	4'-10½"	39½	8'-1¾"	5'-6"	3¾	17½	1:2.5
(825)	(1450)	(95)	(343)	(1.486 m)	(997)	(2.483 m)	(1.676 m)	(95)	(445)	
36	4100	4	15	5'-3"	34¾	8'-1¾"	6'-0"	4	20	1:2.5
(900)	(1860)	(102)	(381)	(1.6 m)	(883)	(2.483 m)	(1.829 m)	(102)	(508)	
42	5380	4½	21	5'-3"	35	8'-2"	6'-6"	4½	22	1:2.5
(1050)	(2440)	(114)	(533)	(1.6 m)	(889)	(2.489 m)	(1.981 m)	(114)	(559)	
48	6550	5	24	6'-0"	26	8'-2"	7'-0"	5	22	1:2.5
(1200)	(2970)	(127)	(610)	(1.829 m)	(660)	(2.489 m)	(2.134 m)	(127)	(559)	
54	8240	5½	27	5'-5"	35	8'-4"	7'-6"	5½	24	1:2.0
(1350)	(3740)	(140)	(686)	(1.651 m)	(889)	(2.54 m)	(2.286 m)	(140)	(610)	
60 (1500)	8730 (3960)	6 (152)	35 (889)	5'-0" (1.524 m)	39 (991)	8'-3" (2.515 m)	8'-0" (2.438 m)	5 (127)	*	1:1.9
66 (1650)	10710 (4860)	6½ (165)	30 (762)	6'-0" (1.829 m)	27 (686)	8'-3" (2.515 m)	8'-6" (2.591 m)	5½ (140)	*	1:1.7
72 (1800)	12520 (5680)	7 (178)	36 (914)	6'-6" (1.981 m)	21 (533)	8'-3" (2.514 m)	9'-0" (2.743 m)	6 (152	*	1:1.8
78 (1950)	14770 (6700)	7½ (191)	36 (914)	7'-6" (2.286 m)	21 (533)	9'-3" (2.819 m)	9'-6" (2.896 m)	6½ (165)	*	1:1.8
84 (2100)	18160 (8240)	8 (203)	36 (914)	7'-6½" (2.299 m)	21 (533)	9'-3½" (2.832 m)	10'-0" (3.048 m)	6½ (165)	*	1:1.6

^{*} Radius as furnished by manufacturer

PRECAST REINFORCED **CONCRETE FLARED END SECTION**

STANDARD 542301-03

DRAINAGE DETAILS 1

CG501 SHEET **39** 68

SECTION A-A

18 (450) for pipe dia. 36 (90<u>63)</u> 24 (600) for pipe dia. 36 (900)

CMT

License No. 184-000613 CONSULTANTS

> 100% SUBMITTAL MARCH 1, 2024

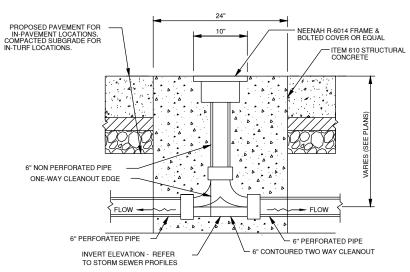
TERMINAL APRON EXPANSION



MIDAMERICA ST. LOUIS AIRPORT ST. CLAIR COUNTY, IL

MARK DATE DESCRIPTION BLV PROJECT NO. 2024-04 IL PROJECT NO. BLV-5101 CMT PROJECT NO: 22001186.00 CAD DWG FILE: 22001186 - CG500.DWG DESIGNED BY: DRAWN BY: CMT CHECKED BY:

COPYRIGHT: CRAWFORD, MURPHY & TILLY, INC. 2021



ONE-WAY OR TWO-WAY CLEANOUT ELEVATION

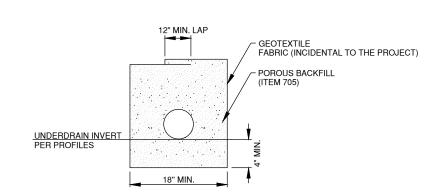
UNDERDRAIN CLEANOUT NOTES

SEQUENCE OF CONSTRUCTION/PLACEMENT OF CLEANOUTS SHALL BE AS

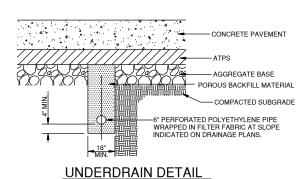
FOLLOWS:

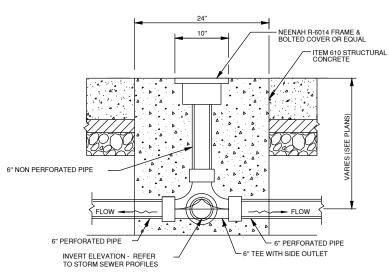
CORE THROUGH ASPHALT
SET CLEANOUT WITH PCC COLLAR
PAVE CONCRETE APRON

2. FINISHED GRADE OF CLEANOUTS AND COLLECTION STRUCTURES SHALL BE AT OR JUST BELOW PCC PAVEMENT SURFACE ELEVATION. ANY STRUCTURE EXTENDING ABOVE THE FINISHED PCC PAVEMENT ELEVATION SHALL BE ADJUSTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT.



UNDERDRAIN TRENCH DETAIL





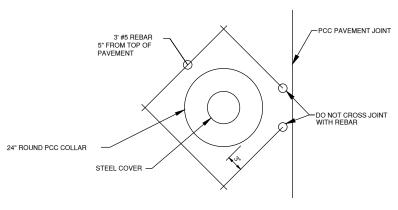
UNDERDRAIN COLLECTION STRUCTURE

UNDERDRAIN COLLECTION STRUCTURE NOTES

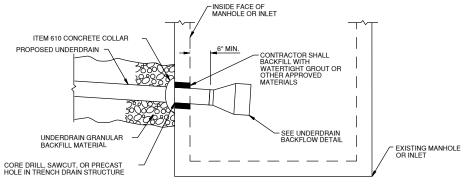
1. SEQUENCE OF CONSTRUCTION/PLACEMENT OF CLEANOUTS SHALL BE AS

CORE THROUGH ASPHALT
SET CLEANOUT WITH PCC COLLAR
PAVE CONCRETE APRON

2. FINISHED GRADE OF CLEANOUTS AND COLLECTION STRUCTURES SHALL BE AT OR JUST BELOW PCC PAVEMENT SURFACE ELEVATION. ANY STRUCTURE EXTENDING ABOVE THE FINISHED PCC PAVEMENT ELEVATION SHALL BE ADJUSTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT.



UNDERDRAIN PLAN VIEW



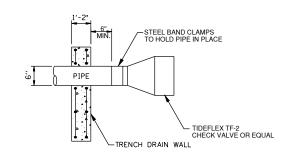
NOTES: CONTRACTOR SHALL BACKFILL WITH WATERTIGHT GROUT OR OTHER APPROVED MATERIALS

DIRECT CONNECTION DETAIL

DIRECT CONNECTION NOTES

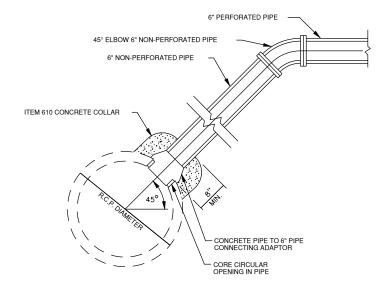
1. HOLE IN STRUCTURE SHALL BE AT LEAST 1" WIDER THAN UD PIPE

2. FILL SPACE BETWEEN UNDERDRAIN AND STRUCTURE WITH NON-SHRINK GROUT OR ITEM 610 PCC COLLAR.

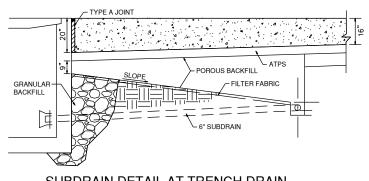


UNDERDRAIN BACKFLOW DETAIL

NOTE: CHECK VALVE SHALL BE INCIDENTAL TO UNDERDRAIN WORK



UNDERDRAIN DIRECT CONNECTION AT RCP



SUBDRAIN DETAIL AT TRENCH DRAIN

N.T.S.



100% SUBMITTAL MARCH 1, 2024

TERMINAL APRON EXPANSION



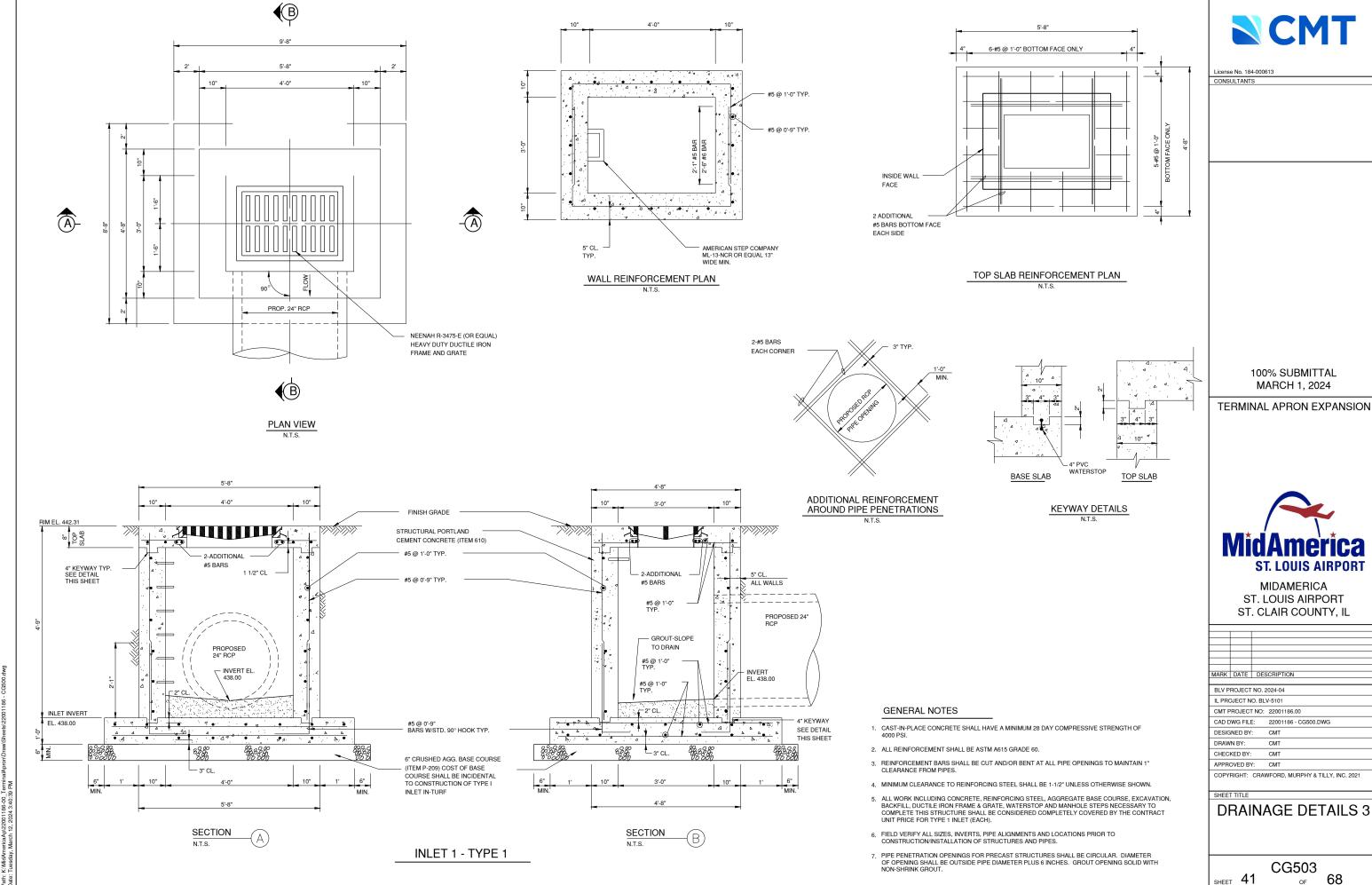
MIDAMERICA ST. LOUIS AIRPORT ST. CLAIR COUNTY, IL

MARK	DATE	DES	CRIPTION
BLV P	ROJECT	NO. 2	024-04
IL PRO	DJECT N	O. BL\	/-5101
CMT PROJECT NO:			22001186.00
CAD DWG FILE:		E:	22001186 - CG500.DWG
DESIGNED BY:		:	CMT
DRAWN BY:			CMT
CHECKED BY:			CMT
APPROVED BY:		Y:	CMT
COPY	RIGHT:	CRAV	VFORD, MURPHY & TILLY, INC. 2021

