

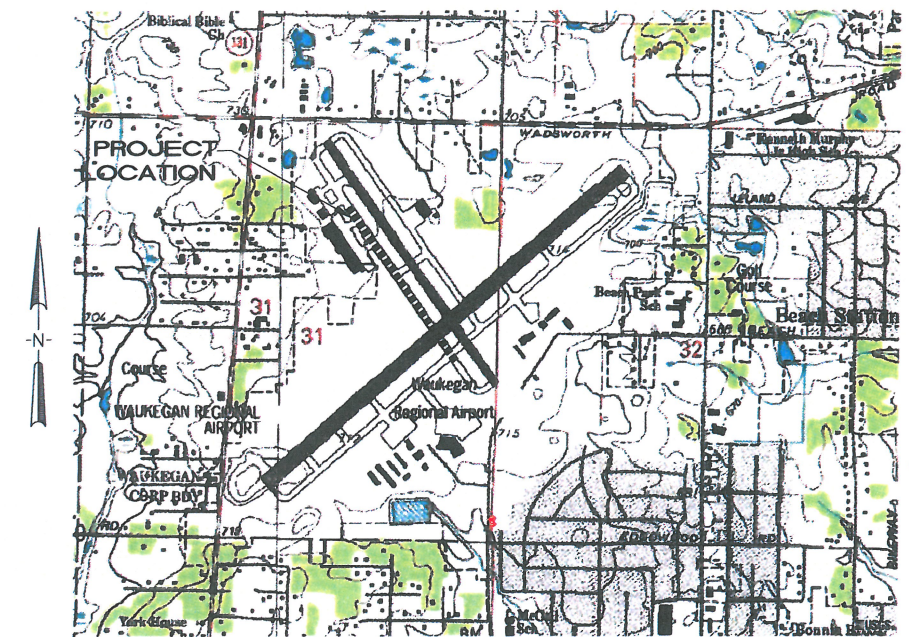
CONSTRUCTION PLANS

REHABILITATE TAXIWAY B AND ASSOCIATED EXIT TAXIWAYS, PHASE I

WAUKEGAN PORT DISTRICT
WAUKEGAN REGIONAL AIRPORT (UGN)
WAUKEGAN, LAKE COUNTY, ILLINOIS

AIP PROJECT NO. 3-17-0105-B52
IDA PROJECT NO. UGN-4124

VICINITY MAP



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No.	Issue/Description	Sheets Changed	Date	By

Seal:

Date of Plans: 18 Nov 2011

Signature: *Lindsay D. Hausman*

Exp: 11/30/2013

Lindsay D. Hausman, P.E.
Project Engineer

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Date: 18 Nov 2011

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Signature: *Duncan C. Henderson*

Duncan C. Henderson
Executive Director

Date: 21 Nov 2011

REVISION

DATE

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Hanson No. 11A0071D
Filename 03-SITE PLAN.DWG
Scale 1"=300'
Date NOVEMBER 18, 2011

LAYOUT	LDH	7/15/11
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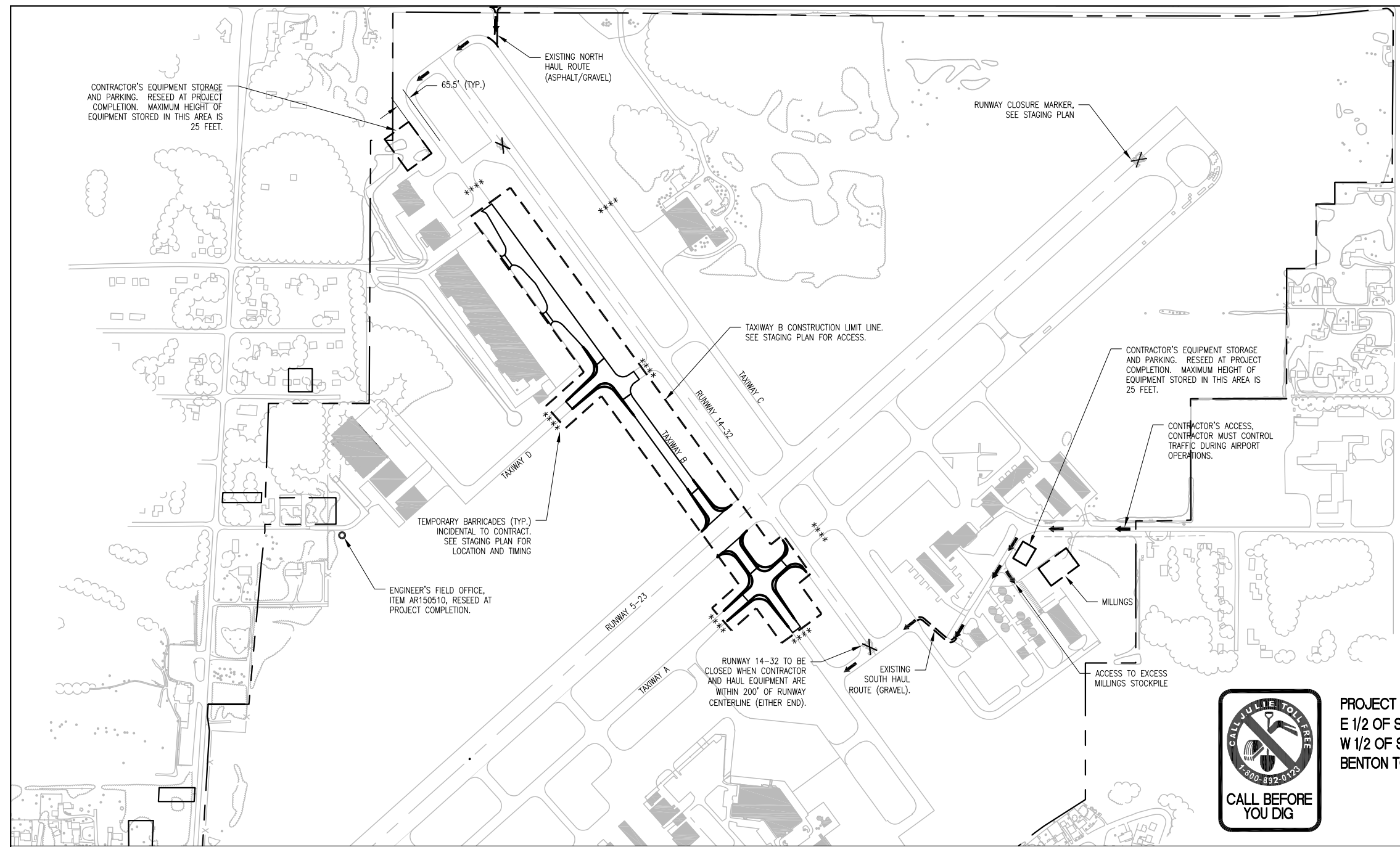
Hanson Professional Services Inc.
815 Commerce Drive, Suite 200
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**SITE PLAN
AND GENERAL NOTES**

**REHABILITATE TAXIWAY B AND
ASSOCIATED EXIT TAXIWAYS, PHASE 1**
IDA No. UGN-4124 AIP No. 3-17-0105-B52

NOTES

1. WORK MUST BE CONTROLLED AND STAGED. SEE CONSTRUCTION STAGING PLAN.
2. MAXIMUM HEIGHT OF CONTRACTOR'S EQUIPMENT 25 FEET FOR ALL WORK, EXCEPT BY PRIOR APPROVAL OF THE ENGINEER (SEE SPECIAL PROVISIONS).
3. FOR RUNWAY CLOSURE MARKINGS, BARRICADE LOCATIONS AND LATHING AND WARNING TAPE LOCATIONS, SEE CONSTRUCTION STAGING PLAN.
4. FOR ALLOWABLE CONSTRUCTION LIMITS DURING INDIVIDUAL STAGES, SEE CONSTRUCTION STAGING PLAN.
5. TRAFFIC TO BE MAINTAINED ON ALL AIRPORT ROADWAYS AT ALL TIMES.
6. TAXIWAY CLOSURES ARE TO BE COMPLETED IN ACCORDANCE WITH THE CONSTRUCTION STAGING PLAN.
7. BITUMINOUS MILLINGS FROM THIS WORK SHALL BE DISPOSED OF AT THE ON-AIRPORT LOCATION SHOWN IN THE PLANS. THE CONTRACTOR SHALL FURNISH EXCAVATION, MILLINGS PLACEMENT ON FILTER FABRIC AND TOPSOIL PLACEMENT AS SHOWN IN THE PLANS. FILTER FABRIC SHALL BE MIRAFI 160N OR APPROVED EQUAL. THE COSTS OF ALL WORK ASSOCIATED WITH DISPOSAL OF THE MILLINGS ON-AIRPORT, AS SHOWN IN THE PLANS, SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR BITUMINOUS PAVEMENT MILLING.



PROJECT IS LOCATED IN
E 1/2 OF SECTION 31
W 1/2 OF SECTION 32
BENTON TOWNSHIP, LAKE COUNTY



GENERAL NOTES

PROJECT DESCRIPTION

THIS PROJECT IS TO REHABILITATE TAXIWAY B AND ASSOCIATED EXIT TAXIWAYS AT WAUKEGAN REGIONAL AIRPORT, INCLUDING, AMONG OTHER INCIDENTAL WORK, THE FOLLOWING ITEMS:

- CRACK REPAIR AND PATCHING OF TAXIWAY PAVEMENTS
- WIDENING OF FILLETS AT RUNWAY 5-23, TAXIWAY D AND TAXIWAY A
- BITUMINOUS OVERLAY OF TAXIWAY PAVEMENTS
- REMOVAL AND INSTALLATION OF UNDERDRAINS
- RELOCATION OF TAXIWAY EDGE LIGHTS AND GUIDANCE SIGNS
- REMARKING OF PAVEMENTS
- TOPSOILING, SODDING, SEEDING AND MULCHING

PROTECTION OF EXISTING AIRPORT FACILITIES

THE CONTRACTOR IS TO BE RESPONSIBLE FOR THE PROTECTION OF EXISTING UNDERGROUND AND OVERHEAD UTILITIES AND LIGHTING EQUIPMENT; DRIVEWAY AND ROAD PAVEMENT AND SHOULDERS; RUNWAY, TAXIWAY AND APRON PAVEMENTS AND SHOULDERS; RUNWAY, TAXIWAY AND AIRPORT LIGHTING EQUIPMENT; AND SEEDED AND TURFED AREAS THAT ARE UTILIZED IN OR AFFECTED BY THE CONTRACTOR'S ACTIVITIES. ITEMS DAMAGED BY THE CONTRACTOR ARE TO BE REPAIRED AT CONTRACTOR'S EXPENSE AND TO THE SATISFACTION OF AIRPORT MANAGER AND THE OWNER'S REPRESENTATIVE.

IN ADDITION, WHEN CONDITIONS DICTATE OR AS DETERMINED BY THE AIRPORT MANAGER OR THE OWNER'S REPRESENTATIVE, THE CONTRACTOR SHALL BE REQUIRED TO USE A PICK-UP TYPE SWEEPER IN ALL ACTIVE CONSTRUCTION AIRFIELD PAVEMENT AREAS. THE CONTRACTOR WILL BE REQUIRED TO HAVE A SWEEPER AVAILABLE FOR USE AT ALL TIMES. THE COST OF SWEEPING SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE FAA (SMO) THROUGH THE RESIDENT ENGINEER TO LOCATE ALL FAA CABLES ON THE PROJECT SITE. ALL FAA CABLES SHALL BE PROTECTED AT ALL TIMES.

CONTRACTOR'S ACCESS AND TEMPORARY FACILITIES

CONTRACTOR'S ACCESS TO THE PROJECT WHEN ON AIRPORT PROPERTY IS SHOWN ON THIS SHEET. CONTRACTOR'S ACCESS TO THE AIRPORT ITSELF IS TO BE PROVIDED BY PUBLIC RIGHTS-OF-WAY. THE CONTRACTOR IS TO SECURE ALL NECESSARY PERMITS FOR THE USE OF ANY PUBLIC RIGHTS-OF-WAY AND IS TO MAINTAIN TRAFFIC ON THESE PUBLIC ROADS AT ALL TIMES, WITH THE COSTS OF PERMITTING, CLEANING AND REPAIRING OF PAVEMENT DAMAGED BY CONTRACTOR'S ACTIVITIES INCIDENTAL TO THE CONTRACT. USE OF AND REPAIRS TO ANY PUBLIC FACILITIES ARE TO BE COMPLETED TO THE SATISFACTION OF THE FACILITY'S OWNER.

THE CONTRACTOR IS TO PROVIDE TEMPORARY CONSTRUCTION ROADS WITHIN THE CONSTRUCTION LIMIT LINES AS MAY BE REQUIRED BY HIS ACTIVITIES. HEAVY VEHICLES SHALL NOT CROSS EXISTING PAVEMENT SURFACES EXCEPT AS APPROVED BY THE AIRPORT MANAGER AND THE OWNER'S REPRESENTATIVE. ANY DAMAGE TO PAVEMENTS THAT MAY OCCUR BY THE CONTRACTOR'S ACTIVITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE AND TO THE SATISFACTION OF THE AIRPORT MANAGER AND THE OWNER'S REPRESENTATIVE.

THE CONTRACTOR IS TO PROVIDE AN EQUIPMENT, STORAGE AND PARKING AREA AT THE LOCATIONS SHOWN ON THIS SHEET. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE ACCESS ROADS AND THE STORAGE AREA DURING CONSTRUCTION AND TO RESTORE THE AREAS AT PROJECT COMPLETION TO CONDITIONS SUITABLE TO THE AIRPORT MANAGER AND THE OWNER'S REPRESENTATIVE. AT THE AIRPORT MANAGER'S DISCRETION, THE TEMPORARY FACILITIES MAY REMAIN, BUT THEY MUST BE LEFT IN CONDITIONS SUITABLE TO THE AIRPORT MANAGER. THE COST OF PROVIDING, MAINTAINING AND RESTORING THE TEMPORARY FACILITIES IS INCIDENTAL TO THE CONTRACT.

RESPONSIBILITY FOR EXISTING UTILITIES

THE LOCATION, SIZE AND/OR TYPE OF MATERIAL OF EXISTING UNDERGROUND OR OVERHEAD UTILITIES AS MAY BE INDICATED ON THESE CONSTRUCTION PLANS IS NOT REPRESENTED AS BEING ACCURATE, SUFFICIENT OR COMPLETE. NEITHER THE OWNER NOR THE PROJECT ENGINEER HAVE INDEPENDENTLY VERIFIED THIS INFORMATION AND NEITHER ASSUMES ANY RESPONSIBILITY WHATSOEVER IN RESPECT TO THE ACCURACY, SUFFICIENCY OR COMPLETENESS OF THE INFORMATION AND GIVE NO EXPRESSED OR IMPLIED GUARANTEE THAT ANY CONDITIONS INDICATED ARE REPRESENTATIVE OF ACTUAL CONDITIONS TO BE ENCOUNTERED.

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 ALL UTILITY COMPANIES AND AGENCIES OF HIS CONSTRUCTION PLANS AND SHALL OBTAIN FROM EACH PARTY DETAILED INFORMATION AND ASSISTANCE RELATIVE TO THE LOCATION OF ALL UTILITIES AND THE WORKING SCHEDULE OF ANY REMOVALS OR ADJUSTMENTS REQUIRED OF THE UTILITY. THE CONTRACTOR SHALL CONTACT J.U.L.I.E. (PHONE 800-892-0123), TO ASSIST IN THE ABOVE.

THE CONTRACTOR SHALL PROTECT ANY FACILITIES TO THE SATISFACTION OF THE UTILITY OR OWNING-AGENCY WITH THE COST OF ANY REQUIRED PROTECTION TO BE INCIDENTAL TO THE CONTRACT. IN THE EVENT A UTILITY LINE OR SERVICE IS UNEXPECTEDLY ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE AND THE UTILITY COMPANY OR AGENCY OF JURISDICTION. ANY SUCH UTILITIES DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED TO SERVICE IMMEDIATELY.

AIRPORT SECURITY

THE CONTRACTOR IS TO COORDINATE GATE SECURITY, THROUGH THE RESIDENT ENGINEER, WITH THE AIRPORT MANAGEMENT. AIRPORT SECURITY SHALL BE MAINTAINED AT ALL TIMES.

EXISTING BENCHMARK

BENCHMARK IS AS FOLLOWS:

- ▲ B.M.1 ELEVATION 721.34
- ▲ STEEL ROD SET IN 6" LOGO CAP
- LOCATION: 36.5 FEET EAST OF RT. 131 (GREEN BAY RD.), 230 FEET SOUTH OF SUDDARD ST., 101 FEET NORTH OF CENTER ST.
- COORDINATES: N 2094502.438 E 1107324.042

CONSTRUCTION AND SAFETY NOTES

SEQUENCE OF CONSTRUCTION

TO MINIMIZE DISRUPTIONS TO AIRPORT OPERATIONS, CONSTRUCTION OPERATIONS MUST BE CONTROLLED THROUGHOUT THE PROJECT'S DURATION AND WORK MUST BE COMPLETED EXPEDITIOUSLY. THE CONTRACTOR SHALL EXPEDITE WORK AT THOSE STAGES WHEN ACTIVE RUNWAYS, TAXIWAYS, APRONS, ROADWAYS OR PARKING LOTS MUST BE CLOSED TO MINIMIZE THE LENGTH OF TIME THAT AIRPORT OPERATIONS ARE RESTRICTED. A CONSTRUCTION STAGING PLAN DETAILING THE SEQUENCING OF THE CONTRACTOR'S WORK THROUGHOUT THE PROJECT IS INCLUDED IN THE PLANS. THE CONTRACTOR SHALL PROVIDE HIS WRITTEN ACCEPTANCE OF THE PROJECT CONSTRUCTION STAGING PLAN AT THE PRE-CONSTRUCTION CONFERENCE. ANY AND ALL CHANGES TO THE CONSTRUCTION STAGING PLAN THAT MAY BE REQUESTED BY THE CONTRACTOR MUST BE APPROVED BY THE PROJECT ENGINEER AND THE AIRPORT OWNER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE SUFFICIENT ADVANCE NOTICE OF ANY PROPOSED STAGING CHANGE TO PERMIT CONSIDERATION AND APPROVAL BY THE PROJECT ENGINEER AND THE AIRPORT OWNER. THE CONTRACTOR SHALL NOT BE ENTITLED ANY EXTRA COMPENSATION NOR EXTENSION TO THE CONTRACT TIME BECAUSE OF A STAGING CHANGE REQUEST NOR FOR ANY TIME NECESSARY IN RECEIVING THE REQUIRED APPROVALS.

LATHING AND WARNING TAPE

THE PROJECT WILL REQUIRE THE PLACEMENT OF LATHING AND WARNING TAPE TO DELINEATE THE CONSTRUCTION AREA. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE, PLACE AND MAINTAIN LATHING AND WARNING TAPE SHOWN ON DETAIL A, THIS SHEET, AND AS DIRECTED BY THE RESIDENT ENGINEER AND THE AIRPORT DIRECTOR. THE CONTRACTOR WILL FURNISH, PLACE, MAINTAIN AND RELOCATE THE LATHING AND WARNING TAPE AS REQUIRED. THE COST OF THESE ITEMS, AND THEIR MAINTENANCE, IS TO BE INCIDENTAL TO THE CONTRACT.

RUNWAY CLOSURE

RUNWAY 14-32 MUST BE CLOSED TO AIR TRAFFIC WHEN CONTRACTOR ACTIVITIES ARE WITHIN 200 FEET OF THE RUNWAY 14-32 CENTERLINE. RUNWAY 5-23 MUST BE CLOSED TO AIR TRAFFIC WHEN CONTRACTOR ACTIVITIES ARE WITHIN 250 FEET OF THE RUNWAY 5-23 CENTERLINE. AT NO TIME SHALL BOTH RUNWAYS BE CLOSED SIMULTANEOUSLY, UNLESS APPROVED BY THE RESIDENT ENGINEER AND AIRPORT OWNER AFTER 5 DAYS ADVANCE NOTICE.

THE PROJECT WILL REQUIRE THE PLACEMENT OF RUNWAY CLOSURE MARKERS; SEE SHEET 3, AND DETAIL C, THIS SHEET. TO MINIMIZE DISRUPTION TO AIRCRAFT OPERATIONS ASSOCIATED WITH THE RUNWAY CLOSURE, CONSTRUCTION WORK MUST BE COMPLETED EXPEDITIOUSLY. RUNWAY CLOSINGS SHALL ONLY BE PERMITTED BY PRIOR AUTHORIZATION OF THE RESIDENT ENGINEER AND THE AIRPORT OWNER.

THE CONTRACTOR WILL INSTALL, OPERATE, MAINTAIN AND REMOVE LIGHTED RUNWAY CLOSURE MARKERS AS SPECIFIED IN THE DETAIL, THIS SHEET. IF NECESSARY FOR EMERGENCIES OR EXTENDED MAINTENANCE OF THE LIGHTED MARKER EQUIPMENT BY THE CONTRACTOR, THE CONTRACTOR WILL TEMPORARILY USE PRE-MANUFACTURED, VINYL MARKERS TO BE FURNISHED TO THE CONTRACTOR BY THE OWNER. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO INSTALL, RELOCATE AND MAINTAIN RUNWAY CLOSURE MARKERS AT THE LOCATIONS SHOWN IN THE PLAN, AND AS DIRECTED BY THE RESIDENT ENGINEER AND AIRPORT OWNER. THE COST OF PLACING AND RELOCATING THESE ITEMS, AND THEIR OPERATION AND MAINTENANCE, IS TO BE INCIDENTAL TO THE CONTRACT.

THE AIRPORT OWNER WILL DE-ENERGIZE AIRPORT/RUNWAY NAVAIDS, AND AIRFIELD LIGHTING POWER AND CONTROL CIRCUITS WHEN THE RUNWAY IS CLOSED.

TEMPORARY BARRICADES ON AIRFIELD

THE PROJECT WILL REQUIRE THE PLACEMENT OF BARRICADES TO DELINEATE PORTIONS OF THE CONSTRUCTION AREA AND FOR TEMPORARY CLOSURES OF ACTIVE TAXIWAYS AND APRONS. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO FURNISH, PLACE AND MAINTAIN BARRICADES AS SHOWN IN DETAIL B, THIS SHEET, AND AS DIRECTED BY THE RESIDENT ENGINEER AND AIRPORT DIRECTOR. THE COST OF THESE ITEMS, AND THEIR MAINTENANCE, IS TO BE INCIDENTAL TO THE CONTRACT. ANY WORK THAT REQUIRES PORTIONS OF AN ACTIVE TAXIWAY OR APRON TO BE CLOSED MUST BE COMPLETED EXPEDITIOUSLY TO MINIMIZE DISRUPTION TO AIRCRAFT OPERATIONS.

OPEN TRENCHES, EXCAVATIONS AND STOCKPILED MATERIAL AT THE CONSTRUCTION SITE SHALL BE DELINEATED WITH THE USE OF BARRICADES DURING HOURS OF RESTRICTED VISIBILITY AND/OR DARKNESS. NO OPEN TRENCHES SHALL BE ALLOWED WITHIN THE RUNWAY SAFETY AREA (RSA) OR THE TAXIWAY SAFETY AREA (TSA) OVER NIGHT. THE RSA IS DEFINED AS 75 FEET FROM THE RUNWAY 14-32 CENTERLINE AND 250 FEET FROM THE RUNWAY 5-23 CENTERLINE AND 1000 FEET FROM THE END OF THE RUNWAY. THE TSA IS MEASURED AT 65.5 FEET FROM THE CATEGORY II TAXIWAY CENTERLINE AND 93 FEET FROM THE CATEGORY III CENTERLINE. THE CONTRACTOR WILL HAVE STEEL PLATES ON-SITE TO ALLOW FOR THE RAPID COVERING OF TRENCHES IN THE EVENT OF UNEXPECTED WORK STOPPAGES FOR WEATHER OR AIRPORT EMERGENCIES.

VEHICULAR TRAFFIC CONTROL

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE AND PLACE ROAD WARNING SIGNS AND BARRICADES ON THE EXISTING ROADWAYS PRIOR TO THE START OF CONSTRUCTION IN THE VICINITY. THE CONTRACTOR SHALL PROVIDE, INSTALL AND RELOCATE THE ITEMS AS REQUIRED. THE COST OF THIS WORK IS TO BE INCIDENTAL TO THE CONTRACT.

CONTRACTOR SHALL PROVIDE, INSTALL AND REMOVE ALL TRAFFIC CONTROL ITEMS WHEN CONSTRUCTION ACTIVITIES ARE WITHIN 15 FEET OF AN ACTIVE ROADWAY EDGE OR AS REQUIRED BY THE SITE PLAN. COST OF THIS WORK IS TO BE INCIDENTAL TO THE CONTRACT.

AIRFIELD OPERATIONAL SAFETY DURING CONSTRUCTION

ALL CONSTRUCTION TRAFFIC AND PERSONNEL SHALL REMAIN WITHIN THE CONSTRUCTION LIMIT LINE SHOWN ON THE STAGING PLAN FOR THE STAGE CURRENTLY UNDER CONSTRUCTION. CONTRACTOR'S PERSONNEL AND EQUIPMENT MUST REMAIN AT LEAST 200 FEET FROM THE CENTERLINE OF ACTIVE RUNWAY 14-32 AND 250 FEET FROM ACTIVE RUNWAY 5-23, 1000 FEET FROM THE END OF ACTIVE RUNWAYS, 65.5 FEET FROM THE CENTERLINE OF ACTIVE CATEGORY II TAXIWAYS AND 93 FEET FROM THE CENTERLINE OF ACTIVE CATEGORY III TAXIWAYS, 44.5 FEET FROM T-HANGAR TAXILANES AND 10 FEET FROM THE EDGE OF ACTIVE APRONS.

WHEN IT IS NECESSARY FOR CONSTRUCTION VEHICLES TO OPERATE ON OR WITHIN THESE LIMITS, THE RUNWAY, TAXIWAYS OR APRON MUST BE CLOSED. WHEN HAUL VEHICLES ARE PERMITTED TO CROSS ACTIVE TAXIWAYS, THE CONTRACTOR WILL PROVIDE POSITIVE CONTROL OF CONSTRUCTION VEHICLES USING RADIO-EQUIPPED FLAGGERS. CONTRACTOR SHALL ESTABLISH AND MAINTAIN RADIO CONTACT WITH AIR TRAFFIC CONTROL TOWER (ATCT) IN ACCORDANCE WITH ATCT REQUIREMENTS. ALL CONTRACTOR'S EQUIPMENT USED IN ACTIVE AIRPORT OPERATIONS AREAS SHALL BE EQUIPPED WITH A FAA-STANDARD FLAG, AS REFERENCED IN FAA AC 150/5370-2, CURRENT ISSUE. AIRCRAFT SHALL HAVE THE RIGHT-OF-WAY. CONSTRUCTION VEHICLES SHALL NOT CROSS AN ACTIVE RUNWAY. THE COST OF ALL TRAFFIC CONTROL, BOTH WITHIN AND OUTSIDE OF AIRPORT OPERATIONS AREAS, IS TO BE INCIDENTAL TO THE CONTRACT.

WHEN NOT IN USE AND DURING NONWORKING HOURS, CONTRACTOR'S EQUIPMENT SHALL BE PARKED WITHIN THE CONTRACTOR'S EQUIPMENT STORAGE AND PARKING AREAS. THE EQUIPMENT STORAGE AND PARKING AREAS ARE TO BE LOCATED AS SHOWN ON THE STAGING PLAN. THE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTAINING THE CONSTRUCTION ENTRANCE IN GOOD CONDITION. THE COST OF MAINTAINING THE CONSTRUCTION ENTRANCE IS TO BE INCIDENTAL TO THE CONTRACT.

AT NO TIME SHALL THE CONTRACTOR OPERATE OR PARK EQUIPMENT SO AS TO OBSTRUCT AN ACTIVE RUNWAY APPROACH SURFACE.

BEFORE REOPENING TEMPORARILY CLOSED RUNWAYS, TAXIWAYS OR ROADWAYS, THE CONTRACTOR SHALL INSPECT AND CLEAN, AS NECESSARY, THE PAVEMENT TO ASSURE THAT NO MATERIALS OR OBJECTS THAT MAY DAMAGE AIRCRAFT OR VEHICLES REMAIN. ANY REQUIRED CLEANING SHALL BE TO THE SATISFACTION OF THE RESIDENT ENGINEER AND AIRPORT OWNER AND IS INCIDENTAL TO THE CONTRACT.

ALL CONTRACTOR EQUIPMENT IS LIMITED TO A HEIGHT OF 25 FEET.

NOTIFICATIONS BY CONTRACTOR

THE CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER AND AIRPORT OWNER 5 DAYS IN ADVANCE OF THE CONTRACTOR'S CLOSING OF ACTIVE RUNWAYS, TAXIWAYS AND APRONS. THE DATE, TIME AND SCHEDULED DURATION OF THE CLOSING MUST BE APPROVED BY THE RESIDENT ENGINEER AND THE AIRPORT OWNER. THE CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER AND AIRPORT OWNER 72 HOURS IN ADVANCE OF THE CONTRACTOR'S CLOSING OF OTHER ACTIVE ROADWAYS, AIRFIELD OR ROADWAY LIGHTING CIRCUITS, OR OTHER AIRPORT FACILITIES.

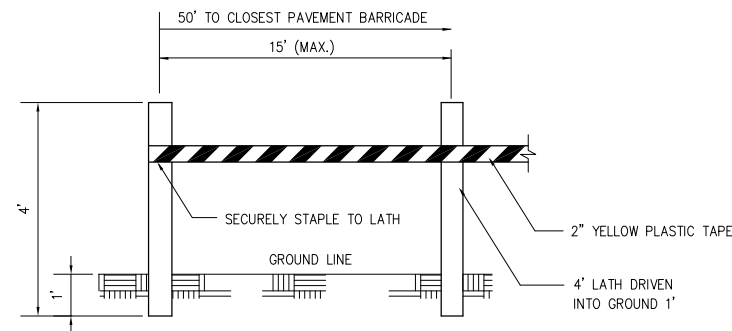
CONTRACTOR'S USE OF SITE

THE CONTRACTOR SHALL NOT OPERATE WITHIN, ENCROACH UPON OR OBSTRUCT AIRPORT OPERATIONAL AREAS, INCLUDING ACTIVE RUNWAY, TAXIWAYS AND APRON SAFETY AREAS, OBJECT AND OBSTACLE FREE ZONES, RUNWAY PROTECTION ZONES AND AIRPORT IMAGINARY SURFACES AS DEFINED IN FEDERAL AVIATION REGULATIONS (FAR) PART 77, "OBJECTS AFFECTING NAVIGABLE AIRSPACE".

THE CONTRACTOR IS RESPONSIBLE FOR RESTORATION OF THE WORK AREA PRIOR TO BEGINNING WORK AT A NEW LOCATION.

UTILITY OUTAGES AND SHUTDOWNS

THE CONTRACTOR SHALL PROVIDE 72 HOURS PRIOR NOTICE OF ANY OUTAGES OR SHUTDOWNS TO THE OWNER AND THE AGENCY OWNING THE AFFECTED UTILITY. THE CONTRACTOR SHALL PROVIDE ANY TEMPORARY CONNECTIONS OR OTHER MEASURES AS MAY BE REQUIRED TO MAINTAIN SERVICE AS MAY BE REQUIRED BY THE OWNING AGENCY AT NO COST TO THE OWNER.



MATERIALS ARE TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION. COST OF MATERIALS, INSTALLATION, RELOCATION AND MAINTENANCE OF LATHING AND WARNING TAPE IS TO BE INCIDENTAL TO THE CONTRACT.

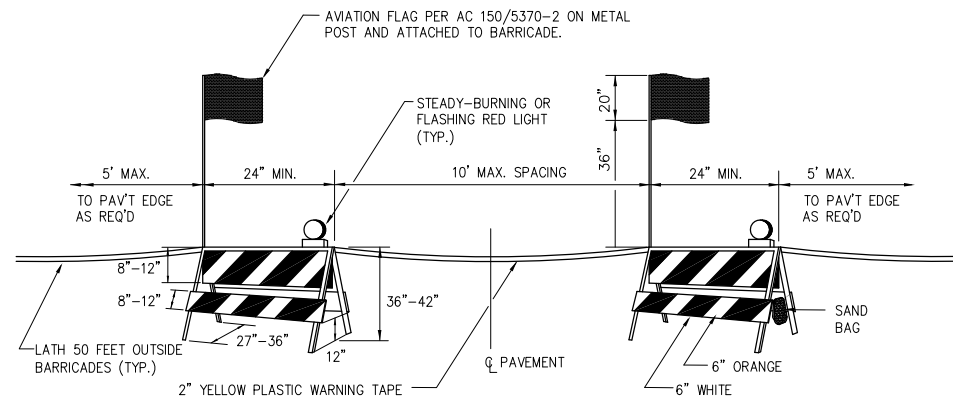
DETAIL A
LATHING AND WARNING TAPE
NTS



NOTES

1. THE LIGHTED RUNWAY CLOSURE MARKERS WILL BE FURNISHED BY THE AIRPORT OWNER TO THE CONTRACTOR FOR THE CONTRACTOR'S USE. THE COST OF PLACING, OPERATING, MAINTAINING AND REMOVING THE LIGHTED RUNWAY CLOSURE MARKERS WILL BE INCIDENTAL TO THE CONTRACT.
2. THE LIGHTED MARKERS SHALL BE PLACED OVER THE RUNWAY NUMERALS AS SHOWN IN THE PLANS AND AS DIRECTED BY THE ENGINEER.
3. LIGHTED MARKERS SHALL BE SECURED FROM WIND EFFECTS BY THE CONTRACTOR AS RECOMMENDED BY THE MANUFACTURER.
4. THE LIGHTED MARKERS SHALL BE IN PLACE AND OPERATING WHENEVER THE RUNWAY IS CLOSED AND REMOVED WHEN THE RUNWAY IS RE-OPENED.
5. SHOULD IT BE NECESSARY FOR THE CONTRACTOR TO TEMPORARILY REMOVE THE LIGHTED MARKERS FROM SERVICE, SUCH INTERRUPTION SHALL BE DURING DAYLIGHT CONDITIONS ONLY. THE LIGHTED MARKER SHALL BE REPLACED WITH OWNER-SUPPLIED VINYL MARKERS, WHICH SHALL BE PLACED, SECURED AND REMOVED BY THE CONTRACTOR AS DIRECTED BY THE RESIDENT ENGINEER. THE COST OF THIS WORK SHALL BE INCLUDED IN ITEM AR800964.

LIGHTED RUNWAY CLOSURE MARKER



BARRICADES ARE TO BE OF IDOT TYPE I. A STEADY-BURNING OR FLASHING RED LIGHT FACING PASSING TRAFFIC IS TO BE MOUNTED ABOVE THE TOP OF EACH BARRICADE FRAME. THE BARRICADE IS TO BE STABILIZED FROM WIND BY SANDBAGS PLACED ON THE FRAME OR OTHER METHODS APPROVED BY THE RESIDENT ENGINEER. NO PART OF THE REFLECTORIZED PORTION OF THE BARRICADE IS TO BE OBSTRUCTED IN ANY MANNER. COST OF FURNISHING, INSTALLING, RELOCATING, MAINTAINING AND REMOVING BARRICADES IS TO BE INCIDENTAL TO THE CONTRACT.

