TOTAL SHEETS: 27 CA013

CONSTRUCTION PLANS FOR ABRAHAM LINCOLN CAPITAL AIRPORT

SPRINGFIELD AIRPORT AUTHORITY SPRINGFIELD, ILLINOIS

IL. PROJ. NO. SPI-4163 AIP PROJ. NO. 3-17-0096-XX

REHABILITATE GOLF RAMP & HANGAR TAXIWAYS - PHASE 2

MAY 4, 2012



whats below.

Joint utility Locating
INFORMATION FOR EXCAVATORS

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

DESIGN INFORMATION

GEOMETRIC CRITERIA

MAIN RAMP: AIRCRAFT APPROACH CATEGORY B CRITICAL AIRCRAFT - BEECH 1900

PAVEMENT DESIGN CRITERIA

17,000# DUAL WHEEL, 5475 ANNUAL DEPARTURES 70,200# DUAL WHEEL, 6 ANNUAL DEPARTURES

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

RANGE:

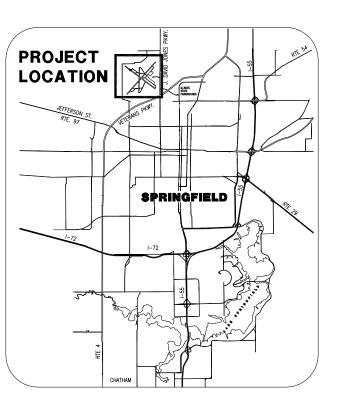
CIVIL TOWNSHIP: CAPITAL

COUNTY:

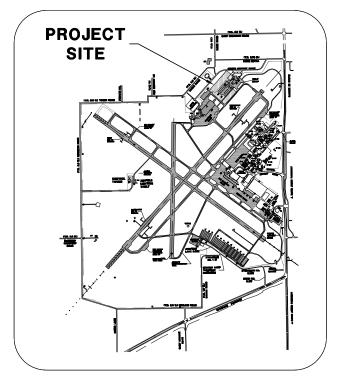
TOWNSHIP: 16 NORTH 5 WEST OF THE 4TH P.M. SECTION:

SANGAMON

AIR CONTROL FREQUENCY 121.30 GROUND FREQUENCY 121.90 MAXIMUM HEIGHT OF EQUIPMENT = 25'



LOCATION MAP



SITE PLAN





5/7/2012



	C	M	T		
WEOD	.			 	

CRAWFORD MURPHY & TILLY, INC. CONSULTING ENGINEERS

■ SPRINGFIELD, IL ■ AURORA, IL ■ ST. LOUIS, MO

4-41
112

CMT JOB NUMBER: 09035-05

ITEM NO.	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY
AR150510	ENGINEER'S FIELD OFFICE	L.S.	1
AR152480	SHOULDER ADJUSTMENT	S.Y.	655
AR156510	SILT FENCE	L.F.	800
AR162510	CLASS E FENCE 10'	L.F.	70
AR162724	ELECTRIC GATE - 24'	EACH	1
AR162900	REMOVE CLASS E FENCE	L.F.	70
AR162908	REMOVE ELECTRIC GATE	EACH	1
AR163510	TEMPORARY FENCE	L.F.	120
AR201670	CRACK CONTROL FABRIC	S.Y.	1250
AR401610	BITUMINOUS SURFACE COURSE	TON	1650
AR401650	BITUMINOUS PAVEMENT MILLING	S.Y.	14075
AR401910	REMOVE & REPLACE BIT. PAVEMENT	S.Y.	830
AR403610	BITUMINOUS BASE COURSE	TON	2470
AR501505	5" PCC PAVEMENT	S.Y.	160
AR603510	BITUMINOUS TACK COAT	GAL	3500
AR605540	CLEAN & SEAL JOINTS	L.F.	3400
AR620510	PAVEMENT MARKING	S.F.	4000
AR620900	PAVEMENT MARKING REMOVAL	S.F.	260
AR754610	PAVED DITCH	L.F.	110
AR754910	REMOVE PAVED DITCH	L.F.	110
AR904510	SODDING	S.Y.	655

INDEX TO SHEETS		
Sheet Number	Sheet Title	
01	COVER SHEET	
02	INDEX TO SHEETS & SUMMARY OF QUANTITIES	
03	SITE PLAN	
04	CONSTRUCTION ACTIVITY PLAN 1	
05	CONSTRUCTION ACTIVITY PLAN 2	
06	CONSTRUCTION ACTIVITY PLAN 3	
07	CONSTRUCTION ACTIVITY PLAN DETAILS	
08	EXISTING CONDITIONS & REMOVALS	
09	SPECIALCONDITIONS AND CONSIDERATIONS -1	
10	SPECIALCONDITIONS AND CONSIDERATIONS - 2	
11	EXISTING PAVEMENT STRUCTURE	
12	PAVEMENT REMOVAL PLAN	
13	PROPOSED IMPROVEMENTS	
14	TYPICAL SECTIONS	
15	STAKING PLAN 1	
16	STAKING PLAN 2	
17	MARKING PLAN - HANGAR TAXIWAYS	
18	MARKING & MISCELLANEOUS DETAILS	
19	FENCE PLAN	
20	FENCE DETAILS 1	
21	FENCE DETAILS 2	
22	ELECTRICAL GATE DETAILS 1	
23	ELECTRICAL GATE DETAILS 2	
24	ELECTRICAL GATE DETAILS 3	
25	GATE SIGNS DETAILS	
26	TURFING PLAN	
27	EROSION CONTROL DETAILS	

K:\SpringfieldAp\0903505\Drom\Sheets\PHASE 2
FILE: INDEXSUM.dwg
UPDATE BY: TJ Heavisides
PLOT DATE: 5/9/2012 1:36 PM

CA013

37 (0.10			
	REVISIONS	<u> </u>	
NUMBER	BY	DATE	

0 1 2 THIS BAR IS EQUAL TO 2" AT FULL SCALE (34X22).



REHABILITATE GOLF RAMP & HANGAR TAXIWAYS - PHASE 2

& SUMMARY OF QUANTITIES

INDEX TO SHEETS

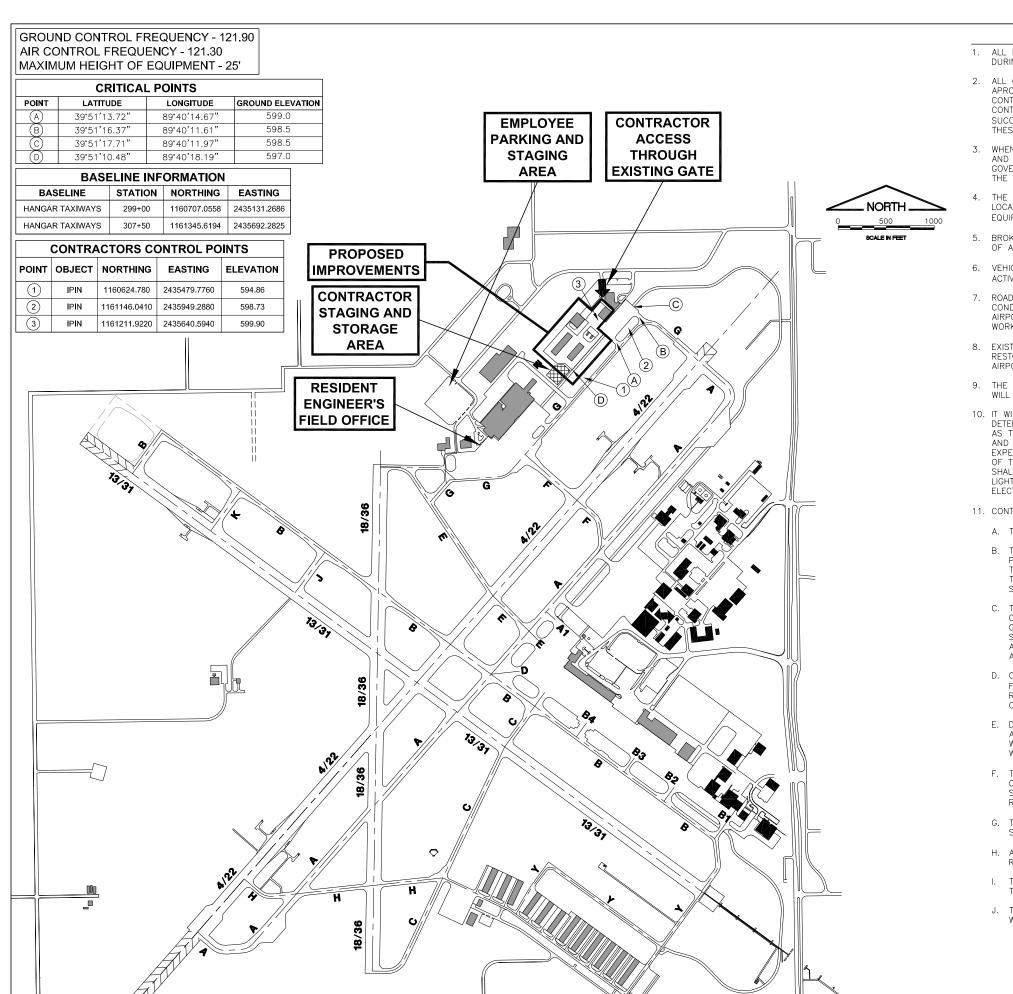
SPRINGFIELD AIRPORT AUTHORITY ABRAHAM LINCOLN CAPITAL AIRPORT SPRINGFIELD, ILLINOIS

CRAWFORD, MJRPHY & TILLY, NC. CONSULTING ENGINEERS License No. 184-000613



DESIGN BY:	RLV/TJH
DRAWN BY:	СМТ
CHECKED BY:	RLV
APPROVED BY:	RLV
DATE:	MAY 4, 2012
JOB No:	09035-05
	NO. SPI-4163 . 3-17-0096-XX

SHEET 02 OF 27 SHEETS



GENERAL NOTES

- ALL RUNWAYS, TAXIWAYS, AND APRONS SHALL BE KEPT OPEN TO AIRPORT TRAFFIC DURING CONSTRUCTION EXCEPT AS NOTED IN THE CONSTRUCTION ACTIVITY PLAN.
- ALL CONSTRUCTION TRAFFIC OPERATING ON OR CROSSING RUNWAYS, TAXIWAYS, AND APRONS OPEN TO AIRCRAFT TRAFFIC SHALL BE UNDER CONTROL OF A FLAGMÁN IN RADIO CONTACT WITH FAA AIR TRAFFIC CONTROL TOWER PERSONNEL AT ALL TIMES. THE CONTRACTOR SHALL PROVIDE HIS OWN RADIOS AND ONLY HIS PERSONNEL WHO HAVE SUCCESSFULLY COMPLETED THE APPROVED SAA/FAA SAFETY COURSE MAY OPERATE
- 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 DIRECTOR.
- THE CONTRACTOR WILL BE PERMITTED TO STORE EQUIPMENT AND MATERIALS AT THE LOCATIONS SHOWN ON THE CONSTRUCTION ACTIVITY PLAN. THE MAXIMUM HEIGHT OF EQUIPMENT, MATERIALS AND STOCKPILES SHALL BE 25' ABOVE GROUND ELEVATION.
- BROKEN ASPHALT AND/OR CONCRETE SHALL BE DISPOSED OF BY THE CONTRACTOR OFF OF AIRPORT PROPERTY UNLESS OTHERWISE DIRECTED BY THE AIRPORT
- VEHICLES AND EQUIPMENT SHALL NOT BE ALLOWED WITHIN 95' FROM THE CENTERLINE OF ACTIVE TAXIWAYS OR 250' FROM THE CENTERLINE OF ACTIVE RUNWAYS.
- ROADS OR STORAGE AREAS SHALL BE MAINTAINED AND REPAIRED IN KIND TO ORIGINAL CONDITION BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER AND THE AIRPORT. NO ADDITIONAL COMPENSATION SHALL BE MADE TO THE CONTRACTOR FOR THIS
- EXISTING TURF AREAS DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY HIM AT HIS EXPENSE TO THE SATISFACTION OF THE ENGINEER AND THE
- THE CONTRACTOR SHALL CONTINUOUSLY CLEAN CONSTRUCTION AREAS WHICH ARE OR WILL BE OPENED TO AIR TRAFFIC.
- 10. 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 TO AVOID ANY DAMAGE. ANY UTILITY, INCLUDING AIRFIELD ELECTRICAL CABLE, SIGNS AND LIGHTS, DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED BY HIM AT HIS 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 WITH THE COSTS TO BE BORNE BY THE CONTRACTOR.
- 11. CONTRACTOR'S ACCESS SHALL BE AS FOLLOWS:
 - A. THE CONTRACTOR'S ACCESS TO WORK SHALL BE AS SHOWN IN THE PLANS.
 - B. THE CONTRACTOR SHALL COMPLETE A SECURITY FORM FOR ALL PERSONNEL 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 THE RESIDENT ENGINEER BY THE
 - C. THE CONTRACTOR SHALL USE AN EXISTING GATE FOR ACCESS TO THE AIRFIELD. THE CONTRACTOR SHALL INSTALL AND MAINTAIN A HEAVY-DUTY PADLOCK ON THE ACCESS GATE. HE SHALL PROVIDE KEYS FOR HIS PADLOCK TO THE RESIDENT ENGINEER, S.A.A. MAINTENANCE SUPERVISOR, AND S.A.A. SECURITY CHIEF. NO ADDITIONAL KEYS ARE TO BE DISTRIBUTED UNLESS AUTHORIZED BY THE RESIDENT ENGINEER. ONLY AUTHORIZED PERSONNEL ALLOWED ACCESS.
 - D. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND TEMPORARY EASEMENTS FOR THE PUBLIC ACCESS ROAD(S) SHOWN AND SHALL COMPLY WITH ALL REQUIREMENTS, LOAD RESTRICTIONS, & 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 THE CONTRACT TIME WILL BE CONSIDERED FOR DELAYS DUE TO LACK OF ADEQUATE ACCESS TO THE
 - F. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING THE ACCESS GATE(S) CLOSED DURING WORK HOURS. THE CONTRACTOR SHALL POST A COMPETENT SECURITY GUARD TO CONTROL ACCESS AT THE GATE. THE CONTRACTOR SHALL REPLACE ANY UNSATISFACTORY SECURITY GUARDS AS DIRECTED.
 - G. THE CONTRACTOR SHALL CLOSE AND LOCK THE ACCESS GATE(S) UPON LEAVING THE
 - H. ALL COSTS RELATING TO CONTRACTOR'S ACCESS AND SECURITY SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
 - THE CONTRACTOR SHALL STORE EQUIPMENT AND MATERIALS IN SUCH A WAY AS NOT TO VIOLATE AIRPORT PART 77 SURFACES, OR RUNWAY AND TAXIWAY SAFETY AREAS.
 - J. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING ACTIVE AIRFIELD PAVEMENTS WHICH ARE CROSSED BY HIS VEHICLES.

