CONSTRUCTION PLANS

FOR

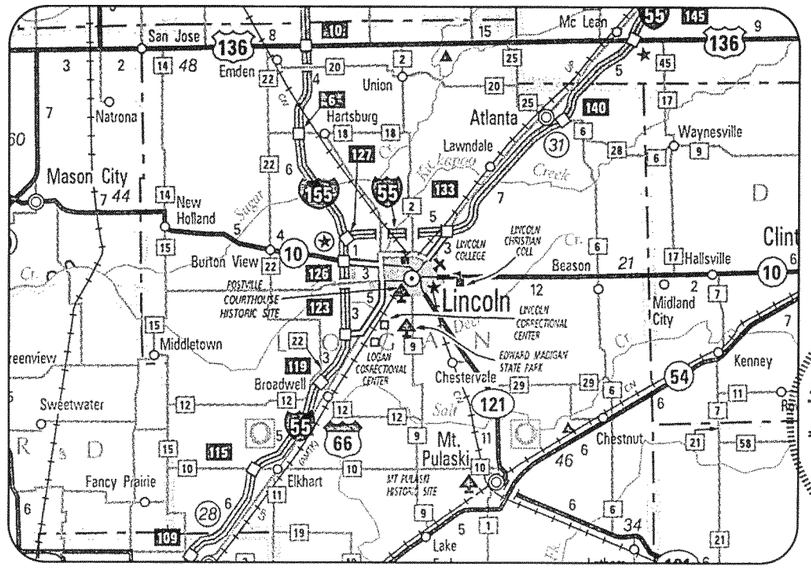
LOGAN COUNTY AIRPORT

LINCOLN, LOGAN COUNTY, ILLINOIS

REHABILITATE RUNWAY ACCESS TAXIWAY AND T-HANGAR PAVEMENTS

SCOPE OF WORK

THIS PROJECT CONSISTS OF REHABILITATING THE ACCESS TAXIWAY BETWEEN THE APRON AND RUNWAY 3-21 AND THE T-HANGAR ACCESS TAXIWAYS. ASSOCIATED WORK ITEMS INCLUDE CRACK CLEANING AND SEALING, PAVEMENT REPAIRS, PAVEMENT MILLING, PAVEMENT MARKING, SHOULDERING, SEEDING AND MULCHING.



LOCATION

LOCATION OF COUNTY

ILL. PROJ.:	AAA-3956
A.I.P. PROJ.:	3-17-0062-B16
LATITUDE:	40° 09' 31"
LONGITUDE:	89° 20' 06"
ELEVATION:	597.0' M.S.L.
DATE:	DEC. 23, 2009

LICENSED PROFESSIONAL ENGINEER
CHARLES A. HAGLOCH
062-37821
STATE OF ILLINOIS

REVISED 02/09/2010

HANSON
Hanson Professional Services Inc.

Submitted by: Charles A. Hagloch ENG'R

Date Submitted FEBRUARY 10, 2010

Lics. Exp. Date November 30, 2011

LOGAN COUNTY BOARD

Approved: Jerry A. Cobb CHAIRMAN

Date: January 4, 2010

Approved: Johnnie Markin SECRETARY

Date: Jan. 5, 2010

DATE	REVISION	BY

LOGAN COUNTY AIRPORT
LINCOLN, ILLINOIS

IL. PROJ.: AAA-3956 A.I.P. PROJ.: 3-17-0062-816

Hanson Project No. 09A01220 0800
Filename R-001CVR.DWG
Scale NOT TO SCALE
Date 10/22/09

LAYOUT	CAH	10/22/09
DRAWN	BAK	10/22/09
REVIEWED	CAH	12/16/09

HANSON
Hanson Professional Services Inc.
1525 South Sixth Street
Springfield, Illinois 62703-2886
Offices Nationwide

REHAB. ACCESS TAXIWAY PAVEMENTS

COVER SHEET

1
1 of 30 sheets

FEB 09, 2010 3:53 PM HAGLOOO382
H:\AIRPORTS\LOGAN\09A0122\CADD\AIRPORT\SHEET\R-001CVR.DWG - COVER

LO026

SUMMARY OF QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	TOTAL QUANTITIES	AS BUILT QUANTITIES
AR108158	1/C #8 5KV UG CABLE IN UD	L.F.	97	
AR125964	RELOCATE TAXI GUIDANCE SIGN	EACH	1	
AR150510	ENGINEER'S FIELD OFFICE	L.S.	1	
AR150540	HAUL ROUTE	L.S.	1	
AR152480	SHOULDER ADJUSTMENT	S.Y.	940	
AR201661	CLEAN & SEAL BITUMINOUS CRACKS	L.F.	6,166	
AR401611	BIT. SURFACE COURSE-METHOD I	TON	423	
AR401655	BUTT JOINT CONSTRUCTION	S.Y.	1,027	
AR401910	REMOVE & REPLACE BIT. PAVEMENT	S.Y.	220	
AR402622	POROUS FRICTION COURSE, 0.10'	S.Y.	7,860	
AR603510	BITUMINOUS TACK COAT	GAL.	3,139	
AR620520	PAVEMENT MARKING-WATERBORNE	S.F.	6,646	
AR901510	SEEDING	AC.	0.2	
AR908510	MULCHING	AC.	0.2	

INDEX TO SHEETS

DATE	REVISION	BY

LOGAN COUNTY AIRPORT
LINCOLN, ILLINOIS

A.I.P. PROJ.: 3-17-0062-B16
IL. PROJ.: AAA-3956

Hanson Project No. 09A0122D 0800
Filename R-002FLP.DWG
Scale NOT TO SCALE
Date 10/22/09

LAYOUT	CAH	10/22/09
DRAWN	BAK	10/22/09
REVIEWED	CAH	12/22/09

HANSON
Hanson Professional Services Inc.
1525 South Sixth Street
Springfield, Illinois 62703-2886
Offices Nationwide

REHAB. ACCESS TAXIWAY PAVEMENTS

SUMMARY OF QUANTITIES AND INDEX TO SHEETS

2
2 of 30 sheets

FEB 09, 2010 4:20 PM HAGL000382
I:\AIRPORTS\LOGAN\09A0122\CADD\AIRPORT\SHEET\R-002FLP.DWG - Layout1

SCOPE OF WORK

THIS PROJECT CONSISTS OF REHABILITATING THE ACCESS TAXIWAY BETWEEN THE APRON AND RUNWAY 3-21 AND THE T-HANGAR ACCESS TAXIWAYS. ASSOCIATED WORK ITEMS INCLUDE CRACK CLEANING AND SEALING, PAVEMENT REPAIRS, PAVEMENT MILLING, PAVEMENT MARKING, SHOULDERING, SEEDING AND MULCHING.

AIRPORT SECURITY NOTE

AIRPORT SECURITY WILL BE MAINTAINED AT ALL TIMES. THE CONTRACTOR WILL CLOSE AND LOCK THE EXISTING GATE IN THE HAUL ROUTE AT THE END OF EACH WORKING DAY.

UTILITY NOTE

THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES AND AGENCIES WHICH HAVE LINES OR CONDUITS IN THE PROPOSED WORK AREA. ALL LINES AND CONDUITS SHALL BE LOCATED AND IDENTIFIED FOR DEPTH BEFORE ANY EXCAVATION BEGINS. THE CONTRACTOR WILL CALL J.U.L.I.E. (1-800-892-0123) TO ACCOMPLISH THE ABOVE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO IDENTIFY ALL UNDERGROUND NON-JULIE UTILITIES LOCATED WITHIN THE PROPOSED CONSTRUCTION LIMITS. THESE UNDERGROUND IMPROVEMENTS WILL BE LOCATED AT THE CONTRACTOR'S OWN EXPENSE PRIOR TO THE START OF CONSTRUCTION ACTIVITIES.

HEIGHT OF CONSTRUCTION EQUIPMENT

THE MAXIMUM ANTICIPATED HEIGHT OF THE CONSTRUCTION EQUIPMENT WILL BE 25 FEET. THE TALLEST EQUIPMENT IS EXPECTED TO BE A SEMI TRUCK WITH TRAILER IN UP POSITION.

HAUL ROUTE AND VEHICLE PARKING

THE CONTRACTOR WILL USE THE DESIGNATED STAGING AREA AS SHOWN ON THIS SHEET. THE CONTRACTOR WILL BE REQUIRED TO MAINTAIN THIS AREA THROUGHOUT THE COURSE OF THE PROJECT. ANY AREAS DAMAGED OUTSIDE OF THIS AREA WILL BE REPAIRED BY THE CONTRACTOR AND AT THE CONTRACTOR'S OWN EXPENSE. AT THE CONCLUSION OF THE PROJECT THE CONTRACTOR WILL GRADE, FERTILIZE, SEED AND MULCH THE STAGING AREA AS NEEDED TO RESTORE IT TO ITS' ORIGINAL STATE. RESTORATION OF THE STAGING AREA WILL BE CONSIDERED INCIDENTAL TO THE PROJECT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

THE CONTRACTOR WILL BE ALLOWED TO USE THE EXISTING AIRPORT ENTRANCE ROAD AS HIS PROPOSED HAUL ROUTE. THE CONTRACTOR AND THE RESIDENT ENGINEER WILL WALK THE ENTRANCE ROAD PRIOR TO STARTING CONSTRUCTION AND WILL NOTE ANY PAVEMENT AREAS THAT ARE QUESTIONABLE. THE CONTRACTOR WILL BE REQUIRED TO MAINTAIN THE ENTRANCE ROAD THROUGHOUT THE DURATION OF THIS PROJECT. AT THE CONCLUSION OF THE PROJECT, THE CONTRACTOR WILL RESTORE THE ENTRANCE ROAD TO ITS' ORIGINAL STATE AT HIS OWN EXPENSE.

CONTRACTOR RESPONSIBILITIES

THE CONTRACTOR'S EQUIPMENT PARKING AND STORAGE AREA WILL BE AS SHOWN ON THIS SHEET. THE CONTRACTOR'S EMPLOYEES WILL PARK THEIR VEHICLES IN THIS AREA. ONLY CONTRACTOR VEHICLES WILL BE ALLOWED OUTSIDE THIS AREA.

THE CONTRACTOR AND HIS EMPLOYEES WILL BE RESTRICTED TO THE WORK AREA AND ALL OTHER AREAS OF THE AIRPORT ARE "OFF LIMITS" TO THEM.

THE CONTRACTOR SHALL KEEP ONE RUNWAY OPEN AT ALL TIMES AND MAINTAIN CONTINUOUS TAXIWAY ACCESS TO ALL HANGARS AND ADMINISTRATIVE AREAS.

ALL WORK PERFORMED SHALL BE DONE IN A ORDERLY AND EFFECTIVE MANNER TO MINIMIZE RUNWAY CLOSURE.

NO TRENCHES OR HOLES WILL REMAIN OPEN OVERNIGHT.

NO RUNWAY SHALL BE CLOSED OVERNIGHT.

BARRICADES AND TRAFFIC CONES

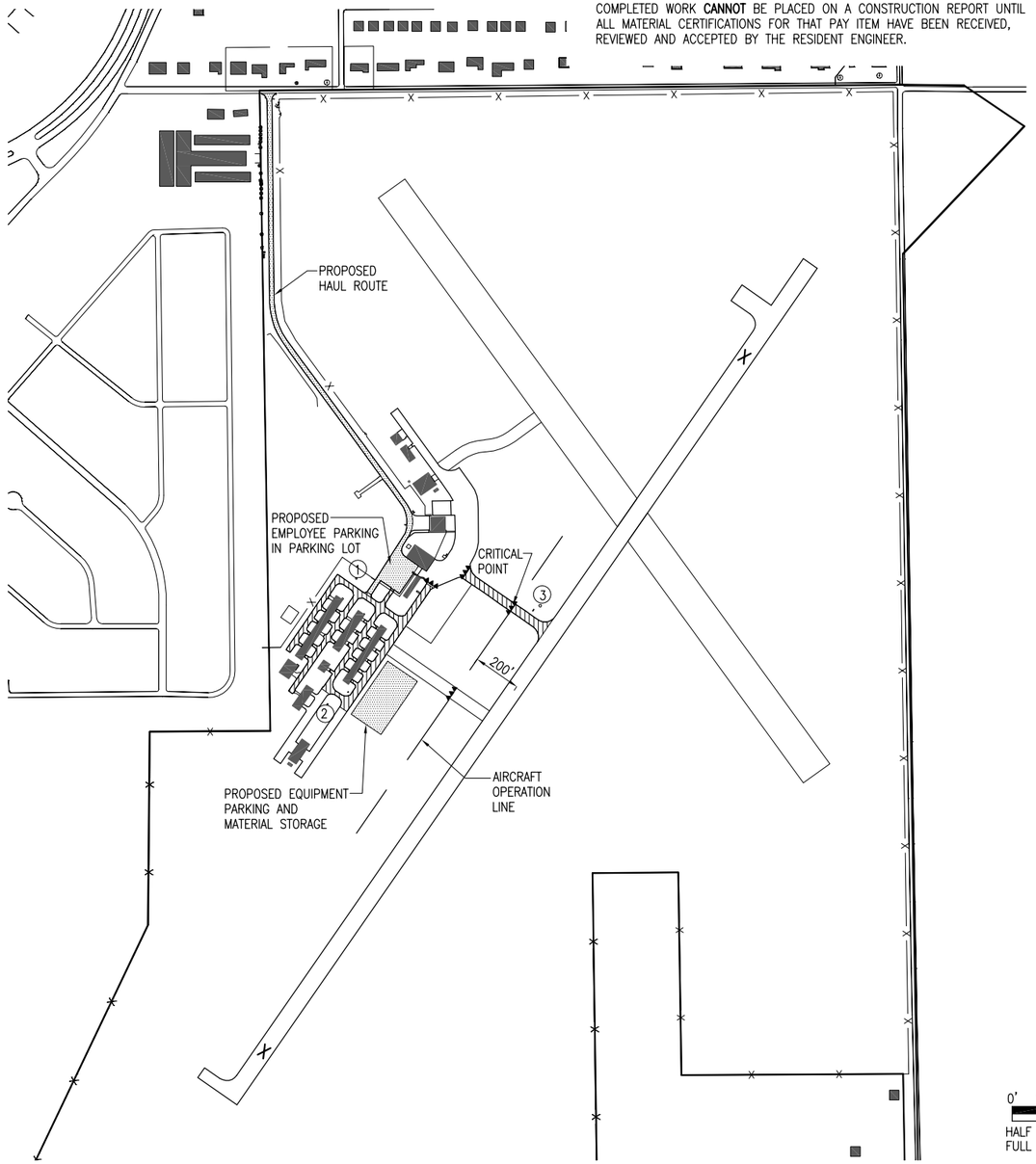
IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO PLACE AND MAINTAIN BARRICADES AND TRAFFIC CONES AS DIRECTED BY THE AIRPORT MANAGER AND AS SHOWN ON THIS SHEET. THE BARRICADES WILL BE EQUIPPED WITH RED FLASHING OR RED STEADY-BURN LIGHTS AND 20" SQUARE ORANGE FLAGS. THE BARRICADES, THEIR MAINTENANCE, PLACEMENT AND REMOVAL WILL BE CONSIDERED AS AN INCIDENTAL ITEM TO THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

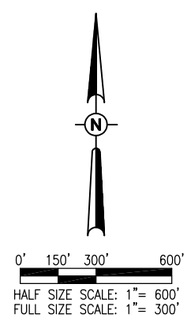
LEGEND

- EXISTING IMPROVEMENTS
- PROPOSED IMPROVEMENTS
- EXISTING BUILDINGS
- PROPOSED HAUL ROUTE AND EQUIPMENT PARKING AREA
- (1) PROPOSED BENCHMARK
- ▲ PROPOSED BARRICADES OR TRAFFIC CONES

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 CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES, INCLUDING SERVICE CONNECTIONS TO UNDERGROUND UTILITIES. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES OF HIS OPERATIONAL PLANS AND SHALL OBTAIN 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 JURISDICTION. THE ENGINEER SHALL ALSO BE IMMEDIATELY NOTIFIED. 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.

CALL J.U.L.I.E. FOR UTILITY INFORMATION AT 1-800-892-0123.





0' 150' 300' 600'
HALF SIZE SCALE: 1"= 600'
FULL SIZE SCALE: 1"= 300'

BENCHMARK DATA

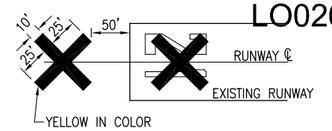
NO.	DESCRIPTION	ELEV.
1	CHISELED X ON EAST FLANGE BOLT, FIRE HYDRANT, 40' RT. STA. 2+66 TXY D	592.57
2	CHISELED SQUARE ON NE CORNER OF LIGHT BASE, 70' LT. STA. 109+87 TXY B	591.16
3	NGS BRASS DISC, 73' RT, STA. 1+11 RUNWAY ACCESS TAXIWAY	587.91

CERTIFIED PAYROLLS

THE RESIDENT ENGINEER **CANNOT** FORWARD CONSTRUCTION REPORTS TO THE ILLINOIS DIVISION OF AERONAUTICS FOR PROCESSING UNTIL ALL **CERTIFIED PAYROLLS** FOR THE PERIOD HAVE BEEN RECEIVED.

MATERIAL CERTIFICATION

COMPLETED WORK **CANNOT** BE PLACED ON A CONSTRUCTION REPORT UNTIL ALL MATERIAL CERTIFICATIONS FOR THAT PAY ITEM HAVE BEEN RECEIVED, REVIEWED AND ACCEPTED BY THE RESIDENT ENGINEER.



DETAIL OF CROSS FOR CLOSED RUNWAY

"NOT TO SCALE"

NOTE:

COST OF CONSTRUCTING, PLACING, MAINTAINING AND REMOVING CROSSES WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED. THE CROSSES WILL BE YELLOW IN COLOR AND SHALL BE MADE OF A SUITABLE MATERIAL AS APPROVED BY THE AIRPORT MANAGER. THE CROSSES WILL BE PLACED OVER THE NUMERALS AND SECURED IN A MANNER APPROVED BY THE MANAGER. THE PROPOSED CROSSES WILL BE PLACED EACH DAY THE RUNWAY IS CLOSED AND REMOVED WHEN THE RUNWAY IS RE-OPENED. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE PLACEMENT AND REMOVAL OF THE CROSSES. NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

J.U.L.I.E. INFORMATION

COUNTY_____LOGAN
CITY_____LINCOLN
TOWNSHIP_____EAST LINCOLN
SECTION NO._____29
ADDRESS_____LOGAN COUNTY AIRPORT
RR #4, AIRPORT ROAD
LINCOLN, ILLINOIS 62656

CRITICAL POINT DATA

LATITUDE: 40° 09' 32.02"
LONGITUDE: 89° 20' 08.63"
ELEVATION: 591.47 M.S.L.

PROPOSED SAFETY PLAN

GENERAL – THE LOGAN COUNTY AIRPORT IS COMPRISED OF TWO RUNWAYS. THE PROPOSED CONSTRUCTION WILL NECESSITATE CLOSING RUNWAY 3-21. ANY TIME THE CONTRACTOR IS WORKING WITHIN 200' OF RUNWAY 3-21 CENTERLINE THE RUNWAY WILL BE CLOSED. THE RUNWAY WILL BE CLOSED ONLY DURING THE CONSTRUCTION DAY. AT THE END OF EACH CONSTRUCTION DAY THE CONTRACTOR WILL SMOOTH GRADE ALL AREAS WITHIN THE SAFETY AREA TO THE SATISFACTION OF THE RESIDENT ENGINEER AND RE-OPEN THE RUNWAY. ALL WORK INCLUDED IN OPENING AND CLOSING THE RUNWAY WILL BE CONSIDERED INCIDENTAL TO THE PROJECT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

IDENTIFICATION – WHEN THE CONTRACTORS VEHICLES AND EQUIPMENT ARE ON THE AIRPORT THEY SHALL BE PROPERLY MARKED WITH THREE (3') FOOT SQUARE CHECKERED FLAGS (INTERNATIONAL ORANGE AND WHITE). THE CONTRACTOR WILL ALSO PROVIDE WORKERS WITH SOME TYPE OF TAG OR GARMENT TO IDENTIFY THE PERSON AS BEING PART OF THE CONSTRUCTION CREW.

RADIO CONTROL – THE CONTRACTOR WILL BE REQUIRED TO BE IN TWO-WAY RADIO CONTACT (122.80 MHz.) WITH THE AIRPORT UNICOM. THIS WILL KEEP THE CONTRACTOR IN CONSTANT CONTACT WITH THE LOGAN COUNTY AIRPORT AND ENABLE THE AIRPORT TO IMMEDIATELY CONTACT THE CONTRACTOR IN CASE OF AN AERONAUTIC EMERGENCY THAT WOULD REQUIRE ACTION BY THE CONTRACTOR AND/OR HIS PERSONNEL.

150-ENGINEER'S FIELD OFFICE NOTES

THE PROPOSED ENGINEER'S FIELD OFFICE WILL BE FURNISHED, MAINTAINED, AND REMOVED IN ACCORDANCE WITH ITEM AR150510 "ENGINEER'S FIELD OFFICE" AS STATED ON PAGE 49 OF THE ILLINOIS STANDARD SPECIFICATIONS FOR CONSTRUCTION OF AIRPORTS, ADOPTED NOVEMBER 2, 2009.

THE LOCATION OF THE PROPOSED ENGINEER'S FIELD OFFICE WILL BE DETERMINED AT THE PRE-CONSTRUCTION MEETING.

THE ENGINEERING FIRM WILL MAKE PAYMENT FOR ALL LONG DISTANCE TELEPHONE CALLS IN EXCESS OF ONE HUNDRED DOLLARS ($100.00) PER MONTH.

THE CONTRACTOR WILL FURNISH A CELL PHONE TO THE RESIDENT ENGINEER FOR HIS EXCLUSIVE USE FOR THE DURATION OF THIS PROJECT. THE RESIDENT ENGINEER WILL USE THIS PHONE FOR PROJECT BUSINESS ONLY. THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL CHARGES ASSOCIATED WITH THIS CELL PHONE.

THE PROPOSED ENGINEER'S FIELD OFFICE WILL BE PAID FOR UNDER ITEMS:
AR150510 ENGINEER'S FIELD OFFICE _____ 1 L.S.

EROSION CONTROL

THIS PROJECT WILL DISTURB LESS THAN 1 ACRE OF LAND, THEREFORE NO N.P.D.E.S. PERMIT WILL BE REQUIRED.

AIRCRAFT OPERATION LINE

THE CONTRACTOR WILL LOCATE THIS LINE AT THE START OF CONSTRUCTION AND WILL PLACE FLAGGED LATHE EVERY 150' ALONG IT. THIS LINE WILL BE THE LIMITS THAT ALL CONTRACTOR PERSONNEL MAY VENTURE WHEN A RUNWAY IS NOT CLOSED. THE CONTRACTOR WILL MAINTAIN THE LATHE LINE FOR RUNWAYS.

LO026

DATE	REVISION	BY
2/8/10	REVISED AS PER IDA REVIEW	CAH

LOGAN COUNTY AIRPORT
LINCOLN, ILLINOIS

A.I.P. PROJ.: 3-17-0062-B16
IL. PROJ.: AAA-3956

Hanson Project No. 09A0122D 0800
Filename R-003SFY.DWG
Scale 1"= 300'
Date 10/22/09

LAYOUT	CAH	10/22/09
DRAWN	BAK	10/22/09
REVIEWED	CAH	12/22/09

HANSON

Hanson Professional Services Inc.
1525 South Sixth Street
Springfield, Illinois 62703-2886
Offices Nationwide

REHAB. ACCESS TAXIWAY PAVEMENTS

PROPOSED SAFETY PLAN

3
3 of 30 sheets

FEB 09, 2010 4:21 PM HAGL000382
I:\AIRPORTS\LOGAN\09A0122\CADD\AIRPORT\SHEET\R-003SFY.DWG - SAFETY

LO026

STA. 3+30.5 TAXIWAY "D"
STA. 0+00 TAXIWAY "F"

STA. 2+24.75 TAXIWAY "D"
STA. 0+00 TAXIWAY "E"

STA. 114+37 TAXIWAY "A"
STA. 1+14 TAXIWAY "D"

STA. 110+00

STA. 114+37 TAXIWAY "B"
STA. 0+00 TAXIWAY "D"

STA. 115+60

STA. 116+25

PROPOSED BUTT JOINT CONSTRUCTION 23 S.Y.

PROPOSED BUTT JOINT CONSTRUCTION 10 S.Y.

PROPOSED BUTT JOINT CONSTRUCTION 8 S.Y.

PROPOSED BUTT JOINT CONSTRUCTION 6 S.Y. (TYP.)

PROPOSED BUTT JOINT CONSTRUCTION 8 S.Y.

PROPOSED BUTT JOINT CONSTRUCTION 32 S.Y.

PROPOSED BUTT JOINT CONSTRUCTION 8 S.Y.

PROPOSED BUTT JOINT CONSTRUCTION 51 S.Y.

PROPOSED BUTT JOINT CONSTRUCTION ON PROPOSED PFC 37 S.Y.

PROPOSED BUTT JOINT CONSTRUCTION 127 S.Y.

PROPOSED BUTT JOINT CONSTRUCTION ON PROPOSED PFC 50 S.Y.

PROPOSED BUTT JOINT CONSTRUCTION 202 S.Y.

PROPOSED SHOULDER ADJUSTMENT

TAXIWAY "F"
TAXIWAY "E"
TAXIWAY "D"
TAXIWAY "A"
TAXIWAY "C"
TAXIWAY "B"

20' F. (TYP.)

SAW

89°50'00"
90°00'00"

PROPOSED BUTT JOINT ON PROPOSED PFC

THE AREA DESIGNATED AS [ ] WILL BE A PROPOSED BUTT JOINT ON THE PROPOSED PFC.

THE PROPOSED BUTT JOINT WILL BE CONSTRUCTED IN ACCORDANCE WITH ITEM AR401655 "BUTT JOINT CONSTRUCTION" AS STATED ON PAGE 154 OF THE ILLINOIS STANDARD SPECIFICATIONS FOR THE CONSTRUCTION OF AIRPORTS, ADOPTED NOVEMBER 02, 2009

AFTER ALL THE PFC HAS BEEN PAVED, THE CONTRACTOR WILL MILL THE AREA SHOWN TO CREATE A BUTT JOINT FOR THE TRANSITION OF THE PROPOSED SURFACE COURSE THAT WILL BE CONSTRUCTED ON TAXIWAY "B".

THIS ITEM SHALL CONSIST OF REMOVING THE PROPOSED PFC SURFACE BY MILLING IN ORDER TO CREATE A BUTT FOR THE TRANSITION OF THE PROPOSED BITUMINOUS SURFACE OVERLAY.

ANY ADJACENT PAVEMENT DAMAGED BY THE MILLING OPERATIONS WILL NE REPAIRED BY THE CONTRACTOR OWN EXPENSE.

THE PAVEMENT MILLING WILL BE PAID FOR UNDER:
AR401665 "BUTT JOINT CONSTRUCTION"_____ PER S.Y.

NOTE

FOR TYPICAL SECTIONS SEE SHEET NO. 6.

LEGEND

- EXISTING PAVEMENT
- PROPOSED IMPROVEMENTS
- PROPOSED BUTT JOINT CONSTRUCTION
- PROPOSED BUTT JOINT CONSTRUCTION ON PFC
- PROPOSED SHOULDER ADJUSTMENT
- EXISTING BUILDING
- EXISTING STORM SEWER
- EXISTING WATER LINE
- EXISTING AWOS CABLE
- EXISTING FENCE
- EXISTING INLET
- EXISTING WATER VALVE
- EXISTING FIRE HYDRANT

0' 15' 30' 60'
HALF SIZE SCALE: 1"= 60'
FULL SIZE SCALE: 1"= 30'

DATE	REVISION	BY

LOGAN COUNTY AIRPORT
LINCOLN, ILLINOIS

A.I.P. PROJ.: 3-17-0062-B16
IL. PROJ.: AAA-3956

Hanson Project No. 09A0122D 0800
Filename R-121CON.DWG
Scale 1"= 30'
Date 10/22/09

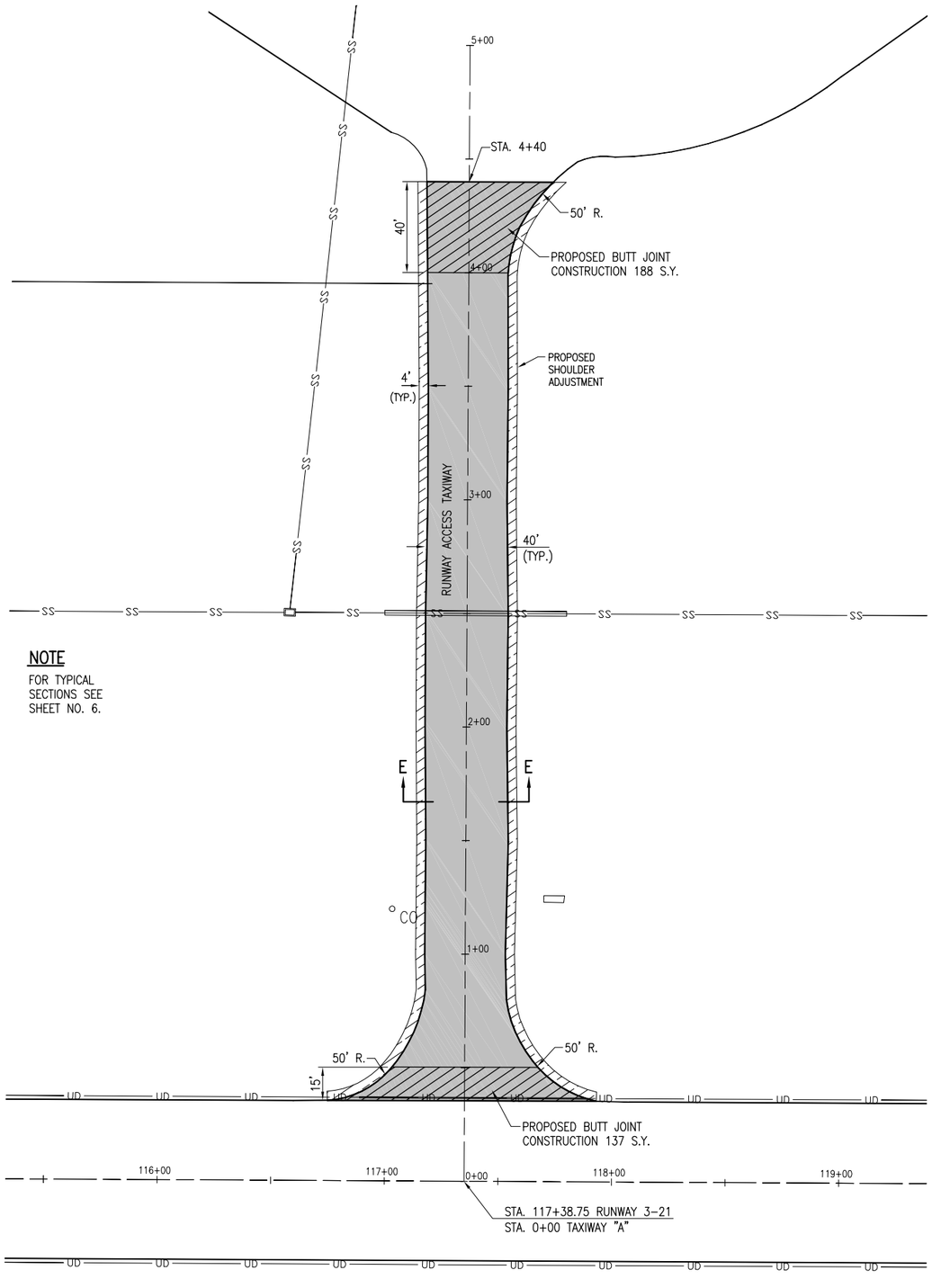
LAYOUT	CAH	10/22/09
DRAWN	BAK	10/22/09
REVIEWED	CAH	12/22/09

HANSON
Hanson Professional Services Inc.
1525 South Sixth Street
Springfield, Illinois 62703-2886
Offices Nationwide

REHAB. ACCESS TAXIWAY PAVEMENTS

PROPOSED CONSTRUCTION PLAN

4
4 of 30 sheets



603-BITUMINOUS TACK COAT NOTES:

THE BITUMINOUS TACK COAT (603) SHALL BE PLACED IN ACCORDANCE WITH ITEM AR603 "BITUMINOUS TACK COAT" AS STATED ON PAGE 254 OF THE ILLINOIS STANDARD SPECIFICATIONS FOR CONSTRUCTION OF AIRPORTS, ADOPTED NOVEMBER 02, 2009.