DETAIL C
PAVEMENT BARRICADES
NTS

REVISION	DATE

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WAUKEGAN PORT DISTRICT
3580 North McAtee Road
Waukegan, Illinois 60087
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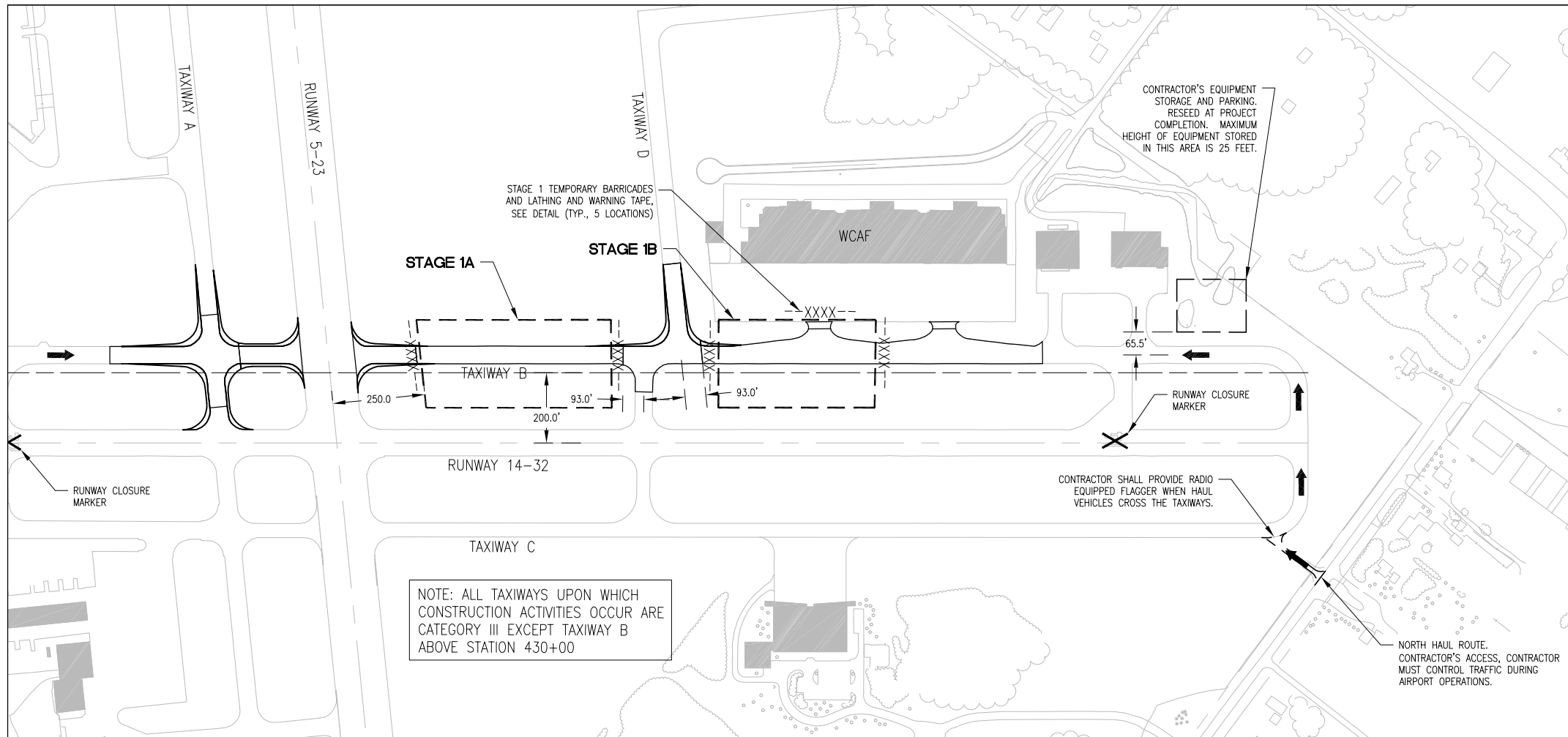
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Scale	N/A	RMH	11/17/11
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Registration No. 184-001084

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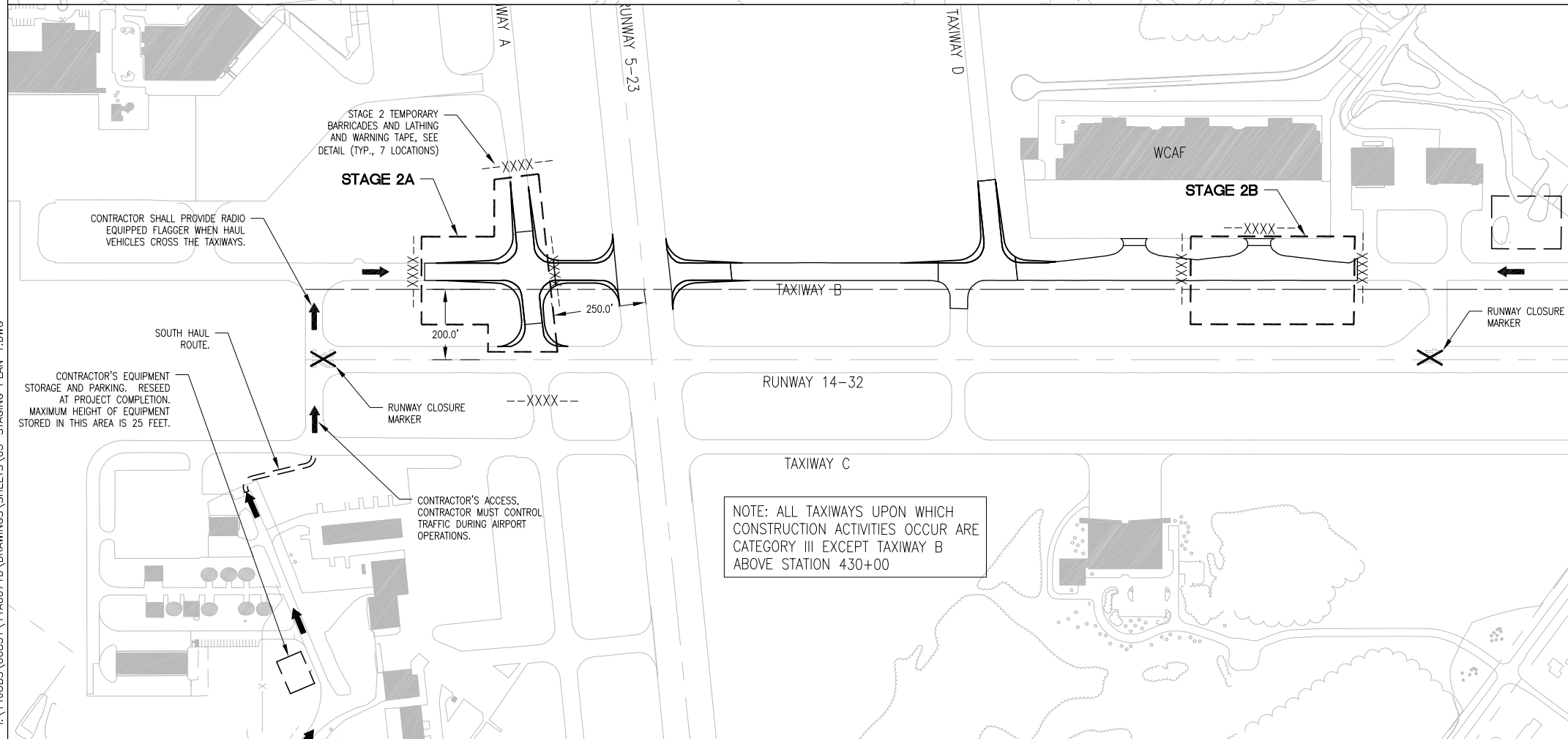
CONSTRUCTION SAFETY
NOTES AND DETAILS

REHABILITATE TAXIWAY B AND ASSOCIATED EXIT TAXIWAYS, PHASE 1
IDA No. UGN-4124 AIP No. 3-r17-0105-B52



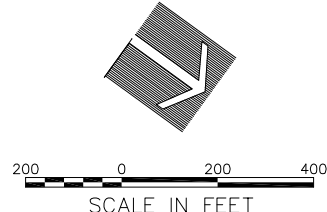
STAGE 1A AND 1B

- NOTES:
- ALL CONTRACTOR ACTIVITIES SHALL TAKE PLACE WITHIN CONSTRUCTION LIMIT LINES AS SHOWN.
 - ALL CONSTRUCTION EQUIPMENT WILL BE LIMITED TO A HEIGHT OF 25 FEET UNLESS PRIOR APPROVAL GIVEN BY THE ENGINEER.
 - CONTRACTOR'S EQUIPMENT MAY NOT DISRUPT FLIGHT OPERATIONS ON RUNWAY 5-23 AT ANY TIME.
 - ALL WORK WITHIN 200 FEET OF RUNWAY 14-32 CENTERLINE SHALL BE COMPLETED EXPEDITIOUSLY.
 - CONTRACTOR'S EQUIPMENT MAY NOT DISRUPT FLIGHT OPERATIONS ON TAXIWAY A DURING STAGE 1.
 - SEE CONSTRUCTION AND SAFETY NOTES, SHEET 4.
- THE FOLLOWING ITEMS ARE TO BE COMPLETED IN STAGE 1:
- CLOSE RUNWAY 14-32 IN ACCORDANCE WITH CONSTRUCTION AND SAFETY NOTES
 - CRACK SEALING WITHIN STAGE 1 LIMITS
 - PARTIAL AND FULL DEPTH PAVEMENT REPAIRS WITHIN STAGE 1 LIMITS
 - RELOCATE EDGE LIGHTS AND SIGNS WITHIN STAGE 1 LIMITS
 - REMOVE AND INSTALL UNDERDRAIN WITHIN STAGE 1 LIMITS
 - PLACE AGGREGATE BASE AND BASE COURSE WITHIN STAGE 1 LIMITS



STAGE 2A AND 2B

- NOTES:
- ALL CONTRACTOR ACTIVITIES SHALL TAKE PLACE WITHIN CONSTRUCTION LIMIT LINES AS SHOWN.
 - ALL CONSTRUCTION EQUIPMENT WILL BE LIMITED TO A HEIGHT OF 25 FEET UNLESS PRIOR APPROVAL GIVEN BY THE ENGINEER.
 - CONTRACTOR'S EQUIPMENT MAY NOT DISRUPT FLIGHT OPERATIONS ON RUNWAY 5-23 AT ANY TIME.
 - ALL WORK WITHIN 200 FEET OF RUNWAY 14-32 CENTERLINE SHALL BE COMPLETED EXPEDITIOUSLY.
 - SEE CONSTRUCTION AND SAFETY NOTES, SHEET 4.
- THE FOLLOWING ITEMS ARE TO BE COMPLETED IN STAGE 2:
- CLOSE RUNWAY 14-32 IN ACCORDANCE WITH CONSTRUCTION AND SAFETY NOTES
 - CRACK SEALING WITHIN STAGE 2 LIMITS
 - PARTIAL AND FULL DEPTH PAVEMENT REPAIRS WITHIN STAGE 2 LIMITS
 - RELOCATE EDGE LIGHTS AND SIGNS WITHIN STAGE 2 LIMITS
 - REMOVE AND INSTALL UNDERDRAIN WITHIN STAGE 2 LIMITS
 - PLACE AGGREGATE BASE AND BASE COURSE WITHIN STAGE 2 LIMITS



REVISION	DATE

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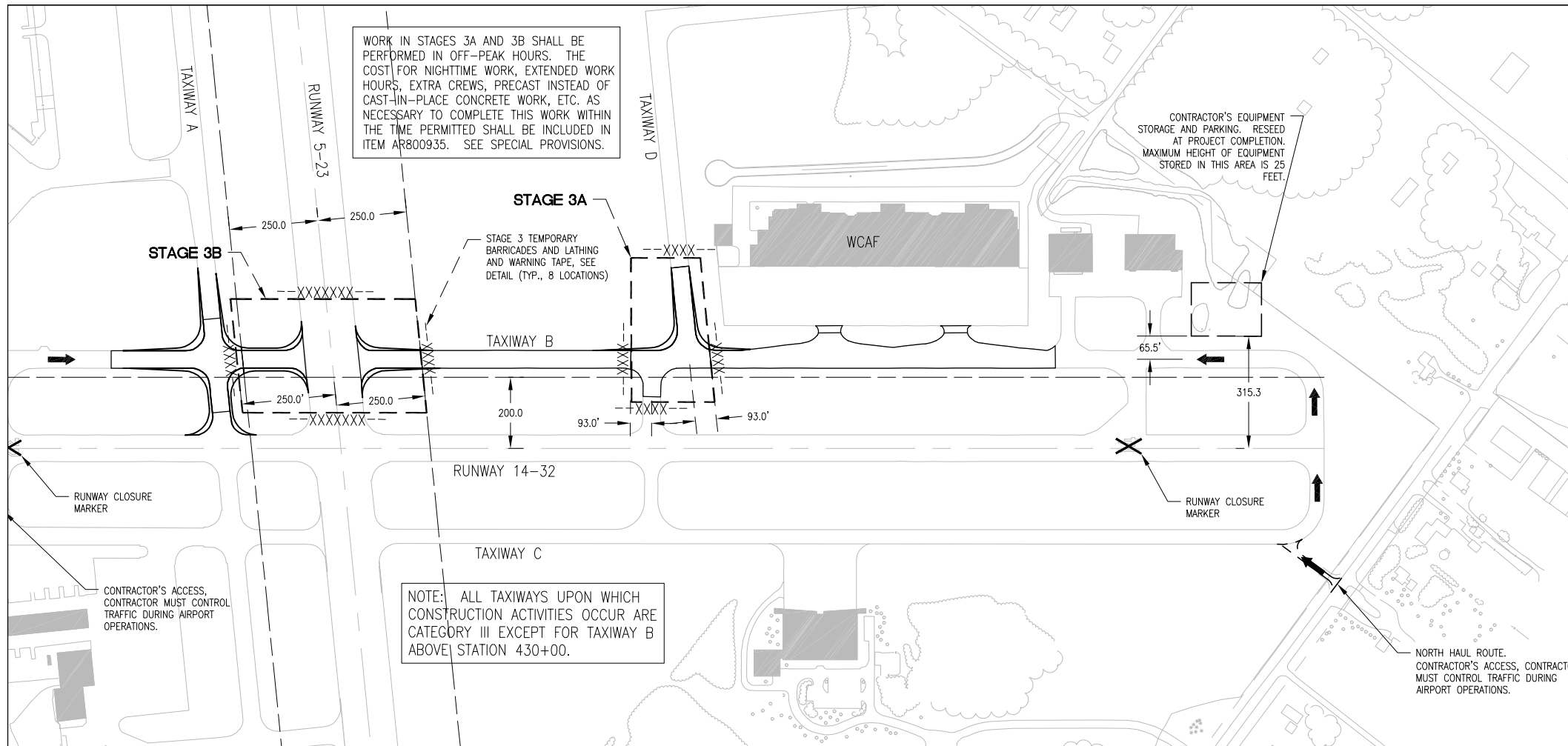
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STAGING PLAN
STAGE 1 AND 2

REHABILITATE TAXIWAY B AND
ASSOCIATED EXIT TAXIWAYS, PHASE 1
IDA No. UGN-4124 AIP No. 3-17-0105-B52

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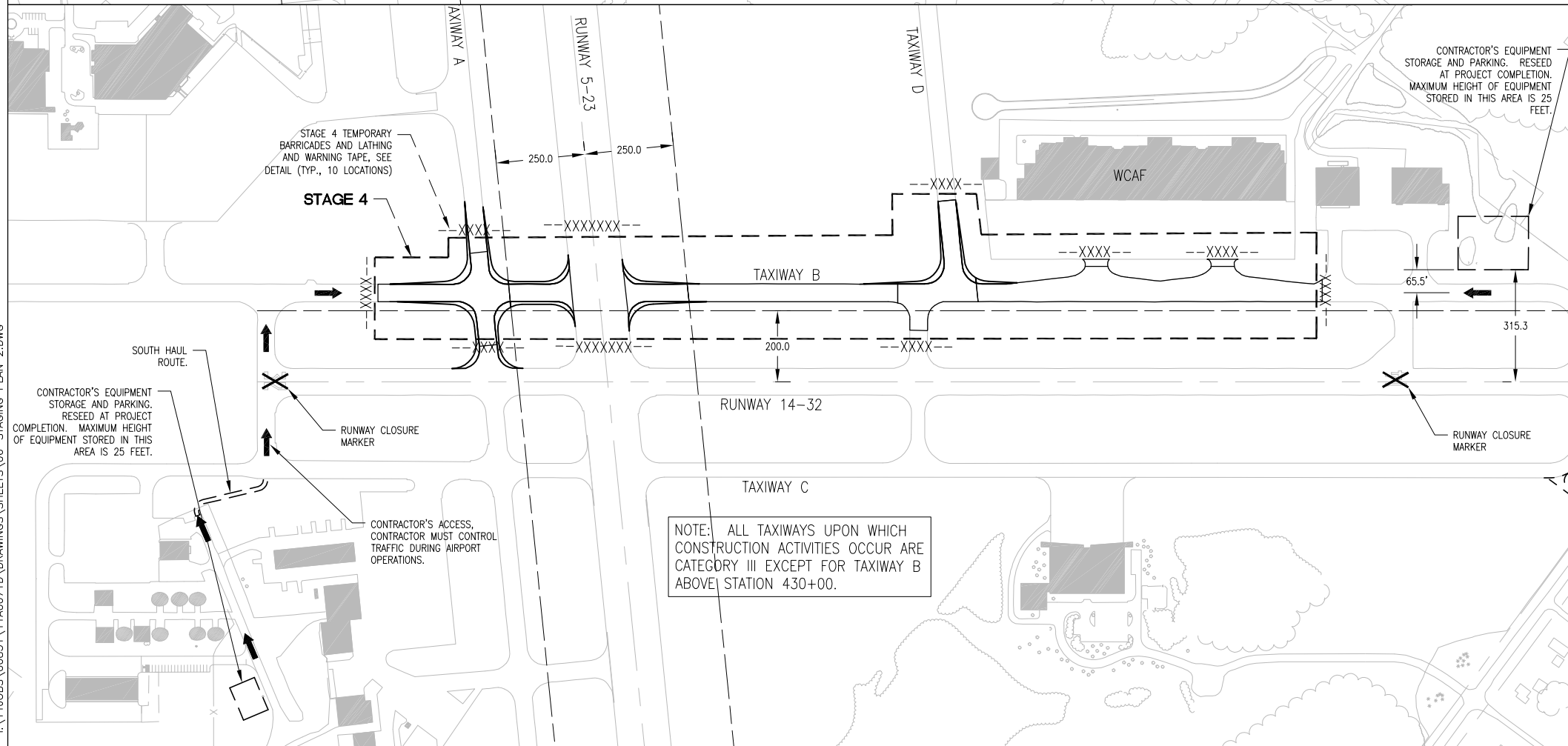
STAGE 3A AND 3B

NOTES:

- ALL CONTRACTOR ACTIVITIES SHALL TAKE PLACE WITHIN CONSTRUCTION LIMIT LINES AS SHOWN.
- ALL CONSTRUCTION EQUIPMENT WILL BE LIMITED TO A HEIGHT OF 25 FEET UNLESS PRIOR APPROVAL GIVEN BY THE ENGINEER.
- ALL WORK WITHIN 200 FEET OF RUNWAY 14-32 AND 250 FEET OF RUNWAY 5-23 MUST BE COMPLETED EXPEDITIOUSLY.
- ALL CONTRACTOR ACTIVITIES IN THIS STAGE SHALL TAKE PLACE OVERNIGHT, BETWEEN THE HOURS OF 9 P.M. AND 6 A.M., AS TO MINIMIZE THE DISRUPTION TO THE AIRPORT.
- AT THE END OF THE WORK PERIOD, THE CONTRACTOR IS REQUIRED TO OPEN ALL TAXIWAYS UP TO AIR TRAFFIC AND REMOVE ALL EQUIPMENT FROM THE WORK AREA (93' FROM TAXIWAY CENTERLINE, 400' FROM RUNWAY CENTERLINE). THE MAXIMUM DROP IN PAVEMENT BETWEEN OLD AND NEW PAVEMENTS AND ADJACENT GROUND SHALL BE 3 INCHES. THE CONTRACTOR IS RESPONSIBLE FOR RESTORING THE TAXIWAY SAFETY AREA (59' FROM CENTERLINE) AND RUNWAY SAFETY AREA (250' FROM CENTERLINE) TO CONDITIONS ACCEPTABLE TO THE CONSTRUCTION MANAGER AT THE END OF EACH WORK PERIOD. THE CONTRACTOR MAY USE STEEL PLATES AS NECESSARY TO COVER OPEN AREAS WITHIN THE TAXIWAY SAFETY AREA. OWNER SHALL BE GIVEN 5 DAYS ADVANCE NOTICE OF THE FIRST SCHEDULED CLOSURE PERIOD.
- THIS WORK SHALL BE LIMITED TO 10 WORKING DAYS.
- STAGE 3 WORK CAN BE PERFORMED CONCURRENT FOR STAGE 3A AND 3B WITH OTHER STAGES SO LONG AS THE PERFORMANCE TIME REQUIREMENTS ARE MET.
- SEE CONSTRUCTION AND SAFETY NOTES, SHEET 4.

THE FOLLOWING ITEMS ARE TO BE COMPLETED IN STAGE 3:

- CLOSE RUNWAY 14-32 AND 5-23 IN ACCORDANCE WITH CONSTRUCTION AND SAFETY NOTES
- CRACK SEALING WITHIN STAGE 3 LIMITS
- PARTIAL AND FULL DEPTH PAVEMENT REPAIRS WITHIN STAGE 3 LIMITS
- RELOCATE EDGE LIGHTS AND SIGNS WITHIN STAGE 3 LIMITS
- REMOVE AND INSTALL UNDERDRAIN WITHIN STAGE 3 LIMITS
- PLACEMENT OF AGGREGATE BASE AND BASE COURSE WITHIN STAGE 3 LIMITS



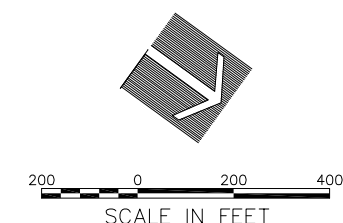
STAGE 4

NOTES:

- ALL CONTRACTOR ACTIVITIES SHALL TAKE PLACE WITHIN CONSTRUCTION LIMIT LINES AS SHOWN.
- ALL CONSTRUCTION EQUIPMENT WILL BE LIMITED TO A HEIGHT OF 25 FEET UNLESS PRIOR APPROVAL GIVEN BY THE ENGINEER.
- ALL WORK WITHIN 200 FEET OF RUNWAY 14-32 AND 250 FEET OF RUNWAY 5-23 MUST BE COMPLETED EXPEDITIOUSLY.
- CONTRACTOR SHALL SCHEDULE AND FURNISH SURFACE COURSE PLACEMENT, MARKING AND LANDSCAPING IN SUCH A MANNER THAT ONE RUNWAY AND ONE ENTRANCE/EXIT TAXIWAY FROM WCAF IS OPEN AT ALL TIMES. MAXIMUM TIME PERIOD FOR RUNWAY 5-23 CLOSURE IS 4 HOURS PER DAY.
- THIS WORK SHALL BE LIMITED TO 5 WORKING DAYS.
- SEE CONSTRUCTION AND SAFETY NOTES, SHEET 4.

THE FOLLOWING ITEMS ARE TO BE COMPLETED IN STAGE 4:

- ALTERNATELY OPEN AND CLOSE RUNWAY 14-32 AND 5-23 (NO SIMULTANEOUS CLOSINGS) IN ACCORDANCE WITH CONSTRUCTION AND SAFETY NOTES.
- PLACE SURFACE COURSE WITHIN STAGE 4 LIMITS
- MARKING OF PAVEMENTS WITHIN STAGE 4 LIMITS
- TPOILING, SEEDING AND MULCHING WITHIN STAGE 4 LIMITS



REVISION	DATE

WAUKEGAN REGIONAL AIRPORT
WAUKEGAN PORT DISTRICT
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Hanson No.	11A0071D	LAYOUT	LDH	7/18/11
Filename	06-STAGING PLAN 2.DWG	DRAWN	LDH	7/18/11
Scale	1"=200'	REVIEWED	RWH	11/17/11
Date	NOVEMBER 18, 2011			

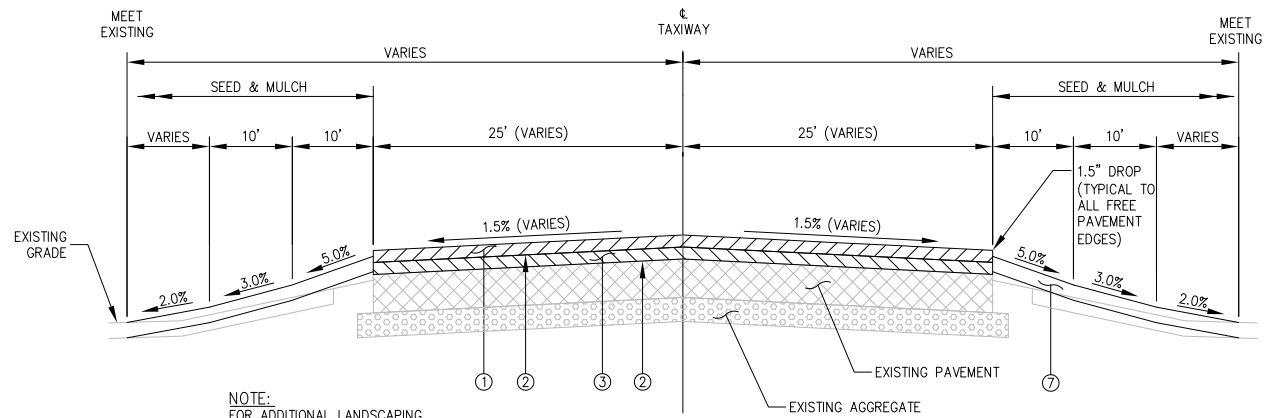
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**STAGING PLAN
STAGE 3 AND 4**

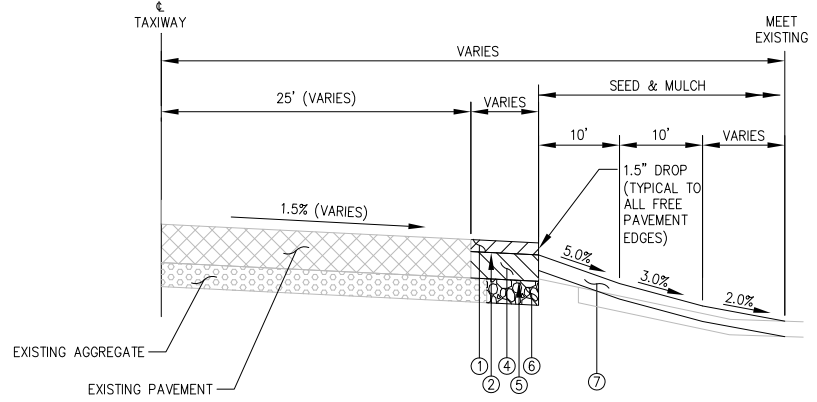
REHABILITATE TAXIWAY B AND
ASSOCIATED EXIT TAXIWAYS, PHASE 1
IDA No. UGN-4124 AIP No. 3-17-0105-B52

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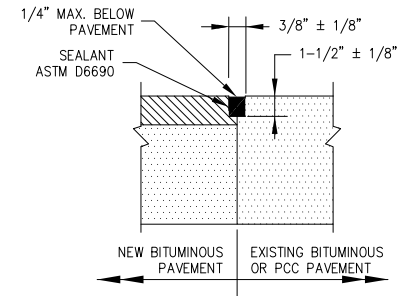
NOTE:
FOR ADDITIONAL LANDSCAPING
INFORMATION, SEE LANDSCAPING PLAN.

TAXIWAY OVERLAY TYPICAL SECTION



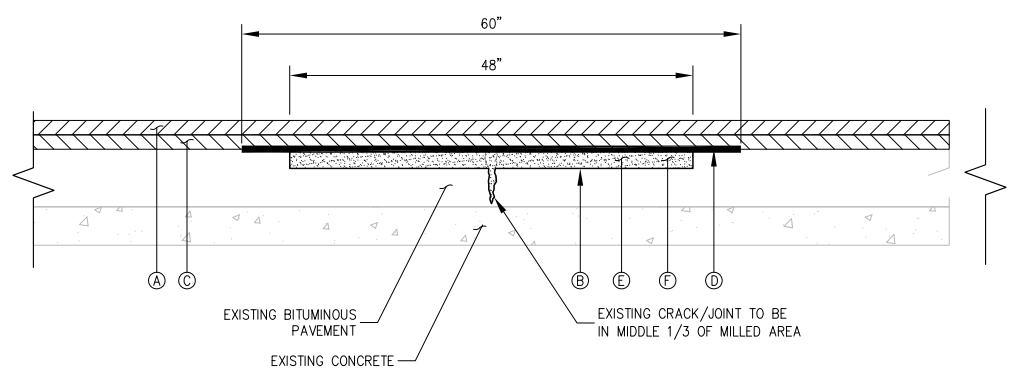
NEW PAVEMENT SECTION

PAVEMENT LEGEND	
①	PROPOSED 1.5 INCH BITUMINOUS SURFACE COURSE, ITEM AR401613.
②	PROPOSED BITUMINOUS TACK COAT, ITEM AR603510.
③	PROPOSED 2.5 INCH NOMINAL BITUMINOUS BASE COURSE (DEPTH VARIES APPROXIMATELY 1.5" TO 3.5"), ITEM AR403614.
④	PROPOSED 11.5 INCH BITUMINOUS BASE COURSE, ITEM AR403614.
⑤	PROPOSED BITUMINOUS PRIME COAT, ITEM AR602510
⑥	PROPOSED 10" CRUSHED AGGREGATE BASE COURSE, ITEM AR2096010.
⑦	PROPOSED TOPSOIL, ITEM AR905510 AND AR905520. SEEDING AND MULCHING AREAS, ITEMS AR901510 AND AR908510. SODDING, ITEM AR904510.



NOTE:
ALL BITUMINOUS/BITUMINOUS AND BITUMINOUS/PCC JOINT SEALING TO BE PAID UNDER SAW AND SEAL BITUMINOUS JOINTS, ITEM AR401660.

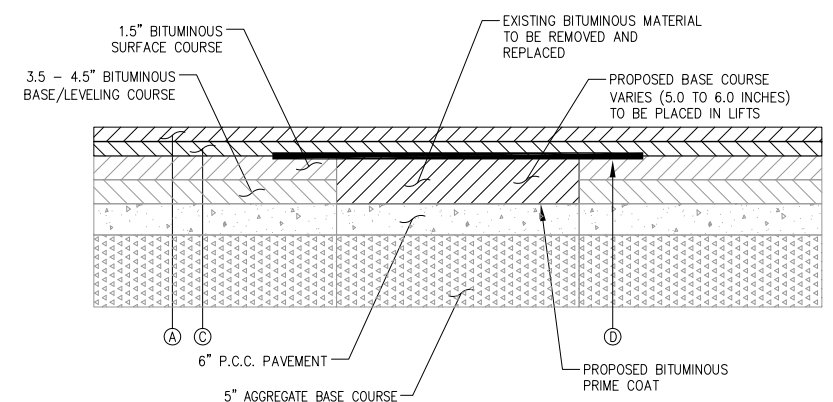
BITUMINOUS/BITUMINOUS OR BITUMINOUS/PCC SEAL



- NOTES:
- TACK COAT SHALL BE APPLIED TO MILLED SURFACE OUTSIDE OF CRACK CONTROL MATERIAL.
 - CRACK CONTROL MATERIAL SHALL OVERLAP BITUMINOUS SAND MIX 6" EACH SIDE.
 - BITUMINOUS PAVEMENT SAWING TO BE PAID FOR AS ITEM AR401665.

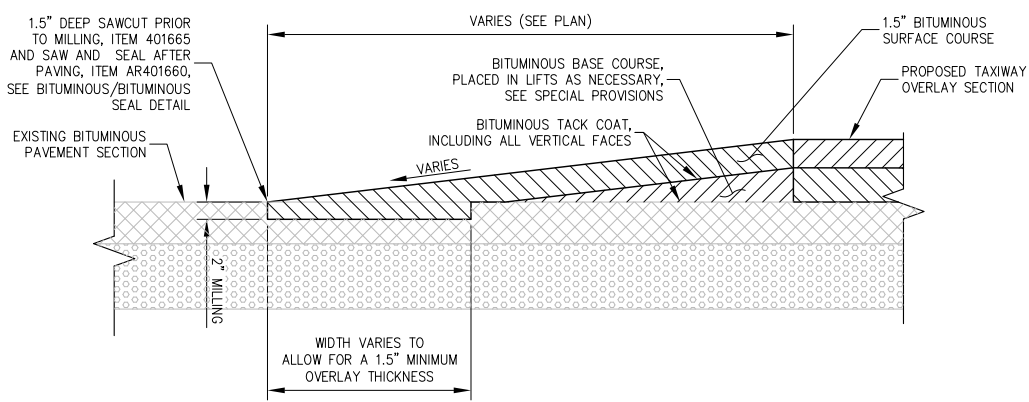
TYPICAL SECTION - PARTIAL DEPTH BITUMINOUS REPAIR TYPE C

REPAIR LEGEND	
(A)	PROPOSED OVERLAY
(B)	PROPOSED BITUMINOUS TACK COAT, ITEM AR603510.
(C)	PROPOSED OVERLAY
(D)	CRACK CONTROL MATERIAL (60" WIDE), ITEM AR800967.
(E)	BITUMINOUS SAND MIX - 2 INCH, ITEM AR800972.
(F)	PAVEMENT MILLING, ITEM AR401650.

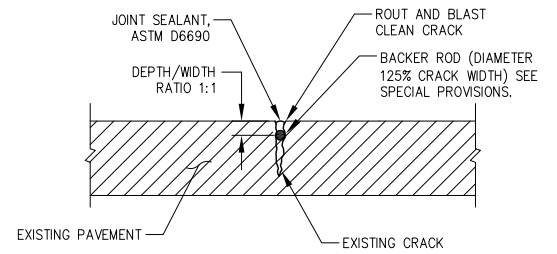


- NOTES:
- TACK COAT TO BE PLACED BETWEEN LIFTS OF BASE COURSE.
 - CRACK CONTROL MATERIAL SHALL OVERLAP BITUMINOUS PATCH 6" EACH SIDE.
 - BITUMINOUS PAVEMENT SAWING TO BE PAID UNDER ITEM AR401665.
 - WHERE WIDTH IS GREATER THAN 60-INCHES, THE CRACK CONTROL MATERIAL SHALL BE OVERLAPED BY 12-INCHES. THE OVERLAP SHALL NOT BE MEASURED FOR PAYMENT BUT SHALL BE INCLUDED IN THE COST FOR CRACK CONTROL MATERIAL.

BITUMINOUS PAVEMENT REMOVAL/REPLACEMENT/REPAIR TYPE D



BITUMINOUS TAPER DETAIL



CLEAN AND SEAL CRACKS TYPE B

REVISION	DATE

WAUKEGAN REGIONAL AIRPORT
WAUKEGAN PORT DISTRICT
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Waukegan, Illinois 60087
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FILENAME	SCALE	DATE	LAYOUT	DRAWN	REVIEWED
11A0071D_07-TYPICAL_SECTION.DWG	N/A	NOVEMBER 18, 2011	LDH	LDH	RWH

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TYPICAL SECTIONS
AND PAVEMENT DETAILS
REHABILITATE TAXIWAY B AND
ASSOCIATED EXIT TAXIWAYS, PHASE 1
IDA No. UGN-4124 AIP No. 3-17-0105-B52

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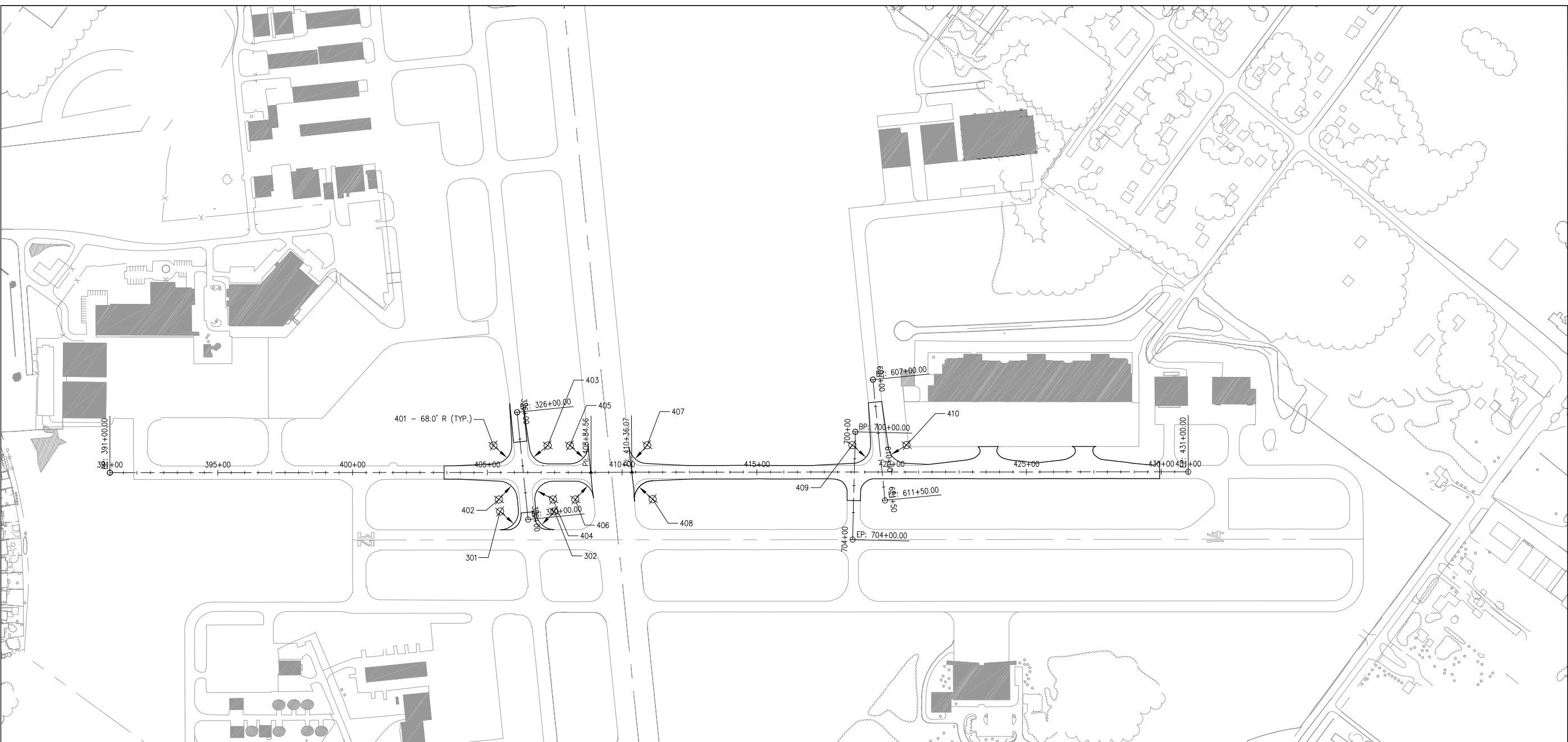
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 3580 North McArees Road
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Revision No.	11A0071D
Filename	08 - ALIGNMENT - CURVE DATA.DWG
Scale	1"=200'
Date	NOVEMBER 18, 2011
LAYOUT	KMS 11/16/11
DRAWN	KMS 11/16/11
REVIEWED	RWH 11/17/11

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ALIGNMENT AND CURVE DATA
 REHABILITATE TAXIWAY B AND ASSOCIATED EXIT TAXIWAYS, PHASE 1
 IDA No. UGN-4124 AIP No. 3-17-0105-B52

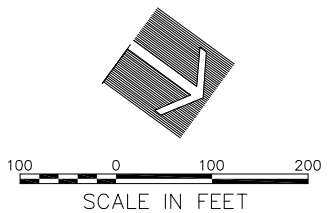


ALIGNMENT DATA

Runway/Taxiway	Description	Station	Project Coordinates	
			Northing	Easting
ALIGNMENT 400 - TAXIWAY B	BEGINNING OF ALIGNMENT	391+00.00	2094870.5559	1111076.7478
	PI	408+84.56	2096312.6588	1110025.5598
	PI	410+36.07	2096434.5491	1109935.5798
	END OF ALIGNMENT	431+00.00	2098102.1101	1108719.4110
ALIGNMENT 300 - TAXIWAY A	BEGINNING OF ALIGNMENT	326+00.00	2095959.7330	1110006.2403
	END OF ALIGNMENT	330+00.00	2096226.6240	1110304.1818
ALIGNMENT 700 - TAXIWAY B2	BEGINNING OF ALIGNMENT	700+00.00	2097016.3425	1109326.5174
	END OF ALIGNMENT	704+00.00	2097243.6710	1109655.6402
ALIGNMENT 600 - TAXIWAY D	BEGINNING OF ALIGNMENT	607+00.00	2096955.4213	1109131.6688
	END OF ALIGNMENT	611+50.00	2097255.0863	1109467.3783

CURVE DATA

CURVE #	CENTER	P.C.	P.T.	CURVE #	CENTER	P.C.	P.T.
401	405+22.70 100.0' LT (68.0' RADIUS)	405+22.70 32.0' LT	405+90.36 106.8' LT	407	410+93.30 100.0' LT (68.0' RADIUS)	410+93.30 32.0' LT	410+26.21 93.0' LT
402	405+42.89 100.0' RT (68.0' RADIUS)	405+42.89 32.0' RT	406+10.55 93.2' RT	408	411+13.21 100.0' RT (68.0' RADIUS)	411+13.21 32.0' RT	410+45.64 107.6' RT
403	407+23.72 100.0' LT (68.0' RADIUS)	407+23.72 32.0' LT	406.56.06 93.2' LT	409	418+54.12 100.0' LT (68.0' RADIUS)	418+54.12 32.0' LT	419+21.79 106.7' LT
404	407+43.91 100.0' RT (68.0' RADIUS)	407+43.91 32.0' RT	406+76.25 106.8' RT	410	420+55.09 100.0' LT (68.0' RADIUS)	420+55.09 32.0' LT	419+87.42 93.3' LT
405	408+06.24 100.0' LT (68.0' RADIUS)	408+06.24 32.0' LT	408+73.90 106.8' LT	301	329+59.79 100.0' RT (68.0' RADIUS)	329+59.79 32.0' RT	330+27.42 107.2' RT
406	408+26.06 100.0' RT (68.0' RADIUS)	408+26.06 32.0' RT	408+93.20 93.8' RT	302	329+79.61 100.0' LT (68.0' RADIUS)	329+79.61 32.0' LT	330+47.04 91.2' LT



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WAUKEGAN PORT DISTRICT
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Hanson No.	11A0071D	LAYOUT	LDH	11/7/11
Filename	09 - REMOVAL PLAN.DWG	DRAWN	LDH	11/7/11
Scale	1"=40'	REVIEWED	RWH	11/17/11
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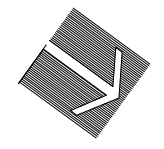
REHABILITATE TAXIWAY B AND
ASSOCIATED EXIT TAXIWAYS, PHASE 1
IDA No. UGN-4124 AIP No. 3-17-0105-B52

THE LOCATION, SIZE AND TYPE OF MATERIAL OF EXISTING UNDERGROUND AND/OR ABOVEGROUND UTILITIES INDICATED ON THE PLANS IS NOT REPRESENTED AS BEING ACCURATE, SUFFICIENT OR COMPLETE. NEITHER THE OWNER NOR THE ENGINEER ASSUMES ANY RESPONSIBILITY WHATSOEVER IN RESPECT TO 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. CONTACT AIRPORT DIRECTOR/MANAGER AND AIRPORT PERSONNEL FOR ASSISTANCE IN LOCATING UNDERGROUND AIRPORT CABLES AND/OR UTILITIES. ALSO COORDINATE WORK WITH ALL ABOVE GROUND UTILITIES.

