ITEM 21A 04-26-2013 LETTING

### **CONSTRUCTION PLANS FOR**

**BL069 TOTAL SHEETS: 55** 

### CENTRAL ILLINOIS REGIONAL AIRPORT

**BLOOMINGTON-NORMAL AIRPORT AUTHORITY BLOOMINGTON, ILLINOIS** 

**ILLINOIS PROJECT BMI - 4288** A. I. P. PROJECT 3-17-0006-XX

**EXPAND AIR CARGO APRON** 



COMMON GROUND ALLIANCE

THE LOCATION, SIZE AND TYPE OF MATERIAL OF EXISTING UNDERGROUND UTILITIES INDICATED ON THE PLANS IS NOT REPRESENTED AS BEING ACCURATE, SUFFICIENT OR COMPLETE. IT SHALL BE THE CONTRACTORS RESPONSIBILITY OF DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES, INCLUDING SERVICE CONNECTIONS TO UNDERGROUND UTILITIES, PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL MOTIEY THE TUTLITY COMPANES OF HIS OPERATIONAL PLANS AND SHALL OBTAN FROM THE RESPECTIVE UTILITY COMPANIES DETAILED INFORMATION AND ASSISTANCE RELATIVE TO THE LOCATION OF THEIR FACILITIES AND 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 JUSTISCITION, THE ENGINEER SHALL ALSO BE IMMEDIATELY NOTIFYED. ANY SUCH MAINS AND SERVICES SHALL BE RESTORED TO SERVICE AT ONCE AND PAID FOR BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT. THE LOCATION, SIZE AND TYPE OF MATERIAL OF EXISTING UNDERGROUND

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

### **DESIGN INFORMATION**

GEOMETRIC CRITERIA TAXIWAY DESIGN GROUP IV AIRPLANE DESIGN GROUP IV AIRCRAFT APPROACH CATEGORY D

### PAVEMENT DESIGN CRITERIA

130 ANNUAL DEPARTURES

### PAVEMENT DESIGN CRITERIA BOEING B-767 DEPARTURE WEIGHT 361,000

130 ANNUAL DEPARTURES

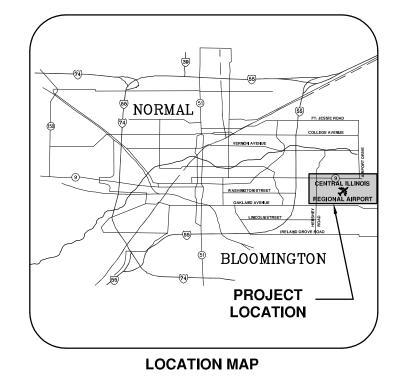
### ROADWAY DESIGN CRITERIA

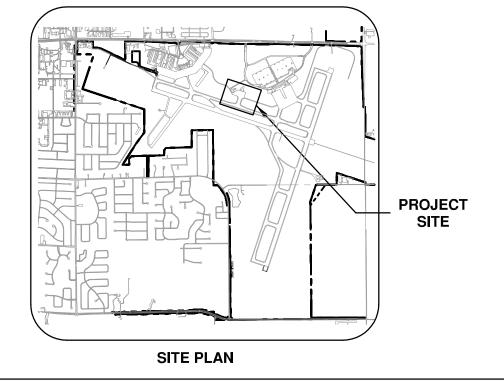
LOW VOLUME LOCAL STREET >20 MPH ALIGNMENT CURVE RADIUS 500' MINIMUM K VALUE = 50
DESIGN VEHICLE - 60,000 LBS 2 AXLE FUEL TRUCK

> CALL J.U.L.I.E. BEFORE EXCAVATING 1-800-892-0123

TOWNSHIP: 23 NORTH RANGE: 3 EAST OF THE 4TH P.M. SECTION: 6 CIVIL TOWNSHIP: BLOOMINGTON CITY & OLD TOWN

### **MARCH 19, 2013**







**BLOOMINGTON-NORMAL AIRPORT AUTHORITY** CENTRAL ILLINOIS REGIONAL AIRPORT BLOOMINGTON, ILLINOIS 3/22/13



CRAWFORD MURPHY & TILLY, INC.

CONSULTING ENGINEERS

DATE 3-28-2013

CMT JOB NUMBER 12085-05-00

	SHEET LIST TABLE		
Sheet	Sheet Title		
Number 01	COVER SHEET		
02	INDEX TO SHEETS & SUMMARY OF QUANTITIES		
03	SITE PLAN		
03	CONSTRUCTION ACTIVITY PLAN INDEX		
05	CONSTRUCTION ACTIVITY PLAN 1		
06	CONSTRUCTION ACTIVITY PLAN 2		
07	CONSTRUCTION SAFETY PHASING PLAN NOTES		
08	EXISTING CONDITIONS AND REMOVALS		
09	EXISTING PAVEMENT STRUCTURE		
10	EXISTING PAVEMENT REPAIR PLAN		
11	PROPOSED IMPROVEMENTS		
12	PERIMETER ROAD PLAN AND PROFILE		
13	EAST EDGE AND PERIMETER ROAD CULVERT PLAN AND PROFILE		
14	SOUTH PAVED DITCH PLAN AND PROFILE		
15	TYPICAL SECTIONS 1		
16	TYPICAL SECTIONS 2		
17	JOINTING PLAN 1		
18	JOINTING PLAN 2		
19	JOINTING DETAILS		
20	STAKING PLAN		
21	PAVING DETAILS 1		
22	NOSE TETHER DETAIL		
23	SITE GRADING		
24	DRAINAGE IMPROVEMENTS		
25	DRAINAGE DETAILS 1		
26	DRAINAGE DETAILS 2		
27	UNDERDRAIN DETAILS		
28	MARKING PLAN		
29	MARKING DETAILS		
30	ROADWAY SIGNAGE DETAILS		
31	TAXIWAY LIGHTING PLAN		
32	ELECTRICAL DETAILS 1		
33	ELECTRICAL DETAILS 2		
34	ELECTRICAL DETAILS 3		
35	APRON LIGHTING PLAN		
36	APRON LIGHTING DETAILS		
37	ELECTRIC GATE DETAILS 1		
38	ELECTRIC GATE DETAILS 2		
39	FENCE DETAILS 1		
40	FENCE DETAILS 2		
41	INDEX TO CROSS SECTIONS & EROSION CONTROL		
42	EROSION CONTROL DETAILS		
43	EARTHWORK SUMMARY		
44	EAST APRON CROSS SECTION SHEET 1		
45	EAST APRON CROSS SECTION SHEET 2		
46	EAST APRON CROSS SECTION SHEET 3		
47	SOUTH APRON CROSS SECTION SHEET 1		
48	SOUTH APRON CROSS SECTION SHEET 2		
49	SOUTH APRON CROSS SECTION SHEET 3		
50	SOUTH APRON CROSS SECTION SHEET 4		
51	SOUTH APRON CROSS SECTION SHEET 5		
52	PERIMETER ROAD CROSS SECTION SHEET 1		
53	PERIMETER ROAD CROSS SECTION SHEET 2		
54	PERIMETER ROAD CROSS SECTION SHEET 3		
55	PAVED DITCH CROSS SECTION SHEET 1		
	<u> </u>		

ITEM NO.	Description	UNIT	QUANTIT
AR106502	APRON LIGHT POLE W/DOUBLE FIXTURE	EA	2
AR106503	APRON LIGHT POLE W/TRIPLE FIXTURE	EA	2
AR106905	REMOVE LIGHT POLE & FIXTURE	EA	1
AR108000	CABLE TRENCH	LF	212
AR108052	POWER CABLE IN CONDUIT	LF	400
AR108108	1/C #8 5 KV UG CABLE	LF	1,650
AR110011	1" DIRECTIONAL BORE	LF	350
AR110504	4-WAY CONCRETE ENCASED DUCT	LF	45
AR110610	ELECTRICAL HANDHOLE	EA	1
AR800312	2" HDPE, DIRECT BURY	LF	780
AR125415	MITL - BASE MOUNTED	EA	9
AR125416	MITL - BASE MOUNTED IN SHOULDER	EA	4
AR125565	SPLICE CAN	EA	2
AR125902	REMOVE BASE MOUNTED LIGHT	EA	17
AR150510	ENGINEER'S FIELD OFFICE	LS	1
AR152410	UNCLASSIFIED EXCAVATION	CY	7,200
AR156500	TEMPORARY EROSION CONTROL	LS	1
AR162510	CLASS E FENCE 10'	LF	155
AR162900	REMOVE CLASS E FENCE	LF	137
AR162964	RELOCATE GATE	EA	1
AR162969	RELOCATE GATE OPERATOR CRUSHED AGG. BASE COURSE - 6"	EA	1
AR209606		SY	9,775
AR401900	REMOVE BITUMINOUS PAVEMENT	SY	875
AR501509 AR501515	9" PCC PAVEMENT 15" PCC PAVEMENT	SY	1,775
		SY	7,900
AR501530	PCC TEST BATCH REMOVE PCC PAVEMENT	EA SY	
AR501900 AR510520	NOSE TETHER	EA	2,350
AR605540	CLEAN & SEAL JOINTS	LF	21,000
AR605541	CLEAN & SEAL CRACKS	LF	500
AR620520	PAVEMENT MARKING-WATERBORNE	SF	3,000
AR620525	PAVEMENT MARKING-BLACK BORDER	SF	3,000
AR620900	PAVEMENT MARKING REMOVAL	SF	2,500
AR620595	TEMPORARY MARKING & REMOVAL	SF	1,000
AR701524	24" RCP, CLASS IV	LF	150
AR701900	REMOVE PIPE	LF	170
AR705524	4" PERFORATED UNDERDRAIN W/SOCK	LF	1.100
AR705615	UNDERDRAIN OUTFALL	EA	1
AR705635	UNDERDRAIN COLLECTION STRUCTURE	EA	2
AR705640	UNDERDRAIN CLEANOUT	EA	2
AR705645	UNDERDRAIN CONNECTION	EA	6
AR705900	REMOVE UNDERDRAIN	LF	710
AR705904	REMOVE UNDERDRAIN CLEANOUT	EA	2
AR705905	REMOVE COLLECTION STRUCTURE	EA	2
AR752424	PRECAST REINFORCED CONC. FES 24"	EA	4
AR752900	REMOVE END SECTION	EA	4
AR754610	PAVED DITCH	LF	750
AR754910	REMOVE PAVED DITCH	LF	130
AR901510	SEEDING	AC	4.5
AR904510	SODDING	SY	850
AR908510	MULCHING	AC	4.5
AR908520	EXCELSIOR BLANKET	SY	500
AR908525	KNITTED STRAW MAT	SY	1,505
AR910200	ROADWAY SIGN	EA	3

FILE: 1208505-GI001.dwg UPDATE BY: Chris Groth PLOT DATE: 4/4/2013 3:10 PM

### BL069

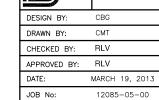
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THIS BAR IS EQUAL TO 2"
AT FULL SCALE (34X22).

## BLOOMINGTON-NORMAL AIRPORT AUTHORITY CENTRAL ILLINOIS REGIONAL AIRPORT BLOOMINGTON, ILLINOIS EXPAND AIR CARGO APRON INDEX TO SHEETS & SUMMARY OF QUANTITIES

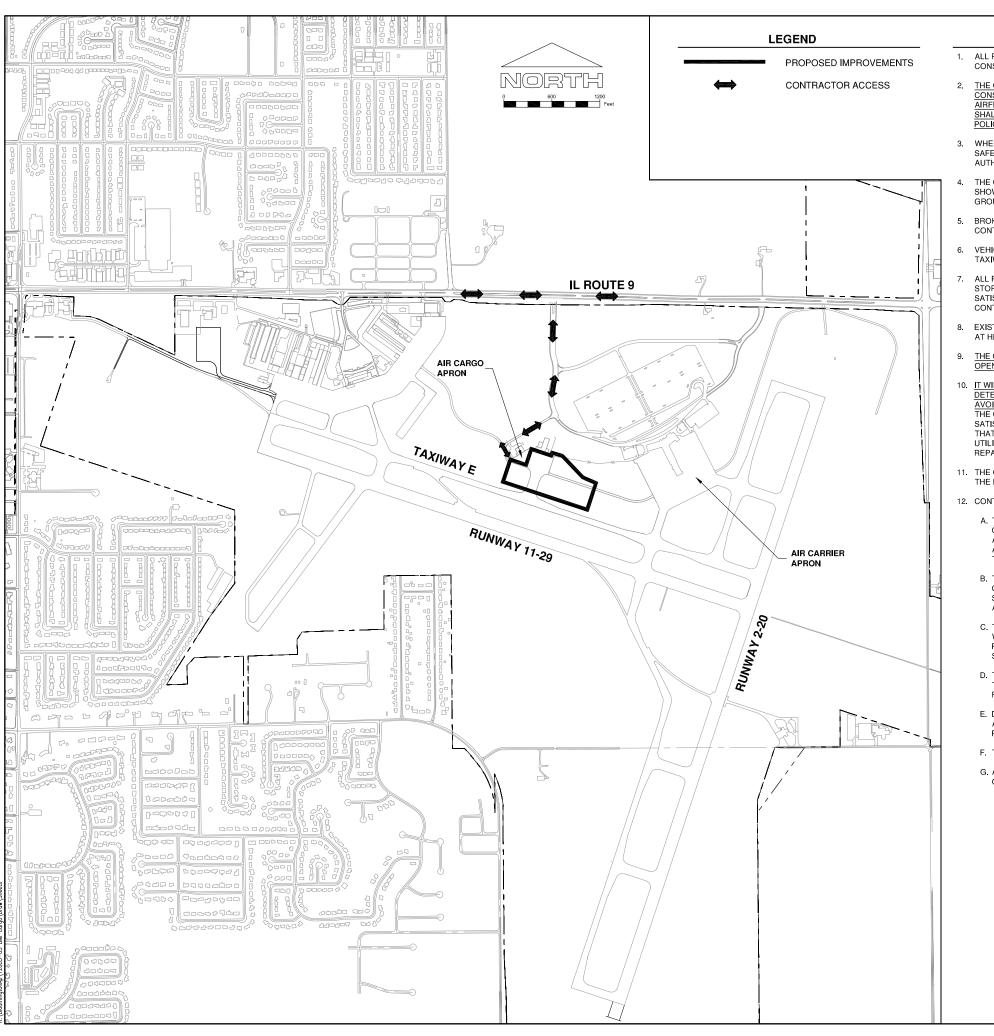
CRAWFORD, MURPHY & TLLY, NC. CONSULTING ENGINEERS LIGHERS NO. 184-000613





IL. PROJ. NO. BMI-4288 AIP PROJ. NO. 3-17-0006-XX

SHEET 02 OF 55 SHEETS



### **GENERAL NOTES**

- ALL RUNWAYS, TAXIWAYS, AND APRONS SHALL BE KEPT OPEN TO AIRCRAFT TRAFFIC DURING CONSTRUCTION EXCEPT AS NOTED IN THE CONSTRUCTION ACTIVITY PLAN.
- THE CONTRACTOR SHALL REMAIN WITHIN THE DESIGNATED WORK AREA AT ALL TIMES DURING CONSTRUCTION. AT NO TIME SHOULD THE CONTRACTOR OR HIS PERSONNEL ACCESS ANY ACTIVE AIRFIELD PAVEMENTS. PRIOR TO BEGINNING CONSTRUCTION THE CONTRACTOR'S SUPERINTENDENT SHALL BE REQUIRED TO ATTEND TRAINING COURSES AT THE AIRPORT TO BECOME AWARE OF POLICIES AND PROCEDURES ASSOCIATED WITH WORKING WITHIN THE AIRPORT SECURITY FENCE.
- WHEN CONFLICTS ARISE BETWEEN CONSTRUCTION ACTIVITIES AND AIRCRAFT OPERATIONS AND SAFETY, AIRCRAFT OPERATIONS AND SAFETY SHALL TAKE PRECEDENCE AND SHALL GOVERN. FINAL AUTHORITY IN THE APPROVAL OF CONSTRUCTION SEQUENCING LIES WITH THE AIRPORT
- THE CONTRACTOR WILL BE PERMITTED TO STORE EQUIPMENT AND MATERIALS AT THE LOCATIONS SHOWN. THE MAXIMUM HEIGHT OF EQUIPMENT, MATERIALS AND STOCKPILES SHALL BE 25' ABOVE GROUND ELEVATION.
- BROKEN CONCRETE, BITUMINOUS PAVEMENT AND OTHER DEBRIS SHALL BE DISPOSED OF BY THE CONTRACTOR OFF AIRPORT PROPERTY.
- VEHICLES AND EQUIPMENT SHALL NOT BE ALLOWED WITHIN 130' OF THE CENTERLINE OF ACTIVE FAXIWAYS OR 250' FROM THE CENTERLINE OF ACTIVE RUNWAYS.
- ALL PAVEMENTS, DRIVES, OR ANY OTHER AREAS UTILIZED BY THE CONTRACTOR FOR HAUL ROADS OR STORAGE AREAS SHALL BE MAINTAINED AND REPAIRED IN KIND BY THE CONTRACTOR TO THE SATISFACTION OF THE AIRPORT. NO ADDITIONAL COMPENSATION SHALL BE MADE TO THE CONTRACTOR FOR THIS WORK.
- EXISTING TURF AREAS DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY HIM AT HIS EXPENSE TO THE SATISFACTION OF THE AIRPORT.
- THE CONTRACTOR SHALL CONTINUOUSLY CLEAN ALL CONSTRUCTION AREAS WHICH ARE OR WILL BE OPENED TO AIR TRAFFIC.
- IT WILL BE NECESSARY FOR THE CONTRACTOR TO MAKE HIS OWN FIELD INVESTIGATION TO DETERMINE THE EXACT LOCATION OF THE UNDERGROUND UTILITIES AT CRITICAL POINTS SO AS TO AVOID ANY DAMAGE. ANY UTILITY, INCLUDING AIRFIELD ELECTRICAL CABLE AND LIGHTS, DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED BY HIM AT HIS OWN EXPENSE IN A MANNER WHICH IS SATISFACTORY TO THE ENGINEER, THE AIRPORT 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 WITH THE COSTS TO BE BORNE BY THE CONTRACTOR.
- 11. THE CONTRACTOR SHALL MAINTAIN A SECURE AIRFIELD PERIMETER THROUGHOUT THE DURATION OF THE PROJECT.
- 12. CONTRACTOR'S ACCESS SHALL BE AS FOLLOWS:
  - A. THE CONTRACTOR SHALL COMPLETE A TEN YEAR CRIMINAL AND EMPLOYMENT BACKGROUND CHECK AND A SECURITY FORM FOR THE EMPLOYEES THAT HE PROPOSES TO USE ON THE AIRPORT. THESE FORMS SHALL BE COMPLETED PRIOR TO THAT PERSON BEING ALLOWED ON THE AIRFIELD. A LIST OF PERSONNEL AUTHORIZED TO WORK ON THE AIRFIELD SHALL BE PROVIDED TO
  - B. THE CONTRACTOR SHALL USE AN EXISTING GATE(S) FOR ACCESS TO THE AIRFIELD. THE CONTRACTOR SHALL INSTALL AND MAINTAIN A HEAVY-DUTY PADLOCK ON THE ACCESS GATE. HE SHALL PROVIDE KEYS FOR THIS PADLOCK TO THE RESIDENT ENGINEER AND THE AIRPORT. NO ADDITIONAL KEYS ARE TO BE DISTRIBUTED UNLESS AUTHORIZED BY THE AIRPORT.
  - C. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING THE ACCESS GATE(S) CLOSED DURING WORK HOURS. IF THE CONTRACTOR CHOOSES TO LEAVE THE GATE(S) OPEN, THEN HE SHALL POST A COMPETENT SECURITY GUARD TO PREVENT UNAUTHORIZED ENTRIES. THE CONTRACTOR SHALL REPLACE ANY UNSATISFACTORY SECURITY GUARDS IF SO DIRECTED.
  - D. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND TEMPORARY EASEMENTS FOR THE ACCESS ROAD(S) SHOWN AND SHALL COMPLY WITH ALL TRAFFIC CONTROL SIGNAGE REQUIRED BY THE CITY, COUNTY, TOWNSHIP, OR I.D.O.T..
  - E. DURING ADVERSE WEATHER THE CONTRACTOR SHALL MAINTAIN ACCESS TO THE WORK AT NO ADDITIONAL COST TO THE CONTRACT. NO EXTENSION OF CONTRACT TIME WILL BE CONSIDERED FOR DELAYS DUE TO LACK OF ADEQUATE ACCESS TO THE WORK SITE.
  - F. THE CONTRACTOR WILL CLOSE AND LOCK THE ACCESS GATE(S) UPON LEAVING THE SITE.
  - G. ALL COSTS RELATING TO CONTRACTOR'S ACCESS AND SECURITY SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

**GROUND CONTROL FREQUENCY - 121.65** AIR CONTROL FREQUENCY - 124.60 MAXIMUM HEIGHT OF TYPICAL EQUIPMENT - 25 FT. FILE: 1208505-GC001.dwg JPDATE BY: Chris Groth LOT DATE: 4/4/2013 12:47 PM

1208505-C-SPAL 1208505-V-VF3D BMI-V-AFRI

### **BL069**

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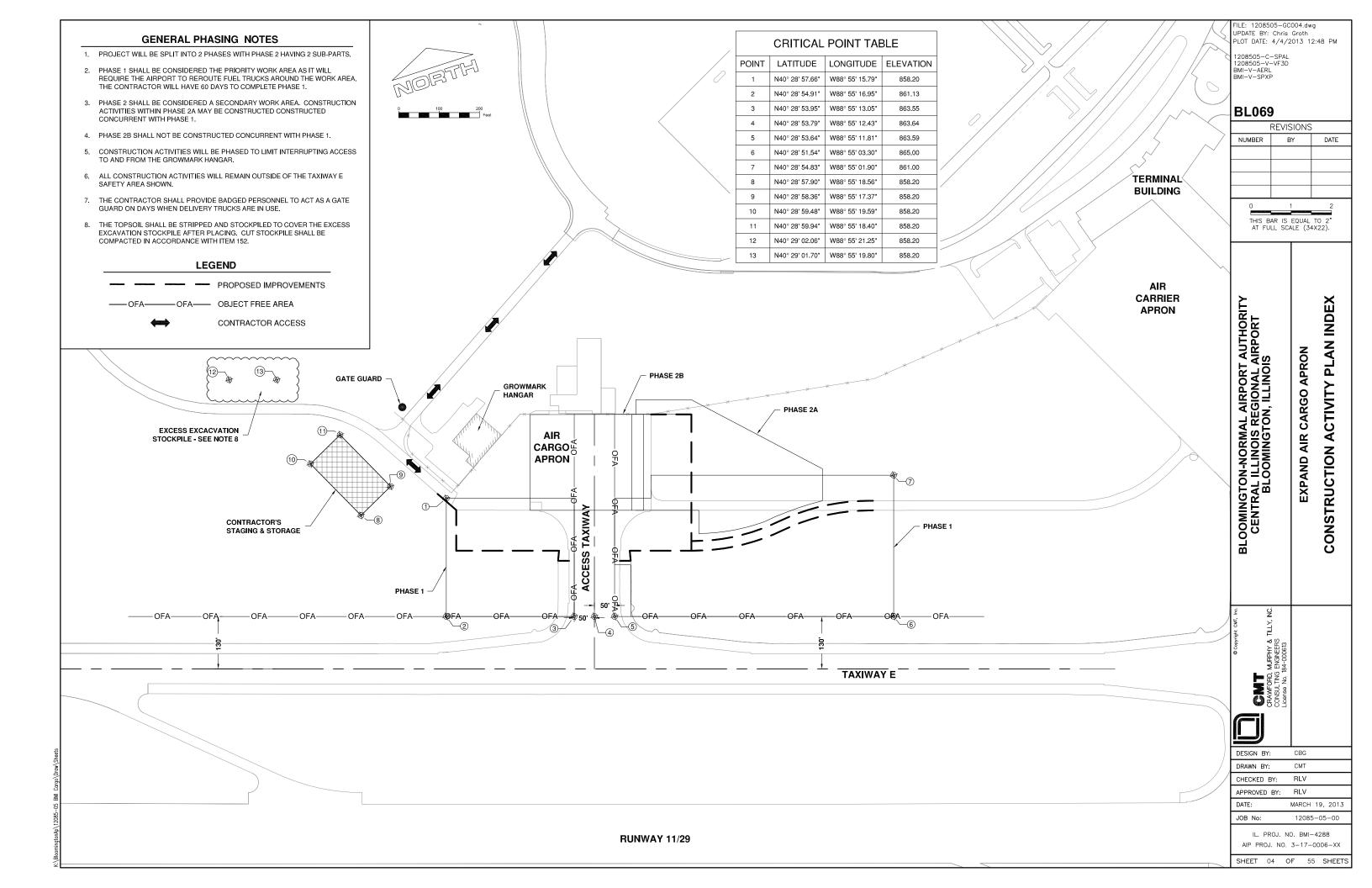
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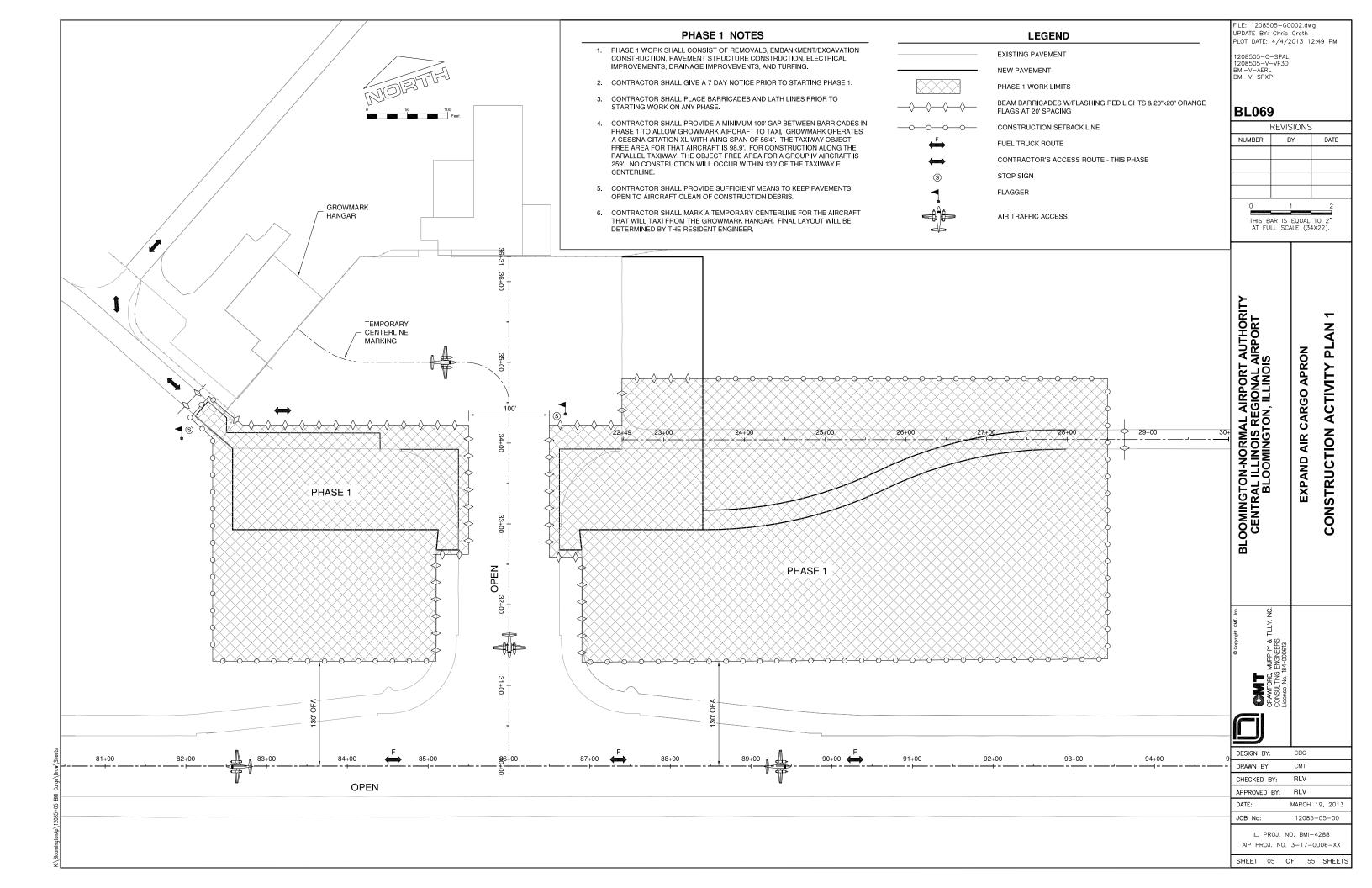
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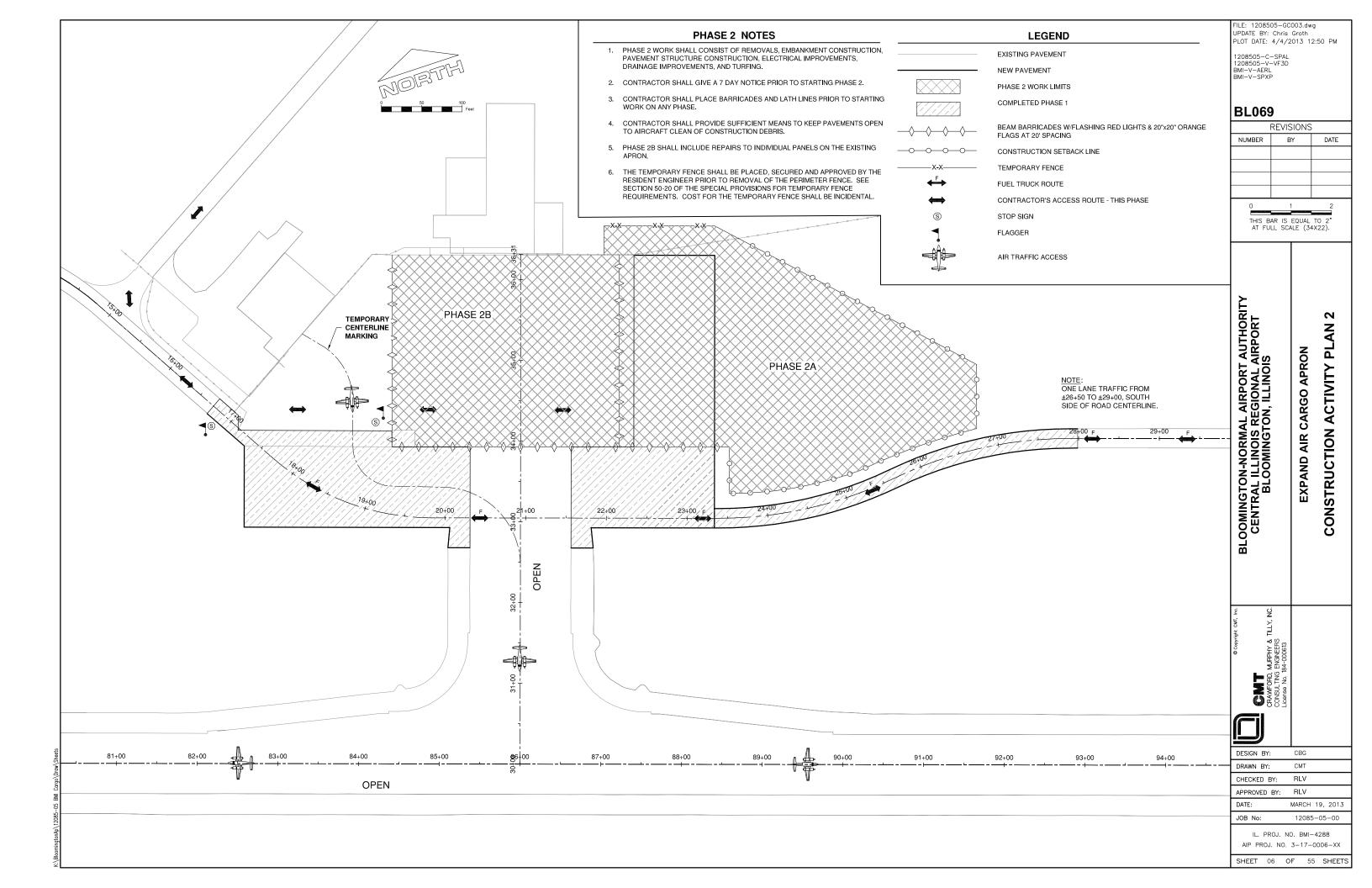
IL. PROJ. NO. BMI-4288 AIP PROJ. NO. 3-17-0006-XX

12085-05-00

SHEET 03 OF 55 SHEETS







### GENERAL

- THE CONTRACTOR AND ALL SUBCONTRACTORS SHALL FOLLOW THE REQUIREMENTS OF THE AIRPORT'S APPROVED CONSTRUCTION SAFETY AND PHASING PLAN (CSPP), FAA AC 150/5370-2F, AND ALL AIRPORT
- 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 150/5370-2F. 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 HIS/HER PERSONNEL AND MEETING OSHA REQUIREMENTS.
- A MINIMUM OF 10 DAYS PRIOR TO THE PRE-CONSTRUCTION MEETING THE CONTRACTOR SHALL PROVIDE A LIST OF SUBCONTRACTORS AND
- PRIOR TO THE START OF CONSTRUCTION THE CONTRACTOR SHALL SIGN THE STORM WATER POLLUTION PREVENTION PROGRAM (SWPPP) CERTIFICATION STATEMENT.
- 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

- PRIOR TO THE START OF CONSTRUCTION THE CONTRACTOR SHALL ATTEND A PRE-CONSTRUCTION CONFERENCE WITH THE AIRPORT, ENGINEER, AND ILLINOIS DIVISION OF AERONAUTICS (IDA). THE COST OF PREPARING FOR AND ATTENDING THE PRE-CONSTRUCTION CONFERENCE SHALL BE INCIDENTAL TO THE
- ON OR BEFORE THE PRE-CONSTRUCTION CONFERENCE, THE CONTRACTOR SHALL SUBMIT A PROPOSED SCHEDULE FOR THE PROJECT. THE SCHEDULE SHALL INCLUDE A START AND COMPLETION DATE FOR EACH ITEM OF WORK. THE SCHEDULE SHALL BE UPDATED ON AN AS NEEDED BASIS. ALL COSTS SSOCIATED WITH THE SCHEDULE SHALL BE INCIDENTAL TO THE CONTRACT.
- DURING CONSTRUCTION THE CONTRACTOR SHALL ATTEND A COORDINATION MEETINGS WITH THE AIRPORT STAFF AND RESIDENT ENGINEER. ALL COSTS ASSOCIATED WITH ATTENDING THE WEEKLY MEETING SHALL BE INCIDENTAL TO

### 2. PHASING

- TOTAL CONTRACT TIME SHALL BE 78 CALENDAR DAYS.
- PHASING SHALL BE AS SHOWN ON THE CONSTRUCTION ACTIVITY PLAN SHEET.