THE PROPOSED BITUMINOUS TACK COAT SHALL BE PLACED ON THE PROPOSED BITUMINOUS PAVEMENT PRIOR TO THE PLACEMENT OF THE NEXT LIFT OF PROPOSED BITUMINOUS SURFACE COURSE. THE PROPOSED BITUMINOUS PAVEMENT SHALL HAVE A TACK COAT OF BITUMINOUS MATERIAL APPLIED IN ACCORDANCE WITH THE REQUIREMENTS OF THE SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS.

THE PROPOSED BITUMINOUS TACK COAT WILL BE PAID FOR UNDER ITEM:
AR603510 BITUMINOUS TACK COAT ____ 3,139 GAL.

SHOULDER ADJUSTMENT NOTE

THE GRADING WILL HAVE A 1-1/2" DROP FROM THE PAVEMENT EDGE AND TAPERING TO THE EXISTING GROUND IN FOUR FEET. THIS WILL BE THE FINAL GRADE UPON COMPLETION OF THE SEEDING & NULCHING. THE EARTH FILLETS WILL NOT REQUIRE COMPACTING OR GRADING, OTHER THAN LIGHT ROLLING AND SHAPING. THE MATERIAL FOR THE PROPOSED EARTH FILLETS WILL BE TOPSOIL OBTAINED FROM OFF-SITE. THE OFF-SITE MATERIAL WILL BE APPROVED BY THE RESIDENT ENGINEER PRIOR TO HAULING TO THE PROJECT SITE. THE REQUIREMENTS FOR PH, ORGANIC MATTER AND GRADATION WILL BE WAIVED PROVIDED THE TOPSOIL MATERIAL WILL SUSTAIN THE GROWTH OF GRASS.

THE EXISTING SHOULDER AREA WILL BE MOWED AND DISKED/TILLED PRIOR TO PLACING THE EARTH MATERIAL. THE AREA WILL BE DISKED/TILLED UNTIL THE SOD HAS BEEN COMPLETELY CUT UP. ANY CHUNKS OF SOD WILL BE REMOVED PRIOR TO THE PLACEMENT OF THIS EARTH MATERIAL.

THE CONTRACTOR SHALL TAKE SPECIAL PRECAUTIONS WHEN HAULING BORROW MATERIAL SO AS NOT TO CREATE RUTS IN ADJACENT EARTH AREAS. ALL EXISTING GRADED OR TURFED AREAS OUTSIDE THE GRADING LIMITS WHICH ARE DISTURBED OR RUTTED BY THE CONTRACTOR DURING THE HAULING OPERATION SHALL BE REGRADED AND RETURFED AT HIS OWN EXPENSE TO THE SATISFACTION OF THE ENGINEER.

THE MATERIAL FOR THE PROPOSED EARTH FILLETS WILL BE PAID FOR UNDER ITEM:
AR152480 "SHOULDER ADJUSTMENT" PER SQUARE YARDS.

QUANTITY OF SHOULDER ADJUSTMENT _____ 940 S.Y.

LEGEND

- EXISTING PAVEMENT
- PROPOSED IMPROVEMENTS
- PROPOSED BUTT JOINT CONSTRUCTION
- PROPOSED SHOULDER ADJUSTMENT
- SS — EXISTING STORM SEWER
- UD — EXISTING RUNWAY UNDERDRAIN
- EXISTING INLET
- SS — EXISTING STORM SEWER MANHOLE
- CO — EXISTING UNDERDRAIN INSPECTION HOLE

AR401655 BUTT JOINT CONSTRUCTION NOTES

LO026

THE PROPOSED BUTT JOINTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH ITEM AR401655 "BUTT JOINT CONSTRUCTION" AS STATED ON PAGE 154 OF THE ILLINOIS STANDARD SPECIFICATIONS FOR CONSTRUCTION OF AIRPORTS, ADOPTED NOVEMBER 02, 2009.

THIS ITEM SHALL CONSIST OF REMOVING THE EXISTING BITUMINOUS PAVEMENT SURFACE BY MILLING IN ORDER TO CONSTRUCT A BUTT JOINT FOR THE TRANSITION OF THE PROPOSED BITUMINOUS OVERLAY AT THE LOCATIONS AS SHOWN ON THE PLANS.

THE BUTT JOINTS ON THE RUNWAY ACCESS TAXIWAY WILL BE MILLED TO A DEPTH OF 0.22 FT. AT THE BUTT END AND WILL TAPER TO 0 IN. AT THE OPPOSITE END. THE BUTT JOINTS ON TAXIWAY "B" WILL BE MILLED TO A DEPTH OF 0.22 FT. WHERE TAXIWAY "B" ABUT THE APRON AND TAXIWAY "B" WILL TAPER TO 0 IN. AT THE OPPOSITE END. WHERE TAXIWAY "B" ABUT TAXIWAYS "C" AND "D" THE BUTT JOINT WILL BE MILLED TO A DEPTH OF 0.125 FT. WHERE TAXIWAY "A" BUTT THE PARKING LOT AND TAXIWAY "A" IT WILL BE MILLED TO A DEPTH OF 0.10 FT AND WILL TAPER TO 0 INC AT THE OPPOSITE END. ALL OTHER BUTT JOINTS WILL BE MILLED TO A DEPTH OF 0.125 FT. AT THE BUTT END AND WILL TAPER TO 0 IN. AT THE OPPOSITE END. THE PLANER MUST BE CAPABLE OF MILLING THE SURFACE TO THE DESIRED ELEVATIONS AND GRADES.

ANY ADJACENT PAVEMENT DAMAGED BY THE MILLING OPERATIONS WILL BE REPAIRED AT THE CONTRACTOR'S OWN EXPENSE.

ALL BITUMINOUS PAVEMENT MILLING AREAS WILL BE LOCATED AND MARKED BY THE RESIDENT ENGINEER.

THE PAVEMENT MILLING WILL BE PAID FOR UNDER ITEM:
AR401655 "BUTT JOINT CONSTRUCTION"___ 1,027 S.Y.

POROUS FRICTION COURSE

THE PROPOSED POROUS FRICTION COURSE (402) SHALL BE PLACED IN ACCORDANCE WITH ITEM AR402622 POROUS FRICTION COURSE, 0.10' AS STATED ON PAGE 156 OF THE ILLINOIS STANDARD SPECIFICATIONS FOR CONSTRUCTION OF AIRPORTS, ADOPTED NOVEMBER 02, 2009.

THE PROPOSED POROUS FRICTION COURSE WILL BE CONSTRUCTED IN ONE LAYER, HAVING A MINIMUM COMPACTED NOMINAL THICKNESS OF 0.08 FOOT.

THE PROPOSED POROUS FRICTION COURSE SHALL BE PLACED ON A CLEAN AND PREPARED SURFACE ONLY AFTER THE APPROVAL OF THE RESIDENT ENGINEER.

THE PROPOSED POROUS FRICTION COURSE WILL BE CONSTRUCTED IN THE LOCATIONS SHOWN ON THE CONSTRUCTION PLANS.

AR401611 BITUMINOUS SURFACE COURSE-METHOD 1, SUPERPAVE

THE BITUMINOUS SURFACE COURSE (401) SHALL BE PLACED IN ACCORDANCE WITH ITEM AR401003 "BITUMINOUS SURFACE COURSE-METHOD 1, SUPERPAVE" AS STATED ON PAGE 129 OF THE ILLINOIS STANDARD SPECIFICATIONS FOR CONSTRUCTION OF AIRPORTS, ADOPTED NOVEMBER 02, 2009.

THIS ITEM OF WORK SHALL CONSIST OF CONSTRUCTING 1 LIFT OF BITUMINOUS SURFACE COURSE-METHOD 1, SUPERPAVE (1-1/2 INCH DEPTH) ON THE EXISTING BITUMINOUS SURFACE. ALL THE PROPOSED PAVING ON THE T-HANGAR "FINGERS" WILL BE COMPLETED WITH 401 BITUMINOUS SURFACE COURSE MATERIAL.

THIS ITEM ALSO INCLUDES PLACING A BITUMINOUS WEDGE FROM STATION 1+00 TO STATION 2+00 IN ACCORDANCE WITH THE CROSS-SECTIONS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE QUALITY CONTROL IN THE PRODUCTION AND CONSTRUCTION OF THE BITUMINOUS SURFACE COURSE METHOD 1, SUPERPAVE.

PRIOR TO STARTING THE BITUMINOUS SURFACE COURSE-METHOD 1, SUPERPAVE OPERATION, THE CONTRACTOR SHALL SUBMIT TO THE RESIDENT ENGINEER A DETAILED OUTLINE SHOWING AREAS AND ORDER OF PAVING WIDTHS OF PAVING LANES, AND REQUIRED OFFSETS FOR ELECTRONIC GRADE.

THE PROPOSED BITUMINOUS SURFACE COURSE METHOD 1, SUPERPAVE WILL BE DESIGNED TO A SUPERPAVE DESIGN OF LESS THAN 60,000 POUNDS.

401-4.9 ADD THE FOLLOWING TO THIS SECTION:

WHEN HAND SPREADING IS PERMITTED, THE MIXTURE WILL BE DISTRIBUTED AND SPREAD USING HAND TOOLS. WHEN THE WORK IS COMPLETED, THE LAYER WILL HAVE THE REQUIRED THICKNESS AND CONFORM TO THE GRADE AND SURFACE CONTOUR SHOWN ON THE PLANS.

401-4.12 ADD THE FOLLOWING TO THIS PARAGRAPH:

ALL PAVEMENT EDGES (LONGITUDINAL, RADIUS, AND PAVEMENT ENDS) MUST BE LEFT IN PROPER ALIGNMENT AS SHOWN ON THE PLANS. THIS MAY BE ACCOMPLISHED BY THE TRIMMING METHOD OUTLINED ABOVE OR AT THE CONTRACTOR'S OPTION BY SAWING AFTER THE PAVING HAS BEEN COMPLETED. NO ADDITIONAL COMPENSATION WILL BE MADE IF THE SAWING METHOD IS USED.

0' 15' 30' 60'
HALF SIZE SCALE: 1"= 60'
FULL SIZE SCALE: 1"= 30'

DATE	REVISION	BY

LOGAN COUNTY AIRPORT
LINCOLN, ILLINOIS

A.I.P. PROJ.: 3-17-0062-B16
IL. PROJ.: AAA-3956

Hanson Project No. 09A0122D 0800
Filename R-121CON.DWG
Scale 1"= 30'
Date 10/22/09

LAYOUT	CAH	10/22/09
DRAWN	BAK	10/22/09
REVIEWED	CAH	12/22/09

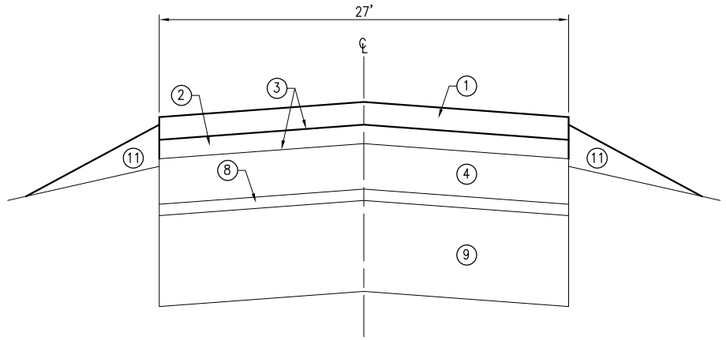
HANSON
Hanson Professional Services Inc.
1525 South Sixth Street
Springfield, Illinois 62703-2886
Offices Nationwide

REHAB. ACCESS TAXIWAY PAVEMENTS

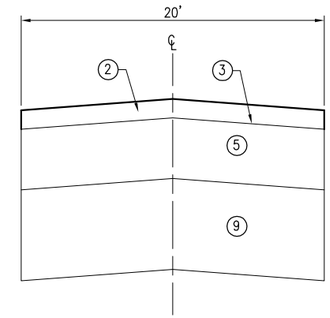
PROPOSED CONSTRUCTION PLAN

5
5 of 30 sheets

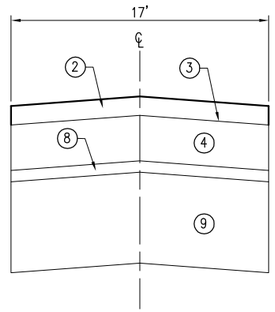
FEB 09, 2010 4:24 PM HAGLOOO382
I:\AIRPORTS\LOGAN\09A0122\CADD\AIRPORT\SHEET\R-121CON.DWG - TAXIWAY A



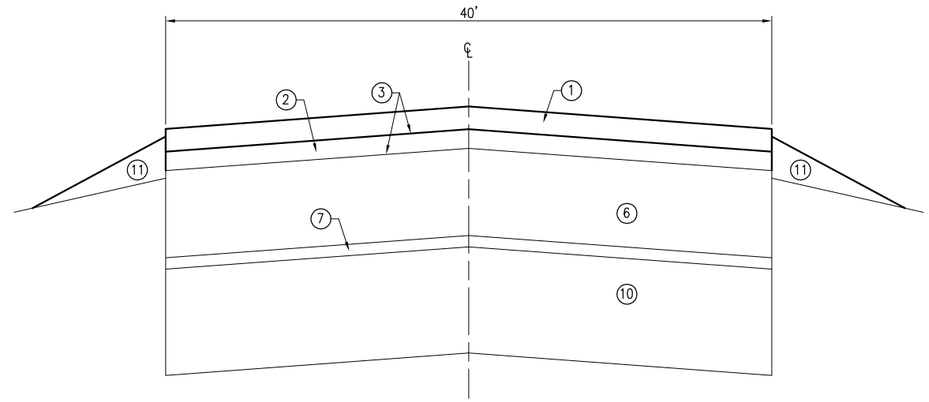
TYPICAL SECTION "A–A"
"NOT TO SCALE



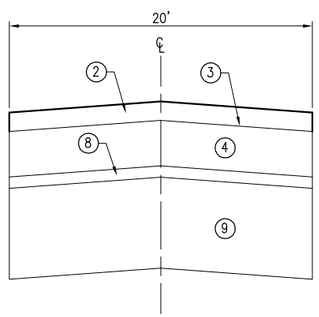
TYPICAL SECTION "D–D"
"NOT TO SCALE



TYPICAL SECTION "B–B"
"NOT TO SCALE



TYPICAL SECTION "E–E"
"NOT TO SCALE



TYPICAL SECTION "C–C"
"NOT TO SCALE

LEGEND TYPICAL SECTIONS

1. PROPOSED BITUMINOUS SURFACE COURSE (1–1/2" DEPTH)
2. PROPOSED POROUS FRICTION COURSE (0.10' DEPTH)
3. PROPOSED BITUMINOUS TACK COAT (0.25 GAL/S.Y.)
4. EXISTING BITUMINOUS (3" DEPTH)
5. EXISTING BITUMINOUS (4" DEPTH)
6. EXISTING BITUMINOUS (5.75" DEPTH)
7. EXISTING A1 BITUMINOUS (3/4" DEPTH)
8. EXISTING A4 BITUMINOUS (3/4" DEPTH)
9. EXISTING CRUSHED AGGREGATE (6" DEPTH)
10. EXISTING CRUSHED AGGREGATE (7" DEPTH)
11. PROPOSED SHOULDER ADJUSTMENTS

DATE | REVISION | BY

LOGAN COUNTY AIRPORT
LINCOLN, ILLINOIS

IL. PROJ.: AAA-3956 A.I.P. PROJ.: 3-17-0062-B16

Hanson Project No. 09A0122D 0800
Filename R-301TYP.DWG
Scale NOT TO SCALE
Date 10/22/09

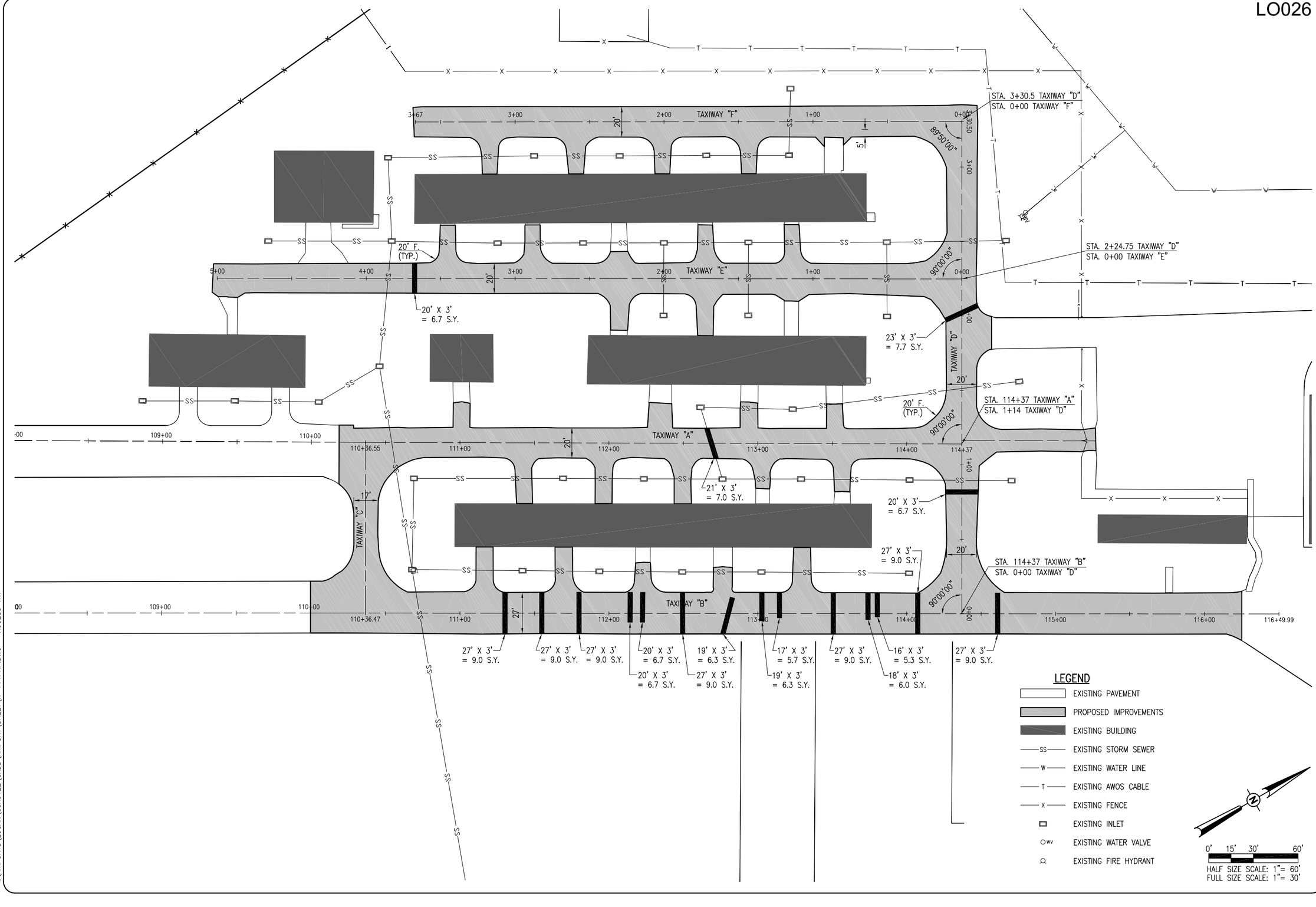
LAYOUT	CAH	10/22/09
DRAWN	BAK	10/22/09
REVIEWED	CAH	12/22/09

HANSON
Hanson Professional Services Inc.
1525 South Sixth Street
Springfield, Illinois 62703-2886
Offices Nationwide

REHAB. ACCESS TAXIWAY PAVEMENTS

PROPOSED TYPICAL SECTIONS

LO026



DATE | REVISION | BY

LOGAN COUNTY AIRPORT
LINCOLN, ILLINOIS

A.I.P. PROJ.: 3-17-0062-B16
IL. PROJ.: AAA-3956

Hanson Project No. 09A0122D 0800
Filename R-111PRP.DWG
Scale 1"= 30'
Date 10/22/09

LAYOUT	CAH	10/22/09
DRAWN	BAK	10/22/09
REVIEWED	CAH	12/22/09

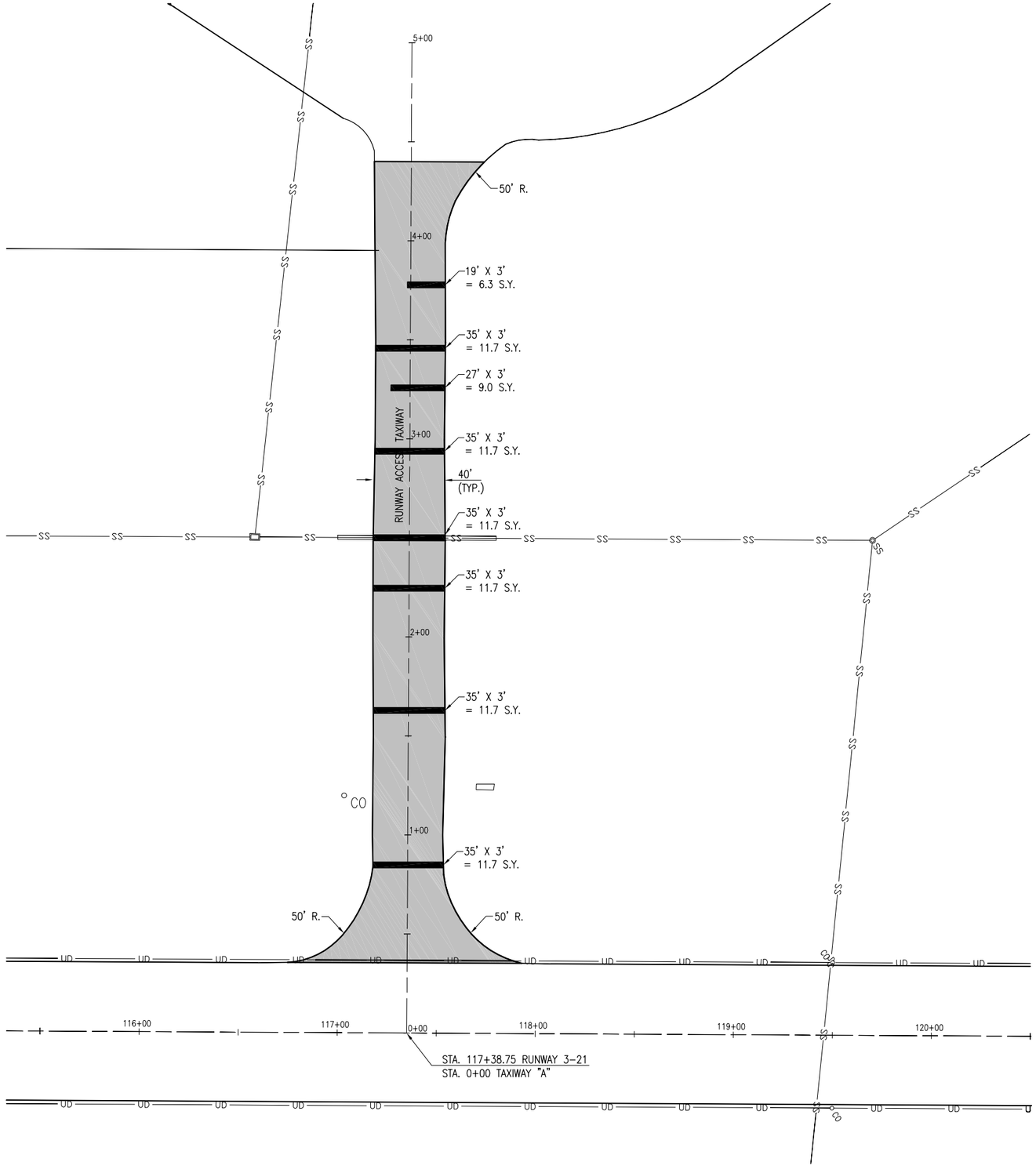
HANSON
Hanson Professional Services Inc.
1525 South Sixth Street
Springfield, Illinois 62703-2886
Offices Nationwide

REHAB. ACCESS TAXIWAY PAVEMENTS

PROPOSED PAVEMENT PREPARATION PLAN

7
7 of 30 sheets

FEB 09, 2010 4:22 PM HAGLOOO382
I:\AIRPORTS\LOGAN\09A0122\CADD\AIRPORT\SHEET\R-111PRP.DWG - ACCESS TXY



CLEANING AND SEALING BITUMINOUS CRACKS

THE PAVEMENT CONDITIONS AND CRACKS WERE IDENTIFIED DURING A SURVEY OF THE EXISTING APRON AREA PERFORMED ON __/__/____. THE EXACT AMOUNT OF CRACKS TO BE CLEANED AND SEALED WILL BE THE NUMBER OF LINEAR FEET OF CRACKS MARKED BY THE RESIDENT ENGINEER AT THE TIME OF CONSTRUCTION.

ALL CRACKS DESIGNATED BY THE RESIDENT ENGINEER FOR CLEANING AND SEALING WILL BE DONE SO AS STATED IN THE SPECIAL PROVISIONS.

THE PROPOSED PAVEMENT MILLING WILL BE ACCOMPLISHED BEFORE THE CRACKS ARE CLEANED AND SEALED. THE RESIDENT ENGINEER WILL DETERMINE IF THE CRACKS LOCATED IN A MILLED AREA ARE LARGE ENOUGH TO WARRANT CLEANING AND SEALING.

THIS ITEM OF WORK SHALL BE PAID FOR UNDER ITEM:
AR201661 "CLEAN & SEAL BITUMINOUS CRACKS" – PER L.F.

REMOVE AND REPLACE BITUMINOUS PAVEMENT

THE AREA(S) DESIGNATED AS [redacted] ON THIS SHEET AND SHEET NO. 7 WILL HAVE THE EXISTING BITUMINOUS PAVEMENT REMOVED (FULL DEPTH) AND REPLACED WITH BITUMINOUS MATERIAL. THE BITUMINOUS MATERIAL USED IN THE REPLACEMENT WILL BE CONSIDERED AS AN INCIDENTAL ITEM TO THE PROPOSED REMOVAL AND REPLACEMENT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED. ALL REMOVED MATERIAL WILL BE DISPOSED OF OFF THE AIRPORT SITE.

WHERE THE PROPOSED REMOVAL AND REPLACEMENT AREA ABUTS THE EXISTING PAVEMENT, THE PAVEMENT WILL BE SAWED AS SHOWN ON THIS SHEET. THE SAWING WILL BE CONSIDERED AS AN INCIDENTAL ITEM TO THE PROPOSED PAVEMENT REMOVAL AND REPLACEMENT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

ANY ADJACENT PAVEMENT DAMAGED BY THE PAVEMENT REMOVAL AND REPLACEMENT OPERATIONS WILL BE REPAIRED AT THE CONTRACTOR'S OWN EXPENSE.

THIS ITEM OF WORK SHALL BE PAID FOR UNDER ITEM:
AR401910 "REMOVE & REPLACE BIT. PAVEMENT" – PER S.Y.