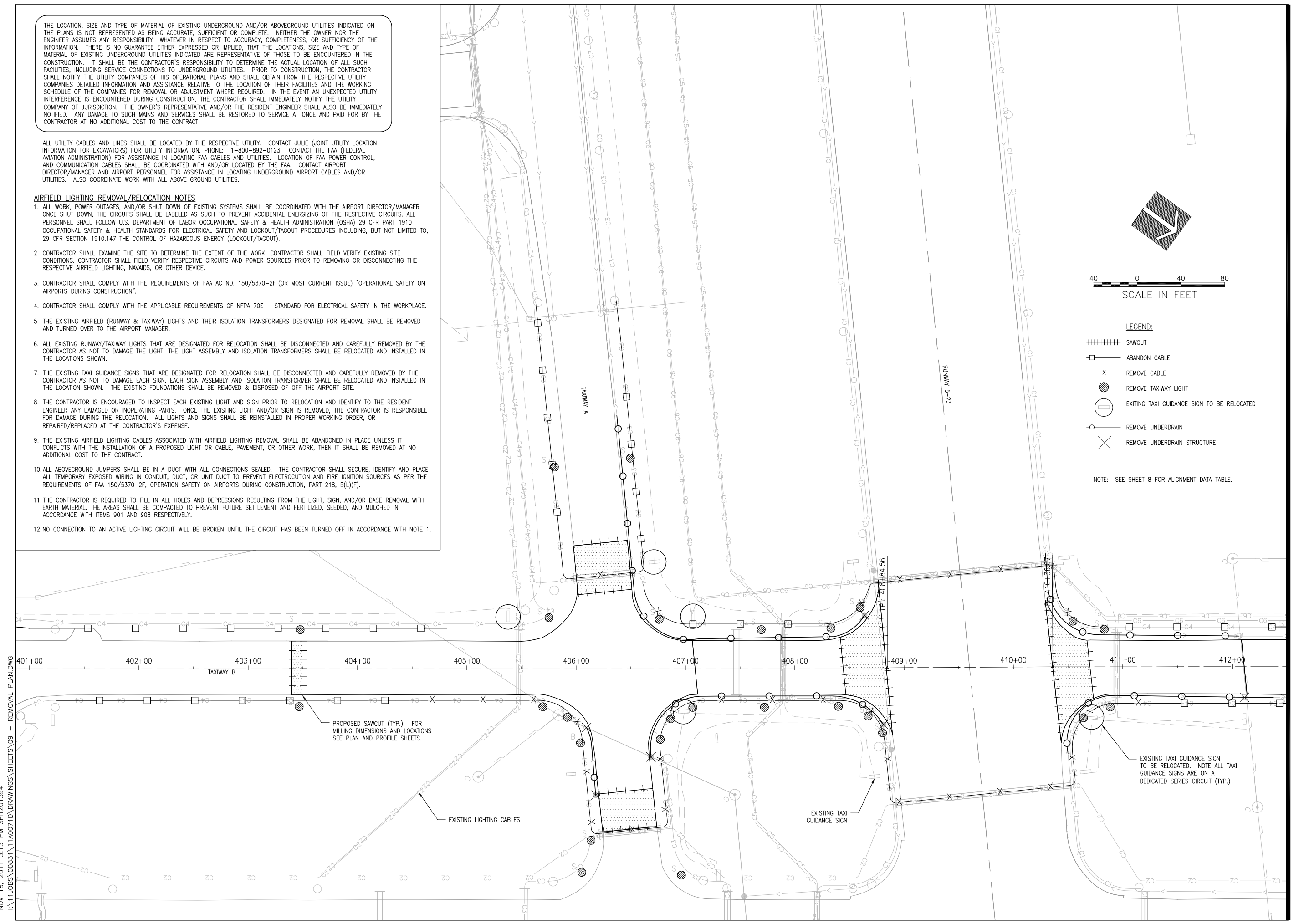
AIRFIELD LIGHTING REMOVAL/RELOCATION NOTES

- 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).
- CONTRACTOR SHALL EXAMINE THE SITE TO DETERMINE THE EXTENT OF THE WORK. CONTRACTOR SHALL FIELD VERIFY EXISTING SITE CONDITIONS. CONTRACTOR SHALL FIELD VERIFY RESPECTIVE CIRCUITS AND POWER SOURCES PRIOR TO REMOVING OR DISCONNECTING THE RESPECTIVE AIRFIELD LIGHTING, NAVAIDS, OR OTHER DEVICE.
- CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF FAA AC NO. 150/5370-2f (OR MOST CURRENT ISSUE) "OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION".
- CONTRACTOR SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS OF NFPA 70E - STANDARD FOR ELECTRICAL SAFETY IN THE WORKPLACE.
- THE EXISTING AIRFIELD (RUNWAY & TAXIWAY) LIGHTS AND THEIR ISOLATION TRANSFORMERS DESIGNATED FOR REMOVAL SHALL BE REMOVED AND TURNED OVER TO THE AIRPORT MANAGER.
- ALL EXISTING RUNWAY/TAXIWAY LIGHTS THAT ARE DESIGNATED FOR RELOCATION SHALL BE DISCONNECTED AND CAREFULLY REMOVED BY THE CONTRACTOR AS NOT TO DAMAGE THE LIGHT. THE LIGHT ASSEMBLY AND ISOLATION TRANSFORMERS SHALL BE RELOCATED AND INSTALLED IN THE LOCATIONS SHOWN.
- THE EXISTING TAXI GUIDANCE SIGNS THAT ARE DESIGNATED FOR RELOCATION SHALL BE DISCONNECTED AND CAREFULLY REMOVED BY THE CONTRACTOR AS NOT TO DAMAGE EACH SIGN. EACH SIGN ASSEMBLY AND ISOLATION TRANSFORMER SHALL BE RELOCATED AND INSTALLED IN THE LOCATION SHOWN. THE EXISTING FOUNDATIONS SHALL BE REMOVED & DISPOSED OF OFF THE AIRPORT SITE.
- THE CONTRACTOR IS ENCOURAGED TO INSPECT EACH EXISTING LIGHT AND SIGN PRIOR TO RELOCATION AND IDENTIFY TO THE RESIDENT ENGINEER ANY DAMAGED OR INOPERATING PARTS. ONCE THE EXISTING LIGHT AND/OR SIGN IS REMOVED, THE CONTRACTOR IS RESPONSIBLE FOR DAMAGE DURING THE RELOCATION. ALL LIGHTS AND SIGNS SHALL BE REINSTALLED IN PROPER WORKING ORDER, OR REPAIRED/REPLACED AT THE CONTRACTOR'S EXPENSE.
- THE EXISTING AIRFIELD LIGHTING CABLES ASSOCIATED WITH AIRFIELD LIGHTING REMOVAL SHALL BE ABANDONED IN PLACE UNLESS IT CONFLICTS WITH THE INSTALLATION OF A PROPOSED LIGHT OR CABLE, PAVEMENT, OR OTHER WORK, THEN IT SHALL BE REMOVED AT NO ADDITIONAL COST TO THE CONTRACT.
- ALL ABOVEGROUND JUMPERS SHALL BE IN A DUCT WITH ALL CONNECTIONS SEALED. THE CONTRACTOR SHALL SECURE, IDENTIFY AND PLACE ALL TEMPORARY EXPOSED WIRING IN CONDUIT, DUCT, OR UNIT DUCT TO PREVENT ELECTROCUTION AND FIRE IGNITION SOURCES AS PER THE REQUIREMENTS OF FAA 150/5370-2f, OPERATION SAFETY ON AIRPORTS DURING CONSTRUCTION, PART 218, B(L)(F).
- THE CONTRACTOR IS REQUIRED TO FILL IN ALL HOLES AND DEPRESSIONS RESULTING FROM THE LIGHT, SIGN, AND/OR BASE REMOVAL WITH EARTH MATERIAL. THE AREAS SHALL BE COMPACTED TO PREVENT FUTURE SETTLEMENT AND FERTILIZED, SEEDED, AND MULCHED IN ACCORDANCE WITH ITEMS 901 AND 908 RESPECTIVELY.
- NO CONNECTION TO AN ACTIVE LIGHTING CIRCUIT WILL BE BROKEN UNTIL THE CIRCUIT HAS BEEN TURNED OFF IN ACCORDANCE WITH NOTE 1.



- LEGEND:**
- +++++ SAWCUT
 - ABANDON CABLE
 - X- REMOVE CABLE
 - REMOVE TAXIWAY LIGHT
 - EXITING TAXI GUIDANCE SIGN TO BE RELOCATED
 - REMOVE UNDERDRAIN
 - × REMOVE UNDERDRAIN STRUCTURE

NOTE: SEE SHEET 8 FOR ALIGNMENT DATA TABLE.



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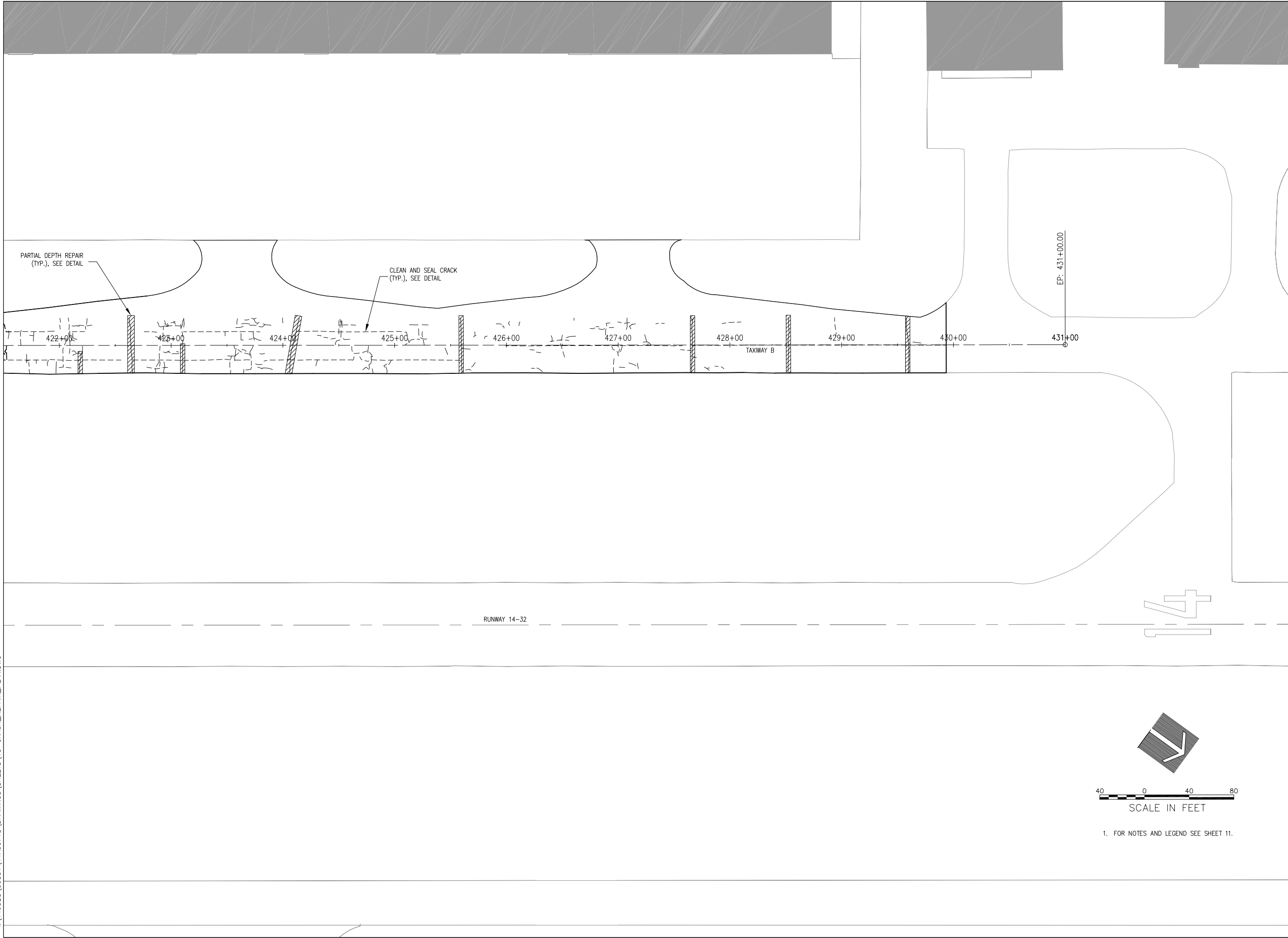
PROPOSED SAWCUT (TYP.) FOR MILLING DIMENSIONS AND LOCATIONS SEE PLAN AND PROFILE SHEETS.

EXISTING LIGHTING CABLES

EXISTING TAXI GUIDANCE SIGN

EXISTING TAXI GUIDANCE SIGN TO BE RELOCATED. NOTE ALL TAXI GUIDANCE SIGNS ARE ON A DEDICATED SERIES CIRCUIT (TYP.)

NOV 18, 2011 3:15 PM SPITZ01394
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WA065

REVISION	DATE

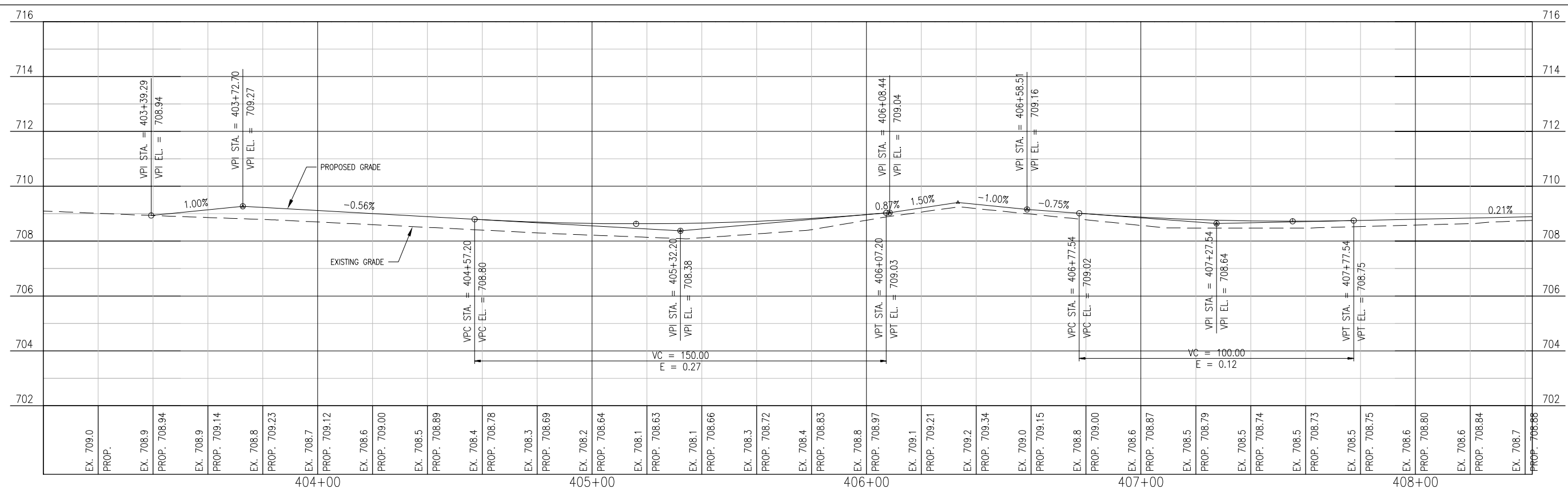
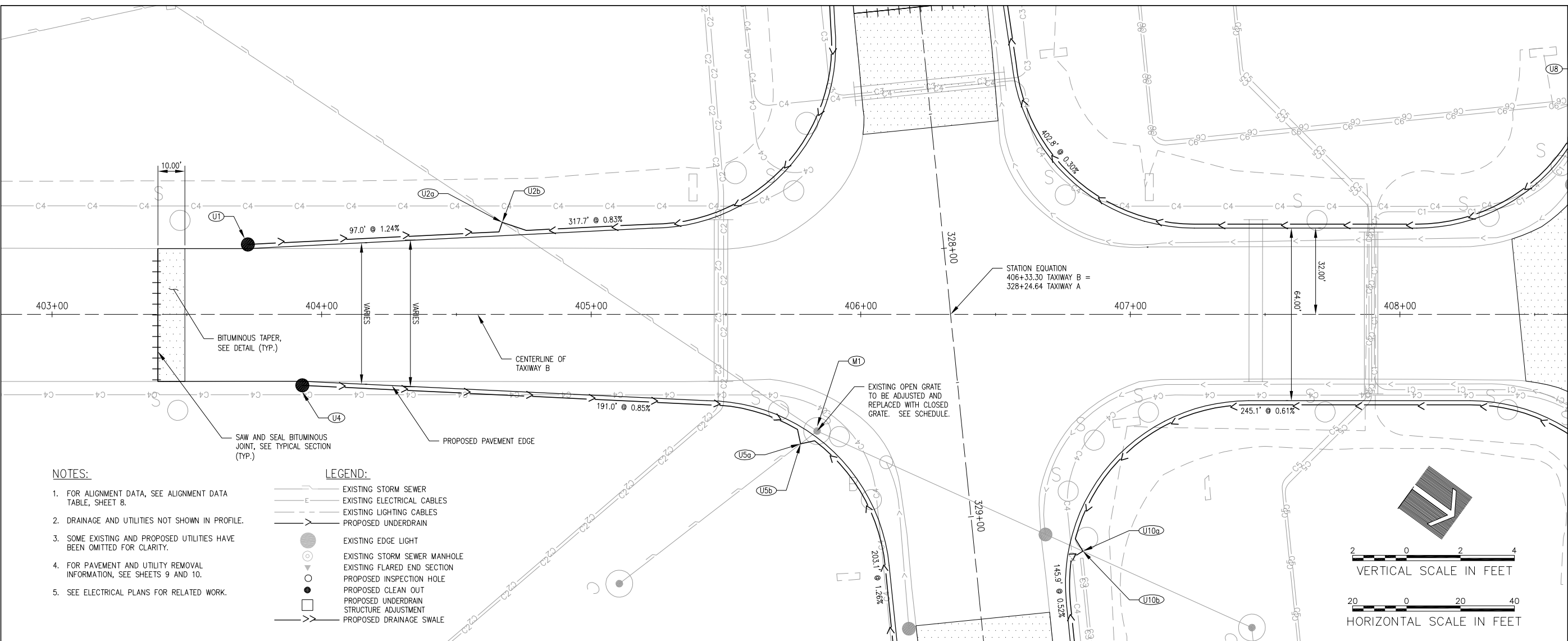
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 WAUKEGAN PORT DISTRICT
 3580 North McAfee Road
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Hanson No.	11A0071D
Filename	13-CRACK_REPAIR_PLAN.DWG
Scale	1"=40'
Date	NOVEMBER 18, 2011
LAYOUT	KMS 10/03/11
DRAWN	KMS 10/03/11
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CRACK REPAIR PLAN
STA 421+50 TO 431+00
 REHABILITATE TAXIWAY B AND
 ASSOCIATED EXIT TAXIWAYS, PHASE 1
 IDA No. UGN-4124 AIP No. 3-17-0105-B52



WA065

REVISION	DATE

Waukegan Regional Airport
 Waukegan Port District
 3580 North McArees Road
 Waukegan, Illinois 60087
 Telephone: 847.244.0066
 Fax: 847.244.3813

Hanson No. 11A0071D
 Filename 14-P&P TAXIWAY B - (1).DWG
 Scale 1"=20'
 Date NOVEMBER 18, 2011

LAYOUT	KMS	09/30/11
DRAWN	KMS	09/30/11
REVIEWED	RWH	11/17/11

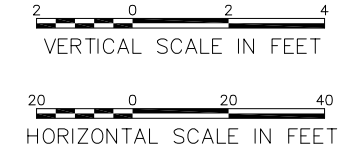
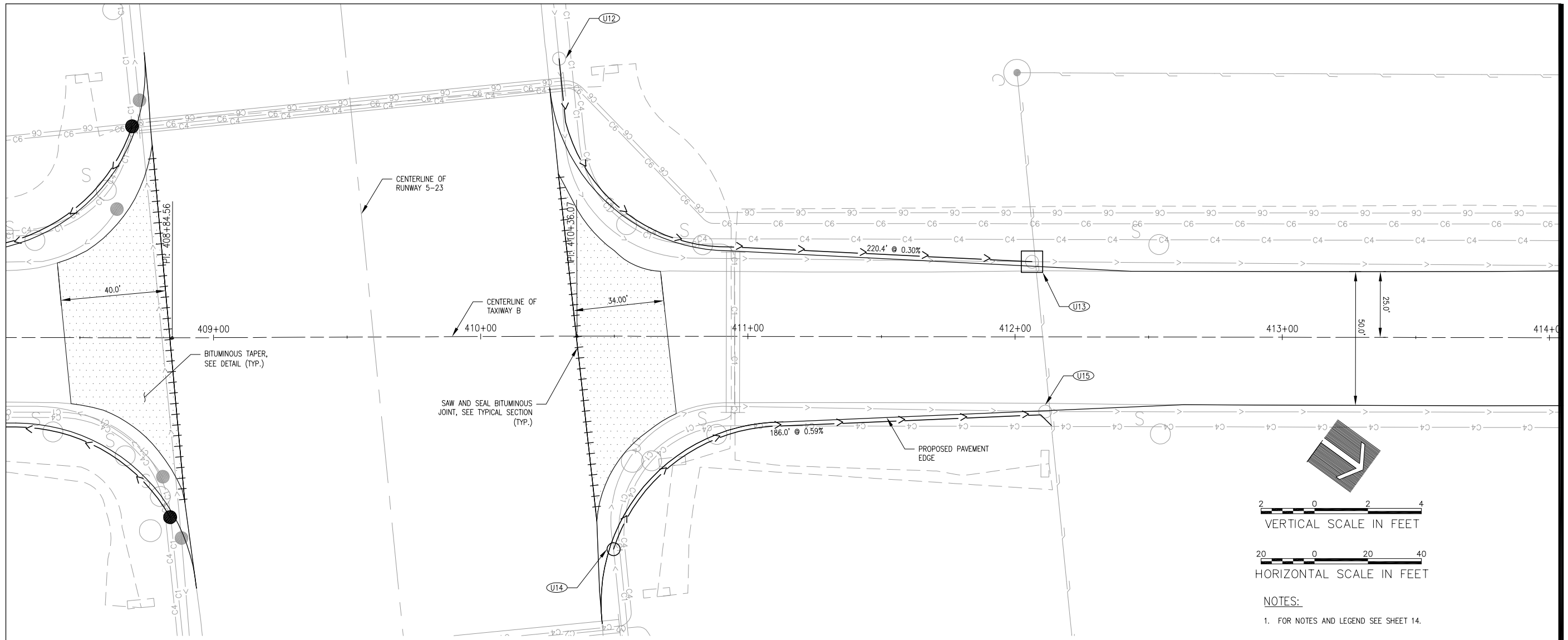
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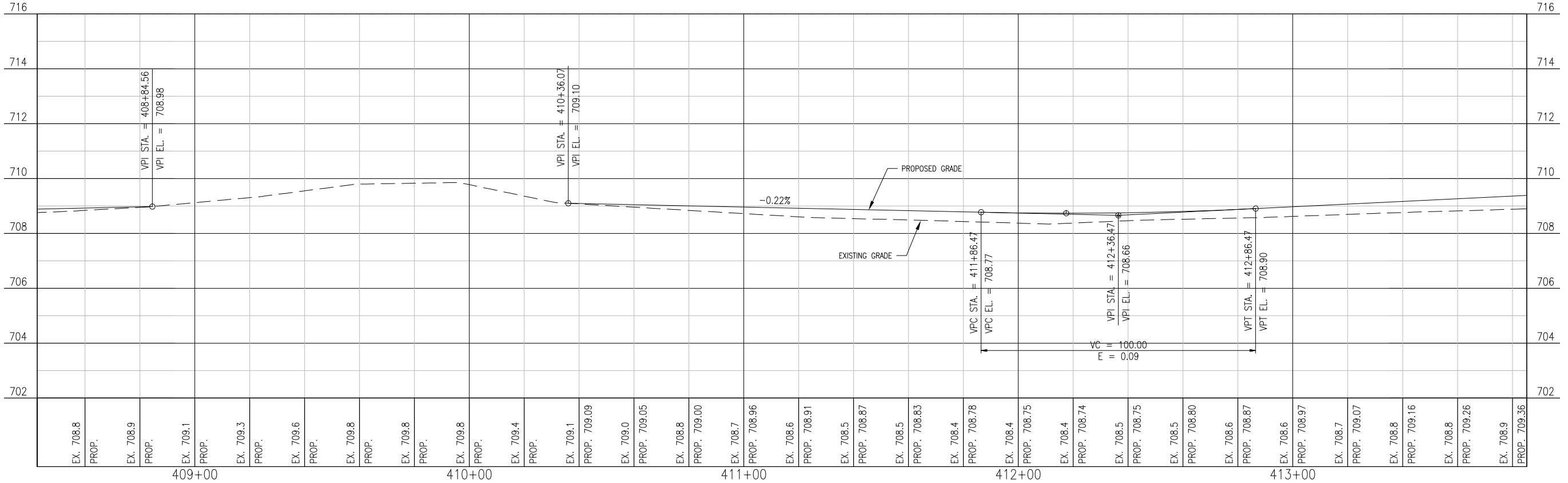
PLAN AND PROFILE TAXIWAY B

REHABILITATE TAXIWAY B AND
 ASSOCIATED EXIT TAXIWAYS, PHASE 1
 IDA No. UGN-4124 AIP No. 3-17-0105-B52

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 14 of 58 sheets



NOTES:
 1. FOR NOTES AND LEGEND SEE SHEET 14.



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WAUKEGAN REGIONAL AIRPORT
 WAUKEGAN PORT DISTRICT
 3580 North McArees Road
 Waukegan, Illinois 60087
 Telephone: 847.244.0066
 Fax: 847.244.3813



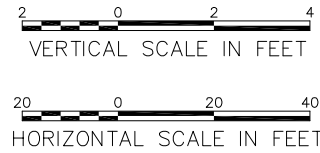
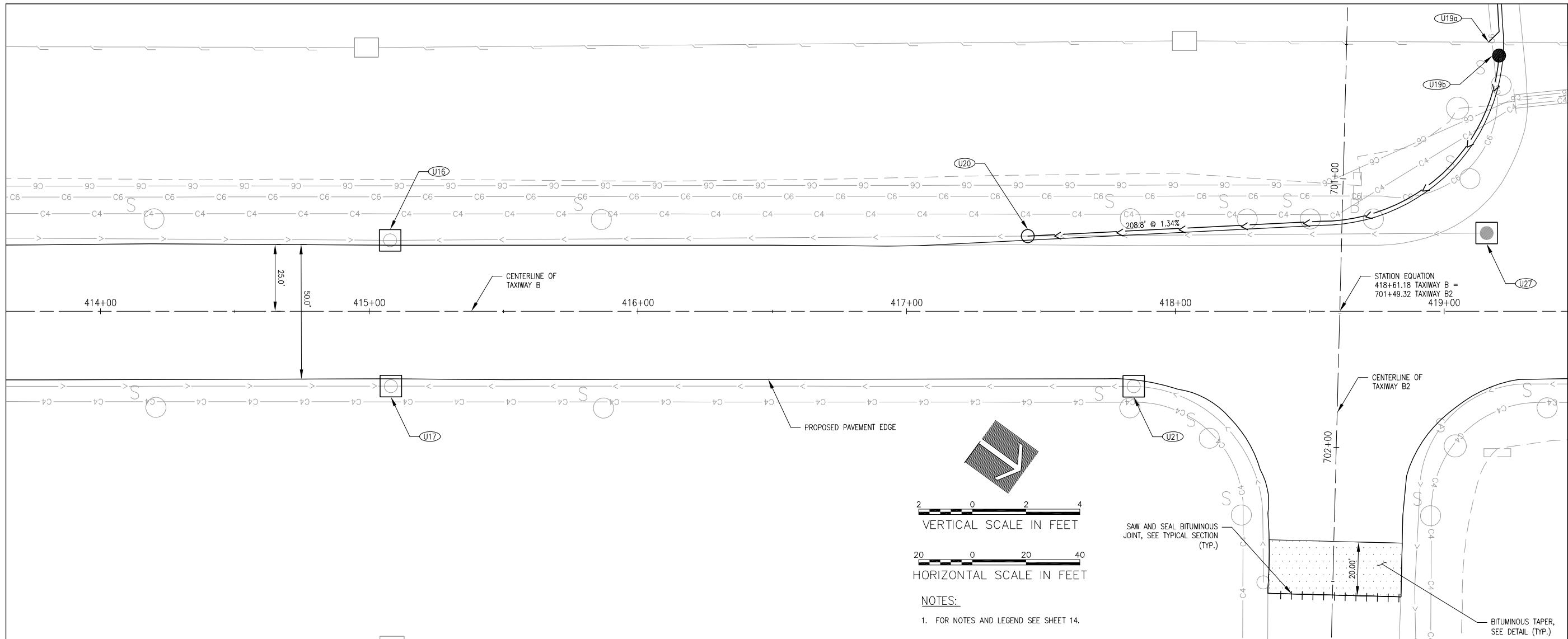
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15-P&P TAXIWAY B - (2).DWG	NOVEMBER 18, 2011	KMS	RWH
LAYOUT	10/03/11	KMS	RWH
DRAWN	10/03/11	KMS	RWH
REVIEWED	11/17/11	KMS	RWH

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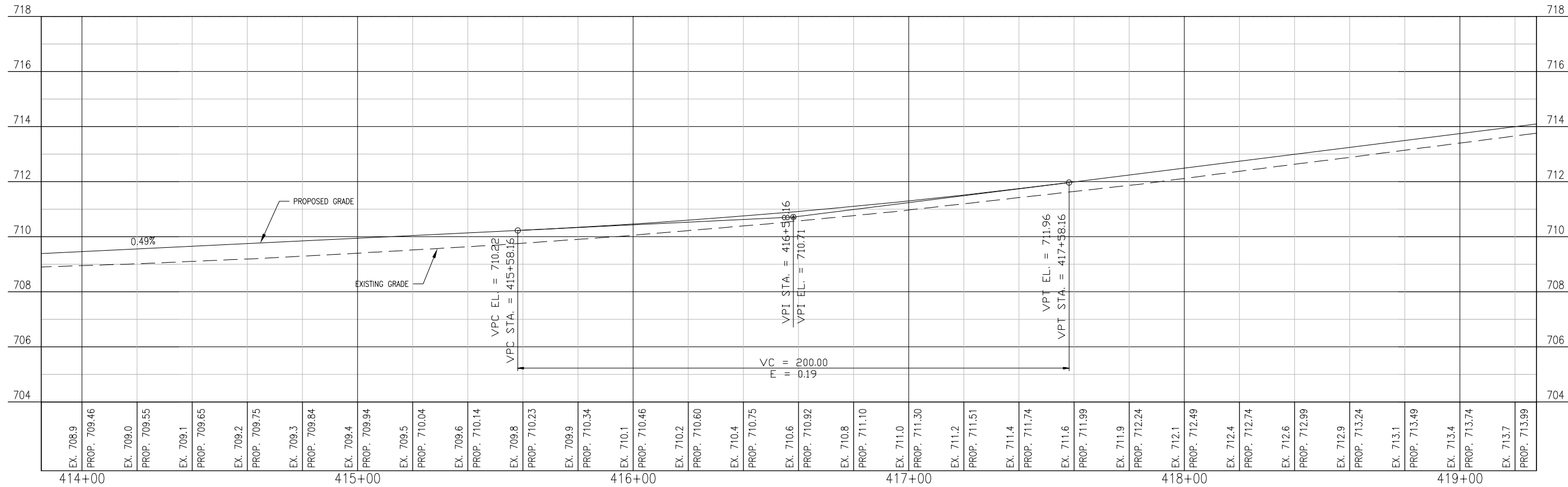
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PLAN AND PROFILE
 TAXIWAY B

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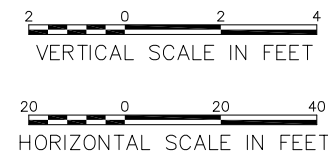
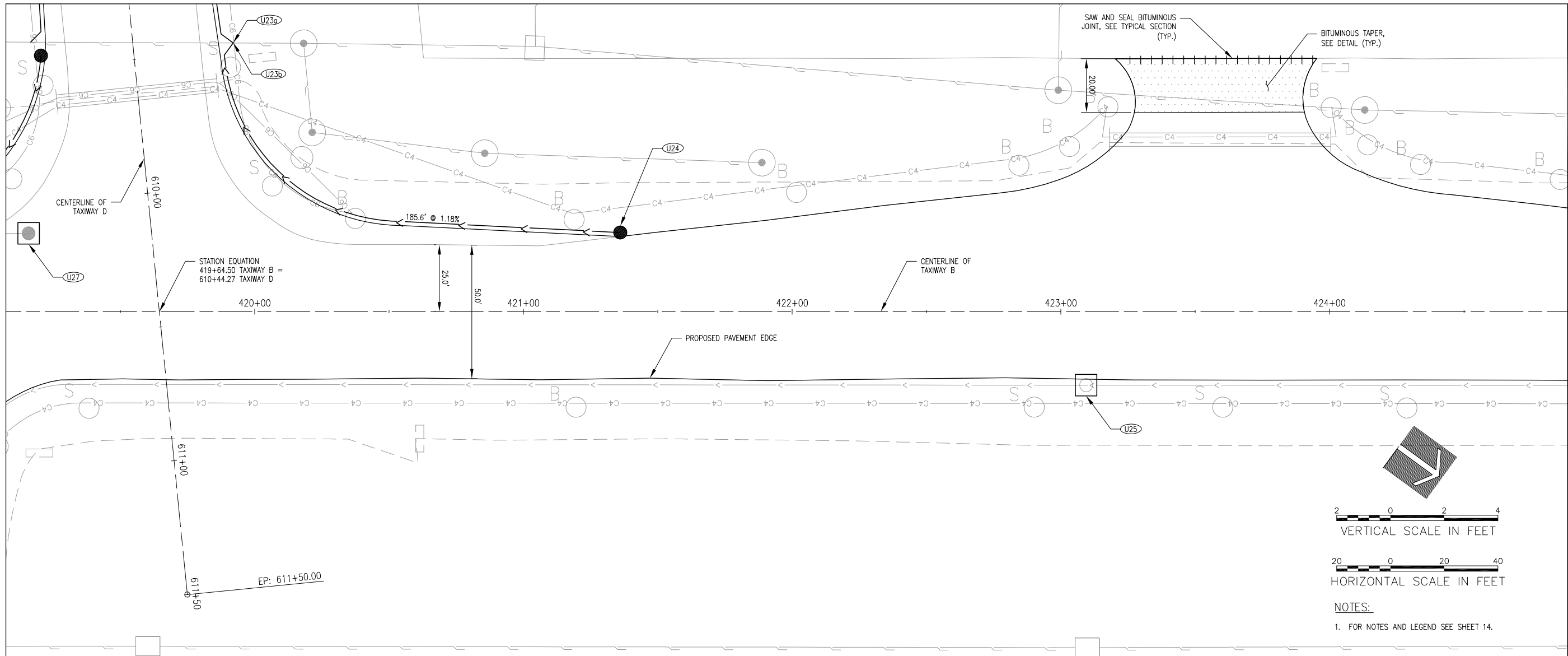


NOTES:
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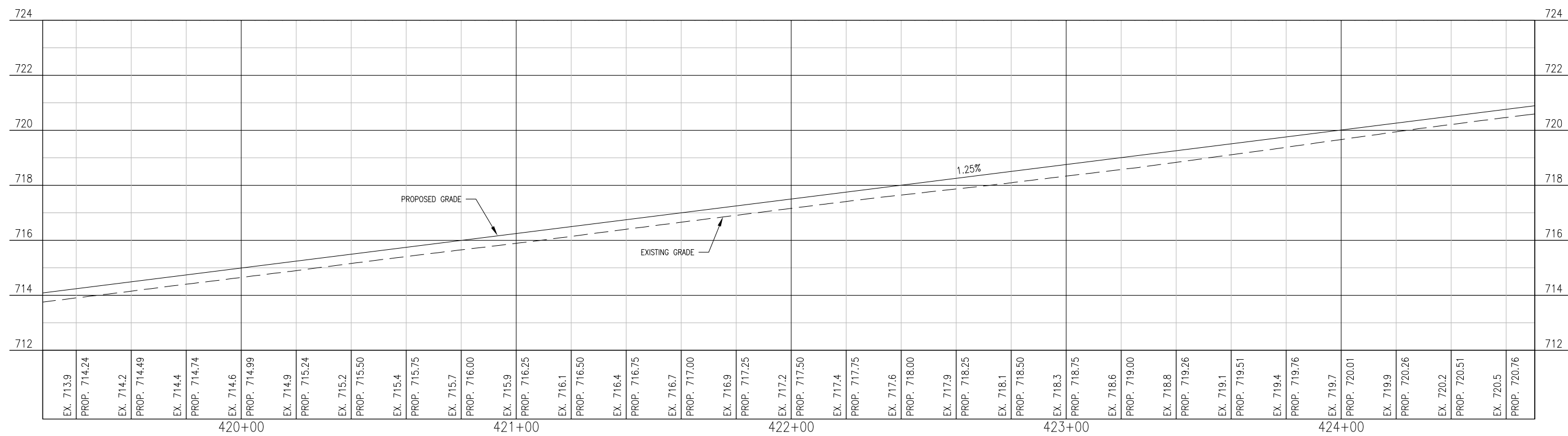


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REVISION	DATE
WAUKEGAN REGIONAL AIRPORT WAUKEGAN PORT DISTRICT 3580 North McAfee Road Waukegan, Illinois 60087 Telephone: 847.244.0066 Fax: 847.244.3813	
Hanson No. 11A0071D Filename 16-P&P TAXIWAY B - (3).DWG Scale 1"=20' Date NOVEMBER 18, 2011	LAYOUT KMS 10/03/11 DRAWN KMS 10/03/11 REVIEWED RWH 11/17/11
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PLAN AND PROFILE TAXIWAY B	
REHABILITATE TAXIWAY B AND ASSOCIATED EXIT TAXIWAYS, PHASE 1 IDA No. UGN-4124 AIP No. 3-17-0105-B52	
<h1>16</h1>	
16 of 58 sheets	

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Hanson No. 11A0071D	10/03/11
Filename 17-P&P TAXIWAY B - (4).DWG	KMS
Scale 1"=20'	KMS
Date NOVEMBER 18, 2011	RWH
LAYOUT	
DRAWN	
REVIEWED	

