

CONSTRUCTION PLANS

FOR

COLES COUNTY MEMORIAL AIRPORT

MATTOON-CHARLESTON, COLES COUNTY, ILLINOIS

REHABILITATE FRONTAGE ROAD, T-HANGAR ACCESS ROAD & AIRCRAFT RESCUE & FIRE FIGHTING (ARFF) ENTRANCE ROAD

SCOPE OF WORK

BASE BID

THIS BASE BID SHALL CONSIST OF THE REHABILITATION OF THE EXISTING AIRPORT FRONTAGE ROAD AND THE AIRCRAFT RESCUE AND FIRE FIGHTING (ARFF) ENTRANCE ROAD. REHABILITATION CONSISTS OF CRACK CLEANING AND SEALING, PAVEMENT REPAIRS AND AN APPLICATION OF A POROUS FRICTION COURSE, 0.10' DEPTH.

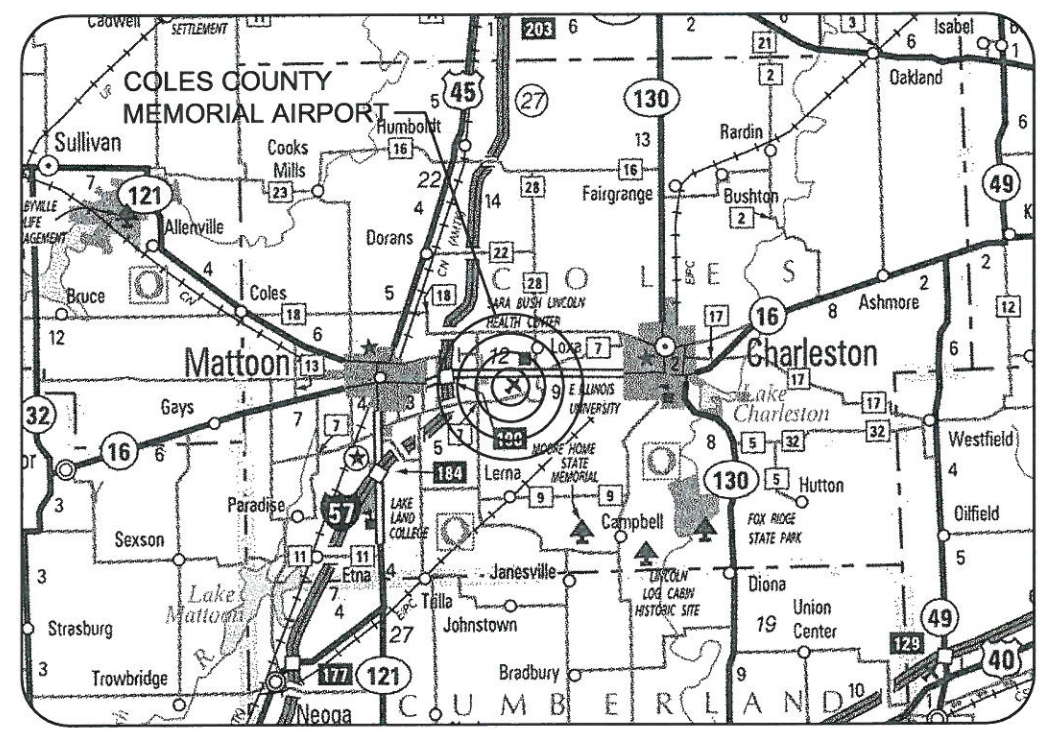
ADDITIVE ALTERNATE NO. 1

ADDITIVE ALTERNATE NO. 1 SHALL CONSIST OF THE REHABILITATION OF THE EXISTING T-HANGAR ACCESS ROAD. REHABILITATION CONSISTS OF CRACK CLEANING AND SEALING, PAVEMENT REPAIRS AND AN APPLICATION OF A POROUS FRICTION COURSE, 0.10' DEPTH.

ADDITIVE ALTERNATE NO. 2

ADDITIVE ALTERNATE NO. 2 SHALL CONSIST OF THE REHABILITATION OF THE EXISTING T-HANGAR AUTO PARKING LOT. REHABILITATION CONSISTS OF CRACK CLEANING AND SEALING, PAVEMENT REPAIRS AND AN APPLICATION OF A POROUS FRICTION COURSE, 0.10' DEPTH.

ILL. PROJ.: MTO-4274
 LATITUDE: 39° 28' 40"
 LONGITUDE: 88° 16' 45"
 ELEVATION: 721.0' M.S.L.
 DATE: JULY 5, 2013
 REVISED: MARCH 19, 2014



COVERING ELECTRICAL DESIGN FOR SHEETS 8, 9, & 10

PLANS PREPARED BY:

HANSON
 Hanson Professional Services Inc.
ELECTRICAL ENGINEER

Submitted by: *Kevin N. Lightfoot* ENG'R
 Date Submitted: MARCH 24, 2014
 Lics. Exp. Date: NOVEMBER 30, 2015



HANSON
 Hanson Professional Services Inc.
CIVIL ENGINEER

Submitted by: *Charles A. Hagloch* ENG'R
 Date Submitted: MARCH 24, 2014
 Lics. Exp. Date: NOVEMBER 30, 2015

COLES COUNTY AIRPORT AUTHORITY

Approved: *Michael R. Van...* CHAIRMAN
 Date: *July 9, 2013*

Approved: *Cheryl...* AIRPORT DIRECTOR
 Date: *July 9, 2013*

REVISION									
DATE									
LAYOUT	BAK	03/06/13	DRAWN	BAK	03/06/13	REVIEWED	CAH	07/05/13	IL PROJ.: MTO-4274
REHABILITATE FRONTAGE ROAD									
COVER SHEET									
1									
1 of 10 sheets									

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CO060

BASE BID - SUMMARY OF QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	TOTAL QUANTITIES	AS BUILT QUANTITIES
AR150520	MOBILIZATION	L.S.	1	
AR150540	HAUL ROUTE	L.S.	1	
AR201661	CLEAN & SEAL BITUMINOUS CRACKS	L.F.	5,389	
AR201910	REMOVE & REPLACE BIT. PAVEMENT	S.Y.	417	
AR401655	BUTT JOINT CONSTRUCTION	S.Y.	470	
AR402622	POROUS FRICTION COURSE, 0.10'	S.Y.	5,527	
AR603510	BITUMINOUS TACK COAT	GAL.	1,382	

ADDITIVE ALTERNATE NO. 1 - SUMMARY OF QUANTITIES

AS162570	DETECTOR LOOP	L.S.	1	
AS201661	CLEAN & SEAL BITUMINOUS CRACKS	L.F.	611	
AS401655	BUTT JOINT CONSTRUCTION	S.Y.	4	
AS402622	POROUS FRICTION COURSE, 0.10'	S.Y.	780	
AS603510	BITUMINOUS TACK COAT	GAL.	188	
AS800436	ADJUST CARD READER	L.S.	1	

ADDITIVE ALTERNATE NO. 2 - SUMMARY OF QUANTITIES

AT201661	CLEAN & SEAL BITUMINOUS CRACKS	L.F.	1,317	
AT201910	REMOVE & REPLACE BIT. PAVEMENT	S.Y.	59	
AT402622	POROUS FRICTION COURSE, 0.10'	S.Y.	1,316	
AT603510	BITUMINOUS TACK COAT	GAL.	329	

INDEX TO SHEETS

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	SUMMARY OF QUANTITIES AND INDEX TO SHEETS
3	PROPOSED SAFETY PLAN
4	PROPOSED CONSTRUCTION PLAN STA. 0+00 TO STA. 10+50
5	PROPOSED CONSTRUCTION PLAN STA. 10+50 TO STA. 19+56.64
6	PROPOSED PAVEMENT PREPARATION PLAN STA. 0+00 TO STA. 10+50
7	PROPOSED PAVEMENT PREPARATION PLAN STA. 10+50 TO STA. 19+56.64
8	ELECTRICAL LEGEND AND ABBREVIATIONS
9	EXISTING NORTH GATE ELECTRICAL ONE-LINE DIAGRAM
10	CARD READER & DETECTOR LOOP DETAILS

REVISION	DATE	REVISED AS PER I.D.A. COMMENTS
	03/19/14	



Hanson Proj. No. 1340014	Filename G-002-FLP.dwg	Scale NOT TO SCALE	Date 07/05/13
LAYOUT	BAK	03/06/13	
DRAWN	BAK	03/06/13	
REVIEWED	CAH/KNL	07/03/13	

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REHABILITATE
 FRONTAGE ROAD

SUMMARY OF QUANTITIES
 AND INDEX TO SHEETS

S.B.G. PROJ.:
 IL PROJ.: MTO-4274

UTILITY NOTE

THE LOCATION, SIZE, AND TYPE OF MATERIAL OF EXISTING UNDERGROUND AND/OR ABOVEGROUND UTILITIES INDICATED ON THE PLANS ARE NOT REPRESENTED AS BEING ACCURATE, SUFFICIENT OR COMPLETE. NEITHER THE OWNER NOR THE ENGINEER ASSUMES ANY RESPONSIBILITY WHATEVER IN RESPECT TO THE ACCURACY, COMPLETENESS, OR SUFFICIENCY OF THE INFORMATION. THERE IS NO GUARANTEE, EITHER EXPRESSED OR IMPLIED, THAT THE LOCATIONS, SIZE AND TYPE OF MATERIAL OF EXISTING UNDERGROUND UTILITIES INDICATED ARE REPRESENTATIVE OF THOSE TO BE ENCOUNTERED IN THE CONSTRUCTION. 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 OWNER'S REPRESENTATIVE AND/OR THE RESIDENT ENGINEER SHALL ALSO BE IMMEDIATELY NOTIFIED. ANY DAMAGE TO SUCH MAINS AND SERVICES SHALL BE RESTORED TO SERVICE AT ONCE AND PAID FOR BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT. ALL UTILITY CABLES AND LINES SHALL BE LOCATED BY THE RESPECTIVE UTILITY. **CONTACT JULIE (JOINT UTILITY LOCATION INFORMATION FOR EXCAVATORS) FOR UTILITY INFORMATION, PHONE: 1-800-892-0123.** CONTACT THE FAA (FEDERAL AVIATION ADMINISTRATION) FOR ASSISTANCE IN LOCATING FAA CABLES AND UTILITIES. LOCATION OF FAA POWER, CONTROL, AND COMMUNICATION CABLES SHALL BE COORDINATED WITH AND/OR LOCATED BY THE FAA. ALSO CONTACT AIRPORT DIRECTOR/MANAGER AND AIRPORT PERSONNEL FOR ASSISTANCE IN LOCATING UNDERGROUND AIRPORT CABLES AND/OR UTILITIES. ALSO COORDINATE WORK WITH ALL ABOVEGROUND UTILITIES.

