

# CHICAGO EXECUTIVE AIRPORT WHEELING/PROSPECT HEIGHTS, ILLINOIS



## CHICAGO EXECUTIVE AIRPORT CONSTRUCTION PLANS FOR CHICAGO EXECUTIVE AIRPORT



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THE LOCATION, SIZE AND TYPE OF MATERIAL OF EXISTING UNDERGROUND UTILITIES INDICATED ON THE PLANS IS NOT REPRESENTED AS BEING ACCURATE, SUFFICIENT OR COMPLETE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ACTUAL LOCATIONS OF ALL SUCH FACILITIES, INCLUDING SERVICE CONNECTIONS TO UNDERGROUND UTILITIES. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY UTILITY COMPANIES OF HIS OPERATIONAL PLANS, OBTAIN FROM RESPECTIVE UTILITY COMPANIES DETAILED INFORMATION AND ASSISTANCE RELATIVE TO THE LOCATION OF THEIR FACILITIES AND THE WORK REQUIRED TO BE COMPLETED FOR THE FACILITIES TO BE MAINTAINED OR RELOCATED DURING CONSTRUCTION. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE UTILITY COMPANY OF JURISDICTION AND THE ONE-CALL NOTICE SYSTEM. THE ENGINEER SHALL BE IMMEDIATELY NOTIFIED. ANY SUCH UTILITY OR SERVICES SHALL BE RESTORED TO SERVICE AT ONCE AND PAID FOR BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT.

CALL JULIE FOR UTILITY INFORMATION AT 811.

### CHICAGO EXECUTIVE AIRPORT

TOWNSHIP: 42 NORTH  
RANGE: 11 EAST  
COOK COUNTY

WHEELING TOWNSHIP  
(SECTION: 13)



CRAWFORD MURPHY & TILLY, INC.  
CONSULTING ENGINEERS

SUBMITTED BY *[Signature]*  
DATE *April 9, 2011*

MARC L. KATZ, P.E.

### CHICAGO EXECUTIVE AIRPORT

APPROVED *[Signature]*  
DENNIS G. ROULEAU  
AIRPORT MANAGER

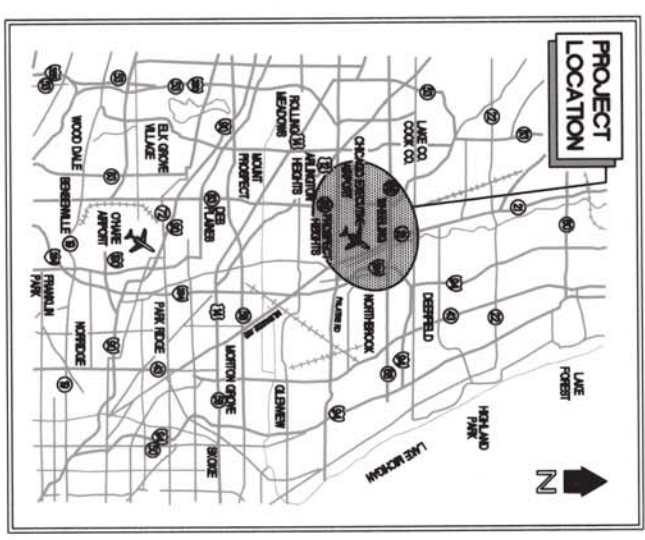
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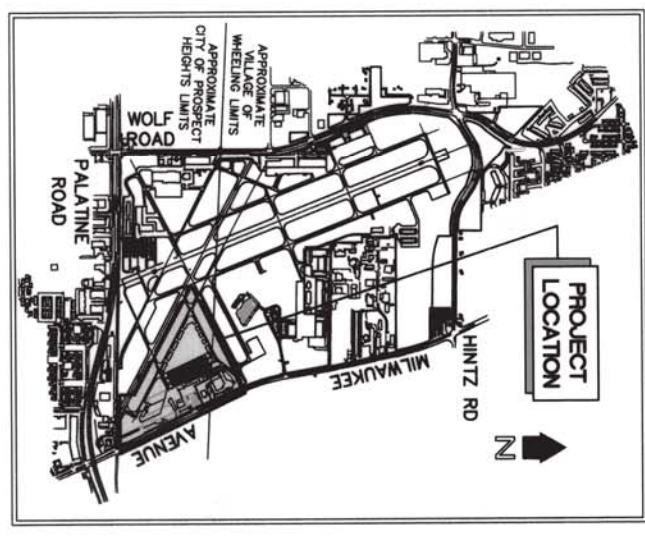
## CONSTRUCT PARTIAL PARALLEL TAXIWAY ECHO AND PARTIAL OVERLAY OF TAXIWAY ECHO

ILLINOIS PROJECT: PWK-3244  
A.I.P. PROJECT: 3-17-0018-B32

DATE: APRIL 22, 2011



LOCATION MAP



SITE PLAN

IDOT STANDARDS	
602306-03	604001-03
602401-03	604036-02
602601-02	604051-03
602701-02	606001-04

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	SUMMARY OF QUANTITIES
3	SITE PLAN/PROJECT CONTROL PLAN
4	SEQUENCE OF CONSTRUCTION PER AC 1506370-2E (LATEST EDITION)
5	STORM WATER POLLUTION PREVENTION PLAN (SWPPP) /LANDSCAPING PLAN
6	STORM WATER POLLUTION PREVENTION PLAN (SWPPP) NOTES
7	STORM WATER POLLUTION PREVENTION PLAN (SWPPP) DETAILS
8	STORM WATER POLLUTION PREVENTION PLAN (SWPPP) DETAILS
9	TYPICAL SECTIONS
10	EXISTING CONDITIONS/PROPOSED REMOVALS SHEET 1
11	EXISTING CONDITIONS/PROPOSED REMOVALS SHEET 2
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18	INTERSECTION GRADE DETAILS
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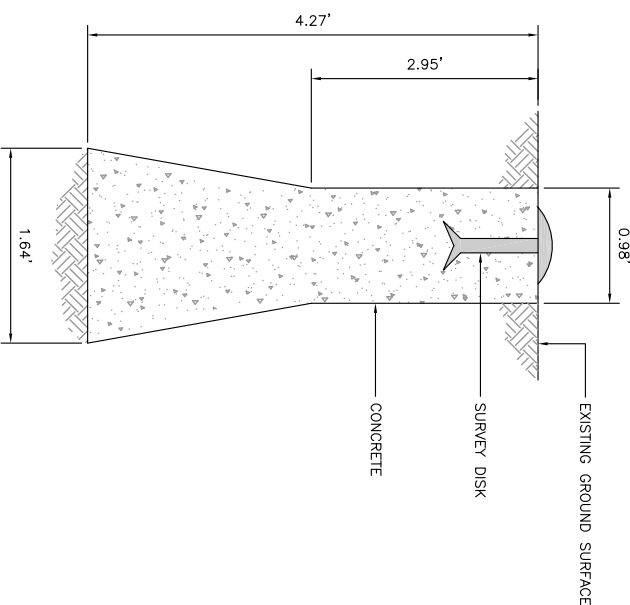
# SUMMARY OF QUANTITIES

**LOCAL AGENCY CONTACT INFORMATION**  
 VILLAGE OF WHEELING - 847.459.2600  
 CITY OF PROSPECT HEIGHTS - 847.398.6700

**PROJECT PERMIT LOG**  
 NPDES # \_\_\_\_\_  
 IDOT # \_\_\_\_\_  
 VILLAGE PERMIT # \_\_\_\_\_  
 CITY PERMIT # \_\_\_\_\_

ITEM NO.	DESCRIPTION	UNIT	TOTAL QUANTITY
<b>BASE BID</b>			
AR108108	1/C #8 SKV LUG CABLE	LF	16,000
AR109341	20 KW REFL ATOR STYLE 1	EACH	1
AR110202	2" PVC DUCT, DIRECT BURY	LF	11,110
AR110212	2" STEEL DUCT, DIRECT BURY	LF	370
AR110312	2" STEEL DUCT, JACKED	LF	186
AR110804	4-MAY CONCRETE ENCASED DUCT	LF	240
AR110010	ELECTRICAL HANDHOLE	EACH	6
AR110906	REMOVE ELECTRICAL HANDHOLE	EACH	5
AR123415	MILT. BASE MOUNTED	EACH	120
AR123443	TAXI GUIDANCE SIGN, 3 CHARACTER	EACH	1
AR123444	TAXI GUIDANCE SIGN, 4 CHARACTER	EACH	10
AR123445	TAXI GUIDANCE SIGN, 5 CHARACTER	EACH	2
AR123470	MODIFY EXISTING SIGN PANE	EACH	1
AR123510	MIR. BASE MOUNTED	EACH	1
AR123565	SPICE CAN	EACH	1
AR123901	REMOVE STAKE MOUNTED LIGHT	EACH	58
AR123902	REMOVE BASE MOUNTED LIGHT	EACH	35
AR123904	REMOVE TAXI GUIDANCE SIGN	EACH	6
AR123942	ADJUST BASE MOUNTED LIGHT	EACH	17
AR123964	RELOCATE TAXI GUIDANCE SIGN	EACH	4
AR130510	ENGINEERS FIELD OFFICE	LS	1
AR132410	UNCLASSIFIED EXCAVATION	CY	14,195
AR132540	SOIL STABILIZATION FABRIC	SY	6,515
AR136510	SILT FENCE	LF	6,762
AR136511	DITCH CHECK	EACH	4
AR136520	INLET PROTECTION	EACH	28
AR162306	CLASS FENCE 6"	LF	435
AR162900	REMOVE CLASS FENCE	LF	506
AR162905	REMOVE GATE	EACH	1
AR162908	REMOVE ELECTRIC GATE	EACH	1
AR163520	CONSTRUCTION FENCE	LF	455
AR208515	POROUS GRANULAR EMBANKMENT	CY	2,175
AR209606	CRUSHED AGG. BASE COURSE - 6"	SY	7,515
AR209608	CRUSHED AGG. BASE COURSE - 8"	SY	1,140
AR401610	BITUMINOUS SURFACE COURSE	TON	1,740
AR401620	BIT. SURFACE COURSE, LEVELING	TON	239
AR401650	BITUMINOUS PAVEMENT MILLING	SY	4,847
AR401655	BUTT JOINT CONSTRUCTION	SY	2,722
AR401900	REMOVE BITUMINOUS PAVEMENT	SY	18,087
AR401910	REMOVE & REPLACE BIT. PAVEMENT	SY	50
AR403610	BITUMINOUS BASE COURSE	TON	2,275
AR501510	10" PCC PAVEMENT	SY	5,700
AR501530	PCC TEST BATCH	EACH	1
AR501900	REMOVE PCC PAVEMENT	SY	3,092
AR602510	BITUMINOUS PRIME COAT	GAL	1,110
AR603510	BITUMINOUS TACK COAT	GAL	3,580
AR620520	PAVEMENT MARKING - WATERBORNE	SF	12,505
AR620525	PAVEMENT MARKING - BLACK BORDER	SF	14,705
AR620900	PAVEMENT MARKING REMOVAL	SF	3,550
AR701512	12" RCP CLASS IV	LF	518
AR701515	15" RCP CLASS IV	LF	678
AR701900	REMOVE PIPE	LF	1,629
AR705526	6" PERFORATED UNDERDRAIN W/ SOCK	LF	2,140
AR705900	REMOVE UNDERDRAIN	LF	490
AR731412	INLET - TYPE B	EACH	4
AR731540	MANHOLE #	EACH	7
AR731900	REMOVE INLET	EACH	2
AR731903	REMOVE MANHOLE	EACH	8
AR731940	ADJUST INLET	EACH	4
AR731943	ADJUST MANHOLE	EACH	5
AR734410	COMB. CONCRETE CURB & GUTTER	LF	690
AR766508	8" DUCTILE IRON WATER MAIN	LF	50
AR76724	24" STEEL GASING	LF	22
AR800015	REPLACE BENCHMARK	EACH	1
AR800026	SLOPE BOX INLET 12"	EACH	4
AR800053	SOIL GUARD	SY	9,174
AR800153	CONCRETE WASHOUT	LS	1
AR800154	REMOVE WOODEN TAXI GUIDANCE SIGN	EACH	5
AR800194	REMOVE ELEVATED RETROREFLECTIVE MARKER	EACH	25
AR800816	L-804 RFL ELEVATED, BASE MOUNTED	EACH	8
AR901510	SEEDING	ACRE	10.9
AR908510	MULCHING	ACRE	9.0
AR910915	REMOVE ROADWAY SIGN	EACH	7

ITEM NO.	DESCRIPTION	UNIT	TOTAL QUANTITY
<b>ADDITIVE ALTERNATE #1 - OVERLAY TAXIWAY BRAVO</b>			
AS401610	BITUMINOUS SURFACE COURSE	TON	480
AS401655	BUTT JOINT CONSTRUCTION	SY	360
AS603510	BITUMINOUS TACK COAT	GAL	615
AS620520	PAVEMENT MARKING - WATERBORNE	SF	2,610
AS620525	PAVEMENT MARKING - BLACK BORDER	SF	3,516
<b>ADDITIVE ALTERNATE #2 - ALCMS SYSTEM AND SPARE REGULATOR</b>			
A1109362	30 KW REFL ATOR STYLE 2	EACH	1
A1109630	LIGHTING CONTROL COMPUTER SYSTEM	LS	1
A1800178	FIBER OPTIC CABLE	LF	180



**NEW BENCHMARK DETAIL**  
 NOT TO SCALE

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REVISIONS	BY	DATE
1	MLK	03/31/10

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

## CHICAGO EXECUTIVE AIRPORT WHEELING/PROSPECT HEIGHTS, ILLINOIS CONSTRUCT PARTIAL PARALLEL TAXIWAY ECHO AND PARTIAL OVERLAY OF TAXIWAY ECHO

## SUMMARY OF QUANTITIES

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DESIGN BY:	MLK
DRAWN BY:	JRO
CHECKED BY:	MLK
APPROVED BY:	DLP
DATE:	04/22/11
JOB No.:	08290-08

ILLINOIS PROJECT: PWK-3244  
 A.I.P. PROJECT: 3-17-0018-B32  
 SHEET 2 OF 49 SHEETS



**HORIZONTAL CONTROL TABLE (1927 DATUM)**

POINT	NORTHING	EASTING	DESCRIPTION	STATION/OFFSET
1	1982835.4489	619546.9945	RUNWAY 12/30 AND TAXIWAY E1	STA. 376+70.70 @ RUNWAY 12/30 AND STA. 0+00.00 @ TAXIWAY E1
2	1983047.7711	619658.5039	TAXIWAY E1 AND TAXIWAY ECHO	STA. 2+40.00 @ TAXIWAY E1 AND STA. 176+70.70 @ TAXIWAY E
3	1983296.6194	618668.0646	RUNWAY 12/30 AND TAXIWAY ALPHA	STA. 386+63.27 @ RUNWAY 12/30 AND STA. 35+25.55 @ TAXIWAY A
4	1983421.8225	618945.9924	TAXIWAY ECHO AND TAXIWAY ALPHA	STA. 184+75.26 @ TAXIWAY E AND STA. 38+30.38 @ TAXIWAY A
5	1983780.9848	617744.9280	RUNWAY 12/30 AND TAXIWAY BRAVO	STA. 397+05.76 @ RUNWAY 12/30 AND STA. 1201+70.23 @ TAXIWAY B
6	1983914.4149	618007.1782	TAXIWAY ECHO AND TAXIWAY BRAVO	STA. 195+55.46 @ TAXIWAY E AND STA. 1204+64.47 @ TAXIWAY B
7	1984051.1239	617246.6232	TAXIWAY ECHO AND RUNWAY 6/24	STA. 198+29.70 @ TAXIWAY E AND STA. 035+80.53 @ RUNWAY 6/24
8	1984201.2406	618501.9413	100' RADIUS TO EDGE OF PAVEMENT	STA. 1+65.00, 75' LT. @ TAXIWAY E1
9	1983012.4046	618501.9413	50' RADIUS TO EDGE OF PAVEMENT	STA. 183+20.76, 75' LT. @ TAXIWAY E
10	19833416.4512	6189117.4425	50' RADIUS TO EDGE OF PAVEMENT	STA. 184+37.70, 75' LT. @ TAXIWAY E
11	1983337.9614	618944.3993	125' RADIUS TO EDGE OF PAVEMENT	STA. 386+03.91, 182.5' LT. @ RUNWAY 12/30
12	1983125.1475	618450.0811	20' RADIUS TO EDGE OF PAVEMENT	STA. 179+29.08, 44' RT. @ TAXIWAY E
13	1983207.0251	619606.3908	20' RADIUS TO EDGE OF PAVEMENT	STA. 177+49.15, 39.34' RT. @ TAXIWAY E
14	1983124.7472	619610.1077	20' RADIUS TO EDGE OF PAVEMENT	STA. 179+29.08, 45.5' RT. @ TAXIWAY E
15	1983208.3478	619450.7760	35' RADIUS TO EDGE OF PAVEMENT	STA. 0+97.50, 77.5' RT. @ TAXIWAY E1
16	1982885.7778	619660.9222	NOAA BRASS DISC	STA. 181+80.42 @ TAXIWAY ECHO
17	1983284.7900	619207.0450	IRON PIN	STA. 188+58.08, 119.36' RT. @ TAXIWAY ECHO
18	1983705.8500	618661.5780	CHISELED "X"	STA. 372+69.94, 71.40' RT. @ RUNWAY 12/30
19	1982713.3210	619353.4790	CHISELED "X"	STA. 372+69.94, 71.40' RT. @ RUNWAY 12/30

**VERTICAL CONTROL TABLE (1929 DATUM)**

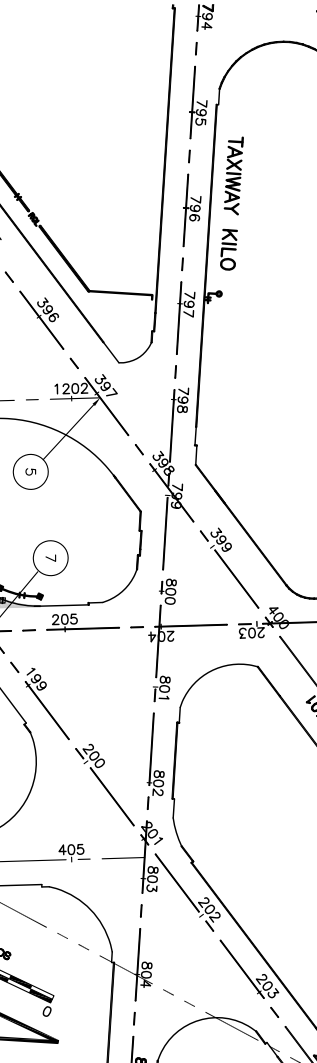
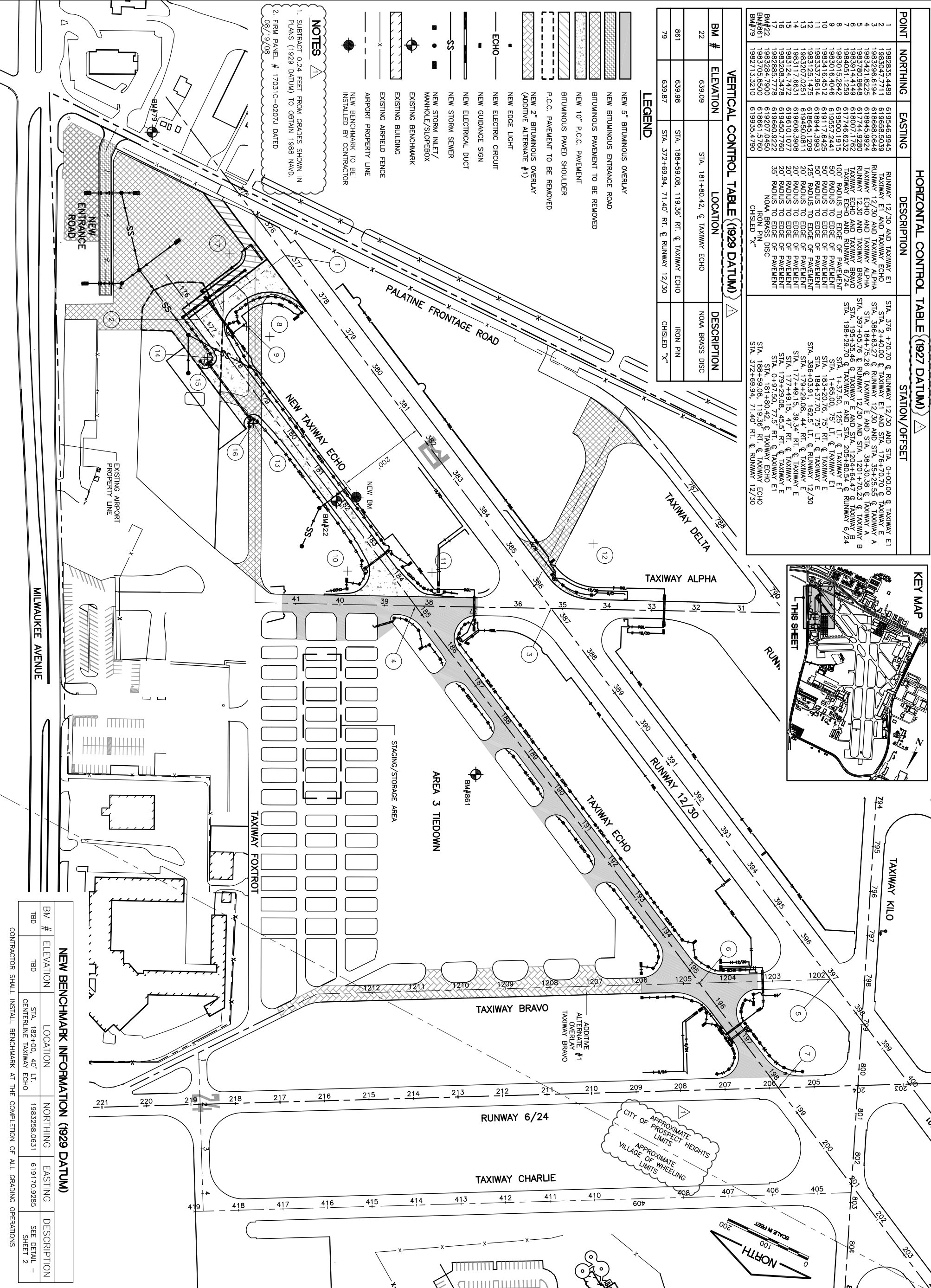
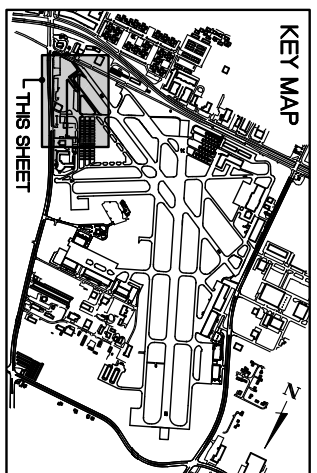
BM #	ELEVATION	LOCATION	DESCRIPTION
22	639.09	STA. 181+80.42, @ TAXIWAY ECHO	NOAA BRASS DISC
861	639.98	STA. 188+58.08, 119.36' RT. @ TAXIWAY ECHO	IRON PIN
79	639.87	STA. 372+69.94, 71.40' RT. @ RUNWAY 12/30	CHISELED "X"

**LEGEND**

- NEW 5" BITUMINOUS OVERLAY
- NEW BITUMINOUS ENTRANCE ROAD
- BITUMINOUS PAVEMENT TO BE REMOVED
- NEW 10" P.C.C. PAVEMENT
- BITUMINOUS PAVED SHOULDER
- P.C.C. PAVEMENT TO BE REMOVED
- NEW 2" BITUMINOUS OVERLAY (ADDITIVE ALTERNATE #1)
- NEW EDGE LIGHT
- NEW ELECTRIC CIRCUIT
- NEW GUIDANCE SIGN
- NEW ELECTRICAL DUCT
- NEW STORM SEWER
- NEW STORM INLET/ MANHOLE/SLOPEBOX
- EXISTING BENCHMARK
- EXISTING BUILDING
- EXISTING AIRFIELD FENCE
- AIRPORT PROPERTY LINE
- NEW BENCHMARK TO BE INSTALLED BY CONTRACTOR

**NOTES**

1. SUBTRACT 0.24 FEET FROM GRADES SHOWN IN PLANS (1929 DATUM) TO OBTAIN 1988 NAVD.
2. FIRM PANEL # 17031C-0207J DATED 08/19/08



**NEW BENCHMARK INFORMATION (1929 DATUM)**

BM #	ELEVATION	LOCATION	NORTHING	EASTING	DESCRIPTION
TBD	TBD	STA. 182+00, 40' LT. CENTRELINE TAXIWAY ECHO	1983258.0631	619170.9285	SEE DETAIL - SHEET 2

CONTRACTOR SHALL INSTALL BENCHMARK AT THE COMPLETION OF ALL GRADING OPERATIONS

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**CHICAGO EXECUTIVE AIRPORT**

**CHICAGO EXECUTIVE AIRPORT  
WHEELING/PROSPECT HEIGHTS, ILLINOIS  
CONSTRUCT PARTIAL PARALLEL TAXIWAY ECHO AND  
PARTIAL OVERLAY OF TAXIWAY ECHO**

**SITE PLAN/PROJECT CONTROL PLAN**

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UPDATE BY: mtkatz  
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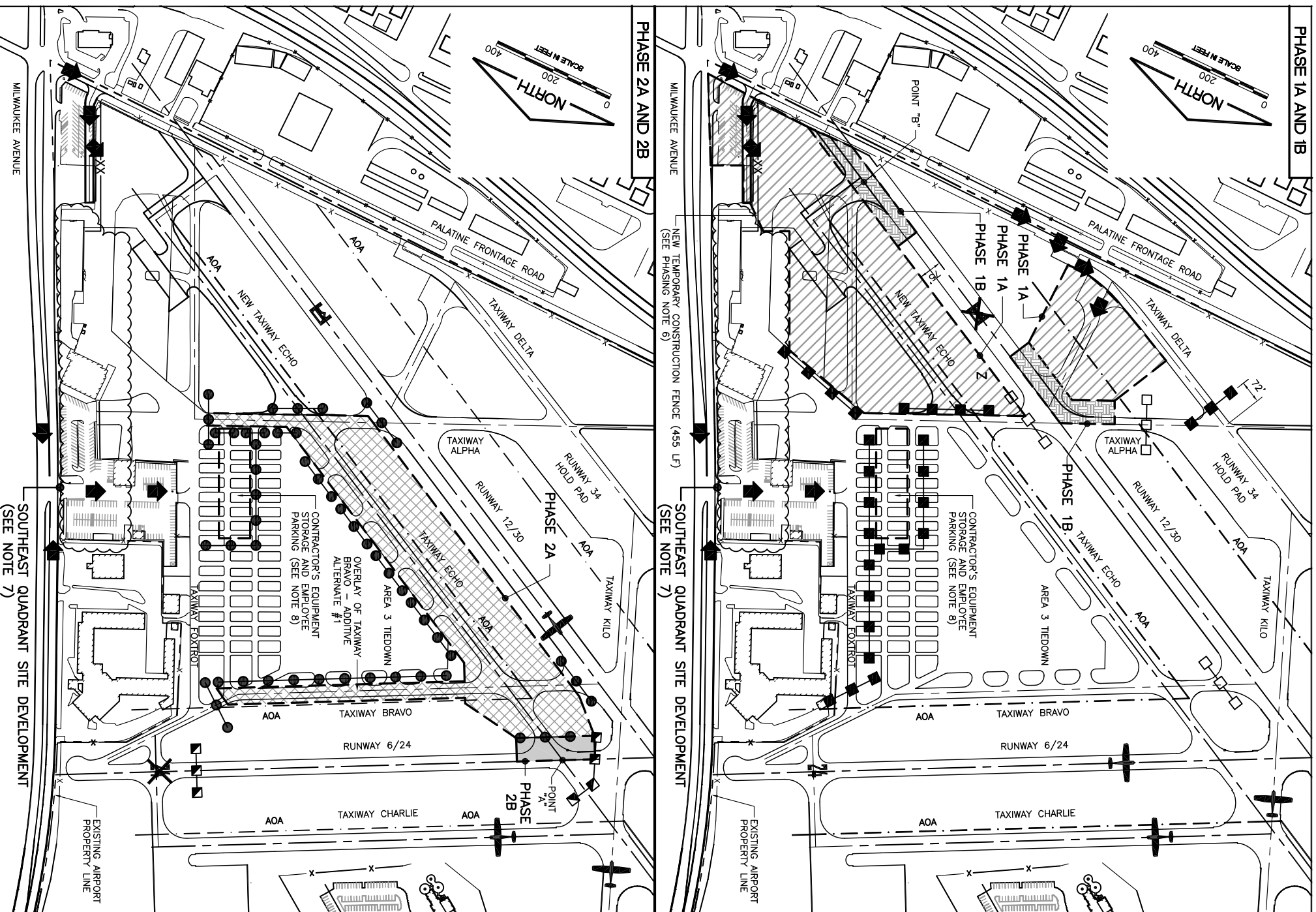
NUMBER	BY	DATE
1	MLK	03/31/10

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

SHEET 3 OF 49 SHEETS

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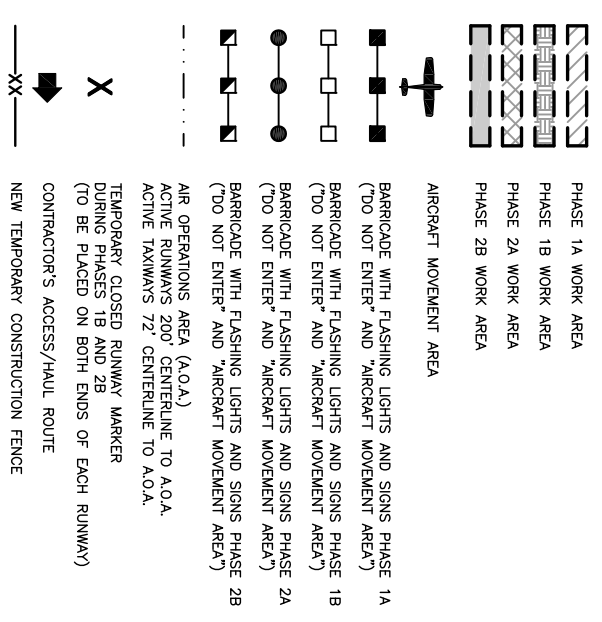




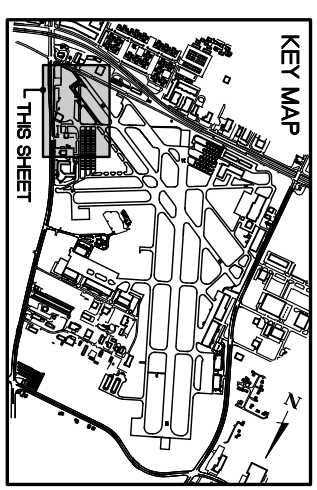
**PHASING NOTES (ALL PHASES)**

1. THE INTENT OF THE PHASING PLANS IS TO MINIMIZE THE IMPACT OF CONSTRUCTION ON THE OPERATION OF THE AIRPORT. THE CONTRACTOR SHALL CONSTRUCT THE PROJECT IN CONSECUTIVE PHASES AS OUTLINED IN THE PLANS UNLESS OTHERWISE APPROVED BY THE ENGINEER.
2. PRIOR TO REOPENING A CLOSED RUNWAY, THE ENTIRE RUNWAY SAFETY AREA (200 FEET FROM CENTERLINE) MUST MEET FAA CRITERIA. FAA CRITERIA REQUIRES THAT THERE BE NO OPEN EXCAVATIONS OR TRENCHES, THE MAXIMUM PAVEMENT DROPOFF BE 3 INCHES, AND ALL GRADES IN ANY DIRECTION BE LESS THAN 5 PERCENT. TEMPORARY WEDGING OF BASE COURSE AND BITUMINOUS CONCRETE WILL BE REQUIRED TO MEET CRITERIA.
3. THE CONTRACTOR SHALL SUBMIT A CONSTRUCTION SCHEDULE. STRICT ADHERENCE TO THE APPROVED SCHEDULE WILL BE ENFORCED TO AVOID CONFLICTS WITH OTHER CONSTRUCTION ACTIVITIES ON THE AIRPORT AND THE ADVERSE EFFECTS THEY COULD HAVE ON AIRPORT OPERATIONS.
4. THE CONTRACTOR SHALL COORDINATE CLOSELY WITH THE AIRPORT STAFF TO SCHEDULE THE RUNWAY/TAXIWAY CLOSURES. ITEMS SUCH AS THE EXTENDED WEATHER FORECAST, MATERIAL AVAILABILITY, EQUIPMENT DEPENDABILITY AND MANPOWER AVAILABILITY SHALL BE DISCUSSED PRIOR TO SCHEDULING THIS CRITICAL CLOSURE. THE ACTING AIRPORT MANAGER AND THE CONTRACTOR SHALL MUTUALLY AGREE ON THE EXACT DATE OF THE CLOSURE.
5. CONTRACTOR MUST MAINTAIN ACCESS TO ALL APRON/HANGAR AREAS AT ALL TIMES. CONTRACTOR SHALL RELOCATE EQUIPMENT AT NO ADDITIONAL COST TO CONTRACTOR TO ALLOW AIRCRAFT TO PASS. CONTRACTOR SHALL COORDINATE CONSTRUCTION OPERATIONS AT ALL APRON/HANGAR AREAS TO PROVIDE MINIMAL DISRUPTIONS TO AIRCRAFT MOVEMENT IN THAT AREA.
6. THE CONTRACTOR SHALL SECURE THE AIRFIELD AT ALL TIMES BY PLACING TEMPORARY CONSTRUCTION FENCE AS SHOWN. TEMPORARY CONSTRUCTION FENCE SHALL ONLY BE PAID FOR ONCE REGARDLESS OF HOW MANY TIMES IT IS TAKEN DOWN OR PUT UP TO ALLOW FOR CONSTRUCTION OPERATIONS, WITH PRIOR APPROVAL OF THE ENGINEER AND AIRPORT. THE CONTRACTOR MAY PLACE THE CONSTRUCTION FENCE AT AN ALTERNATE LOCATION TO SECURE THE AIRFIELD.
7. IT IS VERY LIKELY THAT THE CONSTRUCTION OF THE SOUTHEAST QUADRANT DEVELOPMENT WILL BE TAKING PLACE CONCURRENTLY WITH THE CONSTRUCTION OF THIS PROJECT. THIS WORK CONSISTS OF THE CONSTRUCTION OF MULTIPLE BUILDINGS, APRON P.C. PAVEMENT, PARKING LOTS, DRAINAGE, SANITARY SEWER, WATERMAIN, INSTALLATION AND SITE DEVELOPMENT. CONTRACTOR SHALL COORDINATE SITE ACCESS, HAUL ROUTES AND MATERIAL STORAGE AREA WITH SOUTHEAST QUADRANT DEVELOPMENT CONTRACTOR. NO ADDITIONAL COMPENSATION SHALL BE CONSIDERED FOR ANY EFFORTS TO COORDINATE AND ACCESS THE TAXIWAY SITE DUE TO ADJACENT BUILDING AND SITE CONSTRUCTION.
8. CONTRACTOR SHALL RESTORE ALL HAUL ROUTES AND MATERIAL AND EQUIPMENT STORAGE AREAS TO PRE-CONSTRUCTION CONDITIONS TO THE SATISFACTION OF THE ENGINEER AND AIRPORT MANAGER.

**LEGEND**



WORK AREA	ALLOWABLE WORK PERIODS	OPERATIONAL STATUS/ RESTRICTIONS
PHASE 1A WORK OUTSIDE RUNWAY 12/30 AND TAXIWAY ALPHA AIR OPERATIONS AREA	NO RESTRICTIONS	TAXIWAY DELTA, SOUTH OF TAXIWAY ALPHA CLOSED SOUTHEAST APRON SOUTH OF TAXIWAY ALPHA CLOSED TAXIWAY FOXTROT TAXIWAY ALPHA OPEN RUNWAY 12/30 OPEN
PHASE 1B WORK WITHIN RUNWAY 12/30 AND TAXIWAY ALPHA AIR OPERATIONS AREA	WORK WITHIN RUNWAY 12/30 AIR OPERATIONS AREA TO BE COMPLETED WITHIN 21 CALENDAR DAYS	RUNWAY 12/30 CLOSED TAXIWAY ALPHA CLOSED WEST OF RUNWAY 12/30
PHASE 2A WORK OUTSIDE RUNWAY 6/24 AND TAXIWAY ALPHA AIR OPERATIONS AREA	NO RESTRICTIONS	TAXIWAY ECHO CLOSED, SOUTH OF RUNWAY 6/24 TAXIWAY ALPHA CLOSED, EAST OF RUNWAY 12/30 TAXIWAY BRAVO CLOSED, BETWEEN RUNWAY 12/30 AND TAXIWAY FOXTROT
PHASE 2B WORK WITHIN RUNWAY 6/24 AIR OPERATIONS AREA	WORK WITHIN RUNWAY 6/24 AIR OPERATIONS AREA TO BE COMPLETED WITHIN 7 CALENDAR DAYS	TAXIWAY ECHO CLOSED, BETWEEN TAXIWAY BRAVO AND RUNWAY 6/24



K:\Chicago\exec\082908 Iry E:\Draw Sheets\1\Drawn  
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 UPDATE BY: mikat  
 SURVEY BOOK #  
 DATE: Fri 4/1/11 8:59am  
 XREF DWG: tbcnt\_lxy.dwg  
 lb.dwg  
 echo-base.dwg

REVISIONS	NUMBER	BY	DATE

**CHICAGO EXECUTIVE AIRPORT  
 WHEELING/PROSPECT HEIGHTS, ILLINOIS  
 CONSTRUCT PARTIAL PARALLEL TAXIWAY ECHO AND  
 PARTIAL OVERLAY OF TAXIWAY ECHO**

**SEQUENCE OF CONSTRUCTION  
 PER AC 150/5370-2E  
 (LATEST EDITION)**

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 License No. 184-000613

**CHICAGO EXECUTIVE AIRPORT**

DESIGN BY:	MLK
DRAWN BY:	JRO
CHECKED BY:	MLK
APPROVED BY:	DLP
DATE:	04/22/11
JOB No.:	08290-08

ILLINOIS PROJECT: PWK-3244  
 A.I.P. PROJECT: 3-17-0018-B32

SHEET 4 OF 49 SHEETS



**GENERAL NOTES**

1. THE SUGGESTED SEQUENCE OF CONSTRUCTION SHOWN IS INTENDED TO ALLOW FOR THE ORDERLY CONSTRUCTION OF THE PROPOSED IMPROVEMENTS WHILE MAINTAINING AIRCRAFT ACCESS AT ALL TIMES. THE PHASING SHOWN IS A SUGGESTED SEQUENCE OF CONSTRUCTION ONLY. THIS SEQUENCE MAY BE MODIFIED HOWEVER, ALTERNATE STAGING PLANS MUST MAINTAIN AIRPORT OPERATIONS TO THE SATISFACTION OF THE AIRPORT MANAGER AND RESIDENT ENGINEER AND BE APPROVED BY THE DIVISION OF AERONAUTICS AND FEDERAL AVIATION ADMINISTRATION.
2. ALL OPERATIONS SHALL BE IN CONFORMANCE WITH AC 150/5370-2E (LATEST EDITION) SAFETY DURING CONSTRUCTION.
3. CONTRACTOR'S EQUIPMENT SHALL BE STORED IN THE EQUIPMENT AND MATERIAL STORAGE/STAGING AREA WHEN CONSTRUCTION IS NOT IN PROGRESS.
4. THE AIRPORT MANAGER IN CONSULTATION WITH THE RESIDENT ENGINEER SHALL HAVE FINAL SAY IN THE APPROVAL OF THE CONSTRUCTION OPERATING SEQUENCE AS IT RELATES TO PEDESTRIAN, VEHICULAR AND AIRCRAFT SAFETY.
5. ALL EXISTING PAVEMENTS, DRIVES OR ANY OTHER AREAS USED AS A HAUL ROAD OR STORAGE AREA BY THE CONTRACTOR SHALL BE RESTORED IN KIND AND APPROXIMATE ORIGINAL CONDITION OR BETTER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND MAINTENANCE OF ALL EXISTING AREAS OUTSIDE THE PROJECT LIMITS WHICH ARE DISTURBED BY THE CONTRACTOR'S OPERATIONS. SHALL BE RESTORED BY HIM AT HIS EXPENSE TO THE SATISFACTION OF THE RESIDENT ENGINEER AND THE AIRPORT MANAGER.
6. THE CONTRACTOR SHALL KEEP ALL TRUCKS, EQUIPMENT AND MATERIALS OFF OF THE EXISTING TAXIWAYS, APRONS AND RUNWAYS OUTSIDE OF THE PROJECT LIMITS EXCEPT AS SHOWN OR WITH THE PRIOR PERMISSION OF THE ENGINEER.
7. WORK PERFORMED BY THE CONTRACTOR OUTSIDE OF DAYLIGHT HOURS SHALL BE DONE UNDER SUFFICIENT ARTIFICIAL LIGHTING TO ALLOW FOR PROPER CONSTRUCTION METHODS AND INSPECTIONS. LIGHT SHALL CONSIST OF MOBILE POLE MOUNTED FLOODLIGHTS AND/OR SPOTLIGHTS OF SUFFICIENT NUMBER TO ILLUMINATE THE WORK AREA. VEHICLE HEADLIGHTS WILL BE ALLOWED ONLY IN ADDITION TO OTHER LIGHTS MENTIONED ABOVE. LIGHTING SHALL BE AS APPROVED BY THE ENGINEER AND SHALL NOT BE USED IF THEY AFFECT FLIGHT SAFETY. CONTRACTOR'S WORK HOURS SHALL BE IN ACCORDANCE WITH LOCAL ORDINANCES.
8. THE CONTRACTOR SHALL PROVIDE PORTABLE FLOOD LIGHTING FOR NIGHTTIME CONSTRUCTION. SUFFICIENT LIGHTS SHALL BE PROVIDED SO THAT WORK AREAS ARE ILLUMINATED TO A LEVEL OF FIVE HORIZONTAL FOOT CANDLES. THE LIGHTING LEVELS SHALL BE CALCULATED AND MEASURED IN ACCORDANCE WITH THE CURRENT STANDARDS OF THE ILLUMINATION ENGINEERING SOCIETY. LIGHTS SHALL BE POSITIONED SO AS NOT TO INTERFERE WITH AIRPORT OPERATIONS.
9. THE CONTRACTOR WILL BE REQUIRED TO HAVE A SWEEPER AVAILABLE FOR USE AT ALL TIMES. WHEN ACTIVE AIRFIELD PAVEMENTS ARE UTILIZED AS HAUL ROADS BY THE CONTRACTOR, MATERIAL TRACKED ON TO THE PAVEMENT SHALL BE CONTINUALLY REMOVED WITH SAID SWEEPER. THIS SWEEPING SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
10. MATERIALS REMOVED FROM THE PROJECT WILL BE DISPOSED OF OFF AIRPORT PROPERTY, UNLESS NOTED OTHERWISE.
11. PAYMENT FOR TRAFFIC CONTROL INCLUDING, BUT NOT LIMITED TO BARRICADES, SIGNING, RUNWAY CLOSED MARKERS, AIR OPERATIONS AREA (A.O.A.) LAKE AND RIBBON, ETC. SHALL NOT BE PAID SEPARATELY, BUT SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT. BARRICADES SHALL BE PLACED AT THE LOCATIONS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. BARRICADES SHALL BE WEIGHED TO PREVENT BLOWING OVER. BARRICADES SHALL HAVE A FLASHING RED LIGHT AND CONFORM TO IDOT STANDARD 702001. TYPE II. BARRICADE INSTALLATION WILL BE REQUIRED PRIOR TO ACCESS TO THE A.O.A. BY CONTRACTOR'S WORKERS. EQUIPMENT OR MATERIAL, SIGNS SHALL BE PLACED AT EACH TAXIWAY/RUNWAY CLOSURE LOCATION AND SHALL BE ATTACHED TO THE BARRICADES. EACH BARRICADE LOCATION SHALL CONSIST OF ONE "DO NOT ENTER" SIGN AND ONE "AIRCRAFT MOVEMENT AREA" SIGN. SIGNS SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT. IN CONJUNCTION WITH IDOT TYPE II BARRICADES, THE CONTRACTOR SHALL SUPPLY AND USE AS DIRECTED BY THE AIRPORT, REFLECTIVE LOW PROFILE BARREL THE BARRICADES.
12. THE CONTRACTOR SHALL CONTACT THE AIRPORT MANAGER THROUGH THE RESIDENT ENGINEER TEN (10) WORKING DAYS IN ADVANCE OF THE START OF CONSTRUCTION SO THAT THE APPROPRIATE NOTAMS MAY BE ISSUED.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ALL CONSTRUCTION ACCESS GATES CLOSED DURING NON WORKING HOURS. THE CONTRACTOR SHALL CLOSE AND LOCK THE ACCESS GATE UPON LEAVING THE SITE THROUGHOUT THE DURATION OF THE CONTRACT. ANY DAMAGES TO THE ACCESS ROAD, ACCESS GATE OR FENCING ADJACENT TO THE PROJECT SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE RESIDENT ENGINEER. ALL COST RELATING TO CONTRACTOR'S ACCESS AND SECURITY SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
14. CONTRACTOR WILL BE REQUIRED TO PUT AIRPORT FLAGS AND HAVE BEACON LIGHTS ON ALL EQUIPMENT AT ALL TIMES DURING CONSTRUCTION. SEE FLAG DETAIL, THIS SHEET.
15. IN THE CASE OF AN EMERGENCY, CONTRACTOR SHALL NOTIFY AIRPORT MANAGER AND THE RESIDENT ENGINEER IMMEDIATELY.
16. DURING ADVERSE WEATHER, THE CONTRACTOR SHALL MAKE PROVISIONS FOR ACCESS TO THE WORK AT NO ADDITIONAL COST TO THE CONTRACT. NO EXTENSION OF CONTRACT TIME WILL BE CONSIDERED FOR DELAYS DUE TO LACK OF ADEQUATE ACCESS TO THE WORK.
17. THE TALLEST PIECE OF CONSTRUCTION EQUIPMENT IS ANTICIPATED TO BE AN ASPHALT/STONE TRUCK WHICH HAS A MAXIMUM HEIGHT OF 25 FEET IN A DUMP POSITION.
18. IF RUNWAY NUMERALS ARE PRESENT DURING CONSTRUCTION THEN CONTRACTOR SHALL PLACE CLOSED RUNWAY MARKER OVER NUMERALS AS DETAILED, OTHERWISE PLACE RUNWAY CLOSED MARKER IN TURF AT ENDS OF RUNWAY AS DETAILED.
19. CHICAGO EXECUTIVE AIRPORT WILL BE IN OPERATION DURING THE CONSTRUCTION OF THIS PROJECT. COORDINATION OF WORK WITH THE AIRPORT IS MANDATORY SO AS TO MINIMIZE IMPACTS ON AIRPORT OPERATIONS.
20. APPROXIMATE LOCATION OF HAUL ROUTES ON THE AIRPORT SITE ARE SHOWN ON THE GENERAL PROJECT LAYOUT AND THE PHASING PLANS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE OFF-SITE HAUL ROUTES (STATE HIGHWAYS, COUNTY ROADS OR CITY STREETS) WITH THE AIRPORT OWNER WHO HAS JURISDICTION OVER THE AFFECTED ROUTE. ON-SITE ROADS USED AS HAUL ROUTES SHALL BE MAINTAINED BY THE CONTRACTOR AND SHALL BE RESTORED AS AT THE CONTRACTOR'S EXPENSE TO THEIR ORIGINAL CONDITION UPON COMPLETION OF BEING USED AS A HAUL ROUTE. THE BEFORE AND AFTER CONDITION OF ON-SITE HAUL ROUTES SHALL BE JOINTLY INSPECTED AND DETERMINED BY THE CONTRACTOR AND THE ENGINEER. FENCING, DRAINAGE, GRADING AND OTHER MISCELLANEOUS CONSTRUCTION REQUIRED TO CONSTRUCT TEMPORARY HAUL ROUTES OR ACCESS POINTS ON THE AIRPORT WILL BE THE CONTRACTOR'S TOTAL RESPONSIBILITY AND SHALL BE APPROVED BY THE ENGINEER PRIOR TO THE WORK. ALL ON-SITE ACCESS ROADS TO AIRPORT FACILITIES SHALL REMAIN OPEN AND MAINTAINED AT ALL TIMES.

