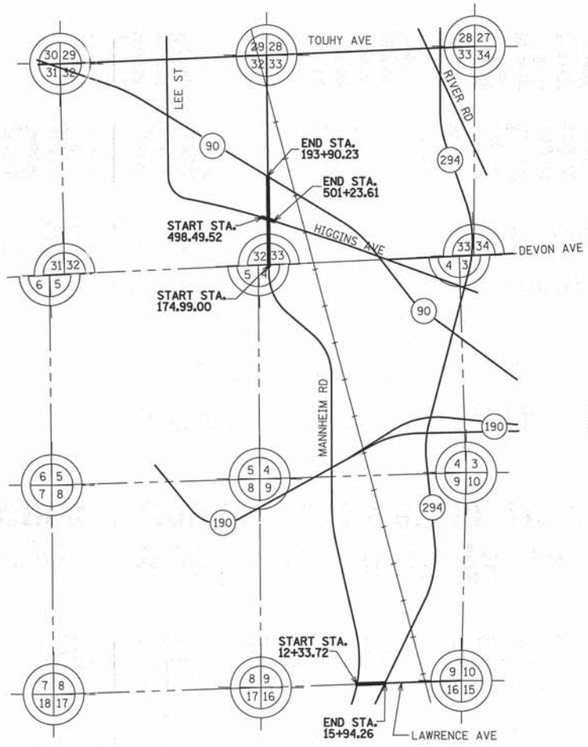
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
AT	HIGGINS ROAD & LAWRENCE ROAD	COOK	6	1
	FED. ROAD DIST. NO. ILLINOIS	CONTRACT NO.		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
RIGHT OF WAY PLANS

FOR PROPOSED
FEDERAL AID HIGHWAY

ROUTE: IL ROUTE 45/US ROUTE 12 (MANNHEIM ROAD)
SECTION: AT HIGGINS ROAD & AT LAWRENCE AVENUE
PROJECT NO.:
JOB NO.: R-90-026-11
COUNTY: COOK COUNTY
LIMITS:
MANNHEIM ROAD – 174+99.00 TO 193+90.23
LAWRENCE ROAD – 12+33.72 TO 15+94.26

LOCATION OF SECTION INDICATED THUS: –



PROJECT LENGTH:
1891 LINEAL FEET (0.358 MILES) MANNHEIM ROAD
360 LINEAL FEET (0.068 MILES) LAWRENCE ROAD

0 100' 200' 300' — 1" = 100'
0 10' 20' 30' — 1" = 10'
0 50' 100' — 1" = 50'
0 50' 100' — 1" = 40'
0 50' 100' — 1" = 30'
0 50' 100' — 1" = 20'

FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

RECEIVED
AUG 19 2011
PLATS & LEGALS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED _____ 20 _____
DISTRICT ENGINEER

EXAMINED _____ 20 _____
DISTRICT RIGHT OF WAY PLANS ENGINEER

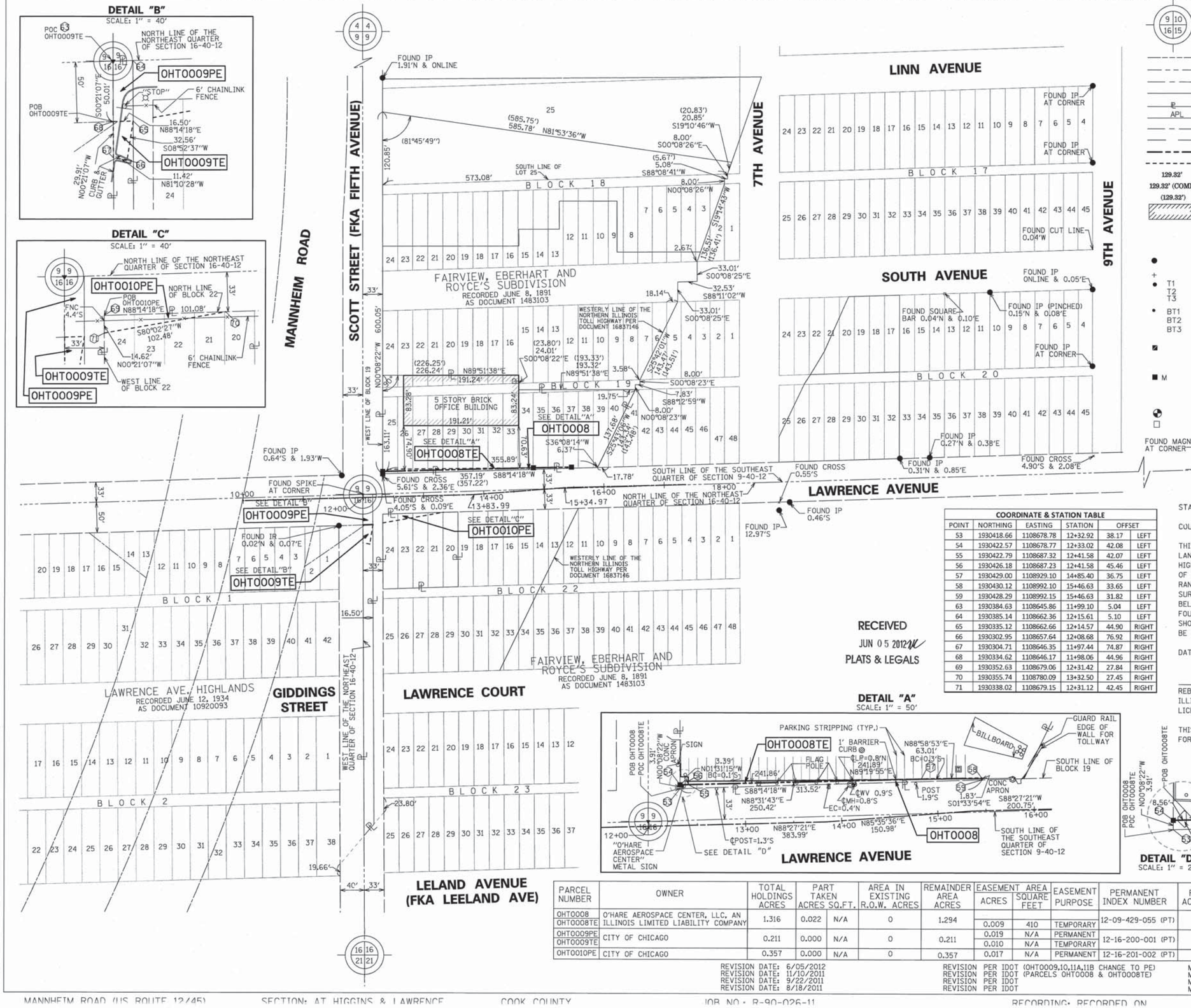
PASSED _____ 20 _____
DISTRICT LAND AQUISITION ENGINEER

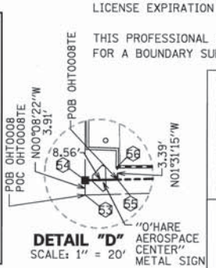
REVIEWED _____ 20 _____
CENTRAL BUREAU RIGHT OF WAY PLANS ENGINEER

APPROVED _____ 20 _____
ENGINEER OF LAND AQUISITION

SPACECO INC.
CONSULTING ENGINEERS
SITE DEVELOPMENT ENGINEERS
LAND SURVEYORS
9575 W. Higgins Road, Suite 700,
Rosemont, Illinois 60018
Phone: (847) 696-4060 Fax: (847) 696-4065

PART OF THE SOUTHEAST QUARTER OF SECTION 9 & THE NORTHEAST QUARTER OF SECTION 16 TWP. 40 N., R. 12 E. OF THE 3RD. P.M., IN COOK COUNTY, ILLINOIS.





COORDINATE & STATION TABLE					
POINT	NORTHING	EASTING	STATION	OFFSET	
53	1930418.66	1108678.78	12+32.92	38.17	LEFT
54	1930422.57	1108678.77	12+33.02	42.08	LEFT
55	1930422.79	1108687.32	12+41.58	42.07	LEFT
56	1930426.18	1108687.23	12+41.58	45.46	LEFT
57	1930429.00	1108929.10	14+85.40	36.75	LEFT
58	1930430.12	1108992.10	15+46.63	33.65	LEFT
59	1930428.29	1108992.15	15+46.63	31.82	LEFT
63	1930384.63	1108645.86	11+99.10	5.04	LEFT
64	1930385.14	1108662.36	12+15.61	5.10	LEFT
65	1930335.12	1108662.66	12+14.57	44.90	RIGHT
66	1930302.95	1108657.64	12+08.68	76.92	RIGHT
67	1930304.71	1108646.35	11+97.44	74.87	RIGHT
68	1930334.62	1108646.17	11+98.06	44.96	RIGHT
69	1930352.63	1108679.06	12+31.42	27.84	RIGHT
70	1930355.74	1108780.09	13+32.50	27.45	RIGHT
71	1930338.02	1108679.15	12+31.12	42.45	RIGHT

SECTION CORNER

QUARTER SECTION CORNER

N

GRAPHIC SCALE FEET
0 80 160
SCALE: 1" = 80'

- SECTION LINE
- QUARTER SECTION LINE
- QUARTER, QUARTER SECTION LINE
- PLATTED LOT LINES
- PROPERTY (DEED) LINE
- APPARENT PROPERTY LINE
- CENTERLINE
- EXISTING RIGHT OF WAY LINE
- PROPOSED RIGHT OF WAY LINE
- PROPOSED EASEMENT
- 129.32' MEASURED DIMENSION
- 129.32' (COMP) COMPUTED DIMENSION
- (129.32') RECORDED DIMENSION
- EXISTING BUILDING

- CATCH BASIN
- INLET
- STORM MANHOLE
- SANITARY MANHOLE
- FIRE HYDRANT
- TELEPHONE MANHOLE
- LIGHT POLE
- WATERMAIN VALVE VAULT

LEGEND

Bearings are referenced to the Illinois State Plane Coordinate Grid System, NAD83, East Zone, as provided by the Illinois Department of Transportation.

- IRON PIPE OR ROD FOUND ○ REPLACED AFTER CONSTRUCTION
- \+ CUT CROSS FOUND OR SET
- T1, T2, T3 THESE STAKES REFERENCE FOUND OR SET MONUMENTATION. SET 5/8 INCH IRON ROD FLUSH WITH GROUND TO TIE FOUND IRON STAKE IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- BT1, BT2, BT3 THESE STAKES, IN CULTIVATED AREAS, REFERENCE FOUND OR SET MONUMENTATION. BURIED 5/8 INCH IRON ROD 20 INCHES BELOW GROUND TO TIE FOUND IRON STAKE. IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- STAKING OF PROPOSED RIGHT OF WAY. SET DIVISION OF HIGHWAYS SURVEY MARKER TO MONUMENT THE POSITION SHOWN. IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.
- M STAKING OF PROPOSED RIGHT OF WAY IN CULTIVATED AREAS. BURIED 5/8 INCH METAL ROD 20 INCHES BELOW GROUND TO MARK FUTURE SURVEY MARKER POSITION IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- PERMANENT SURVEY MARKER, I.D.O.T. STANDARD 2135 (TO BE SET BY OTHERS)
- RIGHT OF WAY STAKING PROPOSED TO BE SET

RECEIVED
JUN 05 2012
PLATS & LEGALS

STATE OF ILLINOIS)
)SS
COUNTY OF COOK)

THIS IS TO CERTIFY THAT WE, SPACECO, INC. AN ILLINOIS PROFESSIONAL DESIGN FIRM LAND SURVEYING CORPORATION, NUMBER 184-001157, HAVE SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON IN SECTIONS 32 & 33, TOWNSHIP 41 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN AND SECTIONS 4, 9, & 16, TOWNSHIP 40 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN ALL IN COOK COUNTY, THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THE PLAT CORRECTLY REPRESENTS SAID SURVEY, THAT ALL MONUMENTS FOUND AND ESTABLISHED ARE OF PERMANENT QUALITY AND OCCUPY THE POSITIONS SHOWN THEREON AND THAT THE MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED, MADE FOR THE DEPARTMENT OF TRANSPORTATION, STATE OF ILLINOIS.

DATED THIS _____ DAY OF _____ 20 ____ A.D. AT ROSEMONT, ILLINOIS

REBECCA Y. POPECK
ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 035-003642
LICENSE EXPIRATION DATE: NOVEMBER 30, 2012

THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.

PARCEL NUMBER	OWNER	TOTAL HOLDINGS ACRES	PART TAKEN ACRES	SQ.FT.	AREA IN EXISTING R.O.W. ACRES	REMAINDER AREA ACRES	EASEMENT AREA ACRES	EASEMENT AREA SQUARE FEET	EASEMENT PURPOSE	PERMANENT INDEX NUMBER	PROPERTY ACQUIRED BY
OHT0008	O'HARE AEROSPACE CENTER, LLC, AN ILLINOIS LIMITED LIABILITY COMPANY	1.316	0.022	N/A	0	1.294					
OHT0008TE							0.009	410	TEMPORARY	12-09-429-055 (PT)	
OHT0009PE	CITY OF CHICAGO	0.211	0.000	N/A	0	0.211	0.019	N/A	PERMANENT	12-16-200-001 (PT)	
OHT0009TE							0.010	N/A	TEMPORARY		
OHT0010PE	CITY OF CHICAGO	0.357	0.000	N/A	0	0.357	0.017	N/A	PERMANENT	12-16-201-002 (PT)	

REVISION DATE: 6/05/2012 REVISION PER IDOT (OHT0009,10,11A,11B CHANGE TO PE) MADE BY SDS
REVISION DATE: 11/10/2011 REVISION PER IDOT (PARCELS OHT0008 & OHT0008TE) MADE BY RYP
REVISION DATE: 9/22/2011 REVISION PER IDOT MADE BY RYP
REVISION DATE: 8/18/2011 REVISION PER IDOT MADE BY JWM

SPACECO, INC.
CONSULTING ENGINEERS
SITE DEVELOPMENT ENGINEERS
LAND SURVEYORS
9575 W. Higgins Road, Suite 700,
Rosemont, Illinois 60018
Phone: (847) 696-4060 Fax: (847) 696-4065

PLAT OF HIGHWAYS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
MANNHEIM ROAD (US ROUTE 12/45)

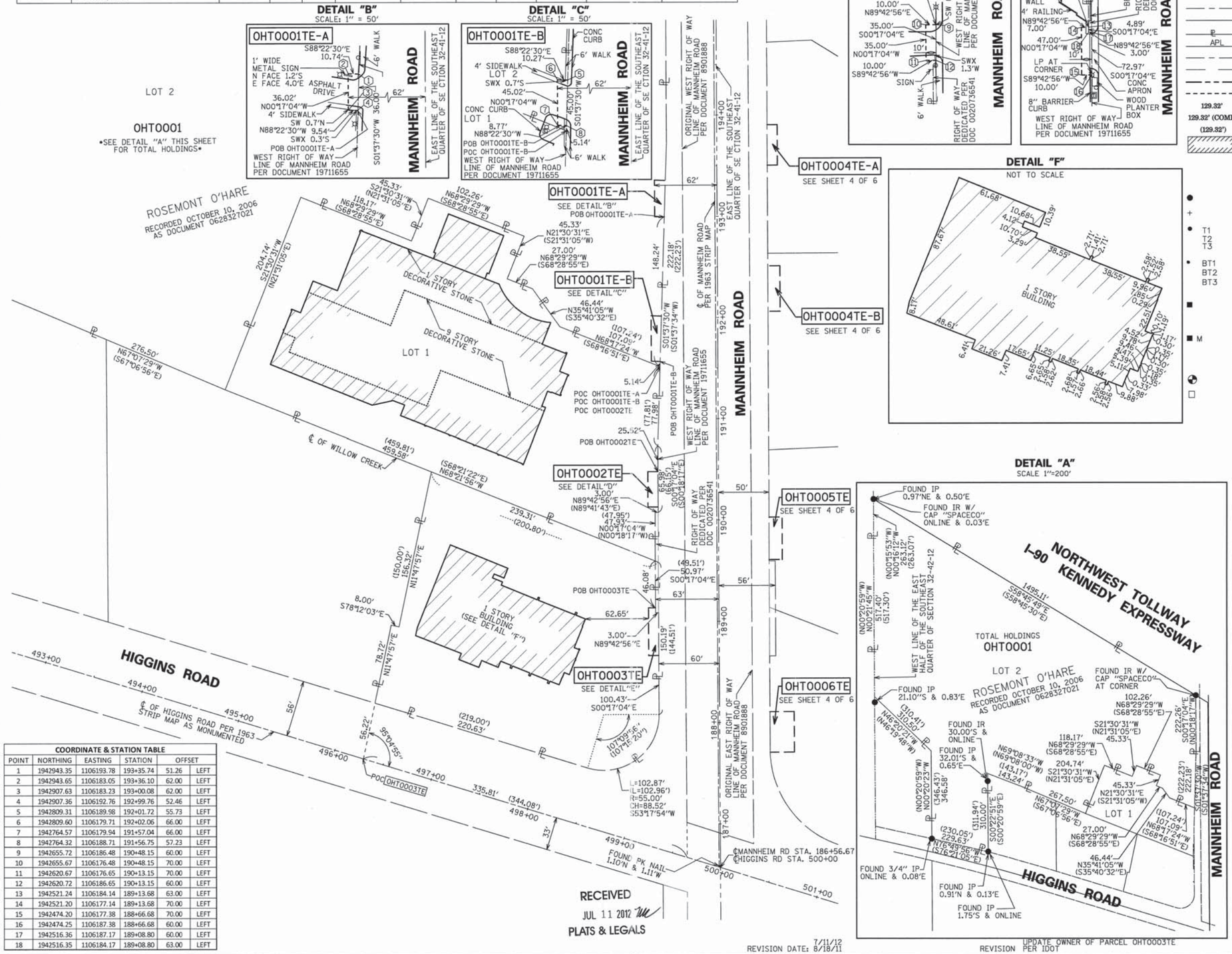
SECTION: AT HIGGINS & LAWRENCE COUNTY: COOK
PROJECT: MANNHEIM RD JOB NO.: R-90-026-11
STATION 11+97.87 TO STATION 15+94.26
SCALE: 1" = 80' SHEET 2 OF 6

BUREAU OF LAND ACQUISITION
201 WEST CENTER COURT
SCHAUMBURG, ILLINOIS 60196

MANNHEIM ROAD (US ROUTE 12/45) SECTION: AT HIGGINS & LAWRENCE COUNTY: COOK JOB NO.: R-90-026-11 RECORDING: RECORDED ON

PART OF THE SOUTHEAST QUARTER OF SECTION 32 TWP. 41 N., R. 12 E. OF THE 3RD. P.M., IN COOK COUNTY, ILLINOIS.

PARCEL NUMBER	OWNER	TOTAL HOLDINGS ACRES	PART TAKEN ACRES	SQ.FT.	AREA IN EXISTING R.O.W. ACRES	REMAINDER AREA ACRES	EASEMENT AREA ACRES	EASEMENT AREA SQUARE FEET	EASEMENT PURPOSE	PERMANENT INDEX NUMBER	PROPERTY ACQUIRED BY
OHT0001TE-A OHT0001TE-B	ROSEMONT O'HARE HOTEL PROPERTIES L.L.C.	21.867	0.000	0	0	21.867	0.008 0.010	365 N/A	TEMPORARY TEMPORARY	09-32-401-017	
OHT0002TE	ROSEMONT O'HARE HOTEL OWNERSHIP, LLC	2.023	0.000	0	0	2.023	0.008	350	TEMPORARY	09-32-401-016	
OHT0003TE	JPMCC 2006-LDP9 HIGGINS LODGING, LLC	1.336	0.000	0	0	1.336	0.010	455	TEMPORARY	09-32-401-015	



Bearings are referenced to the Illinois State Plane Coordinate Grid System, NAD83, East Zone, as provided by the Illinois Department of Transportation.

- ● IRON PIPE OR ROD FOUND ○ REPLACED AFTER CONSTRUCTION
- \+ CUT CROSS FOUND OR SET
- ● T1, T2, T3 **THESE STAKES REFERENCE FOUND OR SET MONUMENTATION.** SET 5/8 INCH IRON ROD FLUSH WITH GROUND TO TIE FOUND IRON STAKE IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- ● BT1, BT2, BT3 **THESE STAKES, IN CULTIVATED AREAS, REFERENCE FOUND OR SET MONUMENTATION.** BURIED 5/8 INCH IRON ROD 20 INCHES BELOW GROUND TO TIE FOUND IRON STAKE. IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- ■ **STAKING OF PROPOSED RIGHT OF WAY.** SET DIVISION OF HIGHWAYS SURVEY MARKER TO MONUMENT THE POSITION SHOWN. IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.
- ■ M **STAKING OF PROPOSED RIGHT OF WAY IN CULTIVATED AREAS.** BURIED 5/8 INCH METAL ROD 20 INCHES BELOW GROUND TO MARK FUTURE SURVEY MARKER POSITION IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- ◔ PERMANENT SURVEY MARKER, I.D.O.T. STANDARD 2135 (TO BE SET BY OTHERS)
- □ RIGHT OF WAY STAKING PROPOSED TO BE SET

STATE OF ILLINOIS)
)SS
COUNTY OF COOK)

THIS IS TO CERTIFY THAT WE, SPACECO, INC. AN ILLINOIS PROFESSIONAL DESIGN FIRM LAND SURVEYING CORPORATION, NUMBER 184-001157, HAVE SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON IN SECTIONS 32 & 33, TOWNSHIP 41 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN AND SECTIONS 4, 9, & 16, TOWNSHIP 40 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN ALL IN COOK COUNTY, THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THE PLAT CORRECTLY REPRESENTS SAID SURVEY, THAT ALL MONUMENTS FOUND AND ESTABLISHED ARE OF PERMANENT QUALITY AND OCCUPY THE POSITIONS SHOWN THEREON AND THAT THE MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED, MADE FOR THE DEPARTMENT OF TRANSPORTATION, STATE OF ILLINOIS.

DATED THIS _____ DAY OF _____ 20 ____ A.D, AT ROSEMONT, ILLINOIS

_____
REBECCA Y. POPECK
ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 035-003642
LICENSE EXPIRATION DATE: NOVEMBER 30, 2012

THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.

COORDINATE & STATION TABLE

POINT	NORTHING	EASTING	STATION	OFFSET	
1	1942943.35	1106193.78	193+35.74	51.26	LEFT
2	1942943.65	1106183.05	193+36.10	62.00	LEFT
3	1942907.63	1106183.23	193+00.08	62.00	LEFT
4	1942907.36	1106192.76	192+99.76	52.46	LEFT
5	1942809.31	1106189.98	192+01.72	55.73	LEFT
6	1942809.60	1106179.71	192+02.06	66.00	LEFT
7	1942764.57	1106179.94	191+57.04	66.00	LEFT
8	1942764.32	1106188.71	191+56.75	57.23	LEFT
9	1942655.72	1106186.48	190+48.15	60.00	LEFT
10	1942655.67	1106176.48	190+48.15	70.00	LEFT
11	1942620.67	1106176.65	190+13.15	70.00	LEFT
12	1942620.72	1106186.65	190+13.15	60.00	LEFT
13	1942521.24	1106184.14	189+13.68	63.00	LEFT
14	1942521.20	1106177.14	189+13.68	70.00	LEFT
15	1942474.20	1106177.38	188+66.68	70.00	LEFT
16	1942474.25	1106187.38	188+66.68	60.00	LEFT
17	1942516.36	1106187.17	189+08.80	60.00	LEFT
18	1942516.35	1106184.17	189+08.80	63.00	LEFT

RECEIVED
JUL 11 2012
PLATS & LEGALS

REVISION DATE: 8/18/11 7/11/12
UPDATE OWNER OF PARCEL OHT0003TE
REVISION PER IDOT

MADE BY RYP
JWM

SPACECO INC.
CONSULTING ENGINEERS
SITE DEVELOPMENT ENGINEERS
LAND SURVEYORS
9575 W. Higgins Road, Suite 700,
Rosemont, Illinois 60018
Phone: (847) 696-4060 Fax: (847) 696-4065

PLAT OF HIGHWAYS

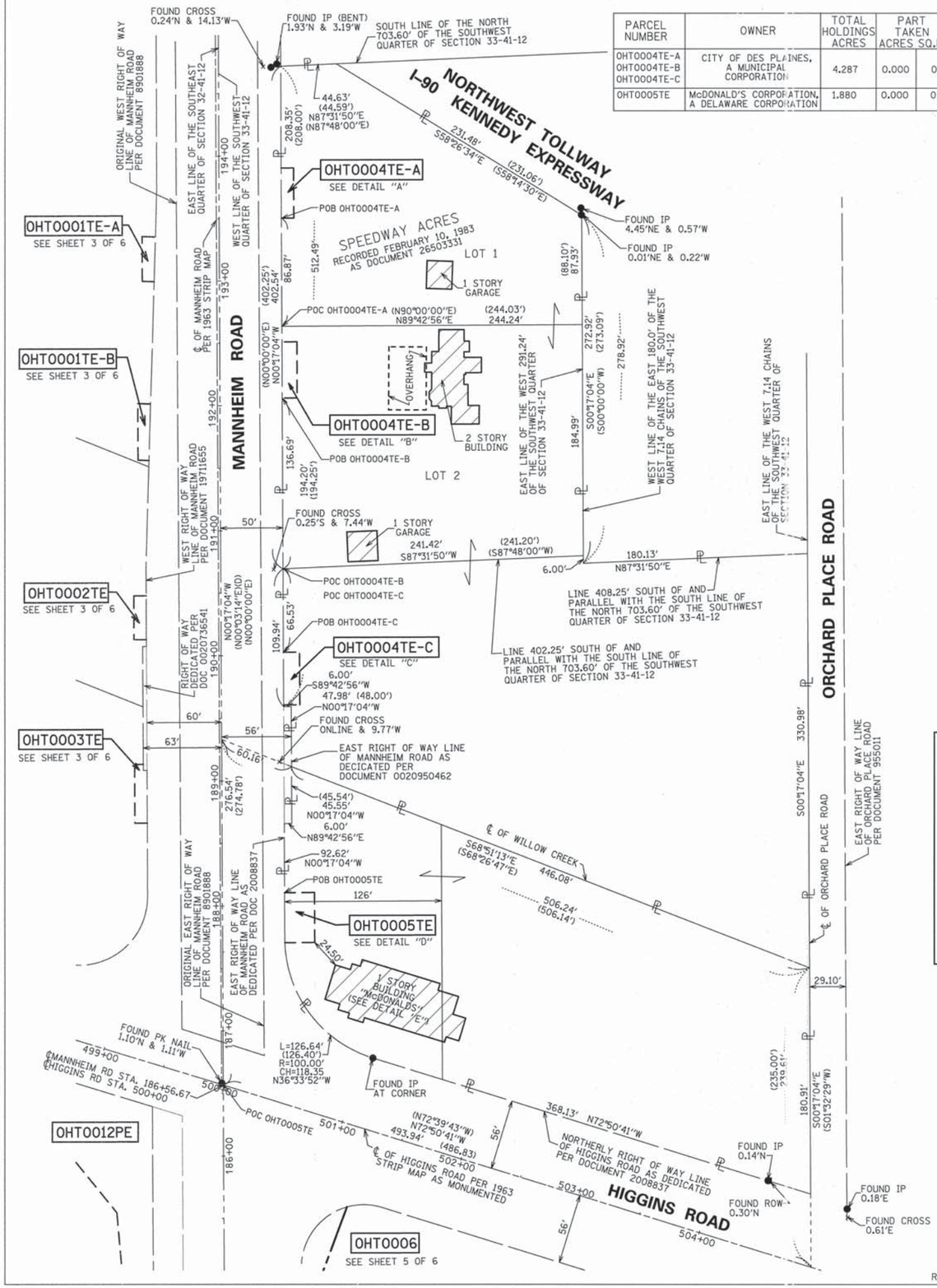
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
MANNHEIM ROAD (US ROUTE 12/45)

SECTION: AT HIGGINS & LAWRENCE COUNTY: COOK
PROJECT: MANNHEIM RD JOB NO.: R-90-026-11
STATION 188+66.68 TO STATION 193+36.10
SCALE: 1"=50' SHEET 3 OF 6

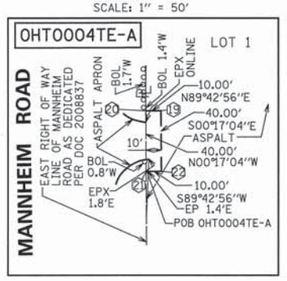
BUREAU OF LAND ACQUISITION
201 WEST CENTER COURT
SCHAUMBURG, ILLINOIS 60196

PART OF THE SOUTHWEST QUARTER OF SECTION 33 TWP. 41 N., R. 12 E. OF THE 3RD. P.M., IN COOK COUNTY, ILLINOIS.

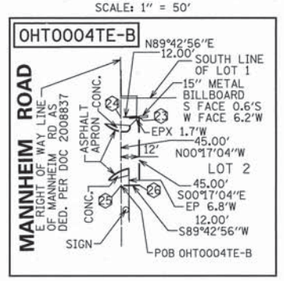
PARCEL NUMBER	OWNER	TOTAL HOLDINGS ACRES	PART TAKEN ACRES	PART TAKEN SQ.FT.	AREA IN EXISTING R.O.W. ACRES	REMAINDER AREA ACRES	EASEMENT AREA ACRES	EASEMENT AREA SQUARE FEET	EASEMENT PURPOSE	PERMANENT INDEX NUMBER	PROPERTY ACQUIRED BY
OHT0004TE-A	CITY OF DES PLAINES, A MUNICIPAL CORPORATION	4.287	0.000	0	0	4.287	0.009	400	TEMPORARY	09-33-305-013	
OHT0004TE-B							0.012	N/A	TEMPORARY	09-33-305-014	
OHT0004TE-C							0.013	N/A	TEMPORARY	09-33-305-010	
OHT0005TE	McDONALD'S CORPORATION, A DELAWARE CORPORATION	1.880	0.000	0	0	1.880	0.022	N/A	TEMPORARY	09-33-305-011 09-33-305-012	



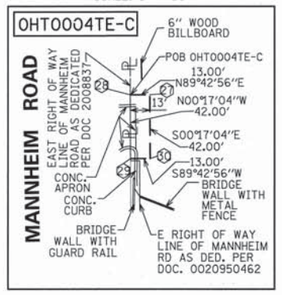
DETAIL "A"
SCALE: 1" = 50'



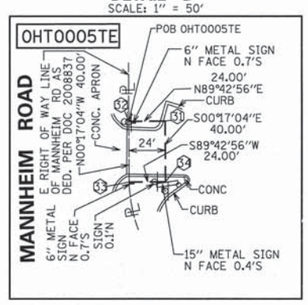
DETAIL "B"
SCALE: 1" = 50'



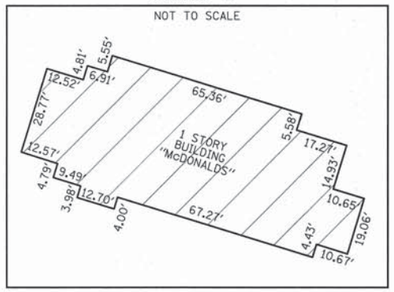
DETAIL "C"
SCALE: 1" = 50'



DETAIL "D"
SCALE: 1" = 50'



DETAIL "E"
NOT TO SCALE



COORDINATE & STATION TABLE					
POINT	NORTHING	EASTING	STATION	OFFSET	
19	1942998.38	1106304.78	193+90.23	60.00	RIGHT
20	1942998.33	1106294.78	193+90.23	50.00	RIGHT
21	1942958.33	1106294.98	193+50.23	50.00	RIGHT
22	1942958.38	1106304.98	193+50.23	60.00	RIGHT
23	1942859.01	1106307.47	192+50.84	62.00	RIGHT
24	1942858.95	1106295.47	192+50.84	50.00	RIGHT
25	1942813.95	1106295.69	192+05.84	50.00	RIGHT
26	1942814.01	1106307.69	192+05.84	62.00	RIGHT
27	1942610.80	1106309.70	190+02.62	63.00	RIGHT
28	1942610.73	1106296.70	190+02.62	50.00	RIGHT
29	1942568.73	1106296.91	189+60.62	50.00	RIGHT
30	1942568.80	1106309.91	189+60.62	63.00	RIGHT
31	1942418.73	1106321.65	188+10.50	74.00	RIGHT
32	1942418.61	1106297.65	188+10.50	50.00	RIGHT
33	1942378.61	1106297.85	187+70.50	50.00	RIGHT
34	1942378.73	1106321.85	187+70.50	74.00	RIGHT

LEGEND

SECTION CORNER
QUARTER SECTION CORNER

- SECTION LINE
- QUARTER SECTION LINE
- QUARTER, QUARTER SECTION LINE
- PLATTED LOT LINES
- PROPERTY (DEED) LINE
- APPARENT PROPERTY LINE
- CENTERLINE
- EXISTING RIGHT OF WAY LINE
- PROPOSED RIGHT OF WAY LINE
- PROPOSED EASEMENT
- 129.32' MEASURED DIMENSION
- 129.32' (COMP) COMPUTED DIMENSION
- (129.32') RECORDED DIMENSION
- EXISTING BUILDING

GRAPHIC SCALE FEET
0 50,100
SCALE: 1" = 50'

- CATCH BASIN
- INLET
- STORM MANHOLE
- SANITARY MANHOLE
- FIRE HYDRANT
- TELEPHONE MANHOLE
- LIGHT POLE
- WATERMAIN VALVE VAULT

Bearings are referenced to the Illinois State Plane Coordinate Grid System, NAD83, East Zone, as provided by the Illinois Department of Transportation.

- ● IRON PIPE OR ROD FOUND ○ REPLACED AFTER CONSTRUCTION
- \+ CUT CROSS FOUND OR SET
- • T1 T2 T3 THESE STAKES REFERENCE FOUND OR SET MONUMENTATION. SET 5/8 INCH IRON ROD FLUSH WITH GROUND TO TIE FOUND IRON STAKE IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- • BT1 BT2 BT3 THESE STAKES, IN CULTIVATED AREAS, REFERENCE FOUND OR SET MONUMENTATION. BURIED 5/8 INCH IRON ROD 20 INCHES BELOW GROUND TO TIE FOUND IRON STAKE. IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- ■ STAKING OF PROPOSED RIGHT OF WAY. SET DIVISION OF HIGHWAYS SURVEY MARKER TO MONUMENT THE POSITION SHOWN. IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.
- ■ M STAKING OF PROPOSED RIGHT OF WAY IN CULTIVATED AREAS. BURIED 5/8 INCH METAL ROD 20 INCHES BELOW GROUND TO MARK FUTURE SURVEY MARKER POSITION IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- ◔ PERMANENT SURVEY MARKER, I.D.O.T. STANDARD 2135 (TO BE SET BY OTHERS)
- □ RIGHT OF WAY STAKING PROPOSED TO BE SET

STATE OF ILLINOIS)
)SS
COUNTY OF COOK)

THIS IS TO CERTIFY THAT WE, SPACECO, INC. AN ILLINOIS PROFESSIONAL DESIGN FIRM LAND SURVEYING CORPORATION, NUMBER 184-001157, HAVE SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON IN SECTIONS 32 & 33, TOWNSHIP 41 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN AND SECTIONS 4, 9, & 16, TOWNSHIP 40 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN ALL IN COOK COUNTY, THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THE PLAT CORRECTLY REPRESENTS SAID SURVEY, THAT ALL MONUMENTS FOUND AND ESTABLISHED ARE OF PERMANENT QUALITY AND OCCUPY THE POSITIONS SHOWN THEREON AND THAT THE MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED, MADE FOR THE DEPARTMENT OF TRANSPORTATION, STATE OF ILLINOIS.

DATED THIS _____ DAY OF _____ 20 ____ A.D, AT ROSEMONT, ILLINOIS

_____
REBECCA Y. POPECK
ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 035-003642
LICENSE EXPIRATION DATE: NOVEMBER 30, 2012

THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.

SPACECO INC.
CONSULTING ENGINEERS
SITE DEVELOPMENT ENGINEERS
LAND SURVEYORS
9575 W. Higgins Road, Suite 700.
Rosemont, Illinois 60018
Phone: (847) 696-4060 Fax: (847) 696-4065

RECEIVED
AUG 19 2011
PLATS & LEGALS

PLAT OF HIGHWAYS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
MANNHEIM ROAD (US ROUTE 12/45)

SECTION: AT HIGGINS & LAWRENCE COUNTY: COOK
PROJECT: MANNHEIM RD JOB NO.: R-90-026-11
STATION 187+70.50 TO STATION 193+90.23
SCALE: 1"=50' SHEET 4 OF 6

BUREAU OF LAND ACQUISITION
201 WEST CENTER COURT
SCHAUMBURG, ILLINOIS 60196

REVISION DATE: 8/18/11 REVISION PER IDOT MADE BY JWM

MANNHEIM ROAD (US ROUTE 12/45) SECTION: AT HIGGINS & LAWRENCE COOK COUNTY JOB NO.: R-90-026-11 RECORDING: RECORDED ON

PART OF THE SOUTHWEST QUARTER OF SECTION 33 TWP. 41 N. & THE NORTHWEST QUARTER OF SECTION 4 TWP. 40 N R. 12 E. OF THE 3RD. P.M., IN COOK COUNTY, ILLINOIS.

PARCEL NUMBER	OWNER	TOTAL HOLDINGS ACRES	PART TAKEN ACRES	SQ.FT.	AREA IN EXISTING R.O.W. ACRES	REMAINDER AREA ACRES	EASEMENT AREA ACRES	EASEMENT AREA SQUARE FEET	EASEMENT PURPOSE	PERMANENT INDEX NUMBER	PROPERTY ACQUIRED BY
OHT0006	FELCOR LODGING LIMITED PARTNERSHIP	3.568	0.222	N/A	0	3.346	0.000	0	N/A	09-33-311-050	
OHT0007 OHT0007TE	BRE/COH IL, LLC, A DELAWARE LIMITED LIABILITY COMPANY	10.497	0.346	N/A	0	10.151	0.018	N/A	N/A TEMPORARY	09-33-311-051 09-33-311-052 09-33-311-053 09-33-311-054 09-33-311-056 09-33-311-058 09-33-311-059	
OHT0011PE-A	CITY OF CHICAGO, A MUNICIPAL CORPORATION	6.471	0.000	N/A	0.038	6.471	0.092	N/A	PERMANENT	09-33-311-018	
OHT0011PE-B							0.007	319	PERMANENT	12-04-101-004	

LEGEND

- SECTION CORNER (9 10 16 15)
- QUARTER SECTION CORNER (16 15)
- SECTION LINE
- QUARTER SECTION LINE
- QUARTER, QUARTER SECTION LINE
- PLATTED LOT LINES
- PROPERTY (DEED) LINE
- APL — APPARENT PROPERTY LINE
- CENTERLINE
- EXISTING RIGHT OF WAY LINE
- PROPOSED RIGHT OF WAY LINE
- PROPOSED EASEMENT
- 129.32' — MEASURED DIMENSION
- 129.32' (COMP) — COMPUTED DIMENSION
- (129.32') — RECORDED DIMENSION
- EXISTING BUILDING

GRAPHIC SCALE FEET
0 60 120
SCALE: 1" = 60'

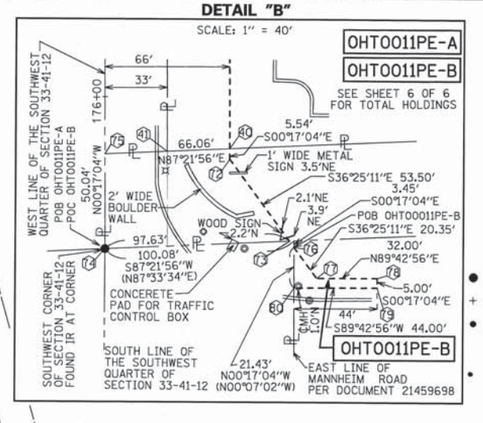
- CATCH BASIN
- INLET
- STORM MANHOLE
- SANITARY MANHOLE
- FIRE HYDRANT
- TELEPHONE MANHOLE
- LIGHT POLE
- WATERMAIN VALVE VAULT

Bearings are referenced to the Illinois State Plane Coordinate Grid System, NAD83, East Zone, as provided by the Illinois Department of Transportation.

- ● IRON PIPE OR ROD FOUND ○ REPLACED AFTER CONSTRUCTION
- + CUT CROSS FOUND OR SET
- ● T1, T2, T3 — **THESE STAKES REFERENCE FOUND OR SET MONUMENTATION.** SET 5/8 INCH IRON ROD FLUSH WITH GROUND TO TIE FOUND IRON STAKE IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- • BT1, BT2, BT3 — **THESE STAKES, IN CULTIVATED AREAS, REFERENCE FOUND OR SET MONUMENTATION.** BURIED 5/8 INCH IRON ROD 20 INCHES BELOW GROUND TO TIE FOUND IRON STAKE. IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- ■ — **STAKING OF PROPOSED RIGHT OF WAY.** SET DIVISION OF HIGHWAYS SURVEY MARKER TO MONUMENT THE POSITION SHOWN. IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.
- ■ M — **STAKING OF PROPOSED RIGHT OF WAY IN CULTIVATED AREAS.** BURIED 5/8 INCH METAL ROD 20 INCHES BELOW GROUND TO MARK FUTURE SURVEY MARKER POSITION IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- ◒ PERMANENT SURVEY MARKER, I.D.O.T. STANDARD 2135 (TO BE SET BY OTHERS)
- □ RIGHT OF WAY STAKING PROPOSED TO BE SET

DETAIL "B"

SCALE: 1" = 40'



COORDINATE & STATION TABLE

POINT	NORTHING	EASTING	STATION	OFFSET	
35	1942166.96	1106347.66	185+58.60	98.76	RIGHT
36	1942109.26	1106326.19	185+01.00	77.00	RIGHT
37	1941822.26	1106327.61	182+14.00	77.00	RIGHT
38	1941730.68	1106320.50	181+22.46	69.43	RIGHT
39	1941689.21	1106317.27	180+81.00	66.00	RIGHT
40	1941180.75	1106319.80	175+72.54	66.00	RIGHT
41	1941179.23	1106286.80	175+71.18	33.00	RIGHT
49	1941654.39	1106330.45	180+46.12	79.00	RIGHT
50	1941654.33	1106317.45	180+46.12	66.00	RIGHT
51	1941595.33	1106317.74	179+87.12	66.00	RIGHT
52	1941595.39	1106330.74	179+87.12	79.00	RIGHT
72	1941175.21	1106319.82	175+67.00	66.00	RIGHT
73	1941132.16	1106351.59	175+23.79	97.55	RIGHT
74	1941127.67	1106254.06	175+19.79	0.00	LEFT
75	1941177.71	1106253.81	175+69.83	0.00	LEFT
76	1941128.82	1106354.06	175+20.44	100.00	RIGHT
77	1941112.44	1106366.14	175+04.00	112.00	RIGHT
78	1941112.60	1106398.14	175+04.00	144.00	RIGHT
79	1941107.60	1106398.16	174+99.00	144.00	RIGHT
80	1941107.38	1106354.16	174+99.00	100.00	RIGHT

STATE OF ILLINOIS)
)SS
COUNTY OF COOK)

THIS IS TO CERTIFY THAT WE, SPACECO, INC. AN ILLINOIS PROFESSIONAL DESIGN FIRM LAND SURVEYING CORPORATION, NUMBER 184-001157, HAVE SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON IN SECTIONS 32 & 33, TOWNSHIP 41 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN AND SECTIONS 4, 9, & 16, TOWNSHIP 40 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN ALL IN COOK COUNTY, THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THE PLAT CORRECTLY REPRESENTS SAID SURVEY, THAT ALL MONUMENTS FOUND AND ESTABLISHED ARE OF PERMANENT QUALITY AND OCCUPY THE POSITIONS SHOWN THEREON AND THAT THE MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED, MADE FOR THE DEPARTMENT OF TRANSPORTATION, STATE OF ILLINOIS.

DATED THIS _____ DAY OF _____ 20 ____ A.D, AT ROSEMONT, ILLINOIS

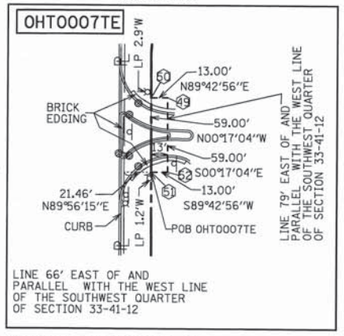
REBECCA Y. POPECK
ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 035-003642
LICENSE EXPIRATION DATE: NOVEMBER 30, 2012

THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.

RECEIVED
JUN 05 2012
PLATS & LEGALS

DETAIL "A"

SCALE: 1"=60'



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PLAT OF HIGHWAYS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
MANNHEIM ROAD (US ROUTE 12/45)

SECTION: AT HIGGINS & LAWRENCE COUNTY: COOK
PROJECT: MANNHEIM RD JOB NO.: R-90-026-11
STATION 174+99.00 TO STATION 185+68.60
SCALE: 1"=60' SHEET 5 OF 6

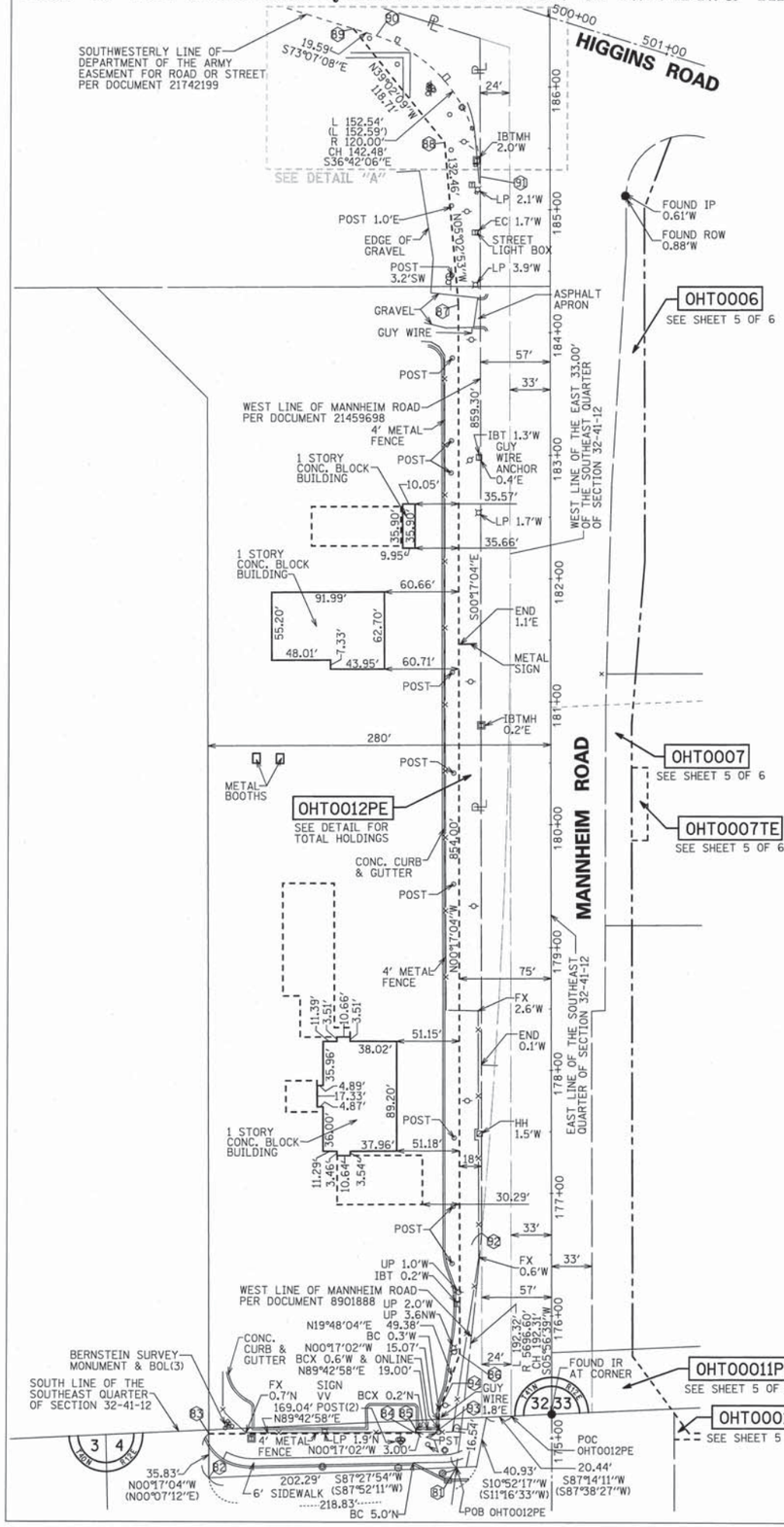
BUREAU OF LAND ACQUISITION
201 WEST CENTER COURT
SCHAUMBURG, ILLINOIS 60196

REVISION DATE: 06/05/12
REVISION DATE: 01/12/12
REVISION DATE: 8/18/11

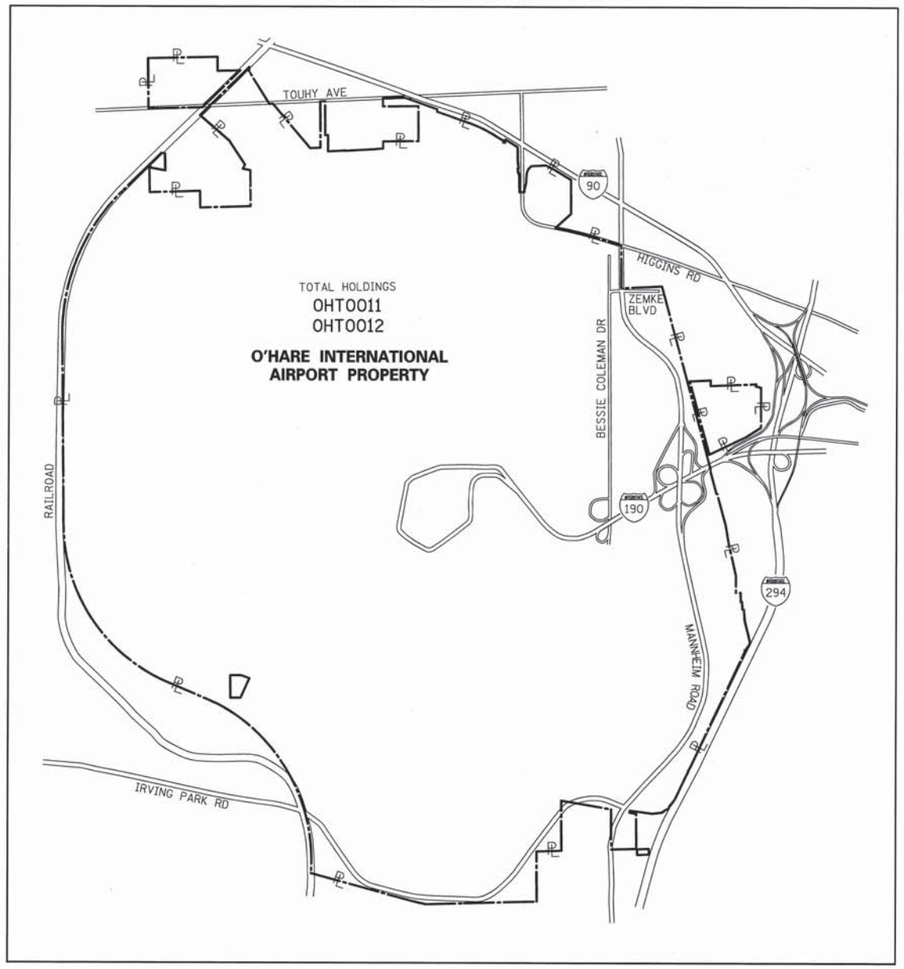
REVISION PER IDOT (OHT0009,10,11A,11B CHANGE TO PE)
REVISION OHT0007 UPDATE OWNER
REVISION PER IDOT

MADE BY SDS
MADE BY RYP
MADE BY JWM

PART OF THE SOUTHEAST QUARTER OF SECTION 32 TWP. 41 N. & THE NORTHWEST QUARTER OF SECTION 4 TWP. 40 N R. 12 E. OF THE 3RD. P.M., IN COOK COUNTY, ILLINOIS.

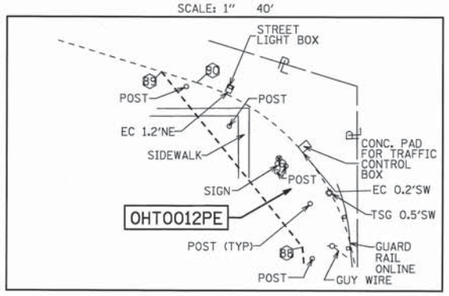


TOTAL HOLDINGS 0HT0011 & 0HT0012



DETAIL "A"

SCALE: 1" 40'



COORDINATE & STATION TABLE					
POINT	NORTHING	EASTING	STATION	OFFSET	
81	1941084.17	1106176.41	174+76.67	77.86	LEFT
82	1941075.22	1105974.32	174+68.72	280.00	LEFT
83	1941111.05	1105974.14	175+04.56	280.00	LEFT
84	1941111.89	1106143.18	175+04.56	110.96	LEFT
85	1941114.89	1106143.18	175+07.56	110.94	LEFT
86	1941176.51	1106178.82	175+69.00	75.00	LEFT
87	1942030.50	1106174.58	184+23.00	75.00	LEFT
88	1942162.45	1106162.92	185+55.00	86.00	LEFT
89	1942254.65	1106088.16	186+47.58	160.30	LEFT
90	1942248.96	1106106.91	186+41.79	141.58	LEFT
91	1942134.73	1106192.06	185+27.14	57.00	LEFT
92	1941275.44	1106196.33	176+67.84	57.00	LEFT
93	1941114.98	1106162.16	175+07.55	91.96	LEFT
94	1941130.05	1106162.09	185+22.62	91.96	LEFT

PARCEL NUMBER	OWNER	TOTAL HOLDINGS ACRES	PART TAKEN ACRES	PART TAKEN SQ.FT.	AREA IN EXISTING R.O.W. ACRES	REMAINDER AREA ACRES	EASEMENT AREA ACRES	EASEMENT AREA SQUARE FEET	EASEMENT PURPOSE	PERMANENT INDEX NUMBER	PROPERTY ACQUIRED BY
OHT0012PE	CITY OF CHICAGO, ILLINOIS A MUNICIPAL CORPORATION	6.471	N/A	N/A	N/A	6.471	0.655	N/A	PERMANENT	N/A	

LEGEND

SECTION CORNER (9 10 / 16 15) — QUARTER SECTION CORNER (16 — 15)

- SECTION LINE
- QUARTER SECTION LINE
- QUARTER, QUARTER SECTION LINE
- PLATTED LOT LINES
- PROPERTY (DEED) LINE (PL)
- APPARENT PROPERTY LINE (APL)
- CENTERLINE
- EXISTING RIGHT OF WAY LINE
- PROPOSED RIGHT OF WAY LINE
- PROPOSED EASEMENT
- 129.32' MEASURED DIMENSION
- 129.32' (COMP) COMPUTED DIMENSION
- (129.32') RECORDED DIMENSION
- EXISTING BUILDING

GRAPHIC SCALE FEET 0 60,120 — SCALE: 1" 60'

- CATCH BASIN
- INLET
- STORM MANHOLE
- SANITARY MANHOLE
- FIRE HYDRANT
- TELEPHONE MANHOLE
- LIGHT POLE
- WATERMAIN VALVE VAULT

N

Bearings are referenced to the Illinois State Plane Coordinate Grid System, NAD83, East Zone, as provided by the Illinois Department of Transportation.

- ● IRON PIPE OR ROD FOUND ○ REPLACED AFTER CONSTRUCTION
- \+ CUT CROSS FOUND OR SET
- • T1 T2 T3 **THESE STAKES REFERENCE FOUND OR SET MONUMENTATION.** SET 5/8 INCH IRON ROD FLUSH WITH GROUND TO TIE FOUND IRON STAKE IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
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- □ RIGHT OF WAY STAKING PROPOSED TO BE SET

STATE OF ILLINOIS)
)SS
COUNTY OF COOK)

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DATED THIS _____ DAY OF _____ 20 ____ A.D. AT ROSEMONT, ILLINOIS

_____
REBECCA Y. POPECK
ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 035-003642
LICENSE EXPIRATION DATE: NOVEMBER 30, 2012

THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.