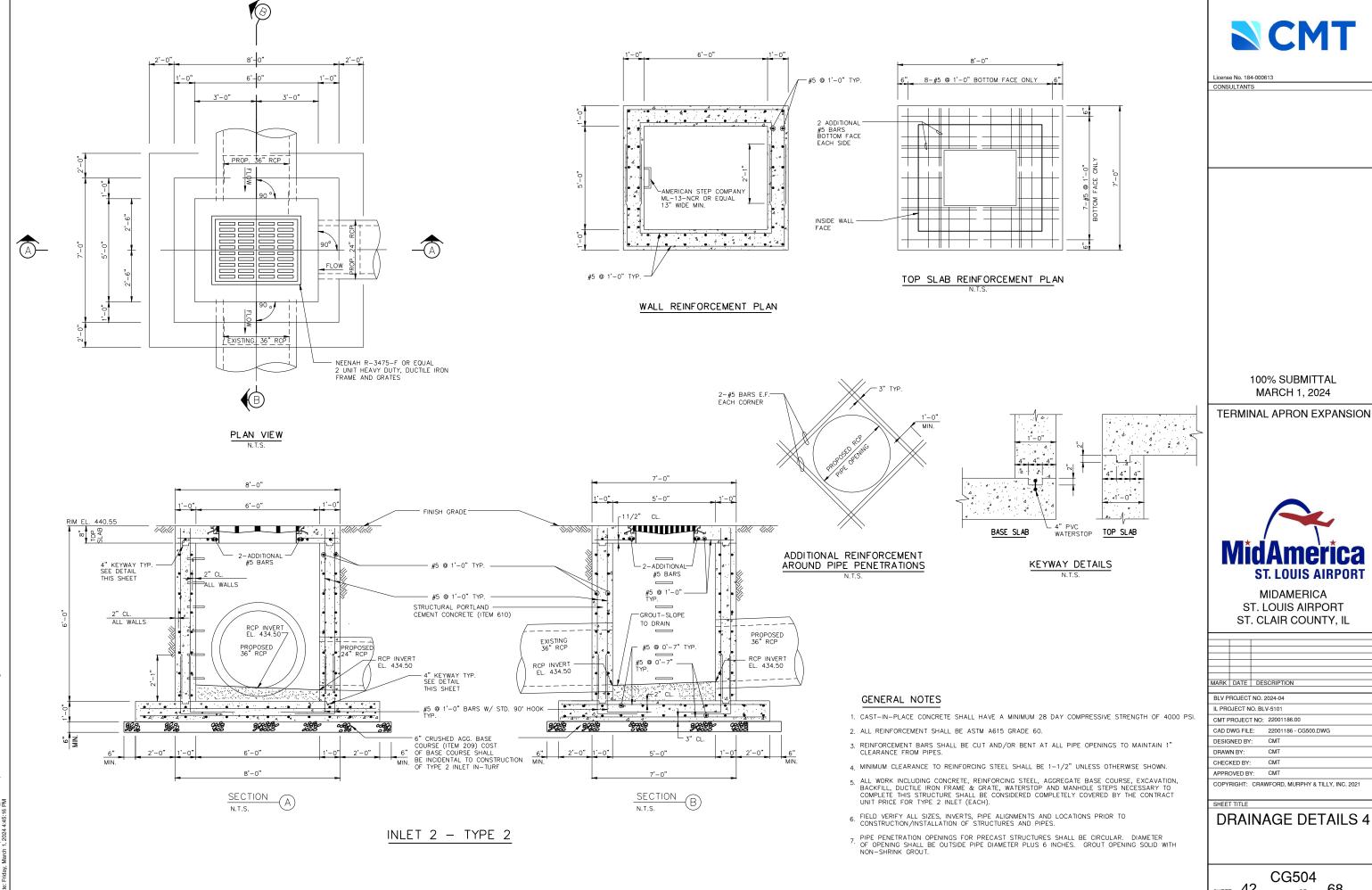
DRAINAGE DETAILS 2

68

CG502 SHEET 40 OF



OF



CMT

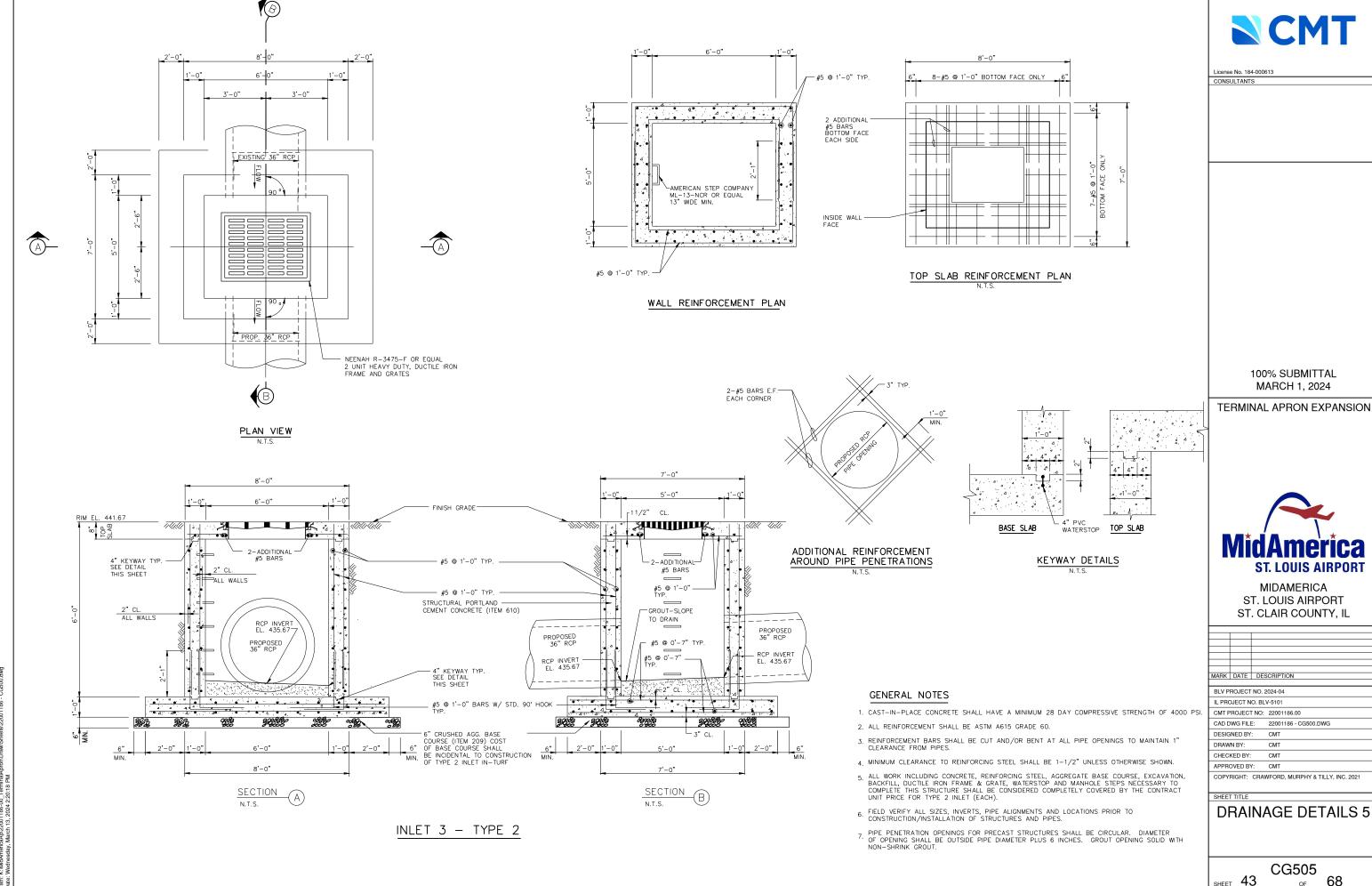


ST. LOUIS AIRPORT ST. CLAIR COUNTY, IL

٩RK	DATE	DES	SCRIPTION
LV P	ROJECT	NO. 2	2024-04
PRO	DJECT N	O. BL	V-5101
MT PROJECT NO:			22001186.00
AD DWG FILE:		E:	22001186 - CG500.DWG
ESIGNED BY:		:	CMT
RAWN BY:			CMT
HECKED BY:			CMT

DRAINAGE DETAILS 4

SHEET 42 OF



CMT

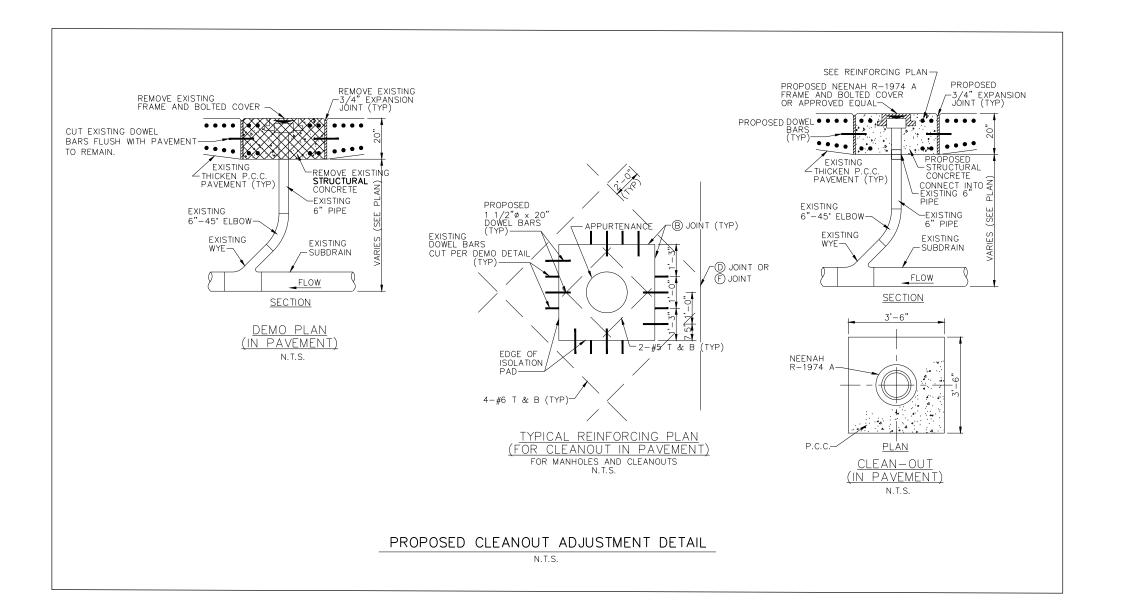


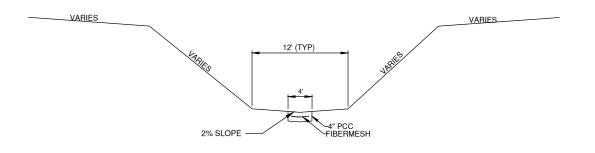
ST. LOUIS AIRPORT ST. CLAIR COUNTY, IL

MARK	DATE	DES	SCRIPTION			
BLV P	ROJECT	NO. 2	2024-04			
IL PRO	IL PROJECT NO. BLV-5101					
CMTF	ROJECT	NO:	22001186.00			
CAD DWG FILE:			22001186 - CG500.DWG			
DESIGNED BY:			CMT			
DRAWN BY:			CMT			
CHECKED BY:			CMT			
APPR	APPROVED BY:		CMT			

DRAINAGE DETAILS 5

SHEET 43 OF





4' WIDE PAVED INVERT DETAIL

N.T.S.



100% SUBMITTAL MARCH 1, 2024

TERMINAL APRON EXPANSION



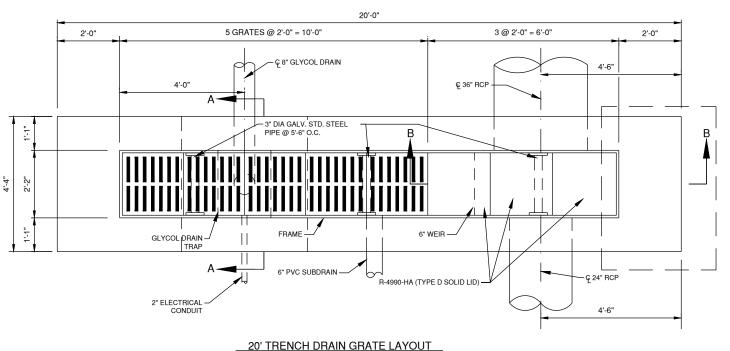
MIDAMERICA ST. LOUIS AIRPORT ST. CLAIR COUNTY, IL

MARK	DATE	DES	SCRIPTION
BLV P	ROJECT	NO. 2	2024-04
IL PRO	DJECT N	O. BL	V-5101
CMT F	ROJECT	NO:	22001186.00
CAD DWG FILE:			22001186 - CG500.DWG
DESIG	NED BY	:	CMT
DRAW	N BY:		CMT
CHEC	KED BY:		CMT
APPR	OVED BY	/ :	CMT
COPY	RIGHT:	CRAN	WFORD, MURPHY & TILLY, INC. 2021

HEET TITLE

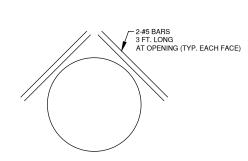
DRAINAGE DETAILS 6

CG506

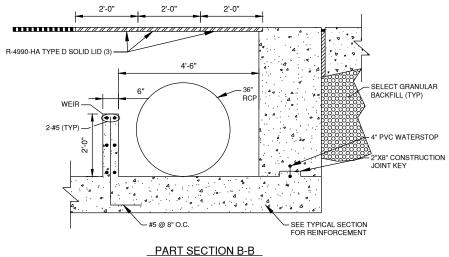


N.T.S.

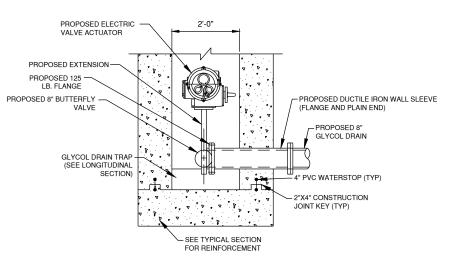
NEENAH FRAME AND GRATE R-4990-HA TYPE A GRATE OPENING, BOLTED OR EQUAL. GRATE SHALL BE SECURED TO FRAME BEFORE CONCRETE IS POURED. 3" DIA GALV. STD. STEEL PIPE @_ GALVANIZED ½" DIA-EXPANSION ANCHORS JOINT SEALANT EL 442.69 -THICKENED EDGE PAVEMENT _#6 CONT. ー1½" POLYETHYLENE JOINTに %"x8"x8" GALV. STEEL ₽-#4 TIES @ 18" O.C. (TYP) CAST IRON SPECIAL -₩5 @ 10" (TYP) SS BAND-DUCK BILL BACK-FLOW PREVENTOR 4" PVC WATERSTOP (TYP) FL EL 437.19



TYPICAL PIPE PENETRATION DETAIL N.T.S.



N.T.S.



PART SECTION A-A N.T.S.

20' TRENCH DRAIN TYPICAL SECTION N.T.S.

L#5 @ 12" (TYP)

2"X4" CONSTRUCTION -

JOINT KEY (TYP)

SPACE WITH #5@10 #6@6"

CAST IN PLACE CONCRETE SHALL HAVE A MINIMUM 14 DAY COMPRESSIVE STRENGTH OF 3500 PSI.

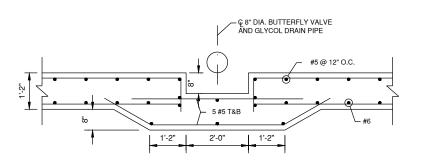
NOTES:

2. ALL REINFORCEMENT SHALL BE ASTM A615 GRADE 60.

3. REINFORCING BARS SHALL BE CUT AND/OR FIELD BENT AT ALL PIPE OPENINGS TO MAINTAIN 1" CLEARANCE FROM PIPES.

5. ALL CONCRETE, REINFORCING STEEL, EXCAVATION, BACKFILL, DUCTILE IRON FRAME AND GRATE, STEEL PIPES AND PLATES, ANCHORS, WATERSTOPS, JOINT FILLER AND JOINT SEALANT NECESSARY TO CONSTRUCT THE TRENCH DRAIN SHALL BE INCLUDED IN THE COST OF 4'X20' TRENCH DRAIN (EACH).

6. FIELD VERIFY ALL SIZES AND LOCATIONS PRIOR TO CONSTRUCTION/INSTALLATION OF STRUCTURES AND PIPES.



PART LONGITUDINAL SECTION THROUGH GLYCOL DRAIN TRAP



100% SUBMITTAL MARCH 1, 2024

TERMINAL APRON EXPANSION



MIDAMERICA ST. LOUIS AIRPORT ST. CLAIR COUNTY, IL

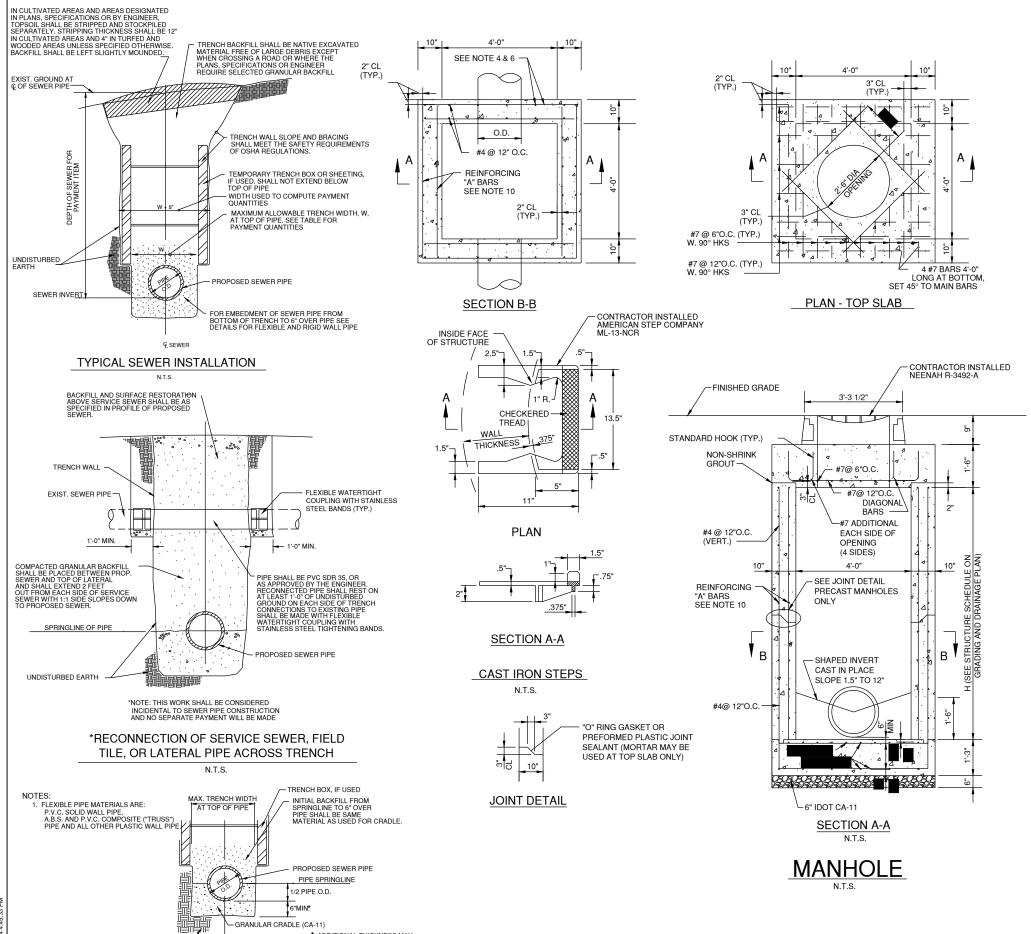
111517	DATE	DECODIDEION				
MARK	DATE	DESCRIPTION				
BLV P	ROJECT	NO. 2024-04				
IL PRO	DJECT N). BLV-5101				
CMTF	CMT PROJECT NO: 22001186.00					
CAD	WG FILE	22001186 - CC	3500.DWG			
DESIG	ENED BY	CMT				
DRAW	/N BY:	CMT				
CHEC	KED BY:	CMT				
APPR	OVED BY	CMT				
COPY	RIGHT:	CRAWFORD, MURP	HY & TILLY, INC. 2021			