K:\SpringfieldAp\0903505\Draw\Sheets\PHASE 2 FILE: SITE PLAN.dwg PLOT DATE: 5/9/2012 1:36 PM SPI-BASE-1

CA013

REVISIONS			
NUMBER	BY	DATE	

THIS BAR IS FOLIAL TO 2

TAXIWAYS SPRINGFIELD AIRPORT AUTHORITY
BRAHAM LINCOLN CAPITAL AIRPORT
SPRINGFIELD, ILLINOIS HANGAR య RAMP

교

ш

SIT

GOLF

ILITATE

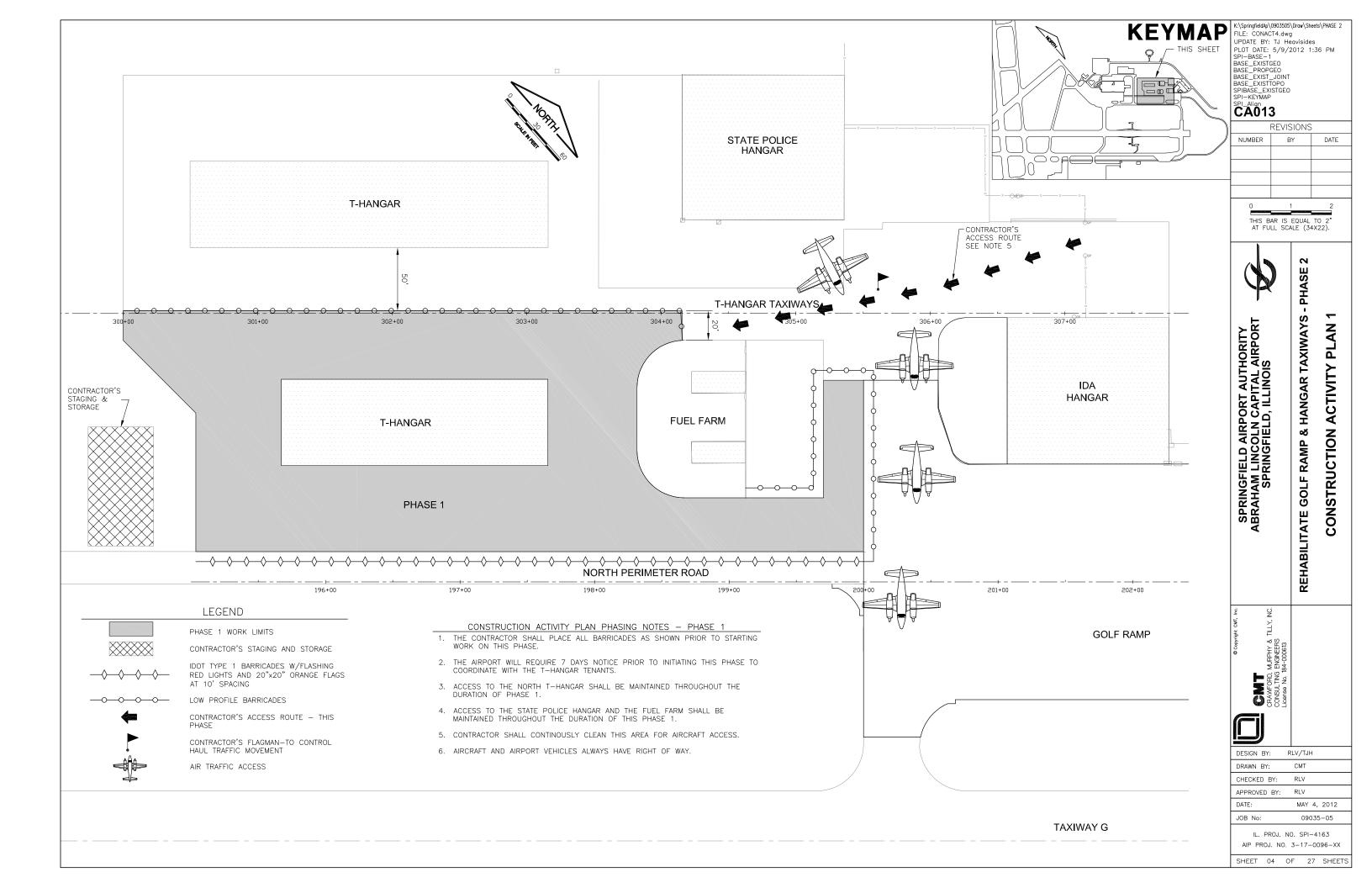
В

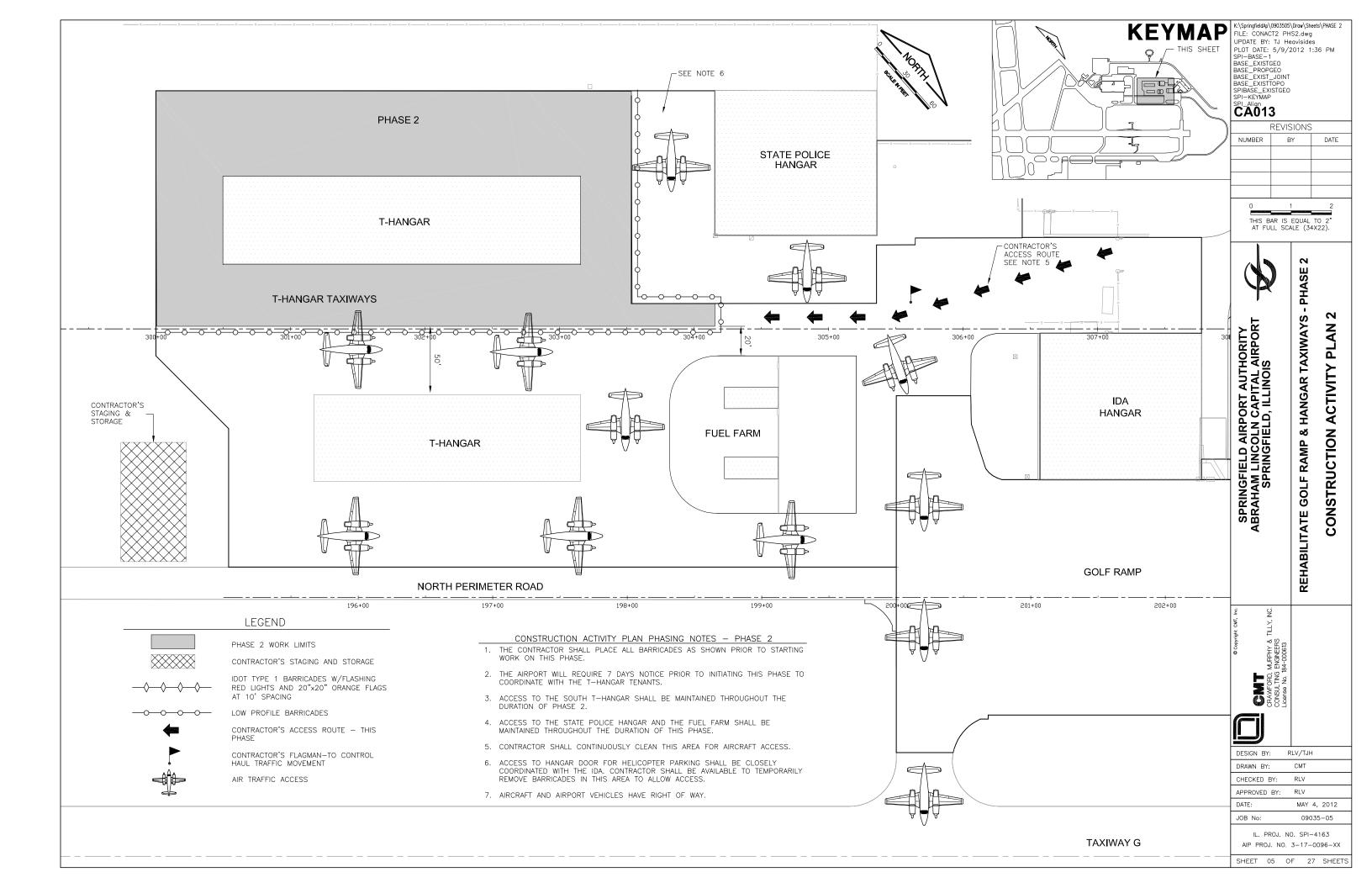
CRAWFOF CONSULT

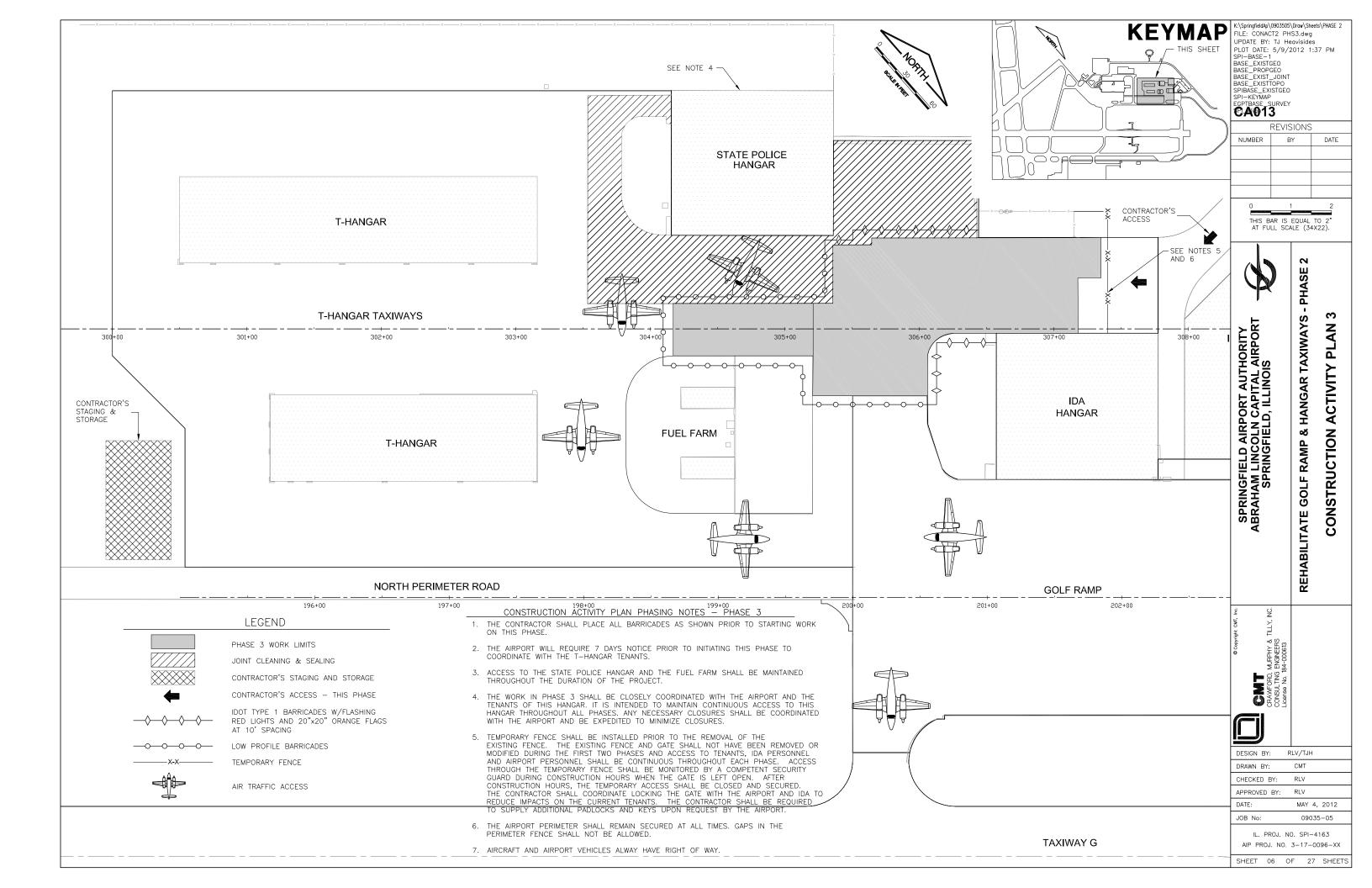
RLV/TJH DESIGN BY: DRAWN BY CMT CHECKED BY RLV APPROVED BY: RLV DATE: JOB No: 09035-05

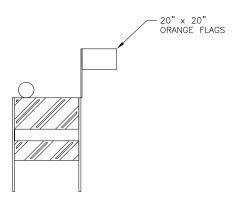
> IL. PROJ. NO. SPI-4163 AIP PROJ. NO. 3-17-0096-XX

SHEET 03 OF 27 SHEETS









FLASHER BARRICADE DETAIL-IDOT TYPE 1

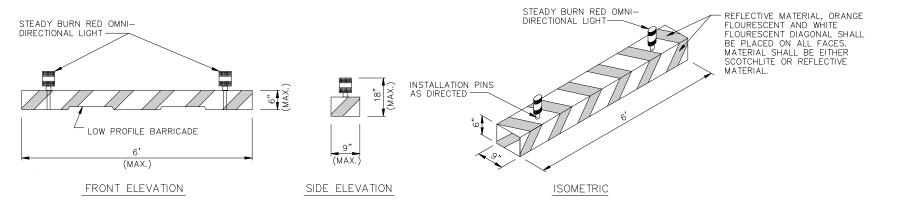
N.T.S.