LEGEND

- EXISTING PAVEMENT
- PROPOSED IMPROVEMENTS
- PROPOSED BITUMINOUS PAVEMENT REMOVAL AND REPLACEMENT
- SS — EXISTING STORM SEWER
- UD — EXISTING RUNWAY UNDERDRAIN
- EXISTING INLET
- SS EXISTING STORM SEWER MANHOLE
- CO EXISTING UNDERDRAIN INSPECTION HOLE

0' 15' 30' 60'
HALF SIZE SCALE: 1"= 60'
FULL SIZE SCALE: 1"= 30'

DATE	REVISION	BY

LOGAN COUNTY AIRPORT
LINCOLN, ILLINOIS

A.I.P. PROJ.: 3-17-0062-B16
IL. PROJ.: AAA-3956

Hanson Project No. 09A0122D 0800
Filename R-111PRP.DWG
Scale 1"= 30'
Date 10/22/09

LAYOUT	CAH	10/22/09
DRAWN	BAK	10/22/09
REVIEWED	CAH	12/22/09

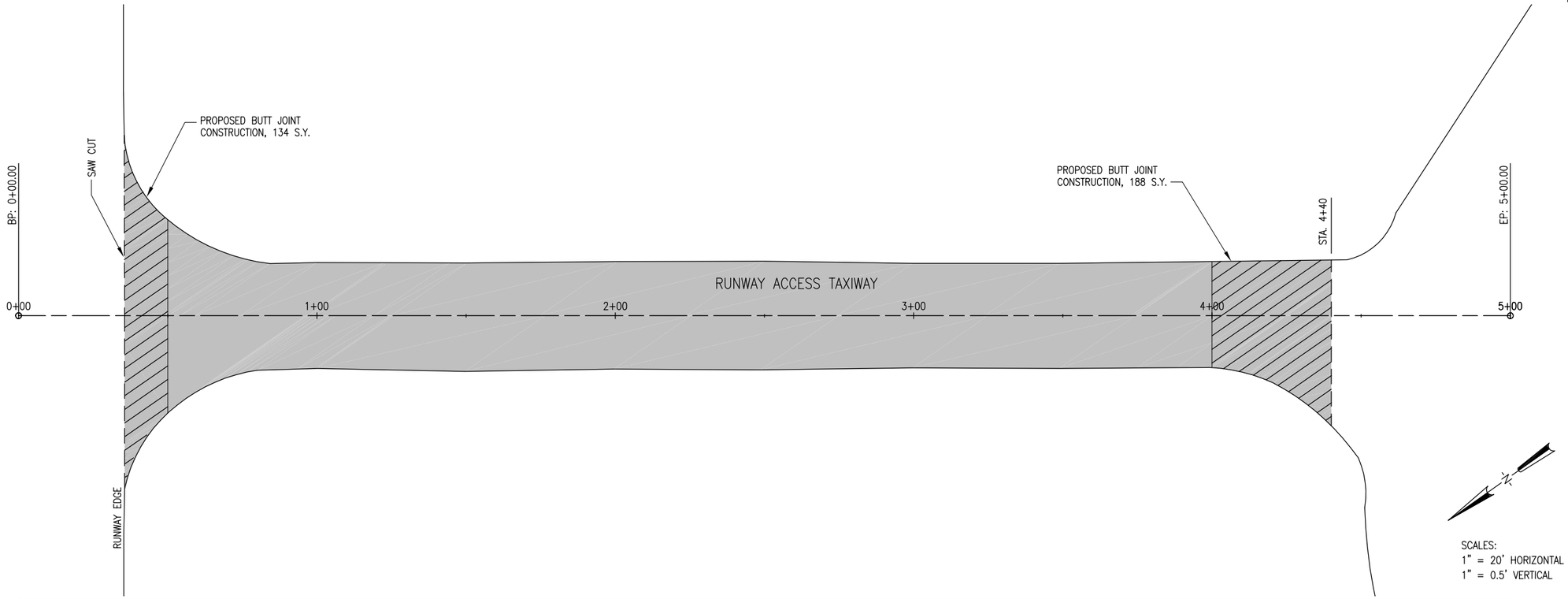
HANSON
Hanson Professional Services Inc.
1525 South Sixth Street
Springfield, Illinois 62703-2886
Offices Nationwide

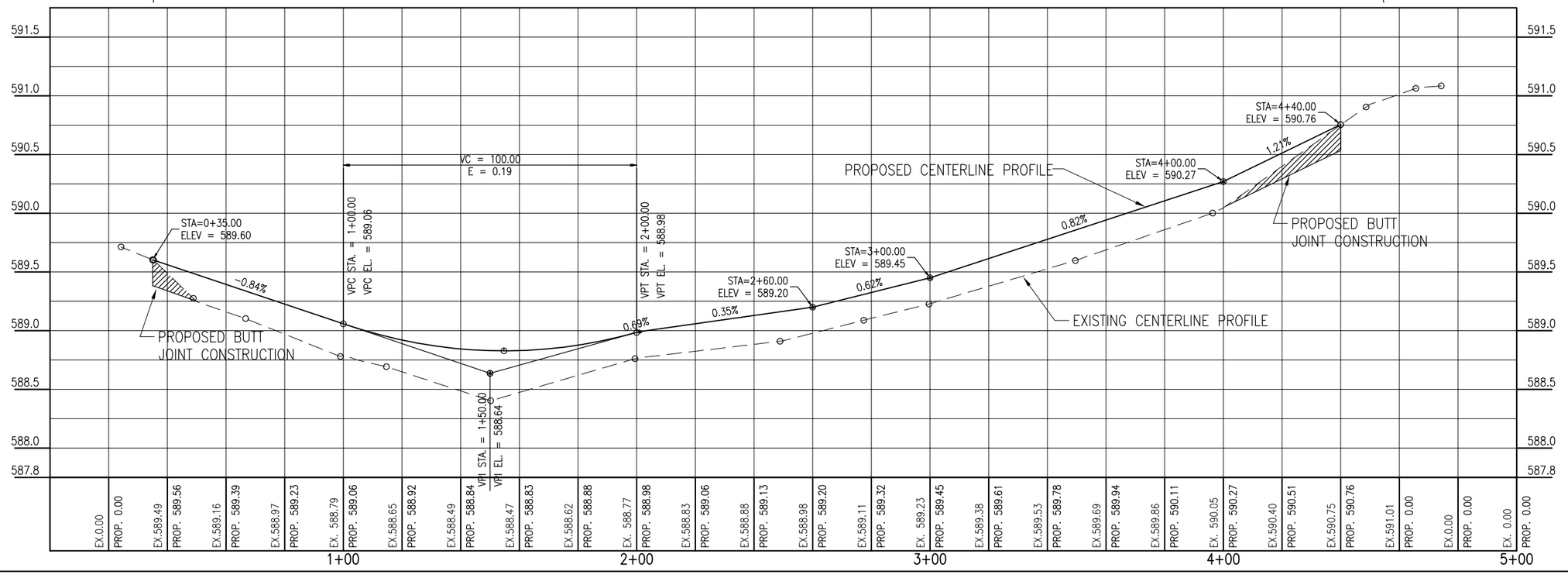
REHAB. ACCESS TAXIWAY PAVEMENTS

PROPOSED PAVEMENT PREPARATION PLAN

8
8 of 30 sheets

LO026





FEB 09, 2010 4:09 PM HAGLOOO382
I:\AIRPORTS\LOGAN\09A0122\CADD\AIRPORT\SHEET\R-PROFILE.DWG - TAXIWAY

DATE	REVISION	BY

LOGAN COUNTY AIRPORT
LINCOLN, ILLINOIS

IL. PROJ.: AAA-3956 A.I.P. PROJ.: 3-17-0062-B16

Hanson Project No. 09A0122D 0800
Filename R-PROFILE.DWG
Scale NOT TO SCALE
Date 10/22/09

LAYOUT	CAH	10/22/09
DRAWN	BAK	10/22/09
REVIEWED	CAH	12/22/09

HANSON

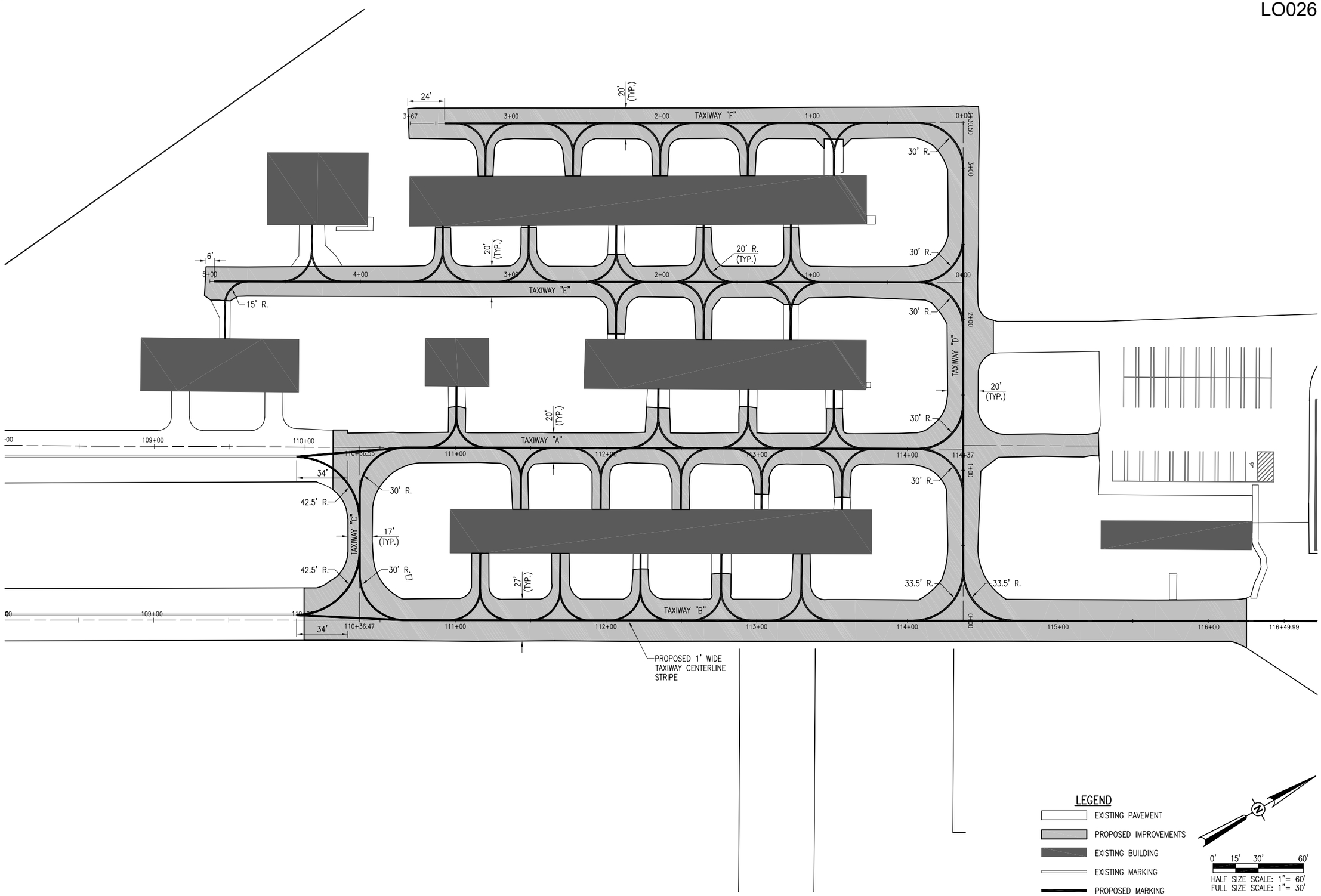
Hanson Professional Services Inc.
1525 South Sixth Street
Springfield, Illinois 62703-2886
Offices Nationwide

REHAB. ACCESS TAXIWAY PAVEMENTS

PROPOSED ACCESS TAXIWAY PLAN AND PROFILE

9

LO026



FEB 09, 2010 4:25 PM HAGL000382
I:\AIRPORTS\LOGAN\09A0122\CADD\AIRPORT\SHEET\R-151MRK.DWG - ACCESS TXY

DATE	REVISION	BY

LOGAN COUNTY AIRPORT
LINCOLN, ILLINOIS

A.I.P. PROJ.: 3-17-0062-B16
IL. PROJ.: AAA-3956

Hanson Project No. 09A0122D 0800
Filename R-151MRK.DWG
Scale 1"= 30'
Date 10/22/09

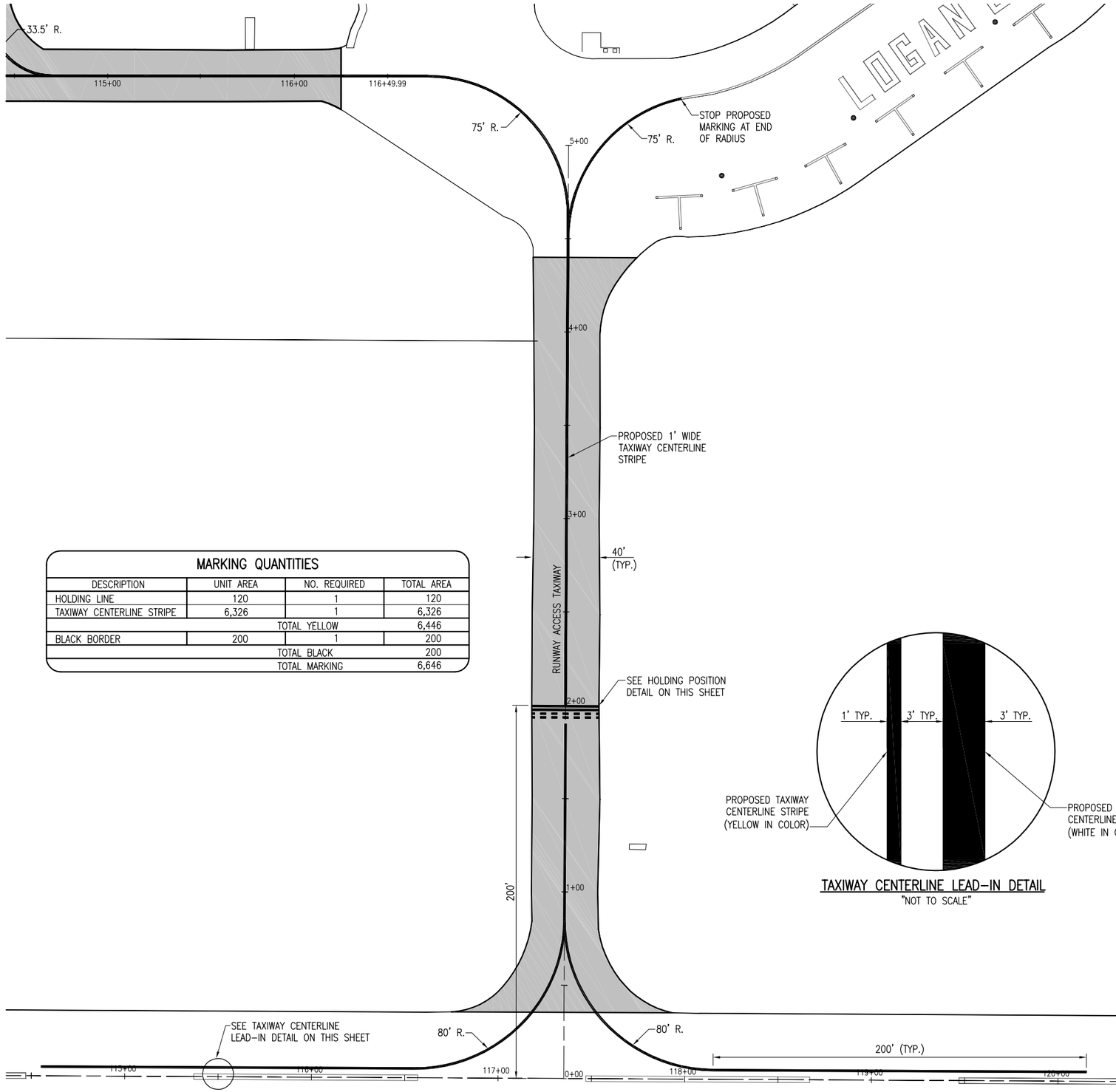
LAYOUT	CAH	10/22/09
DRAWN	BAK	10/22/09
REVIEWED	CAH	12/22/09

HANSON
Hanson Professional Services Inc.
1525 South Sixth Street
Springfield, Illinois 62703-2886
Offices Nationwide

REHAB. ACCESS TAXIWAY PAVEMENTS

PROPOSED MARKING PLAN

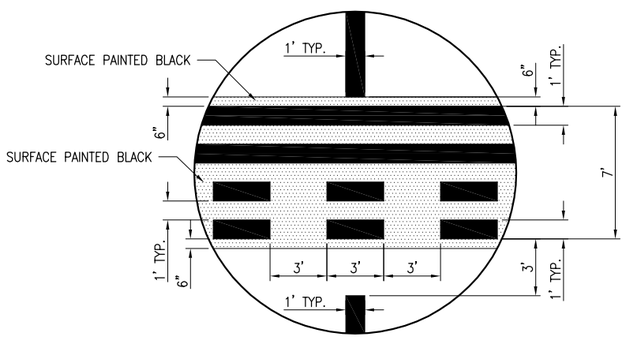
10



MARKING QUANTITIES

DESCRIPTION	UNIT AREA	NO. REQUIRED	TOTAL AREA
HOLDING LINE	120	1	120
TAXIWAY CENTERLINE STRIPE	6,326	1	6,326
		TOTAL YELLOW	6,446
BLACK BORDER	200	1	200
		TOTAL BLACK	200
		TOTAL MARKING	6,646

TAXIWAY CENTERLINE LEAD-IN DETAIL
"NOT TO SCALE"



HOLDING POSITION DETAIL
"NOT TO SCALE"

620-PAVEMENT MARKING-WATERBORNE NOTES

THE PAVEMENT MARKING-WATERBORNE (620) SHALL BE PLACED IN ACCORDANCE WITH ITEM 620 "PAVEMENT MARKING" AS STATED ON PAGE 277 OF THE ILLINOIS STANDARD SPECIFICATIONS FOR CONSTRUCTION OF AIRPORTS, ADOPTED NOVEMBER 02, 2009.

THIS ITEM SHALL CONSIST OF TAXIWAY CENTERLINE STRIPES AND HOLDING LINE MARKING IN ACCORDANCE WITH THESE SPECIFICATIONS AND AT THE LOCATIONS SHOWN ON THE CONSTRUCTION PLANS. ALL TAXIWAY CENTERLINE STRIPES WILL BE YELLOW IN COLOR AND THE HOLDING LINE MARKING WILL BE YELLOW IN COLOR WITH A BLACK OUTLINE. THE PROPOSED PAVEMENT MARKING WILL BE APPLIED IN TWO APPLICATIONS.

ANY MATERIAL DELIVERED THAT FAILS TO MEET THE SPECIFICATIONS SHALL BE DISPOSED OF BY THE VENDOR AND IMMEDIATELY REPLACED WITH ACCEPTABLE MATERIAL ENTIRELY AT THE VENDOR'S EXPENSE, INCLUDING HANDLING AND TRANSPORTATION CHARGES.

ALL PROPOSED MARKING WILL BE COMPLETED IN ACCORDANCE WITH THE DETAILS SHOWN ON THE CONSTRUCTION PLANS.

GLASS BEADS SHALL BE REQUIRED ONLY ON THE SECOND APPLICATION.

CUT-OFF SHEETS WILL BE REQUIRED TO INSURE STRAIGHT EDGES.

THE PROPOSED MARKING WILL BE PAID FOR UNDER ITEM:
AR620520 PAVEMENT MARKING-WATERBORNE ___ PER S.F.

LEGEND
- EXISTING PAVEMENT
- PROPOSED IMPROVEMENTS
- EXISTING MARKING
- PROPOSED MARKING

0' 15' 30' 60'
HALF SIZE SCALE: 1"= 60'
FULL SIZE SCALE: 1"= 30'

DATE	REVISION	BY

LOGAN COUNTY AIRPORT
LINCOLN, ILLINOIS

IL. PROJ.: AAA-3956 A.I.P. PROJ.: 3-17-0062-B16

Hanson Project No. 09A0122D 0800
Filename R-151MRK.DWG
Scale 1"= 30'
Date 10/22/09

LAYOUT	CAH	10/22/09
DRAWN	BAK	10/22/09
REVIEWED	CAH	12/22/09

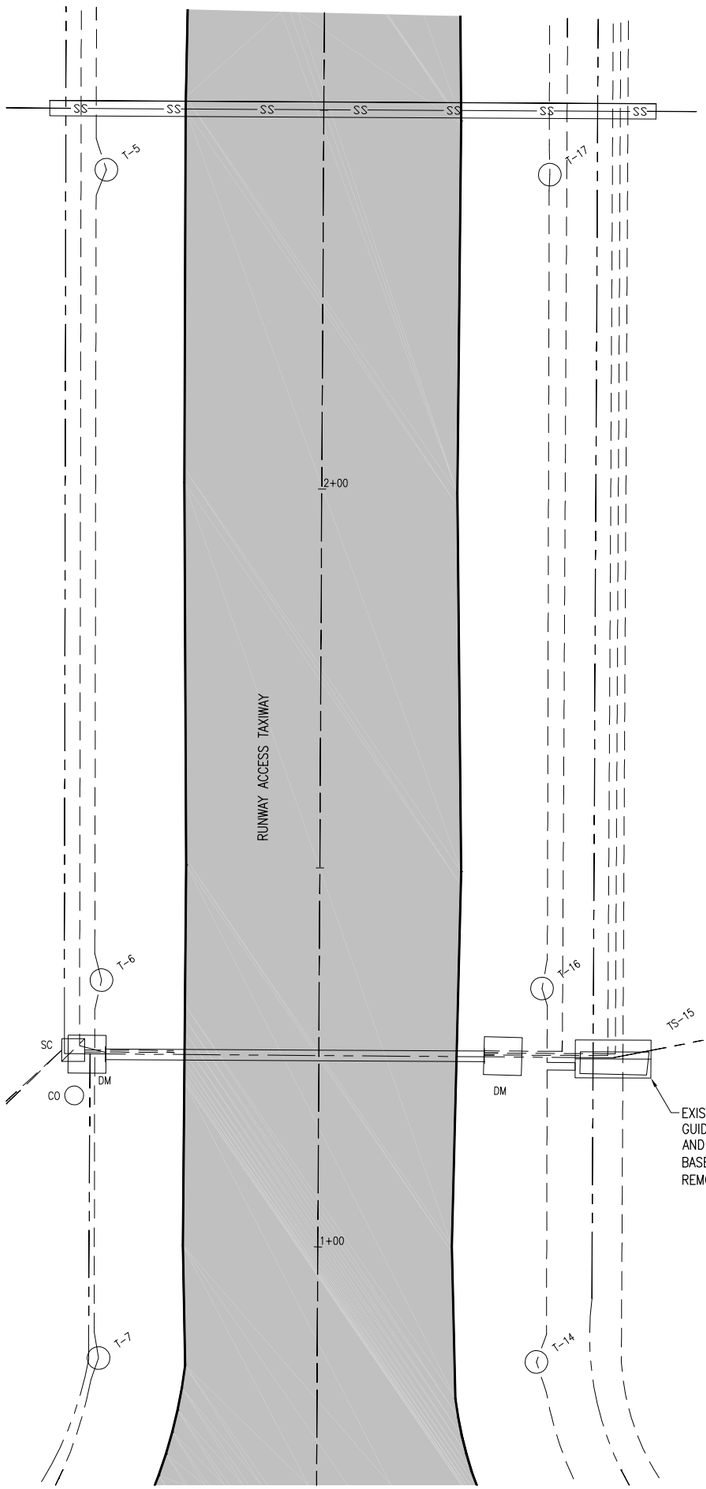
HANSON
Hanson Professional Services Inc.
1525 South Sixth Street
Springfield, Illinois 62703-2886
Offices Nationwide

REHAB. ACCESS TAXIWAY PAVEMENTS

PROPOSED MARKING PLAN

11
? of 30 sheets

FEB 09, 2010 4:26 PM HAGLOOO382
I:\AIRPORTS\LOGAN\09A0122\CADD\AIRPORT\SHEET\R-151MRK.DWG - TAXIWAY A



LEGEND

- PROPOSED IMPROVEMENTS
- SS — EXISTING STORM SEWER
- EXISTING STORM SEWER MANHOLE
- CO — EXISTING UNDERDRAIN CLEANOUT
- EXISTING STAKE MOUNTED TAXIWAY LIGHT
- SC — EXISTING SPLICE CAN
- DM — EXISTING DUCT MARKER
- EXISTING GUIDANCE SIGN (TO BE REMOVED)
- E — PROPOSED ELECTRICAL CABLES
- PROPOSED GUIDANCE SIGN

ELECTRICAL CABLE NOTES

PROPOSED ELECTRICAL CABLE WILL BE INSTALLED BETWEEN EXISTING TAXIWAY LIGHTS T-14 AND T-16. PROPOSED ELECTRICAL CABLE WILL BE INSTALLED FROM THE RELOCATED TAXI GUIDANCE SIGN TS-15 TO EXISTING TAXIWAY LIGHT T-17.

THE CONTRACTOR WILL EXPOSED THE EXISTING ELECTRICAL CABLE IN UNIT DUCT BY HAND DIGGING AND THEN CUT THE CABLE AND UNIT DUCT AT A SUFFICIENT LENGTH TO PULL THE CABLE AND UNIT DUCT BACK INTO THE RELOCATED TAXI GUIDANCE SIGN TS-15. THIS WORK WILL BE CONSIDERED AS AN INCIDENTAL ITEM TO THE PROPOSED CABLING AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

THE PROPOSED ELECTRICAL CABLE SHALL BE 1/C, NO. 8, 5000 V., TYPE C UNDERGROUND CABLE IN ¾" UNIT DUCT.

BARE COPPER COUNTERPOISE WIRE WILL NOT BE REQUIRED ON THIS PROJECT UNDER ITEM 108.

THE CONTRACTOR WILL COORDINATE ANY POWER OUTAGES WITH THE AIRPORT MANAGER. ONCE SHUT DOWN, THE CIRCUITS SHALL BE LABELED AS SUCH TO PREVENT ACCIDENTAL ENERGIZING OF THE RESPECTIVE CIRCUITS. ALL PERSONNEL SHALL FOLLOW U.S. DEPARTMENT OF LABOR OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION 29 CFR PART 1910 "OCCUPATIONAL SAFETY AND HEALTH STANDARDS FOR ELECTRICAL SAFETY AND LOCKOUT/TAGOUT PROCEDURES".

THE PROPOSED ELECTRICAL CABLE WILL BE PAID FOR UNDER:

AR108158 1/C,#8, 5KV UG CABLE IN UD - - - - - PER LINEAR FOOT.

RELOCATE TAXI GUIDANCE SIGN NOTES

EXISTING TAXI GUIDANCE SIGN TS-15 WILL BE RELOCATED FROM ITS' CURRENT LOCATION TO THAT SHOWN ON THIS SHEET.

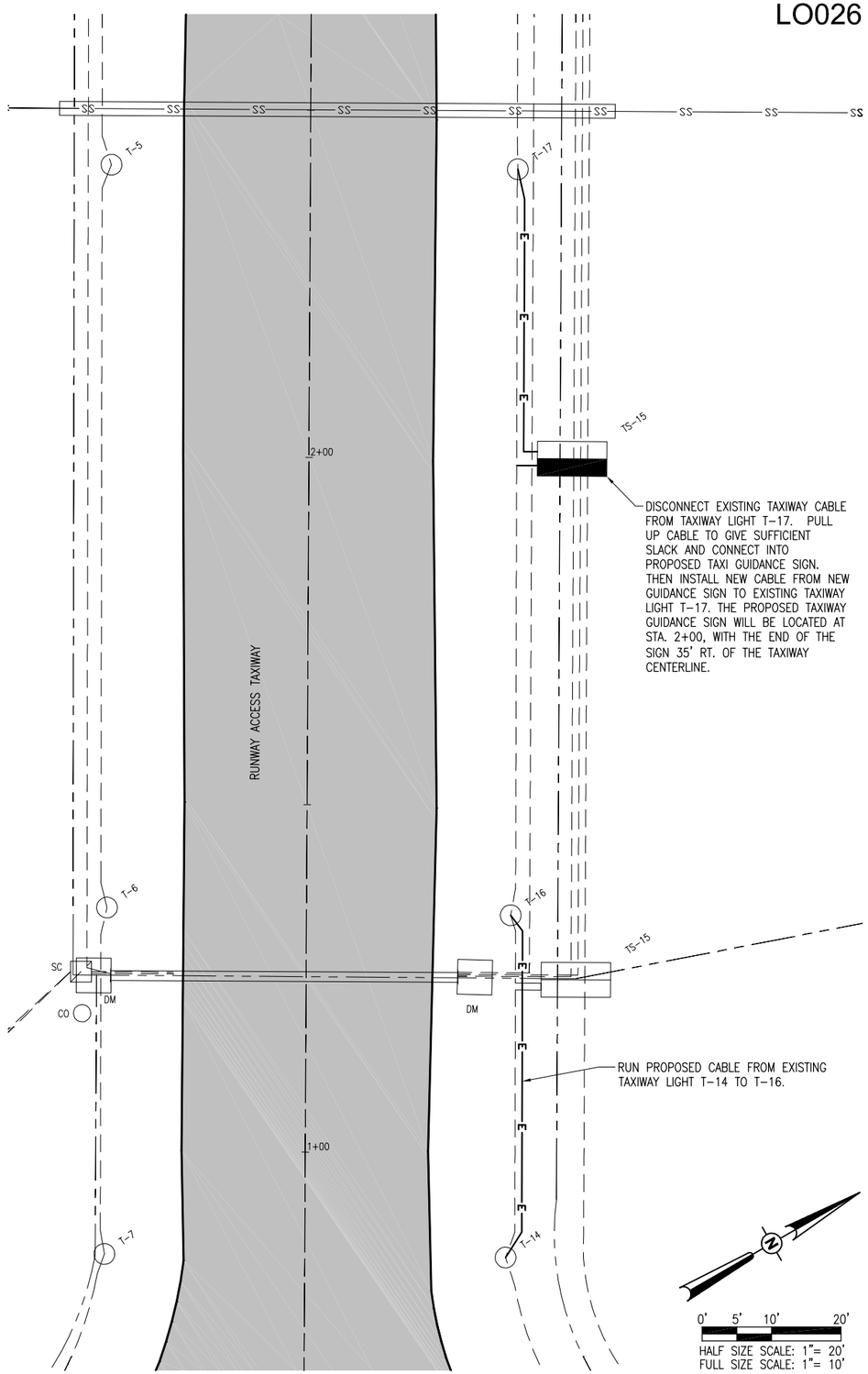
THE CONTRACTOR WILL CONSTRUCT A NEW CONCRETE BASE FOR THE RELOCATED TAXI GUIDANCE SIGN. THE NEW BASE WILL BE IN ACCORDANCE WITH THE DETAILS SHOWN ON SHEET 13.

THE EXISTING TAXI GUIDANCE SIGN BASE WILL BE REMOVED AND DISPOSED OF OFF THE AIRPORT SITE AS AN INCIDENTAL ITEM TO THE RELOCATION OF THE EXISTING TAXI GUIDANCE SIGN.

THE CONTRACTOR WILL FURNISH AND INSTALL ANY TOPSOIL NEEDED TO FILL IN THE HOLE LEFT FROM THE REMOVAL OF THE EXISTING CONCRETE BASE. THE TOPSOIL WILL BE COMPACTED AND GRADED TO MATCH THE SURROUNDING AREA. THE DISTURBED AREA WILL BE SEEDED AND MULCHED IN ACCORDANCE WITH ITEMS 901 AND 908. THIS WORK WILL BE CONSIDERED AS AN INCIDENTAL ITEM TO THE RELOCATION OF THE EXISTING TAXI GUIDANCE SIGN AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

THE RELOCATED TAXI GUIDANCE SIGN WILL BE PAID FOR UNDER:

AR125964 RELOCATE TAXI GUIDANCE SIGN - - - - PER EACH.