TRENCH DRAIN **DETAILS**

CG507 SHEET 45

68

1. END WALL DETAIL



NOTES:

- FRAME WITH COVER SHALL BE NEENAH R-3492-A WITH LEGEND "ADFW." SHALL BE GASKET SEALED FOR WATERTIGHT APPLICATION.
- 2. ALL MANHOLE COVERS SHALL BE BOLTED TO THE FRAME WITH STAINLESS STEEL BOLTS.
- 3. OPENINGS IN THE WALLS FOR THE PIPE SHALL BE CAST-IN OR CUT CLEANLY WITHOUT PERCUSSION TO A MAXIMUM DIAMETER OF O.D. ±3". THE SPACE BETWEEN PIPE AND WALL SHALL THEN BE SEALED WITH AN ELASTOMERIC SEAL, OR OTHER APPROVED METHOD.
- 4. WHERE A PIPE PASSES THROUGH A WALL 2 ADDITIONAL "A" BARS SHALL BE PLACED ABOVE, BELOW, AND TO EACH SIDE OF THE OPENING. VERTICAL "A" BARS SHALL EXTEND A MINIMUM OF 2-0" ABOVE AND BELOW THE EDGES OF THE OPENING. THE ADDITIONAL REINFORCING SHALL BE PLACED AT BOTH THE INSIDE AND OUTSIDE LAYER OF REINFORCING.
- 5. WHEN LIFTING THE PRE-CAST MANHOLE, A BAR SHALL BE PLACED HORIZONTALLY THROUGH THE LIFTING HOLES, PROVIDED AT THE TIME OF MANUFACTURE, THE LIFTING DEVICES SHALL BE PLACED ONLY ON THAT BAR. THE BAR AND HOLES SHALL BE APPROVED BY THE ENGINEER. THE LIFTING HOLES SHALL BE FILLED WITH GROUT AFTER THE MANHOLE IS IN POSITION.
- 6. SPLICE LENGTHS REQUIRED FOR REINFORCING BARS: #4 BAR, 1'-4"; #5 BAR, 1'-8"; #6 BAR, 2'-0"; #7 BAR, 2'-6".
- 7. JOINT AND WATERSTOP ARE AN OPTION FOR CAST-IN PLACE MANHOLES ONLY. PRE-CAST MANHOLES SHALL NOT BE JOINTED AT THIS LOCATION.
- 8. CONCRETE STRENGTH AT 28 DAYS SHALL BE A MINIMUM OF 4,000 PSI FOR CAST-IN PLACE MANHOLES, 5,000 PSI FOR PRECAST MANHOLES.
- 9. REINFORCING SHALL CONFORM TO ASTM A615, GRADE 60.
- 10. REINFORCING "A" BARS SHALL BE #5 @ 12".
- 11. PLASTIC MAGNETIC 3" WIDE DETECTABLE TAPE REQUIRED ABOVE ALL CONDUITS, DUCTS AND DUCTBANKS NOT INSTALLED UNDER PAVEMENT
- 12. THE BACKFILL ABOVE THE CONDUIT SHALL BE AS DEFINED IN SPECIFICATION SECTION 110.
- 13. CAST IRON STEPS SHALL BE NEENAH R-1982-1 FOR STRAIGHT WALLS, OR APPROVED EQUAL.
- 14. MANHOLE TO BE CONSTRUCTED OF STRUCTURAL P.C. CONCRETE. THE CONTRACT UNIT PRICE PER INLET SHALL INCLUDE THE FRAME, GRATES, AND STEPS IN PLACE AND COMPLETE PER UNIT.
- 15. THE CONTRACTOR IS REQUIRED TO SUBMIT MANUFACTURER'S SHOP DRAWING SHOWING DETAILS AND DESIGN CALCULATIONS FOR APPROVAL PRIOR TO INSTALLATION. (SEE SPECS - ITEM 770700) SHOP DRAWINGS SHALL BE SEALED BY A REGISTERED PROFESSIONAL STRUCTURAL FNGINFER.
- 16. THIS MANHOLE FRAME REQUIRES AIRPORT LOADING TO CONFORM WITH AC 150/5320-6E. THIS IS 50,000 LBS PER TIRE LOAD SPREAD OVER 235 SQUARE INCHES. CASTINGS ARE TO SUPPORT 100,000 LBS WHEEL LOADS WITH 250 PSI TIRE PRESSURE. ALL OTHER INLETS, FRAMES, AND GRATES SHALL BE DESIGNED TO WITHSTAND AASHTO HS20-44 HIGHWAY LOADING.
- 17. TESTING OF MANHOLES. ALL MANHOLES IN THE SYSTEM SHALL BE TESTED AS DETAILED IN THE SPECIFICATIONS.



License No. 184-000613

CONSULTANTS

100% SUBMITTAL MARCH 1, 2024

TERMINAL APRON EXPANSION



MIDAMERICA ST. LOUIS AIRPORT ST. CLAIR COUNTY, IL

MARK	DATE	DES	SCRIPTION					
BLV P	BLV PROJECT NO. 2024-04							
IL PRO	IL PROJECT NO. BLV-5101							
CMT PROJECT NO: 22001186.00								
CAD DWG FILE:		E:	22001186 - CG500.DWG					
DESIGNED BY:		:	CMT					
DRAWN BY:			CMT					
CHECKED BY:			CMT					
APPROVED BY:		Y:	CMT					
COPYRIGHT: CRAWFORD, MURPHY & TILLY, INC. 2021								

SHEET TITL

GLYCOL COLLECTION DETAILS

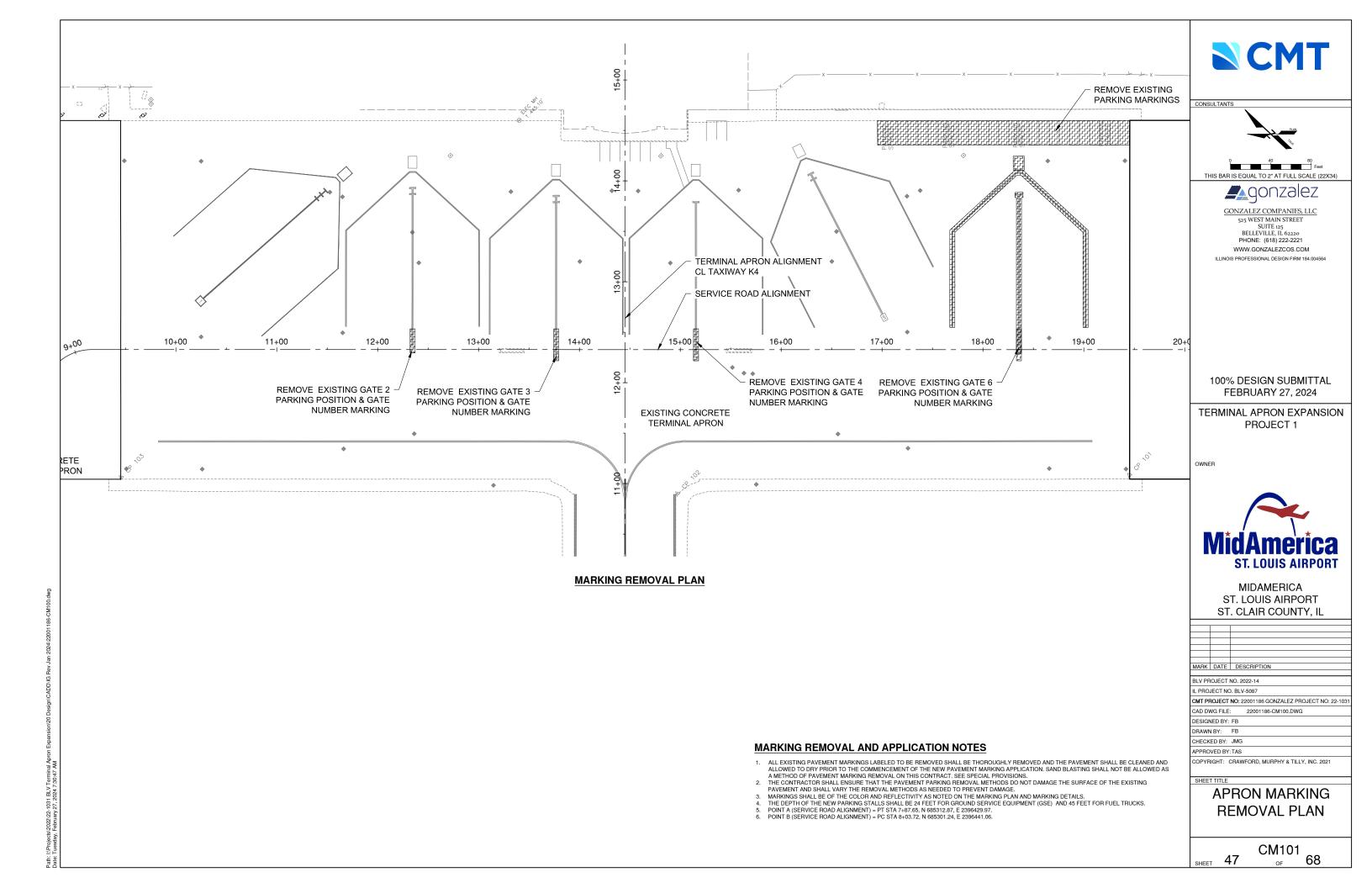
CG508 46 of 68

dAmericaApi22001186-00_TerminalApron\Draw\Sheets\22001186 - CG500.dwg

FLEXIBLE WALL SEWER PIPE
SEWER EMBEDMENT DETAIL

UNDISTURBED EARTH

N.T.S.







CONSULTANTS



THIS BAR IS EQUAL TO 2" AT FULL SCALE (22X34)



GONZALEZ COMPANIES, LLC 525 WEST MAIN STREET SUITE 125 BELLEVILLE, IL 62220 PHONE: (618) 222-2221 WWW.GONZALEZCOS.COM ILLINOIS PROFESSIONAL DESIGN FIRM 184.004564

100% DESIGN SUBMITTAL FEBRUARY 27, 2024

TERMINAL APRON EXPANSION PROJECT 1

OWNER



MIDAMERICA ST. LOUIS AIRPORT ST. CLAIR COUNTY, IL

K	DATE	DESCRIPTION

BLV PROJECT NO. 2022-14

IL PROJECT NO. BLV-5087 CMT PROJECT NO: 22001186 GONZALEZ PROJECT NO: 22-103

CAD DWG FILE: 22001186-CM100.DWG DESIGNED BY: FB

DRAWN BY: FB CHECKED BY: JMG

> PPROVED BY: TAS COPYRIGHT: CRAWFORD, MURPHY & TILLY, INC. 2021

APRON MARKING PLAN

CM102

SHEET 48

MARKING PLAN



CONSULTANTS



THIS BAR IS EQUAL TO 2" AT FULL SCALE (22X34)

_qonzalez

GONZALEZ COMPANIES, LLC 525 WEST MAIN STREET SUITE 125 BELLEVILLE, IL 62220 PHONE: (618) 222-2221 WWW.GONZALEZCOS.COM ILLINOIS PROFESSIONAL DESIGN FIRM 184.004564

100% DESIGN SUBMITTAL FEBRUARY 27, 2024

TERMINAL APRON EXPANSION PROJECT 1

OWNER



MIDAMERICA ST. LOUIS AIRPORT ST. CLAIR COUNTY, IL

MARK	DATE	DESCRIPTION	

BLV PROJECT NO. 2022-14 IL PROJECT NO. BLV-5087

CMT PROJECT NO: 22001186 GONZALEZ PROJECT NO: 22-103* CAD DWG FILE: 22001186-CM100.DWG

DESIGNED BY: FB

DRAWN BY: FB CHECKED BY: JMG APPROVED BYAS

COPYRIGHT: CRAWFORD, MURPHY & TILLY, INC. 2021

APRON MARKING PLAN

CM103

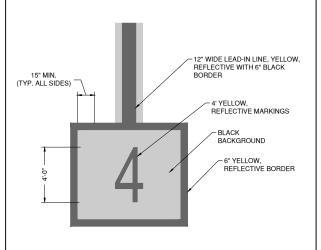
SHEET 49

GATE PARKING AND SAFETY ZONE MARKING DETAIL

NOT TO SCALE

- 1. DETERMINE LOCATION NOSE WHEEL STOP LINE (REFERENCE YELLOW LINE).
- MEASURE AND MARK A POINT FROM FIRST NOSE WHEEL STOP LINE TO TOP OF SAFETY ZONE (22' FROM END OF LINE).
 ROM THIS POINT, MEASURE AND MARK TWO POINTS PERPENDICULAR

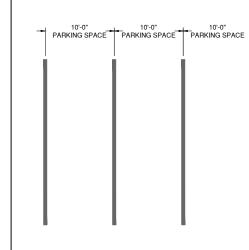
 TO SERVICE AND MARK TWO POINTS PERP
 - TO THE J-LINE (3')
- 3. MEASURE AND NOTE THE POSITION FROM NOSE WHEEL STOP LINE BACK TOWARDS THE MAIN LANDING GEAR POSITION (36' FROM BEGINNING OF
 - 3.1. FROM THIS NOTED POSITION, MEASURE AND MARK TWO POINTS, PERPENDICULAR TO THE J-LINE AT 66'.
- 3.2. FROM THESE TWO POINTS, MEASURE AND MARK TWO POINTS, PARALLEL TO THE J-LINE AT 95.
- 4. CONNECT POINTS (REFERENCE RED LINE).
- 5. STOP LINE LABELS SHALL BE BLACK WITH 12" HIGH INSCRIPTION IN CONFORMANCE WITH THE DETAILS PROVIDED IN FAA ADVISORY CIRCULAR 150/5340-1M, APPENDIX A (OR LATEST REVISION). LOCATE THE NEAREST CHARACTER 24-INCHES FROM THE END OF THE STOP LINE AS SHOWN. PAY QUANTITY FOR EACH STOP LINE LABEL WILL BE 2 SQ FT.



GATE NUMBERING DETAIL

NOT TO SCALE

- ALL MARKINGS 4' YELLOW AND REFLECTIVE ON BLACK BACKGROUND WITH 15" OFFSET FROM NUMERALS TO BORDER, BORDER IS 6" YELLOW AND REFLECTIVE.
- 2. MARKINGS BASED ON VARIOUS GUIDANCE. ACRP REPORT RECOMMENDED YELLOW ON BLACK AND 2' LETTER HEIGHT. 4' LETTER HEIGHT BASED ON OTHER AIRPORT'S



6" WIDE.WHITE. -- 6" WIDE, WHITE, NON-REFLECTIVE NON-REFLECTIVE AT 2'-0" CENTERS

PARKING AREA

PARKING AREA PARKING SPACE

FUEL TRUCK PARKING SPACE MARKING

NOT TO SCALE

ALL MARKINGS WHITE AND NON-REFLECTIVE. NUMBER OF PARKING SPACES SHALL BE AS NOTED ON PLANS OR AS DIRECTED BY THE ENGINEER OR OWNER.

GSE PARKING SPACE MARKING

- ALL MARKINGS WHITE AND NON-REFLECTIVE.
 NUMBER OF PARKING SPACES SHALL BE AS NOTED ON PLANS OR AS DIRECTED BY THE ENGINEER OR OWNER.
- SPACE NUMBERS SHALL BE DETERMINED IN THE FIELD BY OWNER.