FLASHER BARRICADE NOTES

- FLASHERS TO BE BATTERY OPERATED. LENS TO BE RED AND BE ABLE TO ROTATE 90 DEGREES.
- SANDBAGS TO BE PLACED ON EACH SUPPORT BRACE AS REQUIRED TO PREVENT DISPLACEMENT BY WIND, JET OR PROP BLAST.
- 3. NO SEPARATE PAYMENT WILL BE MADE FOR THIS ITEM. COSTS SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.
- 4. PLACE AT 10' INTERVALS.

GENERAL NOTES

- ALL CONSTRUCTION BARRICADES SHALL BE IN PLACE PRIOR TO INITIATING EACH PHASE.
- 2. ACCESS TO THE T-HANGAR TAXIWAYS AND TO TAXIWAY GOLF SHALL BE CONTINUOUS THROUGHOUT THE PROJECT. THE CONTRACTOR SHALL MAINTAIN ALL MINIMUM DISTANCES SHOWN IN THE CONSTRUCTION ACTIVITY PLANS OR AS REQUIRED FOR THE CRITICAL OPERATING AIRCRAFT THROUGH THESE AREAS.
- CONSTRUCTION BARRICADES SHALL BE SET AT THE LIMITS OF EACH PHASE'S WORK AREA. DURING PAVING OPERATIONS, BARRICADES MAY BE PLACED UP TO 30' BEYOND THE WORK LIMIT TO ALLOW ROOM FOR PAVING OPERATIONS. OFFSETTING THE BARRICADES TO THIS LOCATION SHALL BE COORDINATED WITH THE AIRPORT IN ADVANCE. IN THE EVENT OF A CONFLICT BETWEEN CONSTRUCTION OPERATIONS AND TAXING AIRCRAFT, THE CONTRACTOR SHALL CEASE OPERATIONS AND RETURN THE BARRICADES TO THE EDGE OF THE WORKING LIMITS. ALL BARRICADES SHALL BE LOCATED AT THE EDGE OF THE WORKING LIMITS AT THE END OF EACH WORKING DAY.
- ACTUAL WORK LIMITS/PAVING LIMITS MAY BE REVISED WITH THE AIRPORT'S APPROVAL. ALL MINIMUM DISTANCES SHALL BE MAINTAINED, AIR TRAFFIC ACCESS SHALL REMAIN UNAFFECTED, AND THE PROJECT SCHEDULE SHALL REMAIN THE SAME.



BEAM BARRICADE DETAILS

BEAM BARRICADE NOTES

- 1.) BARRICADE SHALL BE WEIGHTED TO WITHSTAND DISPLACEMENT BY JET OR PROP BLAST.
- 2.) BARRICADE SHALL BE EASILY COLLAPSIBLE UPON CONTACT WITH AIRCRAFT.
- 3.) PLACE AT 10' INTERVALS.

LOW PROFILE BARRICADE DETAILS

.T.S.

K:\SpringfieldAp\0903505\Draw\Sheets\PHASE 2 FILE: CONACTDET.dwg UPDATE BY: TJ Heavisides PLOT DATE: 5/9/2012 1:37 PM

CA013

REVISIONS		
NUMBER	BY	DATE

THIS BAR IS EQUAL TO 2"



SPRINGFIELD AIRPORT AUTHORITY ABRAHAM LINCOLN CAPITAL AIRPORT SPRINGFIELD, ILLINOIS

PHASE 2

JGAR TAXIWAYS - PHASE TY PLAN DETAILS

REHABILITATE GOLF RAMP & HANGAR TAXIN
CONSTRUCTION ACTIVITY PLAN I

CANTON MAPHY & TILY, NC. CONSULTING ENGNEERS



DESIGN BY: RLV/TJH

DRAWN BY: CMT

CHECKED BY: RLV

APPROVED BY: RLV

DATE: MAY 4, 2012

JOB No: 09035-05

IL. PROJ. NO. SPI-4163 AIP PROJ. NO. 3-17-0096-XX

SHEET 07 OF 27 SHEETS

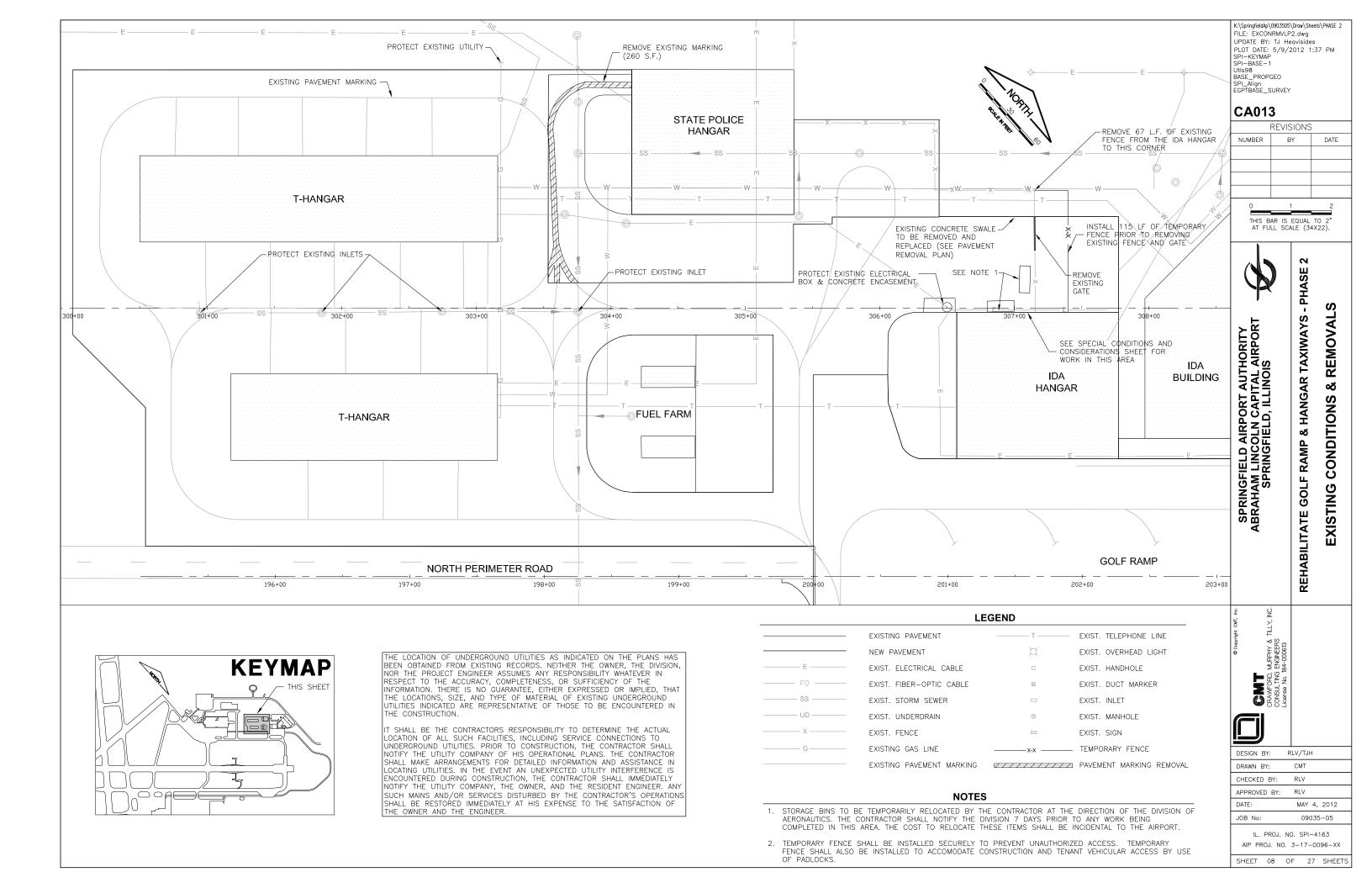






PHOTO 4 - ADJACENT T-HANGAR



PHOTO 6 - ADJACENT T-HANGAR

PHOTO 5 - ADJACENT T-HANGAR

NOTES

1. PRIOR TO THE COMMENCEMENT OF ANY PAVEMENT DEMOLITION, THE CONTRACTOR SHALL DOCUMENT, IN THE PRESENCE OF THE RESIDENT ENGINEER, THE EXISTING CONDITIONS OF THE SITE INCLUDING ALL ADJACENT CONDITIONS. AT THE END OF CONSTRUCTION, ANY ITEMS SAID TO HAVE BEEN DAMAGED BY THE CONTRACTOR'S OPERATION SHALL BE REPAIRED BY HIM/HER AT NO ADDITIONAL COST TO THE CONTRACT.

K:\SpringfieldAp\0903505\Draw\Sheets\PHASE 2
FILE: SPECIALCONDITIONS3.dwg UPDATE BY: TJ Heavisides
PLOT DATE: 5/9/2012 1:23 PM

CA013

REVISIONS				
NUMBER	BY	DATE		

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



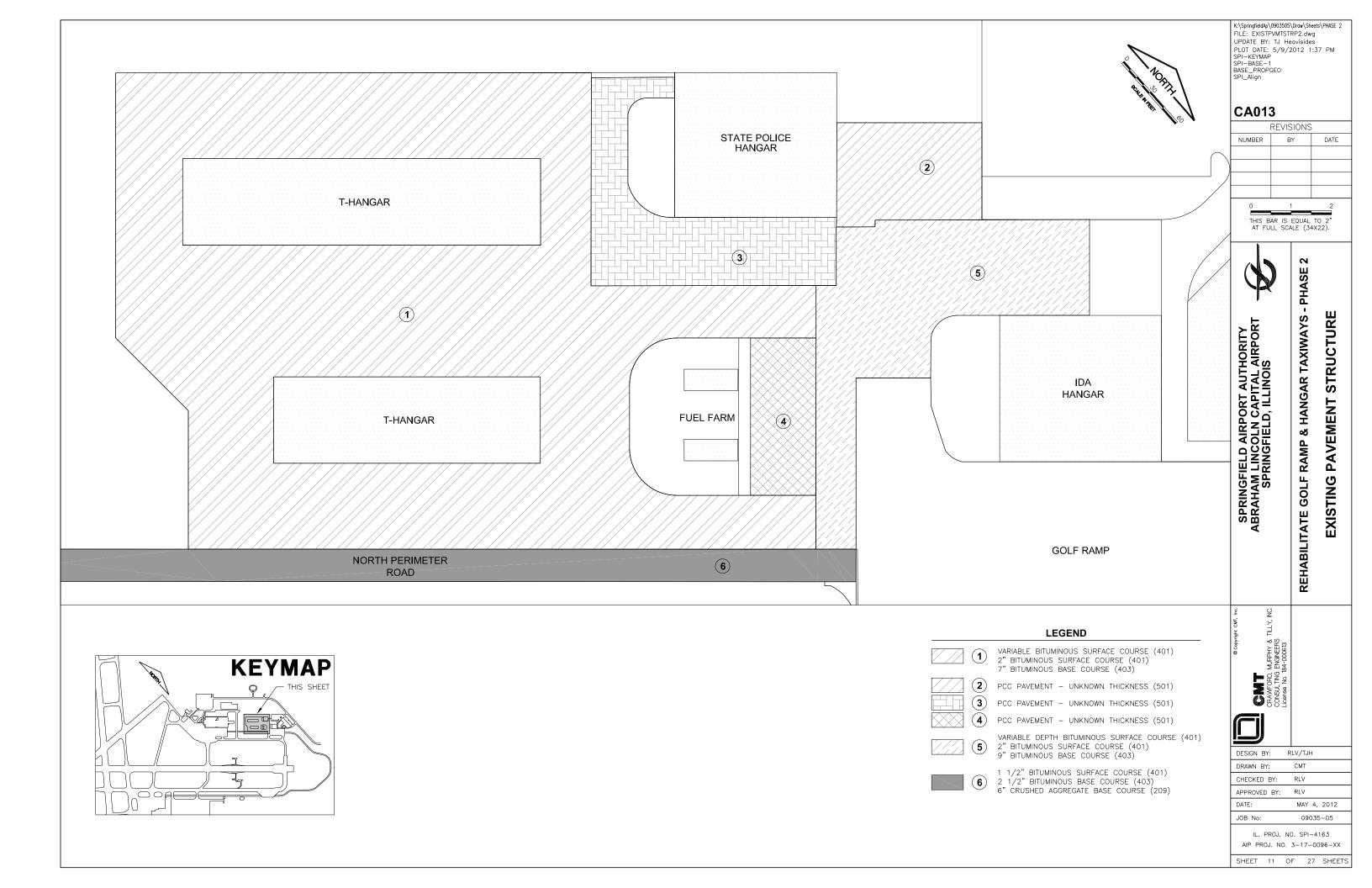
REHABILITATE GOLF RAMP & HANGAR TAXIWAYS - PHASE 2 AND CONSIDERATIONS SPECIALCONDITIONS