DATE	REVISION	BY

LOGAN COUNTY AIRPORT
LINCOLN, ILLINOIS

A.I.P. PROJ.: 3-17-0062-B16
IL. PROJ.: AAA-3956

Hanson Project No. 09A01220 0800
Filename R-141ELE.DWG
Scale 1"= 10'
Date 10/22/09

LAYOUT	CAH	10/22/09
DRAWN	BAK	10/22/09
REVIEWED	CAH	12/22/09

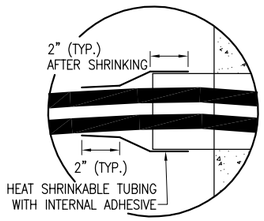
HANSON
Hanson Professional Services Inc.
1525 South Sixth Street
Springfield, Illinois 62703-2886
Offices Nationwide

REHAB. ACCESS TAXIWAY PAVEMENTS

PROPOSED ELECTRICAL PLAN

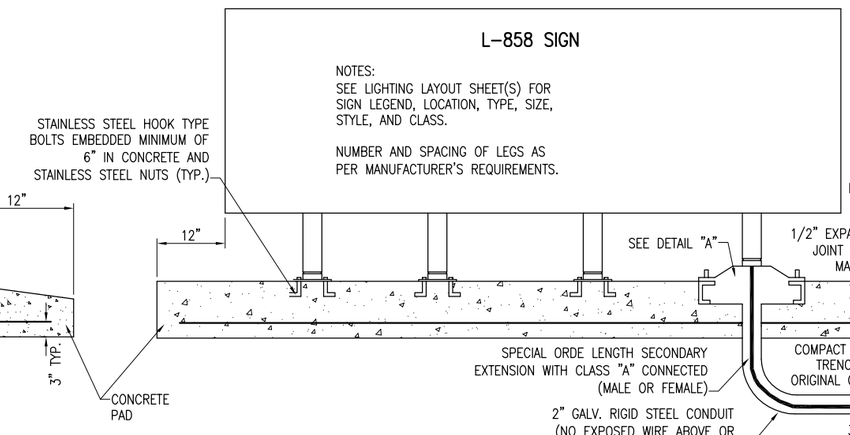
12
12 of 30 sheets

FEB 09, 2010 4:24 PM HAGLOOO382
I:\AIRPORTS\LOGAN\09A01220\CADD\AIRPORT\SHEET\R-141ELE.DWG - TAXIWAY A



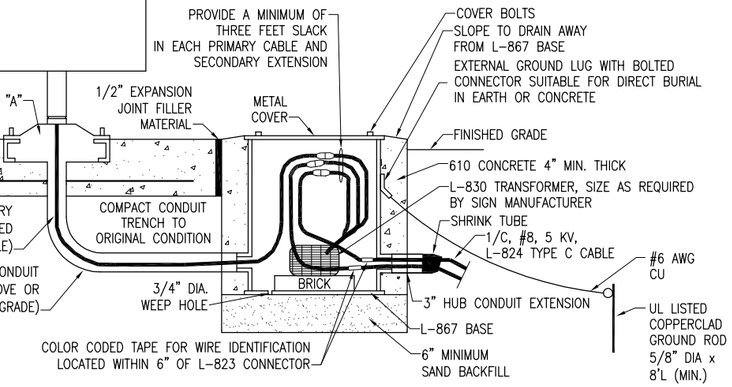
DETAIL "B"
(NOT TO SCALE)

OPTION 2
(NOT TO SCALE)



OPTION 1
(NOT TO SCALE)

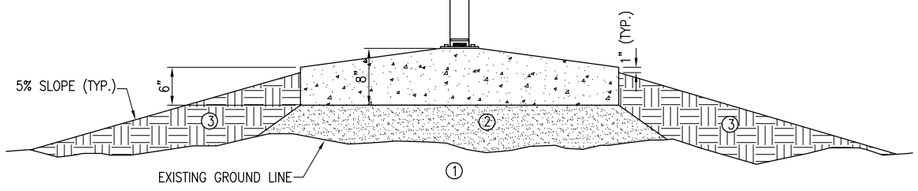
THE LOCATION OF UNDERGROUND UTILITIES AS INDICATED ON THE PLANS HAS BEEN OBTAINED FROM EXISTING RECORDS. NEITHER THE OWNER NOR THE ENGINEER ASSUMES ANY RESPONSIBILITY WHATSOEVER, IN RESPECT TO THE ACCURACY OR SUFFICIENCY OF THE INFORMATION AND THERE IS NO GUARANTEE, EITHER EXPRESSED OR IMPLIED, THAT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



GENERAL NOTES

SEE LIGHTING LAYOUT SHEET FOR SIGN LEGEND, LOCATION, TYPE, SIZE, STYLE, AND CLASS.

SEE SHEETS 16 THROUGH 17 FOR ELECTRICAL NOTES.



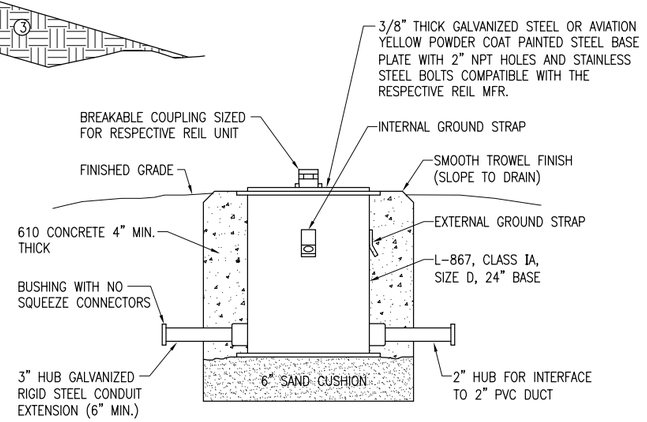
SIGN DETAIL
(NOT TO SCALE)

① EXISTING SOD TO BE STRIPPED AND REMOVED

② SAND BACKFILL, VARIABLE DEPTH

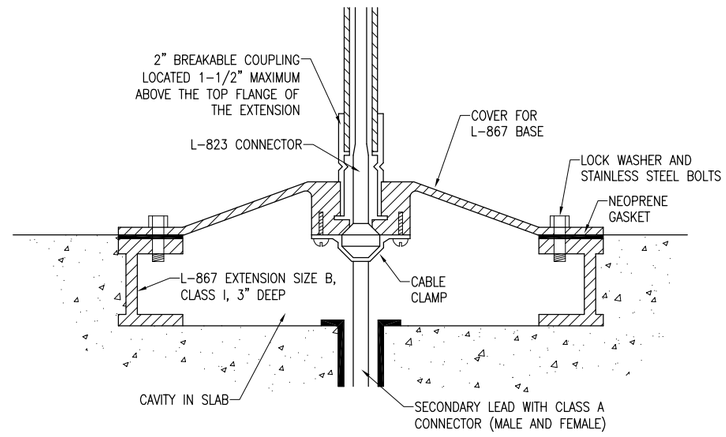
③ PROPOSED TOPSOIL BACKFILL MATERIAL

PER FAA AC 150/5340-30C DESIGN AND INSTALLATION DETAILS FOR AIRPORT VISUAL AIDS, A SAFETY GROUND MUST BE INSTALLED AT EACH LIGHT FIXTURE. A SAFETY GROUND SHALL BE INSTALLED AT EACH STAKE MOUNTED LIGHT AND EACH TRANSFORMER BASE/LIGHT CAN ASSOCIATED WITH RUNWAY LIGHTS, TAXIWAY LIGHTS, AND LIGHTED TAXI GUIDANCE SIGNS. THE SAFETY GROUND SHALL BE A #6 AWG BARE COPPER CONDUCTOR CONNECTED TO THE GROUND LUG ON THE RESPECTIVE L-867 TRANSFORMER BASE/LIGHT CAN OR MOUNTING STAKE AND A ⅝-INCH DIAMETER BY 8-FOOT LONG (MINIMUM) UL LISTED COPPER CLAD GROUND ROD.

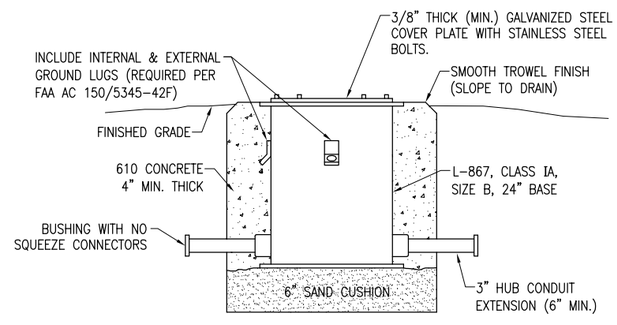


REIL BASE DETAIL
(NOT TO SCALE)

NOTE:
FOR THE PURPOSE OF ENHANCING SAFETY, EACH BASE MUST HAVE INSTALLED, BY THE MANUFACTURER, AN INTERNAL AND EXTERNAL GROUND STRAP THAT IS AVAILABLE FOR THE PURPOSE OF ATTACHING A GROUND LUG THAT IS CONNECTED TO AN EARTH GROUND OR A SAFETY GROUND CONDUCTOR INSTALLED WITH THE RESPECTIVE CIRCUIT. FOR AIRPORT PROJECTS RECEIVING FEDERAL FUNDS THIS REQUIREMENT IS MANDATORY PER FAA AC 150/5345-42F.



DETAIL "A"
(NOT TO SCALE)



TRANSFORMER BASE/SPLICE CAN DETAIL
(NOT TO SCALE)

LOGAN COUNTY AIRPORT
LINCOLN, ILLINOIS

A.I.P. PROJ.: 3-17-0062-B16
IL. PROJ.: AAA-3956

DATE	REVISION	BY

Hanson Project No. 09A0122D 0800
Filename R-541ELE.DWG
Scale NOT TO SCALE
Date 10/22/09

LAYOUT	CAH	10/22/09
DRAWN	BAK	10/22/09
REVIEWED	CAH	12/22/09

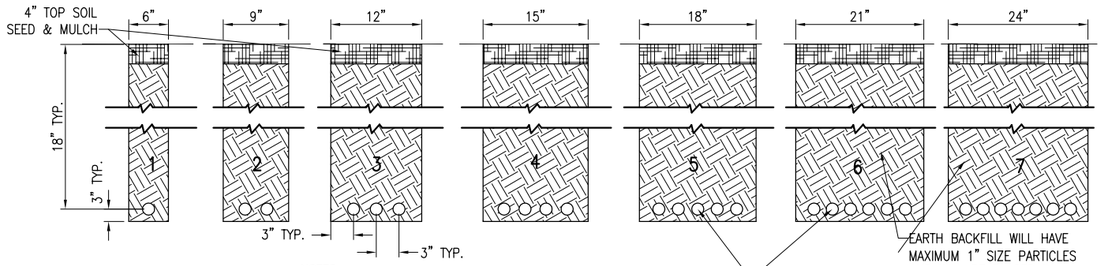
HANSON
Hanson Professional Services Inc.
1525 South Sixth Street
Springfield, Illinois 62703-2886
Offices Nationwide

REHAB. ACCESS TAXIWAY PAVEMENTS

PROPOSED
ELECTRICAL DETAILS
SHEET 1

13
13 of 30 sheets

LO026



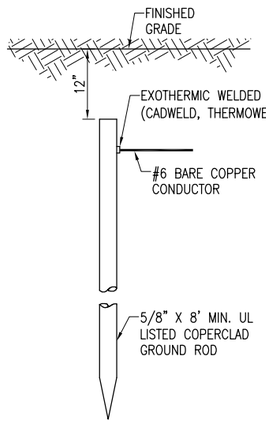
NOTES:
DETAIL NUMBERS INDICATE NO. OF CABLES.

TRENCHES WITH MORE THAN SEVEN CABLES SHALL BE INCREASED 3" IN WIDTH FOR EACH ADDITIONAL CABLE; IF SPECIFIED ON PLANS TWO PARALLEL TRENCHES MAY BE CONSTRUCTED.

DEPTH OF TRENCHES SHALL BE AS SHOWN ABOVE UNLESS OTHERWISE SPECIFIED ON THE PLANS.

ALL DISTURBED SURFACES SHALL BE RESTORED TO THEIR ORIGINAL CONDITION. COST IS INCIDENTAL TO TRENCH.

CABLE TRENCHES
(NOT TO SCALE)

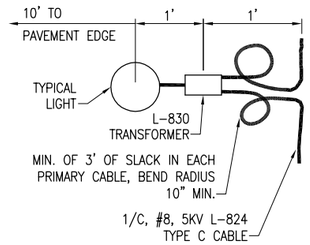


NOTES:
TYPE AND MINIMUM NUMBER OF GROUND RODS SHALL BE AS SPECIFIED ON THE PLAN.

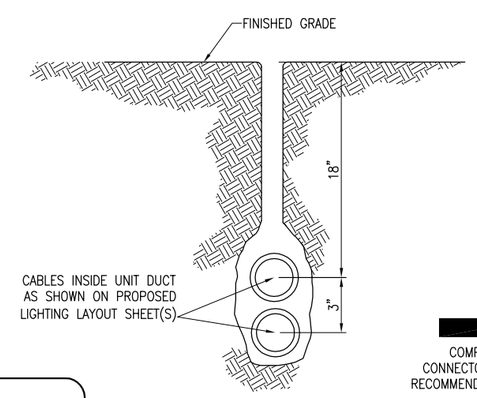
THE RESISTANCE TO GROUND OF THE GROUNDING SYSTEM SHALL NOT EXCEED 25 OHMS.

COST OF GROUND RODS IS INCIDENTAL TO THE ASSOCIATED ITEMS REQUIRING GROUNDING UNLESS OTHERWISE SPECIFIED.

GROUND ROD
(NOT TO SCALE)

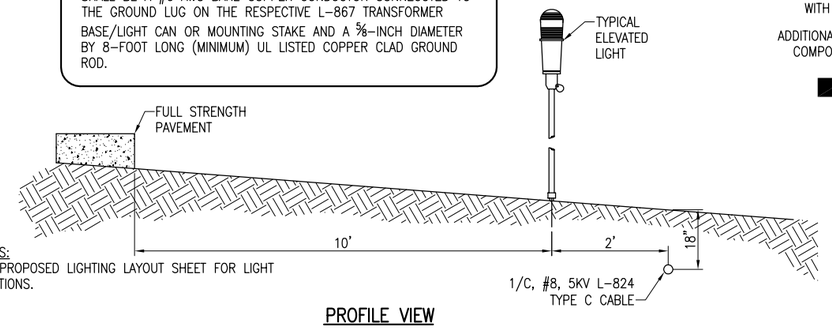


PLAN VIEW



PLOWED CABLE
(NOT TO SCALE)

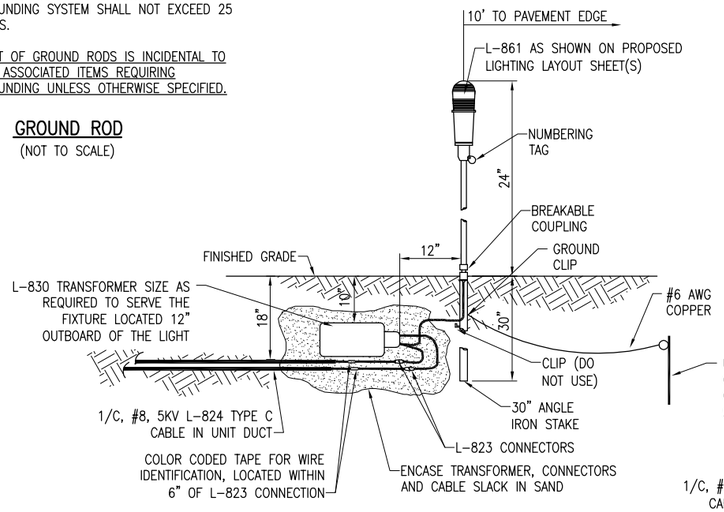
PER FAA AC 150/5340-30C DESIGN AND INSTALLATION DETAILS FOR AIRPORT VISUAL AIDS, A SAFETY GROUND MUST BE INSTALLED AT EACH LIGHT FIXTURE. A SAFETY GROUND SHALL BE INSTALLED AT EACH STAKE MOUNTED LIGHT AND EACH TRANSFORMER BASE/LIGHT CAN ASSOCIATED WITH RUNWAY LIGHTS, TAXIWAY LIGHTS, AND LIGHTED TAXI GUIDANCE SIGNS. THE SAFETY GROUND SHALL BE A #6 AWG BARE COPPER CONDUCTOR CONNECCTED TO THE GROUND LUG ON THE RESPECTIVE L-867 TRANSFORMER BASE/LIGHT CAN OR MOUNTING STAKE AND A ⅝-INCH DIAMETER BY 8-FOOT LONG (MINIMUM) UL LISTED COPPER CLAD GROUND ROD.



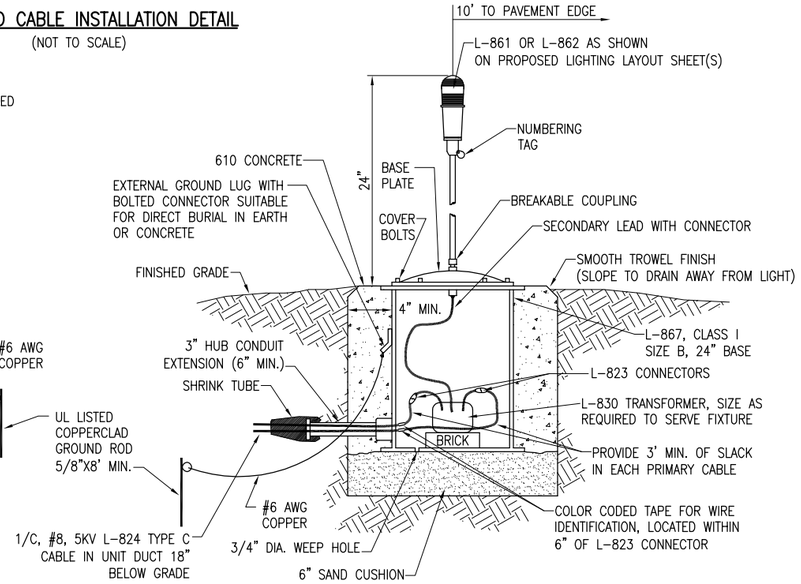
NOTES:
SEE PROPOSED LIGHTING LAYOUT SHEET FOR LIGHT LOCATIONS.

PROFILE VIEW

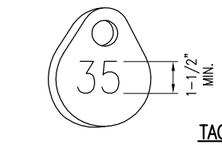
LIGHT AND CABLE INSTALLATION DETAIL
(NOT TO SCALE)



MEDIUM INTENSITY LIGHT - STAKE MOUNTED
(NOT TO SCALE)

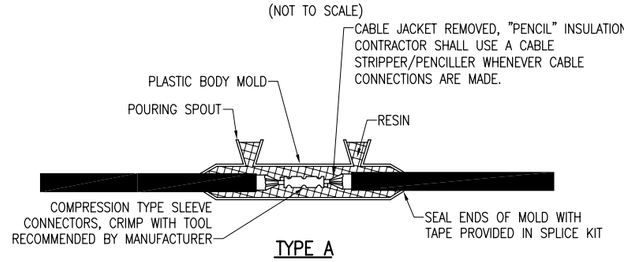


MEDIUM/HIGH INTENSITY LIGHT - BASE MOUNTED
(NOT TO SCALE)

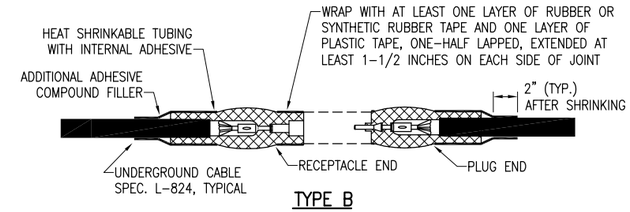


TAG DETAIL
(NOT TO SCALE)

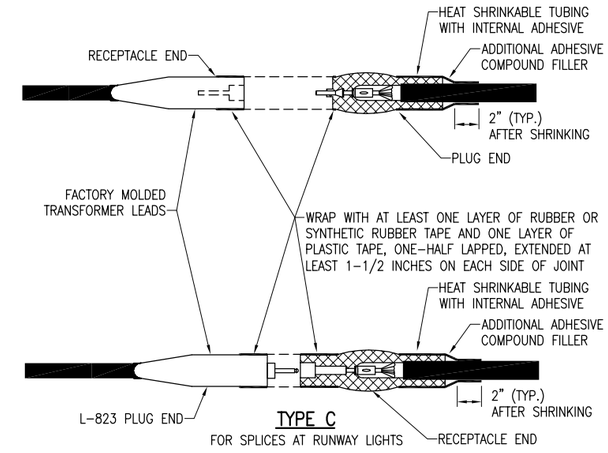
NOTE:
AFFIX NON-CORROSIVE TAG TO FIXTURE FACING RUNWAY WITH SET SCREW, WIRE TIE, OR METAL BAND. NUMERALS SHALL BE ENGRAVED FOR PERMANENT READABILITY.



TYPE A
FOR SPLICES IN HOMERUNS FOR EXTENSIONS TO EXISTING CABLES ONLY



TYPE B
FOR SPLICES AT JUNCTION OF HOMERUN WITH LOOP CIRCUIT



TYPE C
FOR SPLICES AT RUNWAY LIGHTS

NOTES:
SEE PROPOSED LIGHTING LAYOUT SHEET(S) FOR SPLICE TYPE.

INSIDE DIAMETER OF CONNECTOR SHALL PROPERLY MATCH THE OUTSIDE DIAMETER OF CABLE.

CABLE SPLICES
(NOT TO SCALE)

LOGAN COUNTY AIRPORT
LINCOLN, ILLINOIS

A.I.P. PROJ.: 3-17-0062-B16
IL. PROJ.: AAA-3956

DATE	REVISION	BY

Hanson Project No. 09A0122D 0800
Filename R-542ELE.DWG
Scale NOT TO SCALE
Date 10/22/09

LAYOUT	CAH	10/22/09
DRAWN	BAK	10/22/09
REVIEWED	CAH	12/22/09

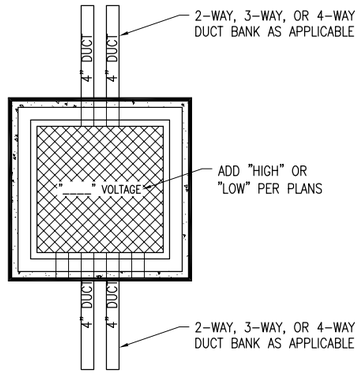
HANSON
Hanson Professional Services Inc.
1525 South Sixth Street
Springfield, Illinois 62703-2886
Offices Nationwide

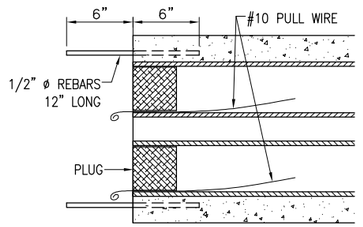
REHAB. ACCESS TAXIWAY PAVEMENTS

PROPOSED ELECTRICAL DETAILS SHEET 2

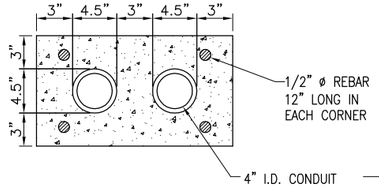
14
14 of 30 sheets

FEB 09, 2010 4:30 PM HAGLOOO382
I:\AIRPORTS\LOGAN\09A0122\CADD\AIRPORT\SHEET\R-542ELE.DWG - ELEC DETAILS

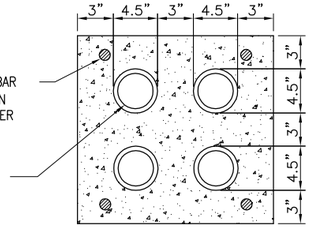




TYPICAL SECTION
(NOT TO SCALE)



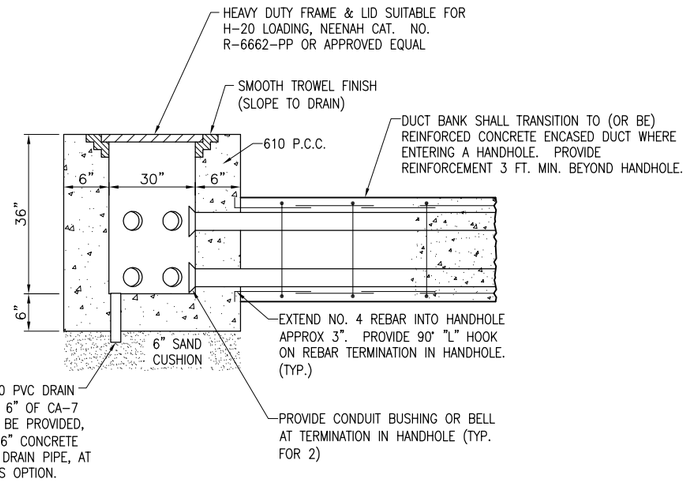
2-DUCT BANK
(NOT TO SCALE)



4-DUCT BANK
(NOT TO SCALE)

NOTES:

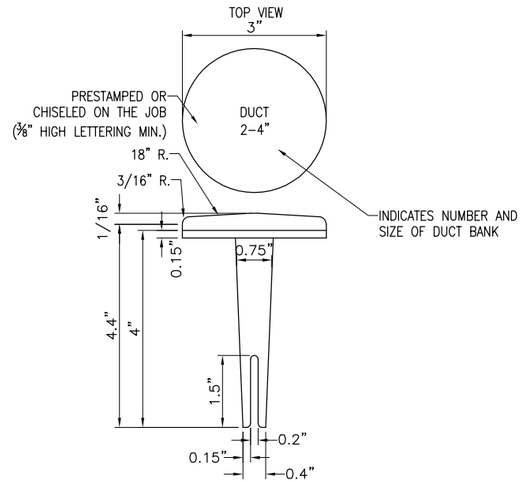
1. THE COST OF ALL TURF AND PAVEMENT DUCT MARKERS SHALL BE INCIDENTAL TO THE DUCT. THE COST OF ALL CABLE MARKERS SHALL BE INCIDENTAL TO THE CABLE.
2. BITUMINOUS PAVEMENT DUCT MARKER OR CONCRETE DUCT MARKER TO BE PROVIDED AT EACH END OF EACH DUCT AS SHOWN ON THE LOCATION PLAN. FOR CONCRETE PAVEMENT, THE LETTER "D" SHALL BE IMPRESSED IN THE PAVEMENT INSTEAD OF THE MARKER. THE LETTER SHALL BE AS DESCRIBED IN NOTE 4.
3. CABLE MARKERS SHALL BE PLACED AT CHANGES OF DIRECTION AND APPROXIMATELY EVERY 200' ALONG CABLE RUNS.
4. CONCRETE CABLE MARKERS AND DUCT MARKERS SHALL HAVE LETTERS 4" HIGH, 3" WIDE WITH WIDTH OF STROKE ½" AND ¼" DEEP. ALL LETTERS, NUMBERS AND ARROWS TO BE IMPRESSED.



NOTE:
1. LIDS FOR LOW VOLTAGE HANDHOLES SHALL BE LABELED "LOW VOLTAGE". LIDS FOR HIGH VOLTAGE HANDHOLES SHALL BE LABELED "HIGH VOLTAGE". COORDINATE LETTERING WITH MFR.
2. HANDHOLE MAY BE CAST IN PLACE OR PRECAST.
3. SEE SPECIAL PROVISIONS.

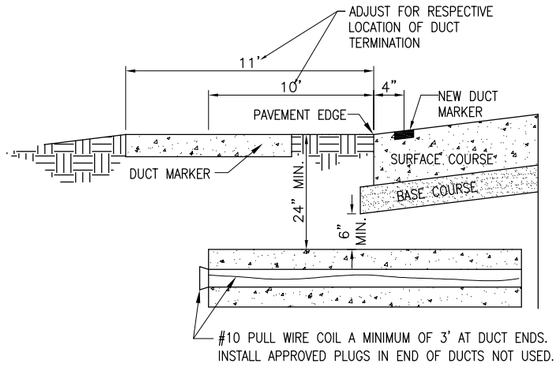
THE LOCATION, SIZE AND TYPE OF MATERIAL OF EXISTING UNDERGROUND UTILITIES INDICATED ON THE PLANS IS NOT REPRESENTED AS BEING ACCURATE, SUFFICIENT OR COMPLETE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES, INCLUDING SERVICE CONNECTIONS TO UNDERGROUND UTILITIES. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES OF HIS OPERATIONAL PLANS AND SHALL OBTAIN 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 JURISDICTION. THE ENGINEER SHALL ALSO BE IMMEDIATELY NOTIFIED. 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.

CALL J.U.L.I.E. FOR UTILITY INFORMATION AT 1-800-892-0123.

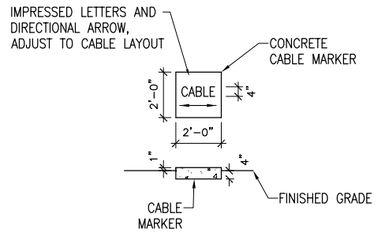


BITUMINOUS PAVEMENT DUCT MARKERS
"NOT TO SCALE"

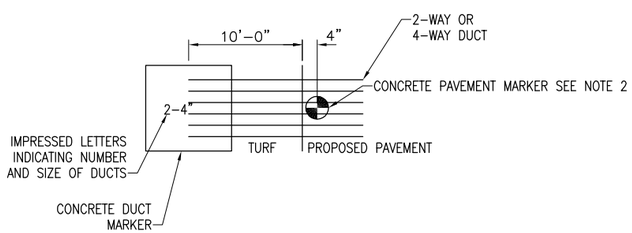
NOTE:
TOP OF MARKER SHALL BE FLUSH WITH FINISHED PAVEMENT SURFACE. MARKER MAY BE INSTALLED IN A DRILLED HOLE AND SECURED WITH EPOXY GLUE.



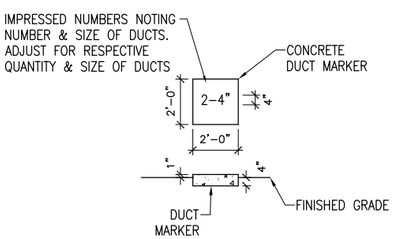
UNDERGROUND ELECTRICAL DUCT
(NOT TO SCALE)



TURF CABLE MARKERS
"NOT TO SCALE"



DUCT MARKER DETAIL
"NOT TO SCALE"



TURF DUCT MARKERS
"NOT TO SCALE"

LOGAN COUNTY AIRPORT
LINCOLN, ILLINOIS

A.I.P. PROJ.: 3-17-0062-B16
IL. PROJ.: AAA-3956

DATE	REVISION	BY

Hanson Project No. 09A0122D 0800
Filename R-543ELE.DWG
Scale NOT TO SCALE
Date 10/22/09

LAYOUT	CAH	10/22/09
DRAWN	BAK	10/22/09
REVIEWED	CAH	12/22/09

HANSON
Hanson Professional Services Inc.
1525 South Sixth Street
Springfield, Illinois 62703-2886
Offices Nationwide

REHAB. ACCESS TAXIWAY PAVEMENTS

PROPOSED ELECTRICAL DETAILS SHEET 3

15
15 of 30 sheets

GENERAL NOTES

1. ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLED IN CONFORMANCE WITH NFPA 70 – NATIONAL ELECTRICAL CODE (NEC) MOST CURRENT ISSUE IN FORCE, THE RESPECTIVE EQUIPMENT MANUFACTURER'S DIRECTIONS AND ALL OTHER APPLICABLE LOCAL CODES, LAWS, ORDINANCES, AND REQUIREMENTS IN FORCE. ANY INSTALLATIONS WHICH VOID THE U.L. LISTING, ETL LISTING (OR OTHER THIRD PARTY LISTING) AND/OR THE MANUFACTURER'S WARRANTY OF A DEVICE WILL NOT BE PERMITTED.

2. CONTRACTOR SHALL KEEP A COPY OF THE LATEST NEC IN FORCE ON SITE AT ALL TIMES DURING CONSTRUCTION FOR USE AS A REFERENCE.

3. CONTRACTOR SHALL COORDINATE WORK AND ANY POWER OUTAGES AND/OR SHUT DOWN OF SYSTEMS WITH THE RESPECTIVE FACILITY OWNER PERSONNEL AND THE AIRPORT MANAGER/DIRECTOR. ONCE SHUT DOWN, THE CIRCUITS SHALL BE LABELED AS SUCH TO PREVENT ACCIDENTAL ENERGIZING OF THE RESPECTIVE CIRCUITS. ALL PERSONNEL SHALL FOLLOW U.S. DEPARTMENT OF LABOR OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION (OSHA) 29 CFR PART 1910 OCCUPATIONAL SAFETY & HEALTH STANDARDS FOR ELECTRICAL SAFETY AND LOCKOUT/TAGOUT PROCEDURES INCLUDING, BUT NOT LIMITED TO, 29 CFR SECTION 1910.147 THE CONTROL OF HAZARDOUS ENERGY (LOCKOUT/TAGOUT).

4. THE CONTRACTOR SHALL ASCERTAIN THAT ALL LIGHTING SYSTEM COMPONENTS FURNISHED BY HIM, INCLUDING FAA APPROVED EQUIPMENT, ARE COMPATIBLE IN ALL RESPECTS WITH EACH OTHER AND THE REMAINDER OF THE NEW/EXISTING SYSTEM. ANY NONCOMPATIBLE COMPONENTS FURNISHED BY THIS CONTRACTOR SHALL BE REPLACED BY HIM AT NO ADDITIONAL COST TO THE AIRPORT SPONSOR WITH A SIMILAR UNIT, APPROVED BY THE ENGINEER (DIFFERENT MODEL OR DIFFERENT MANUFACTURER) THAT IS COMPATIBLE WITH THE REMAINDER OF THE AIRPORT LIGHTING SYSTEM.