21. MOBILIZATION/EQUIPMENT STORAGE AREA WILL BE MADE AVAILABLE FOR CONTRACTOR'S MOBILIZATION AND STORAGE AS SHOWN ON THE PLANS. THIS AREA SHALL BE RESTORED TO THE ORIGINAL CONDITION UPON COMPLETION OF THE PROJECT AT THE CONTRACTOR'S EXPENSE.
22. LOCATION OF KNOWN EXISTING AIRPORT UNDERGROUND CABLES ARE SHOWN ON THE PLANS AND MUST BE VERIFIED BY THE CONTRACTOR. REPAIR OF DAMAGED CABLE MUST BE STARTED IMMEDIATELY AND CONTINUED UNTIL COMPLETED. ALL SUCH REPAIRS SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS, OR AS DIRECTED BY THE OWNER OF THE CABLE OR FACILITY, AND SHALL BE AT THE CONTRACTOR'S EXPENSE. IF FAA CABLES ARE DAMAGED, REPAIRS SHALL BE DONE FROM PREVIOUS EXISTING TERMINATION POINT TO PREVIOUS EXISTING TERMINATION POINT IN ACCORDANCE WITH FAA REQUIREMENTS AND IN THE PRESENCE OF A FAA REPRESENTATIVE. THE OWNER MAY ELECT TO HAVE THE REPAIR PERFORMED BY OTHERS IN WHICH CASE THE CONTRACTOR SHALL BE RESPONSIBLE FOR PAYING THE INCURRED COSTS OF REPAIRS.
23. COORDINATION MEETINGS - THE CONTRACTOR SHALL CONDUCT WEEKLY COORDINATION MEETINGS TO DISCUSS WORK AREAS AND SCHEDULING, ETC. WITH THE ENGINEER, AIRPORT OPERATIONS, FAA, AND OTHER APPROPRIATE OFFICIALS. MINUTES FROM THE WEEKLY MEETINGS SHALL BE PREPARED BY THE CONTRACTOR, FURNISHED TO ALL ATTENDEES PRIOR TO THE SUBSEQUENT MEETING, AND KEPT ON FILE AT THE FIELD OFFICE. THE COORDINATION MEETING COSTS SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.
24. THE CONTRACTOR SHALL PROVIDE THE PHONE NUMBERS OF THREE PERSONNEL, INCLUDING THE PROJECT SUPERINTENDENT, WHO MAY BE CONTACTED IN AN EMERGENCY. PERSONNEL SHALL BE ON CALL 24 HOURS PER DAY FOR MAINTAINING AIRPORT HAZARD LIGHTING AND BARRICADES.
25. DRAINAGE MODIFICATIONS SHALL BE SEQUENCED TO PROVIDE POSITIVE DRAINAGE AT ALL TIMES AT NO ADDITIONAL COST TO THE CONTRACT.
26. VEHICLES AND EQUIPMENT SHALL NOT BE ALLOWED WITHIN 72' FROM ACTIVE TAXIWAYS AND 200' FROM ACTIVE RUNWAYS UNLESS OTHERWISE APPROVED BY THE AIRPORT MANAGER.
27. CONTRACTOR SHALL STORE EQUIPMENT AND MATERIALS IN SUCH A MANNER AS NOT TO VIOLATE FEDERAL AVIATION ADMINISTRATION PART 77 IMAGINARY SURFACES OR RUNWAY AND TAXIWAY SAFETY AREAS.
28. ALL EXISTING TAXIWAY AND RUNWAY AIRFIELD LIGHTING CIRCUITS, FAA CABLES AND OTHER ELECTRICAL CABLES AND REMAIN SERVICE AT ALL TIMES. ALL EXISTING LIGHTING AND WALKWAY EQUIPMENT SHALL REMAIN IN SERVICE UNTIL PROPOSED IMPROVEMENTS ARE INSTALLED AND OPERATIONAL UNLESS OTHERWISE APPROVED BY THE ENGINEER. ANY CABLES DAMAGED BY THE CONTRACTOR, SHALL BE IMMEDIATELY REPAIRED AT HIS EXPENSE. ANY NECESSARY TEMPORARY JUMPER CABLES SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
29. COORDINATION BY THE CONTRACTOR WITH THE EXISTING UTILITIES SHALL BE COMPLETED BEFORE CONSTRUCTION IS STARTED. CONTRACTOR IS REFERRED TO SECTION 50-17 OF THE SPECIAL PROVISIONS FOR SPECIFIC REQUIREMENTS. THE LOCATION OF UNDERGROUND UTILITIES AS INDICATED ON THE PLANS HAS BEEN OBTAINED FROM EXISTING RECORDS. NEITHER THE OWNER OR THE DESIGN ENGINEER ASSUME ANY RESPONSIBILITY WHATSOEVER IN RESPECT TO THE ACCURACY, COMPLETENESS OR SUFFICIENCY OF THE INFORMATION. THERE IS NO GUARANTEE, EITHER EXPRESSED OR IMPLIED THAT THE LOCATIONS, SIZE AND TYPE MATERIAL OF EXISTING UNDERGROUND UTILITIES AS INDICATED ARE REPRESENTATIVE OF THOSE TO BE ENCOUNTERED DURING 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 COMPANY OF HIS OPERATIONAL PLANS. THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR DETAILED INFORMATION AND ASSISTANCE IN LOCATING UTILITIES. IN THE EVENT AN UNEXPECTED UTILITY INTERFERENCE IS ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE UTILITY COMPANY, THE RESIDENT ENGINEER AND THE AIRPORT MANAGER. ANY SUCH MANS AND/OR SERVICES DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED IMMEDIATELY AT HIS EXPENSE TO THE SATISFACTION OF THE RESIDENT ENGINEER AND AIRPORT MANAGER.
30. ALL AIRFIELD LIGHTING AND LIGHTING GUIDANCE SYSTEMS (NAVAIDS) LOCATED WITHIN AND IMMEDIATELY ADJACENT TO THE CONTRACTOR'S WORK ZONE SHALL BE CHECKED FOR OPERATIONAL CONDITION PRIOR TO THE DEPARTURE FROM THE AIRPORT WITH THE AIRPORT MANAGER. ANY DEFICIENCIES IN THESE SYSTEMS DUE TO THE ACTS OF CONTRACTOR OR HIS SUBCONTRACTORS, SUPPLIERS OR CONSULTANTS SHALL BE REPAIRED IMMEDIATELY.
31. ORANGE CONES SHALL BE PLACED AT 25' CENTERS ALONG THE PAVEMENT EDGE DURING CONCRETE POURING OPERATIONS OF THE CLOSURE LANES TO PREVENT VEHICLES FROM ENTERING PLASTIC CONCRETE. IN THE EVENT A VEHICLE ENTERS THE CONCRETE BEFORE A MINIMUM COMPRESSIVE STRENGTH OF 3500 PSI HAS BEEN OBTAINED, SAID PAVEMENT SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.
32. CONTRACTOR CROSSING RUNWAY AND TAXIWAY AIR OPERATIONS AREA (A.O.A.)
32. ANYTIME THE CONTRACTOR IS REQUIRED TO UTILIZE OR CROSS ACTIVE AIRFIELD PAVEMENTS FOR ACCESS TO AND FROM THE WORK ZONE, A FULL TIME CROSSING GUARD OR RADIO CONTROL WITH THE CONTROL TOWER SHALL BE PROVIDED. THE GUARD SHALL BE TRAINED IN THE PROPER USE OF THE RADIO AND SHALL BE THE WORK ZONE. THE RADIO OPERATOR SHALL BE MAINTAINED AT ALL TIMES. AIRPORT SECURITY PROCEDURES AND DEMONSTRATE KNOWLEDGE OF SAME TO THE AIRPORT. THE AIRPORT RESERVES THE RIGHT TO APPROVE THE CROSSING GUARDS. THE CONTRACTOR SHALL PROVIDE THEIR OWN RADIOS. THIS COST SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PAYMENT OF MUNICIPAL FINES (\$500 PER OCCURRENCE) DUE TO AIRFIELD INCURSIONS BY HIS EMPLOYEES, SUBCONTRACTORS, SUPPLIERS, CONSULTANTS AND/OR AGENTS.
33. ANY PAVEMENT DAMAGED BY CONTRACTOR'S OPERATIONS SHALL BE REPAIRED IMMEDIATELY BY HIM TO THE SATISFACTION OF THE RESIDENT ENGINEER AND AIRPORT MANAGER AT NO ADDITIONAL COST TO THE OWNER. PAVEMENT SHALL BE CONTINUALLY SWEEPED TO PROVIDE DEBRIS FREE SURFACE DURING ALL HAUL ROAD OPERATIONS. THIS COST SHALL NOT BE PAID SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
34. WORK WITHIN THE A.O.A. SHALL BE EXPEDITED. ANY DROP OFF SHALL BE ADEQUATELY LIGHTED, SIGNED AND BARRICADED. NO MATERIAL SHALL BE STOCKPILED WITHIN THE A.O.A. SHOULD IT BE NECESSARY FOR THE CONTRACTOR TO TEMPORARILY RELOCATE EQUIPMENT TO ALLOW AIRCRAFT TO PASS, THEY SHALL DO SO AT NO EXTRA COST TO THE PROJECT. THE CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER AND AIRPORT MANAGER TEN (10) WORKING DAYS IN ADVANCE OF ANY PLANNED CONSTRUCTION WITHIN THESE LIMITS.

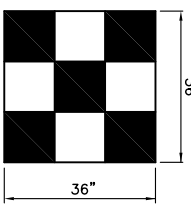
**NOTE - ALL PHASES**  
ALL EXISTING TAXIWAY AND RUNWAY AIRFIELD LIGHTING CIRCUITS, FAA CABLES AND OTHER AIRPORT ELECTRICAL CABLES SHALL REMAIN IN SERVICE UNTIL REPLACED AS ACCEPTABLE TO THE RESIDENT ENGINEER. ALL TEMPORARY CABLING AND SPICINGS NECESSARY TO KEEP THE CIRCUITS IN OPERATION SHALL BE CONSIDERED INCIDENTAL TO CONTRACT.

**DESIGN AIRCRAFT APPROACH CATEGORY: D  
DESIGN AIRPORT GROUP: III**

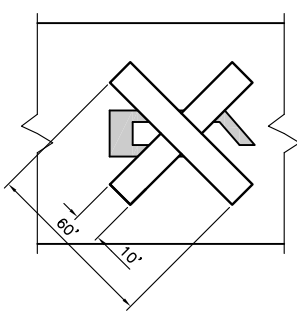
CONTRACTOR SHALL PLAN AND PERFORM HIS WORK SO AS NOT TO INTERFERE OR HINDER THE PROGRESS, WORK OR HAUL ROAD ACCESS OF OTHER CONTRACTORS (SEE SPECIAL PROVISIONS SECTION 30-05). THE PRIME CONTRACTOR WILL BE RESPONSIBLE TO COORDINATE CONSTRUCTION ACTIVITIES AND ACCESS BETWEEN ALL ON-SITE CONTRACTORS SUBCONTRACTORS. IT IS ANTICIPATED THE FOLLOWING PROJECTS MAY BE UNDER CONSTRUCTION CONCURRENTLY WITH THIS PROJECT. NO ADDITIONAL COMPENSATION SHALL BE CONSIDERED FOR ANY EFFORTS TO COORDINATE AND ACCESS THE TAXIWAY SITE DUE TO ADJACENT BUILDING CONSTRUCTION

- EXTEND TAXIWAY L AND NE QUAD SITEWORK
- SOVEREIGN DEVELOPMENT IN SE QUADRANT
- BROADEN DEVELOPMENT IN EAST QUADRANT
- CONSTRUCTION OF 1-TANKER BUILDINGS IN NE QUADRANT
- CONSTRUCT SOUTHEAST QUADRANT APRON

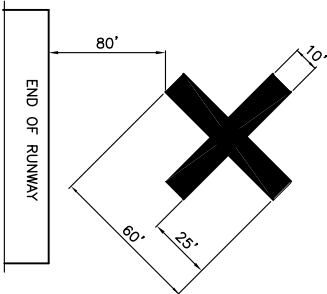
GROUND CONTROL FREQUENCY: 121.7
AIR CONTROL FREQUENCY: 119.9
MAXIMUM ANTICIPATED HEIGHT OF CONSTRUCTION EQUIPMENT: 25'
IN THE EVENT THE CONTRACTOR PROPOSES TO UTILIZE AN ON-SITE CONCRETE BATCH PLANT, LOCATION TO BE COORDINATED WITH THE RESIDENT ENGINEER. ACTING AIRFIELD MANAGER AND THE CONTRACTOR WILL BE RESPONSIBLE TO OBTAIN THE NECESSARY APPROVALS FROM THE AIRSPACE SUBMITTAL FAA FORM 7460 FOR AIRSPACE APPROVAL. THE RESIDENT ENGINEER WILL PROVIDE BASE AIRPORT INFORMATION FOR THE CONTRACTOR'S USE:
POINT "A" CLOSEST CONSTRUCTION POINT TO RUNWAY 6/24
ELEVATION: 640.1
LATITUDE: 42°06'46.87" (NA0277)
LONGITUDE: 87°53'57.43" (NA0277)
POINT "B" CLOSEST CONSTRUCTION POINT TO RUNWAY 12/30
ELEVATION: 639.6
LATITUDE: 42°06'35.25" (NA0277)
LONGITUDE: 87°53'35.79" (NA0277)



**CONSTRUCTION EQUIPMENT AND TRUCK SIGNAL FLAG**  
NOT TO SCALE



**CLOSED RUNWAY MARKER DETAIL**  
ON PAVEMENT - NO SCALE



**OFF PAVEMENT CLOSED RUNWAY MARKER DETAIL**  
NO SCALE

**CLOSED RUNWAY MARKER DETAIL NOTES**

1. CLOSED RUNWAY MARKERS SHALL BE YELLOW.
2. MARKERS SHALL BE MATERIAL APPROVED BY THE ENGINEER.
3. CONTRACTOR SHALL MAINTAIN AND RELOCATE MARKERS AS SHOWN ON THE PLANS OR AS NEEDED TO FACILITATE CONSTRUCTION
4. MARKERS ON PAVEMENT SHALL BE PLACED OVER EXISTING RUNWAY NUMERALS AS SHOWN.
5. COST OF FURNISHING, INSTALLING, MAINTAINING AND REMOVING MARKERS SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
6. DURING VARIOUS PHASES OF WORK, IT WILL BE NECESSARY TO CLOSE RUNWAYS TO AIR TRAFFIC ON A TEMPORARY BASIS AS COORDINATED WITH THE AIRPORT AND TOWER PERSONNEL. THE CONTRACTOR SHALL MARK THE RUNWAYS TO BE CLOSED BY PLACING A YELLOW CROSS AT THE LOCATION AND DIMENSIONS DETAILED ON THIS SHEET. THE CROSSES ARE SHOWN ON THE RESPECTIVE RUNWAYS ACCORDING TO THE VARIOUS PHASES OF WORK AS DELINEATED IN THE SUGGESTED SEQUENCE OF CONSTRUCTION.

**LIMITATIONS ON CONSTRUCTION WITHIN AIRPORT OPERATIONS AREA (A.O.A.)**

**RUNWAYS:**  
THE CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER AND AIRPORT MANAGER TEN (10) WORKING DAYS IN ADVANCE OF ANY PLANNED CONSTRUCTION WITHIN THESE LIMITS. WORK SHALL BE EXPEDITED IN THESE AREAS AND AT THE END OF EACH WORKING DAY THESE AREAS SHALL BE SMOOTH, GRABBED TO ALLOW THE RUNWAY TO BE REOPENED, AT LEAST ONE OF THE RUNWAYS SHALL REMAIN IN OPERATION AT ALL TIMES. IF NECESSARY STEEL PLATES SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR TO COVER ANY OPEN TRENCHES OR EXCAVATION WITHIN THE A.O.A. IF DURING RUNWAY CLOSURE AN EMERGENCY IS DECLARED, THE CONTRACTOR SHALL IMMEDIATELY CLEAR THE RUNWAY OF ALL VEHICLES, MEN AND EQUIPMENT.

**TAXIWAYS:**

ANY WORK WITHIN 72' OF THE TAXIWAY CENTERLINE WILL REQUIRE A TAXIWAY CLOSURE CONSTRUCTION. THIS SHALL BE ALLOWED UP TO THE EDGE OF THE TAXIWAY PAVEMENTS WITHOUT CLOSURE ON A LIMITED BASIS AS DETERMINED BY THE AIRPORT MANAGER. WORK WITHIN THE A.O.A. SHALL BE EXPEDITED. ANY DROP OFF SHALL BE ADEQUATELY LIGHTED, SIGNED AND BARRICADED. NO MATERIAL SHALL BE STOCKPILED WITHIN THE A.O.A. SHOULD IT BE NECESSARY FOR THE CONTRACTOR TO TEMPORARILY RELOCATE EQUIPMENT TO ALLOW AIRCRAFT TO PASS, THEY SHALL DO SO AT NO EXTRA COST TO THE PROJECT. THE CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER AND AIRPORT MANAGER FIVE (5) WORKING DAYS IN ADVANCE OF ANY PLANNED CONSTRUCTION WITHIN THESE LIMITS.

**CHICAGO EXECUTIVE AIRPORT  
WHEELING/PROSPECT HEIGHTS, ILLINOIS  
CONSTRUCT PARTIAL PARALLEL TAXIWAY ECHO AND  
PARTIAL OVERLAY OF TAXIWAY ECHO**

**SEQUENCE OF CONSTRUCTION  
GENERAL NOTES AND DETAILS**

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FILE: lxy - sequencs.dwg													
LAYOUT: layout1													
UPDATE BY: mhxz													
SURVEY BOOK #													
DATE: Fri 4/1/11 9:00am													
XREF DWG: b:dwg													
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THIS BAR IS EQUAL TO 2" AT FULL SCALE (34x22).													

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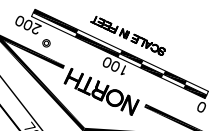
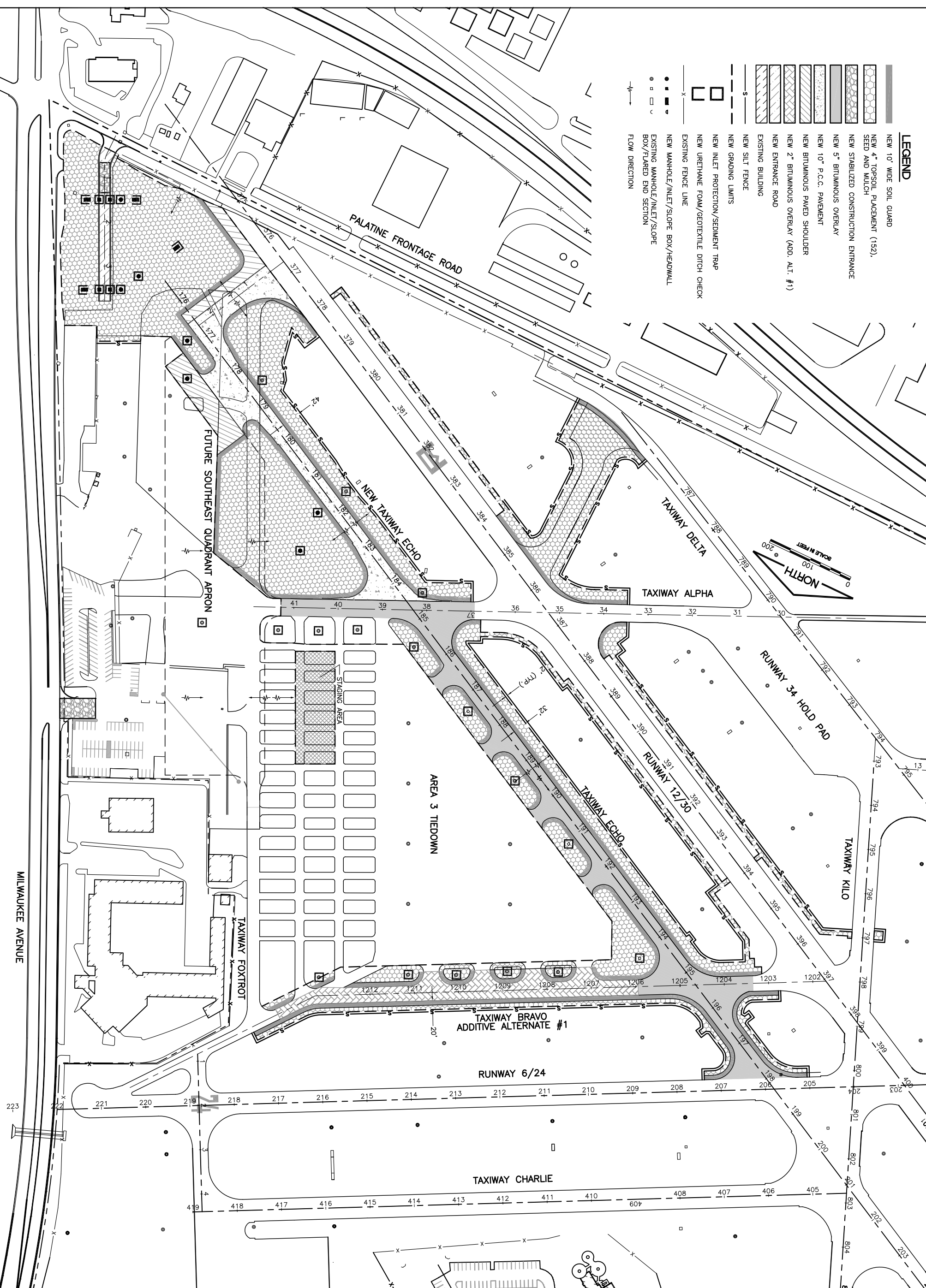
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**CHICAGO EXECUTIVE AIRPORT**

DESIGN BY:	MLK
DRAWN BY:	MLK
CHECKED BY:	MLK
APPROVED BY:	DLP
DATE:	04/22/11
JOB NO:	08290-08
ILLINOIS PROJECT: PWK-3244	
A.I.P. PROJECT: 3-17-0018-B32	
SHEET	5 OF 49 SHEETS



- LEGEND**
- NEW 10' WIDE SOIL GUARD
  - NEW 4" TOPSOIL PLACEMENT (152), SEED AND MULCH
  - NEW STABILIZED CONSTRUCTION ENTRANCE
  - NEW 5" BITUMINOUS OVERLAY
  - NEW 10" P.C.C. PAVEMENT
  - NEW BITUMINOUS PAVED SHOULDER
  - NEW 2" BITUMINOUS OVERLAY (ADD. ALT. #1)
  - NEW ENTRANCE ROAD
  - EXISTING BUILDING
  - NEW SILT FENCE
  - NEW GRADING LIMITS
  - NEW INLET PROTECTION/SEDIMENT TRAP
  - NEW URETHANE FOAM/GEOTEXTILE DITCH CHECK
  - EXISTING FENCE LINE
  - NEW MANHOLE/INLET/SLOPE BOX/HEADWALL
  - EXISTING MANHOLE/INLET/SLOPE BOX/FLARED END SECTION
  - FLOW DIRECTION



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THIS BAR IS EQUAL TO 2"  
AT FULL SCALE (3/4X22).

NUMBER	BY	DATE

**CHICAGO EXECUTIVE AIRPORT  
WHEELING/PROSPECT HEIGHTS, ILLINOIS  
CONSTRUCT PARTIAL PARALLEL TAXIWAY ECHO AND  
PARTIAL OVERLAY OF TAXIWAY ECHO**

**STORM WATER POLLUTION  
PREVENTION PLAN (SWPPP)/  
LANDSCAPING PLAN**

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DESIGN BY:	MJW
DRAWN BY:	MJW
CHECKED BY:	MLK
APPROVED BY:	DLP
DATE:	04/22/11
JOB No.:	08290-08
ILLINOIS PROJECT:	PWK-3244
A.P. PROJECT:	3-17-0018-B32



# STORM WATER POLLUTION PREVENTION PLAN

THE FOLLOWING PLAN IS ESTABLISHED AND INCORPORATED IN THE PROJECT TO DIRECT THE CONTRACTOR IN THE PLACEMENT OF TEMPORARY EROSION CONTROL SYSTEMS AND TO PROVIDE A STORM WATER POLLUTION PREVENTION PLAN FOR COMPLIANCE WITH NPDES.

THE PURPOSE OF THIS PLAN IS TO MINIMIZE EROSION WITHIN THE CONSTRUCTION SITE AND TO LIMIT SEDIMENTS FROM LEAVING THE SITE BY UTILIZING PROPER TEMPORARY EROSION CONTROL SYSTEMS AND PROVIDING GROUND COVER WITHIN A REASONABLE AMOUNT OF TIME.

CERTAIN EROSION CONTROL FACILITIES SHALL BE INSTALLED BY THE CONTRACTOR AT THE BEGINNING OF CONSTRUCTION. OTHER ITEMS SHALL BE INSTALLED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER ON A CASE BY CASE SITUATION DEPENDING ON THE CONTRACTOR'S SEQUENCE OF ACTIVITIES, TIME OF YEAR, AND EXPECTED WEATHER CONDITIONS.

THE CONTRACTOR SHALL INSTALL PERMANENT EROSION CONTROL SYSTEMS AND SEEDING WITHIN A TIMEFRAME SPECIFIED HEREIN AND AS DIRECTED BY THE ENGINEER, THEREFORE MINIMIZING THE AMOUNT OF AREA SUSCEPTIBLE TO EROSION AND REDUCING THE AMOUNT OF TEMPORARY SEEDING, WHICH WILL BE THE CONTRACTOR'S COST. THE ENGINEER WILL DETERMINE IF ANY TEMPORARY EROSION CONTROL SYSTEMS SHOWN IN THE PLAN CAN BE DELETED AND IF ANY ADDITIONAL TEMPORARY EROSION CONTROL SYSTEMS, WHICH ARE NOT INCLUDED IN THIS PLAN, SHALL BE ADDED. THE CONTRACTOR SHALL PERFORM ALL WORK AS DIRECTED BY THE ENGINEER AND AS SHOWN ON THE PLANS.

## SITE DESCRIPTION:

THE FOLLOWING IS A DESCRIPTION OF THE CONSTRUCTION ACTIVITY WHICH IS THE SUBJECT OF THIS PLAN:

THIS PROJECT CONSISTS OF CONSTRUCTING TAXIWAY ECHO AND OVERLAYING VARIOUS TAXIWAY PAVEMENT AT THE CHICAGO EXECUTIVE AIRPORT. THE PROJECT INCLUDES EARTH EXCAVATION, EMBANKMENT, STORM SEWERS, MANHOLES, INLETS VARIOUS PAVEMENT ITEMS, ELECTRICAL WORK AND OTHER MISCELLANEOUS CONSTRUCTION WORK.

## DESCRIPTION OF CONSTRUCTION ACTIVITY:

THE FOLLOWING IS A DESCRIPTION OF THE INTENDED SEQUENCE OF MAJOR ACTIVITIES WHICH WILL DISTURB SOILS FOR MAJOR PORTIONS OF THE CONSTRUCTION SITE, SUCH AS GRUBBING, EXCAVATION AND GRADING:

1. PLACEMENT, MAINTENANCE, REMOVAL AND PROPER CLEAN-UP OF TEMPORARY EROSION CONTROL, SUCH AS PERIMETER SILT FENCE, TEMPORARY DITCH CHECKS AND INLET PROTECTION.
2. STORM SEWERS, MANHOLES, INLETS AND CULVERT INSTALLATION.
3. EXCAVATION AND EMBANKMENT WILL BE COMPLETED WITHIN THE PROJECT LIMITS TO GRADE OUT FOR THE PROPOSED DRAINAGE AND PAVEMENT IMPROVEMENTS.
4. PAVEMENT CONSTRUCTION.
5. FINAL GRADING, ELECTRICAL INSTALLATION AND OTHER MISCELLANEOUS ITEMS.
6. PLACEMENT OF PERMANENT EROSION CONTROL, SUCH AS SEEDING, MULCHING AND EROSION CONTROL BLANKET, REMOVAL AND DISPOSAL OF TEMPORARY SOIL EROSION AND SEDIMENT CONTROL MEASURES.

## AREA OF CONSTRUCTION SITE:

THE TOTAL AREA OF THE CONSTRUCTION SITE IS ESTIMATED TO BE 16.3 ACRES OF WHICH 16.3 ACRES WILL BE DISTURBED BY EXCAVATION, GRADING AND OTHER ACTIVITIES.

OTHER REPORTS, STUDIES, AND PLANS WHICH AID IN THE DEVELOPMENT OF THE STORM WATER POLLUTION PREVENTION PLAN AS REFERENCED DOCUMENTS:

1. INFORMATION OF THE SOILS AND TERRAIN WITHIN THE SITE WAS OBTAINED FROM TOPOGRAPHIC SURVEYS AND SOIL BORINGS THAT WERE UTILIZED FOR THE DEVELOPMENT OF THE PROPOSED TEMPORARY EROSION CONTROL SYSTEMS.

2. PROJECT PLAN DOCUMENTS, SPECIFICATION AND SPECIAL PROVISIONS, AND PLAN DRAWINGS INDICATING DRAINAGE PATTERNS AND APPROXIMATE SLOPES ANTICIPATED AFTER GRADING ACTIVITIES WERE UTILIZED FOR THE PROPOSED PLACEMENT OF THE TEMPORARY EROSION CONTROL SYSTEMS.

## DRAINAGE TRIBUTARIES AND SENSITIVE AREAS RECEIVING RUNOFF FROM THIS CONSTRUCTION SITE:

THE CONSTRUCTION SITE DRAINS INTO THE DES PLAINES RIVER THROUGH A STORM SEWER SYSTEM.

## EROSION AND SEDIMENT CONTROL:

DESCRIPTION OF STABILIZATION PRACTICES AT THE BEGINNING OF CONSTRUCTION:

THE DRAWINGS SPECIFICATIONS AND SPECIAL PROVISIONS WILL ENSURE THAT EXISTING VEGETATION IS PRESERVED WHERE ATTAINABLE AND DISTURBED PORTIONS OF THE SITE WILL BE STABILIZED. STABILIZATION PRACTICES INCLUDE: TEMPORARY SEEDING, PERMANENT SEEDING, MULCHING, EROSION CONTROL BLANKET, SOIL EROSION CONTROL, BLOCK, PROTECTION OF TREES, PRESERVATION OF NATURAL VEGETATION, AND ALL OTHER APPROPRIATE MEASURES AS DIRECTED BY THE ENGINEER. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICAL, IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 7 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED.

AREAS OF EXISTING VEGETATION (WOOD AND GRASSLANDS) OUTSIDE THE PROPOSED CONSTRUCTION LIMITS SHALL BE IDENTIFIED BY THE ENGINEER FOR PRESERVING AND SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITIES.

DEAD, DISEASED, OR UNSUITABLE VEGETATION WITHIN THE SITE SHALL BE REMOVED AS DIRECTED BY THE ENGINEER.

AS SOON AS REASONABLE ACCESS IS AVAILABLE TO ALL LOCATIONS WHERE WATER DRAINS AWAY FROM THE PROJECT, TEMPORARY DITCH CHECKS, INLET PROTECTION AND PERIMETER SILT FENCE SHALL BE INSTALLED AS CALLED OUT IN THE PLAN AND DIRECTED BY THE ENGINEER.

THIS PLAN HAS BEEN PREPARED TO COMPLY WITH THE PROVISIONS OF THE NPDES PERMIT NUMBER ILR10, ISSUED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY FOR STORM WATER DISCHARGES FROM CONSTRUCTION SITE ACTIVITIES.

## DESCRIPTION OF STABILIZATION PRACTICES DURING CONSTRUCTION:

DURING CONSTRUCTION, AREAS OUTSIDE THE CONSTRUCTION LIMITS AS OUTLINED PREVIOUSLY HEREIN SHALL BE PROTECTED. THE CONTRACTOR SHALL NOT USE THIS AREA FOR STAGING (EXCEPT AS DESCRIBED ON THE PLANS AND DIRECTED BY THE ENGINEER), PARKING OF VEHICLES OR CONSTRUCTION EQUIPMENT, STORAGE OF MATERIALS, OR OTHER CONSTRUCTION RELATED ACTIVITIES.

WITHIN THE CONSTRUCTION LIMITS, AREAS WHICH MAY BE SUSCEPTIBLE TO EROSION AS DETERMINED BY THE ENGINEER SHALL REMAIN UNDISTURBED UNTIL FULL SCALE CONSTRUCTION IS UNDERWAY TO PREVENT UNNECESSARY SOIL EROSION.

EARTH STOCKPILES SHALL BE TEMPORARILY SEEDED, AT THE CONTRACTORS EXPENSE, IF THEY ARE TO REMAIN UNUSED FOR MORE THAN FOURTEEN DAYS.

THE DOWN STREAM SIDE OF ALL STOCKPILES SHALL BE ENCOMPASSED WITH EROSION CONTROL BARRIERS.

AS CONSTRUCTION PROCEEDS, THE CONTRACTOR SHALL INSTITUTE THE FOLLOWING AS DIRECTED BY THE ENGINEER:

A. PLACE TEMPORARY EROSION CONTROL FACILITIES AT LOCATIONS SHOWN ON THE PLANS.

B. CONSTRUCT DITCHES AND PROVIDE TEMPORARY EROSION CONTROL SYSTEMS.

C. BUILD NECESSARY EMBANKMENT AT CULVERT/STORM SEWER LOCATIONS AND THEN EXCAVATE AND PLACE PIPE.

D. EXCAVATED AREAS AND EMBANKMENT AREAS SHALL BE PERMANENTLY SEEDED OR SODDED IMMEDIATELY AFTER FINAL GRADING. IF NOT, THEY SHALL BE TEMPORARILY SEEDED, AT THE CONTRACTOR'S COST, IF NO CONSTRUCTION ACTIVITY IN THE AREA IS PLANNED FOR SEVEN DAYS.

CONSTRUCTION EQUIPMENT SHALL BE STORED AND FUELED ONLY AT DESIGNATED LOCATIONS WITHIN THE STAGING AREA. ALL NECESSARY MEASURES SHALL BE TAKEN TO CONTAIN ANY FUEL OR POLLUTANT IN ACCORDANCE WITH EPA WATER QUALITY REGULATIONS. LEAKING EQUIPMENT OR SUPPLES SHALL BE IMMEDIATELY REPAIRED OR REMOVED FROM THE SITE.

THE RESIDENT ENGINEER SHALL INSPECT THE PROJECT DAILY DURING CONSTRUCTION ACTIVITIES. INSPECTION SHALL ALSO BE DONE WEEKLY AND AFTER RAINS OF 1/2 OR GREATER OR EQUIVALENT SNOWFALL AND DURING OTHER SIGNIFICANT WEATHER EVENTS. THE PROJECT SHALL BE CLOSED BY THE RESIDENT ENGINEER UNDER SILENTLY BASIS TO THE EXTENT THAT THE EROSION AND SEDIMENT CONTROL ERRORS ARE IN PLACE AND EFFECTIVE AND IF OTHER EROSION CONTROL WORK IS NECESSARY.

SEEDMENT COLLECTED DURING CONSTRUCTION OF THE VARIOUS TEMPORARY EROSION CONTROL SYSTEMS SHALL BE DISPOSED OF ON SITE ON A REGULAR BASIS AS DIRECTED BY THE ENGINEER. THE COST OF THIS MAINTENANCE SHALL BE INCLUDED IN THE UNIT BID PRICE FOR UNCLASSIFIED EXCAVATION AND EROSION CONTROL ITEMS.

THE TEMPORARY EROSION CONTROL SYSTEMS SHALL BE REMOVED AS DIRECTED BY THE ENGINEER AFTER USE IS NO LONGER NEEDED OR NO LONGER FUNCTIONING. THE COST OF THIS REMOVAL SHALL BE INCLUDED IN THE UNIT BID PRICE FOR VARIOUS TEMPORARY EROSION CONTROL PAY ITEMS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREVENTING SOIL CONTAMINATION FROM BUILDING MATERIALS, FERTILIZERS, CHEMICALS, PAVEMENT MARKING, WASTE PILES, FUEL CONTAINMENT, AND ANY OTHER POTENTIAL HAZARDOUS MATERIALS THAT MAY EXIST ON-SITE.

NO DEDICATED CONCRETE OR ASPHALT BATCH PLANTS SHALL BE LOCATED ON THIS SITE.

DESCRIPTION OF STRUCTURAL PRACTICES AFTER FINAL GRADING:

TEMPORARY EROSION CONTROL SYSTEMS SHALL BE LEFT IN PLACE WITH PROPER MAINTENANCE UNTIL PERMANENT EROSION CONTROL IS IN PLACE AND WORKING PROPERLY AND ALL PROPOSED TURF AREAS ARE SEEDED AND ESTABLISHED.

COST OF MAINTAINING THE VARIOUS TEMPORARY EROSION CONTROL SYSTEMS SHALL BE INCLUDED INCLUDED IN THE UNIT BID PRICE FOR THE VARIOUS TEMPORARY EROSION CONTROL PAY ITEMS.

ONCE PERMANENT EROSION CONTROL SYSTEMS AS PROPOSED IN THE PLANS ARE FUNCTIONAL AND ESTABLISHED, TEMPORARY ITEMS SHALL BE REMOVED, CLEANED UP, AND DISTURBED TURF RE-SEEDED AND/OR SODDED.

## MAINTENANCE AFTER CONSTRUCTION:

CONSTRUCTION IS COMPLETE AFTER FINAL ACCEPTANCE BY THE ILLINOIS DIVISION OF AERONAUTICS. MAINTENANCE OF TEMPORARY AND PERMANENT EROSION CONTROL SYSTEMS UP TO THIS DATE WILL BE REQUIRED BY THE CONTRACTOR.

## DOCUMENTATION:

PRIOR TO BEGINNING WORK, THE CONTRACTOR SHALL COMPLETE AND SUBMIT A "NOTICE OF INTENT (NOI)." PRIOR TO BEGINNING WORK, THE SIGN OR NOTICE MUST CONTAIN THE FOLLOWING:

1. A COPY OF THE COMPLETED NOTICE OF INTENT (NOI) AS SUBMITTED TO THE IEPA

2. THE LOCATION OF THE SWPPP AND NAME AND 24/7 TELEPHONE NUMBER OF THE CONTACT PERSON.

THROUGHOUT CONSTRUCTION, THE CONTRACTOR SHALL MAINTAIN AND UPDATE AN "AS-BUILT" SET OF STORM WATER POLLUTION PREVENTION PLANS IN THE PROJECT FILES. THE SWPPP SHALL BE UPDATED WITHIN 7-DAYS OF ANY MODIFICATIONS TO THE PLANS. THE SWPPP AND ALL REVISIONS SHALL BE RETAINED FOR THREE YEARS AFTER FINAL STABILIZATION OF THE SITE, WHICH SHALL BE DEFINED AS VEGETATION COVER OF AT LEAST 70% OF HISTORIC CONDITIONS, COMPLETION OF 100% OF COMMERCIAL AREA, AND COMPLETION OF 100% OF RESIDENTIAL HOME SITES.

A STORM WATER POLLUTION PREVENTION PLAN EROSION CONTROL INSPECTION REPORT (FORM BC 2259) SHALL BE COMPLETED WITH INSPECTION FREQUENCIES AS OUTLINED HEREIN. SWPPP REPORTS SHALL BE RETAINED FOR THREE YEARS AFTER THE DATE OF FINAL STABILIZATION AS DEFINED HEREIN.

IF ANY VIOLATION OF THE PROVISIONS OF THE PLAN IS IDENTIFIED DURING THE CONDUCT OF THE CONSTRUCTION COVERED IN THIS PLAN, THE ENGINEER AND/OR CONTRACTOR SHALL COMPLETE AND FILE AN "INCIDENT OF NONCOMPLIANCE (ION)" REPORT FOR THE IDENTIFIED VIOLATION. THE FORMS SHALL BE AS PROVIDED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY, AND SHALL INCLUDE SPECIFIC INFORMATION ON THE INCIDENT THAT CAUSED NONCOMPLIANCE, ACTIONS THAT WERE TAKEN TO CORRECT THE NONCOMPLIANCE AND TO PREVENT ITS REOCCURRENCE, AND STATEMENT DETAILING AN ENVIRONMENTAL IMPACT WHICH MAY HAVE RESULTED FROM THE NONCOMPLIANCE AND ACTIONS OF CORRECTING AND PREVENTING SUCH IMPACTS. THE REPORT SHALL BE SIGNED IN ACCORDANCE WITH PART VI, G. OF THE GENERAL PERMIT.

AFTER PROJECT FINAL ACCEPTANCE, THE CONTRACTOR SHALL COMPLETE AND SUBMIT A "NOTICE OF TERMINATION (NOT)" FORM PROPERLY SIGNED TO THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY, FORMS FOR THE IEPA SHALL BE MAILED TO THE FOLLOWING ADDRESS:

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY  
DIVISION OF WATER POLLUTION CONTROL, MAIL CODE #15  
101 N. PEARL STREET  
14TH FLOOR, GRAND AVENUE EAST  
P.O. BOX 19270  
SPRINGFIELD, ILLINOIS 62794-9276

## GENERAL NOTES FOR SOIL EROSION AND SEDIMENT CONTROL:

1. ALL TREE PROTECTION, SEDIMENT CONTROL MEASURES, AND PERMANENT AND TEMPORARY STORM WATER PRACTICES SHALL BE IN PLACE PRIOR TO STARTING CONSTRUCTION.

2. NO WORK SHALL BE PERFORMED IN FLOWING WATER, WORK IN AND NEAR FLOWING WATER SHALL BE ISOLATED FROM CONCENTRATED FLOWS OR STREAM FLOWS AT ALL TIMES. THE USE OF EARTHEN MATERIAL FOR ISOLATION WILL NOT BE ACCEPTABLE.

3. CONSTRUCTION MATERIALS AND/OR OTHER STOCKPILES SHALL NOT BE LOCATED ON STREAM BANKS NOR IN THE PATH OF STREAM FLOW.

4. TEMPORARY EROSION CONTROL DEVICES SHALL BE CONSTRUCTED AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

5. PERMANENT SEEDING SHALL BE USED WHENEVER POSSIBLE. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR PROLONG GRADING OR SHAPING SO THAT THE ENTIRE PROJECT CAN BE PERMANENTLY SEEDED AT ONE TIME.

6. THE CONTRACTOR SHALL INSPECT ADJACENT STREETS DAILY AND CLEAN ADJACENT STREETS WHEN NECESSARY. ADJACENT STREETS SHALL BE FREE OF SOIL AND DEBRIS.

7. SHOULD IT BE NECESSARY TO REMOVE ANY EROSION CONTROL DEVICES FOR CONSTRUCTION REASONS, THE CONTRACTOR SHALL FIRST OBTAIN PERMISSION AND SHALL REPLACE AND/OR REPAIR THE REMOVED DEVICES THE SAME DAY. THE COST OF REMOVING AND REPLACING THE DEVICE SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

8. ALL OTHER SOIL EROSION AND SEDIMENT CONTROL DEVICES AND MEASURES DEEMED NECESSARY BY THE RESIDENT ENGINEER, COOK COUNTY, CHICAGO EXECUTIVE AIRPORT, DOT DIVISION OF AERONAUTICS, AND THE IEPA SHALL BE IMPLEMENTED IMMEDIATELY UPON NOTIFICATION OF THE CONTRACTOR.

9. THE CONTRACTOR SHALL PROVIDE LOCATIONS FOR CONCRETE TRUCK WASHOUT, AS APPROVED BY THE ENGINEER. PRIOR TO ANY CONCRETE POURS, THESE LOCATIONS SHALL NOT BE NEAR ANY STREAM OR BODY OF WATER. LOCATIONS SHALL BE APPROVED BY THE ENGINEER PRIOR TO ANY CONCRETE POURS. ADDITIONAL, THE CONTRACTOR SHALL PROVIDE ADEQUATE FACILITIES TO WASH OUT PAYING EQUIPMENT AND FINISHING TOOLS. ALL WASTE WATER AND EXCESS CONCRETE MATERIALS SHALL BE CONTAINED BY AN APPROVED CONCRETE WASHOUT FACILITY.

10. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES TO ENSURE THAT EROSION CONTROL MEASURES ARE CONSISTENT BETWEEN ALL PROJECT PHASES AND ALL SUB-CONTRACTORS.

11. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS TO PROTECT WETLANDS TO REMAIN FROM DAMAGE BY SEDIMENT, CONSTRUCTION EQUIPMENT, OR BY HIS PERSONNEL. THE CONTRACTOR SHALL ASSURE THAT DEBRIS OR ANY CONSTRUCTION MATERIAL IS NOT DISPOSED OF IN THE WETLANDS.

12. WATER PUMPED OR OTHERWISE DISCHARGED FROM THE SITE DURING CONSTRUCTION Dewatering SHALL BE FILTERED BY AN APPROVED MEANS.

13. SEDIMENT COLLECTED DURING CONSTRUCTION BY THE VARIOUS TEMPORARY EROSION CONTROL SYSTEMS SHALL BE DISPOSED OF ON A REGULAR BASIS. SEDIMENT SHALL BE REMOVED FROM EROSION CONTROL SYSTEMS WHEN THE HEIGHT OF THE SEDIMENT EXCEEDS ONE-HALF OF THE HEIGHT OF THE DEVICE OR AS RECOMMENDED BY THE MANUFACTURER, WHICHEVER IS LESS.

14. ALL EROSION CONTROL MEASURES SHALL BE KEPT OPERATIONAL AND MAINTAINED CONTINUOUSLY THROUGHOUT THE PERIOD OF LAND DISTURBANCE UNTIL PERMANENT SOIL EROSION AND SEDIMENT CONTROL MEASURES ARE OPERATIONAL.

15. THE CONDITION OF THE CONSTRUCTION SITE FOR WINTER SHUTDOWN SHALL BE ADDRESSED EARLY IN THE FALL GROWING SEASON SO THAT SLOPES AND OTHER BARE EARTH AREAS MAY BE STABILIZED WITH TEMPORARY AND/OR PERMANENT VEGETATIVE COVER. ALL OPEN AREAS THAT ARE TO REMAIN IDE THROUGHOUT THE WINTER SHALL RECEIVE TEMPORARY EROSION CONTROL MEASURES INCLUDING TEMPORARY SEEDING, MULCHING AND/OR EROSION CONTROL BLANKET PRIOR TO THE END OF THE FALL GROWING SEASON. THE AREAS TO BE WORKED BEYOND THE END OF THE GROWING SEASON MUST INCORPORATE SOIL STABILIZATION MEASURES THAT DO NOT RELY ON VEGETATIVE COVER SUCH AS EROSION CONTROL BLANKET AND HEAVY MULCHING.

16. PERMANENT STABILIZATION SHALL BE COMPLETED WITHIN 7 DAYS FOR AREAS WHERE WORK IS COMPLETED.

## CONTRACTOR CERTIFICATION STATEMENT

THIS CERTIFICATION STATEMENT IS A PART OF THE STORM WATER POLLUTION PREVENTION PLAN FOR THE PROJECT DESCRIBED BELOW IN ACCORDANCE WITH NPDES PERMIT NO. ILR10 ISSUED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY ON SEPTEMBER 29, 2008.

## PROJECT INFORMATION:

ROUTE: CHICAGO EXECUTIVE AIRPORT MARKED: CONSTRUCT PARTIAL PARALLEL TAXIWAY ECHO AND  
SECTION: 13 PARTIAL OVERLAY OF TAXIWAY ECHO  
PROJECT NUMBER: PWK-3244  
COUNTY: COOK CONTRACT NUMBER: 3-17-0018-B32 (P6051)

I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND THE TERMS AND CONDITIONS OF THE GENERAL NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT (ILR10) THAT AUTHORIZES THE STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY FROM THE CONSTRUCTION SITE IDENTIFIED AS PART OF THIS CERTIFICATION.

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_  
PRINTED NAME: \_\_\_\_\_ TITLE: \_\_\_\_\_

NAME OF FIRM: \_\_\_\_\_  
STREET ADDRESS: \_\_\_\_\_  
CITY, STATE, ZIP: \_\_\_\_\_  
PHONE NUMBER: \_\_\_\_\_

THE INFORMATION WITHIN THIS BOX SHALL BE COMPLETED BY THE CONTRACTOR AFTER THE AWARD OF THE CONTRACT TO OBTAIN THE REQUIRED NPDES PERMIT FROM IEPA. COMPLETION OF THIS IS A CONTRACT REQUIREMENT.

## RECORD OF SITE DISTURBANCE AND STABILIZATION

MAJOR GRADING ACTIVITIES: \_\_\_\_\_ BEGINNING DATE: \_\_\_\_\_  
LOCATION: \_\_\_\_\_ COMPLETION DATE: \_\_\_\_\_  
MAJOR GRADING ACTIVITIES: \_\_\_\_\_ BEGINNING DATE: \_\_\_\_\_  
LOCATION: \_\_\_\_\_ COMPLETION DATE: \_\_\_\_\_  
SITE STABILIZATION: \_\_\_\_\_ BEGINNING DATE: \_\_\_\_\_  
LOCATION: \_\_\_\_\_ COMPLETION DATE: \_\_\_\_\_  
CONSTRUCTION CEASED: \_\_\_\_\_ BEGINNING DATE: \_\_\_\_\_  
EXPLANATION: \_\_\_\_\_ COMPLETION DATE: \_\_\_\_\_

THE INFORMATION WITHIN THIS BOX SHALL BE COMPLETED BY THE CONTRACTOR AS CONSTRUCTION PROGRESSES IN ACCORDANCE WITH THE NPDES GENERAL PERMIT FOR STORMWATER DISCHARGES. THIS INFORMATION MAY ALSO BE NOTED DIRECTLY ON THE SWPPP SITE MAP.

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UPDATE BY: jphse

SURVEY BOOK #

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## REVISIONS

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AT FULL SCALE (34x22).

# CHICAGO EXECUTIVE AIRPORT WHEELING/PROSPECT HEIGHTS, ILLINOIS CONSTRUCT PARTIAL PARALLEL TAXIWAY ECHO AND PARTIAL OVERLAY OF TAXIWAY ECHO

# STORM WATER POLLUTION PREVENTION PLAN (SWPPP) NOTES

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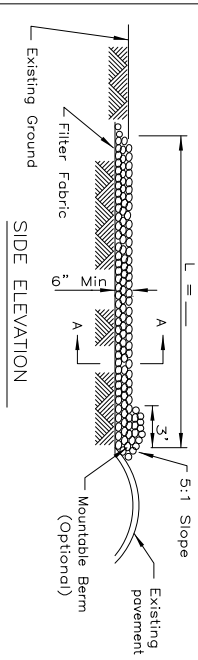
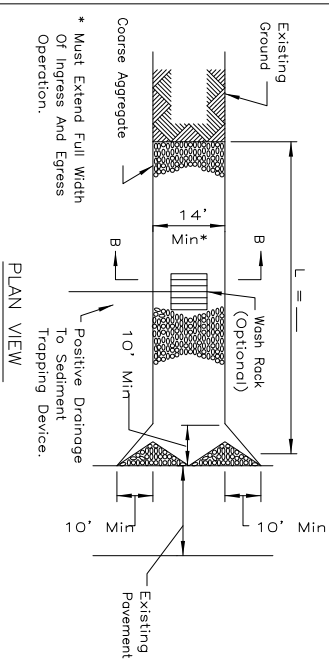
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DRAWN BY: MLW  
CHECKED BY: MLK  
APPROVED BY: DLP

DATE: 04/22/11  
JOB No: 08290-08

ILLINOIS PROJECT: PWK-3244  
A/P.P. PROJECT: 3-17-0018-B32

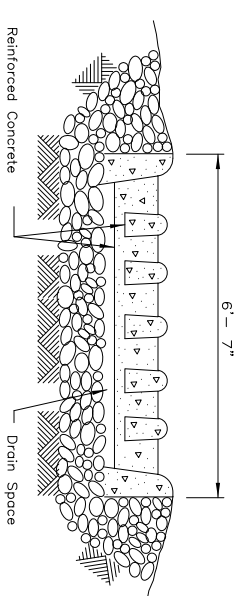
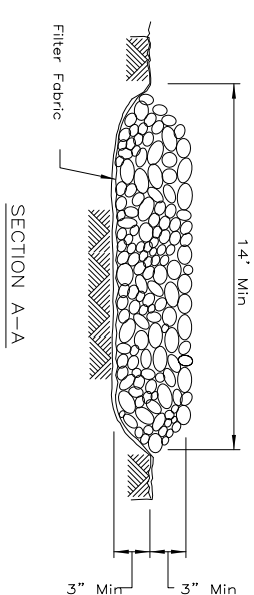
SHEET 7 OF 49 SHEETS

STABILIZED CONSTRUCTION ENTRANCE PLAN



NOTES:  
 1 Filter fabric shall meet the requirements of material specification 592 GEOTEXTILE, Table 1 or 2, Class . 1 dr. 14d shall be placed over the cleared area prior to the placing of rock.  
 2 Rock or reclaimed concrete shall meet one of the following IDOT coarse aggregate gradation, CA-1, CA-2, CA-3 or CA-4 and be placed according to construction specification 25 ROCKFILL using placement Method 1 and Class III compaction.  
 3 Any drainage facilities required because of washing shall be constructed according to manufacturers specifications.  
 4 If wash rocks are used they shall be installed according to the manufacturer's specifications.

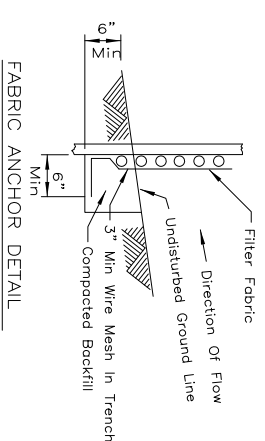
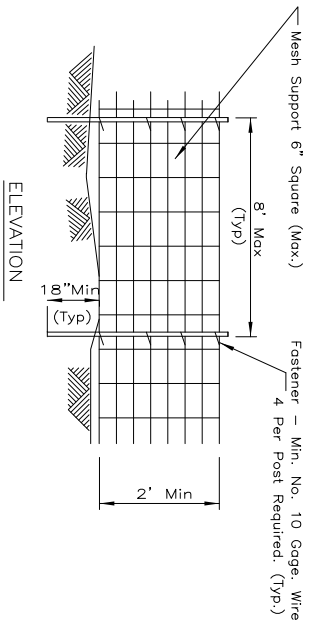
STABILIZED CONSTRUCTION ENTRANCE PLAN



REFERENCE  
 Project \_\_\_\_\_ Date \_\_\_\_\_  
 Designed \_\_\_\_\_ Date \_\_\_\_\_  
 Checked \_\_\_\_\_ Date \_\_\_\_\_  
 Approved \_\_\_\_\_ Date \_\_\_\_\_

REFERENCE  
 Project \_\_\_\_\_ Date \_\_\_\_\_  
 Designed \_\_\_\_\_ Date \_\_\_\_\_  
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SILT FENCE WITH WIRE SUPPORT PLAN

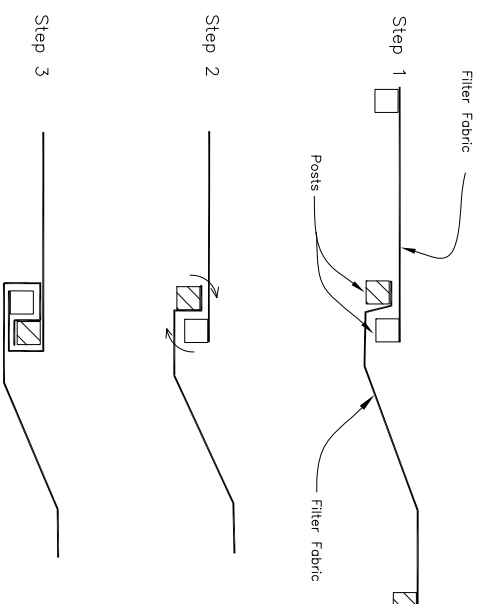


NOTES:  
 1 Wires of mesh support shall be min. gage no. 12.  
 2. Temporary sediment fence shall be installed prior to any grading work in the area to be protected. They shall be maintained throughout the construction period and removed in conjunction with the final grading and site stabilization.  
 3. Filter fabric shall meet the requirements of material specification 592 Geotextile Table 1 or 2, Class with equivalent opening size of at least 30 for nonwoven and 50 for woven.  
 4. Fence posts shall be either standard steel post or wood post with a minimum cross-sectional area of 3.0 sq. in.