 SPACE NUMBER SHALL BE 6" STENCILED LABELS AND SHALL
- BE PLACED AT THE DIRECTION OF THE AIRPORT.

 5. SPACE NUMBERS MARKING SHALL BE INCIDENTAL TO THE PROJECT.



CONSULTANTS



THIS BAR IS EQUAL TO 2" AT FULL SCALE (22X34)

_qonzalez

GONZALEZ COMPANIES, LLC 525 WEST MAIN STREET SUITE 125 BELLEVILLE, IL 62220 PHONE: (618) 222-2221 WWW.GONZALEZCOS.COM ILLINOIS PROFESSIONAL DESIGN FIRM 184.004564

100% DESIGN SUBMITTAL FEBRUARY 27, 2024

TERMINAL APRON EXPANSION PROJECT 1

OWNER



MIDAMERICA ST. LOUIS AIRPORT ST. CLAIR COUNTY, IL

MARK DATE DESCRIPTION

BLV PROJECT NO. 2022-14

IL PROJECT NO. BLV-5087

CMT PROJECT NO: 22001186 GONZALEZ PROJECT NO: 22-103*

CAD DWG FILE: 22001186-CM500.DWG

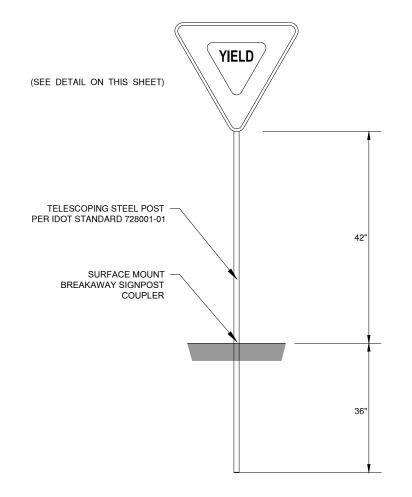
DESIGNED BY: FB DRAWN BY: FB

CHECKED BY: JMG APPROVED BYAS

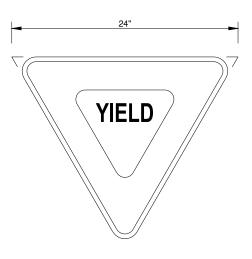
COPYRIGHT: CRAWFORD, MURPHY & TILLY, INC. 2021

APRON MARKING DETAILS

CM501 SHEET **50**



SERVICE ROAD YIELD SIGN DETAIL

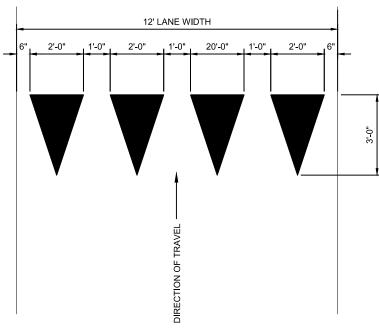


R1-2 YIELD SIGN (24" ACROSS FLATS)

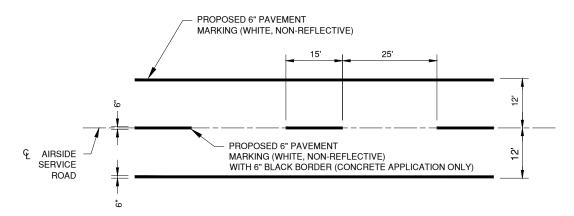
COLORS: LEGEND - RED (RETROREFLECTIVE) BACKGROUND - WHITE (RETROREFLECTIVE)

REF: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) STANDARD HIGHWAY SIGNS 2009 (ENGLISH) EDITION

YIELD SIGN DETAIL N.T.S.

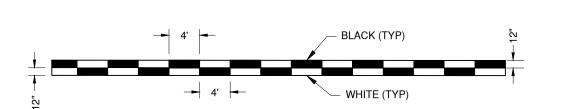


YIELD LINE DETAIL



VEHICULAR ROADWAY MARKING

N.T.S.



ROADWAY EDGE STRIPES, WHITE, ZIPPER STYLE

USE ZIPPER STRIPES TO DELINEATE SERVICE ROAD EDGES ON NEW AND EXISTING CONCRETE APRON.



CONSULTANTS



0 50 100 Feet
THIS BAR IS EQUAL TO 2" AT FULL SCALE (22X34)

_qonzalez

GONZALEZ COMPANIES, LLC
525 WEST MAIN STREET
SUITE 125
BELLEVILLE, IL 62220
PHONE: (618) 222-2221
WWW.GONZALEZCOS.COM
ILLINOIS PROFESSIONAL DESIGN FIRM 184.004564

100% DESIGN SUBMITTAL FEBRUARY 27, 2024

TERMINAL APRON EXPANSION PROJECT 1

OWNER



MIDAMERICA ST. LOUIS AIRPORT ST. CLAIR COUNTY, IL

l			
MARK	DATE	DESCRIPTION	

BLV PROJECT NO. 2022-14

CMT PROJECT NO: 22001186 GONZALEZ PROJECT NO: 22-1031
CAD DWG FILE: 22001186-CM500.DWG

DESIGNED BY: FB

DESIGNED BY: FB
DRAWN BY: FB

CHECKED BY: JMG APPROVED BYAS

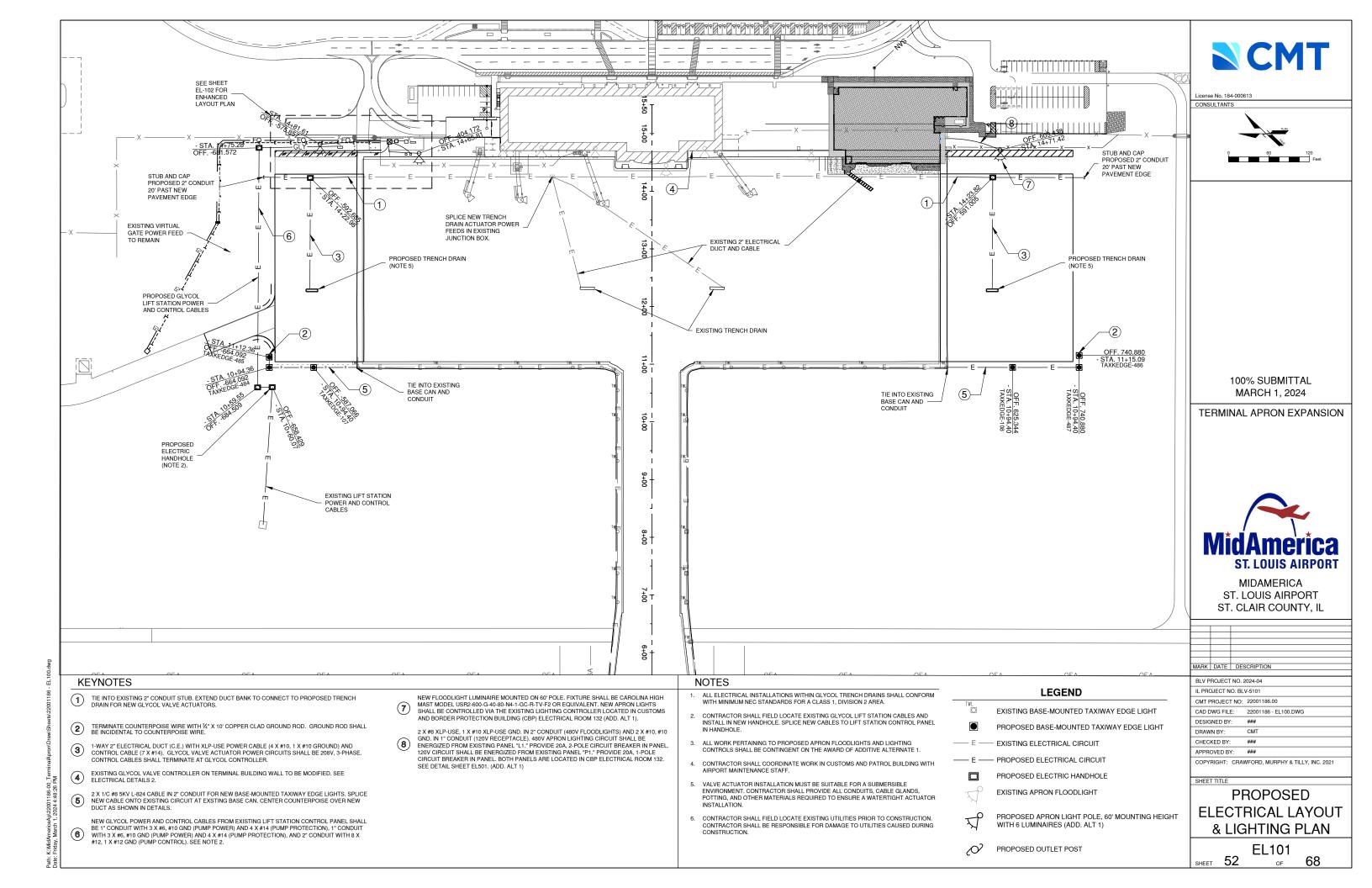
COPYRIGHT: CRAWFORD, MURPHY & TILLY, INC. 2021

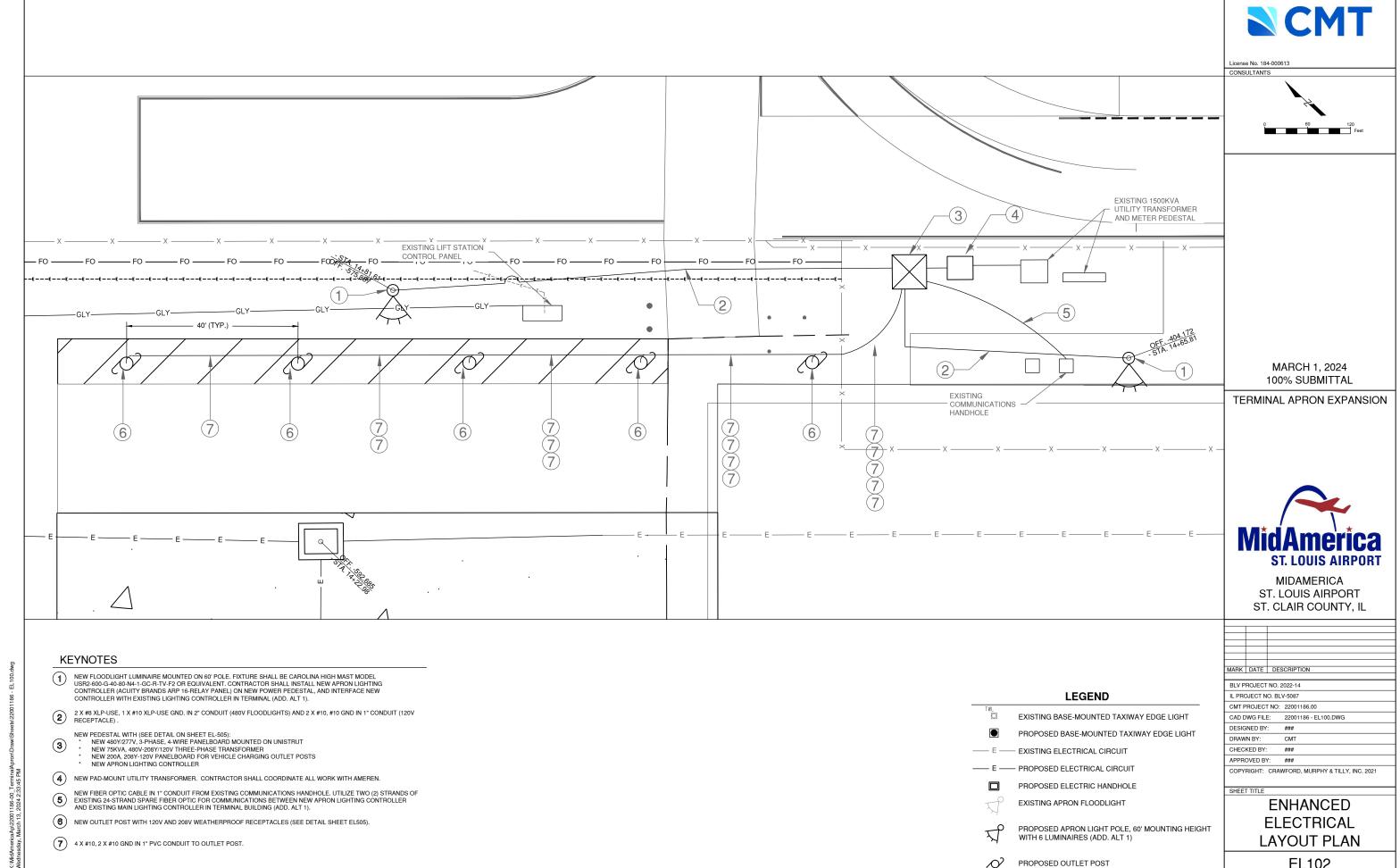
SHEET TITLE

MARKING AND SIGNAGE DETAILS

CM502 51 o_F

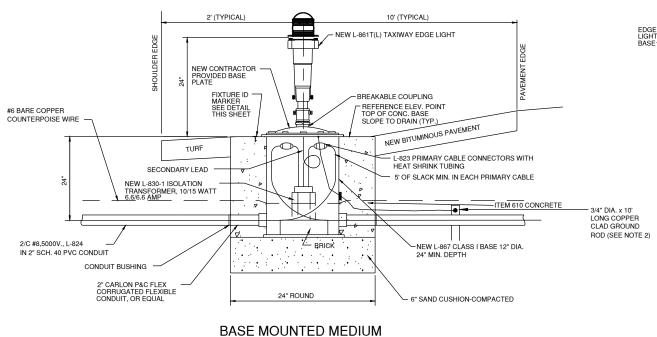
ramı ixrojedisizozazazı ilər ilerinina Apron Expansionizo DesignicADDios nev ə. Date: Tuesday, February 27, 2024 7:36:27 AM





SHEET **53**

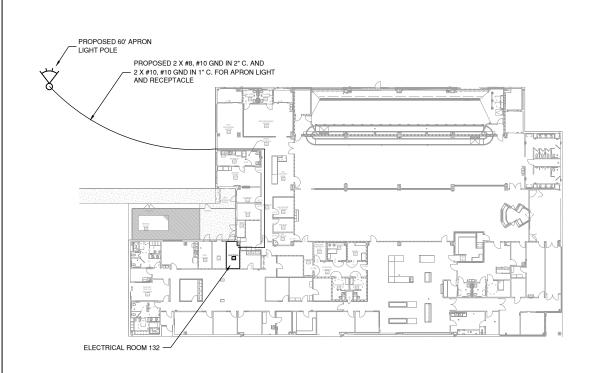
OF



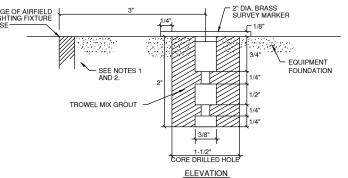
 INSTALL 2" FLEXIBLE CONDUIT BETWEEN CAN AND PVC CONDUIT UNDER PAVED SHOULDER.

INTENSITY LED TAXIWAY LIGHTS

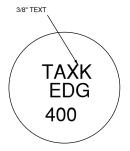
- 2. INSTALL 1/C #6 AWG BARE COPPER GROUND JUMPER CONNECTED TO GROUND LUG OUTSIDE BASE CAN AND EXOTHERMICALLY WELD TO TO GROUND ROD.
- COPPER CLAD GROUND ROD SHALL BE LOCATED OPPOSITE
 COUNTERPOISE WIRE WITH RESPECT TO CAN AND THE TWO SEPARATED
 BY MIN. OF 12". COUNTERPOISE WIRE SHALL NOT BE BONDED TO CAN.
- 4. CONTRACTOR MAY INSTALL AN ADJUSTABLE TWO PIECE CAN AND INSTALL THE BOTTOM HALF PRIOR TO PAVING THE BITUMINOUS SHOULDER. IF THIS METHOD IS USED, THE TOP HALF SHALL BE INSTALLED BY CORING THROUGH THE BITUMINOUS PAVEMENT TO EXPOSE THE BOTTOM HALF.