5. IN CASE THE CONTRACTOR ELECTS TO FURNISH AND INSTALL AIRPORT LIGHTING EQUIPMENT REQUIRING ADDITIONAL WIRING, TRANSFORMERS, ADAPTORS, MOUNTINGS, ETC., TO THOSE SHOWN ON THE DRAWINGS AND/OR LISTED IN THE SPECIFICATION, ANY COST FOR THESE ITEMS SHALL BE INCIDENTAL TO THE EQUIPMENT COST.

6. THE CONTRACTOR INSTALLED EQUIPMENT (INCLUDING FAA APPROVED) SHALL NOT GENERATE ANY ELECTROMAGNETIC INTERFERENCE IN THE EXISTING AND/OR NEW COMMUNICATIONS, WEATHER, AIR NAVIGATION, AND AIR TRAFFIC CONTROL EQUIPMENT. ANY EQUIPMENT GENERATING SUCH INTERFERENCE SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST WITH THE EQUIPMENT MEETING THE APPLICABLE SPECIFICATIONS AND NOT GENERATING ANY INTERFERENCE.

7. WHEN A SPECIFIC TYPE, STYLE, CLASS, ETC. OF FAA APPROVED EQUIPMENT IS SPECIFIED ONLY THAT TYPE, STYLE, CLASS, WILL BE ACCEPTABLE, EVEN THOUGH EQUIPMENT OF OTHER TYPES STYLES, CLASSES, ETC. MAY BE APPROVED.

8. ANY AND ALL INSTRUCTIONS FROM THE ENGINEER TO THE CONTRACTOR REGARDING CHANGES IN OR DEVIATIONS FROM THE PLANS AND SPECIFICATIONS SHALL BE IN WRITING WITH COPIES SENT TO THE AIRPORT SPONSOR AND THE FAA FIELD OFFICE (ADO/AFO). THE CONTRACTOR SHALL NOT ACCEPT ANY VERBAL INSTRUCTIONS FROM THE RESIDENT ENGINEER REGARDING ANY CHANGES FROM THE PLANS AND SPECIFICATIONS.

9. A MINIMUM OF THREE COPIES OF THE INSTRUCTION BOOK SHALL BE SUPPLIED WITH EACH DIFFERENT TYPE OF EQUIPMENT. THE BOOKS DESCRIBING A MORE SOPHISTICATED TYPE OF EQUIPMENT, SUCH AS REGULATORS, PAPI, REIL, ETC. AS A MINIMUM SHALL CONTAIN THE FOLLOWING:

   A. A DETAILED DESCRIPTION OF THE OVERALL EQUIPMENT AND ITS INDIVIDUAL COMPONENTS.

   B. THEORY OF OPERATION INCLUDING THE FUNCTION OF EACH COMPONENT.

   C. INSTALLATION INSTRUCTION.

   D. START–UP INSTRUCTIONS.

   E. PREVENTATIVE MAINTENANCE REQUIREMENTS.

   F. CHART FOR TROUBLE–SHOOTING.

   G. COMPLETE POWER AND CONTROL DETAILED WIRING DIAGRAM(S), SHOWING EACH CONDUCTOR/CONNECTION/COMPONENT – "BLACK" BOXES ARE NOT ACCEPTABLE. THE DIAGRAM OF THE NARRATIVE SHALL SHOW VOLTAGE/CURRENTS/WAVE SHAPES AT STRATEGIC LOCATIONS TO BE USED WHEN CHECKING AND/OR TROUBLE–SHOOTING THE EQUIPMENT. WHEN THE EQUIPMENT HAS SEVERAL MODES OF OPERATION, SUCH AS SEVERAL BRIGHTNESS STEPS, THESE PARAMETERS SHALL BE INDICATED FOR ALL DIFFERENT MODES.

   H. PARTS LIST WHICH WILL INCLUDE ALL MAJOR AND MINOR COMPONENTS SUCH AS RESISTORS, DIODES, ETC. IT SHALL INCLUDE A COMPLETE NOMENCLATURE OF EACH COMPONENT AND, IF APPLICABLE, THE NAME OF ITS MANUFACTURER AND THE CATALOG NUMBER.

   I. SAFETY INSTRUCTIONS.

POWER AND CONTROL NOTES

1. PROVIDE LEGEND PLATES FOR ALL ELECTRICAL EQUIPMENT TO IDENTIFY FUNCTION, CIRCUIT VOLTAGE AND PHASE. WHERE THE EQUIPMENT CONTAINS FUSES, ALSO IDENTIFY THE FUSE OR FUSE LINK AMPERE RATING. WHERE THE EQUIPMENT DOES NOT HAVE SUFFICIENT AREA TO INSTALL LEGEND PLATES, THE LEGEND PLATES SHALL BE INSTALLED ON THE WALL NEXT TO THE UNIT. LEGEND PLATES SHALL BE WEATHERPROOF ENGRAVED PLASTIC OR PHENOLIC MATERIAL, 1/4" HIGH BLACK LETTERS ON A WHITE BACKGROUND UNLESS NOTED OTHERWISE. SECURE WITH WEATHERPROOF ADHESIVE AND MACHINE SCREWS. FURNISH ADDITIONAL LEGEND PLATES WHERE REQUIRED BY CODE, FOR ADDITIONAL EQUIPMENT, AS DETAILED HEREIN ON THE PLANS, AND AS NOTED IN THE SPECIAL PROVISION SPECIFICATIONS.

2. COLOR CODE ALL PHASE WIRING BY THE USE OF COLORED WIRE INSULATION AND/OR COLORED TAPE. WHERE TAPE IS USED, THE WIRE INSULATION SHALL BE BLACK. BLACK AND RED SHALL BE USED FOR SINGLE–PHASE, THREE WIRE SYSTEMS AND BLACK, RED AND BLUE SHALL BE USED FOR THREE–PHASE SYSTEMS. NEUTRAL CONDUCTORS, SIZE NO. 6 AWG OR SMALLER, SHALL BE IDENTIFIED BY A CONTINUOUS WHITE OR NATURAL GRAY OUTER FINISH ALONG ITS ENTIRE LENGTH. NEUTRAL CONDUCTORS LARGER THAN NO. 6 AWG SHALL BE IDENTIFIED EITHER BY A CONTINUOUS WHITE OR NATURAL GRAY OUTER FINISH ALONG ITS ENTIRE LENGTH OR BY THE USE OF WHITE TAPE AT ITS TERMINATIONS AND INSIDE ACCESSIBLE WIREWAYS. INSULATED GROUND CONDUCTORS SHALL HAVE GREEN COLORED INSULATION FOR ALL CONDUCTOR SIZES (AWG OR KCMIL).

3. ALL BRANCH CIRCUIT CONDUCTORS CONNECTED TO A PARTICULAR PHASE SHALL BE IDENTIFIED WITH THE SAME COLOR. THE COLOR CODING SHALL BE EXTENDED TO THE POINT OF UTILIZATION.

4. IN CONTROL WIRING THE SAME COLOR SHALL BE USED THROUGHOUT THE SYSTEM FOR THE SAME FUNCTION, SUCH AS 10%, 30%, 100% BRIGHTNESS CONTROL, ETC.

5. LOW VOLTAGE (600 V.) AND HIGH VOLTAGE (5000 V.) CONDUCTORS SHALL BE INSTALLED IN SEPARATE WIREWAYS.

6. NEATLY LACE WIRING IN DISTRIBUTION PANELS, WIREWAYS, SWITCHES AND JUNCTION/PULL BOXES.

7. THE MINIMUM SIZE OF PULL/JUNCTION BOXES, REGARDLESS OF THE QUANTITY AND SIZE OF THE CONDUCTORS SHOWN, SHALL BE AS FOLLOWS:

   A. IN STRAIGHT PULLS THE LENGTH OF THE BOX SHALL NOT BE LESS THAN EIGHT TIMES THE TRADE DIAMETER OF THE LARGER CONDUIT. THE TOTAL AREA (INCLUDING THE CONDUIT CROSS–SECTIONAL AREA) OF A BOX END SHALL BE AT LEAST 3 TIMES GREATER THAN THE TOTAL TRADE CROSS–SECTIONAL AREA OF THE CONDUITS TERMINATING AT THE END.

   B. IN ANGLE PULLS OR 'U' PULLS THE DISTANCE BETWEEN EACH CONDUIT ENTRY INSIDE THE BOX AND THE OPPOSITE WALL OF THE BOX SHALL NOT BE LESS THAN SIX (6) TIMES THE TRADE DIAMETER OF THE LARGEST CONDUIT. THIS DISTANCE SHALL BE INCREASED FOR ADDITIONAL ENTRIES BY THE AMOUNT OF THE SUM OF THE DIAMETERS OF ALL OTHER CONDUIT ENTRIES ON THE SAME WALL AS THE BOX. THE DISTANCE BETWEEN CONDUIT ENTRIES ENCLOSING THE SAME CONDUCTOR SHALL NOT BE LESS THAN SIX TIMES THE TRADE DIAMETER OF THE LARGEST CONDUIT.

8. A RUN OF CONDUIT BETWEEN TERMINATIONS AT EQUIPMENT ENCLOSURES, SQUARE DUCTS AND PULL/JUNCTION BOXES, SHALL NOT CONTAIN MORE THAN THE EQUIVALENT OF FOUR QUARTER BENDS (360 DEGREES TOTAL), INCLUDING THOSE BENDS LOCATED IMMEDIATELY AT THE TERMINATIONS, CAST, CONDUIT TYPE OUTLETS SHALL NOT BE TREATED AS PULL/JUNCTION BOXES.

9. EQUIPMENT CABINETS SHALL NOT BE USED AS PULL/JUNCTION BOXES. ONLY WIRING TERMINATING AT THE EQUIPMENT SHALL BE BROUGHT INTO THESE ENCLOSURES.

10. SPLICES AND JUNCTION POINTS SHALL BE PERMITTED ONLY IN JUNCTION BOXES, DUCTS EQUIPPED WITH REMOVABLE COVERS, AND AT EASILY ACCESSIBLE LOCATIONS.

11. CIRCUIT BREAKERS IN POWER DISTRIBUTION PANEL(S) SHALL BE THERMAL–MAGNETIC MOLDED CASE, PERMANENT TRIP WITH 100 AMPERE, MINIMUM FRAME.

12. DUAL LUGS SHALL BE USED WHERE TWO (2) WIRES, SIZE NO. 6 OR LARGER, ARE TO BE CONNECTED TO THE SAME TERMINAL.

13. ALL INTERIOR WALL MOUNTED EQUIPMENT ENCLOSURES SHALL BE MOUNTED ON HOT DIPPED GALVANIZED STEEL STRUT SUPPORT, OR STAINLESS STEEL STRUT SUPPORT, WITH CORROSION RESISTANT HARDWARE.

14. SUPPORT FOR EXTERIOR MOUNTED EQUIPMENT SHALL USE HOT DIPPED GALVANIZED STEEL STRUT SUPPORT OR STAINLESS STEEL STRUT SUPPORT WITH STAINLESS STEEL HARDWARE. PROVIDE ZINC RICH PAINT APPLIED TO FIELD CUTS OF GALVANIZED STEEL SUPPORT TO MINIMIZE THE POTENTIAL FOR CORROSION PER THE RESPECTIVE STRUT SUPPORT MANUFACTURER'S RECOMMENDATIONS.

15. CONDUITS FOR ELECTRIC SERVICE ENTRANCE AND FEEDERS SHALL BE AS DETAILED HEREIN ON THE PLANS. WHERE GALVANIZED RIGID STEEL CONDUIT IS SPECIFIED IT SHALL HAVE THREADED FITTINGS. SET SCREW TYPE FITTINGS WILL NOT BE ACCEPTABLE. CONDUITS FOR UNDERGROUND APPLICATIONS SHALL BE AS DETAILED HEREIN. CONDUITS FOR GROUNDING ELECTRODE CONDUCTORS OR INDIVIDUAL GROUNDING CONDUCTORS SHALL BE SCHEDULE 40 OR SCHEDULE 80 PVC.

16. PROVIDE LIQUID TIGHT FLEXIBLE METAL CONDUIT AT CONNECTIONS TO EQUIPMENT SUBJECT TO VIBRATION OR WHERE FLEXIBILITY IS REQUIRED. LIQUID TIGHT FLEXIBLE METAL CONDUIT AND ASSOCIATED FITTINGS SHALL BE U.L. LISTED TO MEET THE REQUIREMENTS OF NEC 350.6, SUITABLE FOR GROUNDING, SUNLIGHT RESISTANT, AND RESISTANT TO OIL, GASOLINE, AND GREASE. LIQUID TIGHT FLEXIBLE METAL CONDUIT THAT IS USED FOR FLEXIBILITY (INCLUDING CONNECTIONS TO MOTORS, TRANSFORMERS, & CONSTANT CURRENT REGULATORS) SHALL REQUIRE AN EXTERNAL BONDING JUMPER OR INTERNAL EQUIPMENT GROUNDING CONDUCTOR PER NEC 350.60. DO NOT INSTALL LIQUID TIGHT FLEXIBLE METAL CONDUIT THAT IS NOT UL. LISTED.

17. UNLESS OTHERWISE SHOWN, ALL EXPOSED CONDUITS SHALL BE RUN PARALLEL TO OR AT RIGHT ANGLES WITH THE LINES OF THE STRUCTURE.

18. ALL STEEL CONDUITS, FITTINGS, NUTS, BOLTS, ETC. SHALL BE GALVANIZED.

19. USE CONDUIT BUSHINGS AT EACH CONDUIT TERMINATION. WHERE NO. 4 AWG OR LARGER UNDERGROUND WIRE IS INSTALLED, USE INSULATED BUSHINGS.

20. USE DOUBLE LOCK NUTS AT EACH CONDUIT TERMINATION.

21. WRAP ALL PRIMARY AND SECONDARY POWER TRANSFORMER CONNECTIONS WITH SUFFICIENT LAYERS OF INSULATING TAPE (3M SCOTCH 23 ALL–VOLTAGE SPLICING TAPE, 3M SCOTCH 130C LINERLESS RUBBER SPLICING TAPE, OR APPROVED EQUAL) AND COVER WITH VINYL ELECTRICAL TAPE (3M SCOTCH 88 VINYL ELECTRICAL TAPE OR APPROVED EQUAL) FOR FULL VALUE OF CABLE INSULATION VOLTAGE.

22. UNLESS OTHERWISE NOTED, ALL SINGLE CONDUCTOR CONTROL WIRING SHALL BE NO. 12 AWG. COPPER MINUMUM.

23. THE FOLLOWING SHALL APPLY TO RELAY/CONTACTOR PANELS/ENCLOSURES:

   A. FOR INTERIOR LOCATIONS ALL COMPONENTS SHALL BE MOUNTED IN NEMA 12 (DUST TIGHT) ENCLOSURE(S) WITH VERTICALLY HINGED COVERS. FOR EXTERIOR/OUTDOOR LOCATIONS ALL COMPONENTS SHALL BE MOUNTED IN NEMA 4X STAINLESS STEEL ENCLOSURE(S) WITH VERTICALLY HINGED COVERS. ALL CONDUIT ENTRIES INTO NEMA 4, 4X ENCLOSURES SHALL HAVE NEMA 4 HUBS LISTED SUITABLE FOR THE RESPECTIVE ENCLOSURE TO MAINTAIN THE NEMA 4, 4X RATING OF THE ENCLOSURE.

   B. THE ENCLOSURE(S) SHALL HAVE AMPLE SPACE FOR THE CIRCUIT COMPONENTS, TERMINAL BLOCKS AND INCOMING AND INTERNAL WIRING.

   C. ALL CONTROL CONDUCTOR TERMINATIONS SHALL BE OF THE OPEN–EYE CONNECTOR/SCREW TYPE. SOLDERED CLOSED–EYE TERMINATIONS, OR TERMINATIONS WITHOUT CONNECTORS ARE NOT ACCEPTABLE.

   D. WHEN THE ENCLOSURE COVER IS OPENED, ALL CIRCUIT COMPONENTS, WIRING AND TERMINALS SHALL BE EXPOSED AND ACCESSIBLE WITHOUT REMOVAL OF ANY PANELS, COVERS, ETC., EXCEPT THOSE COVERING HIGH VOLTAGE COMPONENTS.

   E. ACCESS TO, OR REMOVAL OF A CIRCUIT COMPONENT OR TERMINAL BLOCK WILL NOT REQUIRE THE REMOVAL OF ANY OTHER CIRCUIT COMPONENT OR TERMINAL BLOCK.

   F. EACH CIRCUIT COMPONENT SHALL BE CLEARLY IDENTIFIED INDICATING ITS CORRESPONDING NUMBER SHOWN ON THE DRAWINGS AND ITS FUNCTION.

   G. A COMPLETE WIRING DIAGRAM SHALL BE MOUNTED ON THE INSIDE OF THE COVER. THE DIAGRAM SHALL REPRESENT EACH CONDUCTOR BY A SEPARATE LINE.

   H. THE DIAGRAM SHALL IDENTIFY EACH CIRCUIT COMPONENT AN NUMBERING AND COLOR OF EACH TERMINAL CONDUCTOR AND TERMINAL.

   I. ALL WIRING SHALL BE NEATLY TRAINED AND LACED.

   J. MINIMUM WIRE SIZE SHALL BE NO. 12 AWG.

24. FURNISH & INSTALL A WEATHERPROOF WARNING LABEL FOR EACH METER SOCKET, SERVICE DISCONNECT, SAFETY SWITCH, CUTOUT, PANELBOARD, & CONTROL PANEL TO WARN PERSONS OF POTENTIAL ELECTRIC ARC FLASH HAZARDS, PER THE REQUIREMENTS OF NEC 110.16 "FLASH PROTECTION".

DATE	REVISION	BY

LOGAN COUNTY AIRPORT
LINCOLN, ILLINOIS

IL. PROJ.: AAA-3956 A.I.P. PROJ.: 3-17-0062-B16

Hanson Project No. 09A0122D 0800
Filename R-544ELE.DWG
Scale NOT TO SCALE
Date 10/22/09

LAYOUT	CAH	10/22/09
DRAWN	BAK	10/22/09
REVIEWED	CAH	12/22/09

HANSON
Hanson Professional Services Inc.
1525 South Sixth Street
Springfield, Illinois 62703-2886
Offices Nationwide

REHAB. ACCESS TAXIWAY PAVEMENTS

PROPOSED ELECTRICAL NOTES SHEET 1

16
16 of 30 sheets

AIRFIELD LIGHTING NOTES

1. UNLESS OTHERWISE NOTED, ALL UNDERGROUND AIRFIELD LIGHTING SERIES CIRCUIT CONDUCTORS WHETHER DEB OR IN DUCT/CONDUIT SHALL BE FAA APPROVED 5000 VOLT L-824 TYPE. ALL UNDERGROUND FIELD POWER LOW VOLTAGE (600 VOLT & BELOW) CIRCUIT CONDUCTORS WHETHER DEB OR IN DUCT/CONDUIT SHALL BE UL LISTED 600 VOLT, TYPE XLP-USE-2 COPPER CONDUCTORS. CONDUCTOR SIZES SHALL BE AS SPECIFIED, HEREIN.
2. NO COMPONENTS OF PRIMARY CIRCUIT SUCH AS CABLE, CONNECTORS AND TRANSFORMERS SHALL BE BROUGHT ABOVE GROUND AT EDGE LIGHTS, SIGNS, REIL, PAPI, ETC.
3. THERE SHALL BE NO EXPOSED POWER/CONTROL CABLES BETWEEN THE POINT WHERE THEY LEAVE THE UNDERGROUND (DEB OR L-867 BASES) AND WHERE THEY ENTER THE EQUIPMENT (SUCH AS TAXIWAY SIGNS, PAPI, REIL, ETC.) ENCLOSURES. THESE CABLES SHALL BE ENCLOSED IN RIGID CONDUIT OR IN FLEXIBLE, WATERTIGHT CONDUIT WITH BREAKABLE COUPLING(S) AT THE GRADE OR THE HOUSING COVER, AS SHOWN IN APPLICABLE DETAILS.
4. THE JOINTS OF THE L-823 PRIMARY CONNECTORS SHALL BE WRAPPED WITH AT LEAST ONE LAYER OF RUBBER OR SYNTHETIC RUBBER TAPE AND ONE LAYER OF PLASTIC TAPE, ONE-HALF LAPPED, EXTENDING AT LEAST 1-1/2 INCHES ON EACH SIDE OF THE JOINT, AS SHOWN ON SHEET NO. 14.
5. THE CABLE ENTRANCE INTO THE FIELD-ATTACHED L-823 CONNECTORS SHALL BE ENCLOSED BY A HEAT-SHRINKABLE TUBING WITH CONTINUOUS INTERNAL ADHESIVE, AS SHOWN ON SHEET NO. 14.
6. L-823 TYPE II, TWO-CONDUCTOR SECONDARY CONNECTORS SHALL BE CLASS 'A' (FACTORY MOLDED).
7. THERE SHALL BE NO SPLICES IN THE SECONDARY CABLE(S) WITHIN THE STEMS OF A RUNWAY/TAXIWAY EDGE/THRESHOLD LIGHTING FIXTURE AND THE WIREWAYS LEADING TO TAXIWAY SIGNS AND PAPI/REIL EQUIPMENT.
8. ELECTRICAL INSULATING GREASE SHALL BE APPLIED WITHIN THE L-823, SECONDARY, TWO CONDUCTOR CONNECTORS TO PREVENT WATER ENTRANCE. THESE CONNECTORS SHALL NOT BE TAPED.
9. DEB ISOLATION TRANSFORMERS SHALL BE BURIED AT A DEPTH OF TEN (10") INCHES ON A LINE CROSSING THE LIGHT AND PERPENDICULAR TO THE RUNWAY/TAXIWAY CENTERLINE AT A LOCATION TWELVE (12") INCHES FROM THE LIGHT OPPOSITE FROM THE RUNWAY/TAXIWAY.
10. A SLACK OF THREE (3') FEET, MINIMUM, SHALL BE PROVIDED IN THE PRIMARY CABLE AT EACH TRANSFORMER/CONNECTOR TERMINATION. AT STAKE-MOUNTED LIGHTS, THE SLACK SHALL BE LOOSELY COILED IMMEDIATELY BELOW THE ISOLATION TRANSFORMER.
11. DIRECTION OF PRIMARY CABLES SHALL BE IDENTIFIED BY COLOR CODING AS FOLLOWS: WHEN FACING LIGHT WITH BACK TO PAVEMENT, CABLE TO THE LEFT IS CODED RED AND CABLE TO RIGHT IS CODED BLUE. THIS APPLIES TO STAKE MOUNTED LIGHTS AND BASE MOUNTED LIGHTS WHERE THE BASE HAS ONLY ONE ENTRANCE.
12. L-867 BASES SHALL BE SIZE B, 24" DEEP, CLASS I, UNLESS OTHERWISE NOTED.
13. BASE MOUNTED BREAKABLE COUPLINGS SHALL NOT HAVE WEEP HOLES TO THE OUTSIDE. PLUGGED UP HOLES SHALL NOT BE ACCEPTABLE. IT SHALL BE A 1/4" DIAMETER, MINIMUM, OR EQUIVALENT OPENING FOR DRAINAGE FROM THE SPACE AROUND THE SECONDARY CONNECTOR INTO THE L-867 BASE.
14. THE ELEVATION OF THE BREAKABLE COUPLING GROOVE SHALL NOT EXCEED 1-1/2" ABOVE THE EDGE OF THE COVER IN CASE OF BASE MOUNTED COUPLINGS, OR THE TOP OF THE STAKE IN CASE OF STAKE MOUNTED COUPLINGS.
15. WHERE THE BREAKABLE COUPLING IS NOT AN INTEGRAL PART OF THE LIGHT FIXTURE STEM OR MOUNTING LEG, A BEAD OF SILICON SEAL SHALL BE APPLIED COMPLETELY AROUND LIGHT STEM OR WIREWAY AT BREAKABLE COUPLING TO PROVIDE A WATERTIGHT SEAL.
16. TOPS OF THE STAKES SUPPORTING LIGHT FIXTURES SHALL BE FLUSH WITH THE SURROUNDING GRADE.
17. PLASTIC LIGHTING FIXTURE COMPONENTS, SUCH AS LAMP HEADS, STEMS, BREAKABLE COUPLINGS, BASE COVERS, BRACKETS, STAKES, SHALL NOT BE ACCEPTABLE.
18. THE TOLERANCE FOR THE HEIGHT OF RUNWAY/TAXIWAY EDGE LIGHTS SHALL BE: ONE (1) INCH. IN CASE OF STAKE MOUNTED LIGHTS, THE SPECIFIED LIGHTING FIXTURE HEIGHT SHALL BE MEASURED BETWEEN THE TOP OF THE STAKE AND THE TOP OF THE LENS. IN CASE OF BASE MOUNTED LIGHTS, THE SPECIFIED LIGHTING FIXTURE HEIGHT SHALL BE MEASURED BETWEEN THE TOP OF THE BASE FLANGE AND THE TOP OF THE LENS, THUS INCLUDING THE BASE COVER, THE FRANGIBLE COUPLING, THE STEM, THE LAMP HOUSING AND THE LENS.
19. THE TOLERANCE FOR THE LATERAL SPACING (LIGHT LANE TO RUNWAY/TAXIWAY CENTERLINE) OF RUNWAY/TAXIWAY EDGE LIGHTS SHALL BE ONE (1) INCH. THIS ALSO APPLIES AT INTERSECTIONS TO LATERAL SPACING BETWEEN LIGHTS OF A RUNWAY/TAXIWAY AND THE INTERSECTING RUNWAY/TAXIWAY.
20. ENTRANCES INTO L-867 BASES SHALL HAVE CONDUIT COUPLINGS OR REDUCERS TO INTERFACE UNIT DUCT/CONDUIT TO L-867 BASE HUBS, OR SHALL BE SEALED WITH HEAT SHRINK AS SHOWN ON THE DETAIL ON SHEET NO. 14.
21. GALVANIZED/PAINTED EQUIPMENT/COMPONENT SURFACES SHALL NOT BE DAMAGED BY DRILLING, FILING, ETC. DRAIN HOLES IN METAL TRANSFORMER HOUSINGS SHALL BE MADE BEFORE GALVANIZING.
22. EDGE LIGHT NUMBERING TAGS SHALL BE FACING THE PAVEMENT.
23. CABLE/SPLICE/DUCT MARKERS SHALL BE PRECAST CONCRETE OF THE SIZE SHOWN. LETTERS/NUMBERS/ARROWS FOR THE LEGEND TO BE IMPRESSED INTO THE TOPS OF THE MARKERS SHALL BE PRE-ASSEMBLED AND SECURED IN THE MOLD BEFORE THE CONCRETE IS POURED. LEGEND INSCRIBED BY HAND IN WET CONCRETE SHALL NOT BE ACCEPTABLE.
24. ALL UNDERGROUND CABLE RUNS SHALL BE IDENTIFIED BY CABLE MARKERS AT 200 FEET MAXIMUM SPACING, WITH AN ADDITIONAL MARKER AT EACH CHANGE OF DIRECTION OF THE CABLE RUN. CABLE MARKERS SHALL BE INSTALLED IMMEDIATELY ABOVE THE CABLES.
25. THERE SHALL BE NO SPLICES BETWEEN THE ISOLATION TRANSFORMERS. L-823 CONNECTORS ARE ALLOWED AT TRANSFORMER CONNECTIONS ONLY, UNLESS OTHERWISE SHOWN.
26. APPLY AN OXIDE INHIBITING, ANTI-SEIZING COMPOUND TO ALL SCREWS, NUTS AND BREAKAGE COUPLING THREADS.
27. LOCATIONS OF ENDS OF ALL UNDERGROUND DUCTS SHALL BE IDENTIFIED BY DUCT MARKERS.
28. WHERE A PARALLEL, CONSTANT VOLTAGE PAPI SYSTEM IS PROVIDED, THE "T" SPLICES SHALL BE OF THE CAST TYPE.
29. CONCRETE USED FOR SLABS, FOOTINGS, BACKFILL AROUND TRANSFORMER HOUSINGS, MARKINGS, ETC. SHALL BE 3000 PSI, AIR-ENTRAINED.
30. ALL POWER AND CONTROL CABLES IN MAN/HAND HOLES SHALL BE TAGGED. USE EMBOSSED COPPER STRIPS TO BE ATTACHED AT BOTH ENDS TO THE CABLE BY THE USE OF PLASTIC STRAPS. MINIMUM OF TWO TAGS SHALL BE PROVIDED ON EACH CABLE IN A MAN/HAND HOLE-ONE AT THE CABLE ENTRANCE AND ONE AT THE CABLE EXIT.
31. 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 CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES, INCLUDING SERVICE CONNECTIONS TO UNDERGROUND UTILITIES. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES OF HIS OPERATIONAL PLANS AND SHALL OBTAIN 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 JURISDICTION. THE ENGINEER SHALL ALSO BE IMMEDIATELY NOTIFIED. 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. CALL J.U.L.I.E. FOR UTILITY INFORMATION AT 1-800-892-0123. ALSO CONTACT AIRPORT MANAGER AND/OR RESPECTIVE AIRPORT PERSONNEL FOR ASSISTANCE IN LOCATING UNDERGROUND AIRPORT CABLES AND/OR UTILITIES. CONTACT FAA FOR ASSISTANCE IN LOCATING THEIR CABLES.
32. WHEN PREPARING CABLE FOR SPLICES, THE CONTRACTOR SHALL USE A CABLE STRIPPER/PENCILLER WHENEVER CABLE CONNECTIONS ARE MADE.