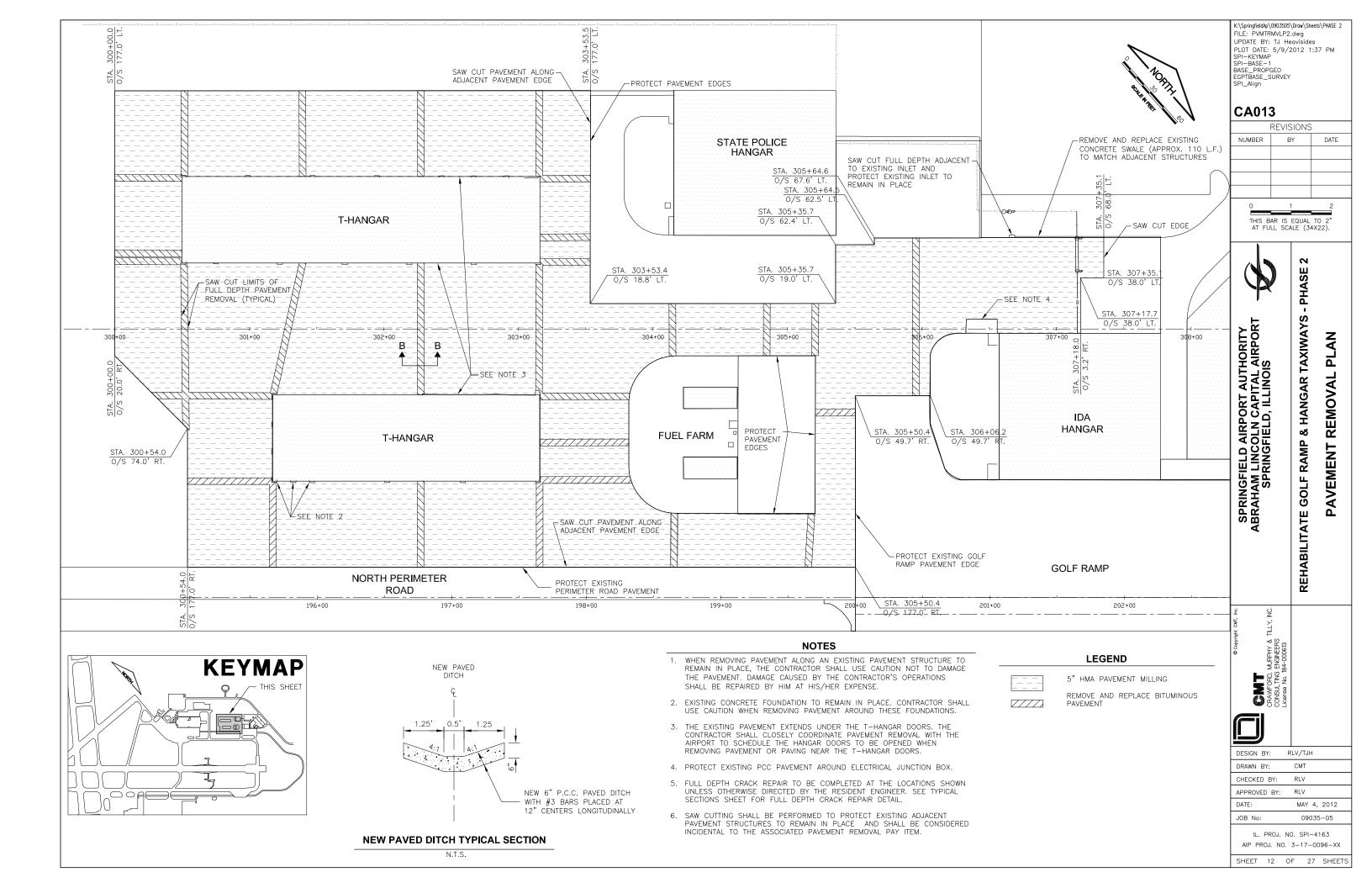


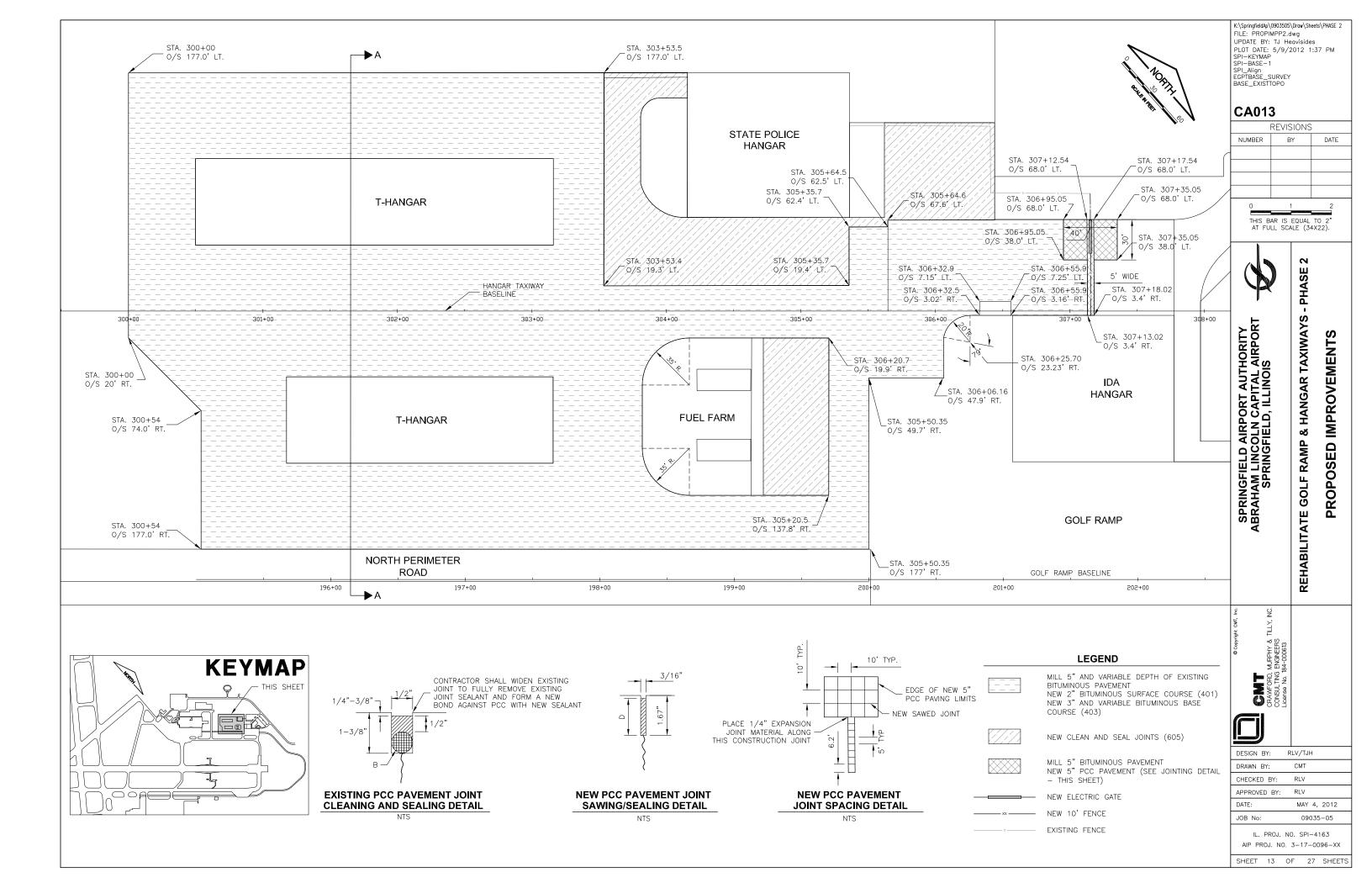
DESIGN BY: RLV/TJH DRAWN BY: CHECKED BY: APPROVED BY: JOB No: 09035-05

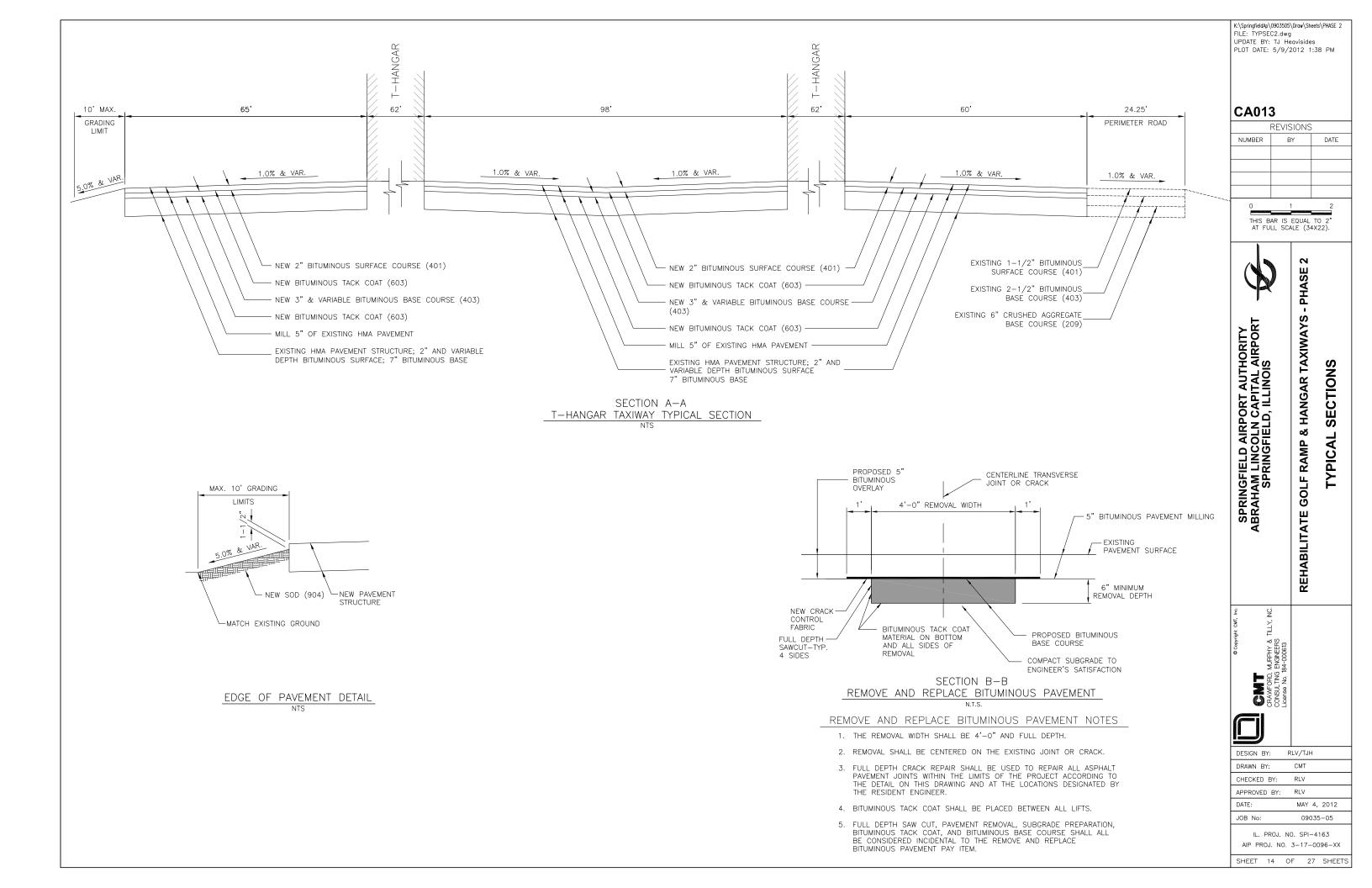
IL. PROJ. NO. SPI-4163 AIP PROJ. NO. 3-17-0096-XX