RECEIVED
JUN 05 2012
PLATS & LEGALS

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PLAT OF HIGHWAYS

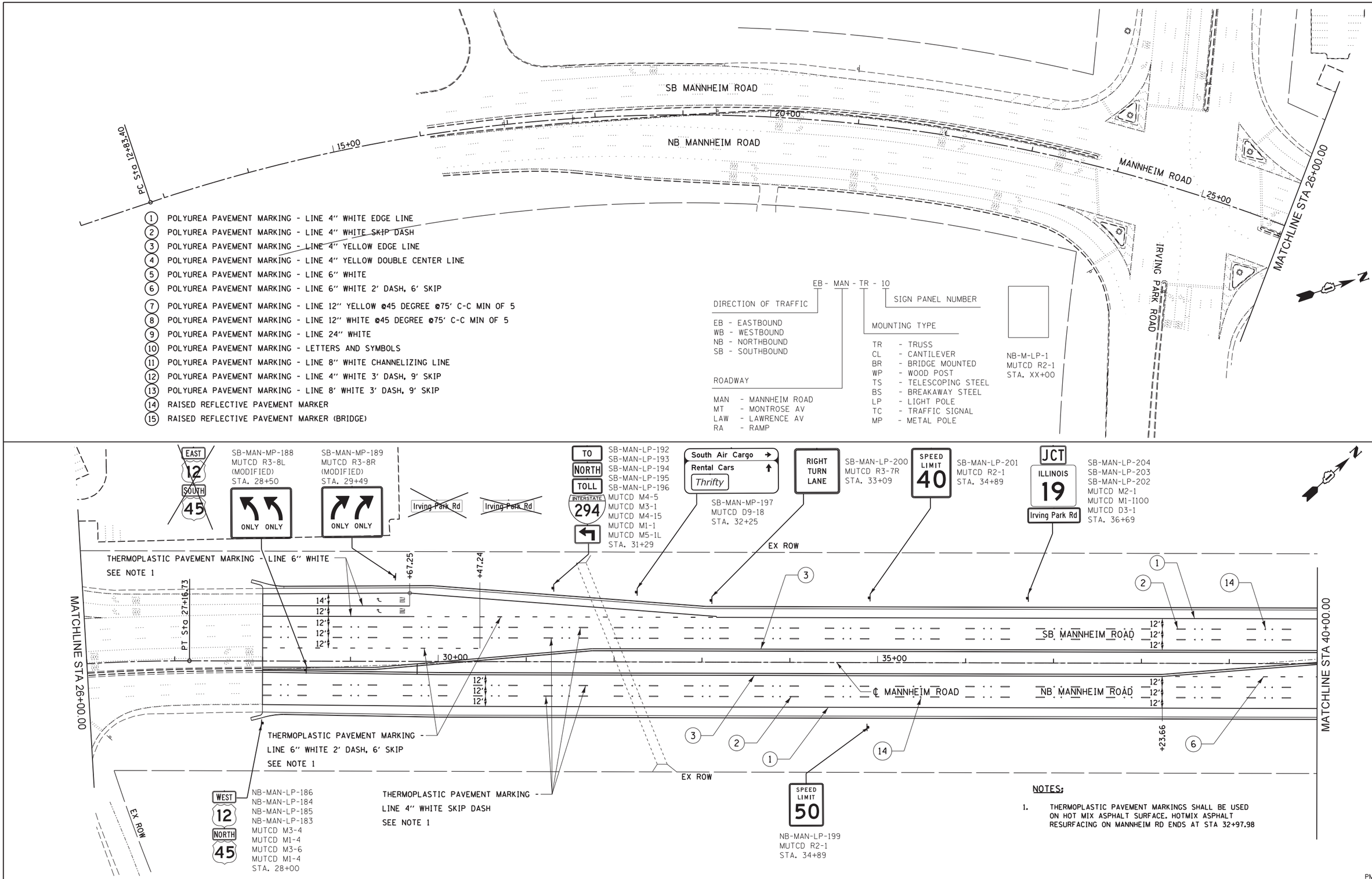
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
MANNHEIM ROAD (US ROUTE 12/45)

SECTION: AT HIGGINS & LAWRENCE COUNTY: COOK
PROJECT: MANNHEIM RD JOB NO.: R-90-026-11
STATION 174+68.72 TO STATION 186+47.58
SCALE: 1"=60' SHEET 6 OF 6

BUREAU OF LAND ACQUISITION
201 WEST CENTER COURT
SCHAUMBURG, ILLINOIS 60196

REVISION DATE: 06/05/12 — REVISION PER IDOT (OHT0009,10,11A,11B CHANGE TO PE) — MADE BY SDS
REVISION DATE: 01/17/12 — REVISION OHT0012PE CONFIGURATION — MADE BY RYP
REVISION DATE: 8/18/11 — REVISION PER IDOT — MADE BY JWM

MANNHEIM ROAD (US ROUTE 12/45) SECTION: AT HIGGINS & LAWRENCE COOK COUNTY JOB NO.: R-90-026-11 RECORDING: RECORDED ON



1. POLYUREA PAVEMENT MARKING - LINE 4" WHITE EDGE LINE
2. POLYUREA PAVEMENT MARKING - LINE 4" WHITE SKIP DASH
3. POLYUREA PAVEMENT MARKING - LINE 4" YELLOW EDGE LINE
4. POLYUREA PAVEMENT MARKING - LINE 4" YELLOW DOUBLE CENTER LINE
5. POLYUREA PAVEMENT MARKING - LINE 6" WHITE
6. POLYUREA PAVEMENT MARKING - LINE 6" WHITE 2' DASH, 6' SKIP
7. POLYUREA PAVEMENT MARKING - LINE 12" YELLOW @45 DEGREE @75' C-C MIN OF 5
8. POLYUREA PAVEMENT MARKING - LINE 12" WHITE @45 DEGREE @75' C-C MIN OF 5
9. POLYUREA PAVEMENT MARKING - LINE 24" WHITE
10. POLYUREA PAVEMENT MARKING - LETTERS AND SYMBOLS
11. POLYUREA PAVEMENT MARKING - LINE 8" WHITE CHANNELIZING LINE
12. POLYUREA PAVEMENT MARKING - LINE 4" WHITE 3' DASH, 9' SKIP
13. POLYUREA PAVEMENT MARKING - LINE 8' WHITE 3' DASH, 9' SKIP
14. RAISED REFLECTIVE PAVEMENT MARKER
15. RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)

NOTES;

1. THERMOPLASTIC PAVEMENT MARKINGS SHALL BE USED ON HOT MIX ASPHALT SURFACE. HOTMIX ASPHALT RESURFACING ON MANNHEIM RD ENDS AT STA 32+97.98

PMK-1

Globetrotters® Engineering Corporation ENGINEERS ARCHITECTS 300 South Wacker Drive Chicago, Illinois 60606	USER NAME = stephen.schuh	DESIGNED MT	REVISED -
		DRAWN MT	REVISED -
	PLOT SCALE = 50.0000 ' / in.	CHECKED VT	REVISED -
	PLOT DATE = 10/19/2012	DATE 10/19/2012	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING & SIGNING PLAN
MANNHEIM ROAD

SCALE: 1" = 50' | SHEET NO. OF SHEETS | STA. 26+00.00 TO STA. 40+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	207
		CONTRACT NO. 60G37		
	ILLINOIS FED. AID PROJECT			

FILE NAME = c:\caddlib\pw\sschuh\pwgreat_lakes\dms47844\D160G37-sht-plan_pmk1.dgn

SB-MAN-LP-205
SB-MAN-LP-206
SB-MAN-LP-207
SB-MAN-LP-208
SB-MAN-LP-209
MUTCD M4-5
MUTCD M3-1
MUTCD M4-15
MUTCD M1-1
MUTCD M5-4
STA. 40+30

TO NORTH TOLL INTERSTATE 294

LEFT LANE

SB-MAN-LP-213
SB-MAN-LP-211
SB-MAN-LP-212
SB-MAN-LP-210
MUTCD M3-2
MUTCD M1-4
MUTCD M3-3
MUTCD M1-4
STA. 42+09

EAST 12 SOUTH 45

ONLY ONLY ONLY

SB-MT-LP-
SB-MT-LP-219
MUTCD R3-8a
(MODIFIED)
MUTCD R10-11b
STA. 10+85

NO TURN ON RED

SB-MAN-TC-223
MUTCD R3-5R
STA. 45+50

ONLY

SB-MAN-LP-229
MUTCD R3-7R
STA. 50+36

RIGHT TURN LANE

1 POLYUREA PAVEMENT MARKING - LINE 4" WHITE EDGE LINE
2 POLYUREA PAVEMENT MARKING - LINE 4" WHITE SKIP DASH
3 POLYUREA PAVEMENT MARKING - LINE 4" YELLOW EDGE LINE
4 POLYUREA PAVEMENT MARKING - LINE 4" YELLOW DOUBLE CENTER LINE
5 POLYUREA PAVEMENT MARKING - LINE 6" WHITE
6 POLYUREA PAVEMENT MARKING - LINE 6" WHITE 2' DASH, 6' SKIP
7 POLYUREA PAVEMENT MARKING - LINE 12" YELLOW @45 DEGREE @75' C-C MIN OF 5
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9 POLYUREA PAVEMENT MARKING - LINE 24" WHITE
10 POLYUREA PAVEMENT MARKING - LETTERS AND SYMBOLS
11 POLYUREA PAVEMENT MARKING - LINE 8" WHITE CHANNELIZING LINE
12 POLYUREA PAVEMENT MARKING - LINE 4" WHITE 3' DASH, 9' SKIP
13 POLYUREA PAVEMENT MARKING - LINE 8' WHITE 3' DASH, 9' SKIP
14 RAISED REFLECTIVE PAVEMENT MARKER
15 RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)

MATCHLINE STA 40+00.00
40+00
+50.11
+95.86
+43+71.38
+23.66
+72.71
MONTROSE AVENUE
10+00
+25.75
EX ROW
+74.40
+60.40
45+60
50+00
SB MANNHEIM ROAD
℄ MANNHEIM ROAD
NB MANNHEIM ROAD
MATCHLINE STA 54+00.00
POWER

Airport
Maintenance Complex
East Air Cargo
Guard Post 11

NB-MAN-MP-214
MUTCD D9-18
STA. 42+05

LEFT TURN SIGNAL

LEFT ON ARROW ONLY

INTERSTATE 190 EAST | INTERSTATE 90 INTERSTATE 294
Chicago Tollways
1 MILE

NB-MAN-CL-CN-3
MUTCD D3-13
STA. 46+50

NB-MAN-LP-227
NB-MAN-LP-225
NB-MAN-LP-226
NB-MAN-LP-224
MUTCD M3-4
MUTCD M1-4
MUTCD M3-1
MUTCD M1-4
STA. 46+91

WEST 12 NORTH 45

SPEED LIMIT 50

NB-MAN-LP-228
MUTCD R2-1
STA. 48+64

SB-MAN-LP-230
MUTCD R2-1
STA. 55+55

SPEED LIMIT 50

South Air Cargo
Thrifty
Airport
Maintenace Complex
East Air Cargo
Guard Post 11
NEXT RIGHT

SB-MAN-MP-232
MUTCD D9-18
STA. 55+85

EAST 12 SOUTH 45

SB-MAN-LP-236
SB-MAN-LP-234
SB-MAN-LP-235
SB-MAN-LP-233
MUTCD M3-2
MUTCD M1-4
MUTCD M3-3
MUTCD M1-4
STA. 57+27

WRONG WAY

DO NOT ENTER

KEEP OFF MEDIAN

EX ROW

WB-MAN-MP-252
WB-MAN-MP-251
WB-MAN-MP-253
MUTCD M1-4
MUTCD M1-4
MUTCD M6-4
STA. 61+10

WB-MAN-MP-254
MUTCD I1-I106
STA. 61+30

12 45

FORMER SITE OF
DOG TRACK
RACED GREYHOUNDS
SCHILLER PARK
HISTORICAL COMMISSION

SB-MAN-MP-256
SB-MAN-MP-257
MUTCD R3-8L
(MODIFIED)
MUTCD R3-4
STA. 62+15

ONLY ONLY

EAST 12 SOUTH 45

SB-MAN-LP-263
SB-MAN-LP-261
SB-MAN-LP-262
SB-MAN-LP-260
SB-MAN-LP-264
MUTCD M3-2
MUTCD M1-4
MUTCD M3-3
MUTCD M1-4
MUTCD M6-3
STA. 63+77

LEFT TURN LANE

SB-MAN-MP-272
SB-MAN-MP-271
MUTCD R3-7
MUTCD R3-4
STA. 66+70

Lawrence Ave

SB-MAN-LP-273
SB-MAN-LP-274
MUTCD W3-3
MUTCD 16-8P
STA. 67+09

MATCHLINE STA 54+00.00
55+00
SB MANNHEIM ROAD
60+00
NB MANNHEIM ROAD
+75.00
+95.18
+69.50
+07.93
10+00
LAWRENCE AVENUE
+13.01
+97.04
65+00
℄ MANNHEIM ROAD
+21.72
MATCHLINE STA 68+00.00

SPEED LIMIT 50

NB-MAN-LP-231
MUTCD R2-1
STA. 55+55

LEFT ON GREEN ARROW ONLY
EX ROW

NB-MAN-LP-247
MUTCD R3-4
STA. 60+45

SB-MAN-MP-249
MUTCD R3-4
STA. 60+45

WRONG WAY

DO NOT ENTER

LEFT ON GREEN ARROW ONLY

NB-MAN-MP-244
MUTCD R3-4
STA. 60+30

SEE LAWRENCE AVE
PAVEMENT MARKING & SIGNING PLAN
SHEET PMK-5

NB-MAN-LP-268
NB-MAN-LP-266
NB-MAN-LP-267
NB-MAN-LP-265
MUTCD M3-4
MUTCD M1-4
MUTCD M3-1
MUTCD M1-4
STA. 63+77

WEST 12 NORTH 45

TO INTERSTATE 294 SOUTH
Balmoral Ave
EAST
NEXT RIGHT

SPEED LIMIT 50

NB-MAN-LP-270
MUTCD R2-1
STA. 65+42

DONALD E STEPHENS CONVENTION CENTER
ROSEMONT THEATER

NB-MAN-LP-275
MUTCD RS-142
STA. 67+09

INTERSTATE 190
Chicago
O'Hare
JCT 3/4 MILE

PMK-2

Globetrotters® Engineering Corporation
ENGINEERS ARCHITECTS
300 South Wacker Drive
Chicago, Illinois 60606

USER NAME = stephen.schuh	DESIGNED MT	REVISED -	
	DRAWN MT	REVISED -	
PLOT SCALE = 50.0000 ' / in.	CHECKED VT	REVISED -	
PLOT DATE = 10/19/2012	DATE 10/19/2012	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING & SIGNING PLAN
MANNHEIM ROAD

SCALE: 1" = 50' | SHEET NO. OF SHEETS | STA. 40+00.00 TO STA. 68+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	208
		CONTRACT NO. 60G37		
	ILLINOIS FED. AID PROJECT			

FILE NAME = c:\caddlib\pw\sschuh\pwgreat_lakes\dms47844\D160G37-sht-plan_pmk2.dgn

1. POLYUREA PAVEMENT MARKING - LINE 4" WHITE EDGE LINE
2. POLYUREA PAVEMENT MARKING - LINE 4" WHITE SKIP DASH
3. POLYUREA PAVEMENT MARKING - LINE 4" YELLOW EDGE LINE
4. POLYUREA PAVEMENT MARKING - LINE 4" YELLOW DOUBLE CENTER LINE
5. POLYUREA PAVEMENT MARKING - LINE 6" WHITE
6. POLYUREA PAVEMENT MARKING - LINE 6" WHITE 2' DASH, 6' SKIP
7. POLYUREA PAVEMENT MARKING - LINE 12" YELLOW @45 DEGREE @75' C-C MIN OF 5
8. POLYUREA PAVEMENT MARKING - LINE 12" WHITE @45 DEGREE @75' C-C MIN OF 5
9. POLYUREA PAVEMENT MARKING - LINE 24" WHITE
10. POLYUREA PAVEMENT MARKING - LETTERS AND SYMBOLS
11. POLYUREA PAVEMENT MARKING - LINE 8" WHITE CHANNELIZING LINE
12. POLYUREA PAVEMENT MARKING - LINE 4" WHITE 3' DASH, 9' SKIP
13. POLYUREA PAVEMENT MARKING - LINE 8" WHITE 3' DASH, 9' SKIP
14. RAISED REFLECTIVE PAVEMENT MARKER
15. RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)

NB-MAN-TR-TN1-1 MUTCD D3-13 STA. 71+00
NB-MAN-TR-TN1-2 MUTCD D3-13 STA. 71+00
NB-MAN-TR-TN1-3 MUTCD D3-13 STA. 71+00
WEST 190 O'Hare 1 MILE
EAST 190 Chicago ½ MILE
90 294 Tollways
Balmoral Ave
MATCHLINE STA 68+00.00
MATCHLINE STA 82+00.00
EX ROW
BALMORAL BRIDGE
SB MANNHEIM ROAD
℄ MANNHEIM ROAD
NB MANNHEIM ROAD
RAMP A
PC Sta 10+00.00
PCC Sta 14+90.25
PT Sta 16+80.08
PC Sta 18+32.20
PT Sta 21+03.91
PT Sta 22+23.57
TO INTERSTATE 190
NB-MAN-LP-279
NB-MAN-LP-280
NB-MAN-LP-278
MUTCD M4-5
MUTCD M1-1
MUTCD M6-3
STA. 68+77
RAMP 35 M.P.H.
NB-RA-LP-282
MUTCD W13-3
STA. 15+30

Schiller Park 11200
SPEED LIMIT 50
SB-MAN-LP-286
SB-MAN-LP-285
MUTCD D1-1
MUTCD R2-1
STA. 82+40
EAST 12 SOUTH 45
SB-MAN-LP-290
SB-MAN-LP-288
SB-MAN-LP-289
SB-MAN-LP-287
MUTCD M3-2
MUTCD M1-4
MUTCD M3-3
MUTCD M1-4
STA. 85+58
BALMORAL AVE EXIT ONLY
SB-MAN-CL
MUTCD D3-13
STA. 86+50
EAST Balmoral Ave. TO 294 SOUTH TOLLWAY
EXCEPT AUTHORIZED VEHICLES
SB-MAN-MP-334
SB-MAN-MP-335
MUTCD R3-4
MUTCD R3-1101
STA. 92+00
ONLY
NB-MAN-LP-307
MUTCD R3-5R
STA. 93+98
SB-MAN-MP-299
MUTCD W4-1R
STA. 94+15
SB-MAN-LP-302
MUTCD R2-1
STA. 95+28
SPEED LIMIT 50
SB-MAN-MP-303
MUTCD R2-1
STA. 95+28
SPEED LIMIT 50
MATCHLINE STA 82+00.00
MATCHLINE STA 96+00.00
EX ROW
SB MANNHEIM ROAD
℄ MANNHEIM ROAD
NB MANNHEIM ROAD
RAMP B
PCC Sta 1203+11.62
PCC Sta 1203+60.29
PT Sta 1204+37.48
POT Sta 1210+28.33
POT Sta 900+00.00
NB-MAN-LP-331
MUTCD W4-1R
STA. 84+38
NB-MAN-MP-291
MUTCD D3-13
STA. 87+20
EAST INTERSTATE 190
EAST 190 NORTH TOLLWAY 294 KENNEDY EXPRESSWAY 90 NEXT RIGHT
NB-MAN-LP-306
NB-MAN-LP-305
NB-MAN-LP-304
MUTCD M1-1
MUTCD M3-2
MUTCD M6-2
STA. 86+78
WEST 12 NORTH 45
NB-MAN-LP-295
NB-MAN-LP-293
NB-MAN-LP-294
NB-MAN-LP-292
MUTCD M3-4
MUTCD M1-4
MUTCD M3-1
MUTCD M1-4
STA. 87+98
ONLY
NB-MAN-MP-332
NB-MAN-MP-333
MUTCD R3-4
MUTCD R3-1101
STA. 92+00
EXCEPT AUTHORIZED VEHICLES
RIGHT LANE MUST EXIT
NB-MAN-LP-298
MUTCD R3-7R
STA. 93+98
Cell Phone Lot
Rental Car enterprise
Ahead 2 Miles
NB-MAN-MP-300
MUTCD D9-18e
STA. 94+55
SPEED LIMIT 50
NB-MAN-LP-296
MUTCD R2-1
STA. 95+28

PMK-3

Globetrotters® Engineering Corporation
ENGINEERS ARCHITECTS
300 South Wacker Drive
Chicago, Illinois 60606

USER NAME = stephen.schuh	DESIGNED MT	REVISED -	
	DRAWN MT	REVISED -	
PLOT SCALE = 50.0000 ' / in.	CHECKED VT	REVISED -	
PLOT DATE = 10/19/2012	DATE 10/19/2012	REVISED -	

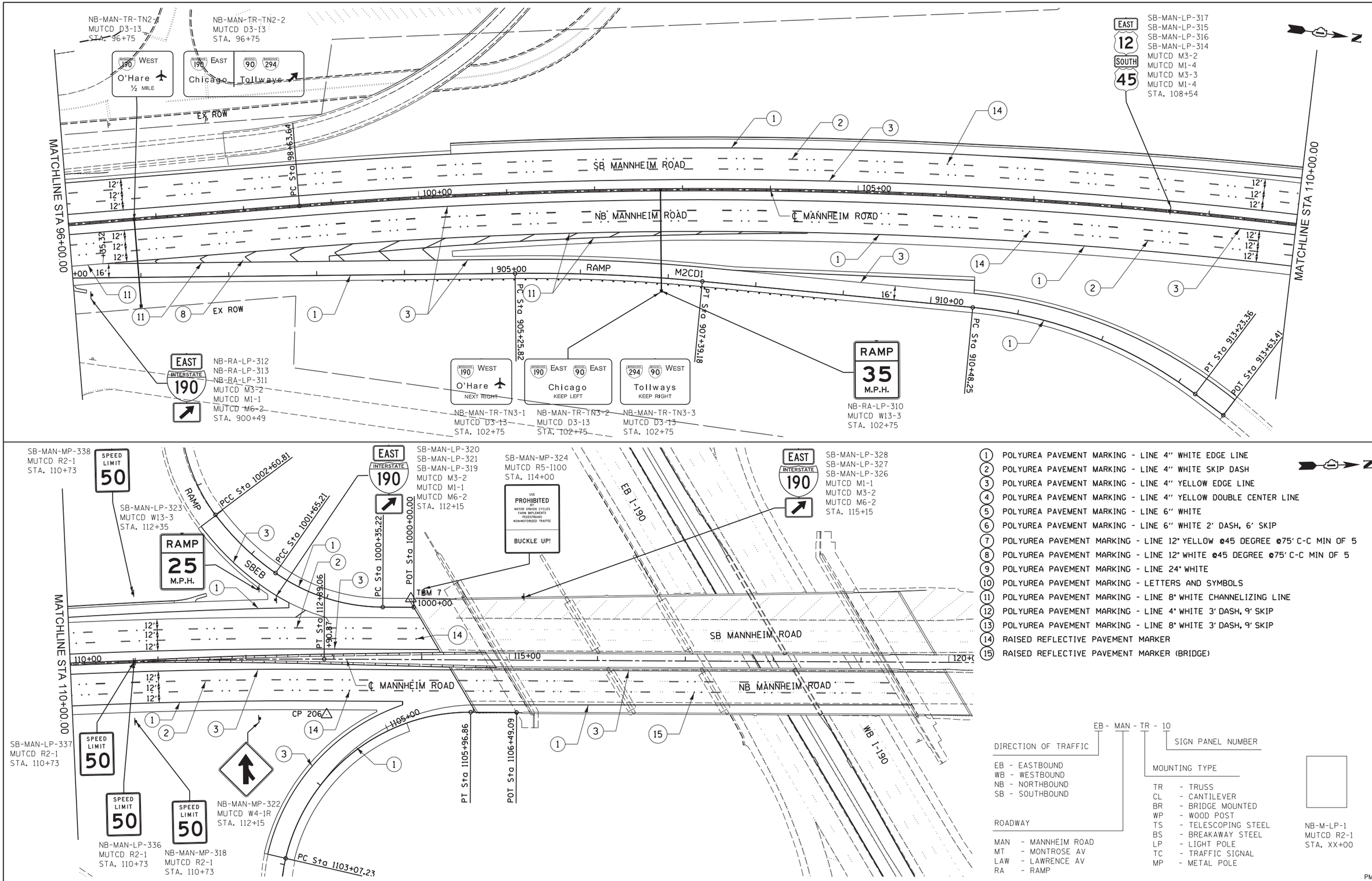
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING & SIGNING PLAN
MANNHEIM ROAD

SCALE: 1" = 50' | SHEET NO. OF SHEETS | STA. 68+00.00 TO STA. 96+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	209
		CONTRACT NO. 60G37		
		ILLINOIS FED. AID PROJECT		

FILE NAME = c:\caddlib\pw\sschuh\pwgreat_lakes\dms47844\D160G37-sht-plan_pmk3.dgn



1. POLYUREA PAVEMENT MARKING - LINE 4" WHITE EDGE LINE
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14. RAISED REFLECTIVE PAVEMENT MARKER
15. RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)

EB - MAN - TR - 10

DIRECTION OF TRAFFIC
EB - EASTBOUND
WB - WESTBOUND
NB - NORTHBOUND
SB - SOUTHBOUND

ROADWAY
MAN - MANNHEIM ROAD
MT - MONTROSE AV
LAW - LAWRENCE AV
RA - RAMP

SIGN PANEL NUMBER

MOUNTING TYPE
TR - TRUSS
CL - CANTILEVER
BR - BRIDGE MOUNTED
WP - WOOD POST
TS - TELESCOPING STEEL
BS - BREAKAWAY STEEL
LP - LIGHT POLE
TC - TRAFFIC SIGNAL
MP - METAL POLE

NB-M-LP-1
MUTCD R2-1
STA. XX+00

PMK-4

Globetrotters® Engineering Corporation
ENGINEERS ARCHITECTS
300 South Wacker Drive
Chicago, Illinois 60606

USER NAME = stephen.schuh	DESIGNED MT	REVISED -	
	DRAWN MT	REVISED -	
PLOT SCALE = 50.0000 ' / in.	CHECKED VT	REVISED -	
PLOT DATE = 10/19/2012	DATE 10/19/2012	REVISED -	

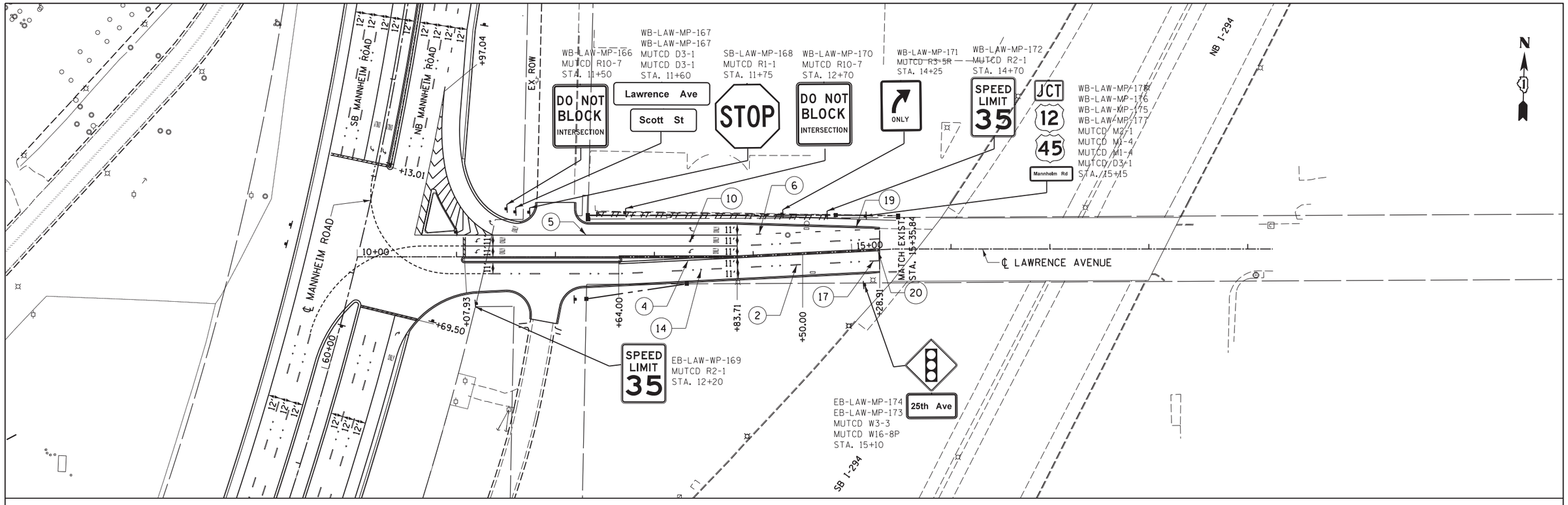
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING & SIGNING PLAN
MANNHEIM ROAD

SCALE: 1" = 50' | SHEET NO. OF SHEETS | STA. 96+00.00 TO STA. 120+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	210
		CONTRACT NO. 60G37		
	ILLINOIS FED. AID PROJECT			

FILE NAME = c:\caddlib\pw\sschuh\pwgreat_lakes\dms47844\D160G37-sht-plan_pmk4.dgn



NOTE: PROVIDE THERMOPLASTIC PAVEMENT MARKING ON LAWERENCE AVENUE BETWEEN STA. 14+50 AND STA. 15+35.84, ON HOT-MIX ASPHALT PAVEMENT.

1. POLYUREA PAVEMENT MARKING - LINE 4" WHITE EDGE LINE
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14. RAISED REFLECTIVE PAVEMENT MARKER
15. RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)
16. THERMOPLASTIC PAVEMENT MARKING - LINE 4" WHITE EDGE LINE
17. THERMOPLASTIC PAVEMENT MARKING - LINE 4" WHITE SKIP DASH
18. THERMOPLASTIC PAVEMENT MARKING - LINE 6" WHITE
19. THERMOPLASTIC PAVEMENT MARKING - LINE 6" WHITE 2' DASH, 6' SKIP
20. THERMOPLASTIC PAVEMENT MARKING - LINE 4" YELLOW DOUBLE CENTERLINE

EB - MAN - TR - 10

DIRECTION OF TRAFFIC
- EB - EASTBOUND
- WB - WESTBOUND
- NB - NORTHBOUND
- SB - SOUTHBOUND

ROADWAY
- MAN - MANNHEIM ROAD
- MT - MONTROSE AV
- LAW - LAWRENCE AV
- I90 - RAMP

SIGN PANEL NUMBER

MOUNTING TYPE
- TR - TRUSS
- CL - CANTILEVER
- WP - WOOD POST
- BS - BREAKAWAY STEEL
- LP - LIGHT POLE
- TC - TRAFFIC SIGNAL
- MP - METAL POLE

NB-M-LP-1
MUTCD R2-1
STA. XX+00

PMK-5

Globetrotters® Engineering Corporation
ENGINEERS ARCHITECTS
300 South Wacker Drive
Chicago, Illinois 60606

USER NAME = stephen.schuh	DESIGNED MT	REVISED -
	DRAWN MT	REVISED -
PLOT SCALE = 50.0000 ' / in.	CHECKED VT	REVISED -
PLOT DATE = 10/19/2012	DATE 10/19/2012	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING & SIGNING PLAN
LAWRENCE AVENUE

SCALE: 1" = 50' | SHEET NO. 5 OF 5 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	211
		CONTRACT NO. 60G37		
	ILLINOIS FED. AID PROJECT			

FILE NAME = c:\caddlib\pw\sschuh\pwgreat_lakes\dms47844\D160G37-sht-plan_pmk5.dgn

SIGNAGE LEGEND

W1-1L
36" X 36"

20
M.P.H.
W13-1P
18" X 18"
(A)•

20
W1-1oL
36" X 36"
(B)•

W1-6L
48" X 24"
(C)

W1-8L
18" X 24"
(D)

W4-1R
36" X 36"
(E)

W4-1L
36" X 36"
(F)

EXIT
35
MPH
W13-2
24" X 30"
(G)

•SIGNS TO BE MOUNTED ON RETAINING WALL

PAVEMENT MARKING LEGEND

(1) POLYUREA PAVEMENT MARKING TYPE I - LINE 4" (WHITE)
(2) POLYUREA PAVEMENT MARKING TYPE I - LINE 4" (YELLOW)

N

STA. 19+25 (B) (2) (1)
STA. 17+25 (A)
(1) (G) STA. 14+00
(2)
STA. 20+40 (C)
(D) STA. 20+05
40'
STA. 20+80 (D)
STA. 21+65 (D)
PT Sta 20+32.09
20+00
SOUTHBOUND MANNHEIM ROAD EXIT RAMP
15+00
110+00
SOUTHBOUND MANNHEIM ROAD
75+00
80+00
85+00
NORTHBOUND MANNHEIM ROAD
15+00
1205+00
to 14+90.25
STA. 22+45 (D)
(1)
(2)
STA. 23+25 (D)
80' (TYP.)
PT Sta 16+80.08
PC Sta 18+32.20
20+00
PT Sta 21+03.91
RAMP A
POT Sta 22+23.57
STA. 24+05 (D)
STA. 24+85 (D)
25+00
STA. 25+65 (D)
(1)
(2)
(E)
MOUNT TO
LIGHT POLE
30+00
STA. 31+50 (F)
PC Sta 1200+00.00
1200+00
35+00
(1)
(2)
325' (TYP)
LIMIT OF BALMORAL AVENUE
CONSTRUCTION STA. 36+31.80

CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600
Rosemont, Illinois 60018
(847) 823-0500

USER NAME = pmagnell1	DESIGNED - NJM	REVISED -	
	DRAWN - PWN	REVISED -	
PLOT SCALE = 100'	CHECKED - SNS	REVISED -	
PLOT DATE = 10/17/2012	DATE - 10/17/2012	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND SIGNAGE
PLAN BALMORAL UNDERPASS

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	212
		CONTRACT NO. 60G37		
	ILLINOIS FED. AID PROJECT			

FILE NAME = N:\ROSEMONT\11009\CADD_Sheets\D160G37-sht-pmk-01-cb.dgn

CONTRACT 60G37
SIGNING SCHEDULE

SIGN NO.	STATION	LEGEND / DESCRIPTION	MUTCD	EXISTING PANEL DIMENSIONS WIDTH (FT)	EXISTING PANEL DIMENSIONS HEIGHT (FT)	PROPOSED PANEL DIMENSIONS WIDTH (FT)	PROPOSED PANEL DIMENSIONS HEIGHT (FT)	REMOVE SIGN PANEL - TYPE A ASSEMBLY (EACH)	REMOVE SIGN PANEL - TYPE B ASSEMBLY (EACH)	REMOVE SIGN PANEL - TYPE 1 (SQ FT)	REMOVE SIGN PANEL - TYPE 2 (SQ FT)	REMOVE SIGN PANEL - TYPE 3 (SQ FT)	SIGN PANEL - TYPE 1 (SQ FT)	SIGN PANEL - TYPE 2 (SQ FT)	SIGN PANEL - TYPE 3 (SQ FT)	RELOCATE SIGN PANEL - TYPE 1 (SQ FT)	RELOCATE SIGN PANEL - TYPE 2 (SQ FT)	RELOCATE SIGN PANEL - TYPE 3 (SQ FT)	METAL POST - TYPE A (FOOT)	METAL POST - TYPE B (FOOT)
WB-LAW-MP-165	11+05.00	Left arrows	R3-8L	2.5	2.5	2.5	2.5			6.3			6.3						12.0	
WB-LAW-MP-166	11+50.00	Do not Block Intersection	R10-7	2.5	2	2.5	2.0			5.0			5.0						12.0	
WB-LAW-MP-167	11+60.00	Street sign (Lawrence Ave)	D3-1	2.5	0.75	2.5	0.8			1.9			1.9							20.0
WB-LAW-MP-168	11+60.00	Street sign (Scott St)	D3-1	2.5	0.75	2.5	0.8			1.9			1.9							
EB-LAW-MP-169	12+20.00	Speed Limit 35	R2-1	2.5	3	2.5	3.0			7.5			7.5						12.0	
WB-LAW-MP-170	12+70.00	Do not Block Intersection	R10-7	2	3	2.0	3.0			6.0			6.0						12.0	
WB-LAW-MP-171	14+25.00	Right arrow	R3-5R	2.5	2.5	2.5	2.5			6.3			6.3						12.0	
WB-LAW-MP-172	14+70.00	Speed Limit 35	R2-1	2.5	3	2.5	3.0			7.5			7.5						12.0	
EB-LAW-MP-173	15+10.00	Advanced Street Name (25TH AV)	W16-8P	2.5	0.75	2.5	0.8			1.9			1.9						12.0	
EB-LAW-MP-174	15+10.00	Advanced Traffic Control	W3-3	3	3	3.0	3.0				9.0			9.0						
WB-LAW-MP-175	15+15.00	U.S. Route Sign 45	M1-4	2	2	2.0	2.0			4.0			4.0							20.0
WB-LAW-MP-176	15+15.00	U.S. Route Sign 12	M1-4	2	2	2.0	2.0			4.0			4.0							
WB-LAW-MP-177	15+15.00	Street Name (Mannheim Rd.)	D3-1	3	0.75	3.0	0.8			2.3			2.3							
WB-LAW-MP-178	15+15.00	Junction	M2-1	1.75	1.33	1.75	1.33			2.3			2.3							
SB-MAN-LP-179	28+00.00	U.S. Route Sign 45	M1-4	2.0	2.0					4.0			0.0							
SB-MAN-LP-180	28+00.00	U.S. Route Sign 12	M1-4	2.0	2.0					4.0			0.0							
SB-MAN-LP-181	28+00.00	Cardinal Direction - South (Route)	M3-3	2.0	1.0					2.0			0.0							
SB-MAN-LP-182	28+00.00	Cardinal Direction - East (Route)	M3-2	2.0	1.0					2.0			0.0							
NB-MAN-LP-183	28+00.00	U.S. Route Sign 45	M1-4	2.0	2.0	2.0	2.0			4.0			4.0							
NB-MAN-LP-184	28+00.00	U.S. Route Sign 12	M1-4	2.0	2.0	2.0	2.0			4.0			4.0							
NB-MAN-LP-185	28+00.00	Cardinal Direction - North (Route)	M3-1	2.0	1.0	2.0	1.0			2.0			2.0							
NB-MAN-LP-186	28+00.00	Cardinal Direction - West (Route)	M3-4	2.0	1.0	2.0	1.0			2.0			2.0							
NB-MAN-LP-187	28+00.00	Pace Bus Stop		1.5	1.5					2.3			0.0							
SB-MAN-MP-188	28+50.00	Advanced Intersection Lane Control (Modified)	R3-8	2.5	2.5	2.5	2.5			6.3			6.3						12.0	
SB-MAN-MP-189	29+49.00	Advanced Intersection Lane Control (Modified)	R3-8R	2.5	2.5	2.5	2.5			6.3			6.3						12.0	
SB-MAN-MP-190	30+35.00	Street Name	D3-1	5.0	1.5				1.0	7.5			0.0						20.0	
SB-MAN-MP-191	30+40.00	Street Name	D3-1	5.0	1.5				1.0	7.5			0.0						14.0	
SB-MAN-LP-192	31+29.00	TO (Interstate)	M4-5	2.5	1.0	2.5	1.0			2.5			2.5							
SB-MAN-LP-193	31+29.00	Cardinal Direction - North (Interstate)	M3-1	2.5	1.0	2.5	1.0			2.5			2.5							
SB-MAN-LP-194	31+29.00	Toll (Interstate)	M4-15	2.5	1.0	2.5	1.0			2.5			2.5							
SB-MAN-LP-195	31+29.00	Interstate Sign - 294	M1-1	2.5	2.0	2.5	2.0			5.0			5.0							
SB-MAN-LP-196	31+29.00	Advance Turn Arrow - Left (Interstate)	M5-1L	2.0	2.0	2.0	2.0			4.0			4.0							
***SB-MAN-MP-197	32+25.00	Information Sign (South Air Cargo & Rental Car)	D9-18	8.5	4.0	10.2	3.7					34.0			37.3					
NB-MAN-LP-199	34+89.00	Speed Limit 50	R2-1	3.0	4.0	3.0	4.0				12.0			12.0						
SB-MAN-LP-200	33+09.00	Right Turn Lane	R3-7R	2.0	2.0	3.0	3.0			4.0				9.0						
SB-MAN-LP-201	34+89.00	Speed Limit 40	R2-1	3.0	4.0	3.0	4.0				12.0			12.0						
SB-MAN-LP-202	36+69.00	Street Name (Irving Park Rd.)	D3-1	3.0	0.8	3.0	0.8			2.3			2.3							
SB-MAN-LP-203	36+69.00	State Route Marker (IL 19)	M1-I100	3.0	3.0	3.0	3.0				9.0			9.0						
SB-MAN-LP-204	36+69.00	Junction	M2-1	2.5	1.3	2.5	1.3			3.1			3.1							
SB-MAN-LP-205	40+30.00	TO (Interstate)	M4-5	2.5	1.0	2.5	1.0			2.5			2.5							
SB-MAN-LP-206	40+30.00	Cardinal Direction - North (Interstate)	M3-1	2.5	1.0	2.5	1.0			2.5			2.5							
SB-MAN-LP-207	40+30.00	Toll (Interstate)	M4-15	2.5	1.0	2.5	1.0			2.5			2.5							
SB-MAN-LP-208	40+30.00	Interstate Sign - 294	M1-1	1.3	1.8	1.3	1.8			2.2			2.2							
SB-MAN-LP-209	40+30.00	Advance Turn Arrow - Left (Interstate)	M5-4	2.0	2.0	2.0	2.0			4.0			4.0							
SB-MAN-LP-210	42+09.00	U.S. Route Sign 45	M1-4	2.0	2.0	2.0	2.0			4.0			4.0							
SB-MAN-LP-211	42+09.00	U.S. Route Sign 12	M1-4	2.0	2.0	2.0	2.0			4.0			4.0							
SB-MAN-LP-212	42+09.00	Cardinal Direction - South (Route)	M3-2	2.0	1.0	2.0	1.0			2.0			2.0							
SB-MAN-LP-213	42+09.00	Cardinal Direction - East (Route)	M3-3	2.0	1.0	2.0	1.0			2.0			2.0							
***NB-MAN-MP-214	42+05.00	((Information Sign) Airport Maint.)	D9-18	13.5	11.0	11.2	6.3					148.5			70.6					
SB-MAN-LP-215	43+45.00	Pace Bus Stop		1.5	1.5					2.3										
NB-MAN-MP-216	43+50.00	Pace Bus Stop		1.5	1.5					2.3										
NB-MAN-MP-217	43+60.00	left turn Only (arrow)	R3-8L	2.0	2.5	2.5	3.0			5.0			7.5						10.0	
SB-MAN-MP-218	43+60.00	Keep Right (Median)	R4-7	2.0	2.5					5.0										
SB-MT-LP-219	10+85.00	No Turn on Red	R10-11b	2.0	2.0	3.0	3.0			4.0				9.0						
NB-MAN-MP-220	45+30.00	Left Turn Signal	R10-10L	2.0	2.5					5.0			7.5						12.0	
NB-MAN-MP-221	45+30.00	Keep Right (Median)	R4-7	2.0	2.5					5.0									12.0	
NB-MAN-TC-222	45+50.00	Left On Arrow Only	R10-5	2.0	1.5					3.0			7.5							
SB-MAN-TC-223	45+50.00	Mandatory Lane Movement (Arrow Right Only)	R3-5R	2.0	2.5	2.5	3.0			5.0			7.5							
NB-MAN-LP-224	46+91.00	U.S. Route Sign 45	M1-4	2.0	2.0	2.0	2.0			4.0			4.0							
NB-MAN-LP-225	46+91.00	U.S. Route Sign 12	M1-4	2.0	2.0	2.0	2.0			4.0			4.0							
NB-MAN-LP-226	46+91.00	Cardinal Direction - North (Route)	M3-1	2.0	1.0	2.0	1.0			2.0			2.0							
NB-MAN-LP-227	46+91.00	Cardinal Direction - West (Route)	M3-4	2.0	1.0	2.0	1.0			2.0			2.0							
NB-MAN-LP-228	48+64.00	Speed Limit 50	R2-1	3.0	4.0	3.0	4.0				12.0			12.0						
SB-MAN-LP-229	50+36.00	Right Turn Lane	R3-7R	2.0	2.0	3.0	3.0			4.0				9.0						
SB-MAN-LP-230	55+55.00	Speed Limit 50	R2-1	2.5	3.0	3.0	4.0			7.5				12.0						
NB-MAN-LP-231	55+55.00	Speed Limit 50	R2-1	2.5	3.0	3.0	4.0	1.0		7.5				12.0					12.0	
***SB-MAN-MP-232	55+85.00	Information Sign (South Air Cargo & Maint.)	D9-18	13.5	11.0	11.2	8.6					148.5			96.3					
SB-MAN-LP-233	57+27.00	U.S. Route Sign 45	M1-4	2.0	2.0	2.0	2.0			4.0			4.0							
SB-MAN-LP-234	57+27.00	U.S. Route Sign 12	M1-4	2.0	2.0	2.0	2.0			4.0			4.0							
SB-MAN-LP-235	57+27.00	Cardinal Direction - South (Route)	M3-3	2.0	1.0	2.0	1.0			2.0			2.0							
SB-MAN-LP-236	57+27.00	Cardinal Direction - East (Route)	M3-2	2.0	1.0	2.0	1.0			2.0			2.0							
NB-MAN-MP-237	58+00.00	Keep Off Median	R11-1	3.0	4.0						12.0								8.0	
SB-MAN-MP-238	58+00.00	Keep Off Median	R11-1	3.0	4.0				1.0		12.0									

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300 South Wacker Drive
Chicago, Illinois 60606

USER NAME = stephen.schuh	DESIGNED	REVISED -
	DRAWN	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED	REVISED -
PLOT DATE = 10/19/2012	DATE 10/19/12	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SIGN SCHEDULE OF QUANTITIES

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	213
		CONTRACT NO. 60G37		
	ILLINOIS FED. AID PROJECT			

FILE NAME = c:\caddlib\pw\sschuh\pwgreat_lakes\dms47844\D160G37-sht-sign-schedule.01.dgn

CONTRACT 60G37
SIGNING SCHEDULE

SIGN NO.	STATION	LEGEND / DESCRIPTION	MUTCD	EXISTING PANEL DIMENSIONS WIDTH (FT)	EXISTING PANEL DIMENSIONS HEIGHT (FT)	PROPOSED PANEL DIMENSIONS WIDTH (FT)	PROPOSED PANEL DIMENSIONS HEIGHT (FT)	REMOVE SIGN PANEL - TYPE A ASSEMBLY (EACH)	REMOVE SIGN PANEL - TYPE B ASSEMBLY (EACH)	REMOVE SIGN PANEL - TYPE 1 (SQ FT)	REMOVE SIGN PANEL - TYPE 2 (SQ FT)	REMOVE SIGN PANEL - TYPE 3 (SQ FT)	SIGN PANEL - TYPE 1 (SQ FT)	SIGN PANEL - TYPE 2 (SQ FT)	SIGN PANEL - TYPE 3 (SQ FT)	RELOCATE SIGN PANEL - TYPE 1 (SQ FT)	RELOCATE SIGN PANEL - TYPE 2 (SQ FT)	RELOCATE SIGN PANEL - TYPE 3 (SQ FT)	METAL POST - TYPE A (FOOT)	METAL POST - TYPE B (FOOT)
SB-MAN-LP-239	59+00.00	Wrong Way	R5-1a	3.0	2.0					6.0										
SB-MAN-MP-240	59+10.00	Wrong Way	R5-1a	3.0	2.0					6.0										
NB-MAN-MP-241	59+10.00	Movement Prohibition (No U Turn)	R3-4	2.5	2.5				1.0	6.3										16.0
NB-MAN-MP-242	59+80.00	Pace Bus Stop		1.5	1.5			1.0		2.3										
SB-MAN-MP-243	60+45.00	Do Not Enter	R5-1	2.5	2.5			1.0		6.3										16.0
NB-MAN-MP-244	60+30.00	Movement Prohibition (No U Turn)	R3-4	2.5	2.5	3.0	3.0			6.3				9.0						
SB-MAN-MP-245	60+30.00	Do Not Enter	R5-1	2.5	2.5					6.3									12.0	
SB-MAN-MP-246	60+69.00	Left On Green Arrow Only	R10-5	2.0	2.5					5.0									12.0	
NB-MAN-MP-247	60+45.00	Movement Prohibition (No U Turn)	R3-4	2.0	2.5	3.0	3.0			5.0				9.0						10.0
SB-MAN-MP-248	60+45.00	Movement Prohibition (No U Turn)	R3-4	2.0	2.5	3.0	3.0			5.0				9.0						
SB-MAN-MP-249	60+45.00	Left On Green Arrow Only (Modified)	R3-5	2.0	2.0					4.0										
SB-MAN-MP-250	60+45.00	Keep Right (Median)	R4-7	2.0	2.0					4.0										
WB-MAN-MP-251	61+10.00	U.S. Route Sign 45	M1-4	3.0	3.0	3.0	3.0				9.0			9.0						
WB-MAN-MP-252	61+10.00	U.S. Route Sign 12	M1-4	3.0	3.0	3.0	3.0				9.0			9.0						
WB-MAN-MP-253	61+10.00	Directional Arrow (Both Ways)	M6-4	2.5	1.5	2.5	1.5			3.8			3.8							16.0
WB-MAN-MP-254	61+30.00	Historical Marker	I1-I106	1.5	2.0			1.0		3.0						3.0			12.0	
SB-MAN-LP-255	61+50.00	Pace Bus Stop		1.5	1.5					2.3										
SB-MAN-MP-256	62+15.00	Advanced Intersection Lane Control (Modified)	R3-8L	2.5	2.5	2.5	2.5			6.3			6.3							
SB-MAN-MP-257	62+15.00	Movement Prohibition (No U Turn)	R3-4	2.5	2.5	3.0	3.0			6.3				9.0						
NB-MAN-MP-258	62+15.00	Movement Prohibition (No U Turn)	R3-4	2.0	2.0	3.0	3.0			4.0				9.0						
NB-MAN-MP-259	62+15.00	Keep Right (Median)	R4-7	2.0	3.0				1.0	6.0										16.0
SB-MAN-LP-260	63+77.00	U.S. Route Sign 45	M1-4	2.0	2.0	2.0	2.0			4.0			4.0							
SB-MAN-LP-261	63+77.00	U.S. Route Sign 12	M1-4	2.0	2.0	2.0	2.0			4.0			4.0							
SB-MAN-LP-262	63+77.00	Cardinal Direction - South (Route)	M3-3	2.0	1.0	2.0	1.0			2.0			2.0							
SB-MAN-LP-263	63+77.00	Cardinal Direction - East (Route)	M3-2	2.0	1.0	2.0	1.0			2.0			2.0							
SB-MAN-LP-264	63+77.00	Directional Arrow	M6-4	1.8	1.3	1.8	1.3			2.2			2.2							
NB-MAN-LP-265	63+77.00	U.S. Route Sign 45	M1-4	2.0	2.0	2.0	2.0			4.0			4.0							
NB-MAN-LP-266	63+77.00	U.S. Route Sign 12	M1-4	2.0	2.0	2.0	2.0			4.0			4.0							
NB-MAN-LP-267	63+77.00	Cardinal Direction - North (Route)	M3-1	2.0	1.0	2.0	1.0			2.0			2.0							
NB-MAN-LP-268	63+77.00	Cardinal Direction - West (Route)	M3-4	2.0	1.0	2.0	1.0			2.0			2.0							
NB-MAN-MP-269	65+10.00	Freeway Entrance	D13-3	15.0	10.5							157.5								
NB-MAN-LP-270	65+42.00	Speed Limit 50	R2-1	3.0	4.0	3.0	4.0				12.0			12.0						
SB-MAN-MP-271	66+70.00	Movement Prohibition (No U Turn)	R3-4	2.0	2.0	3.0	3.0			4.0				9.0						
SB-MAN-MP-272	66+70.00	Left Turn Lane	R3-7	2.0	2.0	3.0	3.0	1.0		4.0				9.0						16.0
SB-MAN-LP-273	67+09.00	Addvanced Traffic Control	W3-3	3.0	0.8	3.0	0.8			2.3			2.3							
SB-MAN-LP-274	67+09.00	Addvanced Street Name	W16-8P	3.0	3.0	3.0	3.0				9.0			9.0						
NB-MAN-LP-275	67+09.00	Recreation Sign (Donald Stevenson C.C.)	RS-142	4.0	5.0						20.0		0.0				20.0			
*NB-MAN-CL-CN-3	46+50.00	Direction (To I-190)	D3-13			29.5	12.0								354.0					
NB-MAN-CL-276	67+55.00	Direction (To I-190)	D3-13	12.0	11.5							138.0								
**NB-MAN-TR-277	71+50.00	Direction (To Toll 294)	D3-13	14.0	10.0							140.0								
NB-MAN-LP-278	68+77.00	Directional Arrow (UP)	M6-3	2.5	1.5	2.5	1.5			3.8			3.8							
NB-MAN-LP-279	68+77.00	To	M4-5	2.5	1.3	2.5	1.3			3.1			3.1							
NB-MAN-LP-280	68+77.00	Interstate Sign - 190	M1-1	2.0	2.0	2.0	2.0			4.0			4.0							
*NB-MAN-CL-281	71+50.00	Optional Movement Lane Control (Balmoral Ave)	D3-13	3.0	4.0						12.0									
NB-RA-LP-282	15+30.00	Advisory Exit or Ramp Speed (Ramp 35 MPH)	W13-3	3.0	4.0	3.0	4.0				12.0			12.0						
**NB-MAN-TR-283	96+75.00	Optional Movement Lane Control (Balmoral Ave)	D3-13	3.0	4.0				1.0		12.0									
**NB-MAN-TR-284	102+75.00	Direction (To Toll 294)	D3-13	12.0	9.0							108.0								
SB-MAN-LP-285	82+40.00	Speed Limit 50	R2-1	3.0	4.0	3.0	4.0				12.0			12.0						
SB-MAN-LP-286	82+40.00	Destination (Shiller Park)	D1-1	3.0	2.5	3.0	2.5			7.5			7.5							
SB-MAN-LP-287	85+58.00	U.S. Route Sign 45	M1-4	2.0	2.0	2.0	2.0			4.0			4.0							
SB-MAN-LP-288	85+58.00	U.S. Route Sign 12	M1-4	2.0	2.0	2.0	2.0			4.0			4.0							
SB-MAN-LP-289	85+58.00	Cardinal Direction - South (Route)	M3-3	2.0	1.0	2.0	1.0			2.0			2.0							
SB-MAN-LP-290	85+58.00	Cardinal Direction - East (Route)	M3-2	2.0	1.0	2.0	1.0			2.0			2.0							
**NB-MAN-TR-291	87+20.00	Direction	D3-13	20.0	15.0	20.0	15.0					300.0						300.0		
NB-MAN-LP-292	87+98.00	U.S. Route Sign 45	M1-4	2.0	2.0	2.0	2.0			4.0			4.0							
NB-MAN-LP-293	87+98.00	U.S. Route Sign 12	M1-4	2.0	2.0	2.0	2.0			4.0			4.0							
NB-MAN-LP-294	87+98.00	Cardinal Direction - North (Route)	M3-1	2.0	1.0	2.0	1.0			2.0			2.0							
NB-MAN-LP-295	87+98.00	Cardinal Direction - West (Route)	M3-4	2.0	1.0	2.0	1.0			2.0			2.0							
NB-MAN-LP-296	90+38.00	Speed Limit 50	R2-1	3.0	4.0	3.0	4.0				12.0			12.0						
NB-MAN-MP-297	92+78.00	Direction (190 east)	D3-13	11.0	9.0							99.0	0.0							
NB-MAN-LP-298	93+38.00	Right Lane Must Exit	R3-7R	2.5	2.5	3.0	3.0			6.3				9.0						
SB-MAN-MP-299	94+15.00	Merge (Right)	W4-1R	3.0	3.0	3.0	3.0		1.0		9.0			9.0						16.0
***NB-MAN-MP-300	94+55.00	INFORMATION	D9-18e	12.0	6.0	12.0	6.0		1.0			72.0			72.0					
NB-MAN-LP-301	90+38.00	Mandatory Lane Movement (arrow Right Only)	R3-5R	2.5	2.5					6.3			7.5							
SB-MAN-LP-302	95+28.00	Speed Limit 50	R2-1	3.0	4.0	3.0	4.0				12.0			12.0						
SB-MAN-MP-303	95+28.00	Speed Limit 50	R2-1	3.0	4.0	3.0	4.0	1.0			12.0			12.0					12.0	
NB-MAN-LP-304	86+78.00	Directional Arrow	M6-2	1.8	1.3	1.8	1.3			2.2			2.2							
NB-MAN-LP-305	86+78.00	Cardinal Direction - East (Interstate)	M3-2	2.0	1.0	2.0	1.0			2.0			2.0							
NB-MAN-LP-306	86+78.00	Interstate Sign - 190	M1-1	2.0	2.0	2.0	2.0			4.0			4.0							
NB-MAN-LP-307	93+98.00	Mandatory Lane Movement (arrow Right Only)	R3-5R	2.5	2.5	2.5	3.0			6.3			7.5							
NB-MAN-TR-308	100+20.00	Truss																		
NB-MAN-TR-309	100+20.00	Truss																		
NB-XX-LP-310	906+95.00	Advisory Exit or Ramp Speed (Ramp 35 MPH)	W13-3	3.0	4.0	3.0	4.0				12.0			12.0						

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300 South Wacker Drive
Chicago, Illinois 60606

USER NAME = stephen.schuh	DESIGNED	REVISED	-
	DRAWN	REVISED	-
PLOT SCALE = 10.0000 ' / in.	CHECKED	REVISED	-
PLOT DATE = 10/19/2012	DATE 10/19/12	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SIGN SCHEDULE OF QUANTITIES

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	214
		CONTRACT NO. 60G37		
	ILLINOIS FED. AID PROJECT			

FILE NAME = c:\caddlib\pw\sschuh\pwgreat_lakes\dms47844\D160G37-sht-sign-schedule.02.dgn

CONTRACT 60G37
SIGNING SCHEDULE

SIGN NO.	STATION	LEGEND / DESCRIPTION	MUTCD	EXISTING PANEL DIMENSIONS WIDTH (FT)	EXISTING PANEL DIMENSIONS HEIGHT (FT)	PROPOSED PANEL DIMENSIONS WIDTH (FT)	PROPOSED PANEL DIMENSIONS HEIGHT (FT)	REMOVE SIGN PANEL - TYPE A ASSEMBLY (EACH)	REMOVE SIGN PANEL - TYPE B ASSEMBLY (EACH)	REMOVE SIGN PANEL - TYPE 1 (SQ FT)	REMOVE SIGN PANEL - TYPE 2 (SQ FT)	REMOVE SIGN PANEL - TYPE 3 (SQ FT)	SIGN PANEL - TYPE 1 (SQ FT)	SIGN PANEL - TYPE 2 (SQ FT)	SIGN PANEL - TYPE 3 (SQ FT)	RELOCATE SIGN PANEL - TYPE 1 (SQ FT)	RELOCATE SIGN PANEL - TYPE 2 (SQ FT)	RELOCATE SIGN PANEL - TYPE 3 (SQ FT)	METAL POST - TYPE A (FOOT)	METAL POST - TYPE B (FOOT)
NB-RA-LP-311	900+49.00	Directional Arrow	M6-2	1.8	1.3	1.8	1.3			2.2			2.2							
NB-RA-LP-312	900+49.00	Cardinal Direction - East (Interstate)	M3-2	2.0	1.0	2.0	1.0			2.0			2.0							
NB-RA-LP-313	900+49.00	Interstate Sign - 190	M1-1	2.0	2.0	2.0	2.0			4.0			4.0							
SB-MAN-LP-314	108+54.00	U.S. Route Sign 45	M1-4	2.0	2.0	2.0	2.0			4.0			4.0							
SB-MAN-LP-315	108+54.00	U.S. Route Sign 12	M1-4	2.0	2.0	2.0	2.0			4.0			4.0							
SB-MAN-LP-316	108+54.00	Cardinal Direction - South (Route)	M3-3	2.0	1.0	2.0	1.0			2.0			2.0							
SB-MAN-LP-317	108+54.00	Cardinal Direction - East (Route)	M3-2	2.0	1.0	2.0	1.0			2.0			2.0							
NB-MAN-MP-318	110+73.00	Speed Limit 50	R2-1	3.0	4.0	3.0	4.0				12.0			12.0						
SB-MAN-LP-319	112+15.00	Directional Arrow	M6-2	1.5	1.3	1.5	1.3			1.9			1.9							
SB-MAN-LP-320	112+15.00	Cardinal Direction - East (Interstate)	M3-2	2.0	1.0	2.0	1.0			2.0			2.0							
SB-MAN-LP-321	112+15.00	Interstate Sign - 190	M1-1	2.0	2.0	2.0	2.0			4.0			4.0							
NB-MAN-MP-322	112+15.00	Merge (Right)	W4-1R	3.0	3.0	3.0	3.0				9.0			9.0					12.0	
SB-MAN-LP-323	112+35.00	Advisory Exit or Ramp Speed (Ramp 25 MPH)	W13-3	3.0	4.0	3.0	4.0				12.0			12.0						
SB-MAN-MP-324	114+00.00	Use Prohibited	R5-I100	4.0	5.0	4.0	5.0				20.0			20.0						16.0
SB-MAN-TR-325	96+75.00	I-190 east	D3-13	15.5	8.0							124.0								
SB-MAN-LP-326	115+15.00	Directional Arrow	M6-2	2.5	1.8	2.5	1.8			4.4			4.4							
SB-MAN-LP-327	115+15.00	Cardinal Direction - East (Interstate)	M3-2	2.5	1.5	2.5	1.5			3.8			3.8							
SB-MAN-LP-328	115+15.00	Interstate Sign - 190	M1-1	2.0	2.0	2.0	2.0			4.0			4.0							
*SB-MAN-CL-###	86+50.00	Optional Movement Lane Control (Balmoral Ave)	D3-13			18.0	10.0								180.0					
NB-MAN-LP-331	84+38.00	Merge (Right)	W4-1R			3.0	3.0							9.0						
**NB-MAN-TR-TN1-3	71+00.00	Optional Movement Lane Control (Balmoral Ave)	D3-13			18.0	10.0								180.0					
**NB-MAN-TR-TN1-1	71+00.00	Optional Movement Lane Control (90, 190 & 294)	D3-13			14.0	10.5								147.0					
**NB-MAN-TR-TN1-2	71+00.00	Optional Movement Lane Control (WEST 190)	D3-13			24.0	11.0								264.0					
**NB-MAN-TR-TN2-1	96+75.00	Optional Movement Lane Control (WEST 190)	D3-13			14.0	10.5								147.0					
**NB-MAN-TR-TN2-2	96+75.00	Optional Movement Lane Control (EAST 190, 90 & 294)	D3-13			27.5	10.5								288.8					
**NB-MAN-TR-TN3-1	102+75.00	Optional Movement Lane Control (WEST 190)	D3-13			14.0	10.5								147.0					
**NB-MAN-TR-TN3-2	102+75.00	Optional Movement Lane Control (EAST 190, 90)	D3-13			20.0	10.5								210.0					
**NB-MAN-TR-TN3-3	102+75.00	Optional Movement Lane Control (WEST 90 & 294 Tollway)	D3-13			16.0	10.5								168.0					
NB-MAN-MP-332	92+00.00	Movement Prohibition (No U Turn)	R3-4			**2.0**	**2.0**						4.0						6.0	
NB-MAN-MP-333	92+00.00	EXCEPT AUTHORIZED VEHICLES	R3-I101			**3.0**	**2.0**						6.0							
SB-MAN-MP-334	92+00.00	Movement Prohibition (No U Turn)	R3-4			**3.0**	**3.0**													
SB-MAN-MP-335	92+00.00	EXCEPT AUTHORIZED VEHICLES	R3-I101			**3.0**	**2.0**						6.0							
NB-MAN-LP-336	110+73.00	Speed Limit 50	R2-1			3.0	4.0			0.0				12.0					12.0	
SB-MAN-LP-337	110+73.00	Speed Limit 50	R2-1			3.0	4.0			0.0				12.0					12.0	
SB-MAN-MP-338	110+73.00	Speed Limit 50	R2-1			3.0	4.0			0.0				12.0					12.0	
SB-LAW-MP-164	11+75.00	Stop	R1-1	3.0	3.0	3.0	3.0				9.0			9.0					12.0	
		Totals =						6.0	8.0	481.2	304.0	1469.5	343.0	404.0	2362.0	3.0	20.0	300.0	310.0	162.0

Globetrotters®
Engineering Corporation
ENGINEERS ARCHITECTS
300 South Wacker Drive
Chicago, Illinois 60606

USER NAME = stephen.schuh	DESIGNED	REVISED -
	DRAWN	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED	REVISED -
PLOT DATE = 10/19/2012	DATE 10/19/12	REVISED -

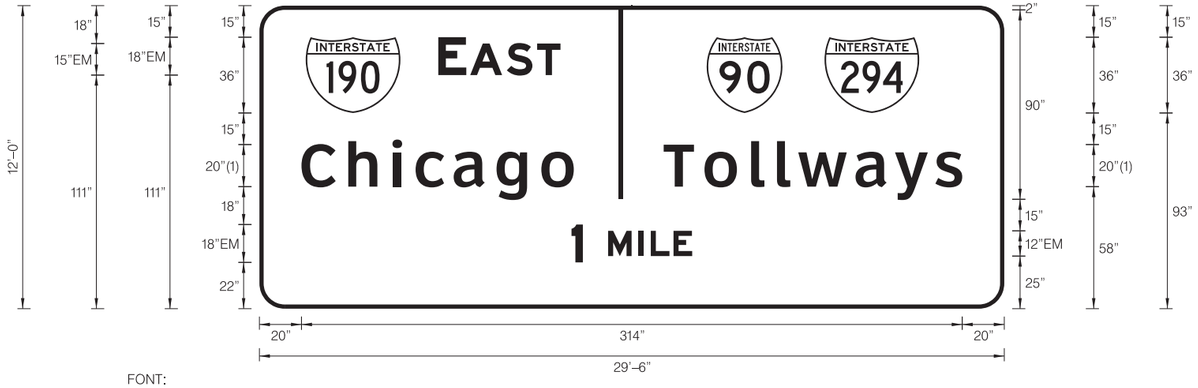
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SIGN SCHEDULE OF QUANTITIES

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	215
		CONTRACT NO. 60G37		
	ILLINOIS FED. AID PROJECT			

FILE NAME = c:\caddlib\pw\sschuh\pwgreat_lakes\dms47844\D160G37-sht-sign-schedule_03.dgn



FONT:
(1) ClearviewHwy–5–W

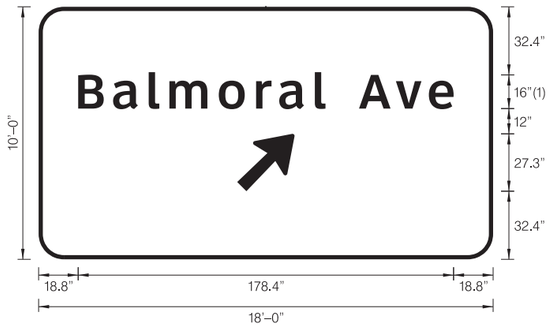
Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)																					LENGTH	SERIES-SIZE
E	A	S	T																			EM 2000
85	100.2	117.6	132																		58.1	18,15
C	h	i	c	a	g	o																ClearviewHwy–5–W
20	42.2	63.2	74.2	92.3	112.7	134															129.4	2016.3
T	o	l	l	w	a	y	s															ClearviewHwy–5–W
192.1	211.5	233.7	246	256.1	283.3	302.1	321.3														141.9	2016.3
1	M	I	L	E																		EM 2000
148.3	165.7	180.2	186	196.8																	57.4	18,12

SIGN NUMBER	CN–3
WIDTH x HGHT.	29'–6" x 12'–0"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

SYMBOL	ROT	X	Y	WID	HT
M1_1	0	22	93	45	36
M1_1	0	212.6	93	36	36
M1_1	0	268.6	93	45	36

Panel Style: guide_exp_advance_a.ssl
Dimensions are in inches.tenths



FONT:
(1) ClearviewHwy–5–W

Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)																					LENGTH	SERIES-SIZE
B	a	l	m	o	r	a	l		A	v	e											ClearviewHwy–5–W
18.8	35.4	52.3	62.2	85.6	103.4	114.4	131.3	138.1	152.3	169.8	185.5										–1.$	1616

SIGN NUMBER	CS–2
WIDTH x HGHT.	18'–0" x 10'–0"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

SYMBOL	ROT	X	Y	WID	HT
ARMED	45	94.4	32.4	22.3	35.1

Panel Style: guide_exp_advance_a.ssi
Dimensions are in Inches.tenths

SGN–PD–01

HNTB

USER NAME = mkosir	DESIGNED DJJ	REVISED -
	DRAWN MMK	REVISED -
PLOT SCALE = 3:1	CHECKED LLS	REVISED -
PLOT DATE = 08-OCT-2012	DATE 10/19/12	REVISED -

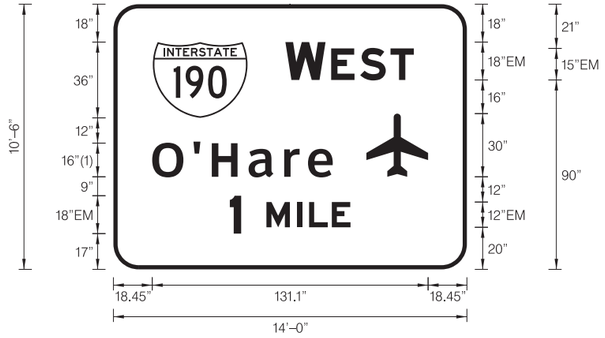
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
SIGN PANEL DETAILS

SCALE: 1" = 3' | SHEET NO. 1 OF 5 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	216
		CONTRACT NO. 60G37		
	ILLINOIS	FED. AID PROJECT		

FILE NAME = IP_PWP:dms47844\D160G37-sht-sign-panels_01.dgn



SIGN NUMBER	TN–1–1	
WIDTH x HGHT.	14'–0" x 10'–6"	
BORDER WIDTH	2"	
CORNER RADIUS	12"	
MOUNTING	Overhead	
BACKGROUND	TYPE:	Reflective
	COLOR:	Green
LEGEND/BORDER	TYPE:	Reflective
	COLOR:	White/White

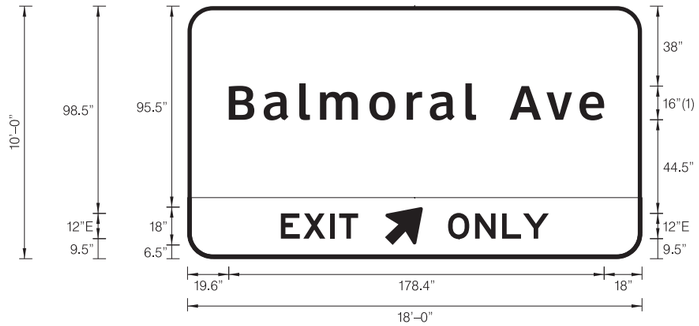
SYMBOL	ROT	X	Y	WID	HT
M1_1	0	18.7	72	45	36
6–53	0	120.2	44	29.3	30

Panel Style: guide_exp_advance_a.ssi
Dimensions are in inches.tenths

FONT:
(1) ClearviewHwy–5–W

Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)																				LENGTH	SERIES/SIZE
W	E	S	T																		EM 2000
81.7	103.5	117.3	131.7																	61.1	18,15
O	'	H	a	r	e																ClearviewHwy–5–W
18.4	38	46.8	64.2	81.2	92.5															85.8	16\13
1	M	I	L	E																	EM 2000
55.3	72.7	87.2	93	103.8																57.4	18,12



SIGN NUMBER	name	
WIDTH x HGHT.	18'–0" x 10'–0"	
BORDER WIDTH	2"	
CORNER RADIUS	12"	
MOUNTING	Overhead	
BACKGROUND	TYPE:	Reflective
	COLOR:	Green
LEGEND/BORDER	TYPE:	Reflective
	COLOR:	Black,White/White

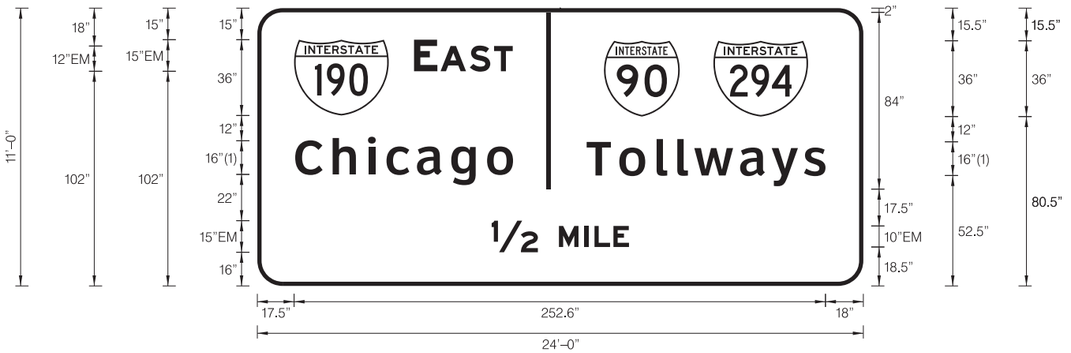
SYMBOL	ROT	X	Y	WID	HT
ARSHRT	45	93.8	6.5	20	22.5