CBP BUILDING CONDUIT DETAIL



AIRFIELD LIGHTING FIXTURE IDENTIFICATION MARKER



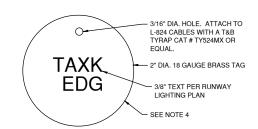
TOP VIEW AIRFIELD LIGHTING FIXTURE IDENTIFICATION MARKER

NOTES:

- FOR IDENTIFICATION NUMBERS, SEE
 ELECTRICAL LAYOUT PLAN. CONTRACTOR
 SHALL VERIFY NUMBERING WITH AIRPORT PRIOR
 TO ORDERING MARKERS.
- ALL AIRFIELD LIGHTING EQUIPMENT
 SHALL BE IDENTIFIED WITH A BRASS SURVEY
 MARKER. ITEMS REQUIRING ID MARKERS ARE:

JUNCTION BOXES MANHOLES TAXIWAY LIGHTS

- 3. L-823 CONNECTORS SHALL BE INSTALLED ON ALL CABLES, IN EACH MANHOLE, BASE CANS, OR OTHER ACCESSIBLE LOCATIONS. L-823 CONNECTORS SHALL BE INSTALLED SO A PORTION OF THE LOOP CAN BE BYPASSED.
- ALL AIRFIELD LIGHTING CIRCUITS SHALL
 BE IDENTIFIED WITH A BRASS TAG WITH
 ITS RESPECTIVE CIRCUIT/LOOP NUMBER AT
 ALL ACCESSIBLE LOCATIONS. ATTACH THE
 ID TAG TO BOTH CABLES 12" FROM THE
 L-823 CONNECTORS.



L-824 CABLE IDENTIFICATION TAG

NUMBER OF DUCTS AND DUCT SIZE PRESTAMPED OR CHISELED ON THE JOB

3/16" R.

NON CORROSIVE
METAL DISK
(BRASS)

DUCT MARKERS SHALL BE
DRILLED AND GROUTED INTO
THE PAVEMENTS.

DUCT MARKER SHALL BE INSTALLED
AT ALL DUCTS LOCATIONS PROPOSED
AND EXISTING AS SHOWN ON THE
CABLING AND DUCT PLAN.

DUCT MARKER DETAIL

NTS



License No. 184-000613

CONSULTANTS

100% SUBMITTAL MARCH 1, 2024

TERMINAL APRON EXPANSION



MIDAMERICA ST. LOUIS AIRPORT ST. CLAIR COUNTY, IL

MARK	DATE	DES	SCRIPTION				
BLV P	ROJECT	NO. 2	2024-04				
IL PRO	DJECT N	O. BL	V-5101				
CMT PROJECT NO: 22001186.00							
CAD DWG FILE:			22001186 - EL500.DWG				
DESIGNED BY:		:	CMT				
DRAW	N BY:		CMT				

COPYRIGHT: CRAWFORD, MURPHY & TILLY, INC. 2021

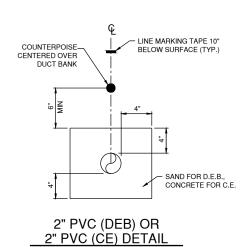
CHECKED BY:

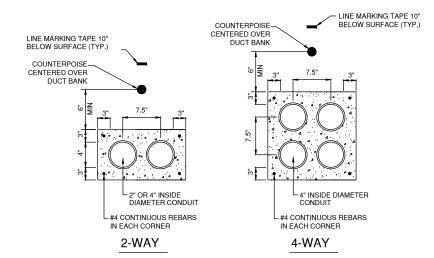
ELECTRICAL DETAILS

68

EL501 SHEET 54 OF

CMT

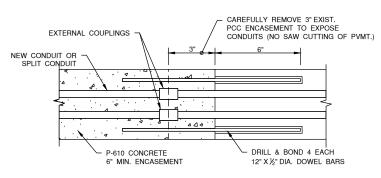




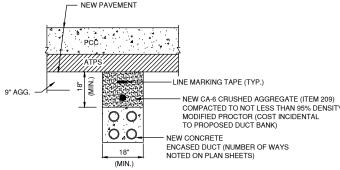
CONCRETE ENCASED DUCT BANKS

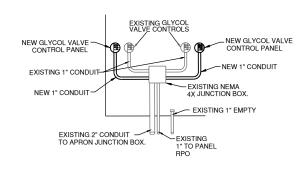
NOTES:

- 1. DIMENSIONS ARE MINIMUM.
- 2. CONCRETE SHALL CONFORM TO ITEM 610.
- 3. ALL CONDUIT SHALL BE SCHEDULE 40 PVC.
- 4. TOP OF CONCRETE ENCASEMENT IN TURF AREAS SHALL NOT BE LESS THAN 24" BELOW FINISHED GRADE.
- 5. SEE ELECTRICAL LAYOUT PLAN FOR CONDUIT DIAMETER.

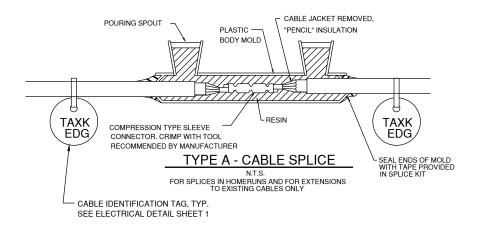


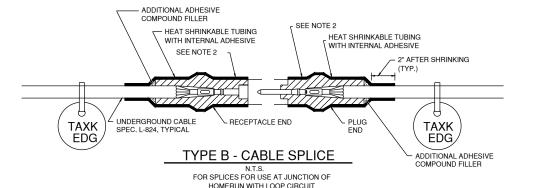
DUCT EXTENSION

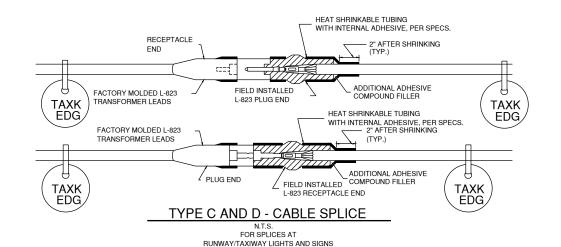




GLYCOL VALVE CONTROL SECTION







NOTES

- 1. INSIDE DIAMETER OF CONNECTOR SHALL PROPERLY MATCH THE OUTSIDE DIAMETER OF CABLE.
- WRAP WITH AT LEAST ONE LAYER OF RUBBER OR SYNTHETIC RUBBER TAPE AND ONE LAYER OF PLASTIC TAPE, ONE-HALF LAPPED, EXTENDING AT LEAST 1-1/2 INCHES ON EACH SIDE OF JOINT.
- 3. THE COST OF FURNISHING AND INSTALLING ALL SPLICE MATERIALS SHALL BE INCIDENTAL TO THE ASSOCIATED CABLE ITEMS.
- 4. THE CONTRACTOR SHALL HAVE A MINIMUM OF TWO (2) TYPE A SPLICE KITS ON THE JOB SITE AT ALL TIMES FOR EMERGENCY REPAIRS.
- 5. "COMPLETE KIT" SHALL BE ACCEPTABLE IN LIEU OF HEAT



License No. 184-000613

CONSULTANTS

100% SUBMITTAL MARCH 1, 2024

TERMINAL APRON EXPANSION



MIDAMERICA ST. LOUIS AIRPORT ST. CLAIR COUNTY, IL

MARK	DATE	DES	SCRIPTION						
BLV P	BLV PROJECT NO. 2024-04								
IL PRO	DJECT N	O. BL	V-5101						
CMT F	ROJECT	ΓNO:	22001186.00						
CAD DWG FILE:			22001186 - EL500.DWG						
DESIGNED BY:			CMT						
DRAWN BY:			CMT						
CHECKED BY:			CMT						
APPROVED BY:			CMT						
COPY	RIGHT:	CRAN	WEORD MURPHY & TILLY INC. 2021						

ELECTRICAL DETAILS

EL502 68 SHEET **55** OF

END DETAIL - NEW PAVEMENT

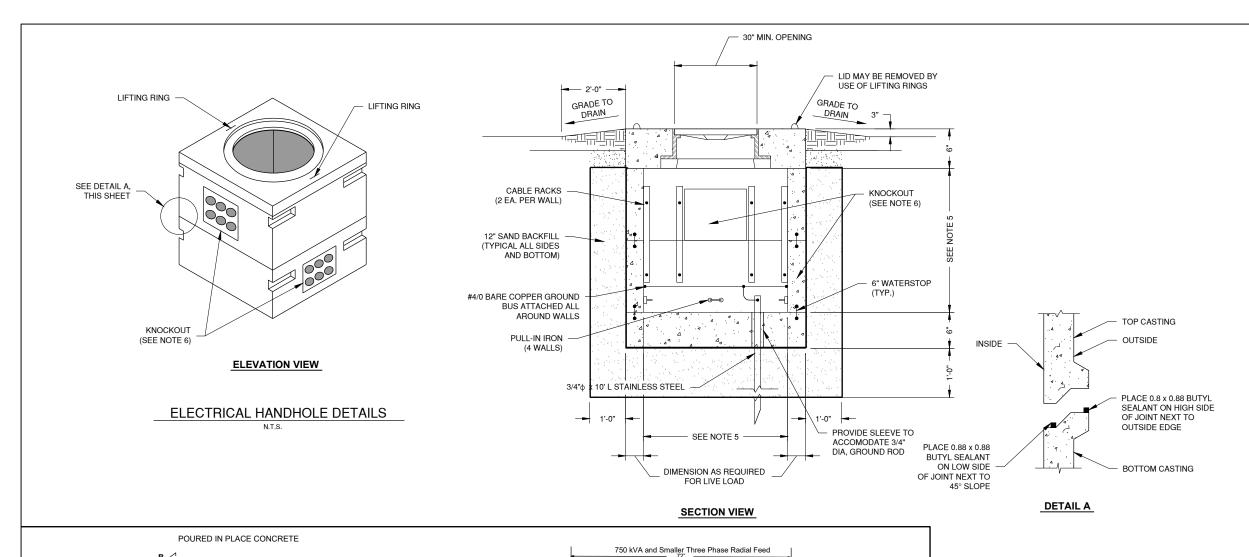
CONCRETE ENCASED DUCT

_#4 CONTINUOUS REBARS IN EACH CORNER

COUPLING

COMPACTED TO NOT LESS THAN 95% DENSITY MODIFIED PROCTOR (COST INCIDENTAL

CONCRETE ENCASED DUCT BACKFILL





- THE HANDHOLE/GRADE RING/HANDHOLE LID ASSEMBLY SHALL BE CONSTRUCTED TO MEET OR EXCEED THE FOLLOWING LOADINGS:
- A. EARTHLOAD = 2 FEET FILL AT 130 LBS/FT
- B. SURCHARD = 2 FEET FILL AT 130 LBS/FT.
- C. LIVE LOAD = A.A.S.H.T.O. HS-20 TRUCK WITH 20% IMPACT OR FAA 100,000 LB, 250 PSI TIRE LOAD, AS NOTED IN PLANS
- D. f'c = 4,500 P.S.I.
- E. fy = 60,000 P.S.I.
- F. ULTIMATE STRENGTH DESIGN METHOD THE SUPPLIER SHALL PROVIDE CERTIFICATION THAT THE HANDHOLES MEET OR EXCEED THESE REQUIREMENTS PRIOR TO INSTALLATION.
- 2. THE HANDHOLE CONSTRUCTION AND INSTALLATION SHALL BE WATERTIGHT. ALL CONSTRUCTION JOINTS AND DUCTS SHALL BE SEALED TO PREVENT WATER ENTRY. ALL UNUSED DUCT BANK OPENINGS IN HANDHOLE SHALL BE SEALED WITH METAL PLATES TREATED FOR CORROSION RESISTANCE AND BOLTED INTO PLACE. MATING SURFACES SHALL BE SEALED USING BUTYL SEALANT.
- 3. THE HANDHOLE LID ASSEMBLY SHALL BE INSTALLED SLIGHTLY ABOVE THE SURROUNDING FINAL GRADE AND THE EARTH SHALL BE GRADED TO IT.
- 4. THE HANDHOLE COVER SHALL BE LOCKABLE UTILIZING A PENTAGON BOLT ASSEMBLY.
- 5. PROPOSED ELECTRICAL HANDHOLE SHALL BE THE FOLLOWING INTERIOR DIMENSIONS: 4' L x 4' W x 4' H
- 6. SINGLE HANDHOLES: KNOCKOUTS SHALL BE CENTERED IN THE HANDHOLE WALL AND SHALL BE SIZED AS REQUIRED FOR PROPOSED DUCT BANK.
- HANDHOLES THAT MAKE UP A HANDHOLE PLAZA: THE WALL KNOCKOUTS FOR THE NORTH/SOUTH WALLS SHALL BE PLACED AT HIGHER OR LOWER ELEVATIONS THAN THE WALL KNOCKOUTS FOR THE EAST/WEST WALLS TO ALLOW THE DUCTS TO CROSS. KNOCKOUTS SHALL BE SIZED AS REQUIRED FOR PROPOSED DUCT BANK.
- THE HANDHOLE CONCRETE TOP LID SHALL BE SET THAT IF DESIRED, THE CONCRETE TOP LID MAY BE REMOVED BY USE OF THE LIFTING RINGS.



100% SUBMITTAL MARCH 1, 2024

TERMINAL APRON EXPANSION



MIDAMERICA ST. LOUIS AIRPORT ST. CLAIR COUNTY, IL

MARK	DATE	DES	SCRIPTION						
BLV P	ROJECT	NO. 2	2024-04						
IL PRO	IL PROJECT NO. BLV-5101								
CMT PROJECT NO: 22001186.00									
CAD	WG FILE	E:	22001186 - EL500.DWG						
DESIG	NED BY	:	CMT						
DRAW	N BY:		CMT						
CHEC	KED BY:		CMT						
APPR	OVED BY	Y:	CMT						
COPY	RIGHT:	CRAV	WFORD, MURPHY & TILLY, INC. 2021						

ELECTRICAL DETAILS 3

68

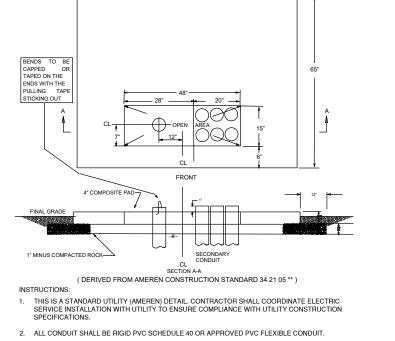
EL503 SHEET **56**

TRUE SURFACE SECTION B B

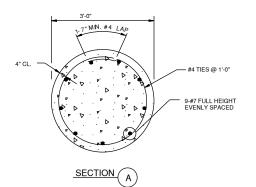
SECTION A A

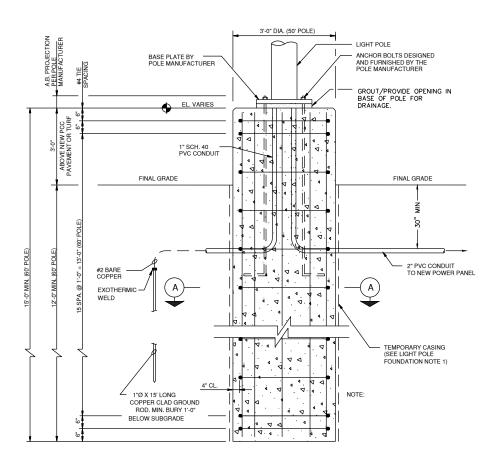
REINFORCING SCHEDULE									
MARK	NO REQ'D	SIZE	LENGTH						
R-1	6	# 4	6'-6"						
R-2	4	# 4	5'-6"						
R-3	5	#4	3'-0"						

UTILITY TRANSFORMER PAD DETAILS



- 3. SECONDARY CONDUIT SHALL BE SYMMETRICALLY LOCATED WITHIN 15" X 20" AREA.
- 4. APPROXIMATE WEIGHT OF THE PAD IS 600 POUNDS.
- 5. PAD SHALL BE INSTALLED ON 4° OF LEVEL, WELL COMPACTED, 1° MINUS ROCK EXTENDING 12° OUTSIDE THE PAD. DIRT UNDER ROCK MUST FIRST BE WELL COMPACTED. AVOID FILLING OPENING BEFORE CABLE OR CONDUIT IS INSTALLED. UNLESS SITUATED IN A PAVED AREA, THE REST OF EXTERIOR SHALL BE BACKFILLED WITH THE EXCAVATED MATERIAL AND FOOT TAMPED.
- 6. THE 5/8" X 8' GROUND ROD CAN BE LOCATED WHERE MOST CONVENIENT IN THE PAD OPENING TO AVOID THE INCOMING AND OUTGOING CONDUIT ELBOWS.