### 3. AREAS AND OPERATIONS AFFECTED BY THE CONSTRUCTION ACTIVITY

- ALL BUNWAYS TAXIWAYS AND APRONS SHALL BE KEPT OPEN TO AIRCRAFT
- WHEN CONFLICTS ARISE BETWEEN CONSTRUCTION ACTIVITIES AND AIRCRAFT OPERATIONS AND SAFETY, AIRCRAFT OPERATIONS AND SAFETY SHALL TAKE PRECEDENCE AND SHALL GOVERN. FINAL AUTHORITY IN THE APPROVAL OF CONSTRUCTION SEQUENCING LIES WITH THE AIRPORT.
- ALL CONSTRUCTION TRAFFIC SHALL IMMEDIATELY YIELD TO ONCOMING AIRCRAFT AT ALL TIMES.

20'-0"

### 4. PROTECTION OF NAVIGATION AIDS (NAVAIDS)

THE CONTRACTOR SHALL REMAIN CLEAR OF THE ILS CRITICAL AREAS AND OTHER NAVAIDS FACILITIES AT ALL TIMES.

### 5. CONTRACTOR ACCESS

- CONTRACTOR ACCESS SHALL BE AS NOTED BELOW AND AS SHOWN ON THE SITE PLAN AND CONSTRUCTION ACTIVITY PLAN SHEETS.
- THE CONTRACTOR IS TO ACCESS THE SITE USING THE ENTRANCE SHOWN.
- ALL CONTRACTOR EMPLOYEES WHO ARE DESIGNATED AS DRIVERS FOR THE CONTRACTOR AND DRIVERS OF TRUCKS CONTAINING MATERIAL DELIVERIES (AGGREGATE, CONCRETE, ETC.) SHALL BE REQUIRED TO SUBMIT THEIR NAME, DRIVER'S LICENSE NUMBER, TRUCK LICENSE PLATE NUMBER AND NAME OF RUCKING COMPANY TO THE PRIME CONTRACTOR PRIOR TO ENTERING THE
- THE CONTRACTOR'S STORAGE AND STAGING AREA WILL BE AS SHOWN IN THE
- THE CONTRACTOR SHALL KEEP A RECORD OF THE NAMES OF ALL EMPLOYEES ENTERING THE JOB SITE ON A DAILY BASIS. A RECORD OF EACH SUBCONTRACTOR ENTERING THE JOB SITE SHALL ALSO BE KEPT BY THE
- WHEN THE CONTRACTOR IS NOT WORKING, EQUIPMENT SHALL BE STORED AT THE STAGING AREA.
- THE CONTRACTOR WILL BE PERMITTED TO STORE EQUIPMENT AND MATERIALS ONLY AT THE LOCATIONS SHOWN. PARKED EQUIPMENT AND MATERIAL STOCKPILES SHALL NOT PENETRATE SURFACES DEFINED BY F.A.R. TITLE 14 PART 77 - OBJECTS AFFECTING NAVIGABLE AIRSPACE.
- THE CONTRACTOR SHALL THOROUGHLY CLEAN ALL CONSTRUCTION AREAS AND HAUL ROUTES WHICH WILL BE OPENED TO AIR TRAFFIC TO THE SATISFACTION OF AIRPORT OPERATIONS OR THE RESIDENT ENGINEER. A POWER BROOM AND OPERATOR SHALL BE ON SITE AT ALL TIMES WHEN ACTIVE PAVEMENTS ARE UTILIZED FOR CONSTRUCTION TRAFFIC.
- 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 CONSTRUCTION. NO ADDITIONAL COMPENSATION WILL BE MADE TO THE CONTRACTOR FOR THIS WORK.
- 10. ALL VEHICLE AND EQUIPMENT OPERATORS USED BY THE CONTRACTOR SHALL BE PROPERLY TRAINED BY THE CONTRACTOR.
- THE CONTRACTOR SHALL NOTIFY THE AIRPORT IF CONSTRUCTION ACTIVITY WILL REQUIRE THE BLOCKAGE OF EMERGENCY ACCESS TO THE AIRPORT.

### 6. WILDLIFE MANAGEMENT

- THE CONTRACTOR SHALL NOTIFY AIRPORT OPERATIONS OR THE RESIDENT ENGINEER IF ANY WILDLIFE IS SEEN ENTERING THE AIRPORT.
- CONTRACTOR ACCESS GATES SHALL REMAIN CLOSED AT ALL TIMES UNLESS GATE GUARD IS PRESENT
- THE CONTRACTOR SHALL DISPOSE OF ALL TRASH INCLUDING FOOD SCRAPS IN APPROVED CONTRACTOR PROVIDED CONTAINERS.

### 7. FOREIGN OBJECT DEBRIS (FOD) MANAGEMENT

- THE CONTRACTOR SHALL PICK UP ANY FOREIGN OBJECT DEBRIS (FOD) SEEN ON THE AIRFIELD PAVEMENTS
- THE CONTRACTOR SHALL SECURE ALL LOOSE ITEMS FROM VEHICLES PRIOR TO DRIVING ON AIRFIELD PAVEMENTS.

### 8. HAZARDOUS MATERIALS (HAZMAT) MANAGEMENT

THE CONTRACTOR SHALL DEVELOP A HAZMAT MANAGEMENT PLAN AND KEEP COPIES ON THE JOBSITE OF MATERIAL SAFETY DATA SHEETS (MSDS) FOR ALL MATERIALS HANDLED ON THE JOBSITE.

STEADY BURN RED OMNI-

LOW PROFILE BARRICADE

(MAX.)

FRONT ELEVATION

DIRECTIONAL LIGHT

### 9. NOTIFICATION OF CONSTRUCTION ACTIVITIES

- THE CONTRACTOR SHALL PROVIDE A 24 HOUR EMERGENCY CONTACT PERSON AND PHONE NUMBER.
- THE CONTRACTOR SHALL GIVE A MINIMUM OF 72 HOURS NOTICE TO AIRPORT OPERATIONS PRIOR TO CLOSING ANY PAVEMENTS SO THAT PROPER NOTICE TO AIRMEN (NOTAMS) MAY BE ISSUED BY THE AIRPORT.
- FOR ANY EQUIPMENT USED BY THE CONTRACTOR WITH A HEIGHT GREATER THAN 25' THE CONTRACTOR SHALL PROVIDE TO THE AIRPORT THE TYPE OF EQUIPMENT, TOTAL HEIGHT, AND LOCATION WHERE THE EQUIPMENT WILL BE USED. THE AIRPORT WILL SUBMIT FAA FORM 7460-1 TO THE FAA FOR AN AIRSPACE STUDY. NO EQUIPMENT WITH A HEIGHT GREATER THAN 25' SHALL BE USED UNTIL A DETERMINATION FROM FAA IS RECEIVED.
- 4. IN THE EVENT OF AN EMERGENCY, THE CONTRACTOR SHALL CALL 911.

### 10. INSPECTION REQUIREMENTS

- THE CONTRACTOR SHALL INSPECT THE JOBSITE DAILY TO ENSURE COMPLIANCE WITH THE CSPP. THE CHECKLIST FOUND IN APPENDIX 3 OF FAA AC 150/5370-2F
- THE CONTRACTOR SHALL ATTEND A FINAL INSPECTION OF EACH PHASE WORK AREA PRIOR TO OPENING THE AREA TO AIRPORT OPERATIONS

### 11. UNDERGROUND UTILITIES

- IT WILL BE NECESSARY FOR THE CONTRACTOR TO MAKE HIS OWN FIELD INVESTIGATION TO DETERMINE THE EXACT LOCATION OF THE UNDERGROUND UTILITIES AT CRITICAL POINTS. THE LOCATION OF UNDERGROUND UTILITIES AS INDICATED ON THE PLANS HAS BEEN OBTAINED FROM EXISTING RECORDS NEITHER THE OWNER NOR THE ENGINEER ASSUMES ANY RESPONSIBILITY IN RESPECT TO THE ACCURACY, COMPLETENESS OR SUFFICIENCY OF THE
- BEFORE INITIATING ANY DIGGING, DRILLING OR EXCAVATING ON THE AIRPORT PROPERTY, THE CONTRACTOR SHALL CALL JULLIE. AND CONTACT THE LOCAL FAA OFFICE TO ARRANGE FOR UTILITY LOCATES. SEE SECTION 70-17 OF THE SPECIAL PROVISIONS FOR UTILITY CONTACT INFORMATION.

### 12. PENALTIES

NONCOMPLIANCE BY THE CONTRACTOR WITH AIRPORT RULES AND REGULATIONS OR FAILURE TO COMPLY WITH THE AIRPORT'S APPROVED CSPP AND THE CONTRACTOR'S APPROVED SPCD MAY RESULT IN FINES AS ALLOWED

### 13. SPECIAL CONDITIONS

ADJACENT CONSTRUCTION MAY IMPACT THE OPERATIONS OF THE CONTRACTOR SEE THE COORDINATION NOTES FOR ADDITIONAL INFORMATION.

### 14. RUNWAY AND TAXIWAY VISUAL AIDS

- NO RUNWAY OR TAXIWAY CLOSURES ARE REQUIRED FOR THIS PROJECT. IF ANY RUNWAY OR TAXIWAY CLOSURES ARE REQUESTED BY THE CONTRACTOR AND APPROVED BY THE AIRPORT, THE CONTRACTOR SHALL USE MARKING, LIGHTING AND SIGNS THAT FOLLOW THE REQUIREMENTS OF FAA AC 150/5370-2F.
- BARRICADES SHALL BE PLACED AT THE LOCATIONS SHOWN ON THE CONSTRUCTION ACTIVITY PLAN SHEET.

### 15. MARKING AND SIGNS FOR ACCESS ROUTES

BARRICADES AND SIGNS SHALL BE USED ALONG THE CONTRACTOR'S ACCESS ROUTE AS DETAILED ON THIS SHEET AND THE CONSTRUCTION ACTIVITY PLAN

STEADY BURN RED OMNI-

DIRECTIONAL LIGHT

### 16. HAZARD MARKING AND LIGHTING

- THE CONTRACTOR SHALL FURNISH, ERECT, AND MAINTAIN MARKINGS AND ASSOCIATED LIGHTING OF OPEN TRENCHES, EXCAVATIONS, TEMPORARY STOCKPILES, AND HIS/HER CONSTRUCTION EQUIPMENT
- ALL CONSTRUCTION FOUIPMENT SHALL BE FLAGGED AND/OR LIGHTED IN ACCORDANCE WITH FAA ADVISORY CIRCULAR 150/5370-2F AND 150/5210-5C AT ALL TIMES WHILE OPERATING ON AIRPORT PROPERTY. THE MAXIMUM EQUIPMENT HEIGHT IS 25'.
- BARRICADES SHALL BE PLACED AT THE LOCATIONS SHOWN ON THE CONSTRUCTION ACTIVITY PLAN SHEET OR AS DIRECTED BY THE RESIDENT
- THE CONTRACTOR SHALL INSPECT THE BARRICADES ONCE DURING EACH WORK DAY TO INSURE PROPER PLACEMENT AND PROPER OPERATION OF THE RED LIGHTS AND FLAG PLACEMENT.

### 17. PROTECTION

REFLECTIVE MATERIAL

ORANGE FLORESCENT AND WHITE FLORESCENT DIAGONAL

FACES, MATERIAL SHALL BE

EITHER SCOTCHLITE OR

REFLECTIVE MATERIAL.

INSTALLATION PINS

AS DIRECTED

**ISOMETRIC** 

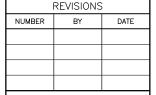
- ALL WORK REQUIRED INSIDE OF THE RUNWAY SAFETY AREAS, WHICH EXTENDS 250' FROM THE RUNWAY CENTERLINE, WILL REQUIRE THE RUNWAY TO BE CLOSED. THE CONTRACTOR SHALL COORDINATE WITH THE AIRPORT A MINIMUM OF 72 HOURS PRIOR TO THE REQUESTED CLOSURE TIME.
- ALL WORK REQUIRED ON AN ACTIVE TAXIWAY OR INSIDE OF AN AN ACTIVE TAXIWAY SAFETY AREA, WHICH EXTENDS 85.5' FROM THE TAXIWAY CENTERLINE ALONG TAXIWAY E AND 40' ALONG THE ACCESS TAXIWAY (OR AS SPECIFIED ON THE CONSTRUCTION ACTIVITY PLANS) WILL REQUIRE THE TAXIWAY TO BE CLOSED. THE CONTRACTOR SHALL COORDINATE WITH THE AIRPORT A MINIMUM OF 72 HOURS PRIOR TO THE REQUESTED CLOSURE TIME.

### 18. OTHER LIMITATIONS ON CONSTRUCTION

- IF, DURING CONSTRUCTION, AN EMERGENCY IS DECLARED BY THE AIRPORT, THE CONTRACTOR SHALL IMMEDIATELY CLEAR THE PAVEMENT OF ALL VEHICLES, PERSONNEL AND EQUIPMENT.
- BROKEN CONCRETE, BROKEN ASPHALT, AND OTHER MISCELLANEOUS DEBRIS SHALL BE DISPOSED OF OFF AIRPORT PROPERTY, UNLESS OTHERWISE SPECIFIED.

ILE: 1208505-GC005.dwg JPDATE BY: Chris Groth PLOT DATE: 4/4/2013 12:50 PM

### **BL069**



THIS BAR IS FOLIAL TO 2 AT FULL SCALE (34X22).

ST AUTHORITY
- AIRPORT NIS

RON PHA SAFETY NOTES AP CARGO ICTION S AND ISTRU Ö

### CRAWFOR

JOB No:

NOTES 1.) BARRICADE SHALL BE WEIGHTED TO WITHSTAND

DISPLACEMENT BY JET OR PROP BLAST.

3.) PLACE AT 10' INTERVALS.

2.) BARRICADE SHALL BE EASILY COLLAPSIBLE UPON CONTACT WITH AIRCRAFT.

4.) NO SEPARATE PAYMENT WILL BE MADE FOR THIS

ITEM. COSTS SHALL BE CONSIDERED INCIDENTAL

LOOMINGTON-NORMAL A CENTRAL ILLINOIS REG BLOOMINGTON,

 $\overline{\mathbf{a}}$ 

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IL. PROJ. NO. BMI-4288 AIP PROJ. NO. 3-17-0006-XX