Panel Style: guide_exp_advance_a.ssi
Dimensions are in inches.tenths

FONT:
(1) ClearviewHwy–5–W

Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)																				LENGTH	SERIES/SIZE
B	a	l	m	o	r	a	l		A	v	e										ClearviewHwy–5–W
19.6	36.2	53.1	62.9	86.4	104.2	115.2	132.1	138.9	153.1	170.6	186.3									–1.$	16\16
E	X	I	T																		E 2000
44.4	55	67.9	72.1																	36.7	12
O	N	L	Y																		E 2000
123.8	136.7	149.5	159.5																	47.9	12



SIGN NUMBER	TN–1–2	
WIDTH x HGHT.	24'–0" x 11'–0"	
BORDER WIDTH	2"	
CORNER RADIUS	12"	
MOUNTING	Overhead	
BACKGROUND	TYPE:	Reflective
	COLOR:	Green
LEGEND/BORDER	TYPE:	Reflective
	COLOR:	White/White

SYMBOL	ROT	X	Y	WID	HT
M1_1	0	17.5	81	45	36
M1_1	0	164.7	80.5	36	36
M1_1	0	216.7	80.5	45	36

Panel Style: guide_exp_advance_a.ssi
Dimensions are in inches.tenths

FONT:
(1) ClearviewHwy–5–W

Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)																				LENGTH	SERIES/SIZE
E	A	S	T																		EM 2000
74.5	87.1	101	112.5																	46.9	15,12
C	h	i	c	a	g	o															ClearviewHwy–5–W
18	35.8	52.6	61.4	75.9	92.2	109.2														103.5	16\13
T	o	l	l	w	a	y	s														ClearviewHwy–5–W
156.5	172	189.8	199.6	207.7	229.5	244.5	259.8													113.5	16\13
12	M	I	L	E																	EM 2000
111.4	143.3	155.4	160.2	169.2																65.3	15,10

SGN–PD–02

HNTB	USER NAME = mkosir	DESIGNED DJJ	REVISED -
		DRAWN MMK	REVISED -
	PLOT SCALE = 3:1	CHECKED LLS	REVISED -
	PLOT DATE = 08-OCT-2012	DATE 10/19/12	REVISED -

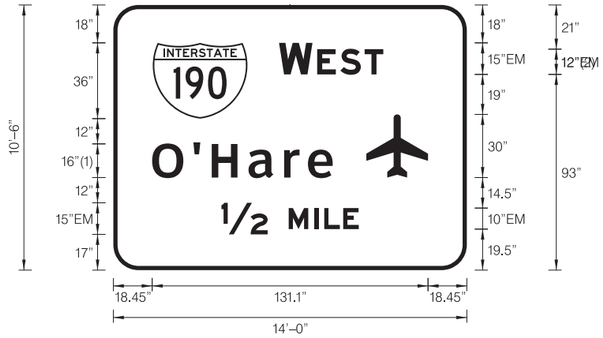
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
SIGN PANEL DETAILS

SCALE: 1" = 3' | SHEET NO. 2 OF 5 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	217
		CONTRACT NO. 60G37		
	ILLINOIS	FED. AID PROJECT		

FILE NAME = IP_PWP:dms47844\D160G37-sht-sign-panels_02.dgn



SIGN NUMBER	TN-2-1
WIDTH x HGHT.	14'-0" x 10'-6"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND-BORDER	TYPE: Reflective
	COLOR: White-White

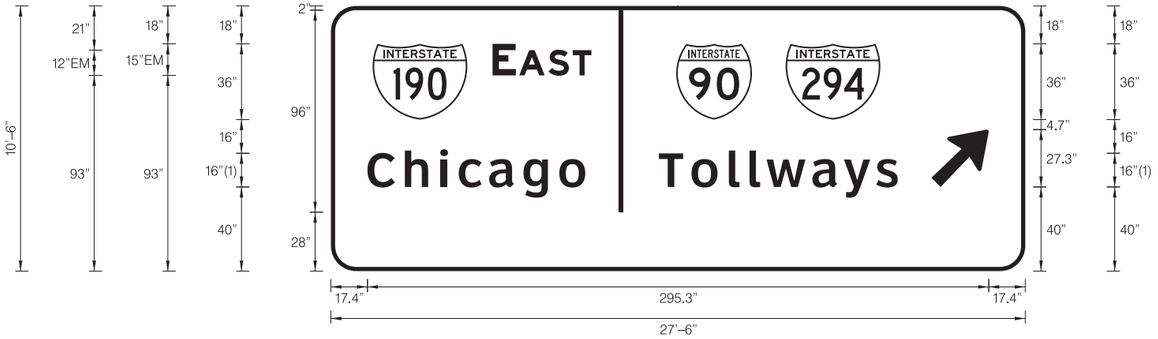
SYMBOL	ROT	X	Y	WID	HT
M1_1	0	18.7	72	45	36
6-53	0	120.2	44	29.3	30

Panel Style: guide_exp_advance_a.ssi
Dimensions are in inches.tenths

FONT:
(1) Clearview Hwy-5-W

Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)																				LENGTH	SERIES-SIZE
W	E	S	T																		EM 2000
78.7	96.9	107.9	119.4																	49.6	15,12
O	'	H	a	r	e																Clearview Hwy-5-W
18.4	38	46.8	64.2	81.2	92.5															85.8	16|3
½	M	I	L	E																	EM 2000
51.4	83.3	95.4	100.2	109.2																65.3	15,10



SIGN NUMBER	TN-2-2
WIDTH x HGHT.	27'-6" x 10'-6"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND-BORDER	TYPE: Reflective
	COLOR: White-White

SYMBOL	ROT	X	Y	WID	HT
M1_1	0	19.8	72	45	36
M1_1	0	164.1	72	36	36
M1_1	0	216.1	72	45	36
ARMED	45	285.4	40	22.3	35.1

Panel Style: guide_exp_advance_a.ssi
Dimensions are in inches.tenths

FONT:
(1) Clearview Hwy-5-W

Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)																				LENGTH	SERIES-SIZE
E	A	S	T																		EM 2000
76.8	89.5	103.4	114.9																	47	15,12
C	h	i	c	a	g	o															Clearview Hwy-5-W
17.4	35.2	52	60.7	75.2	91.5	108.6														103.5	16|3
T	o	l	l	w	a	y	s														Clearview Hwy-5-W
155.9	171.4	189.1	199	207	228.8	243.8	259.2													113.5	16|3

SGN-PD-03

HNTB	USER NAME = mkosir	DESIGNED DJJ	REVISED -
		DRAWN MMK	REVISED -
	PLOT SCALE = 3:1	CHECKED LLS	REVISED -
	PLOT DATE = 08-OCT-2012	DATE 10/19/12	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
SIGN PANEL DETAILS

SCALE: 1" = 3' | SHEET NO. 3 OF 5 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	218
		CONTRACT NO. 60G37		
	ILLINOIS	FED. AID PROJECT		

FILE NAME = IP_PWP:dms47844\D160G37-sht-sign-panels_03.dgn

SIGN NUMBER	TN–3–1
WIDTH x HGHT.	14'–0" x 10'–6"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

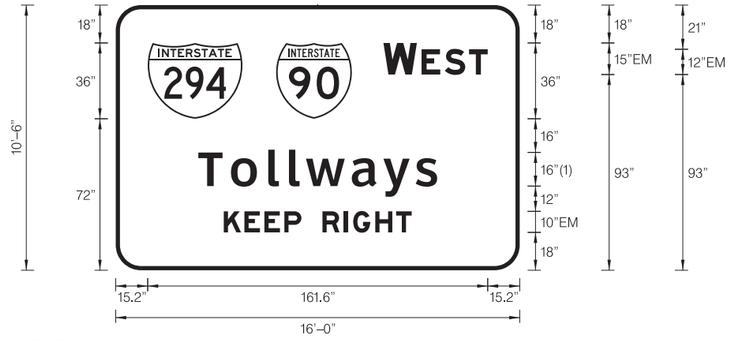
SYMBOL	ROT	X	Y	WID	HT
M1_1	0	18.7	72	45	36
6–53	0	120.2	44	29.3	30

Panel Style: guide_exp_advance_a.ssi
Dimensions are in inches.tenths

FONT:
(1) ClearviewHwy–5–W

Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)																				LENGTH	SERIES/SIZE
W	E	S	T																		EM 2000
78.7	96.9	107.9	119.4																	49.6	15,12
O	'	H	a	r	e																ClearviewHwy–5–W
18.4	38	46.8	64.2	81.2	92.5															85.8	1613
N	E	X	T		R	I	G	H	T												EM 2000
39.4	50.3	59.1	68.9	76.3	86.3	96.5	100.9	111.4	121.3											89.3	10



SIGN NUMBER	TN–3–3
WIDTH x HGHT.	16'–0" x 10'–6"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

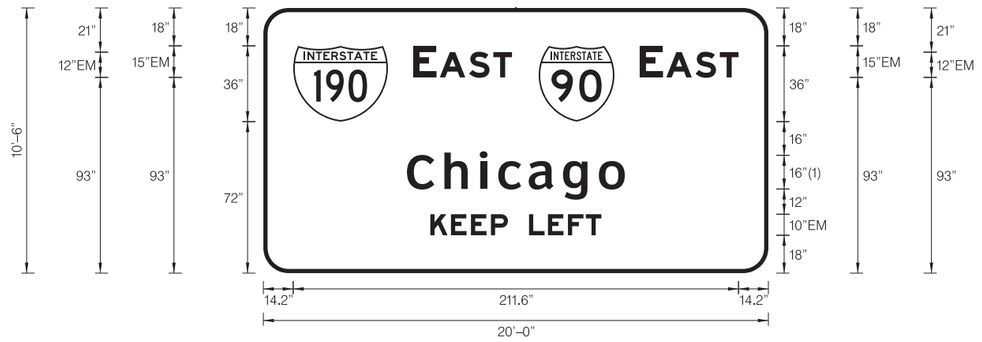
SYMBOL	ROT	X	Y	WID	HT
M1_1	0	15.2	72	45	36
M1_1	0	76.2	72	36	36

Panel Style: guide_exp_advance_a.ssi
Dimensions are in inches.tenths

FONT:
(1) ClearviewHwy–5–W

Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)																						LENGTH	SERIES/SIZE
W	E	S	T																				EM 2000
127.2	145.4	156.4	167.9																			49.6	15,12
T	o	l	l	w	a	y	s																ClearviewHwy–5–W
39.3	54.8	72.5	82.3	90.4	112.2	127.2	142.6															113.5	1613
K	E	E	P		R	I	G	H	T														EM 2000
51.4	61.2	70.7	80.2	88.3	98.3	108.5	112.9	123.4	133.3													89.3	10



SIGN NUMBER	TN–3–2
WIDTH x HGHT.	20'–0" x 10'–6"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

SYMBOL	ROT	X	Y	WID	HT
M1_1	0	14.2	72	45	36
M1_1	0	130.8	72	36	36

Panel Style: guide_exp_advance_a.ssi
Dimensions are in Inches.tenths

FONT:
(1) ClearviewHwy–5–W

Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)																							LENGTH	SERIES/SIZE
E	A	S	T																					EM 2000
71.2	83.8	97.8	109.3																				47	15,12
E	A	S	T																					EM 2000
178.8	191.5	205.4	216.9																				47	15,12
C	h	i	c	a	g	o																		ClearviewHwy–5–W
68.3	86	102.8	111.6	126.1	142.4	159.4																	103.5	1613
K	E	E	P		L	E	F	T																EM 2000
79.4	89.2	98.7	108.2	116.3	126.3	135.3	144.8	153.3															81.3	10

SGN–PD–04

HNTB

USER NAME = mkosir	DESIGNED DJJ	REVISED -
	DRAWN MMK	REVISED -
PLOT SCALE = 3:1	CHECKED LLS	REVISED -
PLOT DATE = 08-OCT-2012	DATE 10/19/12	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
SIGN PANEL DETAILS

SCALE: 1" = 3' | SHEET NO. 4 OF 5 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	219
		CONTRACT NO. 60G37		
		ILLINOIS	FED. AID PROJECT	

FILE NAME = IP_PWP:dms47844\D160G37-sht-sign-panels_04.dgn

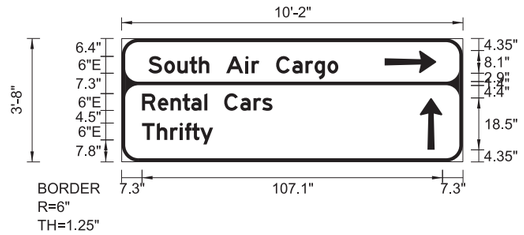
SIGN NUMBER	214
WIDTH x HGHT.	11'–2" x 6'–3"
BORDER WIDTH	1.5"
CORNER RADIUS	6"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Blue
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

SYMBOL	ROT	X	Y	WID	HT
AR_Type A – Extended	90	57.7	5.6	8.1	18.5

Panel Style: DOA GENRAL.ssi
Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)																					LENGTH	SERIES/SIZE
A	i	r	p	o	r	t																E 2000
48.7	57.9	60.8	65.3	71.2	77.6	81.5															36.5	8/6
M	a	l	n	t	e	n	a	n	c	e		C	o	m	p	l	e	x				E 2000
9.6	18.6	24.8	27.7	33.4	37.6	43.6	49.6	55.8	61.9	67.6	72.6	80.6	88.3	94.6	104.3	110.5	113.1	118.4			114.7	8/6
E	a	s	t		A	i	r		C	a	r	g	o									E 2000
25.4	32.4	38.2	43.4	47.1	55.1	64.3	67.2	70.9	78.9	86.6	92.8	97.1	103.3								83	8/6
G	u	a	r	d		P	o	s	t		1	1										E 2000
29.8	37.7	43.8	50	54.4	59.3	67.3	74.6	80.5	85.7	89.4	97.4	101.6									74.3	8/6



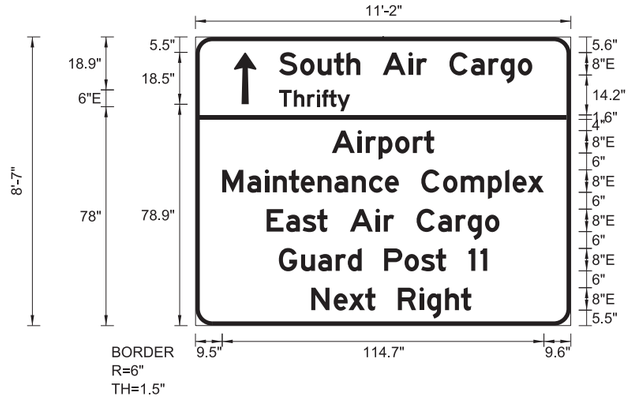
SIGN NUMBER	197
WIDTH x HGHT.	10'–2" x 3'–8"
BORDER WIDTH	1.25"
CORNER RADIUS	6"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Blue /Blue
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

SYMBOL	ROT	X	Y	WID	HT
AR_Type A – Extended	270	93.7	31.6	8.1	18.5
AR_Type A – Extended	0	106.3	4.3	8.1	18.5

Panel Style: DOA GENRAL.ssi
Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

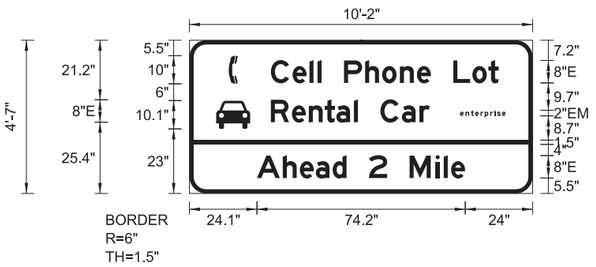
LETTER POSITIONS (X)																						LENGTH	SERIES/SIZE
S	o	u	t	h		A	i	r		C	a	r	g	o									E 2000
9.6	15.2	19.9	24.2	27.6	31.3	37.3	44.2	46.3	49.1	55.1	60.9	65.5	68.8	73.4								67.7	6/4.5
R	e	n	t	a	l		C	a	r	s													E 2000
7.3	12.9	17.4	21.7	24.8	29.5	30.6	36.6	42.3	47	50.1												46.5	6/4.5
T	h	r	i	f	t	y																	E 2000
7.3	12.6	17.3	20.7	22.6	25.1	28																25.4	6/4.5



SIGN NUMBER	232
WIDTH x HGHT.	11'–2" x 8'–7"
BORDER WIDTH	1.5"
CORNER RADIUS	6"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Blue /Blue
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

SYMBOL	ROT	X	Y	WID	HT
AR_Type A – Extended	0	13.7	78.9	8.1	18.5

Panel Style: DOA GENRAL.ssi
Dimensions are in Inches.tenths



SIGN NUMBER	300
WIDTH x HGHT.	10'–2" x 4'–7"
BORDER WIDTH	1.5"
CORNER RADIUS	6"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Blue /Blue
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

SYMBOL	ROT	X	Y	WID	HT
Telephone	0	14	39.1	3.2	10
Automobile (Front)	0	9.5	23	12.2	10.1

Panel Style: DOA GENRAL.ssi
Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)																						LENGTH	SERIES/SIZE
C	e	l	l		P	h	o	n	e		L	o	t										E 2000
29	36.8	42.8	45.6	47.1	55.1	62.6	68.7	75	81.1	86	94	100.8	106.5									81.3	8/6
e	n	t	e	r	p	r	i	s	e														EM 2000
96.4	98.4	100.3	101.8	103.7	105.2	107.2	108.6	109.6	111.4													16.4	21.5
R	e	n	t	a	l		C	a	r														E 2000
29	36.5	42.5	48.2	52.4	58.6	60	68	75.7	82													56.7	8/6
A	h	e	a	d		2		M	i	l	e												E 2000
24.1	33.3	39.3	45	51	56	64	70.5	78.5	87.7	90.6	93.3											74.2	8/6

Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)																						LENGTH	SERIES/SIZE
S	o	u	t	h		A	i	r		C	a	r	g	o									E 2000
29.8	37.3	43.6	49.3	53.8	58.8	66.8	76	78.8	82.5	90.5	98.2	104.4	108.8	114.9								90.3	8/6
T	h	r	l	f	t	y																	E 2000
29.8	35.1	39.8	43.2	45.1	47.6	50.5																25.4	6/4.5
A	i	r	p	o	r	t																	E 2000
48.6	57.8	60.7	65.3	71.2	77.5	81.4																36.6	8/6
M	a	i	n	t	e	n	a	n	c	e		C	o	m	p	l	e	x					E 2000
9.5	18.5	24.7	27.6	33.3	37.5	43.5	49.5	55.8	61.9	67.5	72.5	80.5	88.3	94.6	104.3	110.4	113.1	118.3				114.7	8/6
E	a	s	t		A	i	r		C	a	r	g	o										E 2000
25.4	32.3	38.2	43.4	47.1	55.1	64.3	67.1	70.8	78.8	86.5	92.7	97.1	103.2									83	8/6
G	u	a	r	d		P	o	s	t		1	1											E 2000
29.7	37.7	43.7	50	54.3	59.3	67.3	74.5	80.5	85.7	89.3	97.3	101.6										74.3	8/6
N	e	x	t		R	l	g	h	t														E 2000
41.3	49.3	54.6	60.5	64.2	72.2	79.9	82.6	89	94.6													57.1	8/6

SGN–PD–05

HNTB

USER NAME = mkosir	DESIGNED LLS/MMK	REVISED -
	DRAWN MMK	REVISED -
PLOT SCALE = 3:1	CHECKED LLS	REVISED -
PLOT DATE = 08-OCT-2012	DATE 10/19/12	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GROUND MOUNTED SIGN STRUCTURES
SIGN PANEL DETAILS

SCALE: 1" = 3' | SHEET NO. 5 OF 5 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	220
		CONTRACT NO. 60G37		
	ILLINOIS	FED. AID PROJECT		

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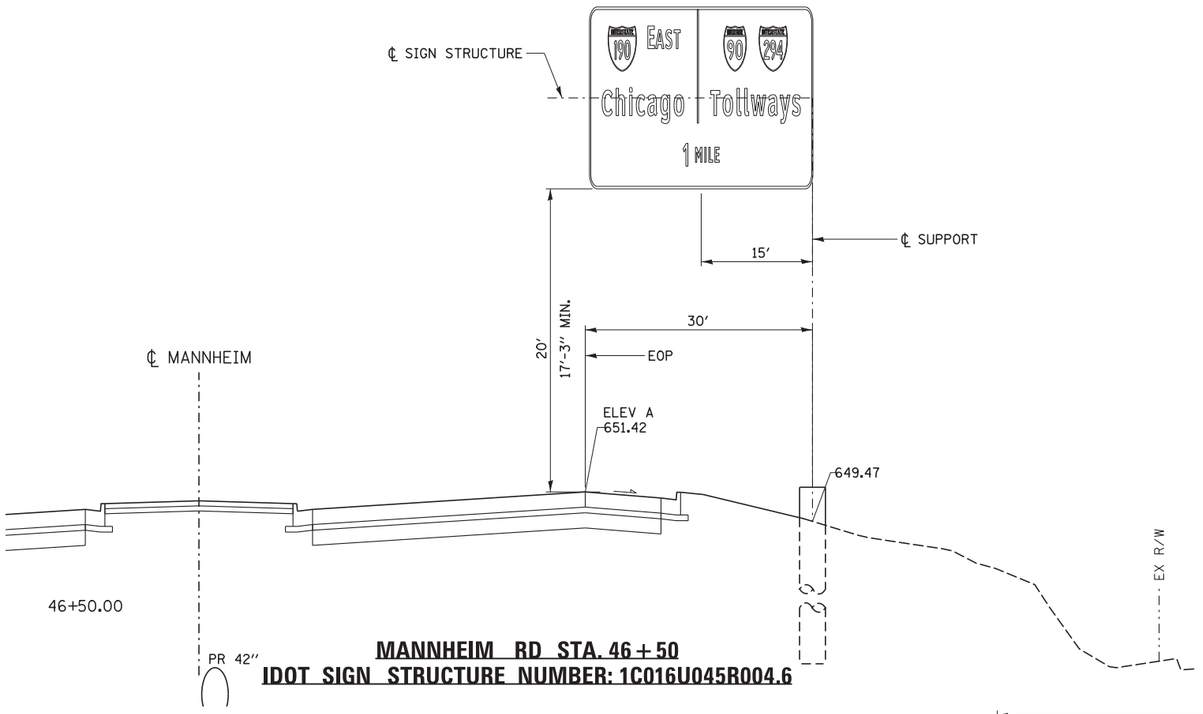
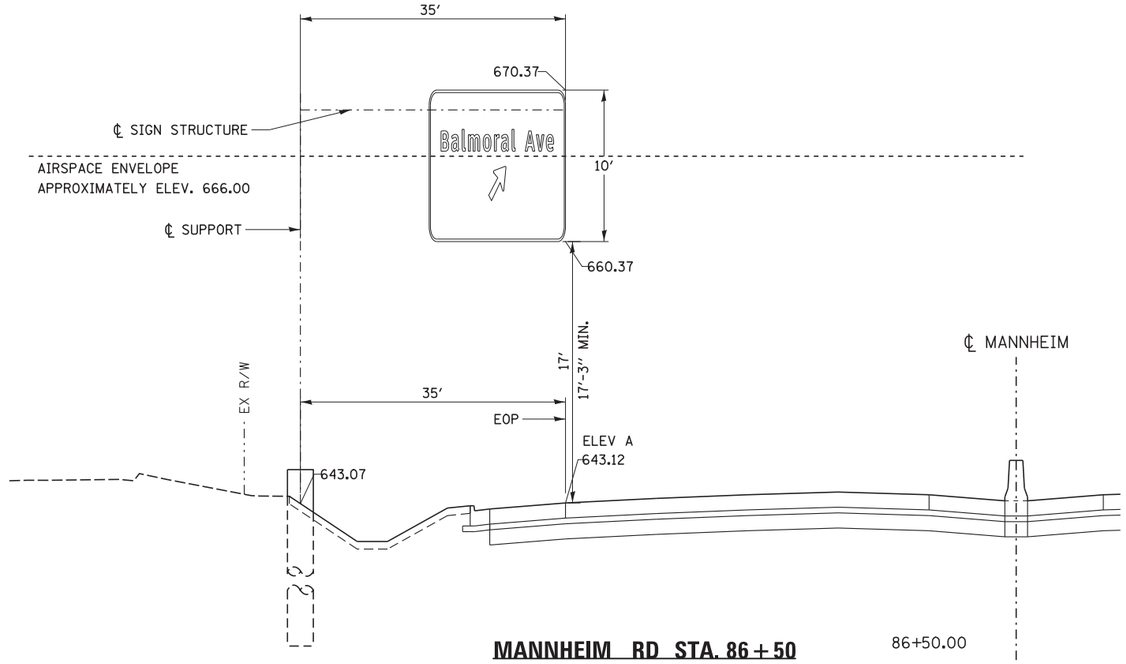
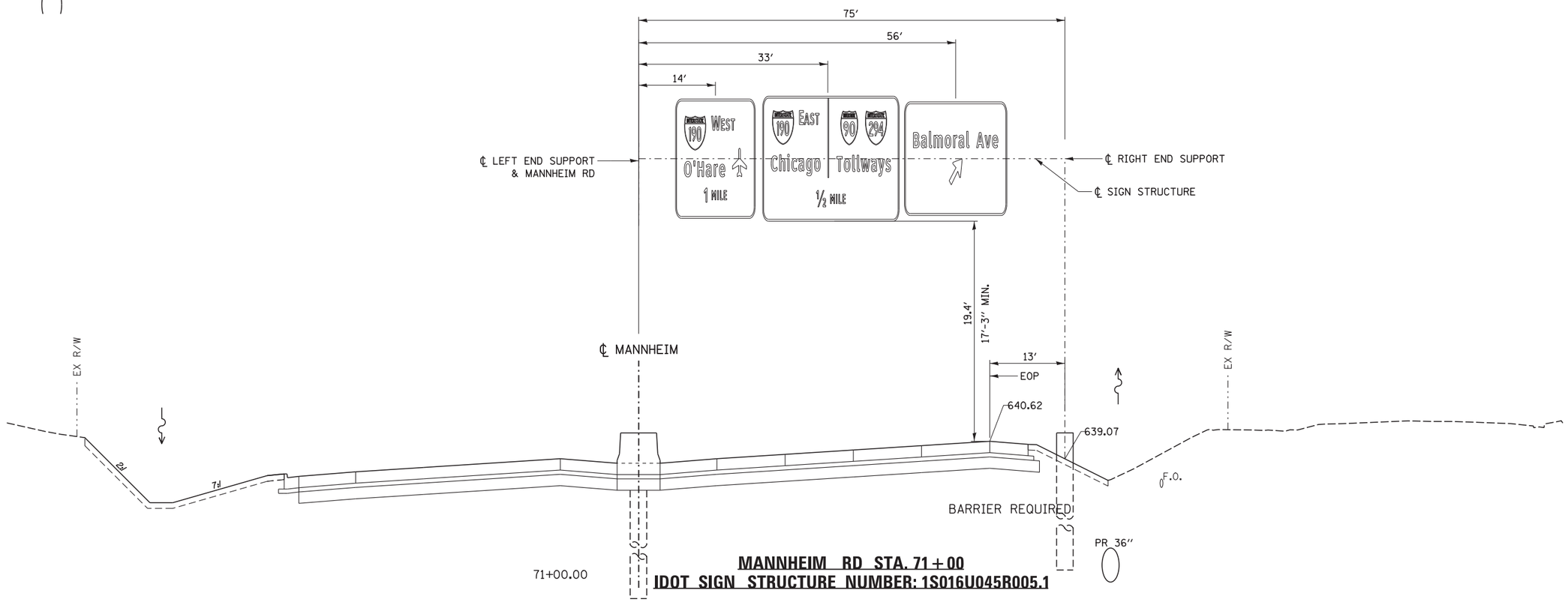


MANNHEIM RD STA. 46 + 50
IDOT SIGN STRUCTURE NUMBER: 1C016U045R004.6



MANNHEIM RD STA. 86 + 50
IDOT SIGN STRUCTURE NUMBER: 1C016U045L005.4



MANNHEIM RD STA. 71 + 00
IDOT SIGN STRUCTURE NUMBER: 1S016U045R005.1

SGN–DET–01

HNTB

USER NAME = mkosir	DESIGNED LLS/MMK	REVISED -
	DRAWN MMK	REVISED -
PLOT SCALE = 10:1	CHECKED LLS	REVISED -
PLOT DATE = 08-OCT-2012	DATE 10/19/12	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN
STRUCTURES SIGN LAYOUT

SCALE: 1″ = 10′ | SHEET NO. 1 OF 2 SHEETS | STA. N/A | TO STA. N/A

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	221
		CONTRACT NO. 60G37		
	ILLINOIS	FED. AID PROJECT		

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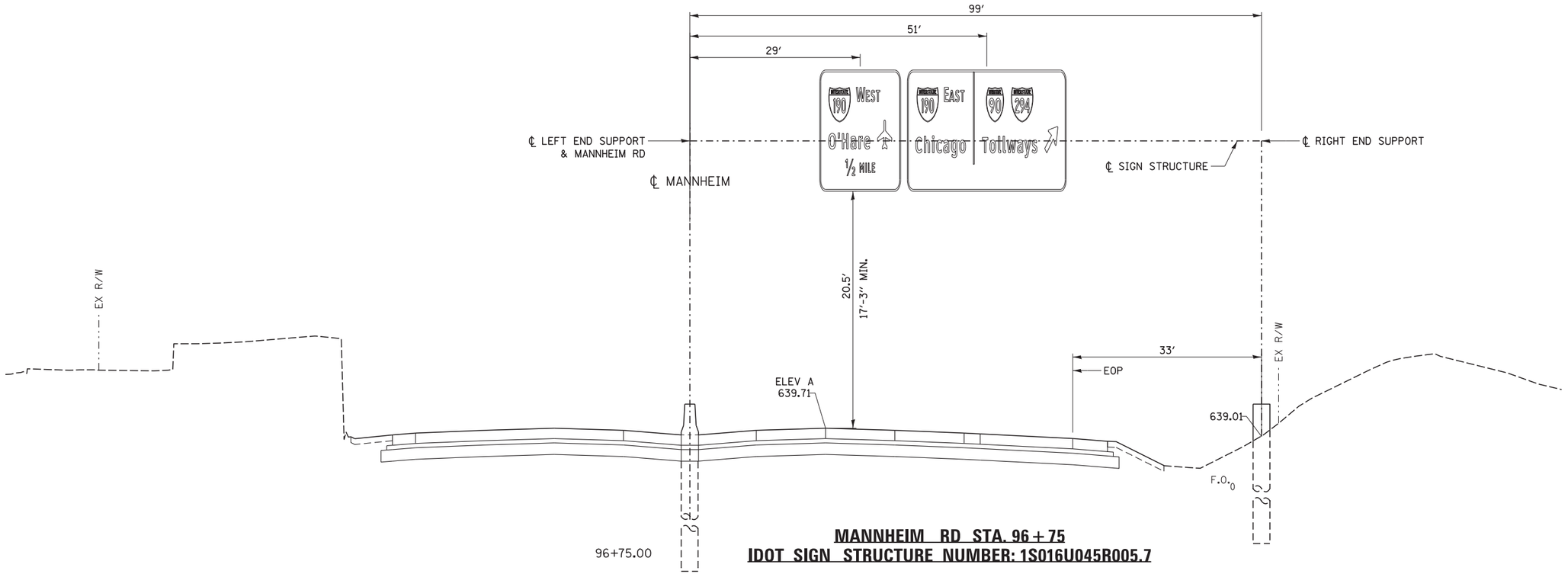
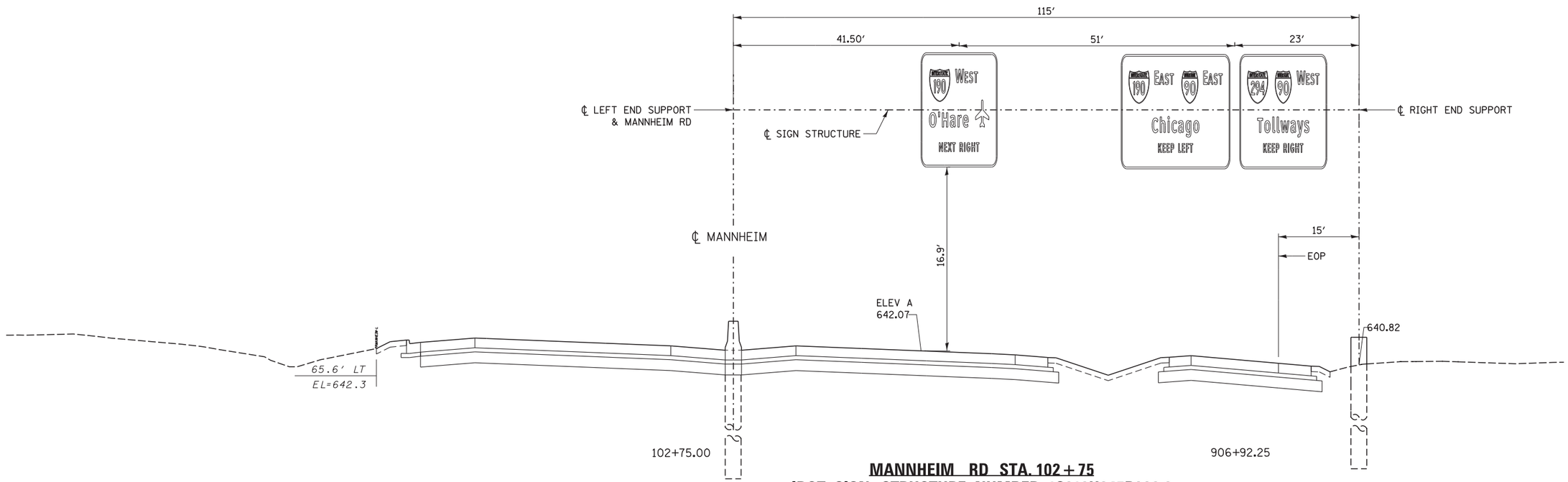


MANNHEIM RD STA. 96 + 75
IDOT SIGN STRUCTURE NUMBER: 1S016U045R005.7



MANNHEIM RD STA. 102 + 75
IDOT SIGN STRUCTURE NUMBER: 1S016U045R006.2

SGN–DET–02

HNTB

USER NAME = mkosir	DESIGNED LLS/MMK	REVISED -
	DRAWN MMK	REVISED -
PLOT SCALE = 10:1	CHECKED LLS	REVISED -
PLOT DATE = 08-OCT-2012	DATE 10/19/12	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN
STRUCTURES SIGN LAYOUT

SCALE: 1″ = 10′ | SHEET NO. 2 OF 2 SHEETS | STA. N/A | TO STA. N/A

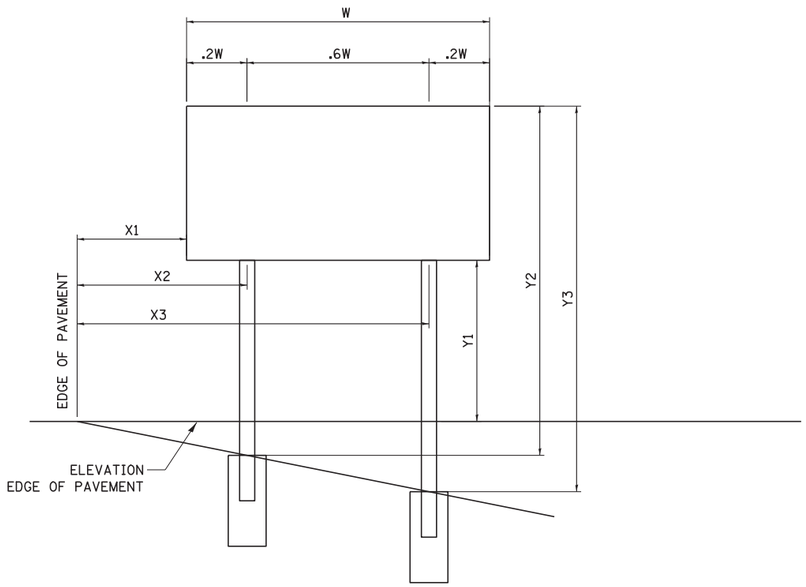
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	222
		CONTRACT NO. 60G37		
	ILLINOIS FED. AID PROJECT			

FILE NAME = IP_PWP:dms47844\D160G37-sht-sign-ovhlay_02.dgn

SIGN INSTALLATION SCHEDULE

PROPOSED LOCATION	SIGN NUMBER	SIZE		SIGN PANEL			SUPPORT												FOUNDATION	
		WIDTH FT.	HEIGHT FT.	TYPE-1 SF	TYPE-2 SF	TYPE-3 SF	X1	X2	X3	X4	Y1	Y2	Y3	Y4	NO.	POST	LENGTH FT.	WEIGHT LB	MIN. DEPTH FT	CONCRETE CY
32+25.00	SB-MAN-MP-197	10.2	3.7			37.3	16.0	18.0	24.2		7.0	11.5	12.5		2.0	W6X9	24.0	372.0	6.0	1.4
42+05.00	NB-MAN-MP-214	11.2	6.3			70.6	16.0	18.2	25.0		7.0	20.0	21.5		2.0	W10X22	41.5	1097.0	6.5	2.4
55+85.00	SB-MAN-MP-232	11.2	8.6			96.3	16.0	18.2	25.0		7.0	20.0	21.5		2.0	W10X22	41.5	1097.0	6.5	2.4
94+55.00	NB-MAN-MP-300	12.0	6.0			72.0	16.0	18.4	25.6		7.0	15.0	16.0		2.0	W10X22	31.0	866.0	6.5	2.4
	Totals			0.0	0.0	276.2												3432.0		8.5

NOTE: FOR ADDITIONAL DETAILS, SEE STANDARD BAW-A-1 AND STANDARD BAW-A-2.



SGN–DET–03

Globetrotters®
Engineering Corporation
ENGINEERS ARCHITECTS
300 South Wacker Drive
Chicago, Illinois 60606

USER NAME = mkosir	DESIGNED	REVISED -
	DRAWN	REVISED -
PLOT SCALE = 10:1	CHECKED	REVISED -
PLOT DATE = 19-OCT-2012	DATE 10/19/12	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GROUND MOUNTED SIGNS

SCALE: 1" = 10' | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	223
		CONTRACT NO. 60G37		
	ILLINOIS	FED. AID PROJECT		

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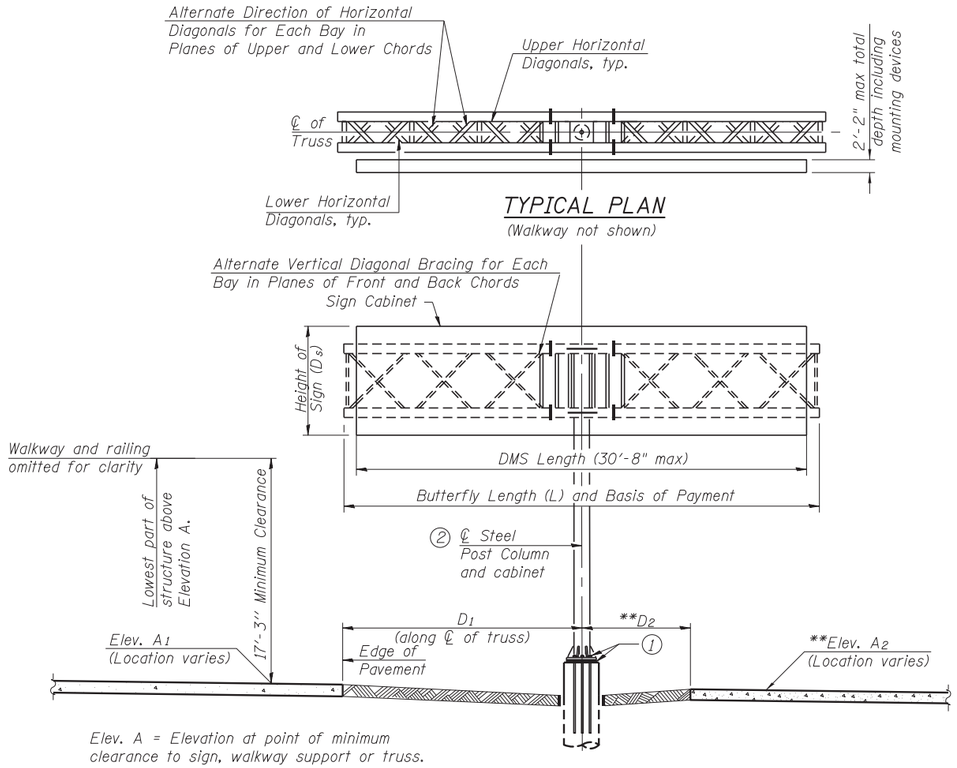


Elev. A = Elevation at point of minimum clearance to sign, walkway support or truss.

TYPICAL PLAN

(Walkway not shown)

TYPICAL ELEVATION

Looking in Direction of Traffic

** Elevation A2 and dimension D2 not used when butterfly structure is mounted on right side of the shoulder.

Sign support structures may be subject to damaging vibrations and oscillations when signs are not in place during erection or maintenance of the structure. To avoid these vibrations and oscillations, consideration should be given to attaching temporary blank sign panels to the structure.

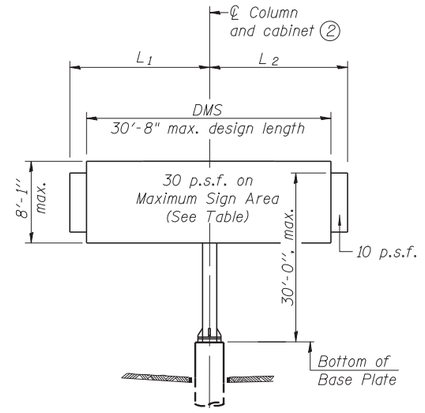
Structure Number	Station	Total Butterfly Length (L)	Elev. A_1	Elev. A_2	Dim. D_1	Dim. D_2	D_s max.	Total Sign Area
1F016U045R004.9	58+85	32'-0"	645.28	---	22'-0"	---	8'-1"	248 SF

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
OVERHEAD SIGN STRUCTURE BUTTERFLY TYPE III-F-A	Foot	32.00
OVERHEAD SIGN STRUCTURE WALKWAY, TYPE A	Foot	32.00
DRILLED SHAFT CONCRETE FOUNDATIONS	Cu. Yds.	9.4

TRUSS TYPE	MAXIMUM TOTAL DMS SIGN CABINET AREA
III-F-A	248 Sq. Ft.

Maximum DMS weight = 3000 LB.



DESIGN WIND LOADING DIAGRAM

Parameters shown are basis for I.D.O.T. Standards Installations not within dimensional limits shown require special analysis for all components.

Note:
Trusses shall be shipped individually with adequate provision to prevent detrimental motion during transport. This may require ropes between horizontals and diagonals or energy dissipating (elastic) ties to the vehicle. The contractor is responsible for maintaining the configuration and protection of the trusses.

① After adjustments to level truss and insure adequate vertical clearance, all top and bottom leveling nuts shall be tightened against the base plate with a minimum torque of 200 lb.-ft. Stainless steel mesh shall then be placed around the perimeter of the base plate. Secure to base plate with stainless steel banding.

② Centerline cabinet must be located at centerline of column.

* If M270 Gr. 50W (M222) steel is proposed, chemistry for plate to be used shall first be approved by the Engineer as suitable for galvanizing and welding.

NOTES

DMS cabinet dimensions are the largest values of several vendors. The sign structure dimensions were based on these values and shall not change if smaller DMS dimensions are selected, except for walkway support dimensions shown in Section B-B on Sheet S-8 of 10.

GENERAL NOTES

DESIGN: AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals. ("AASHTO Specifications")

CONSTRUCTION: Current (at time of letting) Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, Supplemental Specifications and Special Provisions. ("Standard Specifications")

LOADING: 90 M.P.H. WIND VELOCITY
WIND LOADING: 30 p.s.f. normal to DMS Cabinet Area and truss elements not behind sign Loading Diagram.
WALKWAY LOADING: Dead load plus 500 lbs. concentrated live load.

DESIGN STRESSES
FIELD UNITS
f'c = 3,500 p.s.i.
fy = 60,000 p.s.i. (reinforcement)

WELDING: All welds to be continuous unless otherwise shown. All welding to be done in accordance with current AWS D1.1 and D1.2 Structural Welding Codes (Steel and Aluminum) and the Standard Specifications.

MATERIALS: Aluminum Alloys as shown throughout plans. All Structural Steel Pipe shall be ASTM A53 Grade B or A500 Grade B or C. If A500 pipe is substituted for A53, then the outside diameter shall be as detailed and wall thickness greater than or equal to A53.
All Structural Steel Plates and Shapes shall conform to AASHTO M270 Gr. 36, Gr. 50 or Gr. 50W* (M183, M223 Gr. 50, or M222). Stainless steel for shims, sleeves and handhole covers shall be ASTM A240, Type 302 or 304, or another alloy suitable for exterior exposure and acceptable to the Engineer.
The steel pipe and stiffening ribs at the base plate for the column shall have a minimum longitudinal Charpy V-Notch (CVN) energy of 15 lb.-ft. at 40° F. (Zone 2) before galvanizing.

FASTENERS FOR ALUMINUM TRUSSES: All bolts noted as "high strength" must satisfy the requirements of AASHTO M164 (ASTM A325), or approved alternate, and must have matching lock nuts. Threaded studs for splices (if Members interfere) must satisfy the requirements of ASTM A449, ASTM A193, Grade B7, or approved alternate, and must have matching lock nuts. Bolts and lock nuts not required to be high strength must satisfy the requirements of ASTM A307. All bolts and lock nuts must be hot dip galvanized per AASHTO M232. The lock nuts must have nylon or steel inserts. A stainless steel flat washer conforming to ASTM A240 Type 302 or 304, is required under both head and nut or under both nuts where threaded studs are used. High strength bolt installation shall conform to Article 505.04 (f) (2)d of the IDOT Standard Specifications for Road and Bridge Construction. Rotational capacity ("ROCAP") testing of bolts will not be required.

U-BOLTS AND EYEBOLTS: U-Bolts and Eyebolts must be produced from ASTM A276 Type 304, 304L, 316 or 316L, Condition A, cold finished stainless steel, or an equivalent material acceptable to the Engineer. All nuts for U-Bolts and Eyebolts must be lock nuts equivalent to ASTM A307 with nylon or steel inserts and hot dip galvanized per AASHTO M232. A stainless steel flat washer conforming to ASTM A240, Type 302 or 304, is required under each U-Bolt and Eyebolt lock nut.

GALVANIZING: All Steel Grating, Plates, Shapes and Pipe shall be Hot Dip Galvanized after fabrication in accordance with AASHTO M111. Painting is not permitted.

ANCHOR RODS: Shall conform to ASTM F1554 Gr. 105.

CONCRETE SURFACES: All concrete surfaces above an elevation 6" below the lowest final ground line at each foundation shall be cleaned and coated with Bridge Seat Sealer in accordance with the Standard Specifications.

REINFORCEMENT BARS: Reinforcement Bars designated (E) shall be epoxy coated in accordance with the Standard Specifications.

HNTB

USER NAME = lkalita	DESIGNED PCA	REVISED
	CHECKED MRI	REVISED
PLOT SCALE = 0.083333:1	DRAWN LK	REVISED
PLOT DATE = 09-OCT-2012	DATE 10/19/12	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BUTTERFLY SIGN STRUCTURES – ALTERNATE PLAN & ELEVATION FOR DMS – ALUMINUM TRUSS & STEEL POST

SHEET NO. S-1 OF 10 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	224
		CONTRACT NO. 60G37		
	ILLINOIS FED. AID PROJECT			

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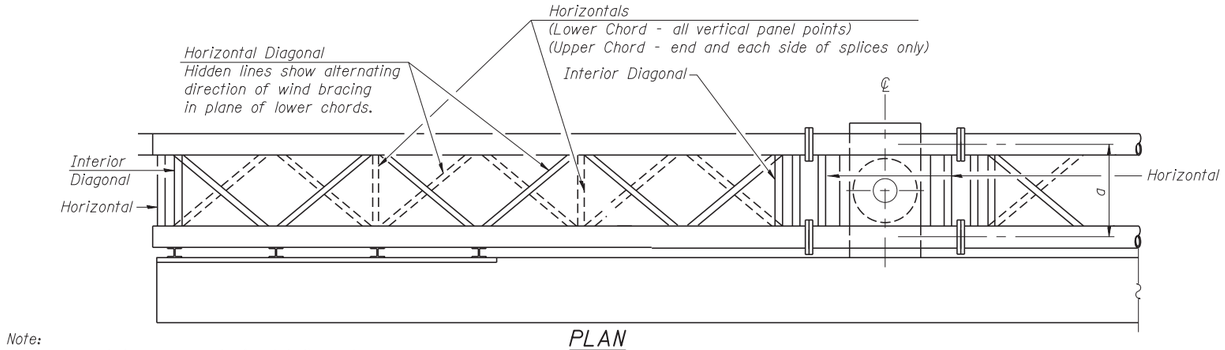
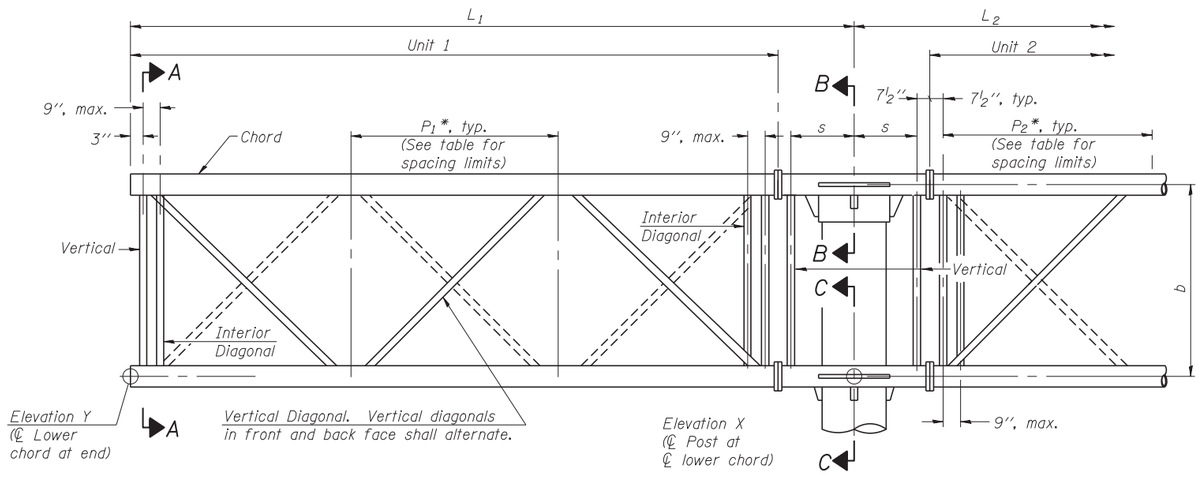


Note:
There are twice as many horizontal diagonals as there are vertical diagonals.

PLAN

(Walkway not shown)

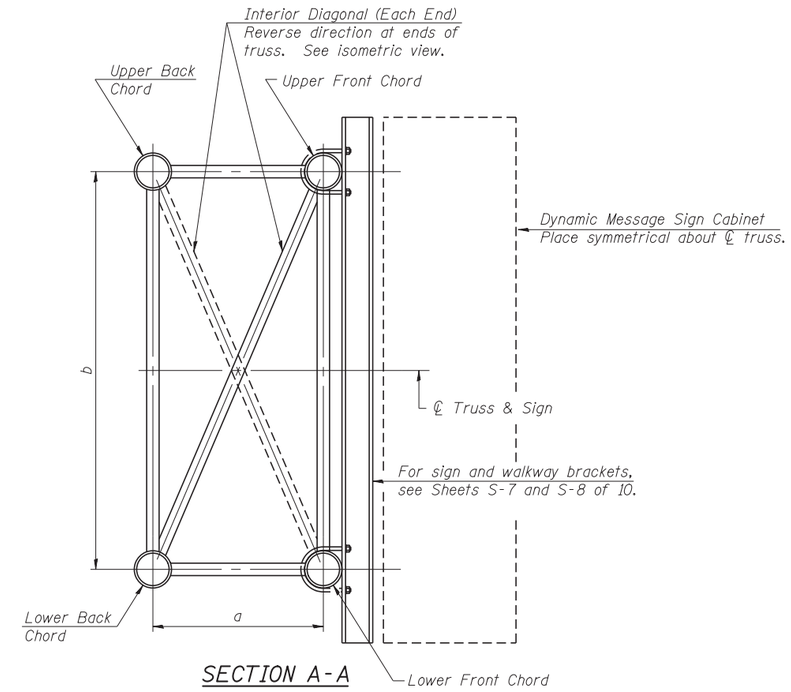


ELEVATION

(Sign and walkway omitted for clarity)

TYPICAL TRUSS UNIT

For Section B-B and Section C-C, see Base Sheet OSF-A-3



SECTION A-A

TRUSS UNIT TABLE

Truss Type	Dimension "a"	Dimension "b"	Dimension "s"	Limits for Panel Spacing (P)*	Up. & Low. Chord O.D.	Up. & Low. Chord Wall	Verticals; Horizontals; Vertical Horizontals; and Interior Diagonals	
III-F-A	36″	84″	21″	48″ min. to 66″ max.	7″	3/8″	3½″	3/8″

$$*P = \frac{L - s - 1'\text{-}6''}{\#\ \text{Panels}}$$

Structure Number	Station	Truss Type	L_1	L_2	Number of Panels Unit 1	Panel Length (P_1)*	Number of Panels Unit 2	Panel Length (P_2)*
1F016U045R004.9	58+85	III-F-A	16′-0″	16′-0″	3	4′-3″	3	4′-3″

OSF-A-2-DMS 9-15-11

HNTB

USER NAME = lkalita	DESIGNED PCA	REVISED
	CHECKED MRI	REVISED
PLOT SCALE = 0.083333:1	DRAWN LK	REVISED
PLOT DATE = 09-OCT-2012	DATE 10/19/12	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BUTTERFLY SIGN STRUCTURES – ALTERNATE TRUSS DETAILS FOR DMS
ALUMINUM TRUSS & STEEL POST

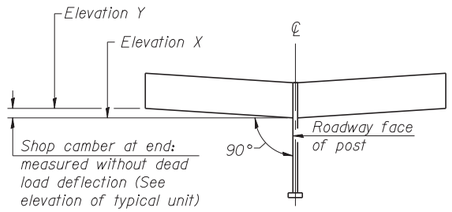
SHEET NO. S-2 OF 10 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	225
		CONTRACT NO. 60G37		
	ILLINOIS	FED. AID PROJECT		

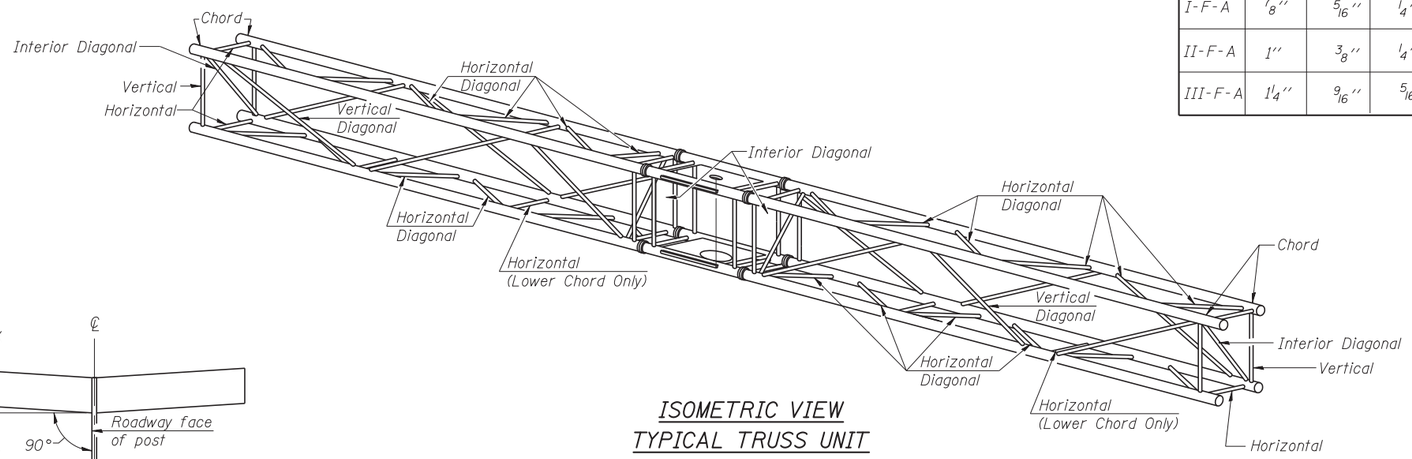
FILE NAME = IP_PWP:dms47844\D160G37-OSF-A-2-DMS_S23.dgn

SHOP CAMBER TABLE

Unit Length L_1 or L_2	Shop Camber at End
15′	$1\frac{1}{2}''$
16′-17′	$1\frac{3}{4}''$
18′-20′	2″
21′-22′	$2\frac{1}{4}''$
23′-25′	$2\frac{1}{2}''$
26′-27′	$2\frac{3}{4}''$
28′-30′	3″
31′-32′	$3\frac{1}{4}''$
33′-35′	$3\frac{1}{2}''$

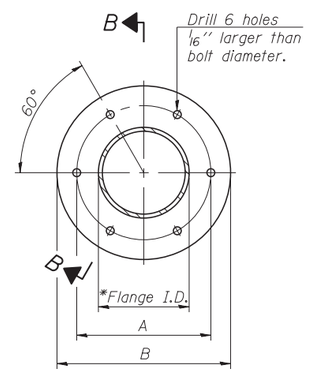


CAMBER DIAGRAM
(For Fabrication Only)



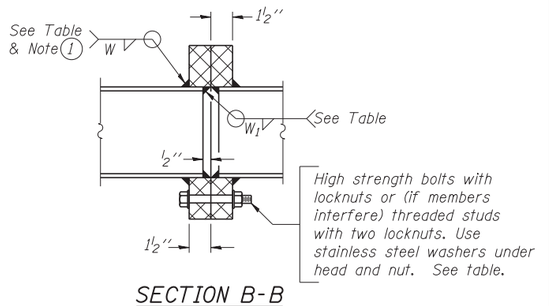
ISOMETRIC VIEW TYPICAL TRUSS UNIT
ASTM B221 Alloy 6061 Temper T6

Truss Type	Bolts	Weld Sizes		A	B
	Dia.	W	W_1		
I-F-A	$\frac{7}{8}''$	$\frac{5}{16}''$	$\frac{1}{4}''$	$8\frac{3}{4}''$	$11\frac{3}{4}''$
II-F-A	1″	$\frac{3}{8}''$	$\frac{1}{4}''$	11″	$14\frac{1}{2}''$
III-F-A	$1\frac{1}{4}''$	$\frac{9}{16}''$	$\frac{5}{16}''$	$11\frac{1}{2}''$	15″

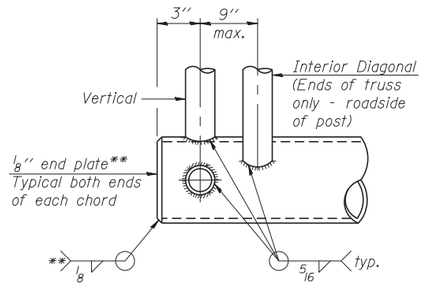


SPLICING FLANGE
ASTM b221, Alloy 6061-T6
or ASTM B209, Alloy 6061-T651

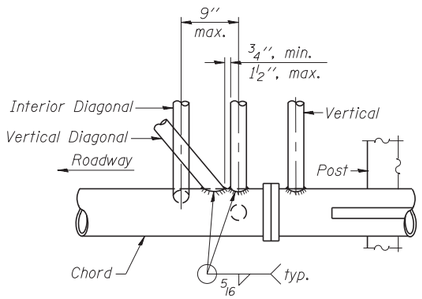
* To fit O.D. of Chord with maximum gap of $\frac{1}{16}''$.



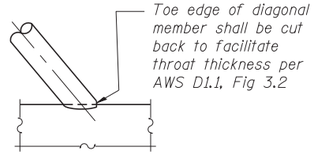
SECTION B-B



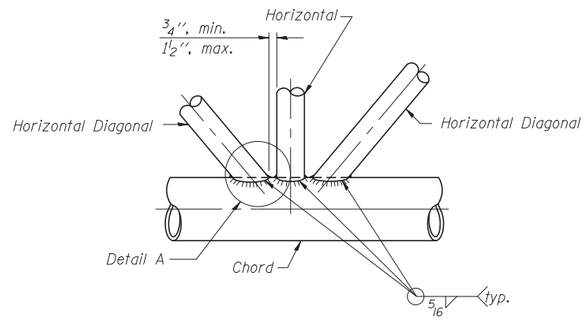
BUTTERFLY END JOINT DETAIL
** Contractor may alternatively use standard aluminum drive-fit cap to close ends.



POST END JOINT DETAIL



DETAIL A



TRUSS INTERIOR JOINT DETAIL

(1) Splicing Flanges shall be attached to each truss unit with the truss shop assembled to camber shown. Truss units shall be in proper alignment and flange surfaces shall be shop bolted into full contact before welding. Sufficient external welds or tacks shall be made to secure flanges until remaining welds are made after disassembly. Adjacent flanges shall be "match marked" to insure proper field assembly.