GROUNDING NOTES FOR AIRFIELD LIGHTING

1. GROUNDING FOR RUNWAY LIGHTS, TAXIWAY LIGHTS, AND LIGHTED TAXI GUIDANCE SIGNS SHALL BE AS DETAILED ON THE PLANS AND AS SPECIFIED HEREIN. PER FAA AC 150/5340-30D DESIGN AND INSTALLATION DETAILS FOR AIRPORT VISUAL AIDS, CHAPTER 12, PART 12.6; A SAFETY GROUND MUST BE INSTALLED AT EACH LIGHT FIXTURE. THE PURPOSE OF THE SAFETY GROUND IS TO PROTECT PERSONNEL FROM POSSIBLE CONTACT WITH AN ENERGIZED LIGHT BASE OR MOUNTING STAKE AS THE RESULT OF A SHORTED CABLE OR ISOLATION TRANSFORMER. A SAFETY GROUND SHALL BE INSTALLED AT EACH TRANSFORMER BASE/LIGHT CAN ASSOCIATED WITH RUNWAY LIGHTS, TAXIWAY LIGHTS, AND LIGHTED TAXI GUIDANCE SIGNS. A SAFETY GROUND SHALL ALSO BE INSTALLED AT EACH STAKE MOUNTED LIGHT FIXTURE. THE SAFETY GROUND SHALL BE A #6 AWG BARE COPPER CONDUCTOR CONNECTED TO THE GROUND LUG ON THE RESPECTIVE L-867 TRANSFORMER BASE/LIGHT CAN OR MOUNTING STAKE AND A UL LISTED COPPER CLAD GROUND ROD. THE GROUND RODS FOR STAKE MOUNTED LIGHTS SHALL BE 3/4-INCH DIAMETER BY 10-FOOT LONG. THE GROUND RODS FOR BASE CANS SHALL BE 3/4-INCH DIAMETER BY 50-FOOT LONG (5-10 FT. GROUND RODS COUPLED TOGETHER). ALL MOUNTING STAKES AND BASE CANS ASSOCIATED WITH THE TAXIWAY LIGHTING SYSTEM SHALL BE BONDED TOGETHER WITH A #8 AWG EQUIPMENT GROUND WIRE RUN WITH THE 5000 VOLT SERIES CIRCUIT CONDUCTOR. CONNECTIONS TO GROUND LUGS ON THE L-867 TRANSFORMER BASE/LIGHT CAN OR MOUNTING STAKE SHALL BE WITH A UL LISTED GROUNDING CONNECTOR. CONNECTIONS TO GROUND RODS SHALL BE MADE WITH EXOTHERMIC WELD TYPE CONNECTORS, CADWELD BY ERICO PRODUCTS, INC., SOLON, OHIO, (PHONE: 800-248-9353), THERMOWELD BY CONTINENTAL INDUSTRIES, INC., TULSA, OKLAHOMA (PHONE: 918-663-1440) OR ULTRAWELD BY HARGER, GRAYSLAKE, ILLINOIS (PHONE: 800-842-7437). EXOTHERMIC WELD CONNECTIONS SHALL BE INSTALLED IN CONFORMANCE WITH THE RESPECTIVE MANUFACTURER'S DIRECTIONS USING MOLDS AS REQUIRED FOR EACH RESPECTIVE APPLICATION. BOLTED CONNECTIONS WILL NOT BE PERMITTED AT GROUND RODS. TOP OF GROUND RODS SHALL BE BURIED 12 INCHES MINIMUM BELOW GRADE, UNLESS SPECIFIED OTHERWISE HEREIN, FOR RESPECTIVE APPLICATIONS.
2. CLEAN ALL METAL SURFACES BEFORE MAKING GROUND CONNECTIONS. METALLIC SURFACES TO BE JOINED SHALL BE PREPARED BY THE REMOVAL OF ALL NON-CONDUCTIVE MATERIAL PER 2008 NATIONAL ELECTRICAL CODE ARTICLE 250-12.
3. PER FAA 150/5340-30D THE RESISTANCE TO GROUND OF THE RESPECTIVE MOUNTING STAKE OR LIGHT BASE (WITH GROUND ROD CONNECTED) MUST BE 25 OHMS OR LESS. THE GROUNDING REQUIREMENTS DESCRIBED IN NOTE 1 ABOVE ARE TO COMPLY WITH THE REQUIREMENTS OF FAA AC 150/5340-30D, AND TO ACCOMMODATE THE SANDY SOIL CONDITIONS AT THE AIRPORT. CONTRACTOR SHALL PERFORM GROUND RESISTANCE TESTS AND PROVIDE TEST RESULTS TO RESIDENT ENGINEER. TESTS SHALL BE CONDUCTED IN THE PRESENCE OF THE RESIDENT ENGINEER.

BY	REVISION	DATE

LOGAN COUNTY AIRPORT
LINCOLN, ILLINOIS

A.I.P. PROJ.: 3-17-0062-B16
IL. PROJ.: AAA-3956

Hanson Project No. 09A0122D 0800
Filename R-545ELE.DWG
Scale NOT TO SCALE
Date 10/22/09

LAYOUT	CAH	10/22/09
DRAWN	BAK	10/22/09
REVIEWED	CAH	12/22/09

HANSON
Hanson Professional Services Inc.
1525 South Sixth Street
Springfield, Illinois 62703-2886
Offices Nationwide

REHAB. ACCESS TAXIWAY PAVEMENTS

PROPOSED ELECTRICAL NOTES SHEET 2

MISCELLANEOUS NOTES

FOREWORD

These Special Provisions, together with applicable Standard Specifications, Rules and Regulations, Contract Requirements for Airport Improvement Projects, Payroll Requirements, and Minimum Wage Rates, which are hereto attached or which by reference are herein incorporated, cover the requirements of the State of Illinois, Department of Transportation (IDOT), Division of Aeronautics (Division) for the following improvement project at the Logan County Airport, Lincoln, Illinois, including:

SCOPE OF WORK

This work shall consist of:
Rehabilitating the access taxiway between the apron and Runway 3–21 and the T–hangar access taxiways. Associated work items include crack cleaning and sealing, pavement repairs, pavement milling, pavement marking, shouldering, seeding and mulching.

GOVERNING SPECIFICATIONS AND RULES AND REGULATIONS

The Standard Specifications for Construction of Airport, IDOT, Division, adopted November 02, 2009, shall govern the project, except as otherwise revised or noted in these Special Provisions. All references to IDOT Specifications refer to Standard Specifications for Road and Bridge Construction, IDOT, adopted January 1, 2007, as revised. In the event of inconsistencies between the Standard Specifications and the Special Provisions, the Special Provisions shall govern.

DIVISION I

SPECIAL CONSIDERATION SECTION
ADD THE FOLLOWING SPECIAL SECTIONS
HAUL ROUTE AND EQUIPMENT PARKING

The Contractor will use only the designated haul routes and equipment parking areas shown on Sheet No. 3 of the Construction Plans. The Contractor's men and equipment shall not traverse outside the designated work areas to other locations on the Airport. The designated haul routes will be the only vehicular access to the construction site.

Because of the high requirements for airport security and safety, the following requirements must be adhered to:

All employees of the Contractor shall park their personal vehicles in the designated equipment parking and storage area. The Contractor will transport the workers from the parking areas to the work area. Only Contractor vehicles will be allowed outside of the proposed equipment storage and parking areas.

The Contractor will be required to be in two–way radio contact (122.80 MHz) with the Airport's UNICOM system. This will keep the Contractor in contact with Airport personnel, and enable the Airport personnel to immediately contact the Contactor in case of an aeronautical emergency that would require action by the Contractor and/or his personnel.

The Contractor will restore the haul routes and equipment parking areas upon completion of the project.

Failure to use the prescribed haul routes and equipment parking areas or adhere to the safety requirements will result in the suspension of work.

SCHEDULING OF OPERATIONS

The Contractor will be required to submit a project work schedule to the State of Illinois, Division, and to the Resident Engineer showing proposed sequences of work.

In the event that other construction projects are in progress at the Airport at the same time as this project, the Contractor will be required to cooperate with all other Contractors and the Airport Manager in the coordination of the work.

The Contractor shall not be entitled to any extra compensation due to delays or inconveniences caused by said necessary methods, procedures, and measures to protect air traffic.

SITE INSPECTION

The Contractor shall be responsible for an on–site inspection prior to submitting a bid on this project. Upon receipt of a bid, it shall be assumed that the Contractor is fully familiar with the construction site.

DIVISION II

ITEM AR150540
HAUL ROUTE

DESCRIPTION

This item of work shall include the construction, maintenance, and removal of the proposed haul route and equipment parking and material storage areas that are needed to provide access to the area of construction, as shown on the Construction Plans. The haul route and equipment storage areas are identified on the Contruction Plans.

CONSTRUCTION METHODS

The Resident Engineer and the Contractor shall walk the existing airport entrance road and the auto parking lot that will be used as the proposed haul route and note their existing condition, and record any existing distresses for comparison after the completion of the project.

The existing roadway and parking lot identified as the proposed haul route consists of bituminous pavements. The proposed storage area consists of turf. Every effort shall be made to prevent tracking of bituminous material onto pavements outside of the project area. During the project, all active aircraft pavements will be kept broom clean. At the completion of the project, the Contractor shall leave the turf, road and parking lot pavements in good condition, both physically and visually to the satisfaction of the Resident Engineer and Airport Representative. Any damage sustained by the existing pavement areas as a result of the hauling operation will be the Contractor's responsibility and the cost to complete the repairs to these areas will be considered incidental to the contract and no additional compensation will be allowed. Any damage sustained in turf areas as a result of the hauling or equipment parking operations will be the Contractor's responsibility as well, and shall be graded, fertilized, seeded and mulched in accordance with items 901 and 908 respectively. The cost of the repairs will be considered incidental to the contract and no additional compensation will be allowed.

Safety: All traffic control, safety, and permitting requirements associated with the construction and use of the haul routes are the responsibility of the Contractor.

BASIS OF PAYMENT

Payment will be made at the contract unit price per lump sum for construction of the equipemnt parking area, the maintenance and restoration of the proposed haul route and equipment parking area in accordance with the Construction Drawings and the above Special Provisions. This price shall be full compensation for furnishing and installation of all materials; restoration, and turfing; for all labor, equipment, and incidentals necessary to complete this item of work.

Payment will be made under:
Item AR150540 Haul Route – per lump sum.

ITEM AR152480
SHOULDER ADJUSTMENT

Item 152 Excavation and Embankment is modified as outlined below.

DESCRIPTION

152–1.1. Add the following:

"This item shall consist of placing the earth shoulder adjacent to the bituminous/porous friction course overlay in order to produce an edge drop of no more than 1–1/2 inches. The shoulder shall be placed in accordance with the dimensions shown on the Construction Plans."

"No proctor, ph tests, organic tests or sieve analysis will be required"

152–1.2 Classification. Add the following:

"The material for the shoulder adjustment will be a topsoil material obtained from an off site location. The material shall be approved by the Resident Engineer."

CONSTRUCTION METHODS

152–2.1 General. Add the following:

"The shoulder adjustment will be constructed to achieve the prescribed edge drop of 1–1/2 in. and will match the existing earth grade in 4 feet, unless otherwise noted. Prior to the placement of the shoulder adjustment material, the existing shoulder area will be mowed and disced/pulverized until the existing sod has been completely cut up. After the material is placed, it will be lightly shaped and rolled to achieve minimal compaction."

152–2.7 Formation of Embankments. Add the following:

"No compaction control tests are required for this item of work."

152–2.10 Haul. Add the following:

"The Contractor shall take special precautions when hauling the borrow material so as not to create ruts in adjacent earth areas. All existing graded or turfed areas outside the grading limits, which are disturbed or rutted by the Contractor during the hauling/excavating operation, shall be regraded and returfed at his own expense to the satisfaction of the Engineer. No claim for hauling will be allowed."

METHOD OF MEASUREMENT

152–3.10. Revise this section to read as follows:

"Shoulder adjustment shall be paid for at the measured number of sq. yds. of graded shoulder completed in accordance with this Specification."

BASIS OF PAYMENT

152–4.4. Add the following:

Payment will be made under:
Item AR152480 Shoulder Adjustment --- per sq. yd.

ITEM AR401910
REMOVE & REPLACE BITUMINOUS PAVEMENT

DESCRIPTION

This item consists of sawing and removing the existing pavement associated with large cracks in the existing pavement and placing bituminous surface mix in these areas that are located within the area being overlaid. The pavement areas to be removed and replaced shall be filled with Bituminous Surface Course material conforming to Item AR401003 of the Illinois Standard Specifications for Construction of Airports, adopted November 02, 2009. The Job Mix Formula (JMF) shall meet the criteria set forth in Section 401–3.2 for pavements designed for aircraft less than 60,000 lbs. The pavement repairs will be identified in the field by the Resident Engineer. The quantity of cracks to be repaired, included in the Construction Plans, was developed following a visual survey in the Fall of 2009.

MATERIALS

Bituminous Surface Course. The bituminous used for this Item shall be an approved IDOT mix, and must have acceptance by the Division, Materials Section prior to being used for this Pay Item.

CONSTRUCTION METHODS

All areas to be replaced for this item shall be sawed and excavated full depth. The Contractor may use milling equipment to remove these pavement repair areas as long as the dimensions for removal match the Construction plans. The edge of the trench formed will have a vertical face prior to the placement of the bituminous surface mix. All loose material will be removed and the bottom compacted to prevent future settlement. Once the trench is cleaned and the base aggregate is compacted and accepted by the Resident Engineer, an application of Bituminous Tack Material conforming to Item AR603 of the Standard Specifications shall be applied to the vertical face of the trench and aggregate/bituminous base. The bottom 2 to 3 lifts of bituminous surface mix will be placed in lifts not exceeding 3 to 4 inches in depth and compacted to the satisfaction of the Resident Engineer. The final lift will be compacted by a vibratory roller and to the density of 92% as stated in the plans. The final lift shall be flush with the adjacent existing bituminous pavement.

The excavated material will be removed from the Airport site and disposed of at the Contractor's expense.

METHOD OF MEASUREMENT

The quantity of removed and replaced bituminous pavement to be paid for shall be the number of sq. yds., completed, accepted, and measured in place by the Resident Engineer.

BASIS OF PAYMENT

This Item of work will be paid for at the contract unit bid price per sq. yd. to remove and replace bituminous pavement, which price shall be full compensation for all sawing, removal, milling (if utilized), disposal of waste material, application of tack material, placement of the bituminous material; for furnishing all materials, labor, equipment, and incidentals necessary to complete this Item of work.

Payment will be made under:
Item AR401910 Remove & Replace Bit. Pavement --- per sq. yd.

DATE | REVISION | BY

LOGAN COUNTY AIRPORT
LINCOLN, ILLINOIS

A.I.P. PROJ.: 3–17–0062–B16
IL. PROJ.: AAA–3956

LAYOUT	CAH	10/22/09
DRAWN	BAK	10/22/09
REVIEWED	CAH	12/22/09

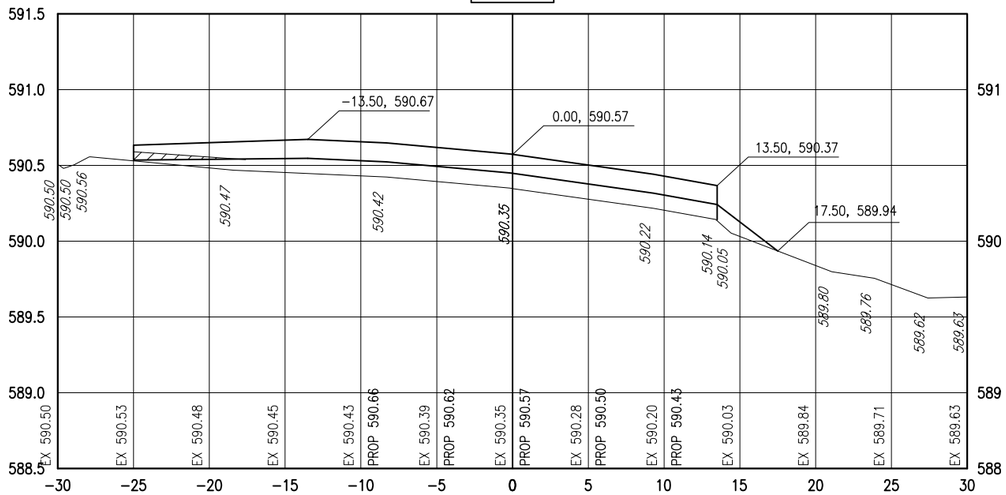
Hanson Project No. 09A01220 0800
Filename R–521CON.DWG
Scale NOT TO SCALE
Date 10/22/09

HANSON
Hanson Professional Services Inc.
1525 South Sixth Street
Springfield, Illinois 62703–2886
Offices Nationwide

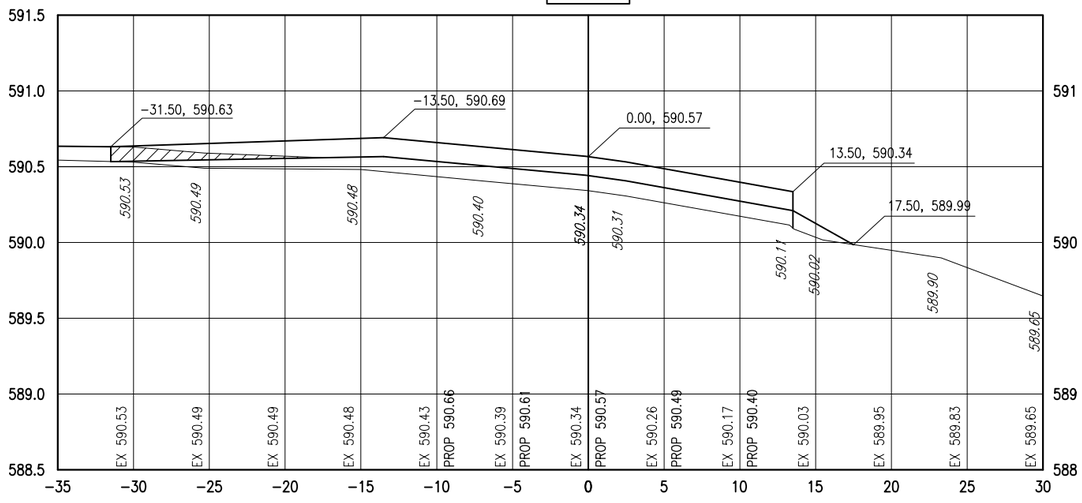
REHAB. ACCESS TAXIWAY PAVEMENTS

PROPOSED MISCELLANEOUS NOTES

110+50

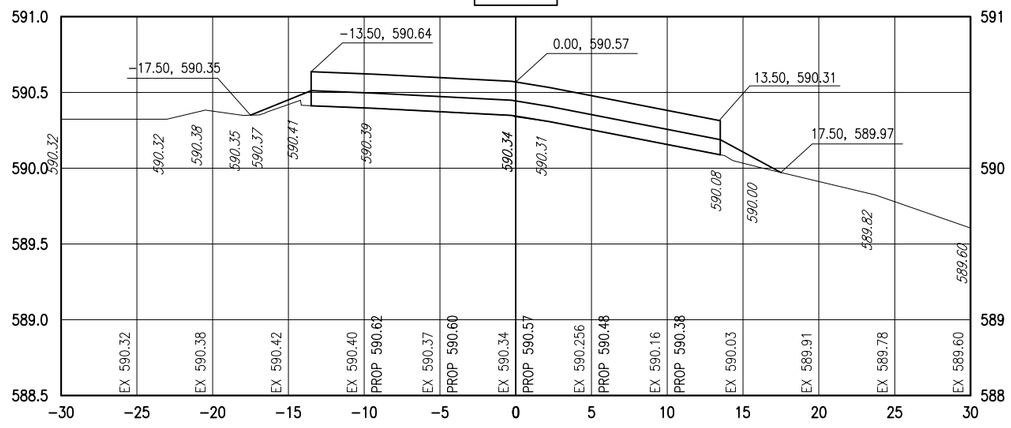


110+25

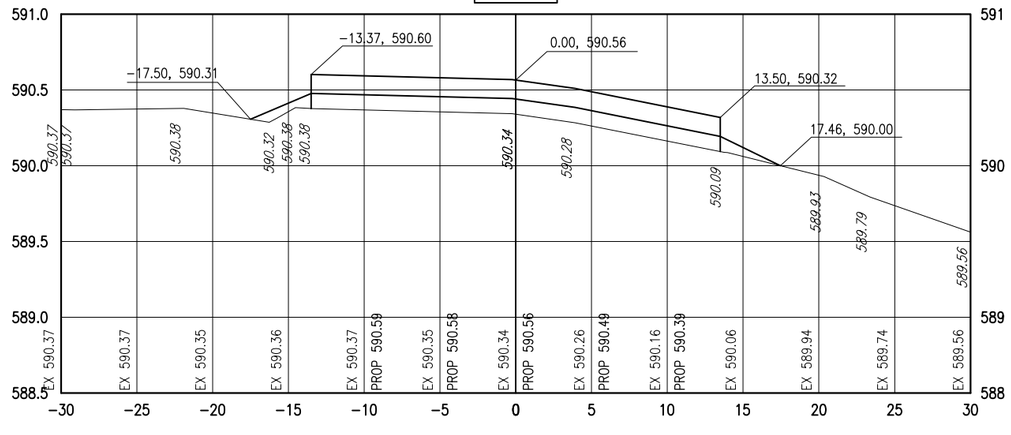


MATCH EXISTING AT STA. 110+00

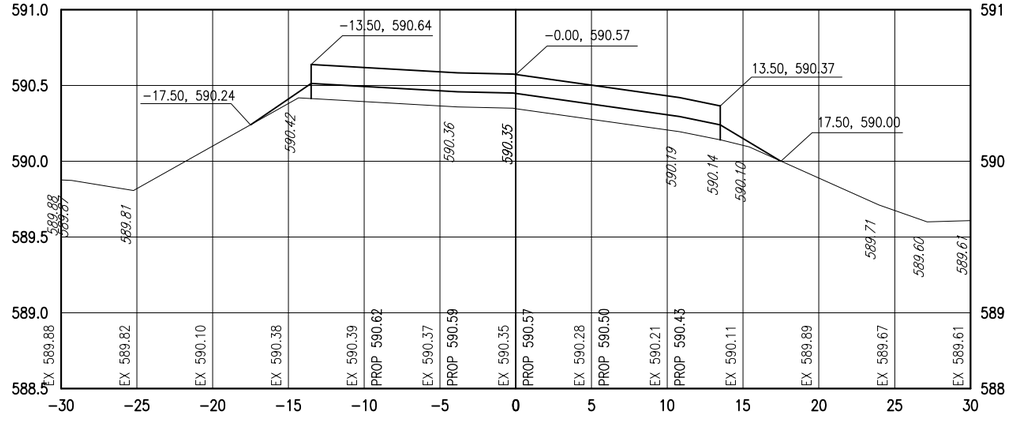
111+25



111+00



110+75



DATE	REVISION	BY

LOGAN COUNTY AIRPORT
LINCOLN, ILLINOIS

A.I.P. PROJ.: 3-17-0062-B16
IL. PROJ.: AAA-3956

Hanson Project No. 09A0122D 0800
Filename R-302XSECS.DWG
Scale H. 1"= 5', V. 1"= 0.5'
Date 10/22/09

LAYOUT	JEO	10/22/09
DRAWN	JEO	10/22/09
REVIEWED	CAH	12/22/09

HANSON
Hanson Professional Services Inc.
1525 South Sixth Street
Springfield, Illinois 62703-2886
Offices Nationwide

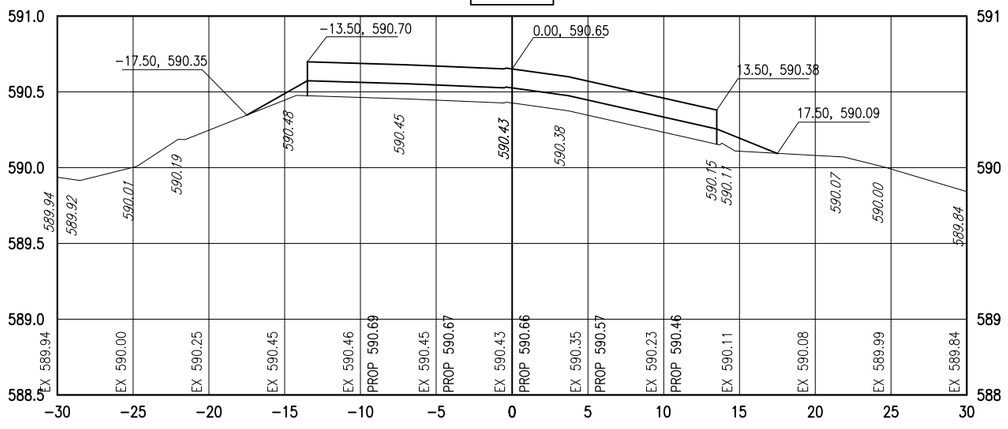
REHAB. ACCESS TAXIWAY PAVEMENTS

PROPOSED CROSS-SECTIONS FOR TAXIWAY "B" STA. 110+25 TO STA. 111+25

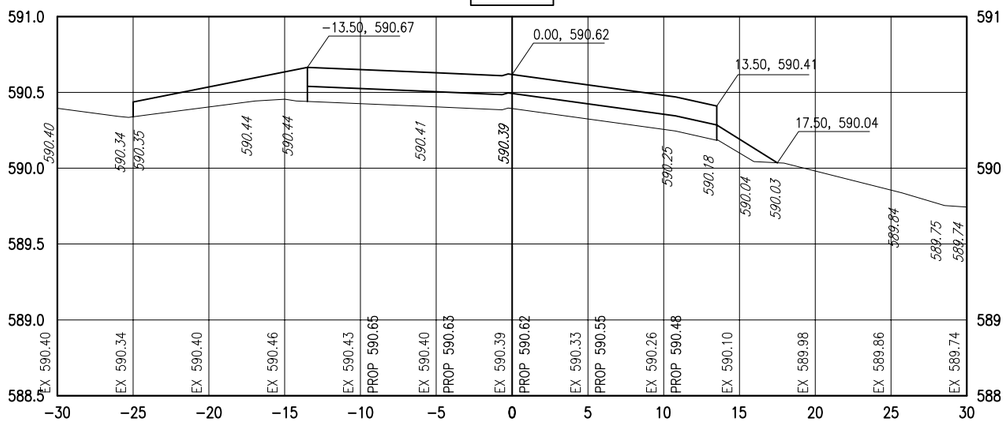
19
19 of 30 sheets

FEB 09, 2010 4:12 PM HAGL000382
I:\AIRPORTS\LOGAN\09A0122\CADD\AIRPORT\SHEET\R-302XSECS.DWG - 110+25 - 111+25

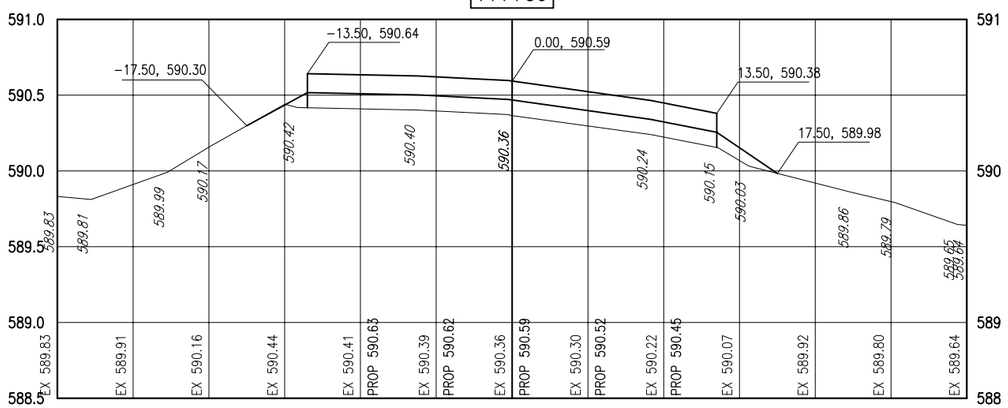
112+00



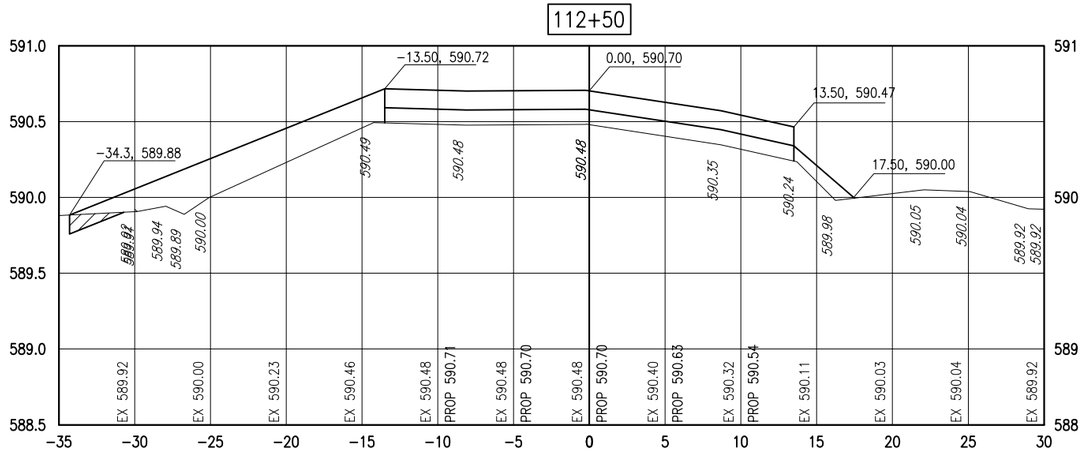
111+75



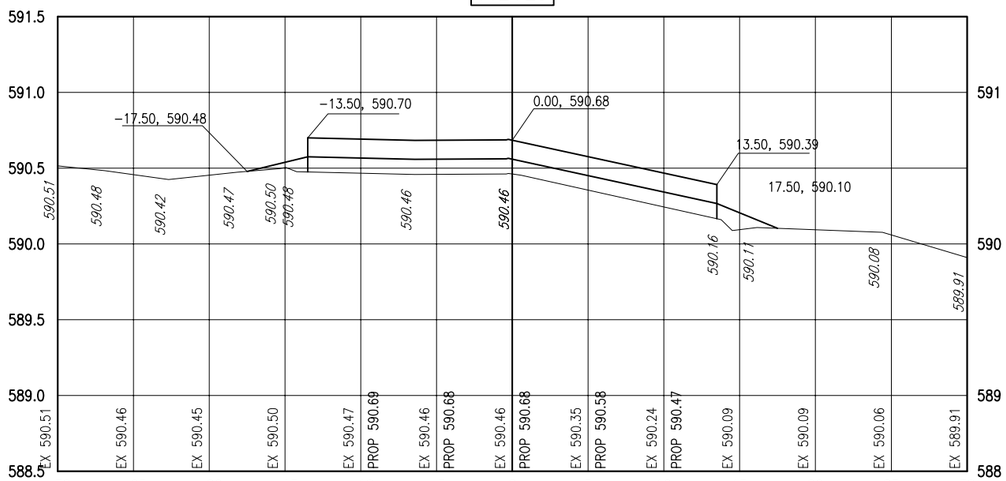
111+50



112+50



112+25



FEB 09, 2010 4:13 PM HAGLOOO382
I:\AIRPORTS\LOGAN\09A0122\CADD\AIRPORT\SHEET\R-302XSECS.DWG - 111+50 - 112+50

DATE	REVISION	BY

LOGAN COUNTY AIRPORT
LINCOLN, ILLINOIS

A.I.P. PROJ.: 3-17-0062-B16
IL PROJ.: AAA-3956

Hanson Project No. 09A0122D 0800
Filename R-302XSECS.DWG
Scale H. 1"= 5', V. 1"= 0.5'
Date 10/22/09