REFERENCE  
 Project \_\_\_\_\_ Date \_\_\_\_\_  
 Designed \_\_\_\_\_ Date \_\_\_\_\_  
 Checked \_\_\_\_\_ Date \_\_\_\_\_  
 Approved \_\_\_\_\_ Date \_\_\_\_\_

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 Designed \_\_\_\_\_ Date \_\_\_\_\_  
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 Approved \_\_\_\_\_ Date \_\_\_\_\_

SILT FENCE



NOTES:  
 1. Place the end post of the second fence inside the end post of the first fence.  
 2. Rotate both posts at least 180 degrees in a clockwise direction to create a tight seal with the fabric material.  
 3. Drive both posts a minimum of 18 inches into the ground and bury the flip.

REFERENCE  
 Project \_\_\_\_\_ Date \_\_\_\_\_  
 Designed \_\_\_\_\_ Date \_\_\_\_\_  
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 AT FULL SCALE (3/4X22).

CHICAGO EXECUTIVE AIRPORT  
 WHEELING/PROSPECT HEIGHTS, ILLINOIS  
 CONSTRUCT PARTIAL PARALLEL TAXIWAY ECHO AND  
 PARTIAL OVERLAY OF TAXIWAY ECHO

STORM WATER POLLUTION  
 PREVENTION PLAN (SWPPP)  
 DETAILS

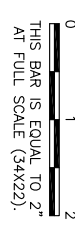
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 DRAWN BY: MJW  
 CHECKED BY: MLK  
 APPROVED BY: DLP  
 DATE: 04/22/11  
 JOB No: 08290-08  
 ILLINOIS PROJECT: PWK-3244  
 A.I.P. PROJECT: 3-17-0018-B32  
 SHEET 8 OF 49 SHEETS



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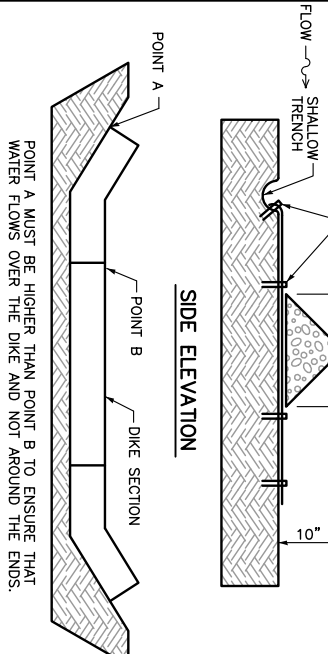
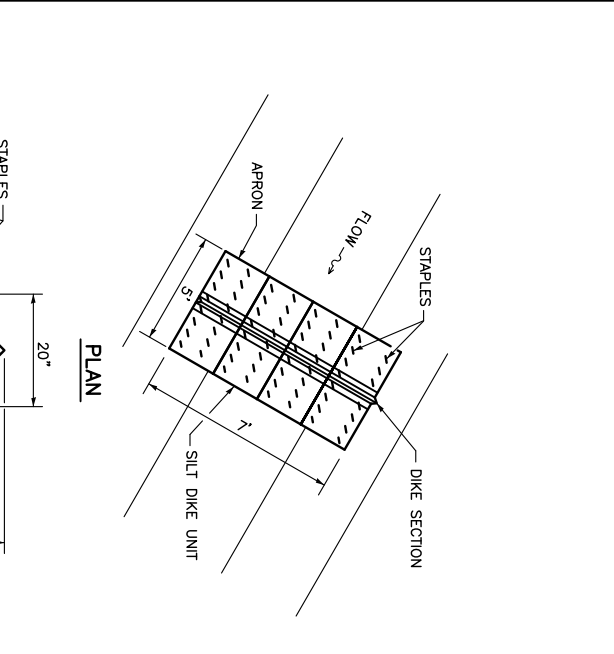
**CHICAGO EXECUTIVE AIRPORT  
 WHEELING/PROSPECT HEIGHTS, ILLINOIS  
 CONSTRUCT PARTIAL PARALLEL TAXIWAY ECHO AND  
 PARTIAL OVERLAY OF TAXIWAY ECHO**

**STORM WATER POLLUTION  
 PREVENTION PLAN (SWPPP)  
 DETAILS**

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APPROVED BY:	DLP
DATE:	04/22/11
JOB No.:	08290-08
ILLINOIS PROJECT: PWK-3244	
A.I.P. PROJECT: 3-17-0018-B32	
SHEET 9 OF 49 SHEETS	

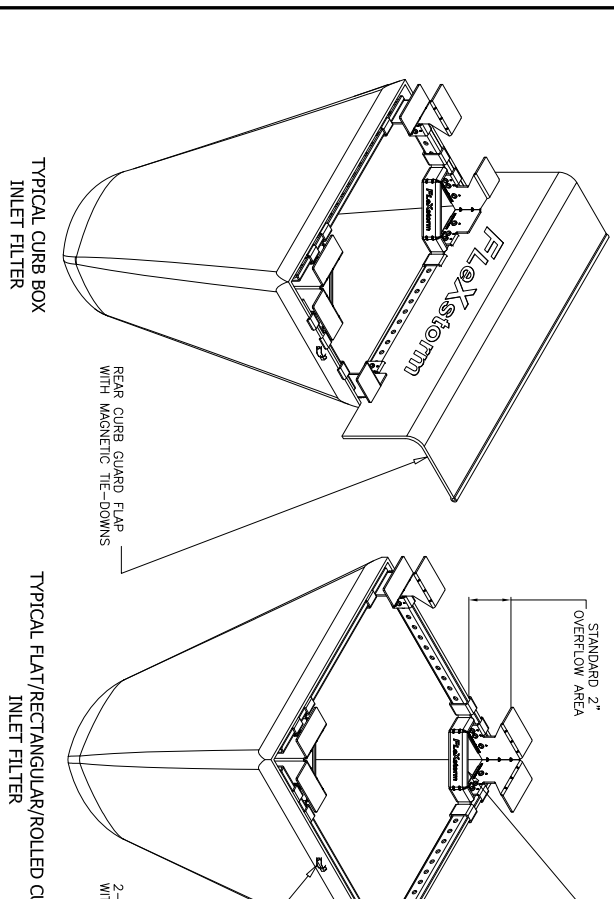


**INLET PROTECTION / SEDIMENT TRAP**  
 NOT TO SCALE  
 STORM SEWER INLET PROTECTION SHALL BE FLEXSTORM INLET FILTERS AS DETAILED HEREIN OR APPROVED EQUAL

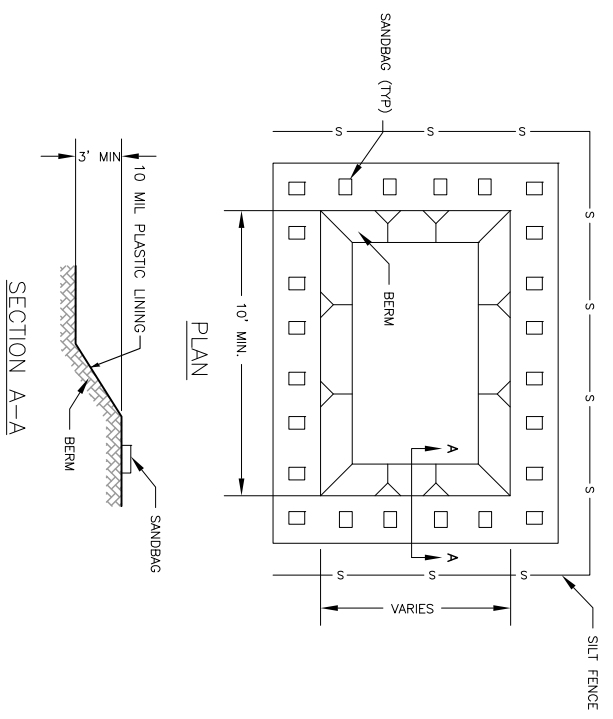
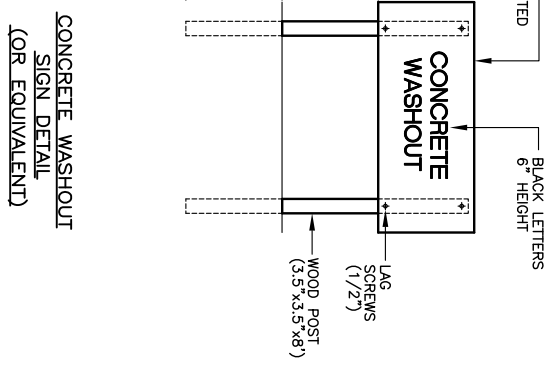
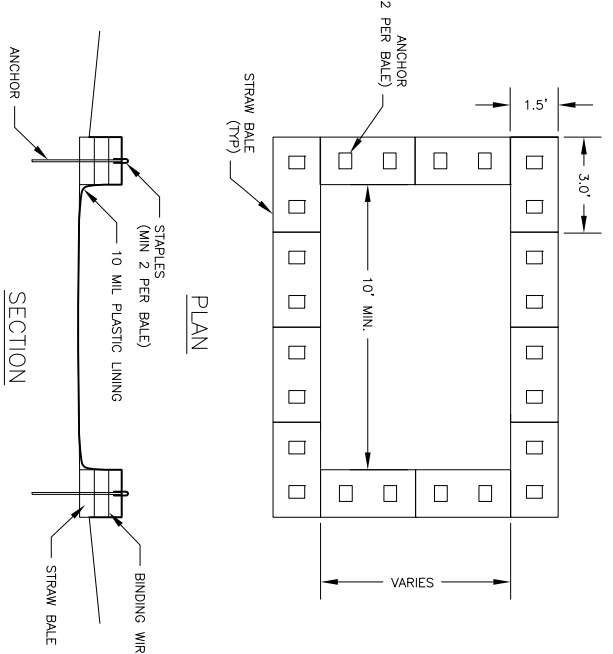
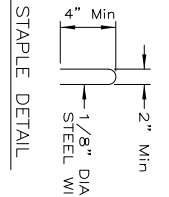
**IPP Flexstorm Inlet Filter Specifications**

Material Property	Test Method	Value (min ove)
> Inner Filter Bag Specs (2 ft <sup>3</sup> min vol)		
Grab Tensile	ASTM D 4832	100 lbs
Puncture Strength	ASTM D 4833	65 lbs
Trapezoidal Tear	ASTM D 4533	45 lbs
UV Resistance	ASTM D 4355	70% at 500 hrs
App Open Size (AOS)	ASTM D 4751	70 sieve (.212 mm)
Permittivity	ASTM D 4491	2.0 /sec
Water Flow Rate	ASTM D 4491	145 gpm/sqft
> Polyester Outer Reinforcement Bag Specifications		
Weight	ASTM D 3776	4.55 oz/5sqyd +/- 15%
Thickness	ASTM D 1777	.040 +/- .005
> Frame Construction		
A36 Structural Steel:	ASTM A 576	Tensile Strength > 58,000 psi;
11 Gauge Zinc Plated		Yield Strength > 36,000 psi

INSTALLATION:  
 1. REMOVE GRATE  
 2. DROP FLEXSTORM INLET FILTER ONTO LOAD BEARING LIP OF CASTING OR CONCRETE STRUCTURE  
 3. REPLACE GRATE



- NOTES:
- CONTRACTOR SHALL DETERMINE LOCATION AND SIZE OF WASHOUT.
  - WASHOUT SIZE AND LOCATION SHALL BE APPROVED BY THE ENGINEER.
  - A CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 20 FEET OF THE TEMPORARY CONCRETE WASHOUT FACILITY. AT A MINIMUM, THE SIGN SHALL READ "CONCRETE WASHOUT IN 6" TALL LETTERS.
  - INSPECTION SHALL OCCUR ONCE PER WEEK AND DAILY DURING CONCRETE OPERATIONS. REPAIR/REPLACEMENT OF THE FACILITY SHALL BE MADE SUCH THAT CONCRETE WASTE IS CONTAINED.
  - MEDIA SHALL BE REMOVED AND DISPOSED OF AT A LEGAL OFF-SITE LOCATION WHEN THE FACILITY HAS REACHED 50% CAPACITY.
  - UPON COMPLETION OF CONCRETE OPERATIONS, THE CONCRETE WASHOUT AND ALL MATERIALS CONTAINED WITHIN SHALL BE DISPOSED OF AT A LEGAL OFF-SITE LOCATION.

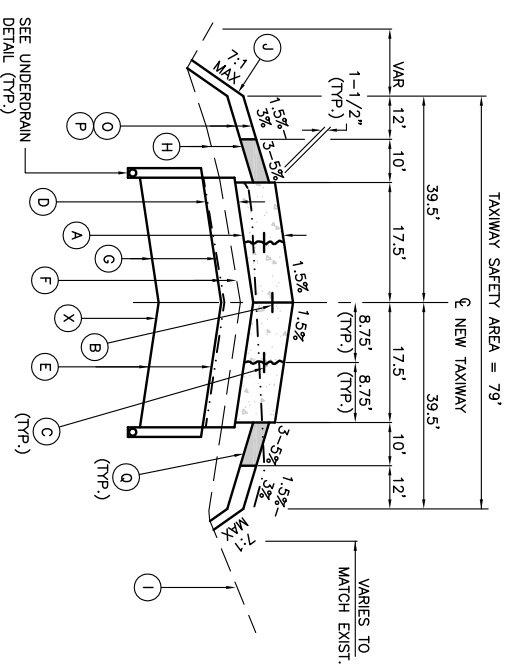


- NOTES:
- CONTRACTOR SHALL DETERMINE LOCATION AND SIZE OF WASHOUT.
  - WASHOUT SIZE AND LOCATION SHALL BE APPROVED BY THE ENGINEER.
  - SANDBAGS SHALL BE INSTALLED TO ANCHOR THE LINING. THE NUMBER OF SANDBAGS SHALL BE DETERMINED BY THE CONTRACTOR. THE CONTRACTOR SHALL ADD SANDBAGS SO AS TO MAINTAIN ANCHORING OF THE LINING.
  - A CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 20 FEET OF THE TEMPORARY CONCRETE WASHOUT FACILITY. AT A MINIMUM, THE SIGN SHALL READ "CONCRETE WASHOUT IN 6" TALL LETTERS.
  - THE TEMPORARY WASHOUT FACILITY SHALL BE SURROUNDED BY SILT FENCE ON ALL SIDES.
  - INSPECTION SHALL OCCUR ONCE PER WEEK AND DAILY DURING CONCRETE OPERATIONS. REPAIR/REPLACEMENT OF THE FACILITY SHALL BE MADE SUCH THAT CONCRETE WASTE IS CONTAINED.
  - MEDIA SHALL BE REMOVED AND DISPOSED OF AT A LEGAL OFF-SITE LOCATION WHEN THE FACILITY HAS REACHED 50% CAPACITY.
  - UPON COMPLETION OF CONCRETE OPERATIONS, THE CONCRETE WASHOUT AND ALL MATERIALS CONTAINED WITHIN SHALL BE DISPOSED OF AT A LEGAL OFF-SITE LOCATION.

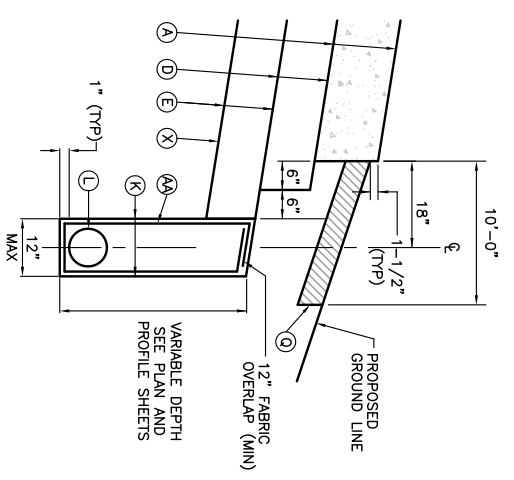
**ABOVE GROUND TEMPORARY WASHOUT**

**BELOW GROUND TEMPORARY WASHOUT**

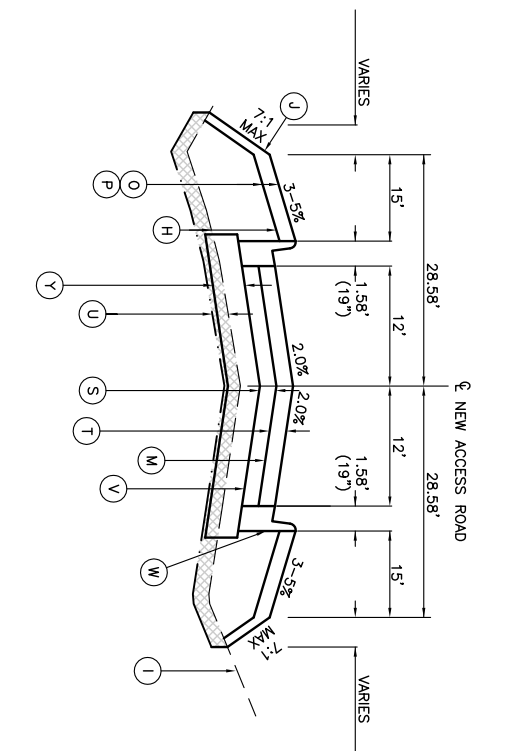
**CONCRETE WASHOUT**  
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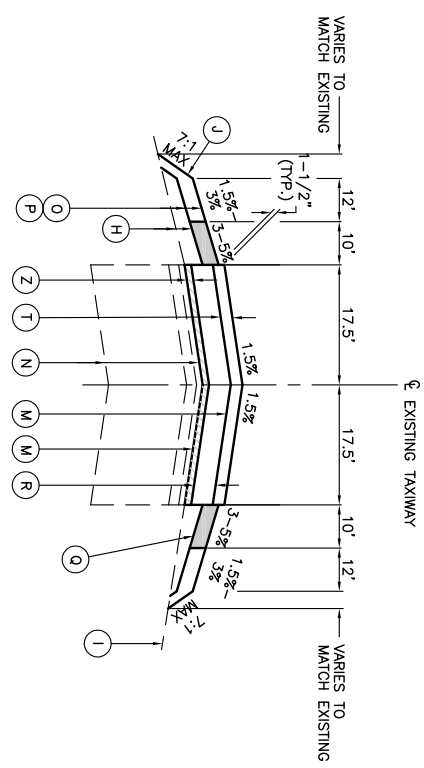
**NEW TAXIWAY E TYPICAL SECTION A-A**  
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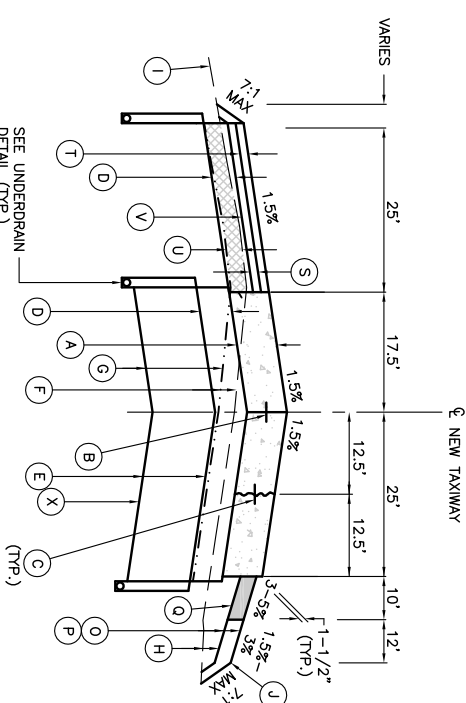
**UNDERDRAIN DETAIL**  
NOT TO SCALE



**NEW ACCESS ROAD SECTION D-D**  
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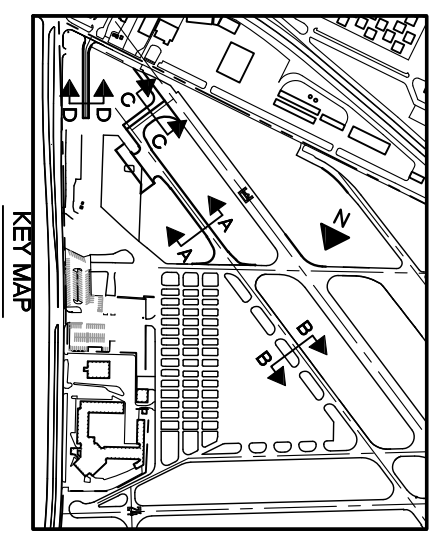
**TAXIWAY E AND TAXIWAY A OVERLAY TYPICAL SECTION B-B**  
NOT TO SCALE



**NEW TAXIWAY E1 TYPICAL SECTION C-C**  
NOT TO SCALE

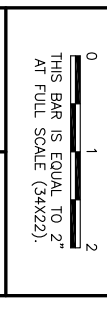
**LEGEND**

- (A) NEW 10" P.C. CONCRETE PAVEMENT (501)
- (B) NEW DOWEL BAR (501)
- (C) NEW TIE BAR (501)
- (D) NEW 6" CRUSHED AGGREGATE BASE COURSE (209)
- (E) NEW 12" POROUS GRANULAR EMBANKMENT (208)
- (F) NEW 7" AVERAGE TOPSOIL STRIPPING (152)
- (G) NEW UNCLASSIFIED EXCAVATION (152)
- (H) NEW SHOULDER FILL (152)
- (I) EXISTING GROUND LINE
- (J) NEW GROUND LINE
- (K) NEW POROUS BACKFILL (705)
- (L) NEW 6" CPPUP WITH SOCK (705)
- (M) NEW TACK COAT (603)
- (N) EXISTING 1-1/2" BITUMINOUS SURFACE COURSE (401)
- (O) EXISTING 2-1/2" BITUMINOUS BASE COURSE (201)
- (P) EXISTING 19-1/2" CRUSHED AGGREGATE BASE COURSE (209)
- (Q) NEW TOPSOIL PLACEMENT (4" MINIMUM)(905)
- (R) NEW SEEDING AND MULCHING (901 AND 908)
- (S) NEW 10' WIDE SOIL GUARD (800)
- (T) NEW 3" BITUMINOUS BASE COURSE (201)
- (U) NEW 2" BITUMINOUS SURFACE COURSE (201)
- (V) NEW 2" BITUMINOUS SURFACE COURSE (401)
- (W) NEW BITUMINOUS/P.C.C. PAVEMENT REMOVAL
- (X) NEW PRIME COAT (602)
- (Y) NEW COMBINATION CURB AND GUTTER, TYPE B-6:12 (IDOT STD 606001-04)
- (Z) NEW SOIL STABILIZATION FABRIC (152)
- (AA) NEW 8" CRUSHED AGGREGATE BASE COURSE (209)
- (AB) NEW VARIABLE DEPTH BITUMINOUS PAVEMENT MILLING
- (AC) NEW UNDERDRAIN TRENCH FABRIC ENVELOPE (INCIDENTAL TO UNDERDRAIN) (705)



**KEY MAP**

REVISIONS	
NUMBER	DATE



**CHICAGO EXECUTIVE AIRPORT  
WHEELING/PROSPECT HEIGHTS, ILLINOIS  
CONSTRUCT PARTIAL PARALLEL TAXIWAY ECHO AND  
PARTIAL OVERLAY OF TAXIWAY ECHO**

**TYPICAL SECTIONS**

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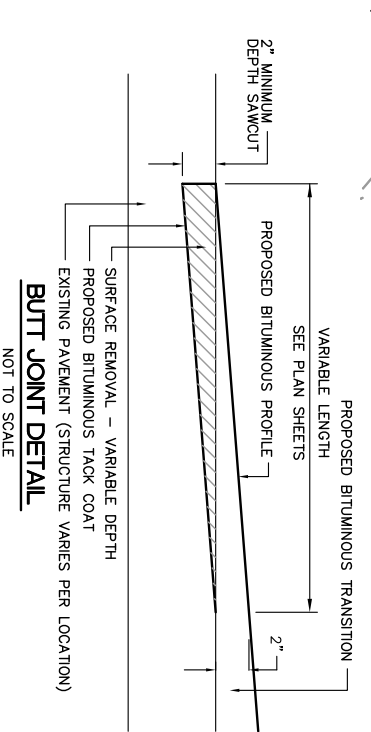
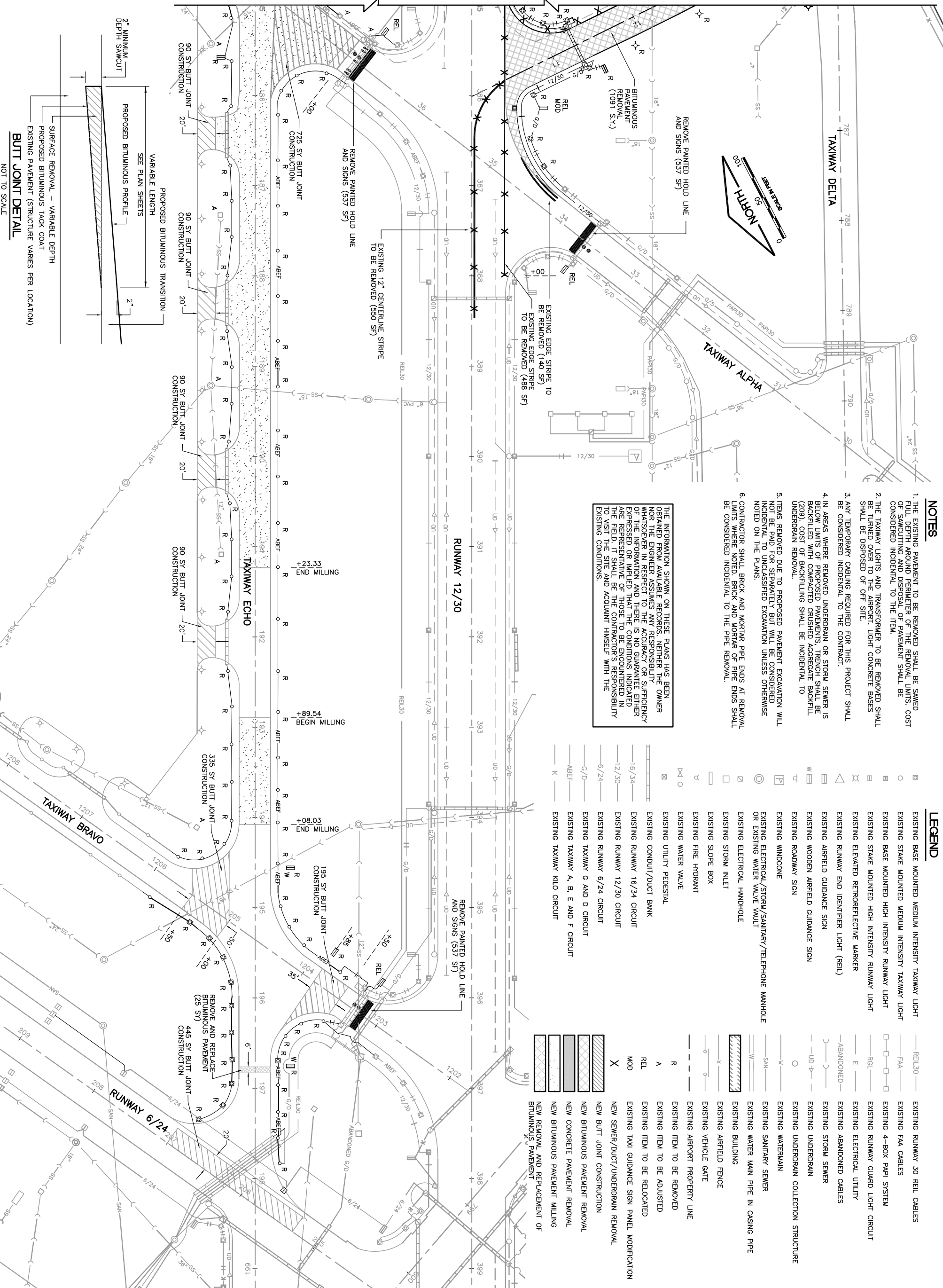
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**CHICAGO EXECUTIVE AIRPORT**

DESIGN BY:	MLK
DRAWN BY:	JRO
CHECKED BY:	MLK
APPROVED BY:	DLP
DATE:	04/22/11
JOB No.:	08290-08
ILLINOIS PROJECT:	PWK-3244
A.I.P. PROJECT:	3-17-0018-B32
SHEET	10 OF 49 SHEETS



MATCHLINE STA. 385+00



**NOTES**

1. THE EXISTING PAVEMENT TO BE REMOVED SHALL BE SAWS FULL DEPTH AROUND PERIMETER OF THE REMOVAL LIMITS. COST OF SAWCUTTING AND DISPOSAL OF PAVEMENT SHALL BE CONSIDERED INCIDENTAL TO THE ITEM.
2. THE TAXIWAY LIGHTS AND TRANSFORMER TO BE REMOVED SHALL BE TURNED OVER TO THE AIRPORT. LIGHT CONCRETE BASES SHALL BE DISPOSED OF OFF SITE.
3. ANY TEMPORARY CABLING REQUIRED FOR THIS PROJECT SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
4. IN AREAS WHERE REMOVED UNDERDRAIN OR STORM SEWER IS BELOW LIMITS OF PROPOSED PAVEMENTS, TRENCH SHALL BE BACKFILLED WITH COMPACTED CRUSHED ASPHALTE BACKFILL (209). COST OF BACKFILLING SHALL BE INCIDENTAL TO UNDERDRAIN REMOVAL.
5. ITEMS REMOVED DUE TO PROPOSED PAVEMENT EXCAVATION WILL NOT BE PAID FOR SEPARATELY BUT WILL BE CONSIDERED INCIDENTAL TO UNCLASSIFIED EXCAVATION UNLESS OTHERWISE NOTED ON THE PLANS.
6. CONTRACTOR SHALL BRICK AND MORTAR PIPE ENDS AT REMOVAL LIMITS WHERE NOTED. BRICK AND MORTAR OF PIPE ENDS SHALL BE CONSIDERED INCIDENTAL TO THE PIPE REMOVAL.

THE INFORMATION SHOWN ON THESE PLANS HAS BEEN OBTAINED FROM AVAILABLE RECORDS. NEITHER THE OWNER NOR THE ENGINEER ASSUMES ANY RESPONSIBILITY OR LIABILITY WHATSOEVER IN RESPECT TO THE ACCURACY OR SUFFICIENCY OF THE INFORMATION AND THERE IS NO GUARANTEE EITHER EXPRESSED OR IMPLIED THAT THE CONDITIONS INDICATED ARE CORRECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE SITE AND ACQUAINT HIMSELF WITH THE EXISTING CONDITIONS.

**LEGEND**

- EXISTING BASE MOUNTED MEDIUM INTENSITY TAXIWAY LIGHT
- EXISTING STAKE MOUNTED MEDIUM INTENSITY TAXIWAY LIGHT
- EXISTING STAKE MOUNTED HIGH INTENSITY RUNWAY LIGHT
- EXISTING STAKE MOUNTED HIGH INTENSITY RUNWAY LIGHT
- EXISTING ELEVATED RETROREFLECTIVE MARKER
- EXISTING RUNWAY END IDENTIFIER LIGHT (REL)
- EXISTING AIRFIELD GUIDANCE SIGN
- EXISTING WOODEN AIRFIELD GUIDANCE SIGN
- EXISTING ROADWAY SIGN
- EXISTING WINDOWCONE
- EXISTING ELECTRICAL/STORM/SANITARY/TELEPHONE MANHOLE OR EXISTING WATER VALVE VAULT
- EXISTING ELECTRICAL HANDHOLE
- EXISTING STORM INLET
- EXISTING SLOPE BOX
- EXISTING FIRE HYDRANT
- EXISTING WATER VALVE
- EXISTING UTILITY PEDESTAL
- EXISTING CONDUIT/DUCT BANK
- EXISTING RUNWAY 16/34 CIRCUIT
- EXISTING RUNWAY 12/30 CIRCUIT
- EXISTING RUNWAY 6/24 CIRCUIT
- EXISTING TAXIWAY G AND D CIRCUIT
- EXISTING TAXIWAY A, B, E AND F CIRCUIT
- EXISTING TAXIWAY KILO CIRCUIT
- EXISTING RUNWAY 30 REL CABLES
- EXISTING FAA CABLES
- EXISTING 4-BOX PAPI SYSTEM
- EXISTING RUNWAY GUARD LIGHT CIRCUIT
- EXISTING ELECTRICAL UTILITY
- EXISTING ABANDONED CABLES
- EXISTING STORM SEWER
- EXISTING UNDERDRAIN
- EXISTING UNDERDRAIN COLLECTION STRUCTURE
- EXISTING WATERMAIN
- EXISTING SANITARY SEWER
- EXISTING WATER MAIN PIPE IN CASING PIPE
- EXISTING BUILDING
- EXISTING AIRFIELD FENCE
- EXISTING VEHICLE GATE
- EXISTING AIRPORT PROPERTY LINE
- EXISTING ITEM TO BE REMOVED
- EXISTING ITEM TO BE ADJUSTED
- EXISTING ITEM TO BE RELOCATED
- EXISTING TAXI GUIDANCE SIGN PANEL MODIFICATION
- NEW SEWER/DUCT/UNDERDRAIN REMOVAL
- NEW BUTT JOINT CONSTRUCTION
- NEW BITUMINOUS PAVEMENT REMOVAL
- NEW CONCRETE PAVEMENT REMOVAL
- NEW BITUMINOUS PAVEMENT MILLING
- NEW REMOVAL AND REPLACEMENT OF BITUMINOUS PAVEMENT

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**CHICAGO EXECUTIVE AIRPORT  
 WHEELING/PROSPECT HEIGHTS, ILLINOIS  
 CONSTRUCT PARTIAL PARALLEL TAXIWAY ECHO AND  
 PARTIAL OVERLAY OF TAXIWAY ECHO**

**EXISTING CONDITIONS/PROPOSED REMOVALS  
 SHEET 1**

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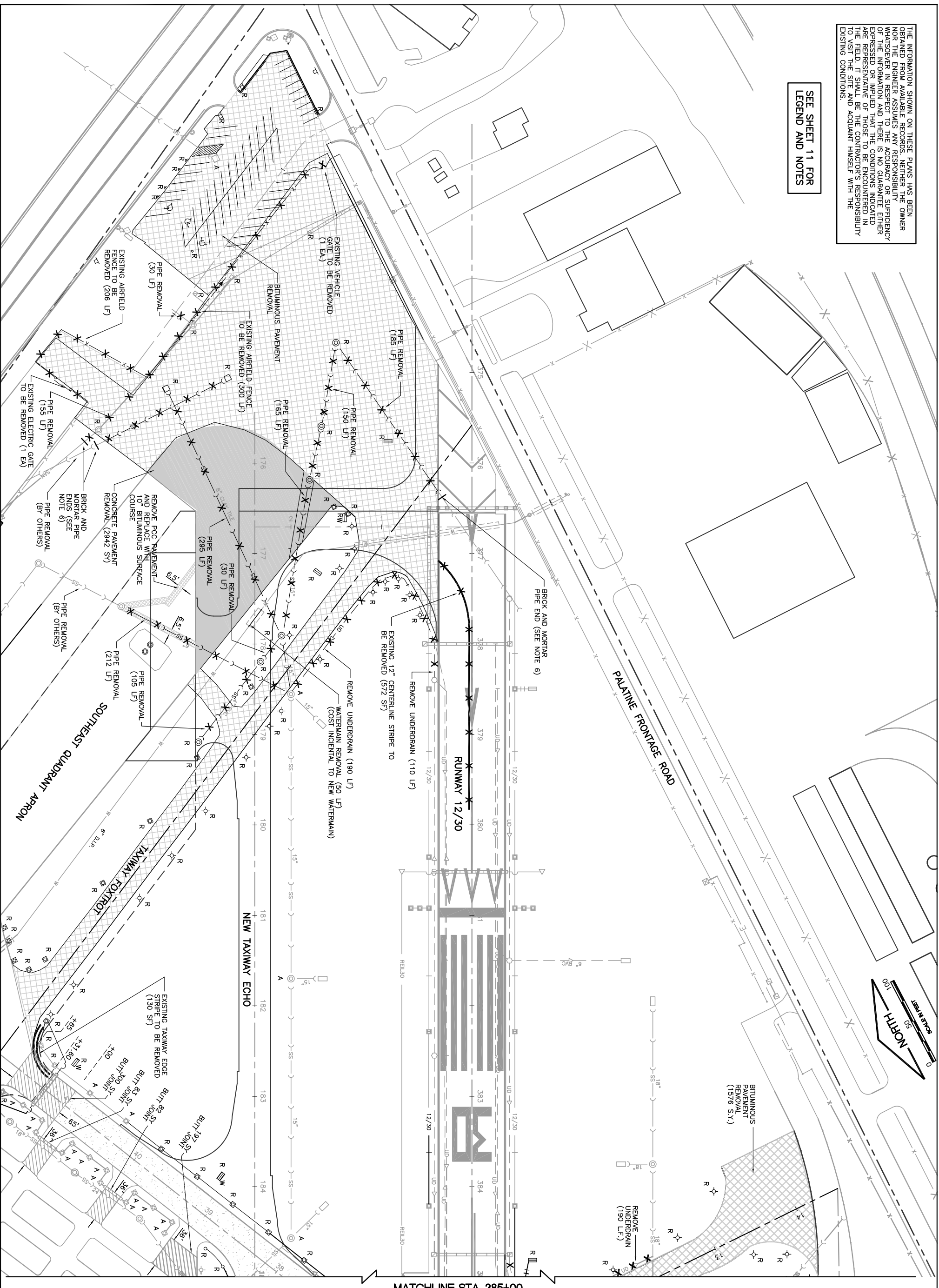
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CHECKED BY:	MLK
APPROVED BY:	DLP
DATE:	04/22/11
JOB No.:	08290-08

ILLINOIS PROJECT: PWK-3244  
 A.I.P. PROJECT: 3-17-0018-B32

SHEET 11 OF 49 SHEETS

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SEE SHEET 11 FOR  
LEGEND AND NOTES



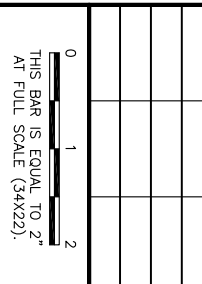
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**CHICAGO EXECUTIVE AIRPORT  
WHEELING/PROSPECT HEIGHTS, ILLINOIS  
CONSTRUCT PARTIAL PARALLEL TAXIWAY ECHO AND  
PARTIAL OVERLAY OF TAXIWAY ECHO**

**EXISTING CONDITIONS/PROPOSED REMOVALS  
SHEET 2**

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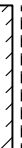


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JOB No.:	08290-08
ILLINOIS PROJECT: PWK-3244	
A.I.P. PROJECT: 3-17-0018-B32	
SHEET 12 OF 49 SHEETS	

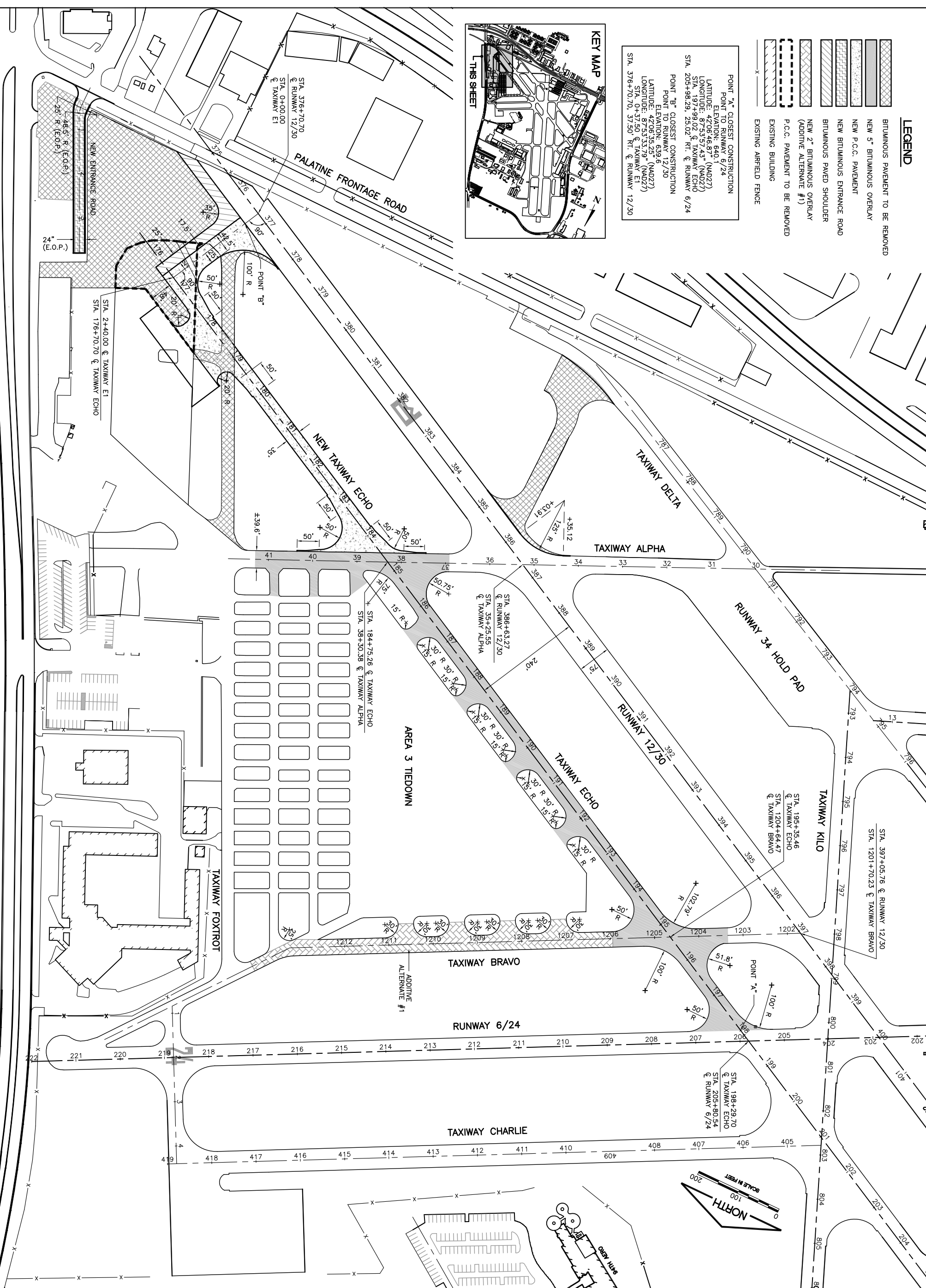
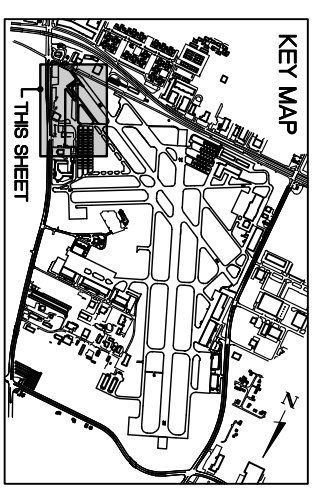


**LEGEND**

-  BITUMINOUS PAVEMENT TO BE REMOVED
-  NEW 5" BITUMINOUS OVERLAY
-  NEW P.C.C. PAVEMENT
-  NEW BITUMINOUS ENTRANCE ROAD
-  BITUMINOUS PAVED SHOULDER
-  NEW 2" BITUMINOUS OVERLAY (ADDITIVE ALTERNATE #1)
-  P.C.C. PAVEMENT TO BE REMOVED
-  EXISTING BUILDING
-  EXISTING AIRFIELD FENCE

POINT "A" CLOSEST CONSTRUCTION  
 POINT TO RUNWAY 6/24  
 ELEVATION: 640.1 (NA027)  
 LATITUDE: 42°08'46.87" (NA027)  
 LONGITUDE: 87°53'37.43" (NA027)  
 STA. 203+98.02 @ TAXIWAY ECHO  
 STA. 203+98.29 @ RUNWAY 6/24

POINT "B" CLOSEST CONSTRUCTION  
 POINT TO RUNWAY 12/30  
 ELEVATION: 639.6  
 LATITUDE: 42°06'35.25" (NA027)  
 LONGITUDE: 87°53'33.79" (NA027)  
 STA. 0+37.50 @ TAXIWAY E1  
 STA. 376+70.70, 37.50 RT. @ RUNWAY 12/30



**CHICAGO EXECUTIVE AIRPORT  
 WHEELING/PROSPECT HEIGHTS, ILLINOIS  
 CONSTRUCT PARTIAL PARALLEL TAXIWAY ECHO AND  
 PARTIAL OVERLAY OF TAXIWAY ECHO**

**GEOMETRIC PLAN**

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JOB No.:	08290-08
ILLINOIS PROJECT:	PWK-3244
A.I.P. PROJECT:	3-17-0018-B32