SHEET 07 OF 55 SHEETS

MARCH 19, 2013

12085-05-00

### CONSTRUCTION SETBACK LINE DETAIL

ORANGE SURVEYOR'S

RIBBON

WOODEN

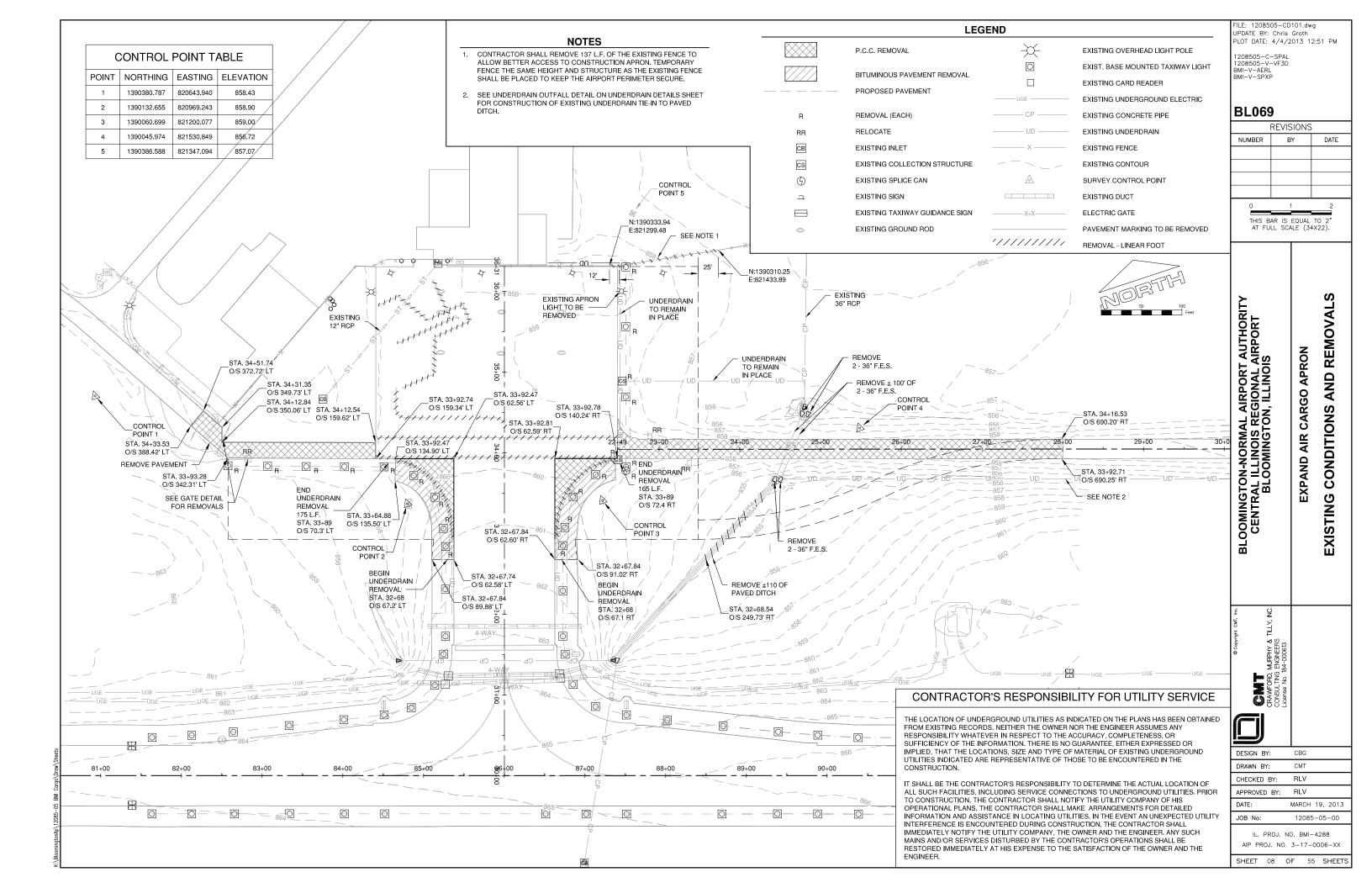
**EXISTING** 

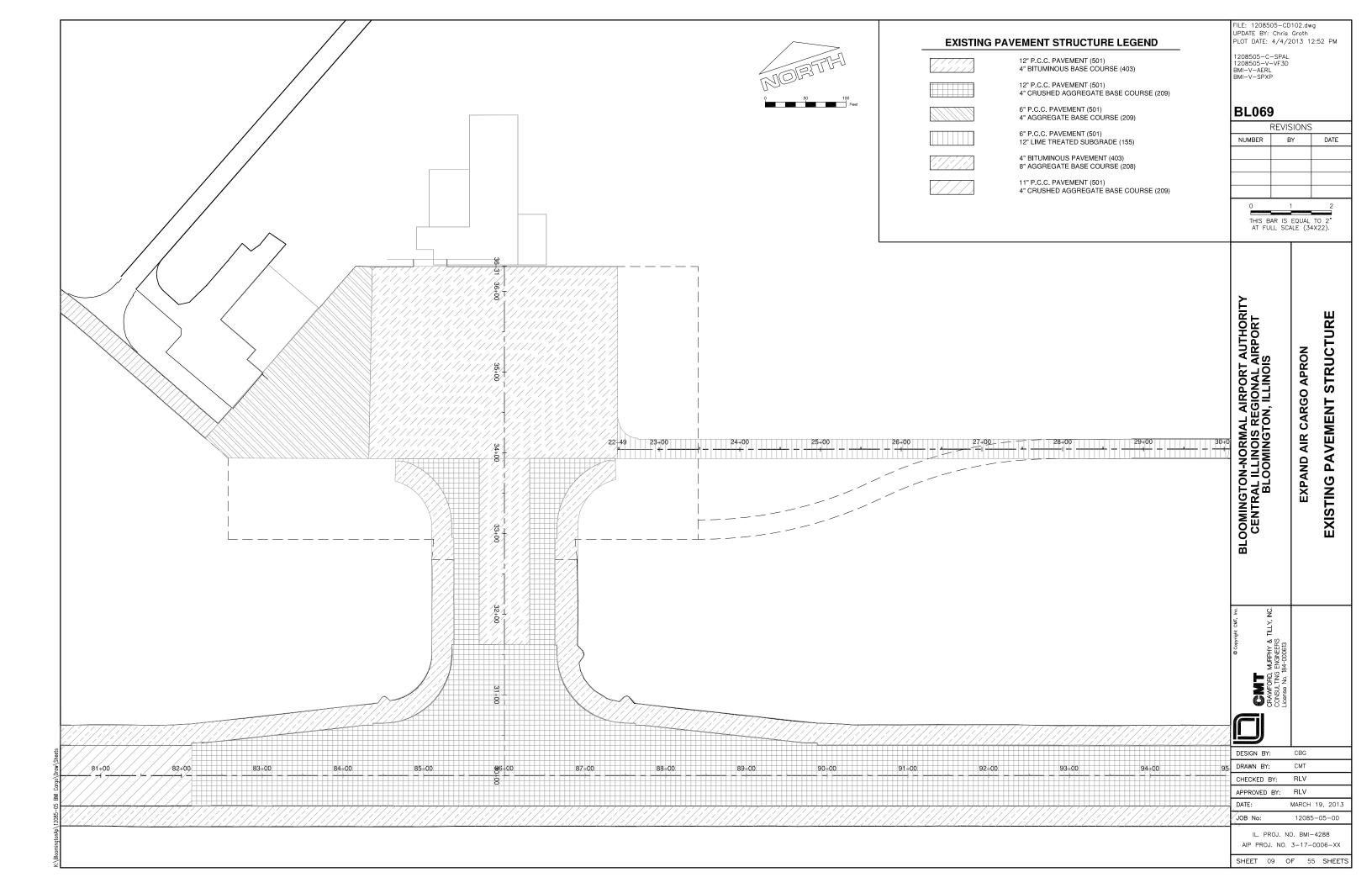
GROUND

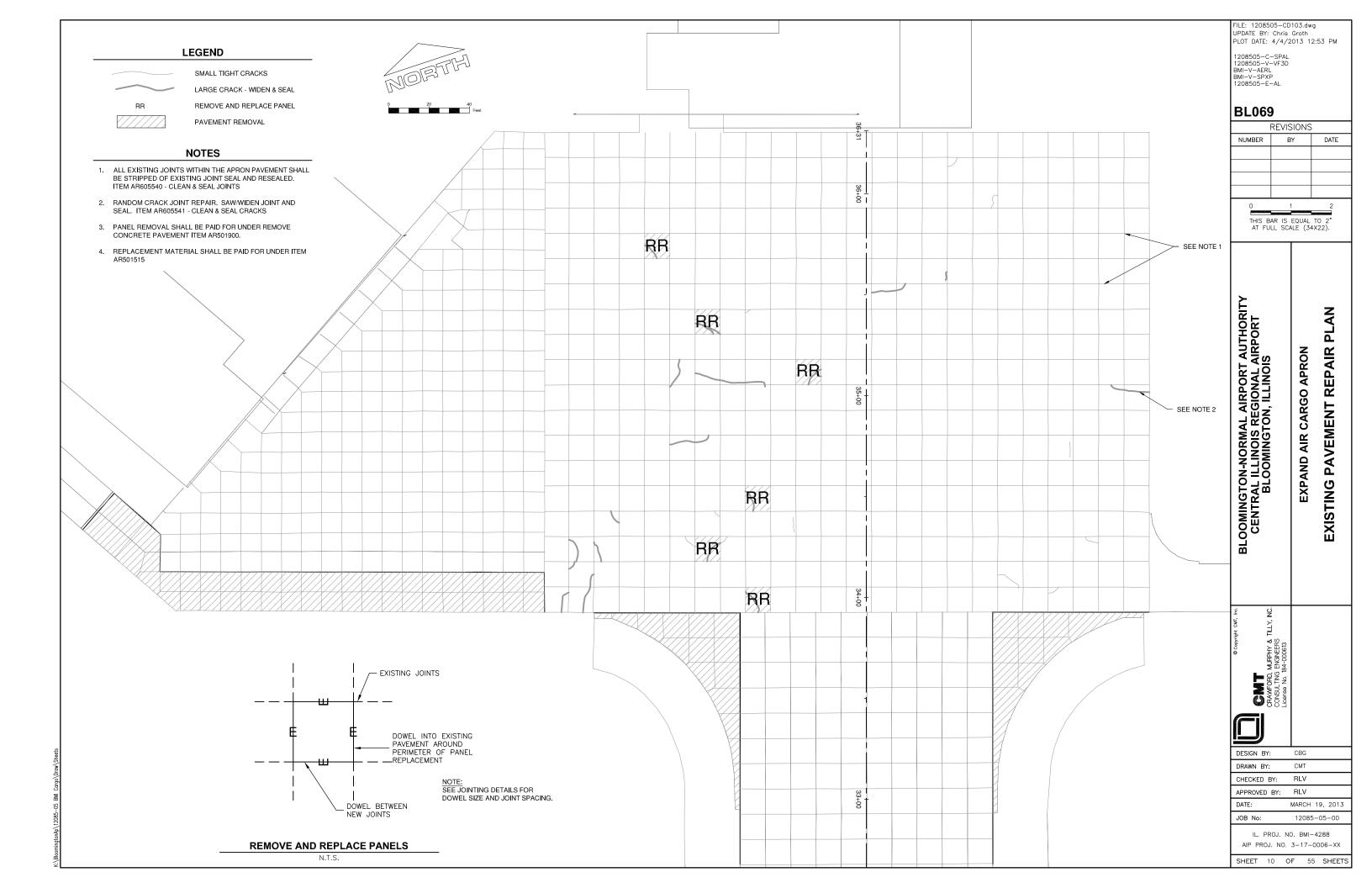
LATHE

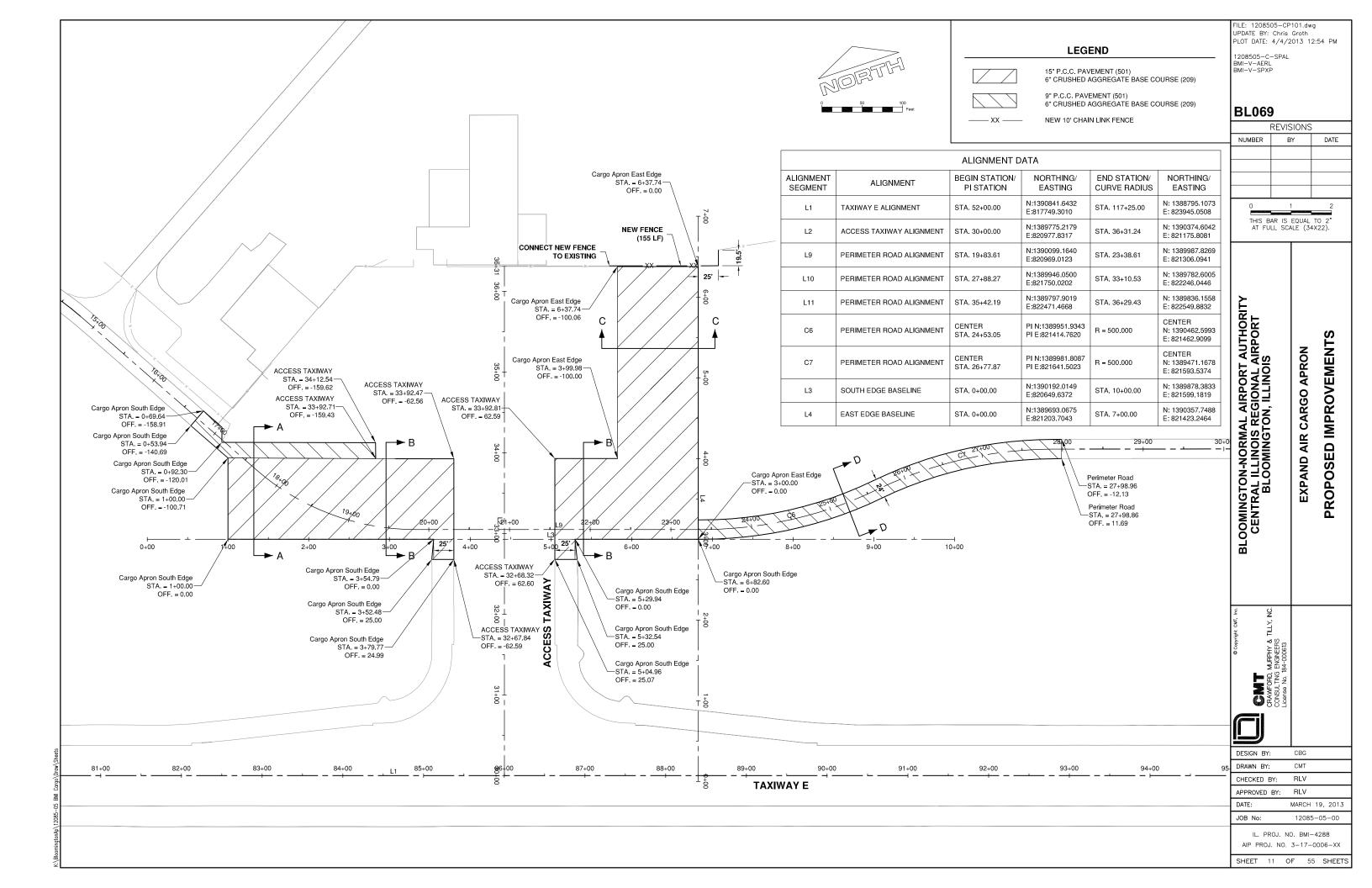
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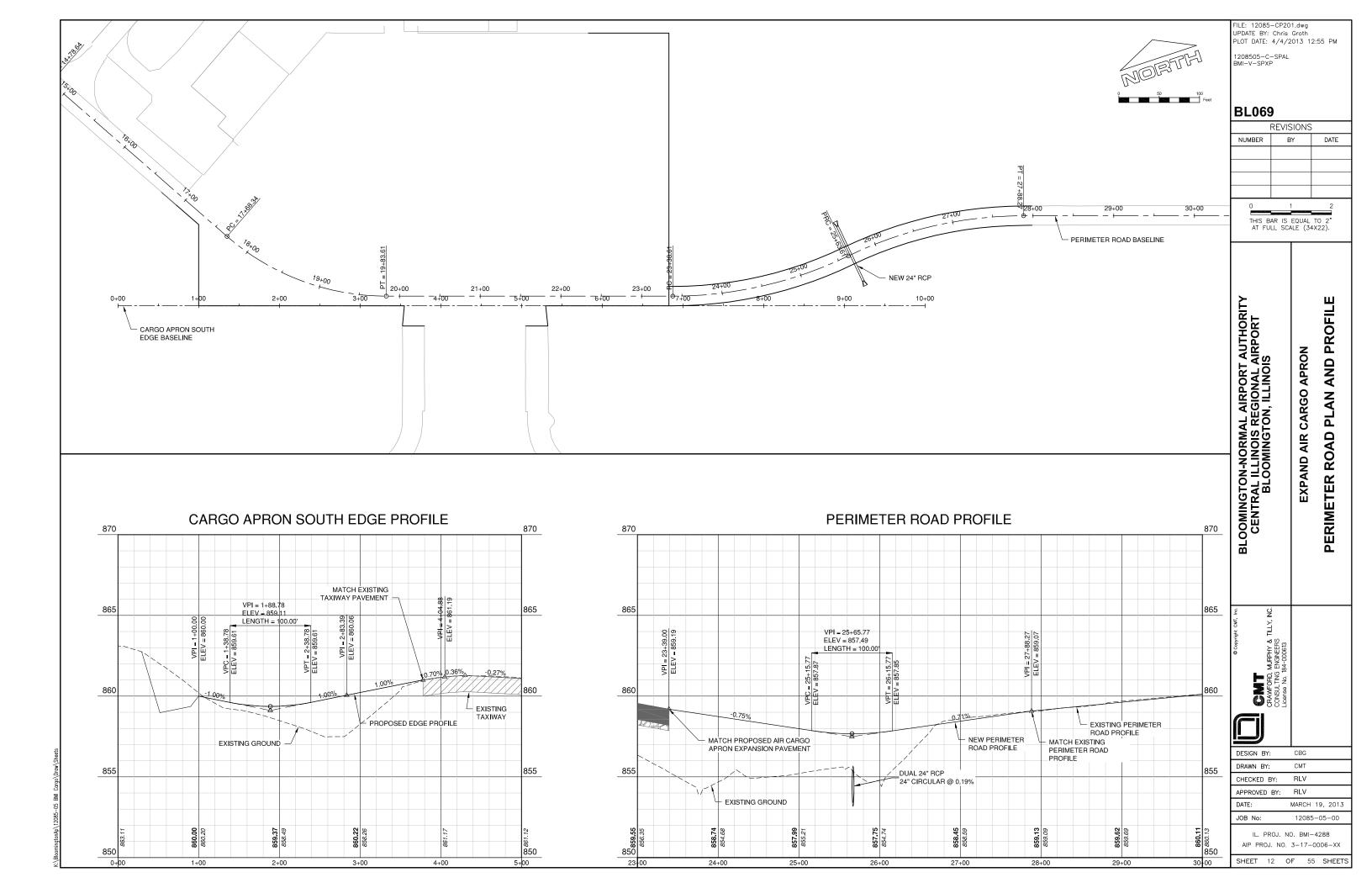
SIDE ELEVATION

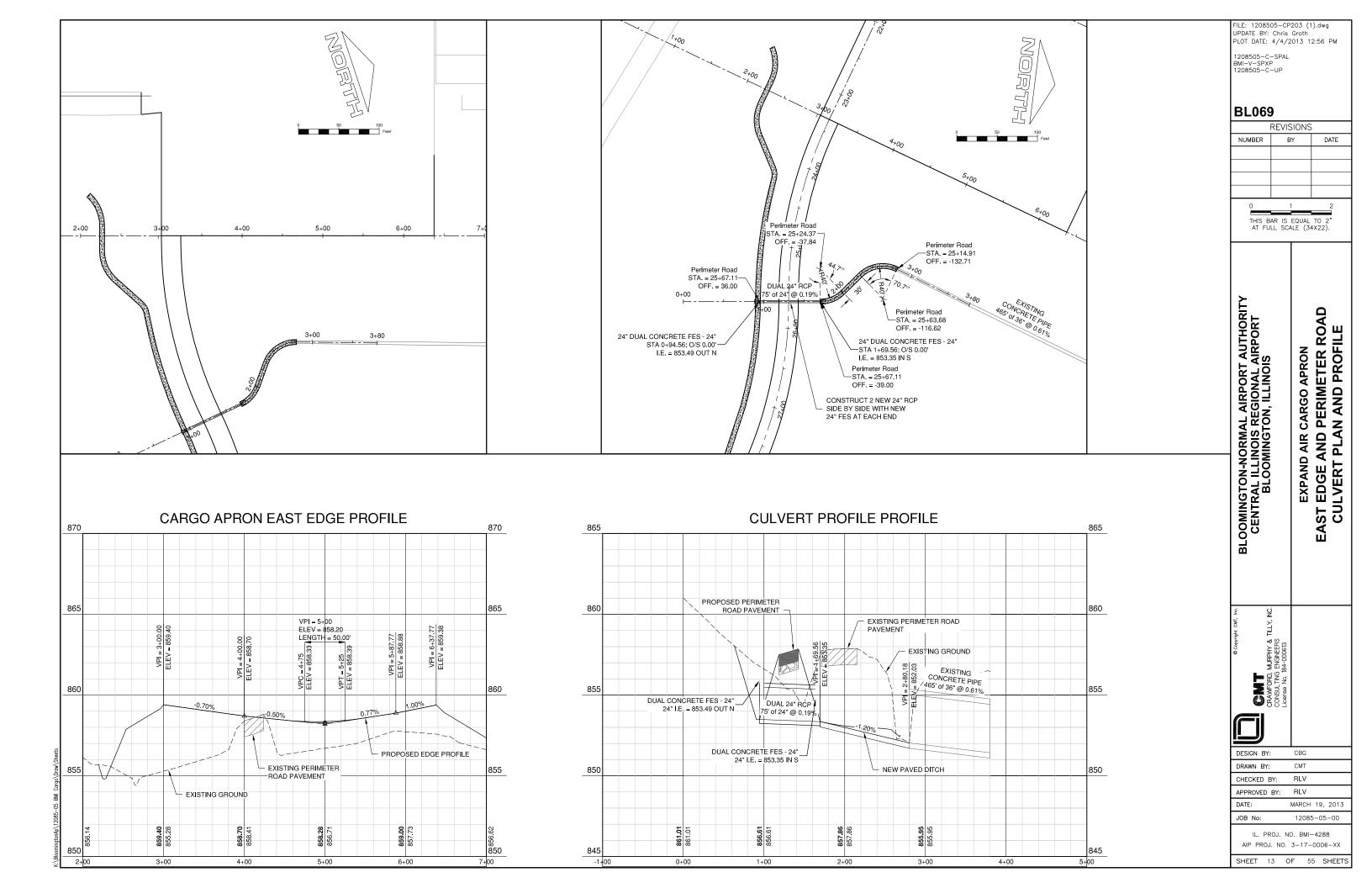


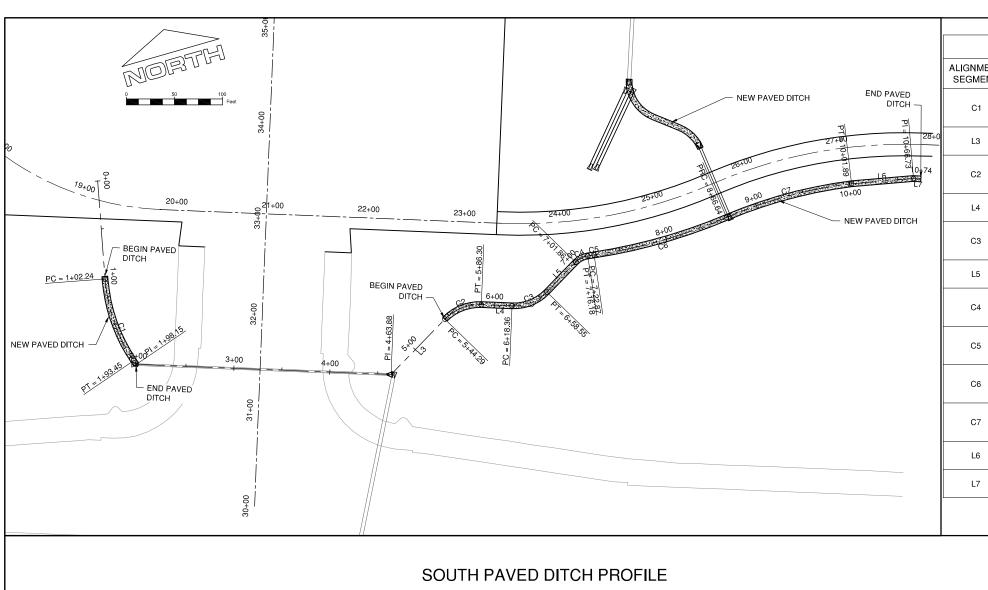




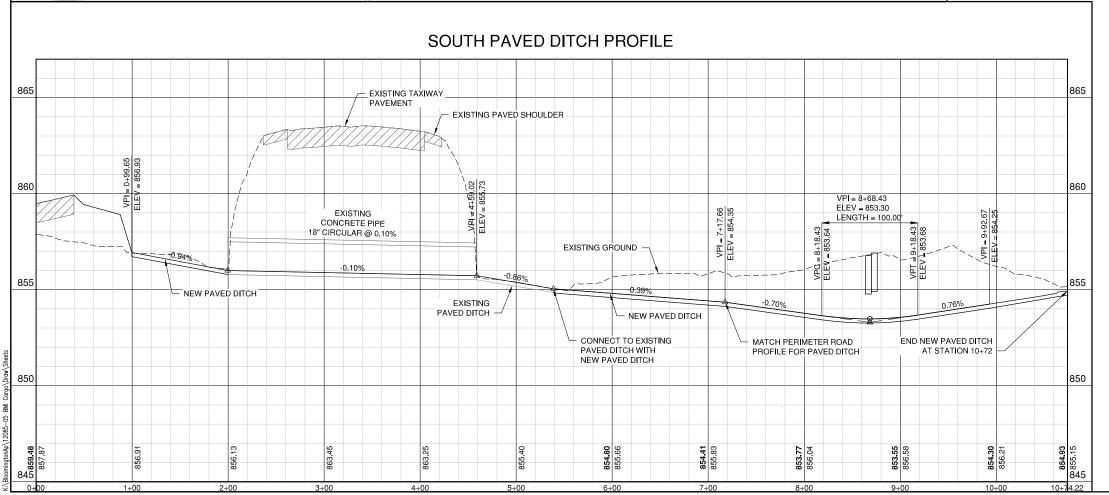








	ALIGNMENT DATA						
	ALIGNMENT SEGMENT	ALIGNMENT	BEGIN STATION/ PI STATION	NORTHING/ EASTING	END STATION/ CURVE RADIUS	NORTHING/ EASTING	12 BM BM 12
	C1	PAVED DITCH	CENTER STA. 1+48.90	PI N:1390000.0044 PI E:820883.8627	R = 175.000	CENTER N: 1390010.3342 E: 821064.6827	
3+0 —	L3	PAVED DITCH	STA. 4+63.88	N:1389868.0435 E:821152.2905	STA. 5+44.29	N: 1389908.0883 E: 821222.0136	В
4	C2	PAVED DITCH	CENTER STA. 5+66.62	PI N:1389919.2142 PI E:821241.3851	R = 50.000	CENTER N: 1389864.7307 E: 821246.9156	_
	L4	PAVED DITCH	STA. 5+86.30	N:1389912.2079 E:821262.5973	STA. 6+18.36	N: 1389902.1526 E: 821293.0402	
	С3	PAVED DITCH	CENTER STA. 6+39.73	PI N:1389895.4516 PI E:821313.3280	R = 47.820	CENTER N: 1389947.5597 E: 821308.0381	
	L5	PAVED DITCH	STA. 6+58.55	N:1389906.0931 E:821331.8553	STA. 7+01.86	N: 1389927.6661 E: 821369.4146	
	C4	PAVED DITCH	CENTER STA. 7+09.28	PI N:1389931.3602 PI E:821375.8462	R = 22.100	CENTER N: 1389908.5018 E: 821380.4220	
	C5	PAVED DITCH	CENTER STA. 7+95.18	PI N:1389919.8172 PI E:821461.4923	R = 540.999	CENTER N: 1390465.6249 E: 821462.9178	   <u>}</u>
	C6	PAVED DITCH	CENTER STA. 7+95.18	PI N:1389919.8172 PI E:821461.4923	R = 540.999	CENTER N: 1390465.6249 E: 821462.9178	[
	C7	PAVED DITCH	CENTER STA. 9+34.75	PI N:1389938.1050 PI E:821600.7185	R = 462.108	CENTER N: 1389471.0587 E: 821593.5394	-
	L6	PAVED DITCH	STA. 10+01.89	N:1389927.1378 E:821667.9442	STA. 10+66.73	N: 1389914.6250 E: 821731.5693	
	L7	PAVED DITCH	STA. 10+66.73	N:1389914.6250 E:821731.5693	STA. 10+74.42	N: 1389912.0642 E: 821738.8133	
- 1							<



FILE: 1208505-CP201.dwg
UPDATE BY: Chris Groth
PLOT DATE: 4/4/2013 12:57 PM

1208505-C-SPAL BMI-V-SPXP BMI-V-AERL 1208505-C-UP

### **BL069**

	REVISIONS						
NUMBER	BY	DATE					
0	1	2					

THIS BAR IS EQUAL TO 2" AT FULL SCALE (34X22).

## BLOOMINGTON-NORMAL AIRPORT AUTHORITY CENTRAL ILLINOIS REGIONAL AIRPORT BLOOMINGTON, ILLINOIS EXPAND AIR CARGO APRON SOUTH PAVED DITCH PLAN AND PROFILE

CRAWFORD, MURPHY & TILLY, NC.
CONSULTING ENSWERS
License No. 184-000613

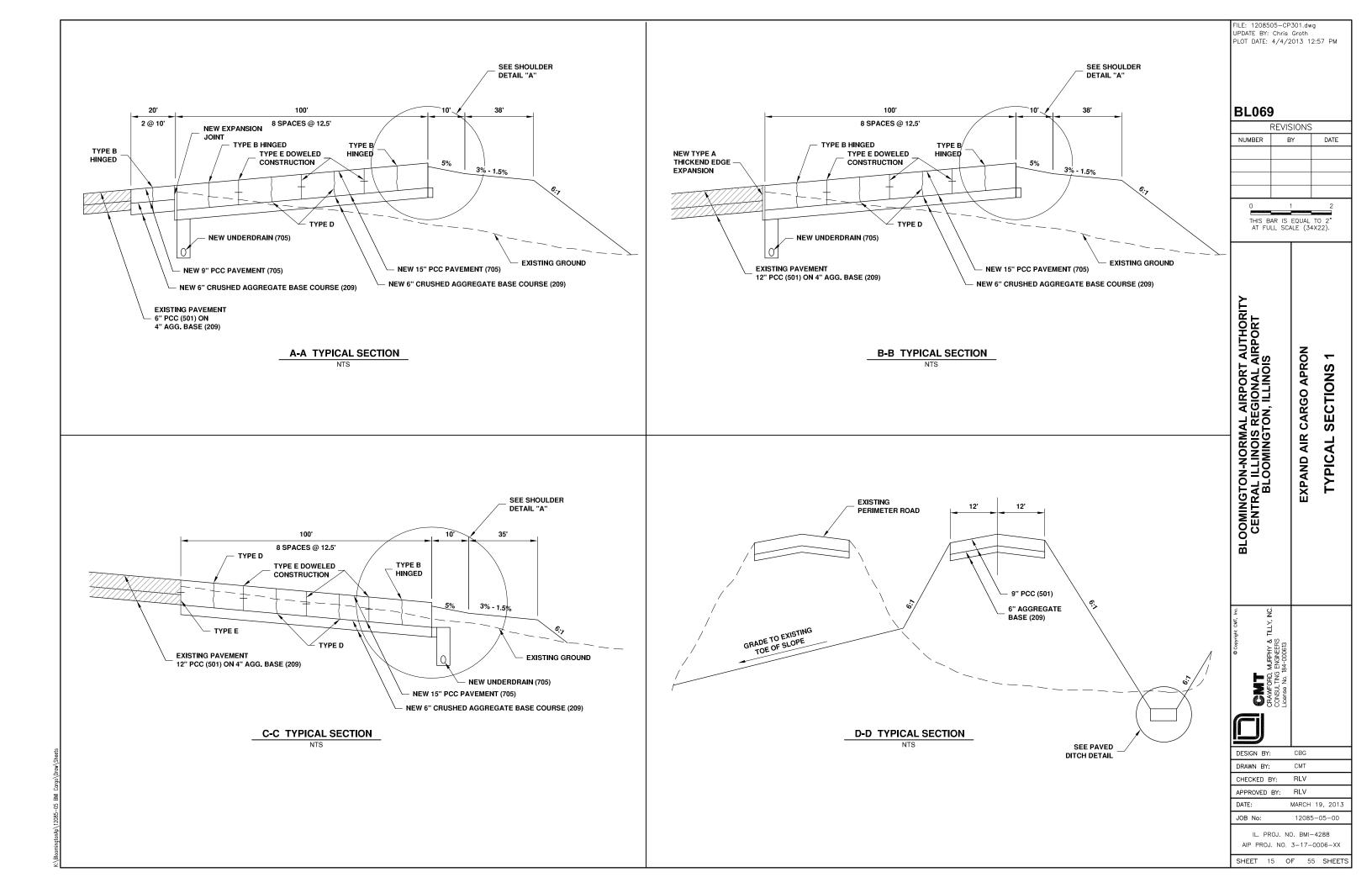


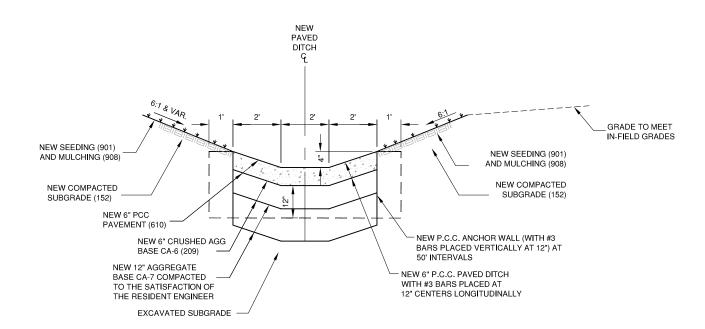
DESIGN BY:	CBG
DRAWN BY:	СМТ
CHECKED BY:	RLV
APPROVED BY:	RLV
DATE:	MARCH 19, 2013
JOB No:	12085-05-00

IL. PROJ. NO. BMI-4288

AIP PROJ. NO. 3-17-0006-XX

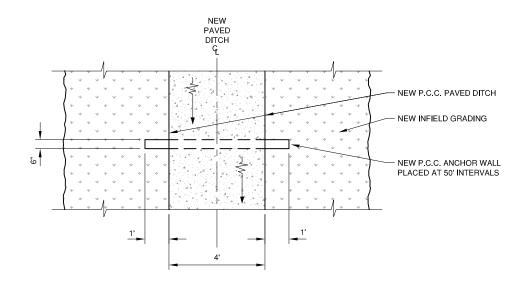
SHEET 14 OF 55 SHEETS





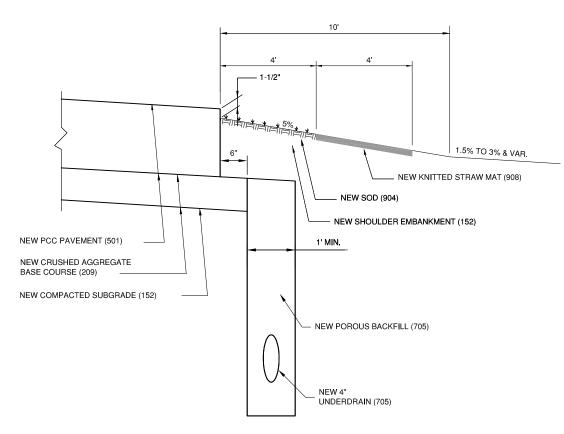
### PAVED DITCH AND GRASS WATERWAY TYPICAL SECTION

N.T.S.



### PAVED DITCH AND GRASS WATERWAY PLAN VIEW

N.T.S.



**NEW SHOULDER DETAIL "A"** 

N.T.S.

FILE: 1208505-CP302.dwg UPDATE BY: Chris Groth PLOT DATE: 4/4/2013 12:57 PM

### **BL069**

	REVISIONS					
NUMBER	NUMBER BY DATE					
0	1	2				

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BLOOMINGTON-NORMAL AIRPORT AUTHORITY
CENTRAL ILLINOIS REGIONAL AIRPORT
BLOOMINGTON, ILLINOIS
EXPAND AIR CARGO APRON
TYPICAL SECTIONS 2

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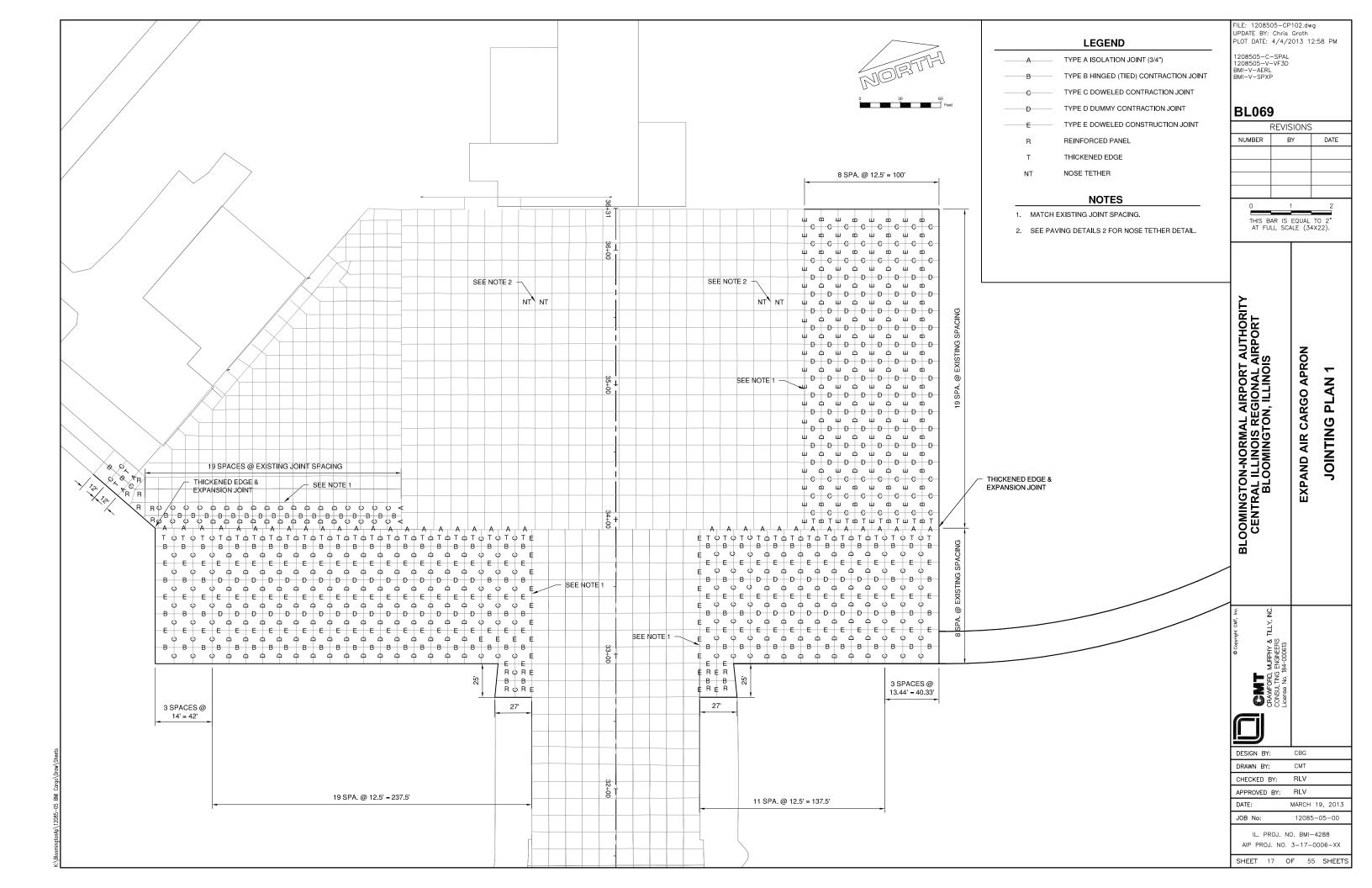
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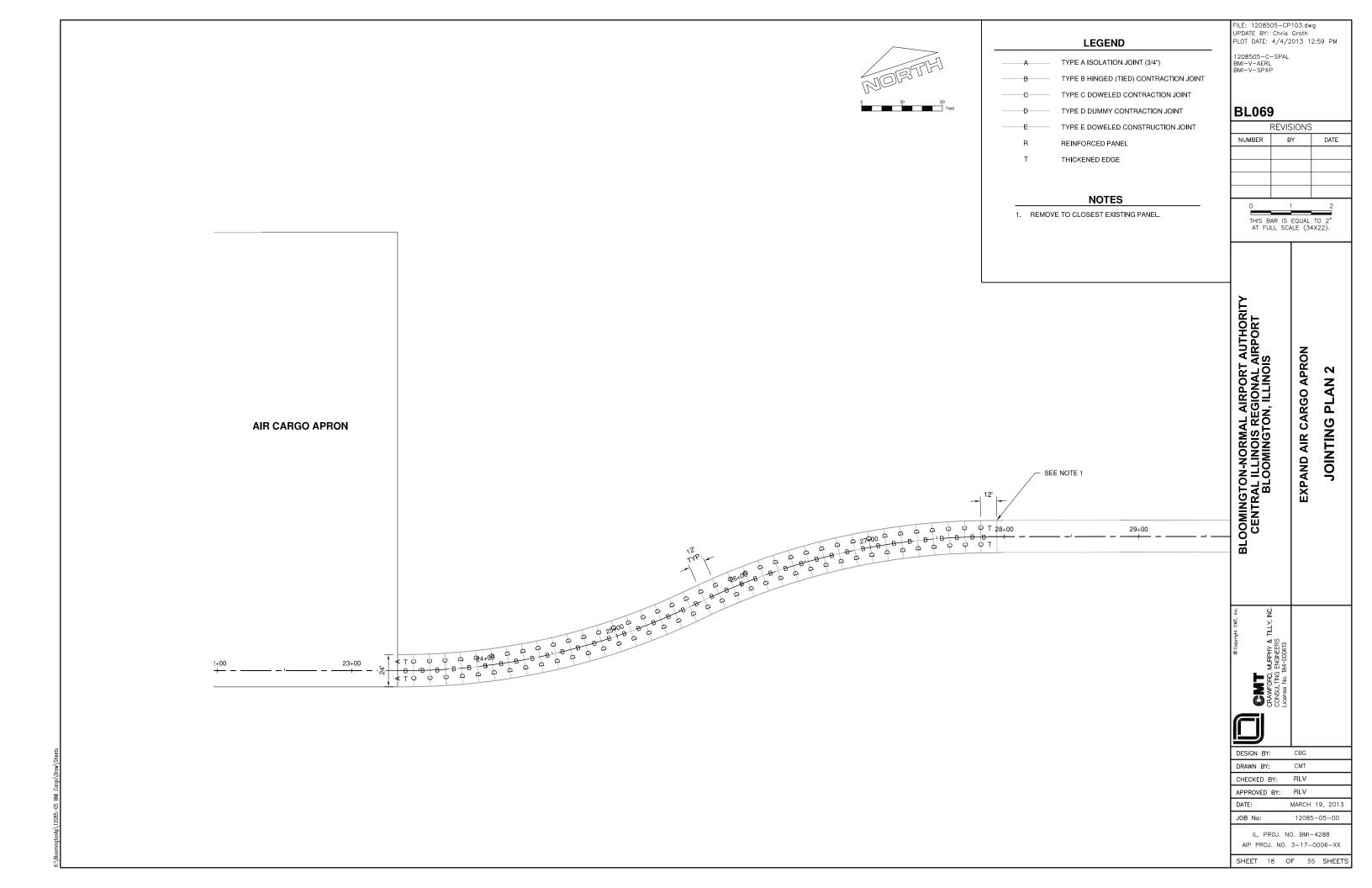
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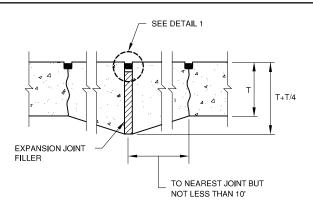
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SHEET 16 OF 55 SHEETS