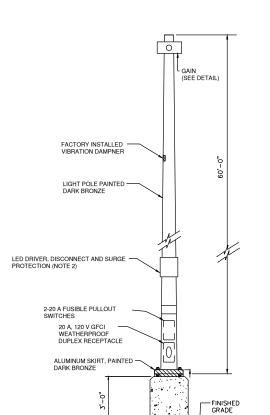
LIGHT POLE FOUNDATION NOTES

- FOUNDATION FOR LIGHT POLES SHALL BE BORED/DRILLED. EXISTING SITE SOILS ARE SANDS.
 CONSTRUCTION OF DRILLED LIGHT POLE FOUNDATIONS WILL REQUIRE THE USE OF A TEMPORARY CASING.
 PROJECT SOILS REPORT AVAILABLE UPON REQUEST.
- 2. CONCRETE SHALL BE IDOT CLASS SI AND HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,500 P.S.I. AT 14 DAYS.
- 3. ALL REINFORCING STEEL SHALL CONFORM TO ASTM A-615, GRADE 60.
- 4. POLE FOUNDATION SHALL BE MONOLITHIC. NO CONSTRUCTION JOINTS WILL BE PERMITTED.
- 5. ALL MATERIALS CONTAINED WITHIN FOUNDATION AND FOR GROUNDING IS CONSIDERED INCIDENTAL TO POLE FOUNDATION

LIGHT POLE FOUNDATION DESIGN

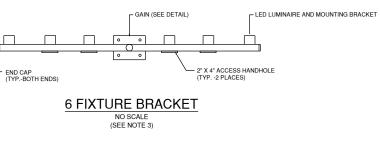
DESIGN LOAD: AASHTO-STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRIES AND TRAFFIC SIGNALS, 2001.

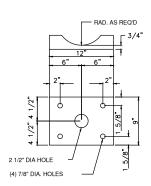
DESIGN WIND SPEED = 100 MPH



APRON LIGHT POLE (60') DETAIL - FRONT VIEW

- 2. APRON LIGHTING IS DESIGNED TO MEET REQUIREMENTS OF IES RP-37 TO PROVIDE MINIMUM 2 FOOTCANDLE AT THE TAIL OF PARKED AIRBUS A320 WITH CAROLINA HIGH MAST USR2 600 LUMINAIRES. CONTRACTOR TO SUBMIT COMPLETE PHOTOMETRICS FOR SELECTED LED LUMINAIRES, CAPOLINA HIGH MAST, MUSCO, LITHONIA LIGHTING, AMERICAN ELECTRIC
- 4. FIXTURE BRACKET AND MOUNTING IS SHOWN FOR INFORMATION ONLY. CONTRACTOR TO PROVIDE COMPLETE MOUNTING SYSTEM TO INSTALL SELECTED LED FIXTURES WITH REQUIRED TILT AND ANGLES TO MEET PHOTOMETRICS.





GAIN DETAIL

100% SUBMITTAL MARCH 1, 2024

CMT

License No. 184-000613 CONSULTANTS

TERMINAL APRON EXPANSION



MIDAMERICA ST. LOUIS AIRPORT ST. CLAIR COUNTY, IL

MARK	DATE	DES	SCRIPTION						
BLV P	BLV PROJECT NO. 2024-04								
IL PRO	IL PROJECT NO. BLV-5101								
CMTF	ROJECT	NO:	22001186.00						
CAD	WG FILE	≣:	22001186 - EL500.DWG						
DESIGNED BY:			CMT						
DRAWN BY:			CMT						
CHECKED BY:			CMT						
APPROVED BY:			CMT						
COPY	COPYRIGHT: CRAWFORD, MURPHY & TILLY, INC. 2021								

ELECTRICAL DETAILS

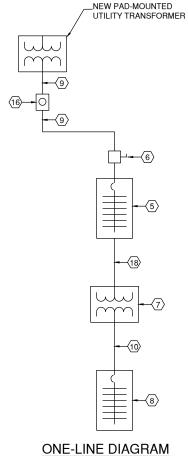
EL504 68 SHEET **57** OF



- ALL APRON LIGHTING WORK SHALL BE CONTINGENT UPON THE AWARD OF ADDITIVE ALTERNATE 1.
- 3. FURNISH AND INSTALL LED DRIVER, DISCONNECT AND SURGE PROTECTION. CONTRACTOR SHALL COORDINATE WITH LIGHT FIXTURE AND LIGHT POLE MANUFACTURER TO PROVIDE A COMPLETE AND OPERATIONAL SYSTEM.
- 5. APRON LIGHTING FIXTURES SHALL BE EQUIPPED WITH A GLARE-REDUCING TOP VISOR.

SEE NOTES 1 & 3 FINISHED GRADE SEE NOTE 2 -FEMALE ADAPTOR, PVC TO RIGID - SEE PLANS FOR SIZE. EXISTING WALL OR STRUCTURE SCHEDULE 80 PVC CONDUIT - SEE PLANS

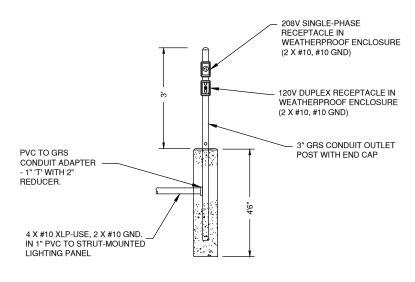
UNDERGROUND CONDUIT TRANSITION DETAIL



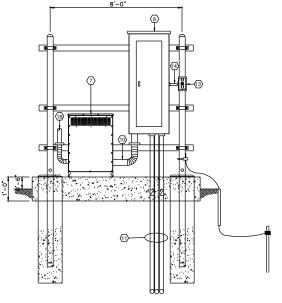
NO SCALE

CONDUIT TRANSITION NOTES

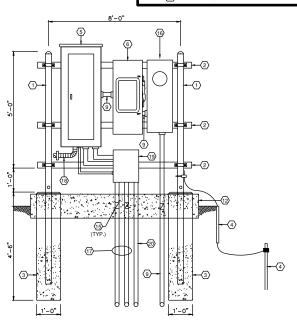
- ALL CONDUIT INSTALLED ABOVE GRADE, BOTH INTERIOR AND EXTERIOR, SHALL BE RIGID GALVANIZED STEEL UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- PVC COATED GALVANIZED RIGID STEEL CONDUIT SHALL BE USED TO TRANSITION FROM UNDERGROUND DUCTS 6" (MINIMUM) ABOVE FINISH GRADE.
- 3. USE "LB" CONDUIT BODY TO PENETRATE INTO BUILDING AND SEAL GAP.



OUTLET POST DETAIL NO SCALE



NEW PEDESTAL MOUNT POWER PANELS/TRANSFORMER SOUTHWEST **ELEVATION VIEW**



NEW PEDESTAL MOUNT POWER PANELS/TRANSFORMER NORTHEAST

ELEVATION VIEW

NOTES

- 1. ALL EQUIPMENT SHOWN IS NEW, UNLESS OTHERWISE NOTED.
- 2. ALL CIRCUIT BREAKERS SHALL BE GFCI.



License No. 184-000613

CONSULTANTS

EQUIPMENT NOMENCLATURE

- 3" GRS CONDUIT PEDESTAL SUPPORT WITH END CAPS
- GALVANIZED UNISTRUT ATTACHED TO CONDUITS
- 12" DIA. x 4'-6" DEEP CONCRETE FOUNDATION
- $1/\!$ C #2 GROUNDING ELECTRODE CONDUCTOR IN 1" PVC SCH.40 CONDUIT, EXOTHERMIC WELDED TO 3/4 " DIA. x 10° -0" LONG GROUND ROD
- POWER DISTRIBUTION PANEL "DP-1", 225A, 480Y/277V, 3-PHASE, NEMA 3R WITH 200A MAIN CIRCUIT BREAKER
- NON-FUSED SERVICE ENTRANCED RATED DISCONNECT, 200A, 600V, 3-POLE, 3-PHASE, NEMA 3R
- TRANSFORMER, 75KVA, 480-208Y/120V, 3-PHASE, 4-WIRE, NEMA 3R, WEATHERPROOF
- LIGHTING PANEL "PP-1", 225A, 208Y/120V, 3-PHASE, NEMA 3R 8 WITH 200A MAIN CIRCUIT BREAKER
- 4 X #4/0 XLP-USE, 1 X #2 GND. IN 3" PVC SCH.80 CONDUIT/ GRS
- 4 X #4/0, 1 X #2 GND. IN 3" RIGID GALVANIZED STEEL/FLEXIBLE CONDUIT
- 4 X #10 XLP-USE, 2 X #10 GND. IN 1" PVC SCH. 80 CONDUIT TO OUTLET POST 1 4 X #10 XLP-USE, 2 X #10 GND. IN 1" PVC SCH. 80 CONDUIT TO OUTLET POST 2 4 X #10 XLP-USE, 2 X #10 GND. IN 1" PVC SCH. 80 CONDUIT TO OUTLET POST 3 4 X #10 XLP-USE, 2 X #10 GND. IN 1" PVC SCH. 80 CONDUIT TO OUTLET POST 4 4 X #10 XLP-USE, 2 X #10 GND. IN 1" PVC SCH. 80 CONDUIT TO OUTLET POST 5 2 X #10 XLP-USE, 1 X #10 GND. IN 1" PVC SCH. 80 CONDUIT TO LIGHTPOLE OUTLET (ADD. ALT 1) 2 X #10 XLP-USE, 1 X #10 GND. IN 1" PVC SCH. 80 CONDUIT TO LIGHTPOLE OUTLET (ADD. ALT 1)
- 8' X 8' X 1' CONCRETE PAD, ELEVATED 6-INCH ABOVE FINISHED GRADE
- CONVENIENCE OUTLET, 20A, 120V, DUPLEX GFCI RECEPTACLE IN WEATHERPROOF ENCLOSURE
- (14) 2-#12 XLP-USE, 1-#12 GND. IN 3/4" RIGID GALVANIZED STEEL CONDUIT
- (15) PVC TO GRS CONDUIT ADAPTER
- UTILITY SERVICE METER
- 2 X #8 XLP-USE, 1 X #8 GND IN 1" PVC SCH. 80 CONDUIT TO APRON FLOODLIGHT (ADD. ALT 1) 2 X #8 XLP-USE, 1 X #8 GND IN 1" PVC SCH. 80 CONDUIT TO APRON FLOODLIGHT (ADD. ALT 1)
- $\langle \overline{18} \rangle$ 3 X #1, 1 X #4 GND IN 2" PVC GRS/FLEXIBLE CONDUIT.
- ACUITY BRANDS ARP 16-RELAY LIGHTING CONTROL PANEL IN NEMA 3R ENCLOSURE (ADD. ALT 1)
- MULTI-MODE FIBER OPTIC CABLE IN 1" CONDUIT TO COMMUNICATIONS HANDHOLE (ADD. ALT 1)

(1X3

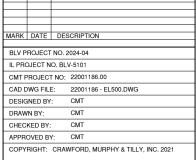
21 2 X #12, #12 GND IN 3/4" CONDUIT FOR LIGHTING CONTROLLER POWER (ADD. ALT 1)

MARCH 1, 2024 TERMINAL APRON EXPANSION

100% SUBMITTAL



MIDAMERICA ST. LOUIS AIRPORT ST. CLAIR COUNTY, IL



ELECTRICAL DETAILS

EL505

5

SHEET 58 68

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NEW PEDESTAL MOUNT POWER PANELS/TRANSFORMER PLAN VIEW

PANELBOARD SCHEDULE

PANEL DESIGNATION: PP-1 LOCATION: NW OF TERMINAL BLDG MFR & TYPE:

BOND NEUTRAL AND GROUND BAR: NO NEUTRAL BUS RATING: 100% SERVICE ENTRANCE RATED: NO

POLE: 30 SHORT CIRCUIT RATING: 22KA SERIES OR FULLY RATED: FULLY TVSS & DISCONNECT REQUIRED: NO

VOLTS: 208Y/120V PHASE: 3

WIRE: 4

MOUNTING: SURFACE ENCL RATING: NEMA 3R

BUS: COPPER MAIN CIRCUIT BREAKER: AMP/POLE 200/3

BUS RATING (AMPS): 225

CKT		BREAKER	LOAD	USAGE	PHASE	AMPS (L	JSAGE)	PO	POLE PHASE AMPS (USAGE		SAGE)	USAGE	LOAD	BREAKER		CKT	
NO.	LOAD	SIZE	AMPS	FACTOR	Α	В	C	NO	O.	Α	В	С	FACTOR	AMPS	SIZE	LOAD	NO.
1	208V RECEPTACLE OUTLET POST 1	30/2	12.5	0.5	6.25			1	2	6.25			0.5	12.5	30/2	208V RECEPTACLE OUTLET POST 2	2
3	•		12.5	0.5		6.25		3	4		6.25		0.5	12.5	-		4
5	120V RECEPTACLE OUTLET POST 1	20/1	15	0.5			7.5	5	6			7.5	0.5	15	20/1	120V RECEPTACLE OUTLET POST 2	6
7	208V RECEPTACLE OUTLET POST 3	30/2	12.5	0.5	6.25			7	8	6.25			0.5	12.5	30/2	208V RECEPTACLE OUTLET POST 4	8
9	•	-	12.5	0.5		6.25		9	10		6.25		0.5	12.5		-	10
11	120V RECEPTACLE OUTLET POST 3	20/1	15	0.5			7.5	11	12			7.5	0.5	15	20/1	120V RECEPTACLE OUTLET POST 4	12
13	208V RECEPTACLE OUTLET POST 5	30/2	12.5	0.5	6.25			13	14	7.5			0.5	15	20/1	APRON LIGHTPOLE RECEPTACLE	14
15		-	12.5	0.5		6.25		15	16		7.5		0.5	15	20/1	APRON LIGHTPOLE RECEPTACLE	16
17	120V RECEPTACLE OUTLET POST 5	20/1	15	0.5			7.5	17	18			7.5	0.5	15	20/1	PEDESTAL CONVENIENCE RECEPTACLE	18
19	SPARE	20/1			0			19	20	1			0.5	2	20/1	APRON LIGHTING CONTROLLER	20
21	SPARE	20/1				0		21	22		0				20/1	SPARE	22
23	SPARE	20/1					0	23	24			0			20/1	SPARE	24
25	SPARE	20/1			0			25	26	0					20/1	SPARE	26
27	SPARE	20/1				0		27	28		0				20/1	SPARE	28
29	SPARE	20/1					0	29	30			0			20/1	SPARE	30
SECTION TOTAL:					18.75	18.75	22.5			21	20	22.5			_		
										Α	В	С				TOTAL USAGE LOAD:	
MINIMUM MAIN CIRCUIT BREAKER AMPS: 64					PHASE TOTAL AMPS:			[39.75	38.75	45				14820	0 VA	
										Α	В	C	-			MIN. XFMR VA:	
PHASE TOTAL VA: 4770 4650										4650	5400				18525	5 VA	

NOTES:

NOTES:

APRON LIGHTING RECEPTACLES AND APRON LIGHTING CONTROLLER SHALL BE CONTINGENT ON AWARD OF ADDITIVE ALTERNATE 1.