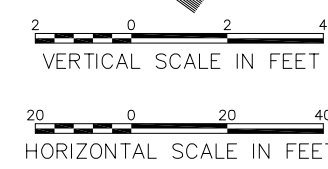
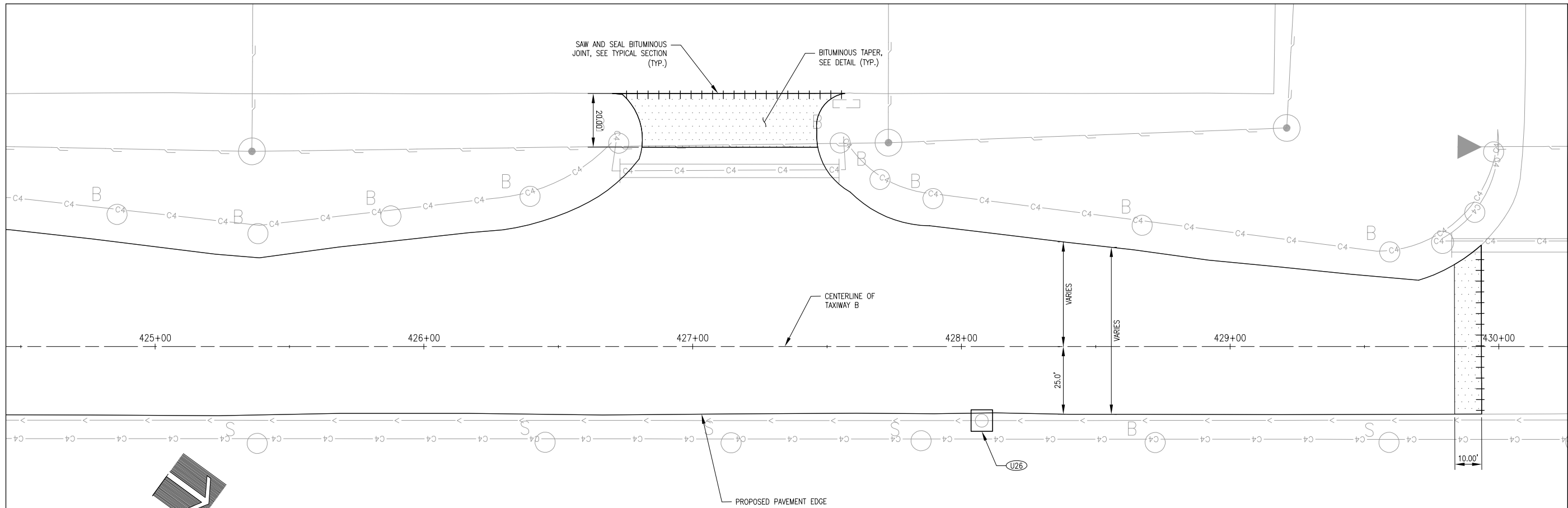
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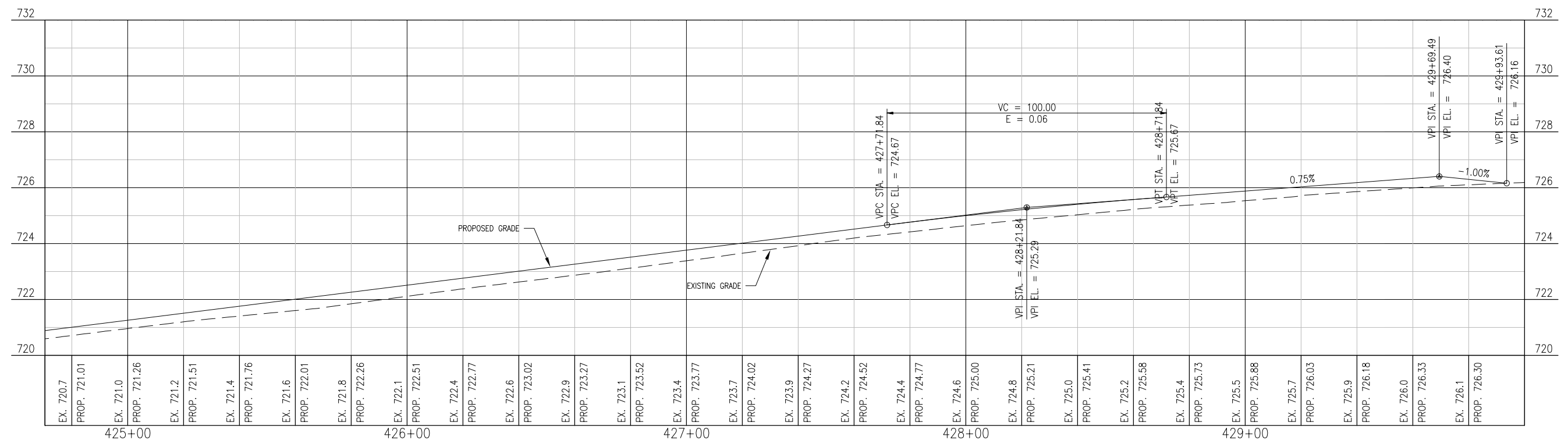
PLAN AND PROFILE
 TAXIWAY B

REHABILITATE TAXIWAY B AND
 ASSOCIATED EXIT TAXIWAYS, PHASE 1
 IDA No. UGN-4124 AIP No. 3-17-0105-B52

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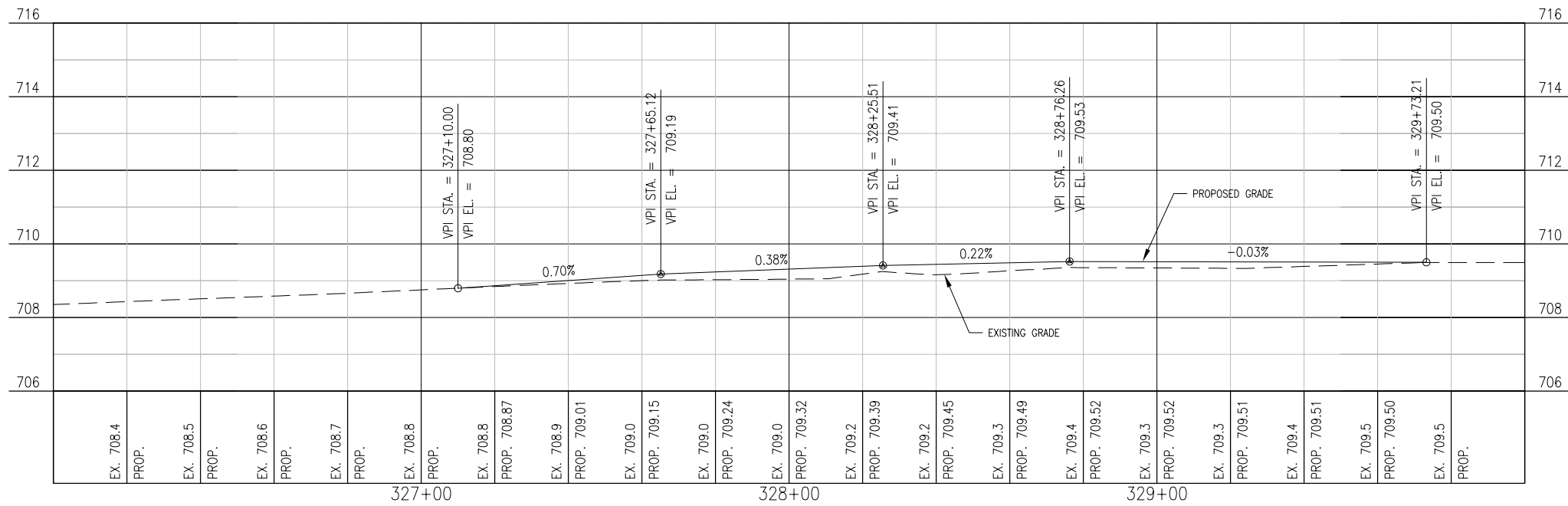
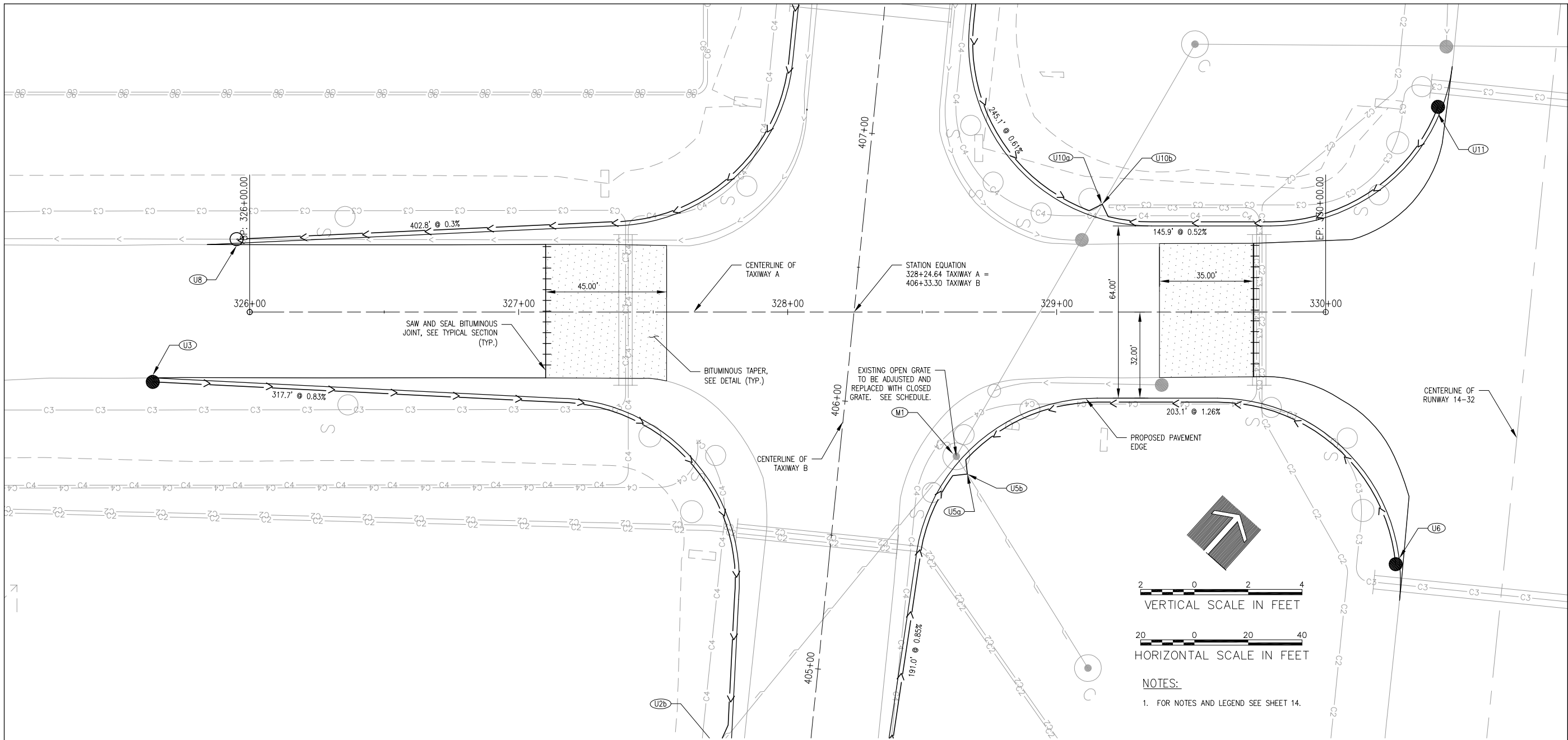
18
 18 of 58 sheets

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 Filename 18-P&P TAXIWAY B - (5).DWG
 Scale 1"=20'
 Date NOVEMBER 18, 2011

LAYOUT	KMS	10/03/11
DRAWN	KMS	10/03/11
REVIEWED	RWH	11/17/11

PLAN AND PROFILE
 TAXIWAY B

REHABILITATE TAXIWAY B AND
 ASSOCIATED EXIT TAXIWAYS, PHASE 1
 IDA No. UGN-4124 AIP No. 3-17-0105-B52



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 WAUKEGAN PORT DISTRICT
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 Fax: 847.244.3813



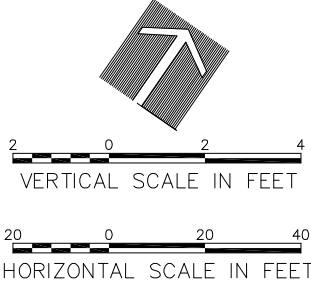
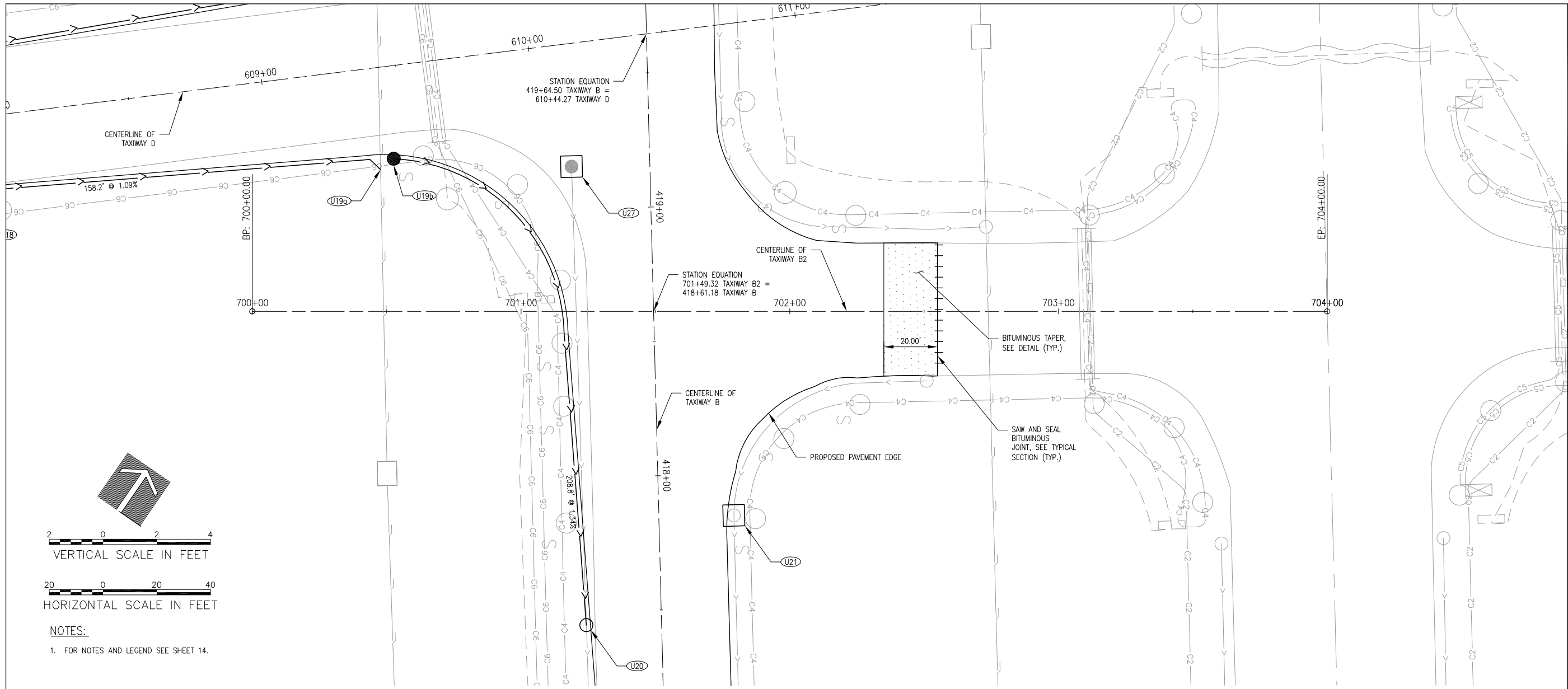
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NOVEMBER 18, 2011	Date	RWH	RWH	11/17/11

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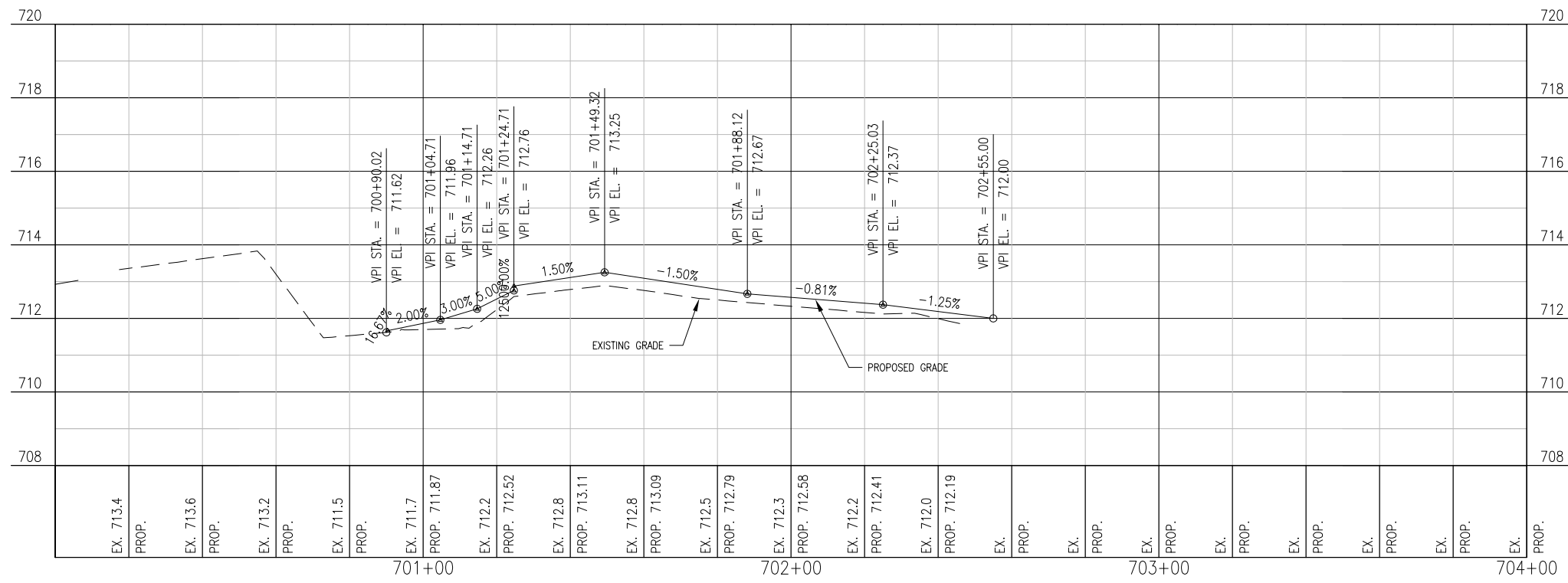
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PLAN AND PROFILE
 TAXIWAY A

REHABILITATE TAXIWAY B AND
 ASSOCIATED EXIT TAXIWAYS, PHASE 1
 IDA No. UGN-4124 AIP No. 3-17-0105-B52



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 1. FOR NOTES AND LEGEND SEE SHEET 14.



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 Waukegan Port District
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Hanson No. 11A0071D
 Filename 20-P&P TAXIWAY B2 - (1).DWG
 Scale 1"=20'
 Date NOVEMBER 18, 2011

LAYOUT	KMS	10/03/11
DRAWN	KMS	10/03/11
REVIEWED	RWH	11/17/11

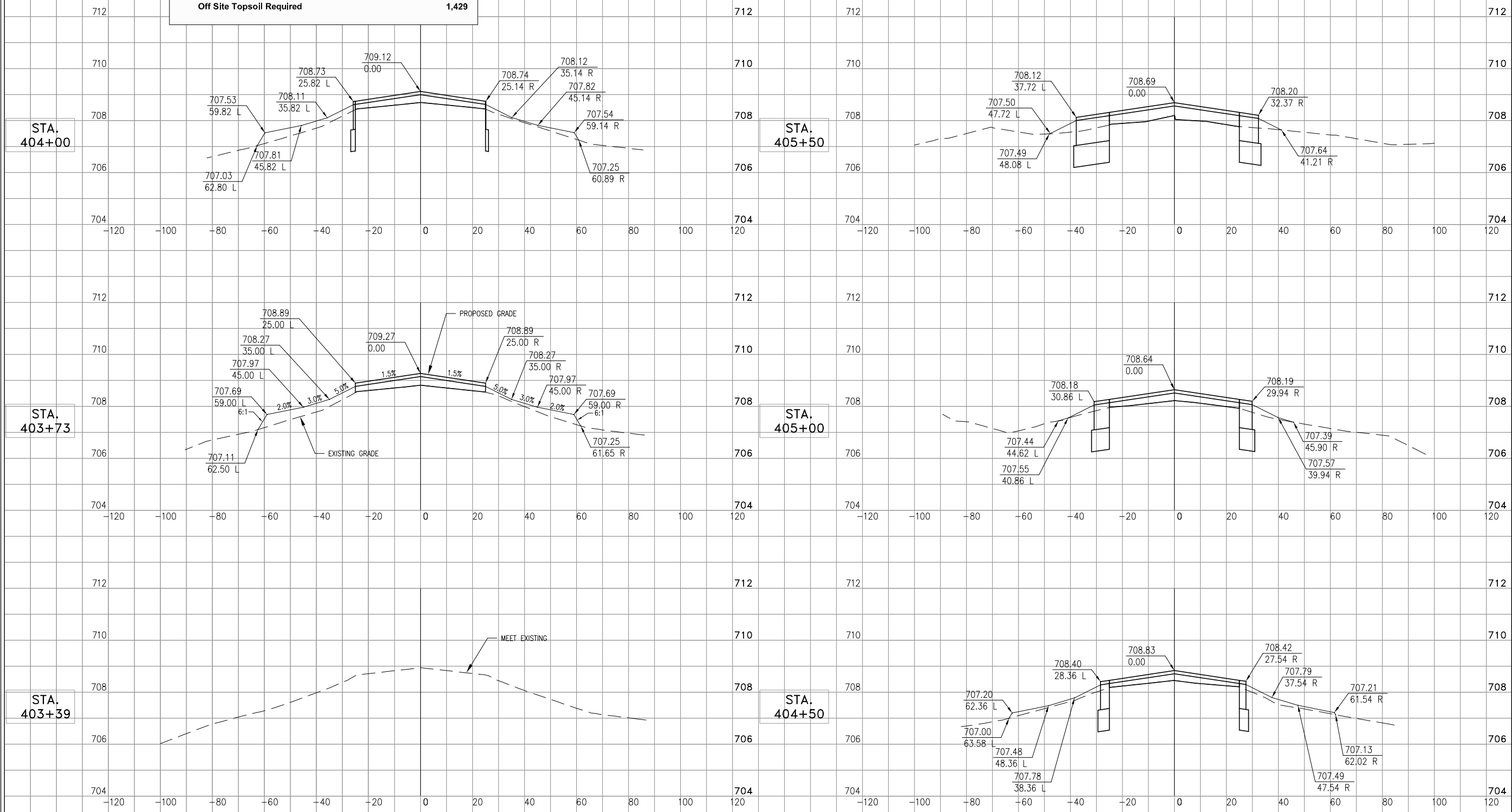
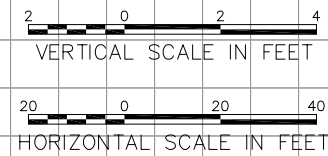
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**PLAN AND PROFILE
 TAXIWAY B2**

**REHABILITATE TAXIWAY B AND
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 IDA No. UGN-4124 AIP No. 3-17-0105-B52

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 20 of 58 sheets

EARTHWORK SUMMARY IN CUBIC YARDS		
CUT		
Topsoil		403
Clay		887
TOTAL UNCLASSIFIED CUT		1,290
CLAY FILL		
Fill		328
Shrink (10%)		33
TOTAL UNCLASSIFIED FILL		361
Excess Clay for Disposal Onsite		526
TOPSOIL FILL		
Topsoil from On Site		403
TOTAL TOPSOIL REQUIRED		1,832
Off Site Topsoil Required		1,429



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Revision No.	Filename	Scale	Date	LAYOUT	DRAWN	REVIEWED
11A0071D	22-XSECT-TX B.DWG	1"=20'	NOVEMBER 18, 2011	LDH	LDH	RWH
				10/31/11	10/31/11	11/17/11

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TAXIWAY B
REHABILITATE TAXIWAY B AND ASSOCIATED EXIT TAXIWAYS, PHASE 1
 IDA No. UGN-4124 AIP No. 3-17-0105-B52

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WAUKEGAN PORT DISTRICT
3580 North McAfee Road
Waukegan, Illinois 60087
Telephone: 847.244.0066
Fax: 847.244.3813

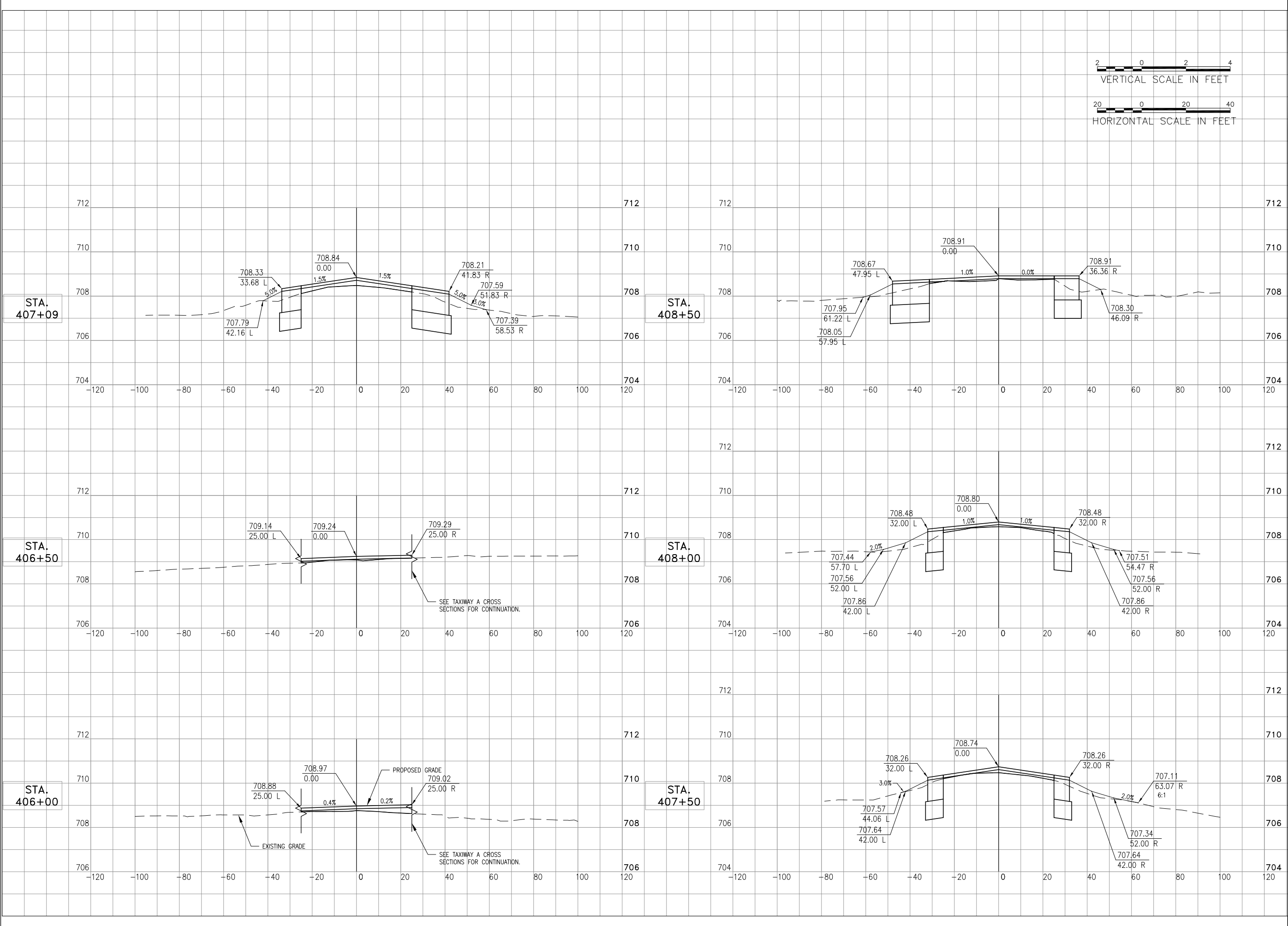
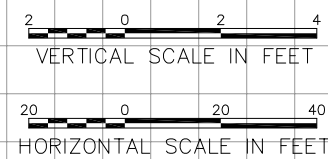


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Scale	1"=20'	REVIEWED	RWH	11/17/11
Date	NOVEMBER 18, 2011			

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IDA No. UGN-4124 AIP No. 3-17-0105-B52



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 WAUKEGAN PORT DISTRICT
 3580 North McAfee Road
 Waukegan, Illinois 60087
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 Fax: 847.244.3813



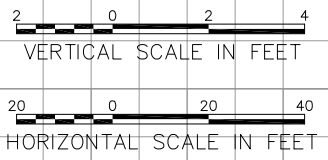
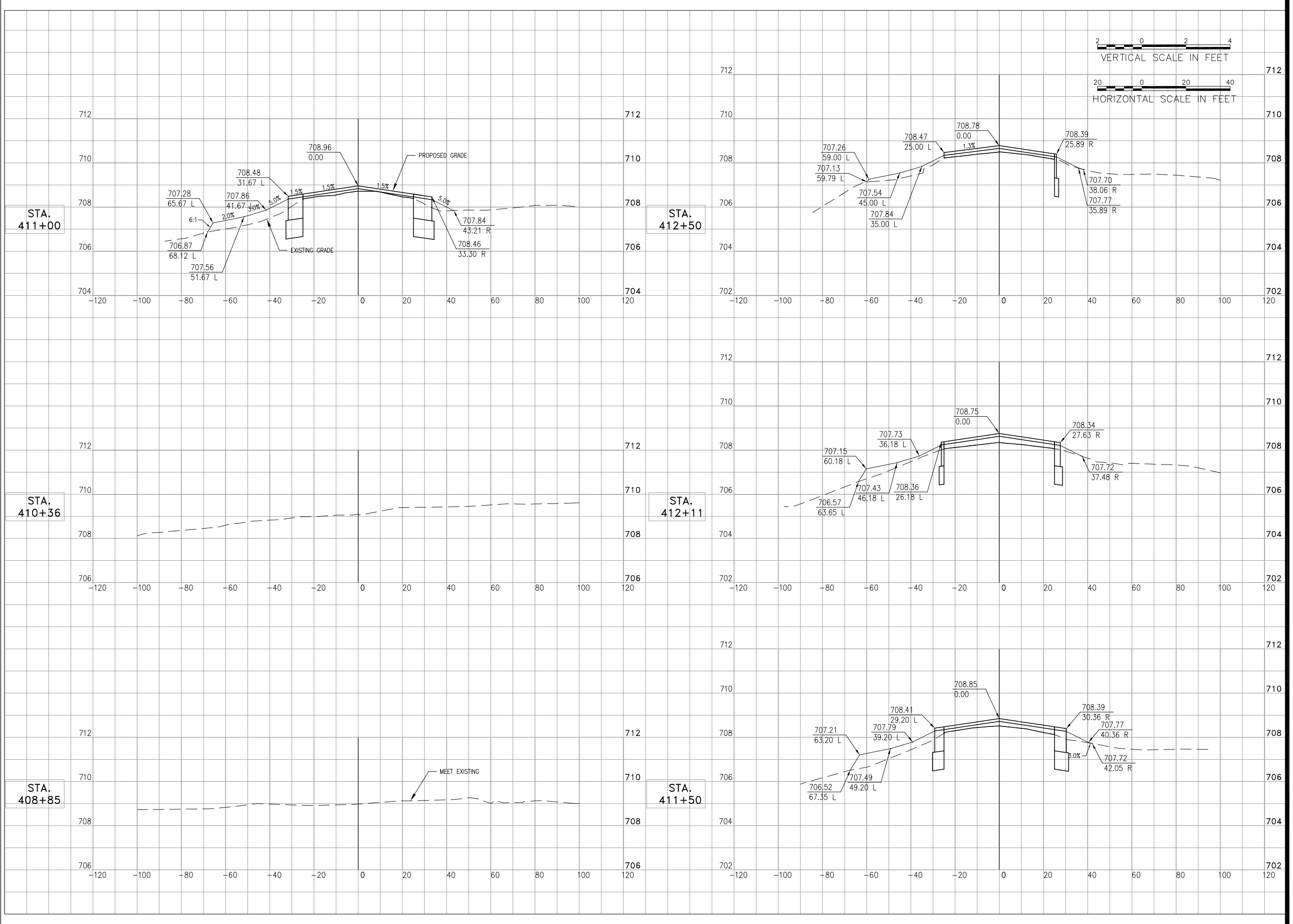
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24-XSECT-TX B.DWG	10/31/11	LDH	RWH
1"=20'	10/31/11	LDH	RWH
NOVEMBER 18, 2011	11/17/11	LDH	RWH

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WAUKEGAN PORT DISTRICT
3580 North McAfee Road
Waukegan, Illinois 60087
Telephone: 847.244.0066
Fax: 847.244.3813

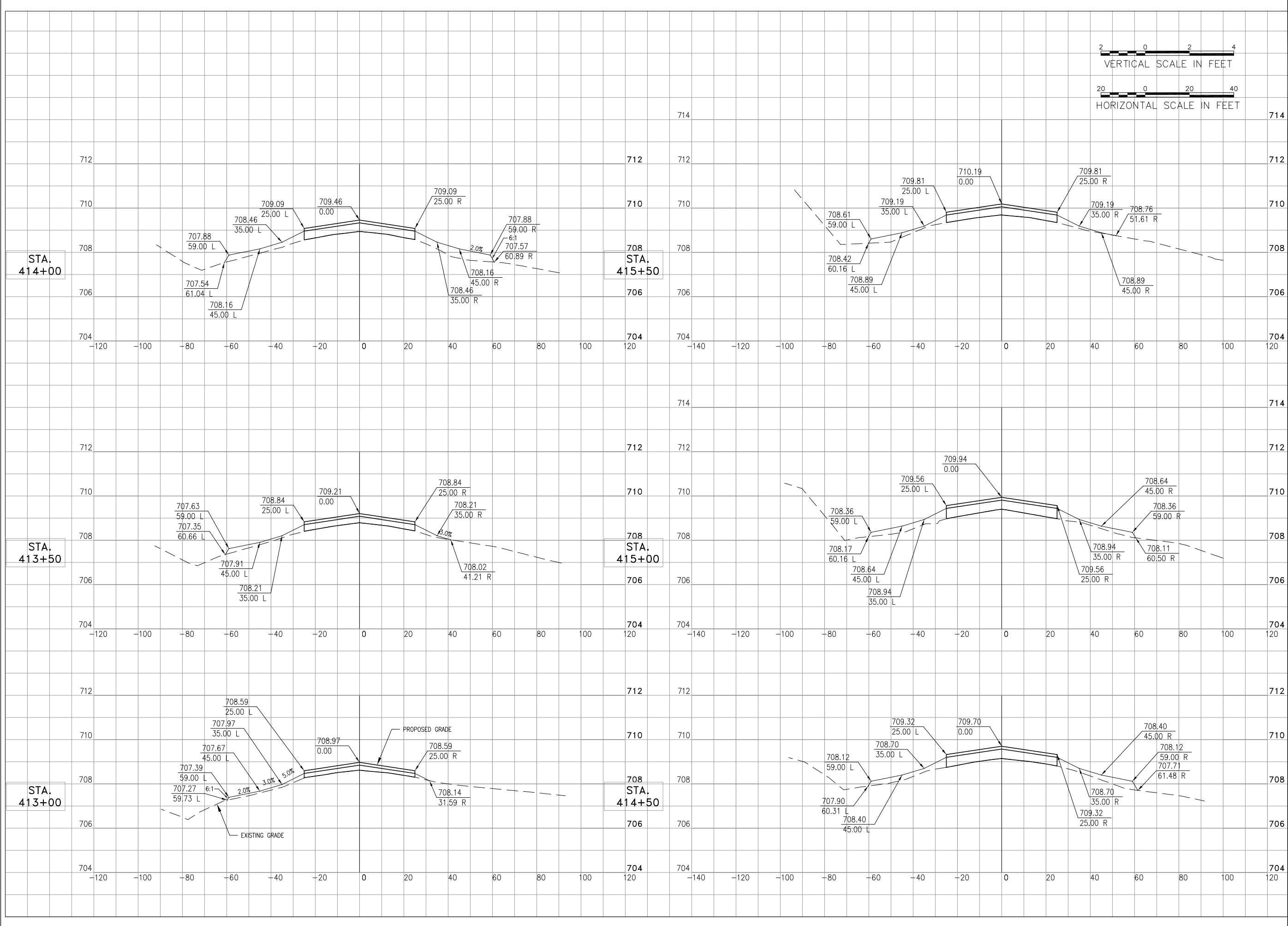
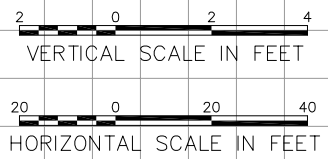


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Scale	1"=20'	REVIEWED	RWH	11/17/11
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 WAUKEGAN PORT DISTRICT
 3580 North McAfee Road
 Waukegan, Illinois 60087
 Telephone: 847.244.0066
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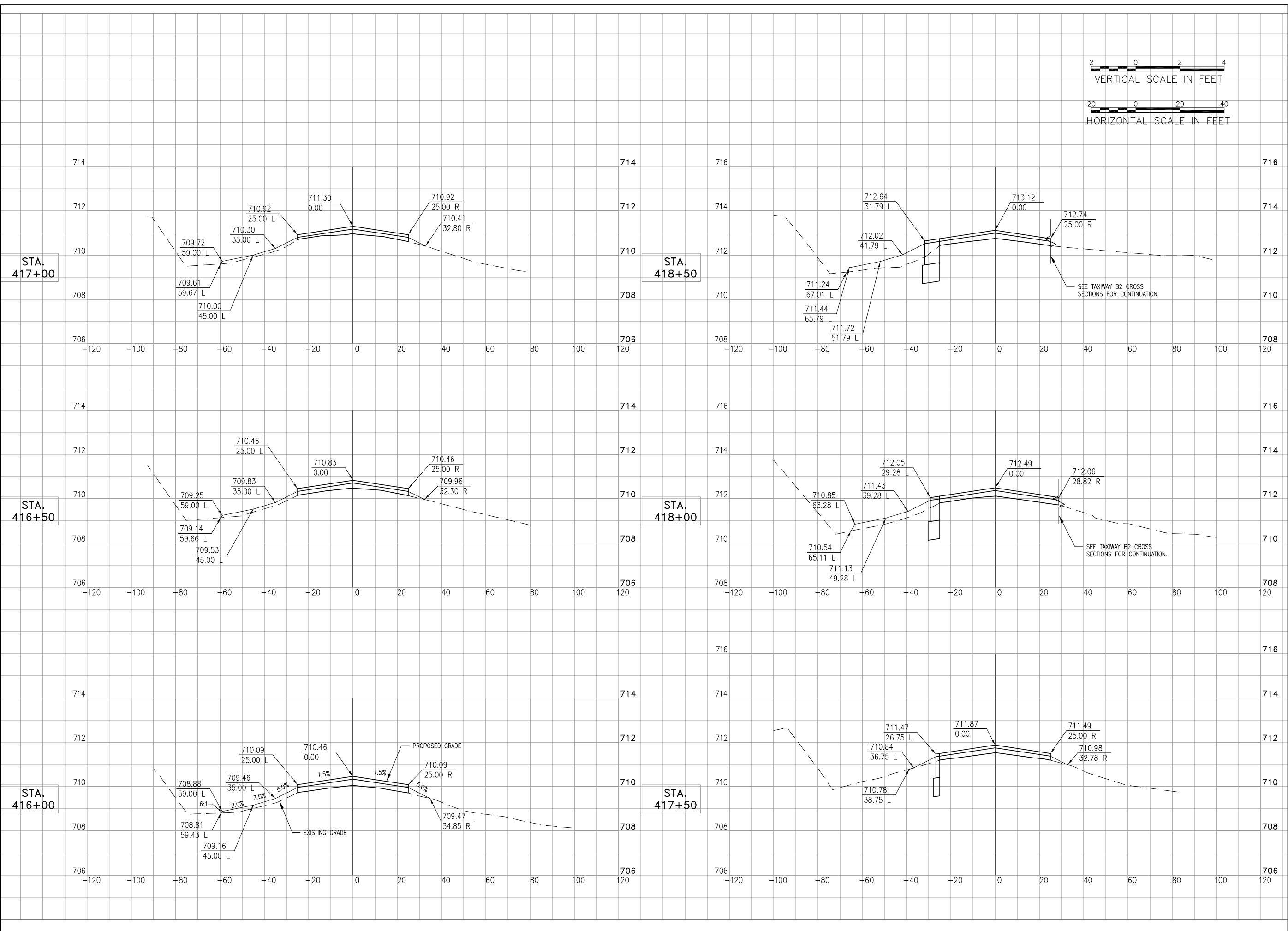
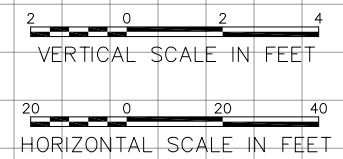


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NOVEMBER 18, 2011	11/17/11	LDH	RWH