REVISIONS	
NUMBER	DATE

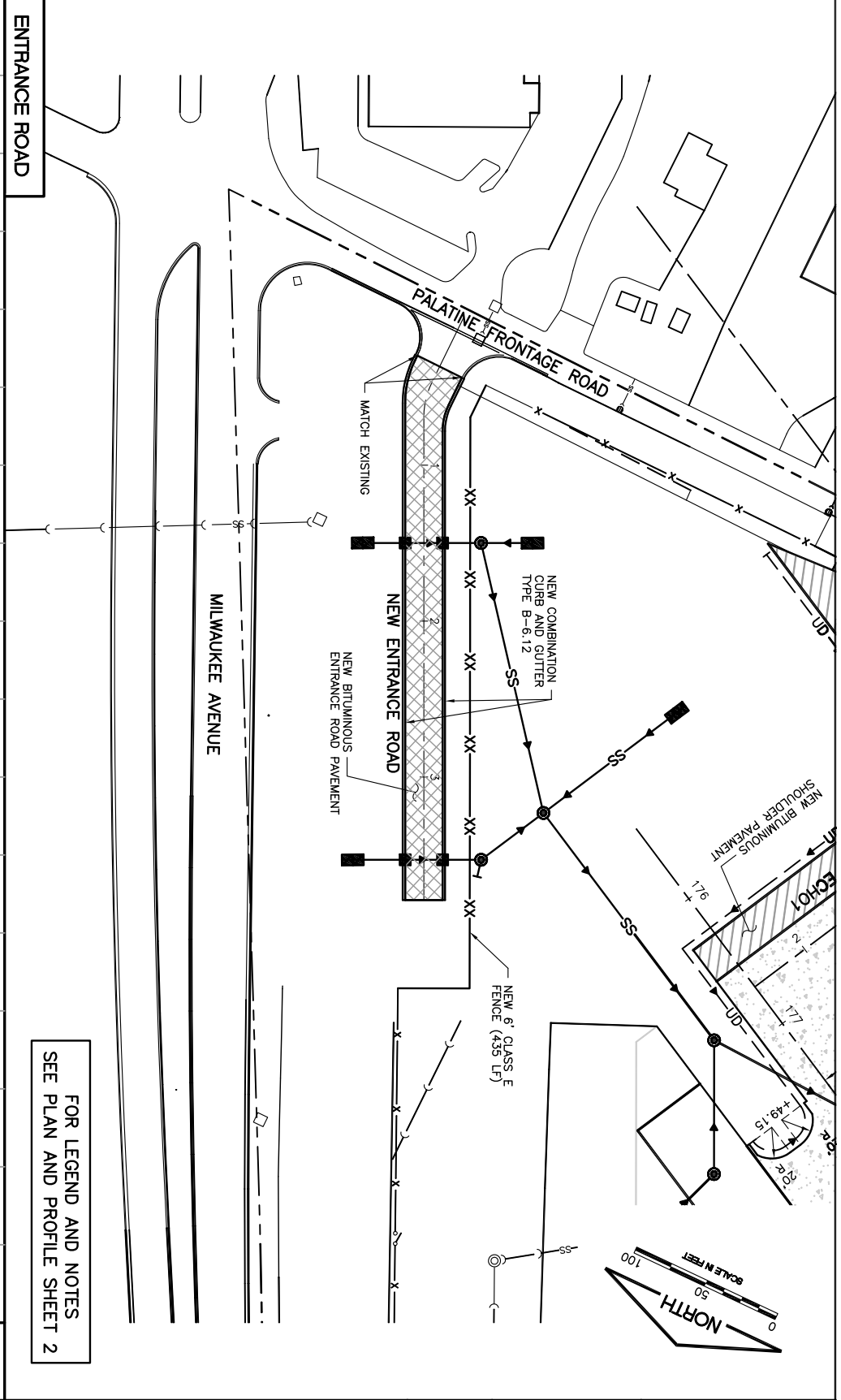
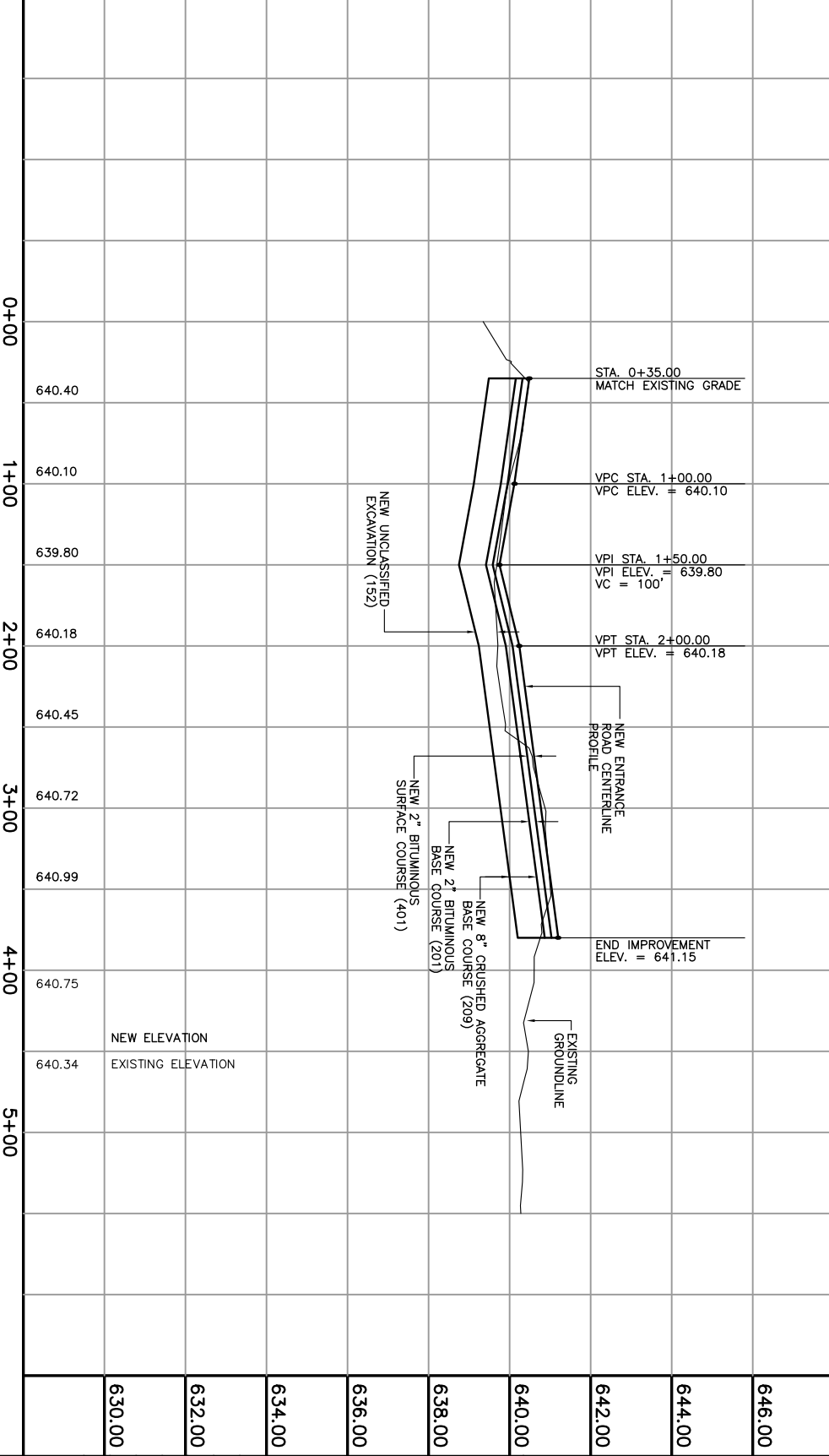
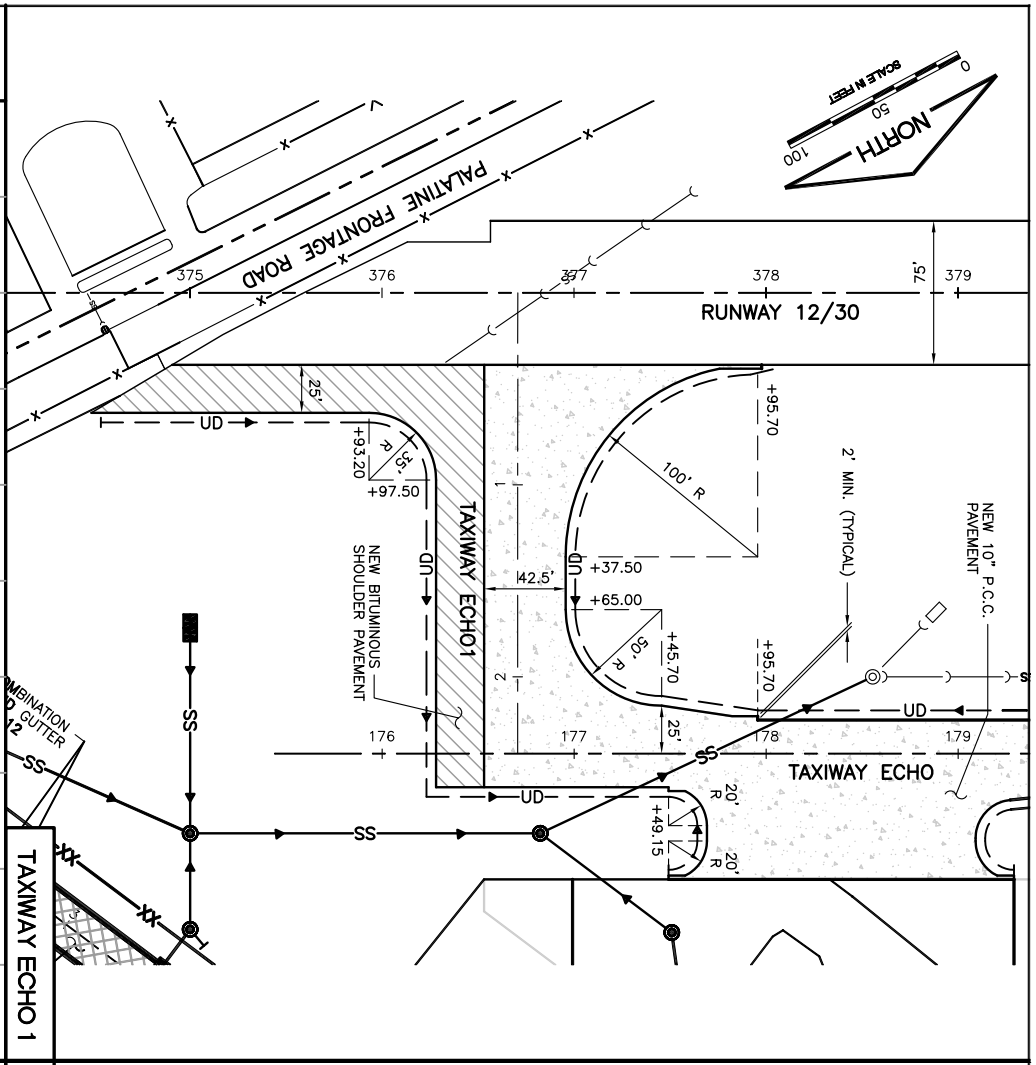
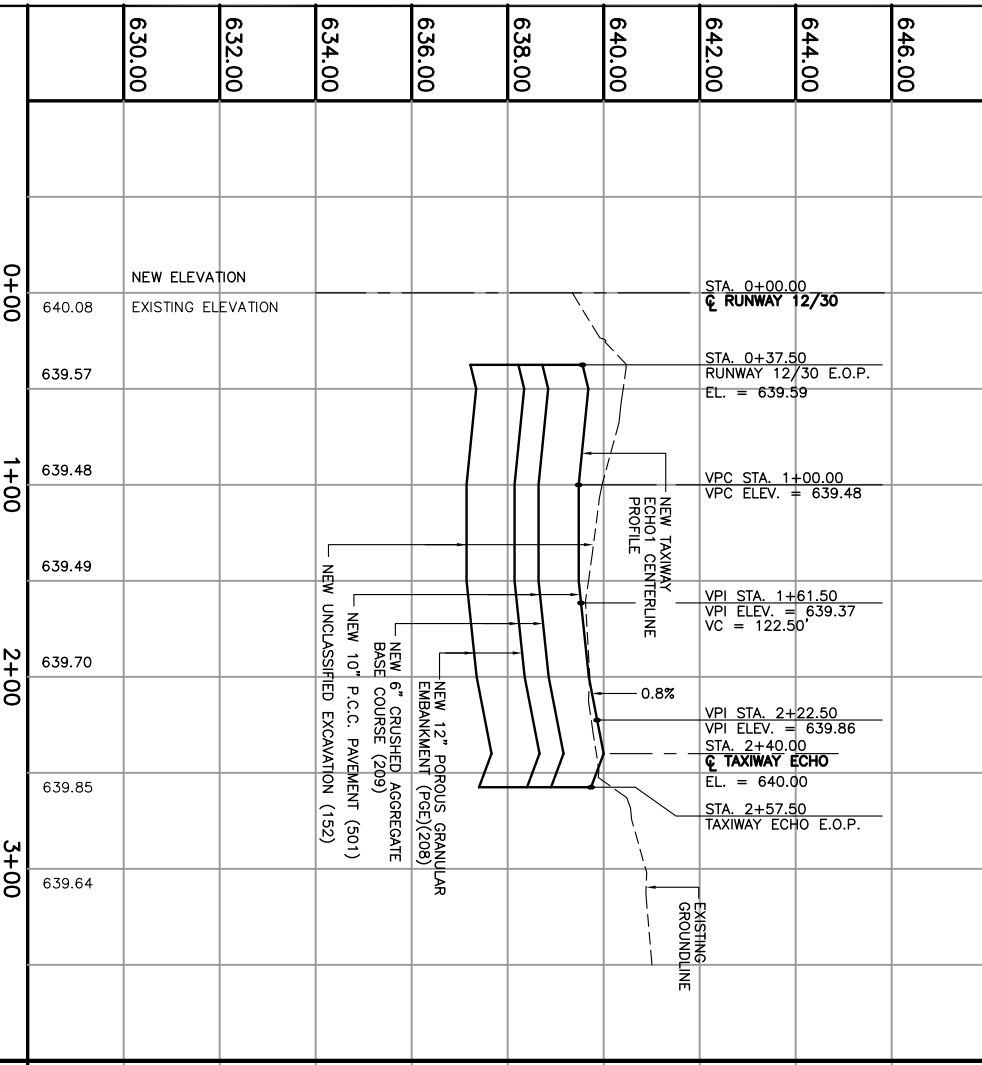
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 THIS BAR IS EQUAL TO 2"  
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FOR LEGEND AND NOTES  
SEE PLAN AND PROFILE SHEET 2

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**CHICAGO EXECUTIVE AIRPORT**

**CHICAGO EXECUTIVE AIRPORT  
WHEELING/PROSPECT HEIGHTS, ILLINOIS  
CONSTRUCT PARTIAL PARALLEL TAXIWAY ECHO AND  
PARTIAL OVERLAY OF TAXIWAY ECHO**

**PLAN AND PROFILE  
SHEET 3**

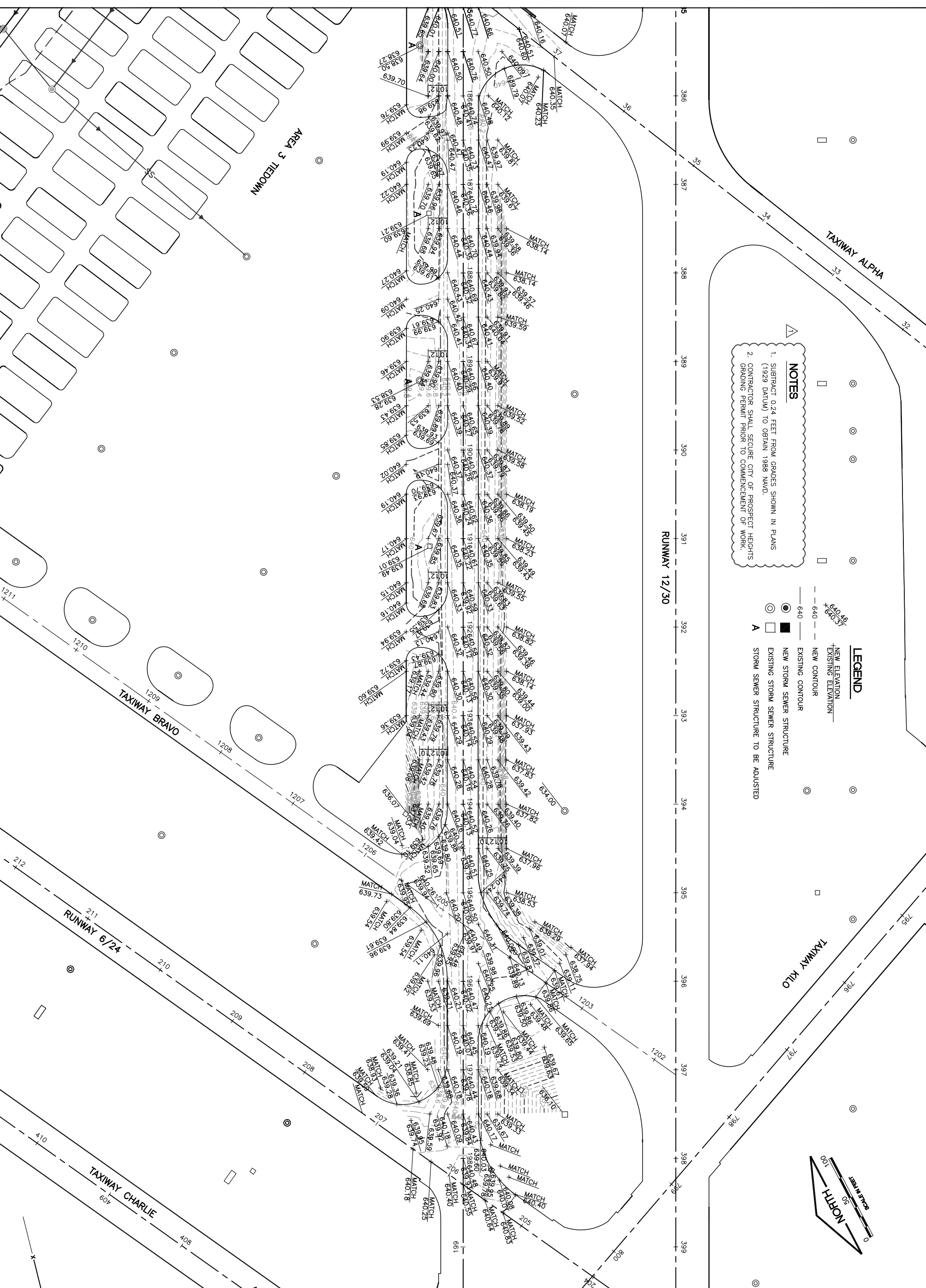
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REVISIONS

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**NOTES**

1. SUBTRACT 0.24 FEET FROM GRADES SHOWN IN PLANS (1929 DATUM) TO OBTAIN 1988 NAVD.
2. CONTRACTOR SHALL SECURE CITY OF PROSPECT HEIGHTS GRADING PERMIT PRIOR TO COMMENCEMENT OF WORK.

**LEGEND**

- 640.15  
639.15  
+ NEW ELEVATION
- 640  
- EXISTING ELEVATION
- - - NEW CONTOUR
- - - EXISTING CONTOUR
- NEW STORM SEWER STRUCTURE
- EXISTING STORM SEWER STRUCTURE
- A STORM SEWER STRUCTURE TO BE ADJUSTED



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UPDATE BY: mtkatz  
SURVEY BOOK #  
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NUMBER	BY	DATE
1	MLK	03/31/10

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**CHICAGO EXECUTIVE AIRPORT  
WHEELING/PROSPECT HEIGHTS, ILLINOIS  
CONSTRUCT PARTIAL PARALLEL TAXIWAY ECHO AND  
PARTIAL OVERLAY OF TAXIWAY ECHO**

**GRADING PLAN  
SHEET 1**

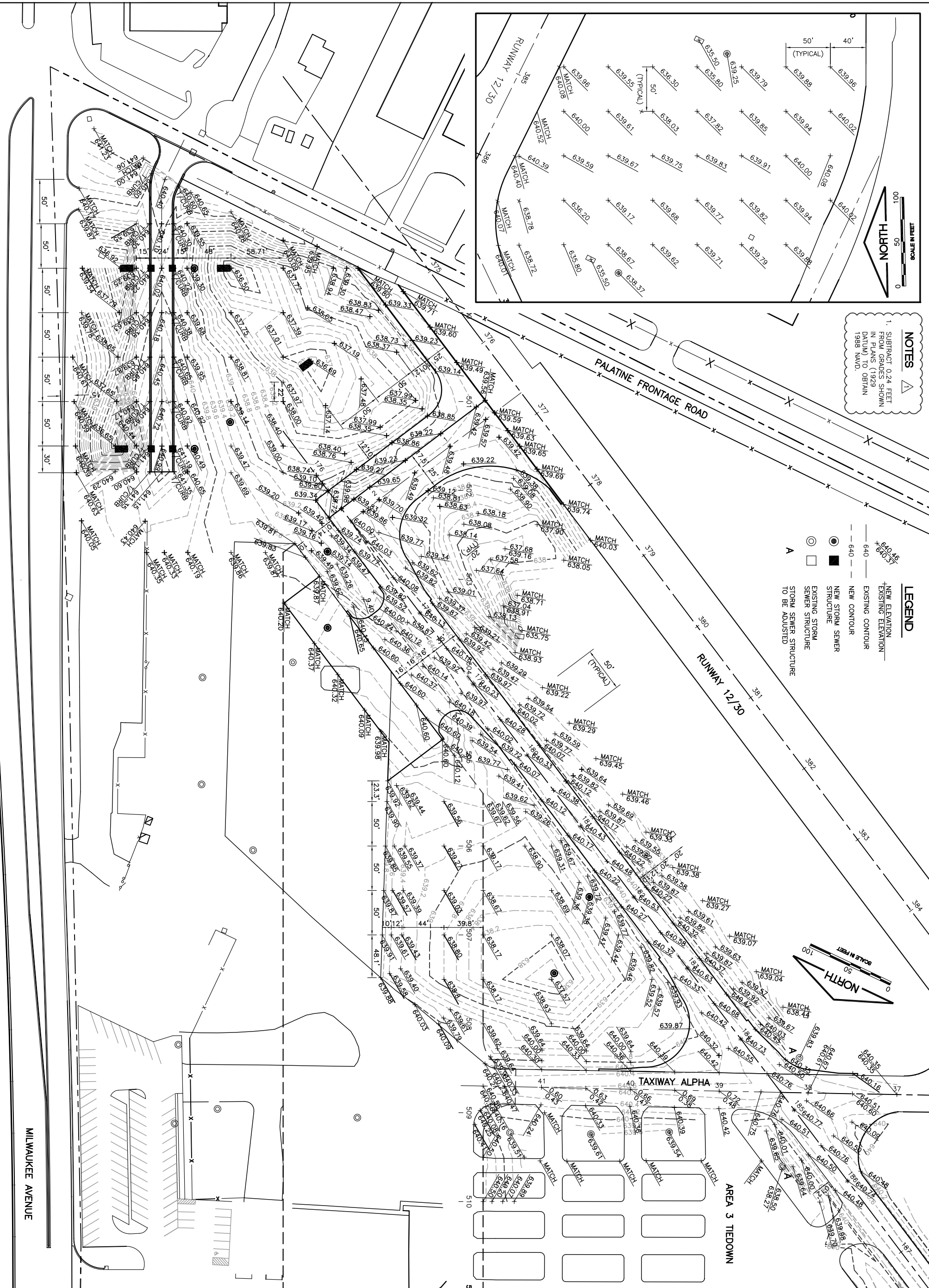
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APPROVED BY:	DLP
DATE:	04/22/11
JOB No.:	08290-08
ILLINOIS PROJECT: PWK-3244	
A.I.P. PROJECT: 3-17-0018-B32	

SHEET 17 OF 49 SHEETS



**NOTES**

1. SUBTRACT 0.24 FEET FROM GRADES SHOWN IN PLANS (1929 DATUM) TO OBTAIN 1988 NAVD.

**LEGEND**

- NEW ELEVATION
- EXISTING ELEVATION
- EXISTING CONTOUR
- NEW CONTOUR
- NEW STORM SEWER STRUCTURE
- EXISTING STORM SEWER STRUCTURE
- STORM SEWER STRUCTURE TO BE ADJUSTED

**NORTH**

SCALE IN FEET

0 50 100

K:\Chicago\exec\082908 for E\Draw Sheets\Drawn

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LAYOUT: layout1

UPDATE BY: mtkatz

SURVEY BOOK #

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REVISIONS		
NUMBER	BY	DATE
1	MLK	03/31/10

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AT FULL SCALE (34X22)

**CHICAGO EXECUTIVE AIRPORT**

**WHEELING/PROSPECT HEIGHTS, ILLINOIS**

**CONSTRUCT PARTIAL PARALLEL TAXIWAY ECHO AND PARTIAL OVERLAY OF TAXIWAY ECHO**

**GRADING PLAN**

**SHEET 2**

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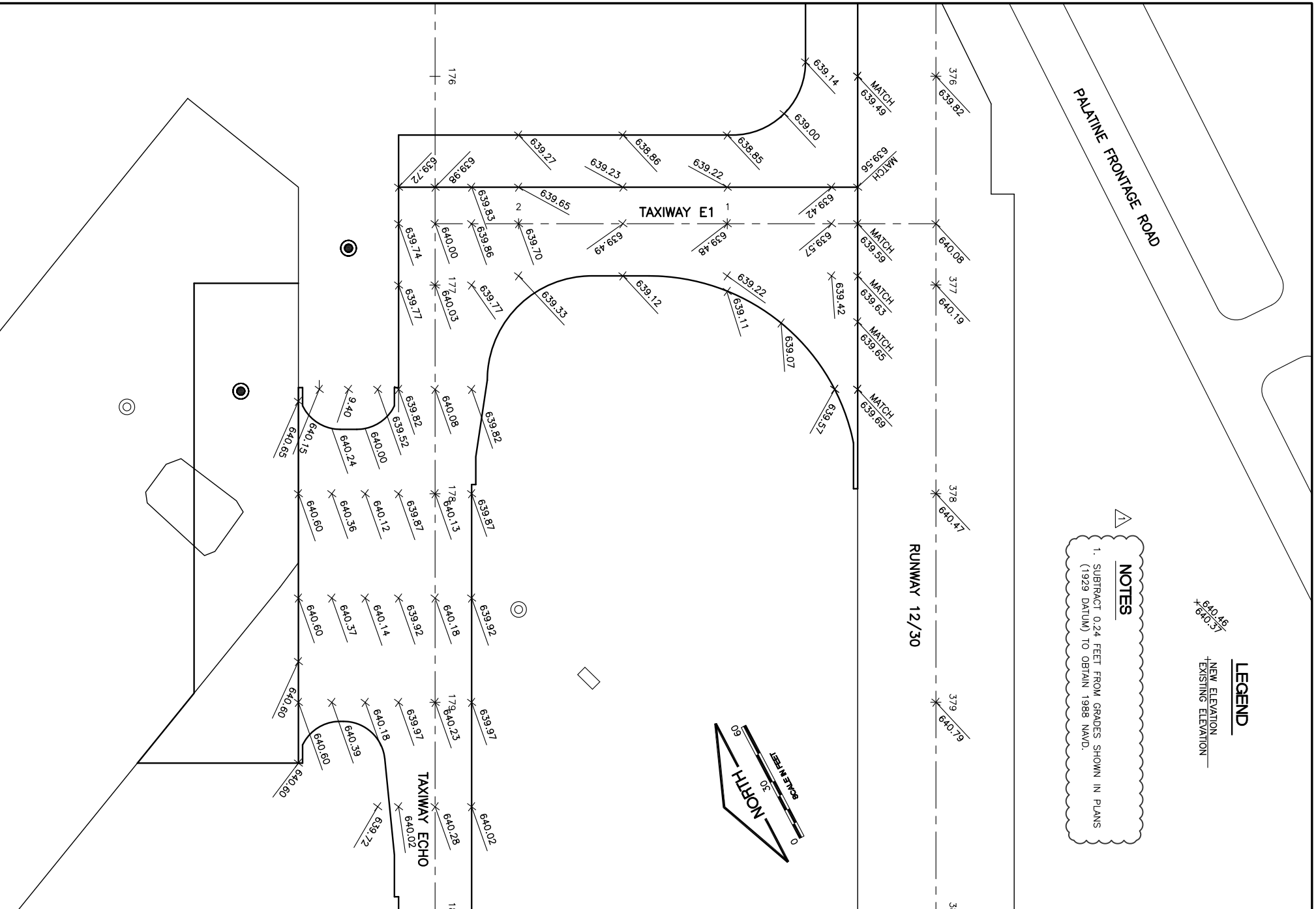
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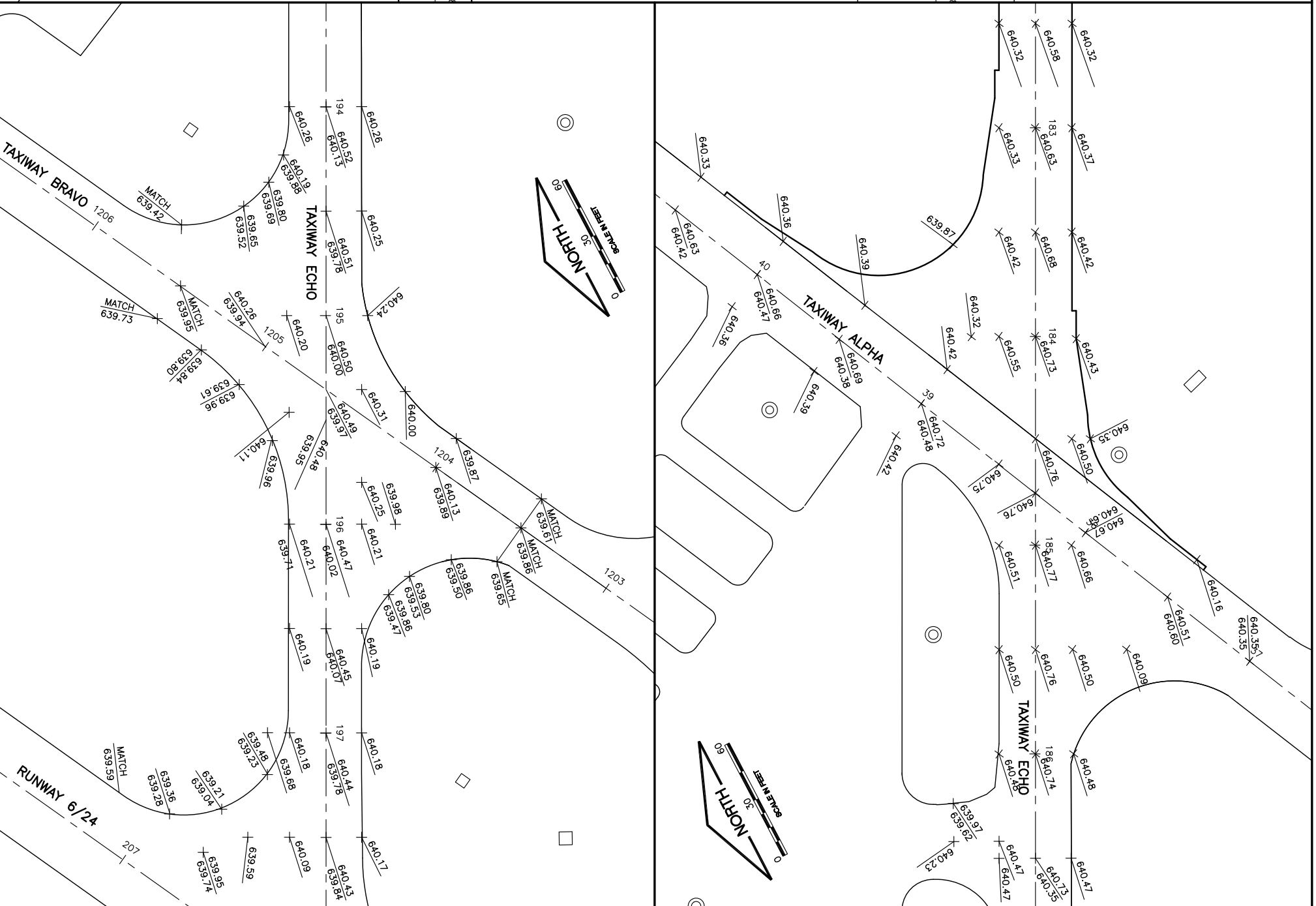
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APPROVED BY:	DLP
DATE:	04/22/11
JOB NO.:	08290-08
ILLINOIS PROJECT:	PWK-3244
A.P.P. PROJECT:	3-17-0018-B32





**LEGEND**  
 — NEW ELEVATION  
 - - - EXISTING ELEVATION

**NOTES**  
 1. SUBTRACT 0.24 FEET FROM GRADES SHOWN IN PLANS (1929 DATUM) TO OBTAIN 1988 NAD.



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REVISIONS		
NUMBER	BY	DATE
1	MLK	03/31/10

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

**CHICAGO EXECUTIVE AIRPORT  
 WHEELING/PROSPECT HEIGHTS, ILLINOIS  
 CONSTRUCT PARTIAL PARALLEL TAXIWAY ECHO AND  
 PARTIAL OVERLAY OF TAXIWAY ECHO**

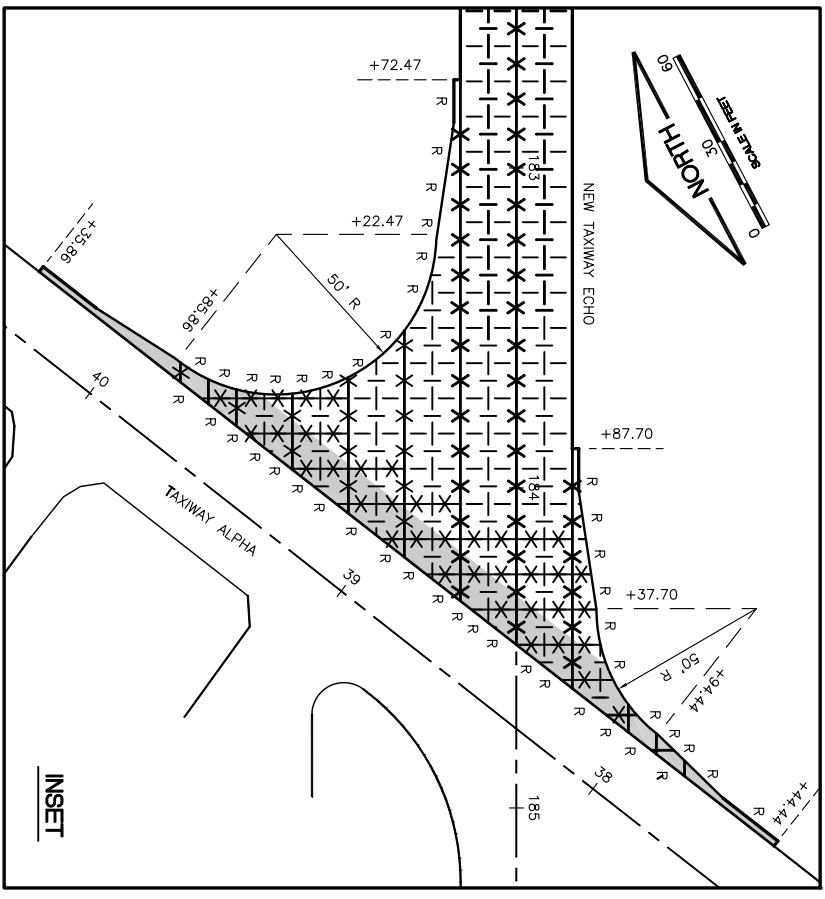
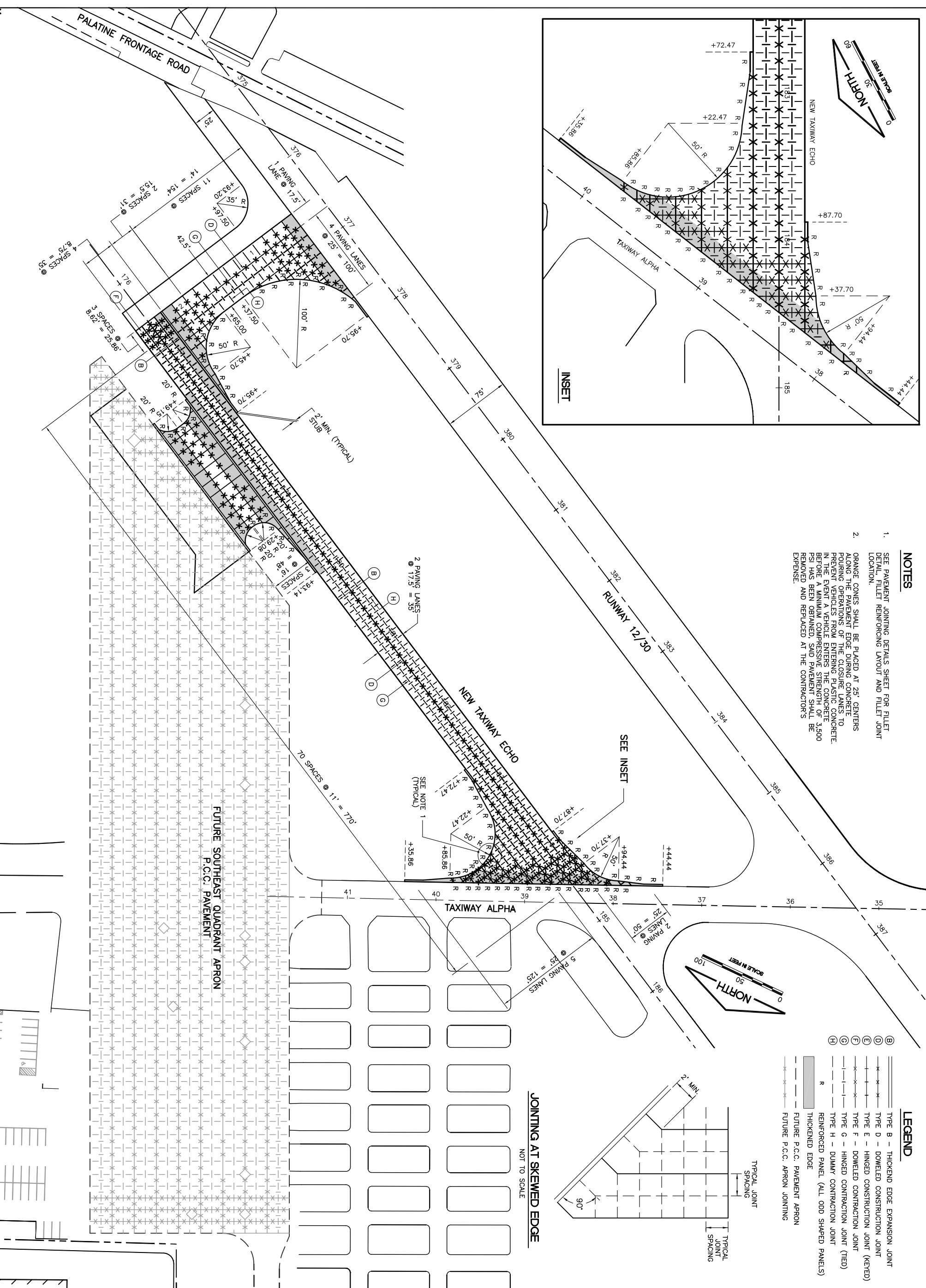
**INTERSECTION GRADE DETAILS**

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**CHICAGO EXECUTIVE AIRPORT**

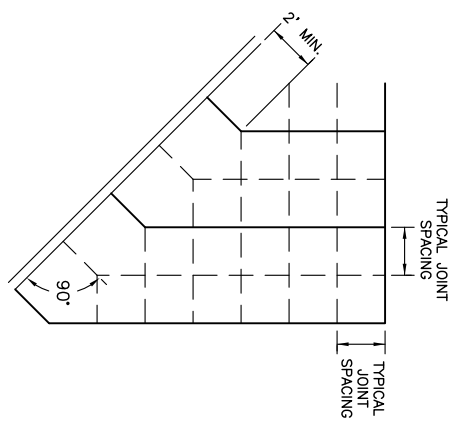
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JOB No.:	08290-08
ILLINOIS PROJECT: PWK-3244	
A.I.P. PROJECT: 3-17-0018-B32	
SHEET 19 OF 49 SHEETS	



- NOTES**
- SEE PAVEMENT JOINTING DETAILS SHEET FOR FILLET DETAIL, FILLET REINFORCING LAYOUT AND FILLET JOINT LOCATION.
  - ORANGE CONES SHALL BE PLACED AT 25' CENTERS ALONG THE PAVEMENT EDGE DURING CONCRETE POURING OPERATIONS OF THE CLOSURE LANES TO PREVENT VEHICLES FROM ENTERING PLASTIC CONCRETE. IN THE EVENT A VEHICLE ENTERS THE CONCRETE BEFORE THE MINIMUM COMPRESSIVE STRENGTH SHALL BE OBTAINED, THE CONTRACTOR SHALL REMOVE SAID PAVEMENT AND REINFORCEMENT SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.

- LEGEND**
- TYPE B - THICKEND EDGE EXPANSION JOINT
  - TYPE D - DOWELED CONSTRUCTION JOINT
  - TYPE E - HINGED CONSTRUCTION JOINT (KEYED)
  - TYPE F - DOWELED CONSTRUCTION JOINT
  - TYPE G - HINGED CONSTRUCTION JOINT (TIED)
  - TYPE H - DUMMY CONTRACTION JOINT
  - R - REINFORCED PANEL (ALL ODD SHAPED PANELS)
  - THICKENED EDGE
  - FUTURE P.C.C. PAVEMENT APRON
  - FUTURE P.C.C. APRON JOINTING

**JOINTING AT SKEWED EDGE**  
NOT TO SCALE



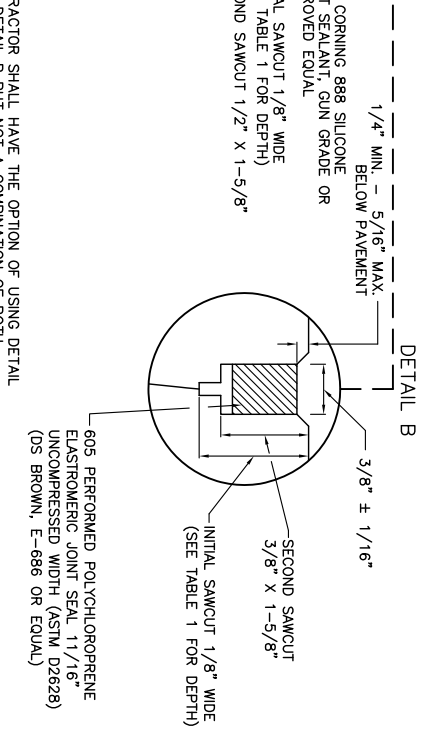
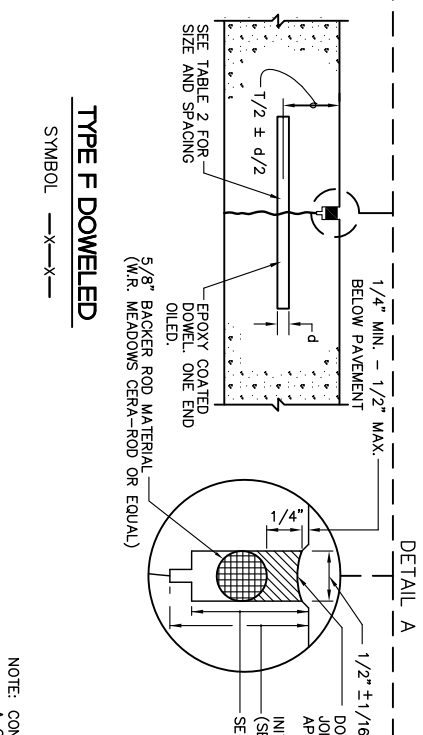
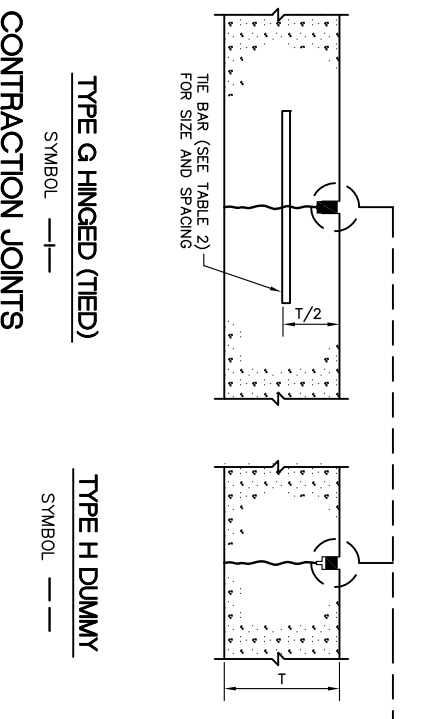
FUTURE SOUTHEAST QUADRANT APRON  
P.C.C. PAVEMENT

<p>DESIGN BY: MLK DRAWN BY: JRO CHECKED BY: MLK APPROVED BY: DLP DATE: 04/22/11 JOB No: 08290-08</p>	 <b>CMT</b> CRAWFORD, MURPHY & TILLY, INC. CONSULTING ENGINEERS License No. 184-000613  	<p><b>CHICAGO EXECUTIVE AIRPORT WHEELING/PROSPECT HEIGHTS, ILLINOIS CONSTRUCT PARTIAL PARALLEL TAXIWAY ECHO AND PARTIAL OVERLAY OF TAXIWAY ECHO</b></p> <p><b>PAVEMENT JOINTING PLAN</b></p>	<p>REVISIONS</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>NUMBER</th> <th>BY</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	NUMBER	BY	DATE			
NUMBER	BY	DATE							
<p>ILLINOIS PROJECT: PWK-3244 A.I.P. PROJECT: 3-17-0018-B32</p>		<p>0 1 2 THIS BAR IS EQUAL TO 2" AT FULL SCALE (34X22).</p>	<p>K:\Chicago\p0829008 by E:\New Sheets\Tomw FILE: lxy-joint.dwg LAYOUT: Layout1 UPDATE BY: mskatz SURVEY BOOK # DATE: Fri 4/1/11 9:12am XREF DWG: tb.dwg tblcn_lxy.dwg echo-base.dwg</p>						



**JOINT NOTES**

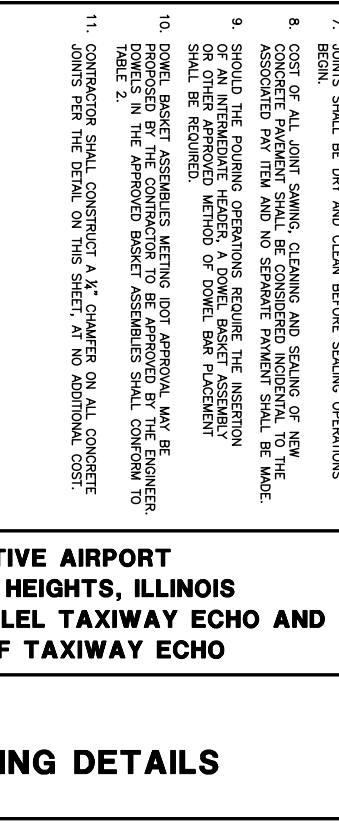
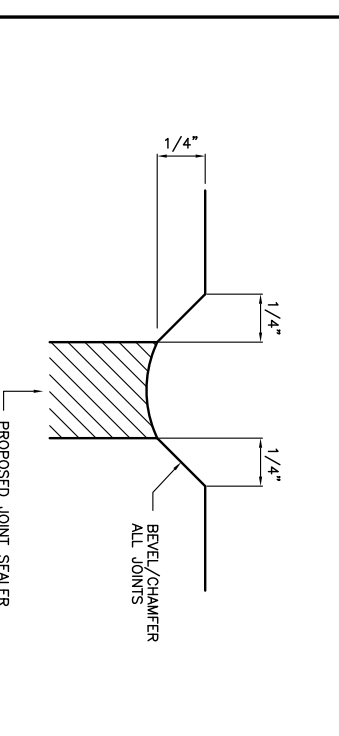
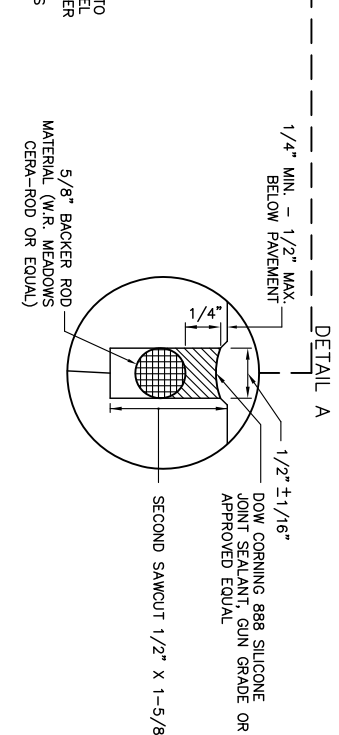
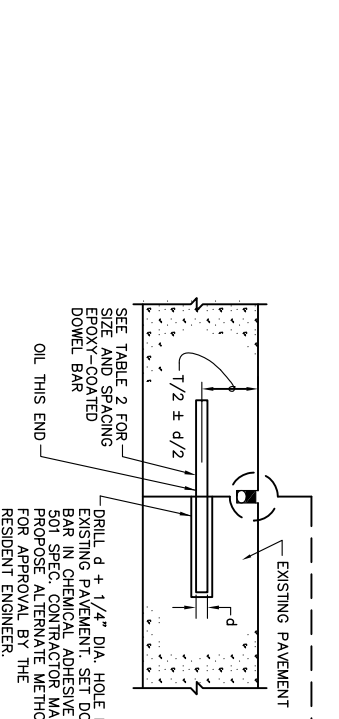
- ALL EDGES OF NEW SLABS, FREE STANDING OR CLOSURE, SHALL BE EDGED WITH AN APPROVED TOOL HAVING A RADIUS OF 1/8" TO 1/4" TO FACILITATE SAWING OF THE SEALANT RESERVOIR. A RADIUS > 1/4" WILL NOT BE ACCEPTABLE.
- THE INITIAL SAWCUT FOR ALL LONGITUDINAL AND TRANSVERSE CONTRACTION JOINTS SHALL BE SAWS AS SOON AS POSSIBLE AFTER CONSTRUCTION OF JOINTS ADJACENT TO THE THICKENED EDGES SHALL BE GIVEN PRIORITY OVER OTHER LONGITUDINAL JOINT SAWING.
- ALL DOWEL BARS SHALL BE SECURELY HELD IN PLACE BY MEANS OF 420L5 JOINTS OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, PAVEMENT LANS, THE DOWEL BAR ASSEMBLIES OR MECHANICAL METHOD SHALL BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.
- ALL THE BARS AND WESH SHALL BE SECURELY HELD IN PLACE BY SUPPORT PINS OR PLACED BY OTHER APPROVED METHODS TO PREVENT SLIPPING DURING AND AFTER CONCRETE PLACEMENT.
- THE BARS SHALL BE DEFORMED BARS IN CONFORMANCE WITH ASTM A615 OF ASTM A616, EXCEPT THAT RAIL STEEL BARS, GRADE 50 OR 60 SHALL NOT BE USED FOR THE BARS THAT ARE TO BE BENT OR RESTRAIGHTEND DURING CONSTRUCTION. THE BARS DESIGNATED AS GRADE 40 IN ASTM A615 CAN BE USED FOR CONSTRUCTION REBAR/DOWEL BARS.
- THE INITIAL SAWCUT SHALL BE MADE TO THE 1/8" WIDTH INDICATED. INITIAL SAWING TO THE DIMENSION OF THE SECOND SAWCUT WILL NOT BE ALLOWED.
- JOINTS SHALL BE DRY AND CLEAN BEFORE SEALING OPERATIONS BEGIN.
- COST OF ALL JOINT SAWING, CLEANING AND SEALING OF NEW CONCRETE PAVEMENT SHALL BE CONSIDERED INCIDENTAL TO THE ASSOCIATED PAY ITEM AND NO SEPARATE PAYMENT SHALL BE MADE.
- SHOULD THE POURING OPERATIONS REQUIRE THE INSERTION OF AN INTERMEDIATE HEADER, A DOWEL BASKET ASSEMBLY SHALL BE REQUIRED.
- DOWEL BASKET ASSEMBLIES MEETING DOT APPROVAL, MAY BE PROPOSED BY THE CONTRACTOR TO BE APPROVED BY THE ENGINEER, DOWELS IN THE APPROVED BASKET ASSEMBLIES SHALL CONFORM TO TABLE 2.
- CONTRACTOR SHALL CONSTRUCT A 3/4" CHAMFER ON ALL CONCRETE JOINTS PER THE DETAIL ON THIS SHEET, AT NO ADDITIONAL COST.



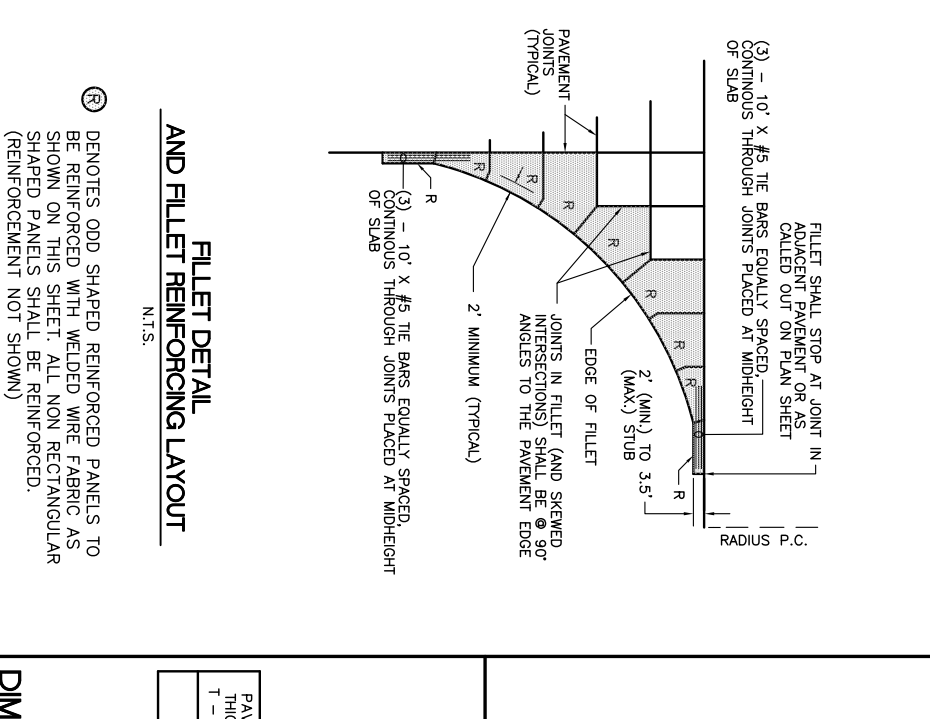
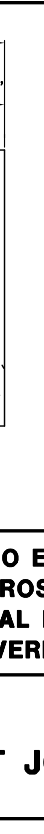
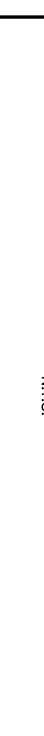
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 THIS BAR IS EQUAL TO 2" AT FULL SCALE (34x22).