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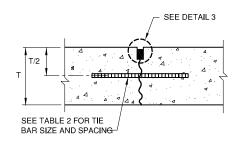






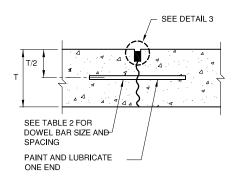
### TYPE A THICKENED ISOLATION

SYMBOL A T



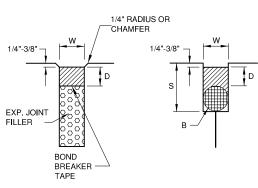
### TYPE B HINGED (TIED) CONTRACTION

SYMBOL ——B



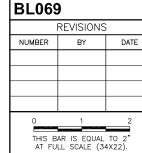
### TYPE C DOWELED CONTRACTION

SYMBOL C



DETAIL 1

DETAIL 2



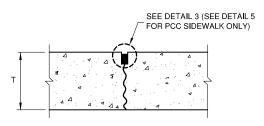
FILE: 1208505-CP501.dwg UPDATE BY: Chris Groth

PLOT DATE: 4/4/2013 12:59 PM

BLOOMINGTON-NORMAL AIRPORT AUTHORITY CENTRAL ILLINOIS REGIONAL AIRPORT BLOOMINGTON, ILLINOIS

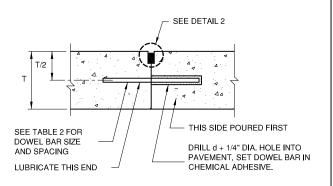
**EXPAND AIR CARGO APRON** 

JOINTING DETAILS



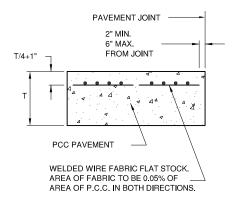
### TYPE D DUMMY CONTRACTION

SYMBOL D



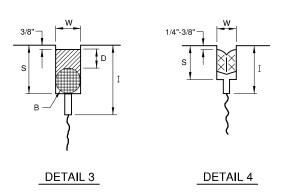
### TYPE E DOWELED CONSTRUCTION

SYMBOL — E



ODD SHAPED PANEL REINFORCEMENT

SYMBOL R



JOINT SEALING DETAILS

TABLE 1			
PAVEMENT THICKNESS T - INCHES	DEPTH OF CONTRACTION JOINT INITIAL SAW CUT I, INCHES I=(T/3) ±1/4"		
5	1.67"		
6	2.00"		
7	2.33"		
8	2.67"		
9	3.00"		
10	3.33"		
11	3.67"		
12	4.00"		
13	4.33"		
14	4.67"		
15	5.00"		
16	5.33"		
17	5.67"		
18	6.00"		

		Т	ABLE 2			
PAVEMENT THICKNESS	DOW	EL BAR DET	AILS	TIE	BAR DETAI	LS
T - INCHES	DIA.	LENGTH	SPACING	BAR SIZE	LENGTH	SPACING
5	5/8"	12"	12"	#4	24"	30"
6	3/4"	18"	12"	#5	30"	30"
7	3/4"	18"	12"	#5	30"	30"
8	1"	19"	12"	#5	30"	30"
9	1"	19"	12"	#5	30"	30"
10	1"	19"	12"	#5	30"	30"
11	1"	19"	12"	#5	30"	30"
12	1"	19"	12"	#5	30"	30"
13	1 - 1/4"	20"	15"	#5	30"	30"
14	1 - 1/4"	20"	15"	#5	30"	30"
15	1 - 1/4"	20"	15"	#5	30"	30"
16	1 - 1/4"	20"	15"	#5	30"	30"
17	1 - 1/2"	20"	18"	#5	30"	30"
18	1 - 1/2"	20"	18"	#5	30"	30"

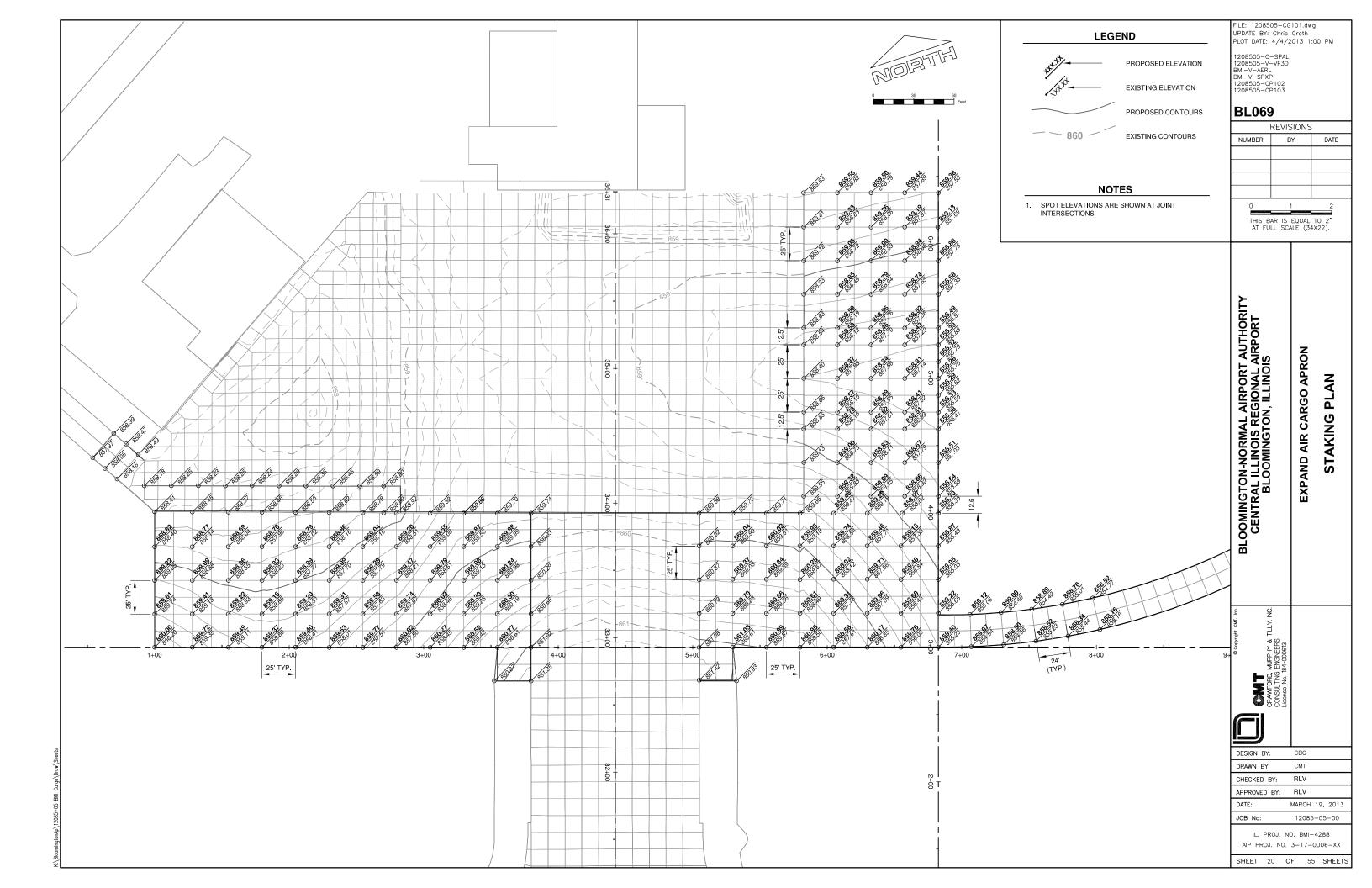
JOINT SEALING DIMENSIONS					
	DETAIL 1	DETAIL 2	DETAIL 3	DETAIL 4	DETAIL 5
	HOT/ COLD POUR	HOT/ COLD POUR	SILICONE	PRE FORMED	HOT/ COLD POUR
W=WIDTH OF SEALANT RESERVOIR (IN.)	3/4	1/2	1/2	3/8" COMPRESSED	3/16"
D=DEPTH OF SEALANT RESERVOIR (IN.)	3/4	1/2	1/4	N/A	I
B=BACKER ROD DIAMETER (IN.)	N/A	5/8	5/8	N/A	N/A
S=SECOND SAWCUT DEPTH (IN.) MINIMUM	N/A	1-3/8	1-3/8	1-1/2	N/A

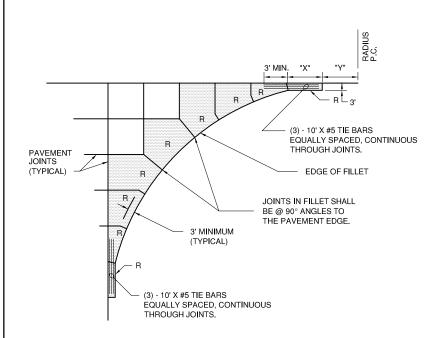
### JOINT NOTES

- 1.) ALL EDGES OF NEW SLABS, FREE STANDING OR CLOSURE, SHALL BE EDGED WITH AN APPROVED TOOL HAVING A RADIUS OF 1/8" TO 1/4" TO FACILITATE SAWING OF THE SEALANT RESERVOIR. A RADIUS > 1/4" WILL NOT BE ACCEPTABLE.
- 2.) THE INITIAL SAWCUT FOR ALL LONGITUDINAL & TRANSVERSE CONTRACTION JOINTS SHALL BE SAWED AS SOON AS POSSIBLE AFTER PLACEMENT OF THE
- 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.

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JOB No:	12085-05-00
	O. BMI-4288 3-17-0006-XX

SHEET 19 OF 55 SHEETS

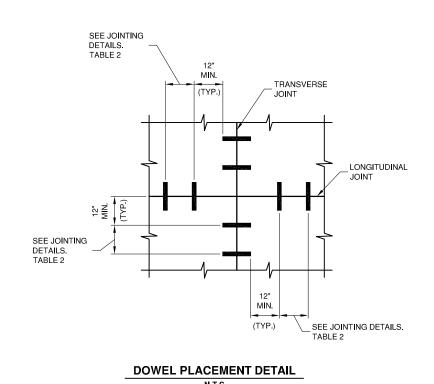


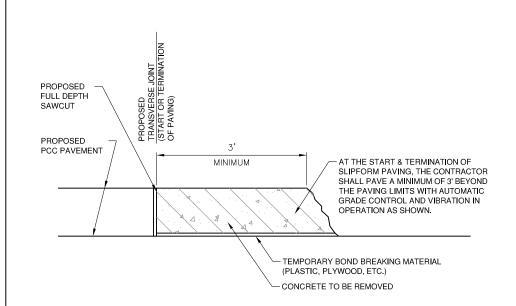


DENOTES ODD SHAPED REINFORCED PANELS TO BE REINFORCED WITH WELDED WIRE FABRIC AS SHOWN ON JOINTING DETAILS SHEET, ALL NON RECTANGULAR SHAPED PANELS SHALL BE REINFORCED. (REINFORCEMENT NOT SHOWN)

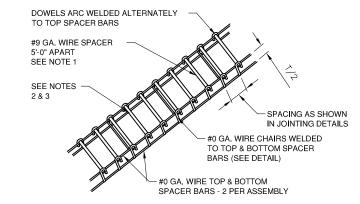
### FILLET DETAIL & FILLET REINFORCING LAYOUT

FILLET RADIUS	"X" (IN FEET)	"Y" (IN FEET)
20	4.30	6.24
25	4.88	7.00
30	5.40	7.68
50	7.11	9.95
75	8.79	12.21
85	9.38	13.00
100	10.21	14.11
125	11.44	15.78
150	12.56	17.29
175	13.58	18.68
200	14.53	19.98

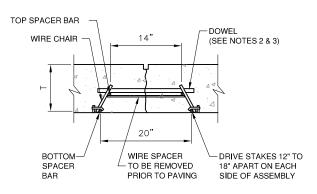




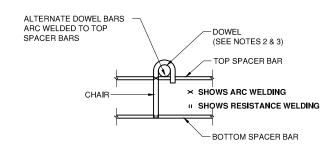
### REQUIREMENTS AT START & TERMINATION OF SLIPFORM PAVING



### DOWEL BASKET ASSEMBLY DETAIL



### DOWEL BAR INSTALLATION DETAIL



### TYPICAL DOWEL BASKET ELEVATION DETAIL SHOWING CHAIR

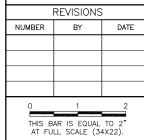
### DOWEL BASKET DETAILS N.T.S.

### DOWEL BASKET NOTES

- #9 GA, WIRE SPACER BAR ARC WELDED TO THE BOTTOM OF TOP SPACER BAR. (MAY BE MECHANICALLY ATTACHED IN LIEU OF WELDING) 3 REQUIRED PER UNIT. THIS WIRE MUST BE CUT OR REMOVED PRIOR TO PAVING.
- 2. DOWEL BAR DIAMETER, LENGTH & SPACING SHALL BE AS SHOWN IN TABLE 2.
- DOWELS SHALL BE EPOXY COATED FULL LENGTH OF DOWEL. IMMEDIATELY PRIOR TO PAVING, THE FREE END OF EACH DOWEL SHALL BE LUBRICATED OR OILED, FOR HALF THE LENGTH OF THE DOWEL.

FILE: 1208505—CP502.dwg UPDATE BY: Chris Groth PLOT DATE: 4/4/2013 1:01 PM

### **BL069**



# BLOOMINGTON-NORMAL AIRPORT AUTHORITY CENTRAL ILLINOIS REGIONAL AIRPORT BLOOMINGTON, ILLINOIS

### **EXPAND AIR CARGO APRON DETAILS** PAVING

CRAWFORD, CONSULTING

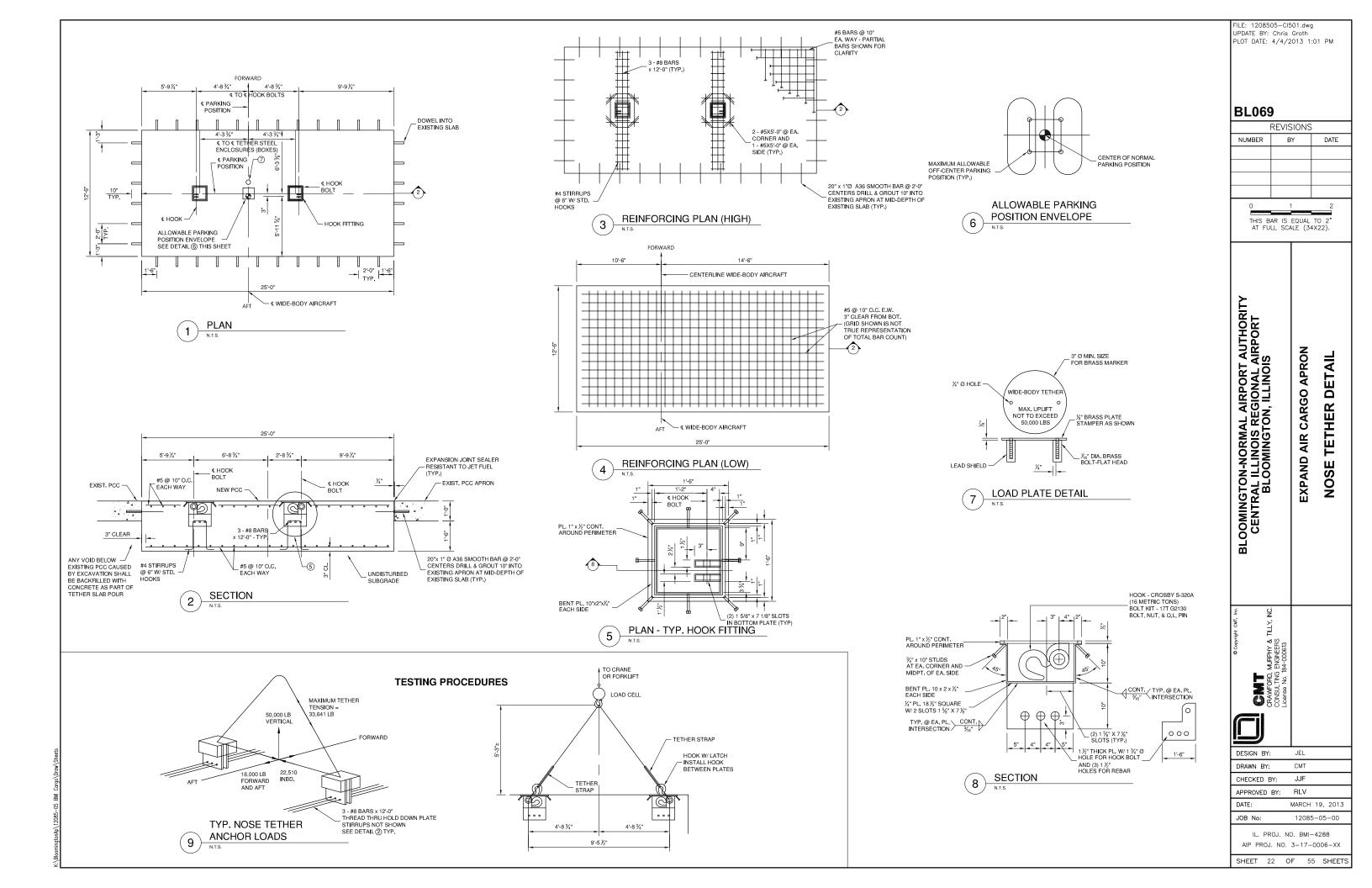


JOB No:

IL. PROJ. NO. BMI-4288 AIP PROJ. NO. 3-17-0006-XX

12085-05-00

SHEET 21 OF 55 SHEETS

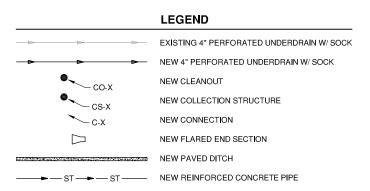








	PIPE SCHEDULE							
	LINE	STRUCTURE	STRUCTURE	INVERT	INVERT	LENGTH (Ft)	SLOPE	TYPE
	LINE 1	FES - 1	FES - 2	853.49	853.35	75	0.19%	DUAL 24" RCP
	UD-1	CO-1	PC-1	856.30	856.17	276	0.05%	PVC PIPE
_	UD-2	PC-3	PC-1	858.80	856.17	121	2.17%	PVC PIPE
	UD-3	PC-1	PC-5	856.17	856.10	143	0.05%	EXISTING PVC
	UD-4	PC-4	PC-5	859.00	856.10	121	2.39%	PVC PIPE
Z.	UD-5	PC-5	PC-6	856.10	856.00	69	0.15%	PVC PIPE
	UD-6	CO-2	CS-1	859.00	857.35	153	1.08%	PVC PIPE
	UD-7	CS-1	CS-2	857.35	855.90	200	0.73%	PVC PIPE
	UD-8	CO-3	CS-2	857.30	855.90	142	0.99%	PVC PIPE



94+00

95+00

93+00

FILE: 1208505—CU101.dwg UPDATE BY: Chris Groth PLOT DATE: 4/4/2013 1:03 PM

1208505-C-SPAL 1208505-V-VF3D BMI-V-AERL BMI-V-SPXP 1208505-C-UP

### **BL069**

REVISIONS							
NUMBER	BY	DATE					

THIS BAR IS EQUAL TO 2" AT FULL SCALE (34X22).

BLOOMINGTON-NORMAL AIRPORT AUTHORITY CENTRAL ILLINOIS REGIONAL AIRPORT BLOOMINGTON, ILLINOIS

DRAINAGE IMPROVEMENTS **EXPAND AIR CARGO APRON** 

CRAWFORD, N CONSULTING I

CBG DESIGN BY: CMT DRAWN BY: CHECKED BY: RLV APPROVED BY: MARCH 19, 2013 DATE: JOB No:

12085-05-00 IL. PROJ. NO. BMI-4288 AIP PROJ. NO. 3-17-0006-XX

SHEET 24 OF 55 SHEETS

<u>2</u>	Р
	Р
8 T V	P
	P
ACCESS TAXIWAY —	P
CONNECT EXISTING PIPES T	
76 - CS-2 - CS-2	
	LINE 1
PC-1 PC-5 PC-5	UD-1 UD-2
CO-1 UD-1 UD-5 PC-6	UD-3
LINE-1	UD-4 UD-5
	UD-6 UD-7
8 FES - 1	UD-8
PC-3 UD-6 CS-1	
NEW PAVED DITCH	
NEW PAVED DITCH	
31 100	
No. of the second secon	

87+00

88+00

90+00

91+00

92+00

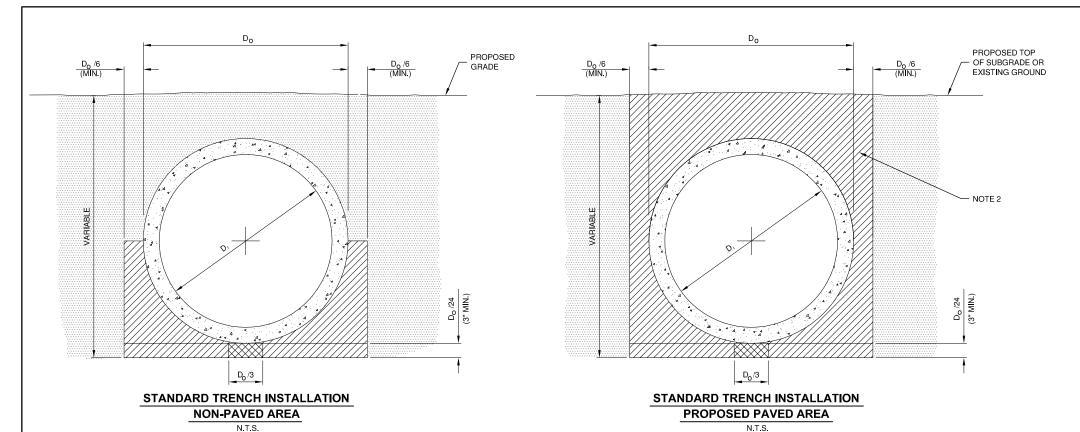
89+00

85+00

84+00

82+00

83+00



**LEGEND** 

DRAINAGE CONDUIT MATERIAL-CONCRETE

MIDDLE BEDDING LOOSELY PLACED UNCOMPACTED BEDDING

> HAUNCH AND OUTER BEDDING COMPACTION- 95% STANDARD PROCTOR

FILE: 1208505-CU501.dwg JPDATE BY: Chris Groth PLOT DATE: 4/4/2013 1:04 PM

REVISIONS

BY

THIS BAR IS EQUAL TO 2" AT FULL SCALE (34X22).

DATE

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NUMBER

BLOOMINGTON-NORMAL AIRPORT AUTHORITY CENTRAL ILLINOIS REGIONAL AIRPORT BLOOMINGTON, ILLINOIS

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DRAWN BY:

DATE:

JOB No:

CHECKED BY:

APPROVED BY:

CBG

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RLV

IL. PROJ. NO. BMI-4288

AIP PROJ. NO. 3-17-0006-XX

SHEET 25 OF 55 SHEETS

MARCH 19, 2013

12085-05-00

**EXPAND AIR CARGO APRON** 

S

**DETAIL**(

DRAINAGE

LOWER SIDE AND OVERFILL COMPACTION- SAME AS EMBANKMENT REQUIREMENTS

PIPE OUTSIDE DIAMETER D

PIPE INSIDE DIAMETER

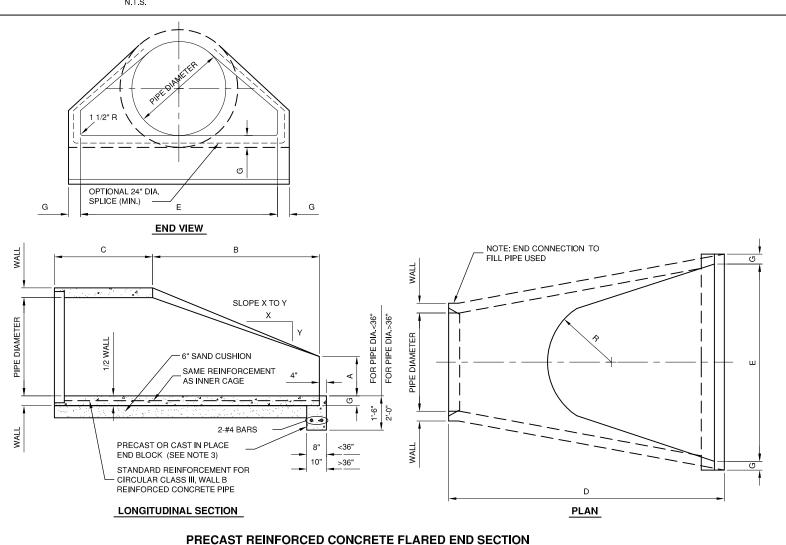
### NOTES

- 1. BEDDING SHOWN IS IN ACCORDANCE WITH "STANDARD EMBANKMENT INSTALLATIONS", STANDARD INSTALLATION & BEDDING FACTORS FOR THE INDIRECT DESIGN METHOD (DESIGN DATA 40), AMERICAN CONCRETE PIPE ASSOCIATION.
- 2. BACKFILL TO EXTEND 3' BEYOND EDGES OF PROPOSED PAVEMENT.

	DIMENSIONS - TABLE 1									
PIPE DIA.	APPROX WT.(lbs.)	WALL	А	В	С	D	Е	G	R	SLOPE
12"	530	2"	4"	2'-0"	4'-0 7/8"	6'-0 7/8"	2'-0"	2"	9"	3:1
15"	740	2 1/4"	6"	2'-3"	3'-10"	6'-1"	2'-6"	2 1/4"	11"	3:1
18"	990	2 1/2"	9"	2'-3"	3'-10"	6'-1"	3'-0"	2 1/2"	12"	3:1
21"	1280	2 3/4"	9"	2'-11"	3'-2"	6'-1"	3'-6"	2 3/4"	13"	3:1
24"	1520	3"	9 1/2"	3'-7 1/2"	2'-6"	6'-1 1/2"	4'-0"	3"	14"	3:1
27"	1930	3 1/4"	10 1/2"	4'-0"	2'-1 1/2"	6'-1 1/2"	4'-6"	3 1/4"	14 1/2"	3:1
30"	2190	3 1/2"	1'-0"	4'-6"	1'-7 3/4"	6'-1 3/4"	5'-0"	3 1/2"	15"	3:1
33"	3200	3 3/4"	1-1 1/2"	4'-10 1/2"	3'-3 1/4"	8'-1 3/4"	5'-6"	3 3/4"	17 1/2"	3:1
36"	4100	4"	1'-3"	5'-3"	2'-10 3/4"	8'-1 3/4"	6'-0"	4"	20"	3:1
42"	5380	4 1/2"	1'-9"	5'-3"	2'-11"	8'-2"	6'-6"	4 1/2"	22"	3:1
48"	6550	5 <b>"</b>	2'-0"	6'-0"	2'-2"	8'-2"	7'-0"	5"	22"	3:1
54"	8240	5 1/2"	2'-3"	5'-5"	2'-11"	8'-4"	7'-6"	5 1/2"	24"	2.4:1
60"	8730	6"	2'-11"	5'-0"	3'-3"	8'-3"	8'-0"	5"	*	2:1
66"	10710	6 1/2"	2'-6"	6'-0"	2'-3"	8'-3"	8'-6"	5 1/2"	*	2:1
72"	12520	7"	3'-0"	6'-6"	1'-9"	8'-3"	9'-0"	6"	*	1.86:1
78"	14770	7 1/2"	3'-0"	7'-6"	1'-9"	9'-3"	9'-6"	6 1/2"	*	1.82:1
84"	18160	8"	3'-0"	7'-6 1/2"	1'-9"	9'-3 1/2"	10'-0"	6 1/2"	*	1.5:1
	* RADIUS AS FURNISHED BY MANUFACTURER.									

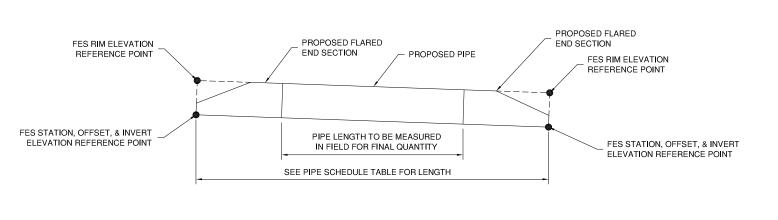
### NOTES

- 1. PRECAST CONCRETE FLARED END SECTIONS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF AASHTO M-170 CLASS III, WALL B
- 2. PRECAST CONCRETE FLARED END SECTION FOR PIPE DIAMETER REQUIRED SHALL BE AS INDICATED ON DETAIL PLAN FOR EACH INDIVIDUAL
- 3. THE END BLOCK SHALL BE PLACED PRIOR TO THE INSTALLATION OF THE FLARED END SECTION. THE END BLOCK SHALL BE BACKFILLED IN ACCORDANCE WITH ITEM 701.



(I.D.O.T. STD. NO. 542301)

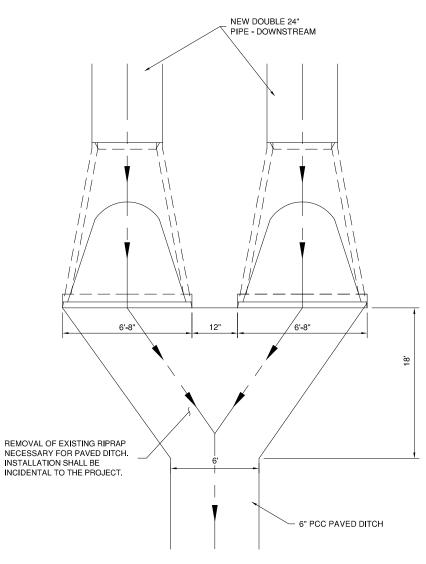
N.T.S.



### DRAINAGE SCHEDULE REFERENCE DETAIL

EXISTING 36" FLARED END SECTION - 6" PCC PAVED DITCH

36" FES AND PAVED DITCH DETAIL



NEW DOUBLE 24" F.E.S. AND PAVED DITCH DETAIL

FILE: 1208505—CU502.dwg UPDATE BY: Chris Groth PLOT DATE: 4/4/2013 1:04 PM

### BI 069

DE003						
REVISIONS						
NUMBER	BY	DATE				
0	1	2				

THIS BAR IS EQUAL TO 2" AT FULL SCALE (34X22).