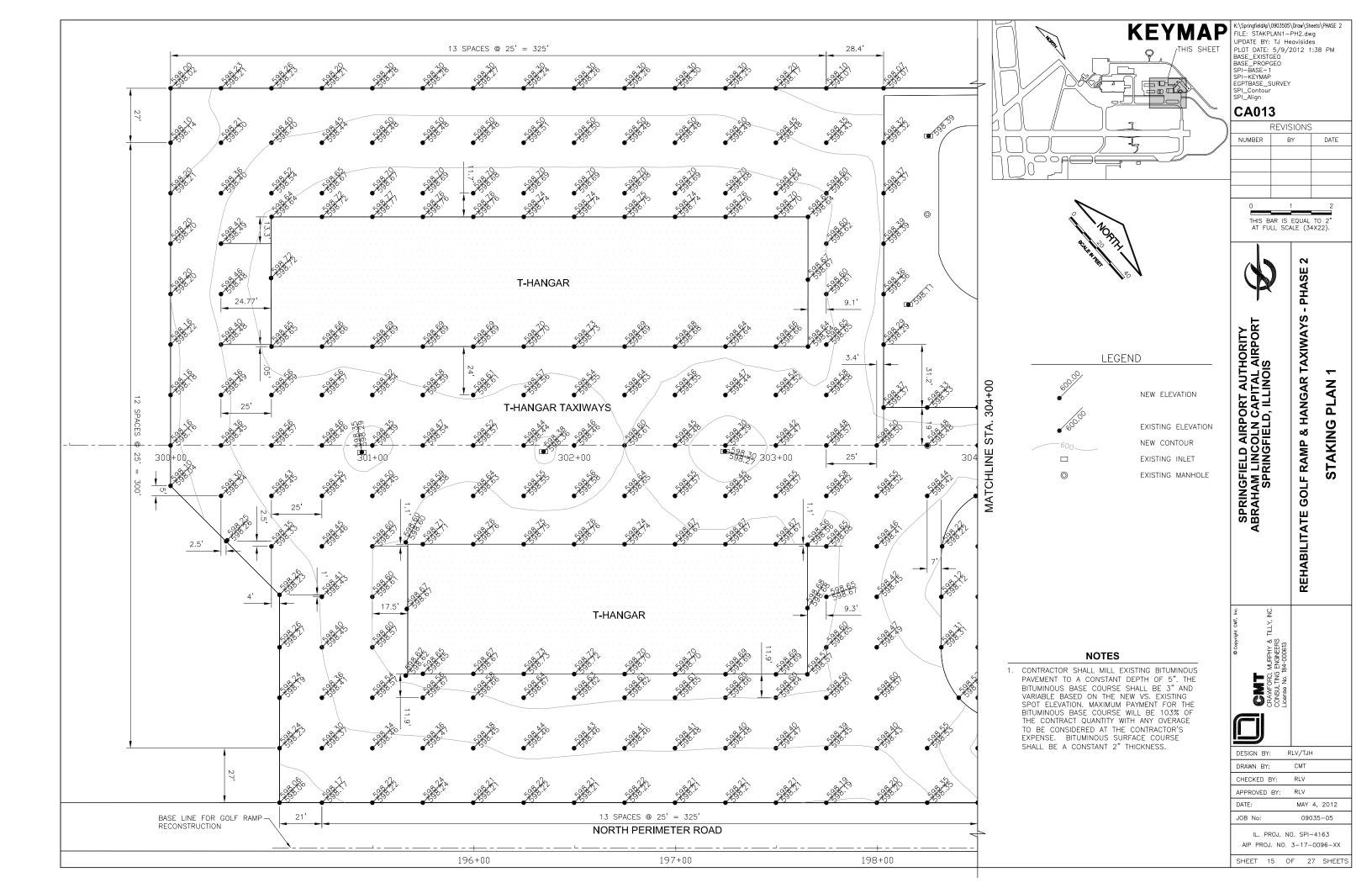
SHEET 10 OF 27 SHEETS

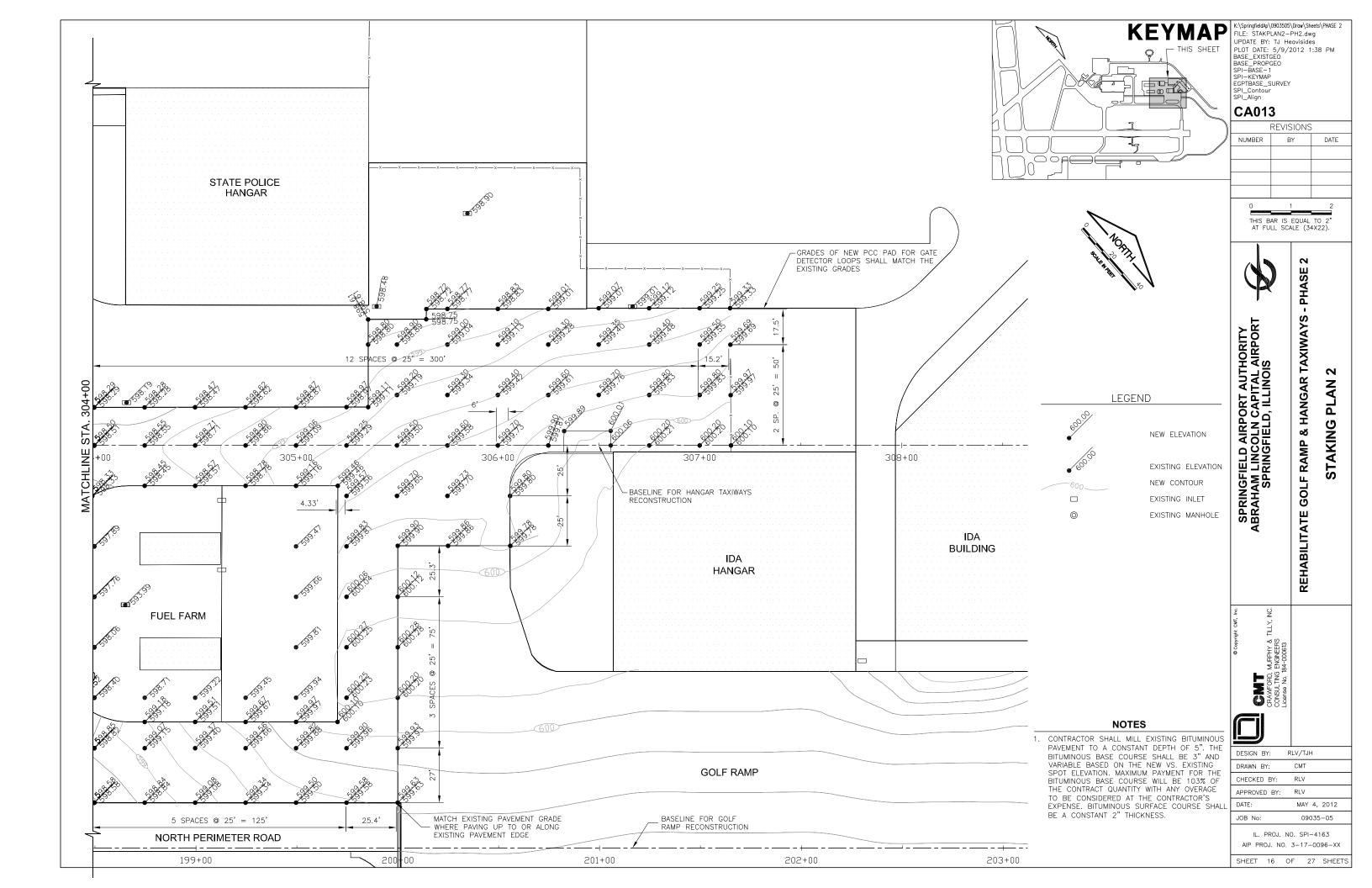


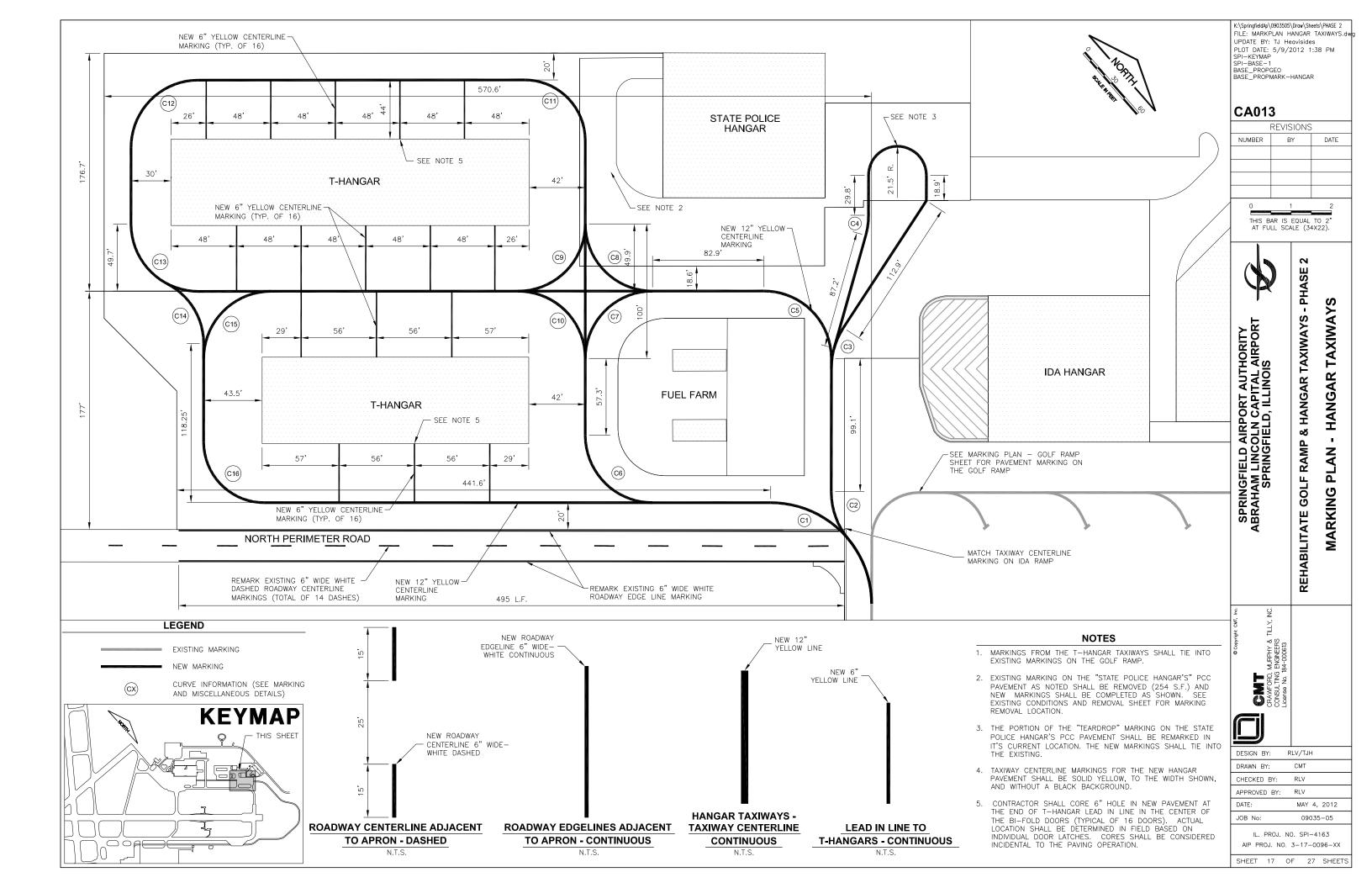












	НА	NGAR TAX	IWAYS - MA	ARKING C	OORDINAT	ΓES
CURVE	POINT	NORTHING	EASTING	STATION	OFFSET	CURVE ELEMENTS
C1	PC	1161057.64	2435748.21	305+70.6	232.1' RT	RADIUS= 75.0'
	RP	1161001.36	2435698.64	304+95.6	232.0' RT	LENGTH= 117.90'
	PT	1161050.86	2435642.30	304+95.6	157.0' RT	DELTA= 90°04'07.74"
C2	PC	1161076.33	2435700.69	305+53.2	184.0' RT	RADIUS= 55.0'
	RP	1161131.31	2435702.18	305+95.5	148.9' RT	LENGTH= 38.21'
	PT	1161090.03	2435665.84	305+40.5	148.8' RT	DELTA= 39°48'22.19"
C3	PC	1161150.66	2435596.98	305+40.6	57.1' RT	RADIUS= 55.0'
	RP	1161191.94	2435633.32	305+95.6	57.1' RT	LENGTH= 31.75'
	PT	1161177.19	2435580.34	305+49.6	27.1' RT	DELTA= 33°04'19.37"
C4	PC	1161246.44	2435529.85	305+68.3	56.6' LT	RADIUS= 55.0'
	RP	1161205.10	2435493.57	305+13.3	56.5' LT	LENGTH= 15.07'
	PT	1161235.08	2435539.68	305+66.2	41.7' LT	DELTA= 15°42'11.96"
C5	PC	1161155.51	2435591.48	305+40.6	49.7' RT	RADIUS= 50.0'
	RP	1161117.98	2435558.43	304+90.6	49.7' RT	LENGTH= 78.63'
	PT	1161150.96	2435520.85	304+90.6	0.3' LT	DELTA= 90°06'02.29"
C6	PC	1160984.84	2435584.30	304+07.7	157.0' RT	RADIUS= 50.0'
	RP	1161017.84	2435546.74	304+07.7	107.0' RT	LENGTH= 78.5'
	PT	1160980.28	2435513.74	303+57.7	107.0' RT	DELTA= 90°00'00.00"
C7	PC	1161018.07	2435470.73	303+57.7	49.7' RT	RADIUS= 50.0'
	RP	1161055.63	2435503.73	304+07.7	49.7' RT	LENGTH= 78.51'
	PT	1161088.61	2435466.14	304+07.7	0.3' LT	DELTA= 89°57'50.29"
C8	PC	1161088.66	2435466.19	304+07.7	0.3' LT	RADIUS= 50.0'
	RP	1161121.64	2435428.60	304+07.7	50.3' LT	LENGTH= 78.57'
	PT	1161084.07	2435395.60	303+57.7	50.3' LT	DELTA= 90°02'09.71"
C9	PC	1161013.49	2435400.23	303+07.7	0.2' LT	RADIUS= 50.0'
	RP	1161046.47	2435362.65	303+07.7	50.2' LT	LENGTH= 78.51'
	PT	1161084.03	2435395.65	303+57.7	50.2' LT	DELTA= 89°57'50.29"
C10	PC	1161013.45	2435400.19	303+07.7	0.2' LT	RADIUS= 50.0'
	RP	1160980.47	2435437.77	303+07.7	49.8' RT	LENGTH= 78.57'
	PT	1161018.03	2435470.77	303+57.7	49.8' RT	DELTA= 90°02'09.71"
C11	PC	1161124.96	2435349.07	303+57.7	112.2' LT	RADIUS= 45.0'
	RP	1161091.15	2435319.37	303+12.7	112.2' LT	LENGTH= 70.71'
	PT	1161120.83	2435285.54	303+12.7	157.2' LT	DELTA= 90°02'09.71"
C12	PC	1160938.40	2435125.47	300+70.0	157.0' LT	RADIUS= 50.0'
	RP	1160905.42	2435163.05	300+70.0	107.0' LT	LENGTH= 78.51'
	PT	1160867.86	2435130.05	300+20.0	107.0' LT	DELTA= 89°57'50.29"
C13	PC	1160830.24	2435172.87	300+20.0	50.0' LT	RADIUS= 50.0'
	RP	1160867.80	2435205.88	300+70.0	50.0' LT	LENGTH= 78.57'
	PT	1160834.82	2435243.46	300+70.0	0.0' LT	DELTA= 90°02'09.71"
C14	PC	1160821.22	2435224.05	300+47.0	5.6' LT	RADIUS= 50.0'
	RP	1160774.64	2435242.22	300+24.0	38.7' RT	LENGTH= 54.64'
	PT	1160812.20	2435275.22	300+74.0	38.7' RT	DELTA= 62°36'46.41"
C15	PC	1160804.82	2435283.61	300+74.0	49.9' RT	RADIUS= 50.0'
	RP	1160842.39	2435316.62	301+24.0	49.9' RT	LENGTH= 78.51'
	PT	1160875.36	2435279.03	301+24.0	0.1' LT	DELTA= 89°57'50.29"
C16	PC	1160763.85	2435330.25	300+74.0	112.0' RT	RADIUS= 45.0'
	RP	1160797.66	2435359.95	301+19.0	112.0' RT	LENGTH= 70.69'
	PT	1160767.96	2435393.76	301+19.0	157.0' RT	DELTA= 90°00'00.00"

K:\SpringfieldAp\0903505\Drom\Sheets\PHASE 2
FILE: MARKDET2.dwg
UPDATE BY: TJ Heavisides
PLOT DATE: 5/9/2012 1:38 PM