**CONSTRUCTION JOINTS**

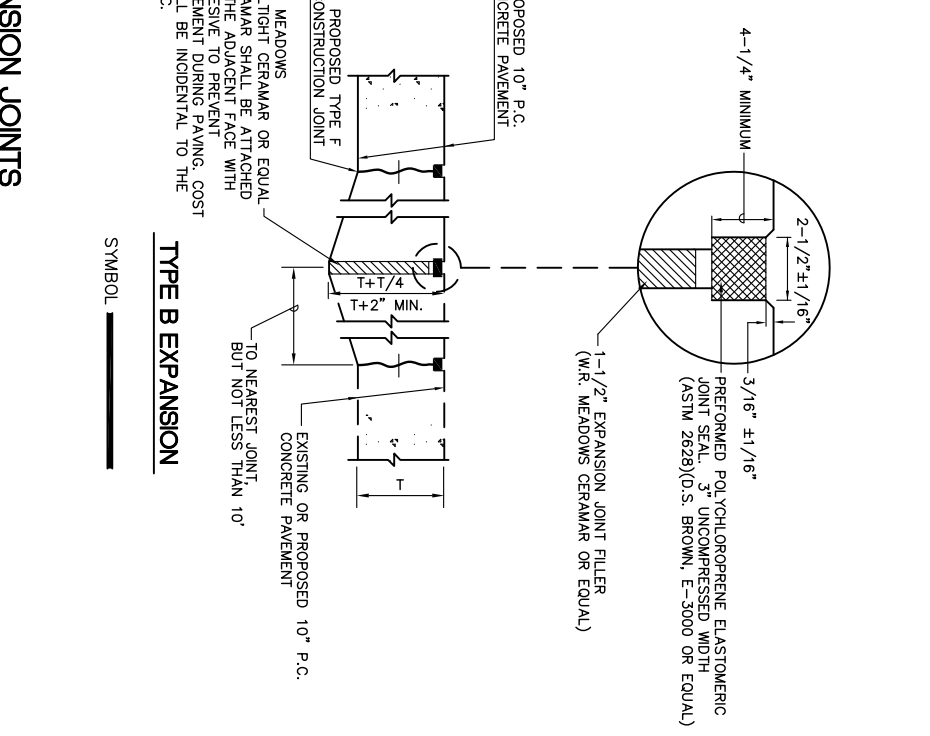


**TABLE 1**

PAVEMENT THICKNESS T - INCHES	DEPTH OF CONTRACTION JOINT INITIAL SAW CUT T INCHES	2.5"
10	2.5"	

**TABLE 2**

PAVEMENT THICKNESS T - INCHES	DOWEL BAR DETAILS	TIE BAR DETAILS	SPACING		
T - INCHES	DIA. (d)	LENGTH	BAR SIZE	LENGTH	SPACING
10	1"	19"	#5	30"	30"



**CHICAGO EXECUTIVE AIRPORT**  
**WHEELING/PROSPECT HEIGHTS, ILLINOIS**  
**CONSTRUCT PARTIAL PARALLEL TAXIWAY ECHO AND PARTIAL OVERLAY OF TAXIWAY ECHO**

**PAVEMENT JOINTING DETAILS**

DESIGN BY: MLK  
 DRAWN BY: JRO  
 CHECKED BY: MLK  
 APPROVED BY: DLP  
 DATE: 04/22/11  
 JOB No: 08290-08  
 ILLINOIS PROJECT: PWK-3244  
 A.I.P. PROJECT: 3-17-0018-B32

SHEET 21 OF 49 SHEETS

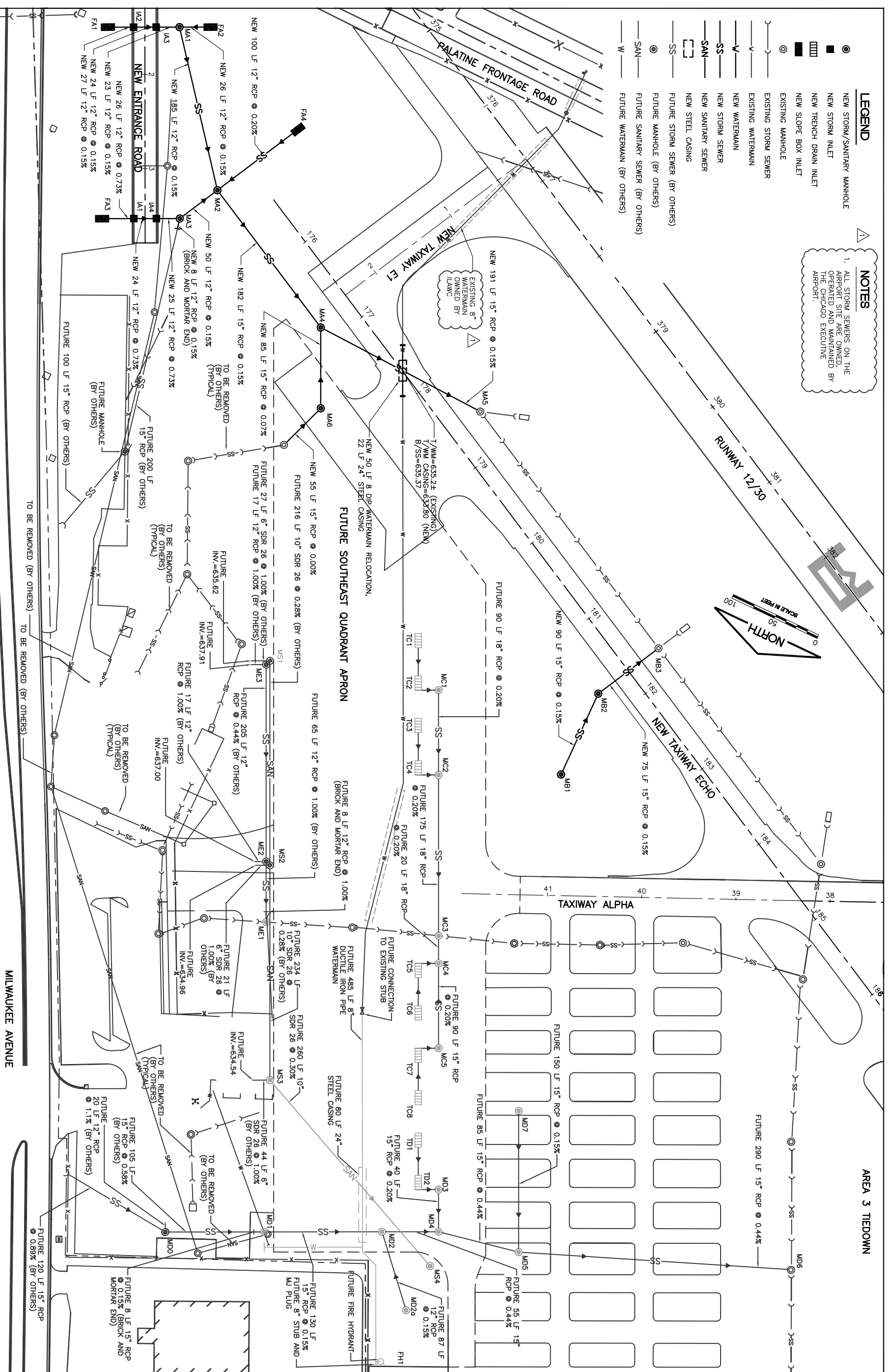
**LEGEND**

- NEW STORM/SANITARY MANHOLE
- NEW STORM INLET
- ▣ NEW TRENCH DRAIN INLET
- ▤ NEW SLOPE BOX INLET
- EXISTING MANHOLE
- EXISTING STORM SEWER
- EXISTING WATERMAIN
- NEW WATERMAIN
- NEW STORM SEWER
- NEW SANITARY SEWER
- NEW STEEL CASING
- SS FUTURE STORM SEWER (BY OTHERS)
- ○ FUTURE MANHOLE (BY OTHERS)
- ○ FUTURE SANITARY SEWER (BY OTHERS)
- W FUTURE WATERMAIN (BY OTHERS)

**NOTES**

1. ALL STORM SEWERS ON THE AIRPORT SITE ARE OWNED, OPERATED AND MAINTAINED BY THE CHICAGO EXECUTIVE AIRPORT.

**AREA 3 TIEDOWN**



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NUMBER	BY	DATE
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**CHICAGO EXECUTIVE AIRPORT  
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 CONSTRUCT PARTIAL PARALLEL TAXIWAY ECHO AND  
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**DRAINAGE/UTILITY PLAN**

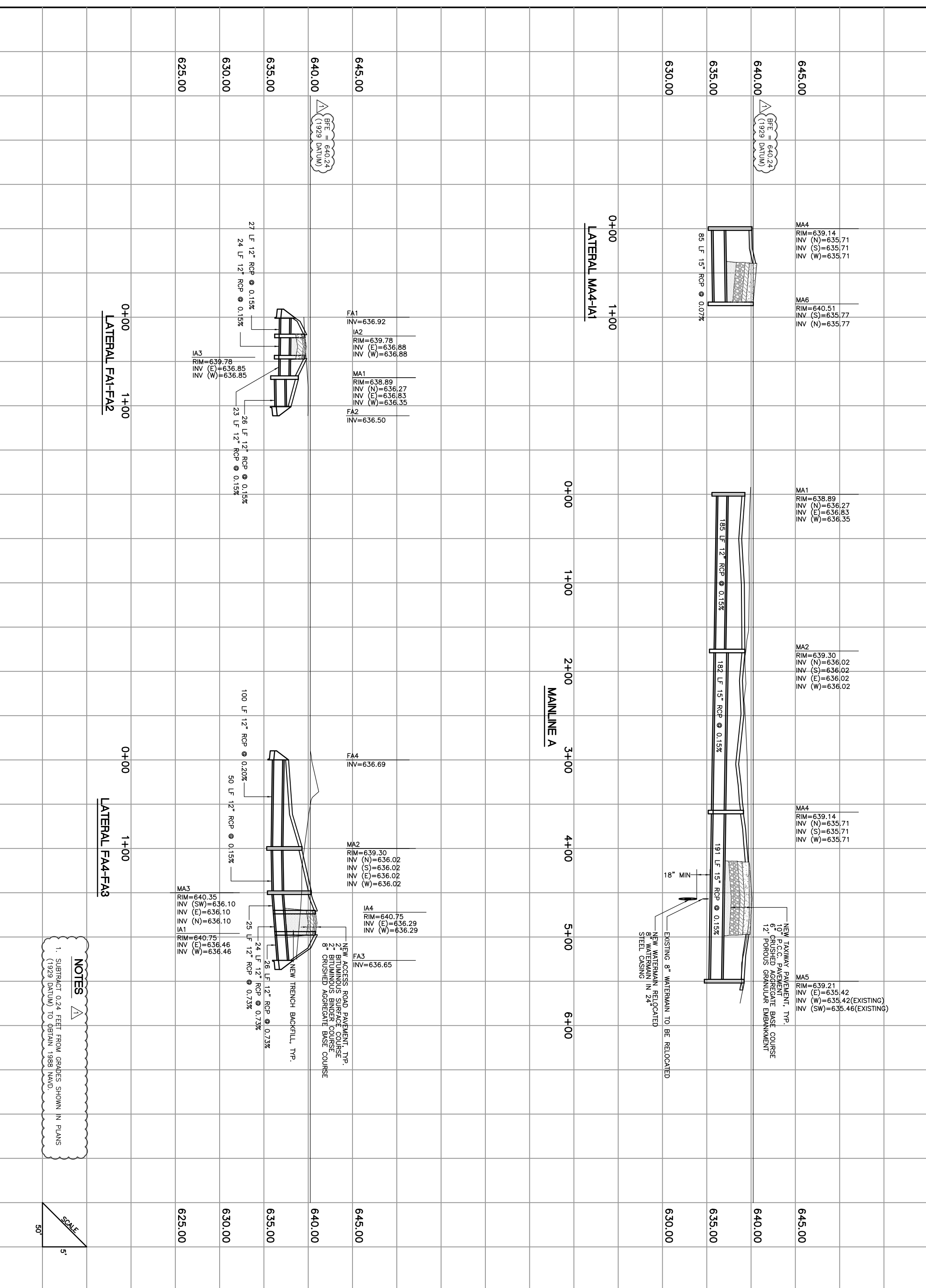
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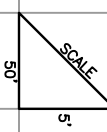
NEW TAXIWAY PAVEMENT, TYP.  
 6" PORTLAND CEMENT CONCRETE BASE COURSE  
 12" POROUS GRANULAR EMBANKMENT

EXISTING 8" WATERMAIN TO BE RELOCATED  
 NEW WATERMAIN RELOCATED  
 8" WATERMAIN IN 24"  
 STEEL CASING

NEW ACCESS ROAD PAVEMENT, TYP.  
 2" BITUMINOUS SURFACE COURSE  
 4" CRUSHED AGGREGATE BASE COURSE

NEW TRENCH BACKFILL, TYP.  
 24 LF 12" RCP @ 0.73%  
 26 LF 12" RCP @ 0.73%  
 25 LF 12" RCP @ 0.73%

**NOTES**  
 1. SUBTRACT 0.24 FEET FROM GRADES SHOWN IN PLANS (1929 DATUM) TO OBTAIN 1988 NAVD.



NUMBER	BY	DATE
1	MLK	03/31/10

REVISIONS

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

**CHICAGO EXECUTIVE AIRPORT  
 WHEELING/PROSPECT HEIGHTS, ILLINOIS  
 CONSTRUCT PARTIAL PARALLEL TAXIWAY ECHO AND  
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**STORM SEWER AND WATERMAIN PROFILES**

**SHEET 1**

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SHEET	23 OF 49 SHEETS

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**STORM SEWER AND WATERMAIN PROFILES**

**SHEET 2**

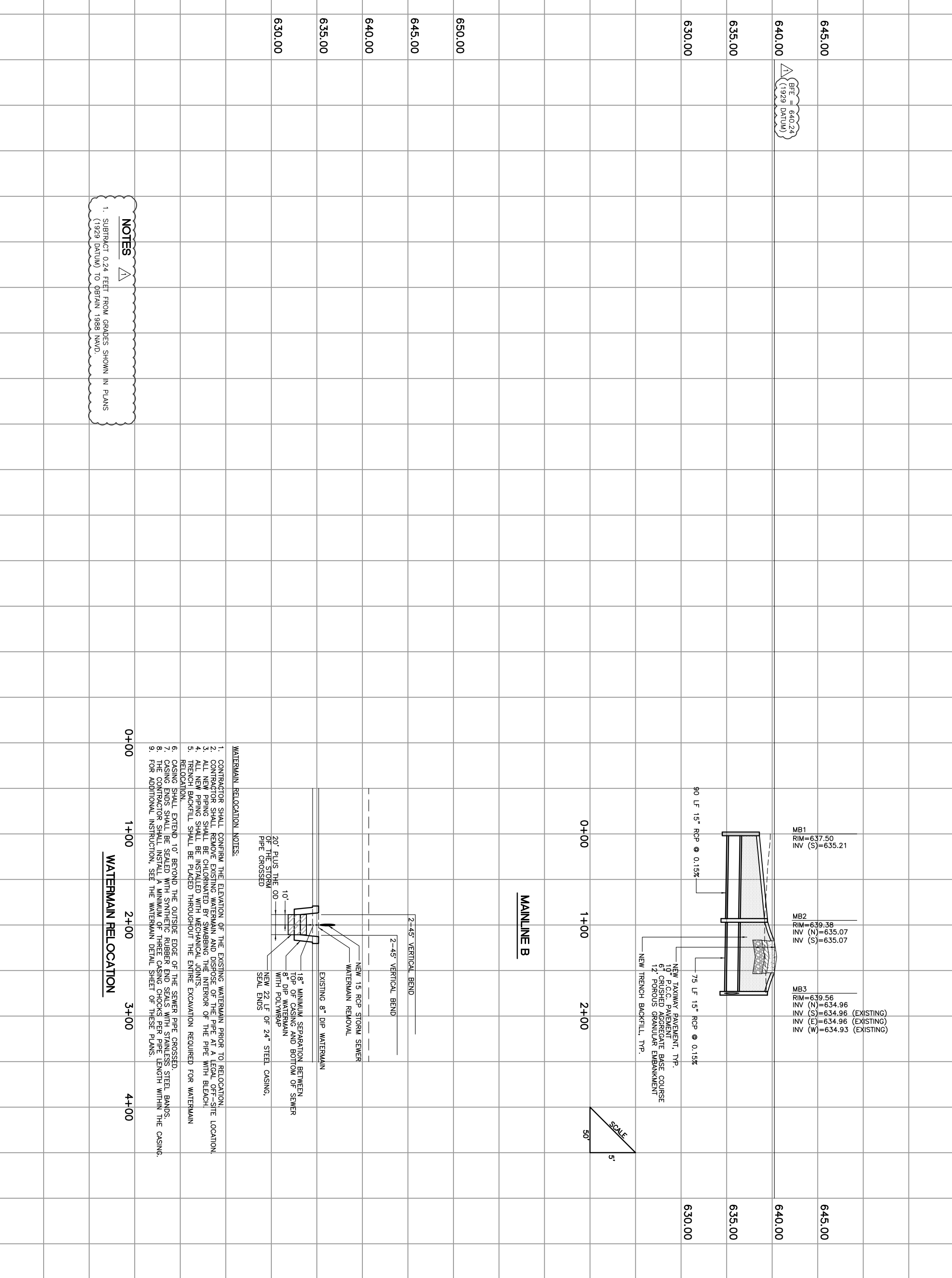
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ILLINOIS PROJECT: PWK-3244  
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 SHEET 24 OF 49 SHEETS





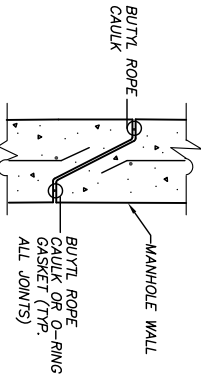
**PROPOSED DRAINAGE/UTILITY SCHEDULE**

STRUCTURE NUMBER	LOCATION	DESCRIPTION	* RIM ELEVATION	INVERT (NORTH)	INVERT (SOUTH)	INVERT (EAST)	INVERT (WEST)
FA1	1+50.0, 39.5' RT. @ ACCESS ROAD	SLOPE BOX INLET 12"	636.92				
IA1	3+53.0, 13.0' RT. @ ACCESS ROAD	INLETS, TYPE B, TYPE 11 FRAME AND GRATE	640.75			636.46	636.46
IA2	1+50.0, 13.0' RT. @ ACCESS ROAD	INLETS, TYPE B, TYPE 11 FRAME AND GRATE	639.78			636.88	636.88
IA3	1+50.0, 13.0' LT. @ ACCESS ROAD	INLETS, TYPE B, TYPE 11 FRAME AND GRATE	639.78			636.85	636.85
IA4	3+53.0, 13.0' LT. @ ACCESS ROAD	INLETS, TYPE B, TYPE 11 FRAME AND GRATE	640.75			636.29	636.29
FA2	1+50.0, 69.7' LT. @ ACCESS ROAD	SLOPE BOX INLET 12"	636.50				
MA1	1+50.0, 37.0' LT. @ ACCESS ROAD	MANHOLE 4', W/TYPE 1 FRAME AND OPEN LID	636.89	636.27		636.83	636.35
MA2	3+53.0, 76.7' LT. @ ACCESS ROAD	MANHOLE 4', W/TYPE 1 FRAME AND OPEN LID	639.30	636.02		636.02	636.02
FA3	3+53.0, 45.6' RT. @ ACCESS ROAD	SLOPE BOX INLET 12"	636.65				
FA4	1+74.5, 170.7' RT. @ ECHO 1	SLOPE BOX INLET 12"	636.69				
MA3	3+53.0, 37.0' LT. @ ACCESS ROAD	MANHOLE 4', W/TYPE 1 FRAME AND OPEN LID	640.35	636.10	636.10 (SW)	636.10	
MA4	176+82.3, 41.5' RT. @ ECHO	MANHOLE 4', W/TYPE 1 FRAME AND OPEN LID	639.14	635.71		635.71	635.71
MA5	176+55.5, 40.0' LT. @ ECHO	EXISTING MANHOLE	639.21		635.46 (SW) EXISTING	635.42	635.42
MA6	177+51.0, 93.1' RT. @ ECHO	MANHOLE 4', W/TYPE 1 FRAME AND OPEN LID	640.51	635.77		635.77	635.42
MB1	182+14.7, 123.2' RT. @ ECHO	MANHOLE 4', W/TYPE 8 GRATE	637.50			635.21	
MB2	181+70.0, 40.0' RT. @ ECHO	MANHOLE 4', W/TYPE 1 FRAME AND OPEN LID	639.38	635.07	635.07	634.96	634.93
MB3	181+70.0, 40.0' LT. @ ECHO	EXISTING MANHOLE	639.56	634.96	634.96 EXISTING	634.96	634.93

NOTE: THE STATION AND OFFSET IS MEASURED TO THE CENTER OF THE STRUCTURE. \* ALL ELEVATIONS IN 1929 DATUM.

**STORM SEWER/UNDERDRAIN NOTES**

- CONTRACTOR SHALL FIELD VERIFY EXISTING STORM SEWER/UNDERDRAIN INVERTS BEFORE INSTALLING PROPOSED PIPE, CONNECTIONS AND ORDERING MATERIALS.
- ALL UNDERDRAIN CONNECTIONS, CORING INTO STRUCTURES, TEES, BENDS, STORM SEWER ETC. SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE UNDERDRAIN.
- UNDERDRAIN SLOPES FOLLOW EDGE OF PAVEMENT SLOPE UNLESS OTHERWISE NOTED.
- INSTALL PROPOSED ELECTRICAL DUCTS/CONDUITS TO BE CLEAR OF UNDERDRAIN, COST INCIDENTAL.
- UNDERDRAIN CONFLICTS WITH EXISTING CONDITIONS SHALL BE RESOLVED AND COST SHALL BE INCIDENTAL TO UNDERDRAIN.
- PRIOR TO ORDERING AND INSTALLING ALL FIELD TILE REPLACEMENT PIPE, THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION AND INVERTS OF EXISTING FIELD TILE CONNECTIONS. ADJUSTMENTS SHALL BE MADE AS NECESSARY AT NO ADDITIONAL COST TO THE CONTRACT.
- CORING OF DRAINAGE STRUCTURE AND REMOVAL OF EXISTING STORM SEWER MANHOLE/INLET CONCRETE BENCHES TO FACILITATE CONNECTIONS OF PROPOSED STORM SEWER PIPE SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE PIPE.
- ALL WORK TO BE PERFORMED IN ACCORDANCE WITH CITY CODES, ORDINANCES AND PRACTICES.
- ALL CONTRACTORS AND SUBCONTRACTORS TO BE REGISTERED WITH THE CITY OF PROSPECT HEIGHTS.
- ANY EXISTING FIELD TILE HIT DURING CONSTRUCTION SHALL BE RECONNECTED AT NO ADDITIONAL COST TO THE CONTRACT. IN THE EVENT THAT FIELD TILES ARE ENCOUNTERED DURING CONSTRUCTION, THEY SHALL BE SHOWN ON AS-BUILT PLANS.
- SUBTRACT 0.24 FEET FROM ELEVATIONS SHOWN ON PLANS (1929 DATUM) TO OBTAIN 1988 NAVD.
- THE CONTRACTOR SHALL NOTIFY THE CITY OF PROSPECT HEIGHTS (847.398.6700) A MINIMUM OF 48 HOURS PRIOR TO ANY STORM SEWER INSTALLATION.
- ALL STORM SEWERS ON THE AIRPORT SITE ARE OWNED, OPERATED AND MAINTAINED BY THE CHICAGO EXECUTIVE AIRPORT.

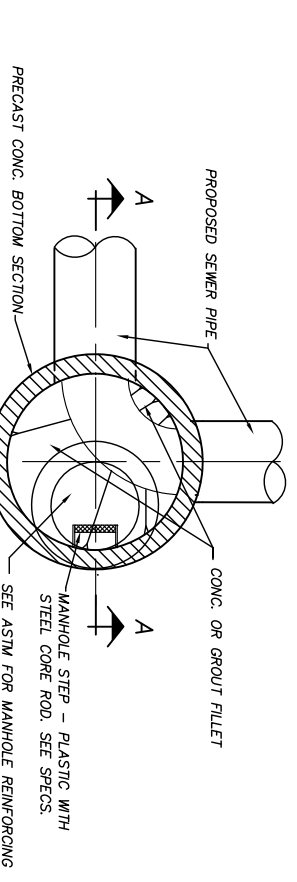


NOTE: ADDITIONAL REQUIREMENTS FOR CONCRETE MANHOLE CASTINGS, AND RESILIENT SEAL AROUND PIPE ARE IN THE SPECIFICATIONS. FOR CONNECTING EXISTING SEWERS TO PROPOSED MANHOLES, SEE SPECIFICATIONS.

NOTE: CONG. SUPPORT FOR AN UNDERCUT SEWER TO BE USED ONLY WHERE REQ'D. BY THE ENG. AND SHALL BE PAID FOR PER CU.YD. UNDER CONG. CRADLE OR ENCASEMENT BUILT. IF CONG. SUPPORT IS NOT REQ'D. SELECTED GRANULAR CRADLE SHALL EXTEND TO TOP OF ENSTL. SEWER.

MANHOLE TYPE	INSIDE DIA.	MIN. WALL THICKNESS
A-4	4'-0"	5"
A-5	5'-0"	6"
A-6	6'-0"	7"

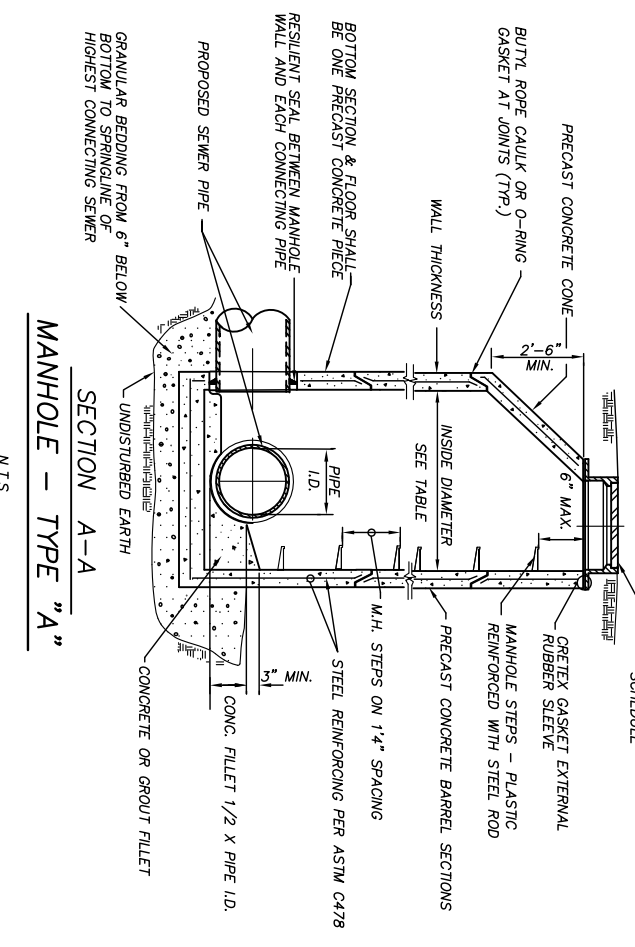
**TYP. MANHOLE WALL JOINT**



NOTE: INVERT FLOWLINE AT BENDS SHALL HAVE A RADIUS EQUAL TO OR LARGER THAN THE PIPE DIAMETER.

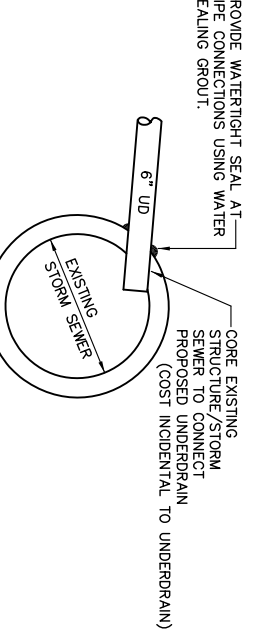
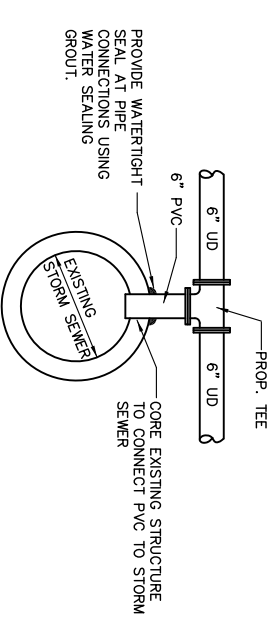
**PLAN**

N.T.S.



**MANHOLE - TYPE "A"**

N.T.S.

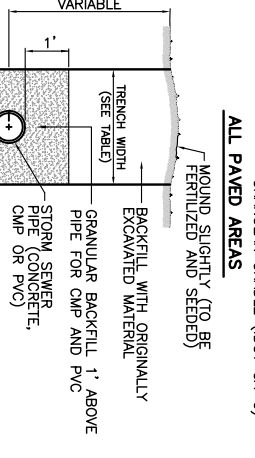
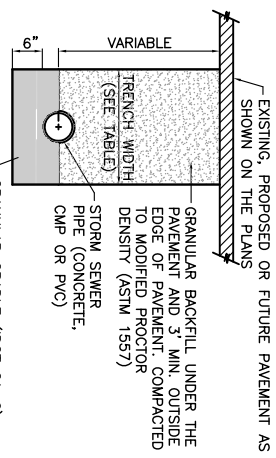


UNDERDRAIN CONNECTIONS AND FITTINGS, TEES AND ELBOWS USED FOR CONNECTIONS TO PROPOSED STRUCTURES AND STORM SEWERS / EXISTING STRUCTURES SHALL BE CONSIDERED INCIDENTAL TO THE PROPOSED UNDERDRAIN.

**UNDERDRAIN CONNECTION DETAILS**

NOT TO SCALE

INSIDE DIAMETER OF STORM SEWER (INCHES)	MAXIMUM TRENCH WIDTH	MAXIMUM PAVEMENT REMOVAL WIDTH
6	3'-7"	5'-7"
8	3'-9"	5'-9"
12	4'-2"	6'-2"
15	4'-6"	6'-6"
18	4'-9"	6'-9"
21	5'-0"	7'-0"
24	5'-4"	7'-4"
27	5'-7"	7'-7"
30	5'-11"	7'-11"
36	6'-6"	8'-6"
42	7'-1"	9'-1"
48	7'-8"	9'-8"
54	8'-3"	10'-3"
60	8'-10"	10'-10"
66	9'-5"	11'-5"
72	10'-0"	12'-0"
78	10'-7"	12'-7"
84	11'-2"	13'-2"
90	11'-9"	13'-9"
96	12'-4"	14'-4"
102	12'-11"	14'-11"
108	13'-6"	15'-6"

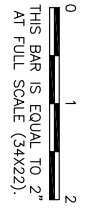


**TRENCH DETAILS**

NOT TO SCALE

**CHICAGO EXECUTIVE AIRPORT  
WHEELING/PROSPECT HEIGHTS, ILLINOIS  
CONSTRUCT PARTIAL PARALLEL TAXIWAY ECHO AND  
PARTIAL OVERLAY OF TAXIWAY ECHO**

**DRAINAGE/UTILITY SCHEDULE  
AND DRAINAGE DETAILS**



**REVISIONS**

NUMBER	BY	DATE
1	MLK	03/31/10

PATH: K:\0329702\Drawn Sheets\  
FILE: 1xy-utility-schedule.dwg  
UPDATE BY: jphse  
SURFLET BOOK #  
XREF DWG:  
DATE: Sun 3/28/04 9:02am

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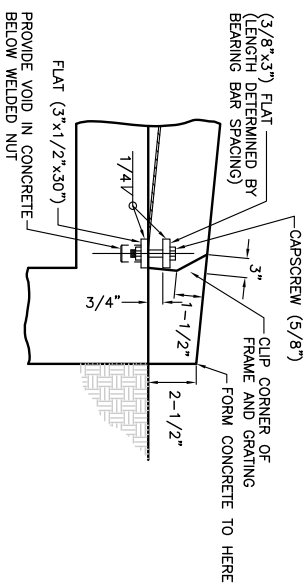
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**CHICAGO EXECUTIVE AIRPORT**

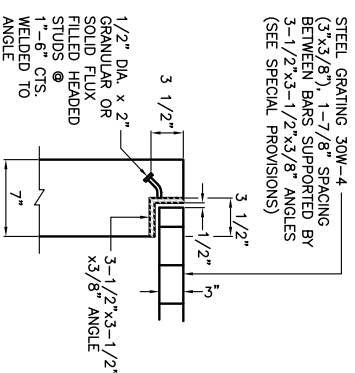
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DRAWN BY: MAW  
CHECKED BY: MLK  
APPROVED BY: DLP

DATE: 04/22/11  
JOB No: 08290-08  
ILLINOIS PROJECT: PWK-3244  
A.I.P. PROJECT: 3-17-0018-B32

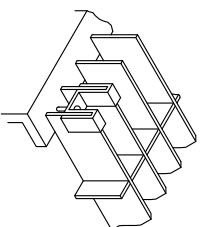
SHEET 25 OF 49 SHEETS



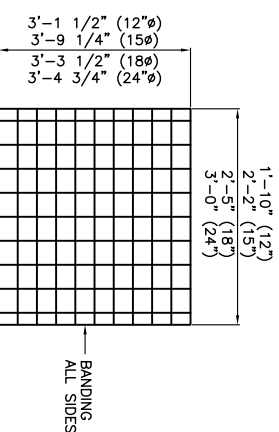
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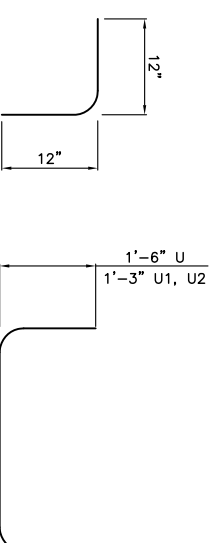
**SECTION-B**  
NO SCALE



**SADDLE CLIP**  
NO SCALE



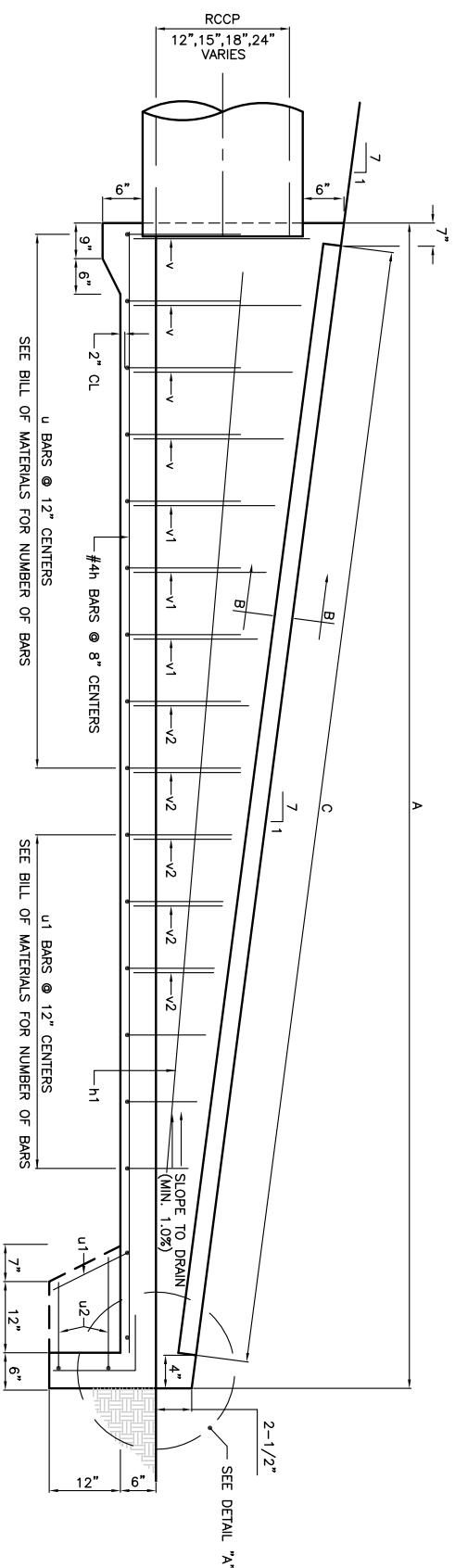
**GRATING DETAILS - PLAN VIEW**  
NO SCALE



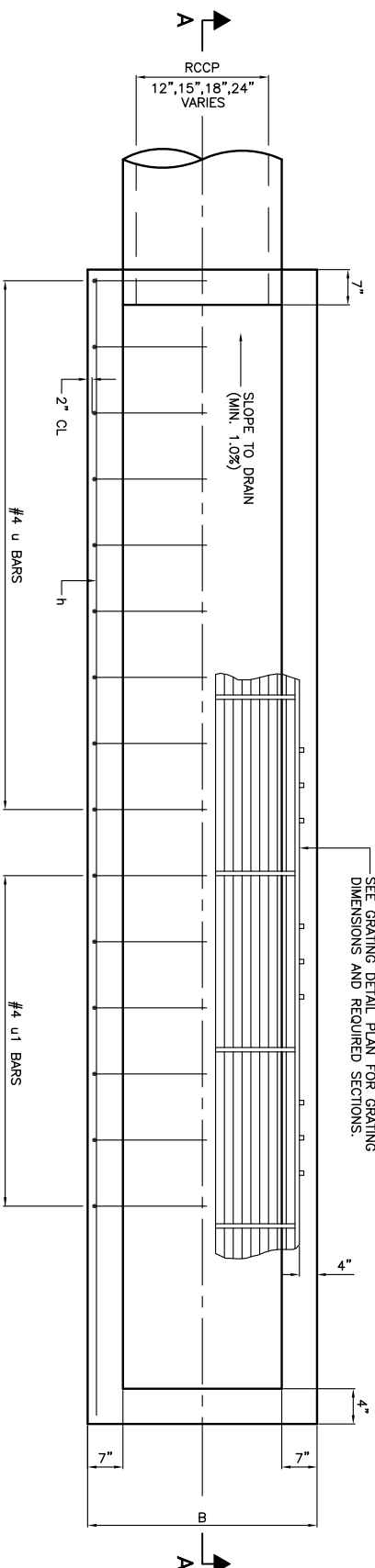
**BAR L**  
NO SCALE

**BAR U, U1 AND U2**  
NO SCALE

**BILL OF MATERIALS**  
INLET BOX



**SECTION A-A**  
NO SCALE



**PLAN**  
NO SCALE

TYPE	BAR	QUANTITY	SIZE	LENGTH
12"	h	4	#4	9'-11"
15"	h	4	#4	11'-7"
18"	h	6	#4	13'-8"
24"	h	6	#4	17'-6"
12"	h1	2	#4	8'-0"
15"	h1	2	#4	10'-0"
18"	h1	2	#4	12'-0"
24"	h1	2	#4	15'-0"
12"	L	4	#4	2'-0"
15"	L	4	#4	2'-0"
18"	L	4	#4	2'-0"
24"	L	4	#4	2'-0"
12"	U	4	#4	5'-2"
15"	U	6	#4	5'-6"
18"	U	8	#4	5'-9"
24"	U	12	#4	6'-4"
12"	U1	4	#4	4'-8"
15"	U1	3	#4	5'-0"
18"	U1	4	#4	5'-3"
24"	U1	4	#4	5'-10"
12"	U2	2	#4	4'-8"
15"	U2	2	#4	5'-0"
18"	U2	2	#4	5'-3"
24"	U2	2	#4	5'-10"
12"	V	4	#4	1'-4"
15"	V	4	#4	1'-8"
18"	V	6	#4	1'-10"
24"	V	6	#4	2'-5"
12"	V1	-	#4	-
15"	V1	4	#4	1'-4"
18"	V1	6	#4	1'-5"
24"	V1	6	#4	2'-0"
12"	V2	-	#4	-
15"	V2	-	#4	-
18"	V2	-	#4	-
24"	V2	8	#4	1'-6"
CONCRETE STRUCTURES				
12"			CU.YD.	2
15"			CU.YD.	2
18"			CU.YD.	3
24"			CU.YD.	3
REINFORCEMENT BARS				
12"			POUND	85
15"			POUND	100
18"			POUND	145
24"			POUND	200
GRATING				
12"			SQ.FT.	18
15"			SQ.FT.	25
18"			SQ.FT.	32
24"			SQ.FT.	51

**TABLE OF DIMENSIONS**

DIMENSION	12"	15"	18"	24"
A	10'-3"	12'-1"	14'-0"	17'-10"
B	2'-6"	2'-10"	2'-8"	2'-8"
C	9'-5"	1'-4"	13'-3"	17'-1"

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 FILE: lxy - slope - box - dtl.dwg  
 LAYOUT: Layout1  
 UPDATE BY: mikatz  
 SURVEY BOOK #  
 DATE: Fri 4/1/11 9:16am  
 XREF DWG: tb.dwg  
 tb.dwg  
 tb.dwg  
 tb.dwg  
 lxy.dwg

**REVISIONS**

NUMBER	BY	DATE

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

**CHICAGO EXECUTIVE AIRPORT  
 WHEELING/PROSPECT HEIGHTS, ILLINOIS  
 CONSTRUCT PARTIAL PARALLEL TAXIWAY ECHO AND  
 PARTIAL OVERLAY OF TAXIWAY ECHO**

**SLOPE BOX INLET DETAILS**

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DESIGN BY: ATI

DRAWN BY: MIW

CHECKED BY: MLK

APPROVED BY: DLP

DATE: 04/22/11

JOB No: 08290-08

ILLINOIS PROJECT: PWK-3244

A.I.P. PROJECT: 3-17-0018-B32

SHEET 26 OF 49 SHEETS



**MATERIALS SPECIFICATIONS FOR WATER DISTRIBUTION**

**1. Pipe Material for Water Mains**

Water mains shall be constructed of ductile iron pipe, Class 52 (AWMA-C15) with cement mortar lining and seal coating (AWMA-C104).

The joints shall be rubber gasket push-on or mechanical (AWMA-C111). Water main fittings shall be of ductile iron with cement mortar lining and seal coating with mechanical joints and shall conform to (AWMA-C110).

All pipe and fittings shall be manufactured in the United States unless prior approval is received from Illinois American.

**2. Fire Hydrants**

Fire hydrants shall be either American Flow Control "Waterous Paper" model #B-67-250 or East Jordan Iron Works, Inc. "Watermaster" model 58R, open with pressure in a counter-clockwise direction with rising stem, and meet or exceed AWMA specification C-502.

Threads for fire hydrants in all properties shall be National Standard, with the exception of the Morland property where City of Chicago Standard is used. Hydrant is to have one 1/2" pumpout port and two 2 1/2" hose ports. Hydrant length shall be supplied to provide a minimum of 4.5 feet of cover over the top of the water main.

All fire hydrants are to be supplied painted on the exterior with two coats of "Aluma-Prime" thermoplastic enamel. Hydrant #250 (GSHA 1910.44-ANSI 53.1).

Mechanical joint (MJ) anchoring Taps shall be used for the auxiliary connections. The auxiliary connections shall be of the same material, resilient wedge type as manufactured by U.S. Pipe, Clow, Waterous and American Flow Control.

Connection of the auxiliary valve to the fire hydrant shall be completed utilizing a 6" dia. "Clow" MJ Anchoring coupling for laying distances 12' to 18'. For greater distances, use Class 52 ductile iron pipe with "MCCOLU" (As manufactured by EBBA Irons Steel, Inc.) reducer glands.

Cover for the hydrant auxiliary valve shall be painted with hermetic bond "Therm-Gloss Federal Safety Varnish Enamel #2045 (GSHA 1910.14 - ANSI 53.1).

**3. Valves - 12" and Smaller**

Valves 12" and smaller shall be push-on or mechanical joint fitted resilient wedge type as manufactured by U.S. Pipe, Clow, Waterous and American Flow Control.

Valves shall be resilient wedge type as manufactured by U.S. Pipe, Clow, Waterous and American Flow Control.

**4. Valves - Larger than 12"**

Valves larger than 12" shall be of the butterfly type with rubber seat and stainless ring on the disc edge to mate with the rubber seat, shall open counter-clockwise, shall meet or exceed AWMA C-504 or AWMA C-505.

**5. Valve Box**

The entire valve box assembly shall be Tyler 6645, Clow F-2454 with F-2490 cover, or Mueller H-10360.

**6. Vaults**

Vaults required for pressure taps, check valves and meter installations, shall be of precast concrete unit construction (ASTM C-978) with a concrete core and finished with a minimum of 1/2" thick mortar. The mortar shall be applied over the entire vault. All joints shall be sealed with Rubber-Nite, or approved equal butyl-based material. Cement grouting of the seams and joints shall not be completed. Butyl mastic shall have a minimum width of 2" as applied in two pieces.

A flexible union between the pipe and manhole wall, meeting ASTM C-923, cast integrally into the manhole wall, shall be provided for each pipe connection to the manhole. The manhole shall be constructed of concrete or masonry. Manhole Pipe Connector, Link, Seal, or approved equal. Such unions shall be selected and installed in accordance with the manufacturer's specifications for the specific type of pipe used. Manhole casting shall be Mason H-1772-B or equivalent. Manhole casting shall be Mason H-1772-B or equivalent. The word "WATER" impressed. Manhole steps shall be W-A Industries plastic coated. Manhole are to be water-tight.

**7. Pressure Taps**

Pressure taps shall be performed in the presence of an Illinois-American representative. The outside diameter of the cutter must be at least 1/4" greater than the nominal diameter of the pipe. The minimum size shall be provided with a minimum of 48 hours advance notice (630/739-8839) so that inspection by an Illinois-American representative can be scheduled.

**8. String of Taps**

String-of-taps taps will not be allowed. The top shall be no larger than 1/2" diameter. The string of taps shall be installed in the manhole. The pressure tap size allowed on an 8 inch main shall be 6 inches.

**A. Taps 2" and Larger on:**

1. Cast Iron Pipe
  - a. Clear Model F-5205 tapping sleeve, or approved equal, for sizes 4 inch through 16 inch. All bolts shall be stainless steel (Type 304), or high strength, corrosion resistant, low alloy material such as Amico CorTen.
2. Asbestos Cement Pipe
  - a. Clear Model F-5207 tapping sleeve, or approved equal, for sizes 4 inch through 12 inch.
- b. In specifying tapping sleeves to fit on the "rough bore" or that is, the full outside diameter portion of the pipe, it is important that tapping sleeves. Outside diameters of asbestos pipe can vary significantly and may not remain consistent even within the same pressure class of pipe.

- c. All bolts shall be stainless steel (Type 304), or high strength, corrosion resistant low alloy material such as Amico Cor Ten.

**3. Ductile Iron Pipe**

- a. Romco Industries, Inc., Style "SST", stainless steel tapping sleeve may be used. The sleeve must be installed above the cover man, or approved equal, and shall be installed in accordance with the manufacturer's specifications by U.S. Pipe, Clow, Waterous, or American Flow Control.

**B. Taps 2" or Less**

- a. Taps two inch and less may be made by direct tap connection on cast or ductile iron mains. A two inch direct tap on a 6" cast or ductile iron main is not allowed and requires a saddle. All asbestos cement and PVC tapping sleeves. Saddles must be of all bronze or all stainless steel construction.
- b. Bronze:
  - Mueller H 16105, Reishall 333
  - or James Jones Co. J-979
- c. Stainless Steel: Cascade CS22, or Romco Style 305

**9. Small Service Line Appliances**

**A. Curb Box**

Curb box shall be Minneapolis Pattern, 1-1/2 inch inside diameter upper section with a 6 foot fully extended length topped 2 inch of the bottom and supplied with a brass sleeve in the top threaded to receive the brass plug type. Acceptable units are:

- 1. Mueller H-10302-72" with lid and plug #9390 with H-10343 bushing
- 2. A.Y. McDonald, Model 5623 with lid Model 5623-1 including Plug #51-524.

**B. Curb Stop**

For "1" service lines the curb stop shall be: Mueller Mark, I, Orland H-15155 or A.Y. McDonald 6104-22. For "1-1/2" and "2" services the curb stop shall be: Ford No. B44-668M for 1-1/2" and No. B44-777M for 2", or A.Y. McDonald 6104-22.

**C. Corporation Stop**

Corporation stops for "1" through "2" shall be Mueller #11 #15008 or A.Y. McDonald #47101-9-22. NOTE: The curb stop and corporation stop shall be equipped with conductive compression connections. Flared or sweat connections are not allowed.

**10. Service Lines**

All water service lines shall be Type K copper. One piece shall be used from the curb stop to the meter. The minimum size shall be 1" for a single-family residence. Lines for larger services shall be in accord with AWMA Manual of Practice #22.

**When the distance from the curb stop to the meter is the building connects**

The length of the service line shall be determined by the metering Mueller, Ford, or A.Y. McDonald three-part union with conductive, compression connections.

**INSTALLATION SPECIFICATIONS**

1. Protection of Water Mains from Sanitary Sewers and Storm Sewers
  - a. Water mains shall be protected for horizontal and vertical separation in accordance with the Technical Policy Statements or the requirements of MMDCC, whichever applies. Further, no water main shall pass through or cross into contact with any part of a sewer or sewer main.
2. Depth of Pipe Cover
  - a. A minimum depth of five feet six inches shall be maintained for all water mains. The five feet six inches depth shall be from proposed final grade elevation to the crown of the main. Minimum depth of cover shall be seven feet.

**MINIMUM BEARING AREA IN SQUARE FEET\***

PIPE SIZE	11-1/4	22-1/2	45	90	TEE	HEAD
6"	1.0	2.5	4.5	8.0	5.5	10.0
8"	2.0	4.0	7.5	14.0	10.0	10.0
10"	3.0	6.0	11.0	20.5	14.5	14.5
12"	4.0	8.0	16.0	29.0	20.5	20.5

\*Bearing areas are based on soil loading on allowable safe bearing of one ton per square foot. Areas must be revised for soils with a lower bearing capacity.

**3. Corrosion Protection**

All pipe, fittings, fire hydrant leads, sleeves and valves are to be encased in polyethylene in accordance with AWMA C-105, unless a soil survey has been performed and non-corrosive soils are shown to exist.

**4. Laying of Pipe on Curves**

Large radius curves, either horizontal or vertical, may be laid with standard fittings and no special fittings are shown. It may be assumed that the curves can be made by deflection of the joints with standard lengths of pipe. In approved situations, shorter lengths of pipe may be used to avoid the use of pipe. Maximum deflections of pipe joints and laying radius for various pipe lengths shall be in accordance with the manufacturer's recommendations based on the pipe shall be printed in a straight alignment, then deflected. Trenches shall be made wider on curves for this purpose.

**5. Thrust Restraint**

All fittings, bends and hydrants shall be properly braced by means of restrained joint assemblies as shown in the standard detail or using methods as described below:

- A. Mechanical joint fittings, bends and hydrants shall be properly anchored by means of "Magdon" (as manufactured by EBBA Iron Steel, Inc.) anchors and installed in accordance with the manufacturer's recommendations.
- B. All push-on joint fittings and bends shall be properly anchored by means of a U.S. Pipe Field Lok gasket or approved equal.
- C. All push-on or mechanical joint fittings, bends, and hydrants shall be properly anchored by means of a concrete thrust block as outlined in Section 2.2.2.2. The thrust block shall be installed in accordance with the manufacturer's recommendations and shall be utilized as outlined as follows:

Reaction blocking shall be designed for a minimum internal pipe pressure of 500 psi. The thrust block shall be installed in accordance with the manufacturer's configuration of any adjacent joint and shall be at least as large as is necessary to restrain the fittings from movement. All concrete shall have a minimum compressive strength of 3000 psi at the end of 28 days.

- D. Fire hydrant shall be positively anchored directly to the tie on the main using mechanical joint anchoring fittings, or other approved restraining system.
- E. Vases of tees and crosses, where required, shall be anchored directly to the fitting using Clow (or equal) mechanical joint anchoring fittings, or other approved restraining system.

**6. Bedding**

Type 1 backfill in accordance with ANSI/AWWA C800-87 as illustrated in the standard detail. The bedding shall be placed in the manhole under pavement or within eight'-to-ten' feet of the manhole. The bedding shall be in accordance with the required bedding material, except where noted. Bedding shall be prepared with granular material of the gradation approved by Illinois-American.

**Leakage and Distinction**

**7. Pressure Test**

All newly laid water main shall be subjected to hydrostatic pressure test equal to 200 psi for a period of at least two hours. The pressure shall be maintained for a period of at least two hours. The test shall be performed by filling the main with water to the specified test pressure utilizing a test pump connected to the main in a satisfactory manner. The test pump, pipe connection and all necessary appurtenances, including gauges and the meters, shall be furnished by the developer. Before applying the specified test pressure, all or shall be expelled from the main utilizing the hydrants or pressure taps, if necessary, installed at points of highest elevation along the water main installation.

Connection to Illinois-American water system will not be permitted unless the specifications and has been satisfactorily pressure tested in the presence of an Illinois-American designated representative. During the test, the entire length of main being tested, along with all appurtenances, will be carefully inspected by an Illinois-American representative.

Any cracked or defective pipe, fittings, valves or hydrants discovered as a result of this pressure test shall be removed and replaced by the Developer in accordance with the specifications. The Developer shall be responsible for the removal of any defective pipe, fittings, valves or hydrants from the Illinois-American water system. When pressure testing against an existing water main, the Developer shall provide and install a new valve at the location of the defective valve.

**8. Leakage Test**

In conjunction with the pressure test, a leakage test shall be conducted to determine the quantity of water lost by leakage under the specified test pressure. The allowable leakage in gallons per hour per pipeline shall not be greater than that determined by the formula:

$$L = \frac{ND \cdot P}{7400}$$

L = The allowable leakage in gallons per hour  
 N = Number of joints for length of pipeline tested  
 D = The nominal diameter of the pipe in inches  
 P = Average test pressure during the leakage test in pounds per square inch gauge

**9. Distinction of Water**

The section of main to be distinguished shall first be flushed to remove any solids or contaminated material that may have become lodged in the main. All flushing is to be done under continuous supervision of an Illinois-American representative.

No valves or fire hydrants or other appurtenances are to be purged or flushed unless an Illinois-American representative is present. Illinois-American must be provided with a minimum of 48 hours advance notice (630/739-8839) so that inspection by an Illinois-American representative can be scheduled.

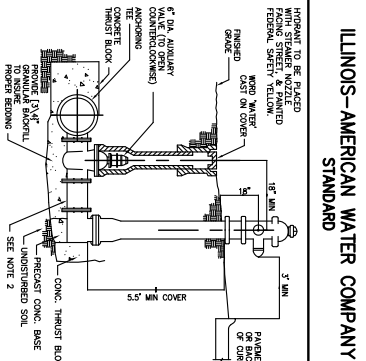
All chlorination, flushing, and testing is to be done in strict accord with the Illinois-American Standard Specification 4-1-2.2. The developer shall be responsible for the chlorination of the water. The water shall be chlorinated to a chlorine residual of not less than 10 mg/l, remains in the water after standing 24 hours in the pipe. Minimum disinfection is per AWMA standard C551. The developer shall be responsible for the chlorination of the water. The water shall be chlorinated to a chlorine residual of not less than 10 mg/l, remains in the water after standing 24 hours after the final flushing. Chlorine shall be applied in liquid or gas form.

**OPERATION OF WATER SYSTEM**

The operation of main valves and fire hydrants on the water system in service shall be the responsibility of the Illinois-American representative. Illinois-American has a responsibility to provide its customers the highest level of service possible. Therefore, Illinois-American has adopted a strict policy that no one, other than an Illinois-American representative, shall be permitted to operate any fire hydrant, or other appurtenance of water system that is in service or which will affect the system. This operation is to be performed by an employee of Illinois-American or under his direct supervision.