BLOOMINGTON-NORMAL AIRPORT AUTHORITY CENTRAL ILLINOIS REGIONAL AIRPORT BLOOMINGTON, ILLINOIS **EXPAND AIR CARGO APRON** 7 **DRAINAGE DETAILS** 

CRAWFORD, CONSULTING

PAVED DITCH @ NEW DOUBLE 24" PIPE UPSTREAM



JOB No:

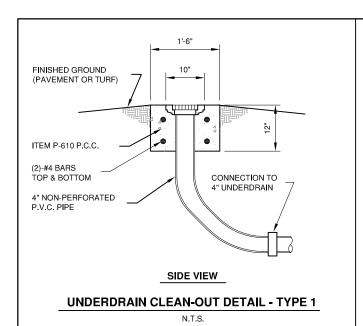
DESIGN BY: CBG CMT DRAWN BY: CHECKED BY: RLV RLV APPROVED BY: MARCH 19, 2013 DATE:

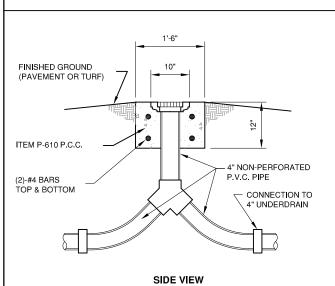
> IL. PROJ. NO. BMI-4288 AIP PROJ. NO. 3-17-0006-XX

SHEET 26 OF 55 SHEETS

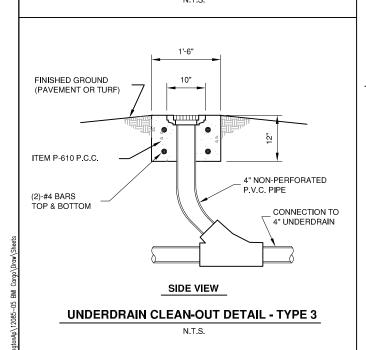
12085-05-00

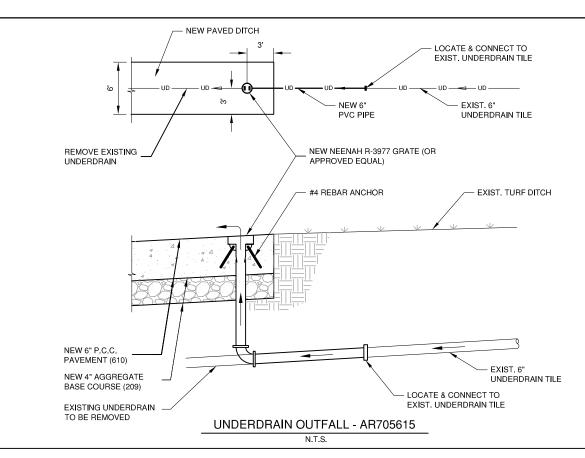
REMOVAL OF EXISTING RIPRAP NECESSARY FOR PAVED DITCH. INSTALLATION SHALL BE INCIDENTAL TO THE PROJECT.





**UNDERDRAIN CLEAN-OUT DETAIL - TYPE 2** 





NEW 4"

GROUT BASE TO PROVIDE

SMOOTH FLOW LINE AND

SLOPE FROM PERIMETER

PROVIDE WATERTIGHT SEAL AT PIPE

WATER SEALING GROUT

CONNECTIONS WITH

\_ NEENAH R-1690-A HEAVY DUTY MANHOLE FRAME WITH SOLID LID (OR APPROVED EQUAL)

**GROUT UNDER** 

THICKNESS PER

NEW CLASS IV

**EQUIVALENT** 

CONC.BASE

6" SAND

CUSHION

UNDERDRAIN COLLECTION STRUCTURE DETAIL

4" (MIN.) THICKNESS

1'-10"

2'-4"

CAST IRON FRAME & LID (SIMILAR TO NEENAH R-1690-A HEAVY DUTY OR

FRAME & LID

CASING

STANDARD

R.C.P. OR

WITH WATER SEALING GROUT

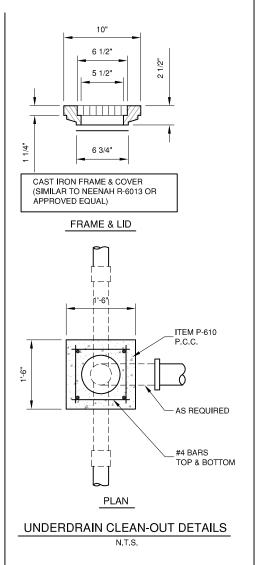
UNDERDRAIN

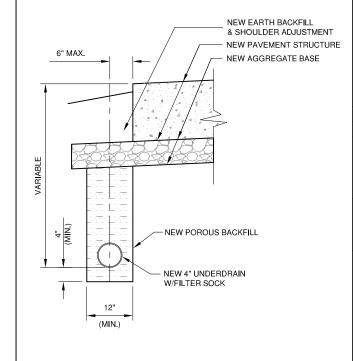
PLAN

2'-0"

SIDE VIEW

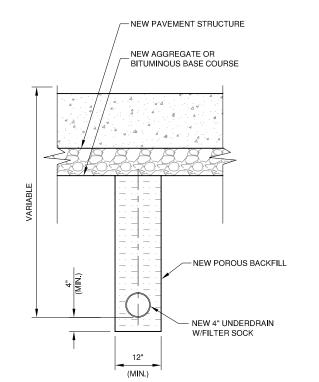
FINISHED GROUND SURFACE





### TYPICAL UNDERDRAIN DETAIL - PAVEMENT EDGE

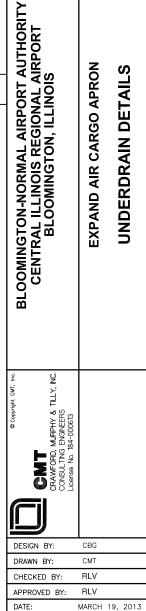
N.T.S.



### TYPICAL UNDERDRAIN DETAIL - BELOW PAVEMENT

### NOTES

DURING UNDERDRAIN CONSTRUCTION, CARE SHALL BE TAKEN TO ENSURE GOOD DRAINAGE BETWEEN THE SUB-BASE AND THE POROUS BACKFILL MATERIAL WHICH WILL AFFECT DRAINAGE TO THE UNDERDRAIN SHALL BE REMOVED PRIOR TO THE PLACEMENT OF PROPOSED POROUS BACKFILL. ALL COST FOR THIS WORK SHALL BE CONSIDERED INCIDENTAL.



JOB No:

12085-05-00

IL. PROJ. NO. BMI-4288 AIP PROJ. NO. 3-17-0006-XX

SHEET 27 OF 55 SHEETS

FILE: 1208505—CU503.dwg UPDATE BY: Chris Groth

**BL069** 

NUMBER

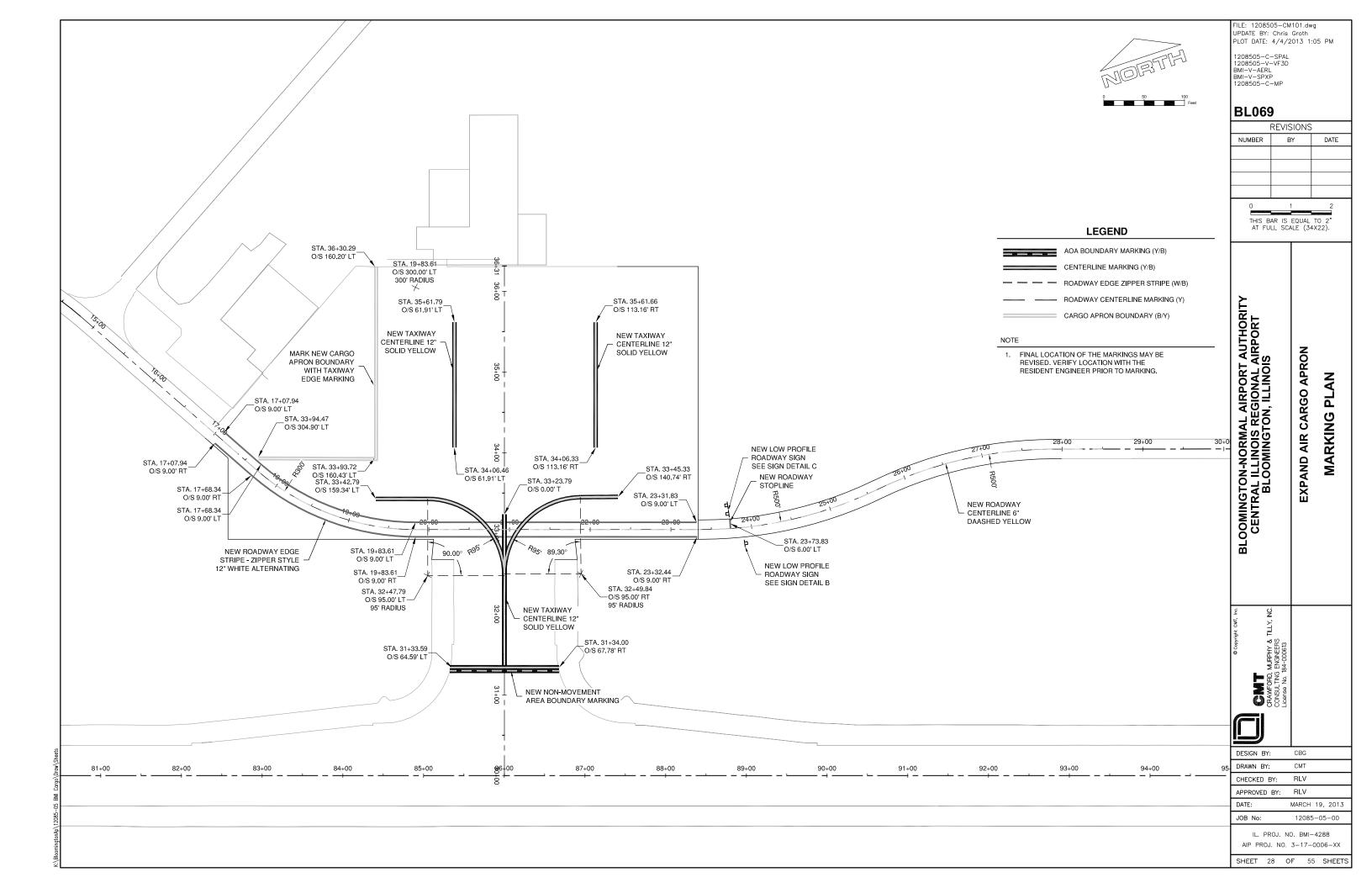
PLOT DATE: 4/4/2013 1:04 PM

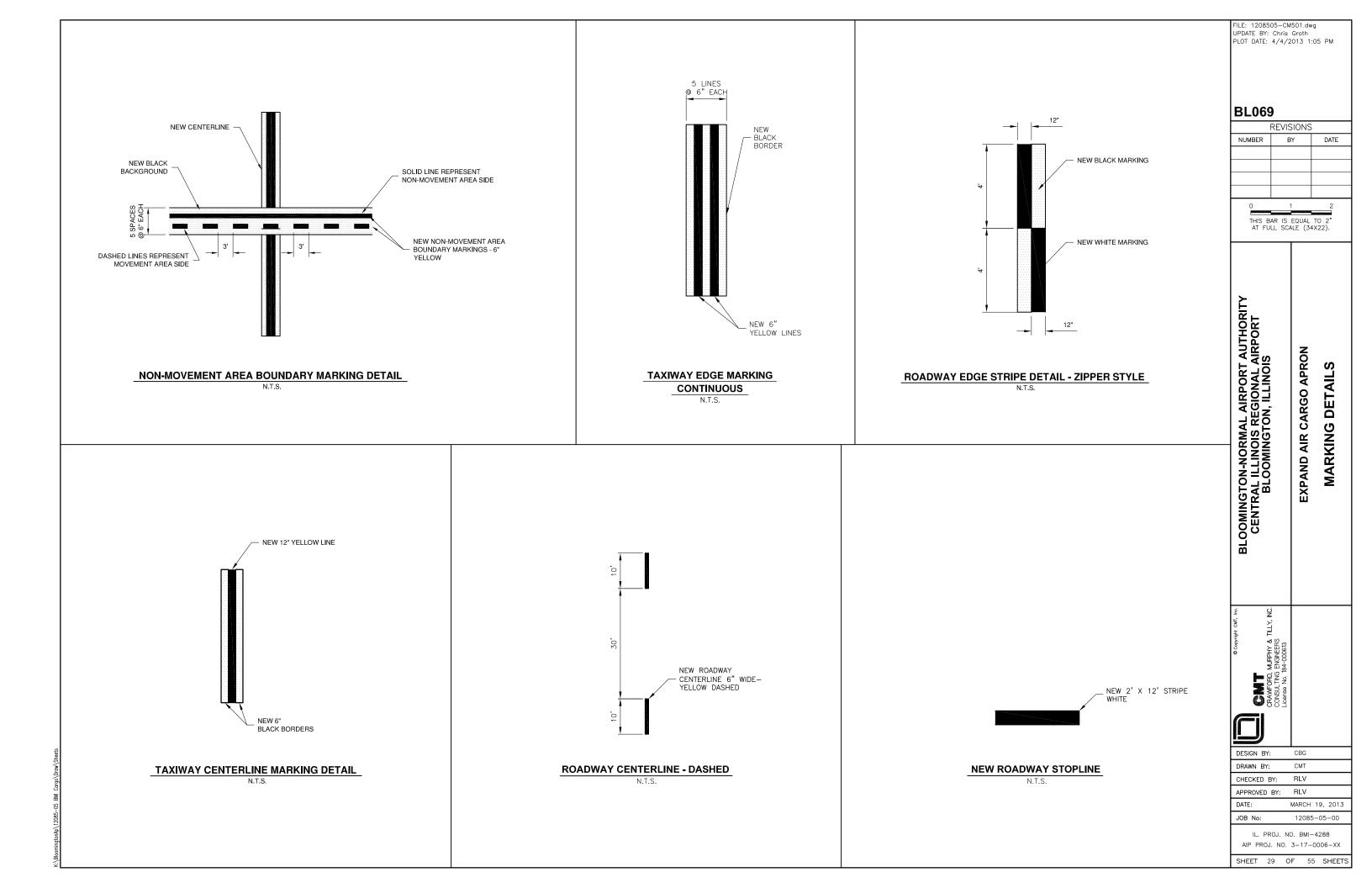
REVISIONS

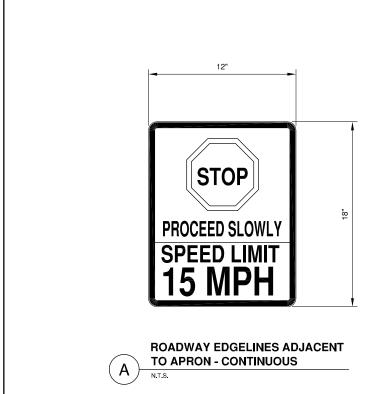
BY

THIS BAR IS EQUAL TO 2' AT FULL SCALE (34X22).

DATE







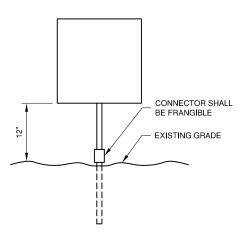


**ROADWAY EDGELINES ADJACENT TO APRON** 

RESTRICTED AREA CARGO SIDA PERMIT REQUIRED CONNECTOR SHALL BE FRANGIBLE EXISTING GRADE **INFORMATION SIGN LEGEND** 

### INFORMATION SIGN NOTE

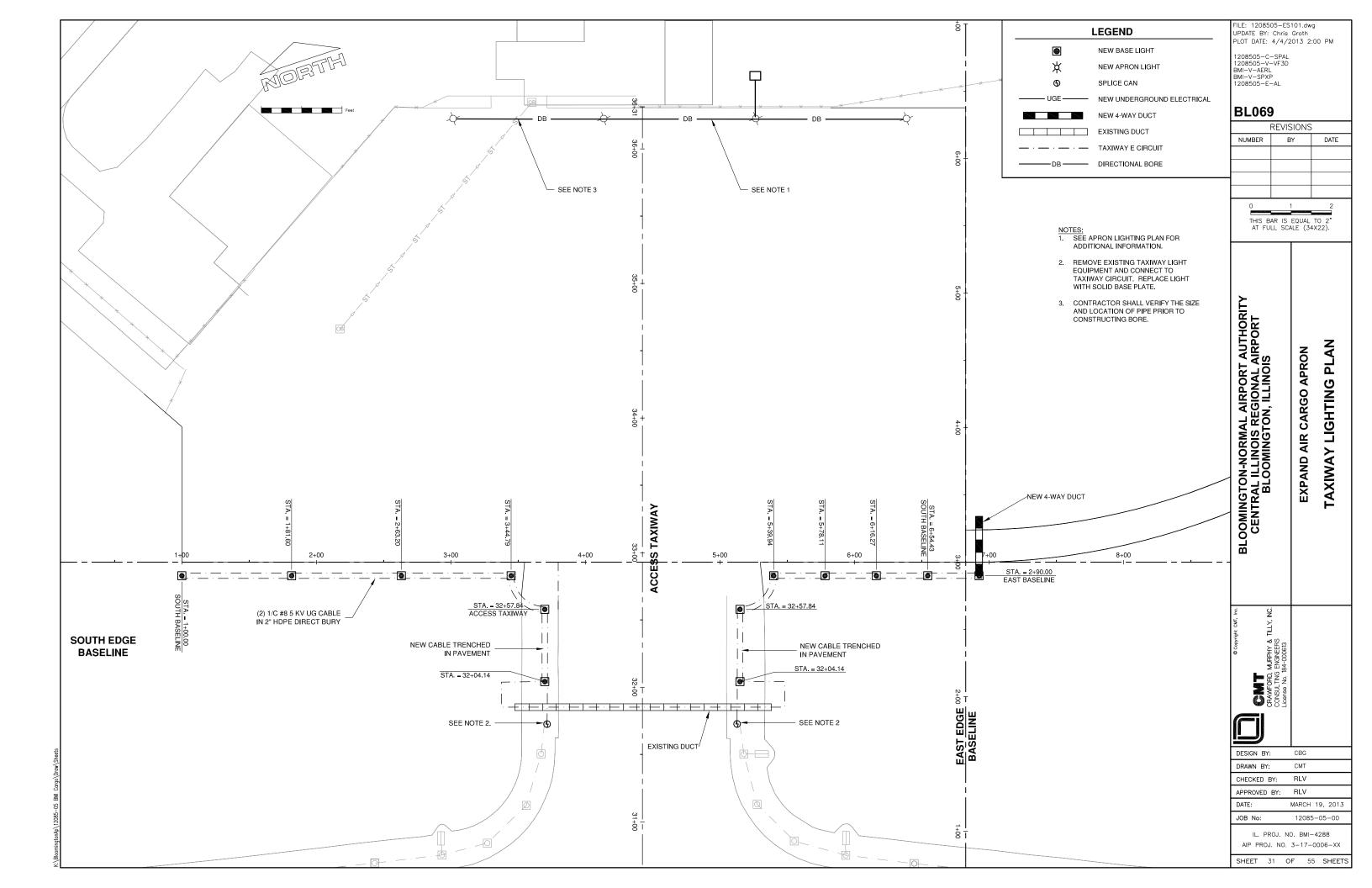
- 1. FINAL SIGN FACE LEGEND SHALL BE DETERMINED BY THE AIRPORT.
- 2. SIGN LEGEND SHALL BE RED LETTERING ON WHITE BACKGROUND.

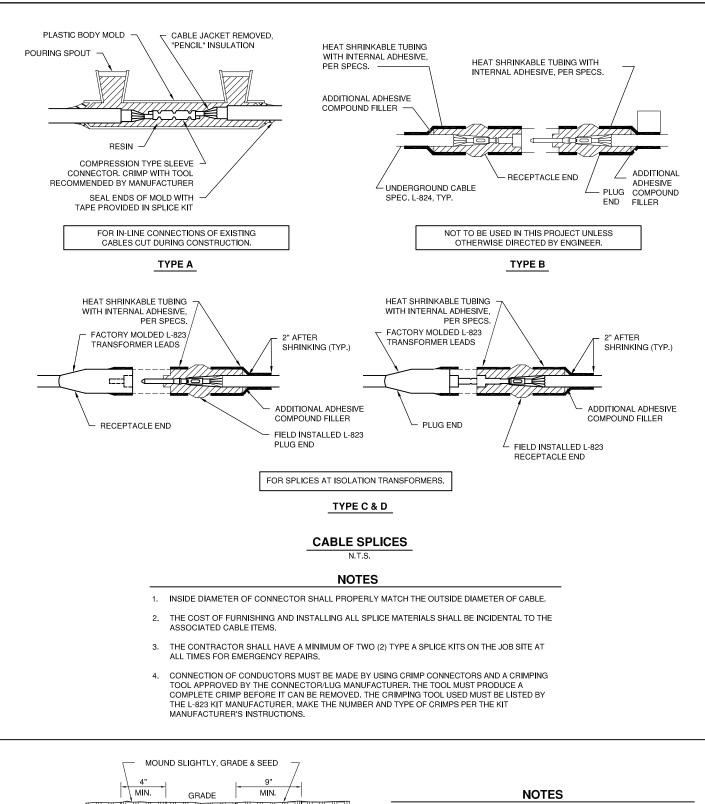


SIGN POST DETAIL

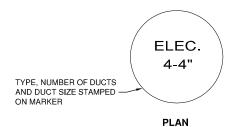
FILE: ROADWAY SIGNAGE DETAILS.dwg UPDATE BY: Chris Groth PLOT DATE: 4/4/2013 1:06 PM **BL069** REVISIONS NUMBER BY DATE THIS BAR IS EQUAL TO 2" AT FULL SCALE (34X22). BLOOMINGTON-NORMAL AIRPORT AUTHORITY CENTRAL ILLINOIS REGIONAL AIRPORT BLOOMINGTON, ILLINOIS SIGNAGE DETAILS **EXPAND AIR CARGO APRON** ROADWAY CRAWFORD, N CONSULTING E License No. 18 DESIGN BY: CBG CMT DRAWN BY: CHECKED BY: RLV RLV APPROVED BY: MARCH 19, 2013 DATE: JOB No: 12085-05-00

> IL. PROJ. NO. BMI-4288 AIP PROJ. NO. 3-17-0006-XX SHEET 30 OF 55 SHEETS

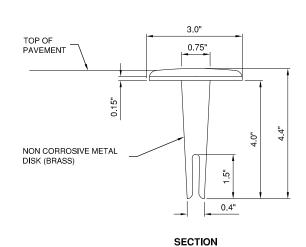




TRENCHES WITH MORE THAN 2 CABLES SHALL BE INCREASED 3" IN BACKFILL WITH WIDTH FOR EACH ADDITIONAL CABLE. IF SPECIFIED ON PLANS, TWO BACKFILL WITH EXCAVATED PARALLEL TRENCHES MAY BE CONSTRUCTED. EXCAVATED MATERIAL MATERIAL 2. DEPTH OF TRENCHES SHALL BE AS SHOWN ABOVE UNLESS OTHERWISE SPECIFIED ON THE PLANS. 3. SAND BACKFILL SHALL BE USED IF THE EXISTING SOIL DOES NOT MEET THE BACKFILL REQUIREMENTS. METALIZED 4. ALL DISTURBED SURFACES SHALL BE RESTORED TO THEIR ORIGINAL WARNING TAPE CONDITION. COST IS INCIDENTAL TO ITEM 108. INSULATED CABLE IN WARNING TAPE INSULATED CABLE IN 2" HDPE 2" HDPE TRENCH DETAIL



NEW DUCT MARKERS SHALL BE INSTALLED AT BOTH EDGES OF PAVEMENT AT ALL NEW DIRECTIONAL BORE, SPLIT DUCT, AND CONCRETE ENCASED DUCT LOCATIONS. AR110 105-DUCT MARKER-IN PAVEMENT

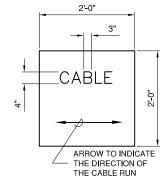


5'-0" (MIN.) NEW DUCT MARKER END OF DUCT BANK SHALL BE INSTALLED AT ALL DUCT BANK LOCATIONS AND UTILITY CROSSINGS AS EDGE OF PAVEMENT DIRECTED BY THE ENGINEER.

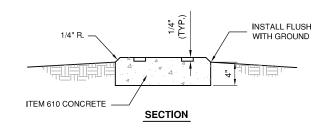
> DUCT MARKERS SHALL BE RECESSED AND GROUTED INTO THE PAVEMENTS.

MARKER PLACEMENT

### **DUCT MARKER DETAILS**



### PLAN



### TURF CABLE / SPLICE MARKER DETAILS

### **NOTES**

- 1. CABLE MARKERS SHALL BE INSTALLED AT ALL BENDS AND EVERY 200' ALONG THE HOMERUN.
- 2. ITEM 610 CONCRETE SHALL BE USED.
- ALL EXPOSED EDGES SHALL BE EDGED WITH A 1/4" RADIUS TOOL.
- 4. THE COST OF FURNISHING AND INSTALLING NEW MARKERS SHALL BE INCIDENTAL TO THE ASSOCIATED ITEMS.
- 5. 0.049 CU. YD. CONCRETE PER MARKER.
- 6. A MARKER CONFORMING TO THIS DETAIL MARKED "SPLICE" SHALL BE INSTALLED AT ALL SPLICE LOCATIONS NOT IN LIGHT

### FILE: 1208505-EL501.dwg JPDATE BY: Chris Groth PLOT DATE: 4/4/2013 1:07 PM **BL069** REVISIONS BY DATE

THIS BAR IS EQUAL TO 2' AT FULL SCALE (34X22).

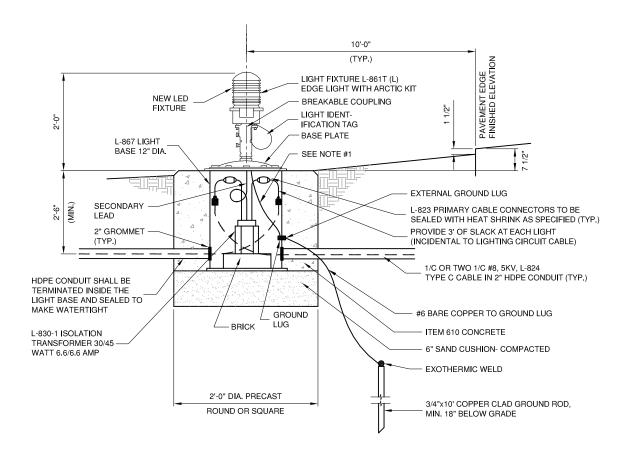
BLOOMINGTON-NORMAL AIRPORT AUTHORITY CENTRAL ILLINOIS REGIONAL AIRPORT BLOOMINGTON, ILLINOIS **CARGO APRON** DETAILS ELECTRICAL AIR **EXPAND** 

CONSULTING

CBG DESIGN BY: DRAWN BY: CMT WDP CHECKED BY: RLV APPROVED BY: MARCH 19, 2013 JOB No: 12085-05-00

> IL. PROJ. NO. BMI-4288 AIP PROJ. NO. 3-17-0006-XX

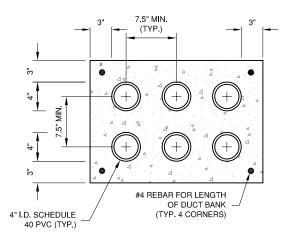
SHEET 32 OF 55 SHEETS



### **BASE MOUNTED EDGE LIGHT**

### NOTES

1. THE LIGHT FIXTURE SHALL BE BONDED TO THE LIGHT BASE INTERNAL GROUND LUG VIA A #6 AWG STRANDED COPPER WIRE RATED FOR 600 VOLTS WITH GREEN XHHW INSULATION. THE GROUND WIRE LENGTH SHALL BE SUFFICIENT TO ALLOW THE REMOVAL OF THE LIGHT FIXTURE FROM THE LIGHT BASE FOR ROUTINE MAINTENANCE. SEE THE LIGHT FIXTURE MANUFACTURER'S INSTRUCTIONS FOR PROPER METHODS OF ATTACHING THIS BONDING WIRE.

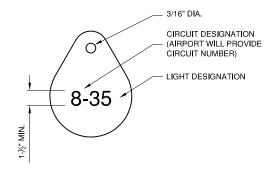


### DUCT BANK DETAIL

N.T.S.

### NOTES

- 1. DIMENSIONS SHOWN ARE MINIMUM.
- 2. TOP OF CONCRETE ENCASEMENT TO BE NOT LESS THAN 18" BELOW FINISHED
- 3. DUCT CONCRETE SHALL BE ITEM 610 STRUCTURAL P.C.C. CONCRETE.
- 4. ALL DUCT SHALL BE 4" INSIDE DIAMETER.
- 5. LOCATIONS SHOWN ARE APPROXIMATE. DUCT BANKS SHALL BE INSTALLED AT LOCATIONS DESIGNATED BY THE ENGINEER.
- 6. CONTRACTOR SHALL INSTALL DUCT BANKS AT A DEPTH WHICH WILL NOT CONFLICT
- 7. A PULL WIRE SHALL BE PROVIDED IN EACH UNUSED CONDUIT. UNUSED DUCT SHALL BE SEALED WITH PVC PLUGS/CAPS TO THE SATISFACTION OF THE ENGINEER.
- 8. DUCT BANKS SHALL EXTEND A MINIMUM OF 5' BEYOND THE NEW EDGE OF PAVEMENT.



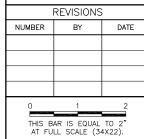
### LIGHT IDENTIFICATION DETAIL

### NOTES

- INSTALL A NONCORROSIVE DISC OF 2" MINIMUM DIAMETER WITH THE NUMBER PERMANENTLY STAMPED, CUT OUT, OR ENGRAVED UNDER THE HEAD OF THE BASE PLATE BOLT OR ATTACHED TO LIGHT FLANGE WITH SET SCREW.
- 2. LEGENDS SHOWN ARE FOR ILLUSTRATIVE PURPOSES ONLY. CONTRACTOR TO COORDINATE LEGEND WITH AIRPORT.
- THE CONTRACTOR SHALL NUMBER THE EXISTING/ PROPOSED LIGHTS AND SIGNS IN EACH CIRCUIT STARTING AT THE HOMERUN CONTINUING AROUND THE ENTIRE CIRCUIT BACK TO THE HOMERUN.
- 4. AIRFIELD SIGNS SHALL BE TAGGED & NUMBERED.