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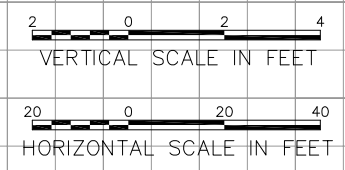
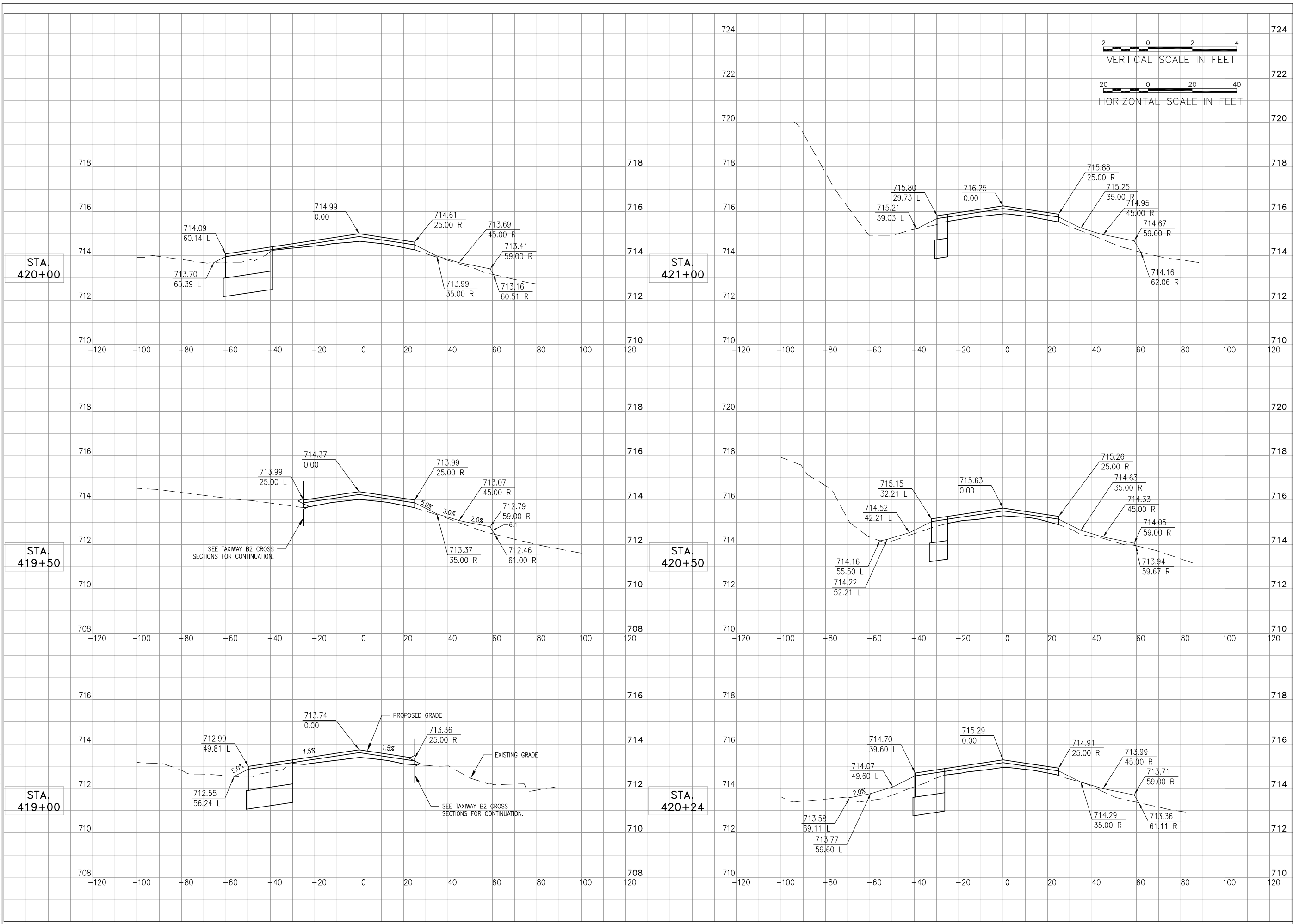
**CROSS SECTIONS
 TAXIWAY B**

REHABILITATE TAXIWAY B AND
 ASSOCIATED EXIT TAXIWAYS, PHASE 1
 IDA No. UGN-4124 AIP No. 3-17-0105-B52



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Hanson No.	11A0071D	LDH	10/31/11
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Scale	1"=20'	RWH	11/17/11
Date	NOVEMBER 18, 2011		
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 IDA No. UGN-4124 AIP No. 3-17-0105-B52

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 WAUKEGAN PORT DISTRICT
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 Waukegan, Illinois 60087
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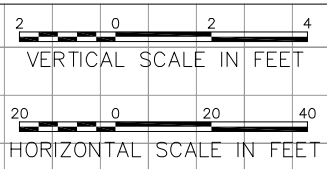
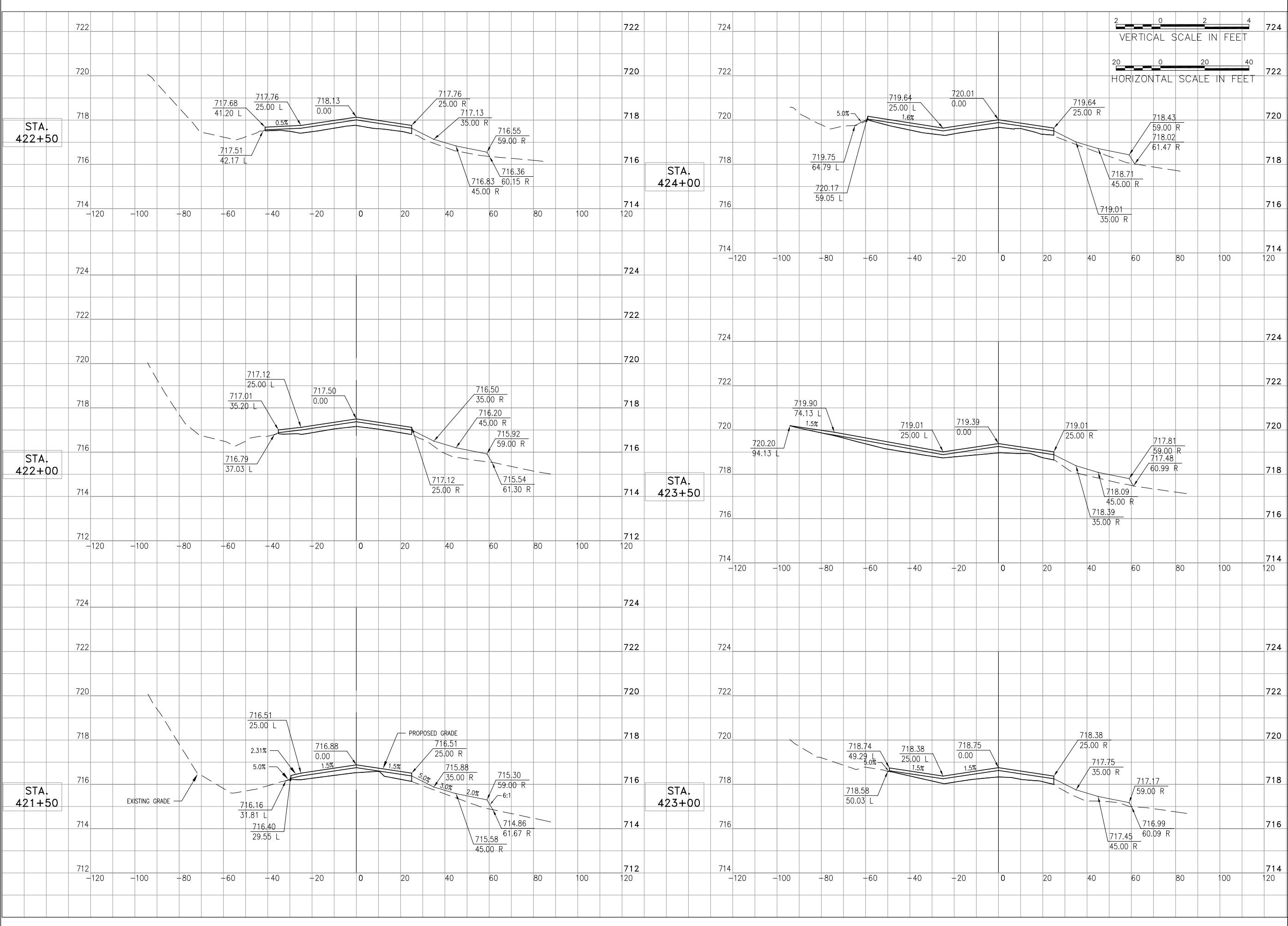
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Date	NOVEMBER 18, 2011			

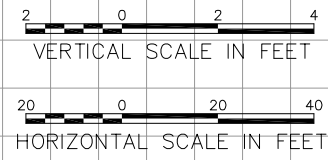
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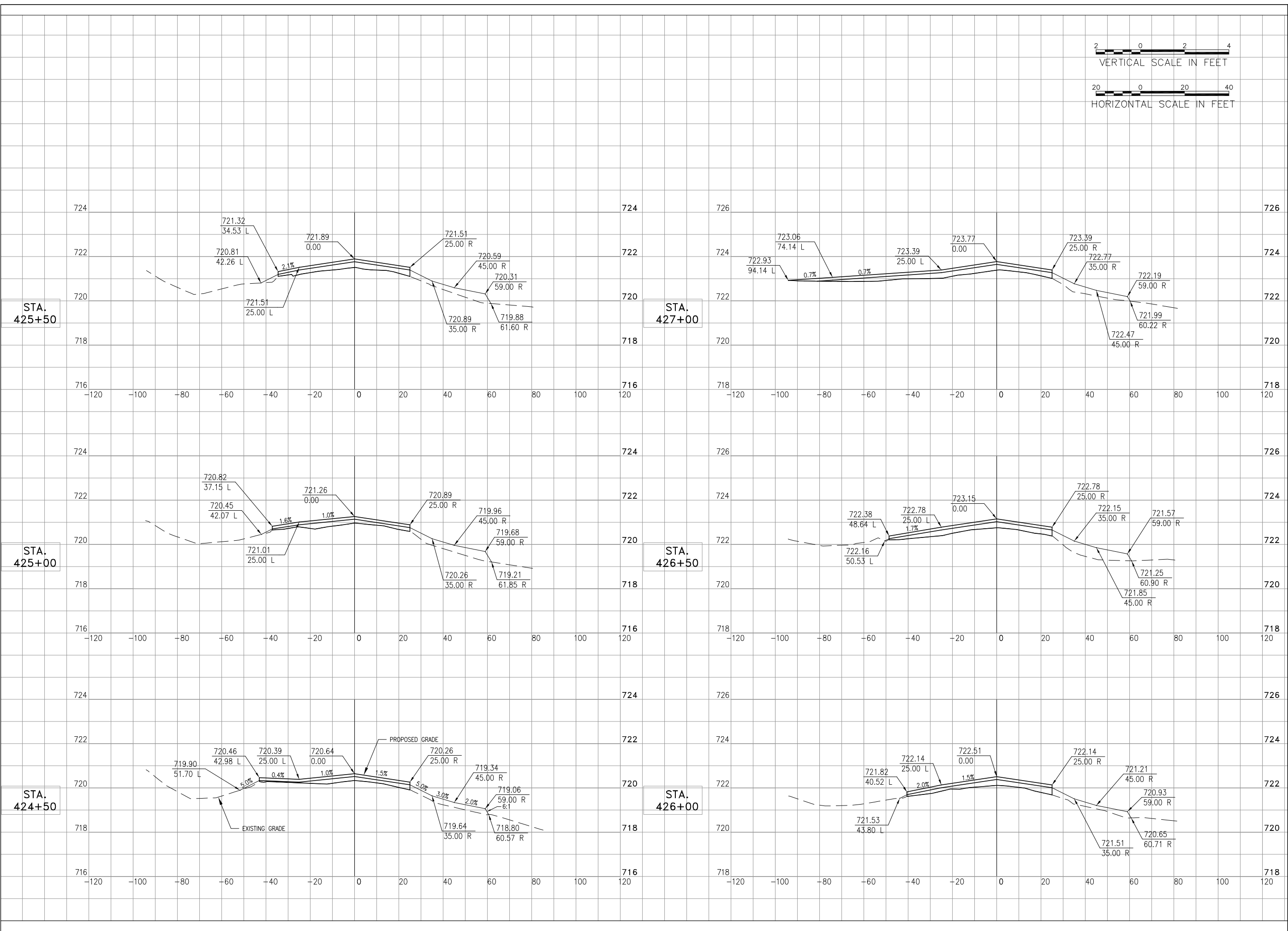
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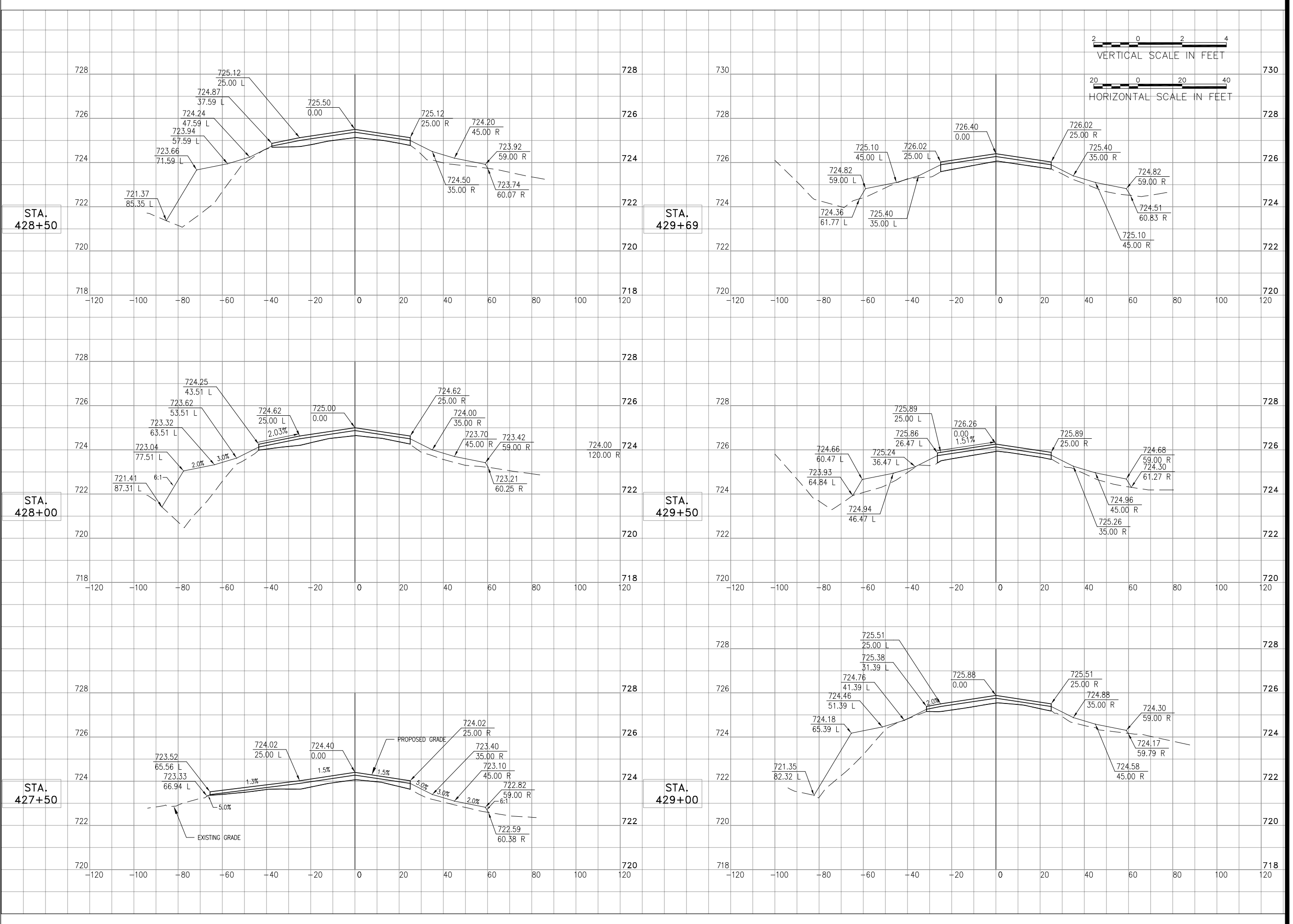
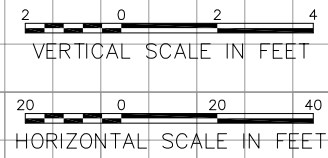
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Hanson No.	11A0071D	LAYOUT	LDH	10/31/11
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 Oak Brook, Illinois 60523

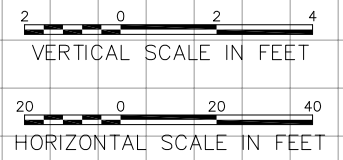
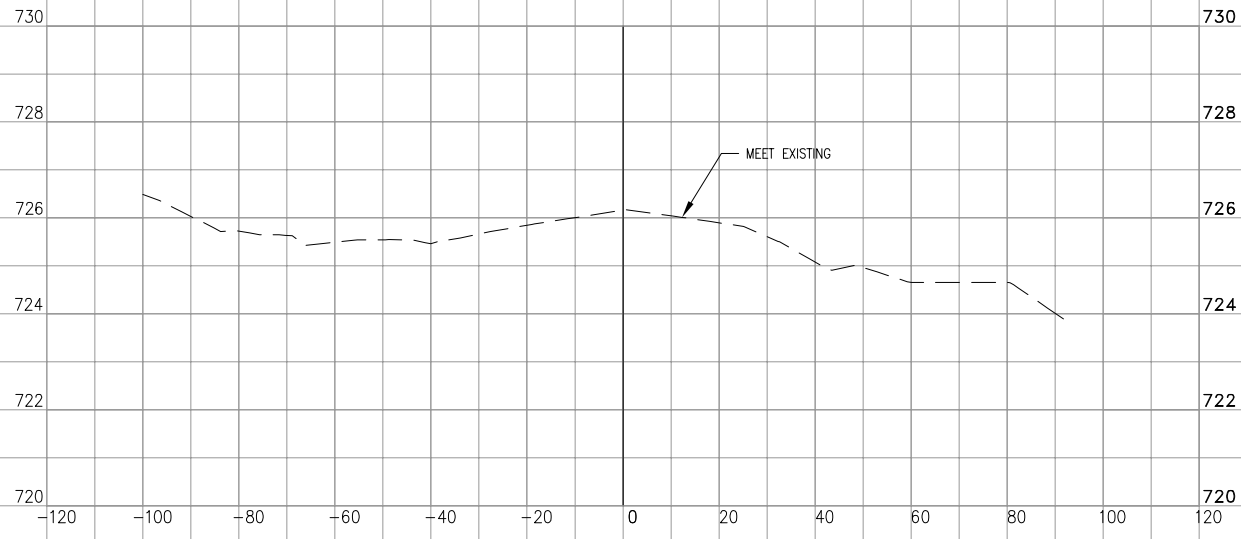
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TAXIWAY B**
 REHABILITATE TAXIWAY B AND
 ASSOCIATED EXIT TAXIWAYS, PHASE 1
 IDA No. UGN-4124 AIP No. 3-17-0105-B52



NOV 18, 2011 3:24 PM SPITZ01394
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STA.
429+94



WA065

REVISION	DATE

WAUKEGAN REGIONAL AIRPORT
WAUKEGAN PORT DISTRICT
3580 North McAtee Road
Waukegan, Illinois 60087
Telephone: 847.244.0066
Fax: 847.244.3813



Revision No.	11A0071D	
Filename	31-XSECT-TX B.DWG	
Scale	1"=20'	
Date	NOVEMBER 18, 2011	
LAYOUT	LDH	10/31/11
DRAWN	LDH	10/31/11
REVIEWED	RWH	11/17/11

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CROSS SECTIONS
TAXIWAY B

REHABILITATE TAXIWAY B AND
ASSOCIATED EXIT TAXIWAYS, PHASE 1
IDA No. UGN-4124 AIP No. 3-17-0105-B52

REVISION	DATE

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 WAUKEGAN PORT DISTRICT
 3580 North McAfee Road
 Waukegan, Illinois 60087
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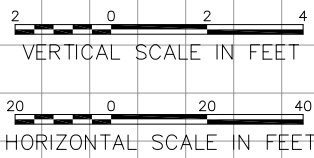
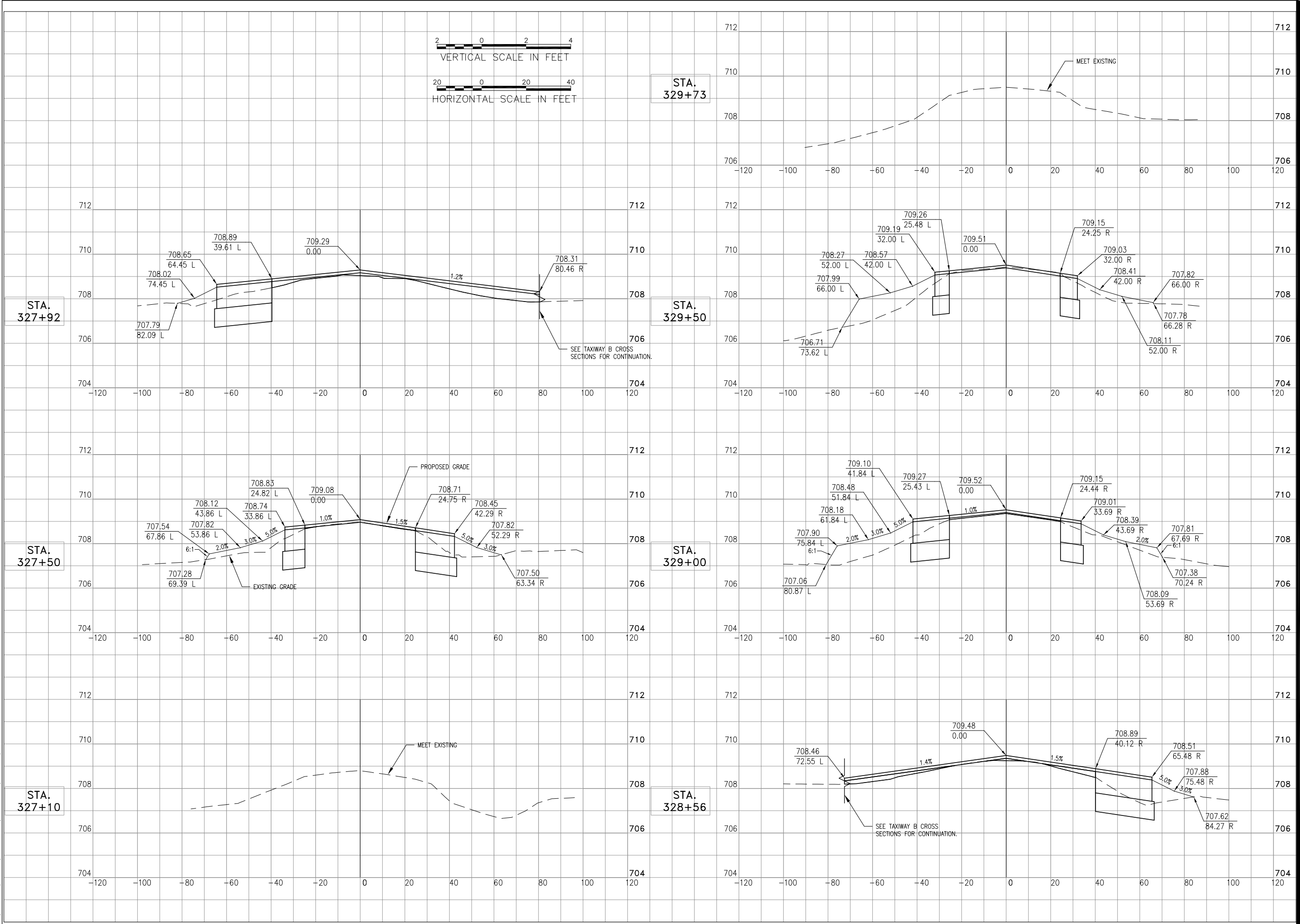


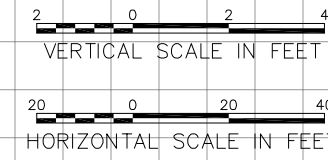
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1"=20'	10/31/11	LDH	RWH
NOVEMBER 18, 2011	11/17/11	LDH	RWH

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CROSS SECTIONS
 TAXIWAY A
 REHABILITATE TAXIWAY B AND
 ASSOCIATED EXIT TAXIWAYS, PHASE 1
 IDA No. UGN-4124 AIP No. 3-17-0105-B52

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Revision No.	Filename	Scale	Date	LAYOUT	DRAWN	REVIEWED
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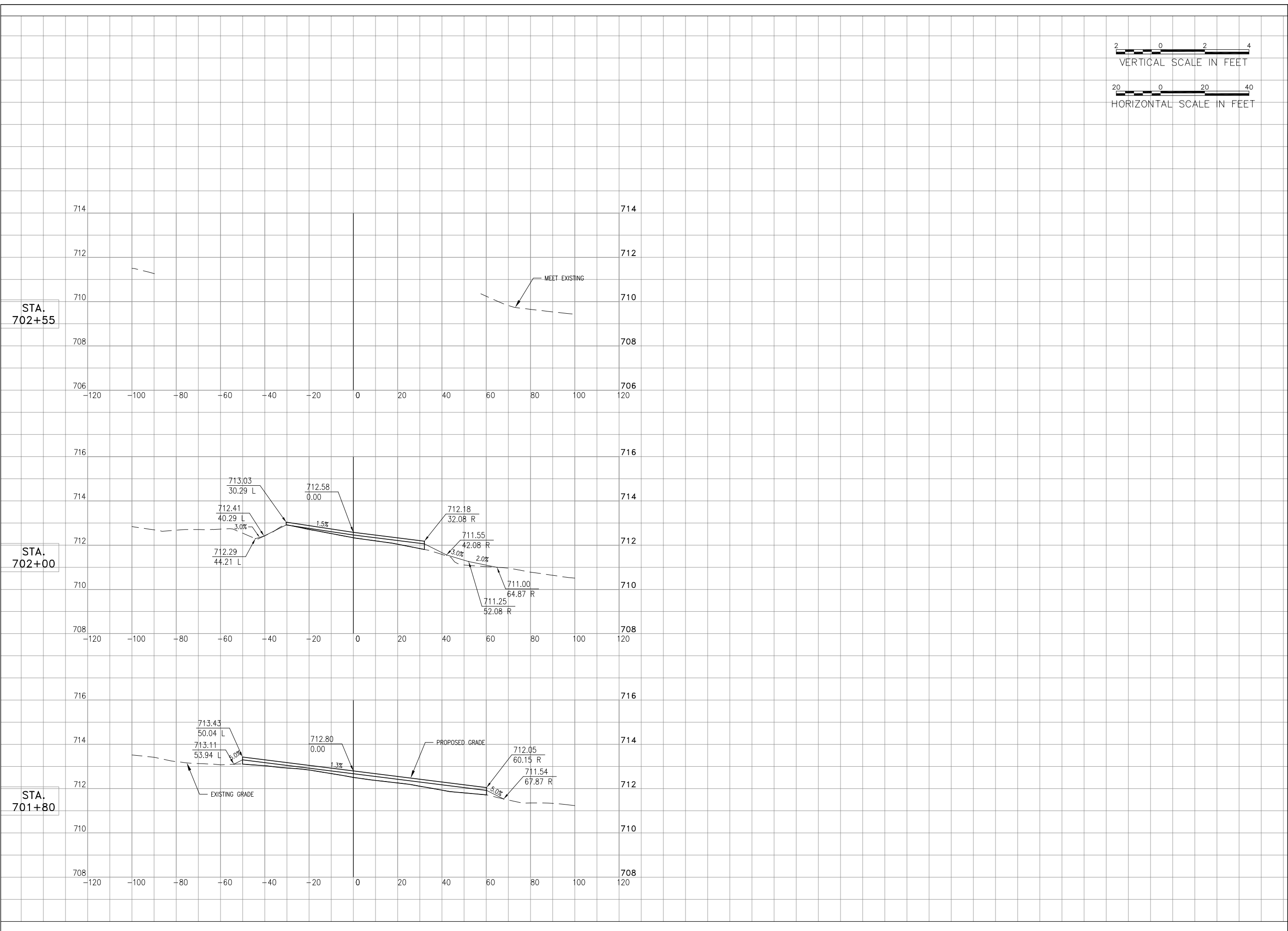
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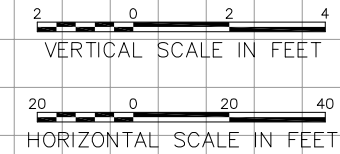
Hanson Professional Services Inc.
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CROSS SECTIONS
 TAXIWAY B2

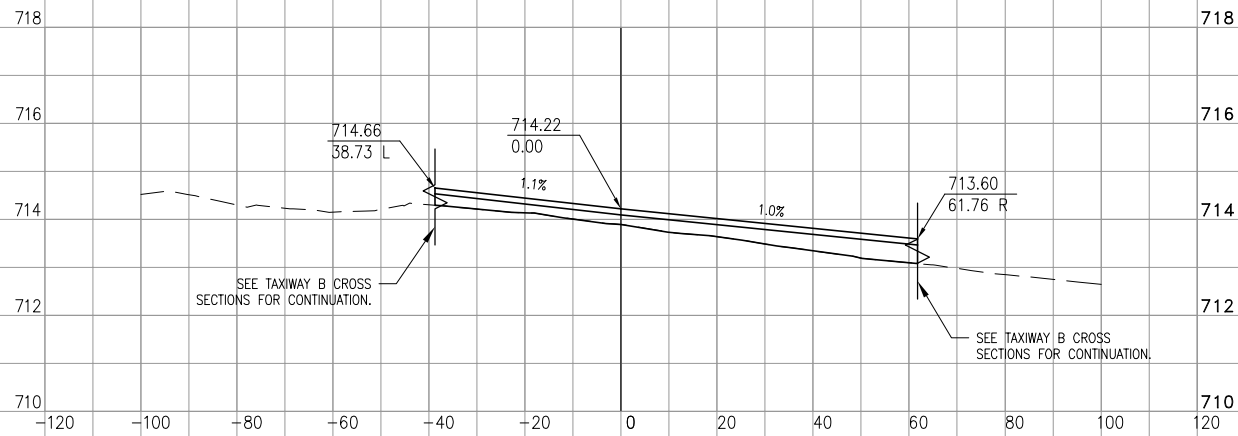
REHABILITATE TAXIWAY B AND
 ASSOCIATED EXIT TAXIWAYS, PHASE 1
 IDA No. UGN-4124 AIP No. 3-17-0105-B52

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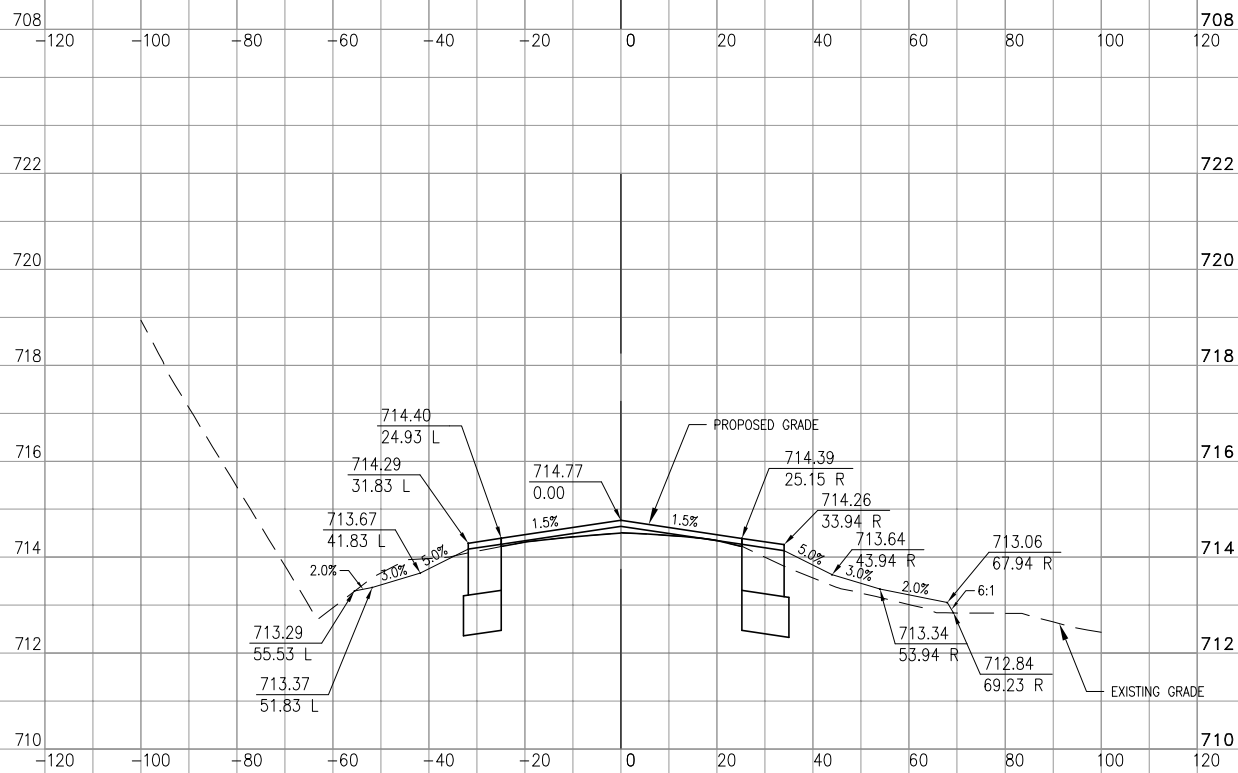
STA. 610+13



STA. 610+00



STA. 609+50



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Filename	Scale	Date	LAYOUT	DRAWN	REVIEWED
11A0071D	1"=20'	NOVEMBER 18, 2011	LDH	LDH	RWH

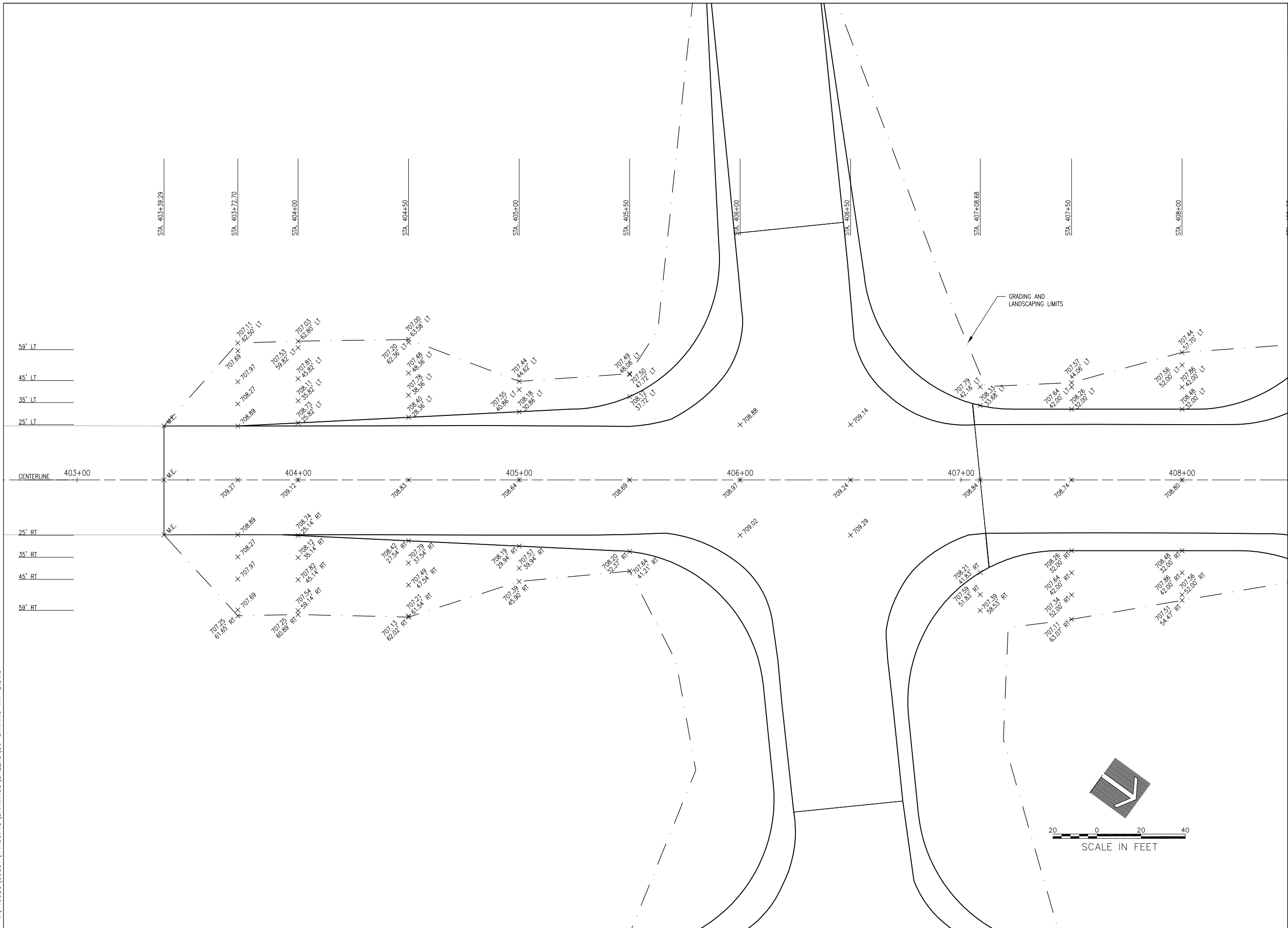
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CROSS SECTIONS
TAXIWAY D

REHABILITATE TAXIWAY B AND
ASSOCIATED EXIT TAXIWAYS, PHASE 1
IDA No. UGN-4124 AIP No. 3-17-0105-B52

NOV 18, 2011 3:27 PM SPITZ01394
I:\1\JOBS\00831\11A0071D\DRAWINGS\SHEETS\35-XSECT-TXY D.DWG



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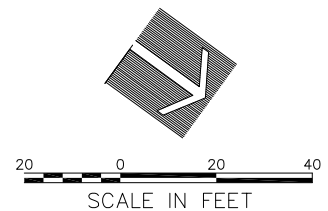
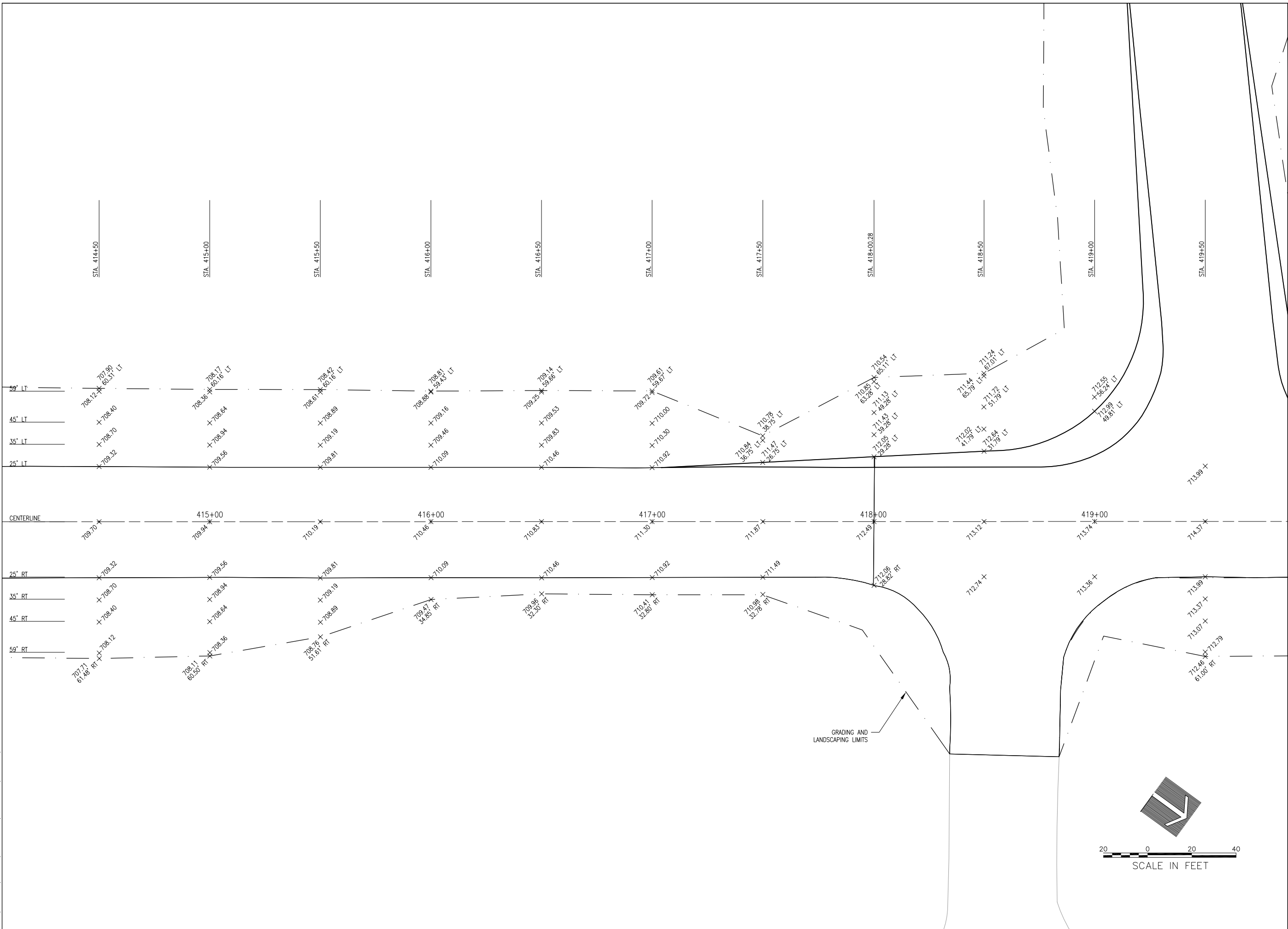