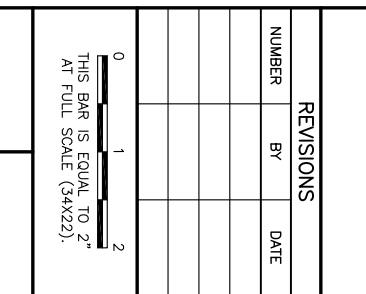
Illinois-American must be provided with a minimum of 48 hours advance notice (630/739-8839) so that the filling/flushing operations can be scheduled. When there is no alternative to using water from a fire hydrant, fire hydrant meters are available by contacting Illinois-American's office during normal working hours by calling 800/422-7922.

**ILLINOIS-AMERICAN WATER COMPANY STANDARD**



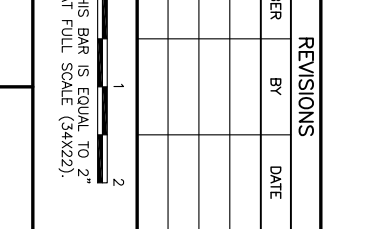
1. FIRE HYDRANTS SHALL BE EITHER AMERICAN FLOW CONTROL model #B-67-250 or East Jordan Iron Works, Inc. "Watermaster" model 58R, open with pressure in a counter-clockwise direction with rising stem, and meet or exceed AWMA specification C-502.
2. Threads for fire hydrants in all properties shall be National Standard, with the exception of the Morland property where City of Chicago Standard is used. Hydrant is to have one 1/2" pumpout port and two 2 1/2" hose ports. Hydrant length shall be supplied to provide a minimum of 4.5 feet of cover over the top of the water main.
3. All bolts shall be stainless steel (Type 304), or high strength, corrosion resistant low alloy material such as Amico CorTen.
4. Movable cover on valve shall be 7 feet x 5 feet x 1/2" thick, shall be painted with hermetic bond "Therm-Gloss Federal Safety Varnish Enamel #2045 (GSHA 1910.14 - ANSI 53.1).
5. Cover for the hydrant auxiliary valve shall be painted with hermetic bond "Therm-Gloss Federal Safety Varnish Enamel #2045 (GSHA 1910.14 - ANSI 53.1).
6. HYDRANT TO BE PLACED ABOVE GRADE.

**ILLINOIS-AMERICAN WATER COMPANY STANDARD**



1. RESULTANT WEDGE GATE VALVE-U.S. PIPE, CLOW WATERLOUS OR AMERICAN FLOW CONTROL.
2. VALVE BOX SHALL BE USED FOR WATER MAIN SIZE 6", 8", 10" AND 12" ONLY.
3. BACKFILL THE AREA AROUND THE VALVE BOX WITH [1 3/4]" STONE.
4. VALVES WITHIN PAVED AREAS SHALL BE INSTALLED WITH A VALVE VAULT.

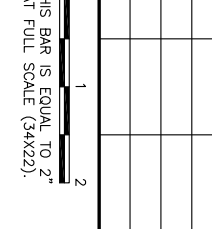
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**REVISIONS**

NUMBER	BY	DATE
0		
1		
2		



**CHICAGO EXECUTIVE AIRPORT  
 WHEELING/PROSPECT HEIGHTS, ILLINOIS  
 CONSTRUCT PARTIAL PARALLEL TAXIWAY ECHO AND  
 PARTIAL OVERLAY OF TAXIWAY ECHO**

**WATERMAIN DETAILS**

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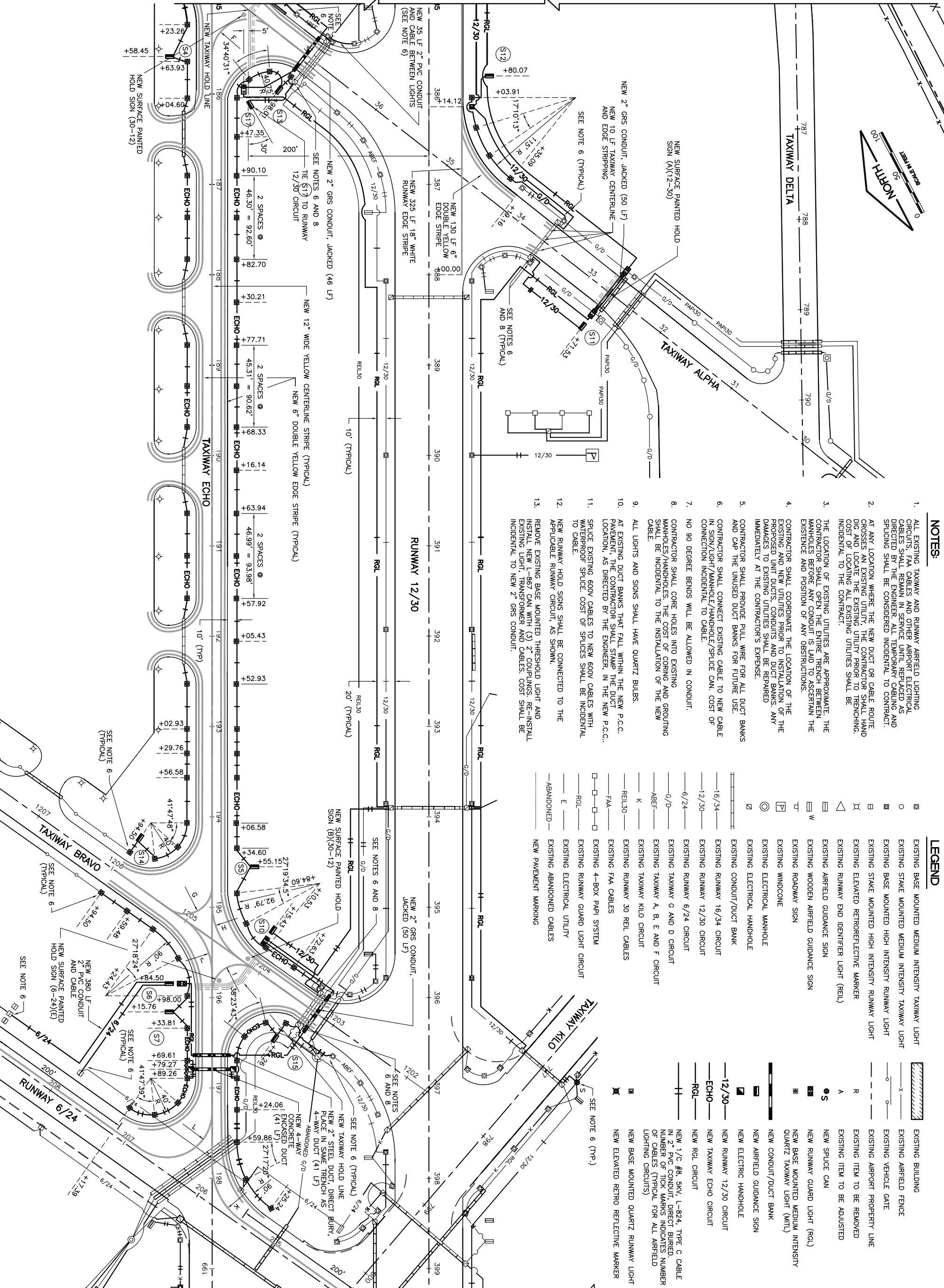
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 CRAWFORD, MURPHY & TILLY, INC.  
 CONSULTING ENGINEERS  
 License No. 184-000613

**CHICAGO EXECUTIVE AIRPORT**

DESIGN BY:	MLK
DRAWN BY:	MLW
CHECKED BY:	MLK
APPROVED BY:	DLP
DATE:	04/22/11
JOB No.:	082900-08
ILLINOIS PROJECT:	PW-3244
A.I.P. PROJECT:	3-17-0018-B32

SHEET 27 OF 49 SHEETS





**NOTES:**

1. ALL EXISTING TAXIWAY AND RUNWAY AIRFIELD LIGHTING CIRCUITS, FAA CABLES AND OTHER AIRPORT ELECTRICAL CABLES SHALL REMAIN IN SERVICE UNTIL REPLACED AS DIRECTED BY THE ENGINEER. ALL TEMPORARY CABLING AND SPLICING SHALL BE CONSIDERED INCIDENTAL TO CONTRACT.
2. AT ANY LOCATION WHERE THE NEW DUCT OR CABLE ROUTE CROSSES AN EXISTING UTILITY, THE CONTRACTOR SHALL HAND DIG AND LOCATE THE EXISTING UTILITIES PRIOR TO TRENCHING. COST OF LOCATING ALL EXISTING UTILITIES SHALL BE INCIDENTAL TO THE CONTRACT.
3. THE LOCATION OF EXISTING UTILITIES ARE APPROXIMATE. THE CONTRACTOR SHALL OPEN THE ENTIRE TRENCH BETWEEN MANHOLES BEFORE ANY CONDUIT IS LAID TO ASCERTAIN THE EXISTENCE AND POSITION OF ANY OBSTRUCTIONS.
4. CONTRACTOR SHALL COORDINATE THE LOCATION OF THE PROPOSED UNIT DUCTS, CONDUITS AND DUCT BANKS. ANY DAMAGES TO EXISTING UTILITIES SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
5. CONTRACTOR SHALL PROVIDE PULL WIRE FOR ALL DUCT BANKS AND CAP THE UNUSED DUCT BANKS FOR FUTURE USE.
6. CONTRACTOR SHALL CONNECT EXISTING CABLE TO NEW CABLE IN SIGN/LIGHT/MANHOLE/HANDHOLE/SPLICE CAN. COST OF CONNECTION INCIDENTAL TO CABLE.
7. NO 90 DEGREE BENDS WILL BE ALLOWED IN CONDUIT.
8. CONTRACTOR SHALL CORE HOLES INTO EXISTING MANHOLES/HANDHOLES. THE COST OF CORING AND GROUTING SHALL BE INCIDENTAL TO THE INSTALLATION OF THE NEW CABLE.
9. ALL LIGHTS AND SIGNS SHALL HAVE QUARTZ BULBS.
10. AT EXISTING DUCT BANKS THAT FALL WITHIN THE NEW P.C.C. PAVEMENT, THE CONTRACTOR SHALL STAMP THE DUCT LOCATION, AS DIRECTED BY THE ENGINEER, IN THE NEW P.C.C.
11. SPLICE EXISTING BODY CABLES TO NEW BODY CABLES WITH WATERPROOF SPLICE. COST OF SPLICES SHALL BE INCIDENTAL TO CABLE.
12. NEW RUNWAY HOLD SIGNS SHALL BE CONNECTED TO THE APPLICABLE RUNWAY CIRCUIT, AS SHOWN.
13. REMOVE EXISTING BASE MOUNTED THRESHOLD LIGHT AND INSTALL NEW L-867 CAN WITH (3) 2" COUPLINGS. RE-INSTALL EXISTING LIGHT, TRANSFORMER AND CABLES. COST SHALL BE INCIDENTAL TO NEW 2" GRS CONDUIT.

**LEGEND**

☐	EXISTING BASE MOUNTED MEDIUM INTENSITY TAXIWAY LIGHT	▨	EXISTING BUILDING
○	EXISTING STAKE MOUNTED MEDIUM INTENSITY TAXIWAY LIGHT	—x—	EXISTING AIRFIELD FENCE
■	EXISTING STAKE MOUNTED HIGH INTENSITY RUNWAY LIGHT	—o—	EXISTING VEHICLE GATE
⊞	EXISTING STAKE MOUNTED HIGH INTENSITY RUNWAY LIGHT	—	EXISTING AIRPORT PROPERTY LINE
⊞	EXISTING ELEVATED RETROREFLECTIVE MARKER	—	EXISTING ITEM TO BE REMOVED
⊞	EXISTING RUNWAY END IDENTIFIER LIGHT (REIL)	—	EXISTING ITEM TO BE ADJUSTED
⊞	EXISTING AIRFIELD GUIDANCE SIGN	●S	NEW SPLICE CAN
⊞	EXISTING WOODEN AIRFIELD GUIDANCE SIGN	■	NEW RUNWAY GUARD LIGHT (RGL)
⊞	EXISTING ROADWAY SIGN	■	NEW BASE MOUNTED MEDIUM INTENSITY QUARTZ TAXIWAY LIGHT (MTL)
⊞	EXISTING WINDCOONE	■	NEW QUARTZ TAXIWAY LIGHT (MTL)
⊞	EXISTING ELECTRICAL MANHOLE	■	NEW CONDUIT/DUCT BANK
⊞	EXISTING ELECTRICAL HANDHOLE	■	NEW AIRFIELD GUIDANCE SIGN
⊞	EXISTING CONDUIT/DUCT BANK	■	NEW ELECTRIC HANDHOLE
⊞	EXISTING RUNWAY 16/34 CIRCUIT	■	NEW RUNWAY 12/30 CIRCUIT
⊞	EXISTING RUNWAY 12/30 CIRCUIT	■	NEW TAXIWAY ECHO CIRCUIT
⊞	EXISTING RUNWAY 6/24 CIRCUIT	■	NEW RGL CIRCUIT
⊞	EXISTING TAXIWAY G AND D CIRCUIT	■	NEW 1/C #8, 5KV, L-824, TYPE C CABLE IN 2" PVC CONDUIT, DIRECT BURIED, NUMBER OF TICK MARKS INDICATES NUMBER OF CABLES (TYPICAL FOR ALL AIRFIELD LIGHTING CIRCUITS)
⊞	EXISTING TAXIWAY A, B, E AND F CIRCUIT	■	NEW BASE MOUNTED QUARTZ RUNWAY LIGHT
⊞	EXISTING TAXIWAY KILO CIRCUIT	■	NEW ELEVATED RETRO REFLECTIVE MARKER
⊞	EXISTING RUNWAY 30 REL CABLES	■	
⊞	EXISTING FAA CABLES	■	
⊞	EXISTING 4-BOX PAPI SYSTEM	■	
⊞	EXISTING RUNWAY GUARD LIGHT CIRCUIT	■	
⊞	EXISTING ELECTRICAL UTILITY	■	
⊞	EXISTING ABANDONED CABLES	■	
⊞	NEW PAVEMENT MARKING	■	

**CHICAGO EXECUTIVE AIRPORT**  
**WHEELING/PROSPECT HEIGHTS, ILLINOIS**  
**CONSTRUCT PARTIAL PARALLEL TAXIWAY ECHO AND**  
**PARTIAL OVERLAY OF TAXIWAY ECHO**

**LIGHTING AND PAVEMENT MARKING PLAN**  
**SHEET 1**

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DESIGN BY: AB  
 DRAWN BY: JRO  
 CHECKED BY: MLK  
 APPROVED BY: DLP  
 DATE: 04/22/11  
 JOB No: 08290-08  
 ILLINOIS PROJECT: PWK-3244  
 A.I.P. PROJECT: 3-17-0018-B32

REVISIONS

NUMBER	BY	DATE

THIS BAR IS EQUAL TO 2"  
 AT FULL SCALE (3/4X22).

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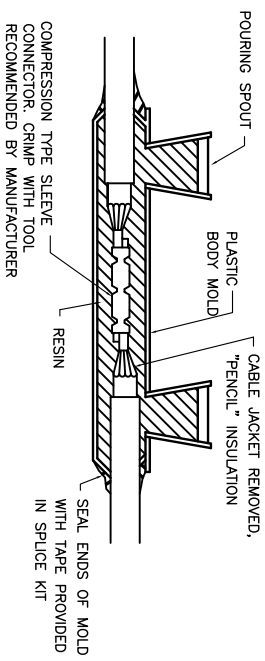
**CHICAGO EXECUTIVE AIRPORT**

SHEET 28 OF 49 SHEETS

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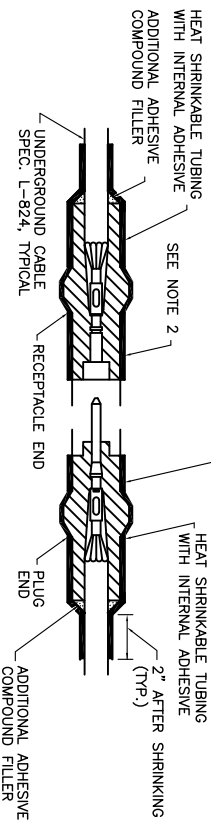






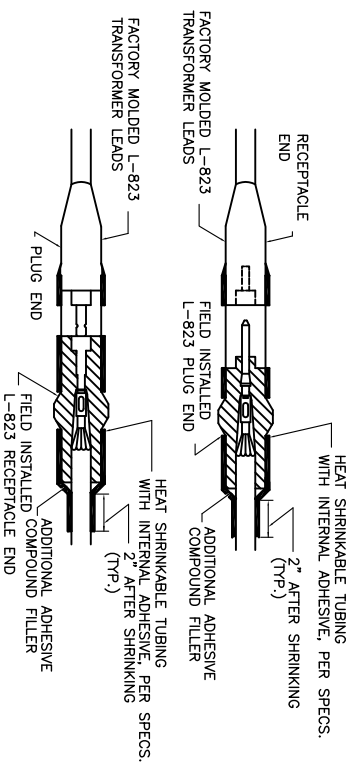
**TYPE A - CABLE SPLICE**

FOR SPLICES IN HOMERUNS AND FOR EXTENSIONS TO EXISTING CABLES ONLY  
N.T.S.



**TYPE B - CABLE SPLICE**

FOR SPLICES FOR USE AT JUNCTION OF HOMERUN WITH LOOP CIRCUIT  
N.T.S.

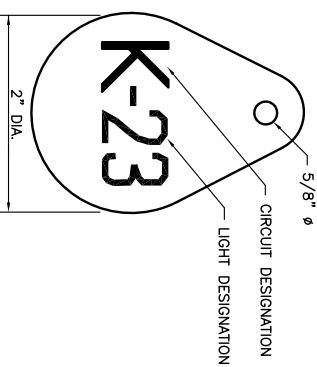


**TYPE C AND D - CABLE SPLICE**

FOR SPLICES AT RUNWAY/TAXIWAY LIGHTS AND SIGNS  
N.T.S.

**NOTES**

1. INSIDE DIAMETER OF CONNECTOR SHALL PROPERLY MATCH THE OUTSIDE DIAMETER OF CABLE.
2. WRAP 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 JOINT.
3. THE COST OF FURNISHING AND INSTALLING ALL SPLICE MATERIALS SHALL BE INCIDENTAL TO THE ASSOCIATED CABLE ITEMS.
4. THE CONTRACTOR SHALL HAVE A MINIMUM OF TWO (2) TYPE A SPLICE KITS ON THE JOB SITE AT ALL TIMES FOR EMERGENCY REPAIRS.

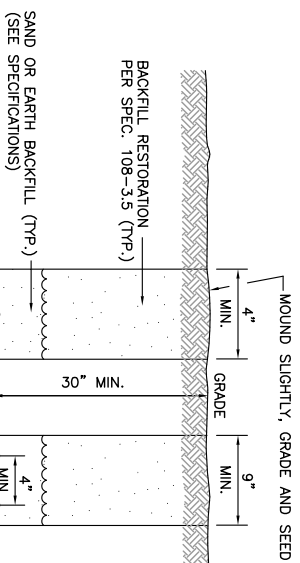


**NOTES**

1. INSTALL A NONCORROSIVE DISC OF 2" MINIMUM DIAMETER WITH THE NUMBER PERMANENTLY STAMPED, CUT OUT, OR ENGRAVED UNDER THE HEAD OF THE BASE PLATE BOLT OR ATTACHED TO LIGHT FLANGE WITH A SET SCREW.
2. NUMERALS SHOWN ARE FOR ILLUSTRATIVE PURPOSES ONLY. ALL EXISTING AND PROPOSED LIGHTS AND SIGNALS TO BE LOCATED AS DIRECTED BY THE RESIDENT ENGINEER. ALL LIGHTS ON EXISTING CIRCUITS THAT HAVE LIGHTING IMPROVEMENTS (PROPOSED OR RELOCATED LIGHTS) SHALL BE RETIAGED.
3. COST OF TAGGING LIGHTS SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

**LIGHT IDENTIFICATION DETAIL**

NOT TO SCALE

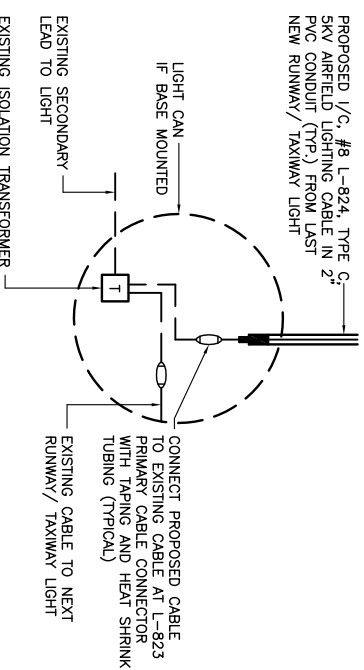


**TURF AREA CABLE TRENCH DETAIL**

NOT TO SCALE

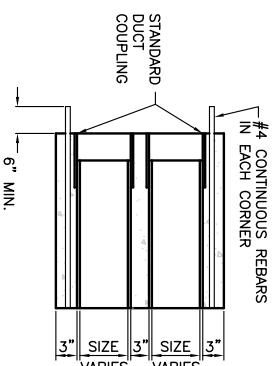
**NOTES**

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



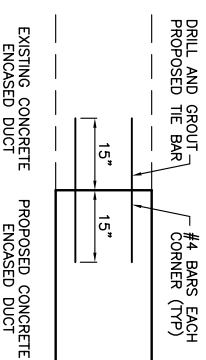
**RUNWAY/TAXIWAY LIGHTING CIRCUIT CONNECTION DETAIL**

NOT TO SCALE



**CONCRETE ENCASED DUCT END DETAIL**

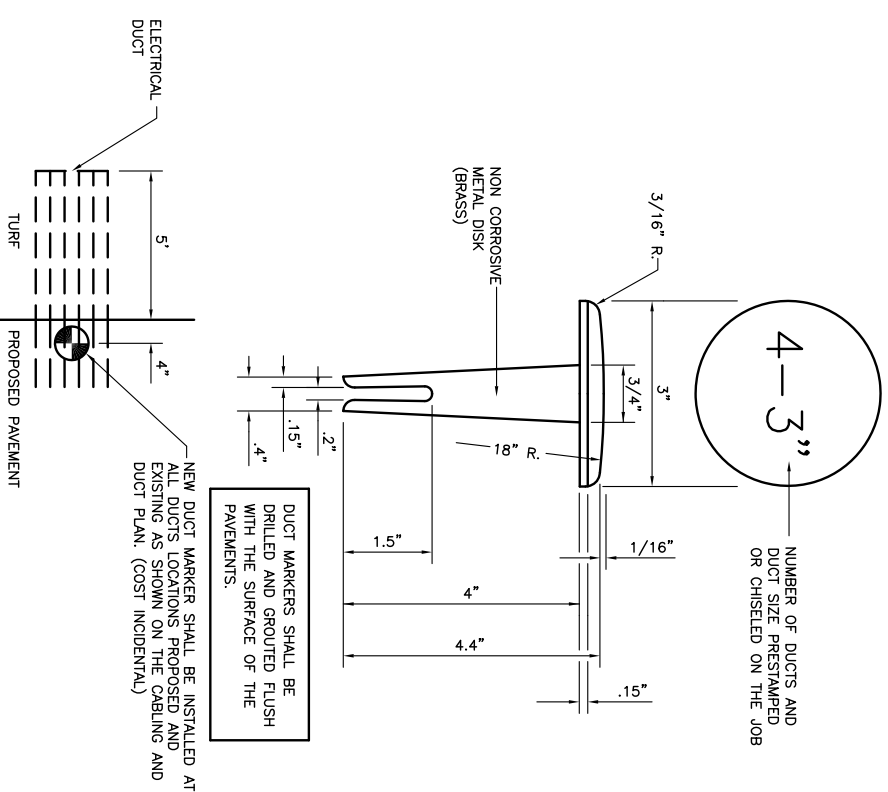
NO SCALE



**EXTENSION OF EXISTING DUCT**

NO SCALE

NOTE: COST OF CONNECTION SHALL BE CONSIDERED INCIDENTAL TO PROPOSED DUCT.

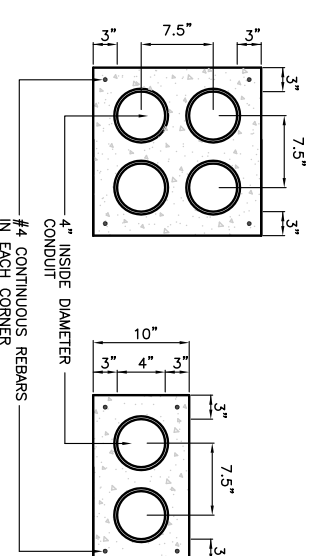


**DUCT MARKER DETAIL**

NOT TO SCALE

NEW DUCT MARKER SHALL BE INSTALLED AT ALL DUCT LOCATIONS PROPOSED AND EXISTING AS SHOWN ON THE CABLING AND DUCT PLAN. (COST INCIDENTAL)

DUCT MARKERS SHALL BE DRILLED AND GROUTED FLUSH WITH THE SURFACE OF THE PAVEMENTS.



**4-WAY CONCRETE ENCASED DUCT BANKS**

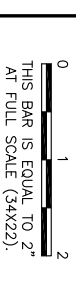
NOT TO SCALE

**NOTES:**

1. DIMENSIONS ARE MINIMUM.
2. CONCRETE SHALL CONFORM TO ITEM 610.
3. ALL CONDUIT SHALL BE SCHEDULE 40 PVC.
4. TOP OF CONCRETE ENCASMENT IN TURF AREAS SHALL NOT BE LESS THAN 24" BELOW SUBGRADE.
5. 4" SPLIT DUCT SHALL BE CONCRETE ENCASED WITH 3" MINIMUM CONCRETE SURROUNDING 4" CONDUIT. COST INCIDENTAL TO SPLIT DUCT.

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LAYOUT: Layout1  
UPDATE BY: mtkatz  
SURVEY BOOK #  
DATE: Fri 4/1/11 9:19am  
XREF DWG: tb.dwg  
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NUMBER	BY	DATE



**CHICAGO EXECUTIVE AIRPORT  
WHEELING/PROSPECT HEIGHTS, ILLINOIS  
CONSTRUCT PARTIAL PARALLEL TAXIWAY ECHO AND  
PARTIAL OVERLAY OF TAXIWAY ECHO**

**ELECTRICAL DETAILS - SHEET 1**

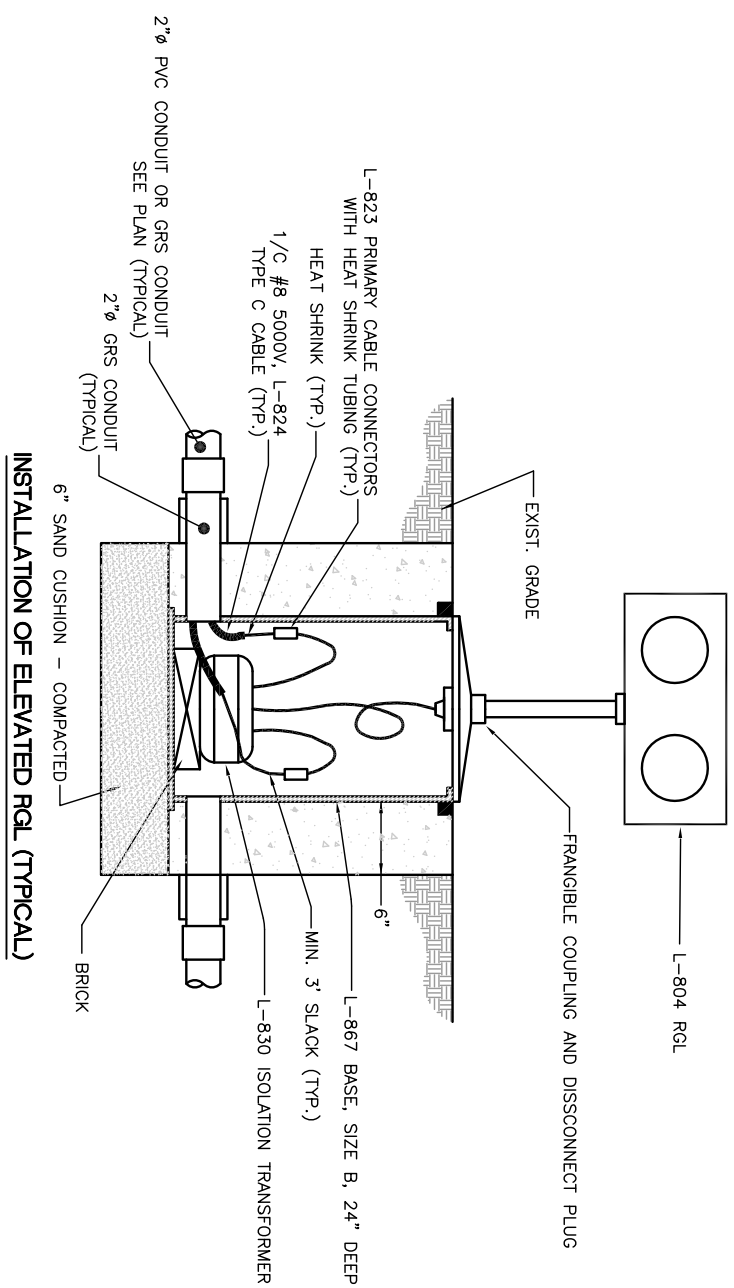
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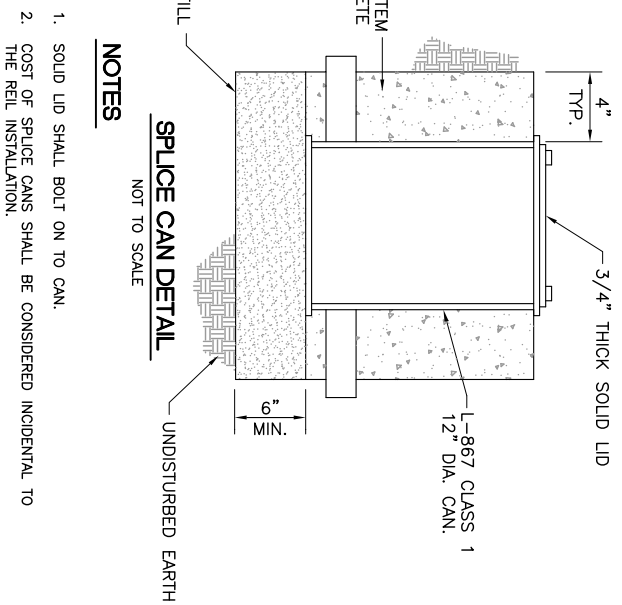
**CHICAGO EXECUTIVE AIRPORT**

DESIGN BY:	MLK
DRAWN BY:	JRO
CHECKED BY:	MLK
APPROVED BY:	DLP
DATE:	04/22/11
JOB No.:	08290-08
ILLINOIS PROJECT: PWK-3244	
A.I.P. PROJECT: 3-17-0018-B32	
SHEET 30 OF 49 SHEETS	



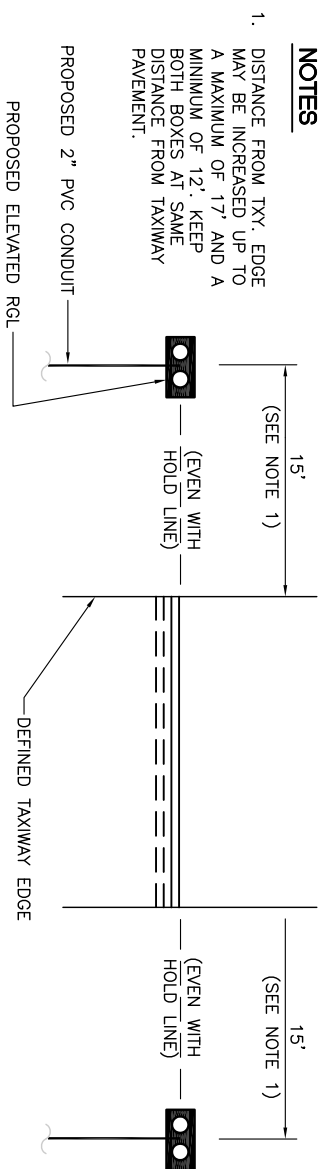


**INSTALLATION OF ELEVATED RGL (TYPICAL)**  
NOT TO SCALE

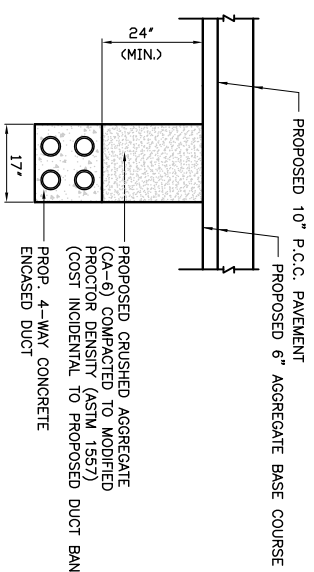


- NOTES**
- SOLID LID SHALL BOLT ON TO CAN.
  - COST OF SPLICE CANS SHALL BE CONSIDERED INCIDENTAL TO THE REL INSTALLATION.

**SPLICE CAN DETAIL**  
NOT TO SCALE



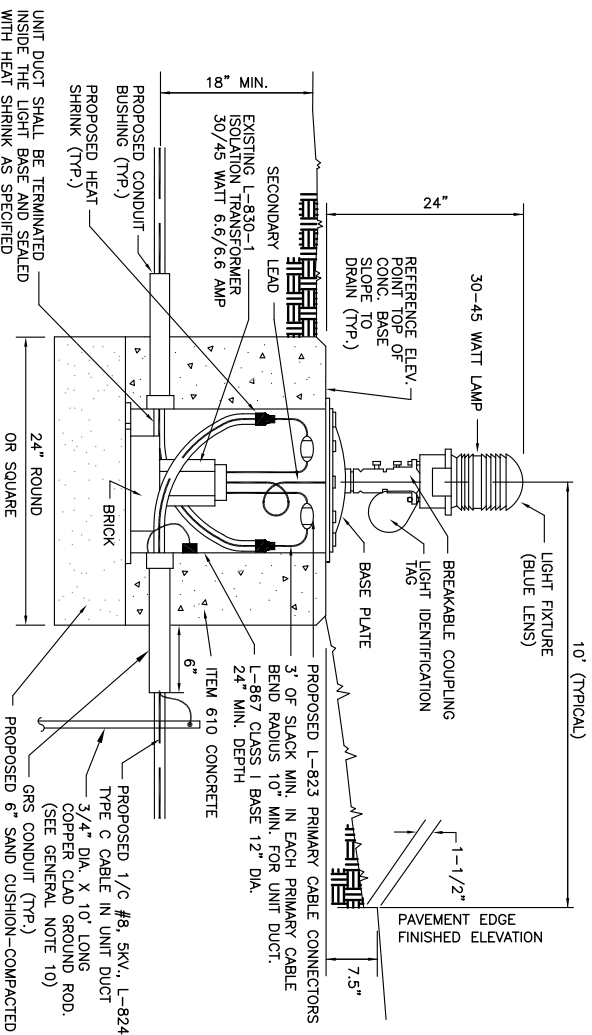
**ELEVATED RGL LAYOUT DETAIL (TYPICAL)**  
NOT TO SCALE



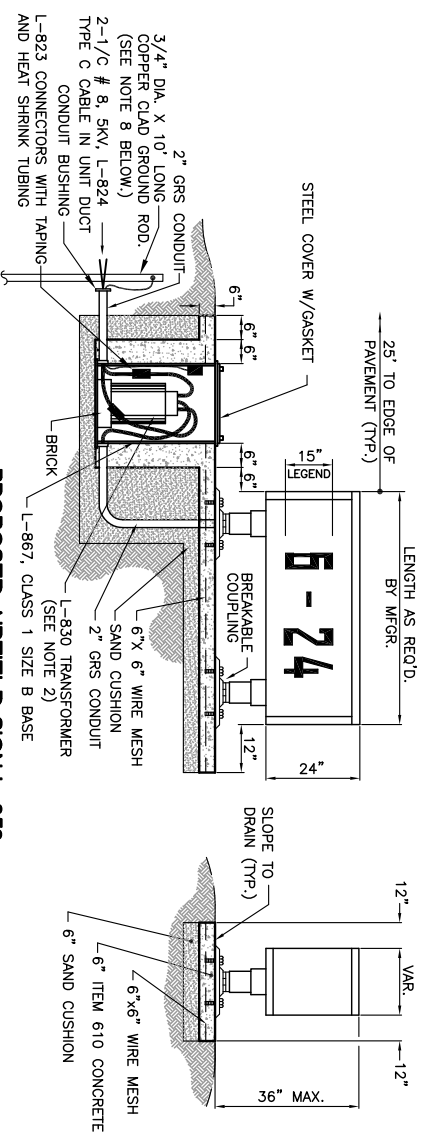
**CONC ENCASED (4-WAY) ELECTRICAL DUCT BACKFILL**  
NO SCALE

**GENERAL NOTES**

- TRANSFORMER HOLDER MAY BE ANY COMMERCIALY AVAILABLE BRICK.
- BREAKING GROOVE COUPLINGS SHALL NOT BE OVER 1" ABOVE GROUND LINE.
- ISOLATION TRANSFORMERS COME WITH A FACTORY INSTALLED PLUG (TYPE 1, CLASS A, STYLE 2) AND RECEPTACLE (TYPE 1, CLASS A, STYLE 9). A TYPE 1, CLASS B, STYLE 3 PLUG AND TYPE 1, CLASS B, STYLE 10 RECEPTACLE SHALL BE INSTALLED ON THE 1/C, No. 8, 5000 V., L-824 TYPE C CABLES FOR CONNECTION TO EACH TRANSFORMER.
- TO FURTHER REDUCE THE POSSIBILITY OF WATER/MOISTURE ENTRANCE INTO THE CONNECTOR BETWEEN THE CABLE AND THE FIELD ATTACHED CONNECTOR, IT IS REQUIRED THAT A HEAT SHRINKABLE TUBING WITH INTERNAL ADHESIVE BE APPLIED OVER THE ENTIRE CABLE CONNECTOR.
- ALL LIGHTS, CABLES AND TRANSFORMERS TO BE REMOVED SHALL REMAIN THE PROPERTY OF THE AIRPORT. AT THE DISCRETION OF THE AIRPORT MANAGER THE CONTRACTOR MAY BE REQUIRED TO DISPOSE OF THESE MATERIALS OFFSITE.
- DUCT MARKERS SHALL BE INSTALLED AT EVERY NEW DUCT AND AT EVERY EXISTING DUCT USED FOR THIS PROJECT.



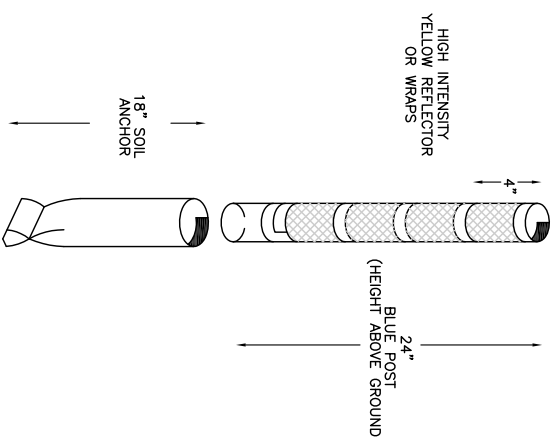
**PROPOSED BASE MOUNTED MEDIUM INTENSITY TAXIWAY LIGHT**  
NOT TO SCALE



**PROPOSED AIRFIELD SIGN L-858**  
NOT TO SCALE

**SIGNAGE NOTES**

- ALL SIGNS ARE LUMACURE 2-SIDED SIGNS BY STANDARD SIGNS OR APPROVED EQUAL.
- TRANSFORMER WATTAGE AS RECOMMENDED BY MANUFACTURER.
- LIGHTED SIGNS SHALL BE BASE MOUNTED ONLY.
- UNIT DUCT SHALL BE TERMINATED IN THE CAN AND SEALED TO THE CABLE WITH HEAT SHRINK AS SPECIFIED.
- THE NUMBER OF MODULES PER SIGN SHALL BE AS RECOMMENDED BY THE MANUFACTURER.
- CONTRACTOR SHALL SUBMIT DETAILED SHOP DRAWING INCLUDING SIGN, COLOR, SIZE AND PROPOSED LEGEND, IN ENOUGH DETAIL AND DETERMINE PROPOSED SPACING AND OTHER INFORMATION REQUIRED BY SPECIAL PROVISIONS, CONTRACTOR TO VERIFY PROPOSED SIGN LOCATIONS AND ORIENTATIONS WITH RESIDENT ENGINEER PRIOR TO INSTALLATION.
- INSTALL 1/C #8 AWG BARE COPPER GROUND JUMPER CONNECTED TO GROUND LUG INSIDE BASE CAN AND EXOTHERMICALLY WELDED TO GROUND ROD. INSTALL GROUND LUG FOR EXISTING CANS, IF REQUIRED.



**TAXIWAY RETROREFLECTIVE MARKER DETAIL**  
NOT TO SCALE

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UPDATE BY: mikatz  
SURVEY BOOK #  
DATE: Fri 4/1/11 9:20am  
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REVISIONS	NUMBER	BY	DATE

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THIS BAR IS EQUAL TO 2"  
AT FULL SCALE (3/4X22).

**CHICAGO EXECUTIVE AIRPORT  
WHEELING/PROSPECT HEIGHTS, ILLINOIS  
CONSTRUCT PARTIAL PARALLEL TAXIWAY ECHO AND  
PARTIAL OVERLAY OF TAXIWAY ECHO**

**ELECTRICAL DETAILS - SHEET 2**

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CHECKED BY:	MLK
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DATE:	04/22/11
JOB No.:	08290-08
ILLINOIS PROJECT: PWK-3244	
A.I.P. PROJECT: 3-17-0018-B32	
SHEET 31 OF 49 SHEETS	

NUMBER	BY	DATE

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

**CHICAGO EXECUTIVE AIRPORT  
 WHEELING/PROSPECT HEIGHTS, ILLINOIS  
 CONSTRUCT PARTIAL PARALLEL TAXIWAY ECHO AND  
 PARTIAL OVERLAY OF TAXIWAY ECHO**

**ELECTRICAL AND PAVEMENT MARKING  
 DETAILS - SHEET 3**

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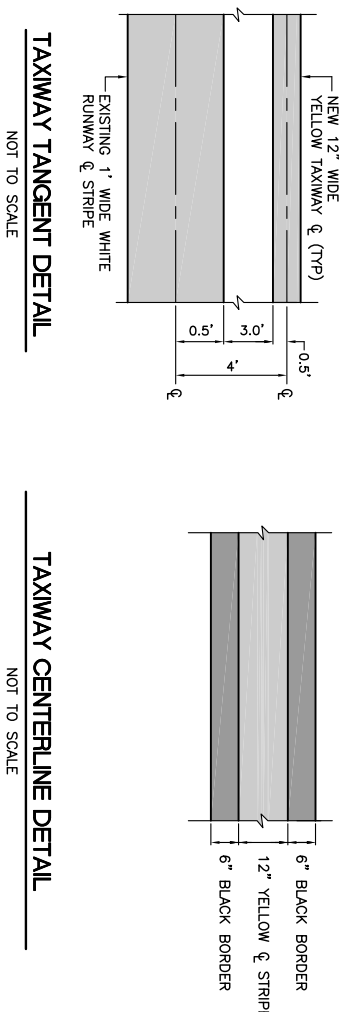


DESIGN BY:	MLK
DRAWN BY:	JRO
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A.I.P. PROJECT:	3-17-0018-B32
SHEET	32 OF 49 SHEETS

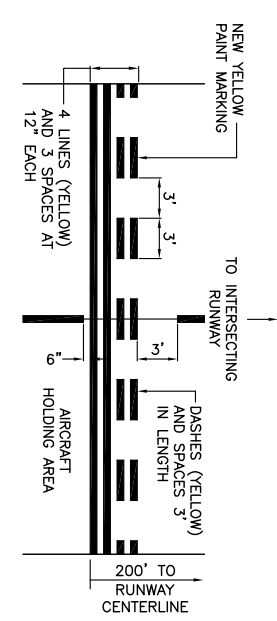
AIRFIELD SIGNAGE SCHEDULE						
NEW SIGN NUMBER	NEW SIGN FACE	EXISTING SIGN LEGEND	NEW SIGN LEGEND	NEW SIGN TYPE	NEW SIGN LOCATION	
S1	N	N/A	KNVTB 13 E1 30	0.2 2.1	STA. 2+00.42.5' RT. Q TAXIWAY E1	
S2	S	N/A	3 13 BLANK	3.2 0	STA. 1+74.50.51.88' LT. Q TAXIWAY E1	
S3	E	N/A	V 13 BLANK	3.2 2.0	STA. 183+91.91.42.5' LT. Q TAXIWAY ECHO	
S4	E	N/A	KNVTB 13 E 13 A	0.2 2.3	STA. 185+58.45.42.5' RT. Q TAXIWAY ECHO	
S5	E	N/A	B 13 E 13 B	3.2 2.0	STA. 194+55.15.42.5' LT. Q TAXIWAY ECHO	
S6	E	N/A	3 13-9 BLANK E	2.1 0.2	STA. 195+84.5.43.92' RT. Q TAXIWAY ECHO	
S7	E	N/A	KNVTB E 13 B	0 2.3	STA. 196+15.76.42.5' RT. Q TAXIWAY ECHO	
S8	SW	N/A	KNVTB V A 13 E	0.2 2.3	STA. 39+85.86.50' RT. Q TAXIWAY ALPHA	
S9 (RELOCATED)	NE	21-0E V A BLANK	21-0E V A BLANK	1.2 2.0	STA. 37+79.58.48.20' RT. Q TAXIWAY ALPHA	
S10 (RELOCATED)	NE	21-0E B B BLANK	21-0E B B BLANK	1.2 2.0	STA. 1204+15.43.42.5' RT. Q TAXIWAY BRAVO	
S11 (RELOCATED)	NE	KNVTB V A 12-30	KNVTB V A 12-30	0.2 2.1	STA. 32+71.53.43.52' LT. Q TAXIWAY ALPHA	
S12 (RELOCATED & MODIFIED)	E	V D	V D	3 0	STA. 385+80.07.62.5' LT. Q RUNWAY 12/30	
S13	NE	N/A	KNVTB A 13 E	0 2.3	STA. 36+98.01.44.26' LT. Q TAXIWAY ALPHA	
S14	NE	N/A	3 13 B BLANK	3.2 2.0	STA. 1205+94.50.40.9' RT. Q TAXIWAY BRAVO	
S15	NE	N/A	KNVTB B 13 E	0 2.3	STA. 1203+44.26.43.1' LT. Q TAXIWAY BRAVO	
S16	E	N/A	KNVTB E 1	0 3	STA. 377+95.70.62.5' RT. Q RUNWAY 12/30	
S17	NW	N/A	21-0E BLANK	1 0	STA. 185+407.50.40' LT. Q TAXIWAY ECHO	

**NEW SIGN TYPE LEGEND**

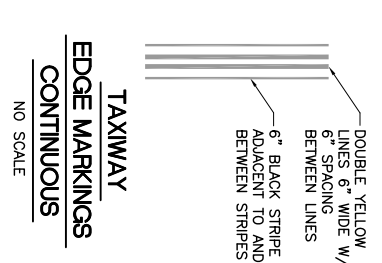
0 — BLANK PANEL — BLACK  
 1 — RUNWAY/TAXIWAY HOLDLINE — WHITE LEGEND ON RED BACKGROUND  
 2 — LOCATION SIGN — YELLOW LEGEND ON BLACK BACKGROUND  
 3 — DIRECTION/INFORMATION SIGN — BLACK LEGEND ON YELLOW BACKGROUND



NOTE: ALL MARKINGS SHALL HAVE 6" WIDE BLACK BORDER (BLACK BORDER PAID UNDER ITEM A6620525)

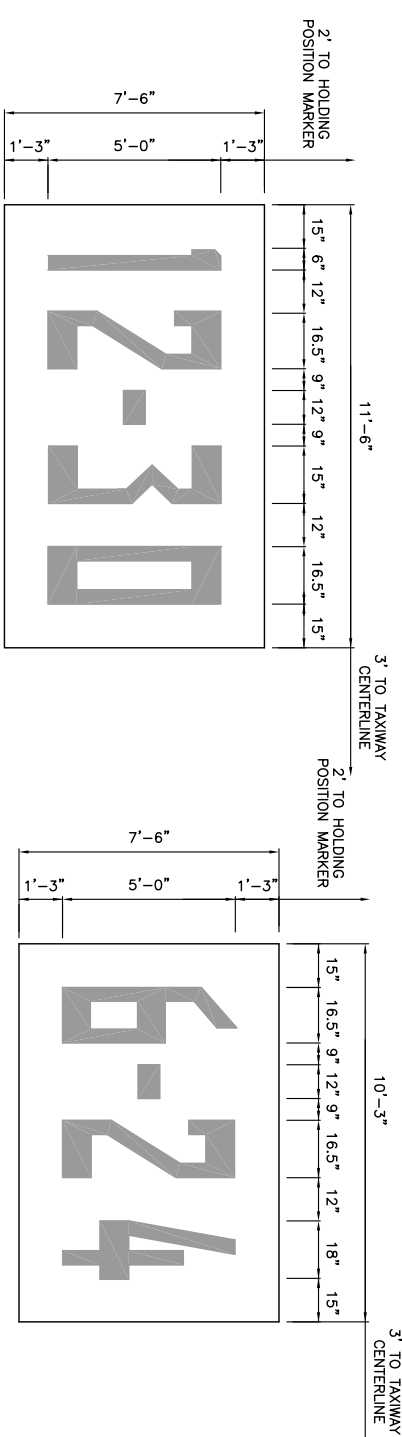


NOTE: ALL MARKINGS SHALL HAVE 6" WIDE BLACK BORDER (BLACK BORDER PAID UNDER ITEM A6620525)



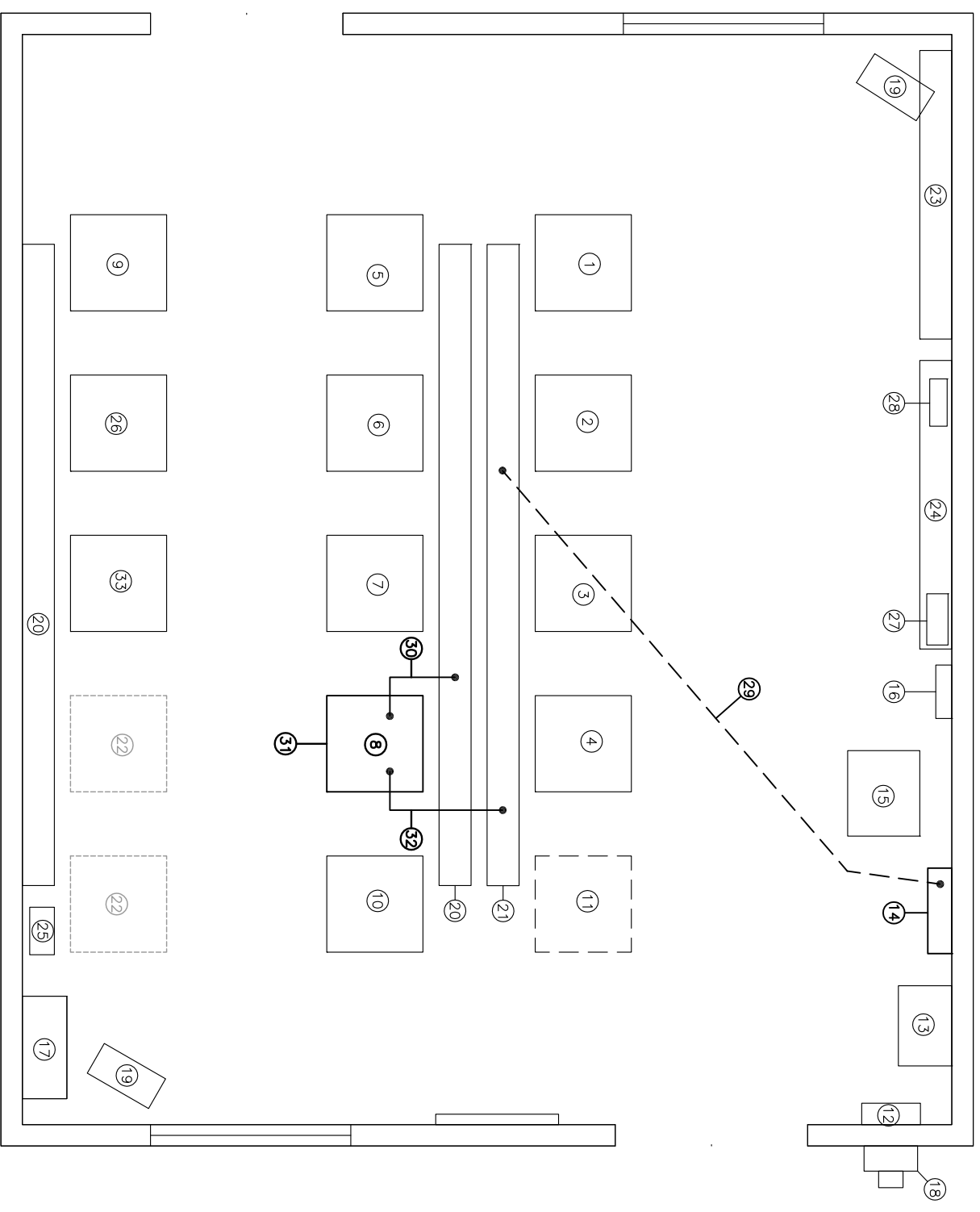
**PAVEMENT MARKING NOTES**

1. ALL TAXIWAY MARKINGS ARE YELLOW WITH A 6" BLACK BORDER.
2. THE PAVEMENT SURFACE SHALL BE CLEAN AND DRY PRIOR TO MARKING.