FILE: 1208505—EL502.dwg UPDATE BY: Chris Groth PLOT DATE: 4/4/2013 1:07 PM

### **BL069**



# LOOMINGTON-NORMAL AIRPORT AUTHORITY CENTRAL ILLINOIS REGIONAL AIRPORT BLOOMINGTON, ILLINOIS

### APRON **DETAILS** CARGO ELECTRICAL AIR **EXPAND**

### CRAWFORD, CONSULTING

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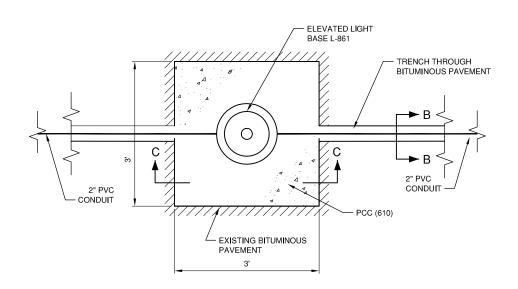




CBG DESIGN BY: CMT WDP CHECKED BY: RLV APPROVED BY: MARCH 19, 2013 JOB No: 12085-05-00

> IL. PROJ. NO. BMI-4288 AIP PROJ. NO. 3-17-0006-XX

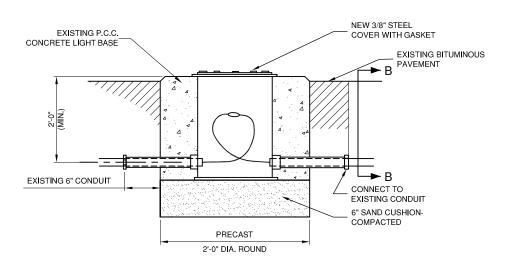
SHEET 33 OF 55 SHEETS



### PLAN EXTENDED PAD

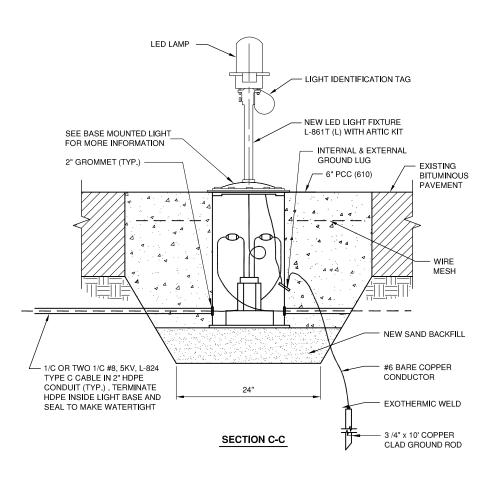
### ELEVATED BASE MOUNTED LIGHT IN BITUMINOUS PAVEMENT

N.T.S.



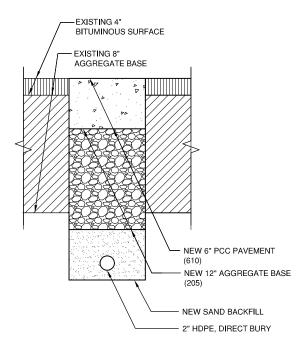
### EXISTING LIGHT BASE CONVERTED TO SPLICE CAN DETAIL

N.T.S.



### ELEVATED LIGHT BASE IN EXISTING PAVEMENT DETAIL

N.T.S.



### SECTION B-B

### **CABLE TRENCH DETAIL IN PAVEMENT**

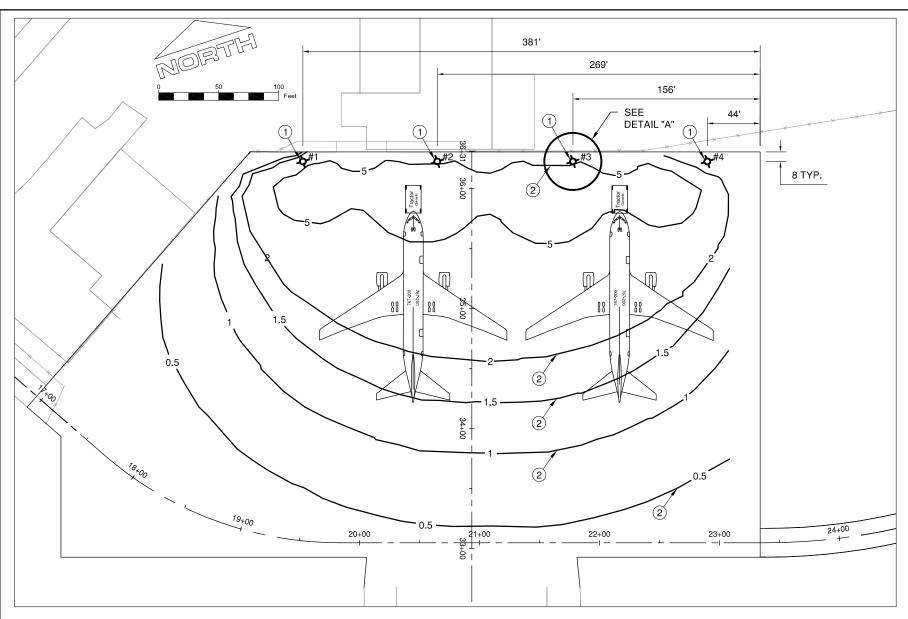
N.T.S.

FILE: 1208505—EL505.dwg UPDATE BY: Chris Groth PLOT DATE: 4/4/2013 1:08 PM **BL069** REVISIONS BY DATE THIS BAR IS EQUAL TO 2" AT FULL SCALE (34X22). BLOOMINGTON-NORMAL AIRPORT AUTHORITY CENTRAL ILLINOIS REGIONAL AIRPORT BLOOMINGTON, ILLINOIS 3 **EXPAND AIR CARGO APRON ELECTRICAL DETAILS** CRAWFORD, CONSULTING CBG DESIGN BY: CMT DRAWN BY: WDP CHECKED BY: RLV APPROVED BY: MARCH 19, 2013 JOB No: 12085-05-00

IL. PROJ. NO. BMI-4288

AIP PROJ. NO. 3-17-0006-XX

SHEET 34 OF 55 SHEETS



### PLAN VIEW

MANUFACTURER OR

STERNER

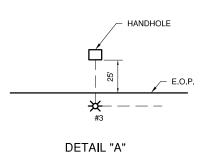
STERNER

FIXTURE NO

#1 & #4

#2 & #3

- 1 APRON LIGHT FIXTURE. LOCATE WHERE INDICATED OR AS DIRECTED BY THE RESIDENT ENGINEER IN THE FIELD.
- 2 APRON LIGHTING PHOTOMETRIC ILLUMINATION CONTOURS, IN FOOTCANDLES. CONTRACTOR SHALL ADJUST EACH LUMINAIRE AIMING POINT AS NECESSARY TO ATTAIN THESE VALUES AS CLOSELY AS POSSIBLE AS MEASURED ON THE APRON PAVEMENT. SEE APRON LIGHT HORIZONTAL LIGHTING DETAIL FOR ADDITIONAL INFORMATION.



POLE SCHEDULE				
POLE HEIGHT	MANUFACTURER OR EQUIVALENT	MAKE OR MODEL #	TYPE	
39'	VALMONT	R/380860108T4/P4/DDB (INCLUDES VIBRATION DAMPER)	ROUND TAPERED ALUMINUM	
NOTES:	POLES SHALL BE CERTIFIED F	OR 90 MPH WIND SPEED WITH 1.3 GUST FACTOR AND A TOTA	L LUMINAIRE EPA OF 14	

LIGHT FIXTURES ARE SHIPPED "PRE-AIMED". CONTRACTOR SHALL INITIALLY ADJUST AIMING NOMINALLY AN ADDITIONAL 10 DEGREES "UP". CONTRACTOR SHALL ADJUST LIGHT FIXTURES TO OBTAIN PHOTOMETRIC CONTOURS AS SHOWN ON THE PLANS, OR AS DIRECTED BY RESIDENT ENGINEER IN THE FIELD.

LIGHT FIXTURE SCHEDULE

MAKE OR MODEL #

876/1000MH/4L/240/C/YK/120/SF/AV/N/BZ

(TWO LUMINAIRES REQUIRED)

876/1000MH/4L/240/C/YK/130/SF/AV/N/BZ

(THREE LUMINAIRES REQUIRED)

IAMP

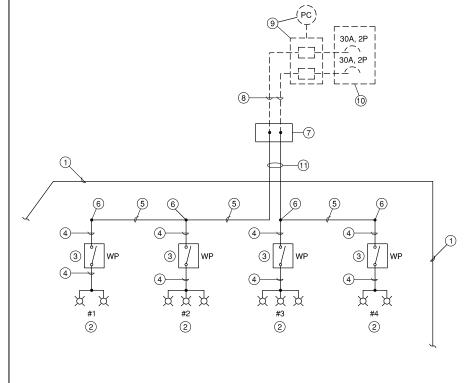
METAL

HAI IDE

1000W

METAL

HALIDE



### APRON LIGHTING WIRING

### APRON LIGHTING WIRING NOTES

- 1 EDGE OF EXISTING AND PROPOSED APRON.
- 2 APRON LIGHT FIXTURE WITH NUMBER OF LUMINAIRES AS SHOWN.
- 3 WEATHERPROOF TOGGLE SWITCH, 20A, 2-POLE, MOUNTED ON LIGHT POLE HANDHOLE COVER.
- 4 #12 THWN WIRING INSIDE LIGHT POLE. SEE FIXTURE WIRING DETAIL FOR ADDITIONAL
- 5 TWO #6 USE, ONE #10 GROUND IN 1" HDPE CONDUIT. INSTALL FROM LIGHT FIXTURE TO LIGHT FIXTURE VIA DIRECTIONAL BORE UNDERNEATH EXISTING PAVEMENT AND IN TRENCH FROM EDGE OF EXISTING PAVEMENT TO LIGHT FIXTURE #4.
- 6 SPLICE INSIDE LIGHT POLE. SEE FIXTURE WIRING DETAIL FOR ADDITIONAL INFORMATION.
- 7 NEW POLYMER CONCRETE HANDHOLE, OPEN-BOTTOM DESIGN, QUAZITE/HUBBELL #PG-2436-BA-42 WITH #PG-2436-HH-00-17 COVER, LABELED "ELECTRICAL", OR EQUIVALENT.
- 8 FUTURE WIRING BY OTHERS (N.I.C.).
- 9 FUTURE LIGHTING CONTROLLER AND PHOTO CELL BY OTHERS (N.I.C.).
- 10 FUTURE CIRCUIT BREAKERS IN PANELBOARD BY OTHERS (N.I.C.).
- 11 TWO #6 USE, ONE #10 GROUND (FIXTURES #1 & #2 POWER), TWO #6 USE, ONE #10 GROUND (FIXTURES #3 & #4 POWER), IN 1" PVC CONDUIT FROM FIXTURE #3 TO HANDHOLE. INSTALL CONDUIT IN TRENCH FROM HANDHOLE TO EDGE OF EXISTING PAVEMENT AND PUSH CONDUIT FROM EDGE OF EXISTING PAVEMENT TO LIGHT FIXTURE #3.

FILE: APRON LIGHTING PLAN.dwg JPDATE BY: Chris Groth PLOT DATE: 4/4/2013 2:06 PM

> 1208505-C-SPAL 1208505-V-VF3D BMI-V-AERL BMI-V-SPXP 1208505-C-MP

### **BL069**

REVISIONS				
NUMBER	BY	DATE		
0	1	2		
THIS B	AR IS FOUAL	TO 2"		

AT FULL SCALE (34X22).

BLOOMINGTON-NORMAL AIRPORT AUTHORITY CENTRAL ILLINOIS REGIONAL AIRPORT BLOOMINGTON, ILLINOIS APRON PLAN

**LIGHTING CARGO** AIR APRON **EXPAND** 

2 CRAWFORD, CONSULTING



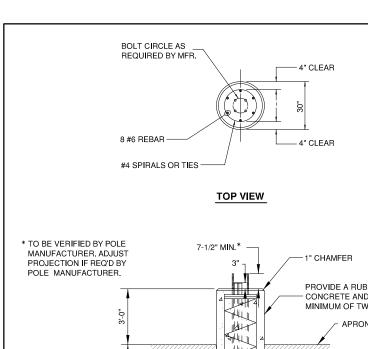
WDP DESIGN BY: DRAWN BY: CMT CBG CHECKED BY: RLV APPROVED BY: DATE: MARCH 19, 2013 JOB No: 12085-05-00

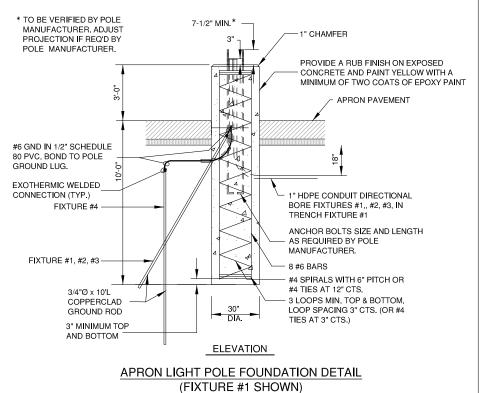
IL. PROJ. NO. BMI-4288 AIP PROJ. NO. 3-17-0006-XX

SHEET 35 OF 55 SHEETS

### **○ PLAN VIEW NOTES**

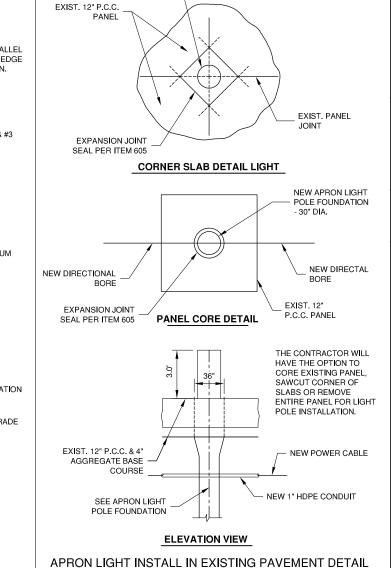
- FIXTURE LOCATED 8' FROM EDGE OF APRON.





N.T.S.

### LINE PARALLEL ANCHOR BOLTS-TO BACK EDGE HEX NUTS OF APRON. APRON LIGHT POLE FOUNDATION FIXTURES #2 & #3 POLE BASE AIR GAP N.T.S. 39' POLE, ROUND TAPERED ALUMINUM POLE SHALL BE HANDHOLE WITH COVER AND MADE PLUMB WITH WEATHERPROOF TOGGLE SWITCH CONNECT ALL GROUND LEVELING NUTS CONDUCTORS AND GROUND ROD TO GROUND LUG IN POLE - HANDHOLE BASE PLATE-LEVELING NUTS 1" AIR GAP INSTALL STAINLESS STEEL SEE FOUNDATION INSECT SCREENING IN AIR DETAIL THIS GAP BETWEEN POLE & FOUNDATIONS - FINISHED GRADE APRON LIGHT POLE DETAIL N.T.S. **APRON LIGHT** STANDARD DETAIL N.T.S.



NEW APRON LIGHT POLE FOUNDATION - 30" DIA.

FILE: 1208505—EL506.dwg UPDATE BY: Chris Groth

**BL069** 

NUMBER

PLOT DATE: 4/4/2013 1:08 PM

REVISIONS

BY

THIS BAR IS EQUAL TO 2' AT FULL SCALE (34X22).

DATE

DETAILS

LIGHTING

**APRON** 

**CARGO APRON** 

**EXPAND AIR** 

WDP/CBG

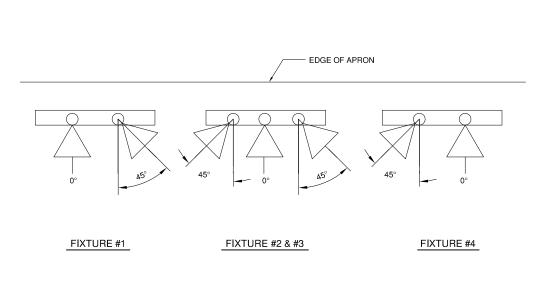
CMT

CBG

RLV

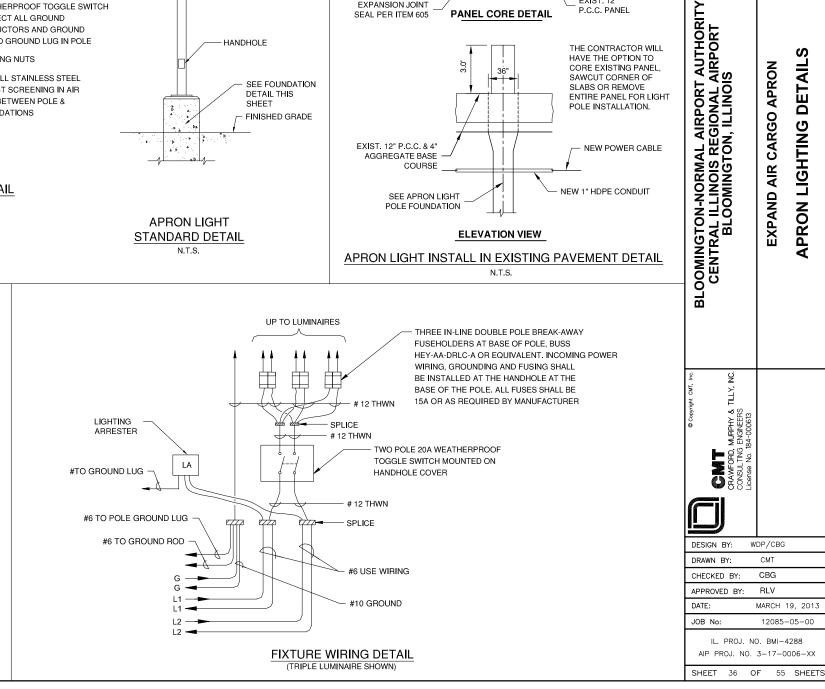
MARCH 19, 2013

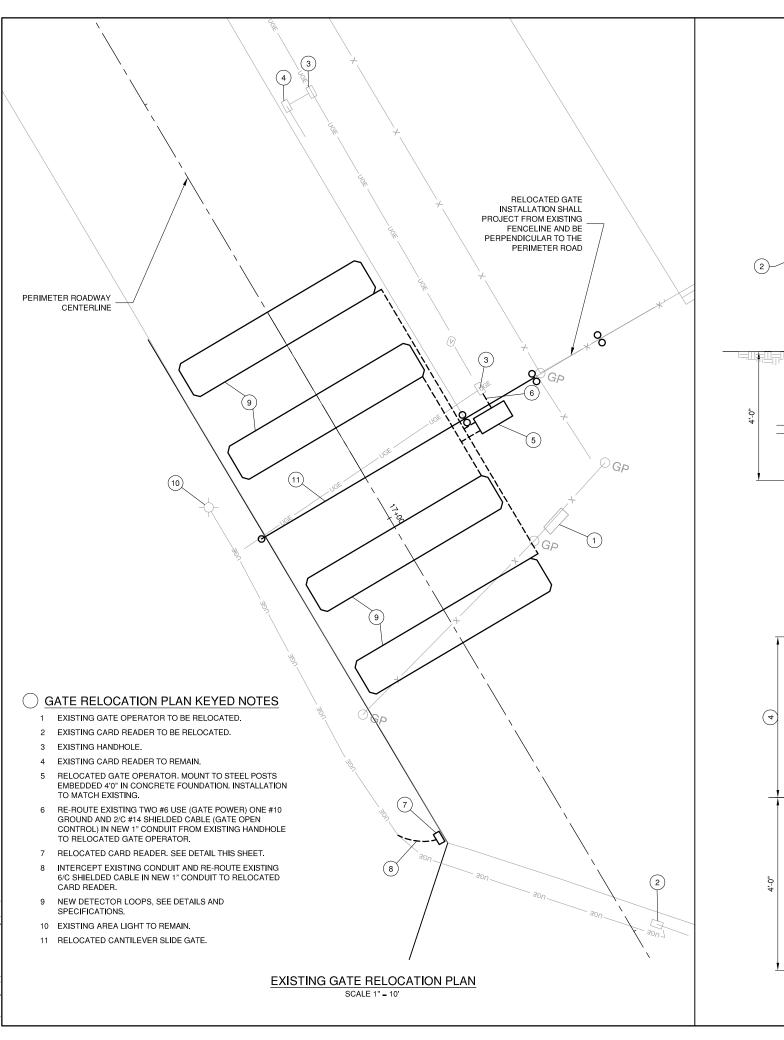
12085-05-00



APRON LIGHT DETAILS

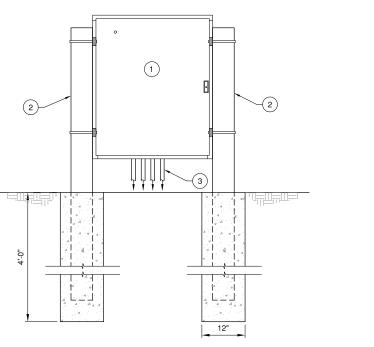
(NOMINAL, TO BE ADJUSTED AS NEEDED)





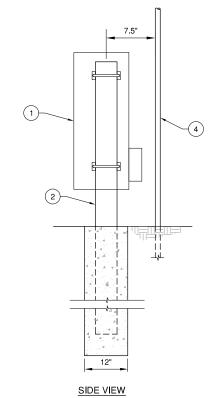
# RELOCATED GATE OPERATOR KEYED NOTES

- 1 RELOCATED GATE OPERATOR.
- 2 GALVANIZED STEEL SUPPORT POSTS EMBEDDED IN 12" DIAMETER X 48" DEEP CONCRETE FOUNDATIONS. PAINT POSTS TO MATCH OPERATOR WITH MINIMUM OF TWO COATS EPOXY
- 3 CONDUITS AND WIRING AS NEEDED TO MATCH EXISTING.
- 4 CANTILEVER SLIDE GATE SUPPORT POST.



**ELEVATION VIEW** 

2



# RELOCATED GATE OPERATOR

N.T.S.

-(2)

# RELOCATED CARD READER NOTES 1 RELOCATED INDALA WEATHERPROOF LONG RANGE CARD READER. 2 6" DIAMETER, CONCRETE FILLED, GALVANIZED STEEL SUPPORT POST, PAINTED YELLOW, EMBEDDED IN 12" DIAMETER x 48"DEEP CONCRETE

- 3 2" x 1" STEEL C-CHANNEL WELDED TO 6" PIPE AND PAINTED YELLOW.
- 4 MATCH HEIGHT OF EXISTING INSTALLATION.
- 5 RELOCATED 6-CONDUCTOR #18 SHIELDED CABLE IN NEW 1" CONDUIT.

FILE: 1208505—EL507.dwg UPDATE BY: Chris Groth PLOT DATE: 4/4/2013 1:09 PM

> 208505-E-AL 08505-C-MP BMI-V-AERL BMI-V-SPXP 208505-V-VF3D

## **BL069**

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	REVISIONS		
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AT FULL SCALE (34X22).

BLOOMINGTON-NORMAL AIRPORT AUTHORITY CENTRAL ILLINOIS REGIONAL AIRPORT BLOOMINGTON, ILLINOIS **DETAILS** 

CARGO GATE AIR **EXPAND** 

CRAWFORD, CONSULTING

WDP DESIGN BY: CMT CBG CHECKED BY: RLV APPROVED BY: MARCH 19, 2013

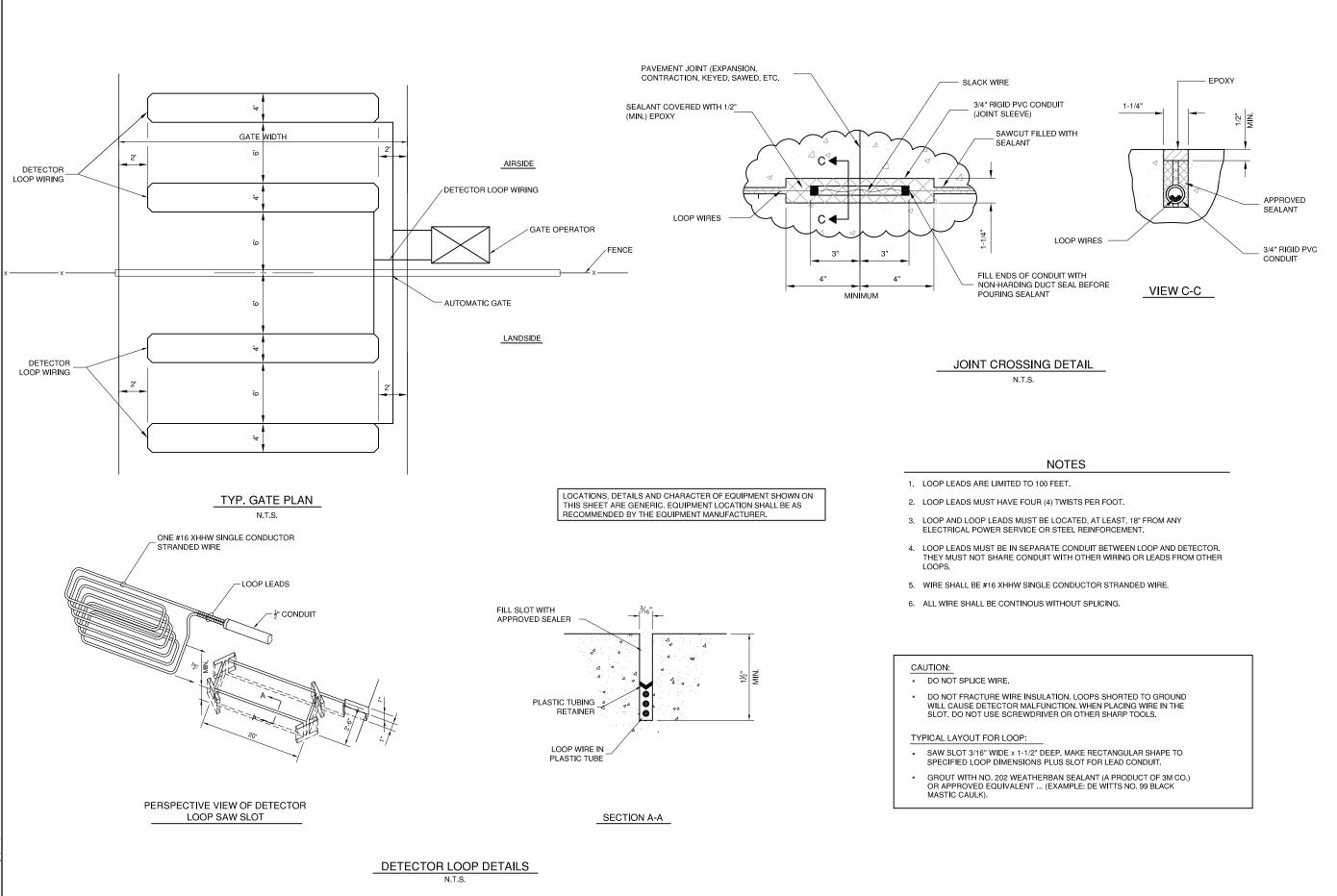
JOB No:

IL. PROJ. NO. BMI-4288

12085-05-00

AIP PROJ. NO. 3-17-0006-XX SHEET 37 OF 55 SHEETS

RELOCATED CARD READER INSTALLATION DETAIL



FILE: ELECTRIC GATE DETAILS 2.dwg UPDATE BY: Chris Groth PLOT DATE: 4/4/2013 2:04 PM

## BL069

REVISIONS

NUMBER BY DATE

0 1 2

THIS BAR IS EQUAL TO 2"
AT FULL SCALE (34X22).

# BLOOMINGTON-NORMAL AIRPORT AUTHORITY CENTRAL ILLINOIS REGIONAL AIRPORT BLOOMINGTON, ILLINOIS EXPAND AIR CARGO APRON ELECTRIC GATE DETAILS 2

CMT
CRAWFORD, MARPHY & TLLY, NC.
CONSLLING ENGRERS
License No. 184-000613



DESIGN BY: WDP

DRAWN BY: CMT

CHECKED BY: CBG

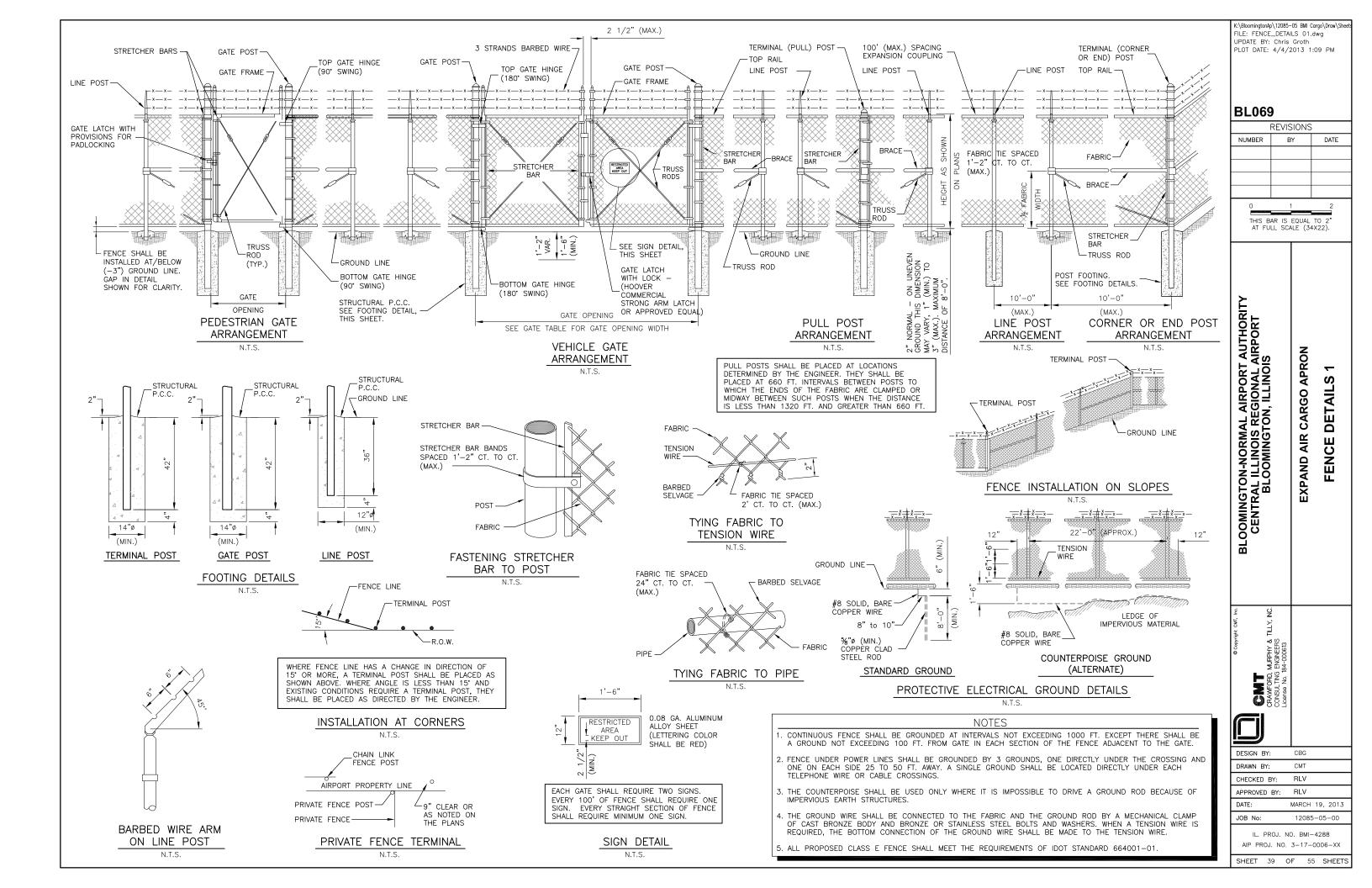
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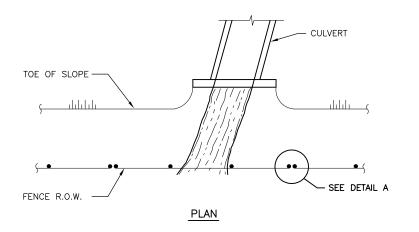
DATE: MARCH 19, 2013

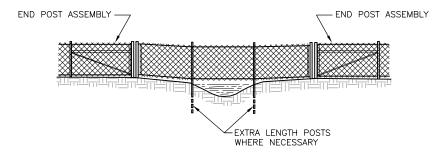
JOB No: 12085-05-00

IL. PROJ. NO. BMI-4288 AIP PROJ. NO. 3-17-0006-XX

SHEET 38 OF 55 SHEETS

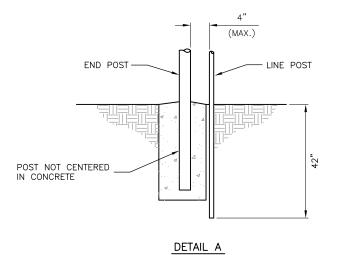




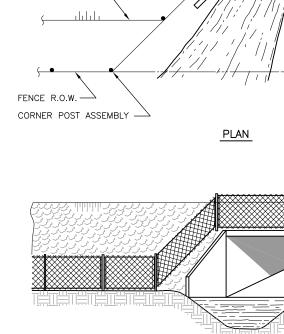


THE CHAIN LINK FABRIC SHALL BE REPLACED BY BARBED WIRE STRANDS AT 12" MAXIMUM CENTERS BETWEEN THE DOUBLE POSTS SHOWN ON DETAIL A WHEN SHOWN ON THE PLANS.