HAUL ROUTE AND VEHICLE PARKING

THE CONTRACTOR WILL USE THE EXISTING FRONTAGE ROAD AND T-HANGAR AREA ACCESS ROAD AS HIS ACCESS TO THE PROPOSED CONSTRUCTION AREA AS SHOWN ON THIS SHEET. THE PROPOSED PARKING AREA WILL BE AS LARGE AS NEEDED BY THE CONTRACTOR. THE CONTRACTOR WILL BE REQUIRED TO MAINTAIN THE PROPOSED HAUL ROUTE AND PARKING AREA THROUGHOUT THE COURSE OF THE PROJECT. ANY AREAS DAMAGED OUTSIDE OF THESE AREAS 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 PARKING AREA AS NEEDED TO RESTORE IT TO ITS' ORIGINAL STATE. RESTORATION OF THE PARKING AREA WILL BE CONSIDERED AS PART OF THE HAUL ROUTE ITEM OF WORK AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

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.




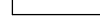


ALL WORK PERFORMED SHALL BE DONE IN A ORDERLY AND EFFECTIVE MANNER TO MINIMIZE THE LENGTH OF TIME ACCESS TO THE T-HANGAR AREA IS DENIED TO THE PUBLIC.

NO RUNWAY SHALL BE CLOSED THROUGHOUT THE DURATION OF THIS PROJECT.

BARRICADES AND TRAFFIC CONES

IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO PLACE AND MAINTAIN BARRICADES AND TRAFFIC CONES AS SHOWN ON THIS SHEET OR AS DIRECTED BY THE AIRPORT MANAGER. 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
-  PROPOSED BENCHMARK
-  PROPOSED BARRICADES OR TRAFFIC CONES

SCOPE OF WORK

BASE BID

THIS BASE BID SHALL CONSIST OF THE REHABILITATION OF THE EXISTING AIRPORT FRONTAGE ROAD AND THE AIRCRAFT RESCUE AND FIRE FIGHTING (ARFF) ENTRANCE ROAD. REHABILITATION CONSISTS OF CRACK CLEANING AND SEALING, PAVEMENT REPAIRS AND AN APPLICATION OF A POROUS FRICTION COURSE, 0.10' DEPTH.

ADDITIVE ALTERNATE NO. 1

ADDITIVE ALTERNATE NO. 1 SHALL CONSIST OF THE REHABILITATION OF THE EXISTING T-HANGAR ACCESS ROAD. REHABILITATION CONSISTS OF CRACK CLEANING AND SEALING, PAVEMENT REPAIRS AND AN APPLICATION OF A POROUS FRICTION COURSE, 0.10' DEPTH.

ADDITIVE ALTERNATE NO. 2

ADDITIVE ALTERNATE NO. 2 SHALL CONSIST OF THE REHABILITATION OF THE EXISTING T-HANGAR AUTO PARKING LOT. REHABILITATION CONSISTS OF CRACK CLEANING AND SEALING, PAVEMENT REPAIRS AND AN APPLICATION OF A POROUS FRICTION COURSE, 0.10' DEPTH.

AIRPORT SECURITY NOTE

AIRPORT SECURITY WILL BE MAINTAINED AT ALL TIMES. ALL EXISTING GATES LOCATED IN THE PROPOSED CONSTRUCTION AREA WILL BE CLOSED AT THE END OF EACH WORKING DAY.

HEIGHT OF CONSTRUCTION EQUIPMENT

THE MAXIMUM ANTICIPATED HEIGHT OF THE CONSTRUCTION EQUIPMENT WILL BE 25 FEET. THE TALLEST EQUIPMENT IS EXPECTED TO BE A DUMP TRUCK.

BENCHMARK DATA				
NO.	DESCRIPTION	NORTHING	EASTING	ELEV.
1	CONTROL POINT	1025318.4970	999334.6475	704.94
2	FIRE HYDRANT	1025262.0010	999547.4112	705.97

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.

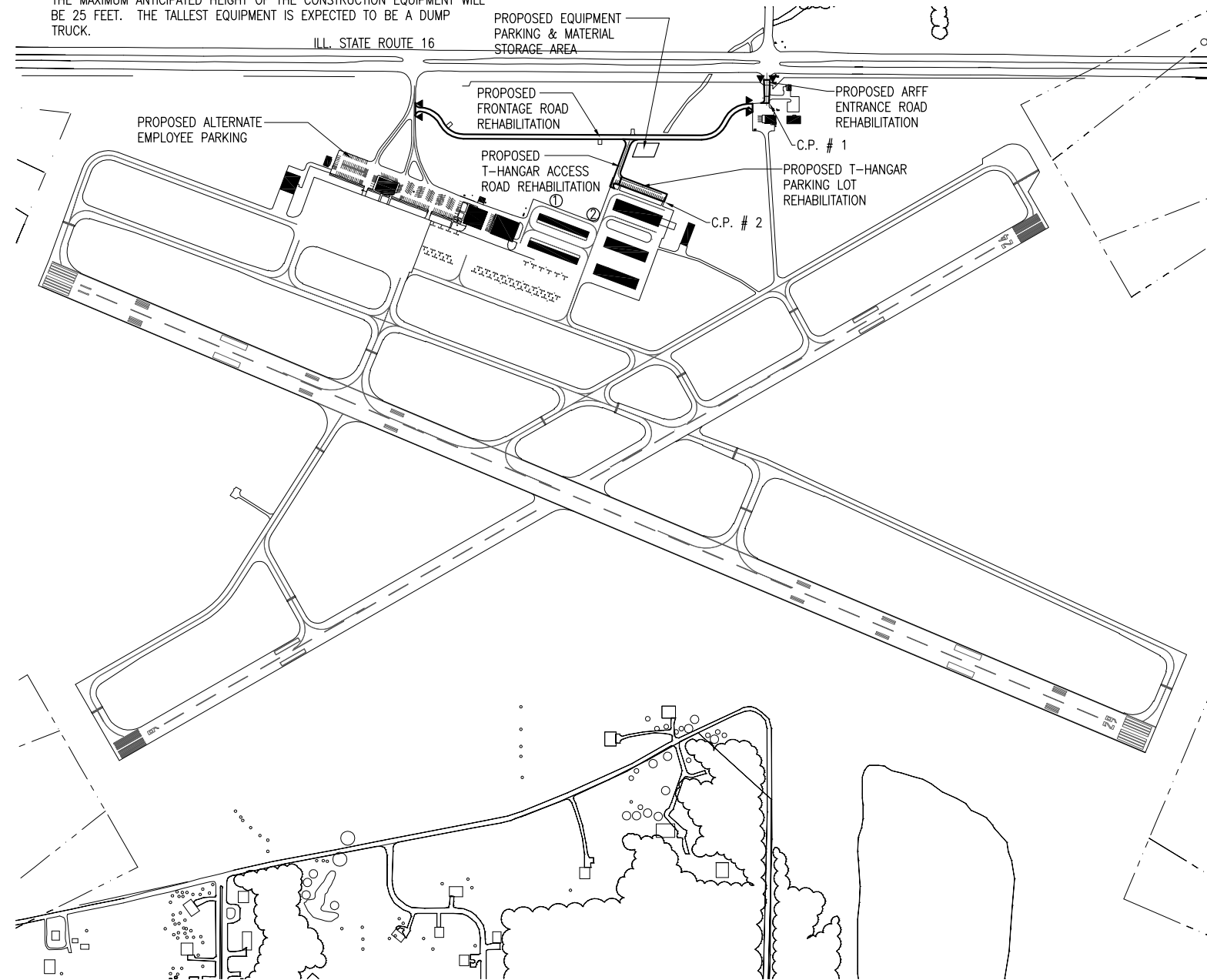
MATERIAL CERTIFICATION

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.

NOTE

ALL CONSTRUCTION/OPERATIONS ARE TO BE PERFORMED IN ACCORDANCE WITH FAA ADVISORY CIRCULAR (AC) 150/5370-2F "OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION" AND AC 150/5300-13A "AIRPORT DESIGN".

ALL CONSTRUCTION EQUIPMENT ON THE AIRPORT SHALL BE MARKED, LIGHTED AND/OR FLAGGED IN ACCORDANCE WITH AC 150/5210-5D AND 70/7460-1K.



CRITICAL POINT DATA

CRITICAL POINT #1
 LATITUDE: 39° 29' 01.62"
 LONGITUDE: 88° 16' 32.75"
 ELEVATION: 701.63 M.S.L.

CRITICAL POINT #2
 LATITUDE: 39° 28' 56.35"
 LONGITUDE: 88° 16' 39.99"
 ELEVATION: 702.96 M.S.L.

J.U.L.I.E. INFORMATION

COUNTY _____ COLES
 CITY _____ MATTOON
 TOWNSHIP _____ LAFAYETTE
 SECTION NO. _____ 14, 15, 22 & 23
 ADDRESS _____ COLES COUNTY MEMORIAL AIRPORT
 432 AIRPORT ROAD
 MATTOON, ILLINOIS 61938

PROPOSED SAFETY PLAN

GENERAL - THE COLES COUNTY MEMORIAL AIRPORT IS COMPRISED OF TWO RUNWAYS. THE PROPOSED CONSTRUCTION WILL NOT NECESSITATE CLOSING ANY RUNWAY.

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 (122.70 MHz.) WITH THE AIRPORT UNICOM. THIS WILL KEEP THE CONTRACTOR IN CONSTANT CONTACT WITH THE COLES COUNTY MEMORIAL 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.