LAYOUT	JEO	10/22/09
DRAWN	JEO	10/22/09
REVIEWED	CAH	12/22/09

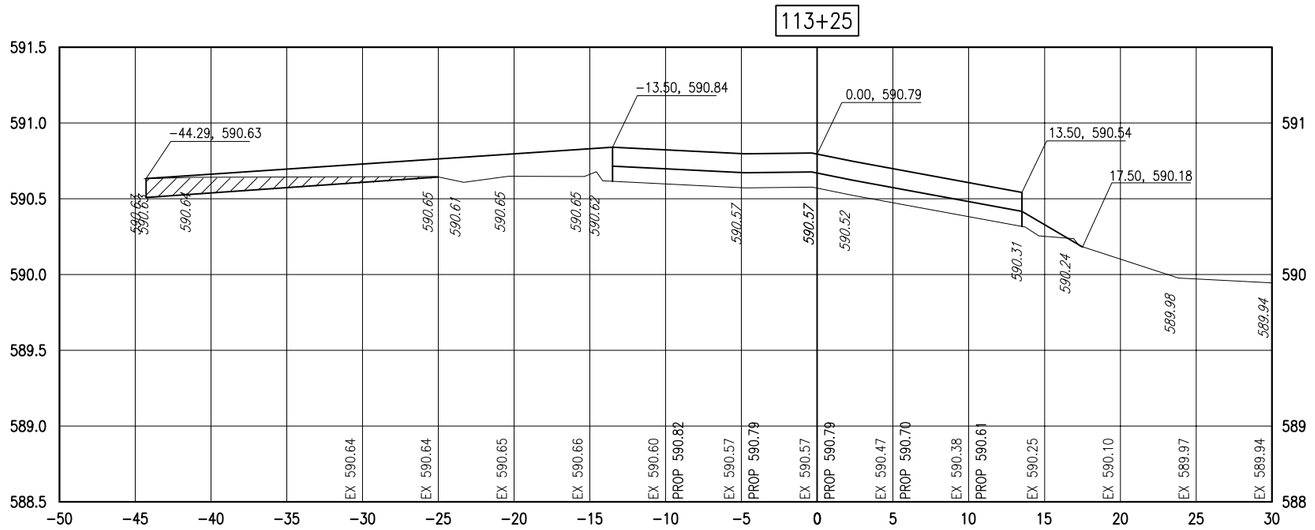
HANSON

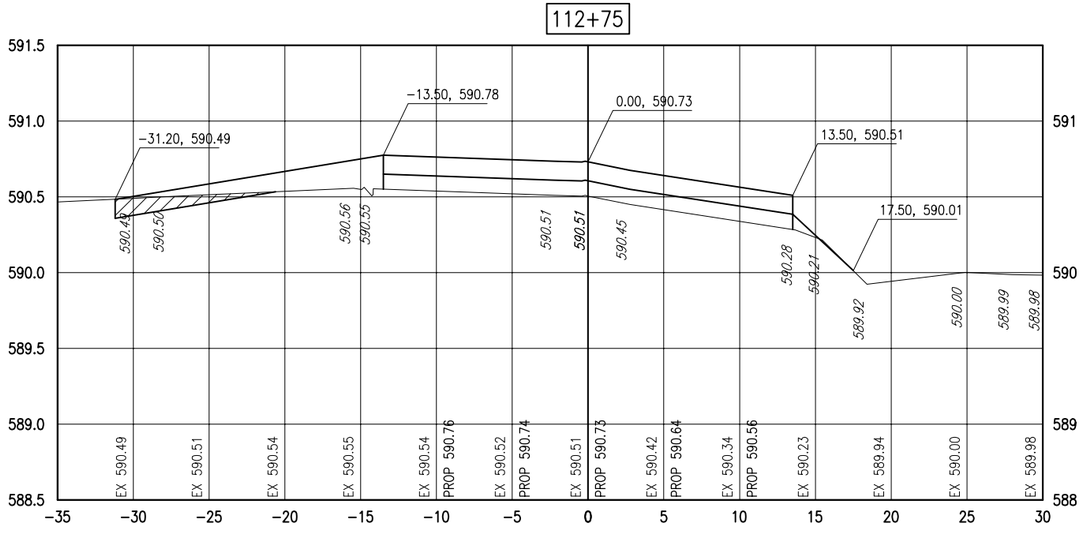
Hanson Professional Services Inc.
1525 South Sixth Street
Springfield, Illinois 62703-2886
Offices Nationwide

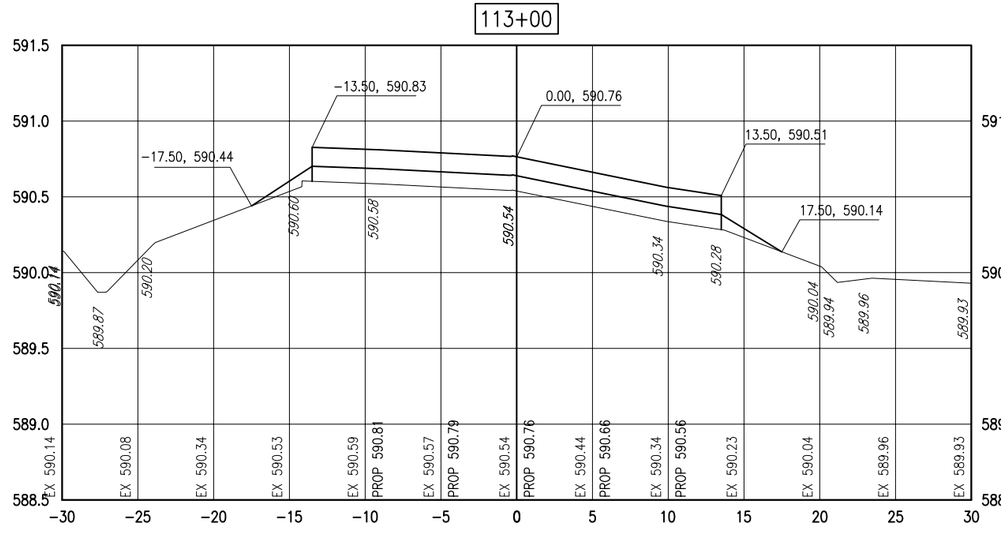
REHAB. ACCESS TAXIWAY PAVEMENTS

PROPOSED CROSS-SECTIONS FOR TAXIWAY "B" STA. 111+50 TO STA. 112+50

20
20 of 30 sheets







LOGAN COUNTY AIRPORT
LINCOLN, ILLINOIS

A.I.P. PROJ.: 3-17-0062-B16

IL. PROJ.: AAA-3956

DATE	REVISION	BY

Hanson Project No. 09A0122D 0800
Filename R-302XSECS.DWG
Scale H. 1"= 5', V. 1"= 0.5'
Date 10/22/09

LAYOUT	JEO	10/22/09
DRAWN	JEO	10/22/09
REVIEWED	CAH	12/22/09

HANSON
Hanson Professional Services Inc.
1525 South Sixth Street
Springfield, Illinois 62703-2886
Offices Nationwide

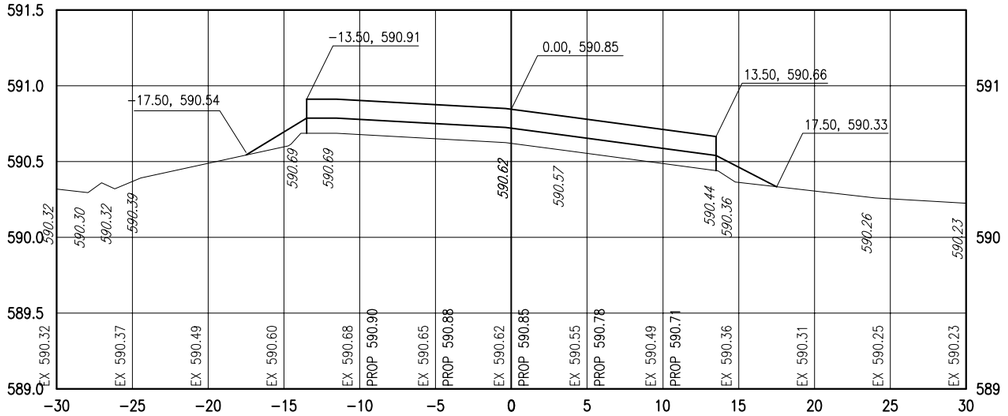
REHAB. ACCESS TAXIWAY PAVEMENTS

PROPOSED CROSS-SECTIONS FOR TAXIWAY "B" STA. 112+75 TO STA. 113+50

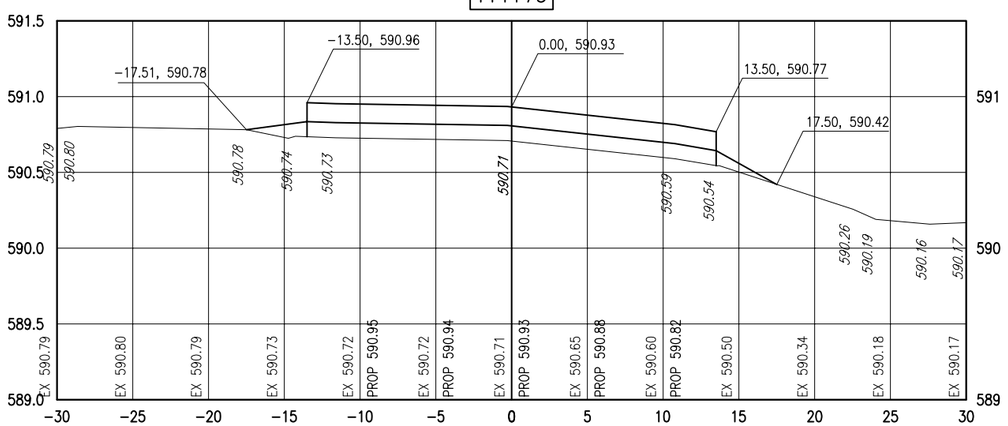
21
21 of 30 sheets

LO026

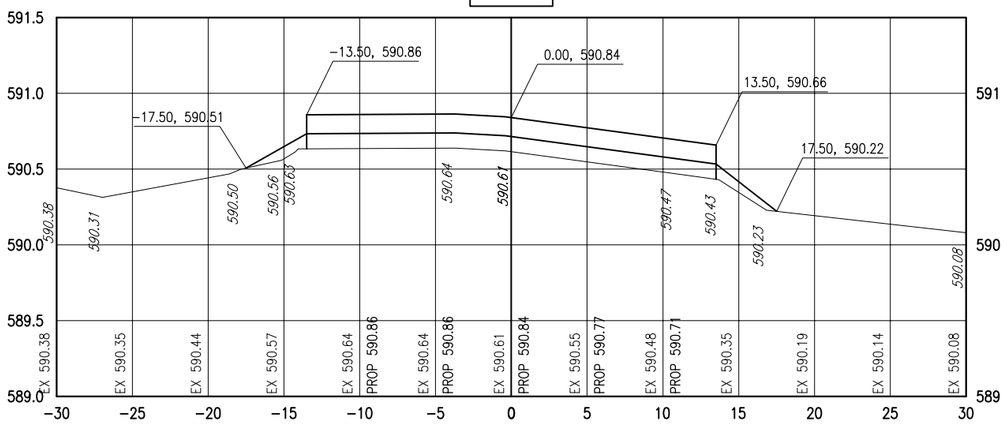
114+00



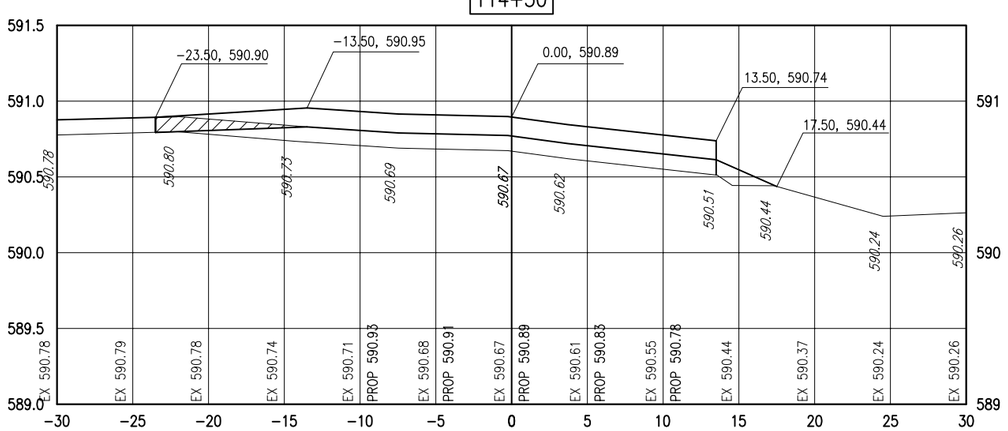
114+75



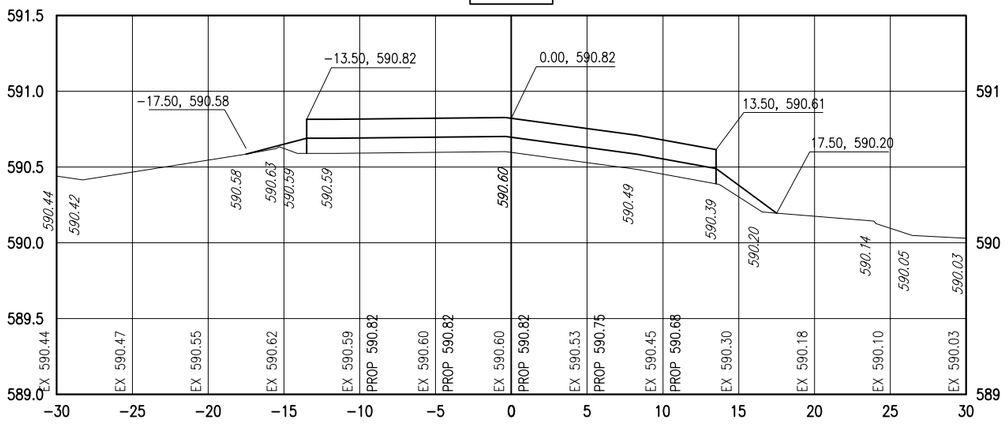
113+75



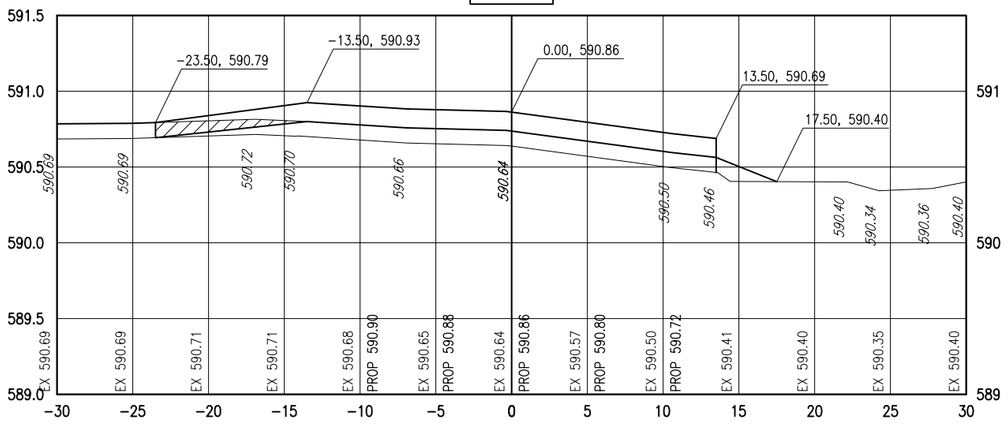
114+50



113+50



114+25



FEB 09, 2010 4:14 PM HAGLOOO382
I:\AIRPORTS\LOGAN\09A0122\CADD\AIRPORT\SHEET\R-302XSECS.DWG - 113+50 - 114+75

BY	REVISION	DATE

LOGAN COUNTY AIRPORT
LINCOLN, ILLINOIS

IL. PROJ.: AAA-3956 A.I.P. PROJ.: 3-17-0062-B16

Hanson Project No. 09A0122D 0800
Filename R-302XSECS.DWG
Scale H. 1"= 5', V. 1"= 0.5'
Date 10/22/09

LAYOUT	JEO	10/22/09
DRAWN	JEO	10/22/09
REVIEWED	CAH	12/22/09

HANSON

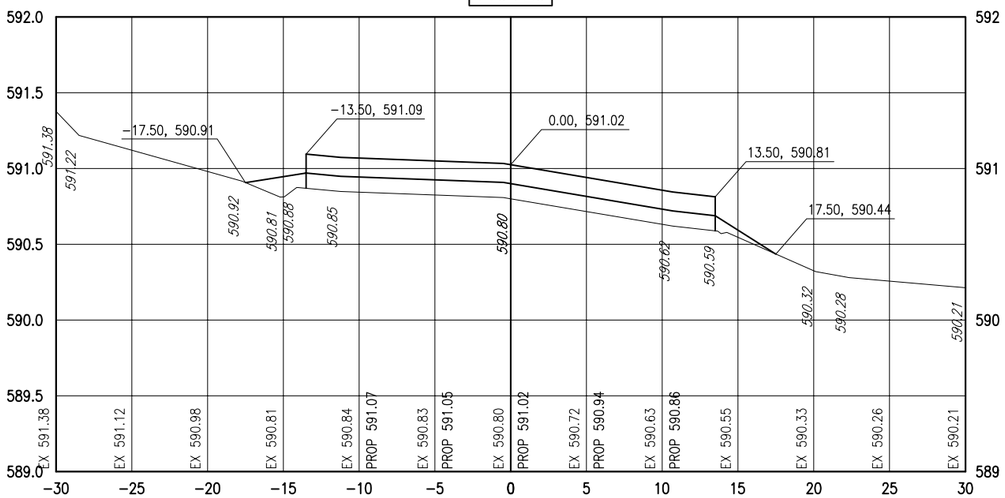
Hanson Professional Services Inc.
1525 South Sixth Street
Springfield, Illinois 62703-2886
Offices Nationwide

REHAB. ACCESS TAXIWAY PAVEMENTS

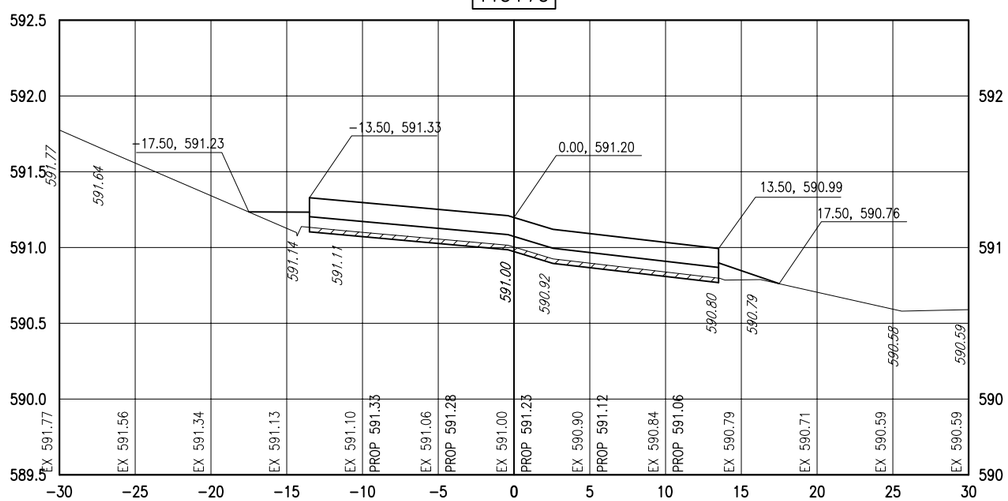
PROPOSED CROSS-SECTIONS FOR TAXIWAY "B" STA. 113+75 TO STA. 114+75

22

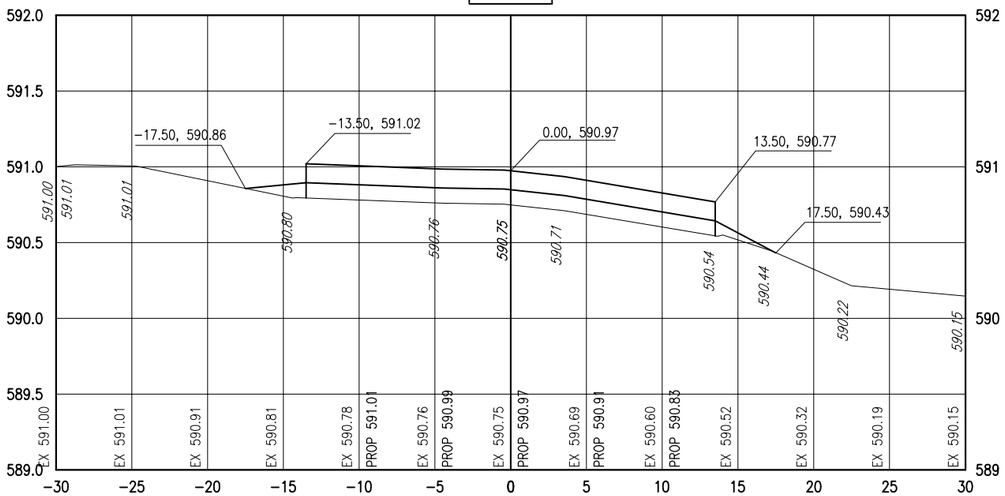
115+25



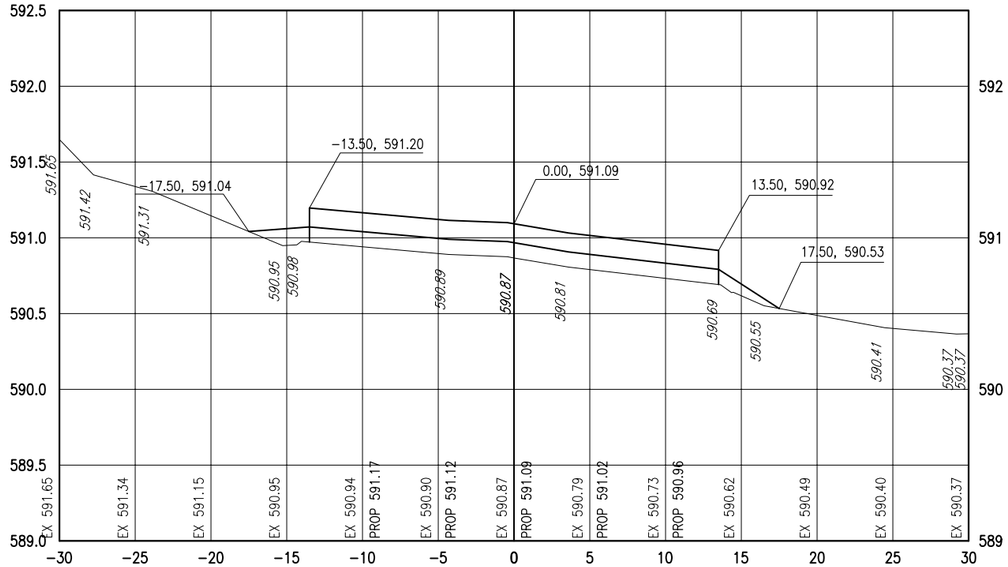
115+75



115+00



115+50



FEB 09, 2010 4:15 PM HAGLOOO382
I:\AIRPORTS\LOGAN\09A0122\CADD\AIRPORT\SHEET\R-302XSECS.DWG - 115+00 - 115+75

DATE	REVISION	BY

LOGAN COUNTY AIRPORT
LINCOLN, ILLINOIS

IL. PROJ.: AAA-3956 A.I.P. PROJ.: 3-17-0062-B16

Hanson Project No. 09A0122D 0800
Filename R-302XSECS.DWG
Scale H. 1"= 5', V. 1"= 0.5'
Date 10/22/09

LAYOUT	JEO	10/22/09
DRAWN	JEO	10/22/09
REVIEWED	CAH	12/22/09

HANSON

Hanson Professional Services Inc.
1525 South Sixth Street
Springfield, Illinois 62703-2886
Offices Nationwide

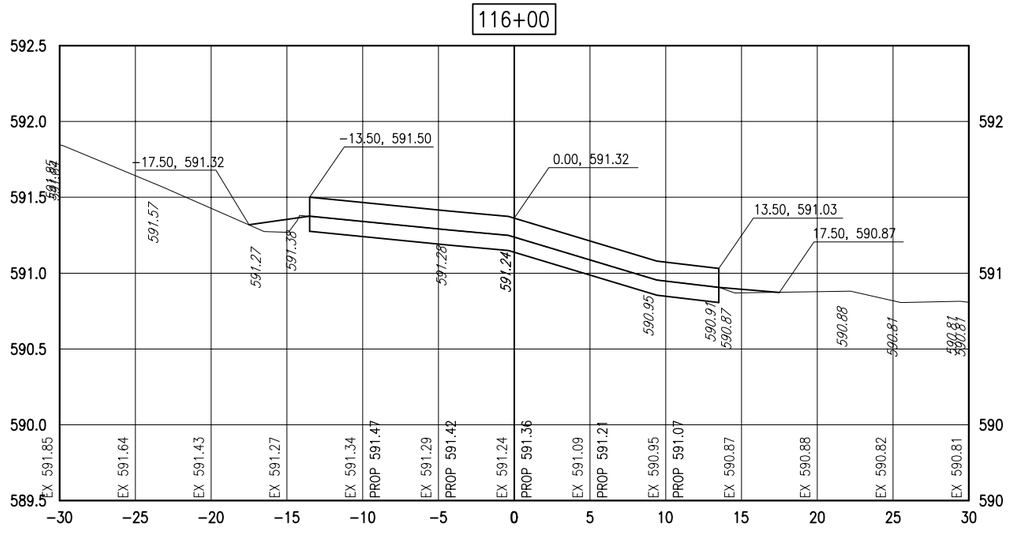
REHAB. ACCESS TAXIWAY PAVEMENTS

PROPOSED CROSS-SECTIONS FOR TAXIWAY "B" STA. 115+00 TO STA. 115+75

23

LO026

MATCH EXISTING AT STA. 116+25



FEB 09, 2010 4:15 PM HAGLO00382
I:\AIRPORTS\LOGAN\09A0122\CADD\AIRPORT\SHEET\R-302XSECS.DWG - 116+00

DATE	REVISION	BY

LOGAN COUNTY AIRPORT
LINCOLN, ILLINOIS

IL. PROJ.: AAA-3956 A.I.P. PROJ.: 3-17-0062-B16

Hanson Project No. 09A0122D 0800
Filename R-302XSECS.DWG
Scale H. 1"= 5', V. 1"= 0.5'
Date 10/22/09

LAYOUT	JEO	10/22/09
DRAWN	JEO	10/22/09
REVIEWED	CAH	12/22/09

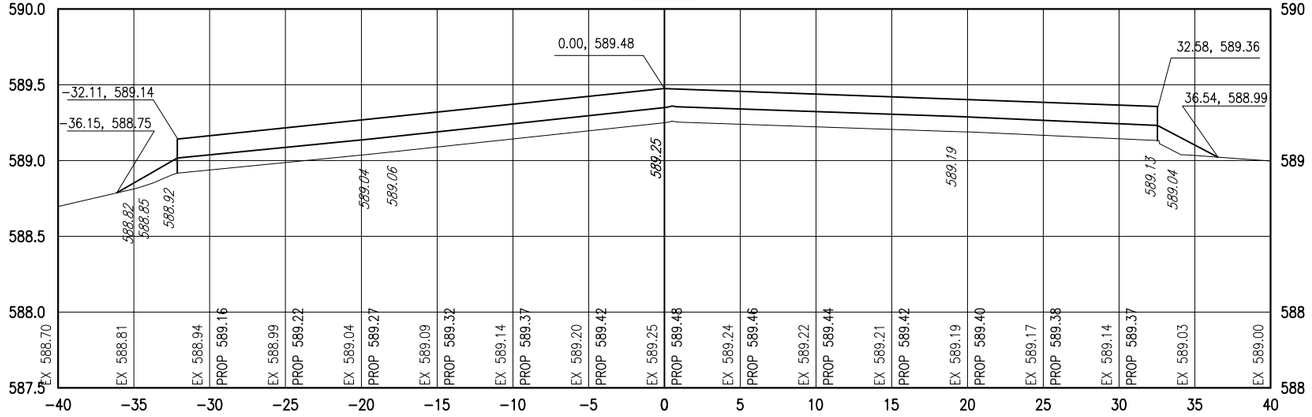
HANSON
Hanson Professional Services Inc.
1525 South Sixth Street
Springfield, Illinois 62703-2886
Offices Nationwide

REHAB. ACCESS TAXIWAY PAVEMENTS

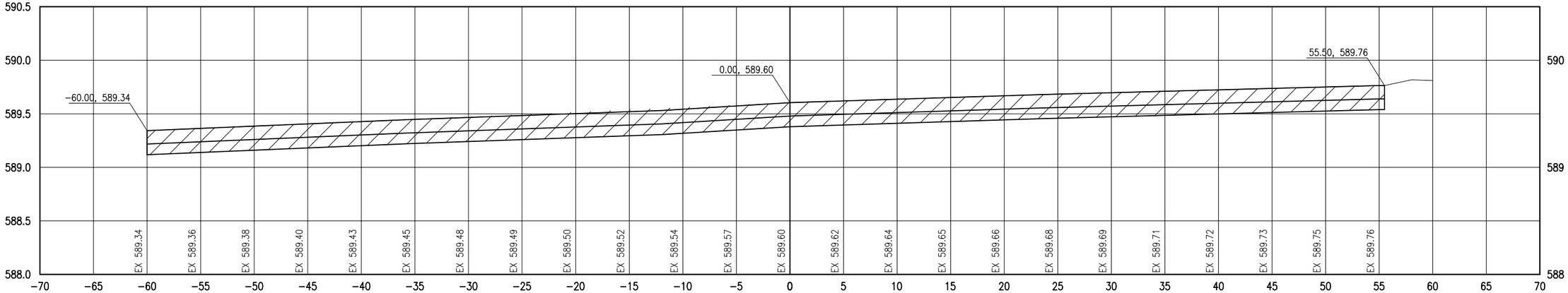
PROPOSED CROSS-SECTIONS FOR TAXIWAY "B" STA. 116+00

24
24 of 30 sheets

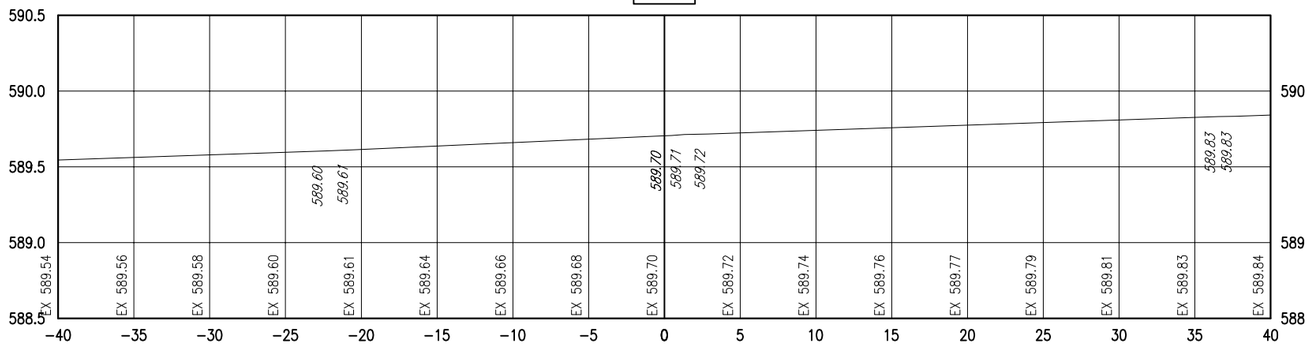
0+50



0+35



0+25



FEB 09, 2010 4:16 PM HAGL0000382
I:\AIRPORTS\LOGAN\09A0122\CADD\AIRPORT\SHEET\R-301XSECS.DWG — 0+25 —0+50

DATE	REVISION	BY

LOGAN COUNTY AIRPORT
LINCOLN, ILLINOIS

A.I.P. PROJ.: 3-17-0062-B16
IL. PROJ.: AAA-3956

Hanson Project No. 09A0122D 0800
Filename R-301XSECS.DWG
Scale H. 1"= 5', V. 1"= 0.5'
Date 10/22/09