ELEVATION



FENCE INSTALLATION OVER STREAM DETAILS



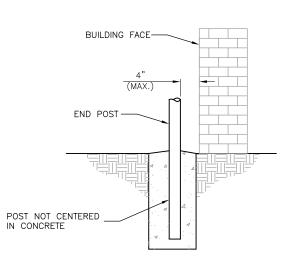
CORNER POST ASSEMBLY

TOE OF SLOPE -

WHEN THE WIDTH OF THE CULVERT MAKES IT NECESSARY TO ANCHOR A POST TO THE TOP OF THE CULVERT, A CAST IRON SHOE OR OTHER DEVICE APPROVED BY THE ENGINEER SHALL BE USED.

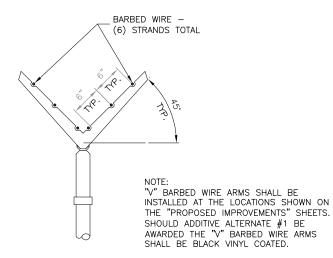
ELEVATION

# FENCE INSTALLATION AROUND HEADWALL DETAILS



FENCE INSTALLATION AT BUILDING FACE

N.T.S.



CULVERT

1'-6" CLEARANCE

∠ CORNER POST ASSEMBLY

"V" BARBED WIRE ARM
ON LINE POST

FILE: FENCE_ UPDATE BY: PLOT DATE:	DETAILS 0. Chris Groth	1:10 PM
O THIS BA AT FUL	1 R IS EQUA L SCALE (	2 L TO 2" 34X22).
BLOOMINGTON-NORMAL AIRPORT AUTHORITY CENTRAL ILLINOIS REGIONAL AIRPORT BLOOMINGTON, ILLINOIS	EXPAND AIR CARGO APRON	FENCE DETAILS 2
CRAWFORD, MURPHY & TILLY, NC.	CONSULTNG ENGINEERS License No. 184-000613	
DESIGN BY: DRAWN BY: CHECKED BY APPROVED E		

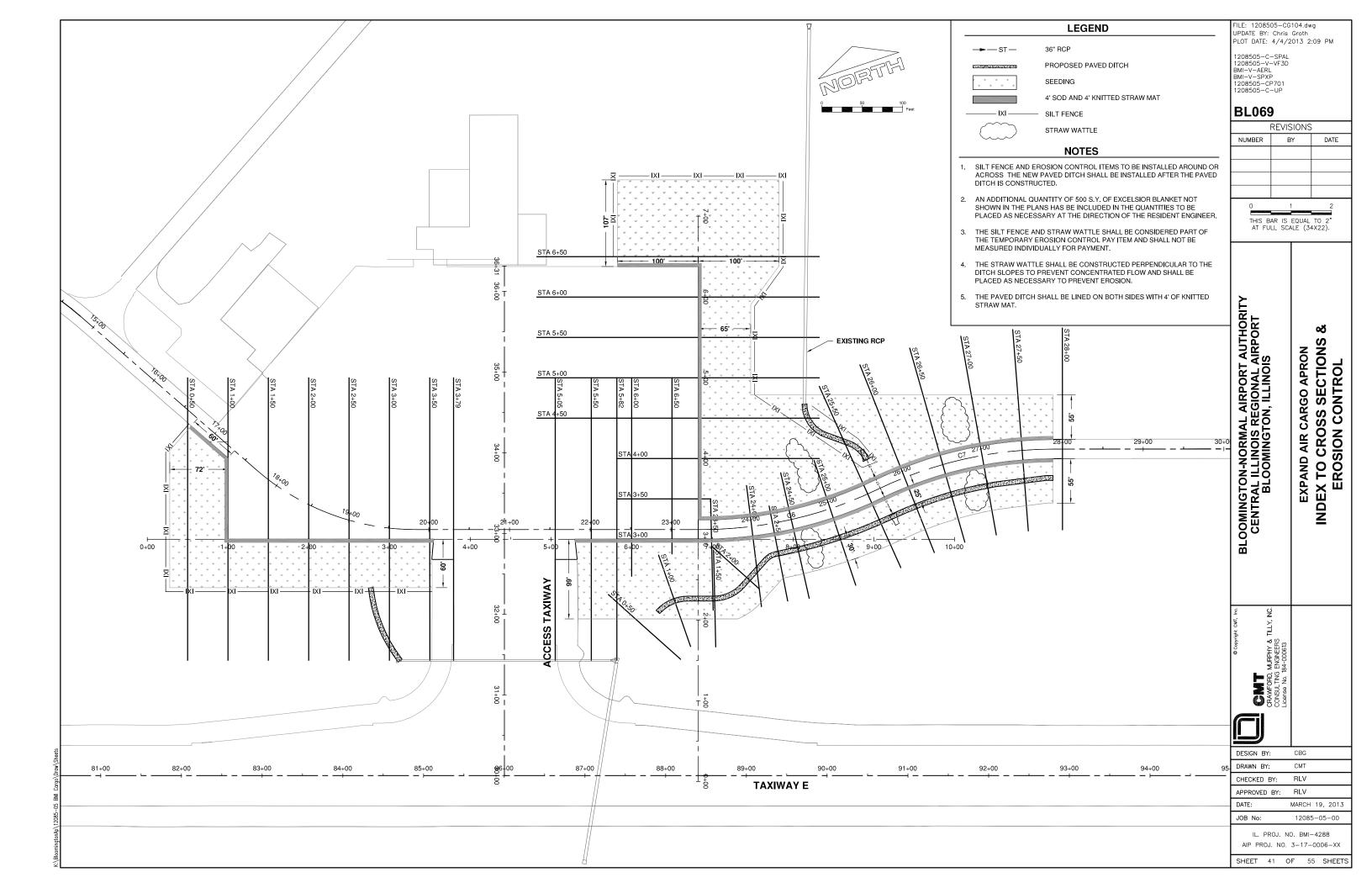
12085-05-00

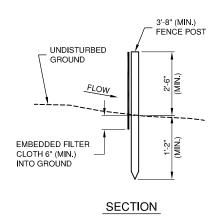
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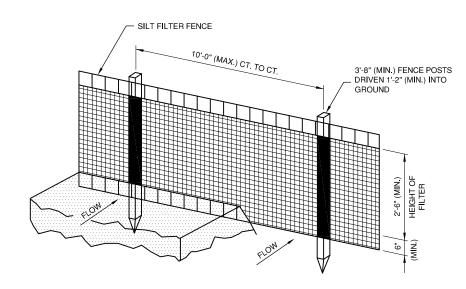
AIP PROJ. NO. 3-17-0006-XX

SHEET 40 OF 55 SHEETS

JOB No:





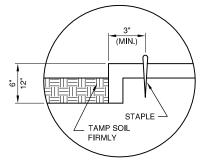


# PERSPECTIVE VIEW

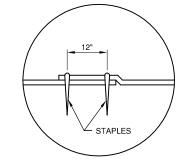
## EROSION CONTROL FABRIC FENCE DETAILS N.T.S.

## **EROSION CONTROL FABRIC FENCE NOTES**

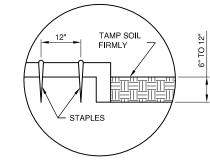
- 1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
- 2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 2'-0" AT TOP AND MID SECTION.
- 3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY 6" MINIMUM AND FOLDED.
- 4. 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.



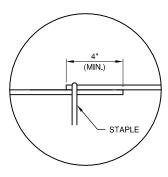
DETAIL 1 - TERMINAL FOLD



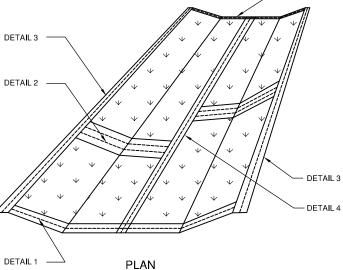
DETAIL 2 - JUNCTION SLOT

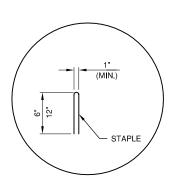


**DETAIL 3 - ANCHOR SLOT** 



**DETAIL 4 - LAP JOINT** 



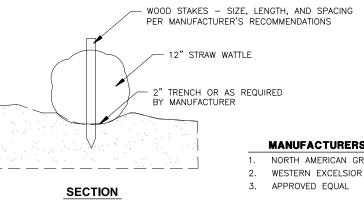


DETAIL 5 - STAPLE DETAIL

# EXCELSIOR BLANKET DETAILS

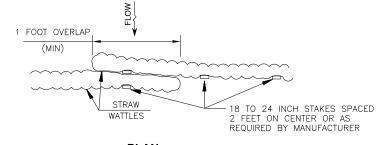
## **EXCELSIOR BLANKET NOTES**

- 1. STAPLES TO BE PLACED ALTERNATELY, IN COLUMNS APPROXIMATELY 2' APART AND IN ROWS APPROXIMATELY 3' APART.
- 2. EROSION CONTROL MATERIAL SHALL BE PLACED LOOSELY OVER GROUND SURFACE.
- 3. ALL TERMINAL ENDS AND TRANSVERSE LAPS SHALL BE STAPLED AT APPROXIMATELY 12" INTERVALS.



# **MANUFACTURERS:**

- NORTH AMERICAN GREEN



PLAN

# **STRAW WATTLES**

FILE: EROSIONDET.dwg UPDATE BY: Chris Groth PLOT DATE: 4/4/2013 1:12 PM BL069

REVISIONS		
NUMBER	BY	DATE
0	1	2
THIS B	AR IS EQUAL	

# BLOOMINGTON-NORMAL AIRPORT AUTHORITY CENTRAL ILLINOIS REGIONAL AIRPORT BLOOMINGTON, ILLINOIS S CONTROL DETAIL APRON **CARGO** AIR **EXPAND EROSION**

CRAWFORD, CONSULTING

CBG DESIGN BY: CMT DRAWN BY: RLV CHECKED BY: RLV APPROVED BY: DATE: MARCH 19, 2013 JOB No: 12085-05-00

IL. PROJ. NO. BMI-4288 AIP PROJ. NO. 3-17-0006-XX

SHEET 42 OF 55 SHEETS

EARTHWORK SUMMARY		
STATION	EXCAVATE END AREA (S.F.)	EMBANK END AREA (S.F.)
APRON EAST EDGE		
3+00	0.00	223.70
3+50	0.00	98.05
4+00	378.82	1.03
4+50	135.92	148.80
5+00	96.63	64.95
5+50	100.33	58.40
6+00	103.01	58.88
6+50	0.00	173.67
TOTAL	814.7	827.5

EARTHWORK SUMMARY		
STATION	EXCAVATE END AREA (S.F.)	EMBANK END AREA (S.F.)
APR	ON SOUTH E	DGE
0+50	203.82	0.00
1+00	247.13	0.00
1+50	170.58	1.08
2+00	106.22	7.90
2+50	50.25	76.41
3+00	68.61	68.30
3+50	149.34	2.73
3+79	212.49	0.00
TOTAL	1208.4	156.4

EARTHWORK SUMMARY			
STATION	EXCAVATE END AREA (S.F.)	EMBANK END AREA (S.F.)	
APRON SOUTH EDGE			
5+05	217.28	0.00	
5+50	103.60	18.36	
5+81	45.24	95.90	
6+00	0.00	92.17	
6+50	0.00	60.92	
TOTAL	366.1	267.3	

EARTHWORK SUMMARY		
STATION	EXCAVATE END AREA (S.F.)	EMBANK END AREA (S.F.)
PEI	RIMETER RO	AD
23+50	11.71	338.40
24+00	19.74	285.16
24+50	20.99	186.03
25+00	75.61	102.61
25+50	363.15	66.06
26+00	301.87	46.79
26+50	219.50	25.74
27+00	126.84	13.91
27+50	63.95	1.03
28+00	0.00	0.00
TOTAL	1203.4	1065.7

EARTHWORK SUMMARY		
STATION	EXCAVATE END AREA (S.F.)	EMBANK END AREA (S.F.)
PAVED DITCH		
0+50	0.00	0.00
1+00	2.22	105.20
1+50	12.20	116.23
TOTAL	14.4	221.4

K:\BloomingtonAp\12085-05 BMI Cargo\Draw\Sheets FILE: EW SUMMARY.dwg UPDATE BY: Chris Groth PLOT DATE: 4/4/2013 1:12 PM

# BL069

REVISIONS		
BY	DATE	

O 1 2 THIS BAR IS EQUAL TO 2" AT FULL SCALE (34X22).

BLOOMINGTON-NORMAL AIRPORT AUTHORITY CENTRAL ILLINOIS REGIONAL AIRPORT BLOOMINGTON, ILLINOIS

**EARTHWORK SUMMARY EXPAND AIR CARGO APRON** 

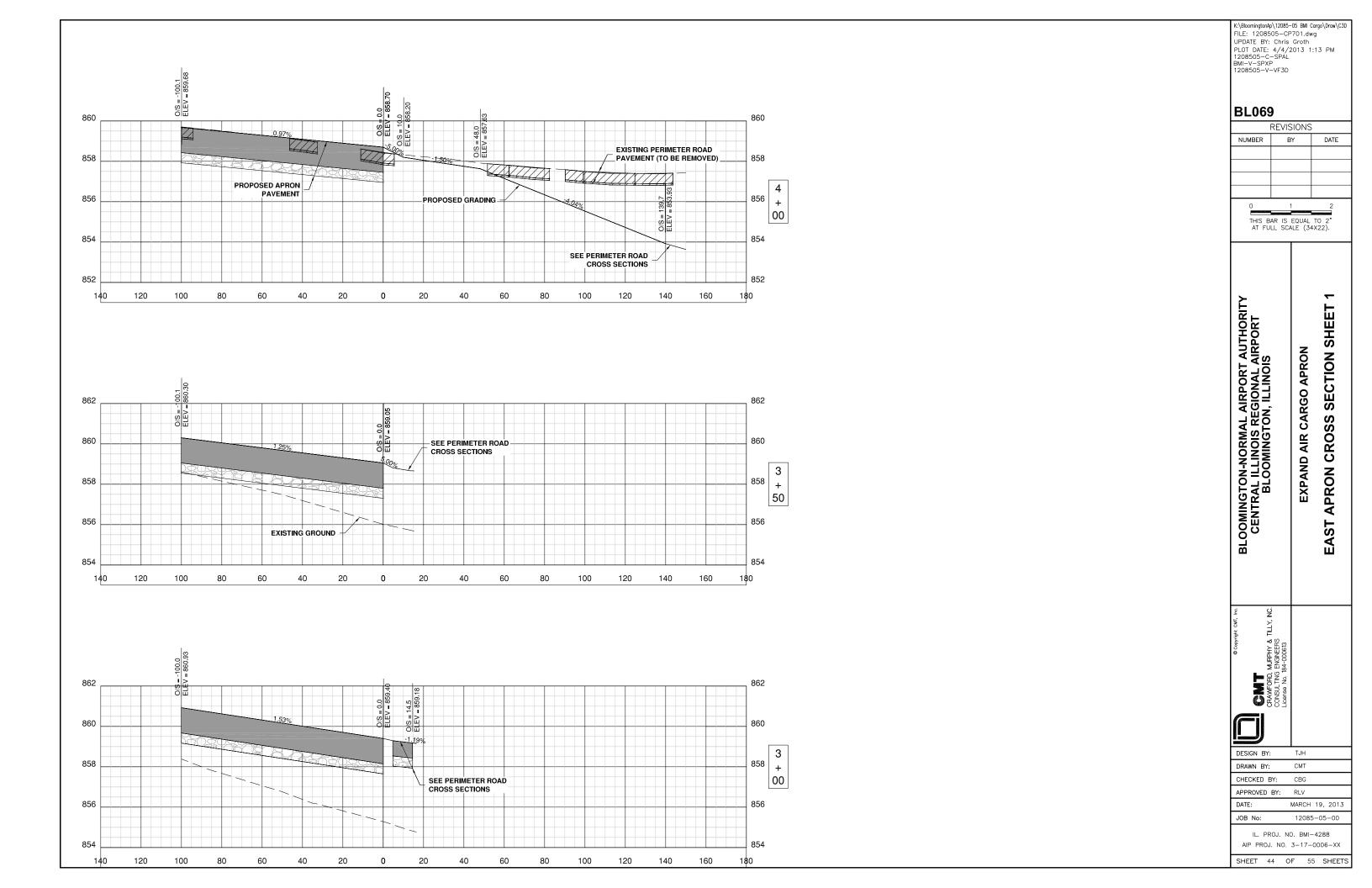
CRAT CRAWFORD, MURPHY & TILY, NC. CONSULTING ENGINEERS License No. 184-000613

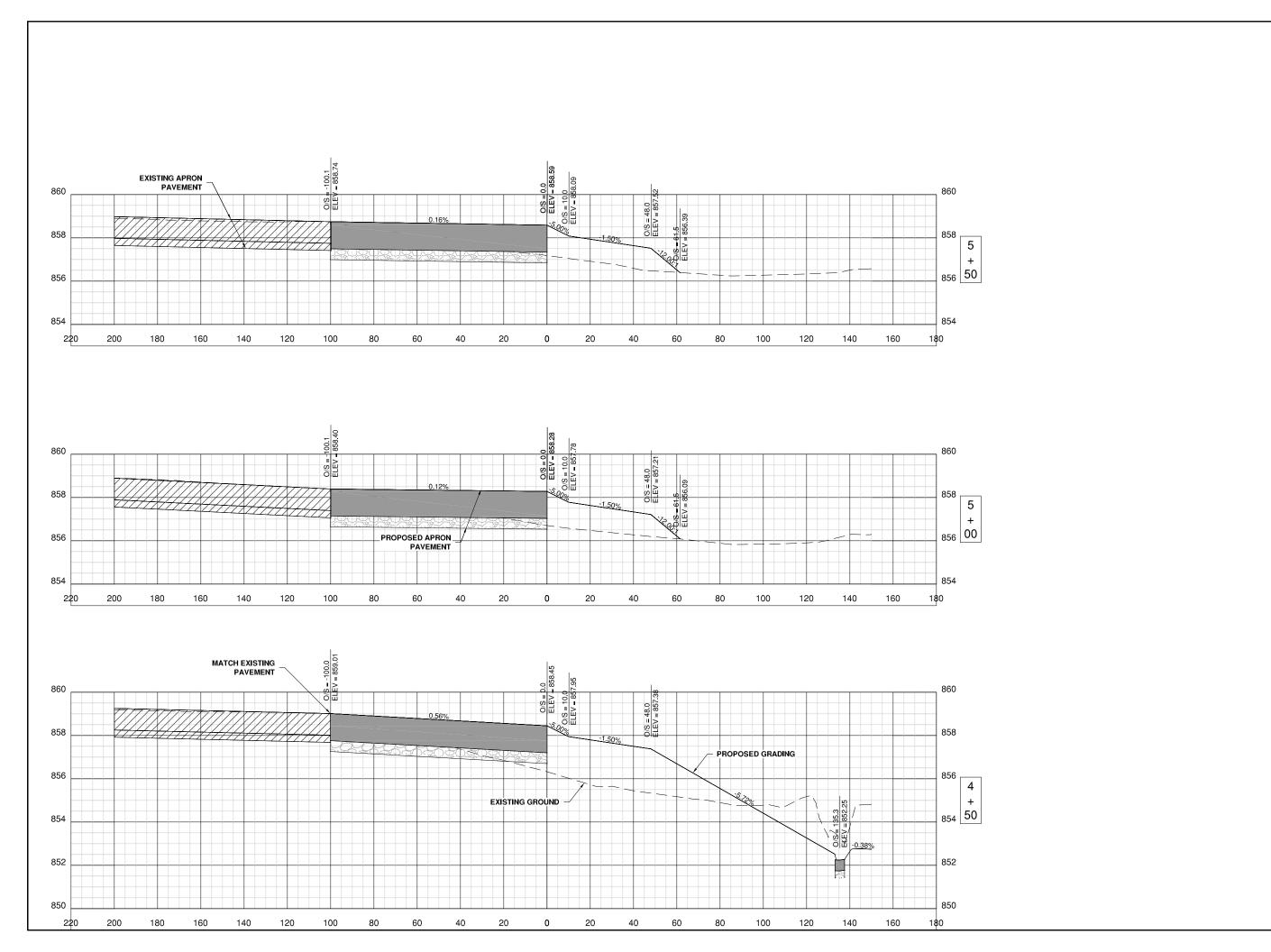


DESIGN BY:	TJH
DRAWN BY:	СМТ
CHECKED BY:	CBG
APPROVED BY:	RLV
DATE:	MARCH 19, 2013
JOB No:	12085-05-00

IL. PROJ. NO. BMI-4288 AIP PROJ. NO. 3-17-0006-XX

SHEET 43 OF 55 SHEETS





K:\BloomingtonAp\12085-05 BMI Cargo\Draw\C3D FILE: 1208505-CP701.dwg UPDATE BY: Chris Groth PLOT DATE: 4/4/2013 1:13 PM 1208505—C—SPAL BMI—V—SPXP 1208505—V—VF3D

# BL069

REVISIONS			
NUMBER	BY	DATE	

THIS BAR IS EQUAL TO 2" AT FULL SCALE (34X22).

# APRON CROSS SECTION SHEET **EXPAND AIR CARGO APRON**

7

EAST

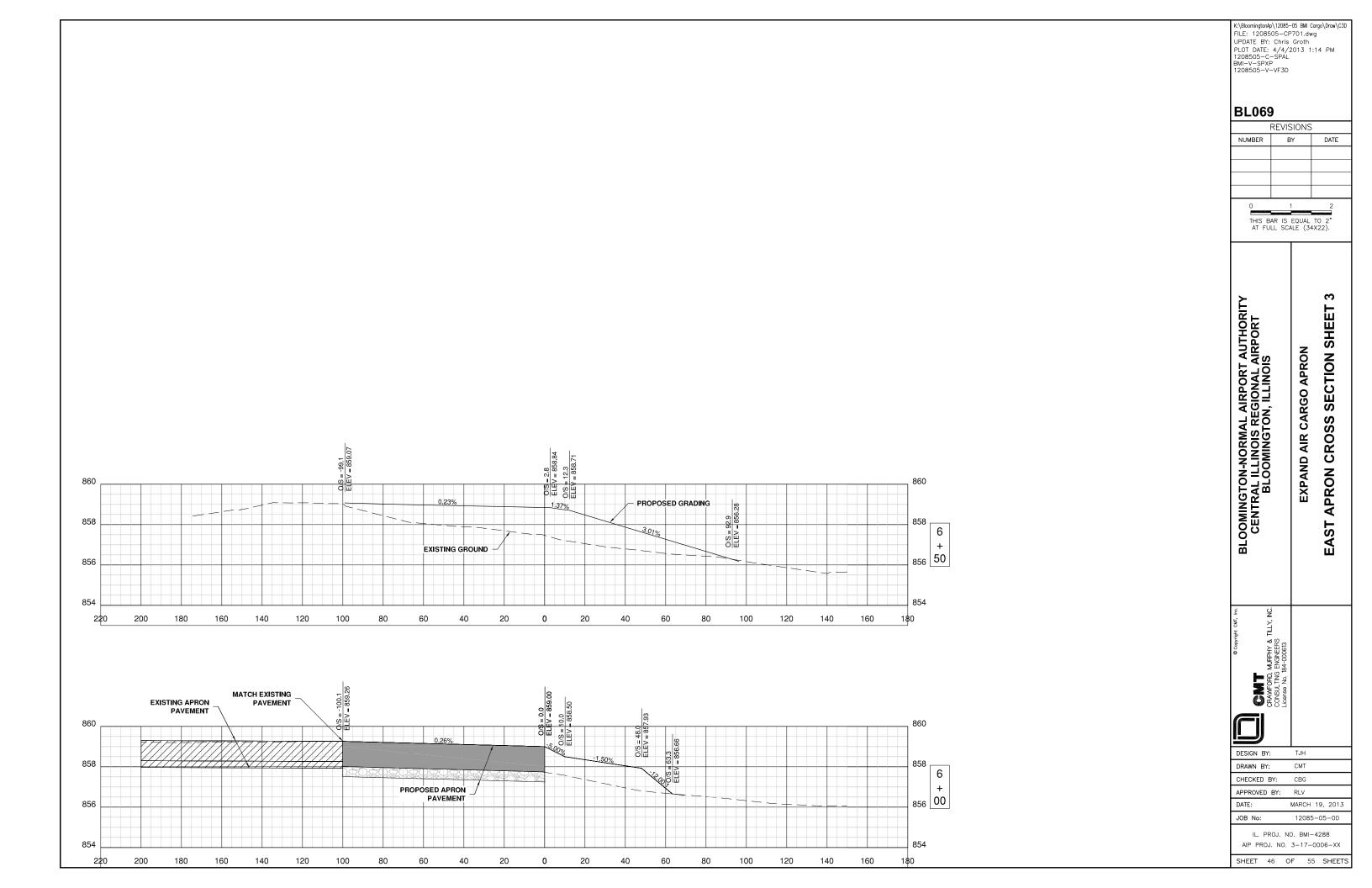
# BLOOMINGTON-NORMAL AIRPORT AUTHORITY CENTRAL ILLINOIS REGIONAL AIRPORT BLOOMINGTON, ILLINOIS

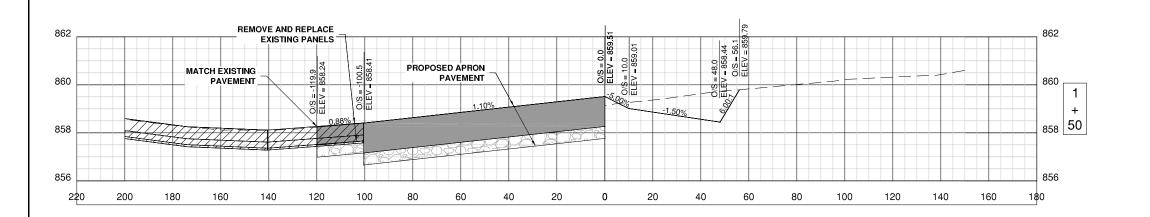
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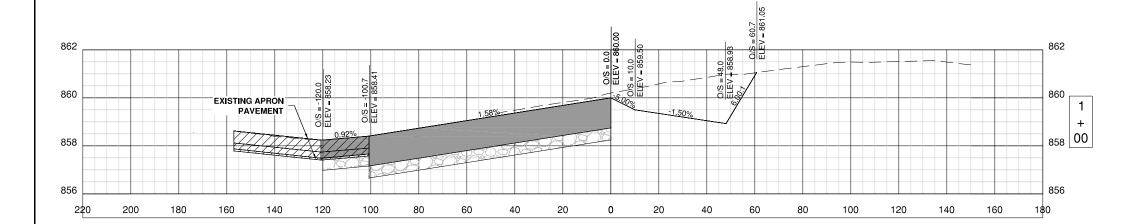


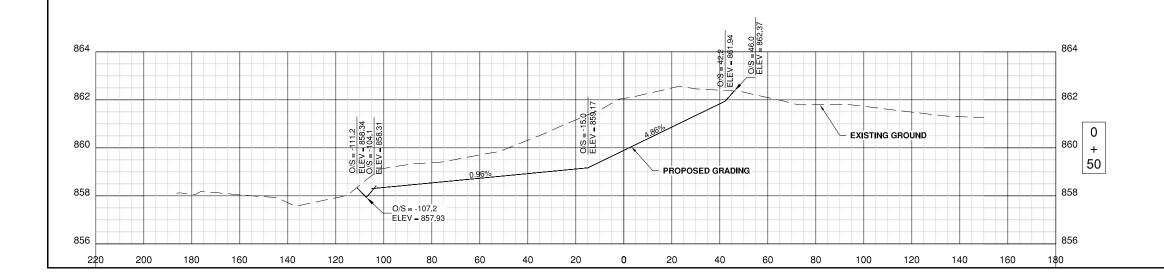
DESIGN BY:	TJH
DRAWN BY:	СМТ
CHECKED BY:	CBG
APPROVED BY:	RLV
DATE:	MARCH 19, 2013
JOB No:	12085-05-00

IL. PROJ. NO. BMI-4288 AIP PROJ. NO. 3-17-0006-XX SHEET 45 OF 55 SHEETS









K:\BloomingtonAp\12085-05 BMI Cargo\Draw\C3D FILE: 1208505-CP701.dwg UPDATE BY: Chris Groth PLOT DATE: 4/4/2013 1:14 PM 1208505—C—SPAL BMI—V—SPXP 1208505—V—VF3D

# BL069

REVISIONS			
NUMBER	BY	DATE	
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THIS BAR IS EQUAL TO 2" AT FULL SCALE (34X22).