OSF-A-2A 9-15-11

HNTB

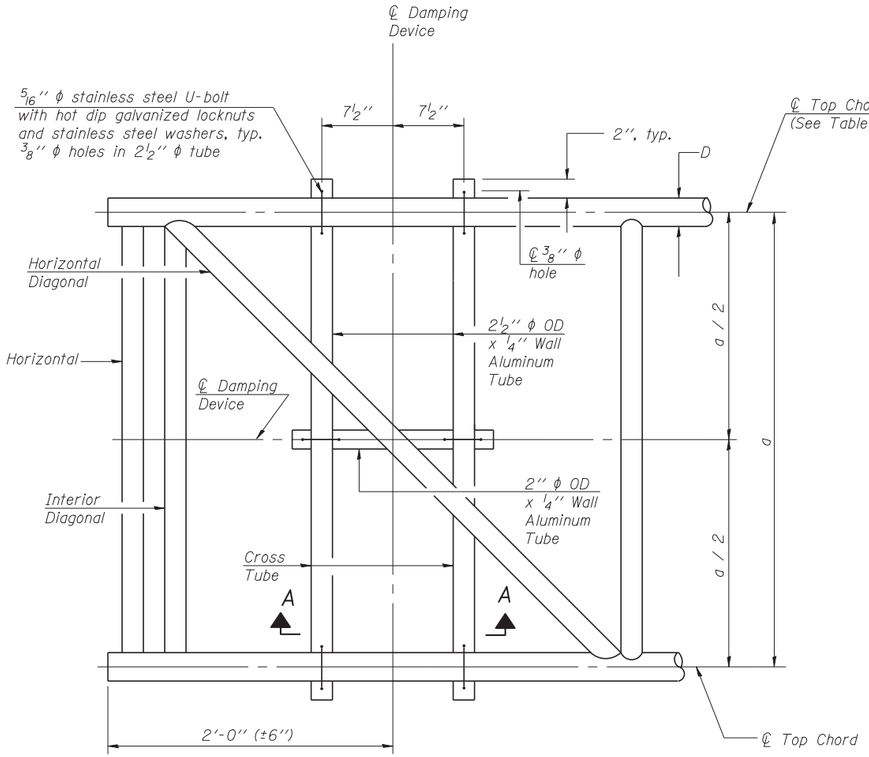
USER NAME = lkalita	DESIGNED PCA	REVISED
	CHECKED MRI	REVISED
PLOT SCALE = 0.083333:1	DRAWN LK	REVISED
PLOT DATE = 09-OCT-2012	DATE 10/19/12	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

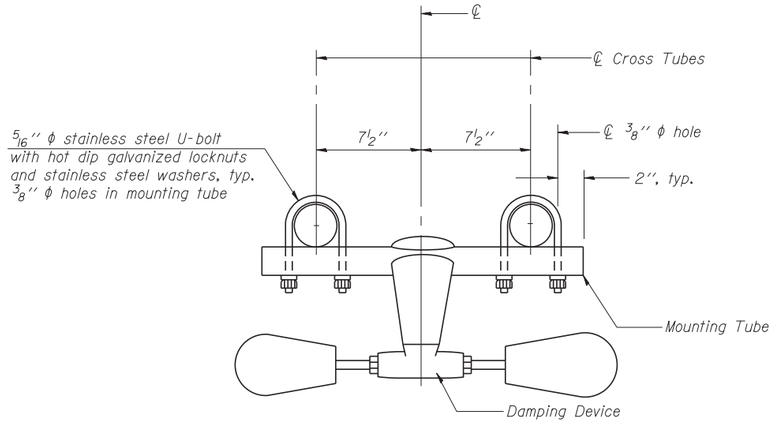
BUTTERFLY SIGN STRUCTURES – TRUSS DETAILS
ALUMINUM TRUSS & STEEL POST
SHEET NO. S-3 OF 10 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	226
		CONTRACT NO. 60G37		
	ILLINOIS FED. AID PROJECT			

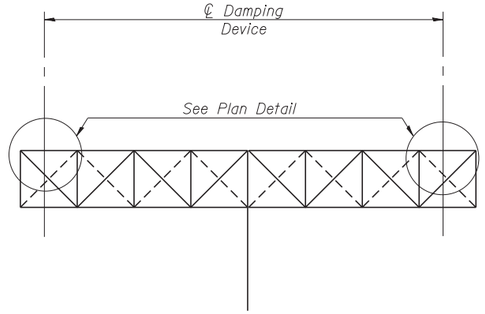
FILE NAME = IP_PWP:dms47844\D160G37-OSF-A-2A-DMS_S24.dgn



PLAN DETAIL



TRUSS DAMPING DEVICE CONNECTION DETAIL



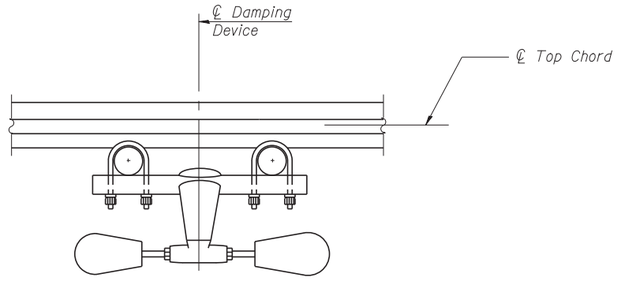
ELEVATION

Aluminum Butterfly Sign Structure

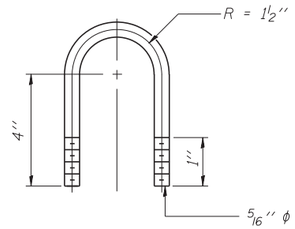
GENERAL NOTES

Damper: One damper per truss. (31 lbs. Stockbridge-Type Aluminum-29'' minimum between ends of weights)

Materials: Aluminum tubes shall be ASTM B221 alloy 6061 temper T6

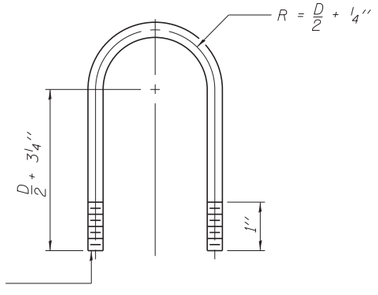


SECTION A-A



DAMPING DEVICE MOUNTING TUBE U-BOLT DETAIL

(Typical)



TOP CHORD TO CROSS TUBE U-BOLT DETAIL

(Typical)

OSF-A-D 9-15-11

USER NAME = lkalita	DESIGNED PCA	REVISED	
	CHECKED MRI	REVISED	
PLOT SCALE = 0.083333:1	DRAWN LK	REVISED	
PLOT DATE = 09-OCT-2012	DATE 10/19/12	REVISED	

HNTB

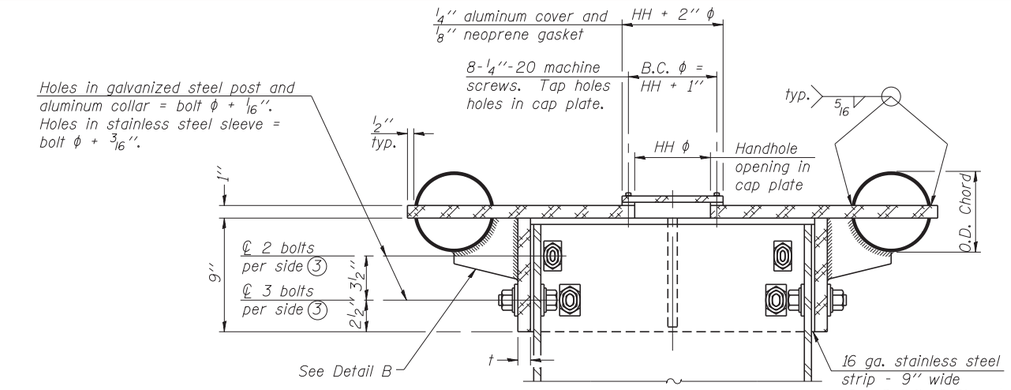
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BUTTERFLY SIGN STRUCTURE
DAMPING DEVICE

SHEET NO. S-4 OF 10 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	227
		CONTRACT NO. 60G37		
	ILLINOIS	FED. AID PROJECT		

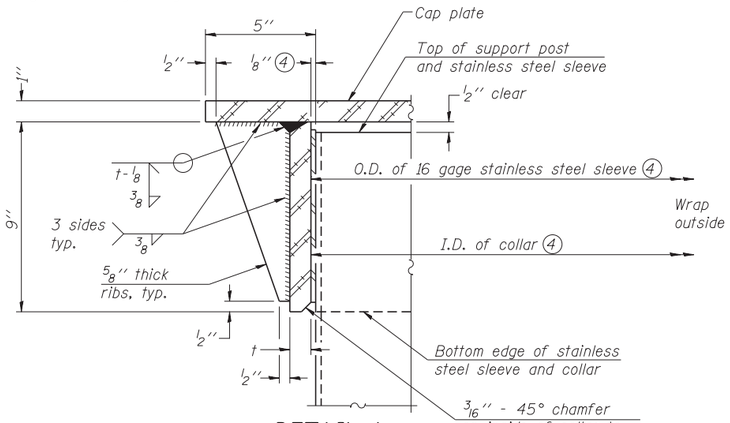
FILE NAME = IP_PWP:dms47844\D1600037-OSF-A-D_S25.dgn



SECTION B-B

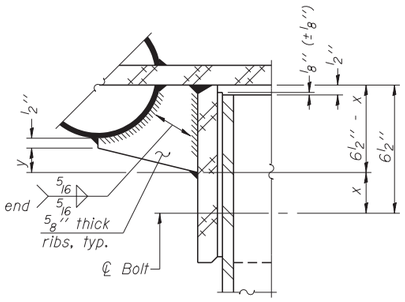
Bolts, washers (including contoured washers), and locknuts shall be stainless steel.

(4) Collar I.D. shall be manufactured to correspond to O.D. of actual galvanized post and stainless steel sleeve plus 1/8" (±1/16"). Maximum gap between post and collar at any location equals 1/8" before tightening bolts.



DETAIL A

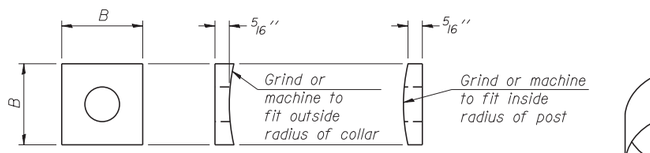
(Two locations)



DETAIL B

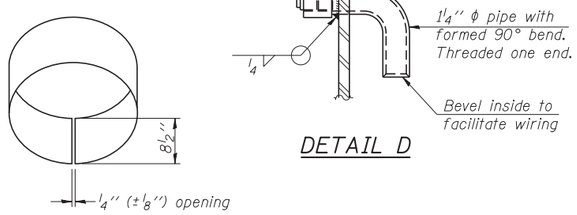
Two locations

(For details not shown, see Detail C)



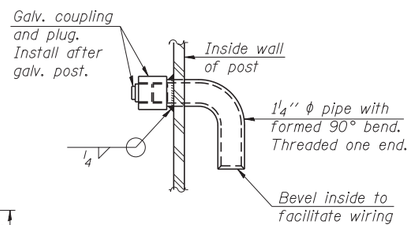
CONTOURED WASHERS

Bolt Size	Contoured Washers	
	Hole Dia.	B
7/8"	1"	2 1/2"
1"	1 1/8"	3"
1 1/4"	1 3/8"	3 1/4"

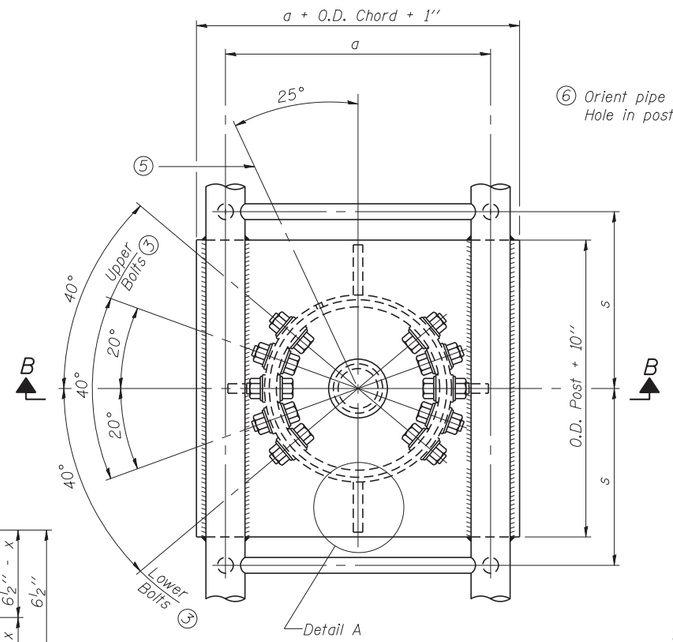


DETAIL OF STAINLESS STEEL SLEEVE

Weld to post after galvanizing.
(Prepare post surface to insure tight, uniform fit and allow welding.)
Welds to be 1 1/2" long at 6" cts. along top edge and at 1/4" opening.



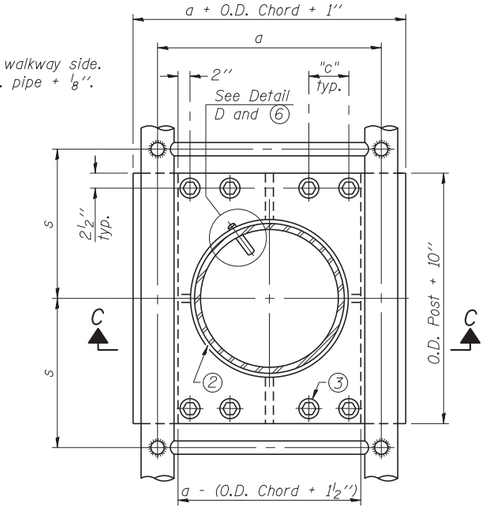
DETAIL D



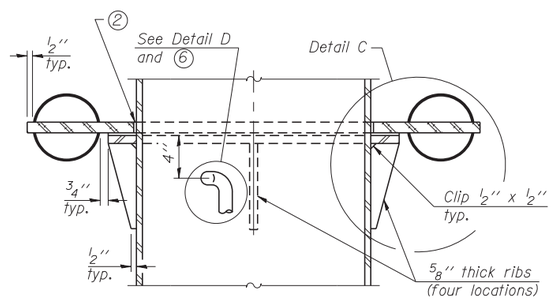
PLAN VIEW - TOP OF COLUMN

(5) Optional full penetration weld in collar.
(Two locations maximum....(180° apart)....X-ray or UT 100%)

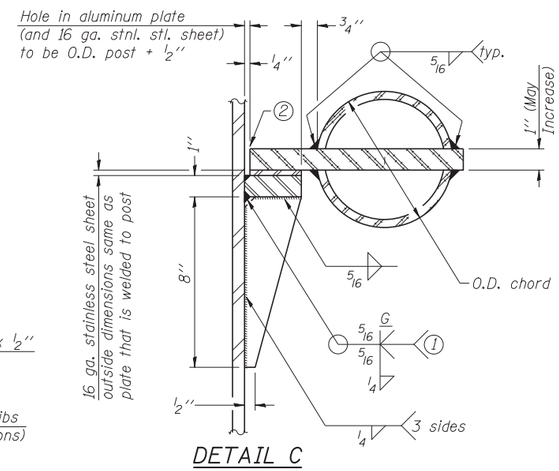
(6) Orient pipe toward walkway side. Hole in post = O.D. pipe + 1/8".



SECTION THRU POST ABOVE LOWER CHORDS



SECTION C-C



DETAIL C

(1) Grind top if required to fully seat aluminum plate and stainless steel sheet.

(2) After tightening lower connection bolts, fill gap with non-hardening, silicone caulk suitable for exterior exposure and acceptable to the Engineer. Cost is included in Overhead Sign Structure Butterfly.

Truss Type	Post Size	Upper & Lower Connection Bolt Diameter (3)	Lower Juncture Bolt Spacing Dimension "c" (3)	Opening in Cap Plate "HH"	Collar Thickness (t)	Side Ribs	
						x	y
I-F-A	16" ϕ (83#/')	7/8"	3 1/4"	8"	5/8"	1 3/4"	2 1/4"
II-F-A	24" ϕ (125#/')	1"	3 1/2"	12"	7/8"	2"	1 1/4"
III-F-A	24" ϕ (125#/')	1 1/4"	3 1/2"	12"	7/8"	2"	1"

(3) Upper and lower connection bolts in collar and bolts at lower chord connection must be high strength with matching locknuts. Connection bolts shall have two stainless steel flat washers each.

OSF-A-3

9-15-11

HNTB

USER NAME = lkalita	DESIGNED PCA	REVISED
	CHECKED MRI	REVISED
PLOT SCALE = 0.083333:1	DRAWN LK	REVISED
PLOT DATE = 09-OCT-2012	DATE 10/19/12	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BUTTERFLY SIGN STRUCTURES - JUNCTURE DETAILS
ALUMINUM TRUSS & STEEL POST

SHEET NO. S-5 OF 10 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	228
		CONTRACT NO. 60G37		
		ILLINOIS	FED. AID PROJECT	

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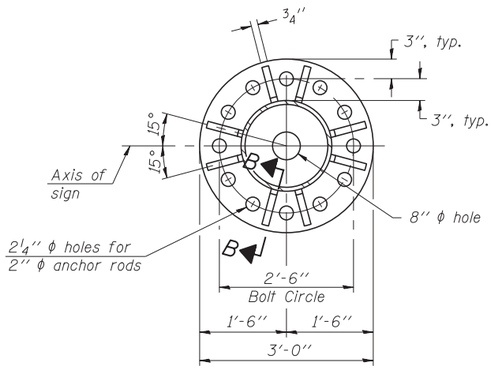
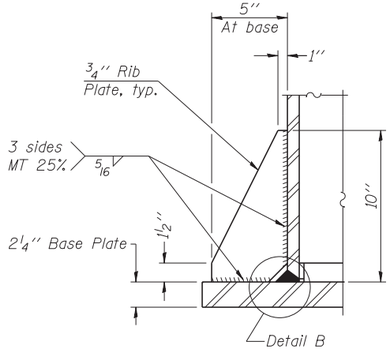
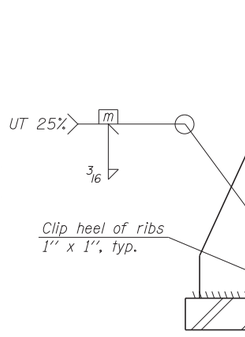


SECTION A-A

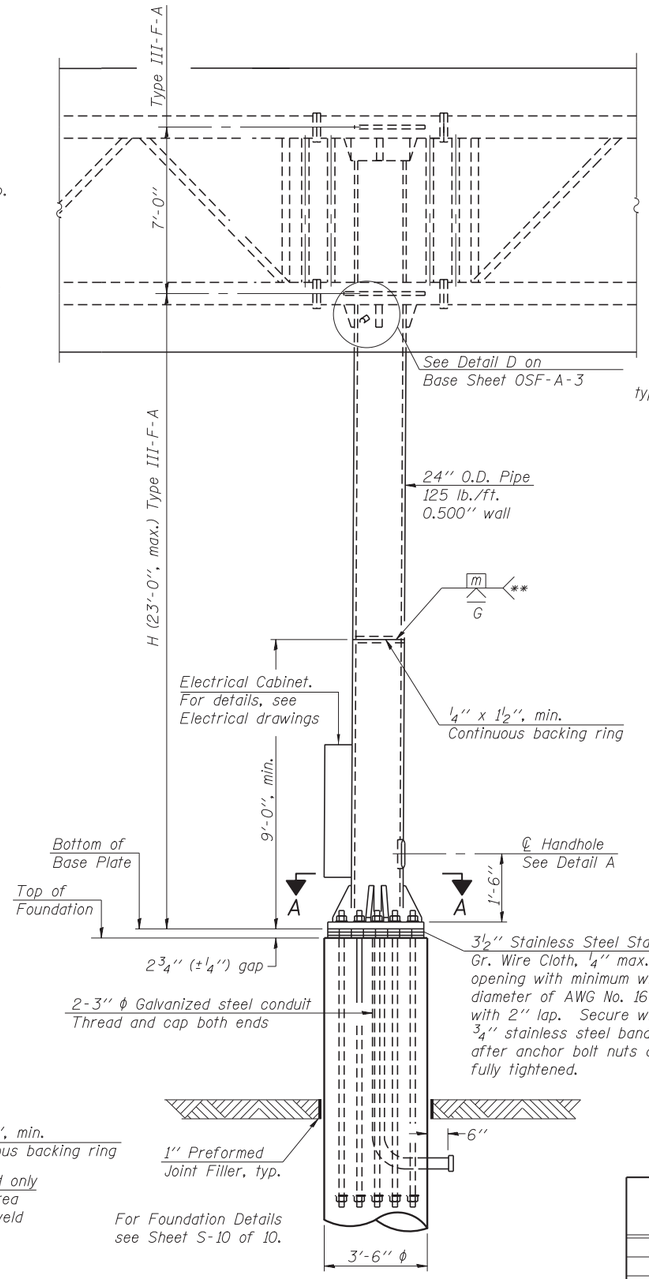


SECTION B-B

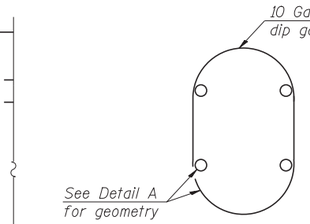


DETAIL B

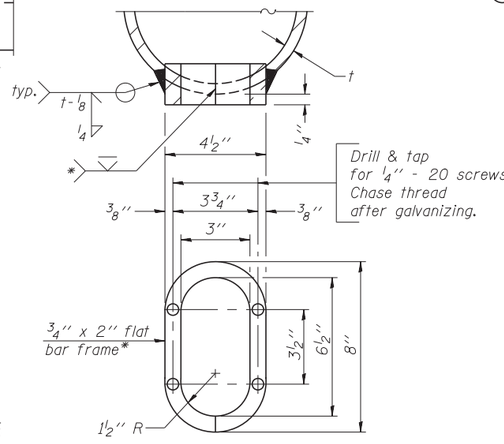
(Typical rib)



FRONT ELEVATION



HANDHOLE COVER

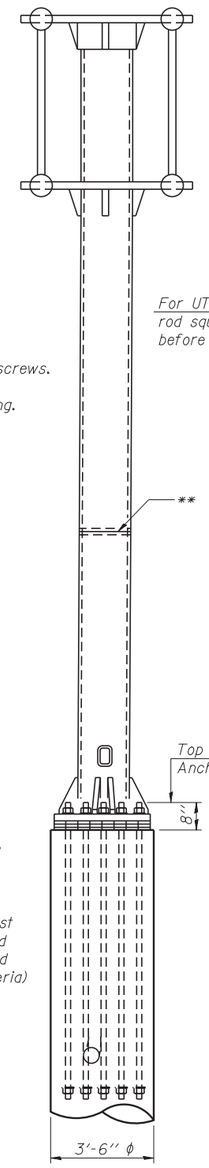


Provide 8'' x 4 1/2'' cover. Outside corners = 2 1/4'' radius. Provide 4-5/16'' ϕ holes for 1/4'' - 20 round head hot dip galvanized or stainless steel machine screws. (See cover details.)

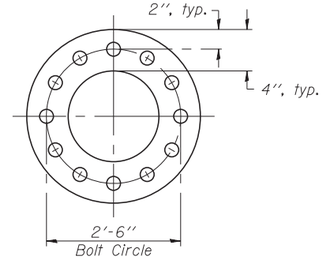
DETAIL A

* Bent bars may be butt welded top and bottom or bottom only. In lieu of fabricated handhole frame as shown, may cut from 2'' plate (rolling direction vertical). All cut faces to be ground to ANSI Roughness of 500 μin or less.

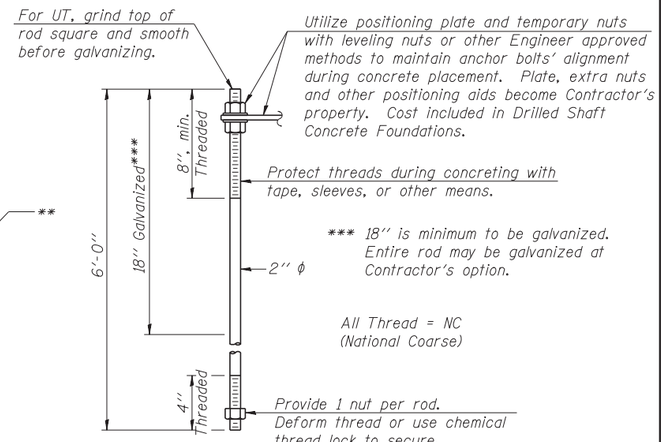
** Butt welded joint in post is only allowed for post heights (H) over 20 ft. in length. If used, weld procedure must be preapproved by Engineer and joint shall receive 100% RT or UT (tension criteria) at Contractor's expense.



SIDE ELEVATION



SUGGESTED POSITIONING PLATE



ANCHOR ROD DETAIL

Anchor rods shall conform to ASTM F1554 Grade 105. Galvanize the upper 18'' (minimum***) and associated AASHTO M291, Grade A, C or DH heavy hex nuts and hardened washers per AASHTO M232. No welding shall be permitted on rods. Provide a nut at bottom, a hexagon locknut and washer above base plate and a leveling nut and washer below base plate. Nuts shall each be tightened with 200 lb.-ft. minimum torque against base plate. Before or after threading, but before galvanizing, each anchor rod shall be ultrasonically tested (UT) by a Level II or III inspector, qualified in accord with ANSI guidelines, to insure no rejectable flaws exist in the upper 18'' (tension criteria). Cost of testing included in Drilled Shaft Concrete Foundations.

Structure Number	Station	H
1F016U045R004.9	58+85	20'-8 1/2"

Note: "H" based on 15'-0'' or actual sign height, whichever is greater.

HNTB

USER NAME = lkalita	DESIGNED PCA	REVISED
	CHECKED MRI MRI	REVISED
PLOT SCALE = 0.083333:1	DRAWN LK	REVISED
PLOT DATE = 09-OCT-2012	DATE 10/1' MRI	REVISED

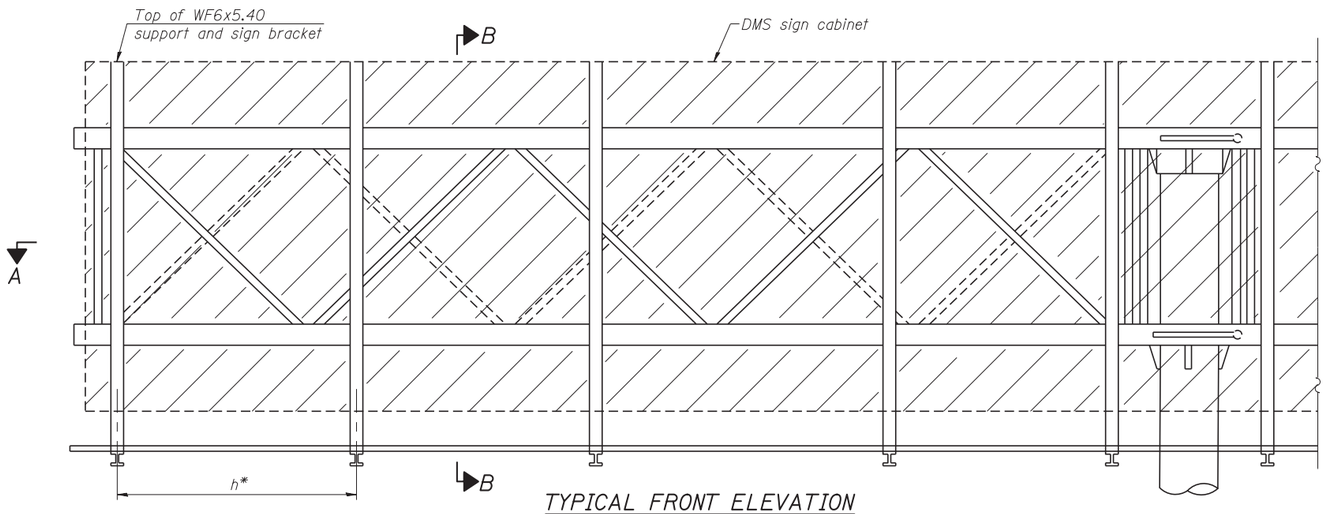
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BUTTERFLY SIGN STRUCTURES – TYPE II-F-A TRUSS SUPPORT POST FOR DMS ALUMNINUM TRUSS & STEEL POST

SHEET NO. S-6 OF 10 SHEETS

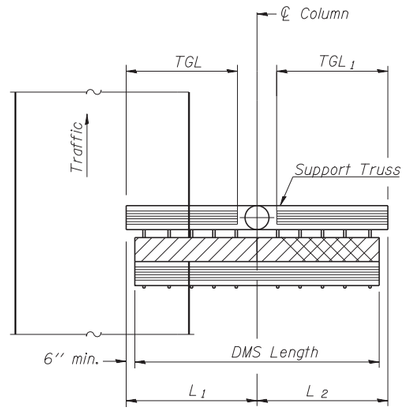
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	229
		CONTRACT NO. 60G37		
		ILLINOIS	FED. AID PROJECT	

FILE NAME = IP_PWP:dms47844\D160037-OSF-A-5-DMS_S27.dgn



TYPICAL FRONT ELEVATION

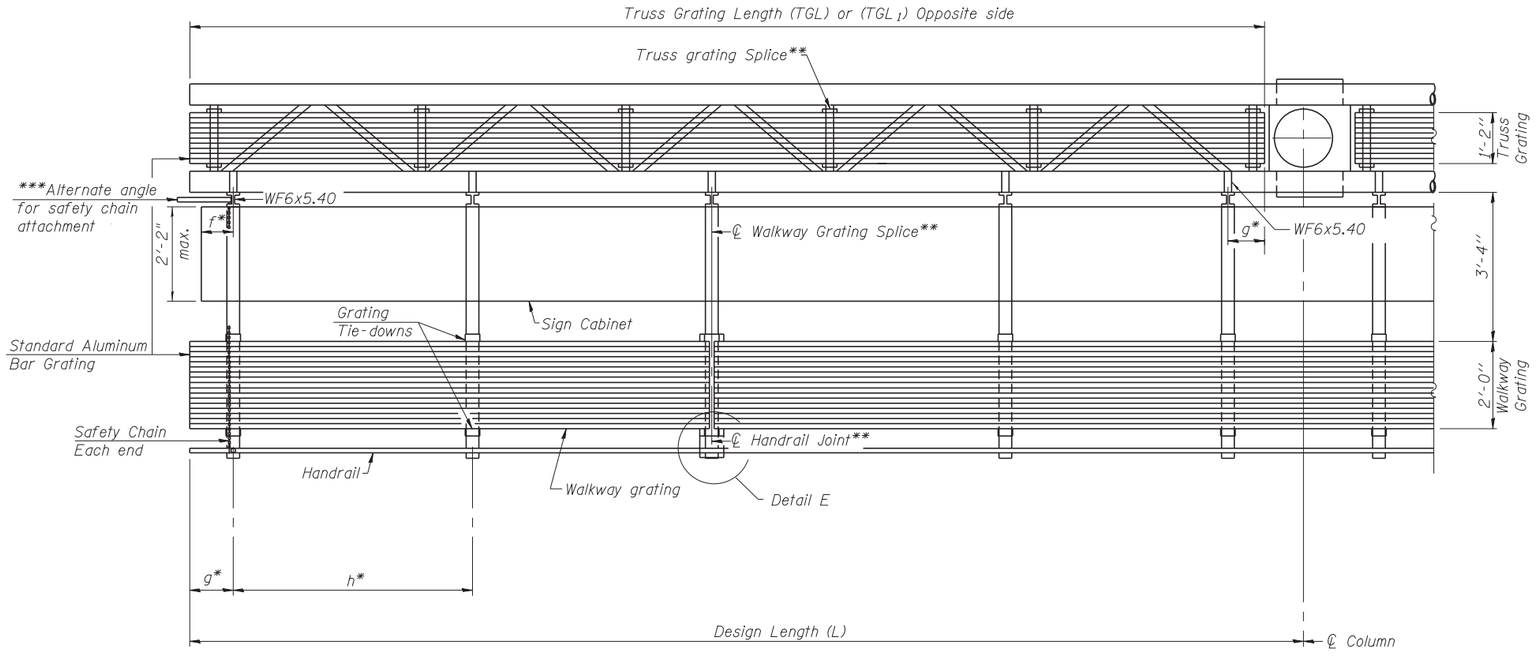
With handrail omitted for clarity.



PLAN
WALKWAY AND HANDRAIL SKETCH

(Road plan beneath truss varies)

Walkway and truss grating dimensions are nominal and may vary (width ±½", depth ±½") based on available standard widths.



SECTION A-A

Handrail and walkway grating shall span a minimum of three brackets between splices.
***Use and location of handrail joint or grating splices are optional, based on lengths needed and material availability.*

$$TGL = L - \left(\frac{\text{Post O.D.}}{2} + 6''\right)$$

Truss grating to facilitate inspection shall run full length of cantilevers. Cost of truss grating is included in "Overhead Sign Structure Butterfly".

Notes:

* *Space walkway brackets and sign brackets WF6x5.40 for efficiency and within limits shown:*

f = 12" maximum, 4" minimum (End of sign to ℄ of nearest bracket)
g = 12" maximum, 4" minimum (End of walkway grating to ℄ of nearest support bracket)
h = 6'-0" maximum (℄ to ℄ sign and/or walkway support brackets, WF6x5.40)

Maximum DMS weight = 3000 lbs.
2'-2" maximum cabinet depth includes depth of cabinet plus connection to WF6x5.40)
For Section B-B and Grating Splice Details, see Sheet S-8 of 10.
For Handrail Splice Details, see Sheet S-9 of 10.
Walkway and truss grating width dimensions are nominal and may vary ±½" based on available standard width.

*** *If walkway bracket at safety chain location is behind sign, add angle to bracket. See alternate safety chain attachment on base Sheet S-9 of 10.*

For details of sign placement, sign/walkway brackets, truss and walkway gratings, grating splices and Section B-B, see Sheet S-8 of 10.
For details of handrail, handrail joint, safety chain and Detail E, see Sheet S-9 of 10.

BRACKET TABLE

WF(A-N)4x3.06 ASTM B308, Alloy 6061-T6		
Sign Width		Number Brackets Required
Greater Than	Less Than or Equal To	
	8'-0"	2
8'-0"	14'-0"	3
14'-0"	20'-0"	4
20'-0"	26'-0"	5
26'-0"	32'-0"	6

Structure Number	Station	DMS Length	TGL	TGL 1
1F016U045R004.9	58+85	30'-8"	14'-6"	14'-6"

HNTB

USER NAME = lkalita	DESIGNED PCA	REVISED
	CHECKED MRI	REVISED
PLOT SCALE = 0.083333:1	DRAWN LK	REVISED
PLOT DATE = 09-OCT-2012	DATE 10/19/12	REVISED

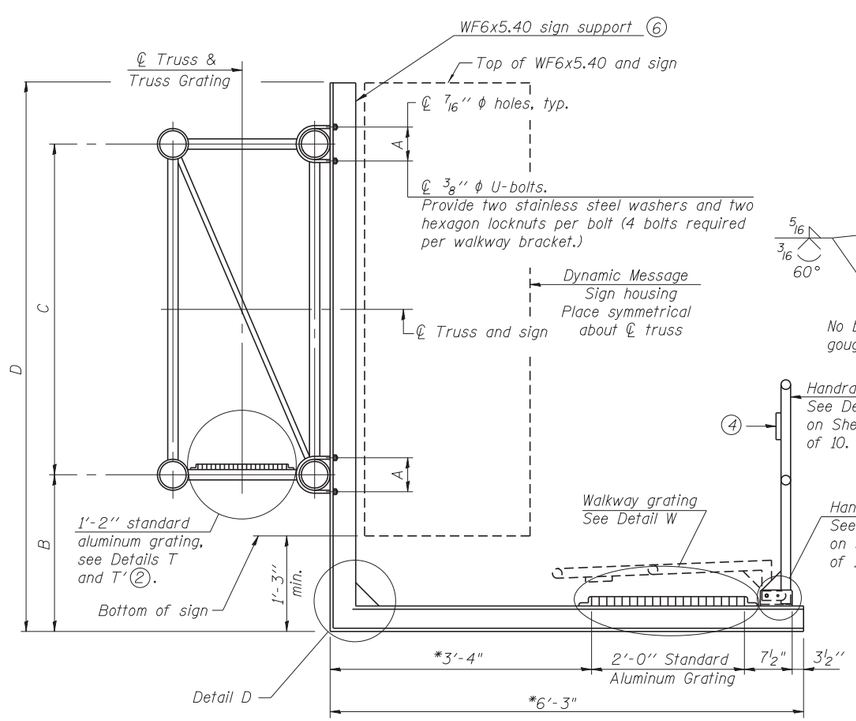
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BUTTERFLY SIGN STRUCTURES – ALUMINUM WALKWAY
DETAILS – ALUMINUM TRUSS & STEEL POST

SHEET NO. S-7 OF 10 SHEETS

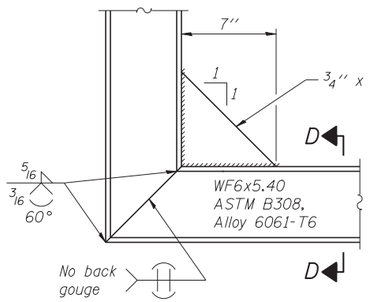
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	230
		CONTRACT NO. 60G37		
	ILLINOIS FED. AID PROJECT			

FILE NAME = IP_PWP:dms47844\D160037-OSF-A-6_S28.dgn

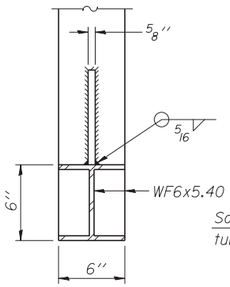


SECTION B-B

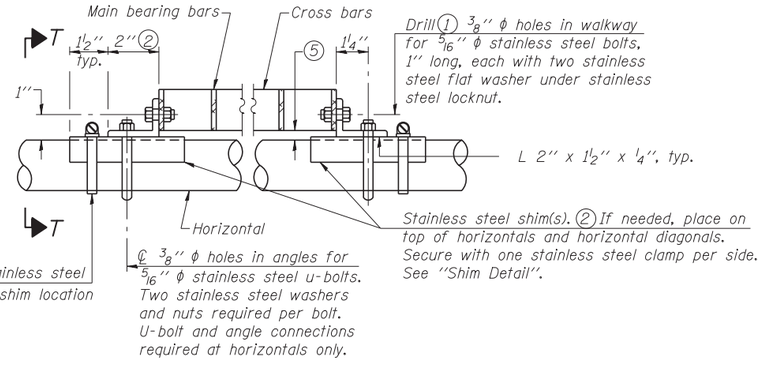
* Bracket dimensions are nominal and will vary based on actual DMS cabinet dimensions plus manufacturers mounting device.



DETAIL D

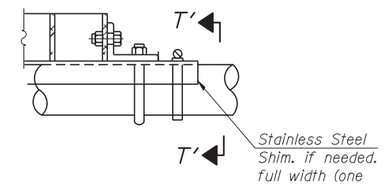


SECTION D-D



DETAIL T

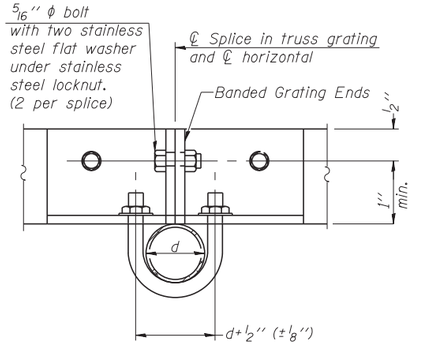
(Continuous Truss grating)



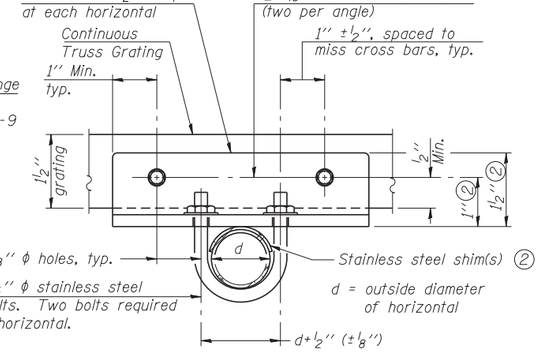
DETAIL T'

(Truss grating splice)

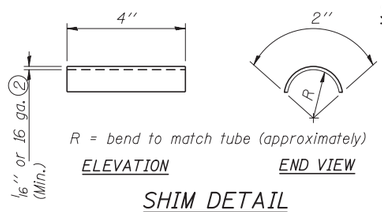
Details not shown same as Detail T. Alternate materials may be used subject to the Engineer's review and approval.



SECTION T'-T'

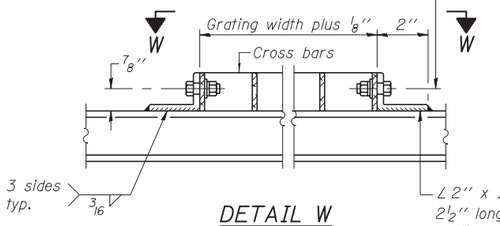


SECTION T-T



SHIM DETAIL

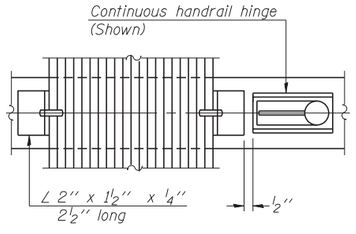
Drill (1) 3/8" ϕ holes in walkway for 5/16" ϕ stainless steel bolts, 1" long, each with one stainless steel locknut and 2 stainless steel flat washers.



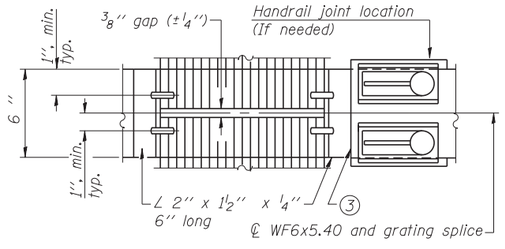
DETAIL W

(Walkway grating)

∠ 2" x 1 1/2" x 1/4" 2 1/2" long at continuous grating. 6" long at grating splices.



(CONTINUOUS WALKWAY GRATING)



(AT WALKWAY GRATING SPLICE)

SECTION W-W

Structure Number	Station	A	(7) B	C	(7) D
1F016U045R004.9	58+85	7 3/8"	1'-9 1/2"	7'-0"	9'-4"

SPECIFICATIONS FOR STANDARD ALUMINUM GRATING

Main Bearing Bars (MBB) shall be 3/16" x 1 1/2" on 1 3/16" centers and conform to ASTM B211 Alloy 6061-T6.

Cross bars (CB) shall be 3/16" x 1 1/2" on 4" centers and conform to ASTM B221 Alloy 6063-T5 or 6061-T6.

OR

Aluminum Grating with modified "T" sections for main bearing bars shall meet the following requirements:

Main bars shall conform to ASTM B221 Alloy 6061-T6 and have a minimum section modulus equal to 0.0705 in.^{3} per bar, a depth of 1 1/2", spaced on 1 3/16" centers.

Cross bars shall conform to ASTM B221 Alloy 6063-T5 or T-42 and spaced on 4" centers.

(1) Drilling holes in grating may be done in shop or field, based on Contractor's preference and subject to accurate alignment.

(2) Stainless steel shims shall be placed as shown in Detail T if needed to compensate for alignment variations between horizontal and diagonal pipes beyond adjustment provided by angles. Thicker shims may be used subject to shims performing properly.

(3) If Handrail Joint present, weld angle to WF6x5.40 and 1/4" extension bars. (See Sheet S-9 of 10.)

(4) PL 1/8" x 1/2" x 2" welded to handrail posts to protect locations that contact grating.

(5) Tube to grating gap may very from 0 to 1/2" max. to align walkway, allow for camber, etc.

(6) Cabinet manufacturer must design and supply hardware for connection of cabinet to WF6's. Bolts must be stainless steel or hot dip galvanized high strength per IDOT specifications.

(7) Based on maximum sign height, Ds, given on Sheet S-1 of 10. Adjust for actual sign height.

HNTB	USER NAME = lkalita	DESIGNED PCA	REVISED
		CHECKED MRI	REVISED
	PLOT SCALE = 0.083333:1	DRAWN LK	REVISED
	PLOT DATE = 09-OCT-2012	DATE 10/19/12	REVISED

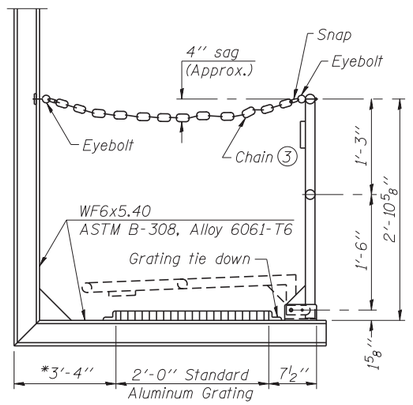
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BUTTERFLY SIGN STRUCTURES – ALTERNATE WALKWAY
DETAILS FOR DMS – ALUMINUM TRUSS & STEEL POST

SHEET NO. S-8 OF 10 SHEETS

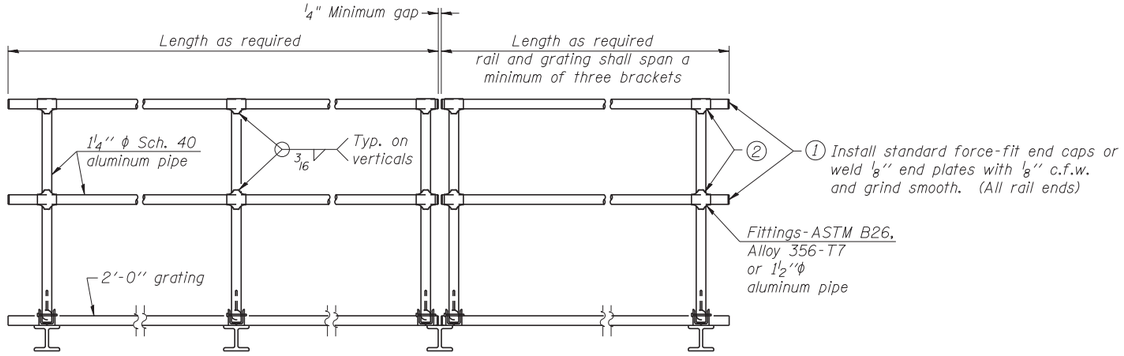
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	231
		CONTRACT NO. 60G37		
	ILLINOIS FED. AID PROJECT			

FILE NAME = IP_PWP:dms47844\D160G37-OSF-A-7_S29.dgn



SIDE ELEVATION

(Showing Safety Chain W/O Sign)



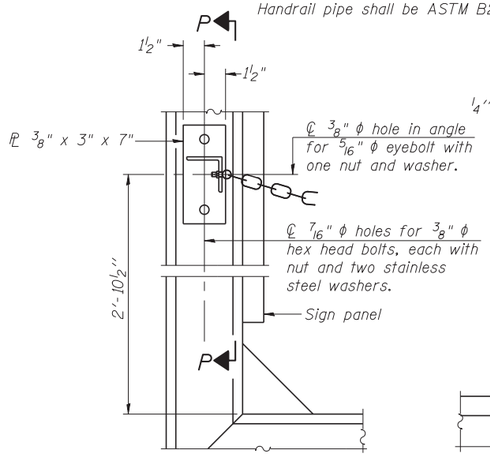
* Bracket dimension is nominal and will vary based on actual DMS cabinet dimensions plus manufacturers mounting device.

FRONT ELEVATION

(2) Horizontal handrail member shall be continuous thru fitting. Provide 7/16'' ϕ hole in fitting for 3/8'' ϕ bolt. Field drill 7/16'' ϕ hole in horizontal rail member. Provide locknut and two stainless steel washers for bolt. (Use 5/16'' eyebolts in 7/16'' ϕ holes on top rail at ends only.)

HANDRAIL DETAILS

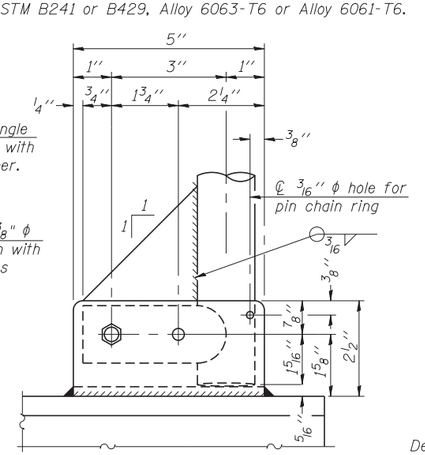
Handrail pipe shall be ASTM B241 or B429, Alloy 6063-T6 or Alloy 6061-T6.



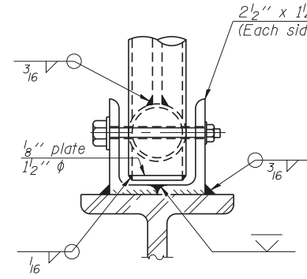
ALTERNATE SAFETY CHAIN ATTACHMENT

(With Sign Present)

Items not shown same as ''Side Elevation" of "Handrail Details"

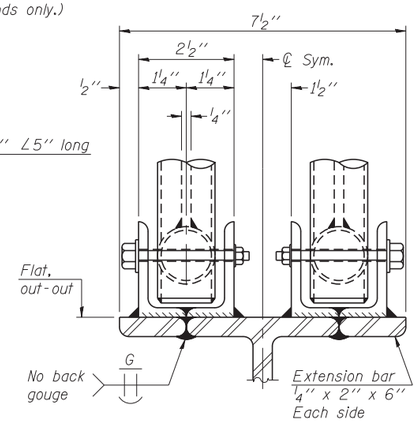


SIDE ELEVATION



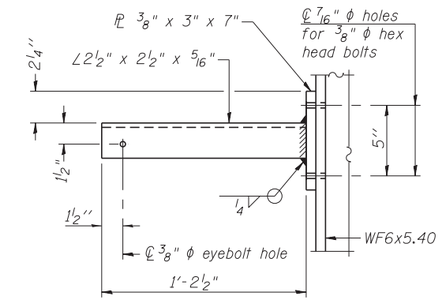
FRONT ELEVATION

Details not shown same as "ELEVATION" at right.

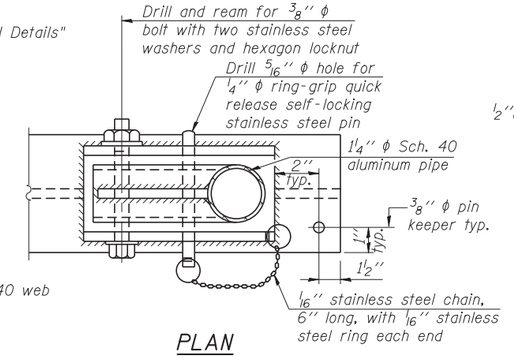


ELEVATION AT HANDRAIL JOINT (4)

Details not shown same as "FRONT ELEVATION"



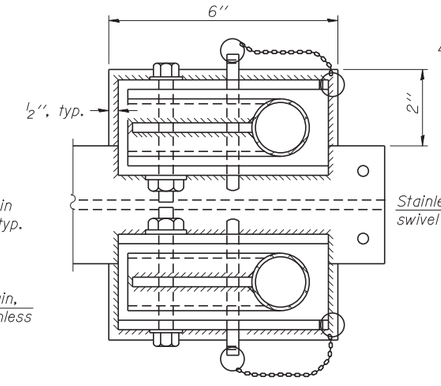
SECTION P-P



PLAN

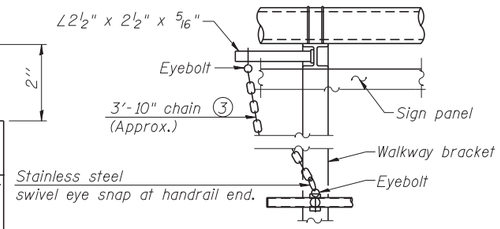
DETAIL E HANDRAIL HINGE

For location of Detail E, see Sheet S-7 of 10.



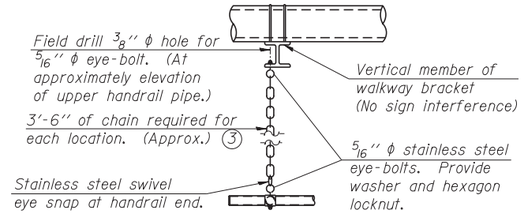
PLAN AT HANDRAIL JOINT

Details not shown same as "PLAN"



ALTERNATE SAFETY CHAIN ATTACHMENT

Details not shown similar to ''Safety Chain'' Details
(Walkway omitted for clarity)



SAFETY CHAIN

One required for each end of each walkway.

(3) 3/16'' type 304L stainless steel chain, approximately 12 links per foot.

(4) Extrusions may be used in lieu of the details shown, with approval of the Engineer.

USER NAME = lkalita	DESIGNED PCA	REVISED	
	CHECKED MRI	REVISED	
PLOT SCALE = 0.083333:1	DRAWN LK	REVISED	
PLOT DATE = 09-OCT-2012	DATE 10/19/12	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

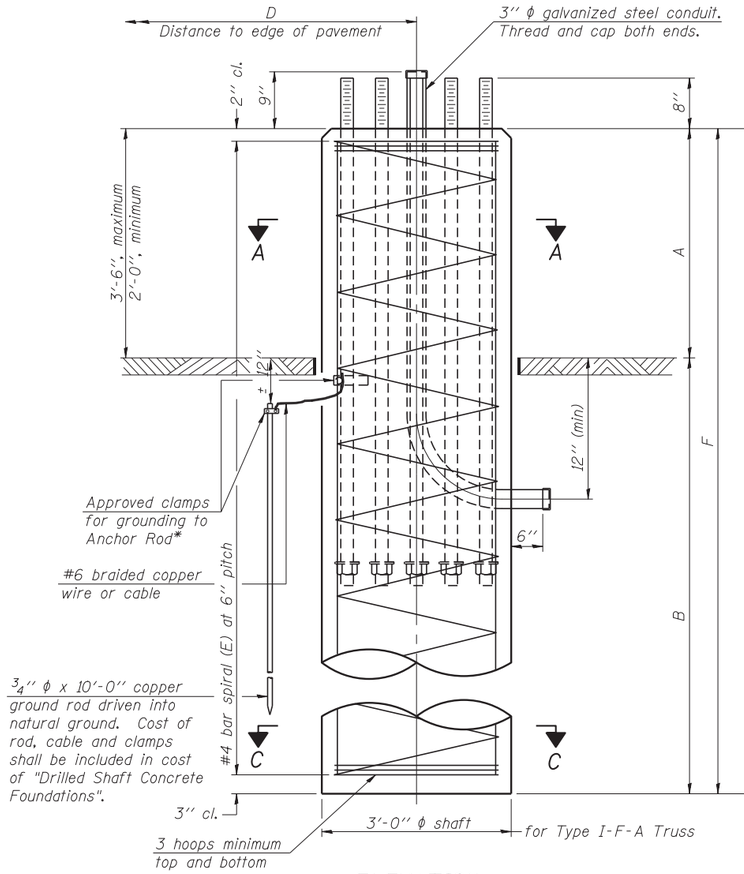
BUTTERFLY SIGN STRUCTURES – HANDRAIL DETAILS
ALUMINUM TRUSS & STEEL POST

SHEET NO. S-9 OF 10 SHEETS

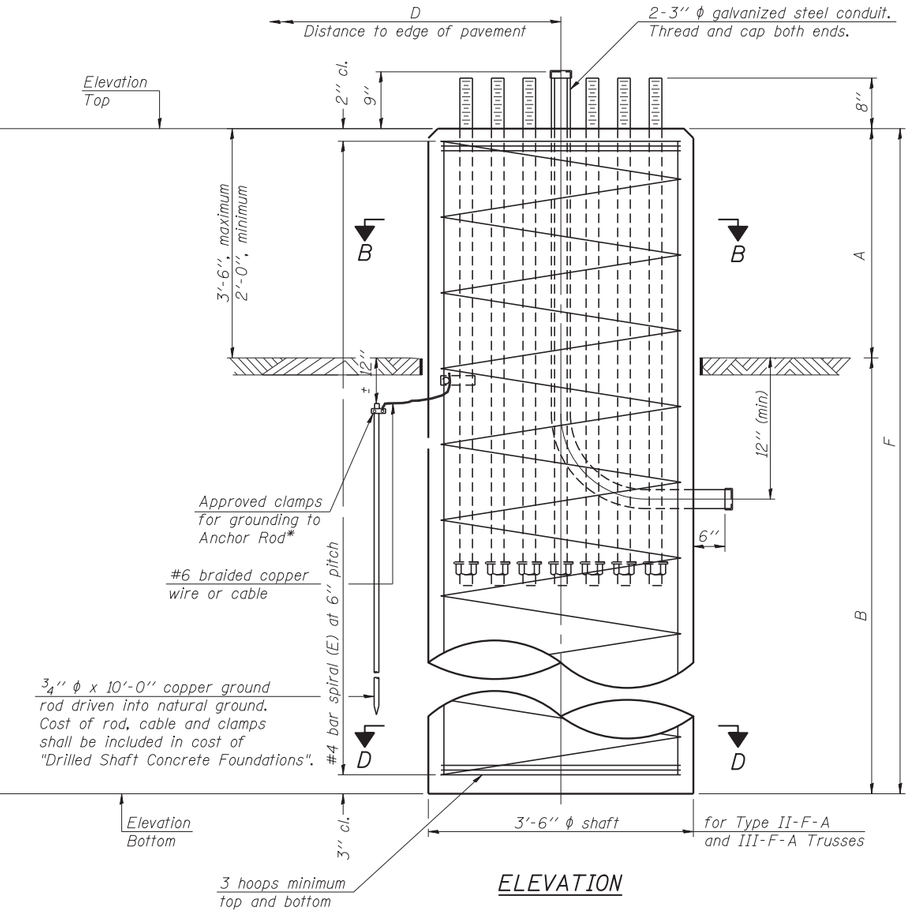
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	232
		CONTRACT NO. 60G37		
		ILLINOIS	FED. AID PROJECT	

FILE NAME = IP_PWP:dms47844\D160G37-OSF-A-8_S30.dgn

* Grind anchor rod to bright finish at ground clamp location before installing clamp.



ELEVATION



ELEVATION

NOTES:

The foundation dimensions shown in the Foundation Design Table are based on the presence of mostly cohesive soils with an average Unconfined Compressive Strength (Qu) of at least 1.25 tsf, which must be determined by previous soil investigations at the jobsite. When other conditions are indicated, the boring data will be included in the plans and the foundation dimensions shown in the Foundation Data Table will be the result of site specific designs.

If the conditions encountered are different than those indicated, the Contractor shall notify the Engineer to determine if the foundation dimensions need to be modified. If dimensions "B" or "F" are revised by more than 12" by the Contractor, "as-built" plans shall be prepared and submitted to the District Bureau of Operations for future reference.

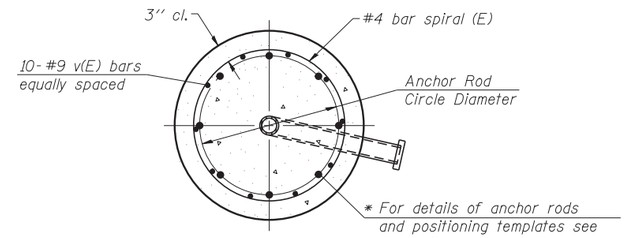
No sonotubes or decomposable forms shall be used below the lower conduit entrance. Permanent metal forms or other shielding may not be left in place below that elevation without the Engineer's written permission.

Concrete shall be placed monolithically, without construction joints.

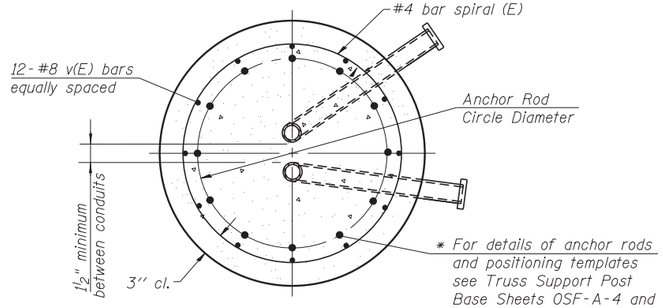
Backfill shall be placed per Article 502 of Standard Specification and prior to erection of support column.

A normal surface finish followed by a Bridge Seat Sealer application will be required on concrete surfaces above the lowest elevation 6" below finished ground line. Cost included in "Drilled Shaft Concrete Foundation".

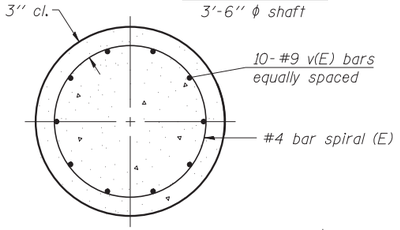
The cost of the steel conduit, ground rod, and other electrical hardware in included in "Drilled Shaft Concrete Foundations".



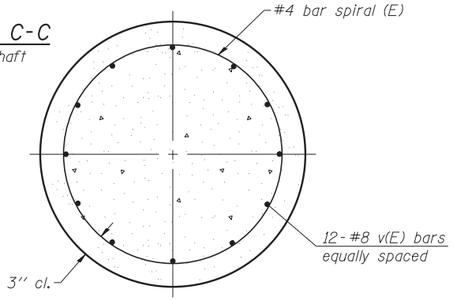
SECTION A-A
3'-0" ϕ shaft



SECTION B-B
3'-6" ϕ shaft



SECTION C-C
3'-0" ϕ shaft



SECTION D-D
3'-6" ϕ shaft

FOUNDATION DESIGN TABLE

Truss Type	Post Base Sheet	Maximum CantileverLength (ft)	Maximum Total Sign Area (sq ft)	Shaft Diameter (in)	"B" Depth (ft)	Anchor Rods No.	Anchor Rods Diameter (in)	Anchor Rod Circle Diameter (in)
I-F-A	OSF-A-4	25	200	3.0	17'-6"	8	2	22
II-F-A	OSF-A-5	30	400	3.5	22'-0"	12	2	30
III-F-A	OSF-A-5	35	400	3.5	24'-0"	12	2	30

FOUNDATION DATA TABLE

Structure Number	Station	Truss Type	Shaft Diameter	Elevation Top	Elevation Bottom	A	B	F	Class DS Concrete Cubic Yards
1F016U045R004.9	58+85	III-F-A	3'-6"	646.84	620.59	2'-3"	24'-0"	26'-3"	9.4

HNTB

USER NAME = lkalita	DESIGNED PCA	REVISED
	CHECKED MRI MRI	REVISED
PLOT SCALE = 0.083333:1	DRAWN LK	REVISED
PLOT DATE = 09-OCT-2012	DATE 10/1[illegible] MRI	REVISED

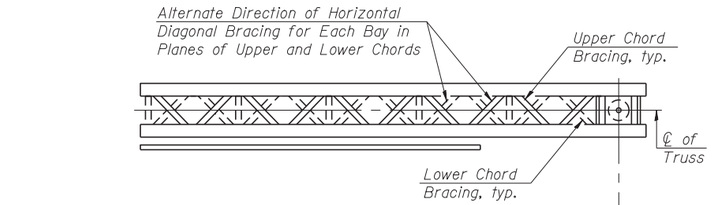
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BUTTERFLY SIGN STRUCTURES – DRILLED SHAFT
ALUMINUM TRUSS & STEEL POST

SHEET NO. S-10 OF 10 SHEETS

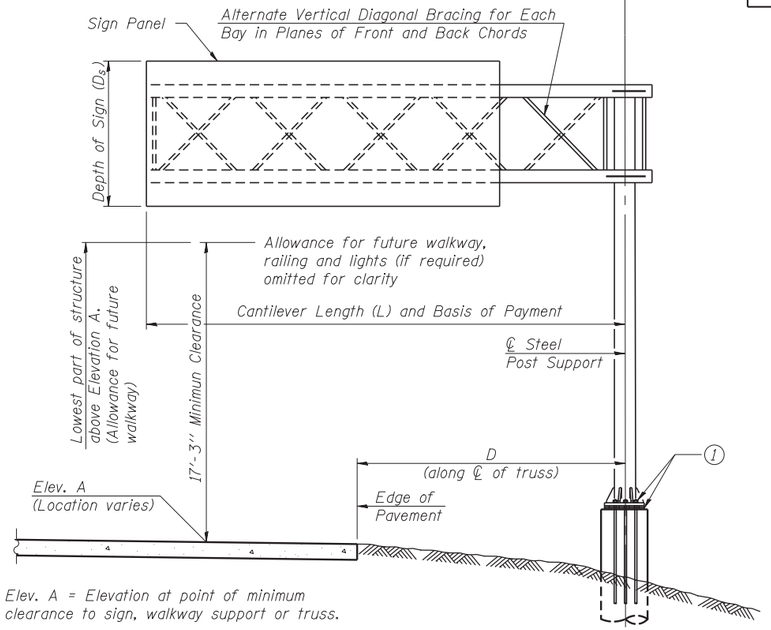
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	233
		CONTRACT NO. 60G37		
		ILLINOIS FED. AID PROJECT		

FILE NAME = IP_PWP:dms47844\D160G37-OSF-A-9_S31.dgn



TYPICAL PLAN

(Walkway not shown)



Elev. A = Elevation at point of minimum clearance to sign, walkway support or truss.

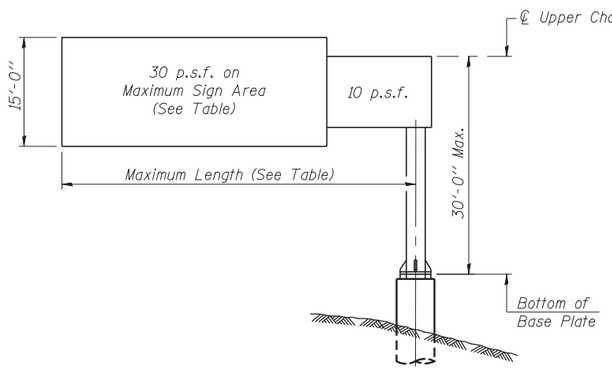
TYPICAL ELEVATION

Looking in Direction of Traffic

Sign support structures may be subject to damaging vibrations and oscillations when sign panels are not in place during erection or maintenance of the structure. To avoid these vibrations and oscillations, consideration should be given to attaching temporary blank sign panels to the structure.

Structure Number	Station	Design Truss Type	Cantilever Length (L)	Elev. A	Dim. D	D_s	Total Sign Area
IC016U045R004.6	46+50	III-C-A	32'-0"	651.42	30'-0"	12'-0"	354 SF
IC016U045L005.4	86+50	III-C-A	35'-0"	643.12	35'-0"	10'-0"	180 SF

Truss Type	Maximum Sign Area	Maximum Length
I-C-A	170 Sq. Ft.	25 Ft.
II-C-A	340 Sq. Ft.	30 Ft.
III-C-A	400 Sq. Ft.	40 Ft.



DESIGN WIND LOADING DIAGRAM

Parameters shown are basis for I.D.O.T. Standards Installations not within dimensional limits shown require special analysis for all components.

Note:
Trusses shall be shipped individually with adequate provision to prevent detrimental motion during transport. This may require ropes between horizontals and diagonals or energy dissipating (elastic) ties to the vehicle. The contractor is responsible for maintaining the configuration and protection of the trusses.

(1) After adjustments to level truss and insure adequate vertical clearance, all top and leveling nuts shall be tightened against the base plate with a minimum torque of 200 lb.-ft. Stainless steel mesh shall then be placed around the perimeter of the base plate. Secure to base plate with stainless steel banding.

* If M270 Gr. 50W (M222) steel is proposed, chemistry for plate to be used shall first be approved by the Engineer as suitable for galvanizing and welding.

GENERAL NOTES

DESIGN: AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals. ("AASHTO Specifications")

CONSTRUCTION: Current (at time of letting) Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, Supplemental Specifications and Special Provisions. ("Standard Specifications")

LOADING: 90 M.P.H. WIND VELOCITY

WALKWAY LOADING: Dead load plus 500 lbs. concentrated live load.