LAYOUT	JEO	10/22/09
DRAWN	JEO	10/22/09
REVIEWED	CAH	12/22/09

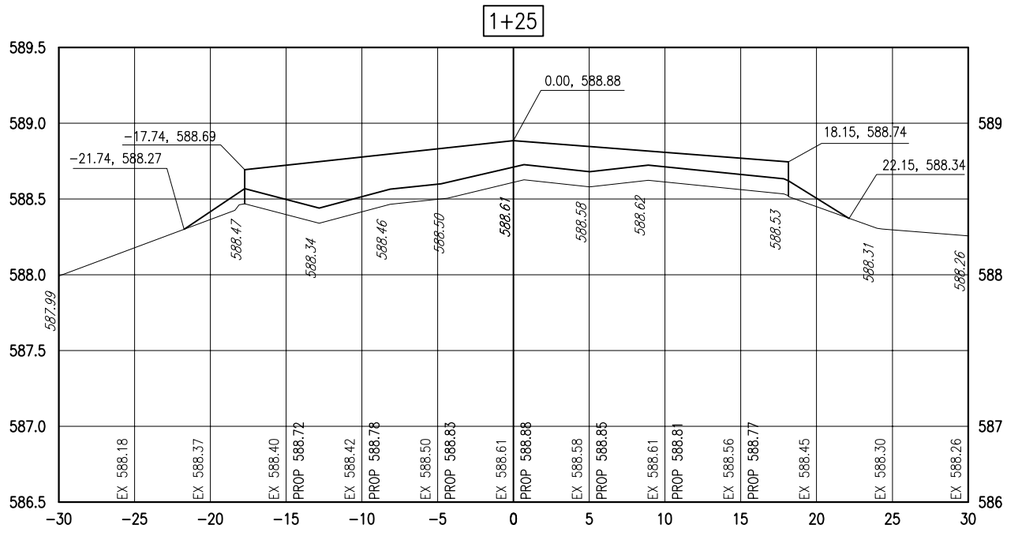
HANSON

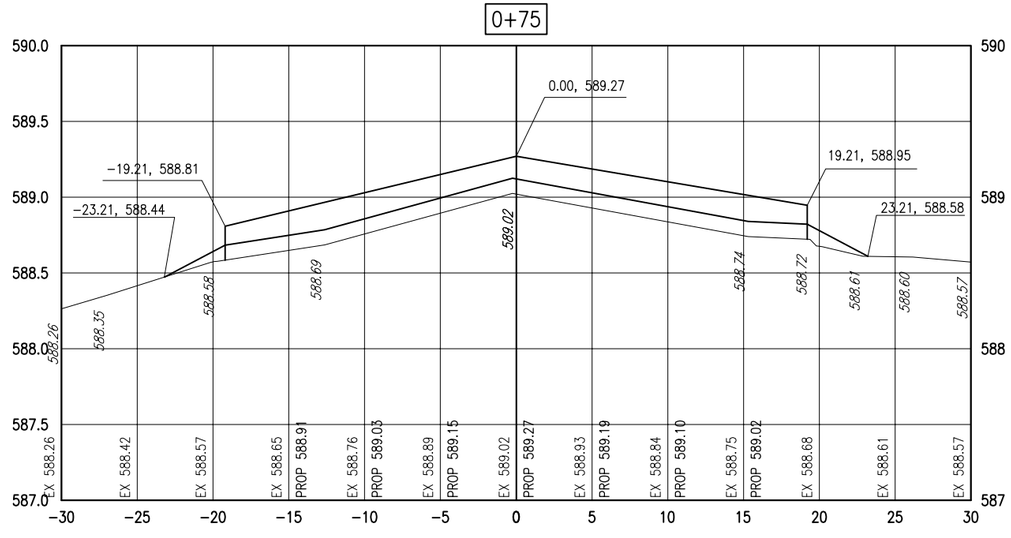
Hanson Professional Services Inc.
1525 South Sixth Street
Springfield, Illinois 62703-2886
Offices Nationwide

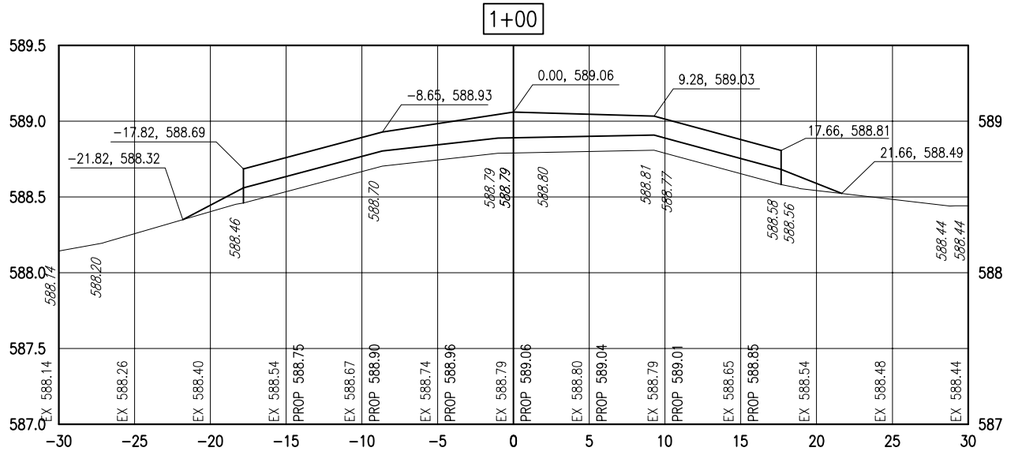
REHAB. ACCESS TAXIWAY PAVEMENTS

PROPOSED CROSS-SECTIONS FOR ACCESS TAXIWAY STA. 0+25 TO STA. 0+50

25
25 of 30 sheets







DATE	REVISION	BY

LOGAN COUNTY AIRPORT
LINCOLN, ILLINOIS

A.I.P. PROJ.: 3-17-0062-B16
IL. PROJ.: AAA-3956

Hanson Project No. 09A0122D 0800
Filename R-301XSECS.DWG
Scale H. 1"= 5', V. 1"= 0.5'
Date 10/22/09

LAYOUT	JEO	10/22/09
DRAWN	JEO	10/22/09
REVIEWED	CAH	12/22/09

HANSON
Hanson Professional Services Inc.
1525 South Sixth Street
Springfield, Illinois 62703-2886
Offices Nationwide

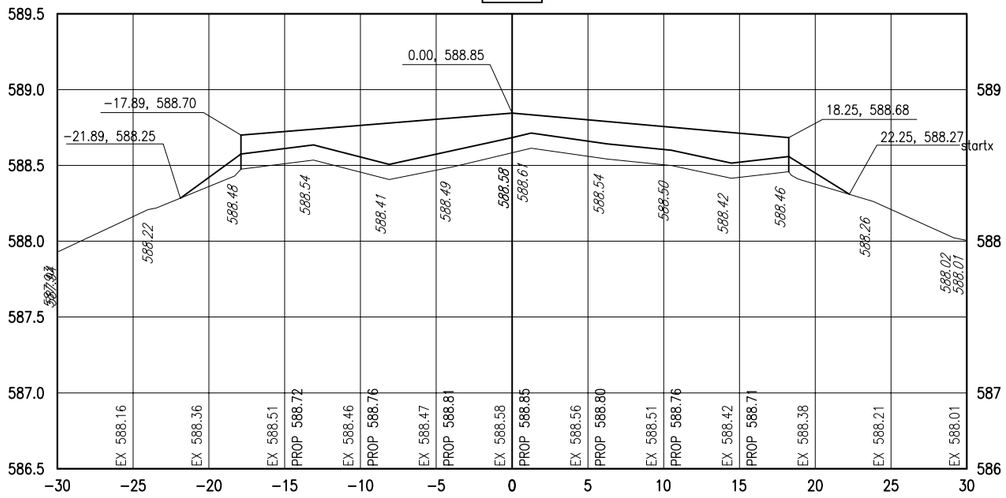
REHAB. ACCESS TAXIWAY PAVEMENTS

PROPOSED CROSS-SECTIONS FOR ACCESS TAXIWAY STA. 0+75 TO STA. 1+25

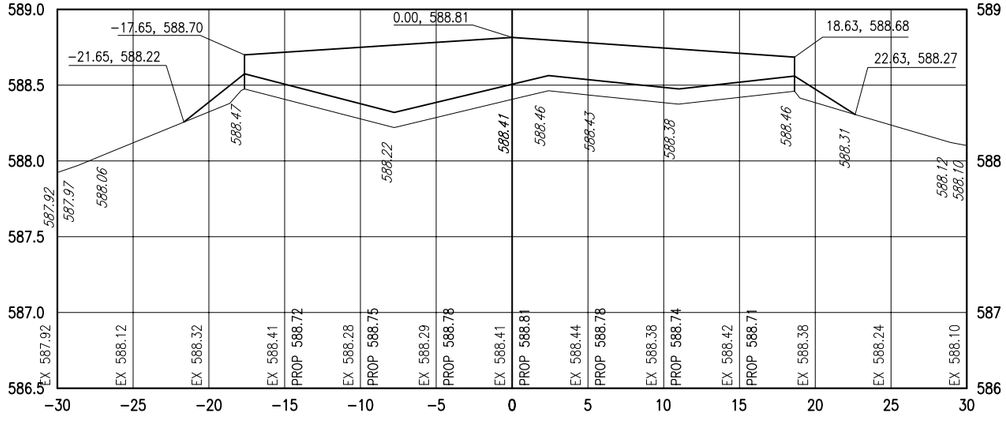
26
26 of 30 sheets

LO026

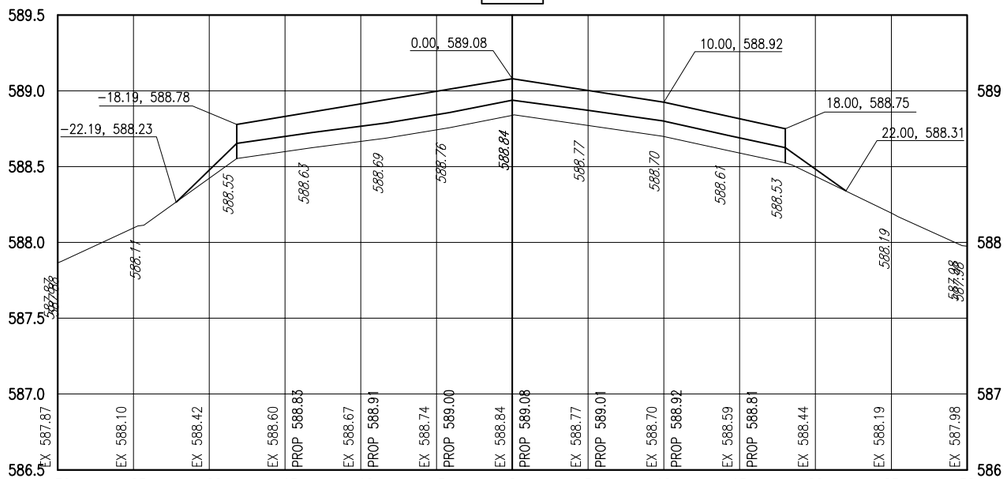
1+75



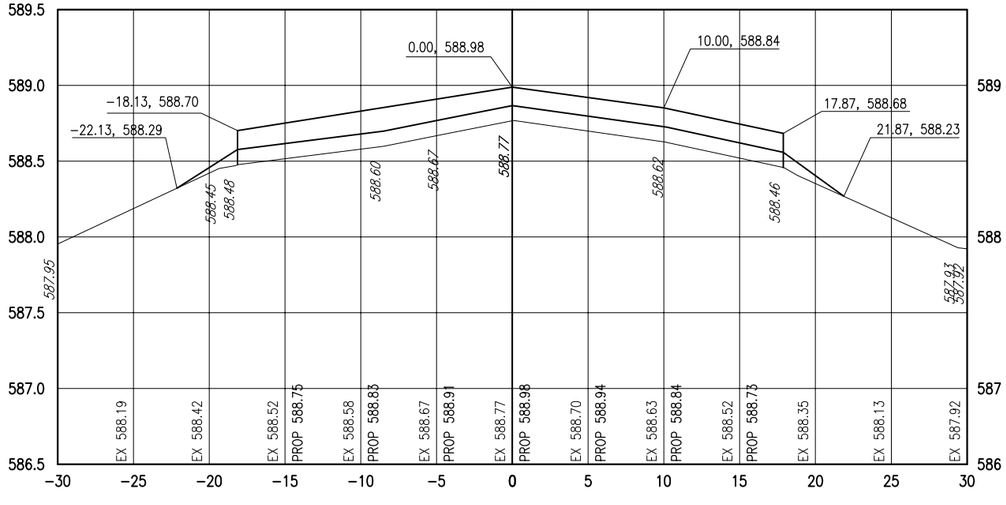
1+50



2+25



2+00



FEB 09, 2010 4:18 PM HAGL000382
I:\AIRPORTS\LOGAN\09A0122\CADD\AIRPORT\SHEET\R-301XSECS.DWG - 1+50 - 2+25

DATE	REVISION	BY

LOGAN COUNTY AIRPORT
LINCOLN, ILLINOIS

A.I.P. PROJ.: 3-17-0062-B16
IL. PROJ.: AAA-3956

Hanson Project No. 09A0122D 0800
Filename R-301XSECS.DWG
Scale H. 1"= 5', V. 1"= 0.5'
Date 10/22/09

LAYOUT	JEO	10/22/09
DRAWN	JEO	10/22/09
REVIEWED	CAH	12/22/09

HANSON

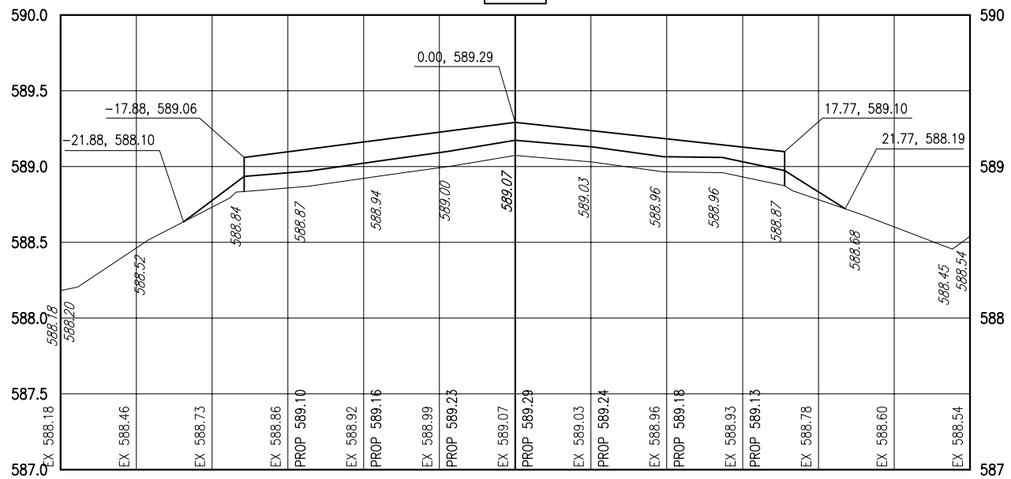
Hanson Professional Services Inc.
1525 South Sixth Street
Springfield, Illinois 62703-2886
Offices Nationwide

REHAB. ACCESS TAXIWAY PAVEMENTS

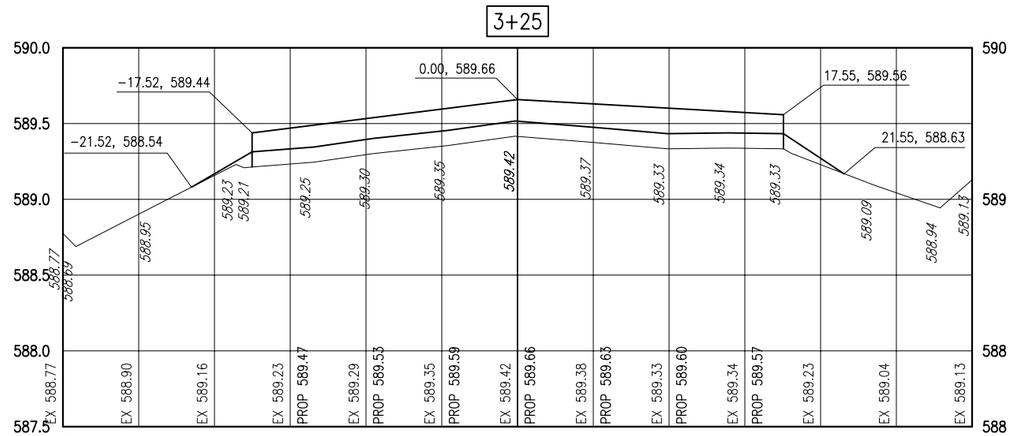
PROPOSED CROSS-SECTIONS FOR ACCESS TAXIWAY STA. 1+50 TO STA. 2+25

27
27 of 30 sheets

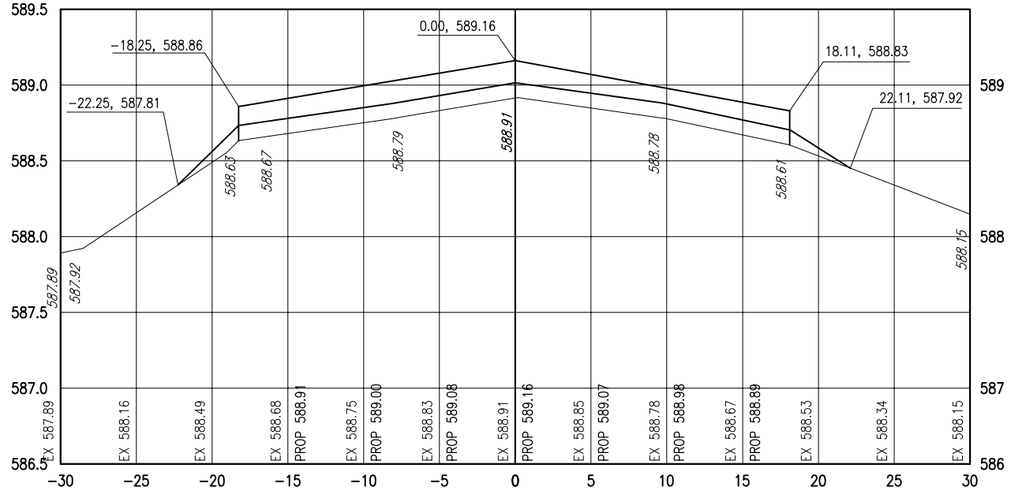
2+75



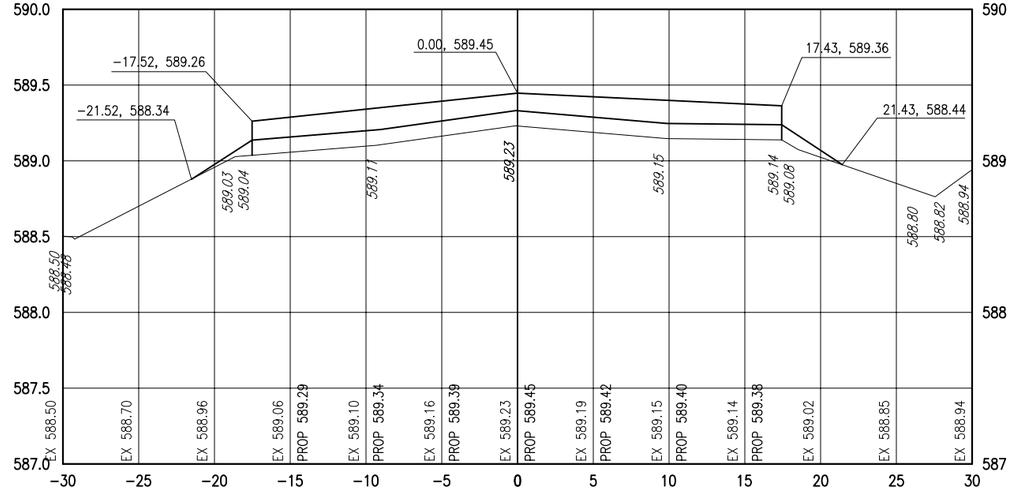
3+25



2+50



3+00



FEB 09, 2010 4:18 PM HAGLOOO382
I:\AIRPORTS\LOGAN\09A0122\CADD\AIRPORT\SHEET\R-301XSECS.DWG - 2+50 -3+25

DATE | REVISION | BY

LOGAN COUNTY AIRPORT
LINCOLN, ILLINOIS

A.I.P. PROJ.: 3-17-0062-B16
IL. PROJ.: AAA-3956

Hanson Project No. 09A0122D 0800
Filename R-301XSECS.DWG
Scale H. 1"= 5', V. 1"= 0.5'
Date 10/22/09

LAYOUT	JEO	10/22/09
DRAWN	JEO	10/22/09
REVIEWED	CAH	12/22/09

HANSON

Hanson Professional Services Inc.
1525 South Sixth Street
Springfield, Illinois 62703-2886
Offices Nationwide

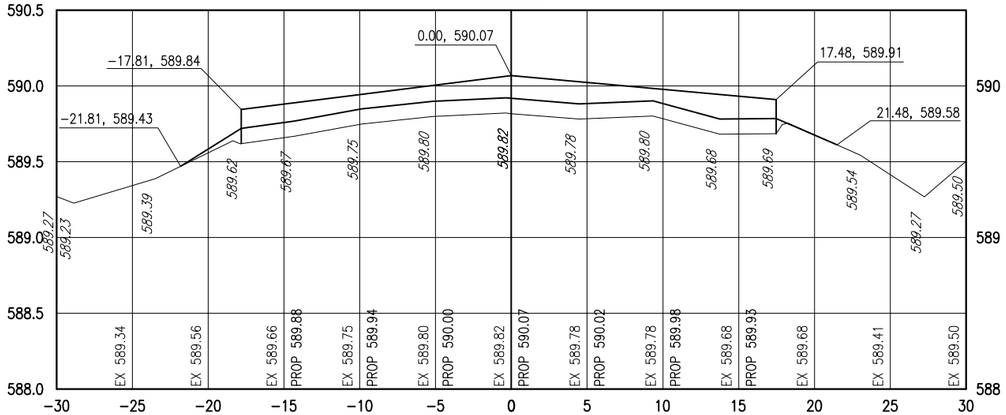
REHAB. ACCESS TAXIWAY PAVEMENTS

PROPOSED CROSS-SECTIONS FOR ACCESS TAXIWAY STA. 2+50 TO STA. 3+25

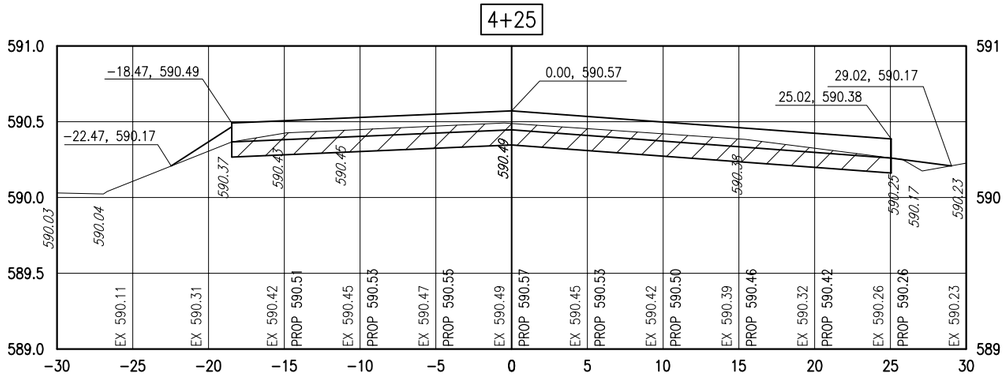
28

MATCH EXISTING AT STA. 4+40

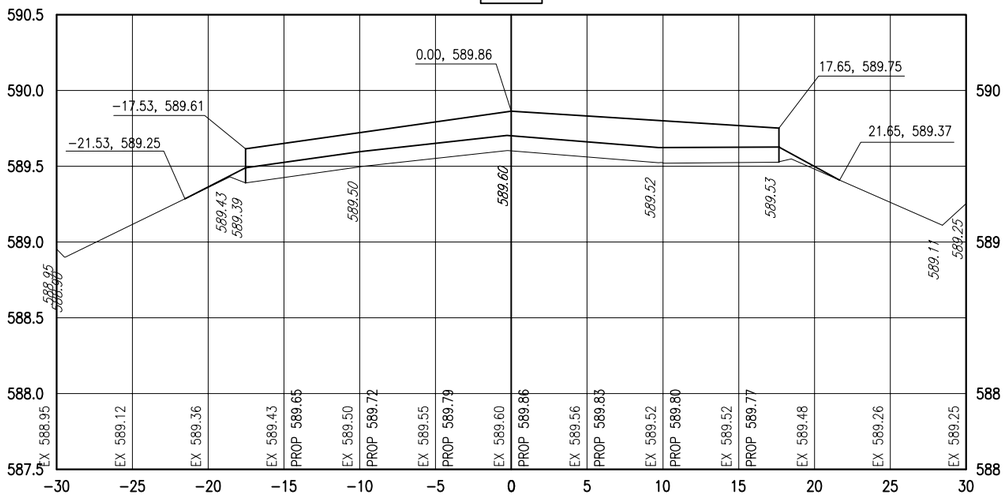
3+75



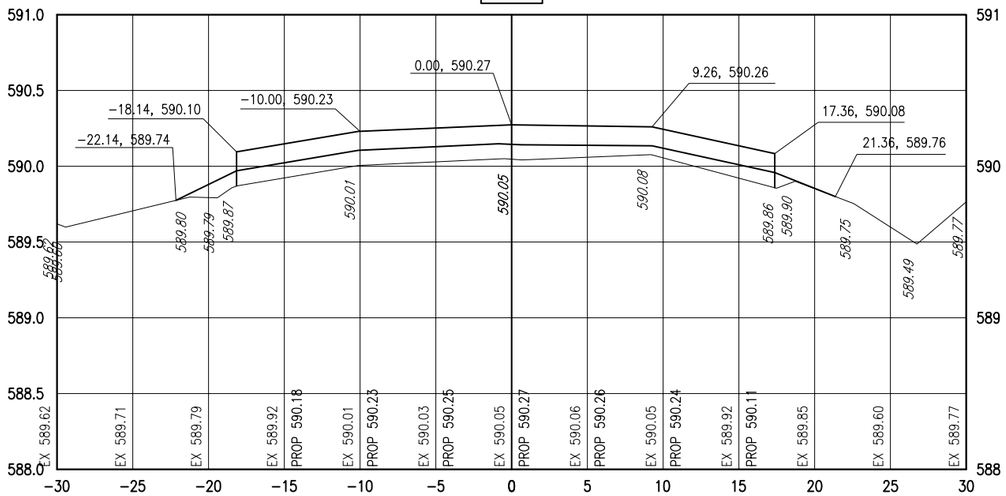
4+25



3+50



4+00



FEB 09, 2010 4:19 PM HAGLOOO382
I:\AIRPORTS\LOGAN\09A0122\CADD\AIRPORT\SHEET\R-301XSECS.DWG - 3+50 -4+25

DATE	REVISION	BY

LOGAN COUNTY AIRPORT
LINCOLN, ILLINOIS

A.I.P. PROJ.: 3-17-0062-B16
IL. PROJ.: AAA-3956

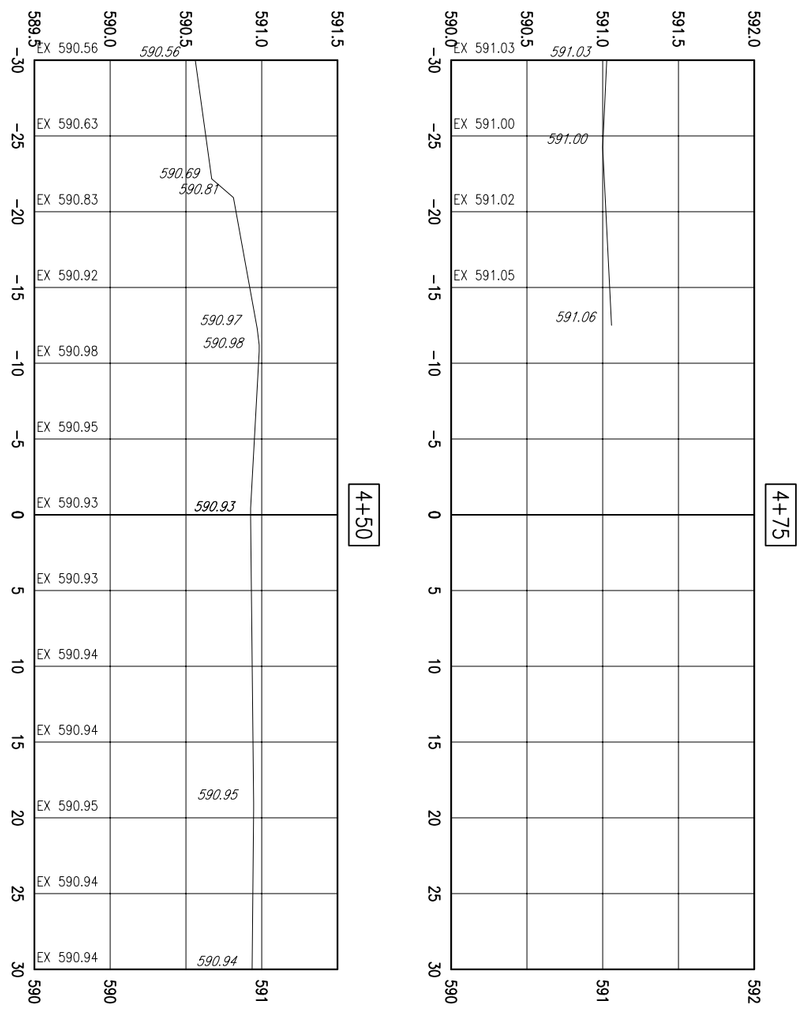
Hanson Project No. 09A0122D 0800
Filename R-301XSECS.DWG
Scale H. 1"= 5', V. 1"= 0.5'
Date 10/22/09

LAYOUT	JEO	10/22/09
DRAWN	JEO	10/22/09
REVIEWED	CAH	12/22/09

HANSON
Hanson Professional Services Inc.
1525 South Sixth Street
Springfield, Illinois 62703-2886
Offices Nationwide

REHAB. ACCESS TAXIWAY PAVEMENTS

PROPOSED CROSS-SECTIONS FOR ACCESS TAXIWAY STA. 3+50 TO STA. 4+25



LO026

30 of 30 sheets

30

REHAB. ACCESS TAXIWAY PAVEMENTS

PROPOSED CROSS-SECTIONS FOR ACCESS TAXIWAY STA. 4+50 TO STA. 4+75

HANSON
Hanson Professional Services Inc.
1525 South Sixth Street
Springfield, Illinois 62703-2886
Offices Nationwide

Hanson Project No. 09A0122D 0800
Filename R-301XSECS.DWG
Scale H. 1"= 5', V. 1"= 0.5'
Date 10/22/09

LAYOUT	JEO	10/22/09
DRAWN	JEO	10/22/09
REVIEWED	CAH	12/22/09

LOGAN COUNTY AIRPORT
LINCOLN, ILLINOIS

IL. PROJ.: AAA-3956 A.I.P. PROJ.: 3-17-0062-B16

DATE	REVISION	BY