EROSION CONTROL

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

CO060

DATE	REVISION
03/19/14	REVISED AS PER I.D.A. COMMENTS

COLES COUNTY AIRPORT AUTHORITY
 COLES COUNTY MEMORIAL AIRPORT
 MATTOON, ILLINOIS 61938

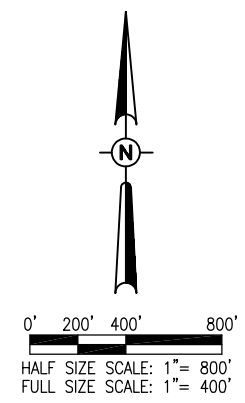
S.B.G. PROJ.:
 IL PROJ.: MTO-4274

Hanson Proj. No. 13A0014	BAK	02/07/13
Filename: G-003-SFY.DWG	BAK	02/07/13
Scale: 1" = 400'	DRAWN	REVIEWED
Date: 07/05/13	CAH	07/03/13

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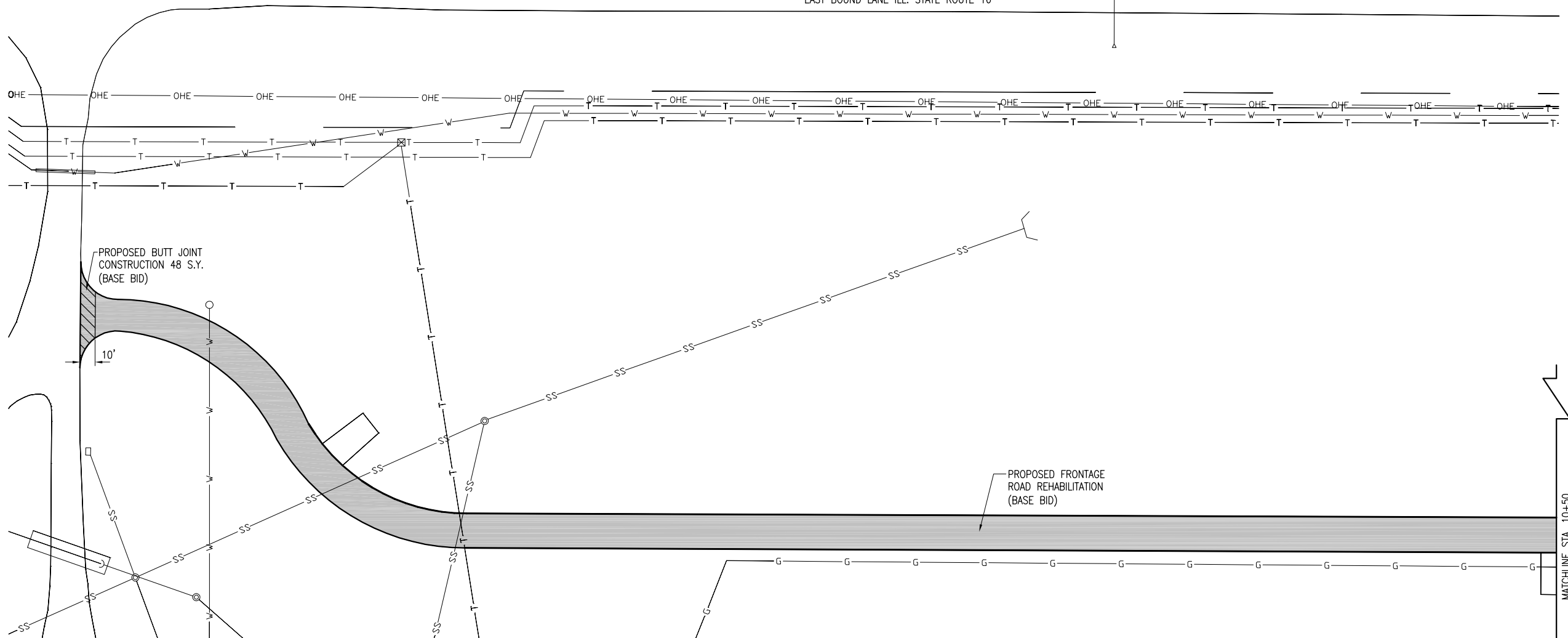
REHABILITATE FRONTAGE ROAD
 PROPOSED SAFETY PLAN

3
 3 of 10 sheets



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EAST BOUND LANE ILL. STATE ROUTE 16



AR401655 BUTT JOINT CONSTRUCTION NOTES

THE AREA(S) DESIGNATED AS [Hatched Box] ON THIS SHEET AND SHEET NO. 5 WILL BE CUT OR TRIMMED AS STATED BELOW. THE CUTTING OR TRIMMING WILL BE DONE BY ROTO-MILLING. THE TOLERANCE OF THE MILLING WILL BE AS STATED IN THE STANDARD SPECIFICATIONS.

THE PROPOSED BUTT JOINTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH ITEM AR401655 "BUTT JOINT CONSTRUCTION" AS STATED ON PAGE 152 OF THE ILLINOIS STANDARD SPECIFICATIONS FOR CONSTRUCTION OF AIRPORTS, ADOPTED APRIL 1, 2012.

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 PAVEMENT SURFACE WILL BE MILLED TO A DEPTH OF 0.10 FT. AT THE BUTT END AND WILL TAPER TO 0 IN. AT THE OPPOSITE END. THE PLANNER MUST BE CAPABLE OF MILLING THE SURFACE TO THE DESIRED ELEVATIONS AND GRADES.

ALL MILLED MATERIAL WILL BE DISPOSED OF ON THE AIRPORT SITE. THE MILLED MATERIAL WILL BE DISPOSED OF BY THE HAY BARN. THE EXACT LOCATION WILL BE CONFIRMED BY THE RESIDENT ENGINEER OR THE AIRPORT MANAGER.

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" ____ PER S.Y.

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 250 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION OF AIRPORTS, ADOPTED APRIL 1, 2012.

THE PROPOSED BITUMINOUS TACK COAT SHALL BE PLACED ON THE EXISTING BITUMINOUS PAVEMENT PRIOR TO THE PLACEMENT OF THE PROPOSED POROUS FRICTION COURSE, 0.10' DEPTH. THE EXISTING BITUMINOUS PAVEMENT SHALL HAVE A TACK COAT OF BITUMINOUS MATERIAL APPLIED IN ACCORDANCE WITH THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION OF AIRPORTS.

THE SECTION OF THE ACCESS ROAD LEADING FROM ROUTE 16 TO THE ARFF BUILDING WILL BE TACKED PRIOR TO THE PLACEMENT OF THE POROUS FRICTION COURSE. THE RESIDENT ENGINEER WILL DETERMINE WHEN THE TACK COAT IS READY TO BE PAVED OVER.

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

POROUS FRICTION COURSE NOTES

THE PROPOSED POROUS FRICTION COURSE WILL BE CONSTRUCTED IN ONE LAYER, HAVING A COMPACTED NOMINAL THICKNESS OF ONE TENTH OF A FOOT (0.10') IN ACCORDANCE WITH ITEM AR402622 "POROUS FRICTION COURSE, 0.10'" AS STATED ON PAGE 154 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION OF AIRPORTS, ADOPTED APRIL 1, 2012.

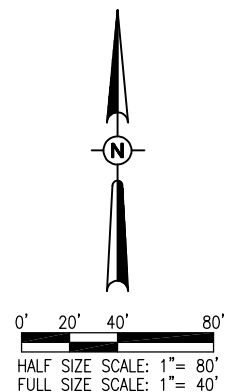
THE POROUS FRICTION COURSE SHALL BE PLACED ON A CLEAN AND PREPARED SURFACE ONLY AFTER THE APPROVAL OF THE RESIDENT ENGINEER.

THE SURFACES TO BE OVERLAYED WILL BE SPRAYED WITH AN APPLICATION OF A BITUMINOUS TACK COAT. AN APPLICATION RATE OF 0.25 GAL./S.Y. (DILUTED) WAS USED FOR CALCULATING THE QUANTITY OF TACK FOR THIS APPLICATION. THE EXACT RATE OF APPLICATION WILL BE DETERMINED BY THE RESIDENT ENGINEER AT THE TIME OF CONSTRUCTION. TACKED AREAS WORN FROM HAULING OPERATIONS SHALL BE RE-TACKED AT THE DISCRETION OF THE RESIDENT ENGINEER. THE TACK COAT MUST BE DRY (CURED) TO THE SATISFACTION OF THE RESIDENT ENGINEER PRIOR TO THE PLACEMENT OF THE POROUS FRICTION COURSE.

PAYMENT FOR THIS ITEM OF WORK WILL BE UNDER ITEM:
AR402622 "POROUS FRICTION COURSE, 0.10'" ____ PER S.Y.

LEGEND

[Hatched Box]	EXISTING PAVEMENT
[Shaded Box]	PROPOSED IMPROVEMENTS
—OHE—	EXISTING OVERHEAD ELECTRIC
—SS—	EXISTING STORM SEWER
—W—	EXISTING WATER LINE
—T—	EXISTING TELEPHONE LINE
—G—	EXISTING GAS LINE
⊙SS	EXISTING STORM SEWER MANHOLE
⊗	EXISTING JUNCTION BOX
∩	EXISTING HEADWALL



REVISION	DATE

COLES COUNTY AIRPORT AUTHORITY
 COLES COUNTY, ILLINOIS
 IL PROJ.: MTO-4274
 S.B.G. PROJ.:

Hanson Proj. No. 13A0014	File Name: C-121-CON.dwg	Scale: 1" = 40'	Date: 07/05/13
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DRAWN	BAK	02/07/13	
REVIEWED	CAH	07/03/13	

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REHABILITATE FRONTAGE ROAD
 PROPOSED CONSTRUCTION PLAN STA. 0+00 TO STA. 10+50