DESIGN STRESSES:
Field Units
f'_c = 3,500 p.s.i.
fy = 60,000 p.s.i. (reinforcement)

WELDING: All welds to be continuous unless otherwise shown. All welding to be done in accordance with current AWS D1.1 and D1.2 Structural Welding Codes (Steel and Aluminum) and the Standard Specificiations.

MATERIALS: Aluminum Alloys as shown throughout plans. All Structural Steel Pipe shall be ASTM A53 Grade B or A500 Grade B or C. If A500 pipe is substituted for A53, then the outside diameter shall be as detailed and wall thickness greater than or equal to A53.
All Structural Steel Plates and Shapes shall conform to AASHTO M270 Gr. 36, Gr. 50 or Gr. 50W*. Stainless steel for shims, sleeves and handhole covers shall be ASTM A240, Type 302 or 304, or another alloy suitable for exterior exposure and acceptable to the Engineer.
The steel pipe and stiffening ribs at the base plate for the column shall have a minimum longitudinal Charpy V-Notch (CVN) energy of 15 lb.-ft. at 40° F. (Zone 2) before galvanizing.

FASTENERS FOR ALUMINUM TRUSSES: All bolts noted as "high strength" must satisfy the requirements of AASHTO M164 (ASTM A325), or approved alternate, and must have matching lock nuts. Threaded studs for splices (if Members interfere) must satisfy the requirements of ASTM A449, ASTM A193, Grade B7, or approved alternate, and must have matching lock nuts. Bolts and lock nuts not required to be high strength must satisfy the requirements of ASTM A307. All bolts and lock nuts must be hot dip galvanized per AASHTO M232. The lock nuts must have nylon or steel inserts. A stainless steel flat washer conforming to ASTM A240 Type 302 or 304, is required under both head and nut or under both nuts where threaded studs are used. High strength bolt installation shall conform to Article 505.04 (f) (2)d of the IDOT Standard Specifications for Road and Bridge Construction. Rotational capacity ("ROCAP") testing of bolts will not be required.

U-BOLTS AND EYEBOLTS: U-Bolts and Eyebolts must be produced from ASTM A276 Type 304, 304L, 316 or 316L, Condition A, cold finished stainless steel, or an equivalent material acceptable to the Engineer. All nuts for U-Bolts and Eyebolts must be lock nuts equivalent to ASTM A307 with nylon or steel inserts and hot dip galvanized per AASHTO M232. A stainless steel flat washer conforming to ASTM A240, Type 302 or 304, is required under each U-Bolt and Eyebolt lock nut.

GALVANIZING: All Steel Grating, Plates, Shapes and Pipe shall be Hot Dip Galvanized after fabrication in accordance with AASHTO M111. Painting is not permitted.

ANCHOR RODS: Shall conform to ASTM F1554 Gr. 105.

CONCRETE SURFACES: All concrete surfaces above an elevation 6" below the lowest final ground line at each foundation shall be cleaned and coated with Bridge Seat Sealer in accordance with the Standard Specifications.

REINFORCEMENT BARS: Reinforcement Bars designated (E) shall be epoxy coated in accordance with the Standard Specifications.

FOUNDATIONS: The contract unit price for Drilled Shaft Concrete Foundations shall include reinforcement bars complete in place.

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
OVERHEAD SIGN STRUCTURE CANTILEVER TYPE I-C-A	Foot	---
OVERHEAD SIGN STRUCTURE CANTILEVER TYPE II-C-A	Foot	---
OVERHEAD SIGN STRUCTURE CANTILEVER TYPE III-C-A	Foot	67.00
OVERHEAD SIGN STRUCTURE WALKWAY, TYPE A	Foot	---
DRILLED SHAFT CONCRETE FOUNDATIONS	Cu. Yds.	22.4

HNTB

USER NAME = lkalita	DESIGNED PCA	REVISED
	CHECKED MRI	REVISED
PLOT SCALE = 0.083333:1	DRAWN LK	REVISED
PLOT DATE = 09-OCT-2012	DATE 10/19/12	REVISED

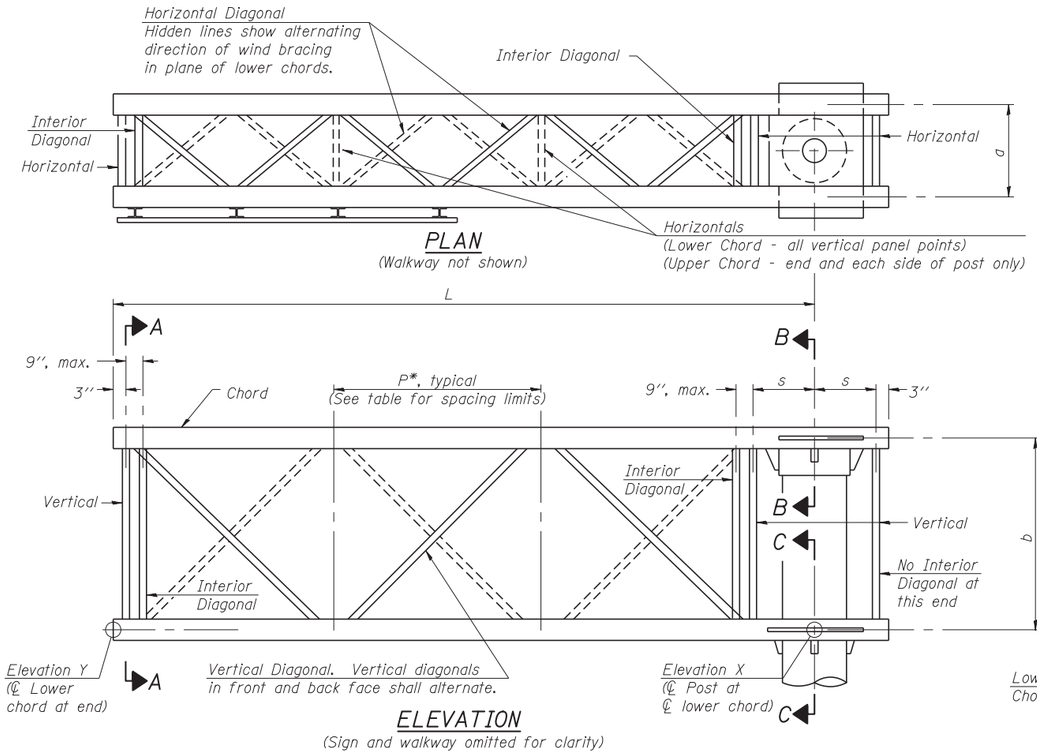
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CANTILEVER SIGN STRUCTURES – GENERAL PLAN & ELEVATION
ALUMINUM TRUSS & STEEL POST

SHEET NO. S-1 OF 8 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	234
		CONTRACT NO. 60G37		
	ILLINOIS FED. AID PROJECT			

FILE NAME = IP_PWP:dms47844\D160G37-OSC-A-1_S01.dgn



TYPICAL TRUSS UNIT

For Section B-B and Section C-C, see Base Sheet OSC-A-3.

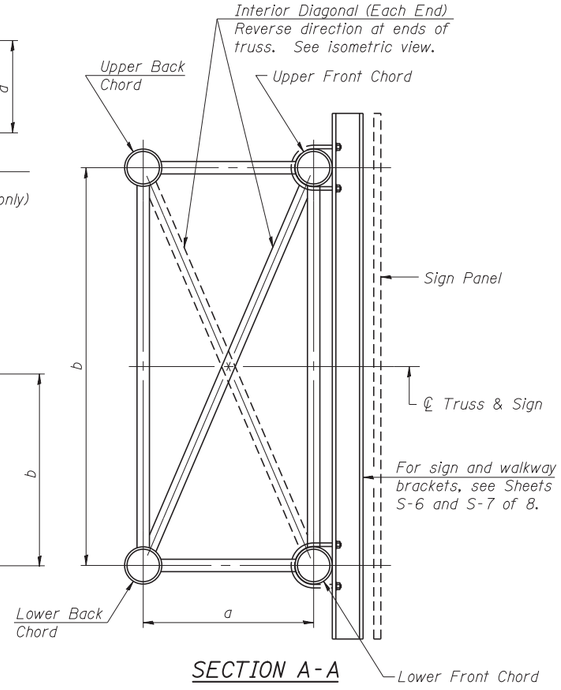
Note:
There are twice as many horizontal diagonals as there are vertical diagonals.

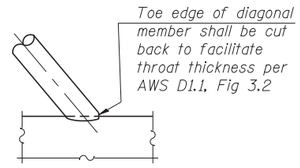
TRUSS UNIT TABLE

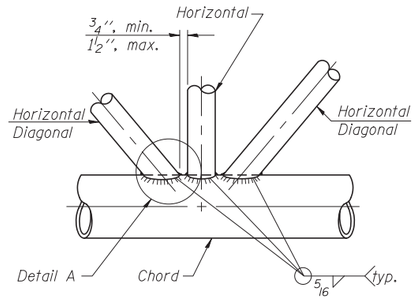
Truss Type	Dimension "a"	Dimension "b"	Dimension "s"	Limits for Panel Spacing (P)*	Up. & Low. Chord		Verticals; Horizontals; Vertical, Horizontal, and Interior Diagonals	
					O.D.	Wall	O.D.	Wall
I-C-A	24''	54''	16''	36'' min. to 48'' max.	5''	5/16''	2 1/2''	5/16''
II-C-A	36''	66''	21''	42'' min. to 54'' max.	6 1/2''	5/16''	3 1/4''	5/16''
III-C-A (35' Max.)	36''	84''	21''	48'' min. to 66'' max.	7''	3/8''	3 1/2''	3/8''
III-C-A (>35' to 40')	36''	84''	21''	48'' min. to 66'' max.	8''	3/8''	3 1/2''	3/8''

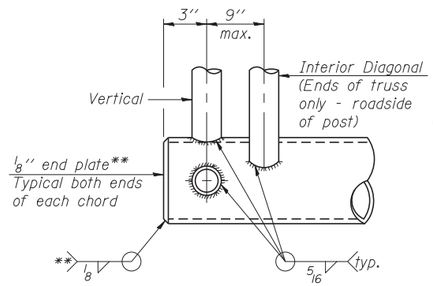
$$*P = \frac{L - s - 3''}{\#\ Panels}$$

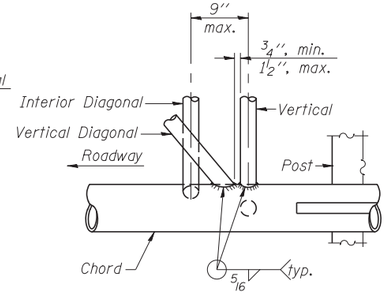
Structure Number	Station	Truss Type	Design Length (L)	Number of Panels Per Unit	Panel Length (P)*
IC016U045R004.6	46+50	III-C-A	32'-0"	6	5'-0"
IC016U045L005.4	86+50	III-C-A	35'-0"	6	5'-6"

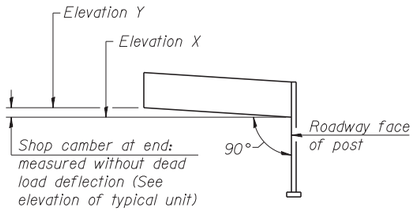






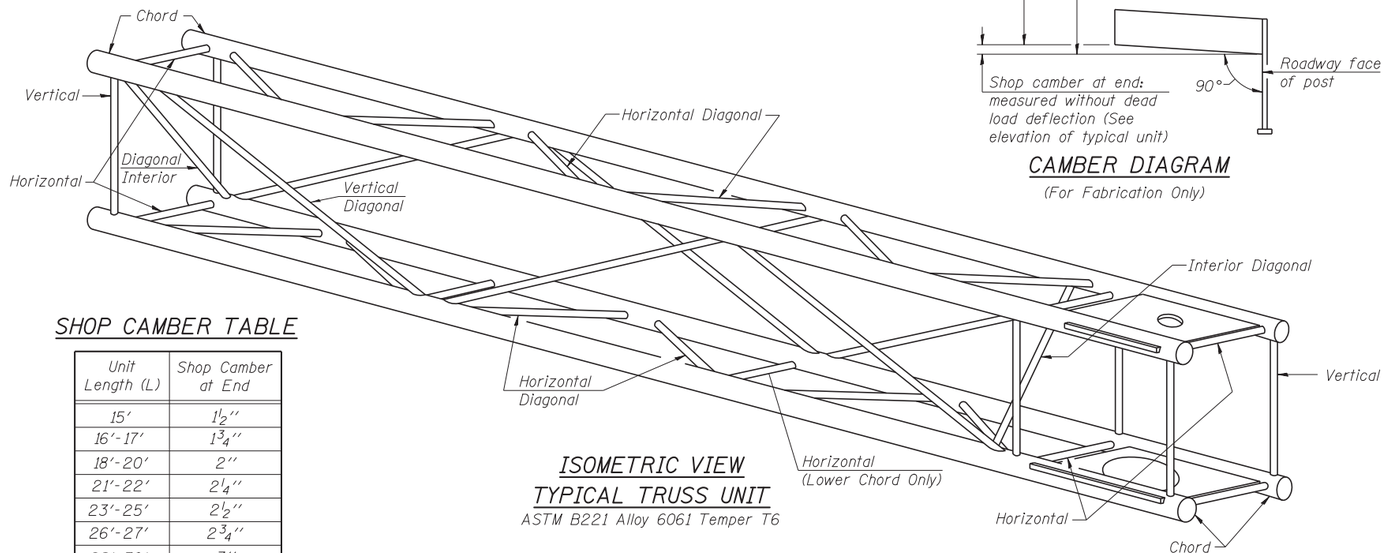






SHOP CAMBER TABLE

Unit Length (L)	Shop Camber at End
15'	1 1/2''
16'-17'	1 3/4''
18'-20'	2''
21'-22'	2 1/4''
23'-25'	2 1/2''
26'-27'	2 3/4''
28'-30'	3''
31'-32'	3 1/4''
33'-35'	3 1/2''
36'-37'	4''
38'-40'	4 1/2''



OSC-A-2 9-15-11

HNTB	USER NAME = lkalita	DESIGNED PCA	REVISED
		CHECKED MRI	REVISED
	PLOT SCALE = 0.083333:1	DRAWN LK	REVISED
	PLOT DATE = 09-OCT-2012	DATE 10/19/12	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CANTILEVER SIGN STRUCTURES – TRUSS DETAILS
ALUMINUM TRUSS & STEEL POST
SHEET NO. S-2 OF 8 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	235
		CONTRACT NO. 60G37		
	ILLINOIS	FED. AID PROJECT		

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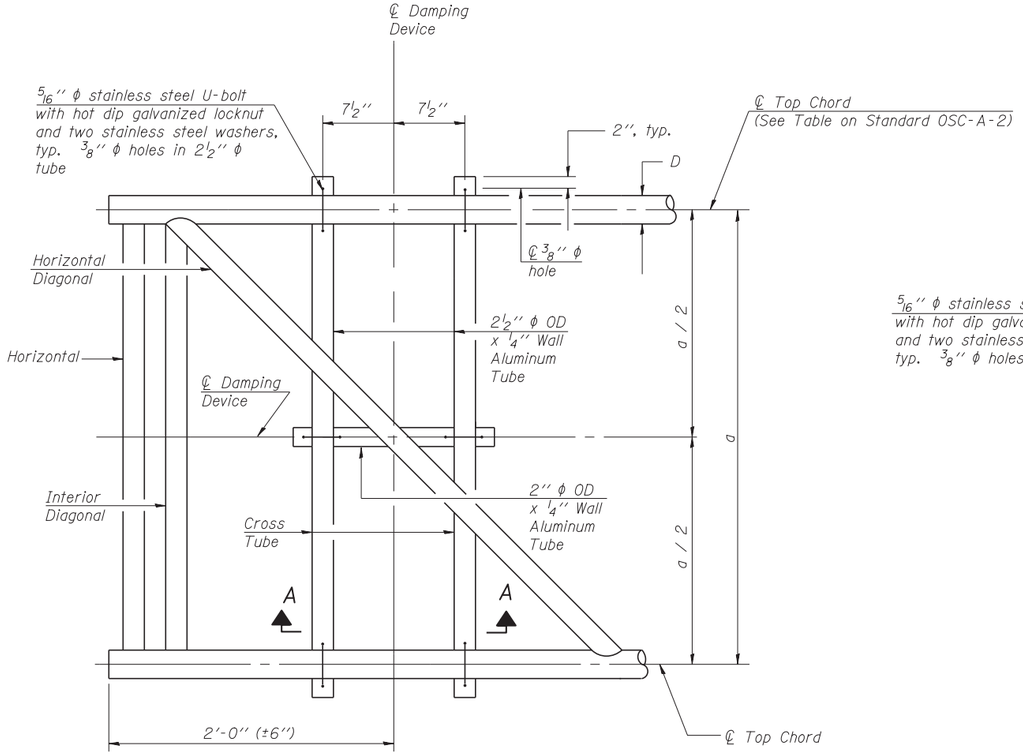
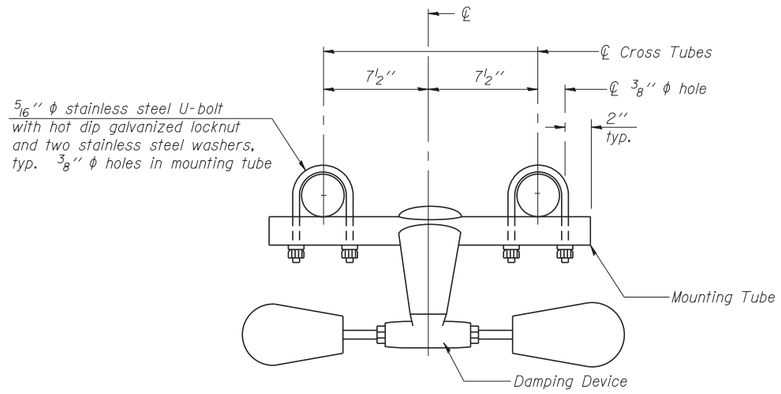
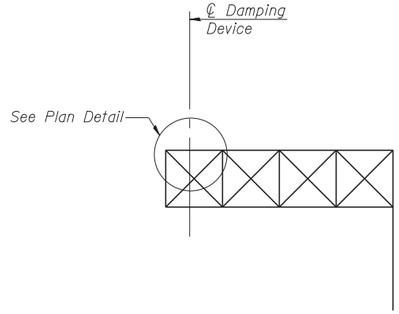


PLAN DETAIL



TRUSS DAMPING DEVICE CONNECTION DETAIL



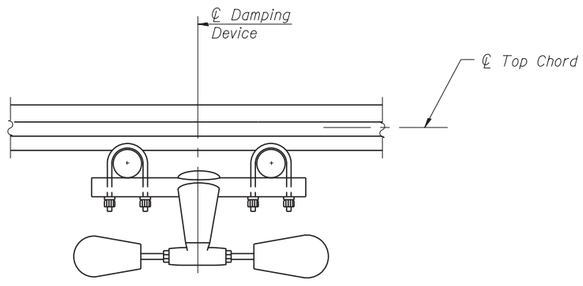
ELEVATION

Aluminum Cantilever Sign Structure

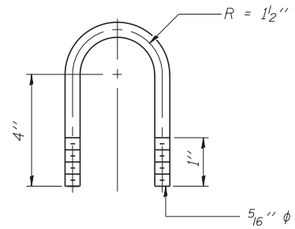
GENERAL NOTES

Damper: One damper per truss. (31 lbs. Stockbridge-Type Aluminum-29″ minimum between ends of weights)

Materials: Aluminum tubes shall be ASTM B221 alloy 6061 temper T6

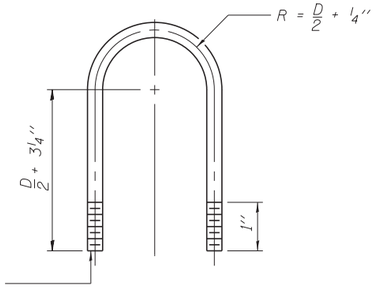


SECTION A-A



DAMPING DEVICE MOUNTING TUBE U-BOLT DETAIL

(Typical)



TOP CHORD TO CROSS TUBE U-BOLT DETAIL

(Typical)

OSC-A-D 9-15-11

HNTB	USER NAME = lkalita	DESIGNED PCA	REVISED
		CHECKED MRI	REVISED
	PLOT SCALE = 0.083333:1	DRAWN LK	REVISED
	PLOT DATE = 09-OCT-2012	DATE 10/19/12	REVISED

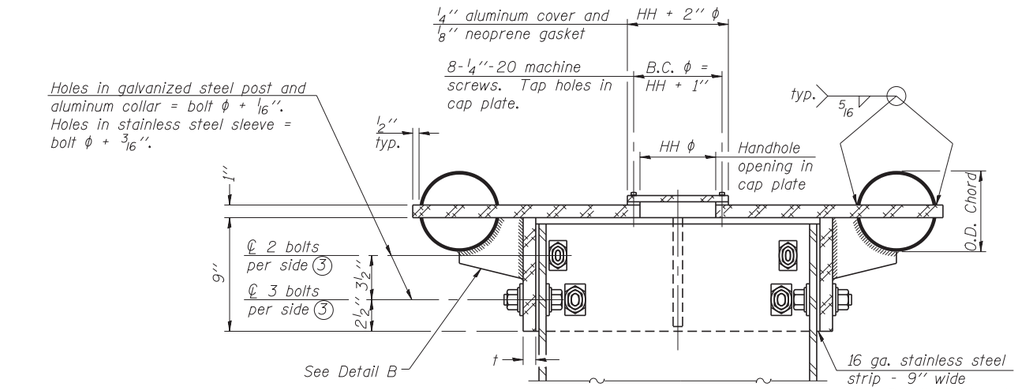
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CANTILEVER SIGN STRUCTURE
DAMPING DEVICE

SHEET NO. S-3 OF 8 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	236
		CONTRACT NO. 60G37		
		ILLINOIS	FED. AID PROJECT	

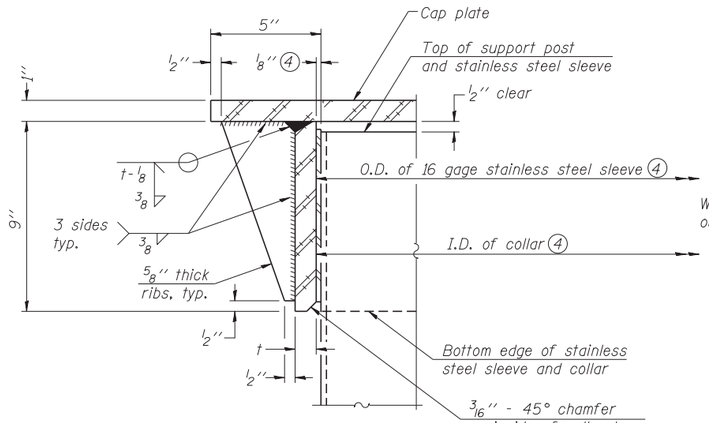
FILE NAME = IP_PWP:dms47844\D160G37-OSC-A-D_S03.dgn



SECTION B-B

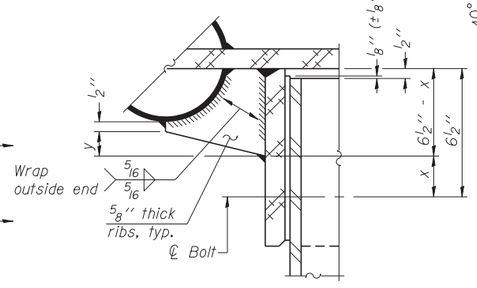
Bolts, washers (including contoured washers), and locknuts shall be stainless steel.

(4) Collar I.D. shall be manufactured to correspond to O.D. of actual galvanized post and stainless steel sleeve plus 1/8'' (±1/16''). Maximum gap between post and collar at any location equals 1/8'' before tightening bolts.



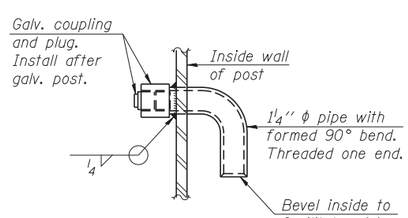
DETAIL A

(Two locations)

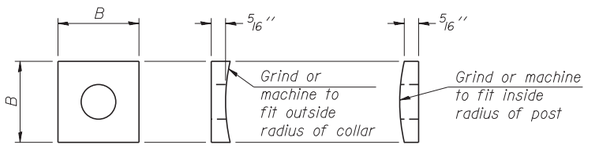


DETAIL B

Two locations
(For details not shown, see Detail C)

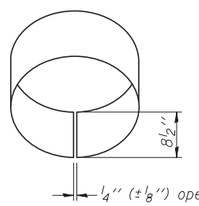


DETAIL D



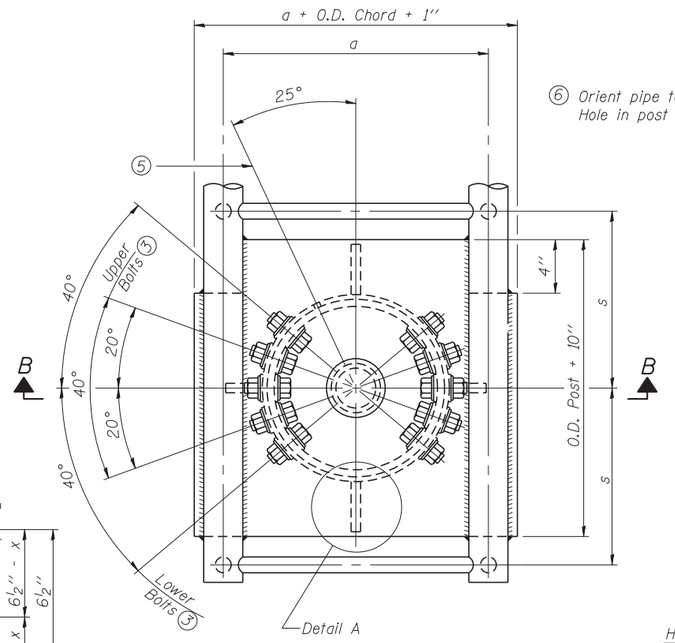
CONTOURED WASHERS

Bolt Size	Contoured Washers	
	Hole Dia.	B
7/8''	1''	2 1/2''
1''	1 1/8''	3''
1 1/4''	1 3/8''	3 1/4''



DETAIL OF STAINLESS STEEL SLEEVE

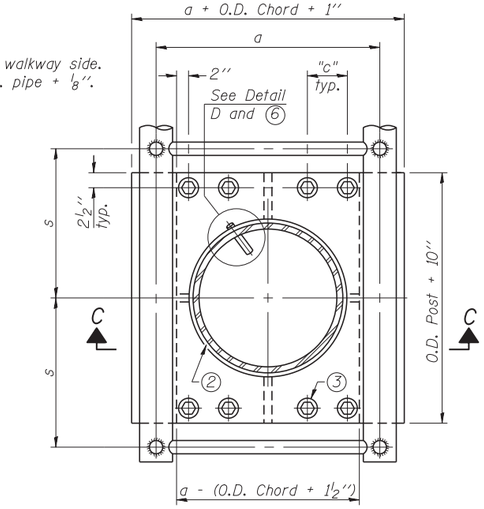
Weld to post after galvanizing.
(Prepare post surface to insure tight, uniform fit and allow welding.)
Welds to be 1 1/2'' long at 6'' cts. along top edge and at 1/4'' opening.



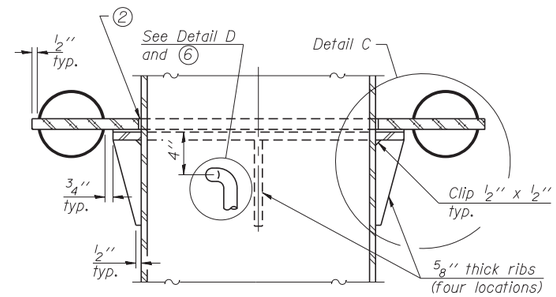
PLAN VIEW - TOP OF COLUMN

(5) Optional full penetration weld in collar.
(Two locations maximum....(180° apart)....X-ray or UT 100%)

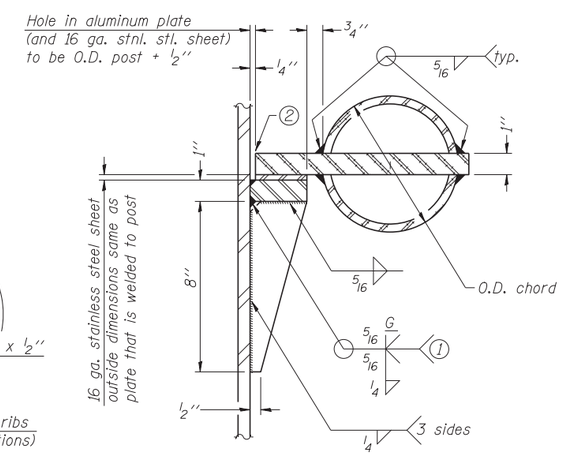
(6) Orient pipe toward walkway side. Hole in post = O.D. pipe + 1/8''.



SECTION THRU POST ABOVE LOWER CHORDS



SECTION C-C



DETAIL C

Truss Type	Post Size	Upper & Lower Connection Bolt Diameter (3)	Lower Juncture Bolt Spacing Dimension "c" (3)	Opening in Cap Plate "HH"	Collar Thickness (t)	Side Ribs	
						x	y
I-C-A	16'' ϕ (83#/')	7/8''	3 1/4''	8''	5/8''	1 3/4''	2 1/4''
II-C-A	24'' ϕ (125#/')	1''	3 1/2''	12''	7/8''	2''	1 1/4''
III-C-A (35' max.)	24'' ϕ (125#/')	1 1/4''	3 1/2''	12''	7/8''	2''	1''
III-C-A (>35' to 40')	24'' ϕ (171#/')	1 1/4''	3 1/2''	12''	7/8''	2''	1''

(1) Grind top if required to fully seat aluminum plate and stainless steel sheet.

(2) After tightening lower connection bolts, fill gap with non-hardening, silicone caulk suitable for exterior exposure and acceptable to the Engineer. Cost is included in Overhead Sign Structure Cantilever.

(3) Upper and lower connection bolts in collar and bolts at lower chord connection shall be high strength with matching locknuts. Connection bolts shall have 2 stainless steel flat washers each.

OSC-A-3 9-15-11

HNTB

USER NAME = lkalita	DESIGNED PCA	REVISED
	CHECKED MRI	REVISED
PLOT SCALE = 0.083333:1	DRAWN LK	REVISED
PLOT DATE = 09-OCT-2012	DATE 10/19/12	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CANTILEVER SIGN STRUCTURES – JUNCTURE DETAILS
ALUMINUM TRUSS & STEEL POST
SHEET NO. S-4 OF 8 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	237
		CONTRACT NO. 60G37		
	ILLINOIS FED. AID PROJECT			

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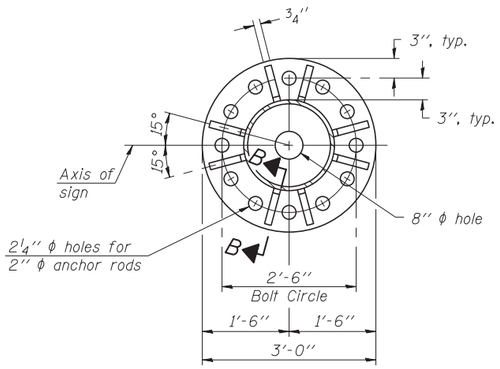
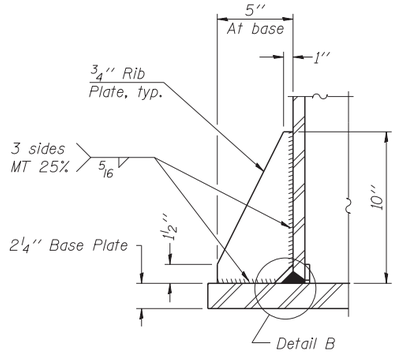
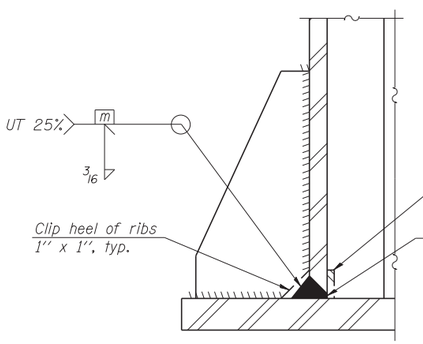


SECTION A-A

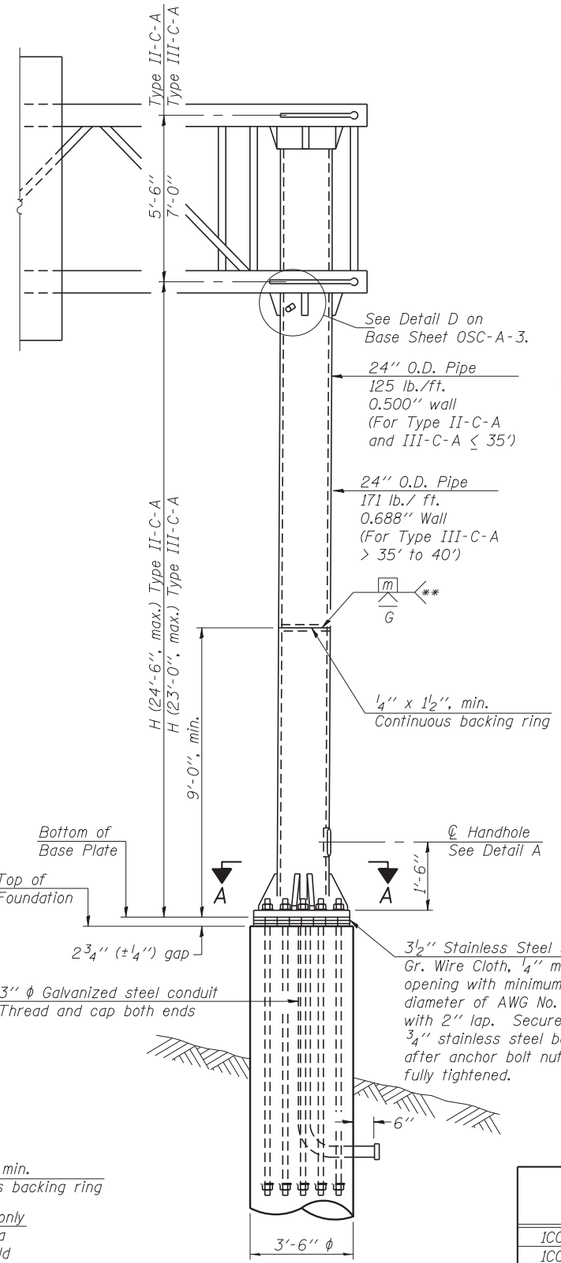


SECTION B-B



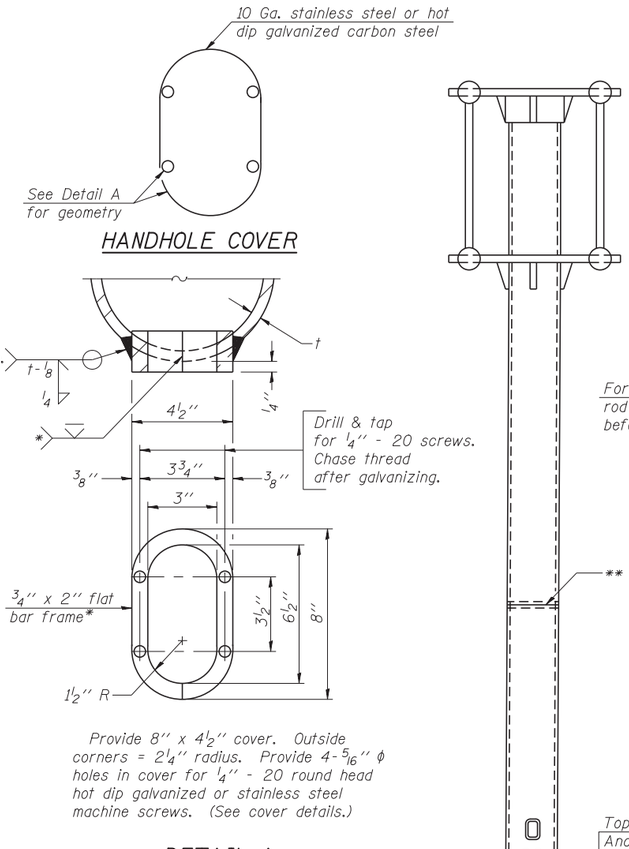
DETAIL B

(Typical rib)



FRONT ELEVATION

For Foundation Details see Base Sheet OSC-A-9.



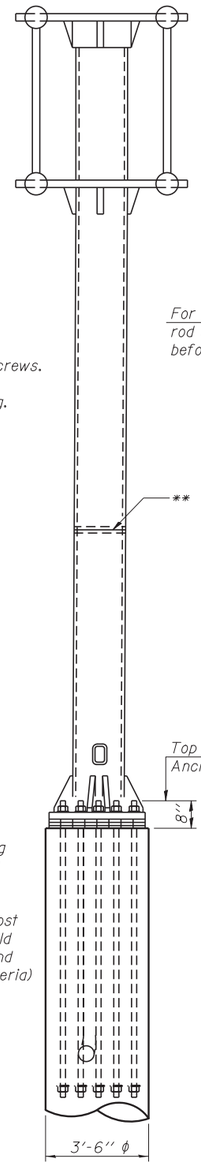
HANDHOLE COVER

Provide 8'' x 4 1/2'' cover. Outside corners = 2 1/4'' radius. Provide 4 - 5/16'' ϕ holes in cover for 1/4'' - 20 round head hot dip galvanized or stainless steel machine screws. (See cover details.)

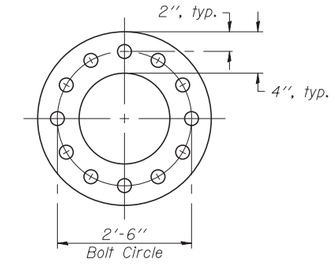
DETAIL A

* Bent bars may be butt welded top and bottom or bottom only. In lieu of fabricated handhole frame as shown, may cut from 2'' plate (rolling direction vertical). All cut faces to be ground to ANSI Roughness of 500 μin or less.

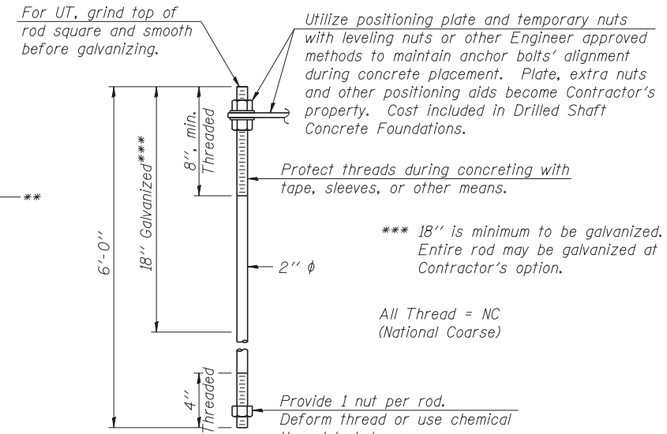
** Butt welded joint in post is only allowed for post heights (H) over 20 ft. in length. If used, weld procedure must be preapproved by Engineer and joint shall receive 100% RT or UT (tension criteria) at Contractor's expense.



SIDE ELEVATION



SUGGESTED POSITIONING PLATE



ANCHOR ROD DETAIL

Anchor rods shall conform to ASTM F1554 Grade 105. Galvanize the upper 18'' (minimum***) and associated AASHTO M291, Grade A, C or DH heavy hex nuts and hardened washers per AASHTO M232. No welding shall be permitted on rods. Provide a nut at bottom, a hexagon locknut and washer above base plate and a leveling nut and washer below base plate. Nuts shall each be tightened with 200 lb.-ft. minimum torque against base plate. Before or after threading, but before galvanizing, each anchor rod shall be ultrasonically tested (UT) by a Level II or III inspector, qualified in accord with ANSI guidelines, to insure no rejectable flaws exist in the upper 18'' (tension criteria). Cost of testing included in Drilled Shaft Concrete Foundations.

Structure Number	Station	H
1C016U045R004.6	46+50	21'-11 5/8"
1C016U045L005.4	86+50	20'-0 7/8"

Note: "H" based on 15'-0'' or actual sign height, whichever is greater.

OSC-A-5 9-15-11

HNTB

USER NAME = lkalita	DESIGNED PCA	REVISED
	CHECKED MRI	REVISED
PLOT SCALE = 0.083333:1	DRAWN LK	REVISED
PLOT DATE = 09-OCT-2012	DATE 10/19/12	REVISED

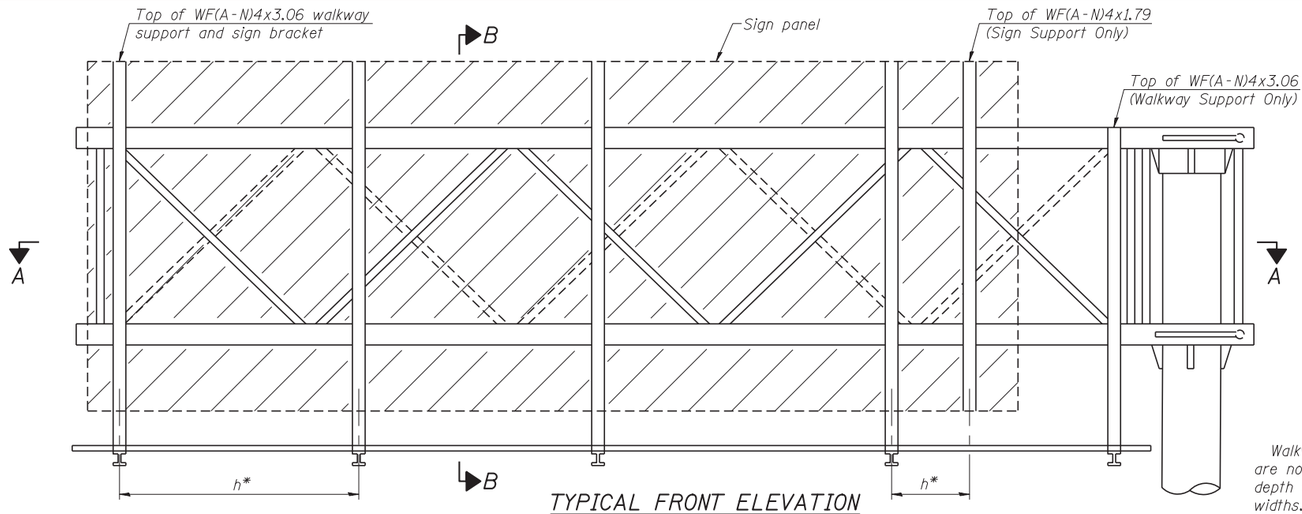
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CANTILEVER SIGN STRUCTURES – TYPE II-C-A & III-C-A
TRUSS SUPPORT POST – ALUMINUM TRUSS & STEEL POST

SHEET NO. S-5 OF 8 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	238
		CONTRACT NO. 60G37		
	ILLINOIS FED. AID PROJECT			

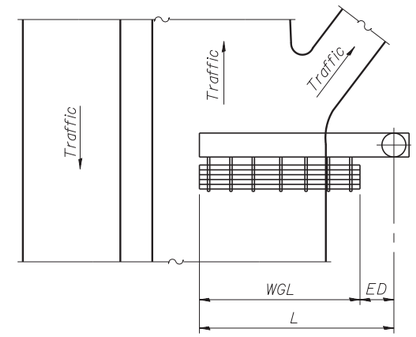
FILE NAME = IP_PWP:dms47844\D160G37-OSC-A-5_S06.dgn



TYPICAL FRONT ELEVATION

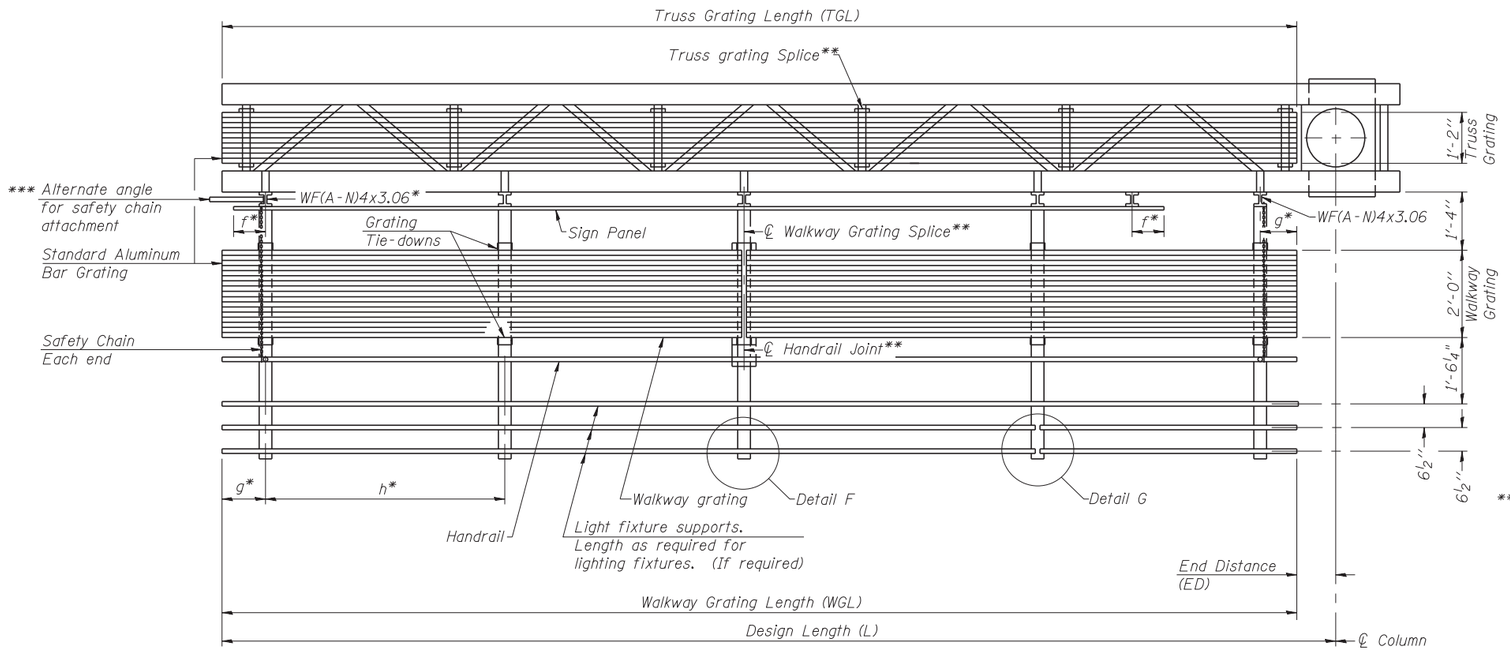
With lights and handrail omitted for clarity.

Walkway and truss grating dimensions are nominal and may vary (width ±½", depth ±½") based on available standard widths.



PLAN
WALKWAY AND HANDRAIL SKETCH

(Road plan beneath truss varies)



Structure Number	Station	WGL	ED	TGL
IC016U045R004.6	46+50	---	---	30'-6"
IC016U045L005.4	86+50	---	---	33'-6"

IC016U045L005.4

Notes:

* Space walkway brackets WF(A-N)4x3.06 and sign brackets WF(A-N)4x1.79 for efficiency and within limits shown:

f = 12" maximum, 4" minimum (End of sign to ℄ of nearest bracket)
g = 12" maximum, 4" minimum (End of walkway to ℄ of nearest bracket)
h = 6'-0" maximum (℄ to ℄ sign and/or walkway support brackets, WF(A-N)4x1.79 or WF(A-N)4x3.06)

*** If walkway bracket at safety chain location is behind sign, add angle to bracket. See alternate safety chain attachment on base sheet OSC-A-8

For details of sign placement, sign/walkway brackets, truss and walkway gratings, grating splices and Section B-B, see Sheet S-7 of 8.
For details of handrail, handrail joint, safety chain and Details F and G, see Base Sheet OSC-A-8.

SECTION A-A

Truss grating to facilitate inspection shall run full length of cantilevers. Cost of truss grating is included in Overhead Sign Structure Cantilever.

Handrail and walkway grating shall span a minimum of three brackets between splices.
** Use and location of handrail joints or grating splices are optional, based on lengths needed and material availability.

$$TGL = L - \left(\frac{\text{Post O.D.}}{2} + 6''\right)$$

BRACKET TABLE

WF(A-N)4x1.79 or WF(A-N)4x3.06
ASTM B308, Alloy 6061-T6

Sign Width		Number Brackets Required
Greater Than	Less Than or Equal To	
	8'-0"	2
8'-0"	14'-0"	3
14'-0"	20'-0"	4
20'-0"	26'-0"	5
26'-0"	32'-0"	6

Walkways are not required. This sheet is included to show, in the elevation view, the location of where Section B-B on Sheet S-7 of 8 is cut for the sign support/truss grating details.

HNTB

USER NAME = lkalita	DESIGNED PCA	REVISED
	CHECKED MRI	REVISED
PLOT SCALE = 0.083333:1	DRAWN LK	REVISED
PLOT DATE = 09-OCT-2012	DATE 10/19/12	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CANTILEVER SIGN STRUCTURES – ALUMINUM WALKWAY
DETAILS – ALUMINUM TRUSS & STEEL POST

SHEET NO. S-6 OF 8 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	239
		CONTRACT NO. 60G37		
	ILLINOIS FED. AID PROJECT			

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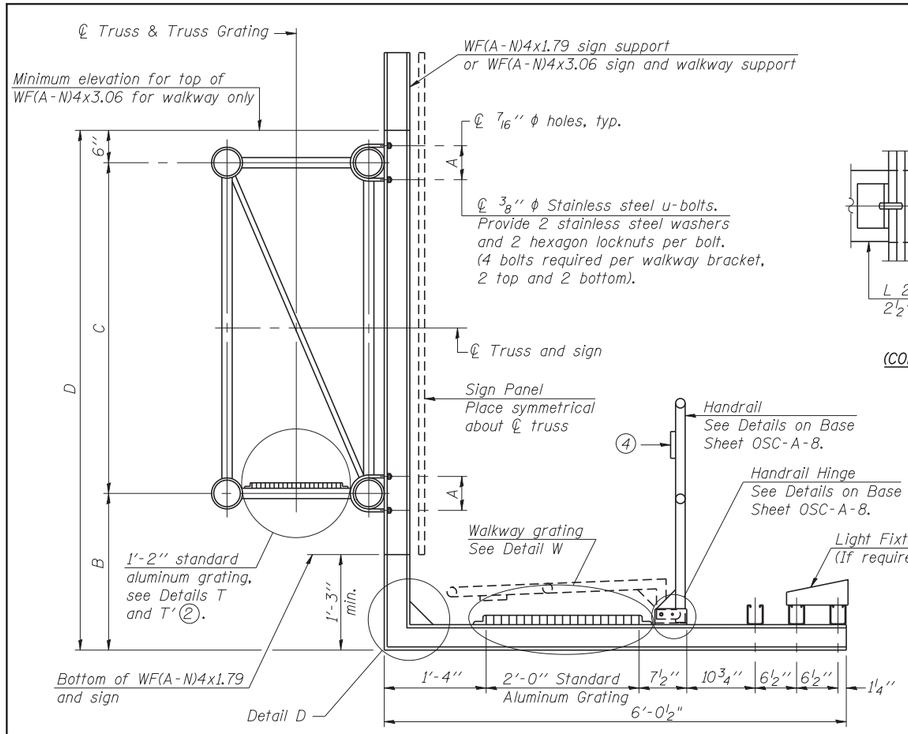
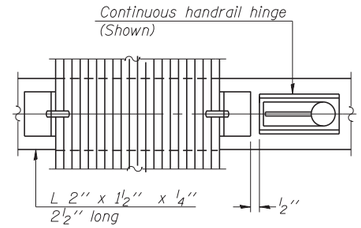
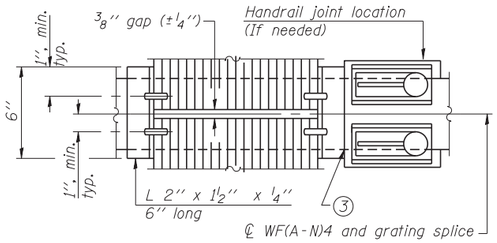


SECTION B-B

Sign shall be even with the top of the bracket, but it may extend no more than 6" above the top of the bracket for field adjustments.

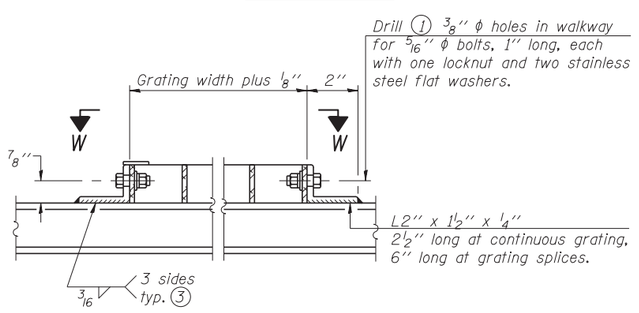


(CONTINUOUS WALKWAY GRATING)



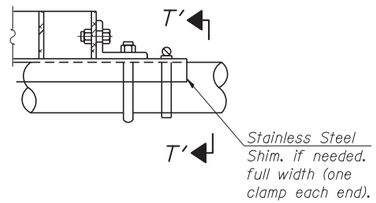
(AT WALKWAY GRATING SPLICE)

SECTION W-W



DETAIL W

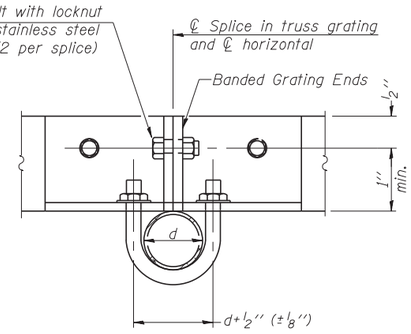
(Walkway grating)



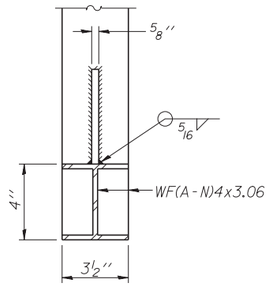
DETAIL T'

(Truss grating splice)

Details not shown same as Detail T. Alternate materials may be used subject to the Engineer's review and approval.

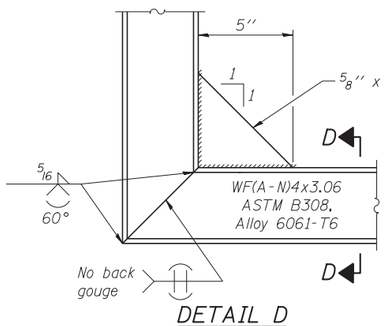


SECTION T'-T'



SECTION D-D

SECTION T-T



DETAIL T

(Continuous Truss grating)

DETAIL D

Structure Number	Station	A	(6) B	C	(6) D
IC016U045R004.6	46+50	7 3/8"	---	7'-0"	---
IC016U045L005.4	86+50	7 3/8"	---	7'-0"	---

SPECIFICATIONS FOR STANDARD ALUMINUM GRATING

Main Bearing Bars (MBB) shall be 3/16" x 1 1/2" on 1 3/16" centers and conform to ASTM B211 Alloy 6061-T6.

Cross bars (CB) shall be 3/16" x 1 1/2" on 4" centers and conform to ASTM B221 Alloy 6063-T5 or 6061-T6.

OR

Aluminum Grating with modified "T" sections for main bearing bars shall meet the following requirements:

Main bars shall conform to ASTM B221 Alloy 6061-T6 and have a minimum section modulus equal to 0.0705 in.³ per bar, a depth of 1 1/2", spaced on 1 3/16" centers.

Cross bars shall conform to ASTM B221 Alloy 6063-T5 or T-42 and spaced on 4" centers.

SHIM DETAIL

(1) Drilling holes in grating may be done in shop or field, based on Contractor's preference and subject to accurate alignment.

(2) Stainless steel shims shall be placed as shown in Detail T if needed to compensate for alignment variations between horizontal and diagonal pipes beyond adjustment provided by angles. Thicker shims may be used subject to shims performing properly.

(3) If Handrail Joint present, weld angle to WF(A-N)4 and 1/4" extension bars. (See Base Sheet OSC-A-8.)

(4) ℄ 1/8" x 1/2" x 2" welded to handrail posts to protect locations that contact grating.

(5) Tube to grating gap may vary from 0 to 1/2", max. to align walkway, allow for camber, etc.

(6) Based on actual sign height, D_S, given on Sheet S-1 of 8..

Walkways are not required. This sheet is included to show, in Section B-B, the sign support/truss connection details.

HNTB

USER NAME = lkalita	DESIGNED PCA	REVISED
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PLOT SCALE = 0.083333:1	DRAWN LK	REVISED
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

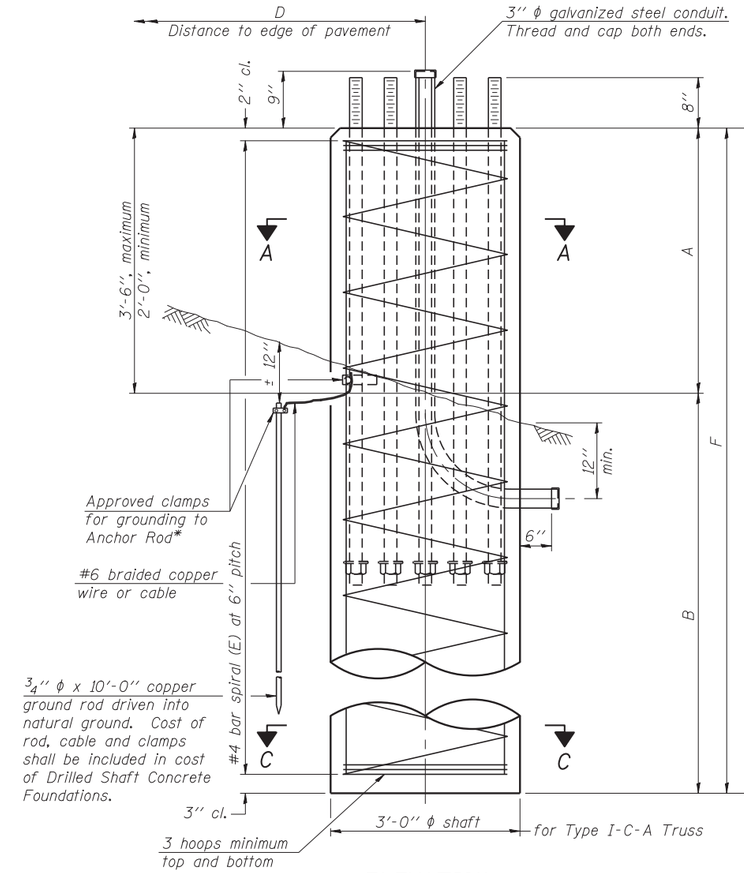
CANTILEVER SIGN STRUCTURES – WALKWAY DETAILS
ALUMINUM TRUSS & STEEL POST

SHEET NO. S-7 OF 8 SHEETS

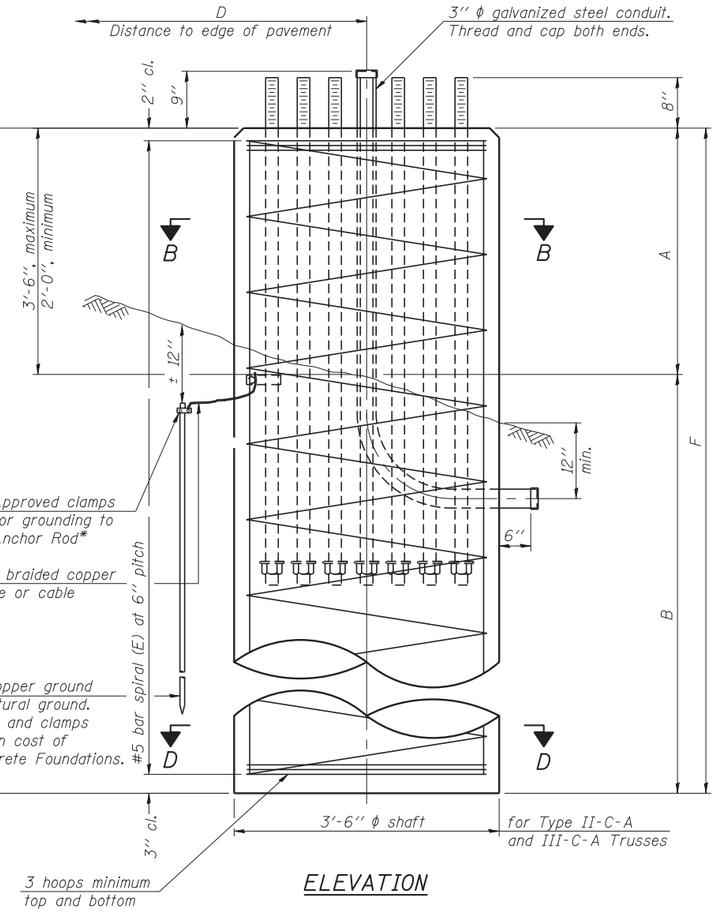
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	240
		CONTRACT NO. 60G37		
	ILLINOIS	FED. AID PROJECT		

FILE NAME = IP_PWP:dms47844\D160G37-OSC-A-7_S08.dgn

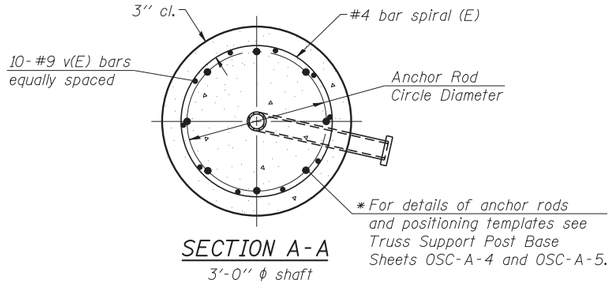
* Grind anchor rod to bright finish at ground clamp location before installing clamp.



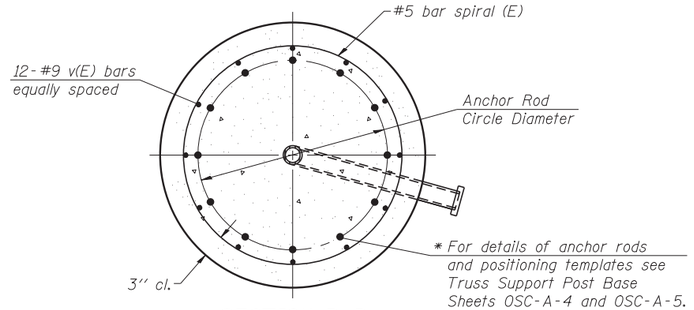
ELEVATION



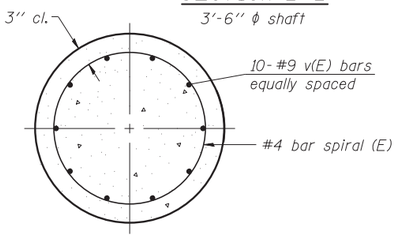
ELEVATION



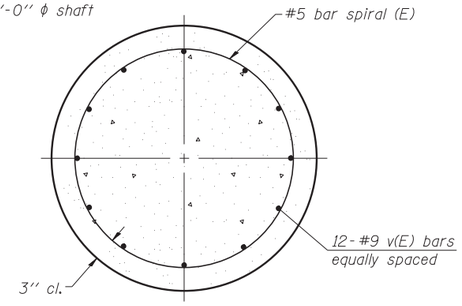
SECTION A-A
3'-0'' ϕ shaft



SECTION B-B
3'-6'' ϕ shaft



SECTION C-C
3'-0'' ϕ shaft



SECTION D-D
3'-6'' ϕ shaft

NOTES:

The foundation dimensions shown in the Foundation Design Table are based on the presence of mostly cohesive soils with an average Unconfined Compressive Strength (Qu) of at least 1.25 tsf, which must be determined by previous soil investigations at the job site. When other conditions are indicated, the boring data will be included in the plans and the foundation dimensions shown in the Foundation Data Table will be the result of site specific designs.

If the conditions encountered are different than those indicated, the Contractor shall notify the Engineer to determine if the foundation dimensions need to be modified. If dimensions "B" or "F" are revised by more than 12" by the Contractor, "as-built" plans shall be prepared and submitted to the District Bureau of Operations for future reference.

No sonotubes or decomposable forms shall be used below the lower conduit entrance. Permanent metal forms or other shielding may not be left in place below that elevation without the Engineer's written permission.

Concrete shall be placed monolithically, without construction joints.

Backfill shall be placed per Article 502 of Standard Specification and prior to erection of support column.

A normal surface finish followed by a Bridge Seat Sealer application will be required on concrete surfaces above the lowest elevation 6" below finished ground line. Cost included in "Drilled Shaft Concrete Foundation".