Hanson No. 11A0071D	
Filename	36-STAKING TXY B.DWG
Scale	1"=20'
Date	NOVEMBER 18, 2011
LAYOUT	LDH 10/31/11
DRAWN	LDH 10/31/11
REVIEWED	RWH 11/17/11

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STAKING PLAN
 TAXIWAY B

REHABILITATE TAXIWAY B AND
 ASSOCIATED EXIT TAXIWAYS, PHASE 1
 IDA No. UGN-4124 AIP No. 3-17-0105-B52



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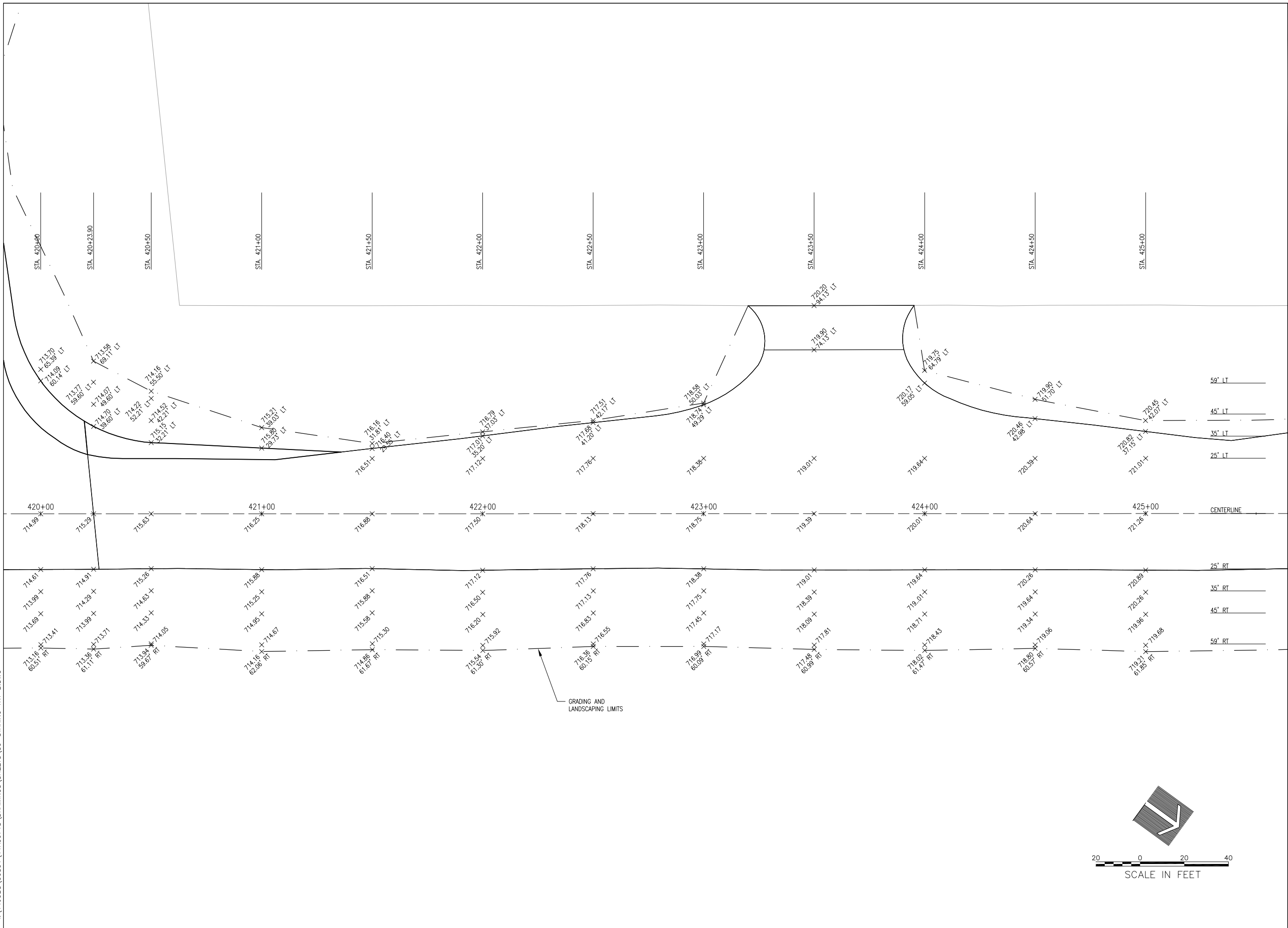
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Filename	38-STAKING TXY B.DWG
Scale	1"=20'
Date	NOVEMBER 18, 2011
LAYOUT	LDH 11/4/11
DRAWN	LDH 11/4/11
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STAKING PLAN
 TAXIWAY B

REHABILITATE TAXIWAY B AND
 ASSOCIATED EXIT TAXIWAYS, PHASE 1
 IDA No. UGN-4124 AIP No. 3-17-0105-B52



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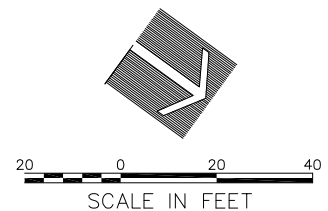
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Scale 1"=20'	11/17/11	RWH	RWH
Date NOVEMBER 18, 2011			

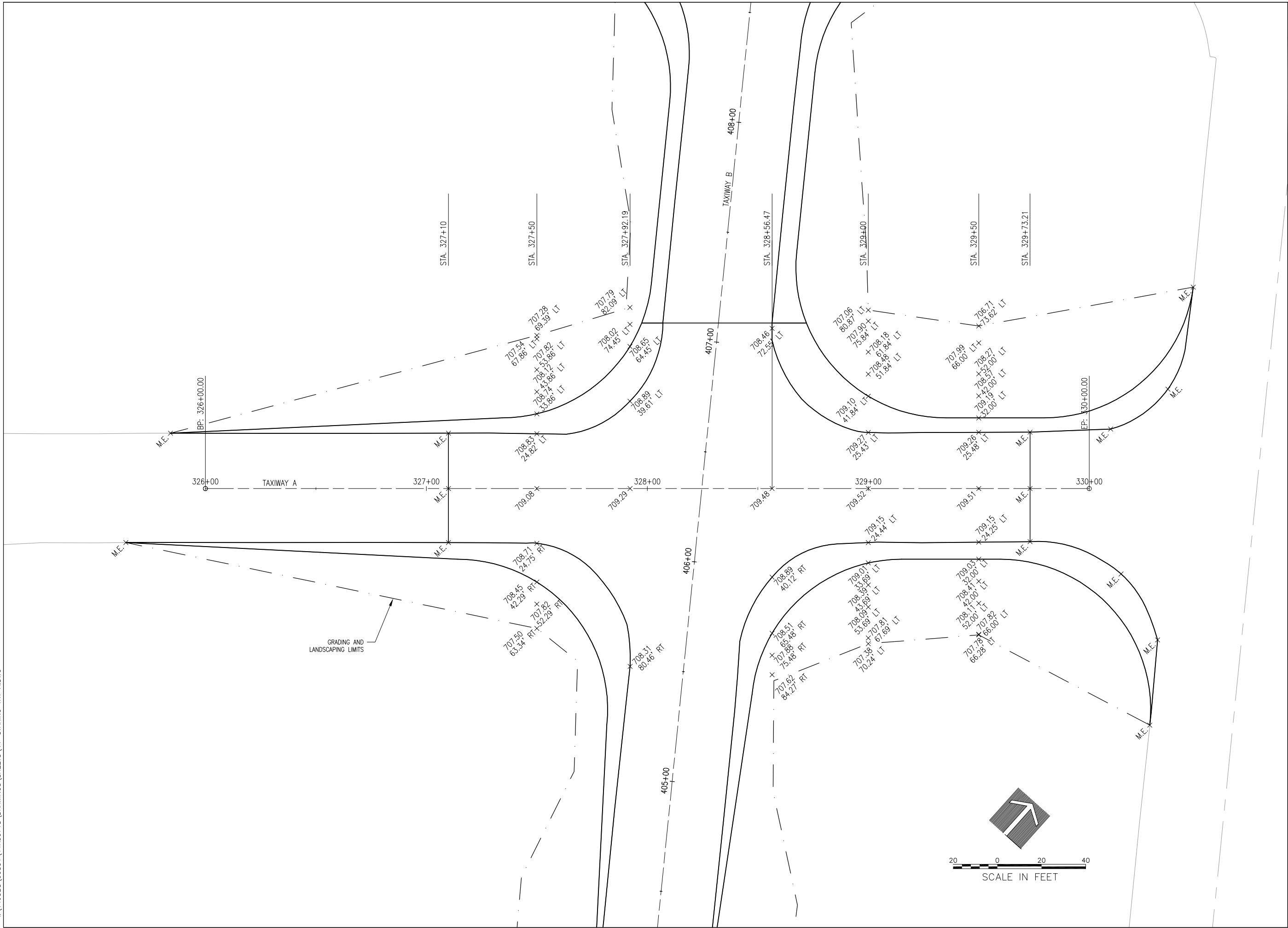


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STAKING PLAN
 TAXIWAY B

REHABILITATE TAXIWAY B AND
 ASSOCIATED EXIT TAXIWAYS, PHASE 1
 IDA No. UGN-4124 AIP No. 3-17-0105-B52





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Hanson No.	11A0071D
Filename	41-STAKING TXY A.DWG
Scale	1"=20'
Date	NOVEMBER 18, 2011
LAYOUT	LDH 11/9/11
DRAWN	LDH 11/9/11
REVIEWED	RWH 11/17/11



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STAKING PLAN
 TAXIWAY A

REHABILITATE TAXIWAY B AND
 ASSOCIATED EXIT TAXIWAYS, PHASE 1
 IDA No. UGN-4124 AIP No. 3-17-0105-B52

UNDERDRAIN SCHEDULE

Structure	Station	Offset	Type	Rim EL	Invert EL	Pay Length	Slope %
U1	403+72.62	25.94 LT	Clean Out	708.70	706.20	97.0	1.24
U2a	404+71.82	30.94 LT	Connect to RCP (702.62)	—	705.00		
U2b	404+71.82	30.94 LT	Connect to RCP (702.62)	—	702.62	317.7	0.83
U3	325+63.96	25.95 RT	Clean Out	707.77	705.27		
U4	403+92.82	26.29 RT	Clean Out	708.62	706.12	191.0	0.85
U5a	405+80.91	45.44 RT	Connect to RCP (702.82)	—	704.50		
U5b	405+80.91	45.44 RT	Connect to RCP (702.82)	—	704.50	203.1	1.26
U6	330+26.00	93.70 RT	Clean Out	709.56	707.06		
U7	408+69.38	79.14 LT	Clean Out	708.43	705.93	402.8	0.30
U8	325+95.12	27.09 LT	Inspection Hole	707.94	704.71*		
U9	408+83.88	67.15 RT	Clean Out	708.99	706.49	245.1	0.61
U10a	406+78.85	86.20 RT	Connect to RCP (702.63)	—	705.00		
U10b	406+78.85	86.20 RT	Connect to RCP (702.63)	—	706.00	145.9	0.52
U11	330+41.72	76.25 RT	Clean Out	709.26	706.76		
U12	410+29.78	103.89 LT	Connect to Existing Inspection Hole	—	666.11*	220.4	0.30
U13	412+06.31	28.12 LT	Connect to Existing Inspection Hole	—	664.43*		
U14	410+49.87	79.73 RT	Inspection Hole	709.09	706.59*	186.0	0.59
U15	412+13.23	29.04 RT	Connect to RCP (701.67)	—	705.50		
U16	415+07.77	26.43 LT	Adjust Rim Elevation	709.36	—		
U17	415+08.05	27.87 RT	Adjust Rim Elevation	709.36	—		
U18	607+83.82	26.88 RT	Clean Out	715.73	713.23	158.2	1.09
U19a	416+20.49	100.20 LT	Connect to RCP (710.67)	—	711.50		
U19b	419+20.45	95.20 LT	Clean Out	714.06	711.56	208.8	1.34
U20	417+45.08	28.00 LT	Inspection Hole	711.27	708.77*		
U21	417+84.50	27.92 RT	Adjust Rim Elevation	711.58	—		
U22	607+90.97	26.03 LT	Clean Out	715.72	713.22	158.6	1.08
U23a	419+87.98	99.92 LT	Connect to RCP (711.00)	—	711.50		
U23b	419+87.98	99.92 LT	Connect to RCP (711.00)	—	711.50	186.5	1.18
U24	421+36.04	29.42 LT	Clean Out	716.20	713.70		
U25	423+09.40	27.34 RT	Adjust Rim Elevation	718.18	—		
U26	428+07.60	27.54 RT	Adjust Rim Elevation	724.43	—		
U27	419+15.85	29.13 LT	Adjust Rim Elevation	713.73	—		

* MEET EXISTING ELEVATIONS ARE NOT KNOWN BUT HAVE BEEN ESTIMATED, SLOPES TO THESE STRUCTURES ARE APPROXIMATE

STORM SEWER SCHEDULE

Structure	Station	Offset	Type	Rim El.	Invert El.
M1	405+83.78	43.23' RT	Existing MH*	708.67 (NEW)	Existing
				706.88 (OLD)	

* EXISTING MANHOLE TO BE ADJUSTED. SEE DETAIL.

Structure	Structure	Diameter	Frame Height	Hole Opening	Frame Type	Cover/Grate
Number	Type	D (In.)	X (In.)	L (In.)	(NEENAH)	(NEENAH)
M1	Manhole	Existing	9	24	R-3492	Closed

REVISION
DATE

WAUKEGAN REGIONAL AIRPORT
WAUKEGAN PORT DISTRICT
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Waukegan, Illinois 60087
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Fax: 847.244.3813



Hanson No. 11A0071D
Filename 43--DRAINAGE_SCHEDULE.DWG
Scale N/A
Date NOVEMBER 18, 2011
LAYOUT LDH 11/10/11
DRAWN LDH 11/10/11
REVIEWED RWH 11/17/11

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DRAINAGE
SCHEDULES

REHABILITATE TAXIWAY B AND
ASSOCIATED EXIT TAXIWAYS, PHASE 1
IDA No. UGN-4124 AIP No. 3-17-0105-B52

REVISION	DATE

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 WAUKEGAN PORT DISTRICT
 3580 North McAtee Road
 Waukegan, Illinois 60087
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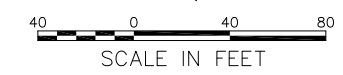
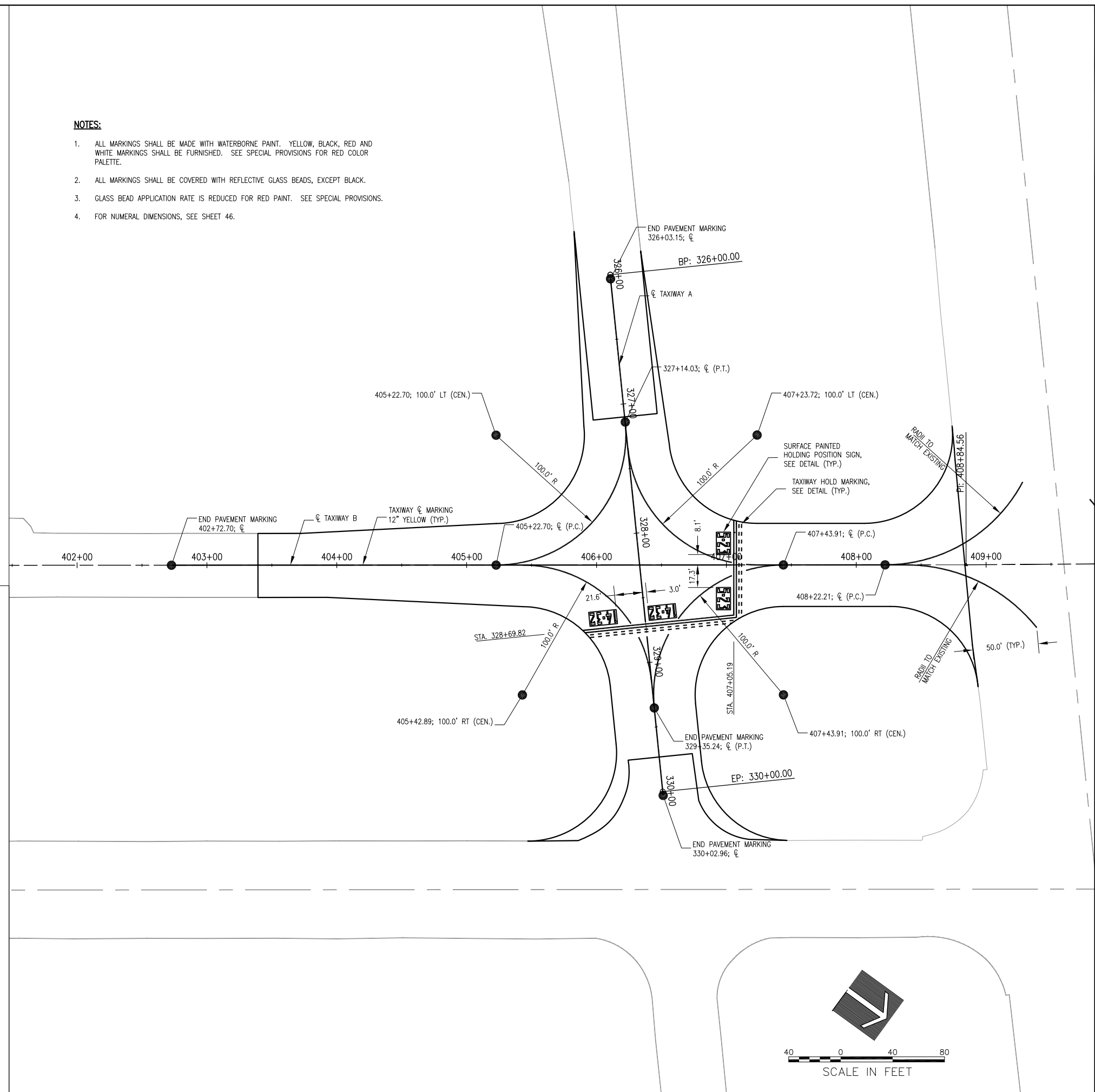
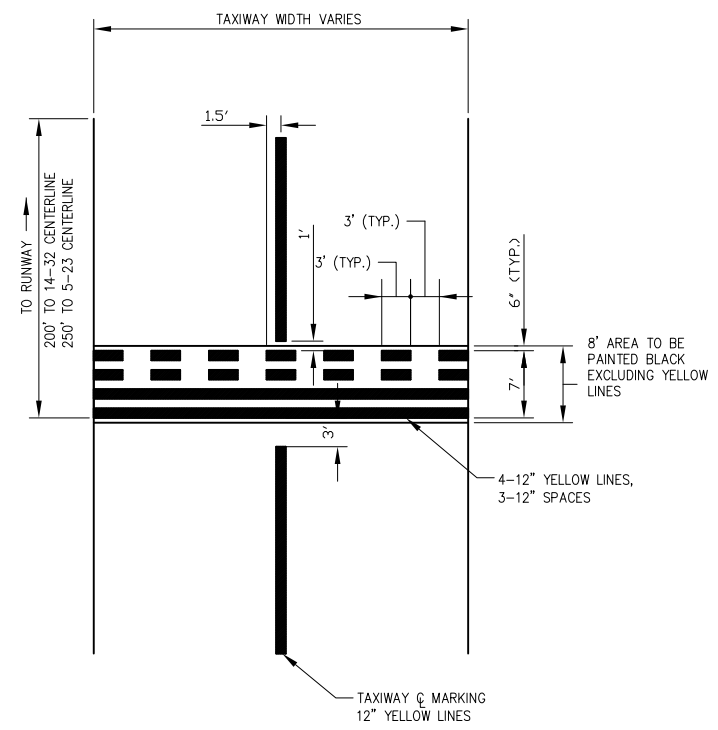
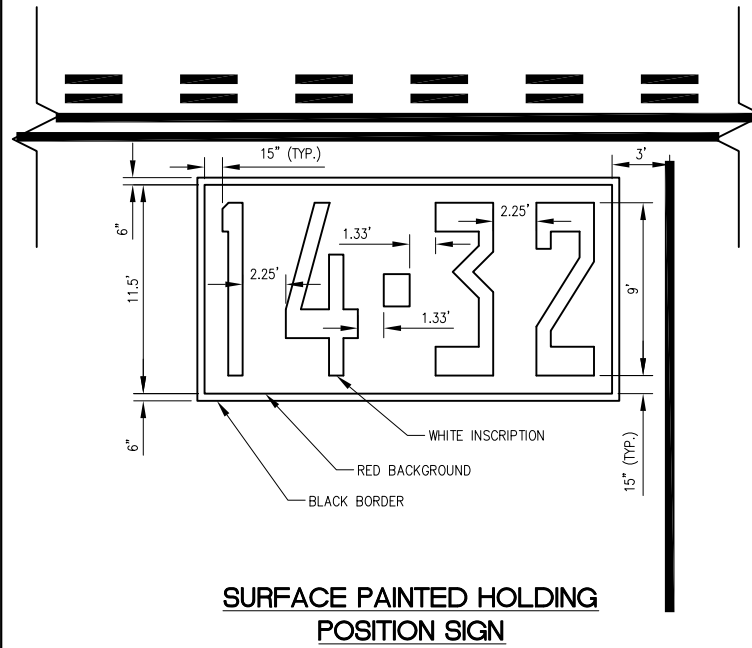
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Filename	45-MARKINGPLAN01.DWG	DRAWN	KMS	10/03/11
Scale	1"=40'	REVIEWED	RWH	11/17/11
Date	NOVEMBER 18, 2011			

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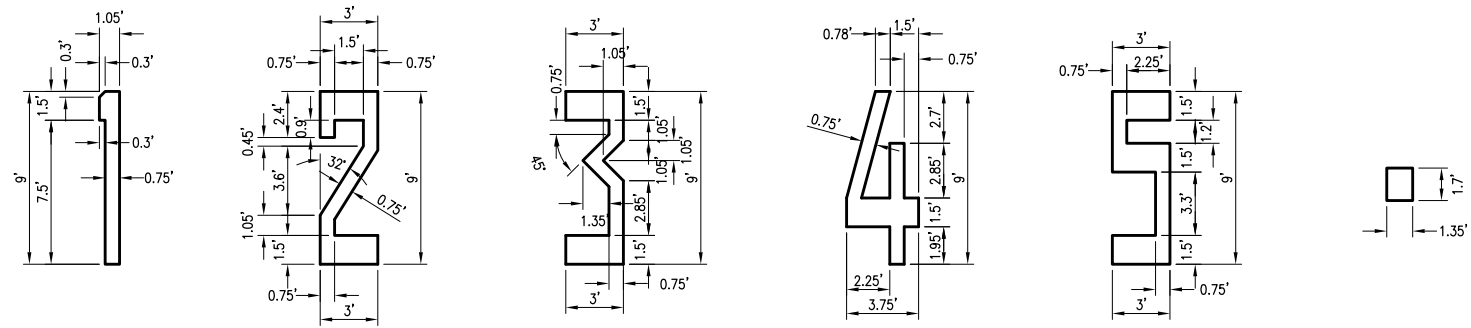
MARKING PLAN
 STA 401+50 TO 410+00
 REHABILITATE TAXIWAY B AND
 ASSOCIATED EXIT TAXIWAYS, PHASE 1
 IDA No. UGN-4124 AIP No. 3-17-0105-B52

NOTES:

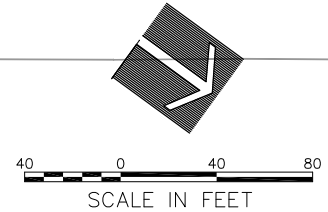
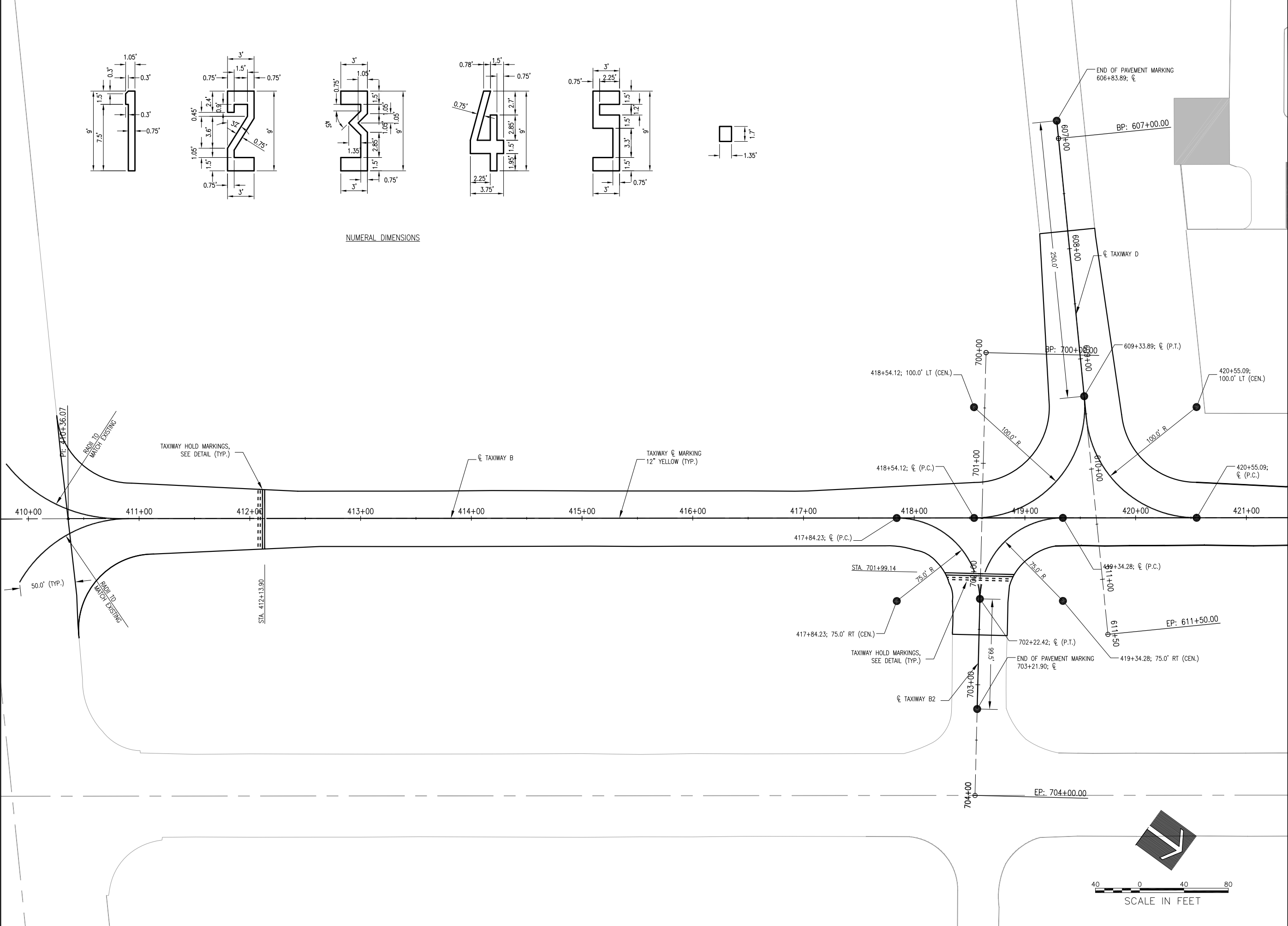
1. ALL MARKINGS SHALL BE MADE WITH WATERBORNE PAINT. YELLOW, BLACK, RED AND WHITE MARKINGS SHALL BE FURNISHED. SEE SPECIAL PROVISIONS FOR RED COLOR PALETTE.
2. ALL MARKINGS SHALL BE COVERED WITH REFLECTIVE GLASS BEADS, EXCEPT BLACK.
3. GLASS BEAD APPLICATION RATE IS REDUCED FOR RED PAINT. SEE SPECIAL PROVISIONS.
4. FOR NUMERAL DIMENSIONS, SEE SHEET 46.



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NUMERICAL DIMENSIONS



REVISION	DATE

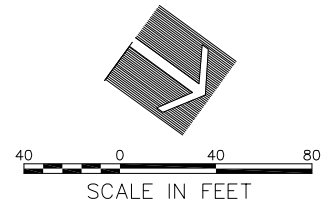
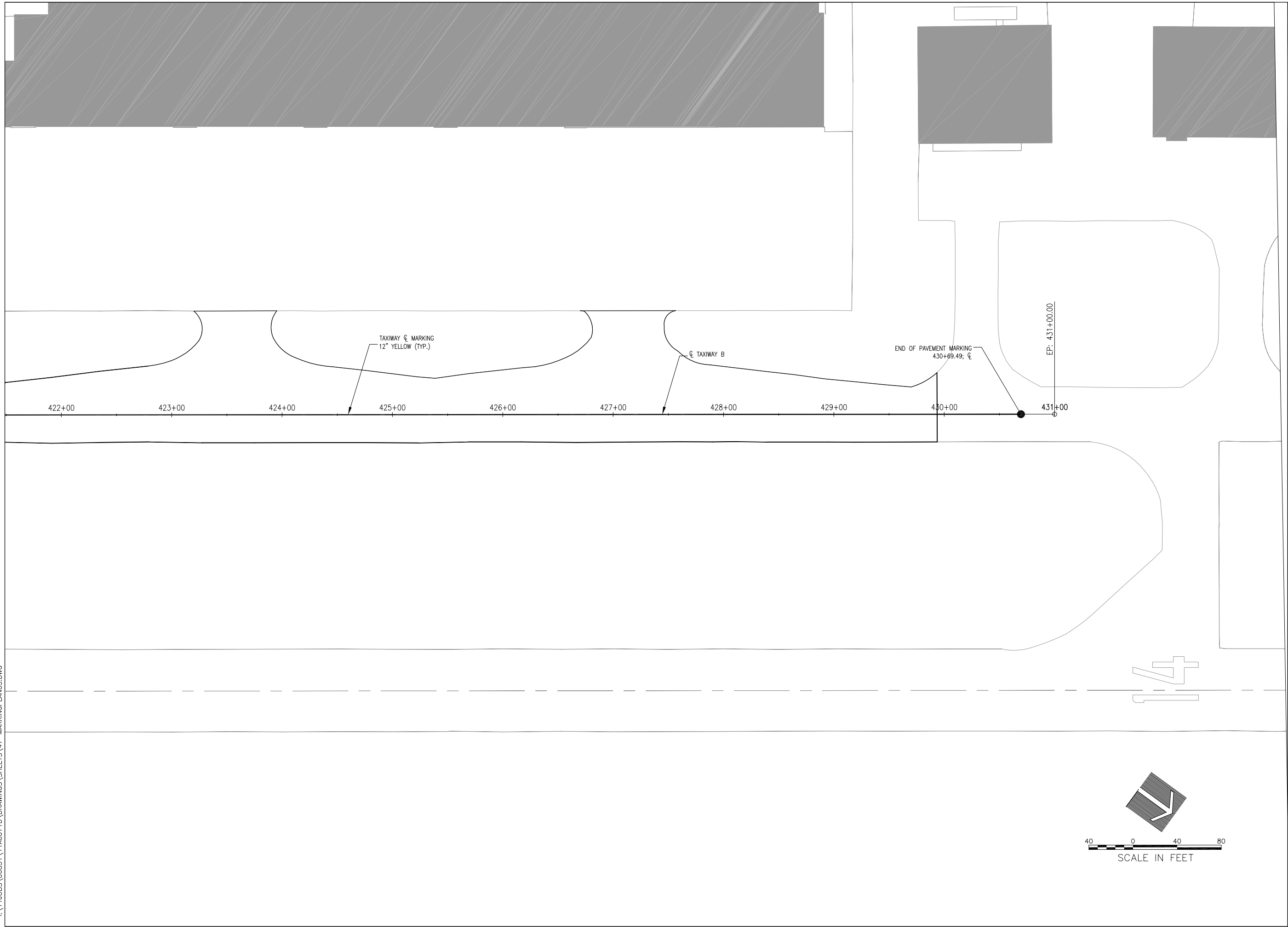
WAUKEGAN REGIONAL AIRPORT
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Hanson No.	11A0071D	LAYOUT	KMS	10/03/11
Filename	46-MARKINGPLAN02.DWG	DRAWN	KMS	10/03/11
Scale	1"=40'	REVIEWED	RWH	11/17/11
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MARKING PLAN
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 REHABILITATE TAXIWAY B AND
 ASSOCIATED EXIT TAXIWAYS, PHASE 1
 IDA No. UGN-4124 AIP No. 3-17-0105-B52



WA065

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Hanson No.	11A0071D
Filename	47-MARKING\LAN03.DWG
Scale	1"=40'
Date	NOVEMBER 18, 2011
LAYOUT	KMS 10/03/11
DRAWN	KMS 10/03/11
REVIEWED	RWH 11/17/11

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MARKING PLAN
STA 421+50 TO 431+00

REHABILITATE TAXIWAY B AND
 ASSOCIATED EXIT TAXIWAYS, PHASE 1
 IDA No. UGN-4124 AIP No. 3-17-0105-B52

AIRFIELD LIGHTING NOTES

- 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).
- CONTRACTOR SHALL FIELD VERIFY EXISTING SITE CONDITIONS. CONTRACTOR SHALL FIELD VERIFY RESPECTIVE CIRCUITS AND POWER SOURCES PRIOR TO REMOVING OR DISCONNECTING THE RESPECTIVE AIRFIELD LIGHTING, NAVAID, OR OTHER DEVICE.
- PROPOSED RUNWAY, THRESHOLD, AND TAXIWAY LIGHTS SHALL BE PLACED 10' (FT.) FROM THE PAVEMENT EDGE UNLESS SHOWN OTHERWISE ON THESE CONSTRUCTION DRAWINGS. PROPOSED TAXI GUIDANCE SIGNS SHALL BE LOCATED SUCH THAT THE CLOSEST SIDE OF THE SIGN IS 15' FROM THE PAVEMENT EDGE, UNLESS SHOWN OTHERWISE.
- PROPOSED RUNWAY LIGHTS, THRESHOLD LIGHTS, TAXIWAY LIGHTS, GUIDANCE SIGNS, OTHER AIRFIELD LIGHTING, SPLICE CANS, HANDHOLES, MANHOLES, ELECTRICAL DUCTS, AND CABLE SHALL BE INSTALLED AT THE LOCATIONS SHOWN AND IN COMPLIANCE WITH THE SPECIFICATIONS, SPECIAL PROVISIONS, RESPECTIVE DETAILS, AND MANUFACTURER'S RECOMMENDATIONS.
- PROPOSED CABLE FOR RUNWAY AND TAXIWAY LIGHTING SHALL BE INSTALLED APPROXIMATELY 12' FROM THE PAVEMENT EDGE. CABLES SHALL BE PLACED A MINIMUM OF 18" BELOW FINISHED GRADE.
- THE PROPOSED RUNWAY AND TAXIWAY LIGHTING CABLE SHALL BE 1/C, #8 AWG, FAA L-824, 5000 VOLT, TYPE C UNDERGROUND CABLE IN UNIT DUCT.
- IN AREAS WHERE THERE IS A CONGESTION OF CABLES OR WHERE THE PROPOSED CABLE CROSSES AN EXISTING CABLE, THE CONTRACTOR IS REQUIRED TO HAND DIG THE TRENCH NECESSARY FOR THE PROPOSED CABLE. AT OTHER LOCATIONS, THE PROPOSED CABLE MAY BE TRENCHED OR PLOWED INTO PLACE. HAND DIGGING, TRENCHING AND/OR PLOWING WILL BE CONSIDERED INCIDENTAL TO THE PROPOSED CABLES AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- PROPOSED RUNWAY LIGHTS SHALL BE FITTED WITH LENSES IN ACCORDANCE WITH THE "LIGHT LENS SCHEDULE". ALL PROPOSED TAXIWAY LIGHTS WILL BE FITTED WITH 360° BLUE LENSES.
- ALL PROPOSED RUNWAY, THRESHOLD, AND TAXIWAY LIGHTS SHALL BE TAGGED BY THE CONTRACTOR IN ACCORDANCE WITH THE LIGHT NUMBERS SHOWN ON THESE CONSTRUCTION DRAWINGS.
- SEE "TAXI GUIDANCE SIGN SCHEDULE" AND/OR RESPECTIVE TAXI SIGN DETAILS FOR INFO ON SIGN LEGENDS.
- THE CONTRACTOR SHALL SECURE, IDENTIFY AND PLACE ALL TEMPORARY EXPOSED WIRING IN CONDUIT, DUCT OR UNIT DUCT TO PREVENT ELECTROCUTION AND FIRE IGNITION SOURCES AS PER THE REQUIREMENTS OF FAA AC 150/5370-2E, PART 3-6, C. ALL LABOR, MATERIALS, AND TIME NECESSARY TO COMPLY WITH THIS REQUIREMENT SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- HOMERUN CABLES FOR A RESPECTIVE CIRCUIT THAT ARE INSTALLED IN CONDUIT OR DUCT SHALL BE RUN TOGETHER IN THE SAME RACEWAY OR DUCT.
- EXISTING AIRFIELD LIGHTING CABLES IN AREAS OF NEW WORK SHALL BE DISCONNECTED & REMOVED WHERE IN CONFLICT WITH NEW CONSTRUCTION. IN OTHER AREAS CABLES MAY BE ABANDONED IN PLACE.
- THE CONTRACTOR IS REQUIRED TO FILL IN ALL HOLES AND DEPRESSIONS RESULTING FROM THE NEW WORK, WITH EARTH MATERIAL. THE AREAS SHALL BE COMPACTED TO PREVENT FUTURE SETTLEMENT AND FERTILIZED, SEEDED, AND MULCHED IN ACCORDANCE WITH ITEMS 901 AND 908 RESPECTIVELY.
- NO CONNECTION TO AN ACTIVE LIGHTING CIRCUIT WILL BE BROKEN UNTIL THE CIRCUIT HAS BEEN TURNED OFF IN ACCORDANCE WITH NOTE 1.