CA013

O7 10 1	-		
REVISIONS			
NUMBER	BY	DATE	

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



SPRINGFIELD AIRPORT AUTHORITY ABRAHAM LINCOLN CAPITAL AIRPORT SPRINGFIELD, ILLINOIS

REHABILITATE GOLF RAMP & HANGAR TAXIWAYS - PHASE 2

MARKING & MISCELLANEOUS DETAILS

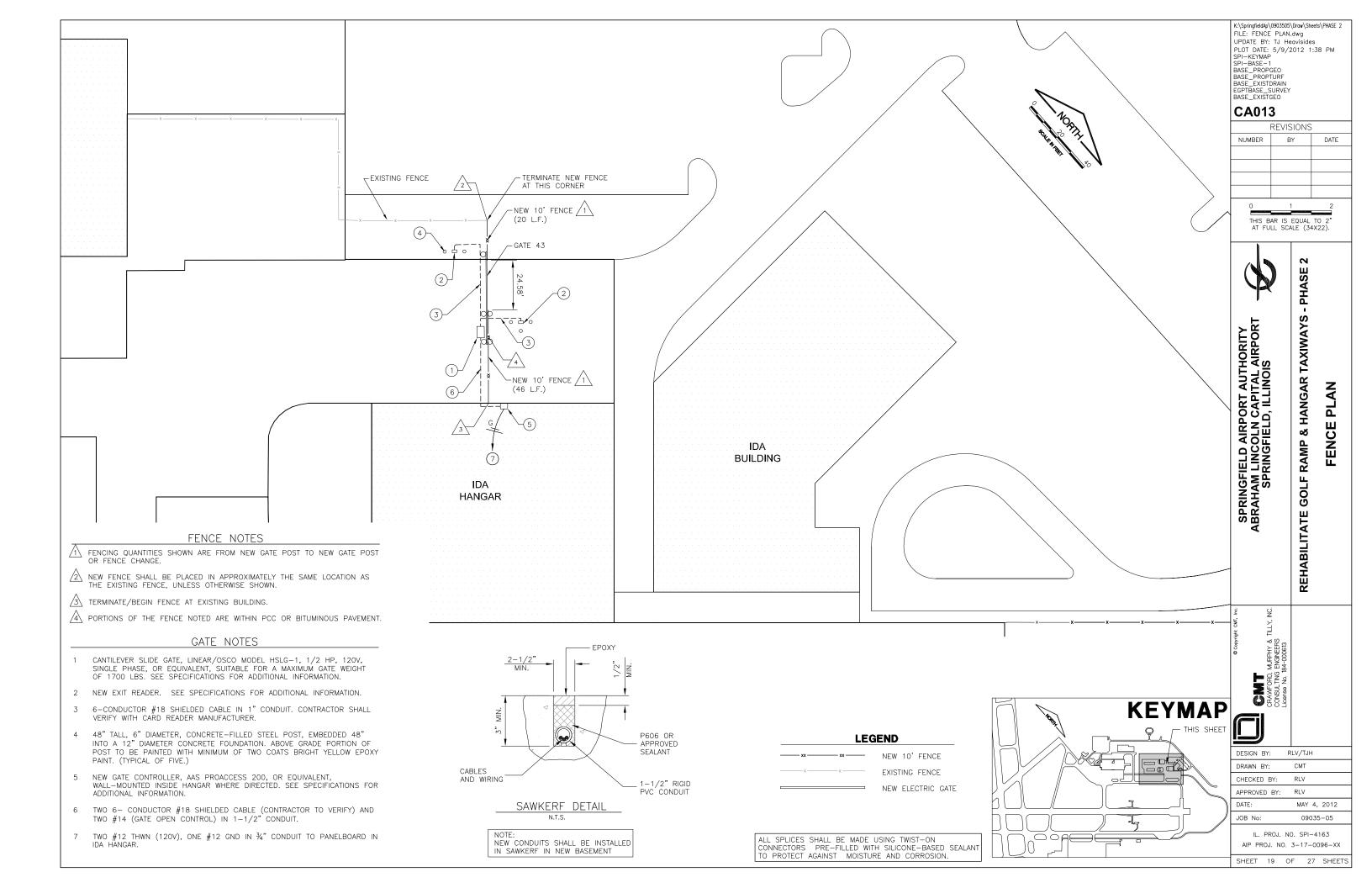
CMT
CRAWFORD, MURPHY & TILLY, NC.
CONSULTING ENGINEERS
LICENSE NO. 184-000613

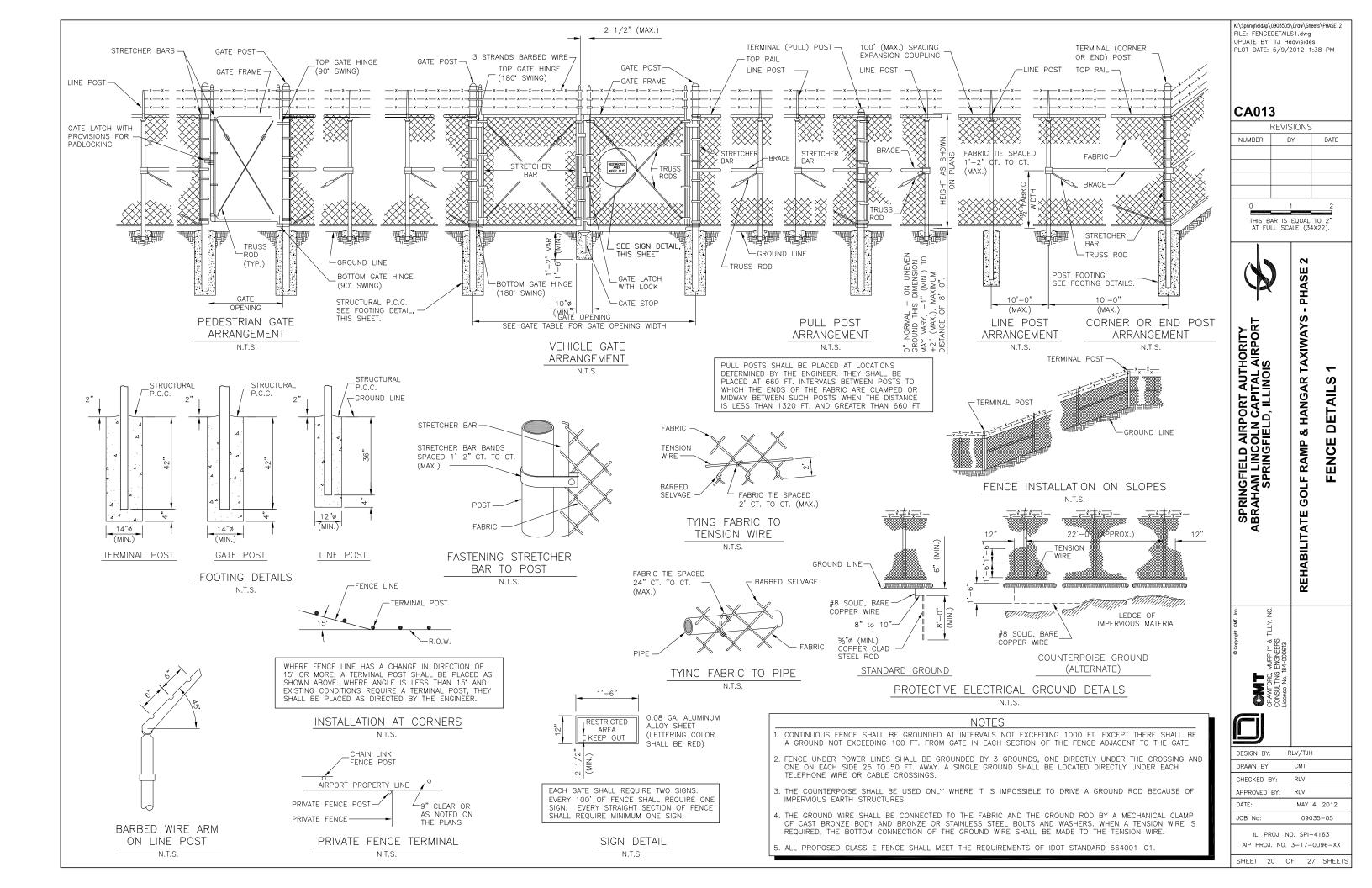


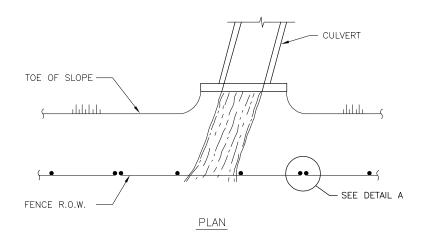
DESIGN BY:	RLV/TJH
DRAWN BY:	CMT
CHECKED BY:	RLV
APPROVED BY:	RLV
DATE:	MAY 4, 2012
JOB No:	09035-05
IL. PROJ.	NO. SPI-4163

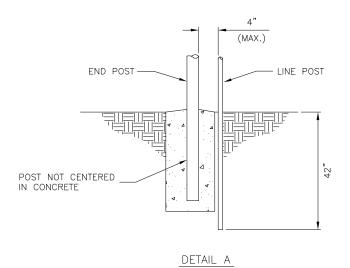
AIP PROJ. NO. 3-17-0096-XX

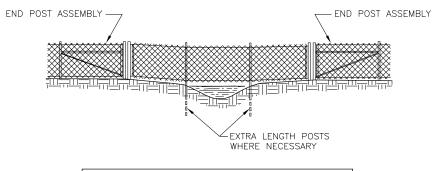
SHEET 18 OF 27 SHEETS







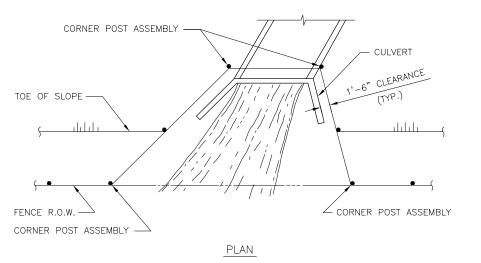


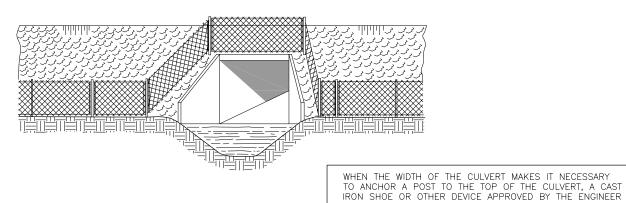


THE CHAIN LINK FABRIC SHALL BE REPLACED BY BARBED WIRE STRANDS AT 12" MAXIMUM CENTERS BETWEEN THE DOUBLE POSTS SHOWN ON DETAIL A WHEN SHOWN ON THE PLANS.

ELEVATION

FENCE INSTALLATION OVER STREAM DETAILS N.T.S.





ELEVATION

SHALL BE USED.

FENCE POST SHAPE, SIZE AND WEIGHT

DIAMETER

4.0" O.D.

2.875" O.D.

1.66" O.D.

N/A

ROUND STEEL PIPE SCH. 40

WEIGHT

9.11 LB/FT

5.79 LB/FT

2.77 LB/FT

18.97 LB/FT

DIAMETER

4.0" O.D.

2.875" O.D.

1.66" O.D.

6.25" O.D.

FENCE POST MATERIAL

ROUND STEEL PIPE SS 40

WEIGHT

6.57 LB/LF

4.64 LB/LF

1.84 LF/LF

N/A

ROLL FORMED C SECTION

WEIGHT

4.50 LB/FT

4.50 LB/FT

1.35 LB/FT

N/A

SIZE

3.25" X 2.5'

3.25" X 2.5"

1.625" X 1.25"

N/A

FENCE INSTALLATION AROUND HEADWALL DETAILS

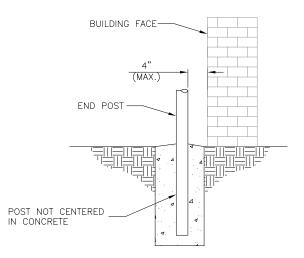
POST TYPE

LINE POST

TOP RAIL

GATE POST

CORNER, END, PULL



FENCE	INSTALLATION	ΑT	BUILDING	FACE
	N.T.S	3.		

FILE: FENCEDETAILS2.dwg UPDATE BY: TJ Heavisides PLOT DATE: 5/9/2012 1:38 PM

K:\SpringfieldAp\0903505\Draw\Sheets\PHASE 2

CA013

	REVISIONS	j
NUMBER	BY	DATE

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



GOLF RAMP & HANGAR TAXIWAYS 2 FENCE DETAILS

SPRINGFIELD AIRPORT AUTHORITY ABRAHAM LINCOLN CAPITAL AIRPORT SPRINGFIELD, ILLINOIS REHABILITATE

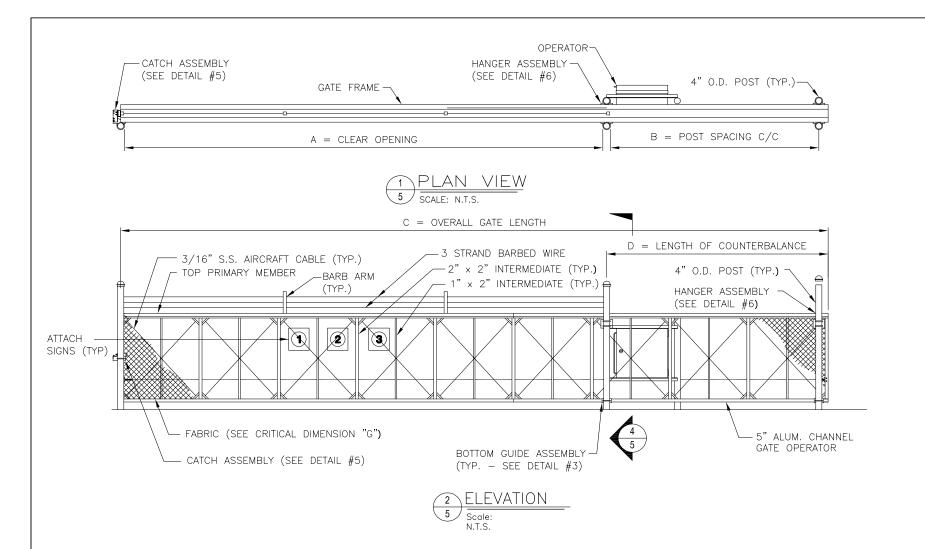
CRAWFORD, N CONSULTING E License No. 18



DESIGN BY:	RLV/TJH	
DRAWN BY:	CMT	
CHECKED BY:	RLV	
APPROVED BY:	RLV	
DATE:	MAY 4, 2012	
JOB No:	09035-05	

IL. PROJ. NO. SPI-4163 AIP PROJ. NO. 3-17-0096-XX

SHEET 21 OF 27 SHEETS



UL 235 COMPLIANCE NOTES

IS SUPPLIED FOR ALL EXPOSED ROLLERS.

INCLUDING, BUT NOT LIMITED TO:

SIDES OF THE SLIDE GATE.

GATE OPERATOR DETAILS SHEET.