The cost of the steel conduit, ground rod, and other electrical hardware in included in "Drilled Shaft Concrete Foundations".

FOUNDATION DESIGN TABLE

Truss Type	Post Base Sheet	Maximum CantileverLength (ft)	Maximum Total Sign Area (sq ft)	Shaft Diameter (in)	"B" Depth (ft)	Anchor Rods		Anchor Rod Circle Diameter (in)
						No.	Diameter (in)	
I-C-A	OSC-A-4	25	170	3.0	16.0	8	2	22
II-C-A	OSC-A-5	30	170	3.5	17.0	12	2	30
II-C-A	OSC-A-5	30	340	3.5	21.5	12	2	30
III-C-A	OSC-A-5	35	170	3.5	19.0	12	2	30
III-C-A	OSC-A-5	35	250	3.5	22.5	12	2	30
III-C-A	OSC-A-5	35	400	3.5	26.5	12	2	30
III-C-A	OSC-A-5	40	400	3.5	32.0	12	2	30

FOUNDATION DATA TABLE

Structure Number	Station	Truss Type	Shaft Diameter	Elevation Top	Elevation Bottom	Qu	A	B	F	Class DS Concrete Cubic Yards
1C016U045R004.6	46+50	III-C-A	3'-6"	651.72	622.97	3.0 TSF	2'-3"	26'-6"	28'-9"	10.2
1C016U045L005.4	86+50	III-C-A	3'-6"	645.32	611.07	1.5 TSF	2'-3"	32'-0"	34'-3"	12.2

OSC-A-9 9-15-11

HNTB

USER NAME = lkalita	DESIGNED PCA	REVISED
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PLOT SCALE = 0.083333:1	DRAWN LK	REVISED
PLOT DATE = 09-OCT-2012	DATE 10/19/12	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CANTILEVER SIGN STRUCTURES – DRILLED SHAFT
ALUMINUM TRUSS & STEEL POST

SHEET NO. S-8 OF 8 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	241
		CONTRACT NO. 60G37		
	ILLINOIS FED. AID PROJECT			

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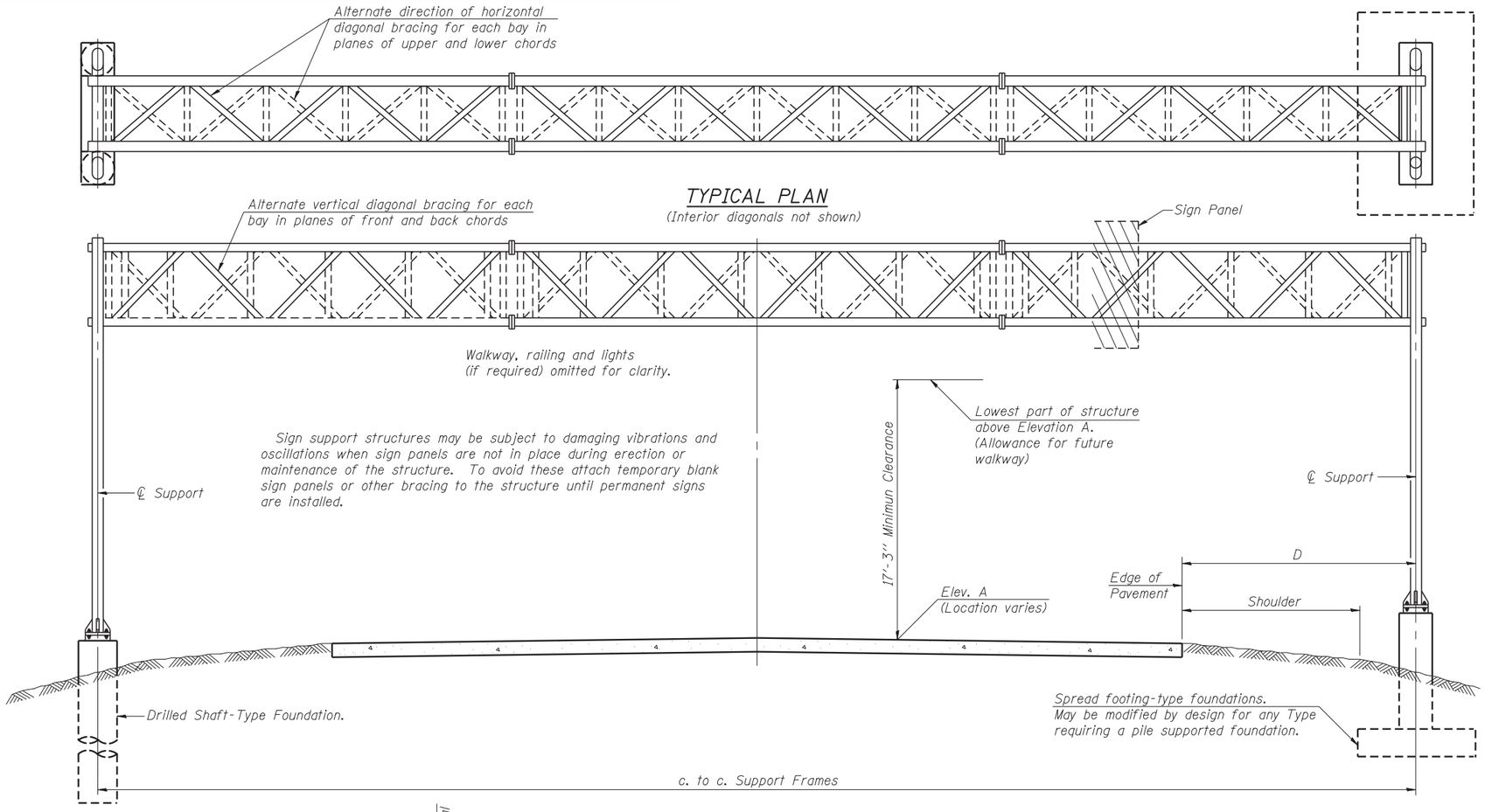
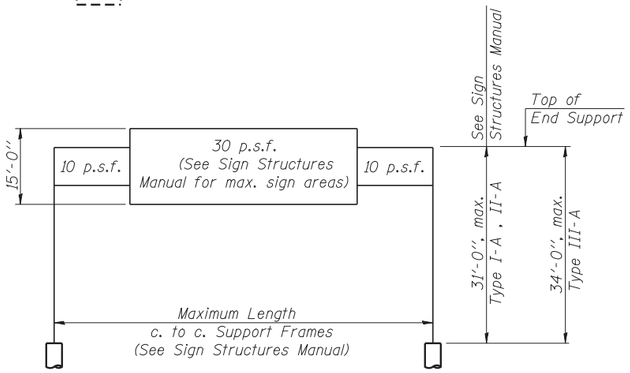


TYPICAL PLAN

(Interior diagonals not shown)



DESIGN WIND LOADING DIAGRAM

Parameters shown are basis for I.D.O.T. Standards and Sign Manual Tables. Installations not within dimensional limits shown require special analysis for all components.

TYPICAL ELEVATION

(Looking at Face of Signs**)

Elev. A = Elevation at point of minimum clearance to sign, walkway support or truss.

Structure Number	Station	Design Truss Type	c. to c. Supports	Elev. A	Dim. D	Height of Tallest Sign	Total Sign Area
IS016U045R005.1	71+00	II-A	75'-0"	640.62	13'-0"	11'-0"	591 SF
IS016U045R005.6	96+75	II-A	99'-0"	639.71	33'-0"	10'-6"	436 SF
IS016U045R005.7	102+75	II-A	115'-0"	642.53	15'-0"	10'-6"	525 SF

**Looking upstation for structures with signs both sides.

* If M270 Gr. 50W (M222) steel is proposed, chemistry for plate to be used shall first be approved by the Engineer as suitable for galvanizing and welding.

GENERAL NOTES

DESIGN: AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals. ("AASHTO Specifications")

CONSTRUCTION: Current (at time of letting) Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, Supplemental Specifications and Special Provisions. ("Standard Specifications")

LOADING: 90 M.P.H. WIND VELOCITY

WALKWAY LOADING: Dead load plus 500 lbs. concentrated live load.

DESIGN STRESSES:
Field Units
f'c = 3,500 p.s.i.
fy = 60,000 p.s.i. (reinforcement)

WELDING: All welds to be continuous unless otherwise shown. All welding to be done in accordance with current AWS D1.1 and D1.2 Structural Welding Codes (Steel and Aluminum) and the Standard Specificiations.

MATERIALS: Aluminum Alloys as shown throughout plans. All Structural Steel Pipe shall be ASTM A53 Grade B or A500 Grade B or C. If A500 pipe is substituted for A53, then the outside diameter shall be as detailed and wall thickness greater than or equal to A53. All Structural Steel Plates and Shapes shall conform to AASHTO M270 Gr. 36, Gr. 50 or Gr. 50W*. Stainless steel for shims, sleeves and handhole covers shall be ASTM A240, Type 302 or 304, or another alloy suitable for exterior exposure and acceptable to the Engineer.
The steel pipe and stiffening ribs at the base plate for the column shall have a minimum longitudinal Charpy V-Notch (CVN) energy of 15 lb.-ft. at 40° F. (Zone 2) before galvanizing.

FASTENERS FOR ALUMINUM TRUSSES: All bolts noted as "high strength" must satisfy the requirements of AASHTO M164 (ASTM A325), or approved alternate, and must have matching lock nuts. Threaded studs for splices (if Members interfere) must satisfy the requirements of ASTM A449, ASTM A193, Grade B7, or approved alternate, and must have matching lock nuts. Bolts and lock nuts not required to be high strength must satisfy the requirements of ASTM A307. All bolts and lock nuts must be hot dip galvanized per AASHTO M232. The lock nuts must have nylon or steel inserts. A stainless steel flat washer conforming to ASTM A240 Type 302 or 304, is required under both head and nut or under both nuts where threaded studs are used. High strength bolt installation shall conform to Article 505.04 (f) (2)d of the IDOT Standard Specifications for Road and Bridge Construction. Rotational capacity ("ROCAP") testing of bolts will not be required.

U-BOLTS AND EYEBOLTS: U-Bolts and Eyebolts must be produced from ASTM A276 Type 304, 304L, 316 or 316L, Condition A, cold finished stainless steel, or an equivalent material acceptable to the Engineer. All nuts for U-Bolts and Eyebolts must be lock nuts equivalent to ASTM A307 with nylon or steel inserts and hot dip galvanized per AASHTO M232. A stainless steel flat washer conforming to ASTM A240, Type 302 or 304, is required under each U-Bolt and Eyebolt lock nut.

GALVANIZING: All Steel Grating, Plates, Shapes and Pipe shall be Hot Dip Galvanized after fabrication in accordance with AASHTO M111. Painting is not permitted.

ANCHOR RODS: Shall conform to ASTM F1554 Gr. 105.

CONCRETE SURFACES: All concrete surfaces above an elevation 6" below the lowest final ground line at each foundation shall be cleaned and coated with Bridge Seat Sealer in accordance with the Standard Specifications.

REINFORCEMENT BARS: Reinforcement Bars designated (E) shall be epoxy coated in accordance with the Standard Specifications.

FOUNDATIONS: The contract unit price for Concrete Foundations and Drilled Shaft Concrete Foundations shall include reinforcement bars complete in place.

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
OVERHEAD SIGN STRUCTURE SPAN TYPE I-A	Foot	---
OVERHEAD SIGN STRUCTURE SPAN TYPE II-A	Foot	289.00
OVERHEAD SIGN STRUCTURE SPAN TYPE III-A	Foot	---
OVERHEAD SIGN STRUCTURE WALKWAY TYPE A	Foot	---
CONCRETE FOUNDATIONS	Cu. Yds.	16.2
DRILLED SHAFT CONCRETE FOUNDATIONS	Cu. Yds.	67.9

HNTB

USER NAME = lkalita	DESIGNED PCA	REVISED
	CHECKED MRI	REVISED
PLOT SCALE = 0.083333:1	DRAWN LK	REVISED
PLOT DATE = 09-OCT-2012	DATE 10/19/12	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES - GENERAL PLAN & ELEVATION - ALUMINUM TRUSS & STEEL SUPPORTS

SHEET NO. S-1 OF 10 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	242
		CONTRACT NO. 60G37		
		ILLINOIS FED. AID PROJECT		

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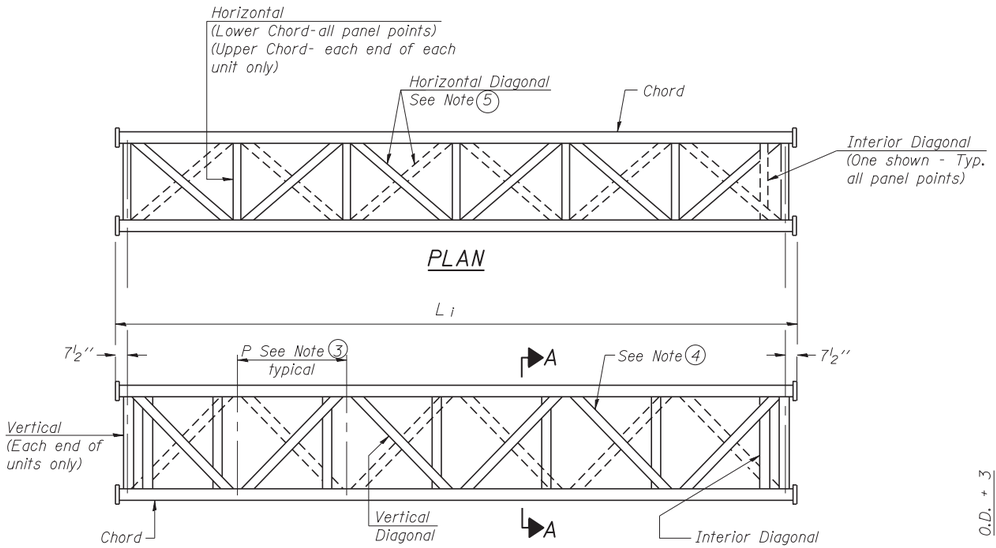
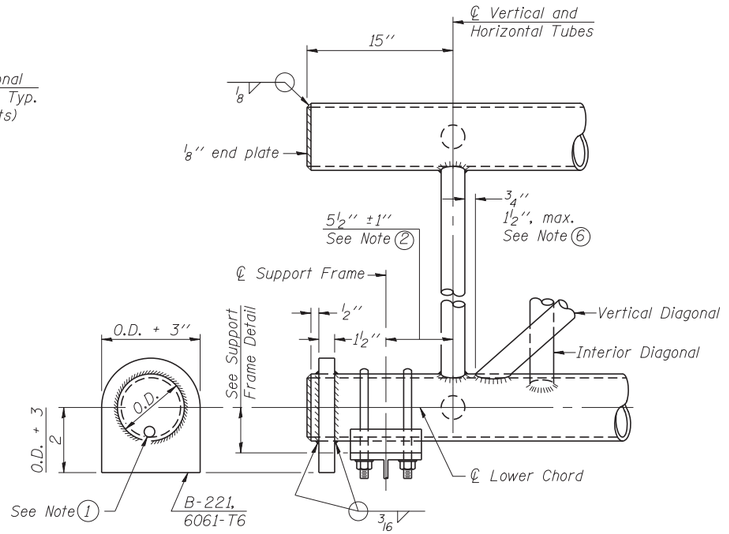
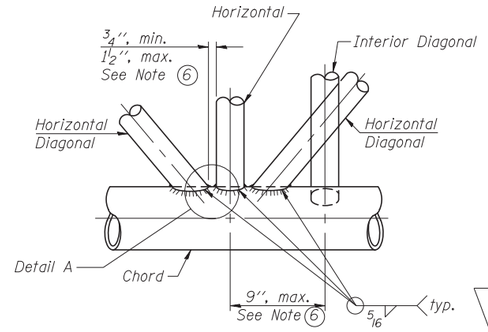


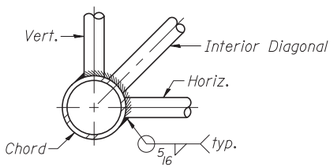
ELEVATION
TYPICAL INTERIOR UNIT

Even number of panels/interior unit required.

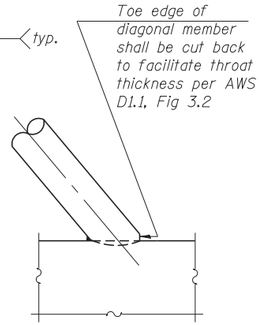


SUPPORT END DETAIL FOR EXTERIOR UNIT

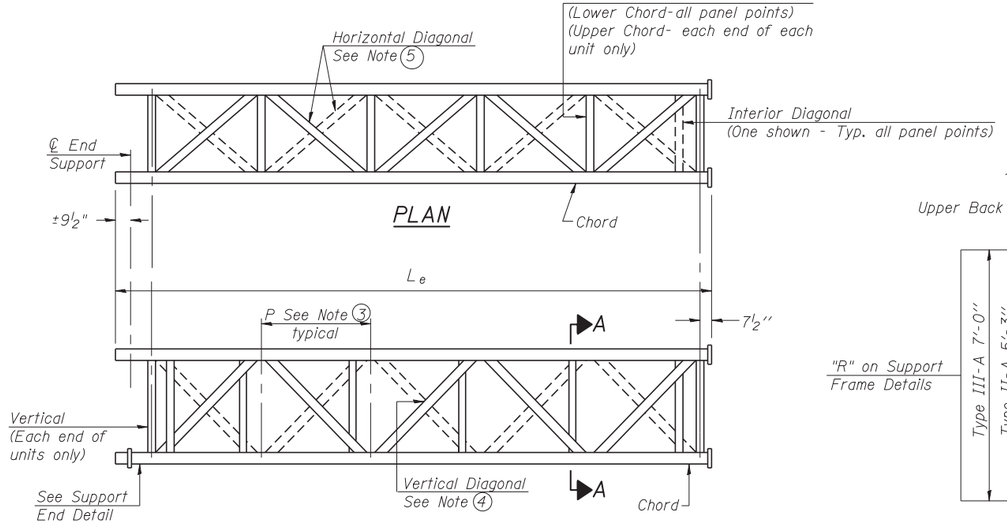




TYPICAL JOINT DETAILS

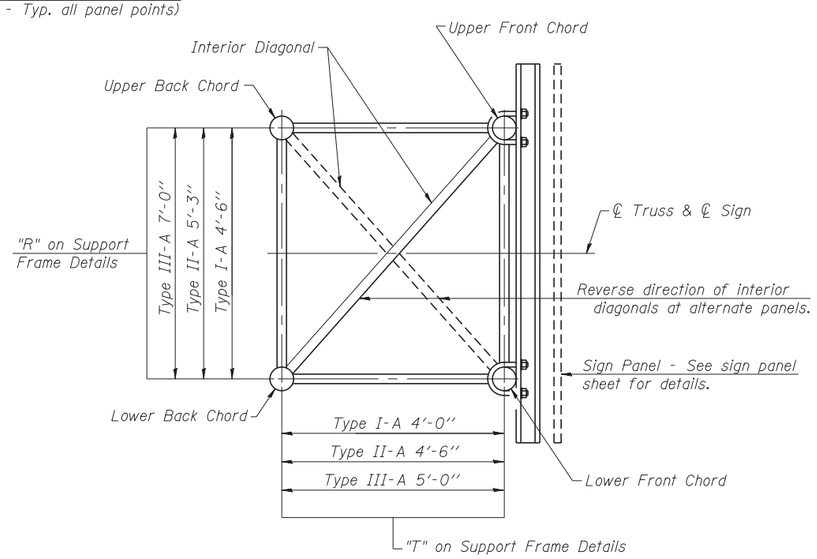


DETAIL A



ELEVATION
TYPICAL EXTERIOR UNIT

Even or odd number of panels/exterior units allowed.



SECTION A-A

(1) Contractor may alternatively use standard aluminum drive-fit cap to close end. ½" ϕ drain hole in end plate/drive-fit cap. (Typ. at ends of all chords)

(2) 5½" end dimension may vary by ±1" to provide uniform panel spacing (P).

(3) Panel spacing (P) shall be uniform for entire truss and between 4'-0" and 5'-0" for Type I-A or 4'-0" and 5'-6" for Types II-A and III-A.

(4) Vertical Diagonals in front and back face shall alternate.

(5) Hidden lines show wind bracing alternates direction between planes of top and bottom chords.

(6) All diagonals shall be detailed for minimum offset from the panel point based on the following: Offset shall be such as to provide a ¾" minimum to 1½" maximum clearance between any diagonal and any horizontal or vertical member, and to provide clearance for U-bolt connections of signs or walkway brackets.

OS-A-2 1-20-11

HNTB

USER NAME = lkalita	DESIGNED PCA	REVISED
	CHECKED MRI	REVISED
PLOT SCALE = 0.083333:1	DRAWN LK	REVISED
PLOT DATE = 09-OCT-2012	DATE 10/19/12	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES – ALUMINUM TRUSS
DETAILS FOR TRUSS TYPES I-A, II-A AND III-A

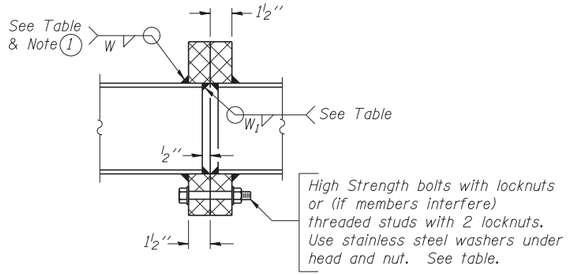
SHEET NO. S-2 OF 10 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	243
		CONTRACT NO. 60G37		
	ILLINOIS FED. AID PROJECT			

FILE NAME = IP_PWP:dms47844\D160G37-OS-A-2_S12.dgn

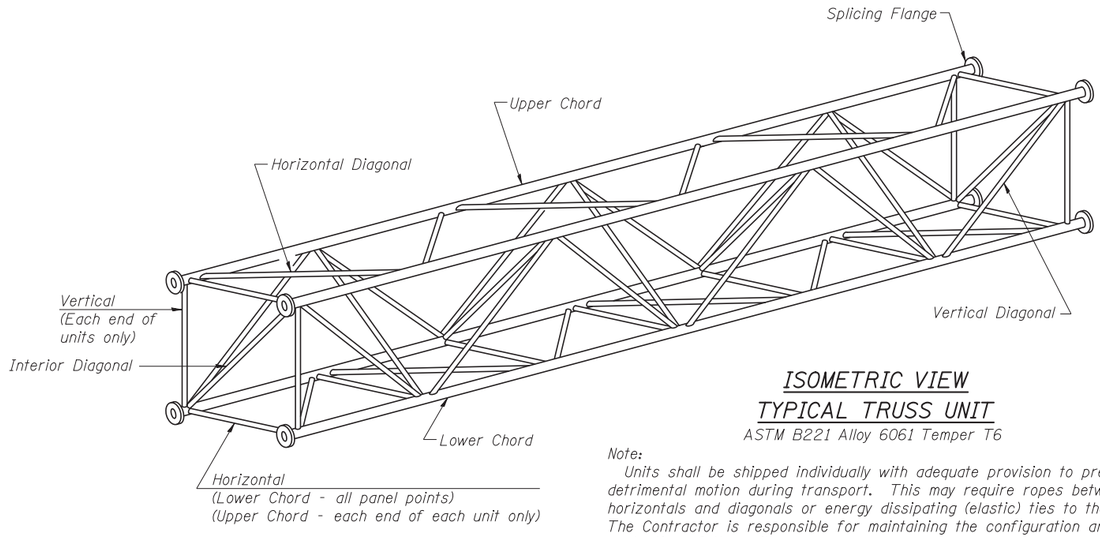
TRUSS UNIT TABLE

Structure Number	Station	Design Truss Type	Exterior Units (2)			Interior Unit				Upper & Lower Chord		Verticals; Horizontals; Vertical, Horizontal, and Interior Diagonals		Camber at Midspan	Splicing Flange					
			No. Panels per Unit	Unit Lgth.(L_e)	Panel Lgth.(P)	No. Req'd.	No. Panels per Unit	Unit Lgth.(L_I)	Panel Lgth.(P)	O.D.	Wall	O.D.	Wall		Bolts		Weld Sizes		A	B
															No./Splice	Dia.	W	W_1		
IS016U045R005.1	71+00	II-A	7	38'-4"	5'-2 1/2"	0	---	---	---	5 1/2"	5/16"	3"	5/16"	1 3/4"	6	7/8"	3/8"	1/4"	9 1/4"	1'-0 1/4"
IS016U045R005.6	96+75	II-A	6	33'-9"	5'-3 3/4"	1	6	33'-1 1/2"	5'-3 3/4"	6 1/2"	5/16"	3"	5/16"	3"	6	1"	3/8"	1/4"	11"	1'-2 1/2"
IS016U045R005.7	102+75	II-A	8	39'-0 1/2"	4'-7 3/4"	1	8	38'-5"	4'-7 3/4"	7"	3/8"	3"	5/16"	4"	8	1"	7/16"	5/16"	11 1/2"	1'-3"



SECTION B-B

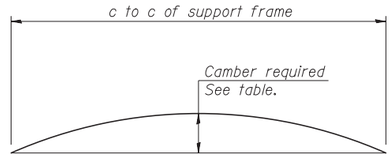
(1) Splicing Flanges shall be attached to each truss unit with the truss shop assembled to camber shown. Truss units shall be in proper alignment and flange surfaces shall be shop bolted into full contact before welding. Sufficient external welds or tacks shall be made to secure flanges until remaining welds are made after disassembly. Adjacent flanges shall be "match marked" to insure proper field assembly.



ISOMETRIC VIEW
TYPICAL TRUSS UNIT

ASTM B221 Alloy 6061 Temper T6

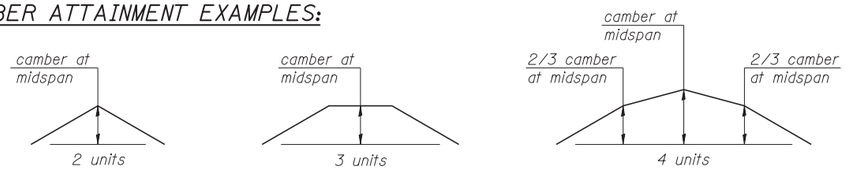
Note:
Units shall be shipped individually with adequate provision to prevent detrimental motion during transport. This may require ropes between horizontals and diagonals or energy dissipating (elastic) ties to the vehicle. The Contractor is responsible for maintaining the configuration and protection of the units.



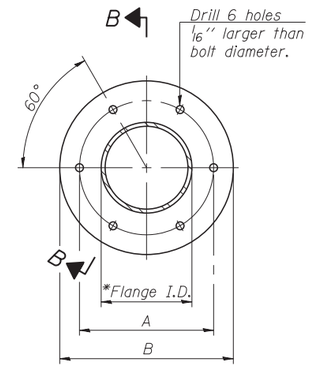
CAMBER DIAGRAM

Camber curve shown is theoretical. Actual camber attained by slope changes at splices between units.

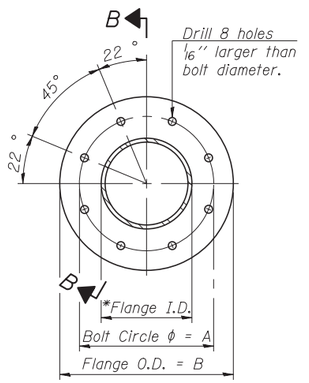
CAMBER ATTAINMENT EXAMPLES:



Camber shown is for fabrication only, measured with truss fully supported. (No-load condition)



TRUSS TYPES I-A, II-A, & III-A



TRUSS TYPES II-A & III-A

SPLICING FLANGES

ASTM B221, Alloy 6061-T6
or ASTM B209, Alloy 6061-T651
*To fit O.D. of Chord with maximum gap of 1/16".

OS4-A-2 1-20-11

HNTB	USER NAME = lkalita	DESIGNED PCA	REVISED
		CHECKED MRI	REVISED
	PLOT SCALE = 0.083333:1	DRAWN LK	REVISED
	PLOT DATE = 09-OCT-2012	DATE 10/19/12	REVISED

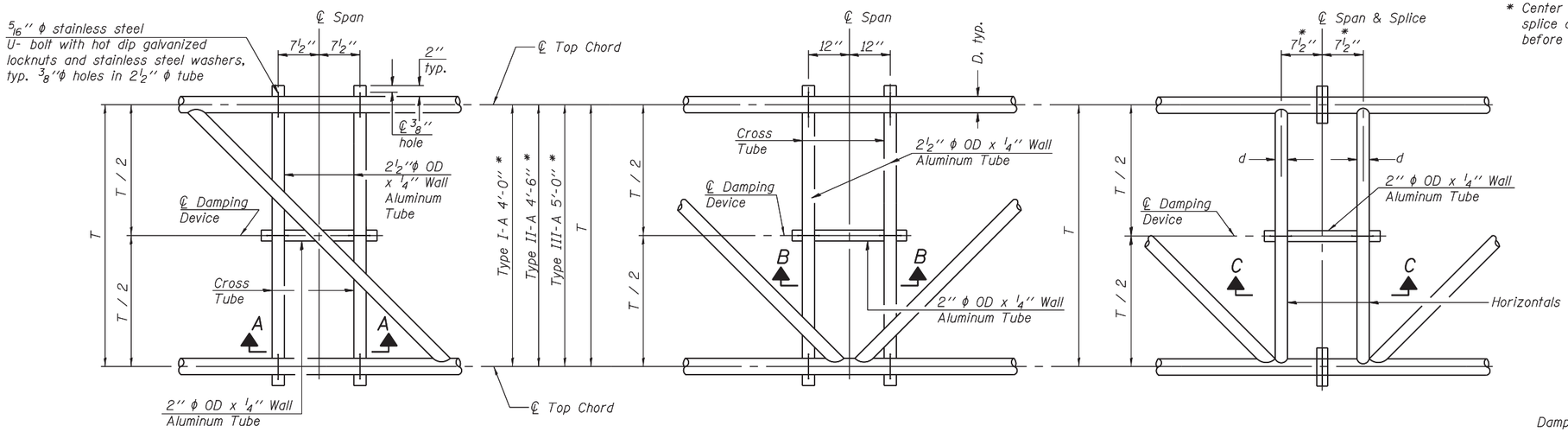
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES – ALUMINUM TRUSS DETAILS FOR TRUSS TYPES I-A, II-A AND III-A

SHEET NO. S-3 OF 10 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	244
		CONTRACT NO. 60G37		
	ILLINOIS	FED. AID PROJECT		

FILE NAME = IP_PWP:dms47844\D160G37-OS4-A-2_S13.dgn



PLAN DETAIL "A"
℄ Span between Panel Points

PLAN DETAIL "B"
℄ Span at Panel Point

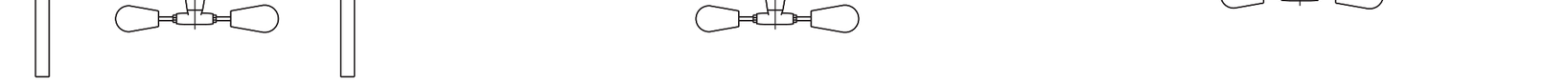
PLAN DETAIL "C"
℄ Span at ℄ Chord Splice

* Center of horizontal to center of splice dimension may vary. Verify before drilling holes in mounting tube.

NOTES

Damper: One damper per truss. (31 lbs. minimum Stockbridge-Type Aluminum - 29" minimum between ends of weights) Cost included in Overhead Sign Structure...

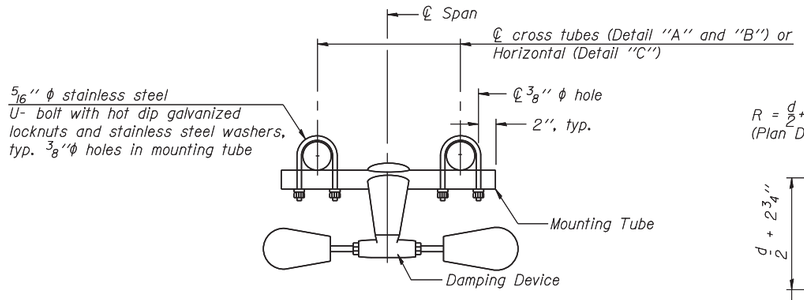
Materials: Materials: Aluminum tubes shall be ASTM B221 alloy 6061 temper T6. Cost included in Overhead Sign Structure...



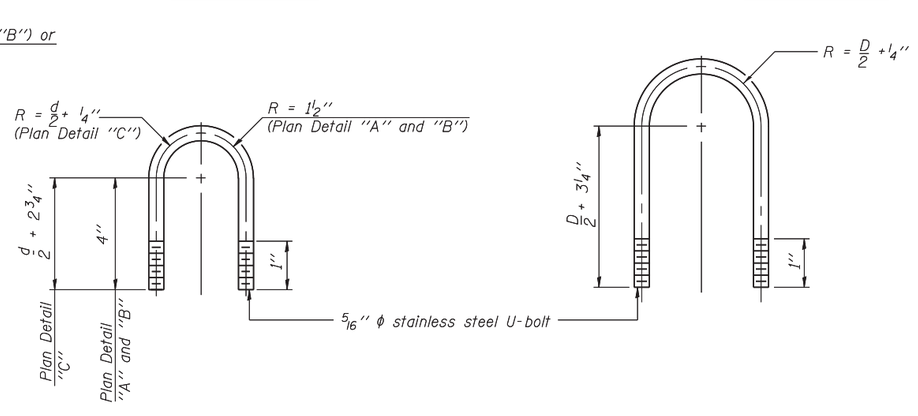
SECTION A-A

SECTION B-B

SECTION C-C

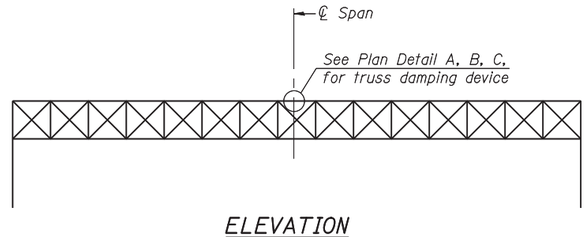


TRUSS DAMPING DEVICE CONNECTION DETAIL
(Typical)



DAMPING DEVICE MOUNTING TUBE U-BOLT DETAIL
(Typical)

TOP CHORD TO CROSS TUBE U-BOLT DETAIL
(Typical - Detail "A" and "B")



ELEVATION
Aluminum Overhead Sign Truss

OS-A-D 1-20-11

HNTB	USER NAME = lkalita	DESIGNED PCA	REVISED
		CHECKED MRI	REVISED
	PLOT SCALE = 0.083333:1	DRAWN LK	REVISED
	PLOT DATE = 09-OCT-2012	DATE 10/19/12	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURE
DAMPING DEVICE
SHEET NO. S-4 OF 10 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	245
		CONTRACT NO. 60G37		
	ILLINOIS FED. AID PROJECT			

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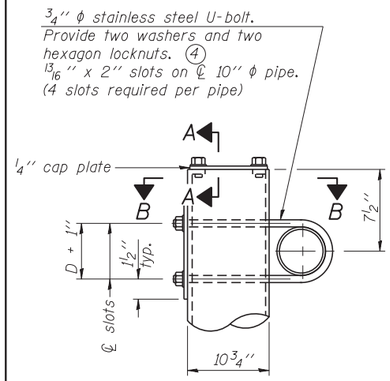
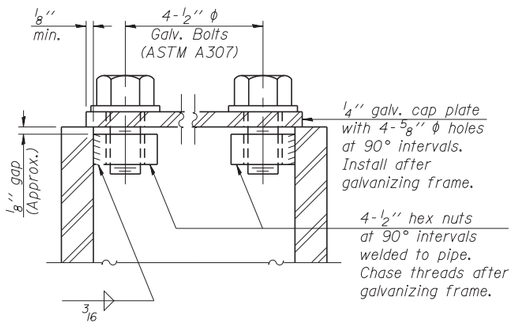
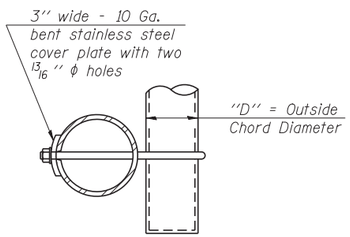


DETAIL A

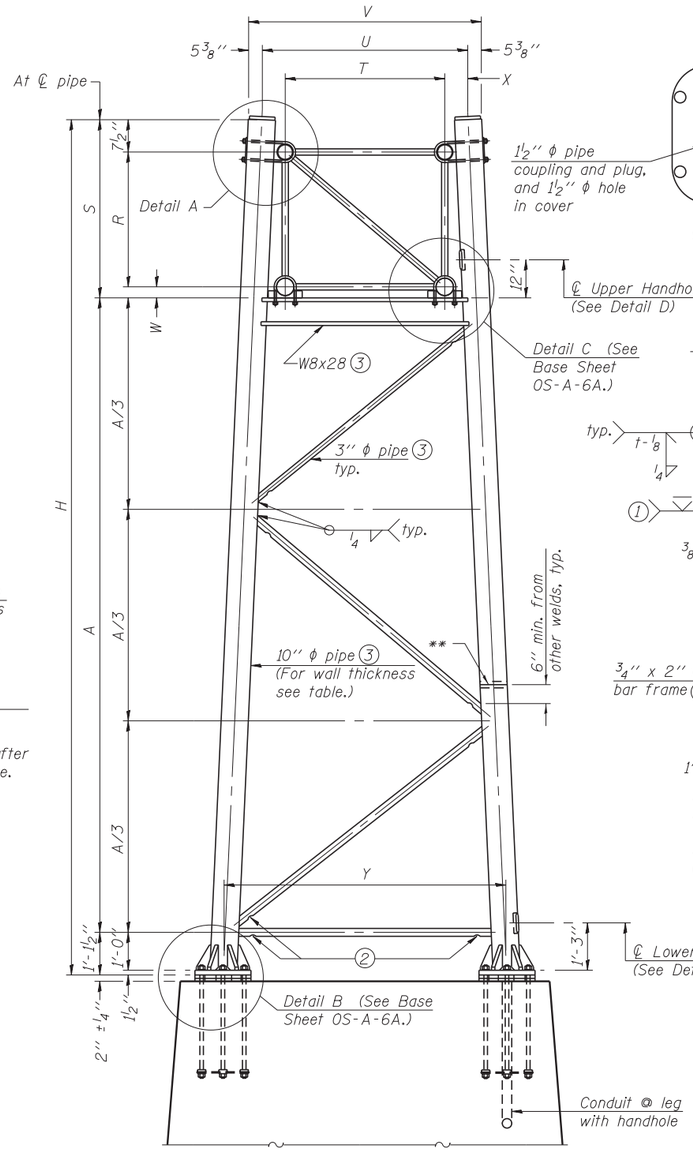


SECTION A-A

As an alternate to bolts, may use galvanized drive-fit caps installed after galvanizing frame.

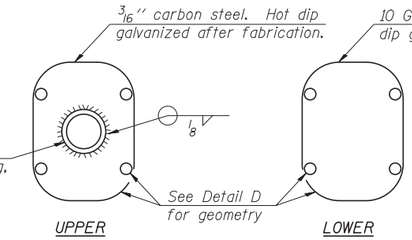


SECTION B-B

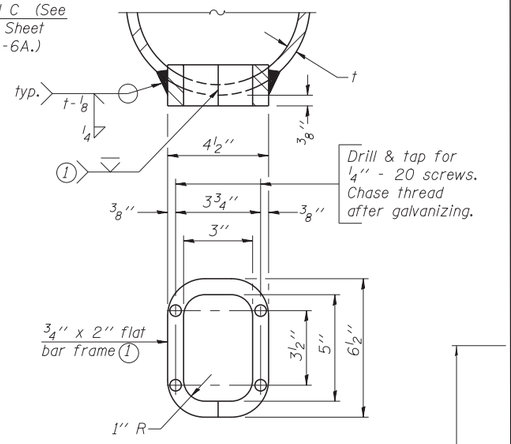


For Foundation Details, see base sheet OS-F3 (Spread Footing) or OS4-F3 (Drilled Shaft).

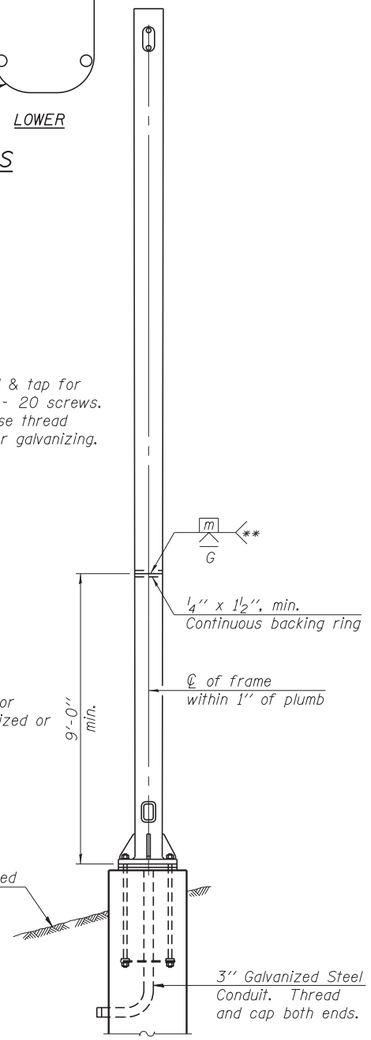
SIDE ELEVATION



HANDHOLE COVERS



DETAIL D



END ELEVATION

Support Design Loads: See Base Sheet OS-A-1 for design and loading criteria.

Load combinations checked include deadload plus:
a) 100% wind normal to sign, 20% parallel to sign
b) 60% wind normal to sign, 30% parallel to sign

(1) In lieu of fabricated handhole frame as shown, may cut from 2" plate (rolling direction vertical). All cut faces to be ground to ANSI Roughness of 500 μin or less.

(2) Galvanizing vent holes of adequate size shall be provided on underside at each end of bracing pipes. Alternately, holes may be provided in wall of pipe column. All vent holes shall be drilled and de-burred, typ.

(3) Steel pipe, plate, carbon steel handhole covers and rolled sections shall be hot dip galvanized after fabrication. Painting is not permitted. See Base Sheet OS-A-1.

(4) See General Notes for fasteners.

(5) Dimensions shown are based on selection criteria in the Sign Structures Manual. Nonstandard applications must have dimensions verified or amended as appropriate.

(6) "H" based on 15'-0" or actual sign height, whichever is greater.

Truss Type	Dimensions							
	R	S	T	U	V	W	X	Y
I-A	4'-6"	5'-5 1/2"	4'-0"	5'-6"	6'-4 3/4"	4"	9"	8'-3"
II-A (5)	5'-3"	6'-3 1/4"	4'-6"	6'-1"	6'-11 3/4"	4 3/4"	9 1/2"	8'-3"

10" ϕ PIPE TRUSS SUPPORT FRAME

** One butt welded joint is allowed only on one post per support frame. If used, weld procedure must be pre-approved by Engineer and joint shall receive 100% RT or UT (tension criteria) at Contractor's expense.

Structure Number	Station	Support		Truss Type	Pipe Wall Thickness	H (6)	A
		Left	Right				
IS016U045R005.1	71+00		X	II-A	0.365"	28'-4 1/4"	20'-11 1/2"
IS016U045R005.1	71+00	X		II-A	0.365"	28'-4 1/4"	20'-11 1/2"
IS016U045R005.6	96+75		X	II-A	0.365"	27'-0"	19'-7 1/4"
IS016U045R005.6	96+75	X		II-A	0.365"	27'-0"	19'-7 1/4"
IS016U045R005.7	102+75		X	II-A	0.365"	28'-3 1/2"	20'-10 3/4"
IS016U045R005.7	102+75	X		II-A	0.365"	26'-9 3/4"	19'-5"

OS-A-6 1-20-11

HNTB

USER NAME = lkalita	DESIGNED PCA	REVISED
	CHECKED MRI	REVISED
PLOT SCALE = 0.083333:1	DRAWN LK	REVISED
PLOT DATE = 09-OCT-2012	DATE 10/19/12	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
SUPPORT FRAME FOR ALUMINUM TRUSS
SHEET NO. S-5 OF 10 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	246
		CONTRACT NO. 60G37		
	ILLINOIS FED. AID PROJECT			

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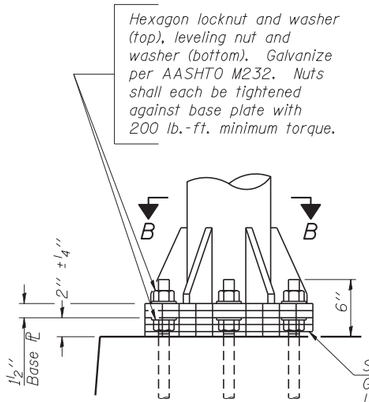
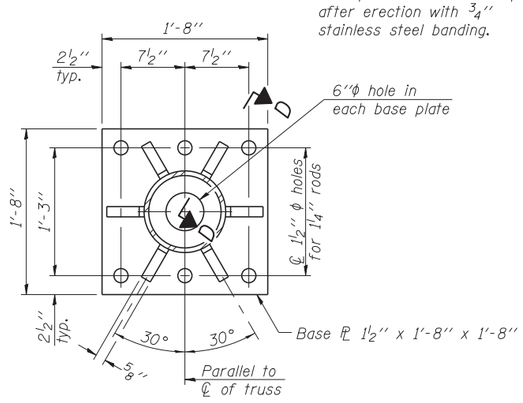
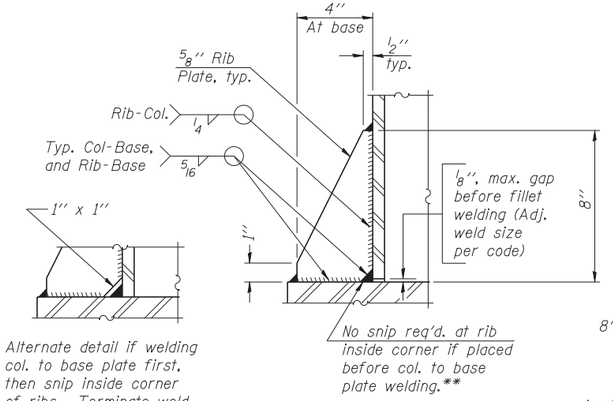


DETAIL B

Ribs shall be cut to fit slope of pipe.

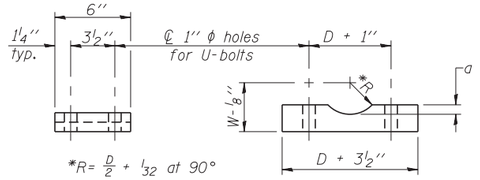


SECTION B-B



** Alternate detail if welding col. to base plate first, then snip inside corner of ribs. Terminate weld on rib 1/4'' from snip.

SECTION D-D



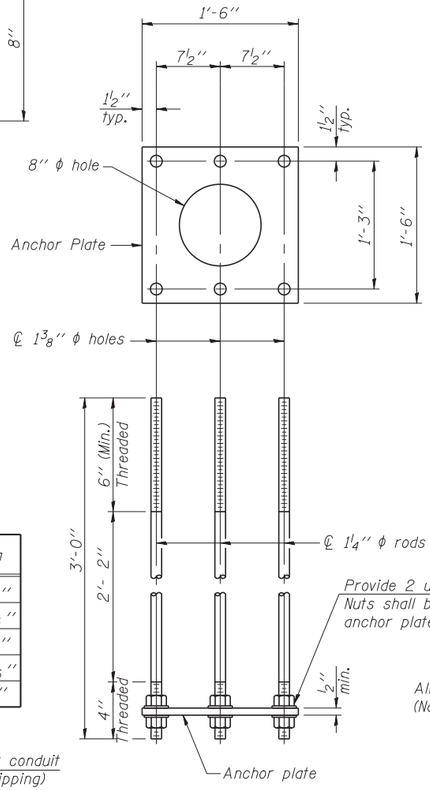
*R= D/2 + 1/32 at 90°

D = Outside Diameter of Chord.
For W, see Base Sheet OS-A-6.

SADDLE SHIM DETAIL

ASTM B26 Alloy 356-F
or
ASTM B209 Alloy 6061-T651
(4 required per sign truss)

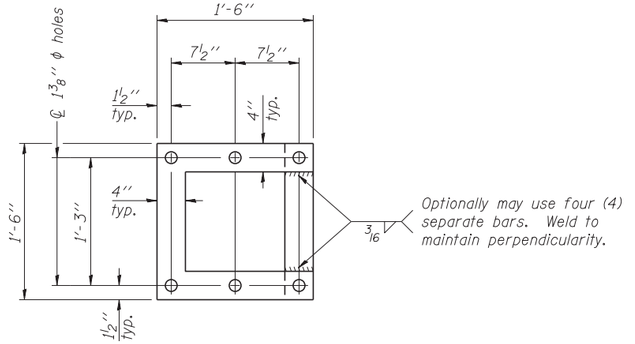
Truss Chord Nominal Dia.	a
5''	3/4''
5 1/2''	13/16''
6''	7/8''
6 1/2''	15/16''
7''	1''



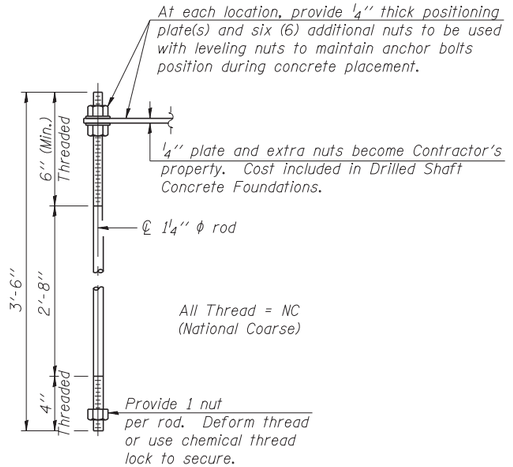
All Thread = NC
(National Coarse)

ANCHOR ROD DETAIL

Spread Footing Foundation



POSITIONING PLATE(S)

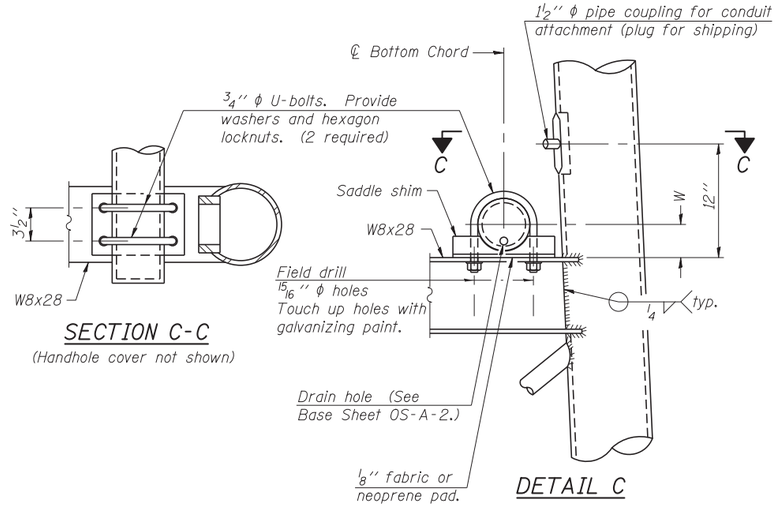


All Thread = NC
(National Coarse)

ANCHOR ROD DETAIL

Drilled Shaft Foundation

Anchor rods shall conform to ASTM F1554 Grade 105. Galvanize upper 12'' minimum per AASHTO M232. No welding shall be permitted on rods.



SECTION C-C

(Handhole cover not shown)

DETAIL C

10'' ϕ PIPE SUPPORT FRAME DETAILS

OS-A-6A 1-20-11

HNTB	USER NAME = lkalita	DESIGNED PCA	REVISED
		CHECKED MRI	REVISED
	PLOT SCALE = 0.083333:1	DRAWN LK	REVISED
	PLOT DATE = 09-OCT-2012	DATE 10/19/12	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
SUPPORT FRAME DETAILS – ALUMINUM TRUSS
SHEET NO. S-6 OF 10 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	247
		CONTRACT NO. 60G37		
		ILLINOIS	FED. AID PROJECT	

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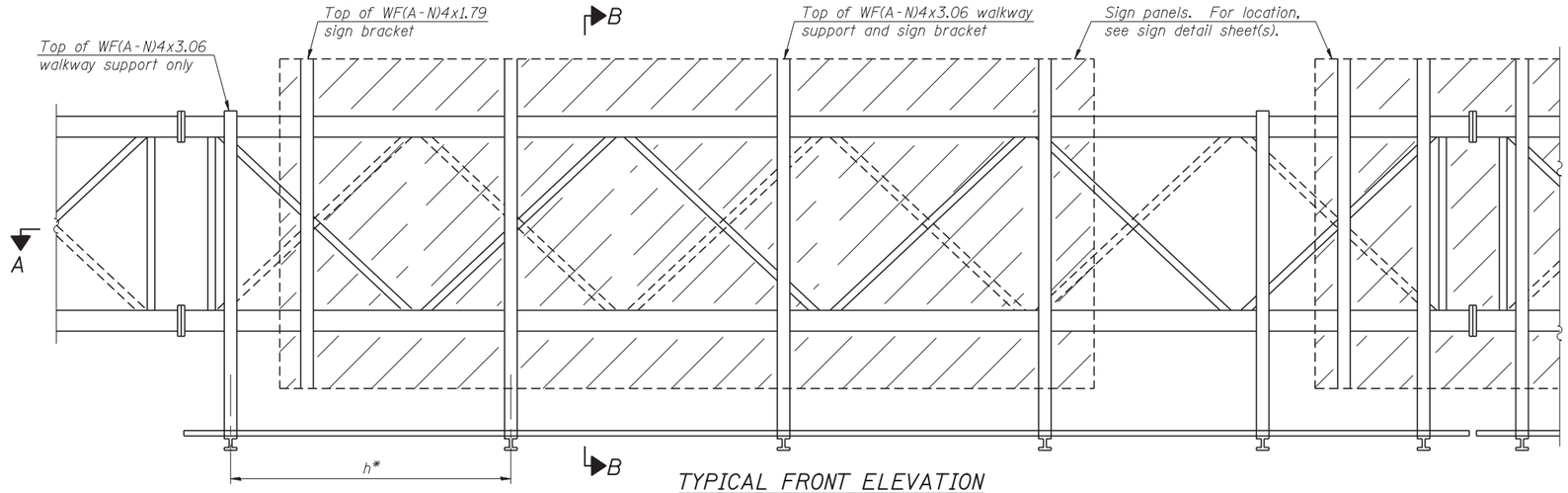
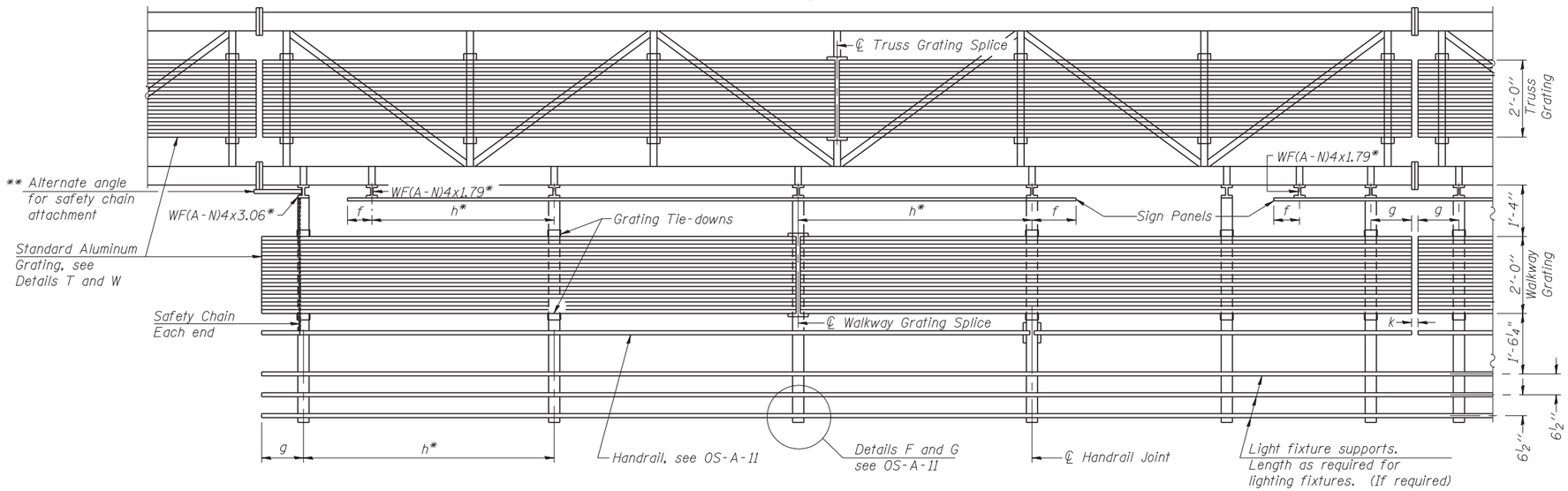


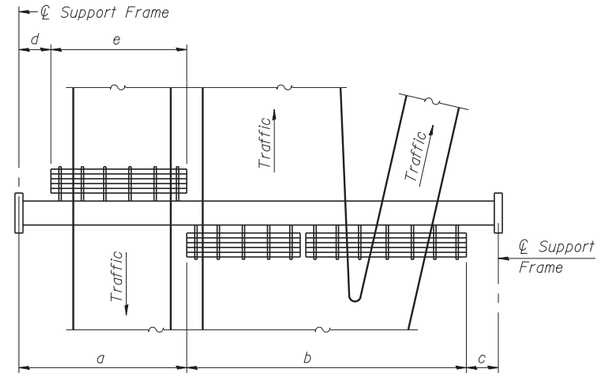
TYPICAL FRONT ELEVATION

With lights and handrail omitted for clarity.
For Section B-B, see Base Sheet OS-A-10.



SECTION A-A

Handrail and walkway shall span a minimum of three brackets between splices and/or gap joints.
Place all sign and walkway brackets as close to panel points as practical.
Handrail joints, grating, and light support splices placed as needed.



PLAN
WALKWAY AND HANDRAIL SKETCH

(Road plan beneath truss varies)

BRACKET TABLE

WF(A-N)4x1.79 or WF(A-N)4x3.06 ASTM B308, Alloy 6061-T6		
Sign Width		Number Brackets Required
Greater Than	Less Than or Equal To	
	8'-0"	2
8'-0"	14'-0"	3
14'-0"	20'-0"	4
20'-0"	26'-0"	5
26'-0"	32'-0"	6

Notes:

* Space walkway brackets WF(A-N)4x3.06 and sign brackets WF(A-N)4x1.79 for efficiency and within limits shown:

f = 12" maximum, 4" minimum (End of sign to ℄ of nearest bracket)
g = 12" maximum, 4" minimum (End of walkway grating to ℄ of nearest support bracket)
h = 6'-0" maximum (℄ to ℄ sign and/or walkway support brackets, WF(A-N)4x1.79 or WF(A-N)4x3.06)
k = 2" maximum gap between adjacent walkway grating sections and handrail ends

** If walkway bracket at safety chain location is behind sign, add angle to bracket, see Alternate Safety Chain Attachment on Base Sheet OS-A-11.

For Details T and W, Section B-B and Grading Splice Details see Sheet S-8 of 10.
For Handrail Details see Base Sheet OS-A-11.

Structure Number	Station	a	b	c	d	e	Walkway Grating and Handrail Lengths
1S016U045R005.1	71+00	---	---	---	---	---	---
1S016U045R005.6	96+75	---	---	---	---	---	---
1S016U045R005.7	102+75	---	---	---	---	---	---

Truss grating to facilitate inspection shall run full length (center to center of support frames) ±12" on overhead trusses. Cost of truss grating is included in "Overhead Sign Structure".

Walkway and Truss Grating width dimensions are nominal and may vary ±½" based on available standard widths.

Walkways are not required. This sheet is included to show, in the elevation view, the location of where Section B-B on Sheet S-8 of 10 is cut for the sign support/truss connection details.

HNTB

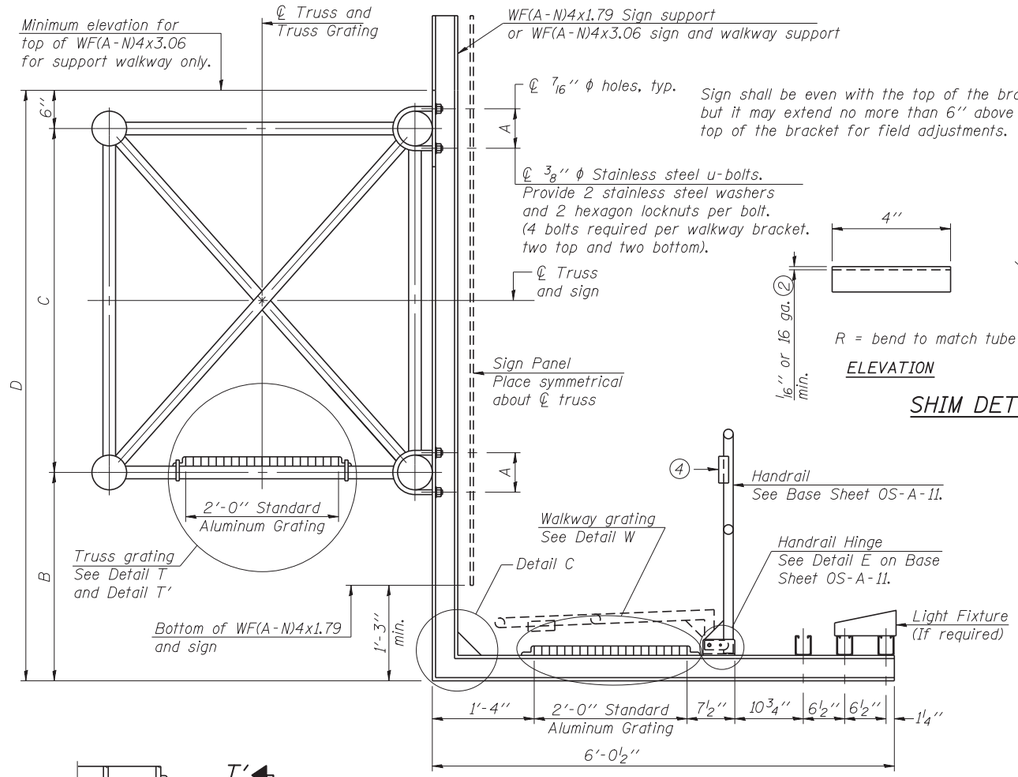
USER NAME = lkalita	DESIGNED PCA	REVISED
	CHECKED MRI	REVISED
PLOT SCALE = 0.083333:1	DRAWN LK	REVISED
PLOT DATE = 09-OCT-2012	DATE 10/19/12	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

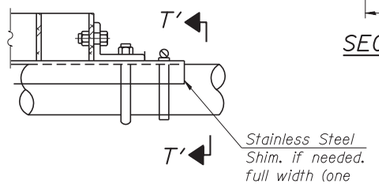
OVERHEAD SIGN STRUCTURES
ALUMINUM WALKWAY DETAILS
SHEET NO. S-7 OF 10 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	248
		CONTRACT NO. 60G37		
	ILLINOIS FED. AID PROJECT			

FILE NAME = IP_PWP:dms47844\D160G37-OS-A-9_S15.dgn



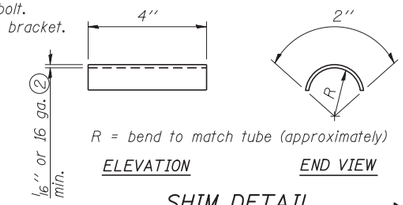
SECTION B-B



DETAIL T'

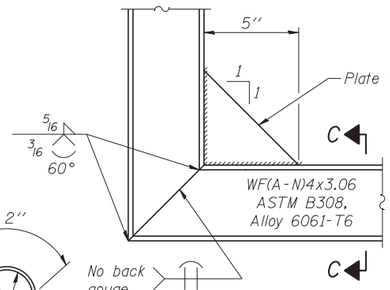
(Truss grating splice)

Details not shown same as Detail T. Alternate materials may be used subject to the Engineer's review and approval.