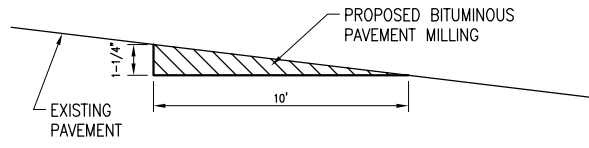
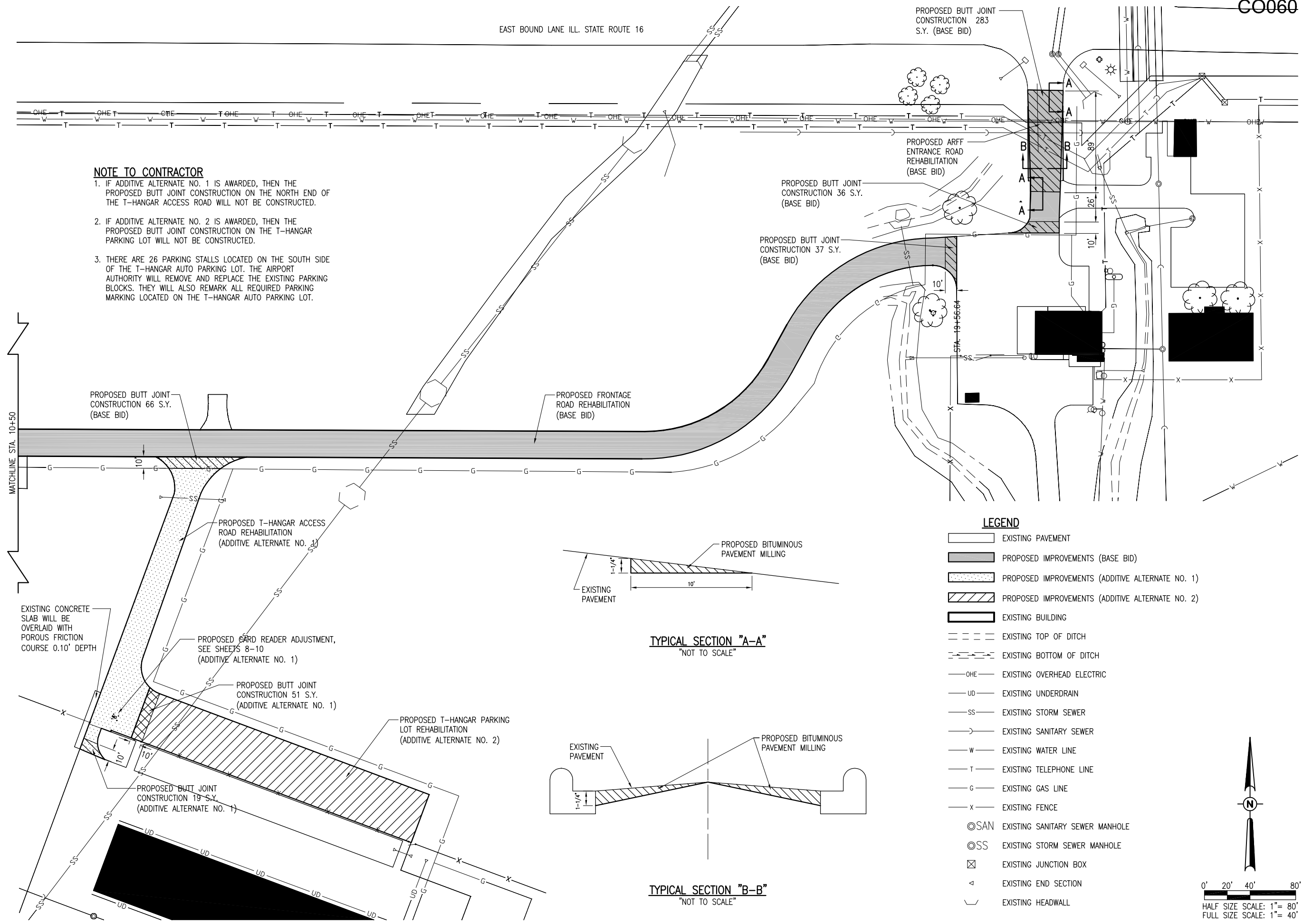
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EAST BOUND LANE ILL. STATE ROUTE 16

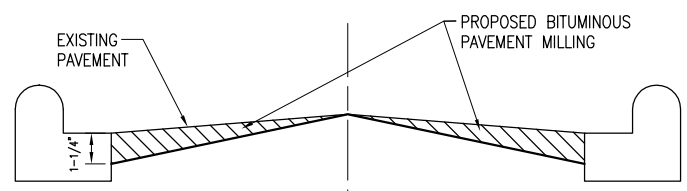
CO060

NOTE TO CONTRACTOR

1. IF ADDITIVE ALTERNATE NO. 1 IS AWARDED, THEN THE PROPOSED BUTT JOINT CONSTRUCTION ON THE NORTH END OF THE T-HANGAR ACCESS ROAD WILL NOT BE CONSTRUCTED.
2. IF ADDITIVE ALTERNATE NO. 2 IS AWARDED, THEN THE PROPOSED BUTT JOINT CONSTRUCTION ON THE T-HANGAR PARKING LOT WILL NOT BE CONSTRUCTED.
3. THERE ARE 26 PARKING STALLS LOCATED ON THE SOUTH SIDE OF THE T-HANGAR AUTO PARKING LOT. THE AIRPORT AUTHORITY WILL REMOVE AND REPLACE THE EXISTING PARKING BLOCKS. THEY WILL ALSO REMARK ALL REQUIRED PARKING MARKING LOCATED ON THE T-HANGAR AUTO PARKING LOT.



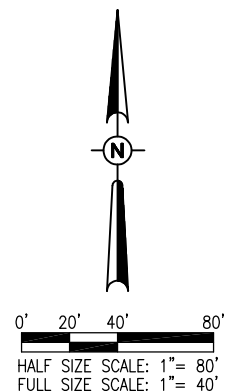
TYPICAL SECTION "A-A"
"NOT TO SCALE"



TYPICAL SECTION "B-B"
"NOT TO SCALE"

LEGEND

- EXISTING PAVEMENT
- PROPOSED IMPROVEMENTS (BASE BID)
- PROPOSED IMPROVEMENTS (ADDITIVE ALTERNATE NO. 1)
- PROPOSED IMPROVEMENTS (ADDITIVE ALTERNATE NO. 2)
- EXISTING BUILDING
- EXISTING TOP OF DITCH
- EXISTING BOTTOM OF DITCH
- EXISTING OVERHEAD ELECTRIC
- EXISTING UNDERDRAIN
- EXISTING STORM SEWER
- EXISTING SANITARY SEWER
- EXISTING WATER LINE
- EXISTING TELEPHONE LINE
- EXISTING GAS LINE
- EXISTING FENCE
- EXISTING SANITARY SEWER MANHOLE
- EXISTING STORM SEWER MANHOLE
- EXISTING JUNCTION BOX
- EXISTING END SECTION
- EXISTING HEADWALL



REVISION	DATE	REVISION AS PER I.D.A. COMMENTS
	03/19/14	

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 COLES COUNTY AIRPORT
 1001 SOUTH VANDERBURGH AVENUE
 SPRINGFIELD, ILLINOIS 62703

IL PROJ.: MTO-4274
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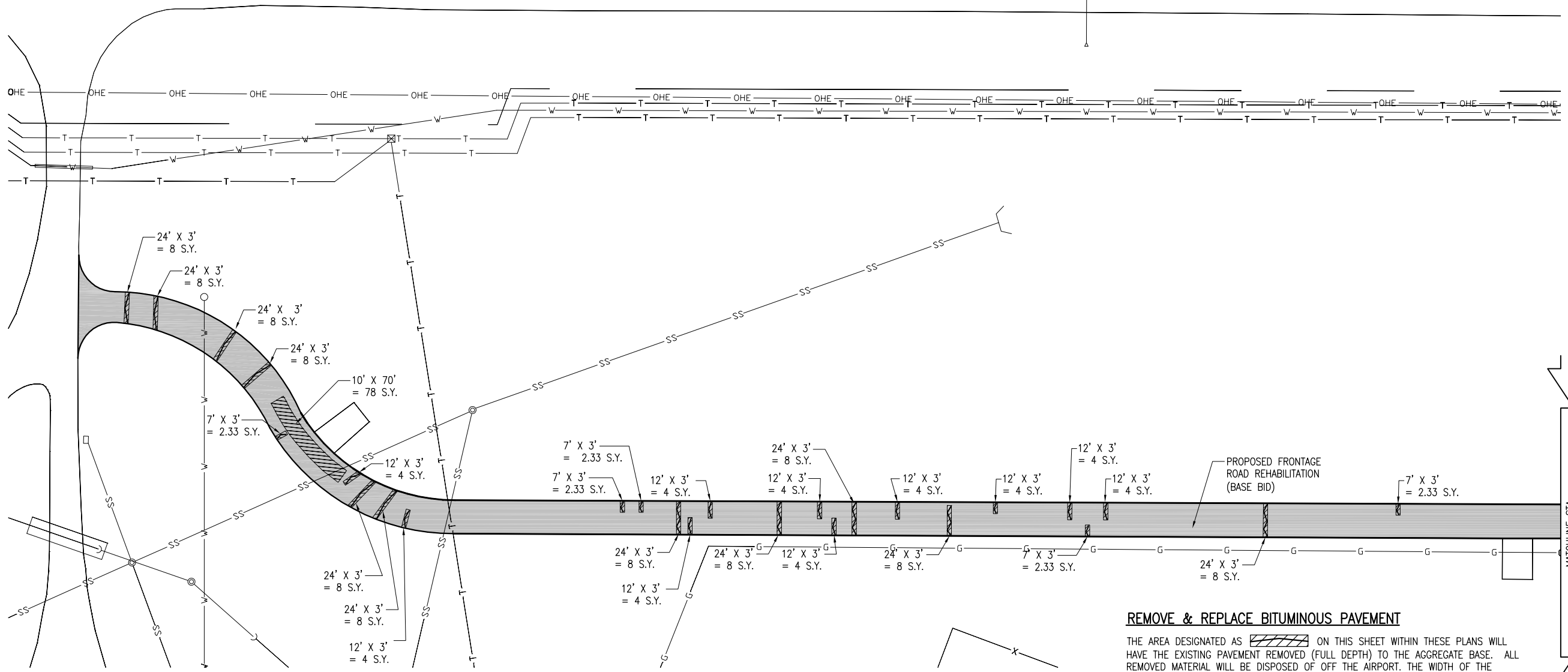
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DRAWN	BAK	02/07/13
REVIEWED	CAH	07/03/13

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REHABILITATE FRONTAGE ROAD
 PROPOSED CONSTRUCTION PLAN STA. 10+50 TO STA. 19+56.64

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 5 of 10 sheets

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CLEAN & SEAL BITUMINOUS CRACKS NOTES

ALL CRACKS DESIGNATED BY THE RESIDENT ENGINEER FOR REPAIR WILL BE COMPLETED AS STATED IN THE SPECIAL PROVISIONS.

THE EXACT AMOUNT OF CRACKS TO BE CLEANED & SEALED WILL BE THE NUMBER OF LINEAR FEET OF CRACKS MARKED BY THE RESIDENT ENGINEER AT THE TIME OF CONSTRUCTION.

THE PAVEMENT CONDITIONS AND CRACKS WERE IDENTIFIED AND LOCATED AS SHOWN DURING A SURVEY IN THE SUMMER 2011 OF THE EXISTING ARFF ROAD.