PANELBOARD SCHEDULE

PANEL DESIGNATION: DP-1 LOCATION: NW OF TERMINAL BLDG MFR & TYPE:

BOND NEUTRAL AND GROUND BAR: NO NEUTRAL BUS RATING: 100% SERVICE ENTRANCE RATED: NO

POLE: 30 SHORT CIRCUIT RATING: 22KA SERIES OR FULLY RATED: SERIES TVSS & DISCONNECT REQUIRED: YES

VOLTS: 480Y/277V MOUNTING: SURFACE PHASE: 3 ENGL RATING: NEMA 3R WIRE: 4

BUS RATING (AMPS): 225 BUS: COPPER MAIN CIRCUIT BREAKER: AMP/POLE 200/3

CKT		BREAKER	BREAKER LOAD USAGE PHASE AMPS (USAGE) POLE					PHASE AMPS (USAGE)			USAGE	LOAD	BREAKER		CKT		
	LOAD	111111111111111111111111111111111111111						1							Annual Control of the	LOAD	
NO.	LOAD	SIZE	AMPS	FACTOR	Α	В	С	N		A	В	С	FACTOR	AMPS	SIZE	LOAD	NO.
1	75KVA, 208Y/120V XFMR/PANELBOARD	125/3	66.67	0.5	33.335			1	2	7.5			1	7.5	20/2	APRON FLOODLIGHT	2
3	=	-	66.67	0.5		33.335		3	4		7.5		1	7.5	-	-	4
5	=	-	66.67	0.5			33.335	5	6			0		7.5	20/2	APRON FLOODLIGHT	6
7	SPARE	20/1			0			7	8	0				7.5	-	=	8
9	SPARE	20/1				0		9	10		0				20/1	SPARE	10
11							0	11	12			0					12
13					0			13	14	0							14
15						0		15	16		0						16
17							0	17	18			0					18
19					0	-		19	20	0							20
21						0		21	22		0						22
23							0	23	24			0					24
25					0			25	26	0							26
27						0		27	28		0						28
29							0	29	30			0					30
	SECTION TOTAL:				33.335	33.335	33.335			7.5	7.5	0					
				•						Α	В	С			ſ	TOTAL USAGE LOAD:	
N	IINIMUM MAIN CIRCUIT BREAKER AMPS:	60				PHASE	TOTAL A	MPS:		40.835	40.835	33.335]			13800	.6 VA
_)	Α	В	С	•		Ī	MIN. XFMR VA:	
						PHA	ASE TOTA	L VA:		4900.2	4900.2	4000.2	1			17250	75 VA

License No. 184-000613 CONSULTANTS

100% SUBMITTAL MARCH 1, 2024

TERMINAL APRON EXPANSION



MIDAMERICA ST. LOUIS AIRPORT ST. CLAIR COUNTY, IL

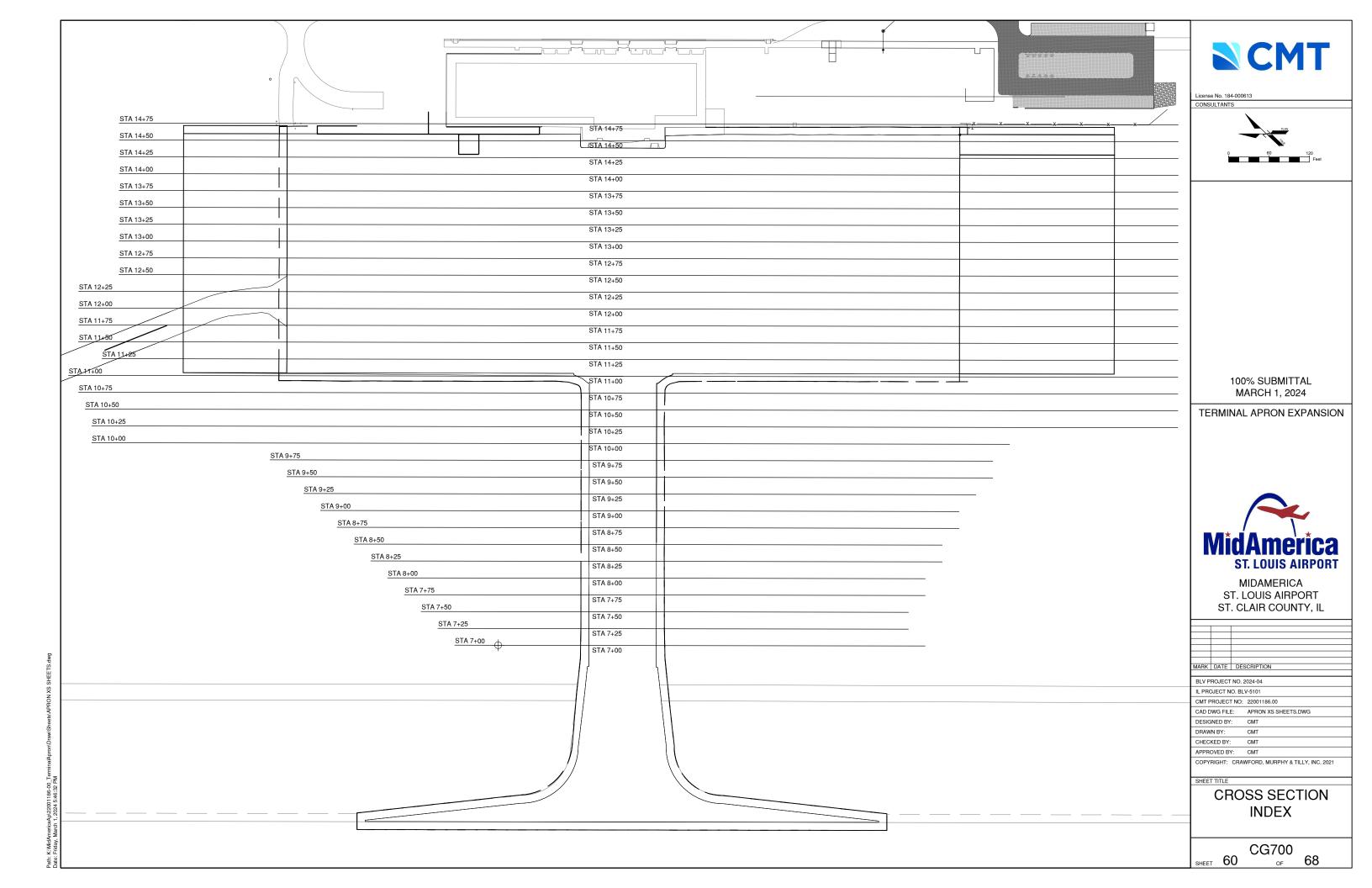
MARK	DATE	DESCRIPTION								
DI V D	DLV DDO JECT NO 2024 04									

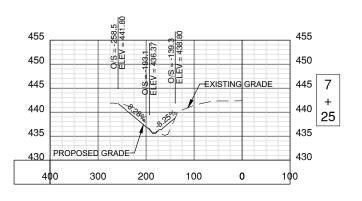
IL PROJECT NO. BLV-5101 CMT PROJECT NO: 22001186.00 CAD DWG FILE: 22001186 - EL500.DWG DESIGNED BY: CMT DRAWN BY: CHECKED BY: CMT APPROVED BY: CMT COPYRIGHT: CRAWFORD, MURPHY & TILLY, INC. 2021

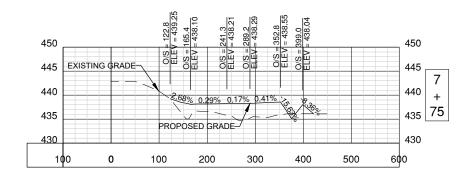
ELECTRICAL DETAILS 6

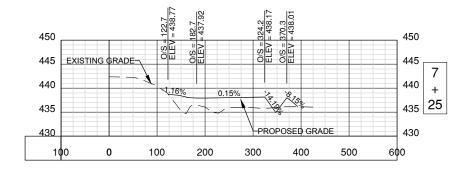
EL506

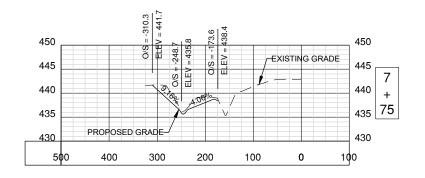
SHEET **59**

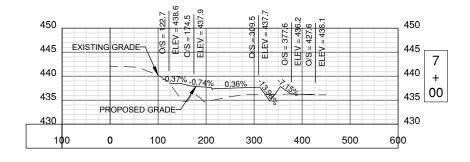


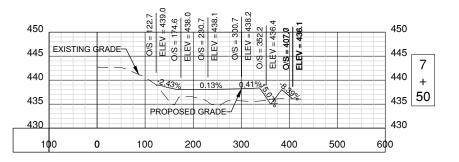


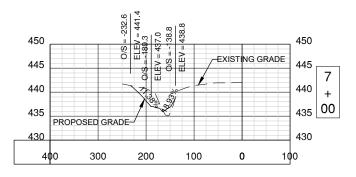


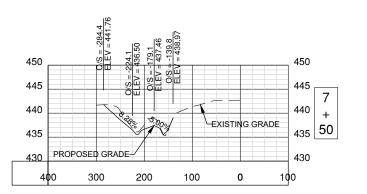














100% SUBMITTAL MARCH 1, 2024

TERMINAL APRON EXPANSION



MIDAMERICA ST. LOUIS AIRPORT ST. CLAIR COUNTY, IL

MARK DATE DESCRIPTION

BLV PROJECT NO. 2024-04 IL PROJECT NO. BLV-5101 CMT PROJECT NO: 22001186.00 CAD DWG FILE: APRON XS SHEETS.DWG DESIGNED BY: DRAWN BY:

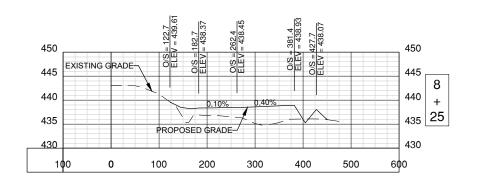
CHECKED BY: CMT APPROVED BY: CMT

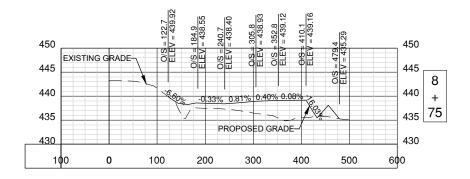
COPYRIGHT: CRAWFORD, MURPHY & TILLY, INC. 2021

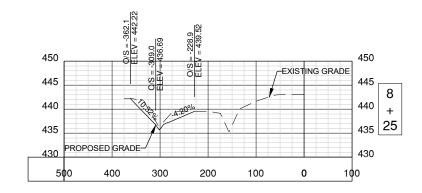
APRON EXPANSION **CROSS SECTION 1**

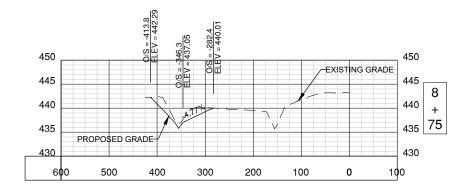
68

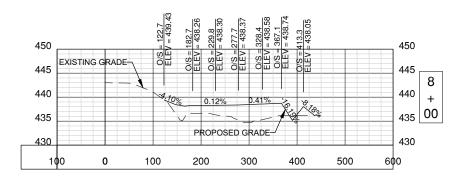
CG701 SHEET 61 OF

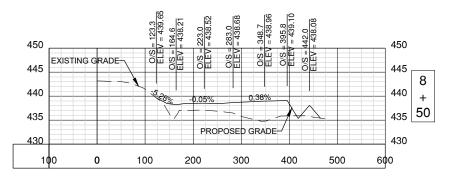


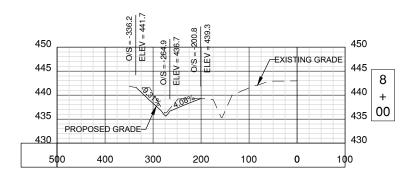


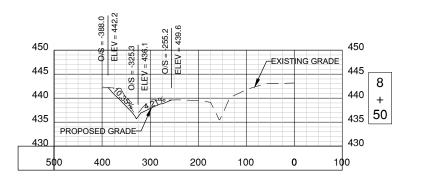












100% SUBMITTAL MARCH 1, 2024

TERMINAL APRON EXPANSION



MIDAMERICA ST. LOUIS AIRPORT ST. CLAIR COUNTY, IL

MARK DATE DESCRIPTION

BLV PROJECT NO. 2024-04 IL PROJECT NO. BLV-5101 CMT PROJECT NO: 22001186.00 CAD DWG FILE: APRON XS SHEETS.DWG DESIGNED BY: DRAWN BY:

CHECKED BY: CMT APPROVED BY: CMT

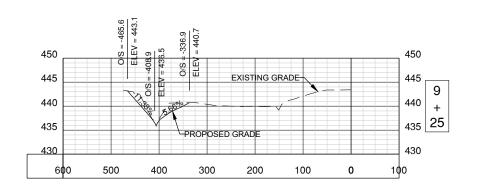
COPYRIGHT: CRAWFORD, MURPHY & TILLY, INC. 2021

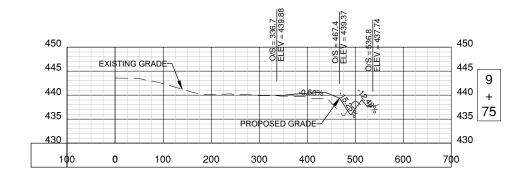
APRON EXPANSION **CROSS SECTION 2**

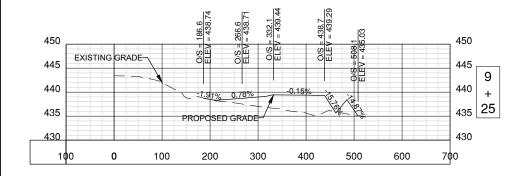
> CG702 OF

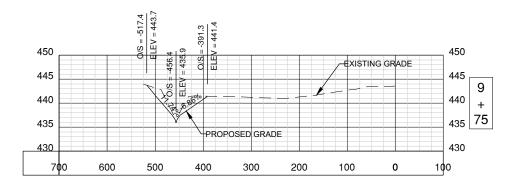
SHEET 62

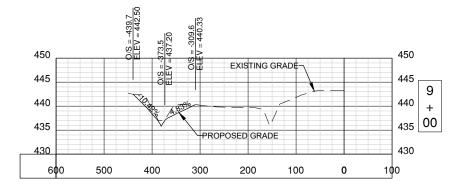
68

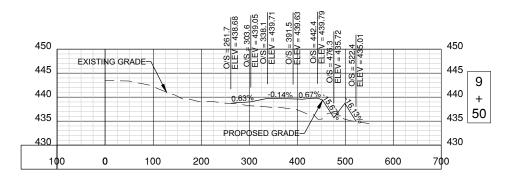


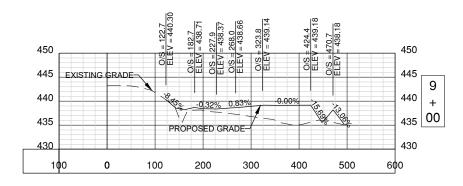


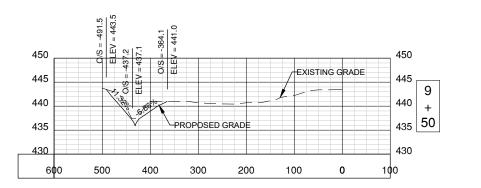














100% SUBMITTAL MARCH 1, 2024

TERMINAL APRON EXPANSION



MIDAMERICA ST. LOUIS AIRPORT ST. CLAIR COUNTY, IL

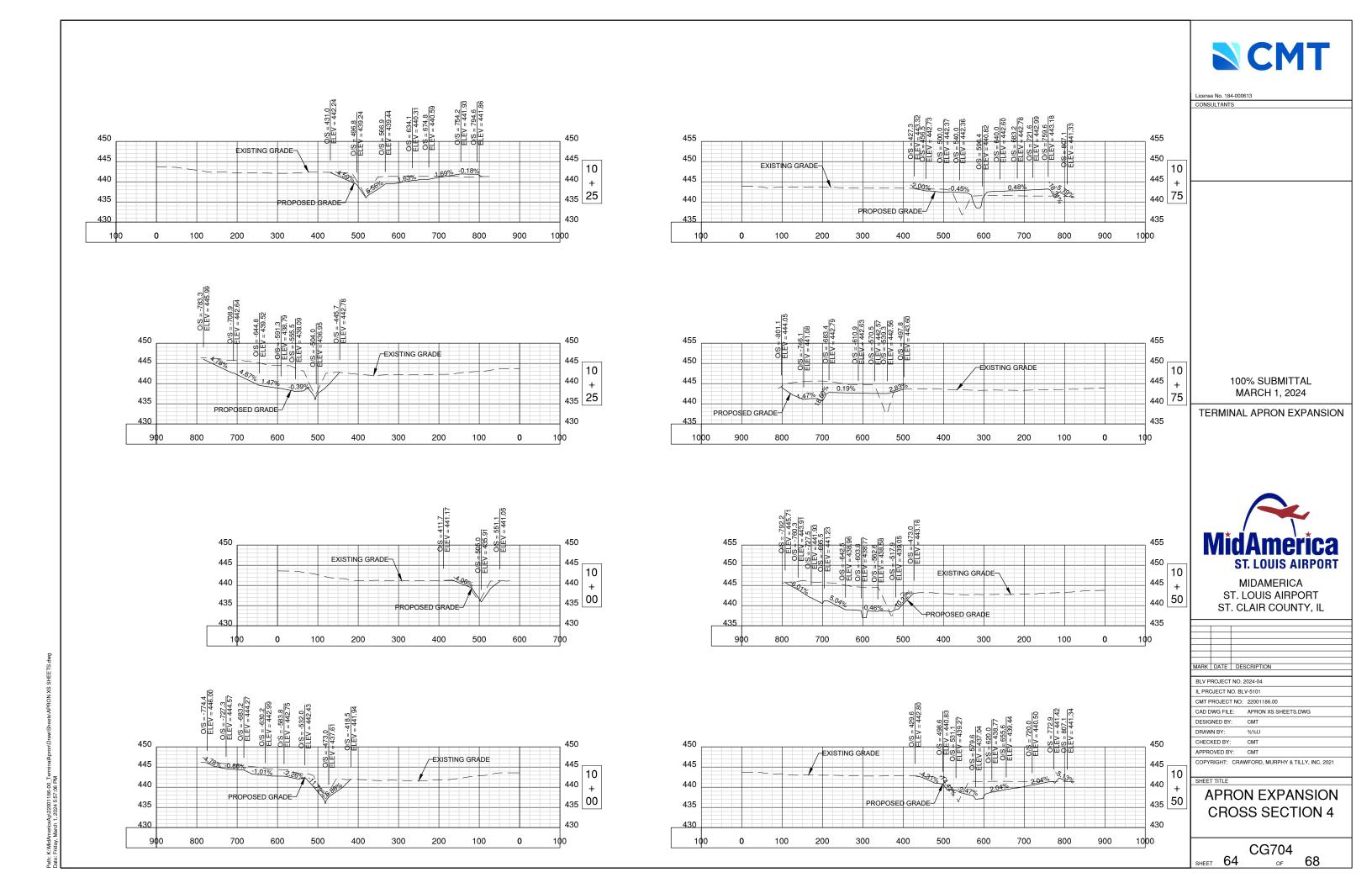
MARK DATE DESCRIPTION

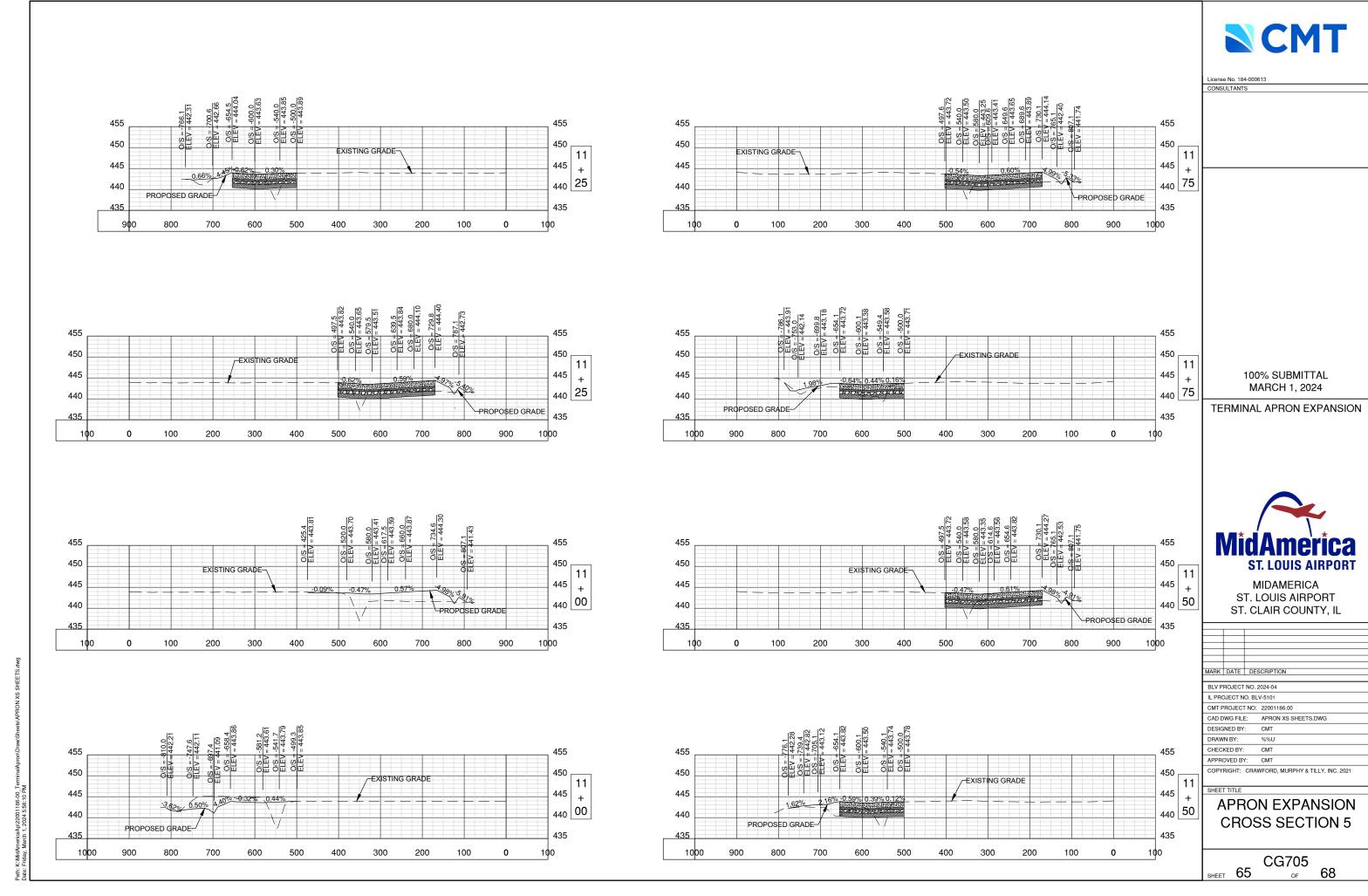
BLV PROJECT NO. 2024-04 IL PROJECT NO. BLV-5101 CMT PROJECT NO: 22001186.00 CAD DWG FILE: APRON XS SHEETS.DWG DESIGNED BY: DRAWN BY: CHECKED BY: CMT APPROVED BY: CMT

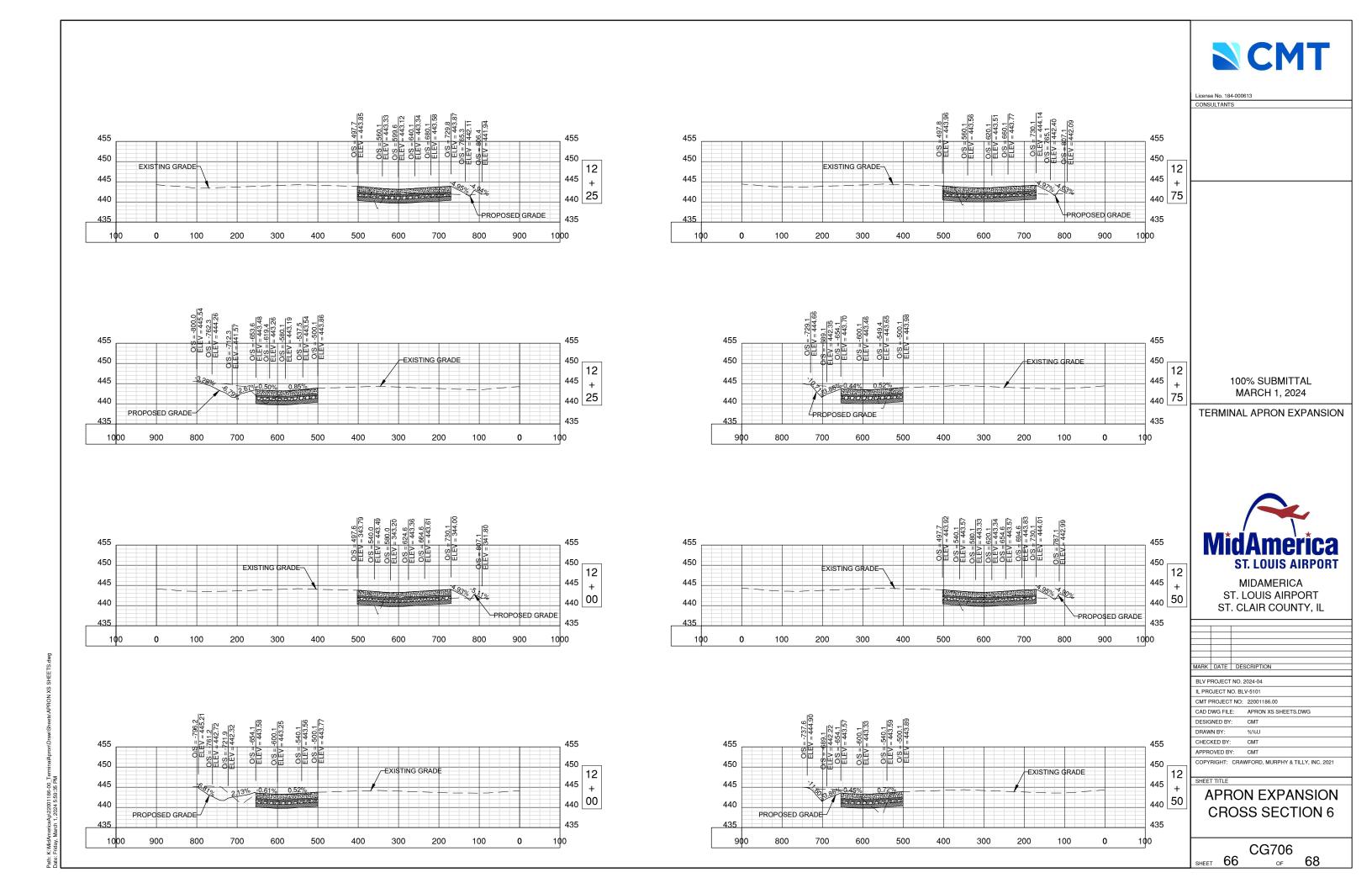
COPYRIGHT: CRAWFORD, MURPHY & TILLY, INC. 2021

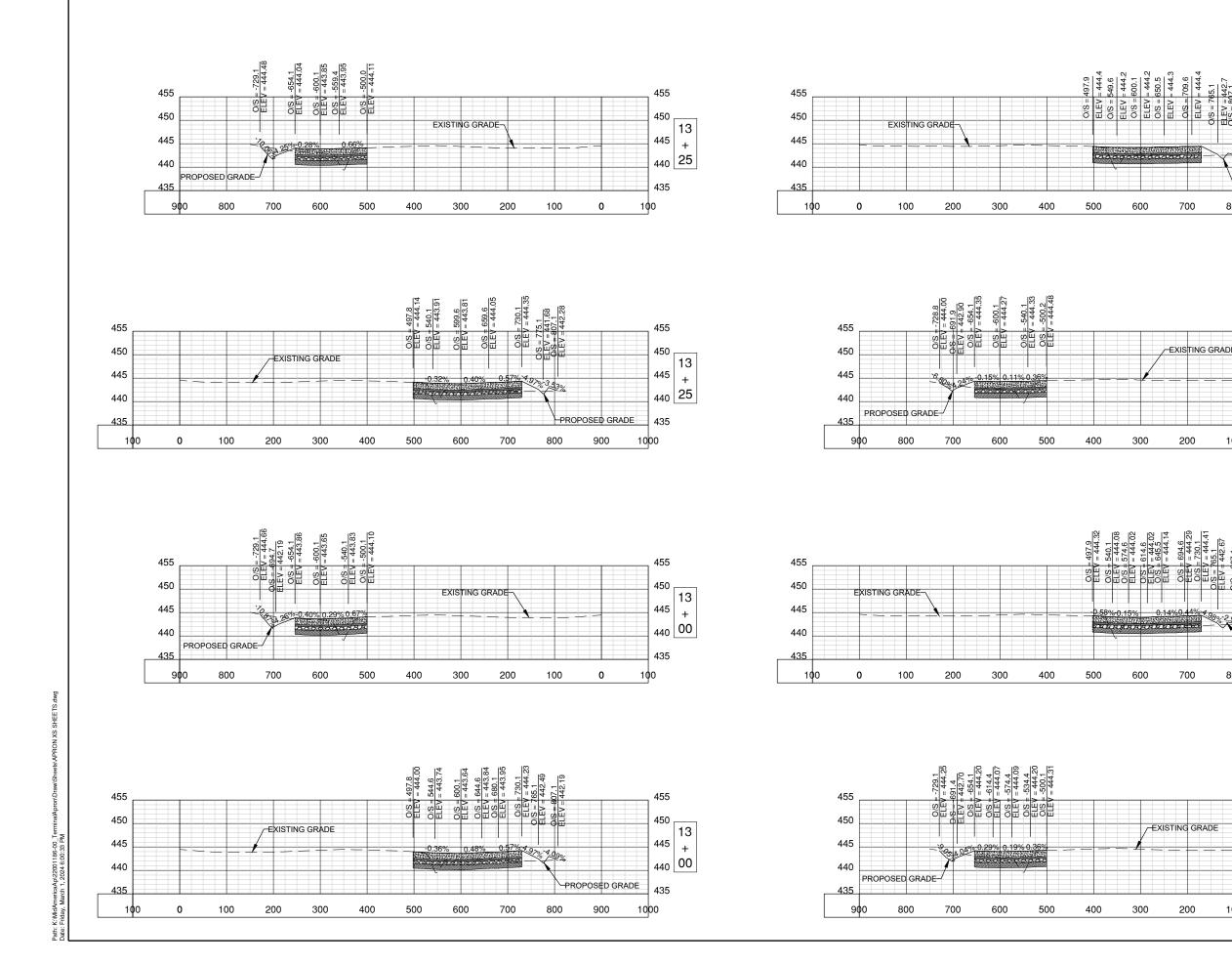
APRON EXPANSION **CROSS SECTION 3**

CG703 SHEET **63** 68 OF











455

450

435

455

450

435

455

450

435

455

450

435

440 50

1000

445 +

440 50

13

100

445 +

440 75

13

1000

PROPOSED GRADE

900

800

100

800

100

0

PROPOSED GRADE

900

445 +

440 75

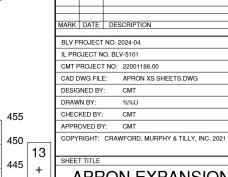
13

100% SUBMITTAL MARCH 1, 2024

TERMINAL APRON EXPANSION



MIDAMERICA ST. LOUIS AIRPORT ST. CLAIR COUNTY, IL



APRON EXPANSION CROSS SECTION 7

> CG707 OF

SHEET **67**

68