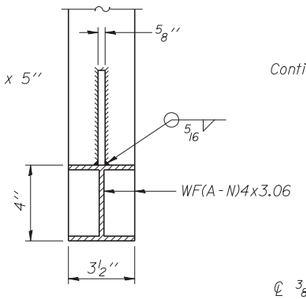


ELEVATION END VIEW

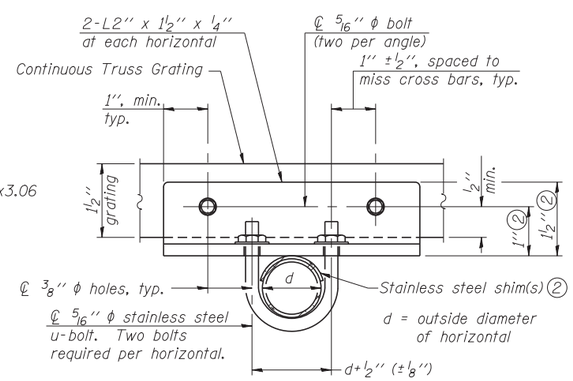
SHIM DETAIL



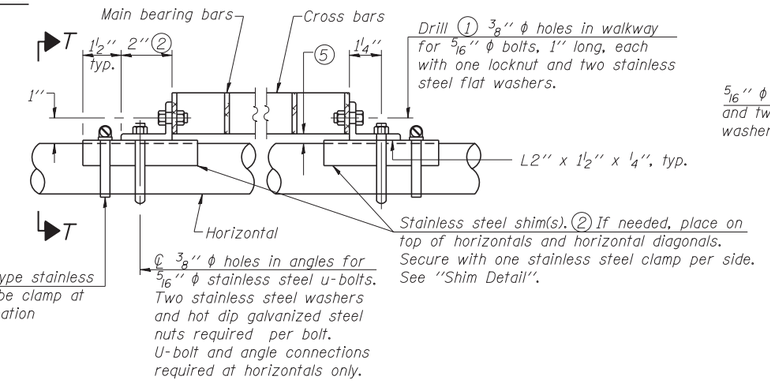
DETAIL C



SECTION C-C

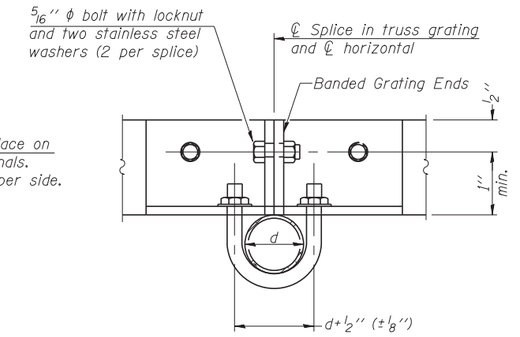


SECTION T-T

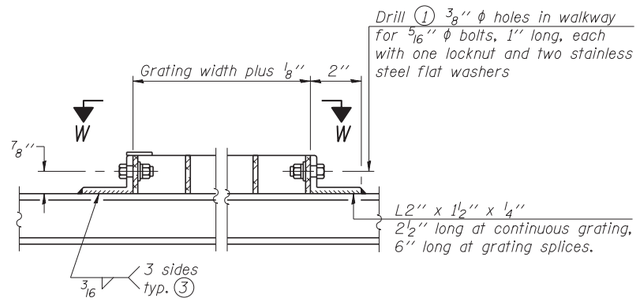


DETAIL T

(Continuous Truss grating)

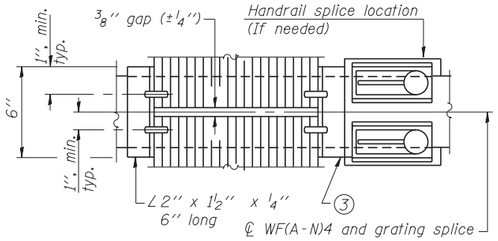


SECTION T'-T'

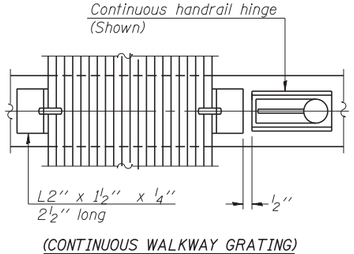


DETAIL W

(Walkway grating)



(AT WALKWAY GRATING SPLICE)



(CONTINUOUS WALKWAY GRATING)

SECTION W-W

SPECIFICATIONS FOR STANDARD ALUMINUM GRATING

Main Bearing Bars shall be 3/16" x 1½" on 1 3/16" centers and conform to ASTM B221 Alloy 6061-T6.

Cross bars shall be 3/16" x 1½" on 4" centers and conform to ASTM B221 Alloy 6063-T5 or 6061-T6.

OR

Aluminum Grating with modified "t" sections for main bearing bars shall meet the following requirements:

Main bars shall conform to ASTM B221 Alloy 6061-T6 and have a minimum section modulus equal to 0.0705 in.^{3} per bar, a depth of 1½", spaced on 1 3/16" centers.

Cross bars shall conform to ASTM B221 Alloy 6063-T5 or T-42 and spaced on 4" centers.

Structure Number	Station	A	⑥ B	C	⑥ D
1S016U045R005.1	71+00	5 7/8"	---	5'-3"	---
1S016U045R005.6	96+75	6 7/8"	---	5'-3"	---
1S016U045R005.7	102+75	7 3/8"	---	5'-3"	---

① Drilling holes in grating may be done in shop or field, based on Contractor's preference and subject to accurate alignment.

② Stainless steel shims shall be placed as shown in Detail T if needed to compensate for alignment variations between horizontal and diagonal pipes beyond adjustment provided by angles. Thicker shims may be used subject to shims performing properly.

③ If Handrail Joint present, weld angle to WF(A-N)4 and ¼" extension bars. (See Base Sheet OS-A-11.)

④ ℄ ⅛" x ½" x 2" welded to handrail posts to protect locations that contact grating.

⑤ Tube to grating gap may vary from 0 to ½", max. to align walkway, allow for camber, etc.

⑥ Based on actual height of tallest sign given on Sheet S-1 of 10.

Walkways are not required. This sheet is included to show, in Section B-B, the sign support/truss connection details.

HNTB

USER NAME = lkalita	DESIGNED PCA	REVISED
	CHECKED MRI	REVISED
PLOT SCALE = 0.083333:1	DRAWN LK	REVISED
PLOT DATE = 09-OCT-2012	DATE 10/19/12	REVISED

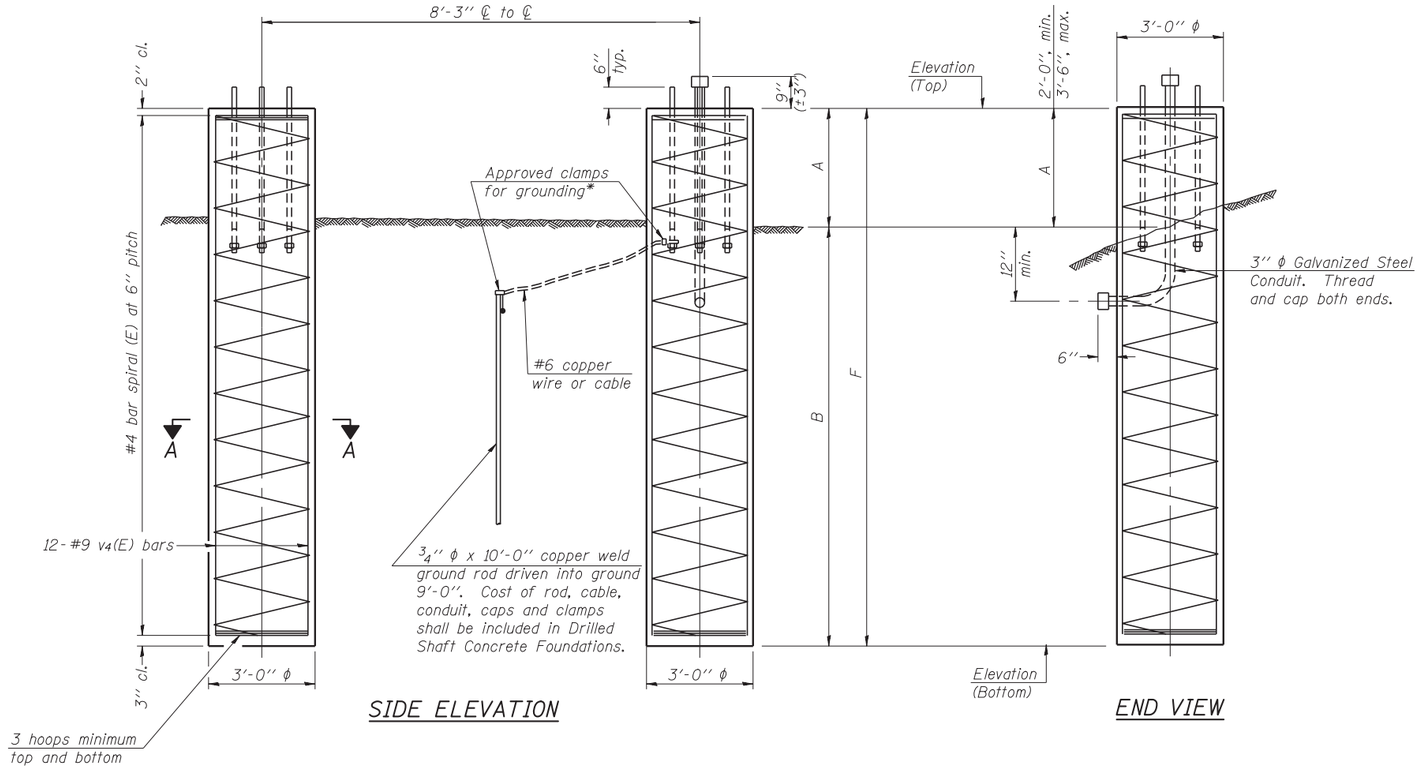
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
ALUMINUM WALKWAY DETAILS

SHEET NO. S-8 OF 10 SHEETS

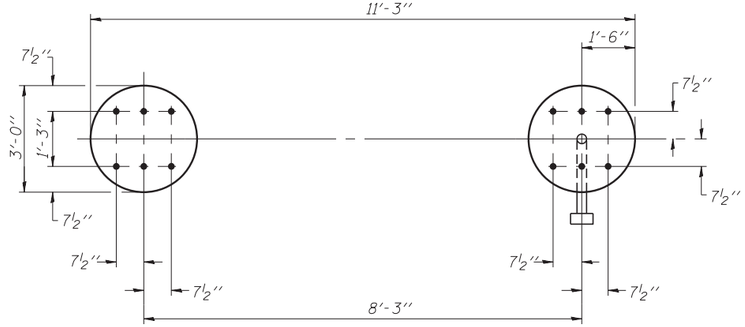
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	249
		CONTRACT NO. 60G37		
	ILLINOIS FED. AID PROJECT			

FILE NAME = IP_PWP:dms47844\D160G37-OS-A-10_S16.dgn



SIDE ELEVATION

END VIEW



PLAN

For anchor rod size and placement, see Support Frame Detail Sheet.

* Anchor rod shall be ground or filed to bright metal at clamp and cable connection location.

BAR LIST - EACH FOUNDATION

Bar	Number	Size	Length	Shape
v4(E)	24	#9	F less 5"	——
#4 bar spiral (E) - see Side Elevation				

NOTES:

The foundation dimensions shown are based on the presence of mostly cohesive soils with an average Unconfined Compressive Strength (Qu) of at least 1.25 tsf, which must be determined by previous soil investigations at the jobsite. When other conditions are indicated, the boring data will be included in the plans and the foundation dimensions shown will be the result of site specific designs.

If the conditions encountered are different than those indicated, the Contractor shall notify the Engineer to determine if the foundation dimensions need to be modified. If dimensions "B" or "F" are revised by more than 12" by the Contractor, "as-built" plans shall be prepared and submitted to the District Bureau of Operations for future reference.

No sonotubes or decomposable forms shall be used below the lower conduit entrance.

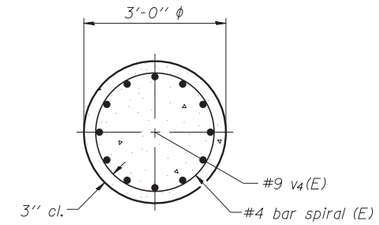
Permanent metal forms or other shielding may not be left in place below that elevation without the Engineer's written permission.

Concrete shall be placed monolithically, without construction joints.

Backfill shall be placed per Article 502 of Standard Specification and prior to erection of support column.

A normal surface finish followed by a Bridge Seat Sealer application will be required on concrete surfaces above the lowest elevation 6" below finished ground line. Cost included in Drilled Shaft Concrete Foundation.

The cost of the steel conduit, ground rod, and other electrical hardware is included in "Drilled Shaft Concrete Foundations".



SECTION A-A

DETAILS FOR 10" ϕ SUPPORT FRAME TYPE I-A or II-A TRUSS

Structure Number	Station	Left Foundation					Right Foundation					Class DS Concrete (Cu. Yds.)
		Elevation Top	Elevation Bottom	A	B	F	Elevation Top	Elevation Bottom	A	B	F	
1S016U045R005.1	71+00						641.35	621.57	2'-3 3/8"	17'-6"	19'-9 3/8"	10.4
1S016U045R005.6	96+75						641.80	618.51	2'-9½"	20'-6"	23'-3½"	12.2
1S016U045R005.7	102+75						643.32	619.82	2'-6"	21'-0"	23'-6"	12.3

OS4-F3 1-20-11

HNTB

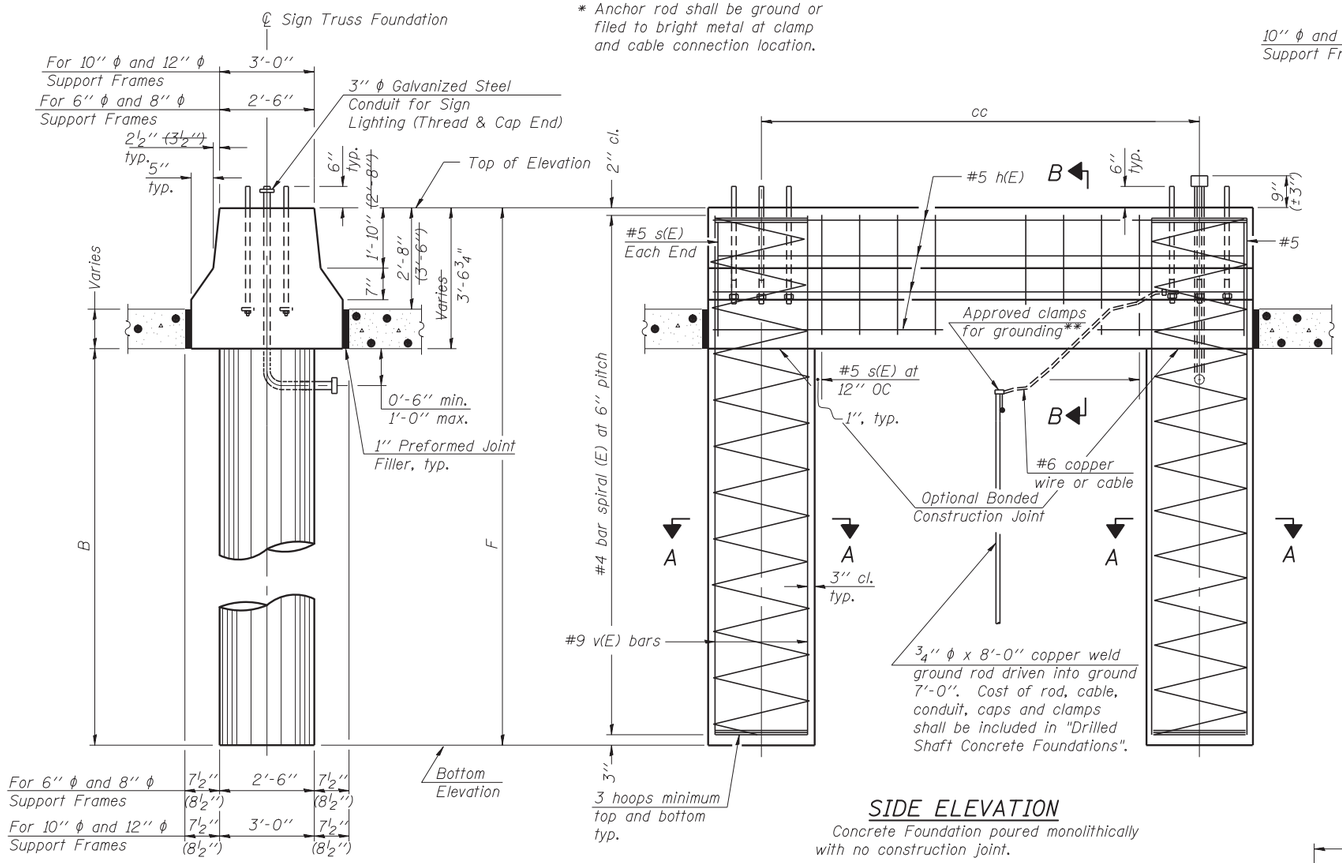
USER NAME = lkalita	DESIGNED PCA	REVISED
	CHECKED MRI	REVISED
PLOT SCALE = 0.083333:1	DRAWN LK	REVISED
PLOT DATE = 09-OCT-2012	DATE 10/19/12	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
DRILLED SHAFT DETAILS
SHEET NO. S-9 OF 10 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	250
		CONTRACT NO. 60G37		
	ILLINOIS FED. AID PROJECT			

FILE NAME = IP_PWP:dms47844\D160G37-OS4-F3_S20.dgn

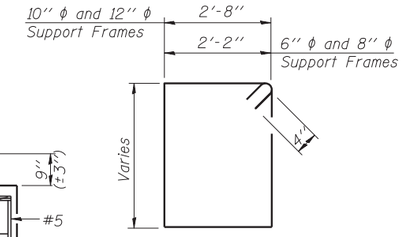


END VIEW

* Anchor rod shall be ground or filed to bright metal at clamp and cable connection location.

SIDE ELEVATION

Concrete Foundation poured monolithically with no construction joint.



BAR s(E)

NOTES:

The foundation dimensions shown are based on the presence of mostly cohesive soils with an average Unconfined Compressive Strength (Qu) of at least 1.25 tsf, which must be determined by previous soil investigations at the jobsite. When other conditions are indicated, the boring data will be included in the plans and the foundation dimensions shown will be the result of site specific designs.

If the conditions encountered are different than those indicated, the Contractor shall notify the Engineer to determine if the foundation dimensions need to be modified. If dimensions "B" or "F" are revised by more than 12'' by the Contractor, ''as-built'' plans shall be prepared and submitted to the District Bureau of Operations for future reference.

No sonotubes or decomposable forms shall be used below the lower conduit entrance.

Permanent metal forms or other shielding may not be left in place below that elevation without the Engineer's written permission.

Concrete shall be placed monolithically, without construction joints.

Backfill shall be placed per Article 502 of Standard Specification and prior to erection of support column.

A normal surface finish followed by a Bridge Seat Sealer application will be required on concrete surfaces above the lowest elevation 6'' below finished ground line. Cost included in Drilled Shaft Concrete Foundation.

The cost of the steel conduit, ground rod, and other electrical hardware in included in "Drilled Shaft Concrete Foundations".

Pipe Support Frames	cc	M	a	a/2
6''ϕ	7'-0''	9'-6''	0'-11''	5½''
8''ϕ	7'-6''	10'-0''	1'-1½''	6¾''
10''ϕ	8'-3''	11'-3''	1'-3''	7½''
12''ϕ	9'-0''	12'-0''	1'-6''	9''

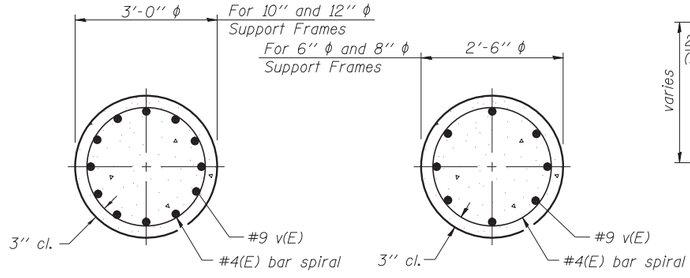
All dimensions in parenthesis are for 42'' high barrier.

BAR LIST - EACH FOUNDATION

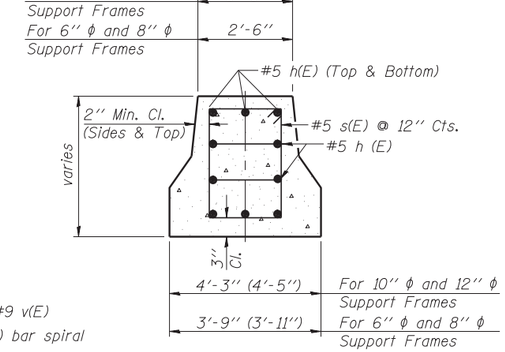
Bar	Number	Size	Length	Shape
h(E)	10	#5	M less 4''	——
s(E)	Varies	#5	Varies	□
v(E)	16	#9	F less 0'-5''	——
v(E)	24	#9	F less 0'-5''	——
#4(E) bar spiral _ see Side Elevation				

6'' ϕ and 8'' ϕ Support Frame

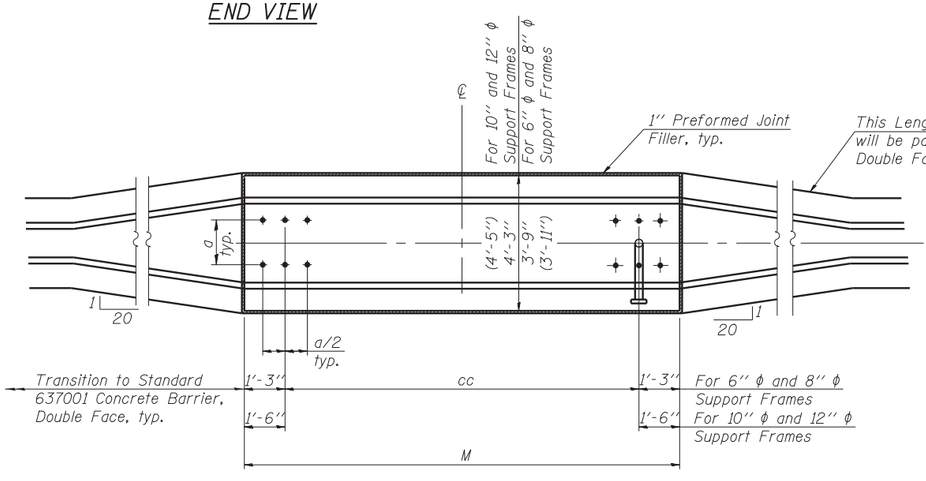
10'' ϕ and 12'' ϕ Support Frame



SECTION A-A



SECTION B-B



PLAN

Structure Number	Station	Left Foundation				Right Foundation				Class DS Concrete (Cu. Yds.)
		Elevation Top	Elevation Bottom	B	F	Elevation Top	Elevation Bottom	B	F	
1S016U045R005.1	71+00	641.35	618.91	18'-10½"	22'-5¼"					15.3
1S016U045R005.6	96+75	641.80	616.36	21'-10½"	25'-5¼"					16.9
1S016U045R005.7	102+75	644.80	618.86	22'-4½"	25'-11¼"					17.1

OS4-MED 1-20-11

USER NAME = lkalita	DESIGNED PCA		REVISED
	CHECKED MRI		REVISED
PLOT SCALE = 0.083333:1	DRAWN LK		REVISED
PLOT DATE = 09-OCT-2012	DATE 10/19/12		REVISED

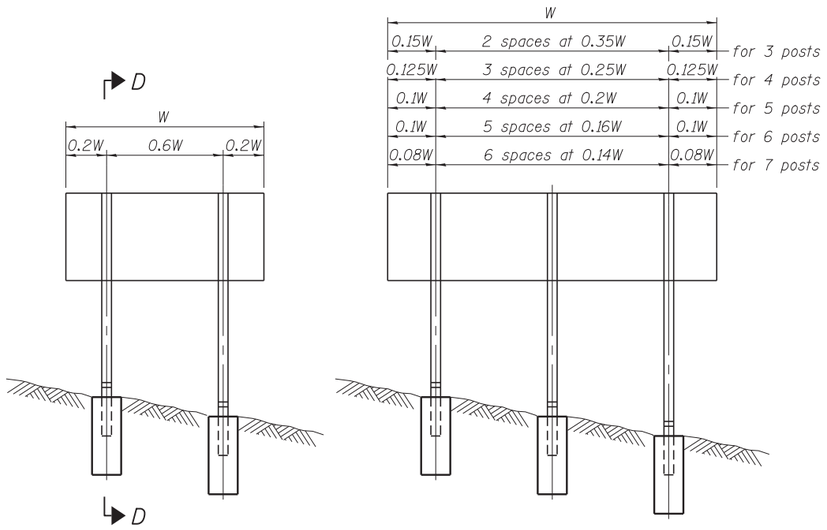
HNTB

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

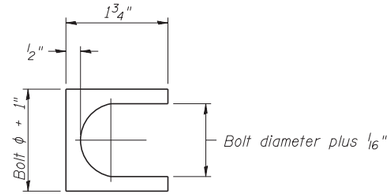
OVERHEAD SIGN STRUCTURES
MEDIAN SUPPORT FOUNDATION DETAILS
SHEET NO. S-10 OF 10 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	251
		CONTRACT NO. 60G37		
	ILLINOIS FED. AID PROJECT			

FILE NAME = IP_PWP:dms47844\D160G37-OS4-MED_S21.dgn

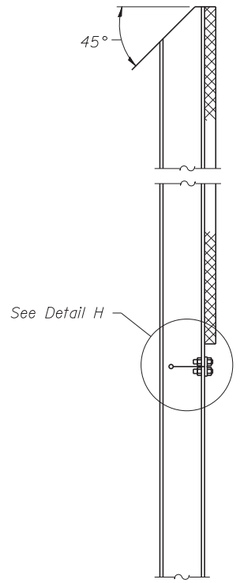


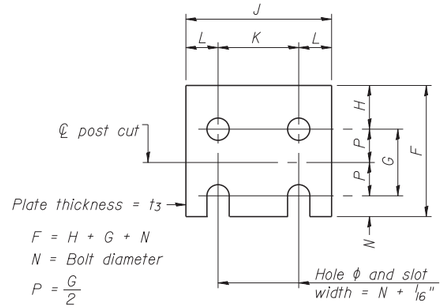
ELEVATION



SHIM DETAIL

Furnish two 0.01" thick and two 0.03" thick stainless steel or brass (ASTM B36) shims per post.

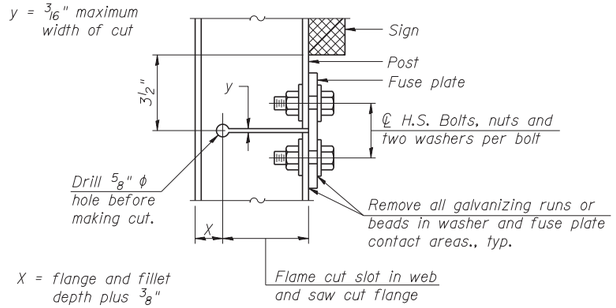




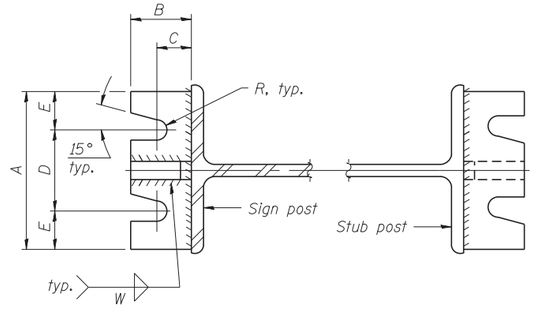
FUSE PLATE DATA		
N = Bolt Diameter	G	H
1/2"	2"	1 1/8"
5/8"	2 1/4"	1 1/4"
3/4"	2 1/2"	1 3/8"
7/8"	2 3/4"	1 1/2"
1"	3"	1 5/8"
1 1/8"	3 1/4"	1 3/4"
1 1/4"	3 1/2"	1 7/8"

FUSE PLATE DETAIL

(Install with notches down.)

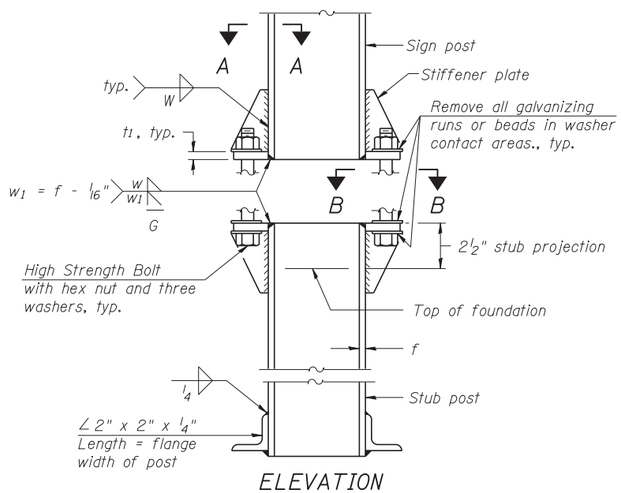


DETAIL H

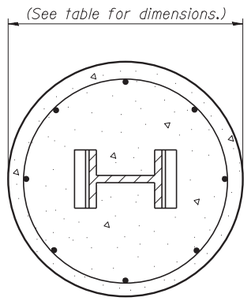


SECTION A-A

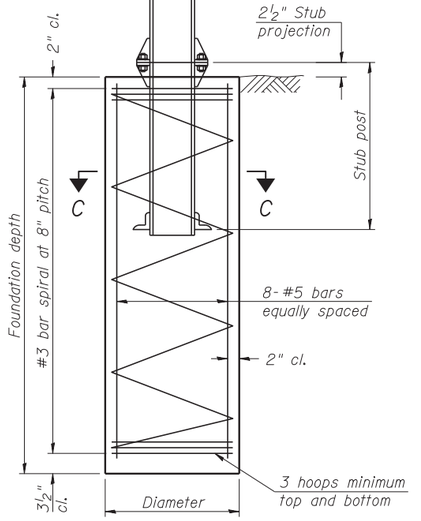
SECTION B-B



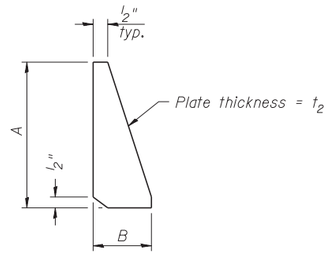
ELEVATION
SIGN POST & STUB POST



SECTION C-C



SECTION D-D



STIFFENER PLATE DETAIL

Diameter

GENERAL NOTES

Posts shall be plumbed by using shims with post-to-stub post connection bolts snug tight only. Final tightening of all High Strength Bolts shall be in accordance with Article 727.05 and threads at the junction of the bolt and nut shall be burred or center punched to prevent the nut from loosening.

LOADING: 80 m.p.h. wind with 30% gust factor, normal to sign.

DESIGN STRESSES:
Structural steel - 20,000 p.s.i.
Reinforcing steel - 20,000 p.s.i.
Concrete - 1,400 p.s.i.
Footing soil pressure - 2,000 p.s.f.

After fabrication, the post, fuse plate and upper 6", min. of the stub post shall be hot-dip galvanized in accordance with AASHTO M111. All bolts, nuts and washers shall be hot-dip galvanized in accordance with AASHTO M232.

Work this sheet with Base Sheet BAW-A-2.

BAW-A-1 1-20-11

(Sheet 1 of 2)

SGN–GM–01

Globetrotters® Engineering Corporation
ENGINEERS ARCHITECTS
300 South Wacker Drive
Chicago, Illinois 60606

USER NAME = mkosir	DESIGNED	REVISED -
	DRAWN	REVISED -
PLOT SCALE = 10:1	CHECKED	REVISED -
PLOT DATE = 09-OCT-2012	DATE 10/19/12	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BREAK–AWAY WIDE FLANGE STEEL SIGN POST DETAILS

SCALE: 1" = 10' | SHEET NO. 1 OF 2 SHEETS | STA. | TO STA.

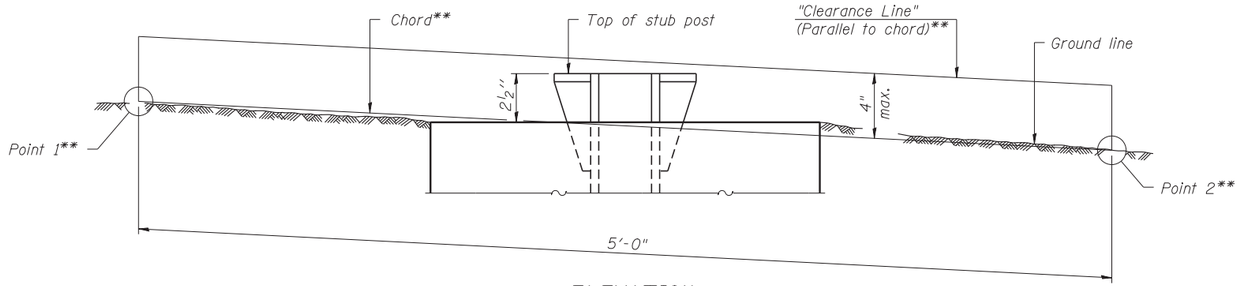
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	252
		CONTRACT NO. 60G37		
		ILLINOIS	FED. AID PROJECT	

FILE NAME = IP_PWP:dms47844\D160G37-sht-sign-gm01.dgn

POST	CONCRETE FOUNDATION TABLE							POST TO STUB POST CONNECTION DATA										FUSE PLATE DATA			
	Foundation			Reinforcement				Stub Post													
	Diameter	* Minimum Depth	Concrete (1) cu. yds.)	Vertical Bars Length	Bar Spirals Diameter	Bar Spirals Length	lbs. (2)	Length	Bolt Size	A	B	C	D	E	t_1	t_2	R	W	J	K	L	t_3
W6x9	2'-0"	6'-0"	0.70	5'-9"	1'-8½"	79'-0"	78	2'-3"	⅝" x 3¼"	6"	2¼"	1¼"	3½"	1¼"	¾"	½"	11/32"	¼"	4"	2¼"	⅞"	¼"
W6x15	2'-0"	6'-0"	0.70	5'-9"	1'-8½"	79'-0"	78	2'-6"	⅝" x 3¼"	6"	2¼"	1¼"	3½"	1¼"	¾"	½"	11/32"	¼"	6"	3½"	1¼"	⅜"
W8x18	2'-0"	6'-0"	0.70	5'-9"	1'-8½"	79'-0"	78	2'-6"	¾" x 3¾"	6"	2½"	1⅜"	3¼"	1⅜"	1"	½"	13/32"	5/16"	5¼"	2¾"	1¼"	⅜"
W10x22	2'-6"	6'-6"	1.18	6'-3"	2'-2½"	105'-0"	92	3'-0"	¾" x 3¾"	6"	2½"	1⅜"	3¼"	1⅜"	1"	½"	13/32"	5/16"	5¾"	2¾"	1½"	½"
W10x26	2'-6"	7'-0"	1.27	6'-9"	2'-2½"	112'-0"	98	3'-0"	⅞" x 4"	7"	2¾"	1½"	4"	1½"	1"	¾"	15/32"	⅜"	5¾"	2¾"	1½"	⅝"
W12x26	2'-6"	7'-9"	1.41	7'-6"	2'-2½"	119'-0"	107	3'-0"	⅞" x 4"	7"	2¾"	1½"	4"	1½"	1"	¾"	15/32"	⅜"	6½"	3½"	1½"	⅝"
W14x30	3'-0"	7'-3"	1.90	7'-0"	2'-8½"	145'-0"	113	3'-0"	⅞" x 4"	7"	2¾"	1½"	4"	1½"	1"	¾"	15/32"	⅜"	6¾"	3½"	1⅝"	½"
W14x38	3'-0"	8'-0"	2.09	7'-9"	2'-8½"	153'-0"	122	3'-6"	1" x 4½"	7½"	3"	1¾"	4"	1¾"	1¼"	¾"	17/32"	⅜"	6¾"	3½"	1⅝"	½"
W16x45	3'-0"	8'-6"	2.23	8'-3"	2'-8½"	162'-0"	130	3'-6"	1" x 4½"	7½"	3"	1¾"	4"	1¾"	1¼"	¾"	17/32"	⅜"	7"	3½"	1¾"	½"

*Dimensional changes required for varying site conditions shall be approved by the Engineer.

POST	FUSE PLATE BOLT SIZE Sign Height																				
	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	15'-0"	16'-0"	17'-0''	18'-0''	19'-0''	20'-0''	21'-0''	22'-0''	23'-0''	24'-0''
W6x9	½" x 1½"	½" x 1½"	½" x 1½"	½" x 1½"	——	——	——	——	——	——	——	——	——	——	——	——	——	——	——	——	——
W6x15	½" x 1¾"	½" x 1¾"	½" x 1¾"	⅝" x 2"	⅝" x 2"	¾" x 2"	¾" x 2"	¾" x 2"	¾" x 2"	——	——	——	——	——	——	——	——	——	——	——	——
W8x18	½" x 1¾"	½" x 1¾"	½" x 1¾"	½" x 1¾"	⅝" x 2"	⅝" x 2"	¾" x 2"	¾" x 2"	¾" x 2"	¾" x 2"	——	——	——	——	——	——	——	——	——	——	——
W10x22	½" x 2"	½" x 2"	½" x 2"	½" x 2"	½" x 2"	⅝" x 2"	⅝" x 2"	¾" x 2¼"	¾" x 2¼"	¾" x 2¼"	¾" x 2¼"	¾" x 2¼"	¾" x 2¼"	——	——	——	——	——	——	——	——
W10x26	½" x 2"	½" x 2"	½" x 2"	½" x 2"	½" x 2"	⅝" x 2¼"	⅝" x 2¼"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	——	——	——	——	——	——	——
W12x26	½" x 2"	½" x 2"	½" x 2"	½" x 2"	½" x 2"	⅝" x 2¼"	⅝" x 2¼"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	——	——	——	——	——	——
W14x30	½" x 2"	½" x 2"	½" x 2"	½" x 2"	½" x 2"	⅝" x 2"	⅝" x 2"	¾" x 2¼"	¾" x 2¼"	¾" x 2¼"	¾" x 2¼"	¾" x 2¼"	¾" x 2¼"	¾" x 2¼"	¾" x 2¼"	¾" x 2¼"	——	——	——	——	——
W14x38	½" x 2"	½" x 2"	½" x 2"	½" x 2"	½" x 2"	⅝" x 2¼"	⅝" x 2¼"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	⅞" x 2½"	⅞" x 2½"	1" x 2¾"	1" x 2¾"	1" x 2¾"	1" x 2¾"	1" x 2¾"	1" x 2¾"	1" x 2¾"	1" x 2¾"
W16x45	——	½" x 2"	½" x 2"	½" x 2"	½" x 2"	½" x 2"	½" x 2"	⅝" x 2¼"	⅝" x 2¼"	⅝" x 2¼"	¾" x 2½"	¾" x 2½"	⅞" x 2½"	⅞" x 2½"	⅞" x 2½"	1" x 2¾"	1" x 2¾"	1" x 2¾"	1" x 2¾"	1" x 2¾"	1" x 2¾"



ELEVATION
GROUND LINE & STUB POST

** For all "Point 1" and "Point 2" locations, "Clearance Line" must be at or above top of stub post.

(1) Quantity includes all concrete necessary for one foundation.

(2) Includes reinforcement bars and spiral hooping for one foundation.

BAW-A-2 1-20-11

(Sheet 2 of 2) SGN–GM–02

Globetrotters® Engineering Corporation, ENGINEERS ARCHITECTS, 300 South Wacker Drive, Chicago, Illinois 60606	USER NAME = mkosir	DESIGNED	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BREAK–AWAY WIDE FLANGE STEEL SIGN POST TABLES
		DRAWN	REVISED -		
	PLOT SCALE = 10:1	CHECKED	REVISED -		SCALE: 1" = 10' / SHEET NO. 2 OF 2 SHEETS / STA. / TO STA.
	PLOT DATE = 09-OCT-2012	DATE 10/19/12	REVISED -		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	253
		CONTRACT NO. 60G37		
	ILLINOIS FED. AID PROJECT			

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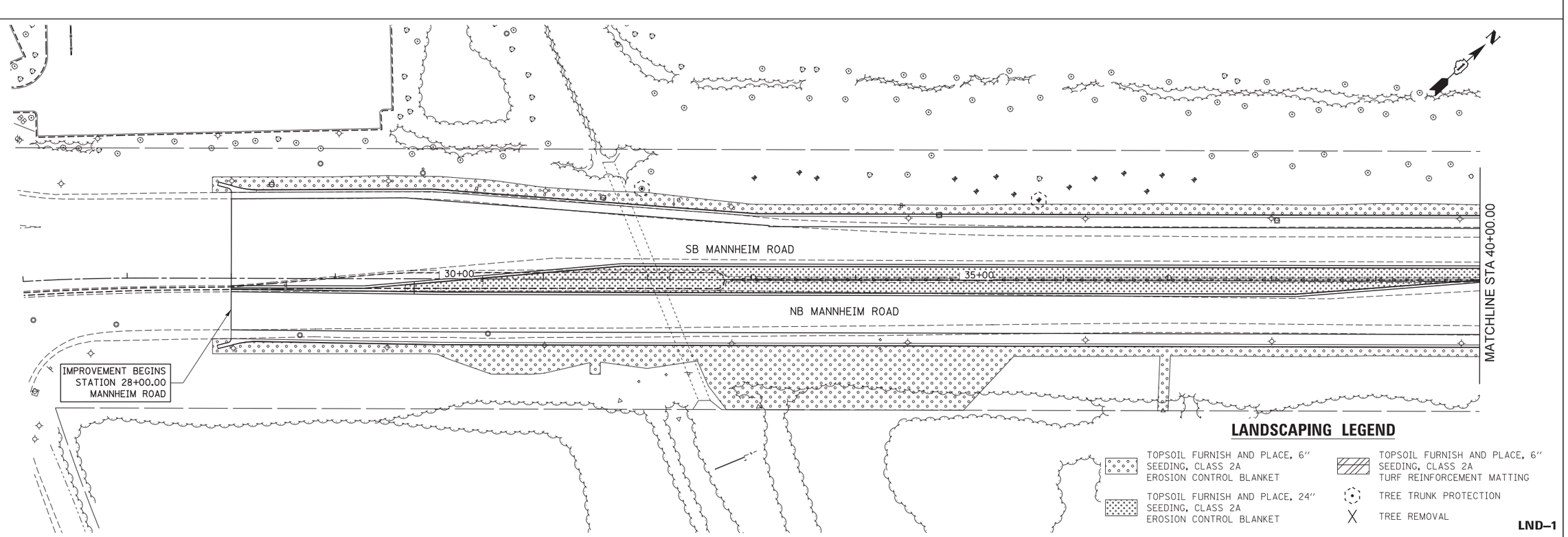

LND–1

TERRA ENGINEERING LTD.

USER NAME = mkosir	DESIGNED KJC	REVISED -
	DRAWN KJC	REVISED -
PLOT SCALE = 50:1	CHECKED LVA	REVISED -
PLOT DATE = 19-OCT-2012	DATE 10/19/2012	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LANDSCAPING PLAN – MANNHEIM ROAD

SCALE: 1" = 50' | SHEET NO. 1 OF 6 SHEETS | STA. 28+00.00 TO STA. 40+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	254
		CONTRACT NO. 60G37		
	ILLINOIS FED. AID PROJECT			

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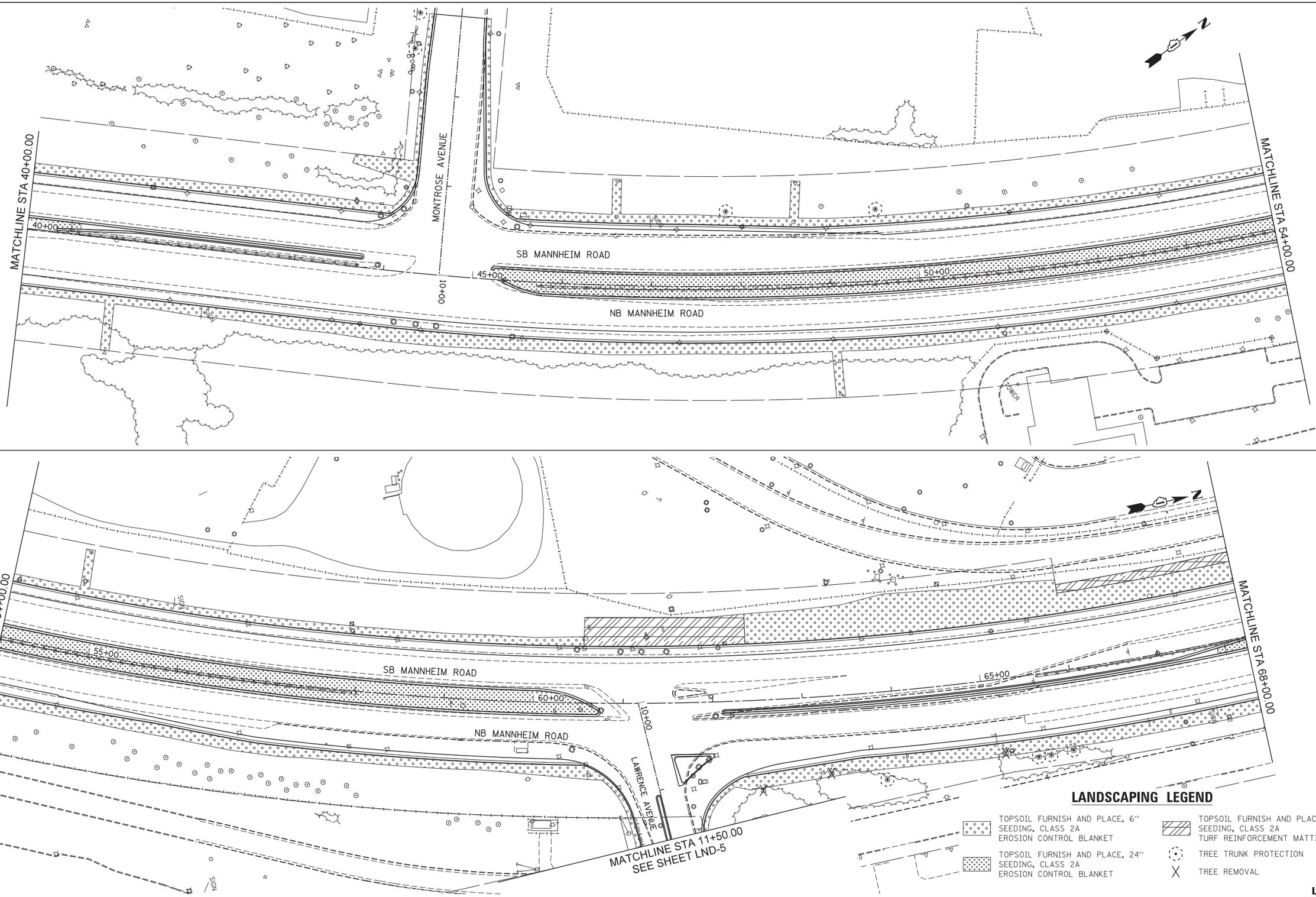

LANDSCAPING LEGEND

- TOPSOIL FURNISH AND PLACE, 6"
  SEEDING, CLASS 2A
  EROSION CONTROL BLANKET
- TOPSOIL FURNISH AND PLACE, 24"
  SEEDING, CLASS 2A
  EROSION CONTROL BLANKET
- TOPSOIL FURNISH AND PLACE, 6"
  SEEDING, CLASS 2A
  TURF REINFORCEMENT MATTING
- TREE TRUNK PROTECTION
- TREE REMOVAL

LND–2

TERRA ENGINEERING LTD.

USER NAME = mkosir	DESIGNED KJC	REVISED -
	DRAWN KJC	REVISED -
PLOT SCALE = 50:1	CHECKED LVA	REVISED -
PLOT DATE = 19-OCT-2012	DATE 10/19/2012	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LANDSCAPING PLAN – MANNHEIM ROAD

SCALE: 1" = 50' | SHEET NO. 2 OF 6 SHEETS | STA. 40+00.00 TO STA. 68+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	255
		CONTRACT NO. 60G37		
	ILLINOIS	FED. AID PROJECT		

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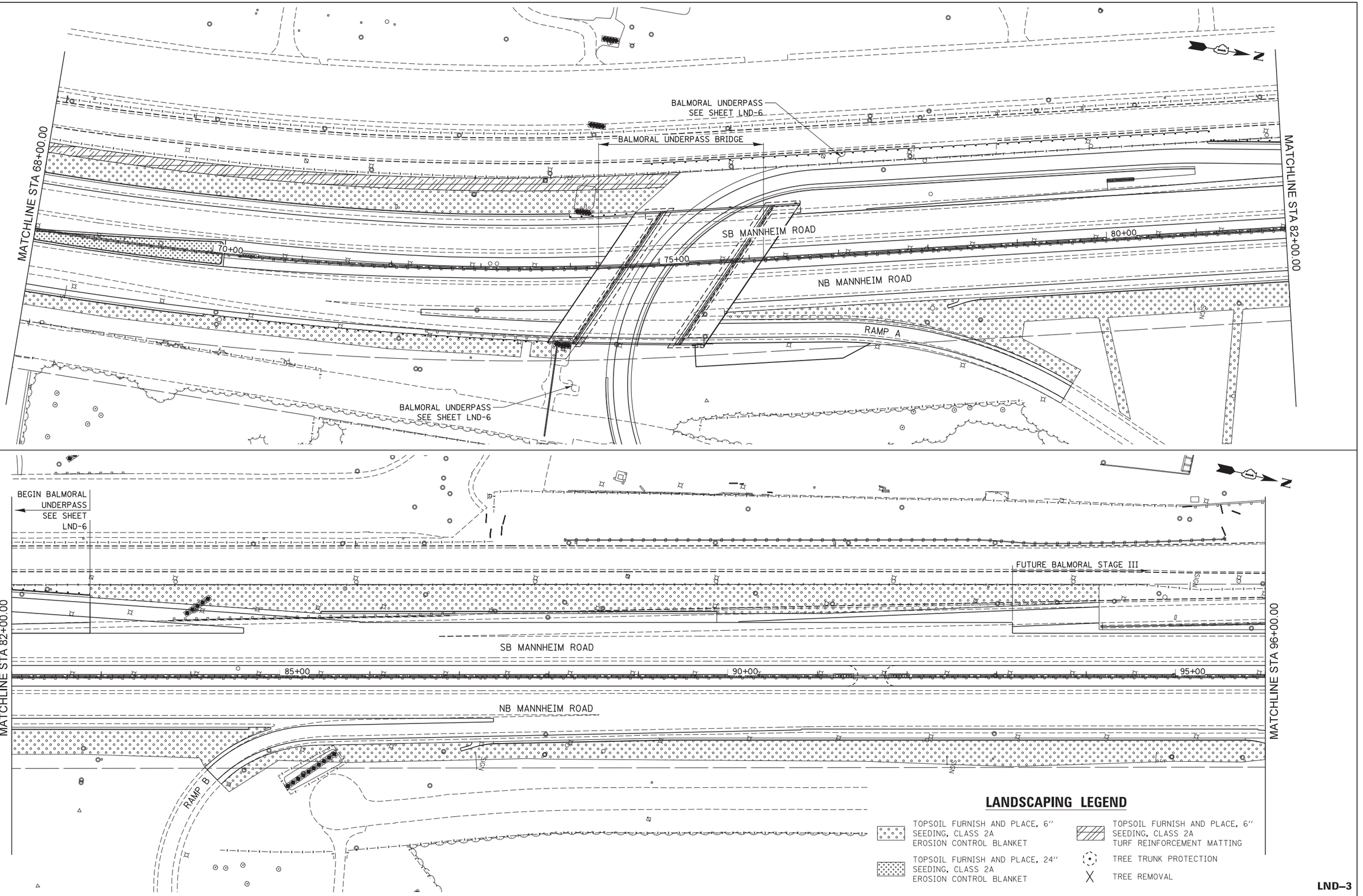

LANDSCAPING LEGEND

- TOPSOIL FURNISH AND PLACE, 6"
  SEEDING, CLASS 2A
  EROSION CONTROL BLANKET
- TOPSOIL FURNISH AND PLACE, 24"
  SEEDING, CLASS 2A
  EROSION CONTROL BLANKET
- TOPSOIL FURNISH AND PLACE, 6"
  SEEDING, CLASS 2A
  TURF REINFORCEMENT MATTING
- TREE TRUNK PROTECTION
- TREE REMOVAL

LND–3

TERRA ENGINEERING LTD.

USER NAME = mkosir	DESIGNED KJC	REVISED -
	DRAWN KJC	REVISED -
PLOT SCALE = 50:1	CHECKED LVA	REVISED -
PLOT DATE = 19-OCT-2012	DATE 10/19/2012	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LANDSCAPING PLAN – MANNHEIM ROAD

SCALE: 1" = 50' | SHEET NO. 3 OF 6 SHEETS | STA. 68+00.00 TO STA. 96+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	256
		CONTRACT NO. 60G37		
	ILLINOIS FED. AID PROJECT			

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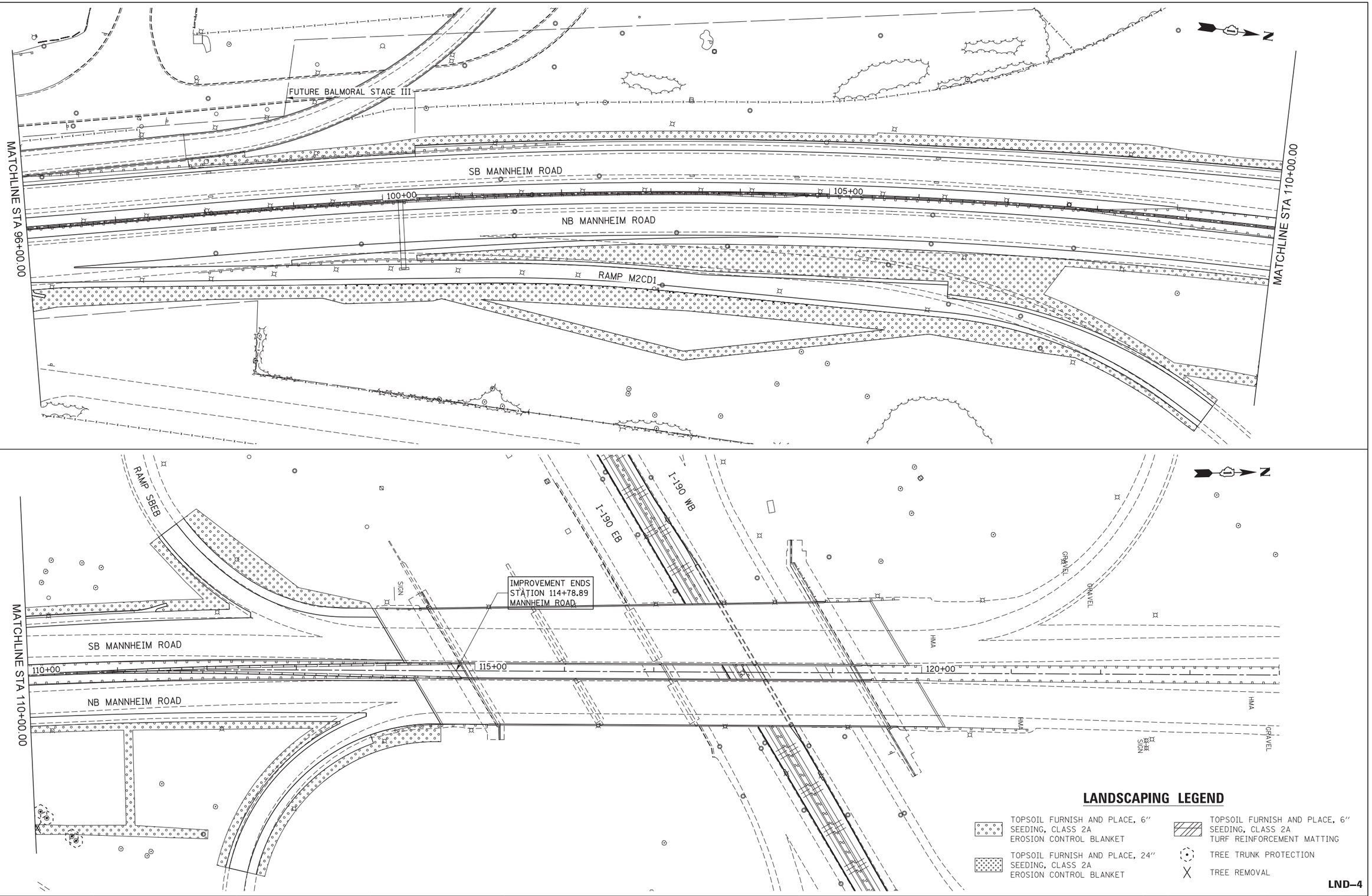


LANDSCAPING LEGEND

- TOPSOIL FURNISH AND PLACE, 6″ SEEDING, CLASS 2A EROSION CONTROL BLANKET
- TOPSOIL FURNISH AND PLACE, 24″ SEEDING, CLASS 2A EROSION CONTROL BLANKET
- TOPSOIL FURNISH AND PLACE, 6″ SEEDING, CLASS 2A TURF REINFORCEMENT MATTING
- TREE TRUNK PROTECTION
- TREE REMOVAL

LND–4

TERRA ENGINEERING LTD.

USER NAME = mkosir	DESIGNED KJC	REVISED -
	DRAWN KJC	REVISED -
PLOT SCALE = 50:1	CHECKED LVA	REVISED -
PLOT DATE = 19-OCT-2012	DATE 10/19/2012	REVISED -

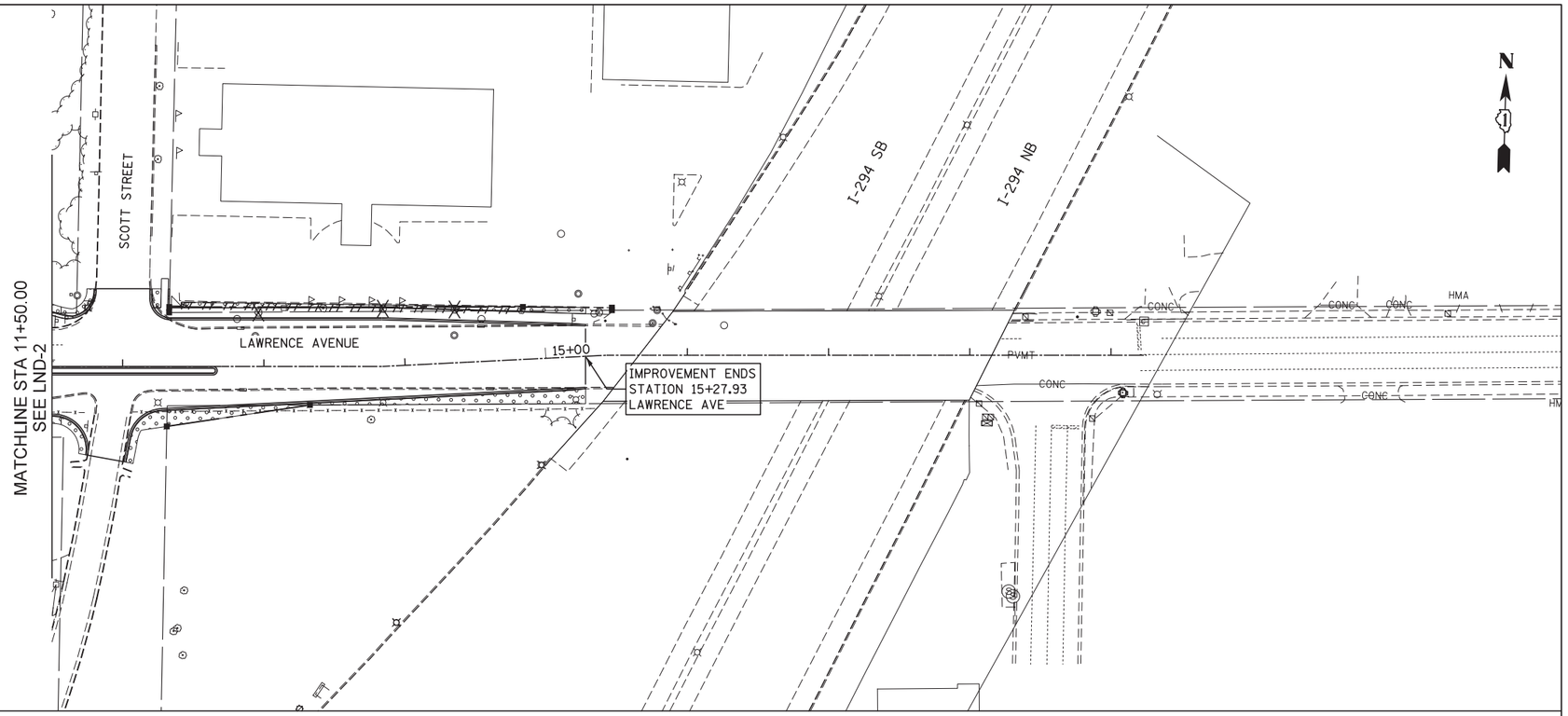
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LANDSCAPING PLAN – MANNHEIM ROAD

SCALE: 1″ = 50′ | SHEET NO. 4 OF 6 SHEETS | STA. 96+00.00 TO STA. EOP

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	257
		CONTRACT NO. 60G37		
	ILLINOIS FED. AID PROJECT			

FILE NAME = IP_PWP:dms47844\D160G37-sht-lndscp_04.dgn



LANDSCAPING LEGEND

- TOPSOIL FURNISH AND PLACE, 6"
  SEEDING, CLASS 2A
  EROSION CONTROL BLANKET
- TOPSOIL FURNISH AND PLACE, 24"
  SEEDING, CLASS 2A
  EROSION CONTROL BLANKET
- TOPSOIL FURNISH AND PLACE, 6"
  SEEDING, CLASS 2A
  TURF REINFORCEMENT MATTING
- TREE TRUNK PROTECTION
- TREE REMOVAL

LND–5

TERRA ENGINEERING LTD.