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

THE CRACKS ON THE ARFF ROAD HAVE NOT BEEN SHOWN ON THIS DRAWING.

THE BITUMINOUS CRACK CLEANING & SEALING WILL BE PAID FOR UNDER ITEM:
AR201661 - CLEAN & SEAL BITUMINOUS CRACKS = 570 L.F.

LEGEND

	EXISTING PAVEMENT
	PROPOSED IMPROVEMENTS
	EXISTING STORM SEWER
	EXISTING WATER LINE
	EXISTING TELEPHONE LINE
	EXISTING GAS LINE
	EXISTING STORM SEWER MANHOLE
	EXISTING JUNCTION BOX
	EXISTING HEADWALL
	PROPOSED REMOVE AND REPLACEMENT OF BITUMINOUS PAVEMENT

REMOVE & REPLACE BITUMINOUS PAVEMENT

THE AREA DESIGNATED AS ON THIS SHEET WITHIN THESE PLANS WILL HAVE THE EXISTING PAVEMENT REMOVED (FULL DEPTH) TO THE AGGREGATE BASE. ALL REMOVED MATERIAL WILL BE DISPOSED OF OFF THE AIRPORT. THE WIDTH OF THE REMOVAL AREA IS 2 FT.

WHERE THE PROPOSED REMOVAL AREA ABUTTS THE EXISTING PAVEMENT, THE LIMITS OF THE PAVEMENT TO BE REMOVED WILL BE SAWED. THE SAWING WILL BE CONSIDERED AS PART OF THE PROPOSED PAVEMENT REMOVAL AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

THE EXISTING AGGREGATE BASE COURSE WILL BE COMPACTED TO THE SATISFACTION OF THE RESIDENT ENGINEER.

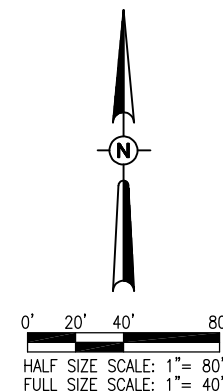
THE BITUMINOUS SURFACE COURSE SHALL BE AN 401 MIX, APPROVED BY THE DIVISION OF AERONAUTICS (IDA) AND SUITABLE AS PATCHING MATERIAL. AN AVERAGE OF TWO (2) NUCLEAR DENSITY TESTS PER 100 S.Y. PER LIFT WILL BE REQUIRED FOR ACCEPTANCE TESTING. THE AVERAGE OF THESE TWO (2) TESTS MUST BE ABOVE 90% FOR ACCEPTANCE. THE FINAL LIFT OF SURFACE COURSE SHALL BE INSTALLED FLUSH WITH THE EXISTING ADJACENT PAVEMENT OR TRIMMED/FILLED PRIOR TO PLACING THE PROPOSED SURFACE COURSE.

THE BITUMINOUS SURFACE COURSE WILL BE INSTALLED AS PER THE STANDARD SPECIFICATIONS EXCEPT AS STATED IN THESE PLANS. THE REMOVAL AND DISPOSAL OF THE EXISTING PAVEMENT; PROVIDING AND INSTALLING THESE MATERIALS TO GRADE IS CONSIDERED PART OF THIS PAY ITEM AND NO OTHER COMPENSATION WILL BE ALLOWED.

THE PAVEMENT CONDITIONS AND CRACKS WERE IDENTIFIED DURING A SURVEY IN THE SUMMER 2011 OF THE EXISTING ARFF ROAD.

THE REMOVAL AND REPLACEMENT OF BITUMINOUS PAVEMENT WILL BE PAID FOR UNDER ITEM:

- BASE BID**
AR401910 "REMOVE & REPLACE BITUMINOUS PAVEMENT"----- 417 SQ. YDS.
- ADDITIVE ALTERNATE NO. 1**
AS401910 "REMOVE & REPLACE BITUMINOUS PAVEMENT"----- 0 SQ. YDS.
- ADDITIVE ALTERNATE NO. 2**
AT401910 "REMOVE & REPLACE BITUMINOUS PAVEMENT"----- 59 SQ. YDS.



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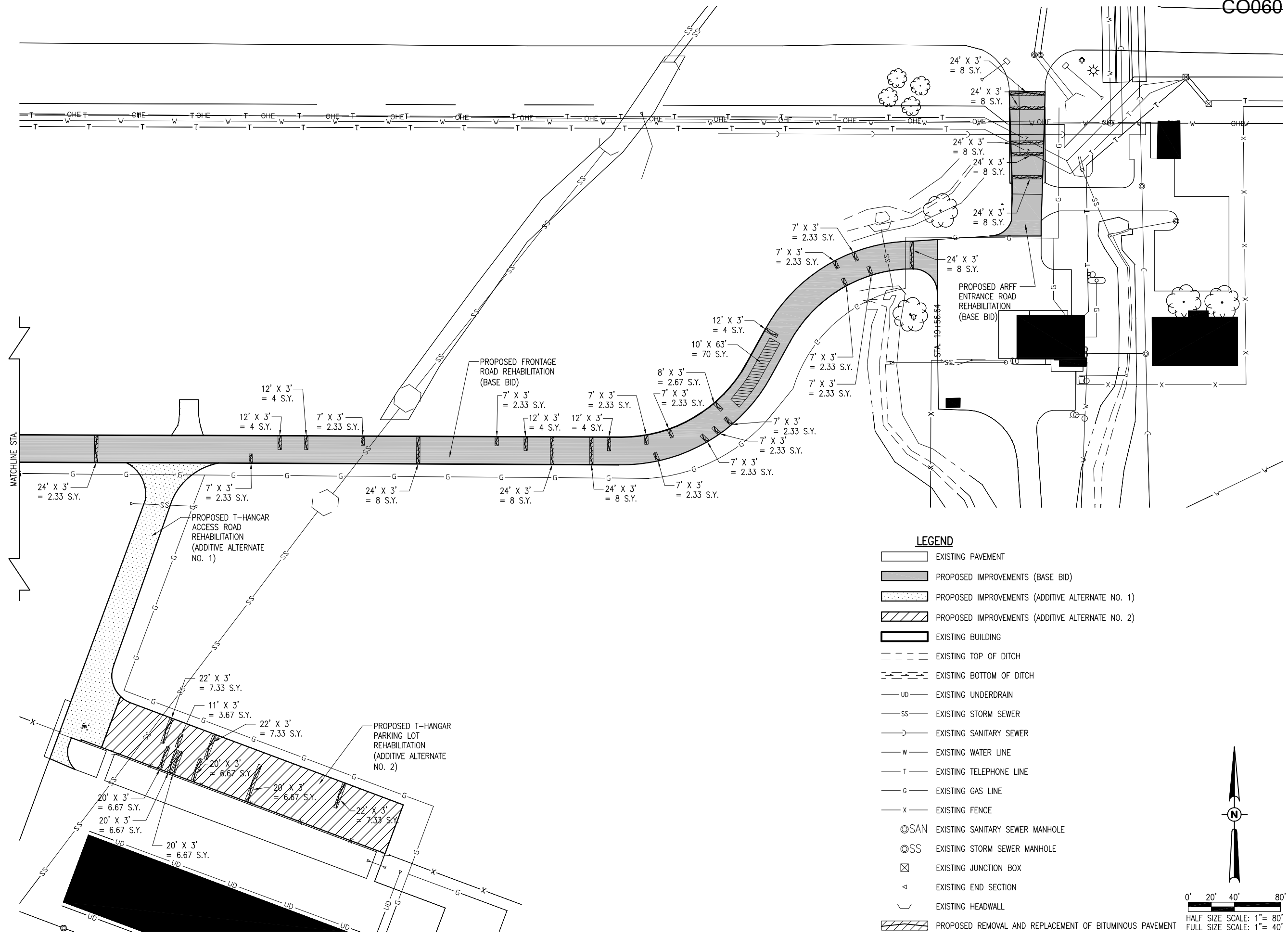
COLES COUNTY AIRPORT AUTHORITY
COLES COUNTY, ILLINOIS

ILL. PROJ.: MTO-4274
S.B.G. PROJ.:

Hanson Proj. No. 13A0014	File Name: C-111-PRP.dwg
Scale: 1" = 40'	Date: 07/05/13
LAYOUT: BAK	02/07/13
DRAWN: BAK	02/07/13
REVIEWED: CAH	07/03/13

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REHABILITATE FRONTAGE ROAD
PROPOSED PAVEMENT PREPARATION PLAN STA. 0+00 TO STA. 10+50



- LEGEND**
- EXISTING PAVEMENT
 - PROPOSED IMPROVEMENTS (BASE BID)
 - PROPOSED IMPROVEMENTS (ADDITIVE ALTERNATE NO. 1)
 - PROPOSED IMPROVEMENTS (ADDITIVE ALTERNATE NO. 2)
 - EXISTING BUILDING
 - EXISTING TOP OF DITCH
 - EXISTING BOTTOM OF DITCH
 - EXISTING UNDERDRAIN
 - EXISTING STORM SEWER
 - EXISTING SANITARY SEWER
 - EXISTING WATER LINE
 - EXISTING TELEPHONE LINE
 - EXISTING GAS LINE
 - EXISTING FENCE
 - EXISTING SANITARY SEWER MANHOLE
 - EXISTING STORM SEWER MANHOLE
 - EXISTING JUNCTION BOX
 - EXISTING END SECTION
 - EXISTING HEADWALL
 - PROPOSED REMOVAL AND REPLACEMENT OF BITUMINOUS PAVEMENT

REVISION	DATE

COLES COUNTY AIRPORT
 AUTHORITY
 COLES COUNTY, ILLINOIS

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Hanson Proj. No. 13A0014	BAK	02/07/13
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REHABILITATE FRONTAGE ROAD