EXISTING LEGEND

- C1 — LIGHTING CABLES (CIRCUIT 1)
- C2 — LIGHTING CABLES (CIRCUIT 2)
- C3 — LIGHTING CABLES (CIRCUIT 3)
- C4 — LIGHTING CABLES (CIRCUIT 4)
- C5 — LIGHTING CABLES (CIRCUIT 5)
- C6 — LIGHTING CABLES (CIRCUIT 6)
- - - - - SIGN CABLES (CIRCUIT 7)

- AIRFIELD SIGN
- L-861 EDGE LIGHT, OMNIDIRECTIONAL

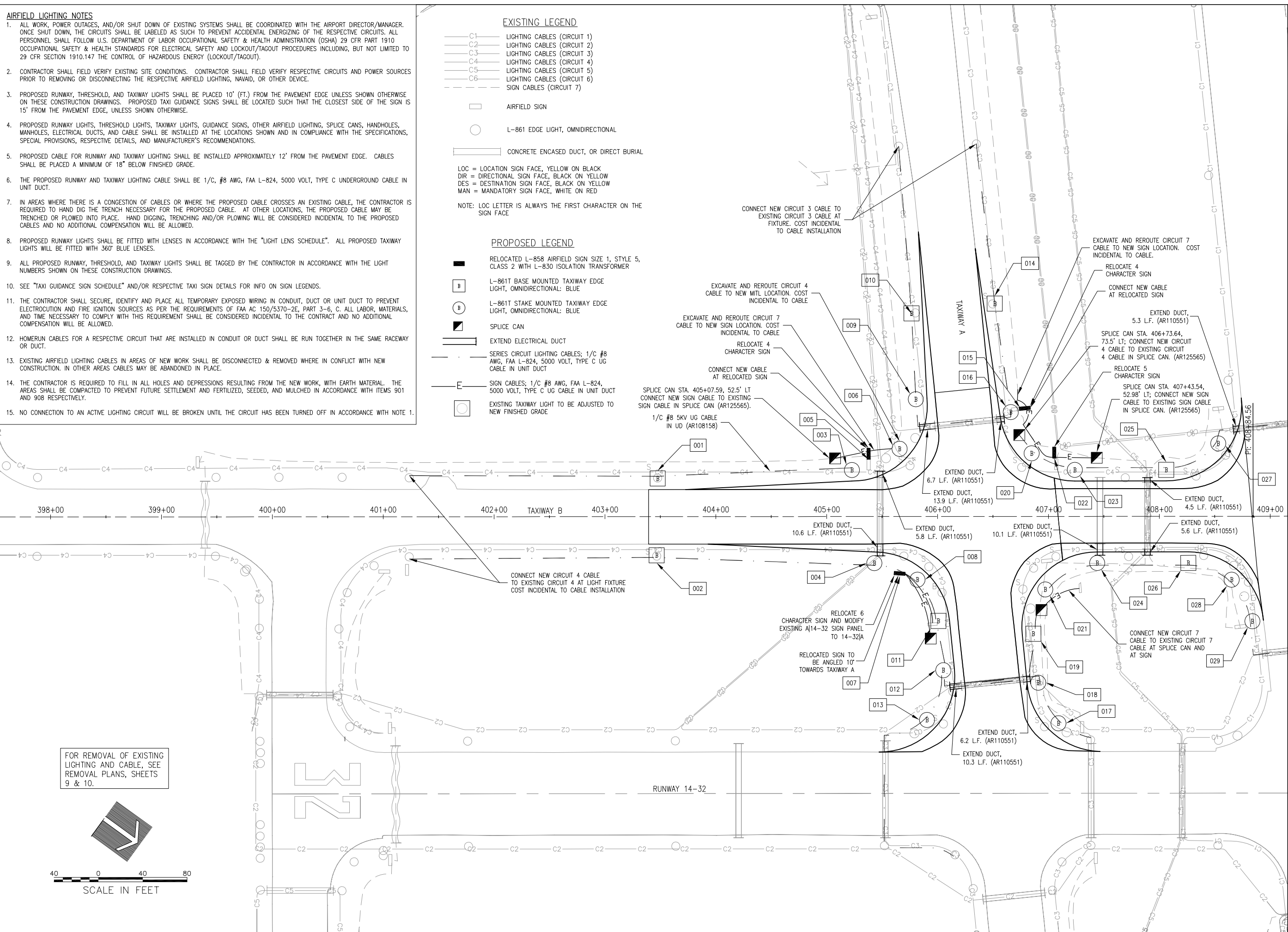
CONCRETE ENCASED DUCT, OR DIRECT BURIAL

LOC = LOCATION SIGN FACE, YELLOW ON BLACK
 DIR = DIRECTIONAL SIGN FACE, BLACK ON YELLOW
 DES = DESTINATION SIGN FACE, BLACK ON YELLOW
 MAN = MANDATORY SIGN FACE, WHITE ON RED

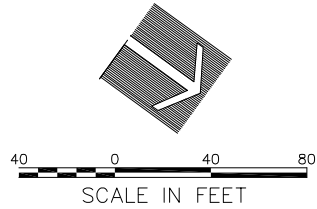
NOTE: LOC LETTER IS ALWAYS THE FIRST CHARACTER ON THE SIGN FACE

PROPOSED LEGEND

- RELOCATED L-858 AIRFIELD SIGN SIZE 1, STYLE 5, CLASS 2 WITH L-830 ISOLATION TRANSFORMER
- B L-861T BASE MOUNTED TAXIWAY EDGE LIGHT, OMNIDIRECTIONAL: BLUE
- B L-861T STAKE MOUNTED TAXIWAY EDGE LIGHT, OMNIDIRECTIONAL: BLUE
- SPLICE CAN
- EXTEND ELECTRICAL DUCT
- SERIES CIRCUIT LIGHTING CABLES; 1/C #8 AWG, FAA L-824, 5000 VOLT, TYPE C UG CABLE IN UNIT DUCT
- E SIGN CABLES; 1/C #8 AWG, FAA L-824, 5000 VOLT, TYPE C UG CABLE IN UNIT DUCT
- EXISTING TAXIWAY LIGHT TO BE ADJUSTED TO NEW FINISHED GRADE



FOR REMOVAL OF EXISTING LIGHTING AND CABLE, SEE REMOVAL PLANS, SHEETS 9 & 10.



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WA065

REVISION	DATE

WAUKEGAN REGIONAL AIRPORT
 WAUKEGAN PORT DISTRICT
 3580 North McAfee Road
 Waukegan, Illinois 60087
 Telephone: 847.244.0066
 Fax: 847.244.3813



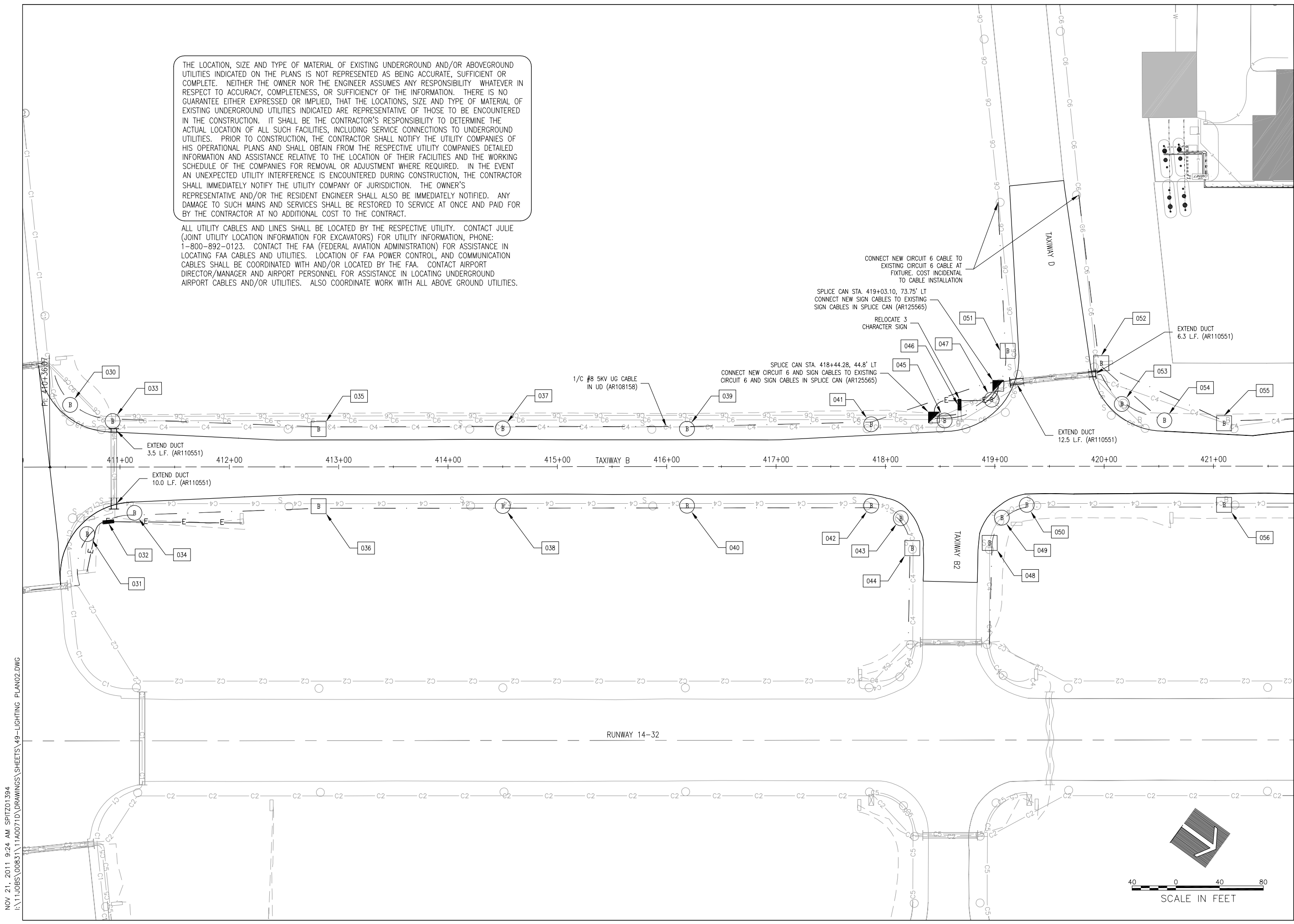
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11A0071D	1"=40'	NOVEMBER 18, 2011	DRAWN	KMS	10/27/11
48-LIGHTING PLAN01.DWG			REVIEWED	RWH	11/17/11

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LIGHTING PLAN
 STA 397+50 TO 410+00
 REHABILITATE TAXIWAY B AND
 ASSOCIATED EXIT TAXIWAYS, PHASE 1
 IDA No. UGN-4124 AIP No. 3-17-0105-B82

THE LOCATION, SIZE AND TYPE OF MATERIAL OF EXISTING UNDERGROUND AND/OR ABOVEGROUND UTILITIES INDICATED ON THE PLANS IS NOT REPRESENTED AS BEING ACCURATE, SUFFICIENT OR COMPLETE. NEITHER THE OWNER NOR THE ENGINEER ASSUMES ANY RESPONSIBILITY WHATEVER IN RESPECT TO 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. CONTACT AIRPORT DIRECTOR/MANAGER AND AIRPORT PERSONNEL FOR ASSISTANCE IN LOCATING UNDERGROUND AIRPORT CABLES AND/OR UTILITIES. ALSO COORDINATE WORK WITH ALL ABOVE GROUND UTILITIES.



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Filename 49-LIGHTING_PLAN02.DWG	KMS
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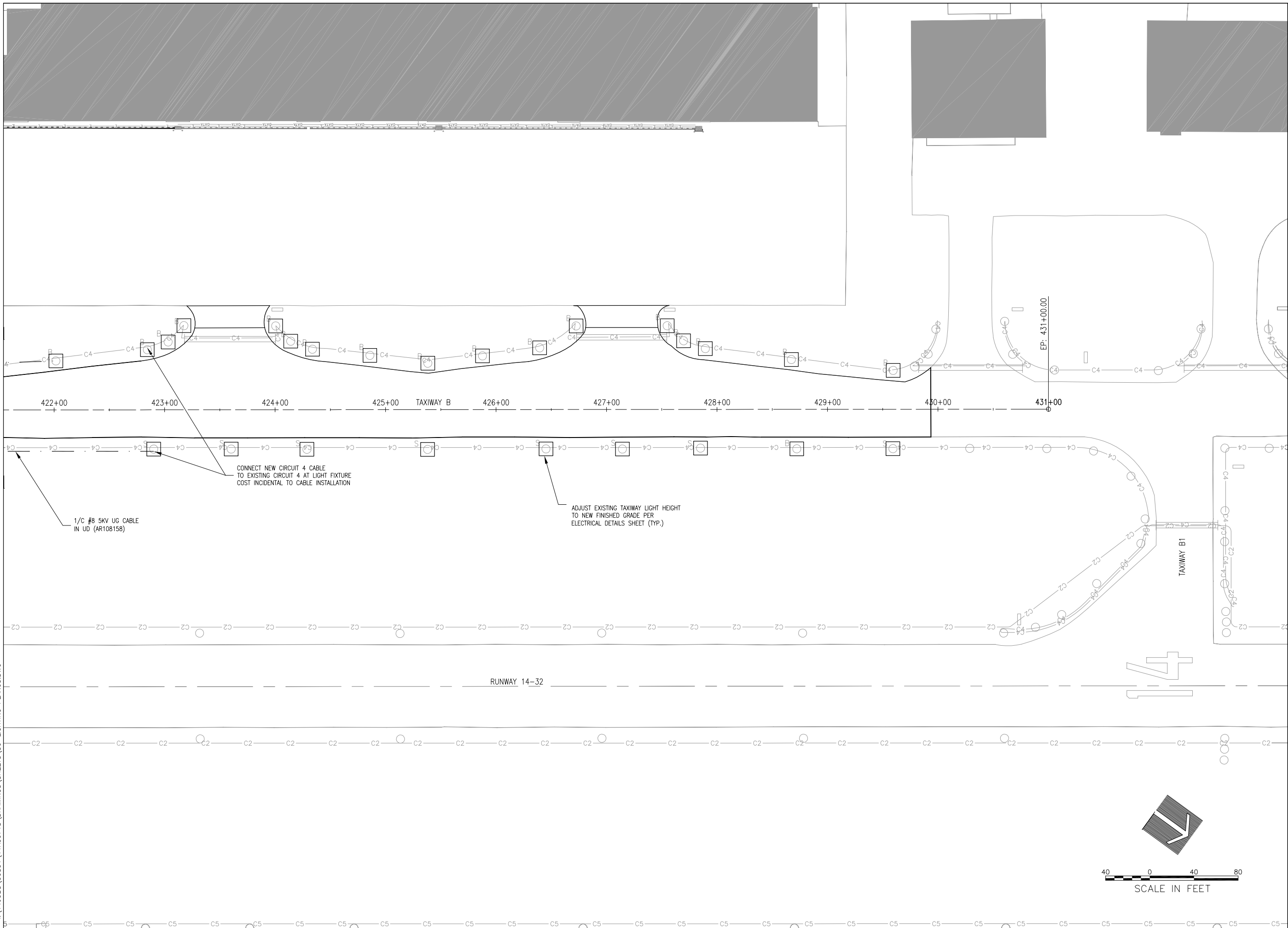
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LIGHTING PLAN
STA 410+00 TO 421+50
REHABILITATE TAXIWAY B AND
ASSOCIATED EXIT TAXIWAYS, PHASE 1
IDA No. UGN-4124 AIP No. 3-17-0105-B52

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WA065

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WAUKEGAN REGIONAL AIRPORT
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Revision No.	Filename	Scale	Date	LAYOUT	DRAWN	REVIEWED
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LIGHTING PLAN
STA 421+50 TO 431+00

REHABILITATE TAXIWAY B AND
 ASSOCIATED EXIT TAXIWAYS, PHASE 1
 IDA No. UGN-4124 AIP No. 3-17-0105-B52

GENERAL 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.
- CONTRACTOR SHALL KEEP A COPY OF THE LATEST NEC IN FORCE ON SITE AT ALL TIMES DURING CONSTRUCTION FOR USE AS A REFERENCE.
- 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).
- 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.
- 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.
- 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.
- 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.
- ANY AND ALL INSTRUCTIONS FROM THE RESIDENT 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 ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF AERONAUTICS). THE CONTRACTOR SHALL NOT ACCEPT ANY VERBAL INSTRUCTIONS FROM THE RESIDENT ENGINEER REGARDING ANY CHANGES FROM THE PLANS AND SPECIFICATIONS.
- 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 DETAILED DESCRIPTION OF THE OVERALL EQUIPMENT AND ITS INDIVIDUAL COMPONENTS.
 - THEORY OF OPERATION INCLUDING THE FUNCTION OF EACH COMPONENT.
 - INSTALLATION INSTRUCTION.
 - START-UP INSTRUCTIONS.
 - PREVENTATIVE MAINTENANCE REQUIREMENTS.
 - CHART FOR TROUBLE-SHOOTING.
 - 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.
 - 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.
 - SAFETY INSTRUCTIONS.

POWER AND CONTROL NOTES

- 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.
- 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 PHASE CONDUCTORS ON 120/240VAC SINGLE-PHASE, THREE WIRE SYSTEMS AND BLACK, ORANGE (FOR HIGH LEG) AND BLUE SHALL BE USED FOR PHASE CONDUCTORS ON 240/120VAC THREE-PHASE, FOUR WIRE 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).
- 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.
- IN CONTROL WIRING THE SAME COLOR SHALL BE USED THROUGHOUT THE SYSTEM FOR THE SAME FUNCTION, SUCH AS 10%, 30%, 100% BRIGHTNESS CONTROL, ETC.
- LOW VOLTAGE (600 V.) AND HIGH VOLTAGE (5000 V.) CONDUCTORS SHALL BE INSTALLED IN SEPARATE WIREWAYS.
- NEATLY LACE WIRING IN DISTRIBUTION PANELS, WIREWAYS, SWITCHES AND JUNCTION/PULL BOXES.
- THE MINIMUM SIZE OF PULL/JUNCTION BOXES, REGARDLESS OF THE QUANTITY AND SIZE OF THE CONDUCTORS SHOWN, SHALL BE AS FOLLOWS:
 - 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.
 - 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.
- 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.
- EQUIPMENT CABINETS SHALL NOT BE USED AS PULL/JUNCTION BOXES. ONLY WIRING TERMINATING AT THE EQUIPMENT SHALL BE BROUGHT INTO THESE ENCLOSURES.
- SPLICES AND JUNCTION POINTS SHALL BE PERMITTED ONLY IN JUNCTION BOXES, DUCTS EQUIPPED WITH REMOVABLE COVERS, AND AT EASILY ACCESSIBLE LOCATIONS.
- CIRCUIT BREAKERS IN POWER DISTRIBUTION PANEL(S) SHALL BE THERMAL-MAGNETIC MOLDED CASE, PERMANENT TRIP WITH 100 AMPERE, MINIMUM FRAME.
- DUAL LUGS SHALL BE USED WHERE TWO (2) WIRES, SIZE NO. 6 OR LARGER, ARE TO BE CONNECTED TO THE SAME TERMINAL.
- 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.
- 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.
- 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.
- 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. CONFIRM LIQUID-TIGHT FLEXIBLE METAL CONDUIT BEARS THE UL LABEL PRIOR TO INSTALLING IT.
- UNLESS OTHERWISE SHOWN, ALL EXPOSED CONDUITS SHALL BE RUN PARALLEL TO OR AT RIGHT ANGLES WITH THE LINES OF THE STRUCTURE.
- ALL STEEL CONDUITS, FITTINGS, NUTS, BOLTS, ETC. SHALL BE GALVANIZED.
- USE CONDUIT BUSHINGS AT EACH CONDUIT TERMINATION. WHERE NO. 4 AWG OR LARGER UNDERGROUND WIRE IS INSTALLED, USE INSULATED BUSHINGS.
- USE DOUBLE LOCK NUTS AT EACH CONDUIT TERMINATION.
- 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.
- UNLESS OTHERWISE NOTED, ALL SINGLE CONDUCTOR CONTROL WIRING SHALL BE NO. 12 AWG. COPPER MINIMUM.
- THE FOLLOWING SHALL APPLY TO RELAY/CONTACTOR PANELS/ENCLOSURES:
 - 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.
 - THE ENCLOSURE(S) SHALL HAVE AMPLE SPACE FOR THE CIRCUIT COMPONENTS, TERMINAL BLOCKS AND INCOMING AND INTERNAL WIRING.
 - ALL CONTROL CONDUCTOR TERMINATIONS SHALL BE OF THE OPEN-EYE CONNECTOR/SCREW TYPE. SOLDERED CLOSED-EYE TERMINATIONS, OR TERMINATIONS WITHOUT CONNECTORS ARE NOT ACCEPTABLE.
 - 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.
 - ACCESS TO, OR REMOVAL OF A CIRCUIT COMPONENT OR TERMINAL BLOCK WILL NOT REQUIRE THE REMOVAL OF ANY OTHER CIRCUIT COMPONENT OR TERMINAL BLOCK.
 - EACH CIRCUIT COMPONENT SHALL BE CLEARLY IDENTIFIED INDICATING ITS CORRESPONDING NUMBER SHOWN ON THE DRAWINGS AND ITS FUNCTION.
 - A COMPLETE WIRING DIAGRAM SHALL BE MOUNTED ON THE INSIDE OF THE COVER. THE DIAGRAM SHALL REPRESENT EACH CONDUCTOR BY A SEPARATE LINE.
 - THE DIAGRAM SHALL IDENTIFY EACH CIRCUIT COMPONENT AN NUMBERING AND COLOR OF EACH TERMINAL CONDUCTOR AND TERMINAL.
 - ALL WIRING SHALL BE NEATLY TRAINED AND LACED.
 - MINIMUM WIRE SIZE SHALL BE NO. 12 AWG.
- FURNISH & INSTALL A WEATHERPROOF WARNING LABEL FOR EACH METER SOCKET, SERVICE DISCONNECT, SAFETY SWITCH, CUTOFF, PANELBOARD, & CONTROL PANEL TO WARN PERSONS OF POTENTIAL ELECTRIC ARC FLASH HAZARDS, PER THE REQUIREMENTS OF NEC 110.16 "FLASH PROTECTION".

REVISION	DATE

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Hanson No. 11A0071D	9/19/11
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ELECTRICAL NOTES
 SHEET 1

REHABILITATE TAXIWAY B AND
 ASSOCIATED EXIT TAXIWAYS, PHASE 1
 IDA No. UGN-4124 AIP No. 3-17-0105-B52

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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 ELECTRICAL DETAILS SHEET 1.
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 ELECTRICAL DETAILS SHEET 1.
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 IN DETAIL "B" ON ELECTRICAL DETAILS SHEET 1.
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 3500 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 AND/OR ABOVEGROUND UTILITIES INDICATED ON THE PLANS IS NOT REPRESENTED AS BEING ACCURATE, SUFFICIENT OR COMPLETE. NEITHER THE OWNER NOR THE ENGINEER ASSUMES ANY RESPONSIBILITY WHATEVER IN RESPECT TO 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 J.U.L.I.E. FOR UTILITY INFORMATION AT 1-800-892-0123. 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.
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 150/5340-30F DESIGN AND INSTALLATION DETAILS FOR AIRPORT VISUAL AIDS, CHAPTER 12, PART 12.6; A GROUND MUST BE INSTALLED AT EACH LIGHT FIXTURE. THE PURPOSE OF THE LIGHT BASE GROUND IS TO PROVIDE A DEGREE OF PROTECTION FOR MAINTENANCE PERSONNEL FROM POSSIBLE CONTACT WITH AN ENERGIZED LIGHT BASE OR MOUNTING STAKE THAT MAY RESULT FROM A SHORTED POWER CABLE OR ISOLATION TRANSFORMER. A LIGHT BASE GROUND SHALL BE INSTALLED AT EACH TRANSFORMER BASE/LIGHT CAN ASSOCIATED WITH RUNWAY LIGHTS, TAXIWAY LIGHTS, AND LIGHTED TAXI GUIDANCE SIGNS. A LIGHT BASE GROUND SHALL ALSO BE INSTALLED AT EACH STAKE MOUNTED LIGHT FIXTURE. A LIGHT BASE GROUND SHALL BE INSTALLED AND CONNECTED TO THE METAL FRAME OF EACH TAXI GUIDANCE SIGN AS DETAILED ON THE PLANS AND IN ACCORDANCE WITH THE RESPECTIVE TAXI GUIDANCE SIGN MANUFACTURER RECOMMENDATIONS. THE LIGHT BASE GROUND SHALL BE A #6 AWG BARE COPPER CONDUCTOR BONDED TO THE GROUND LUG ON THE RESPECTIVE L-867 TRANSFORMER BASE/LIGHT CAN OR MOUNTING STAKE AND A 5/8-INCH DIAMETER BY 8-FOOT LONG (MINIMUM) UL LISTED COPPER CLAD GROUND ROD. 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), ULTRAWELD BY HARGER, GRAYSLAKE, ILLINOIS (PHONE: 800-842-7437), OR APPROVED EQUAL. 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. FOR BASE MOUNTED LIGHT FIXTURES THE LIGHT FIXTURE MUST BE BONDED TO THE LIGHT BASE INTERNAL GROUND LUG VIA A #6 AWG STRANDED COPPER WIRE RATED FOR 600 VOLTS WITH GREEN XHHW OR USE INSULATION. THE GROUND WIRE LENGTH MUST BE SUFFICIENT TO ALLOW THE REMOVAL OF THE LIGHT FIXTURE FROM THE LIGHT BASE FOR ROUTINE MAINTENANCE. SEE LIGHT FIXTURE MANUFACTURER'S INSTRUCTIONS FOR PROPER METHODS OF ATTACHING A BONDING WIRE.
3. 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 2011 NATIONAL ELECTRICAL CODE ARTICLE 250-12.
4. PER FAA 150/5340-30F THE RESISTANCE TO GROUND OF THE RESPECTIVE MOUNTING STAKE OR LIGHT BASE (WITH GROUND ROD CONNECTED) MUST BE 25 OHMS OR LESS.

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REVISION	DATE

WAUKEGAN REGIONAL AIRPORT
WAUKEGAN PORT DISTRICT
3580 North McAtee Road
Waukegan, Illinois 60087
Telephone: 847.244.0066
Fax: 847.244.3813



Hanson No.	11A0071D	LAYOUT	9/19/11
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Scale	N/A	REVIEWED	RWH
Date	NOVEMBER 18, 2011		11/17/11

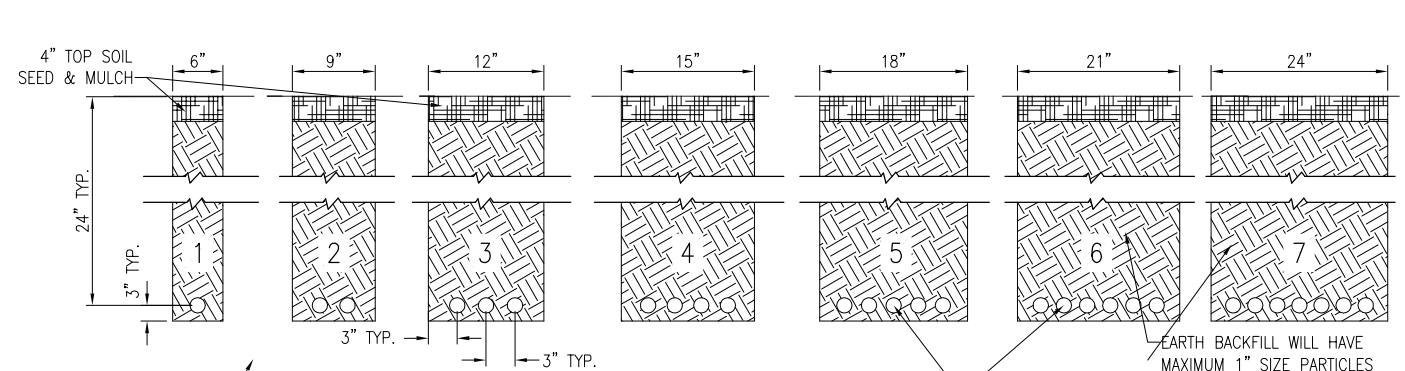


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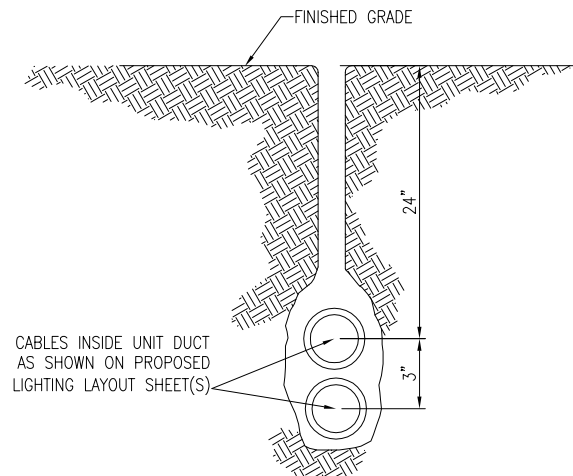
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815 Commerce Drive, Suite 200
Oak Brook, Illinois 60523

ELECTRICAL NOTES
SHEET 2

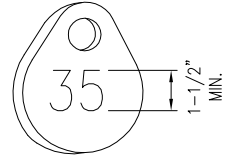
REHABILITATE TAXIWAY B AND
ASSOCIATED EXIT TAXIWAYS, PHASE 1
IDA No. UGN-4124 AIP No. 3-17-0105-B52



- 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.

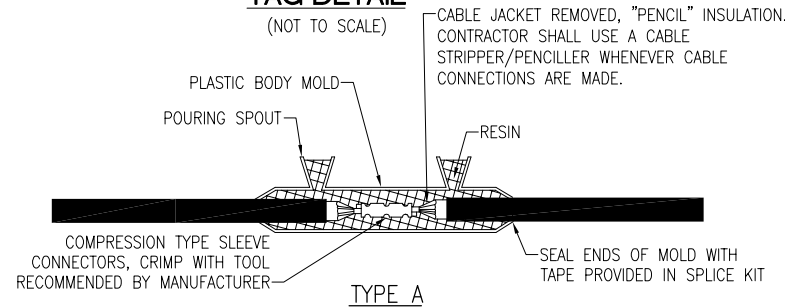


PLOWED CABLE
(NOT TO SCALE)



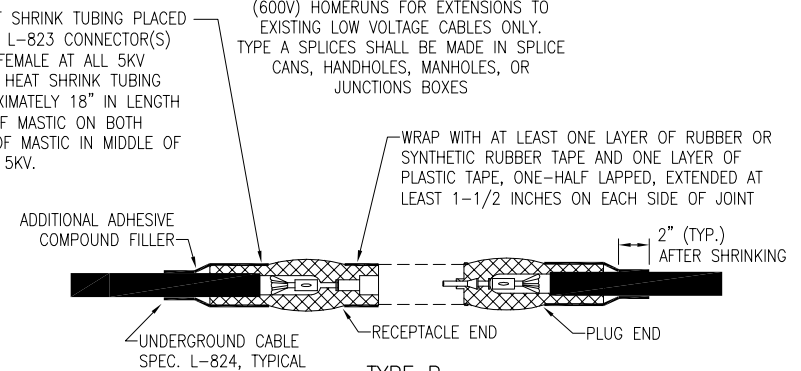
TAG DETAIL
(NOT TO SCALE)

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



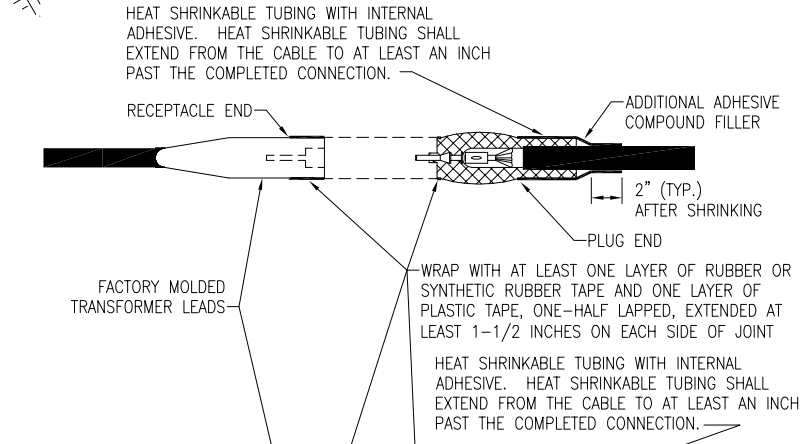
TYPE A

FOR SPLICES IN LOW VOLTAGE CABLE (600V) HOMERUNS FOR EXTENSIONS TO EXISTING LOW VOLTAGE CABLES ONLY. TYPE A SPLICES SHALL BE MADE IN SPLICE CANS, HANDHOLES, MANHOLES, OR JUNCTIONS BOXES



TYPE B

FOR SPLICES AT JUNCTION OF HOMERUN WITH LOOP CIRCUIT AND FOR SPLICES IN HOMERUNS TO EXISTING CABLES



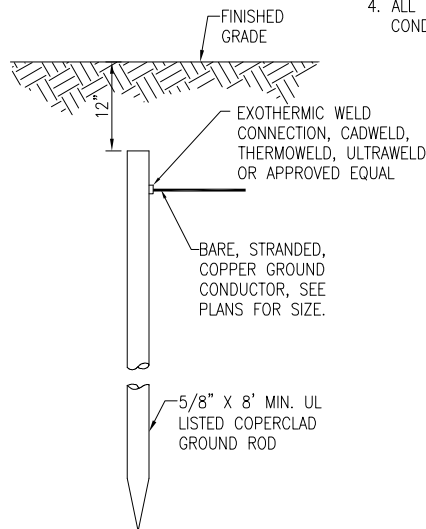
TYPE C

FOR SPLICES AT RUNWAY AND TAXIWAY LIGHTS

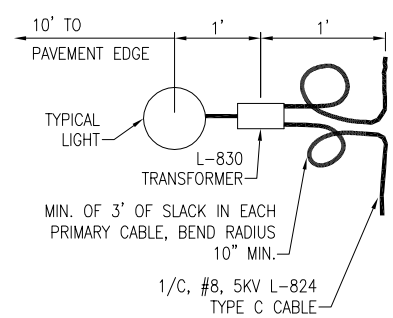
NOTES:
SEE PROPOSED LIGHTING LAYOUT SHEET(S) FOR SPLICE TYPE.

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

CABLE SPLICES
(NOT TO SCALE)

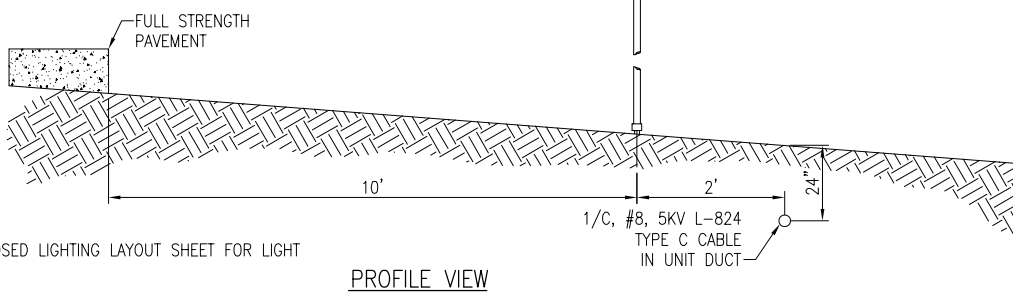


CABLE TRENCHES
(NOT TO SCALE)



PLAN VIEW

PER FAA AC 150/5340-30F DESIGN AND INSTALLATION DETAILS FOR AIRPORT VISUAL AIDS, A LIGHT BASE GROUND MUST BE INSTALLED AT EACH LIGHT FIXTURE. A LIGHT BASE 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 LIGHT BASE GROUND SHALL BE A #6 AWG BARE COPPER CONDUCTOR BONDED TO THE GROUND LUG ON THE RESPECTIVE L-867 TRANSFORMER BASE/LIGHT CAN OR MOUNTING STAKE AND A 5/8-INCH DIAMETER BY 8-FOOT LONG (MINIMUM) UL LISTED COPPER CLAD GROUND ROD.

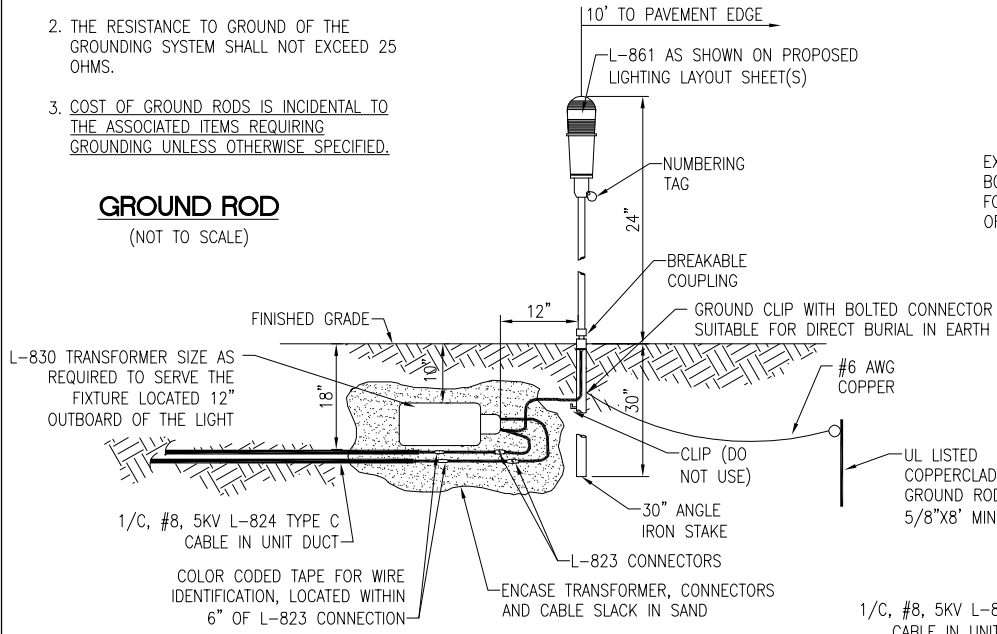


PROFILE VIEW

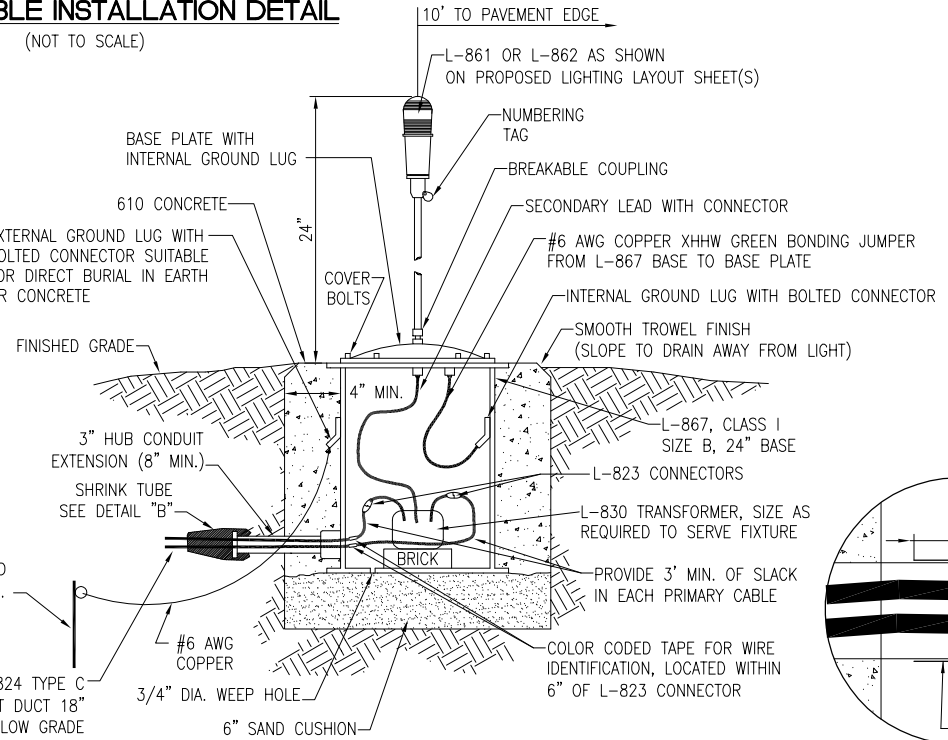
LIGHT AND CABLE INSTALLATION DETAIL
(NOT TO SCALE)

- 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.