1. ALL SURFACE PAINTED HOLDING POSITION SIGNS SHALL HAVE A RED BACKGROUND WITH A WHITE INSCRIPTION, AND WILL BE OUTLINED WITH A 6" BLACK BORDER.
2. THE NUMERALS 12 AND 30 OR 6 AND 24 MAY BE REVERSED DEPENDING ON WHICH TAXIWAY IS BEING MARKED. SURFACE PAINTED HOLD POSITION SIGNS SHALL MATCH LIGHTED TAXI GUIDANCE SIGN PANEL.





**NEW AIRFIELD ELECTRICAL VAULT PLAN VIEW**

NOT TO SCALE

**NOTES:**

1. CONTRACTOR SHALL INSTALL (1) 60A, 2-POLE CIRCUIT BREAKER IN THE EXISTING HIGH VOLTAGE PANELBOARD. MATCH EXISTING CIRCUIT BREAKERS. UPDATE CIRCUIT DIRECTORY FOR NEW 20KW REGULATOR.
2. CONNECT NEW AND EXISTING POWER/CONTROL WIRES TO NEW 20KW REGULATOR TO BE OPERATIONAL FOR TAXIWAY A, B, E AND F CIRCUIT.

**PROPOSED VAULT NOMENCLATURE**

- 1 EXISTING 30KW (5-STEP) REGULATOR FOR RUNWAY 16/34.
- 2 EXISTING 20KW (5-STEP) REGULATOR FOR RUNWAY 6/24.
- 3 EXISTING 10KW (5-STEP) REGULATOR FOR RUNWAY 12/30.
- 4 EXISTING 10KW (3-STEP) REGULATOR FOR TAXIWAY G,D AND 34 HOLD APRON.
- 5 EXISTING 15KW (3-STEP) REGULATOR FOR RGL.
- 6 EXISTING 10 KW (3-STEP) REGULATOR FOR RUNWAY 16 APPROACH LIGHTING.
- 7 EXISTING 10 KW (3-STEP) REGULATOR FOR HFC APRON LIGHTING (DISCONNECTED).
- 8 **EXISTING 10KW (3-STEP) REGULATOR FOR TAXIWAY A,B,E AND F TO BE REMOVED.**
- 9 EXISTING 30 KW (5-STEP) REGULATOR FOR TAXIWAY D, L, Y AND Z.
- 10 EXISTING 20 KW (3-STEP) REGULATOR FOR TAXIWAY "K".
- 11 EXISTING 10KW (3-STEP) REGULATOR FOR RUNWAY 16/34 RDR.
- 12 EXISTING MAIN UTILITY SERVICE CIRCUIT BREAKER DISCONNECT, 800A, 480V..
- 13 EXISTING AUTOMATIC TRANSFER SWITCH, 800A, 480V, 3-POLE.
- 14 **EXISTING HIGH VOLTAGE POWER DISTRIBUTION PANEL, 480V, 3-PHASE WITH 800AMP MAIN CIRCUIT BREAKER (SEE NOTE 1).**
- 15 EXISTING 150KVA, 480V-280V/120V, 3Φ, 4-WIRE TRANSFORMER.
- 16 EXISTING LOW VOLTAGE LIGHTING PANEL. 208Y/120V, 3-PHASE WITH 400AMP MAIN CIRCUIT BREAKER.
- 17 EXISTING PLC CONTROL CABINET.
- 18 EXISTING 800AMP CT CABINET.
- 19 EXISTING GAS FIRED UNIT HEATER.
- 20 EXISTING 12"x12"x12' LONG HIGH VOLTAGE WIREWAY.
- 21 EXISTING 12"x12"x12' LONG LOW VOLTAGE WIREWAY.
- 22 SPACE FOR FUTURE REGULATORS.
- 23 EXISTING 12"x12"x9' LONG HIGH VOLTAGE WIREWAY.
- 24 EXISTING 12"x12"x9' LONG LOW VOLTAGE WIREWAY.
- 25 EXISTING L-854 RADIO CONTROLLER FOR PILOT CONTROL LIGHTING.
- 26 EXISTING 30 KW (3-STEP) REGULATOR, SPARE.
- 27 EXISTING REL CONTROL PANEL.
- 28 EXISTING L884 PCU CONTROLLER FOR LAHSO CIRCUIT IN NEMA 1 ENCLOSURE.
- 29 **NEW 2 #4 THWN, 1 #8 GND, IN EXISTING 4" GRS CONDUIT TO LOW VOLTAGE WIREWAY.**
- 30 **NEW 2-1/C #8 5KV, L-824 CABLE IN 1" WP/FLEX CONDUIT.**
- 31 **NEW 20KW, L-828 (3-STEP) REGULATOR FOR TAXIWAY A, B, E AND F. (SEE NOTE 2).**
- 32 **NEW 2 #4 THWN, 1 #8 GND, 4 #12 THWN, 1 #12 GND, IN 1-1/2" WP FLEX CONDUIT.**
- 33 EXISTING 10KW (3-STEP) REGULATOR FOR TAXIWAY C.

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 SURVEY BOOK #  
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REVISIONS		
NUMBER	BY	DATE

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 AT FULL SCALE (3/4X22).

**CHICAGO EXECUTIVE AIRPORT  
 WHEELING/PROSPECT HEIGHTS, ILLINOIS  
 CONSTRUCT PARTIAL PARALLEL TAXIWAY ECHO AND  
 PARTIAL OVERLAY OF TAXIWAY ECHO**

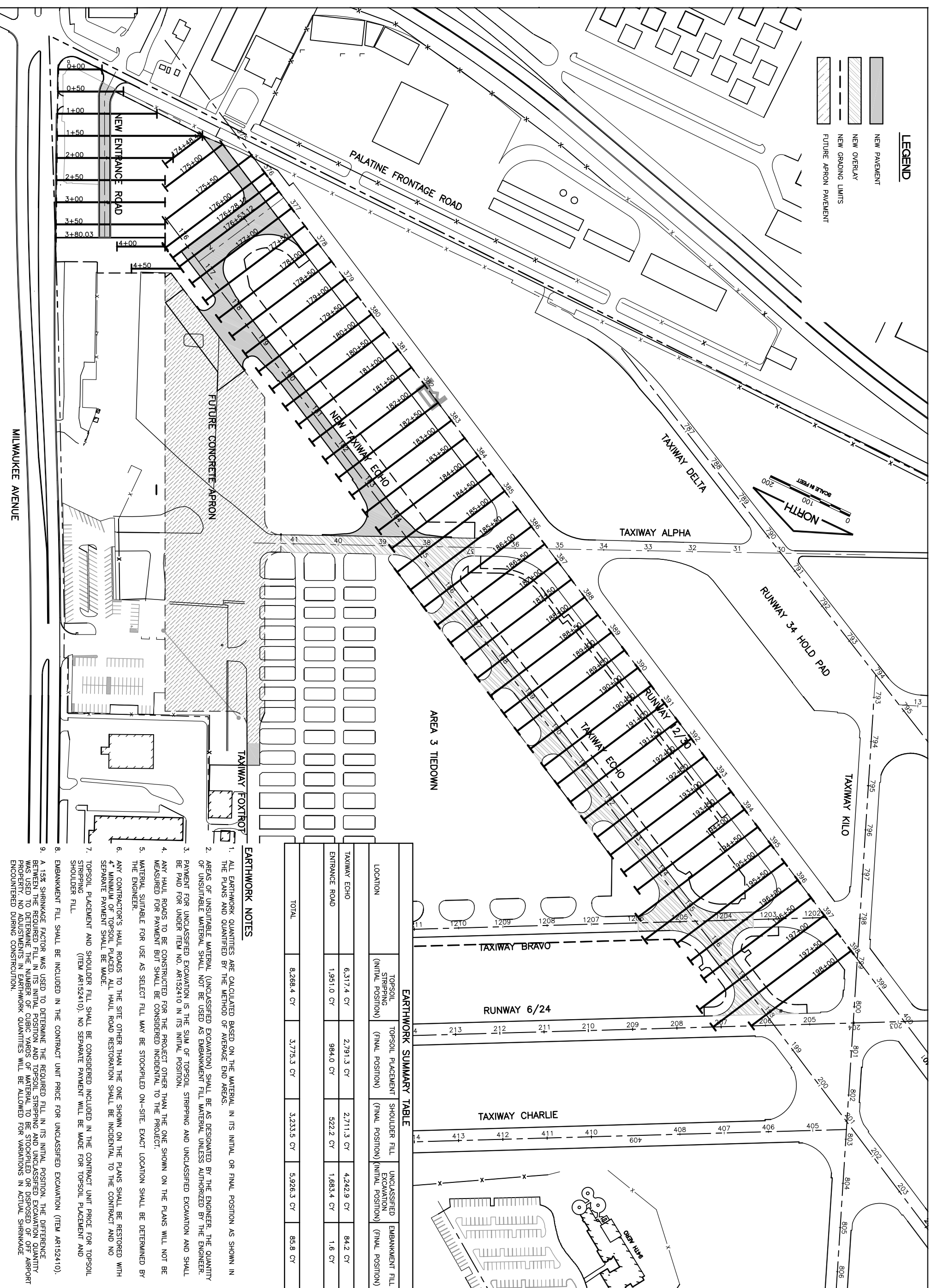
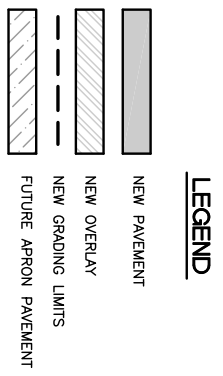
**AIRFIELD ELECTRICAL VAULT  
 MODIFICATIONS**

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**CHICAGO EXECUTIVE AIRPORT**

DESIGN BY:	AB
DRAWN BY:	JRO
CHECKED BY:	AB
APPROVED BY:	DLP
DATE:	04/22/11
JOB No:	08290-08
ILLINOIS PROJECT:	PWK-3244
A.I.P. PROJECT:	3-17-0018-B32
SHEET	33 OF 49 SHEETS



EARTHWORK SUMMARY TABLE					
LOCATION	TOPSOIL STRIPPING (INITIAL POSITION)	TOPSOIL PLACEMENT (FINAL POSITION)	SHOULDER FILL (FINAL POSITION)	UNCLASSIFIED EXCAVATION (INITIAL POSITION)	EMBANKMENT FILL (FINAL POSITION)
TAXIWAY ECHO	6,317.4 CY	2,791.3 CY	2,711.3 CY	4,242.9 CY	84.2 CY
ENTRANCE ROAD	1,951.0 CY	984.0 CY	522.2 CY	1,883.4 CY	1.6 CY
TOTAL	8,268.4 CY	3,775.3 CY	3,233.5 CY	5,926.3 CY	85.8 CY

**EARTHWORK NOTES**

1. ALL EARTHWORK QUANTITIES ARE CALCULATED BASED ON THE MATERIAL IN ITS INITIAL OR FINAL POSITION AS SHOWN IN THE PLANS AND QUANTIFIED BY THE METHOD OF AVERAGE END AREAS.
2. AREAS OF UNSUITABLE MATERIAL (UNCLASSIFIED EXCAVATION) SHALL BE AS DESIGNATED BY THE ENGINEER. THE QUANTITY OF UNSUITABLE MATERIAL SHALL NOT BE USED AS EMBANKMENT FILL MATERIAL UNLESS AUTHORIZED BY THE ENGINEER.
3. PAYMENT FOR UNCLASSIFIED EXCAVATION IS THE SUM OF TOPSOIL STRIPPING AND UNCLASSIFIED EXCAVATION AND SHALL BE PAID FOR UNDER ITEM NO. AR152410 IN ITS INITIAL POSITION.
4. ANY HAUL ROADS TO BE CONSTRUCTED FOR THE PROJECT OTHER THAN THE ONE SHOWN ON THE PLANS WILL NOT BE MEASURED FOR PAYMENT BUT SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.
5. MATERIAL SUITABLE FOR USE AS SELECT FILL MAY BE STOCKPILED ON-SITE. EXACT LOCATION SHALL BE DETERMINED BY THE ENGINEER.
6. ANY CONTRACTOR'S HAUL ROADS TO THE SITE OTHER THAN THE ONE SHOWN ON THE PLANS SHALL BE RESTORED WITH 4" MINIMUM OF TOPSOIL PLACED. ALL HAUL ROAD RESTORATION SHALL BE INCIDENTAL TO THE CONTRACT AND NO SEPARATE PAYMENT SHALL BE MADE.
7. TOPSOIL PLACEMENT AND SHOULDER FILL SHALL BE CONSIDERED INCLUDED IN THE CONTRACT UNIT PRICE FOR TOPSOIL STRIPPING (ITEM AR152410). NO SEPARATE PAYMENT WILL BE MADE FOR TOPSOIL PLACEMENT AND SHOULDER FILL.
8. EMBANKMENT FILL SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR UNCLASSIFIED EXCAVATION (ITEM AR152410).
9. A 15% SHRINKAGE FACTOR WAS USED TO DETERMINE THE REQUIRED FILL IN ITS INITIAL POSITION. THE DIFFERENCE BETWEEN THE REQUIRED FILL IN ITS INITIAL POSITION AND TOPSOIL STRIPPING AND UNCLASSIFIED EXCAVATION QUANTITY WAS USED TO DETERMINE THE NUMBER OF CUBIC YARDS OF MATERIAL TO BE STOCKPILED OR DISPOSED OF AT AIRPORT PROPERTY. NO ADJUSTMENTS IN EARTHWORK QUANTITIES WILL BE ALLOWED FOR VARIATIONS IN ACTUAL SHRINKAGE ENCOUNTERED DURING CONSTRUCTION.

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**CHICAGO EXECUTIVE AIRPORT  
WHEELING/PROSPECT HEIGHTS, ILLINOIS  
CONSTRUCT PARTIAL PARALLEL TAXIWAY ECHO AND  
PARTIAL OVERLAY OF TAXIWAY ECHO**

**INDEX TO CROSS SECTIONS  
EARTHWORK QUANTITIES**

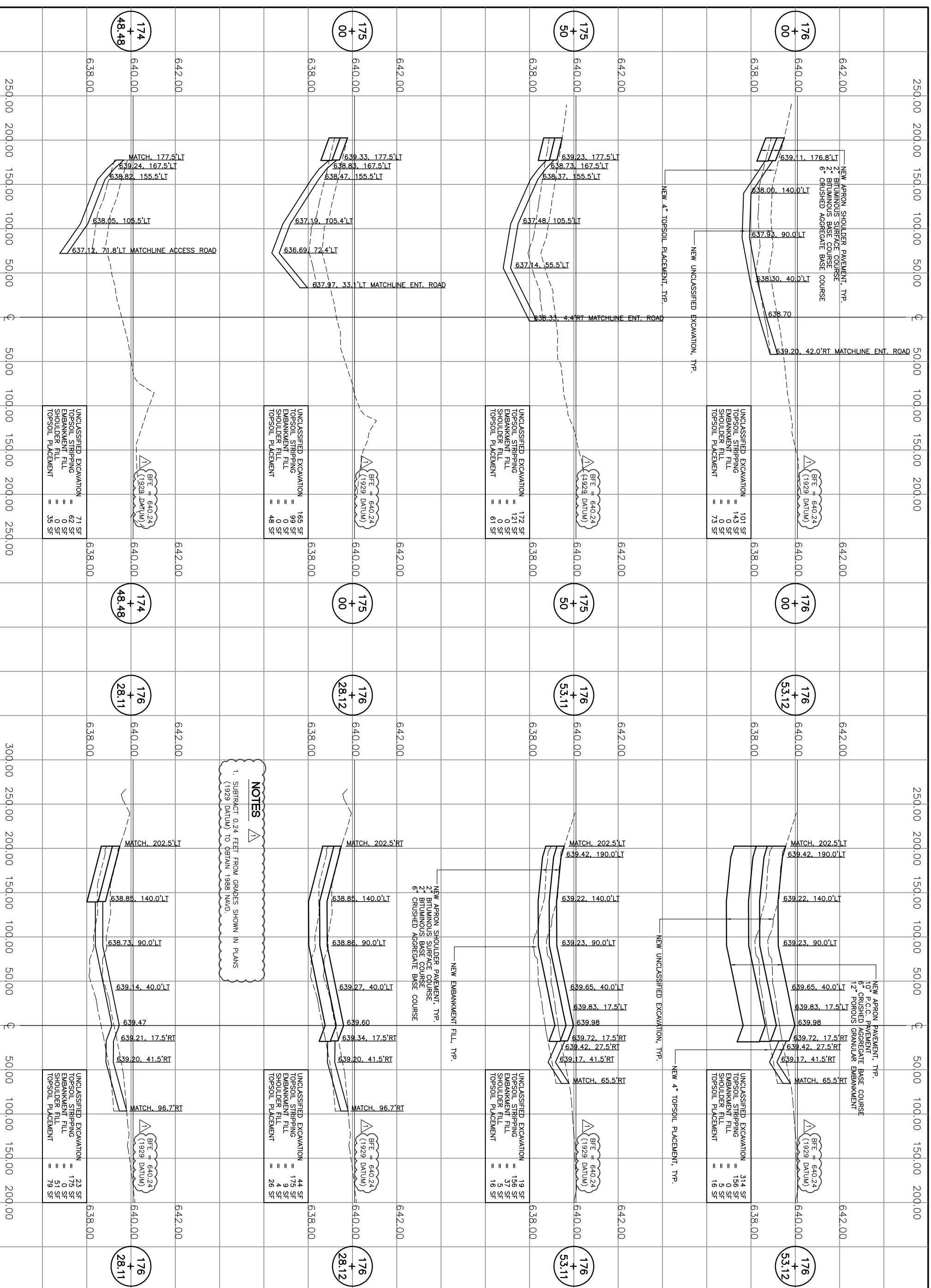
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AT FULL SCALE (3/4X22).

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DRAWN BY: MJW  
CHECKED BY: MLK  
APPROVED BY: DLP  
DATE: 04/22/11  
JOB No.: 08290-08  
ILLINOIS PROJECT: PWK-3244  
A.I.P. PROJECT: 3-17-0018-B32  
SHEET 34 OF 49 SHEETS





**NOTES**

1. SUBTRACT 0.24 FEET FROM GRADES SHOWN IN PLANS (1929 DATUM) TO OBTAIN 1988 NAVD.

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NUMBER	BY	DATE
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 AT FULL SCALE (34X22).

**CHICAGO EXECUTIVE AIRPORT  
 WHEELING/PROSPECT HEIGHTS, ILLINOIS  
 CONSTRUCT PARTIAL PARALLEL TAXIWAY ECHO AND  
 PARTIAL OVERLAY OF TAXIWAY ECHO**

**TAXIWAY ECHO  
 CROSS SECTIONS**

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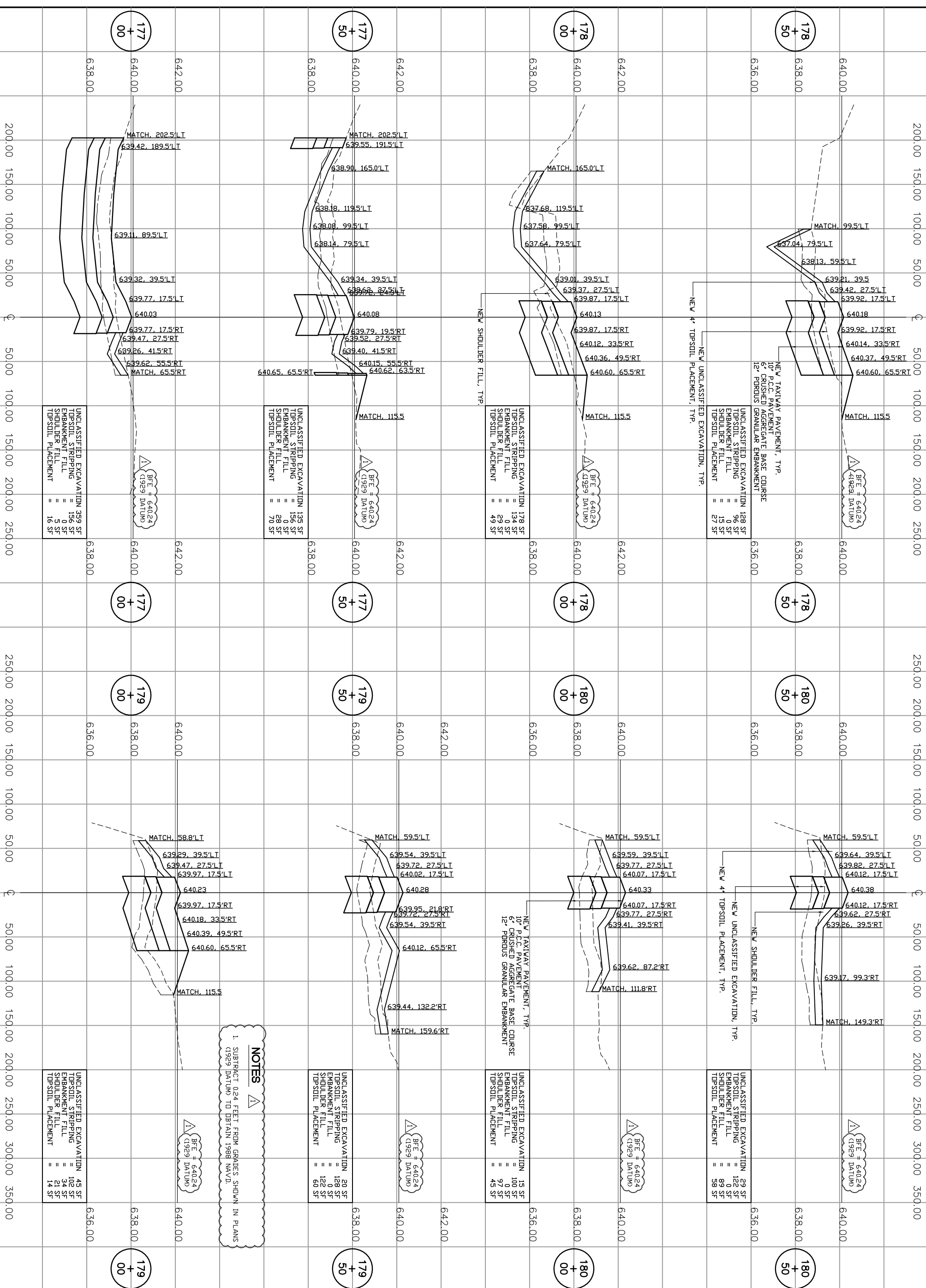
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**CHICAGO EXECUTIVE AIRPORT**

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 CHECKED BY: MLK  
 APPROVED BY: DLP  
 DATE: 04/22/11  
 JOB No.: 08290-08

ILLINOIS PROJECT: PWK-3244  
 A.I.P. PROJECT: 3-17-0018-B32

SHEET 35 OF 49 SHEETS



<p>K:\Chicago\epk\082908.txd          FILE:txy-xsec02.dwg          LAYOUT:Model          UPDATE BY: mkaatz          SURVEY BOOK #          DATE: Fri 4/1/11 9:35am          XREF DWG: techn-txy.dwg          technsp.dwg          to.dwg</p>	<p><b>REVISIONS</b></p> <table border="1"> <thead> <tr> <th>NUMBER</th> <th>BY</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>MLK</td> <td>03/31/10</td> </tr> </tbody> </table>	NUMBER	BY	DATE	1	MLK	03/31/10	<p>0          1          2          THIS BAR IS EQUAL TO 2"          AT FULL SCALE (34X22).</p>	<p><b>CHICAGO EXECUTIVE AIRPORT</b>  <b>WHEELING/PROSPECT HEIGHTS, ILLINOIS</b>  <b>CONSTRUCT PARTIAL PARALLEL TAXIWAY ECHO AND</b>  <b>PARTIAL OVERLAY OF TAXIWAY ECHO</b></p> <p><b>TAXIWAY ECHO</b>  <b>CROSS SECTIONS</b></p>
NUMBER	BY	DATE							
1	MLK	03/31/10							
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<p>ILLINOIS PROJECT: PWK-3244          A.P. PROJECT: 3-17-0018-B32</p>		<p>SHEET 36 OF 49 SHEETS</p>							

**NOTES**

1. SUBTRACT 0.24 FEET FROM GRADES SHOWN IN PLANS (1929 DATUM) TO OBTAIN 1988 NAVD.

UNCLASSIFIED EXCAVATION 359 SF  
 TOPSOIL STRIPPING = 156 SF  
 EMBANKMENT FILL = 0 SF  
 SHOULDER FILL = 5 SF  
 TOPSOIL PLACEMENT = 16 SF

UNCLASSIFIED EXCAVATION 138 SF  
 TOPSOIL STRIPPING = 136 SF  
 EMBANKMENT FILL = 28 SF  
 SHOULDER FILL = 70 SF  
 TOPSOIL PLACEMENT = 70 SF

UNCLASSIFIED EXCAVATION 178 SF  
 TOPSOIL STRIPPING = 134 SF  
 EMBANKMENT FILL = 0 SF  
 SHOULDER FILL = 29 SF  
 TOPSOIL PLACEMENT = 49 SF

UNCLASSIFIED EXCAVATION 128 SF  
 TOPSOIL STRIPPING = 96 SF  
 EMBANKMENT FILL = 0 SF  
 SHOULDER FILL = 15 SF  
 TOPSOIL PLACEMENT = 27 SF

UNCLASSIFIED EXCAVATION 20 SF  
 TOPSOIL STRIPPING = 128 SF  
 EMBANKMENT FILL = 0 SF  
 SHOULDER FILL = 122 SF  
 TOPSOIL PLACEMENT = 60 SF

UNCLASSIFIED EXCAVATION 15 SF  
 TOPSOIL STRIPPING = 100 SF  
 EMBANKMENT FILL = 0 SF  
 SHOULDER FILL = 97 SF  
 TOPSOIL PLACEMENT = 45 SF

UNCLASSIFIED EXCAVATION 29 SF  
 TOPSOIL STRIPPING = 122 SF  
 EMBANKMENT FILL = 0 SF  
 SHOULDER FILL = 89 SF  
 TOPSOIL PLACEMENT = 58 SF

177+00

177+50

178+00

178+50

177+00

177+50

178+00

178+50

179+00

179+50

180+00

180+50

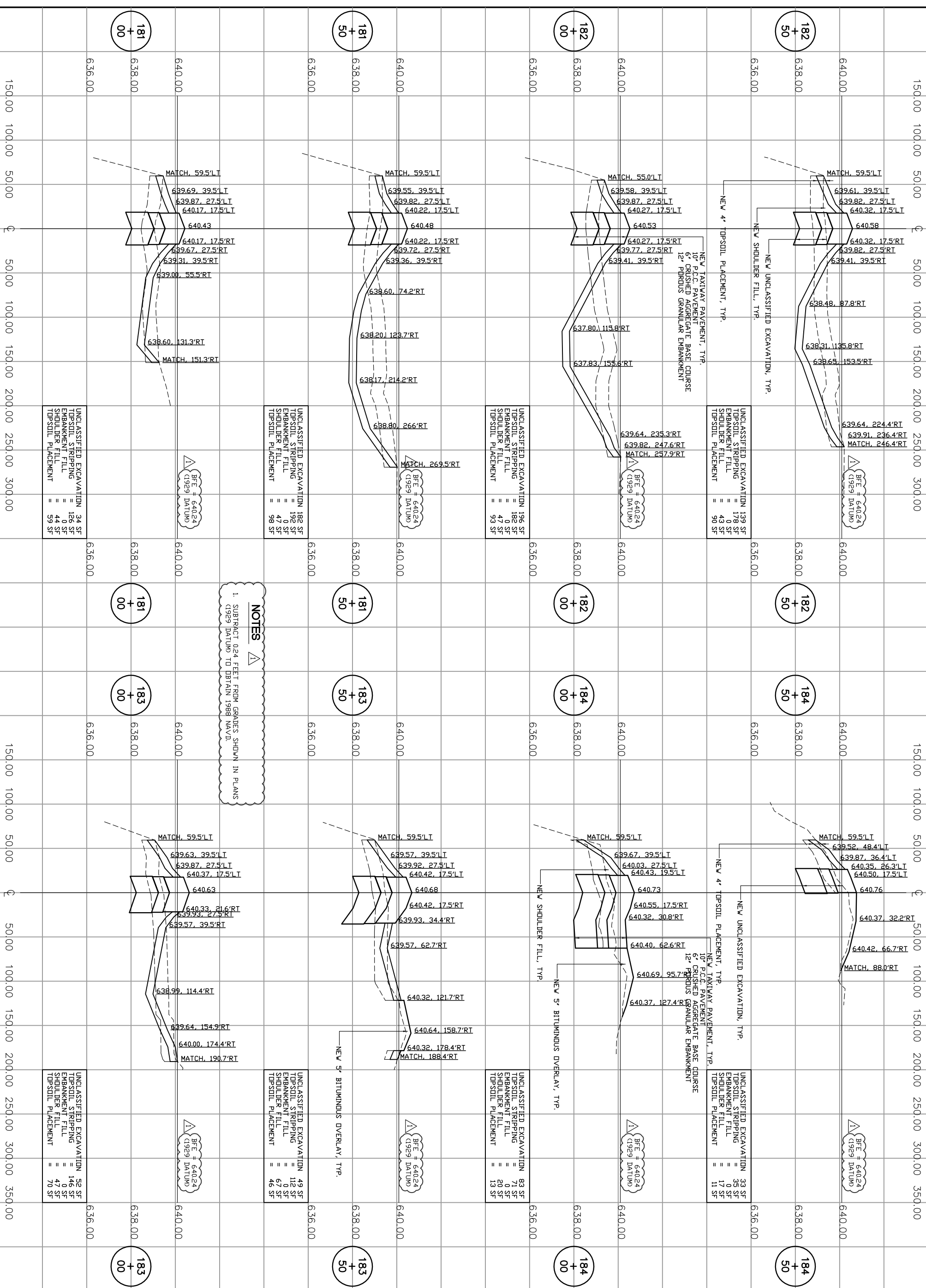
179+00

179+50

180+00

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**NOTES**

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**CHICAGO EXECUTIVE AIRPORT  
 WHEELING/PROSPECT HEIGHTS, ILLINOIS  
 CONSTRUCT PARTIAL PARALLEL TAXIWAY ECHO AND  
 PARTIAL OVERLAY OF TAXIWAY ECHO**

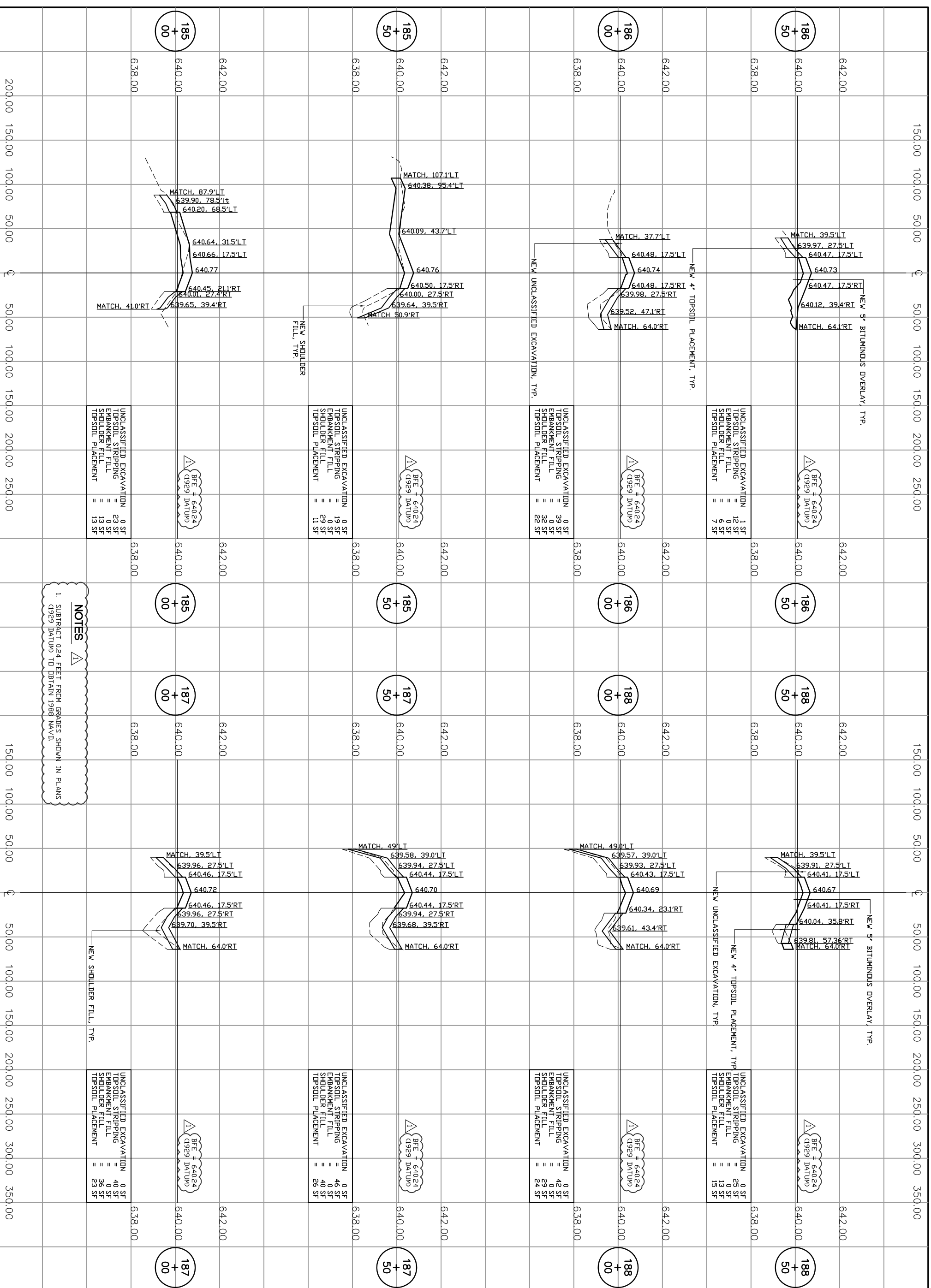
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 CHECKED BY: MLK  
 APPROVED BY: DLP  
 DATE: 04/22/11  
 JOB No: 08290-08  
 ILLINOIS PROJECT: PWK-3244  
 A.P. PROJECT: 3-17-0018-B32  
 SHEET 37 OF 49 SHEETS

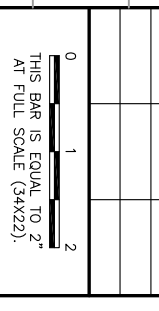


**NOTES**

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REVISIONS		
NUMBER	BY	DATE
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**CHICAGO EXECUTIVE AIRPORT  
 WHEELING/PROSPECT HEIGHTS, ILLINOIS  
 CONSTRUCT PARTIAL PARALLEL TAXIWAY ECHO AND  
 PARTIAL OVERLAY OF TAXIWAY ECHO**

**TAXIWAY ECHO  
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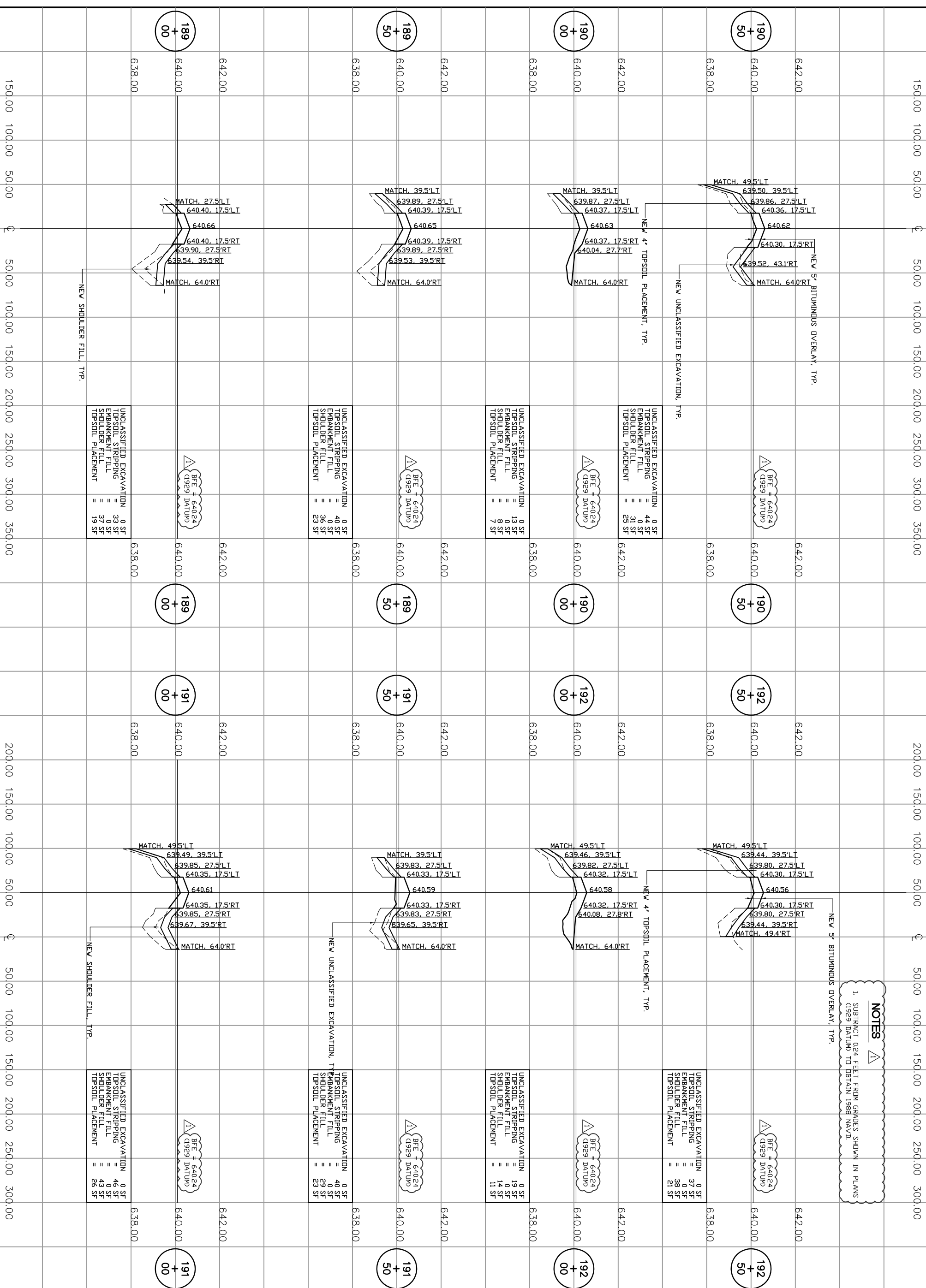
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JOB No.:	08290-08
ILLINOIS PROJECT:	PWK-3244
A.I.P. PROJECT:	3-17-0018-B32
SHEET	38 OF 49 SHEETS





**NOTES**

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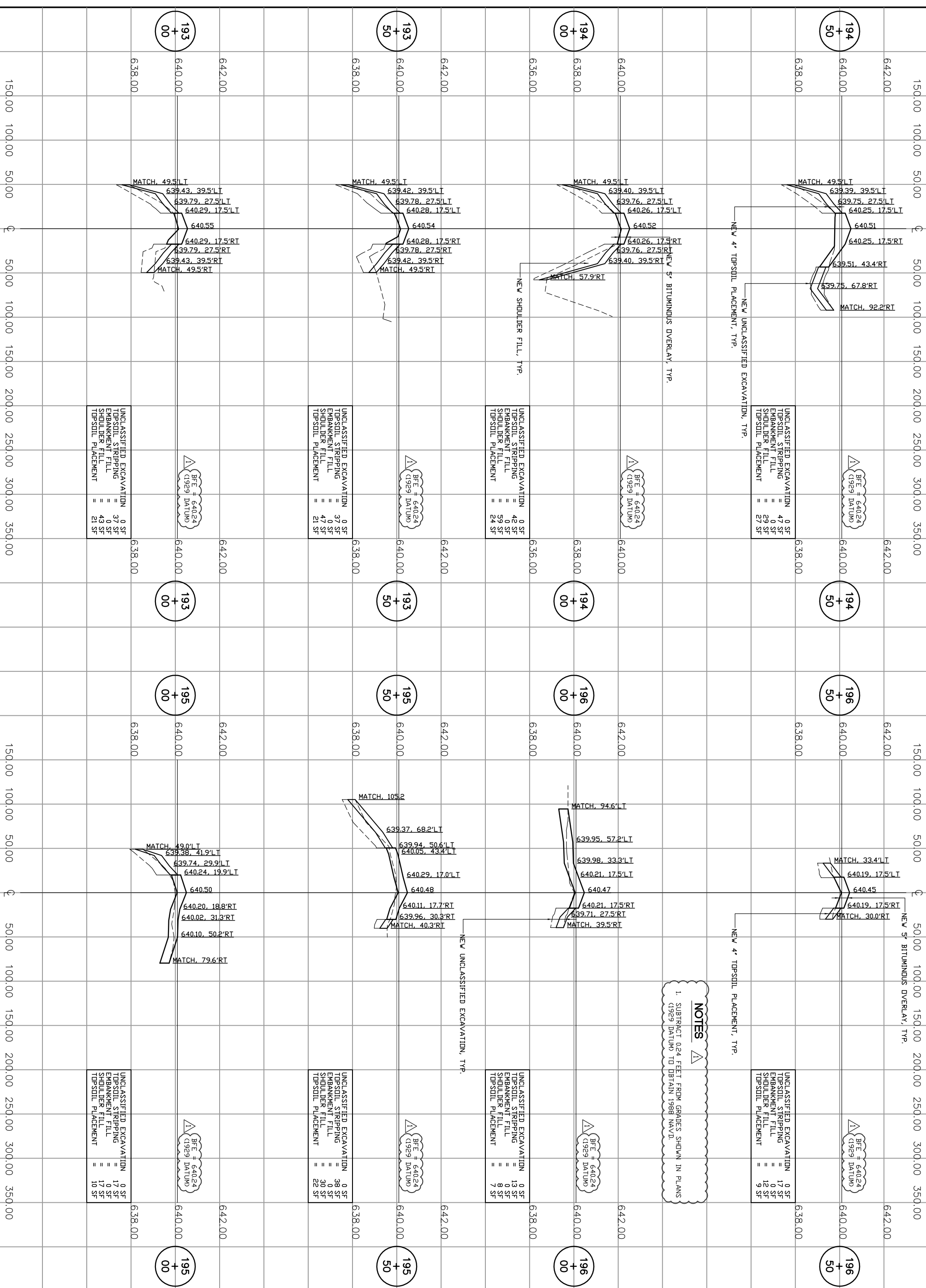
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**CHICAGO EXECUTIVE AIRPORT  
 WHEELING/PROSPECT HEIGHTS, ILLINOIS  
 CONSTRUCT PARTIAL PARALLEL TAXIWAY ECHO AND  
 PARTIAL OVERLAY OF TAXIWAY ECHO**

**TAXIWAY ECHO  
 CROSS SECTIONS**



DESIGN BY: MLK  
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 CHECKED BY: MLK  
 APPROVED BY: DLP  
 DATE: 04/22/11  
 JOB No: 08290-08  
 ILLINOIS PROJECT: PWK-3244  
 A.P. PROJECT: 3-17-0018-B32  
 SHEET 39 OF 49 SHEETS

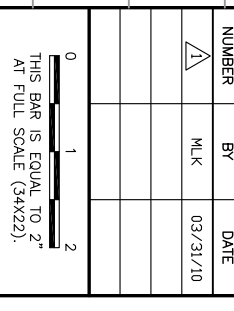


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NUMBER	BY DATE
1	MLK 03/31/10



**CHICAGO EXECUTIVE AIRPORT  
 WHEELING/PROSPECT HEIGHTS, ILLINOIS  
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JOB No.:	08290-08
ILLINOIS PROJECT: PWK-3244	
A.I.P. PROJECT: 3-17-0018-B32	
SHEET 40 OF 49 SHEETS	



750.00 700.00 650.00 600.00 550.00 500.00 450.00 400.00 350.00 300.00 250.00 200.00 150.00 100.00 50.00 50.00 100.00 150.00 200.00 250.00 300.00 350.00 400.00 450.00 500.00 550.00

**NOTES**  
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REVISIONS		
NUMBER	BY	DATE
1	MLK	03/31/10

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 AT FULL SCALE (34X22).