PROPOSED PAVEMENT PREPARATION PLAN STA. 10+50 TO STA. 10+56.64

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7 of 10 sheets

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ELECTRICAL ABBREVIATIONS	
A.F.F.	ABOVE FINISHED FLOOR
A, AMP	AMPERES
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BKR	BREAKER
C	CONDUIT
CB	CIRCUIT BREAKER
CKT	CIRCUIT
CR	CONTROL RELAY
CU	COPPER
DPDT	DOUBLE POLE DOUBLE THROW
DPST	DOUBLE POLE SINGLE THROW
EM	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
ENCL	ENCLOSURE
EP	EXPLOSION PROOF
ES	EMERGENCY STOP
ETL	INTERTEK - ELECTRICAL TESTING LABS
ETM	ELAPSE TIME METER
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFI	GROUND FAULT INTERRUPTER
GND	GROUND
GRSC	GALVANIZED RIGID STEEL CONDUIT
HID	HIGH INTENSITY DISCHARGE
HOA	HAND OFF AUTOMATIC
HP	HORSEPOWER
HPS	HIGH PRESSURE SODIUM
J	JUNCTION BOX
KVA	KILOVOLT AMPERE(S)
KW	KILOWATTS
LC	LIGHTING CONTACTOR
LTFCM	LIQUID TIGHT FLEXIBLE METAL CONDUIT (UL LISTED)
LTG	LIGHTING
LP	LIGHTING PANEL
MAX	MAXIMUM
MCB	MAIN CIRCUIT BREAKER
MCM	THOUSAND CIRCLUAR MIL
MDP	MAIN DISTRIBUTION PANEL
MFR	MANUFACTURER
MH	METAL HALIDE
MIN	MINIMUM
MLO	MAIN LUGS ONLY
NEC	NATIONAL ELECTRICAL CODE (NFPA 70)
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OHE	OVERHEAD ELECTRIC
OL	OVERLOAD

ELECTRICAL ABBREVIATIONS (CONTINUED)	
PB	PULL BOX
PC	PHOTO CELL
PDB	POWER DISTRIBUTION BLOCK
PNL	PANEL
RCPT	RECEPTACLE
R	RELAY
S	STARTER
SPD	SURGE PROTECTION DEVICE
SPST	SINGLE POLE SINGLE THROW
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
TYP	TYPICAL
UG	UNDERGROUND
UGE	UNDERGROUND ELECTRIC
UL	UNDERWRITER'S LABORATORIES
V	VOLTS
W/	WITH
W/O	WITHOUT
WP	WEATHER PROOF
XFER	TRANSFER
XFMR	TRANSFORMER

AIRPORT EQUIPMENT/FACILITY ABBREVIATIONS	
ASOS	AUTOMATED SURFACE OBSERVING SYSTEM
ATCT	AIR TRAFFIC CONTROL TOWER
AWOS	AUTOMATED WEATHER OBSERVING SYSTEM
CCR	CONSTANT CURRENT REGULATOR
DME	DISTANCE MEASURING EQUIPMENT
FAR	FEDERAL AVIATION REGULATION
GS	GUIDE SLOPE FACILITY
HIRL	HIGH INTENSITY RUNWAY LIGHT
ILS	INSTRUMENT LANDING SYSTEM
IM	INNER MARKER
LIR	LOW IMPACT-RESISTANT
LOC	LOCALIZER FACILITY
MALS	MEDIUM INTENSITY APPROACH LIGHTING SYSTEM
MALSR	MEDIUM INTENSITY APPROACH LIGHTING SYSTEM WITH RUNWAY ALIGNMENT INDICATING LIGHTS
MIRL	MEDIUM INTENSITY RUNWAY LIGHT
MTL	MEDIUM INTENSITY TAXIWAY LIGHT
NDB	NON-DIRECTIONAL BEACON
PAPI	PRECISION APPROACH PATH INDICATOR
PLASI	PULSE LIGHT APPROACH SLOPE INDICATOR
RAIL	RUNWAY ALIGNMENT INDICATING LIGHTS
REIL	RUNWAY END IDENTIFIER LIGHT
RVR	RUNWAY VISUAL RANGE
VADI	VISUAL APPROACH DESCENT INDICATOR
VASI	VISUAL APPROACH SLOPE INDICATOR
VOR	VERY HIGH FREQUENCY OMNIDIRECTIONAL RANGE FACILITY
WC	WIND CONE

ELECTRICAL LEGEND - ONE-LINE DIAGRAM	
	CABLE TERMINATOR/LUG, TERMINAL BLOCK, OR SPLICE
	TRANSFORMER
	DISCONNECT SWITCH
	FUSIBLE DISCONNECT SWITCH
	CIRCUIT BREAKER
	THERMAL MAGNETIC CIRCUIT BREAKER
	NORMALLY OPEN (N.O.) CONTACT
	NORMALLY CLOSED (N.C.) CONTACT
	TOGGLE SWITCH / 2 POSITION SWITCH
	FUSE
	TRANSIENT VOLTAGE SURGE SUPPRESSOR OR SURGE PROTECTOR DEVICE
	GROUND - GROUND ROD, GROUNDING ELECTRODE, OR AT EARTH POTENTIAL
	INDICATING LIGHT
	MOTOR
	LOAD, MOTOR, # = HORSEPOWER
	ELECTRIC UTILITY METER BASE
	JUNCTION BOX WITH SPLICE OR TERMINALS
	EQUIPMENT, XXX = DEVICE DESCRIPTION
	GROUND BAR, GROUND BUS OR GROUND TERMINAL
	SOLID NEUTRAL, NEUTRAL BUS, OR NEUTRAL TERMINAL
	PANELBOARD WITH MAIN LUGS
	PANELBOARD WITH MAIN BREAKER
	FUSE PANEL WITH MAIN FUSE PULLOUT
	DUPLEX RECEPTACLE 120V SINGLE PHASE GROUNDING TYPE
	CONTROL STATION
	TRANSFER SWITCH: N = NORMAL EM = EMERGENCY L = LOAD
	ENGINE GENERATOR SET

ELECTRICAL LEGEND - PLANS	
	CONDUIT (EXPOSED)
	CONDUIT OR UNIT DUCT (CONCEALED OR BURIED)
	DUCT
	DUCT
	BURIED/UNDERGROUND ELECTRIC
	OVERHEAD ELECTRIC
	TOGGLE SWITCH
	PUSH BUTTON STATION
	WALL OR CEILING MTD. JUNCTION BOX. CONFIGURATION VARIES WITH USE
	SINGLE THROW DISCONNECT SWITCH
	SINGLE THROW, FUSIBLE DISCONNECT SWITCH
	ENCLOSED CIRCUIT BREAKER
	MOTOR
	TRANSFORMER
	ELECTRIC UTILITY METER
	ENCLOSURE
	CIRCUIT BREAKER PANEL-SEE SCHEDULES
	CONTROL PANEL
	GROUND ROD
	POLE WITH CAMERA

NOTES:

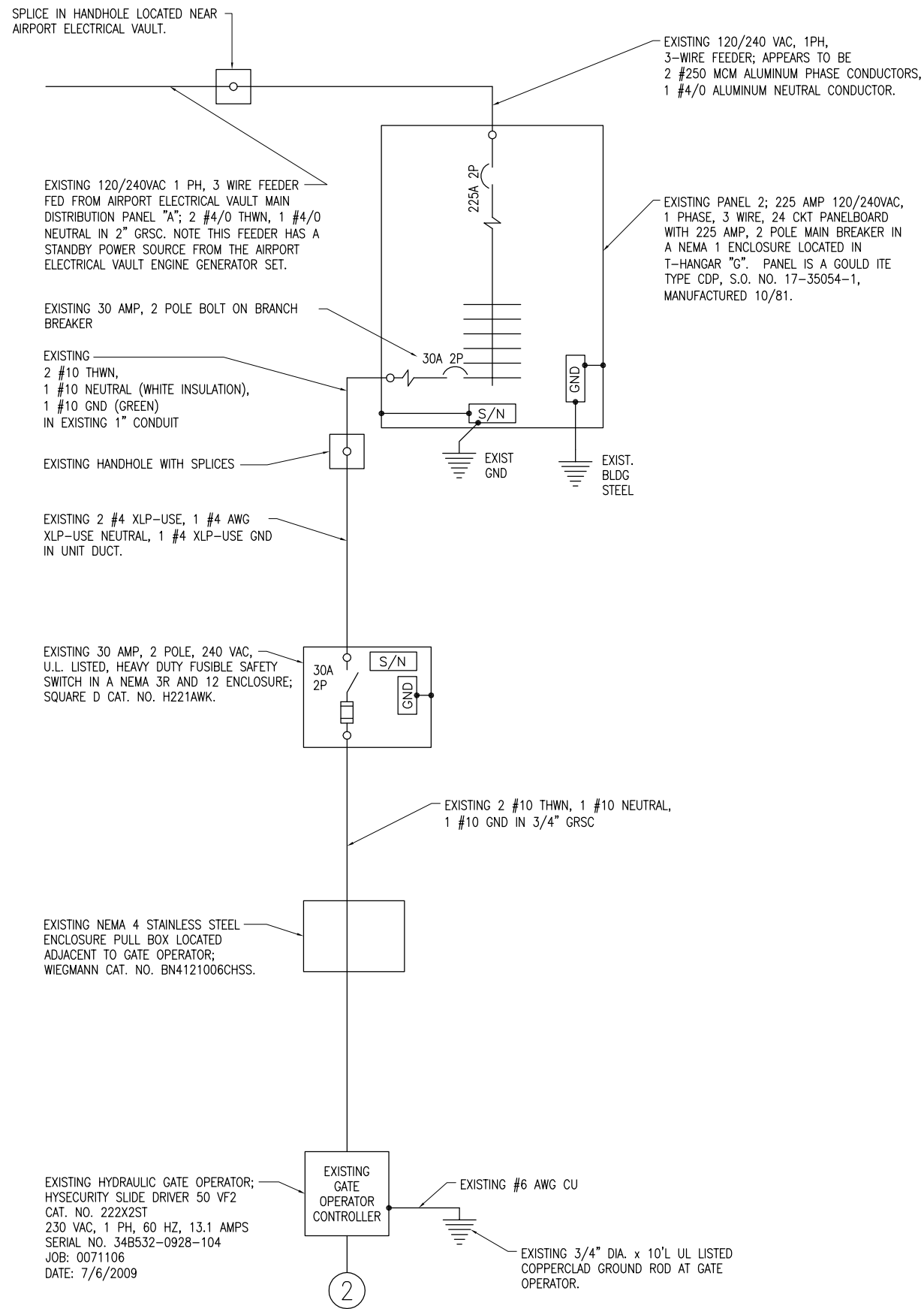
- ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLED IN CONFORMANCE WITH NFPA 70 - NATIONAL ELECTRICAL CODE (NEC) MOST CURRENT ISSUE IN FORCE, THE RESPECTIVE EQUIPMENT MANUFACTURER'S DIRECTIONS AND ALL OTHER APPLICABLE LOCAL CODES, LAWS, ORDINANCES, AND REQUIREMENTS IN FORCE. ANY INSTALLATIONS WHICH VOID THE U.L. LISTING, ETL LISTING (OR OTHER THIRD PARTY LISTING) AND/OR THE MANUFACTURER'S WARRANTY OF A DEVICE WILL NOT BE PERMITTED.
- ALL WORK, POWER OUTAGES, AND/OR SHUT DOWN OF EXISTING SYSTEMS SHALL BE COORDINATED WITH THE AIRPORT DIRECTOR/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 (OSHA) 29 CFR PART 1910 OCCUPATIONAL SAFETY & HEALTH STANDARDS INCLUDING, BUT NOT LIMITED TO, 29 CFR SECTION 1910.147 THE CONTROL OF HAZARDOUS ENERGY (LOCKOUT/TAGOUT).
- COLOR CODE PHASE AND NEUTRAL CONDUCTOR INSULATION FOR NO. 6 AWG OR SMALLER. PROVIDE COLORED INSULATION OR COLORED MARKING TAPE FOR PHASE AND NEUTRAL CONDUCTORS FOR NO. 4 AWG AND LARGER. INSULATED GROUND CONDUCTORS SHALL HAVE GREEN COLORED INSULATION FOR ALL CONDUCTOR AWG AND/OR KCML TO COMPLY WITH NEC 250.119. NEUTRAL CONDUCTORS SHALL HAVE WHITE COLORED INSULATION FOR NO. 6 AWG AND SMALLER TO MEET THE REQUIREMENTS OF NEC 200.6. STANDARD COLORS FOR POWER WIRING AND BRANCH CIRCUITS SHALL BE AS FOLLOWS:

120/240 VAC, 1 PHASE, 3 WIRE
 PHASE A BLACK
 PHASE B RED
 NEUTRAL WHITE
 GROUND GREEN

240/120 VAC, 3 PHASE, 4 WIRE
 PHASE A BLACK
 PHASE B ORANGE
 PHASE C BLUE
 NEUTRAL WHITE
 GROUND GREEN

- SEE RESPECTIVE SITE PLANS FOR SITE LEGEND INFORMATION.
- LTFCM DENOTES LIQUID TIGHT FLEXIBLE METAL CONDUIT UL LISTED, SUNLIGHT RESISTANT, & SUITABLE FOR GROUNDING. LIQUID TIGHT FLEXIBLE METAL CONDUIT AND ASSOCIATED FITTINGS SHALL BE U.L. LISTED TO MEET THE REQUIREMENTS OF NEC 350.6. LIQUID TIGHT FLEXIBLE METAL CONDUIT THAT IS USED FOR FLEXIBILITY (INCLUDING CONNECTIONS TO CCR'S & TRANSFORMERS) SHALL REQUIRE AN EXTERNAL BONDING JUMPER OR INTERNAL EQUIPMENT GROUNDING CONDUCTOR PER NEC 350.60. EXTERNAL BONDING JUMPERS USED WITH CCR INSTALLATIONS SHALL BE #6 AWG COPPER (MINIMUM). DO NOT INSTALL LTFCM THAT IS NOT UL LISTED. CONFIRM LTFCM BEARS THE UL LABEL PRIOR TO INSTALLATION.
- ALL ENCLOSURES RATED NEMA 4, 4X SHALL HAVE WATERTIGHT HUBS AT CONDUIT ENTRANCES U.L. LISTED NEMA 4, 4X FOR THE RESPECTIVE ENCLOSURE, TO MAINTAIN THE NEMA 4, 4X RATING.
- HIGH VOLTAGE & LOW VOLTAGE CIRCUITS SHALL NOT BE INSTALLED IN THE SAME WIREWAY, CONDUIT, DUCT, OR HANDHOLE.
- PER NEC 513 THE ENTIRE AREA OF A HANGAR INCLUDING ANY ADJACENT AND COMMUNICATING AREAS NOT SUITABLY CUT OFF FROM THE HANGAR, SHALL BE CLASSIFIED AS A CLASS 1, DIVISION 2 HAZARDOUS LOCATION UP TO A LEVEL 18 INCHES ABOVE THE FLOOR, PER NEC 513.3(C) "VICINITY OF AIRCRAFT", THE AREA WITHIN 5 FT. HORIZONTALLY FROM AIRCRAFT POWER PLANTS OR AIRCRAFT FUEL TANKS SHALL BE CLASSIFIED AS A CLASS 1, DIVISION 2 LOCATION THAT SHALL EXTEND UPWARD FROM THE FLOOR TO A LEVEL 5FT. ABOVE THE UPPER SURFACE OF WINGS AND OF ENGINE ENCLOSURES. ALL ELECTRICAL INSTALLATIONS IN CLASSIFIED HAZARDOUS LOCATIONS SHALL BE AVOIDED UNLESS SPECIFICALLY APPROVED FOR SUCH LOCATIONS AND INSTALLED IN CONFORMANCE WITH NEC 500, 501, AND 513 AS WELL AS OTHER APPLICABLE CODES AND REQUIREMENTS.

REVISION					
DATE					
S.B.G. PROJ.:					
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REHABILITATE FRONTAGE ROAD			ELECTRICAL LEGEND AND ABBREVIATIONS		
<div style="font-size: 2em; font-weight: bold;">8</div> 8 of 10 sheets					