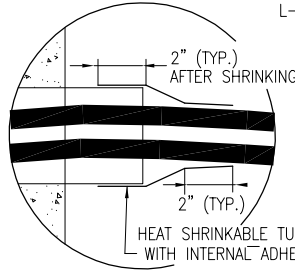
GROUND ROD
(NOT TO SCALE)



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



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



DETAIL 'B'
(NOT TO SCALE)

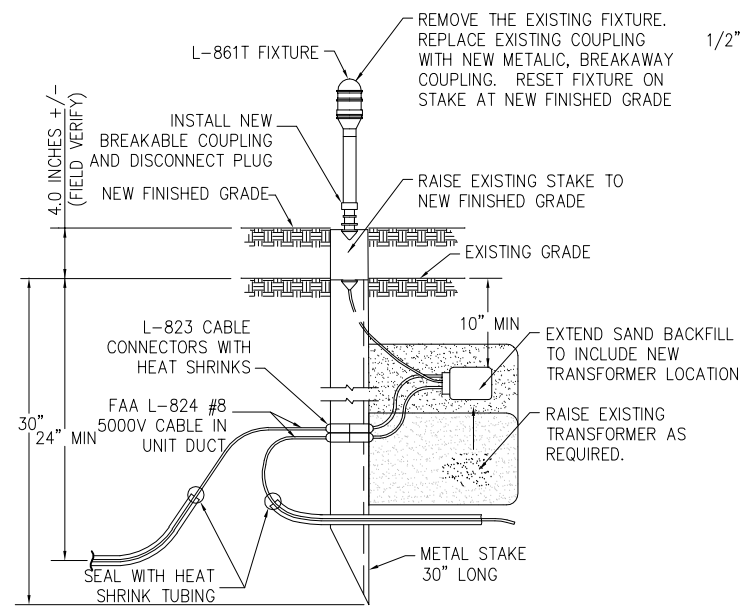
REVISION	DATE



Waukegan Regional Airport Waukegan Port District 3580 North McAfee Road Waukegan, Illinois 60087 Telephone: 847.244.0066 Fax: 847.244.3813

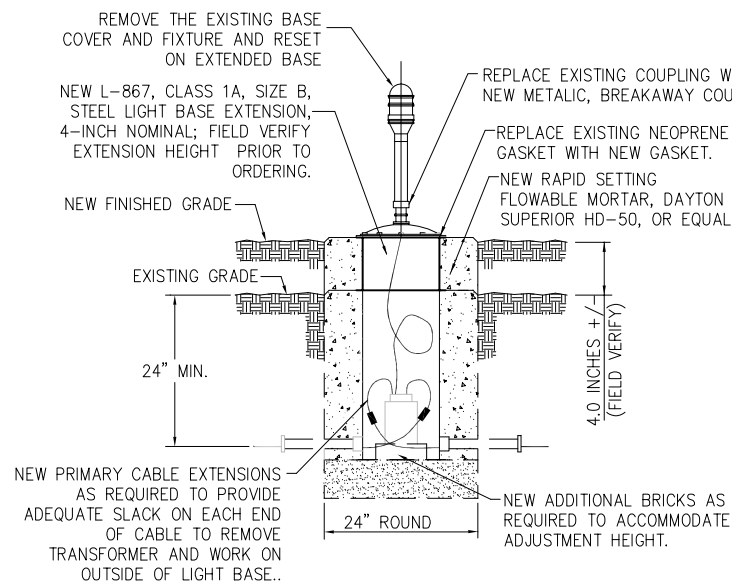
Hanson No. 11A0071D Filename 54-E-501-ELEC.DWG Scale N/A Date NOVEMBER 18, 2011	LAYOUT 9/19/11 DRAWN LDH 11/8/11 REVIEWED RWH 11/17/11
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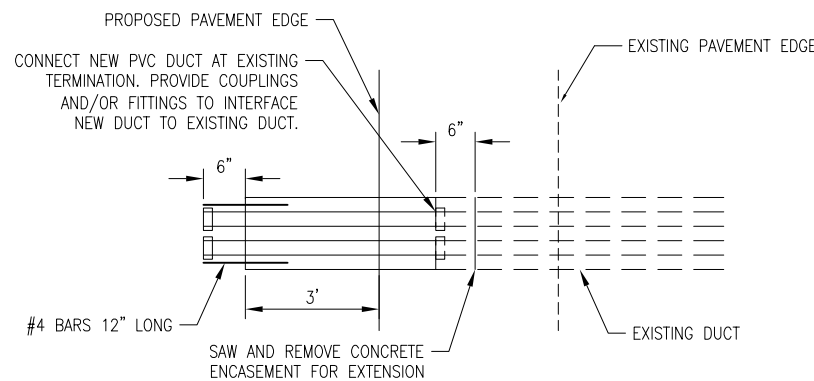
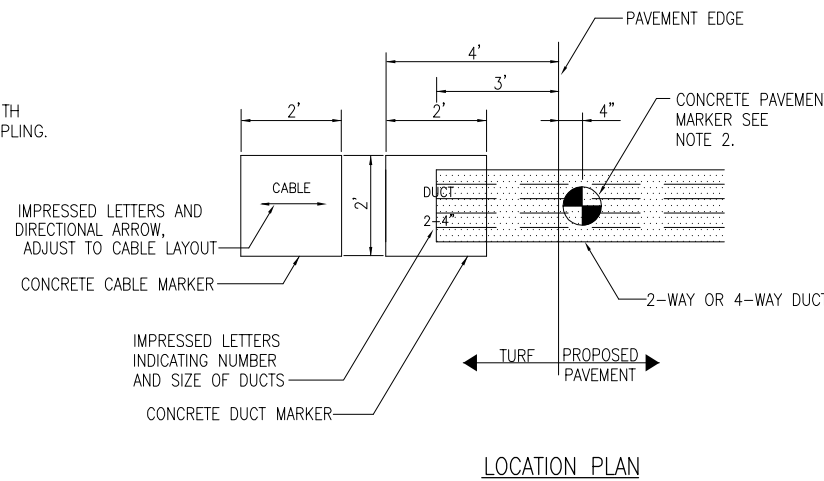
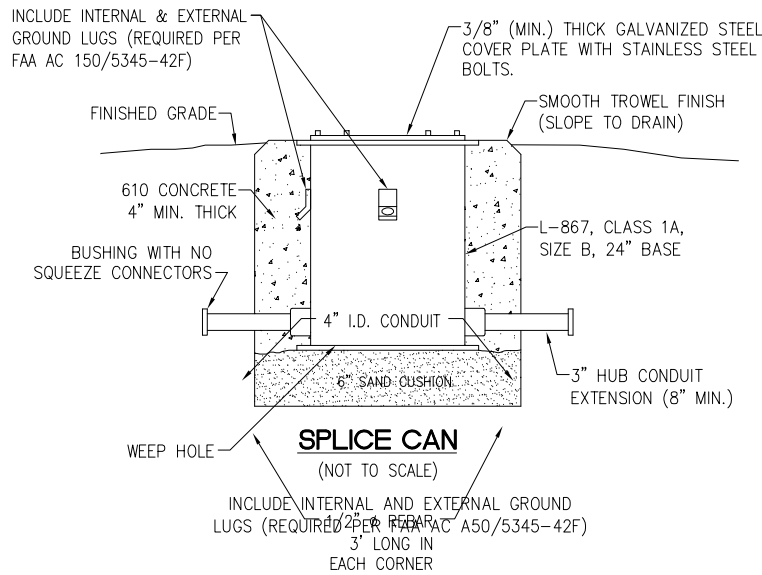
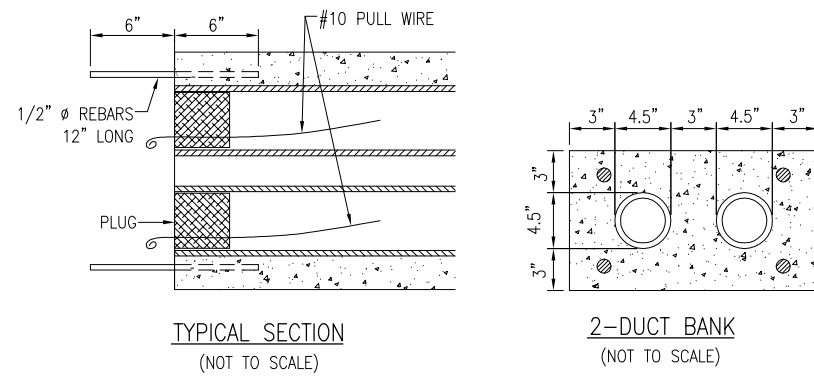
- BREAKABLE COUPLING SHALL NOT BE OVER 1" ABOVE STAKE.
- CONTRACTOR SHALL EXPOSE AND REROUTE PRIMARY CABLE AND/OR ADD CABLE EXTENSIONS IN A MANNER ACCEPTABLE TO RESIDENT ENGINEER SO THAT AT LEAST 1 FOOT OF SLACK IS PROVIDED ON EACH END OF CABLE.
- SEE SPECIAL PROVISIONS FOR ADDITIONAL REQUIREMENTS.
- ALL MATERIALS REQUIRED TO FURNISH A COMPLETE, OPERATING FIXTURE SHALL BE PAID UNDER ITEM AR125941.

STAKE MOUNTED LIGHT ADJUSTMENT

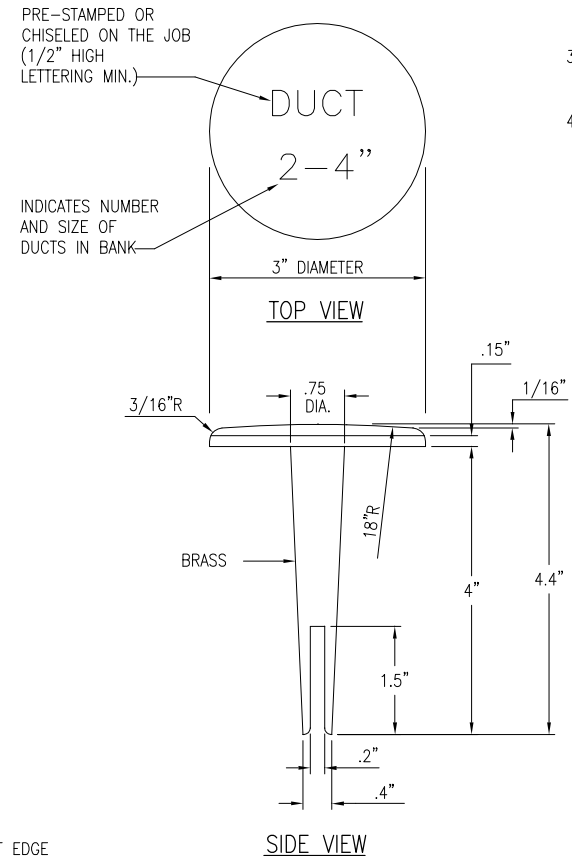
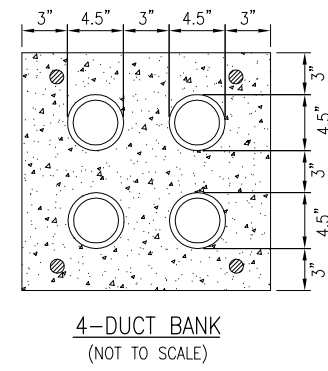


- BREAKABLE COUPLING SHALL NOT BE OVER 1" ABOVE COVER.
- CONTRACTOR SHALL EXPOSE AND REROUTE PRIMARY CABLE AND/OR ADD CABLE EXTENSIONS IN A MANNER ACCEPTABLE TO RESIDENT ENGINEER SO THAT AT LEAST 1 FOOT OF SLACK IS PROVIDED ON EACH END OF CABLE.
- SEE SPECIAL PROVISIONS FOR ADDITIONAL REQUIREMENTS.
- ALL MATERIALS REQUIRED TO FURNISH A COMPLETE, OPERATING FIXTURE SHALL BE PAID UNDER ITEM AR125942.

BASE MOUNTED LIGHT ADJUSTMENT



DUCT EXTENSION



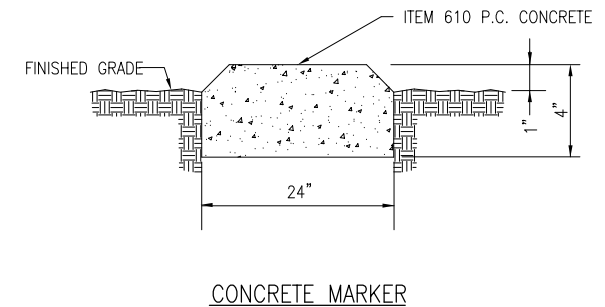
- NOTES:
- TOP OF MARKER SHALL BE FLUSH WITH FINISHED PAVEMENT SURFACE. MARKER MAY BE INSTALLED IN A DRILLED HOLE AND SECURED WITH EPOXY GLUE.
 - BRASS DUCT MARKERS ARE AVAILABLE FROM G&S FOUNDRY AND MANUFACTURING CO. INC., 210 KASKASKIA DRIVE, RED BUD, IL 62278, PHONE: 618.282.4114

BITUMINOUS PAVEMENT MARKER

TURF AND PAVEMENT DUCT AND CABLE MARKERS

- DUCT BANK NOTES:**
- DIMENSIONS FOR CONCRETE COVERAGE AND SEPARATION BETWEEN DUCTS ARE MINIMUM.
 - INCLUDE DUCT SPACERS AS MANUFACTURED BY UNDERGROUND DEVICES INC., OR APPROVED EQUAL TO MAINTAIN PROPER SEPARATION OF CONDUITS.
 - REBAR IS REQUIRED TO ACCOMMODATE FUTURE DUCT EXTENSIONS & INTERFACE AT DUCT BANK TERMINATIONS. CONCRETE ENCASED DUCT BANKS TERMINATING IN HANDHOLES REQUIRE REBAR AT TERMINATIONS.
 - CONDUITS FOR CONCRETE ENCASED DUCT SHALL BE SCHEDULE 40 PVC CONFORMING TO ITEM 110.
 - MINIMUM DEPTH OF TOP OF DUCT ENCASEMENT SHALL BE 18" BELOW FINISHED GRADE.
 - HIGH VOLTAGE AND LOW VOLTAGE CIRCUITS SHALL NOT BE INSTALLED IN THE SAME RACEWAY, CONDUIT, DUCT, HANDHOLE, OR MANHOLE.
 - HOMERUN CABLES FOR A RESPECTIVE CIRCUIT SHALL BE INSTALLED IN THE SAME RACEWAY OR DUCT.
 - DUCT INTERFACE TO HANDHOLES OR MANHOLES WILL BE CONSIDERED INCIDENTAL TO THE RESPECTIVE DUCT PAY ITEM.

- CABLE & DUCT MARKER NOTES:**
- 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.
 - BITUMINOUS PAVEMENT DUCT MARKER AND 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 FORMED AS DESCRIBED IN NOTE 4.
 - CABLE MARKERS SHALL BE PLACED AT CHANGES OF DIRECTION AND APPROXIMATELY EVERY 200' ALONG CABLE RUNS.
 - CONCRETE CABLE MARKERS AND DUCT MARKERS SHALL HAVE LETTERS 4" HIGH, 3" WIDE WITH WIDTH OF STROKE 1/2" AND 1/4" DEEP. ALL LETTERS, NUMBERS AND ARROWS TO BE IMPRESSED.



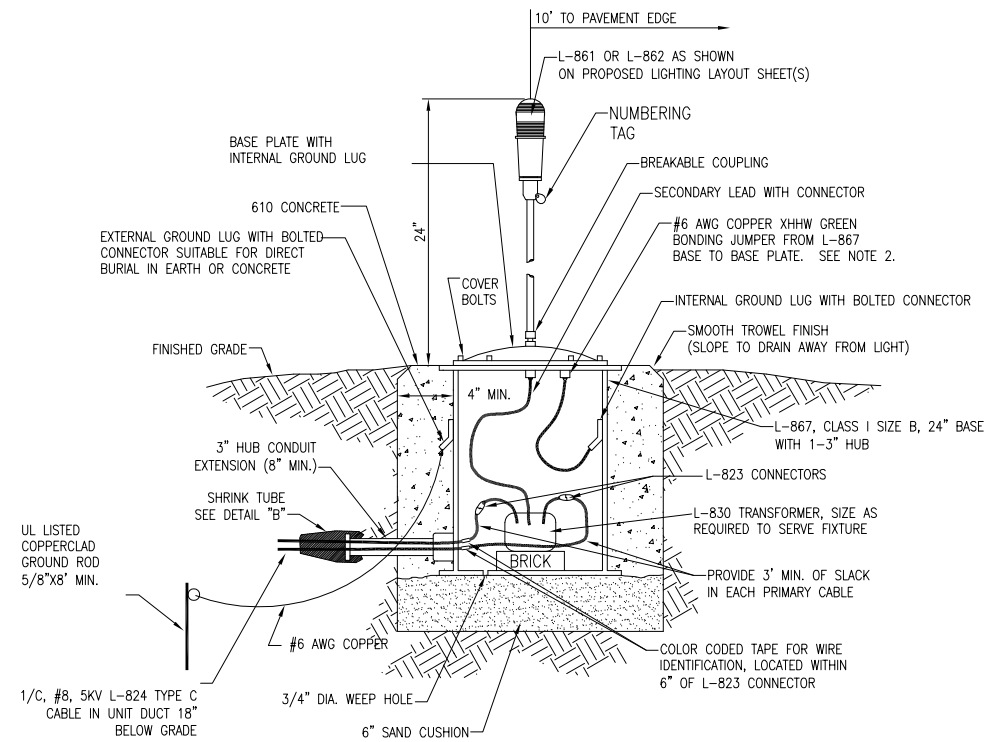
- NOTES:**
- THE COSTS OF ALL TURF AND PAVEMENT DUCT MARKERS SHALL BE INCIDENTAL TO THE DUCT. THE COST OF ALL CABLE MARKERS SHALL BE INCIDENTAL TO THE CABLE.
 - BITUMINOUS PAVEMENT DUCT MARKER AND CONCRETE DUCT MARKER TO BE PROVIDED AT EACH END OF EACH DUCT AS SHOWN ON THE LOCATION PLAN. FOR CONCRETE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

REVISION	DATE	DESCRIPTION

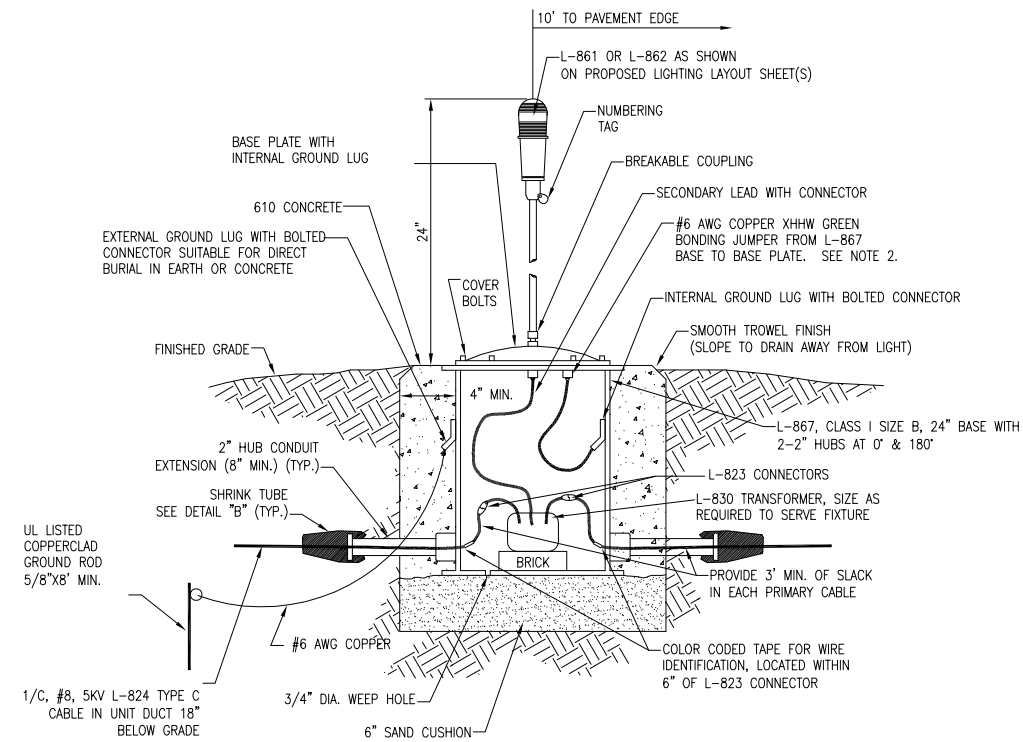
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Scale	N/A	LDH
Date	NOVEMBER 18, 2011	RWH
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 Oak Brook, Illinois 60523

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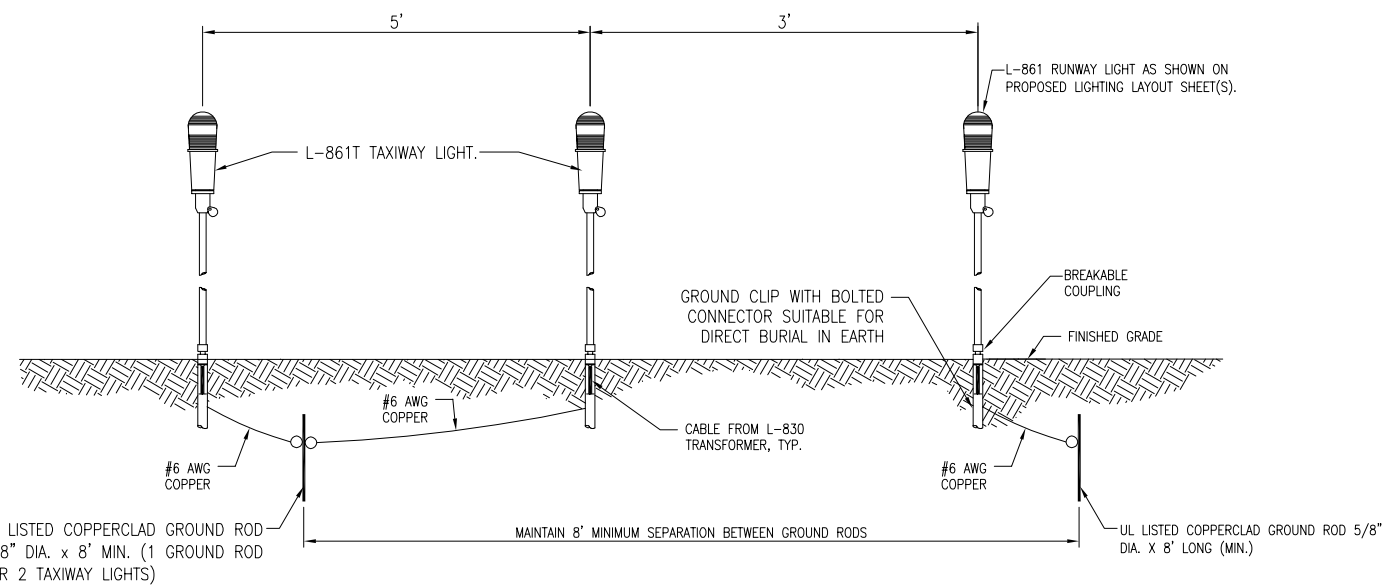
MEDIUM/HIGH INTENSITY LIGHT - BASE MOUNTED OPTION 1
(NOT TO SCALE)



MEDIUM/HIGH INTENSITY LIGHT - BASE MOUNTED OPTION 2
(NOT TO SCALE)

NOTES

- 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 150/5340-30F DESIGN AND INSTALLATION DETAILS FOR AIRPORT VISUAL AIDS, CHAPTER 12, PART 12.6; A GROUND MUST BE INSTALLED AT EACH LIGHT FIXTURE. THE PURPOSE OF THE LIGHT BASE GROUND IS TO PROVIDE A DEGREE OF PROTECTION FOR MAINTENANCE PERSONNEL FROM POSSIBLE CONTACT WITH AN ENERGIZED LIGHT BASE OR MOUNTING STAKE THAT MAY RESULT FROM A SHORTED POWER CABLE OR ISOLATION TRANSFORMER. A LIGHT BASE GROUND SHALL BE INSTALLED AT EACH TRANSFORMER BASE/LIGHT CAN ASSOCIATED WITH RUNWAY LIGHTS, TAXIWAY LIGHTS, AND LIGHTED TAXI GUIDANCE SIGNS. A LIGHT BASE GROUND SHALL ALSO BE INSTALLED AT EACH STAKE MOUNTED LIGHT FIXTURE. A LIGHT BASE GROUND SHALL BE INSTALLED AND CONNECTED TO THE METAL FRAME OF EACH TAXI GUIDANCE SIGN AS DETAILED ON THE PLANS AND IN ACCORDANCE WITH THE RESPECTIVE TAXI GUIDANCE SIGN MANUFACTURER RECOMMENDATIONS. THE LIGHT BASE GROUND SHALL BE A #6 AWG BARE COPPER CONDUCTOR BONDED TO THE GROUND LUG ON THE RESPECTIVE L-867 TRANSFORMER BASE/LIGHT CAN OR MOUNTING STAKE AND A 5/8-INCH DIAMETER BY 8-FOOT LONG (MINIMUM) UL LISTED COPPER CLAD GROUND ROD. 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), ULTRAWELD BY HARGER, GRAYSLAKE, ILLINOIS (PHONE: 800-842-7437), OR APPROVED EQUAL. 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.
- FOR BASE MOUNTED LIGHT FIXTURES THE LIGHT FIXTURE MUST BE BONDED TO THE LIGHT BASE INTERNAL GROUND LUG VIA A #6 AWG STRANDED COPPER WIRE RATED FOR 600 VOLTS WITH GREEN XHHW OR USE INSULATION. THE GROUND WIRE LENGTH MUST BE SUFFICIENT TO ALLOW THE REMOVAL OF THE LIGHT FIXTURE FROM THE LIGHT BASE FOR ROUTINE MAINTENANCE. SEE THE LIGHT FIXTURE MANUFACTURER'S INSTRUCTIONS FOR PROPER METHODS OF ATTACHING A BONDING WIRE.
- FOR TAXIWAY LIGHTS THAT ARE SPACED WITH LESS THAN 10 FEET OF SEPARATION BETWEEN THEM PROVIDE ONE 5/8-INCH DIAMETER BY 8-FOOT LONG GROUND ROD PER TWO ADJACENT TAXIWAY LIGHTS.
- STEEL USED TO MANUFACTURE GROUND RODS SHALL BE 100% DOMESTIC STEEL.



GROUNDING DETAIL FOR TAXIWAY LIGHT SPACING LESS THAN 10'
(NOT TO SCALE)

REVISION	DATE

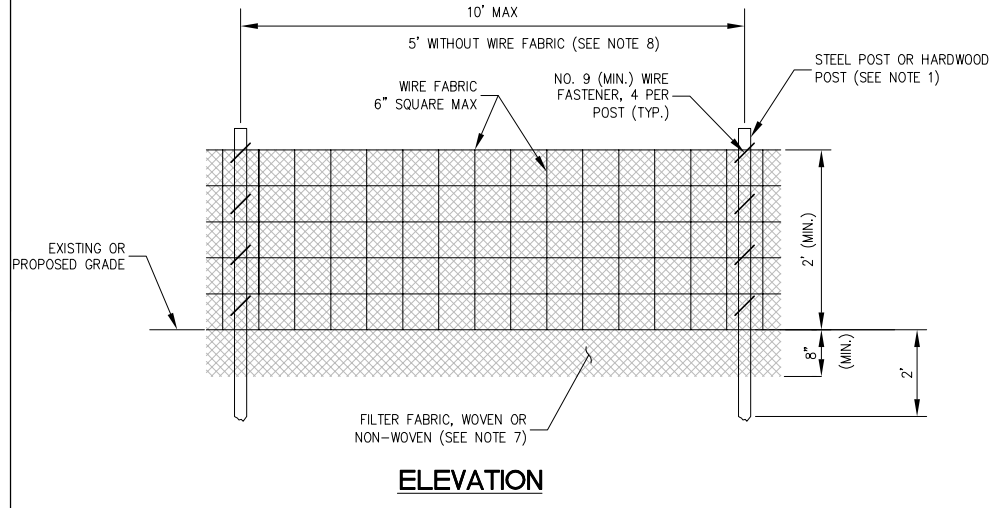
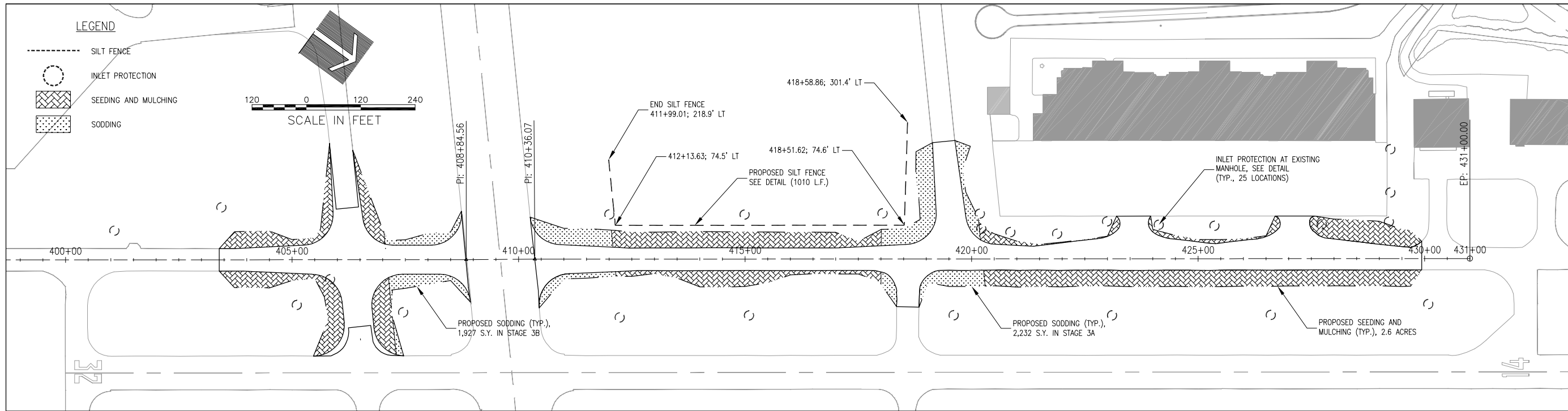
WAUKEGAN REGIONAL AIRPORT
WAUKEGAN PORT DISTRICT
3580 North McAtee Road
Waukegan, Illinois 60087
Telephone: 847.244.0066
Fax: 847.244.3813



Revision No.	Date	By	Check
11A0071D	NOVEMBER 18, 2011	KNL	RWH
57-E-504-ELEC.DWG		LDH	
N/A			

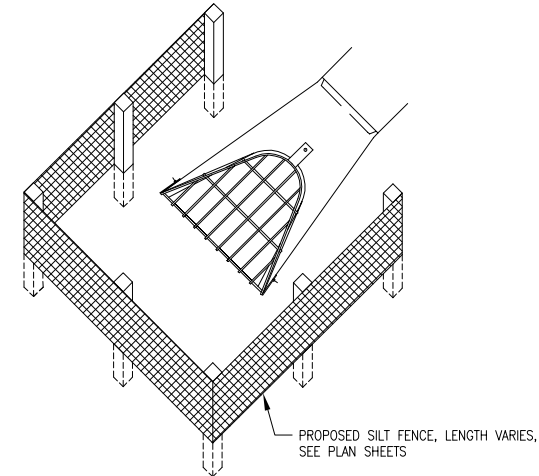
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815 Commerce Drive, Suite 200
Oak Brook, Illinois 60523

ELECTRICAL DETAILS
SHEET 4
REHABILITATE TAXIWAY B AND
ASSOCIATED EXIT TAXIWAYS, PHASE 1
IDA No. UGN-4124 AIP No. 3-17-0105-B52

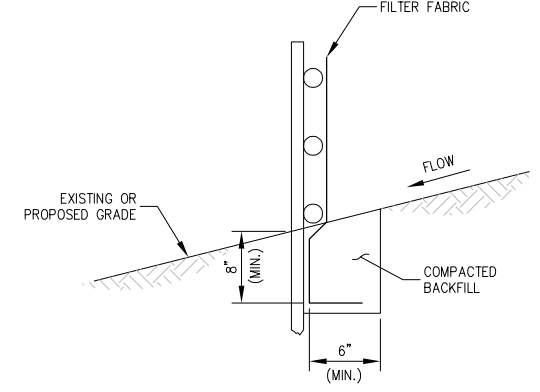


ELEVATION

NOTE: 2 X 2 STAKES DO NOT MEET SPECIFICATION.



SILT FENCE PLACEMENT AT FLARED END SECTIONS (FES)



FABRIC ANCHOR DETAIL

NOTES:

- FENCE POST SHALL BE EITHER STEEL "T" LINE POST OR HARDWOOD POST WITH A MINIMUM SECTIONAL AREA OF 3.0 SQUARE INCHES.
- TOP AND BOTTOM WIRE OF WIRE FABRIC SHALL BE MINIMUM GAGE NO. 9. INTERMEDIATE WIRES OF THE WIRE FABRIC SHALL BE MINIMUM GAGE NO. 11.
- WIRE FABRIC SHALL BE SECURELY FASTENED TO FENCE POSTS WITH NO. 9 GAGE WIRE MINIMUM. FOUR (4) FASTENERS PER POST REQUIRED.
- FILTER FABRIC SHALL BE SECURELY FASTENED TO WIRE FABRIC AND POSTS WITH TIES OR STAPLES SPACED AT 12" APART AT THE TOP, MIDDLE AND BOTTOM.
- WHEN TWO SECTIONS OF FILTER FABRIC MEET, THEY SHALL BE OVERLAPPED BY 6" AND FOLDED AND ATTACHED TO THE WIRE FABRIC AT A POST.
- MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED AND REPLACED WHEN BULGES DEVELOP IN THE SILT FENCE.
- FILTER FABRIC SHALL BE IN ACCORDANCE WITH SPECIAL PROVISIONS WITH EQUIVALENT OPENING SIZE OF AT LEAST 30 FOR NONWOVEN AND 50 FOR WOVEN.
- WIRE FABRIC MAY BE OMITTED IF A MAXIMUM OF 5 FEET IS USED FOR POST-TO-POST SPACING.
- SILT FENCE SHALL BE INSTALLED PRIOR TO ANY GRADING WORK IN THE AREA TO BE PROTECTED. PERIODIC INSPECTION SHALL BE PERFORMED AND REQUIRED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN EVENT.
- FENCE POSTS SHALL BE REMOVED WHEN DIRECTED AT PROJECT END.

STORM WATER POLLUTION PREVENTION NOTES

GENERAL

THE CONTRACTOR SHALL IMPLEMENT ALL PROVISIONS OF THE CONTRACT DOCUMENTS TO ASSURE THAT STORM WATER POLLUTION PREVENTION ITEMS ARE CONSTRUCTED AND MAINTAINED IN A TIMELY MANNER. SEDIMENTATION MUST NOT BE TRANSPORTED OFF THE CONSTRUCTION SITE. PERMANENT DRAINAGE FEATURES AND VEGETATIVE MEASURES SHALL BE PROVIDED AS SOON AS POSSIBLE.

THE MAINTENANCE OF ALL STORM WATER POLLUTION PREVENTION MEASURES IS INCIDENTAL TO THE ASSOCIATED ITEM.

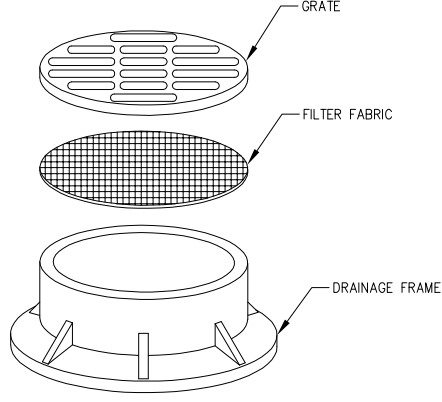
POLLUTION PREVENTION MEASURES

THE CONTRACTOR SHALL BE REQUIRED TO IMPLEMENT AND MAINTAIN STORM WATER POLLUTION PREVENTION PRACTICES AND MEASURES PRIOR TO THE STRIPPING OF EXISTING VEGETATION WHERE EVER POSSIBLE AND AS SOON AS CONSTRUCTION PERMITS IN OTHER AREAS. POLLUTION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, INCLUDING THESE CONSTRUCTION PLANS, AND WITH STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, ILLINOIS ENVIRONMENTAL PROTECTION AGENCY, CURRENT ISSUE. THE CONTRACTOR SHALL ADJUST HIS OPERATIONS AND IMPLEMENT POLLUTION CONTROL MEASURES SO THAT NO RUNOFF FROM STRIPPED AREAS WILL LEAVE THE CONSTRUCTION SITE OTHER THAN THROUGH SEDIMENT TRAPS OR OTHER SUITABLE CONTROL MEASURES.

POLLUTION CONTROL ITEMS SHALL BE PROVIDED AS NOTED ON THE STORM WATER POLLUTION PREVENTION PLAN AND IN THE STORM WATER POLLUTION PREVENTION DETAILS AND AS DIRECTED BY THE ENGINEER. THE LIMITS OF SUCH MEASURES SHALL BE STAKED BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. SUCH LIMITS MAY BE ADJUSTED BY THE ENGINEER TO ACCOUNT FOR ACTUAL SITE CONDITIONS EXPERIENCED DURING CONSTRUCTION. ADDITIONAL COMPENSATION FOR MEASURES EXCEEDING THE PLAN QUANTITIES WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR EACH ITEM.

THE CONTRACTOR IS TO MAINTAIN AND ADJUST, REPAIR OR REPLACE ALL POLLUTION PREVENTION MEASURES AS REQUIRED OR AS DIRECTED BY THE ENGINEER UNTIL PERMANENT VEGETATION HAS BEEN ESTABLISHED. MAINTENANCE OF POLLUTION CONTROL MEASURES IS TO BE PROVIDED AT NO ADDITIONAL COST TO THE CONTRACT.

ADDITIONAL STORMWATER POLLUTION PREVENTION MEASURES ARE EXISTING ON SITE LOCATED AT DRAINAGE FACILITIES AND ALONG THE PROPERTY LINE.



INLET PROTECTION - DRAINAGE STRUCTURE FILTER WRAP

NOTES:

- FILTER WRAP TO BE PLACED IN ALL MANHOLES AS SHOWN.
- FABRIC SHALL BE IN CONFORMANCE WITH MATERIALS SPECIFIED FOR SILT FENCE.
- FABRIC SHALL OVERLAY FRAME BY 2 INCHES (MINIMUM).
- CONTRACTOR SHALL CLEAR DEBRIS AND SILT AS REQUIRED FROM FABRIC TO MAINTAIN DRAINAGE THROUGH THE STRUCTURE.
- FABRIC SHALL REMAIN IN PLACE UNTIL TURFED AREAS HAVE DEVELOPED A MINIMUM OF 80% OF COVERAGE.
- COST OF FILTER WRAP SHALL BE INCIDENTAL TO INLET PROTECTION.

REVISION	DATE

WAUKEGAN REGIONAL AIRPORT
 WAUKEGAN PORT DISTRICT
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 Waukegan, Illinois 60087
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Hanson No.	11A0071D	LAYOUT	KMS	10/03/11
Filename	58-SWPP.DWG	DRAWN	KMS	10/03/11
Scale	1"=120'	REVIEWED	RWH	11/17/11
Date	NOVEMBER 18, 2011			

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STORM WATER POLLUTION PREVENTION PLAN
 REHABILITATE TAXWAY B AND ASSOCIATED EXIT TAXWAYS, PHASE 1
 IDA No. UGN-4124 AIP No. 3-17-0105-B52

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