**CHICAGO EXECUTIVE AIRPORT  
 WHEELING/PROSPECT HEIGHTS, ILLINOIS  
 CONSTRUCT PARTIAL PARALLEL TAXIWAY ECHO AND  
 PARTIAL OVERLAY OF TAXIWAY ECHO**

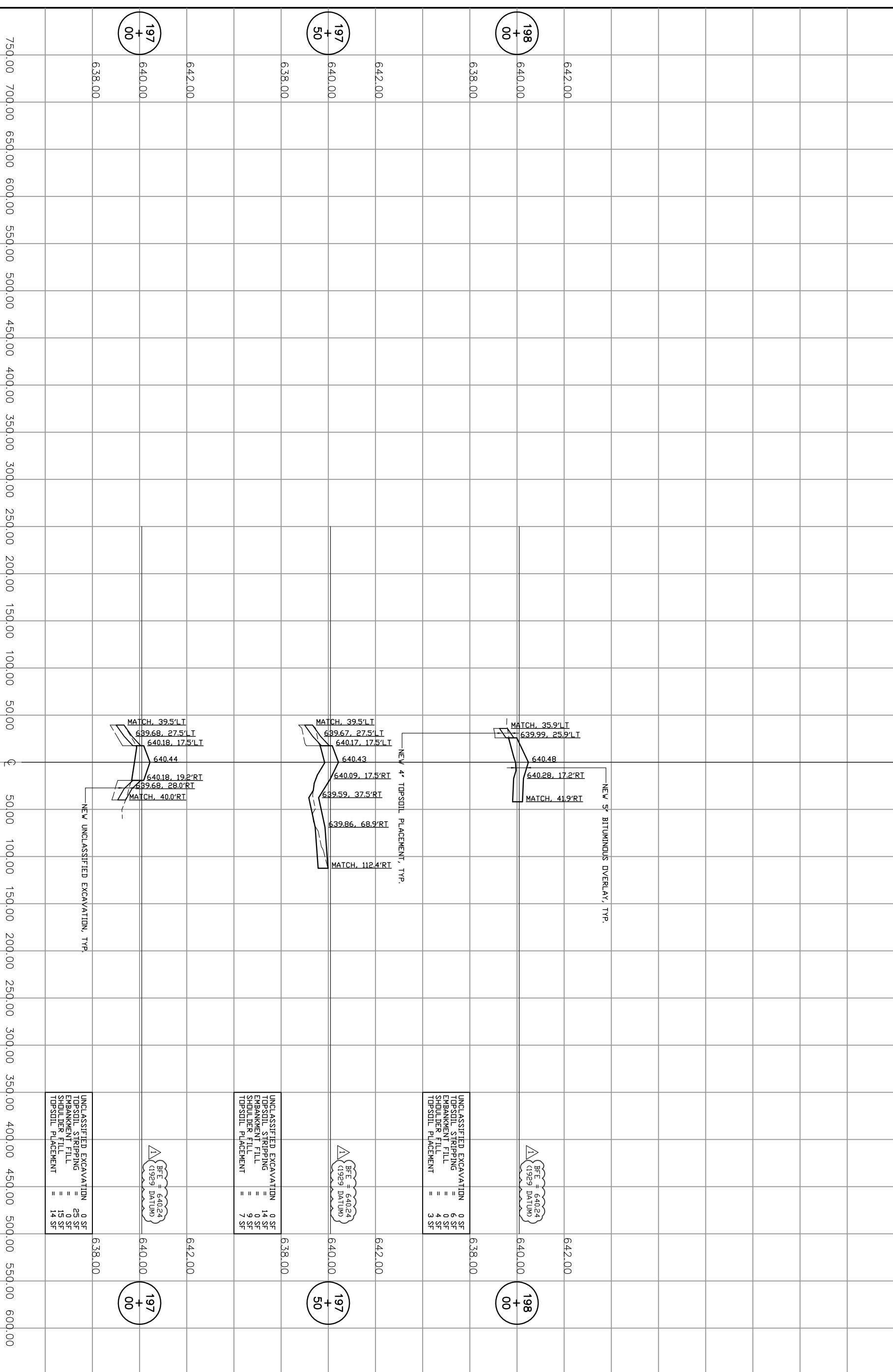
**TAXIWAY ECHO  
 CROSS SECTIONS**

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**CHICAGO EXECUTIVE AIRPORT**

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 DATE: 04/22/11  
 JOB No: 08290-08  
 ILLINOIS PROJECT: PWK-3244  
 A.I.P. PROJECT: 3-17-0018-B32  
 SHEET 41 OF 49 SHEETS



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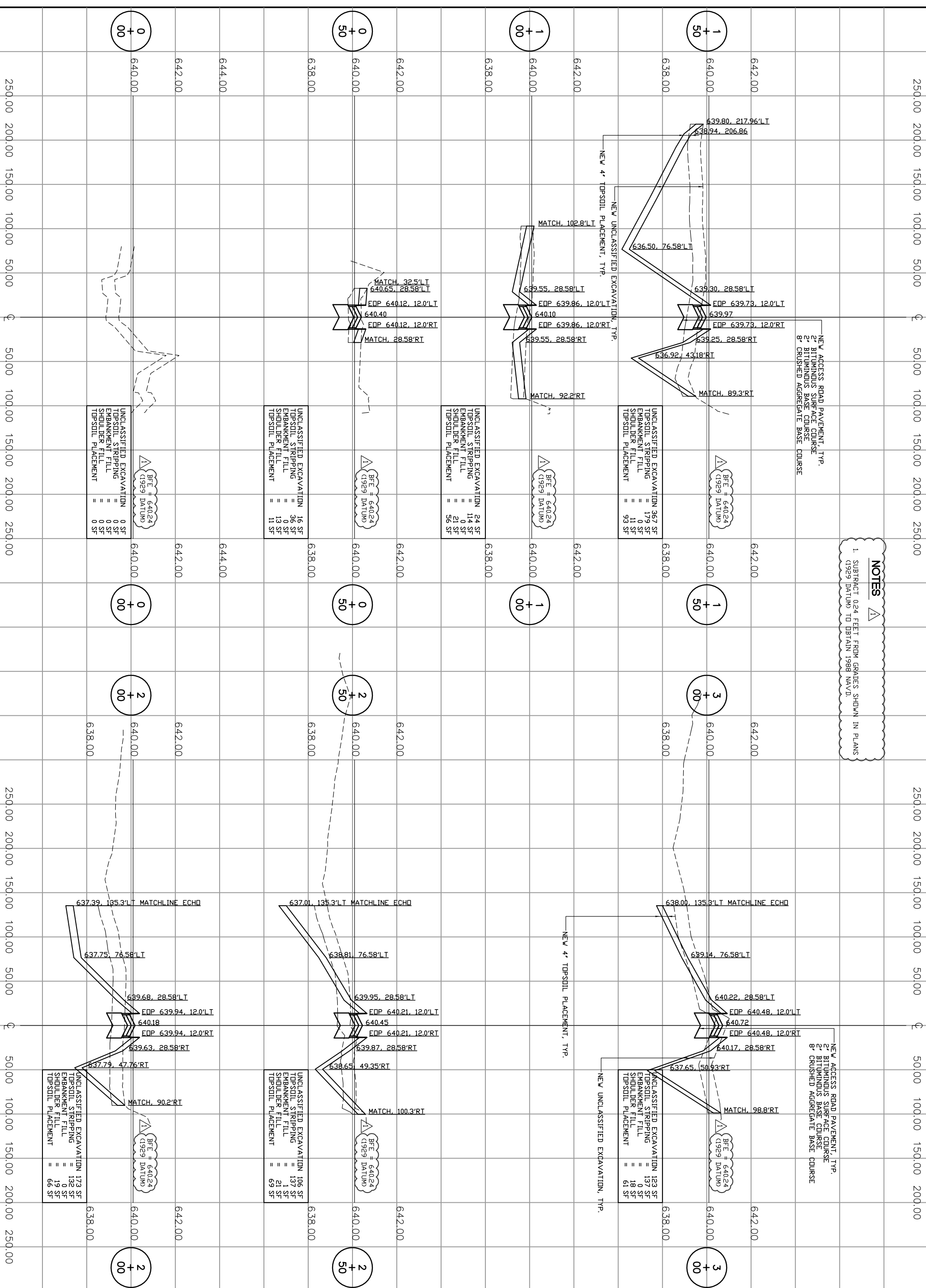
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**NOTES**

1. SUBTRACT 0.24 FEET FROM GRADES SHOWN IN PLANS (1929 DATUM) TO OBTAIN 1988 NAVD.

NEW ACCESS ROAD PAVEMENT, TYP.  
 2" BITUMINOUS SURFACE COURSE  
 8" CRUSHED AGGREGATE BASE COURSE

NEW ACCESS ROAD PAVEMENT, TYP.  
 2" BITUMINOUS SURFACE COURSE  
 8" CRUSHED AGGREGATE BASE COURSE

REVISIONS		
NUMBER	BY	DATE
1	MLK	03/31/10

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

**CHICAGO EXECUTIVE AIRPORT  
 WHEELING/PROSPECT HEIGHTS, ILLINOIS  
 CONSTRUCT PARTIAL PARALLEL TAXIWAY ECHO AND  
 PARTIAL OVERLAY OF TAXIWAY ECHO**

**ENTRANCE ROAD  
 CROSS SECTIONS**

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**CHICAGO EXECUTIVE AIRPORT**

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CHECKED BY:	MLK
APPROVED BY:	DLP
DATE:	04/22/11
JOB No.:	08290-08
ILLINOIS PROJECT:	PWK-3244
A.I.P. PROJECT:	3-17-0018-B32

SHEET 42 OF 49 SHEETS





LOG OF BORING NO. SB-1

CLIENT Crawford, Murphy & Tilly, Inc.	BORING LOCATION Station 177+29.1
PROJECT LOCATION Chicago Executive Airport, Wheeling and Prospect Heights, Illinois	PROJECT DESCRIPTION Geotechnical Investigation For The Proposed Overlay & Extension Of Taxiway E, Chicago Executive Airport
DEPTH (FT.) BELOW GROUND SURFACE	UNIT DRY WT. LBS./FT. <sup>3</sup>
SAMPLE NUMBER	CALIBRATED PENETROMETER TONS/FT.
SAMPLE TYPE	WATER CONTENT %
SAMPLE DISTANCE	STANDARD % PENETRATION (BLDS/FT)
SAMPLE RECOVERY	UNCORRECTED COMPRESSIVE STRENGTH TONS/FT.
DESCRIPTION OF MATERIAL	
GROUND SURFACE ELEVATION 639.40	
1 AS 6.0" ASPHALT	
2 SS TOPSOIL-block	
3 SS SILTY CLAY- trace sand & gravel- brown & gray-stiff (CL) Wet	
4 SS Clayey SAND & GRAVEL- brown-medium dense (GC)	
5 SS SILTY CLAY- trace sand & gravel- gray-stiff (CL)	
END OF BORING	
WATER LEVEL OBSERVATIONS	BORING STARTED January 8, 2009
Water Level Vane Drilling	BORING COMPLETED January 8, 2009
Water Level After Borings	RIG D-25 FOREMAN RJ
	BRAMAN RVC APPROVED AJP
	CSI JOB No. 08280 SHEET 1 OF 1

LOG OF BORING NO. SB-2

CLIENT Crawford, Murphy & Tilly, Inc.	BORING LOCATION Station 183+45.34
PROJECT LOCATION Chicago Executive Airport, Wheeling and Prospect Heights, Illinois	PROJECT DESCRIPTION Geotechnical Investigation For The Proposed Overlay & Extension Of Taxiway E, Chicago Executive Airport
DEPTH (FT.) BELOW GROUND SURFACE	UNIT DRY WT. LBS./FT. <sup>3</sup>
SAMPLE NUMBER	CALIBRATED PENETROMETER TONS/FT.
SAMPLE TYPE	WATER CONTENT %
SAMPLE DISTANCE	STANDARD % PENETRATION (BLDS/FT)
SAMPLE RECOVERY	UNCORRECTED COMPRESSIVE STRENGTH TONS/FT.
DESCRIPTION OF MATERIAL	
GROUND SURFACE ELEVATION 638.45	
1 AS 7.0" TOPSOIL	
2 SS SILTY CLAY- trace to some sand- brown & gray-stiff (CL)	
3 SS SILT seams from -3.5' to -5.0'	
4 SS SILTY CLAY- trace sand & gravel- gray-very stiff to hard (CL)	
5 SS	
END OF BORING	
WATER LEVEL OBSERVATIONS	BORING STARTED January 8, 2009
Water Level Vane Drilling	BORING COMPLETED January 8, 2009
Water Level After Borings	RIG D-25 FOREMAN RJ
	BRAMAN RVC APPROVED AJP
	CSI JOB No. 08280 SHEET 1 OF 1

LOG OF BORING NO. SB-3

CLIENT Crawford, Murphy & Tilly, Inc.	BORING LOCATION Station 189+08.45
PROJECT LOCATION Chicago Executive Airport, Wheeling and Prospect Heights, Illinois	PROJECT DESCRIPTION Geotechnical Investigation For The Proposed Overlay & Extension Of Taxiway E, Chicago Executive Airport
DEPTH (FT.) BELOW GROUND SURFACE	UNIT DRY WT. LBS./FT. <sup>3</sup>
SAMPLE NUMBER	CALIBRATED PENETROMETER TONS/FT.
SAMPLE TYPE	WATER CONTENT %
SAMPLE DISTANCE	STANDARD % PENETRATION (BLDS/FT)
SAMPLE RECOVERY	UNCORRECTED COMPRESSIVE STRENGTH TONS/FT.
DESCRIPTION OF MATERIAL	
GROUND SURFACE ELEVATION 638.79	
1 AS 7.0" TOPSOIL	
2 SS SILTY CLAY- trace to some sand- brown & gray-stiff (CL) Wet	
3 SS	
4 SS SILTY CLAY- trace sand & gravel- gray-very stiff (CL)	
5 SS	
END OF BORING	
WATER LEVEL OBSERVATIONS	BORING STARTED January 8, 2009
Water Level Vane Drilling	BORING COMPLETED January 8, 2009
Water Level After Borings	RIG D-25 FOREMAN RJ
	BRAMAN RVC APPROVED AJP
	CSI JOB No. 08280 SHEET 1 OF 1

LOG OF BORING NO. SB-4

CLIENT Crawford, Murphy & Tilly, Inc.	BORING LOCATION Station 175+26.87
PROJECT LOCATION Chicago Executive Airport, Wheeling and Prospect Heights, Illinois	PROJECT DESCRIPTION Geotechnical Investigation For The Proposed Overlay & Extension Of Taxiway E, Chicago Executive Airport
DEPTH (FT.) BELOW GROUND SURFACE	UNIT DRY WT. LBS./FT. <sup>3</sup>
SAMPLE NUMBER	CALIBRATED PENETROMETER TONS/FT.
SAMPLE TYPE	WATER CONTENT %
SAMPLE DISTANCE	STANDARD % PENETRATION (BLDS/FT)
SAMPLE RECOVERY	UNCORRECTED COMPRESSIVE STRENGTH TONS/FT.
DESCRIPTION OF MATERIAL	
GROUND SURFACE ELEVATION 638.83	
1 AS 10.0" ASPHALT, 4.0" CRUSHED STONE	
2 SS SILTY CLAY- trace some sand- dark brown-medium stiff to stiff (CL)	
3 SS	
4 SS Poorly Graded SAND- trace gravel- brown-very loose (SP)	
5 SS SILTY CLAY- trace some sand- gray-medium stiff (CL)	
END OF BORING	
WATER LEVEL OBSERVATIONS	BORING STARTED December 29, 2008
Water Level Vane Drilling	BORING COMPLETED December 29, 2008
Water Level After Borings	RIG D-25 FOREMAN RJ
	BRAMAN RVC APPROVED AJP
	CSI JOB No. 08280 SHEET 1 OF 1

LOG OF BORING NO. SB-5

CLIENT Crawford, Murphy & Tilly, Inc.	BORING LOCATION Station 174+12.1
PROJECT LOCATION Chicago Executive Airport, Wheeling and Prospect Heights, Illinois	PROJECT DESCRIPTION Geotechnical Investigation For The Proposed Overlay & Extension Of Taxiway E, Chicago Executive Airport
DEPTH (FT.) BELOW GROUND SURFACE	UNIT DRY WT. LBS./FT. <sup>3</sup>
SAMPLE NUMBER	CALIBRATED PENETROMETER TONS/FT.
SAMPLE TYPE	WATER CONTENT %
SAMPLE DISTANCE	STANDARD % PENETRATION (BLDS/FT)
SAMPLE RECOVERY	UNCORRECTED COMPRESSIVE STRENGTH TONS/FT.
DESCRIPTION OF MATERIAL	
GROUND SURFACE ELEVATION 638.67	
1 AS 6.0" ASPHALT, 6.0" CRUSHED STONE	
2 SS SILTY CLAY- trace some sand- dark brown-very stiff (CL)	
3 SS	
4 SS Clayey SAND & GRAVEL- brown & gray-medium dense (GC)	
5 SS	
END OF BORING	
WATER LEVEL OBSERVATIONS	BORING STARTED December 29, 2008
Water Level Vane Drilling	BORING COMPLETED December 29, 2008
Water Level After Borings	RIG D-25 FOREMAN RJ
	BRAMAN RVC APPROVED AJP
	CSI JOB No. 08280 SHEET 1 OF 1

LOG OF BORING NO. SB-6

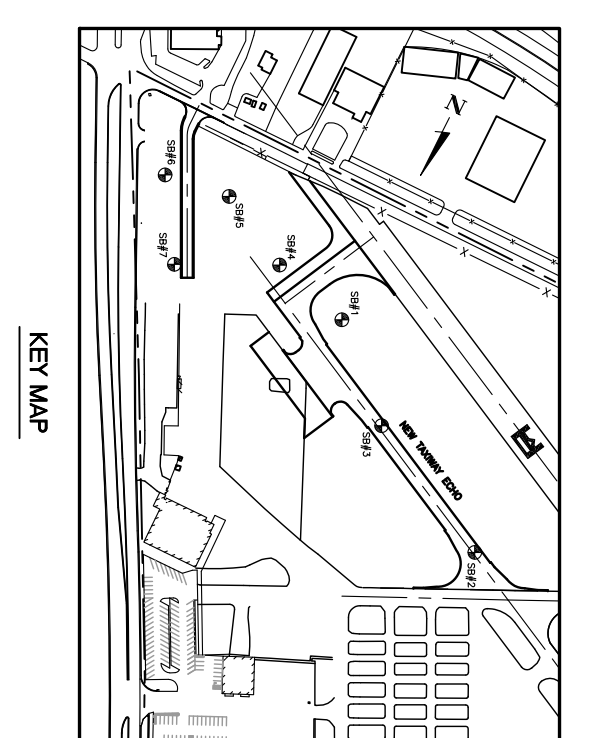
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PROJECT LOCATION Chicago Executive Airport, Wheeling and Prospect Heights, Illinois	PROJECT DESCRIPTION Geotechnical Investigation For The Proposed Overlay & Extension Of Taxiway E, Chicago Executive Airport
DEPTH (FT.) BELOW GROUND SURFACE	UNIT DRY WT. LBS./FT. <sup>3</sup>
SAMPLE NUMBER	CALIBRATED PENETROMETER TONS/FT.
SAMPLE TYPE	WATER CONTENT %
SAMPLE DISTANCE	STANDARD % PENETRATION (BLDS/FT)
SAMPLE RECOVERY	UNCORRECTED COMPRESSIVE STRENGTH TONS/FT.
DESCRIPTION OF MATERIAL	
GROUND SURFACE ELEVATION 638.38	
1 AS 7.0" ASPHALT	
2 SS SILTY CLAY- trace to some sand- brown & gray-very stiff (CL)	
3 SS SANDY CLAY- trace gravel- brown-stiff (CL)	
4 SS Clayey SAND & GRAVEL- brown- medium dense to very dense (GC)	
5 SS	
END OF BORING	
WATER LEVEL OBSERVATIONS	BORING STARTED January 8, 2009
Water Level Vane Drilling	BORING COMPLETED January 8, 2009
Water Level After Borings	RIG D-25 FOREMAN RJ
	BRAMAN RVC APPROVED AJP
	CSI JOB No. 08280 SHEET 1 OF 1

LOG OF BORING NO. SB-7

CLIENT Crawford, Murphy & Tilly, Inc.	BORING LOCATION Station 141+32.81
PROJECT LOCATION Chicago Executive Airport, Wheeling and Prospect Heights, Illinois	PROJECT DESCRIPTION Geotechnical Investigation For The Proposed Overlay & Extension Of Taxiway E, Chicago Executive Airport
DEPTH (FT.) BELOW GROUND SURFACE	UNIT DRY WT. LBS./FT. <sup>3</sup>
SAMPLE NUMBER	CALIBRATED PENETROMETER TONS/FT.
SAMPLE TYPE	WATER CONTENT %
SAMPLE DISTANCE	STANDARD % PENETRATION (BLDS/FT)
SAMPLE RECOVERY	UNCORRECTED COMPRESSIVE STRENGTH TONS/FT.
DESCRIPTION OF MATERIAL	
GROUND SURFACE ELEVATION 640.39	
1 AS 6.0" TOPSOIL-block	
2 SS SILTY CLAY- trace some sand- dark brown-stiff (CL) Wet	
3 SS	
4 SS Poorly Graded SAND- trace gravel & silt- brown-medium dense (SP)	
5 SS Clayey SAND & GRAVEL- brown & gray-medium dense (GC)	
END OF BORING	
WATER LEVEL OBSERVATIONS	BORING STARTED December 29, 2008
Water Level Vane Drilling	BORING COMPLETED December 29, 2008
Water Level After Borings	RIG D-25 FOREMAN RJ
	BRAMAN RVC APPROVED AJP
	CSI JOB No. 08280 SHEET 1 OF 1

LOG OF BORING NO. SB-8

CLIENT Crawford, Murphy & Tilly, Inc.	BORING LOCATION Station 141+32.81
PROJECT LOCATION Chicago Executive Airport, Wheeling and Prospect Heights, Illinois	PROJECT DESCRIPTION Geotechnical Investigation For The Proposed Overlay & Extension Of Taxiway E, Chicago Executive Airport
DEPTH (FT.) BELOW GROUND SURFACE	UNIT DRY WT. LBS./FT. <sup>3</sup>
SAMPLE NUMBER	CALIBRATED PENETROMETER TONS/FT.
SAMPLE TYPE	WATER CONTENT %
SAMPLE DISTANCE	STANDARD % PENETRATION (BLDS/FT)
SAMPLE RECOVERY	UNCORRECTED COMPRESSIVE STRENGTH TONS/FT.
DESCRIPTION OF MATERIAL	
GROUND SURFACE ELEVATION 640.39	
1 AS 6.0" TOPSOIL-block	
2 SS SILTY CLAY- trace some sand- dark brown-stiff (CL) Wet	
3 SS	
4 SS Poorly Graded SAND- trace gravel & silt- brown-medium dense (SP)	
5 SS Clayey SAND & GRAVEL- brown & gray-medium dense (GC)	
END OF BORING	
WATER LEVEL OBSERVATIONS	BORING STARTED December 29, 2008
Water Level Vane Drilling	BORING COMPLETED December 29, 2008
Water Level After Borings	RIG D-25 FOREMAN RJ
	BRAMAN RVC APPROVED AJP
	CSI JOB No. 08280 SHEET 1 OF 1



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NUMBER	BY	DATE

**CHICAGO EXECUTIVE AIRPORT  
WHEELING/PROSPECT HEIGHTS, ILLINOIS  
CONSTRUCT PARTIAL PARALLEL TAXIWAY ECHO AND  
PARTIAL OVERLAY OF TAXIWAY ECHO**

**ENGINEERING INFORMATION**

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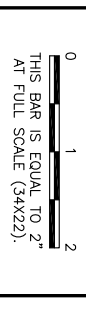
**CHICAGO EXECUTIVE AIRPORT**

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DRAWN BY:	JRO
CHECKED BY:	MLK
APPROVED BY:	DLP
DATE:	04/22/11
JOB NO.:	08290-08
ILLINOIS PROJECT:	PWK-3244
A.I.P. PROJECT:	3-17-0018-B32
SHEET	44 OF 49 SHEETS



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REVISIONS		
NUMBER	BY	DATE



**CHICAGO EXECUTIVE AIRPORT  
 WHEELING/PROSPECT HEIGHTS, ILLINOIS  
 CONSTRUCT PARTIAL PARALLEL TAXIWAY ECHO AND  
 PARTIAL OVERLAY OF TAXIWAY ECHO**

**ADDITIVE ALTERNATE #1  
 PLAN AND PROFILE  
 TAXIWAY BRAVO**

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**CHICAGO EXECUTIVE AIRPORT**

DESIGN BY:	MLK
DRAWN BY:	JRO
CHECKED BY:	MLK
APPROVED BY:	DLP
DATE:	04/22/11
JOB No.:	08290-08
ILLINOIS PROJECT:	PWK-3244
A.I.P. PROJECT:	3-17-0018-B32



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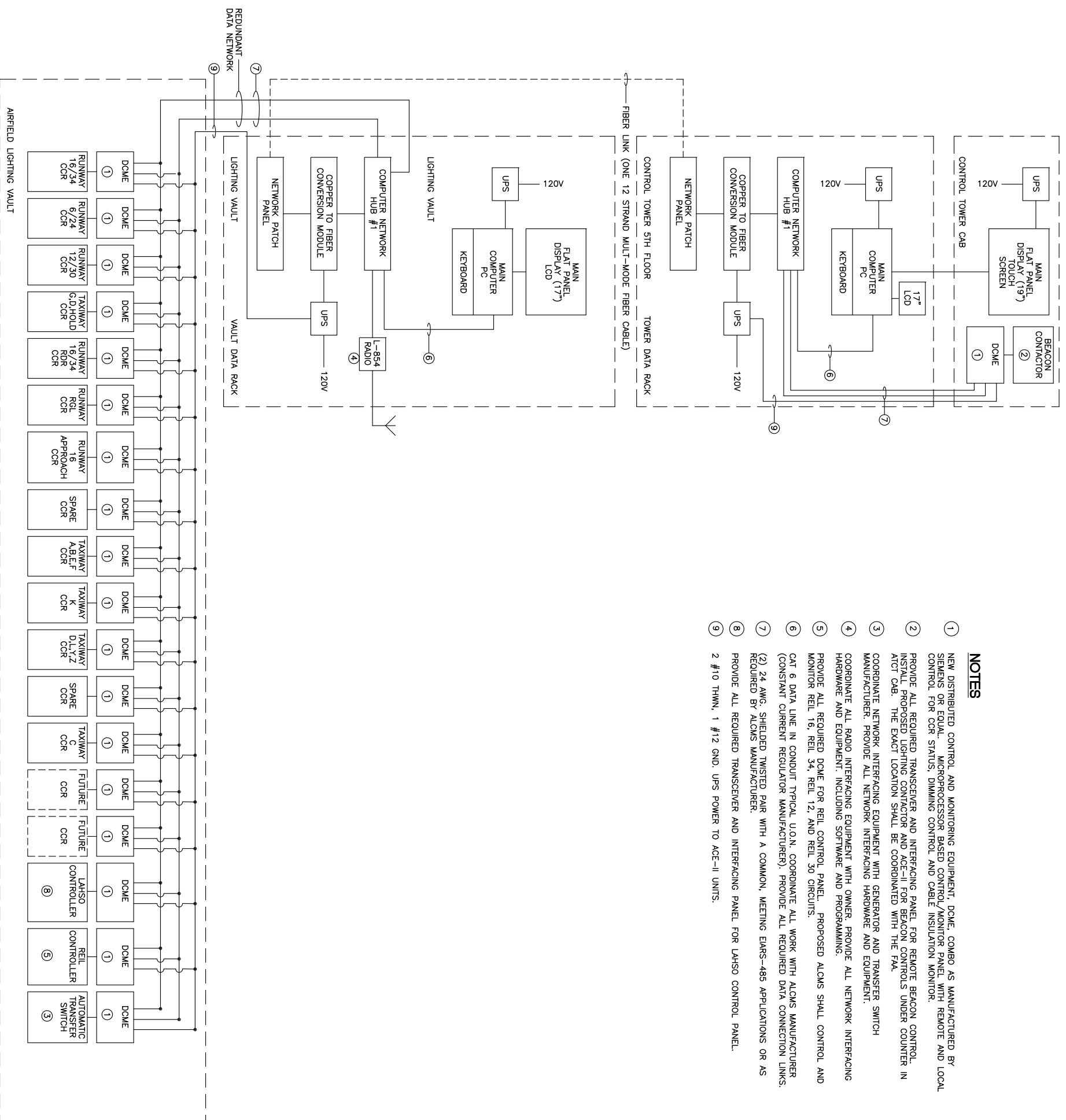
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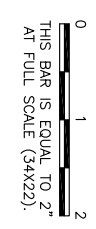
- NOTES**
- NEW DISTRIBUTED CONTROL AND MONITORING EQUIPMENT. DOME COMBO AS MANUFACTURED BY SIEMENS OR EQUAL. MICROPROCESSOR BASED CONTROL/MONITOR PANEL WITH REMOTE AND LOCAL CONTROL FOR CCR STATUS, DIMMING CONTROL AND CABLE INSULATION MONITOR.
  - PROVIDE ALL REQUIRED TRANSCIVER AND INTERFACING PANEL FOR REMOTE BEACON CONTROL. INSTALL PROPOSED LIGHTING CONTACTOR AND ACE-II FOR BEACON CONTROLS UNDER COUNTER IN ATCT CAB. THE EXACT LOCATION SHALL BE COORDINATED WITH THE FAA.
  - COORDINATE NETWORK INTERFACING EQUIPMENT WITH GENERATOR AND TRANSFER SWITCH MANUFACTURER. PROVIDE ALL NETWORK INTERFACING HARDWARE AND EQUIPMENT.
  - COORDINATE ALL RADIO INTERFACING EQUIPMENT WITH OWNER. PROVIDE ALL NETWORK INTERFACING HARDWARE AND EQUIPMENT, INCLUDING SOFTWARE AND PROGRAMMING.
  - PROVIDE ALL REQUIRED DOME FOR REL CONTROL PANEL. PROPOSED ALCMS SHALL CONTROL AND MONITOR REL 16, REL 34, REL 12, AND REL 30 CIRCUITS.
  - CAT 6 DATA LINE IN CONDUIT TYPICAL. U.O.N. COORDINATE ALL WORK WITH ALCMS MANUFACTURER (CONSTANT CURRENT REGULATOR MANUFACTURER). PROVIDE ALL REQUIRED DATA CONNECTION LINKS. REQUIRED BY ALCMS MANUFACTURER.
  - (2) 24 AWG. SHIELDED TWISTED PAIR WITH A COMMON, MEETING EARS-485 APPLICATIONS OR AS REQUIRED BY ALCMS MANUFACTURER.
  - PROVIDE ALL REQUIRED TRANSCIVER AND INTERFACING PANEL FOR LHSSO CONTROL PANEL.
  - 2 #10 THWN, 1 #12 GND. UPS POWER TO ACE-II UNITS.

**AIRFIELD LIGHTING AND EQUIPMENT CONTROL DIAGRAM**

NOT TO SCALE

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REVISIONS		
NUMBER	BY	DATE



**CHICAGO EXECUTIVE AIRPORT  
 WHEELING/PROSPECT HEIGHTS, ILLINOIS  
 CONSTRUCT PARTIAL PARALLEL TAXIWAY ECHO AND  
 PARTIAL OVERLAY OF TAXIWAY ECHO**

**ADDITIVE ALTERNATE #2  
 ALCMS - SHEET 1**

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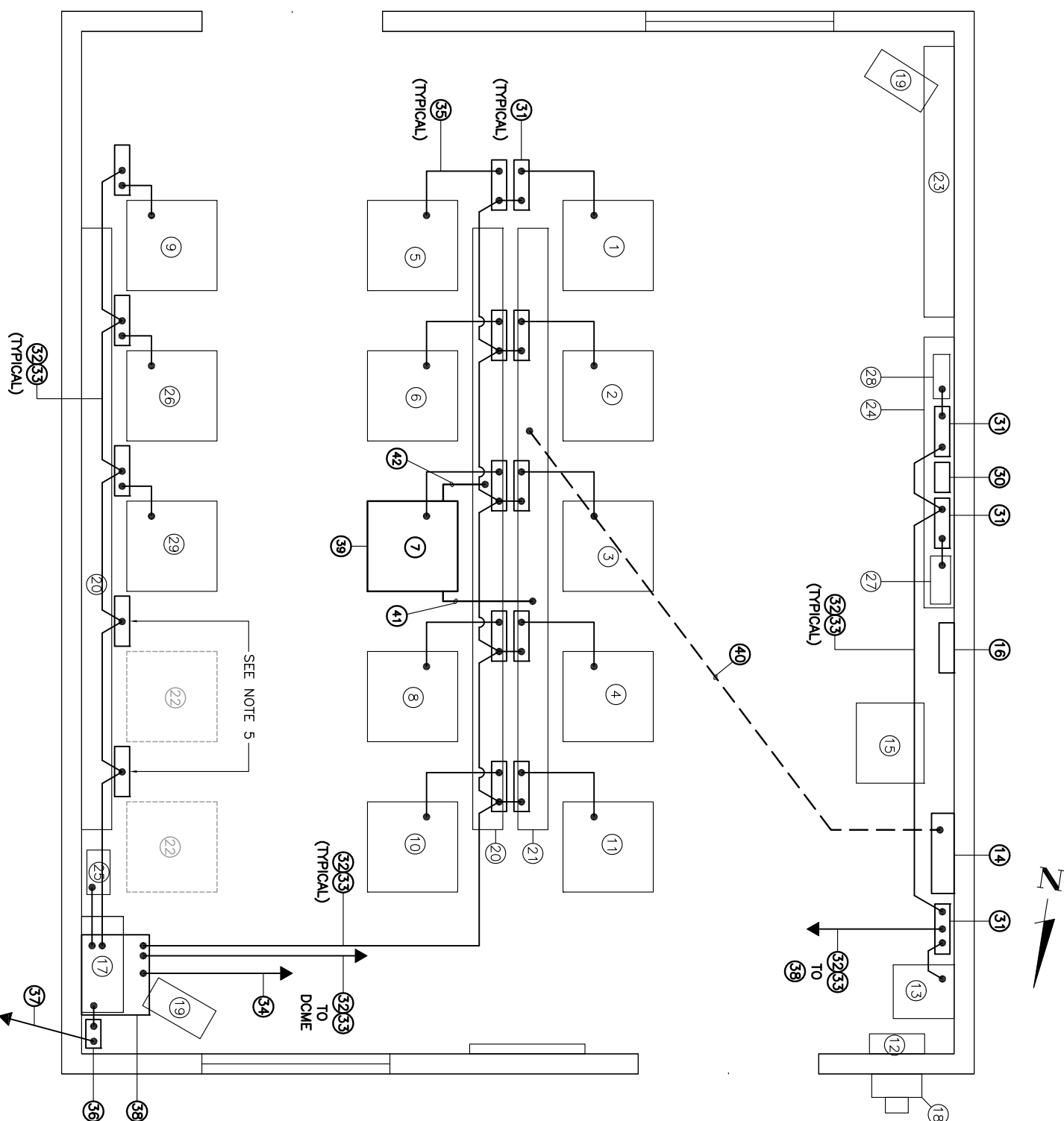
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 CONSULTING ENGINEERS  
 License No. 184-000613

**CHICAGO EXECUTIVE AIRPORT**

DESIGN BY:	AB
DRAWN BY:	JRO
CHECKED BY:	MLK
APPROVED BY:	DLP
DATE:	04/22/11
JOB No:	08290-08
ILLINOIS PROJECT:	PWK-3244
A.I.P. PROJECT:	3-17-0018-B32
SHEET	46 OF 49 SHEETS

**PROPOSED VAULT NOMENCLATURE**

- ① EXISTING 30kW (5-STEP) REGULATOR FOR RUNWAY 16/34.
- ② EXISTING 20kW (5-STEP) REGULATOR FOR RUNWAY 6/24.
- ③ EXISTING 10kW (5-STEP) REGULATOR FOR RUNWAY 12/30.
- ④ EXISTING 10kW (3-STEP) REGULATOR FOR TAXIWAY G,D AND 34 HOLD APRON.
- ⑤ EXISTING 15kW (3-STEP) REGULATOR FOR RGL.
- ⑥ EXISTING 10 kW (3-STEP) REGULATOR FOR RUNWAY 16 APPROACH LIGHTING.
- ⑦ EXISTING 10 kW (3-STEP) REGULATOR FOR HFC APRON LIGHTING TO BE REMOVED.**
- ⑧ PROPOSED 20kW (3-STEP) REGULATOR FOR TAXIWAY A,B,E AND F.
- ⑨ EXISTING 30 kW (5-STEP) REGULATOR FOR TAXIWAY D, L, Y AND Z.
- ⑩ EXISTING 20 kW (3-STEP) REGULATOR FOR TAXIWAY "K".
- ⑪ EXISTING 10kW (3-STEP) REGULATOR FOR RUNWAY 16/34 RDR.
- ⑫ EXISTING MAIN UTILITY SERVICE CIRCUIT BREAKER DISCONNECT, 800A, 480V..
- ⑬ EXISTING AUTOMATIC TRANSFER SWITCH, 800A, 480V, 3-POLE.
- ⑭ EXISTING HIGH VOLTAGE POWER DISTRIBUTION PANEL, 480V, 3-PHASE WITH 800AMP MAIN CIRCUIT BREAKER. (SEE NOTE 8)**
- ⑮ EXISTING 150kVA, 480V-280V/120V, 3ø, 4-WIRE TRANSFORMER.
- ⑯ EXISTING LOW VOLTAGE LIGHTING PANEL, 208Y/120V, 3-PHASE WITH 400AMP MAIN CIRCUIT BREAKER (SEE NOTE 3).**
- ⑰ EXISTING PLC CONTROL CABINET TO BE REMOVED.**
- ⑱ EXISTING 800AMP CT CABINET.
- ⑲ EXISTING GAS FIRED UNIT HEATER.
- ⑳ EXISTING 12"x12"x12' LONG HIGH VOLTAGE WIREWAY.
- ㉑ EXISTING 12"x12"x12' LONG LOW VOLTAGE WIREWAY.
- ㉒ SPACE FOR FUTURE REGULATORS.
- ㉓ EXISTING 12"x12"x9' LONG HIGH VOLTAGE WIREWAY.
- ㉔ EXISTING 12"x12"x9' LONG LOW VOLTAGE WIREWAY.
- ㉕ EXISTING L-854 RADIO CONTROLLER FOR PILOT CONTROL LIGHTING.
- ㉖ EXISTING 30 kW (3-STEP) REGULATOR, SPARE.
- ㉗ EXISTING REIL CONTROL PANEL, (REIL 16, REL 34, REL 12, REL 30)
- ㉘ EXISTING L884 PCU CONTROLLER FOR LAHSO CIRCUIT IN NEMA 1 ENCLOSURE.
- ㉙ EXISTING 10kW (3-STEP) REGULATOR FOR TAXIWAY C.
- ㉚ EXISTING TRANSFORMER TO BE RELOCATED. (SEE NOTE 6)
- ⑳ NEW DISTRIBUTED CONTROL AND MONITORING EQUIPMENT (DCME) MOUNTED ON EXISTING EQUIPMENT PLATE OR WALL. TYPICAL FOR EACH COR (TOTAL OF 15), A.T.S., LAHSO AND REL CONTROLLER (TOTAL OF 3).**
- ㉑ NEW (2) 24 AWG, SHIELDED, TWO TWISTED PAIR, BELDEN 9842 OR AS REQUIRED BY ALCMS MANUFACTURER IN 1" GRS CONDUIT (TYPICAL FOR ALL ACE-II).**
- ㉒ NEW 2 #10 THWN, 1 #10 GND. FOR ACE-II UPS POWER OR AS REQUIRED BY ALCMS MANUFACTURER IN 1" GRS CONDUIT (TYPICAL FOR ALL ACE-II).
- ㉓ NEW 4 #12 THWN, 2 #12 GND. IN 1" GRS CONDUIT TO LOW VOLTAGE LIGHTING PANEL (SEE NOTE 3).
- ㉔ NEW 14 #18 AWG OR AS REQUIRED BY ALCMS IN 3/4" FLEXIBLE CONDUIT (TYPICAL FOR ALL COR'S).
- ㉕ NEW FIBER OPTIC PATCH PANEL AND FIBER OPTIC JUMPER CABLES AS REQUIRED BY ALCMS MANUFACTURER.
- ㉖ NEW 1-12 STRAND MULTI-MODE FIBER OPTIC CABLE IN EXISTING CONDUIT TO ATCT.
- ㉗ NEW ALCMS RACK (SEE NOTE 2).
- ㉘ NEW 30kW, 5-STEP, 480 VAC L-828 REGULATOR, SPARE. (SEE NOTE 7)
- ㉙ NEW 2 #2 THWN, 1 #6 GND. IN EXISTING CONDUIT.
- ㉚ NEW 2 #2 THWN, 1 #6 IN FLEXIBLE CONDUIT.
- ㉛ NEW 2 #1/C #8, 5KV L-824 AIRFIELD LIGHTING CABLE IN FLEXIBLE CONDUIT. (SEE NOTE 9)



**NEW AIRFIELD ELECTRICAL VAULT PLAN VIEW**

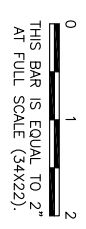
NOT TO SCALE

**NOTES:**

1. ALL PROPOSED WORK OR ITEMS BEING MODIFIED ARE SHOWN IN BOLD. ALL OTHER ITEMS SHOWN ARE FOR INFORMATIONAL PURPOSES ONLY.
2. PROPOSED ALCMS RACK SHALL BE SUPPLIED WITH WHEELS. NEW CONTROL SYSTEM SHALL BE OPERATIONAL AND TESTED PRIOR TO THE REMOVAL OF EXISTING PLC CABINET. PROVIDE J-BOX, FLEX CONDUIT AND SUFFICIENT CABLE SLACK REQUIRED FOR ALCMS RACK TO BE OPERATIONAL.
3. INSTALL 2-20A, 1-POLE CIRCUIT BREAKERS IN LIGHTING PANEL FOR PROPOSED ALCMS.
4. INSTALL POWER AND CONTROL WIRES BETWEEN INTERFACE CONTROL PANEL AND A.T.S., BEACON CONTROL, LAHSO CONTROL, L-854 RADIO CONTROLLER AND REL CONTROLLER PER ALCMS MANUFACTURER.
5. INSTALL AND WIRE PROPOSED DCME FOR FUTURE REGULATORS.
6. RELOCATE EXISTING WALL MOUNTED TRANSFORMER BELOW LAHSO CONTROLLER. MOUNT (2) ACE-II UNITS ON TOP OF EACH OTHER BETWEEN LAHSO AND REL CONTROLLERS.
7. REMOVE EXISTING REGULATOR AND INSTALL PROPOSED REGULATOR. INSTALL PROPOSED POWER AND CONTROL WIRES IN FLEXIBLE CONDUIT. MATCH EXISTING CONDITIONS.
8. INSTALL 1-100A, 2-POLE CIRCUIT BREAKER IN EXISTING POWER DISTRIBUTION PANEL.
9. INSTALL L-823 CONNECTORS IN HIGH VOLTAGE WIREWAY.

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 SURVEY BOOK #  
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REVISIONS	
NUMBER	DATE



**CHICAGO EXECUTIVE AIRPORT  
 WHEELING/PROSPECT HEIGHTS, ILLINOIS  
 CONSTRUCT PARTIAL PARALLEL TAXIWAY ECHO AND  
 PARTIAL OVERLAY OF TAXIWAY ECHO**

**ADDITIVE ALTERNATE #2  
 ALCMS - SHEET 2**

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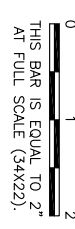
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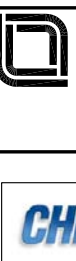
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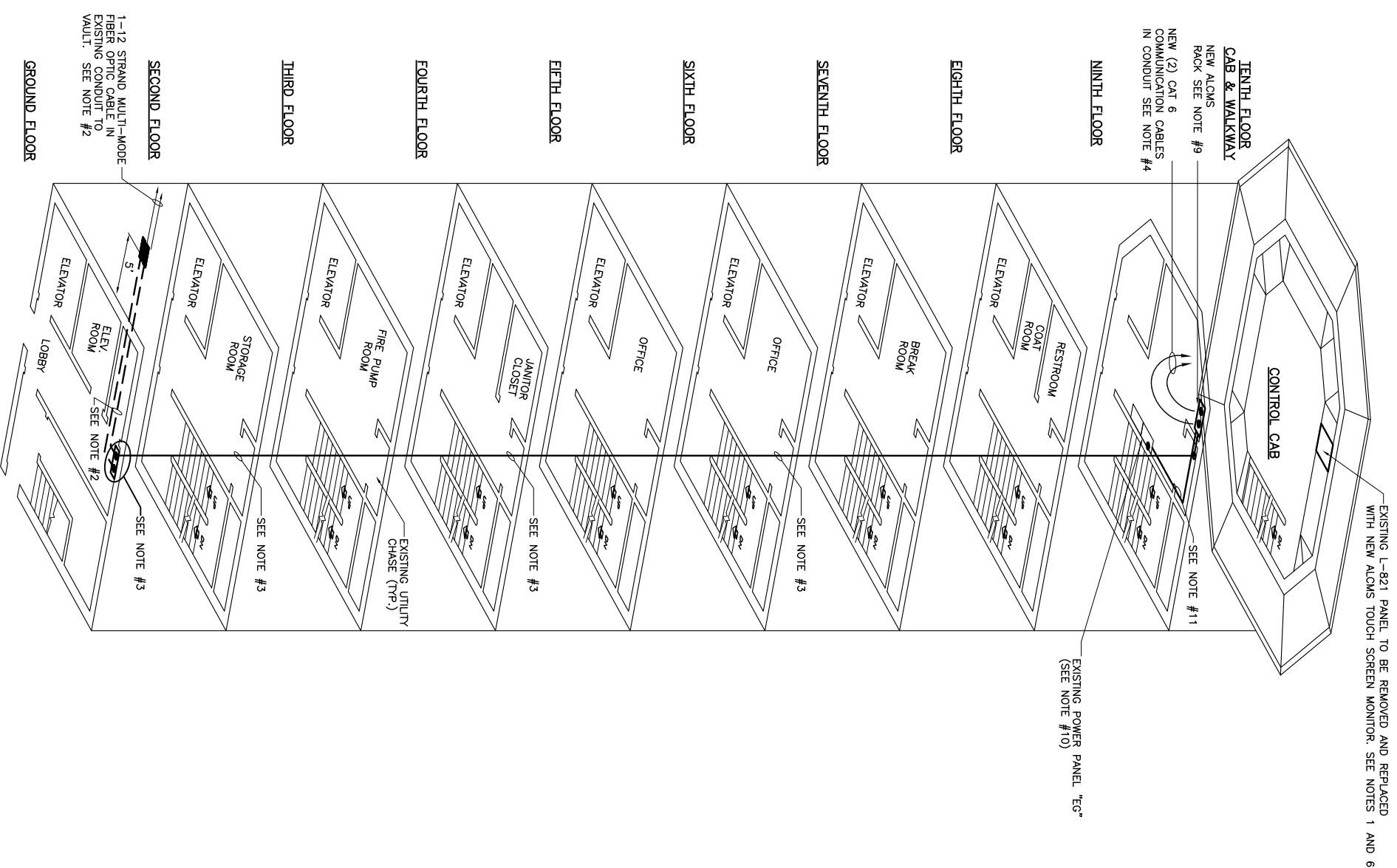
**CHICAGO EXECUTIVE AIRPORT  
 WHEELING/PROSPECT HEIGHTS, ILLINOIS  
 CONSTRUCT PARTIAL PARALLEL TAXIWAY ECHO AND  
 PARTIAL OVERLAY OF TAXIWAY ECHO**

**ADDITIVE ALTERNATE #2  
 ALCMS - SHEET 3**

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- NOTES:**
- CONTRACTOR SHALL COORDINATE ALL WORK IN THE EXISTING CONTROL TOWER WITH THE FAA AIRWAYS FACILITIES REPRESENTATIVES AND THE RESIDENT ENGINEER. CONTRACTOR SHALL GIVE A MINIMUM OF 2 DAYS NOTICE PRIOR TO BEGINNING WORK IN THE EXISTING TOWER.
  - CONTRACTOR SHALL REMOVE EXISTING FIBER OPTIC CABLES FROM CONDUIT AFTER NEW FIBER OPTIC CABLES AND ALCMS HAVE BEEN INSTALLED AND OPERATIONAL.
  - CONTRACTOR SHALL PULL NEW FIBER OPTIC CABLES THROUGH EXISTING CABLE CHASE.
  - CONTRACTOR SHALL REMOVE EXISTING CONTROL CABLES IN TOWER FOR EXISTING AIRFIELD LIGHTING CONTROLS ONCE NEW AIRFIELD LIGHTING CONTROL SYSTEM IN TOWER IS COMPLETELY OPERATIONAL. CONTRACTOR SHALL ROUTE NEW FIBER OPTIC CABLES IN EXISTING CABLE CHASE.
  - CONTRACTOR SHALL REMOVE EXISTING CONTROL CABLES AND FLEXIBLE CONDUIT FROM TOWER CAB AFTER ALCMS HAS BEEN INSTALLED AND OPERATIONAL. CONTRACTOR SHALL RUN NEW FIBER OPTIC CABLES IN 2-2" FLEXIBLE CONDUITS ALONG ROUTE OF EXISTING CONTROL CABLES.
  - CONTRACTOR SHALL REMOVE EXISTING CONTROL CONSOLE AND INSTALL NEW COUNTERTOP AND FLUSH MOUNTED TOUCH SCREEN IN ITS PLACE. CONTRACTOR SHALL MAKE NECESSARY MODIFICATIONS TO EXISTING CABINET WORK TO PROVIDE COMPLETE AND OPERATIONAL SYSTEM TO THE SATISFACTION OF THE RESIDENT ENGINEER AND TOWER CHIEF. NEW COUNTERTOP SHOULD BE CUSTOM WOOD CONSOLE OF SIZE AND FINISH TO MATCH THE EXISTING COUNTER OR AS DIRECTED BY TOWER CHIEF.
  - PROVIDE UPS AND RECEPTACLE FOR TOUCH SCREEN MONITOR IN THE TOWER CAB.
  - ALL NEW WORK IN EXISTING TOWER SHALL BE INCLUDED IN THE UNIT BID PRICE FOR L-890 ALCMS.
  - NEW ALCMS RACK SHALL BE SUPPLIED WITH WHEELS. NEW CONTROL SYSTEM SHALL BE OPERATIONAL AND TESTED PRIOR TO THE REMOVAL OF THE EXISTING PLC CABINET. PROVIDE SUFFICIENT CABLE SLACK REQUIRED FOR ALCMS RACK TO BE OPERATIONAL. NEW ALCMS RACK SHALL BE MAXIMUM 60" HIGH.
  - CONTRACTOR SHALL INSTALL 1-20A, 1-POLE CIRCUIT BREAKER IN PANEL "EG."
  - NEW #2 12THWN, 1 #12 GND, IN 3/4" GRS CONDUIT.
  - CONTRACTOR SHALL INSTALL A BEACON CONTRACTOR AND DOME OR PLC FOR BEACON CONTROL IN ATCT CAB. EXACT LOCATION SHALL BE COORDINATED WITH THE FAA.

TENTH FLOOR  
 CAB & WALKWAY  
 NEW ALCMS RACK SEE NOTE #9  
 NEW (2) CAT 6 COMMUNICATION CABLES IN CONDUIT SEE NOTE #4

NINTH FLOOR

EIGHTH FLOOR

SEVENTH FLOOR

SIXTH FLOOR

FIFTH FLOOR

FOURTH FLOOR

THIRD FLOOR

SECOND FLOOR

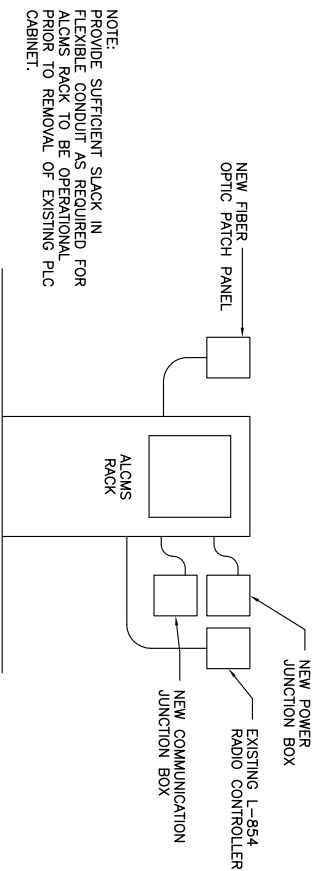
GROUND FLOOR

**EXISTING ATC TOWER MODIFICATIONS**

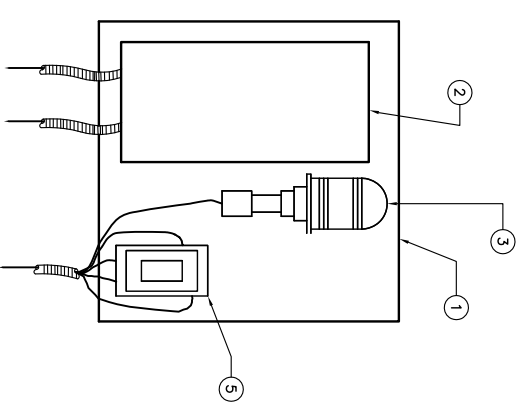
- NOTES**
1. INSTALL NEW DISTRIBUTED CONTROL AND MONITORING EQUIPMENT (ACE-II) ON UNITSRUIT. MATCH EXISTING CONDITIONS. COORDINATE SIZE AND CONDUIT OPENINGS WITH ALCMS MANUFACTURER.
  2. INSTALL MALE AND FEMALE L-824 CONNECTOR TO CONNECT AIRFIELD LIGHTING CIRCUITS IN HIGH VOLTAGE WIREWAY.

**EQUIPMENT NOMENCLATURE**

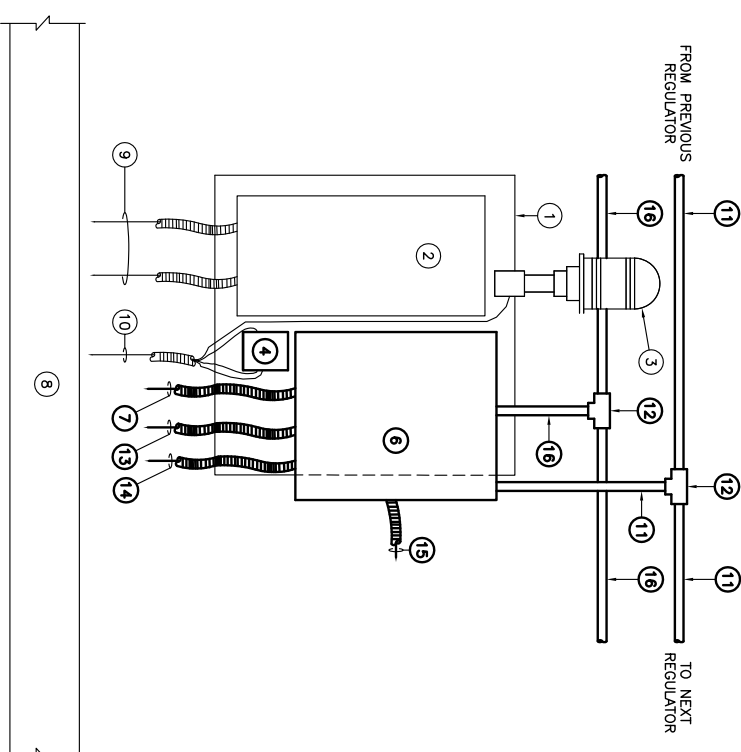
1. EXISTING EQUIPMENT MOUNTING PLATE TO REMAIN.
2. EXISTING REGULATOR DISCONNECT SWITCH TO REMAIN.
3. EXISTING RUNWAY/TAXIWAY INDICATOR LIGHT TO BE RELOCATED.
4. RELOCATED S-1 CUT-OUT.
5. EXISTING S-1 PLUG CUT-OUT TO BE RELOCATED.
6. NEW DISTRIBUTED CONTROL AND MONITORING EQUIPMENT (ACE-II) - SEE NOTE 1.
7. NEW DATA/CONTROL CABLES (AS REQUIRED BY ALCMS MANUFACTURER) IN 1" CONDUIT TO EXISTING REGULATOR.
8. EXISTING LOW VOLTAGE AND HIGH VOLTAGE 12"x12" WIREWAY - SEE NOTE 2.
9. EXISTING INCOMING AND OUTGOING 600V POWER CABLES IN FLEX CONDUIT TO LOW VOLTAGE WIREWAY.
10. EXISTING 4 #8 SKV AIRFIELD LIGHTING CABLES IN FLEX CONDUIT TO HIGH VOLTAGE WIREWAY.
11. NEW (2) 24 AWG SHIELDED TWISTED PAIRS IN 1" GRS CONDUIT.
12. NEW 1" TX CONDUIT BODY WITH GASKET AND COVER.
13. NEW 2 #8 SKV, L-824 TYPE C AIRFIELD LIGHTING CABLES IN 1" FLEX CONDUIT TO HIGH VOLTAGE WIREWAY.
14. NEW 2 #10 THWN, 1 #12 GND, IN 3/4" FLEX CONDUIT TO LOW VOLTAGE WIREWAY FOR UPS POWER.
15. NEW 2 #8 SKV, L-824 TYPE C CABLES IN 1" FLEX CONDUIT TO S-1 PLUG CUT-OUT.
16. NEW 2 #10 THWN, 1 #12 GND, IN 1" GRS CONDUIT.



**VAULT ALCMS RACK ELEVATION**  
NOT TO SCALE



**EXISTING EQUIPMENT MOUNTING PLATE DETAIL**  
NOT TO SCALE



**TYPICAL INTERFACE CONTROL AND IRMS PANEL (ACE-II) MOUNTING DETAIL**  
NOT TO SCALE

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0 1 2  
THIS BAR IS EQUAL TO 2"  
AT FULL SCALE (34x22).

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WHEELING/PROSPECT HEIGHTS, ILLINOIS  
CONSTRUCT PARTIAL PARALLEL TAXIWAY ECHO AND  
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**ADDITIVE ALTERNATE #2  
ALCMS - SHEET 4**

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