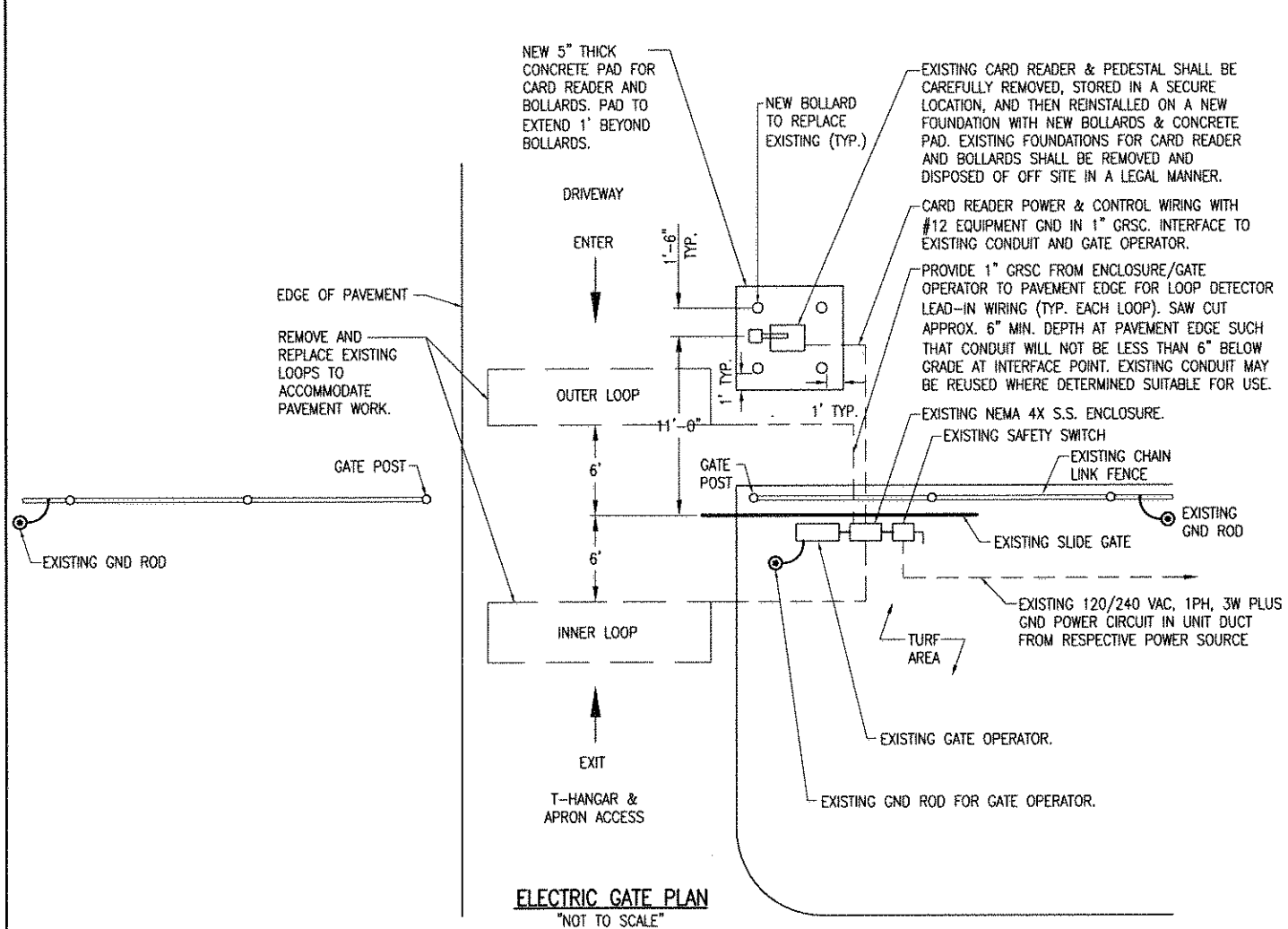
**EXISTING NORTH GATE OPERATOR
ELECTRICAL ONE LINE DIAGRAM**

NOTES

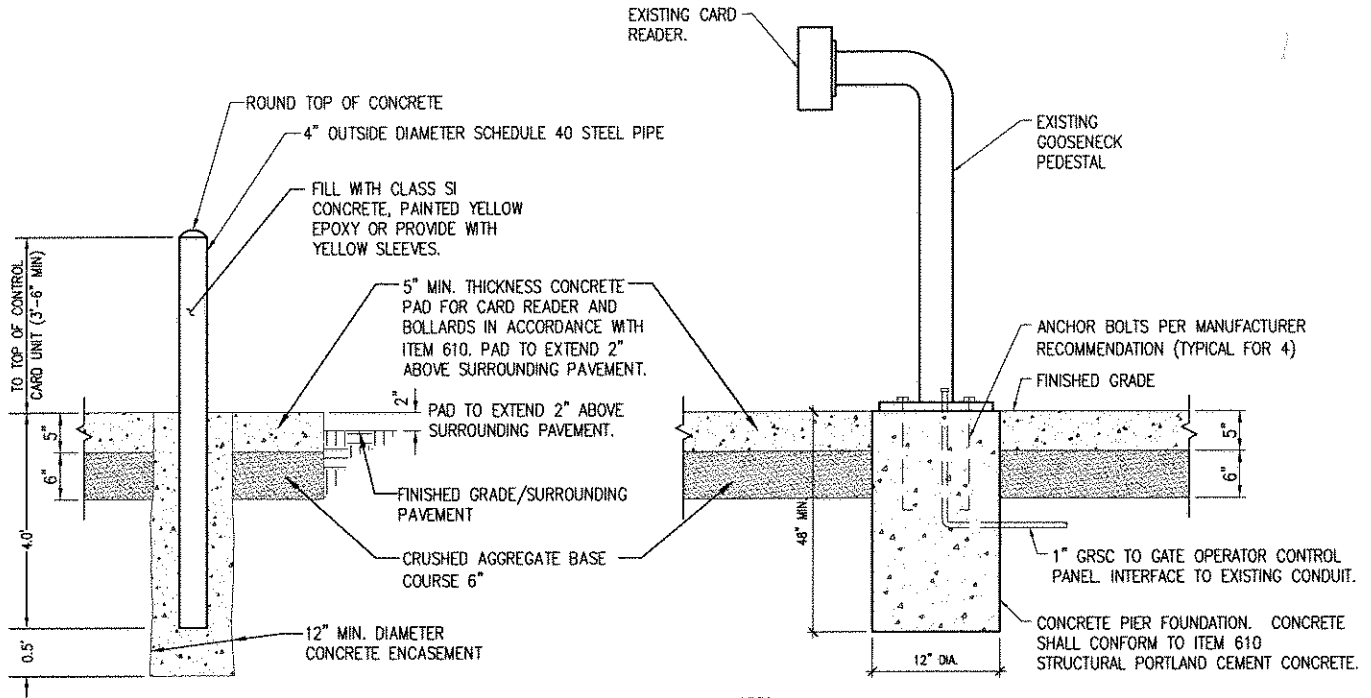
1. ALL WORK, POWER OUTAGES, AND/OR SHUT DOWN OF EXISTING SYSTEMS SHALL BE COORDINATED WITH THE AIRPORT DIRECTOR/MANAGER. ONCE SHUT DOWN, THE CIRCUITS SHALL BE LABELED AS SUCH TO PREVENT ACCIDENTAL ENERGIZING OF THE RESPECTIVE CIRCUITS. ALL PERSONNEL SHALL FOLLOW U.S. DEPARTMENT OF LABOR OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION (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).
2. CONTRACTOR SHALL EXAMINE THE SITE TO CONFIRM AND FIELD VERIFY EXISTING SITE CONDITIONS.
3. ALL ELECTRICAL EQUIPMENT AND MATERIALS SHALL BE INSTALLED IN CONFORMANCE WITH NFPA 70 – NATIONAL ELECTRIC 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 MANUFACTURER'S WARRANTY OF A DEVICE WILL NOT BE PERMITTED.
4. CONTRACTOR SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS OF THE NFPA 70E – STANDARD FOR ELECTRICAL SAFETY IN THE WORKPLACE.
5. TEST EXISTING GATE OPERATOR SYSTEM IN PRESENCE OF AIRPORT MANAGER AND/OR RESIDENT ENGINEER/RESIDENT PROJECT REPRESENTATIVE TO CONFIRM PROPER OPERATION PRIOR TO REMOVAL, MODIFICATIONS AND WORK AFFECTING THE ELECTRIC SLIDE GATE INSTALLATION.
6. EXISTING SAFETY/DETECTOR LOOPS FOR THE NORTH GATE SHALL BE REMOVED AND REPLACED WITH NEW DETECTOR LOOPS TO ACCOMMODATE THE ASSOCIATED PAVING WORK. REPLACEMENT OF DETECTOR LOOPS WILL BE PAID FOR UNDER ITEM AS162570 DETECTOR LOOP PER LUMP SUM.
7. THE EXISTING CARD READER AND ASSOCIATED BOLLARDS SHALL BE ADJUSTED/REPLACED TO ACCOMMODATE THE PROPOSED PAVING WORK. THE CARD READER, PEDESTAL AND FOUNDATION SHALL BE REMOVED AND RE-INSTALLED TO ACCOMMODATE THE RESPECTIVE PAVING WORK. EXISTING BOLLARDS AND FOUNDATIONS FOR CARD READER AND BOLLARDS SHALL BE REMOVED AND DISPOSED OF OFF SITE IN A LEGAL MANNER. THE EXISTING BOLLARDS SHALL BE REPLACED WITH NEW BOLLARDS. A NEW CONCRETE PAD SHALL BE PROVIDED FOR THE CARD READER AND BOLLARDS TO ACCOMMODATE THE PAVING WORK. CONTRACTOR SHALL REPLACE ASSOCIATED WIRING AND CONDUITS TO INTERFACE TO THE EXISTING GATE OPERATOR. ALL WORK AND MATERIAL ASSOCIATED WITH THE ADJUSTMENT OF THE CARD READER AND BOLLARDS WILL BE PAID FOR UNDER ITEM AS800436 ADJUST CARD READER PER LUMP SUM.

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REHABILITATE FRONTAGE ROAD		EXISTING NORTH GATE ELECTRICAL ONE-LINE DIAGRAM	
9 9 of 10 sheets			



ELECTRIC GATE PLAN
"NOT TO SCALE"



NOTES

1. THE EXPOSED PORTION OF THE BOLLARD SHALL BE PAINTED YELLOW EPOXY OR COVERED WITH A YELLOW SLEEVE.
2. REMOVAL AND REPLACEMENT OF BOLLARDS AND ASSOCIATED CONCRETE WORK ARE INCIDENTAL TO ITEM AS800436 ADJUST CARD READER PER LUMP SUM.

BOLLARD DETAIL

NOTES

1. EXISTING CARD READER & PEDESTAL SHALL BE CAREFULLY REMOVED, TEMPORARILY STORED IN A SECURE LOCATION, THEN REINSTALLED ON A NEW FOUNDATION.
2. INCLUDE #12 AWG EQUIPMENT GND WIRE TO CARD READER.
3. FACE OF CARD READER SHALL NOT EXTEND BEYOND BOLLARDS.

CARD READER ACCESS CONTROL UNIT PEDESTAL ELEVATION DETAIL

SCALE: NONE

NOTES:

1. SEE SPECIAL PROVISION SPECS FOR REQUIREMENTS ON ITEM AS800436 ADJUST CARD READER AND ITEM AS162570 DETECTOR LOOP.
2. ALL DIMENSIONS AND LAYOUT INFORMATION SHOWN SHOULD BE ADJUSTED AS RECOMMENDED BY THE MANUFACTURER. SEE RESPECTIVE SITE PLAN FOR RESPECTIVE GATE.
3. CONCRETE FOUNDATIONS SHALL BE PROVIDED FOR THE CARD READER ACCESS CONTROL UNIT. FOUNDATION FOR THE CARD READER ACCESS CONTROL UNIT SHALL BE 48" (MIN.) IN DEPTH, AS DETAILED HEREIN.
4. 1" GRS CONDUIT WILL BE REQUIRED BETWEEN THE SLIDE GATE OPERATOR AND THE CARD READER ACCESS CONTROL UNIT AND BETWEEN THE SLIDE GATE OPERATOR AND THE DETECTOR LOOPS. THE MINIMUM BURYING DEPTH IS 24". ALL METAL CONDUITS ENTERING THE GATE OPERATOR SHALL BE BONDED TO THE GATE OPERATOR FRAME WITH A #8 AWG (MIN.) COPPER BONDING JUMPER. CONFIRM CONTROL WIRING REQUIREMENTS WITH THE RESPECTIVE GATE OPERATOR SALES AND SERVICE REPRESENTATIVE.
5. THE GUARD/BOLLARD POSTS SHALL BE 4" DIA. STEEL (HEAVY WALL) PIPE, CONCRETE FILLED, AND SHALL EXTEND FROM THE TOP OF THE CARD CONTROL UNIT TO A DEPTH OF 48" BELOW THE GROUND LINE. THE CONCRETE FOOTER DIMENSION SHALL BE AS DETAILED HEREIN. GUARD/BOLLARD POSTS SHALL BE PAINTED WITH YELLOW COLORED ENAMEL FINISH OR COVERED WITH A YELLOW SLEEVE.
6. CONTRACTOR SHALL COORDINATE ANY POWER OUTAGES TO EXISTING EQUIPMENT WITH THE RESPECTIVE OWNER'S REPRESENTATIVE AND THE AIRPORT MANAGER.
7. CONCRETE USED FOR INSTALLING THE CARD READER, & BOLLARDS SHALL MEET THE REQUIREMENTS OF STRUCTURAL PORTLAND CEMENT CONCRETE ITEM 610, AND SHALL BE RATED 4000 PSI AT 28 DAYS.
8. ALL ELECTRICAL EQUIPMENT AND MATERIALS 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 UL LISTING, ETL LISTING, (OR OTHER THIRD PARTY LISTING) AND/OR THE MANUFACTURER'S WARRANTY OF A DEVICE WILL NOT BE PERMITTED.
9. PAYMENT FOR ITEM AS800436 ADJUST CARD READER SHALL BE ON A LUMP SUM BASIS AND SHALL BE FULL COMPENSATION FOR ALL MATERIALS, EQUIPMENT, CABLE IN CONDUIT, DUCT, GROUNDING, LABOR, TOOLS, COORDINATION, TESTING, AND INCIDENTALS REQUIRED TO REMOVE AND REINSTALL THE CARD READER COMPLETE AND IN OPERATING CONDITION.
10. PAYMENT FOR REMOVING AND REPLACING THE VEHICLE DETECTOR LOOPS WILL BE PAID FOR UNDER ITEM AS162570 DETECTOR LOOP PER LUMP SUM.

VEHICLE DETECTOR LOOPS		
GATE SIZE	LOOP SIZE	NO. OF TURNS
8' TO 12'	4' X 6'	3 TURNS
12' TO 16'	4' X 10'	2 TURNS
16' TO 20'	4' X 14'	2 TURNS
20' TO 24'	4' X 18'	2 TURNS
24' TO 30'	6' X 22'	2 TURNS
30' TO 34'	6' X 26'	2 TURNS

DATE	REVISION

COLES COUNTY AIRPORT

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