# BLOOMINGTON-NORMAL AIRPORT AUTHORITY CENTRAL ILLINOIS REGIONAL AIRPORT BLOOMINGTON, ILLINOIS

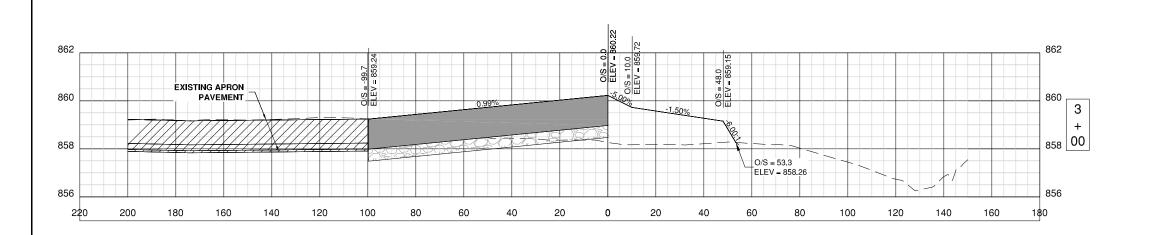
SOUTH APRON CROSS SECTION SHEET **EXPAND AIR CARGO APRON** 

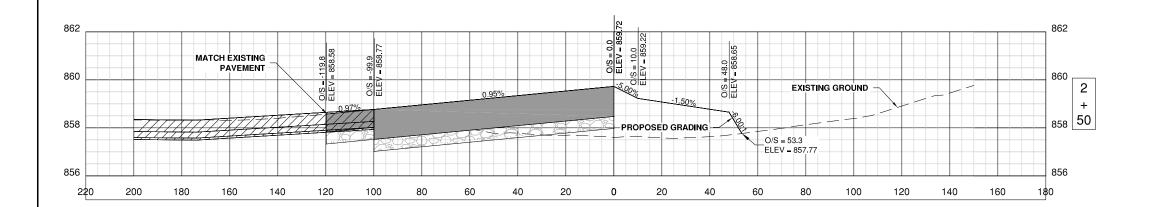
CRAWFORD 1 CONSULTING License No. 18

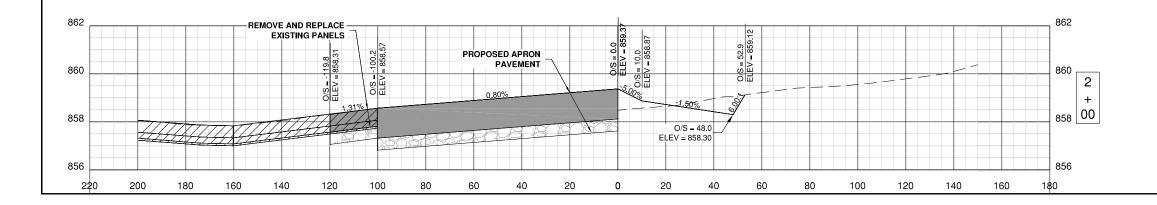


DESIGN BY:	TJH		
DRAWN BY:	СМТ		
CHECKED BY:	CBG		
APPROVED BY:	RLV		
DATE:	MARCH	19,	2013
JOB No:	12085	-05	-00

IL. PROJ. NO. BMI-4288 AIP PROJ. NO. 3-17-0006-XX SHEET 47 OF 55 SHEETS







K\BloomingtonAp\12085-05 BMI Cargo\Draw\C3D FILE: 1208505-CP701.dwg UPDATE BY: Chris Groth PLOT DATE: 4/4/2013 1:14 PM 1208505-C-SPAL BMI-V-SPXP 1208505-V-VF3D

# BL069

REVISIONS			
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THIS BAR IS EQUAL TO 2" AT FULL SCALE (34X22).

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# BLOOMINGTON-NORMAL AIRPORT AUTHORITY CENTRAL ILLINOIS REGIONAL AIRPORT BLOOMINGTON, ILLINOIS EXPAND AIR CARGO APRON SOUTH APRON CROSS SECTION SHEET

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CONSULTING ENGINEERS
LICENSE NO. 384-000633

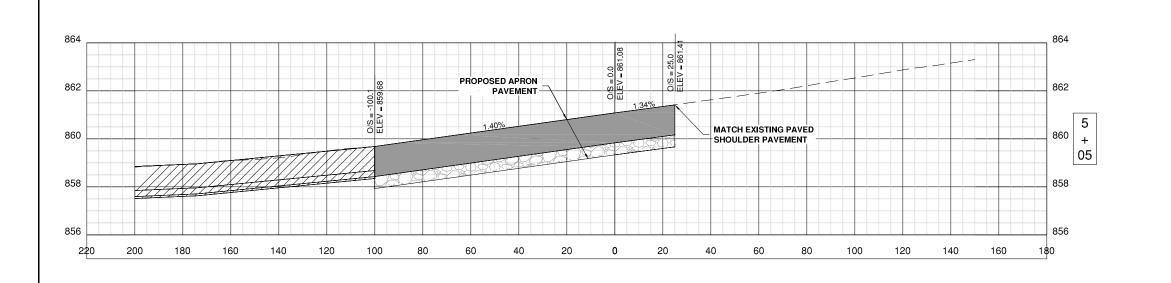


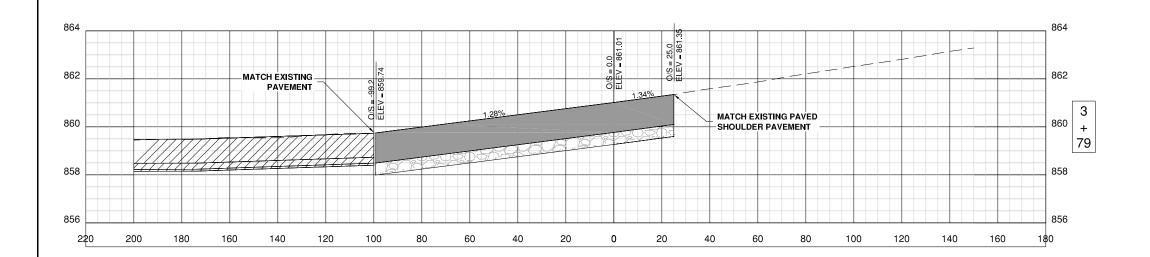
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DATE:	MARCH	19,	2013
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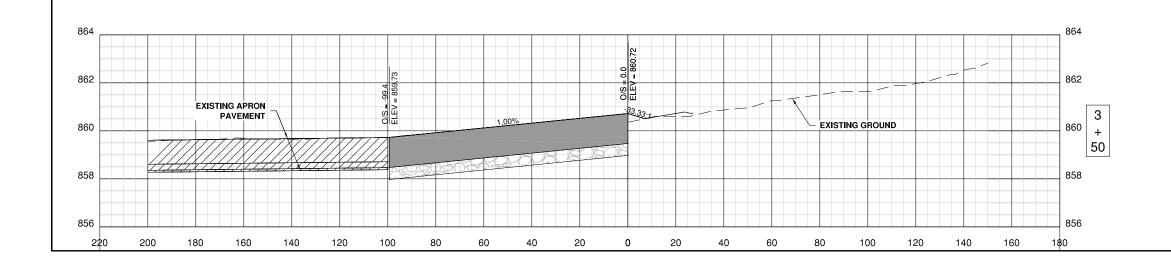
IL. PROJ. NO. BMI-4288

AIP PROJ. NO. 3-17-0006-XX

SHEET 48 OF 55 SHEETS







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# BL069

REVISIONS			
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# SOUTH APRON CROSS SECTION SHEET

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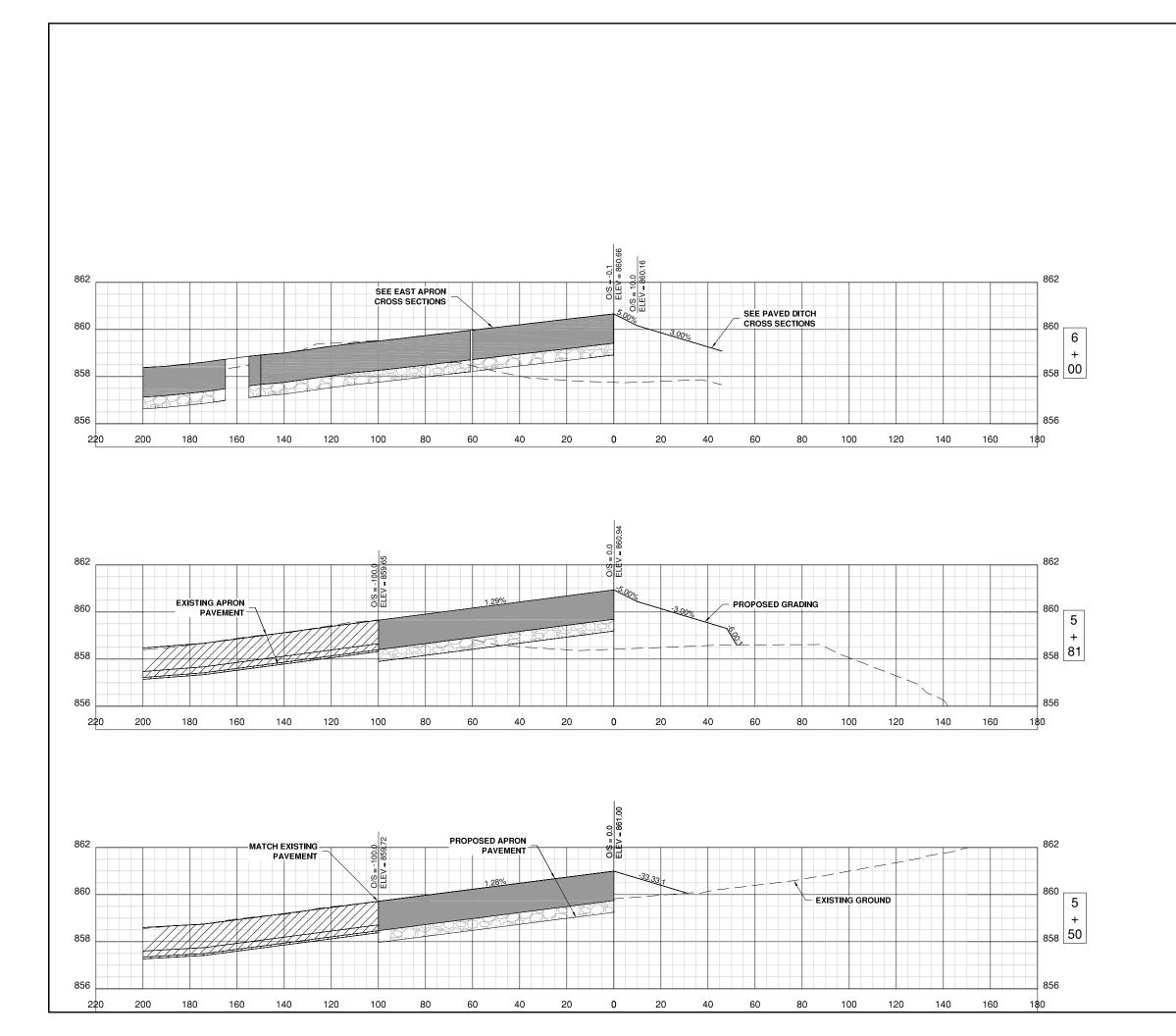
BLOOMINGTON-NORMAL AIRPORT AUTHORITY CENTRAL ILLINOIS REGIONAL AIRPORT BLOOMINGTON, ILLINOIS **EXPAND AIR CARGO APRON** 

CRAWFORD 1 CONSULTING License No. 18



DESIGN BY:	TJH
DRAWN BY:	СМТ
CHECKED BY:	CBG
APPROVED BY:	RLV
DATE:	MARCH 19, 2013
JOB No:	12085-05-00

IL. PROJ. NO. BMI-4288 AIP PROJ. NO. 3-17-0006-XX SHEET 49 OF 55 SHEETS



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# BL069

REVISIONS			
NUMBER	BY	DATE	
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THIS BAR IS EQUAL TO 2" AT FULL SCALE (34X22).

# 4 SOUTH APRON CROSS SECTION SHEET

# BLOOMINGTON-NORMAL AIRPORT AUTHORITY CENTRAL ILLINOIS REGIONAL AIRPORT BLOOMINGTON, ILLINOIS **EXPAND AIR CARGO APRON**

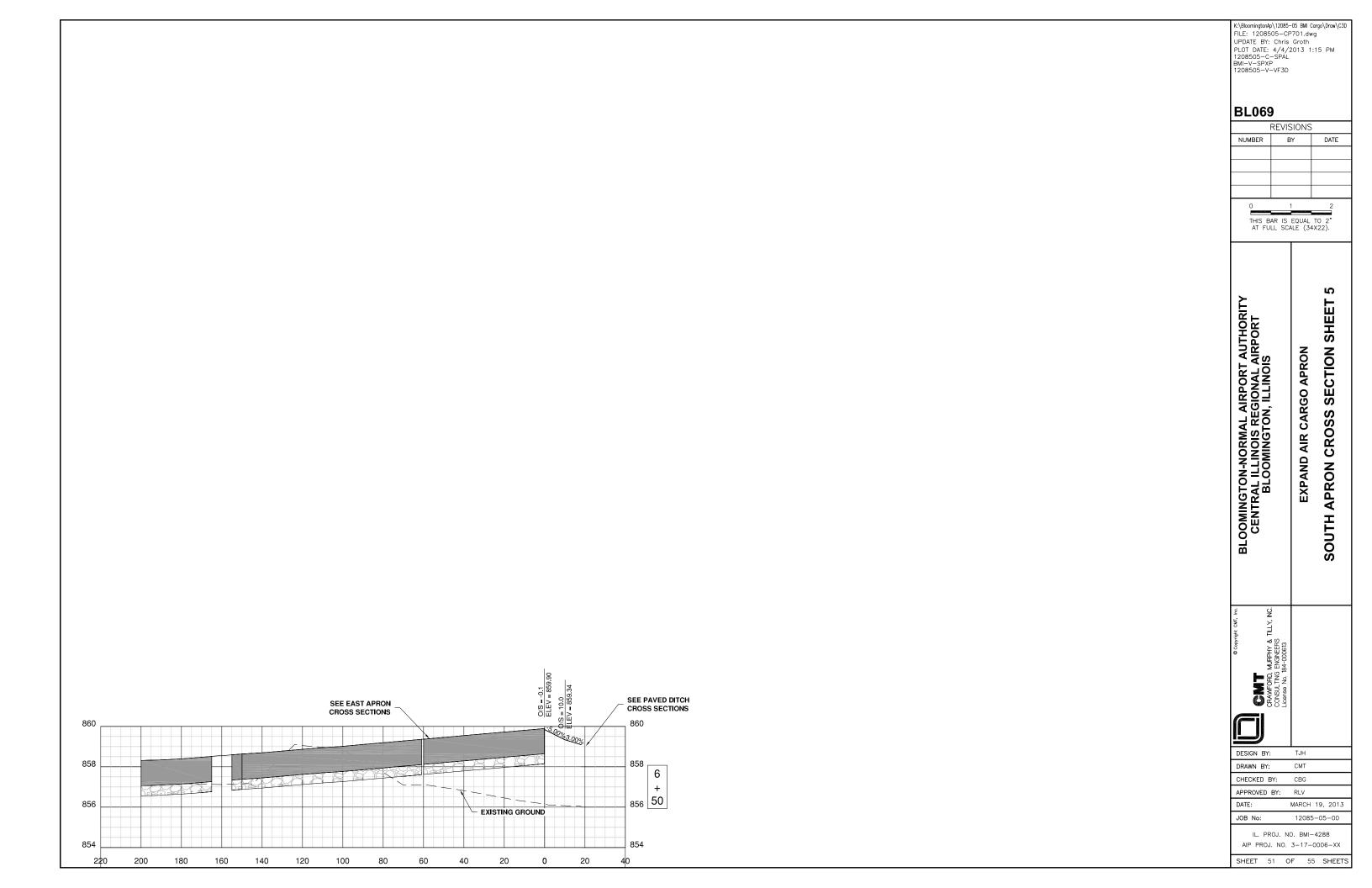
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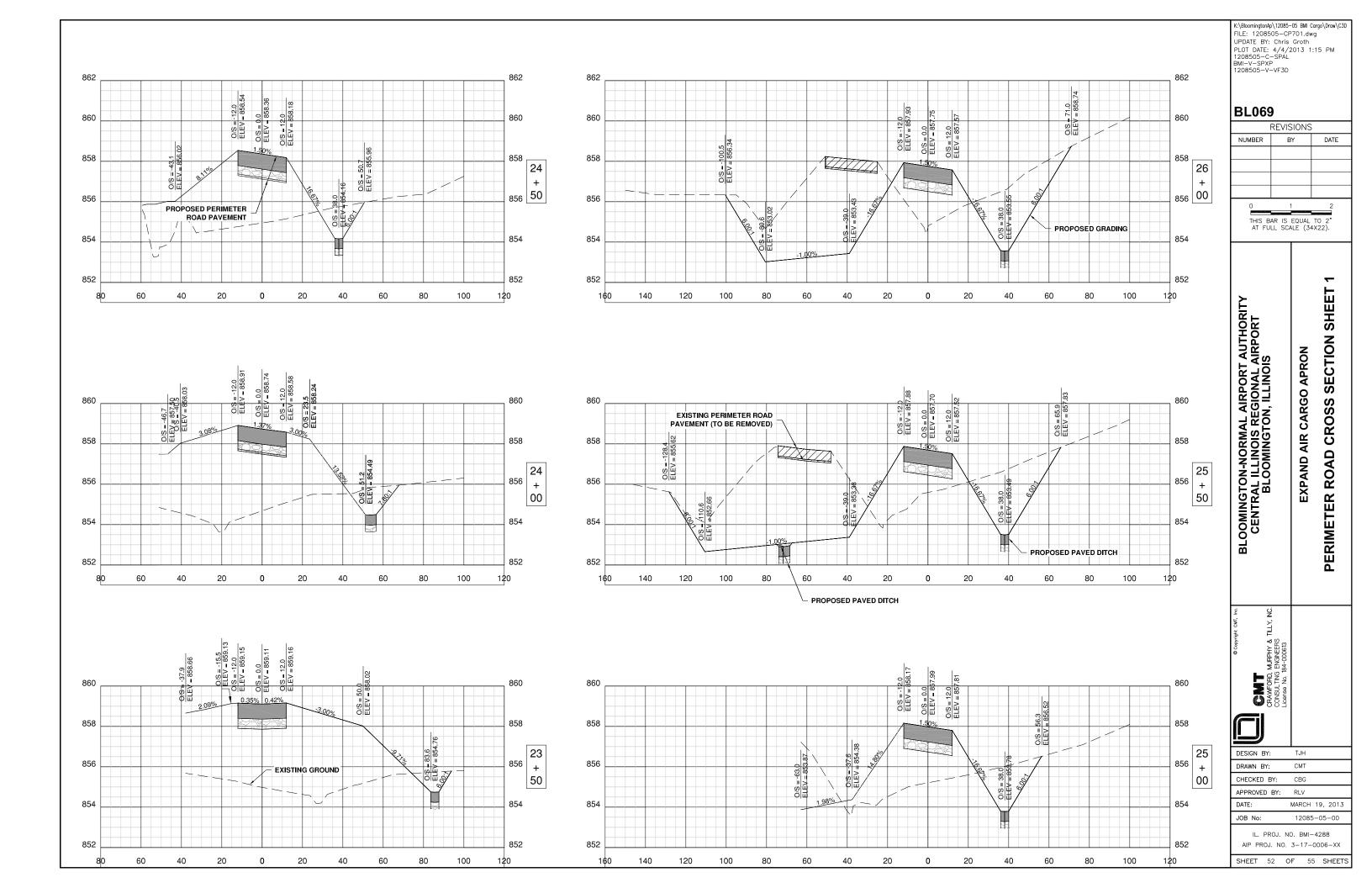


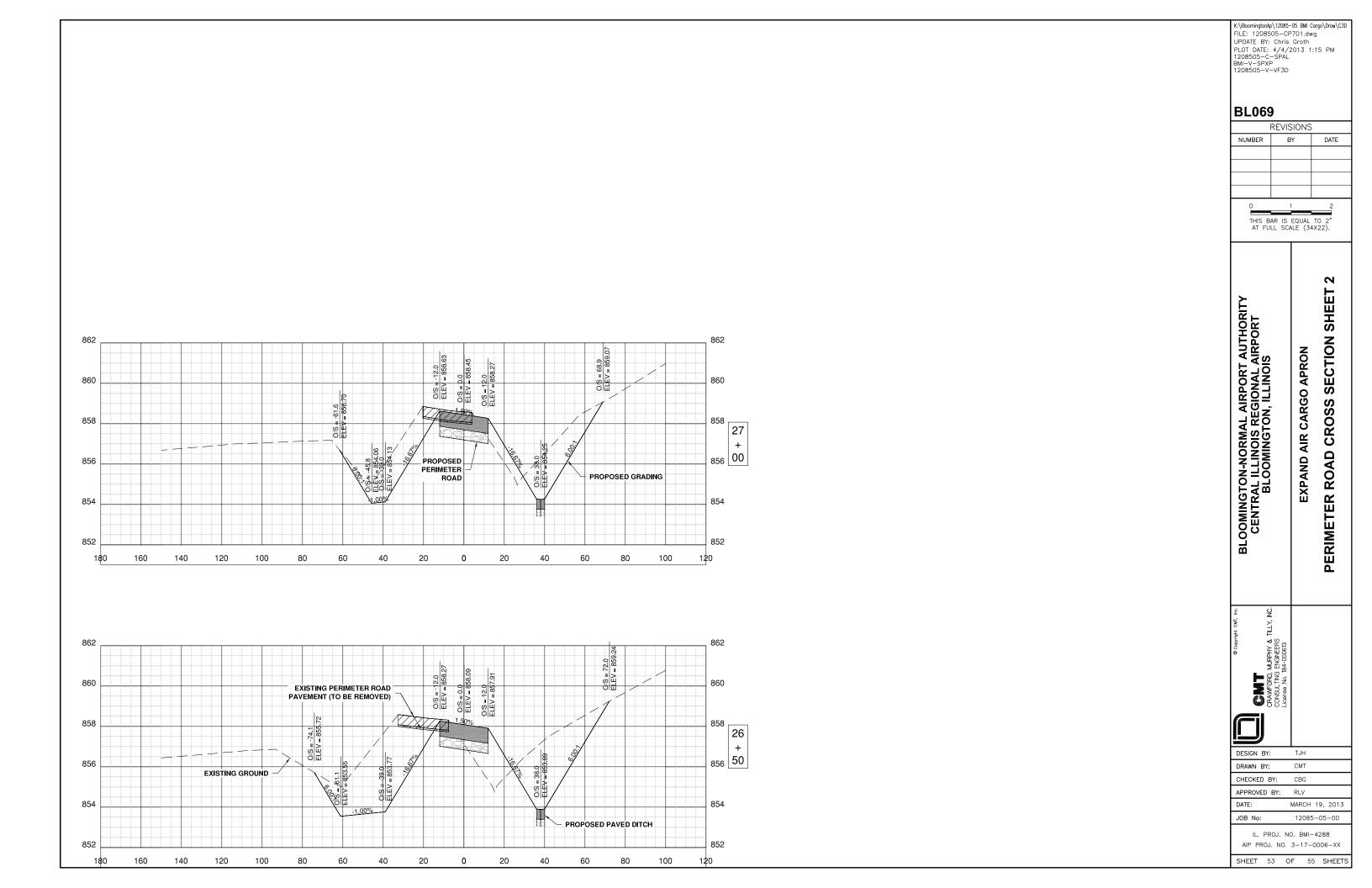
DESIGN BY:	TJH
DRAWN BY:	СМТ
CHECKED BY:	CBG
APPROVED BY:	RLV
DATE:	MARCH 19, 2013
IOD No.	12005 05 00

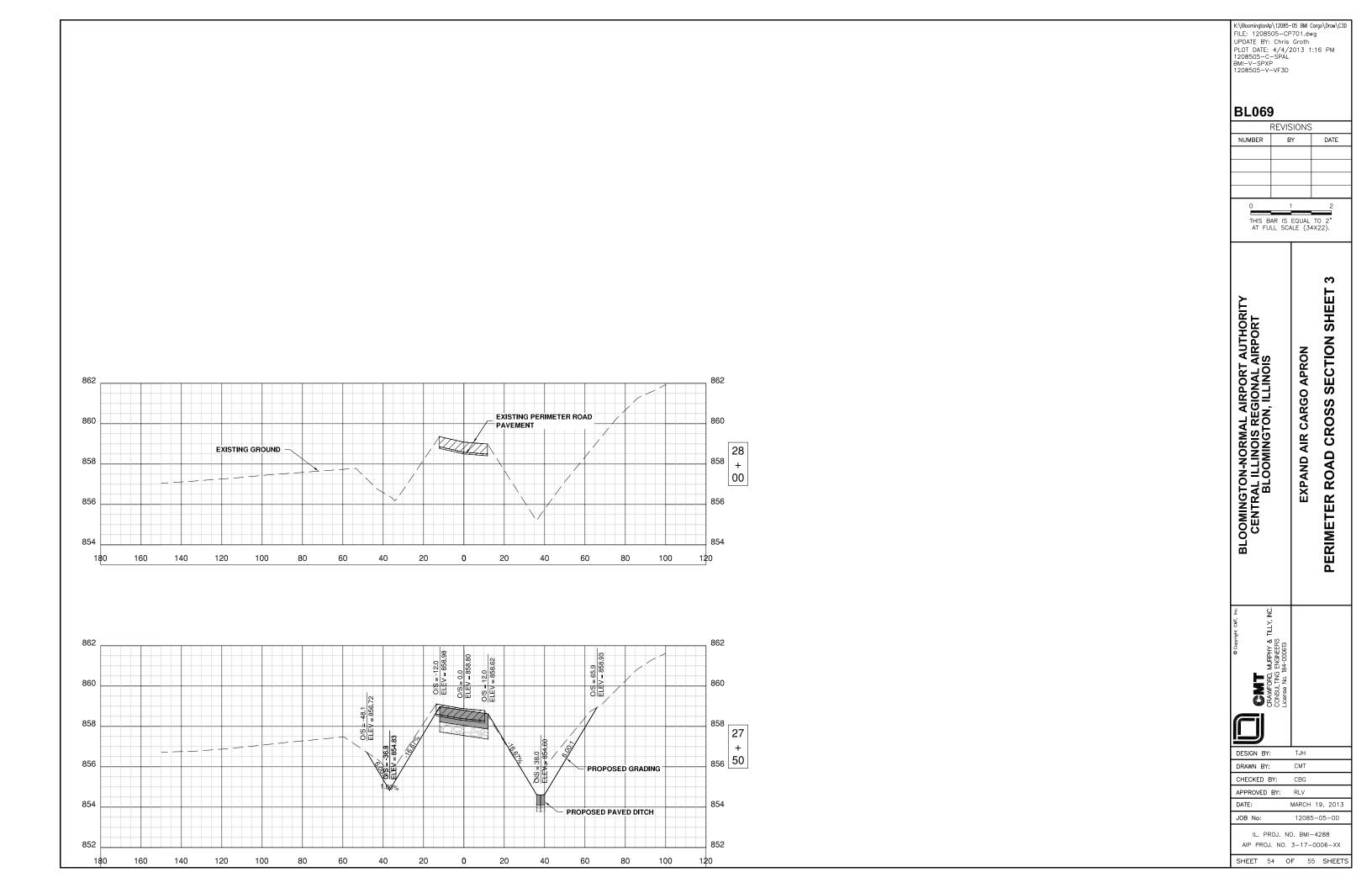
IL. PROJ. NO. BMI-4288 AIP PROJ. NO. 3-17-0006-XX

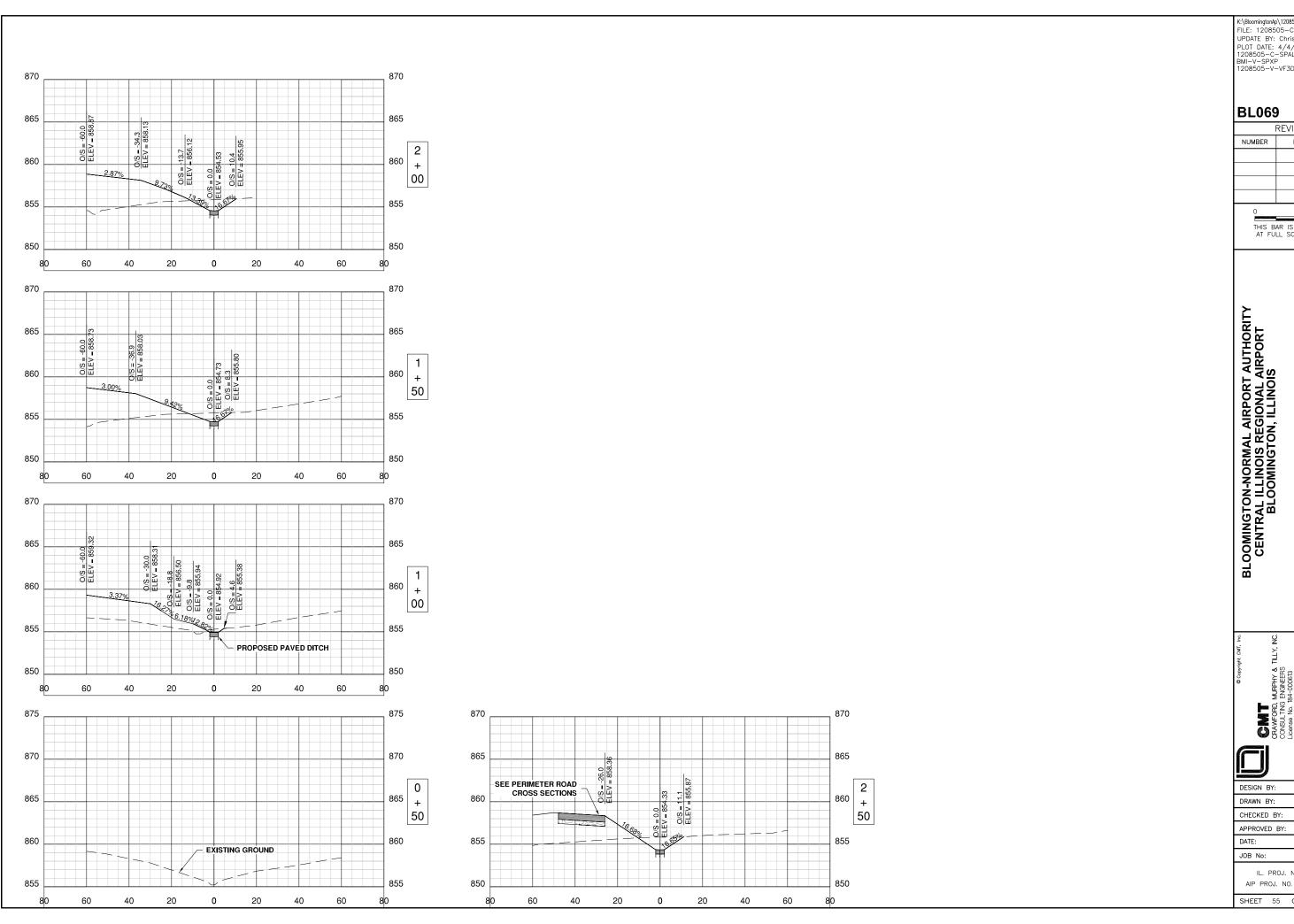
SHEET 50 OF 55 SHEETS











K:\BloomingtonAp\12085-05 BMI Cargo\Draw\C3D FILE: 1208505-CP701.dwg PLOT DATE: 4/4/2013 1:16 PM 1208505—C—SPAL BMI—V—SPXP 1208505—V—VF3D

REVISIONS				
NUMBER	BY	DATE		
·				

THIS BAR IS EQUAL TO 2" AT FULL SCALE (34X22).

# DITCH CROSS SECTION SHEET **EXPAND AIR CARGO APRON**

PAVED

DESIGN BY:	TJH
DRAWN BY:	СМТ
CHECKED BY:	CBG
APPROVED BY:	RLV
DATE:	MARCH 19, 2013
JOB No:	12085-05-00

IL. PROJ. NO. BMI-4288 AIP PROJ. NO. 3-17-0006-XX

SHEET 55 OF 55 SHEETS