GATE INSTALLATION SHALL COMPLY WITH ALL REQUIREMENTS OF UL 235,

ALL OPENINGS OF THE SLIDE GATE ARE GUARDED OR SCREENED FROM

2. ALL EXPOSED PINCH POINTS ARE ELIMINATED OR GUARDED AND GUARDING

3. A WARNING SIGN (SEE DETAIL, THIS SHEET) MUST BE AFFIXED TO BOTH

4. FOR ADDITIONAL UL 235 REQUIREMENTS FOR THIS GATE INSTALLATION, SEE

THE BOTTOM OF THE GATE TO A MINIMUM OF 4 FEET ABOVE GROUND TO OPENINGS ANYWHERE IN THE GATE, AND IN THAT PORTION OF THE ADJACENT FENCE THAT THE GATE COVERS IN THE OPEN POSITION.

CANT	CANTILEVER SLIDE GATE CRITICAL DIMENSION CHART			
		GATE #27		
Α	CLEAR OPENING	24'-0"		
В	COUNTERBALANCE POST SPACING C/C	11'-1"		
С	OVERALL GATE LENGTH	36'-0"		
D	COUNTERBALANCE LENGTH	12'-0"		
E	NOMINAL GATE HEIGHT	8'-0"		
F	POST HEIGHT	9'-6"		
G	FABRIC HEIGHT	7'-0"		
Н	NOMINAL WEIGHT	594 LBS		

	SIGNS					
CONT	RACTOR SHAL	L FURNISH AND	INSTALL	SIGNS A	AS INDICATED IN TABLE BELOW	
		BACKGROUND	LETTI	ERING		
SIGN	DIMENSIONS	COLOR	COLOR	HEIGHT	TEXT	
1	24' x 18"	WHITE	RED	1.5"	FAA REGULATIONS REQUIRE	
					THAT AFTER ENTERING OR	
					EXITING THROUGH THIS	
					SECURITY GATE YOU ARE	
					REQUIRED TO WAIT UNTIL THE	
					GATE CLOSES BEFORE	
					PROCEEDING. FINES OR	
					PENALTIES WILL BE IMPOSED.	
2	18" x 12"	WHITE	RED	4"	GATE #27	
3	SEE WARNING SIGN DETAIL					

1) SIGNS #1 AND #3 SHALL BE INSTALLED ON BOTH SIDES OF GATE. SIGN #2 SHALL BE INSTALLED ON "LAND" SIDE OF GATE.

- 2. CONTRACTOR SHALL PROVIDE AND INSTALL GATE AS COMPLETE WORKING UNIT. THE GATE WORK SHALL INCLUDE, BUT NOT BE LIMITED TO: GATE, OPERATOR, DIGITAL CODE CONTROL AND POWER CABLES, CONDUIT, TRENCHING, CIRCUIT BREAKERS, AND ALL CONNECTIONS, LABOR AND MATERIALS NECESSARY TO COMPLETE OPERATION
- 3. LOCATION OF THE GATE OPERATOR SHALL BE AS RECOMMENDED BY THE MANUFACTURER.
- 5. THE FABRIC TYPE AND FINISH OF THE GATE, MATCH WITH PROPOSED FENCE OR AS DIRECTED BY THE ENGINEER.
- 6. ALL SLIDING GATES SHALL HAVE ALL ROLLERS ENCLOSED IN STEEL OR PLASTIC SHROUDS TO PREVENT ACCIDENTAL INJURY.

LOCATIONS, DETAILS AND CHARACTER OF EQUIPMENT SHOWN ON THIS SHEET IS GENERIC. EQUIPMENT LOCATIONS SHALL BE AS RECOMMENDED BY THE EQUIPMENT MANUFACTURER.

CANTI	CANTILEVER SLIDE GATE CRITICAL DIMENSION CHART				
		GATE #27			
Α	CLEAR OPENING	24'-0"			
В	COUNTERBALANCE POST SPACING C/C	11'-1"			
С	OVERALL GATE LENGTH	36'-0"			
D	COUNTERBALANCE LENGTH	12'-0"			
Е	NOMINAL GATE HEIGHT	8'-0"			
F	POST HEIGHT	9'-6"			
G	FABRIC HEIGHT	7'-0"			
Н	NOMINAL WEIGHT	594 LBS			

	SIGNS					
CONTRACTOR SHALL FURNISH AND INSTALL SIGNS AS INDICATED IN TABLE BELOW						
		BACKGROUND	LETTI	ERING		
SIGN	DIMENSIONS	COLOR	COLOR	HEIGHT	TEXT	
1	24' x 18"	WHITE	RED	1.5"	FAA REGULATIONS REQUIRE	
					THAT AFTER ENTERING OR	
					EXITING THROUGH THIS	
					SECURITY GATE YOU ARE	
					REQUIRED TO WAIT UNTIL THE	
					GATE CLOSES BEFORE	
					PROCEEDING. FINES OR	
					PENALTIES WILL BE IMPOSED.	
2	18" x 12"	WHITE	RED	4"	GATE #27	
3	3 SEE WARNING SIGN DETAIL					
	_					



KEEP CLEAR! Gate may move at any time without prior warning.

Do not let children operate the gate or play in the gate area.

This entrance is for vehicles only Pedestrians must use separate entrance

WARNING SIGN DETAIL

NOTES

1. CANTILEVERED GATE SHALL BE SUFFICIENTLY RIGID TO WITHSTAND FLEXING OR BENDING DURING WINDY CONDITIONS. CONTRACTOR SHALL PROVIDE STIFFENERS, STRUCTURAL SHAPES IN EXCESS OF THE MINIMUM SPECIFIED DIMENSIONS OR ADDITIONAL ROLLERS AND POSTS SUFFICIENT TO PREVENT DISPLACEMENT OF THE GATE BY WIND OR BY UNAUTHORIZED PERSONNEL.

- 4. PIPE BOLLARDS SHALL BE INSTALLED AT LOCATIONS SHOWN IN PLAN VIEW.

CRAWFORD, CONSULTING RLV/TJH DESIGN BY: DRAWN BY: CMT CHECKED BY: RLV APPROVED BY: RLV DATE: MAY 4, 2012 JOB No: 09035-05 IL. PROJ. NO. SPI-4163 AIP PROJ. NO. 3-17-0096-XX SHEET 22 OF 27 SHEETS

FILE: ELECTRICAL GATE DETAILS 1.dwg PLOT DATE: 5/9/2012 1:39 PM

K:\SpringfieldAp\0903505\Draw\Sheets\PHASE 2

CA013

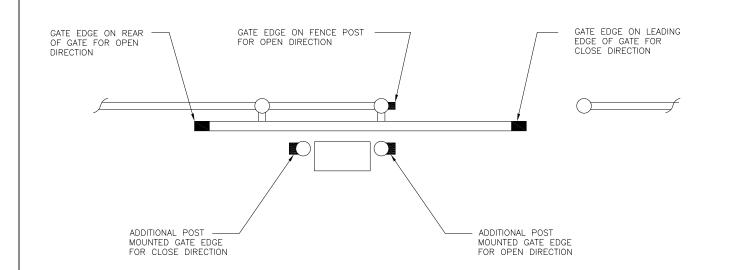
REVISIONS				
NUMBER	BY	DATE		

THIS BAR IS FOLIAL TO 2

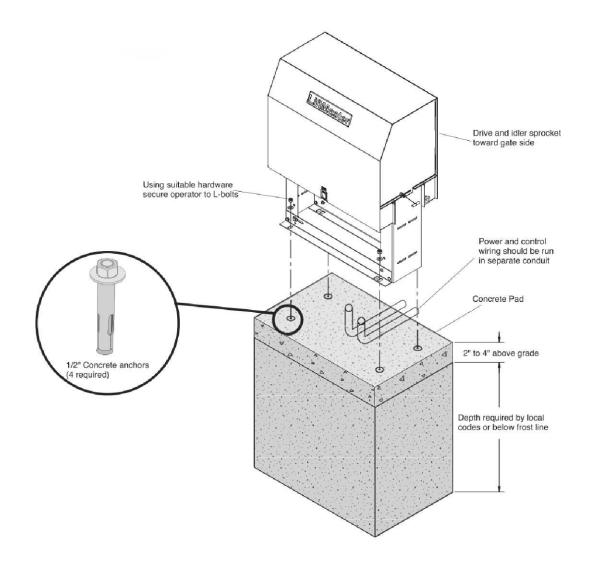
SPRINGFIELD AIRPORT AUTHORITY ABRAHAM LINCOLN CAPITAL AIRPORT SPRINGFIELD, ILLINOIS

PHASE TAXIWAYS

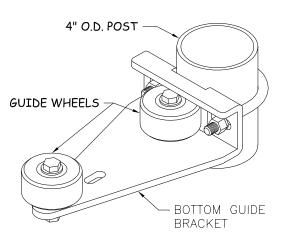
DETAIL: HANGAR GATE ఠ RAMP ELECTRICAL GOLF REHABILITATE



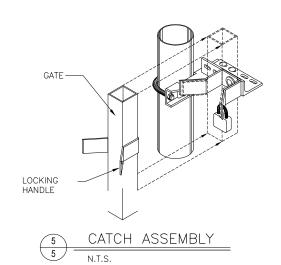
SECONDARY GATE OPERATOR ENTRAPMENT PROTECTION CONTACT SENSORS

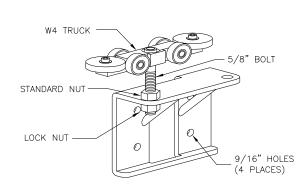


GATE OPERATOR FOUNDATION



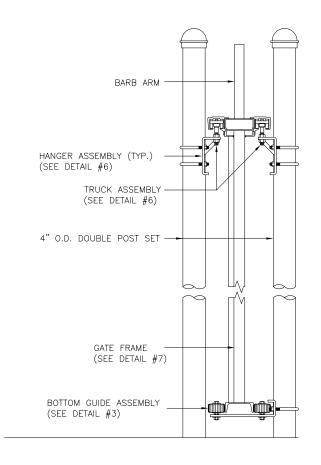




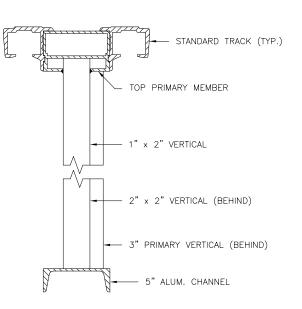


GATE HANGER ASSEMBLY

CANTILEVER SLIDE GATE DETAILS







GATE FRAME SECTION

K:\SpringfieldAp\0903505\Draw\Sheets\PHASE 2
FILE: ELECTRICAL GATE DETAILS 2.dwg UPDATE BY: TJ Heavisides PLOT DATE: 5/9/2012 1:39 PM

CA013

REVISIONS					
NUMBER	BY	DATE			
0	1	2			

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

PHASE SPRINGFIELD AIRPORT AUTHORITY ABRAHAM LINCOLN CAPITAL AIRPORT SPRINGFIELD, ILLINOIS

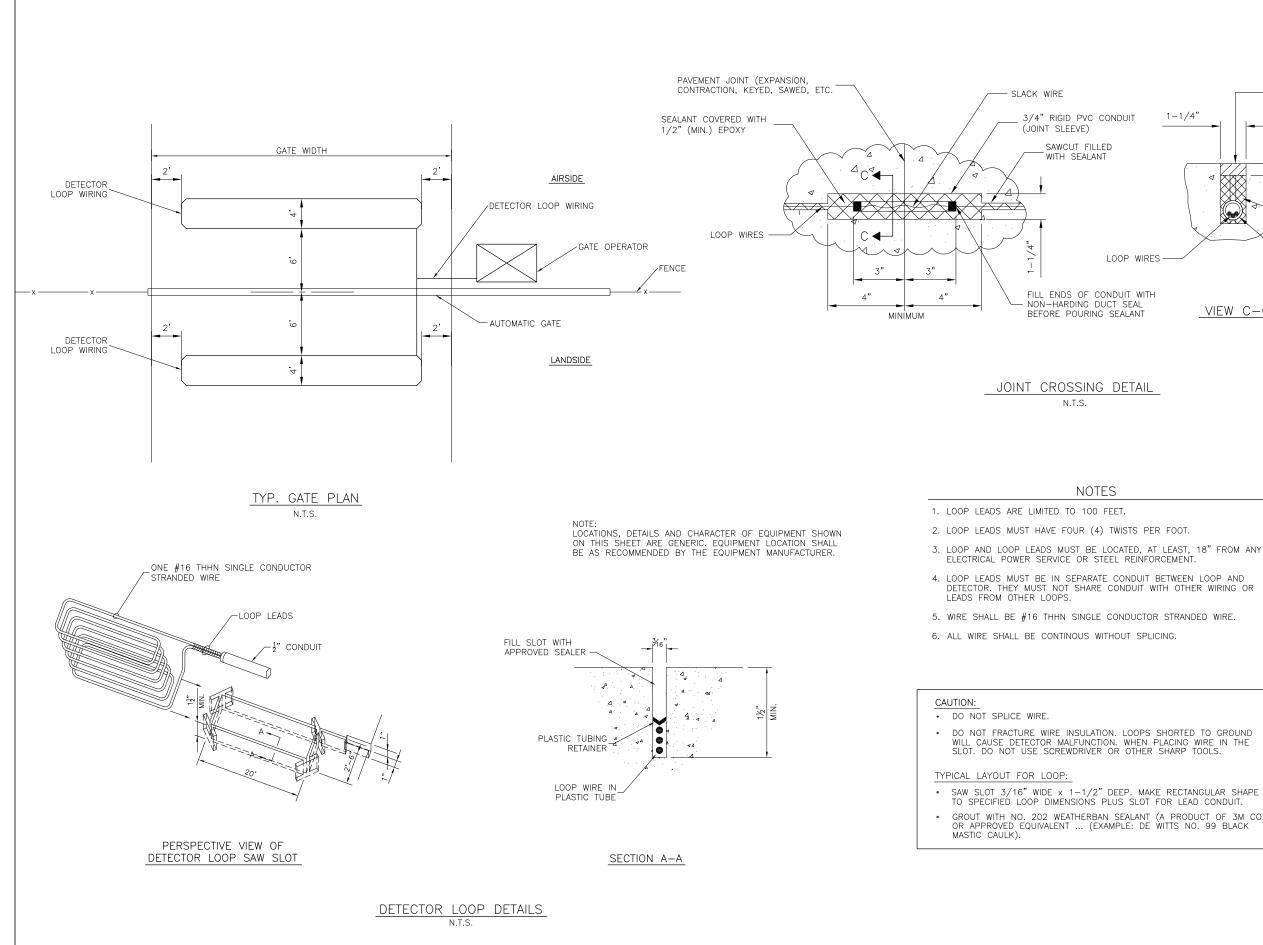
TAXIWAYS GATE DETAILS & HANGAR RAMP ELECTRICAL GOLF REHABILITATE

CRAWFORD, N CONSULTING F License No. 18

RLV/TJH DESIGN BY: CMT DRAWN BY: CHECKED BY: RLV RLV APPROVED BY: DATE: MAY 4, 2012 JOB No: 09035-05

IL. PROJ. NO. SPI-4163 AIP PROJ. NO. 3-17-0096-XX

SHEET 23 OF 27 SHEETS



K:\SpringfieldAp\0903505\Draw\Sheets\PHASE 2 FILE: ELECTRIC GATE DETAIL 3.dwg UPDATE BY: TJ Heavisides PLOT DATE: 5/9/2012 1:39 PM

CA013

APPROVED SEALANT

3/4" RIGID PVC CONDUIT

REVISIONS

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

TAXIWAYS HANGAR ఠ RAMP

DETAIL

GATE

ELECTRICAL

GOLF

REHABILITATE

SPRINGFIELD AIRPORT AUTHORITY ABRAHAM LINCOLN CAPITAL AIRPOR' SPRINGFIELD, ILLINOIS

CRAWFORD, CONSULTING

JOB No:

RLV/TJH DESIGN BY: CMT CHECKED BY APPROVED BY:

> IL. PROJ. NO. SPI-4163 AIP PROJ. NO. 3-17-0096-XX

SHEET 24 OF 27 SHEETS

09035-05

· DO NOT SPLICE WIRE.

- SLACK WIRE

3/4" RIGID PVC CONDUIT

SAWCUT FILLED WITH SEALANT

FILL ENDS OF CONDUIT WITH NON-HARDING DUCT SEAL

BEFORE POURING SEALANT

N.T.S.

NOTES

LOOP WIRES

(JOINT SLEEVE)

1-1/4"

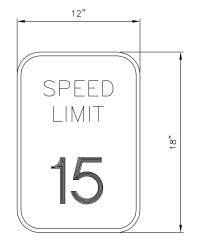
VIEW C-C

• DO NOT FRACTURE WIRE INSULATION. LOOPS SHORTED TO GROUND WILL CAUSE DETECTOR MALFUNCTION. WHEN PLACING WIRE IN THE SLOT. DO NOT USE SCREWDRIVER OR OTHER SHARP TOOLS.

TYPICAL LAYOUT FOR LOOP:

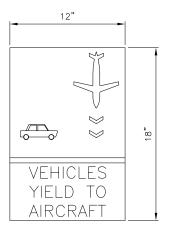
- * SAW SLOT 3/16" WIDE x 1-1/2" DEEP. MAKE RECTANGULAR SHAPE TO SPECIFIED LOOP DIMENSIONS PLUS SLOT FOR LEAD CONDUIT.
- GROUT WITH NO. 202 WEATHERBAN SEALANT (A PRODUCT OF 3M CO.) OR APPROVED EQUIVALENT ... (EXAMPLE: DE WITTS NO. 99 BLACK MASTIC CAULK).





Department of Homeland Security
Transportation Security
Administration Regulations require
that after entering or exiting
through this security gate you are
required to wait until the gate
closes before proceeding. Fines or
penalties will be imposed.

24"

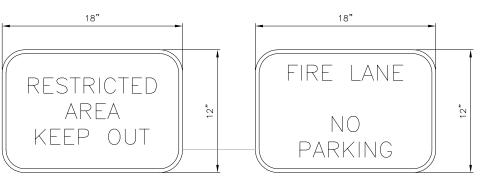


CAUTION SIGN

SPEED LIMIT SIGN

TSA SIGN

YIELD SIGN

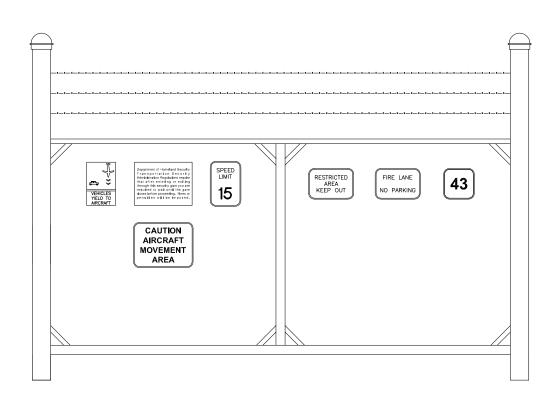


KEEP OUT SIGN

FIRE LANE SIGN

GATE NUMBER SIGN

12"



ELECTRIC VEHICLE GATE

NOTES:

- 1. SEE PROPOSED GATE PLAN FOR TYPES OF SIGNS REQUIRED AT EACH GATE.
- 2. GATE NUMBER AND RESTRICTED AREA SIGNS SHALL BE INSTALLED ON ALL NEW GATES. COST TO PROVIDE AND INSTALL SIGNS SHALL BE INCIDENTAL TO THE COST OF THE ASSOCIATED GATE. COORDINATE WITH AIRPORT ON NUMBER.
- 3. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS OF EACH SIGN. SHOP DRAWINGS SHALL MEET THE APPROVAL OF THE AIRPORT AND ENGINEER PRIOR TO MANUFACTURE AND INSTALLATION.
- 4. LETTERING COLOR SHALL BE RED ON WHITE BACKGROUND.
- 5. EVERY 100' OF FENCE SHALL REQUIRE ONE RESTRICTED AREA SIGN. EVERY STRAIGHT SECTION OF FENCE SHALL REQUIRE MINIMUM ONE RESTRICTED AREA SIGN.
- 6. SEE ELECTRIC GATE DETAIL 1 FOR ADDITIONAL GATE RELATED SIGNS.
- COSTS TO PROVIDE AND INSTALL SIGNS SHALL BE INCIDENTAL TO CONTRACT PAY ITEMS.
- 8. ALL SIGNS SHALL BE FASTENED TO THE INSIDE OF THE FENCE.

K:\SpringfieldAp\0903505\Draw\Sheets\PHASE 2
FILE: GATE SIGNS DETAILS.dwg
UPDATE BY: TJ Heavisides
PLOT DATE: 5/9/2012 1:39 PM

CA013

REVISIONS				
NUMBER BY DATE				

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



SPRINGFIELD AIRPORT AUTHORITY ABRAHAM LINCOLN CAPITAL AIRPORT SPRINGFIELD, ILLINOIS

TAXIWAYS - PHASE

REHABILITATE GOLF RAMP & HANGAR TAXIWAYS - GATE SIGNS DETAILS

CRAWFORD, MARPHY & TILLY, NC. CONSULTING BINAREST License No. 184-000613

DESIGN BY: RLV/TJH

DRAWN BY: CMT

CHECKED BY: RLV

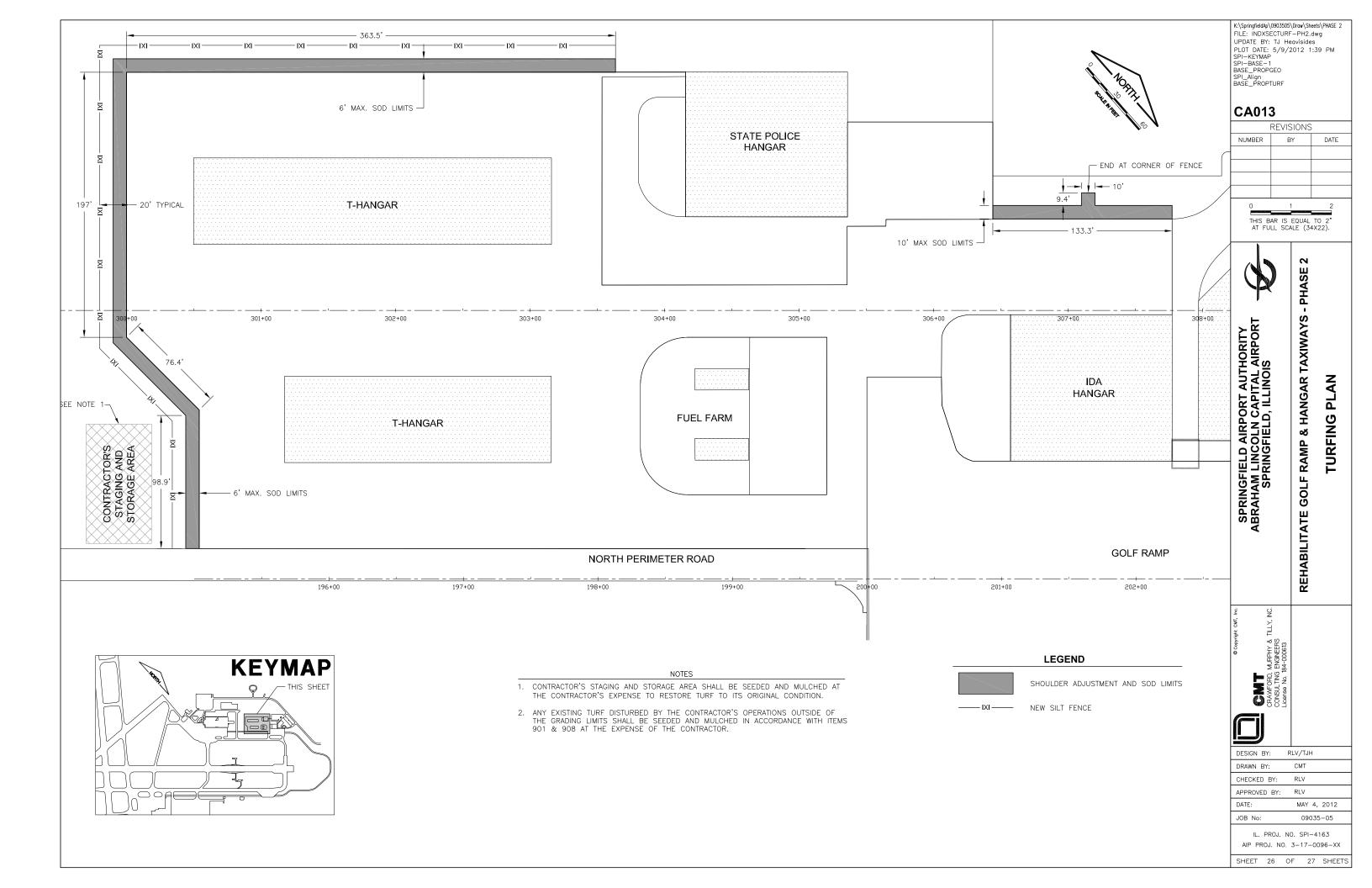
APPROVED BY: RLV

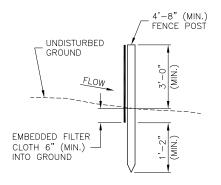
DATE: MAY 4, 2012

JOB No: 09035-05

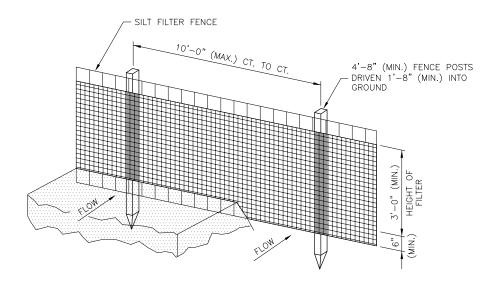
IL. PROJ. NO. SPI-4163 AIP PROJ. NO. 3-17-0096-XX

SHEET 25 OF 27 SHEETS





SECTION



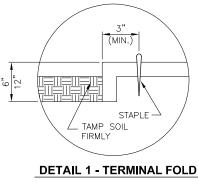
PERSPECTIVE VIEW

EROSION CONTROL FABRIC FENCE DETAILS

N.T.S.

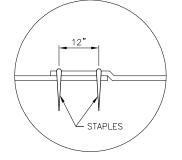
EROSION CONTROL FABRIC FENCE NOTES

- 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.

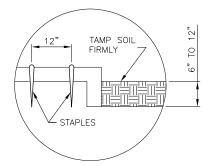




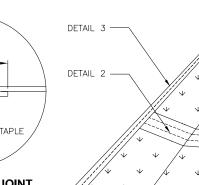
(MIN.)



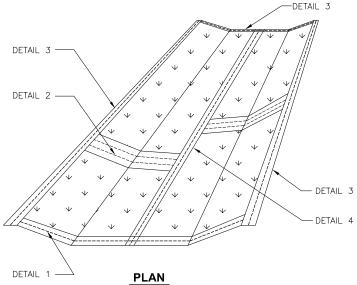
DETAIL 2 - JUNCTION SLOT

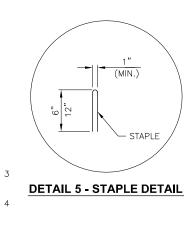


DETAIL 3 - ANCHOR SLOT



DETAIL 4 - LAP JOINT





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. DO NOT STRETCH.
- 3. ALL TERMINAL ENDS AND TRANSVERSE LAPS SHALL BE STAPLED AT APPROXIMATELY 12" INTERVALS.

CA013

REVISIONS NUMBER BY DATE

K:\SpringfieldAp\0903505\Draw\Sheets\PHASE 2 FILE: EROCNTLDET.dwg

PLOT DATE: 5/9/2012 1:39 PM

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



TAXIWAYS

HANGAR CONTROL య RAMP EROSION GOLF

SPRINGFIELD AIRPORT AUTHORITY ABRAHAM LINCOLN CAPITAL AIRPORT SPRINGFIELD, ILLINOIS REHABILITATE

CRAWFORD, CONSULTING



RLV/TJH DESIGN BY: DRAWN BY: CMT CHECKED BY: RLV APPROVED BY: RLV DATE: MAY 4, 2012 JOB No: 09035-05 IL. PROJ. NO. SPI-4163

AIP PROJ. NO. 3-17-0096-XX

SHEET 27 OF 27 SHEETS