USER NAME = mkosir	DESIGNED KJC	REVISED -
	DRAWN KJC	REVISED -
PLOT SCALE = 50:1	CHECKED LVA	REVISED -
PLOT DATE = 19-OCT-2012	DATE 10/19/12	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LANDSCAPING PLAN – LAWRENCE AVENUE

SCALE: 1" = 50' | SHEET NO. 5 OF 6 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	258
		CONTRACT NO. 60G37		
	ILLINOIS FED. AID PROJECT			

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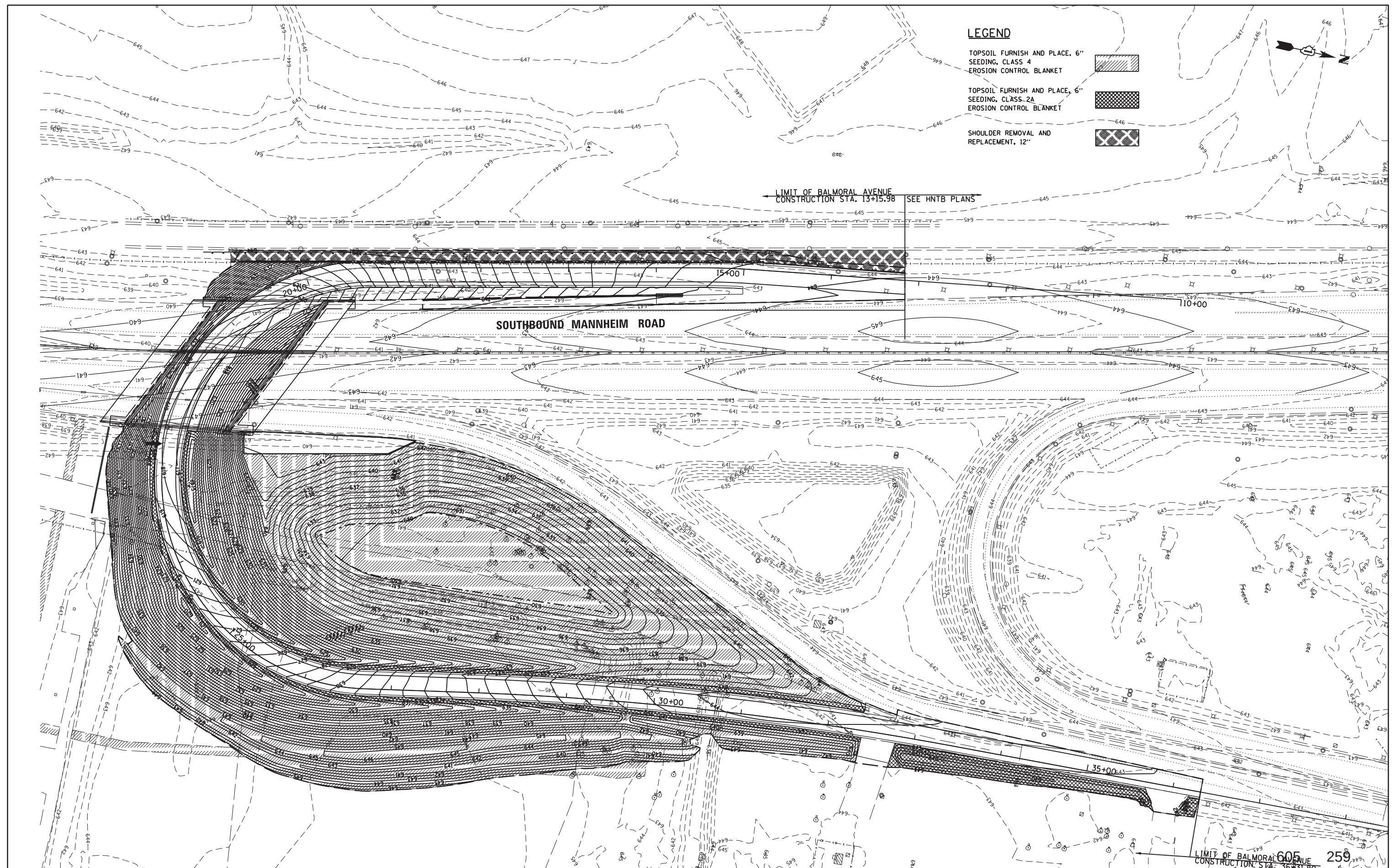

605 259

CHRISTOPHER B. BURKE ENGINEERING, LTD. 9575 W. Higgins Road, Suite 600 Rosemont, Illinois 60018 (847) 823-0500	USER NAME = pmagnelli	DESIGNED - NJM	REVISED -
		DRAWN - PWN	REVISED -
	PLOT SCALE = 100'	CHECKED - SNS	REVISED -
	PLOT DATE = 10/17/2012	DATE - 10/17/2012	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LANDSCAPING PLAN
BALMORAL UNDERPASS

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK		
		CONTRACT NO. 60G37		
		ILLINOIS FED. AID PROJECT		

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TRAFFIC SIGNAL SUMMARY OF QUANTITIES

NO.	CODE	PAY ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	MANNHEIM RD / MONTROSE AV	MANNHEIM RD / LAWRENCE AV	MANNHEIM RD (INTERCONNECT)
1	72000100	SIGN PANEL - TYPE 1	SQ FT	66	33	33	0
2	72000200	SIGN PANEL - TYPE 2	SQ FT	32.50	16.25	16.25	0
3	81028200	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	1,419	680	739	0
4	81028210	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.	FOOT	133	81	52	0
5	81028220	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	312	71	241	0
6	81028240	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	1,251	643	608	0
7	81400100	HANDHOLE	EACH	8	4	4	0
8	81400200	HEAVY-DUTY HANDHOLE	EACH	4	2	2	0
9	81400300	DOUBLE HANDHOLE	EACH	4	2	2	0
10	85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1	0	0	1
11	86400100	TRANSCEIVER - FIBER OPTIC	EACH	2	1	1	0
12	87300925	ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	4,118	0	0	4118
13	87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	2,033	1006	1027	0
14	87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	7,442	3619	3823	0
15	87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1,435	939	496	0
16	87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	7,969	4285	3684	0
17	87301805	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	75	32	43	0
18	87301900	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	2,725	1444	1281	0
19	87502480	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	2	1	1	0
20	87502500	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	2	1	1	0
21	87700140	STEEL MAST ARM ASSEMBLY AND POLE 20 FT.	EACH	1	0	1	0
22	87700200	STEEL MAST ARM ASSEMBLY AND POLE, 32 FT.	EACH	2	2	0	0
23	87700270	STEEL MAST ARM ASSEMBLY AND POLE 46 FT.	EACH	1	0	1	0
24	87702960	STEEL COMBINATIONMAST ARM ASSEMBLY AND POLE 46 FT.	EACH	1	1	0	0
25	87703020	STEEL COMBINATIONMAST ARM ASSEMBLY AND POLE 58 FT.	EACH	2	1	1	0
26	87800100	CONCRETE FOUNDATION, TYPE A	FOOT	24	12	12	0
27	87800150	CONCRETE FOUNDATION, TYPE C	FOOT	8	4	4	0
28	87800400	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	10	0	10	0
29	87800415	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	48	35	13	0
30	87800420	CONCRETE FOUNDATION, TYPE E 42-INCH DIAMETER	FOOT	42	21	21	0

NO.	CODE	PAY ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	MANNHEIM RD / MONTROSE AV	MANNHEIM RD / LAWRENCE AV	MANNHEIM RD (INTERCONNECT)
31	88030012	SIGNAL HEAD, LED, 1-FACE, 1-SECTION, BRACKET MOUNTED	EACH	1	0	1	0
32	88030020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	16	8	8	0
33	88030050	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2	1	1	0
34	88030070	SIGNAL HEAD, LED, 1-FACE, 4-SECTION, BRACKET MOUNTED	EACH	1	0	1	0
35	88030100	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	1	1	0	0
36	88030110	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	3	2	1	0
37	88030210	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2	1	1	0
38	88030240	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	2	1	1	0
39	88200210	TRAFFIC SIGNAL BACKPLATE LOUVERED, ALUMINUM	EACH	21	12	9	0
40	88500100	INDUCTIVE LOOP DETECTOR	EACH	23	12	11	0
41	88600100	DETECTOR LOOP, TYPE I	FOOT	228	0	0	228
42	88600700	PREFORMED DETECTOR LOOP	FOOT	1,839	1107	732	0
43	89000100	TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	2	1	1	0
44	89501400	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, DETECTOR UNIT	EACH	6	3	3	0
45	89501410	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT	EACH	2	1	1	0
46	89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	1,010	0	0	1010
47	89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	2	1	1	0
48	89502380	REMOVE EXISTING HANDHOLE	EACH	24	9	8	7
49	89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	20	10	10	0
50	X0324085	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3C	FOOT	1,954	1006	948	0
51	X8050095	SERVICE INSTALLATION (SPECIAL)	EACH	2	1	1	0
52	X8570225	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	2	1	1	0
53	X8620200	UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	2	1	1	0
54	X8710024	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM24F	FOOT	4,118	0	0	4118
55	Z0033046	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 2	EACH	2	0	0	2
56	Z0073510	TEMPORARY TRAFFIC SIGNAL TIMING	EACH	2	1	1	0

DELTA ENGINEERING GROUP, LLC

USER NAME = rmamucod	DESIGNED	JA	REVISED -
	DRAWN	RM	REVISED -
PLOT SCALE = $SCALE$	CHECKED	HS	REVISED -
PLOT DATE = 11/29/2012	DATE	10/19/2012	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL SUMMARY OF QUANTITIES

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	260
		CONTRACT NO. 60G37		
	ILLINOIS FED. AID PROJECT			

FILE NAME = c:\caddlib\pw\rmamucod2\pwgreat_lakes\dms47844\D1602G37-sht_ts01.dgn

LOOP DETECTOR NOTES

1. EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE EMPTY COILABLE NONMETALLIC CONDUIT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). EMPTY COILABLE NONMETALLIC CONDUIT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.

2. THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.

3. EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF INK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.

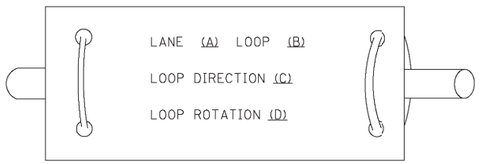
4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.

5. IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVEHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.

6. LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.

7. PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

LOOP LEAD-IN CABLE TAG

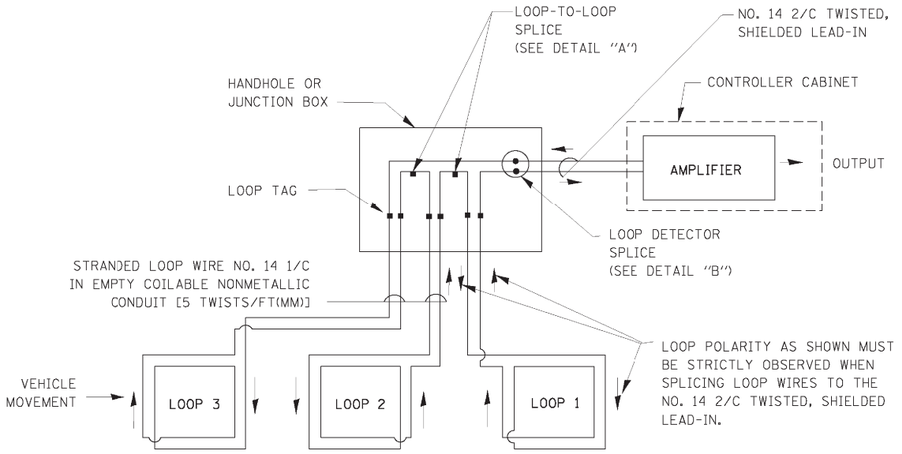


A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY

B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.

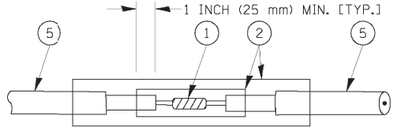
C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".

D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

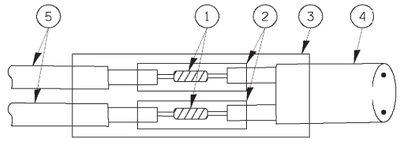


DETECTOR LOOP WIRING SCHEMATIC

- LOOPS SHALL BE SPLICED IN SERIES.
- SAW-CUTS SHALL BE A MINIMUM WIDTH OF 5/16" (8 mm).
- SAW-CUT DEPTHS SHALL BE 3" (75 mm). IF IN CONCRETE, THE SAW-CUT DEPTH SHALL BE TO THE TOP OF THE REINFORCEMENT.
- LOOP CORNERS SHALL BE DRILLED WITH A 2" (50 mm) DIAMETER CORE.

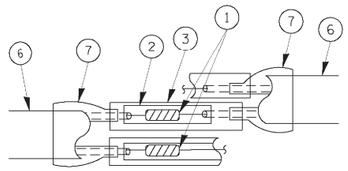


DETAIL "A"
LOOP-TO-LOOP SPLICE



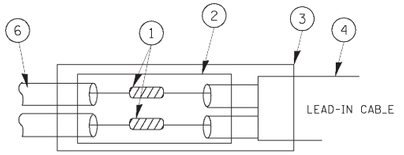
DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

TYPE I LOOP



DETAIL "A"
LOOP-TO-LOOP SPLICE

PRE-FORMED LOOP



DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

LOOP DETECTOR SPLICE

(1) WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH.

(2) WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.

(3) WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGHT 6" (150 mm), UNDERWATER GRADE.

(4) NO. 14 2/C TWISTED, SHIELDED CABLE.

(5) LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.

(6) PRE-FORMED LOOP

(7) XL POLYOLEFIN 2 CONDUCTOR BREAKOUT SEALS. TYCO CBR-2 OR APPROVED EQUAL

DELTA ENGINEERING GROUP, LLC

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	DRAWN RM	REVISED -	
PLOT SCALE = $SCALE$	CHECKED HS	REVISED -	
PLOT DATE = 11/14/2012	DATE 10/19/2012	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT 1
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	261
		CONTRACT NO. 60G37		
	ILLINOIS FED. AID PROJECT			

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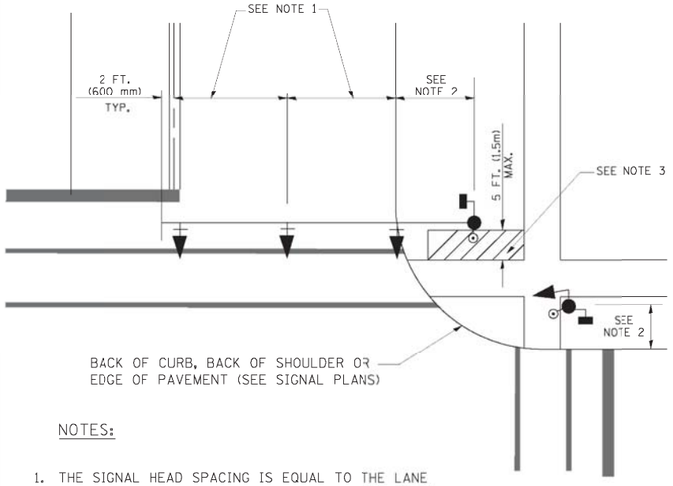
TRAFFIC SIGNAL MAST ARM AND SIGNAL POST

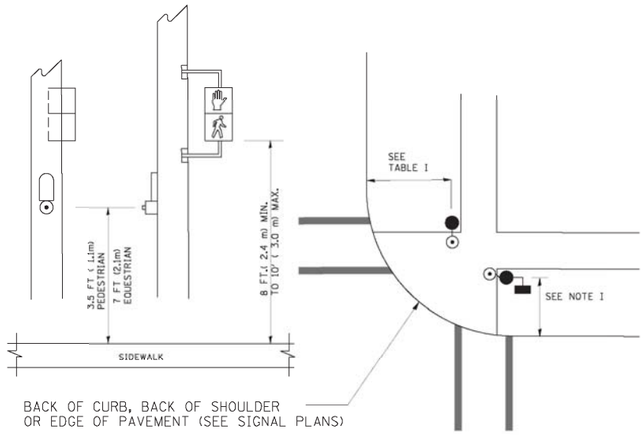
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



NOTES:

1. THE SIGNAL HEAD SPACING IS EQUAL TO THE LANE WIDTH OR AS SHOWN ON THE TRAFFIC SIGNAL PLAN.
2. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
3. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE MAST ARM SHAFT OR THE SIGNAL POST.
4. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
5. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

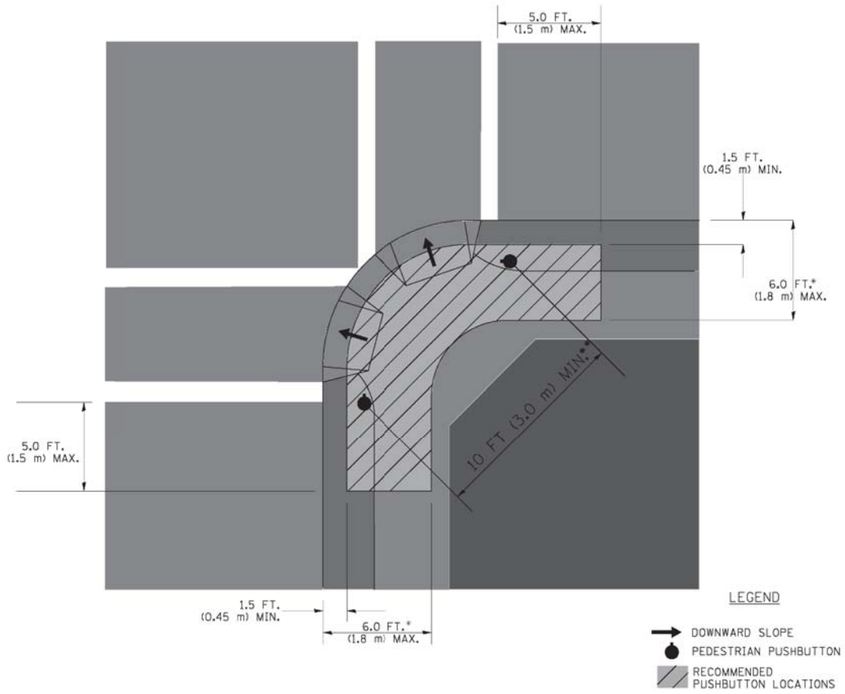
PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST



NOTES:

1. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
2. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE PEDESTRIAN SIGNAL POST OR THE PEDESTRIAN PUSH BUTTON POST.
3. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
4. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

RECOMMENDED PUSHBUTTON LOCATIONS



- WHERE THERE ARE CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON BETWEEN 1.5 FT (0.45 m) AND 6 FT (1.8 m) FROM THE EDGE OF THE CURB, SHOULDER, OR PAVEMENT, IT SHOULD NOT BE FURTHER THAN 10 FT (3 m) FROM THE EDGE OF CURB, SHOULDER, OR PAVEMENT.

** WHERE THERE ARE CONSTRAINTS ON A PARTICULAR CORNER THAT MAKE IT IMPRACTICAL TO PROVIDE THE 10 FT (3 m) SEPERATION BETWEEN THE TWO PEDESTRIAN PUSHBUTTONS, THE PUSHBUTTONS MAY BE PLACED CLOSER TOGETHER OR ON THE SAME POLE.

NOTES:

1. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 8 FT (2.4 m) OR MORE THAN 10 FT (3 m) ABOVE SIDEWALK LEVEL, AND SHALL BE POSITIONED AND ADJUSTED TO PROVIDE MAXIMUM VISIBILITY AT THE BEGINNING OF THE CONTROLLED CROSSWALK.
2. THE BOTTOM OF THE SIGNAL HOUSING (INCLUDING BRACKETS) OF A VEHICULAR SIGNAL FACE THAT IS NOT LOCATED OVER A HIGHWAY SHALL BE AT LEAST 8 FT (2.4 m) BUT NOT MORE THAN 19 FT (5.8 m) ABOVE THE SIDEWALK OR, IF THERE IS NO SIDEWALK, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE ROADWAY.
3. THE BOTTOM OF THE SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001, 877002, 877006, 877011 AND 877012 WITH A MINIMUM OF 16 FT (5.0 m) AND A MAXIMUM OF 18 FT. (5.5 m) FROM THE HIGHEST POINT OF PAVEMENT.
4. THE BOTTOM OF THE TEMPORARY SPAN WIRE MOUNTED SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARD 880001 WITH A MINIMUM OF 17 FT (5.18 m) FROM THE HIGHEST POINT OF PAVEMENT.
5. THE TOP OF THE SIGNAL HOUSING OF A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL NOT BE MORE THAN 25.6 FT (7.8 m) ABOVE THE PAVEMENT.

TRAFFIC SIGNAL EQUIPMENT OFFSET

TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION)	SHOULDER/NON-CURBED AREA (MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO CENTERLINE OF FOUNDATION)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN PUSHBUTTON POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TEMPORARY WOOD POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
CONTROLLER CABINET	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.
SERVICE INSTALLATION, GROUND MOUNT	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.

NOTES:

1. CONTACT THE "AREA TRAFFIC SIGNAL MAINTENANCE AND OPERATIONS ENGINEER" FOR ASSISTANCE IN LOCATING THE TRAFFIC SIGNAL EQUIPMENT WHEN THERE ARE CONFLICTS WITH DITCHES OR THE MINIMUM OFFSET DISTANCES CANNOT BE MET.
2. MINIMUM DISTANCE FROM THE BACK OF CURB TO THE ROADWAY SIDE OF THE FOUNDATION.
3. MINIMUM DISTANCE FROM THE EDGE OF PAVEMENT TO THE ROADWAY SIDE OF THE FOUNDATION.
4. ANY CHANGES TO THE OFFSETS OF THE FOUNDATIONS, FROM THE MINIMUM DISTANCES LISTED IN THE "TRAFFIC SIGNAL EQUIPMENT OFFSET" CHART AND THE TRAFFIC SIGNAL INSTALLATION PLAN, COULD EFFECT THE PLACEMENT OF THE SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS AND THE PEDESTRIAN PUSHBUTTONS. THE SIGNAL HEAD PLACEMENT ON THE MAST ARMS SHALL REMAIN AS PER THE TRAFFIC SIGNAL INSTALLATION PLAN AND THE "TRAFFIC SIGNAL MAST ARM AND SIGNAL POST" DETAIL ABOVE. THE PROPOSED MAST ARM LENGTHS MAY NEED TO BE REVISED TO MEET THE ABOVE REQUIREMENTS. THE PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS MUST MEET THE REQUIREMENTS UNDER THE DETAILS ON THIS SHEET.

TS-3

DELTA ENGINEERING GROUP, LLC

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PLOT DATE = 11/14/2012	DATE 10/19/2012	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT 1
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	262
		CONTRACT NO. 60G37		
		ILLINOIS	FED. AID PROJECT	

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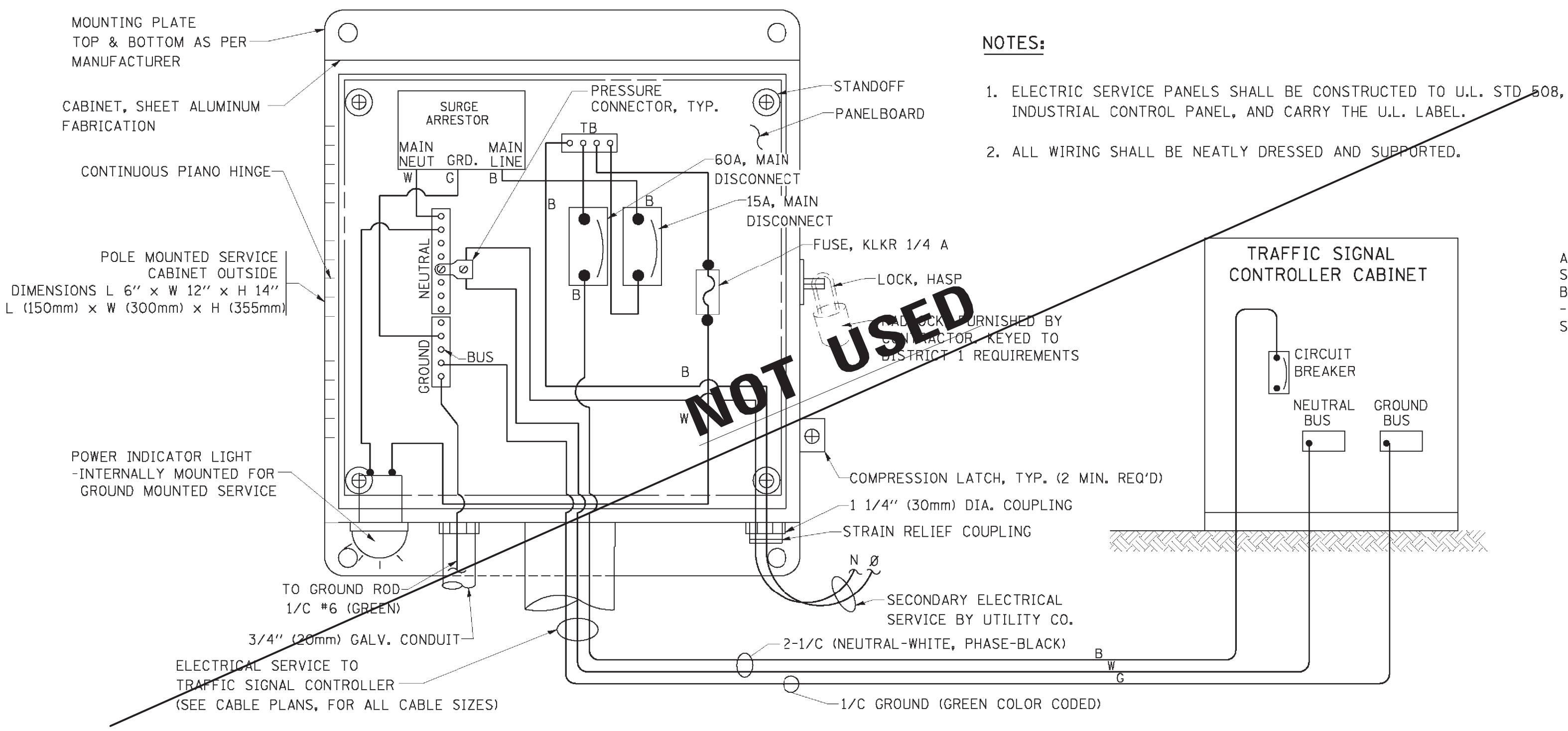


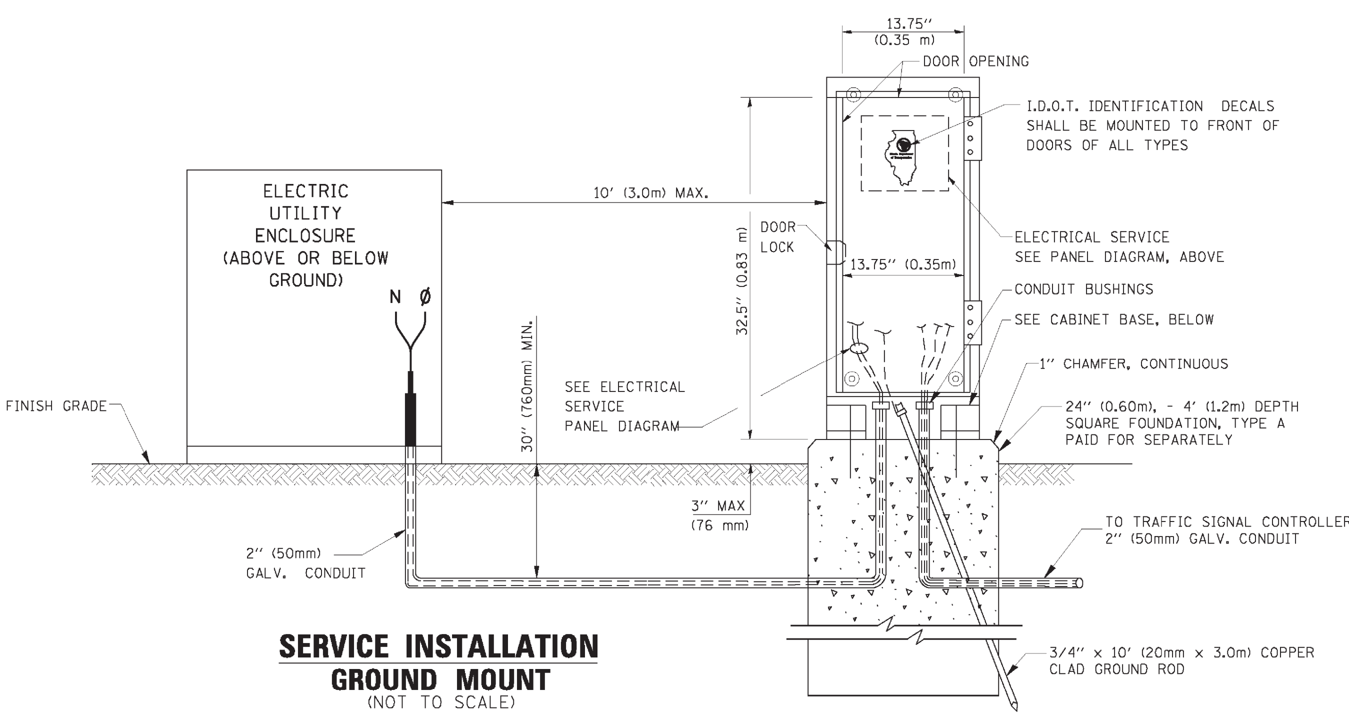
NOTES:

1. ELECTRIC SERVICE PANELS SHALL BE CONSTRUCTED TO U.L. STD 508, INDUSTRIAL CONTROL PANEL, AND CARRY THE U.L. LABEL.
2. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.

ELECTRICAL SERVICE – PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)

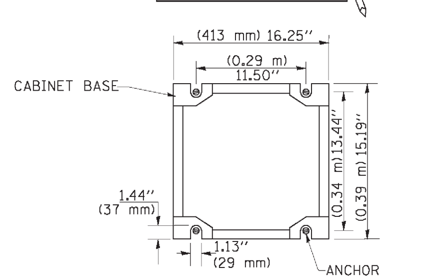
SERVICE INSTALLATION POLE MOUNT (SHOWN)

(NOT TO SCALE)



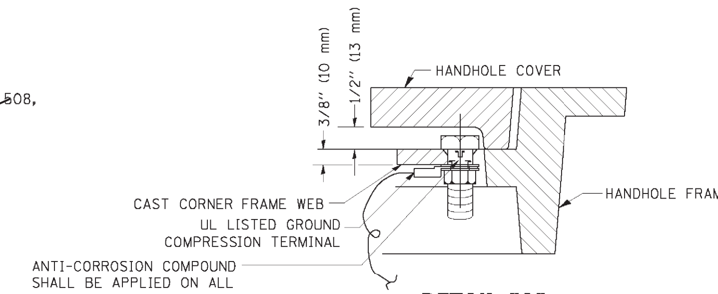
SERVICE INSTALLATION GROUND MOUNT

(NOT TO SCALE)

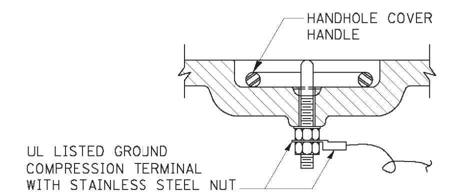


CABINET – BASE BOLT PATTERN

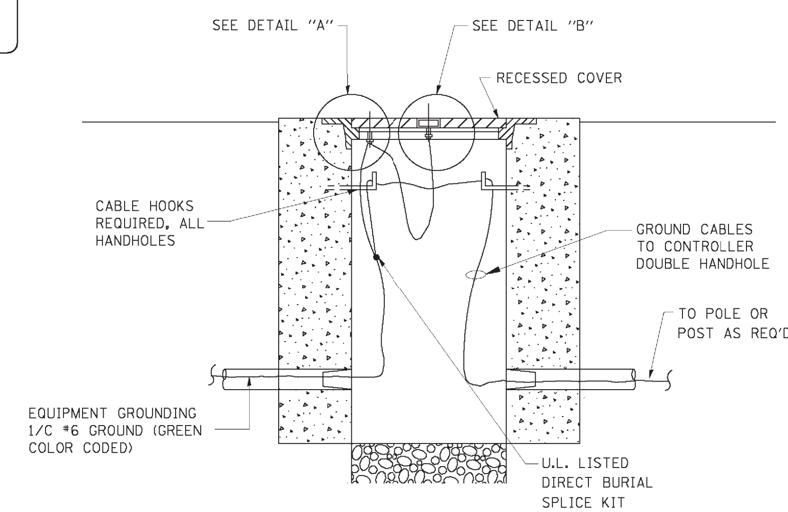
(NOT TO SCALE)



DETAIL "A"

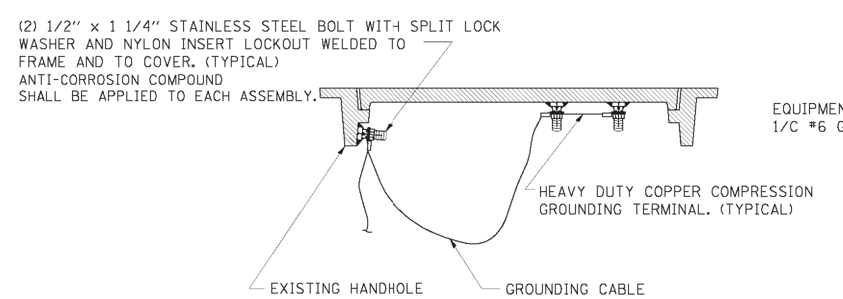


DETAIL "B"



HANDHOLE COVER & FRAME – GROUNDING DETAIL

(NOT TO SCALE)



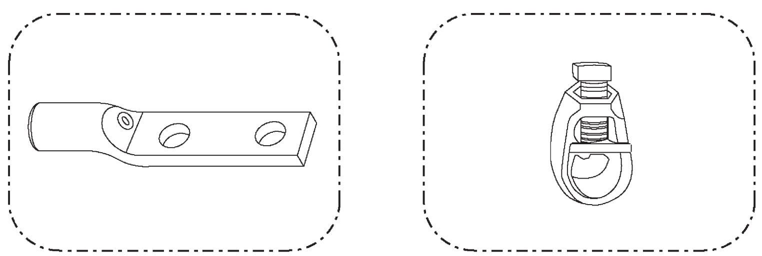
EXISTING HANDHOLE COVER & FRAME – GROUNDING DETAIL

(NOT TO SCALE)

NOTES:

GROUNDING SYSTEM

1. THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE (HANDHOLE, POST, MAST ARM, CONTROLLER, ETC.). GROUND ROD SHALL BE 3/4″ DIA. × 10′-0″ (20mm × 3.0m) LONG, COPPER CLAD. ONE GROUND ROD SHALL BE INSTALLED AT ALL POST FOUNDATIONS, POLE FOUNDATIONS, CONTROLLER CABINET FOUNDATION AND ELECTRICAL SERVICE INSTALLATION AS INDICATED ON THE CABLE PLAN. IF THERE ARE ANY SPECIAL CONDITIONS SUCH AS SUB-SURFACE CONDITIONS OR INSTALLATION PROBLEMS, THE RESIDENT ENGINEER SHALL BE NOTIFIED OR CONTACT THE BUREAU OF TRAFFIC, ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE AT (847) 705-4139.
2. THE NEUTRAL CONDUCTOR AND THE GROUND CONDUCTOR SHALL BE CONNECTED IN THE SERVICE INSTALLATION. AT NO OTHER POINT IN THE TRAFFIC SIGNAL SYSTEM SHALL THE NEUTRAL AND GROUND CONDUCTORS BE CONNECTED.
3. ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
4. THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.

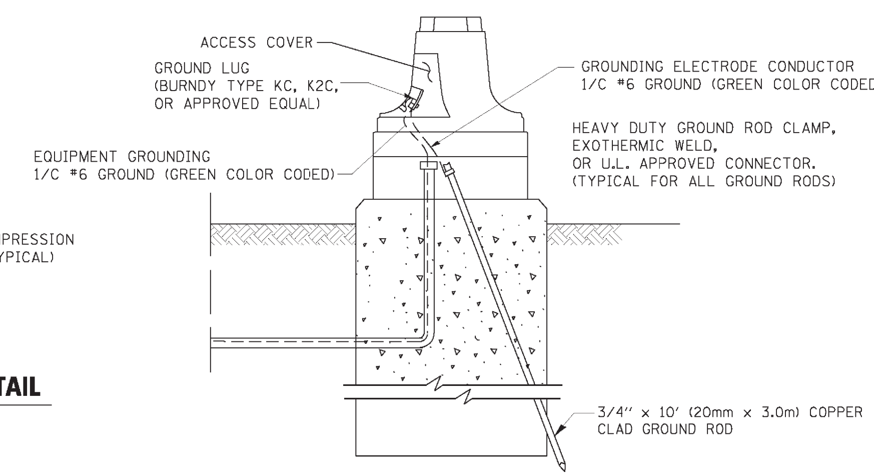


HEAVY-DUTY COMPRESSION TERMINAL (BURNDY TYPE YGHA OR APPROVED EQUAL)

¾″ (20mm) HEAVY-DUTY GROUND ROD CLAMP (BURNDY TYPE GRC OR APPROVED EQUAL)

NOTES:

- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
- GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES 6.5′ (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES 13′ (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5′ (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.



MAST ARM POLE / POST–GROUNDING DETAIL

(NOT TO SCALE)

TS–4

DELTA ENGINEERING GROUP, LLC	USER NAME = rmamucod	DESIGNED JA	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAILS
		DRAWN RM	REVISED -		
	PLOT SCALE = $SCALE$	CHECKED HS	REVISED -		
	PLOT DATE = 11/14/2012	DATE 10/19/2012	REVISED -		SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	263
		CONTRACT NO. 60G37		
	ILLINOIS FED. AID PROJECT			

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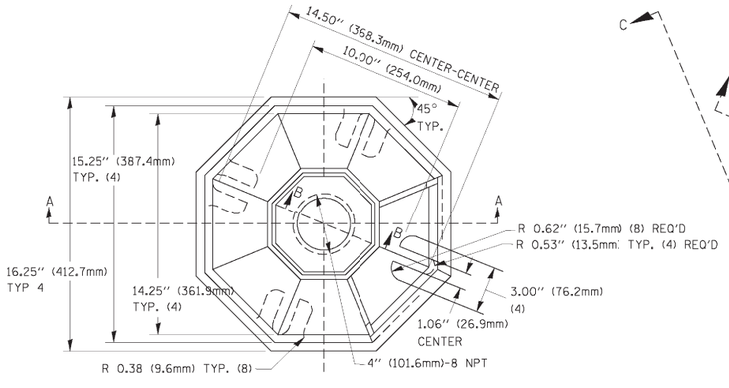
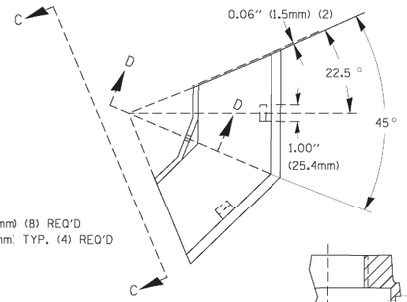
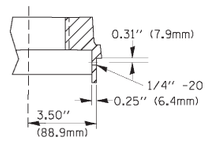
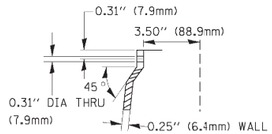


TOP VIEW





SECTION B-B



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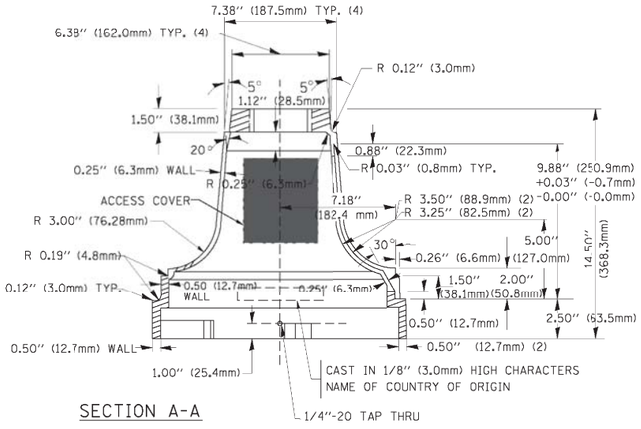
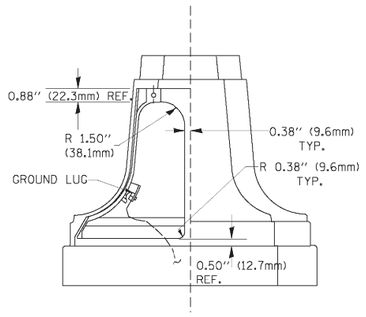
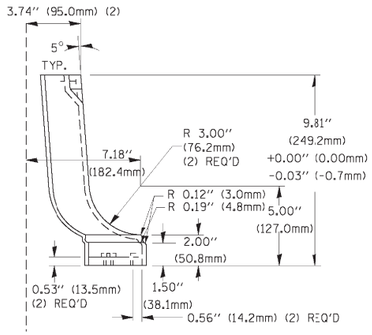


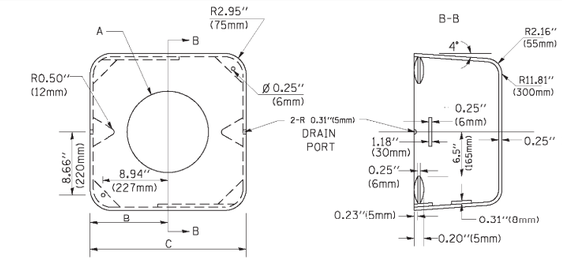
SECTION A-A



VIEW C-C



TRAFFIC SIGNAL POST - MOUNTING BASE - TYPE A



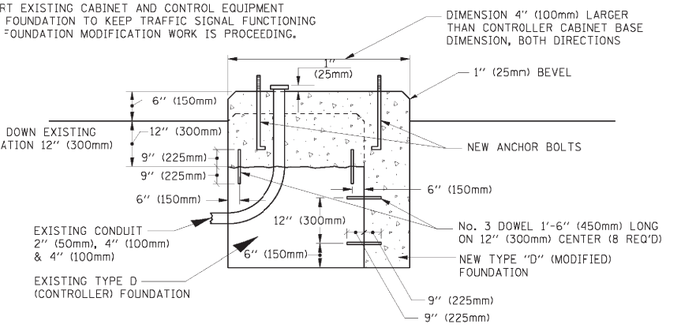
A	B	C	HEIGHT	WEIGHT
VARIES	9.5"(241mm)	19"(483mm)	7" (178mm) - 12" (300mm)	53 lbs (24kg)
VARIES	10.75"(273mm)	21.5"(546mm)	7" (178mm) - 12" (300mm)	68 lbs (31 kg)
VARIES	13.0"(330mm)	26"(660mm)	7" (178mm) - 12" (300mm)	81 lbs (37 kg)
VARIES	18.5"(470mm)	37"(940mm)	7" (178mm) - 12" (300mm)	126 lbs (57 kg)

SHROUD

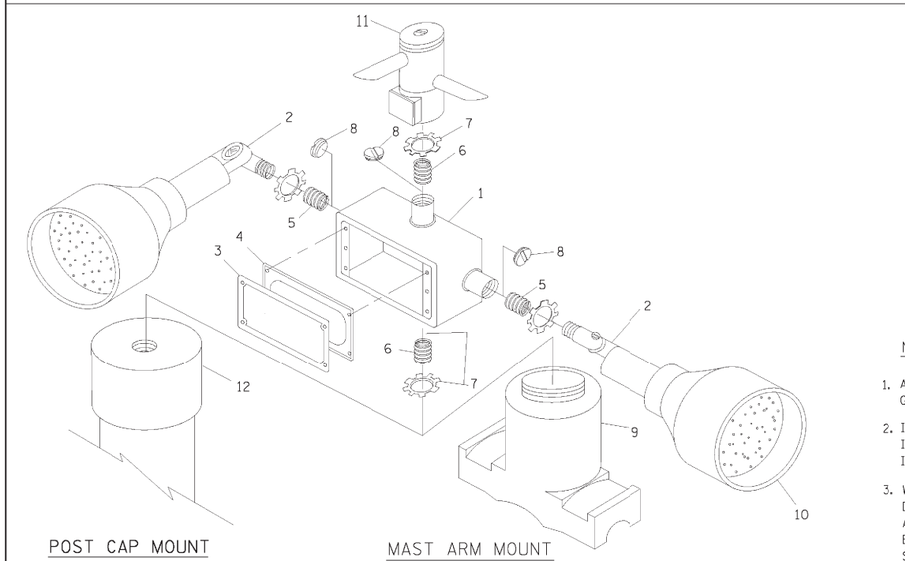
NOTES:

1. DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
2. THE SUPPLIER SHALL VERIFIED THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
3. THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NJTS AND MAST ARM POLE BASE.

NOTE:
SUPPORT EXISTING CABINET AND CONTROL EQUIPMENT ABOVE FOUNDATION TO KEEP TRAFFIC SIGNAL FUNCTIONING WHILE FOUNDATION MODIFICATION WORK IS PROCEEDING.



MODIFY EXISTING TYPE "D" FOUNDATION



POST CAP MOUNT

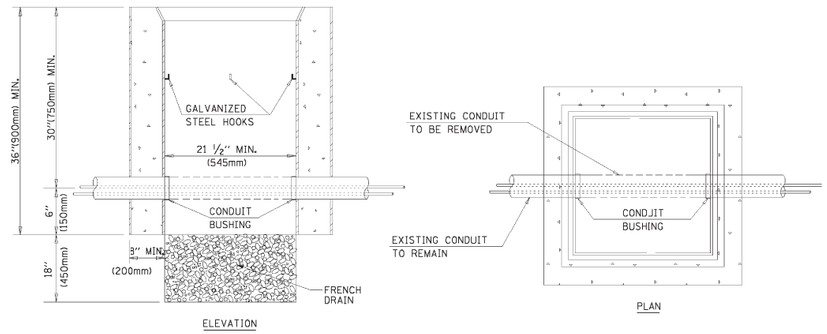
MAST ARM MOUNT

EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL

ITEM NO.	IDENTIFICATION
1	OUTLET BOX- GALV. 21 CU.IN. (0.000344 CU-M)
2	LAMP HOLDER AND COVER
3	OUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING
6	¾"(19 mm) CLOSE NIPPLE
7	¾"(19 mm) LOCKNUT
8	¾"(19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	6 WATT PAR 38 LED FLOOD LAMP
11	DETECTOR UNIT
12	POST CAP [18 FT. (5.4 m) POST MIN.]

NOTES:

1. ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
2. ITEM #1- OZ/GEDNEY FSX-1-50 OR EQUIVALENT
   ITEM #2- MULBERRY CON-O-SHADE LAMP SHIELD OR EQUIVALENT
   ITEM #9- "BAND-IT" SADDLE BRACKET OR EQUIVALENT
3. WHEN POST MOUNTING IS SPECIFIED, ITEM #9 SHALL NOT BE REQUIRED. THE DETECTION UNIT SHALL BE MOUNTED DIRECTLY ON TOP OF THE CAP BY DRILLING AND TAPPING A ¾"(19 mm) HOLE WITH PIPE THREADS. THE POST CAP SHALL EITHER BE SCREWED TO THE TOP OF THE POST OR A MINIMUM OF 3 TIGHTENING SCREWS SHALL BE REQUIRED ON EACH CAP.



NOTES:

1. HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.
2. REMOVAL OF THE EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHINGS SHALL BE INCIDENTAL TO THE HANDHOLE.

HANDHOLE TO INTERCEPT EXISTING CONDUIT

TS-5

DELTA ENGINEERING GROUP, LLC

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PLOT DATE = 11/14/2012	DATE 10/19/2012	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT 1
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	264
		CONTRACT NO. 60G37		
	ILLINOIS FED. AID PROJECT			

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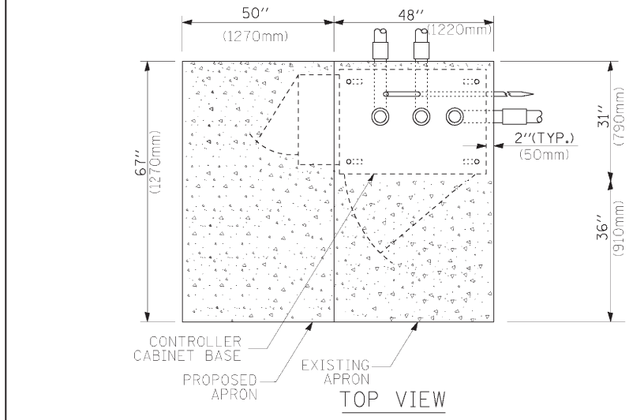
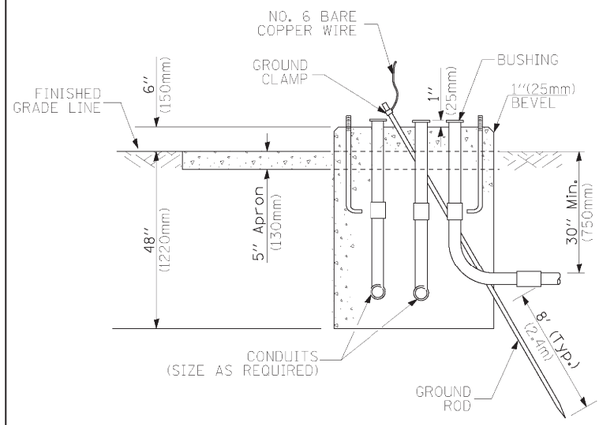
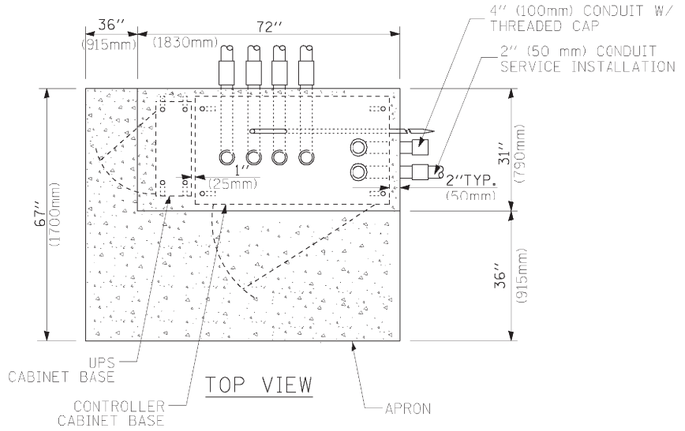
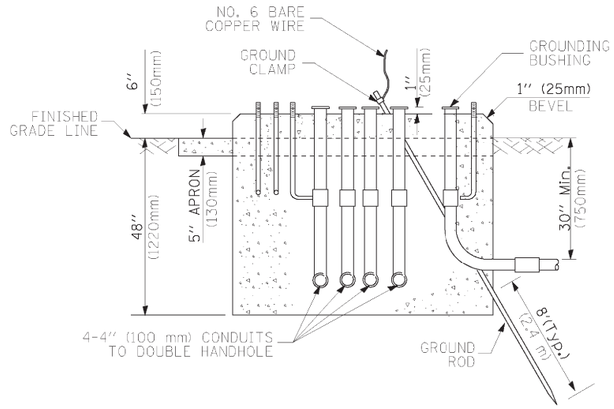


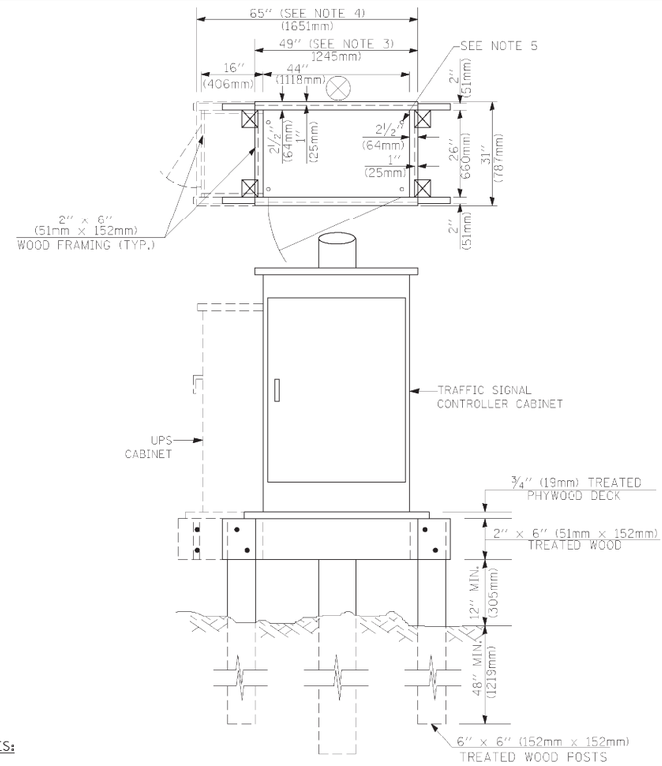


TYPE D
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET





TYPE C
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET



NOTES:

1. BASED ON CONTROLLER CABINET TYPE IV WITH BASE DIMENSIONS OF 26" x 44" (660mm x 1118mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
2. BASED ON UNINTERRUPTIBLE POWER SUPPLY CABINET WITH BASE DIMENSIONS OF 16" x 25" (406mm x 635mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
3. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV.
4. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV AND UNINTERRUPTIBLE POWER SUPPLY CABINET.
5. DRILLED HOLES THROUGH THE PLATFORM BASE TO MATCH THE CONTROLLER CABINET BOLT TEMPLATE. FASTEN THE CONTROLLER CABINET TO THE PLATFORM WITH CARRIAGE BOLTS, WASHERS AND NUTS.
6. FASTEN ALL SUPPORT WOOD FRAMING TO THE WOOD POSTS WITH 2 LAG SCREWS FOR EACH CONNECTION.

TEMPORARY SIGNAL CONTROLLER
WOOD SUPPORT PLATFORM

CABLE SLACK LENGTH	FEET	METER
HANDHOLE	6.5	2.0
DOUBLE HANDHOLE	13.0	4.0
SIGNAL POST	2.0	0.6
MAST ARM	2.0	0.6
CONTROLLER CABINET	1.5	0.5
FIBER OPTIC AT CABINET	13.0	4.0
ELECTRIC SERVICE AT (CABINET OR SERVICE LOCATION)	1.5	0.5
GROUND CABLE (SIGNAL POST, MAST ARM, CABINET)	1.5	0.5
GROUND CABLE (BETWEEN FRAME AND COVER)	5.0	1.6

CABLE SLACK

VERTICAL CABLE LENGTH	FEET	METER
MAST ARM POLE (MAST ARM MOUNTED SIGNAL HEAD) (L = MAST ARM LENGTH - DISTANCE TO SIGNAL HEAD FROM END OF ARM)	20.0+L	6.0+L
BRACKET MOUNTED (MAST ARM POLE OR SIGNAL POLE)	13.0	4.0
PEDESTRIAN PUSH BUTTON	6.0	2.0
SERVICE INSTALLATION POLE MOUNT TO SERVICE DROP	13.5	4.1
SERVICE INSTALLATION POLE MOUNT TO GROUND	13.5	4.1
SERVICE INSTALLATION GROUND MOUNT	6.0	2.0
FOUNDATION (SIGNAL POST, MAST ARM POLE, CONTROLLER CABINET, SERVICE-GROUND MOUNT)	3.0	1.0

VERTICAL CABLE LENGTH

FOUNDATION	DEPTH
TYPE A - Signal Post	4'-0" (1.2m)
TYPE C - CONTROLLER W/ UPS	4'-0" (1.2m)
TYPE D - CONTROLLER	4'-0" (1.2m)
SERVICE INSTALLATION, GROUND MOUNT, TYPE A - SQUARE	4'-0" (1.2m)

DEPTH OF FOUNDATION

Mast Arm Length	① Foundation Depth	Foundation Diameter	Spiral Diameter	Quantity of Rebars	Size of Rebars
Less than 30' (9.1 m)	10'-0" (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 30' (9.1 m) and less than 40' (12.2 m)	13'-6" (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
	11'-0" (3.4 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	13'-0" (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	15'-0" (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 56' (16.8 m) and less than 65' (19.8 m)	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
Greater than or equal to 65' (19.8 m) and up to 75' (22.9 m)	25'-0" (7.6 m)	42" (1060mm)	36" (900mm)	16	8(25)

NOTES:

1. These foundation depths are for sites which have cohesive soils (clayey silt, sandy clay, etc.) along the length of the shaft, with an average Unconfined Compressive Strength (Qu) > 1.0 tsf (100 kpa). This strength shall be verified by boring data prior to construction or with testing by the Engineer during foundation drilling. The Bureau of Bridges & Structures should be contacted for a revised design if other conditions are encountered.
2. Combination mast arm assemblies under 55 feet (16.8 m) shall use 36" (900 mm) diameter foundations.
3. Combination mast arm assemblies under 56 feet (16.8 m) through 75 feet (22.9 m) shall use 42" (1060 mm) diameter foundations.
4. For mast arm assemblies with dual arms refer to state standard 878001.

DEPTH OF MAST ARM FOUNDATIONS, TYPE E **TS-6**

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT 1
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	265
		CONTRACT NO. 60G37		
		ILLINOIS FED. AID PROJECT		

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TRAFFIC SIGNAL LEGEND

ITEM	REMOVAL	EXISTING	PROPOSED
CONTROLLER CABINET	R		
RAILROAD CONTROL CABINET		R R	R R
COMMUNICATIONS CABINET	R C C	E C C	C C
MASTER CONTROLLER		EMC	MC
MASTER MASTER CONTROLLER		EMMC	MMC
UNINTERRUPTIBLE POWER SUPPLY	R UPS	EUPS	UPS
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT	R	P	P
TELEPHONE CONNECTION (P) POLE OR (G) GROUND MOUNT	R T	P T	P T
STEEL MAST ARM ASSEMBLY AND POLE	R		
ALUMINUM MAST ARM ASSEMBLY AND POLE	R		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE	R		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH PTZ CAMERA	R PTZ	PTZ	PTZ
SIGNAL POST	R		
TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM	R		
GUY WIRE	R		
SIGNAL HEAD	R		
SIGNAL HEAD CONSTRUCTION STAGES (NUMBERS INDICATE THE CONSTRUCTION STAGE)			2
SIGNAL HEAD WITH BACKPLATE	R		
SIGNAL HEAD OPTICALLY PROGRAMMED	R "P"	"P"	"P"
FLASHER INSTALLATION (S DENOTES SOLAR POWER)	R "F"	"F"	"F"
PEDESTRIAN SIGNAL HEAD	R		
PEDESTRIAN PUSHBUTTON DETECTOR	R		
ACCESSIBLE PEDESTRIAN PUSHBUTTON DETECTOR	R APS	APS	APS
ILLUMINATED SIGN "NO LEFT TURN"	R		
ILLUMINATED SIGN "NO RIGHT TURN"	R		
DETECTOR LOOP, TYPE I			
PREFORMED DETECTOR LOOP		P	P
MICROWAVE VEHICLE SENSOR	R M	M	M
VIDEO DETECTION CAMERA	R V	V	V
VIDEO DETECTION ZONE			
PAN, TILT, ZOOM CAMERA	R PTZ	PTZ	PTZ
WIRELESS DETECTOR SENSOR	R W	W	W
WIRELESS ACCESS POINT	R		

ITEM	REMOVAL	EXISTING	PROPOSED
EMERGENCY VEHICLE LIGHT DETECTOR	R		
CONFIRMATION BEACON	R		
HANDHOLE	R		
HEAVY DUTY HANDHOLE	R H	H	H
DOUBLE HANDHOLE	R		
JUNCTION BOX	R		
GALVANIZED STEEL CONDUIT IN TRENCH (T) OR PUSHED (P)			
TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE	R		
COMMON TRENCH			CT
COILABLE NONMETALLIC CONDUIT (EMPTY)			CNC
SYSTEM ITEM		S	S
INTERSECTION ITEM		I	IP
REMOVE ITEM	R		
RELOCATE ITEM	RL		
ABANDON ITEM	A		
12" (300mm) TRAFFIC SIGNAL SECTION		R	R
12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE		R Y G	
SIGNAL FACE		R Y G Y G	R Y G Y G
SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD		R Y G Y G "P"	R Y G Y G "P"
12" (300mm) PEDESTRIAN SIGNAL HEAD WALK/DON'T WALK SYMBOL		DW W	
12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, OUTLINED			
12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, SOLID			
PEDESTRIAN SIGNAL HEAD, INTERNATIONAL SYMBOL, WITH COUNTDOWN TIMER		C D	C D
RADIO INTERCONNECT	R		
RADIO REPEATER	R ERR	ERR	RR
DENOTES NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE, ALL DETECTOR LOOP CABLE TO BE SHIELDED		5	5
GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)		1	1

ITEM	REMOVAL	EXISTING	PROPOSED
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1/C, UNLESS NOTED OTHERWISE		I	I
COAXIAL CABLE		C	C
VENDOR CABLE FOR CAMERA		V	V
COPPER INTERCONNECT CABLE, NO. 18 3 PAIR TWISTED, SHIELDED		6	6
FIBER OPTIC CABLE NO. 62.5/125, MM12F		12F	
FIBER OPTIC CABLE NO. 62.5/125, MM12F SM12F		24F	24F
FIBER OPTIC CABLE NO. 62.5/125, (NUMBER OF FIBERS & TYPE TO BE NOTED ON PLANS)			
GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE		C	C
CONTROLLER CABINET AND FOUNDATION TO BE REMOVED	RCF		
STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED	RMF		
ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED	RMF		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE AND FOUNDATION TO BE REMOVED	RMF		
SIGNAL POST AND FOUNDATION TO BE REMOVED	RMF		
INTERSECTION & SAMPLING (SYSTEM) DETECTOR		IS	IS
SAMPLING (SYSTEM) DETECTOR		S	S
EXISTING INTERSECTION LOOP DETECTOR PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR		P	
EXISTING PREFORMED INTERSECTION LOOP DETECTOR PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR		PP	
PREFORMED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR		PIS	PIS
PREFORMED SAMPLING (SYSTEM) DETECTOR		PS	PS

RAILROAD SYMBOLS

	EXISTING	PROPOSED
RAILROAD CONTROL CABINET	R R	R R
RAILROAD CANTILEVER MAST ARM		
FLASHING SIGNAL		
CROSSING GATE		
CROSSBUCK		

TS-7

DELTA ENGINEERING GROUP, LLC

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT 1
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	266
		CONTRACT NO. 60G37		
		ILLINOIS FED. AID PROJECT		

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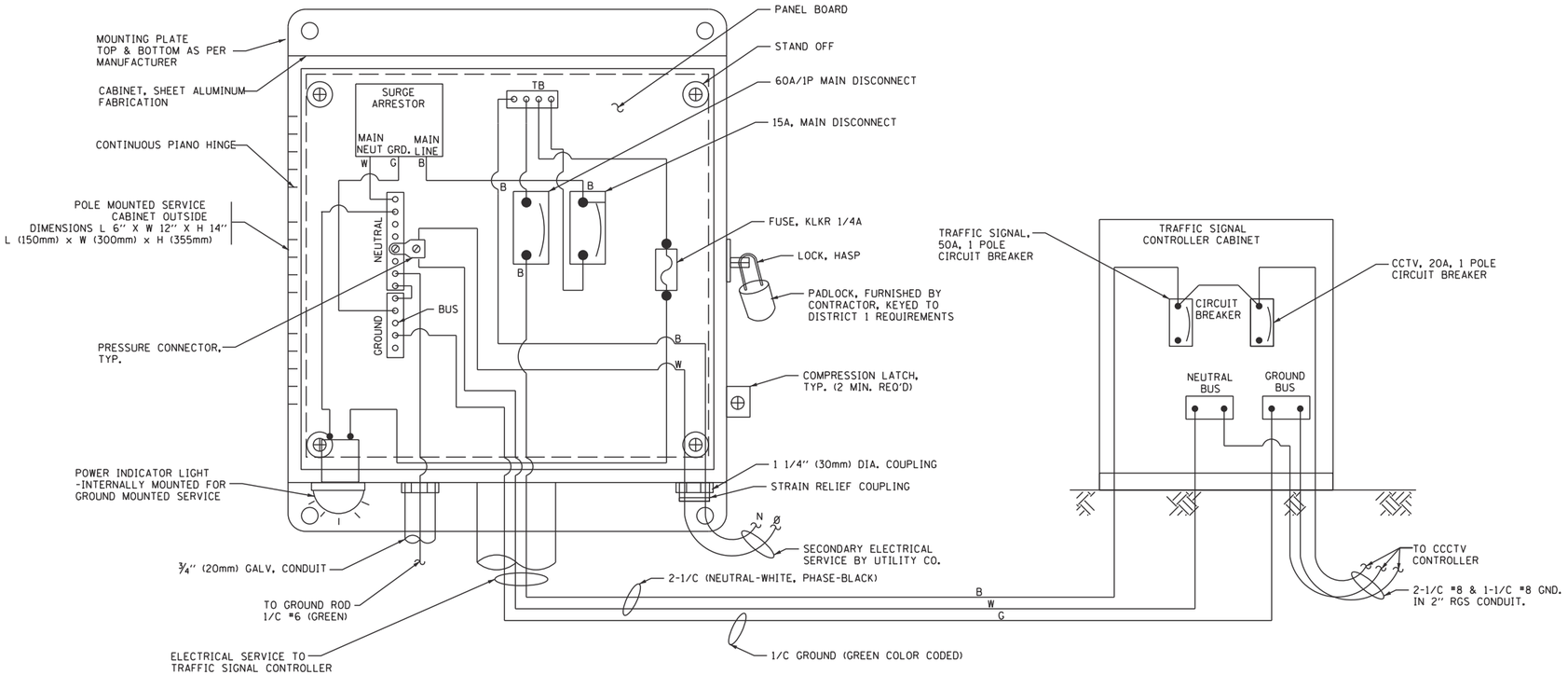
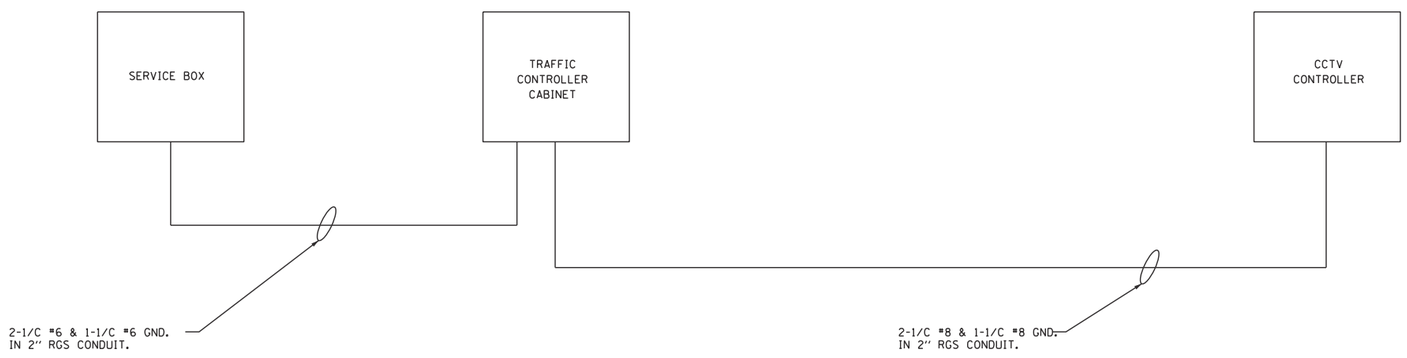


ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)
SERVICE INSTALLATION POLE MOUNT (SHOWN)
(N.T.S.)



NOTES:

1. ELECTRIC SERVICE PANELS SHALL BE CONSTRUCTED TO U.L. STD 508, INDUSTRIAL CONTROL PANEL, AND CARRY THE U.L. LABEL.
2. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.

ELECTRICAL SERVICE - SERVICE DIAGRAM
(N.T.S.)

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PLOT DATE = 11/14/2012	DATE 10/19/2012	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

COMBINATION LIGHTING TRAFFIC POLE AND CCTV POWER MOUNTED ELECTRIC SERVICE BOX DETAIL

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	267
		CONTRACT NO. 60G37		
	ILLINOIS	FED. AID PROJECT		

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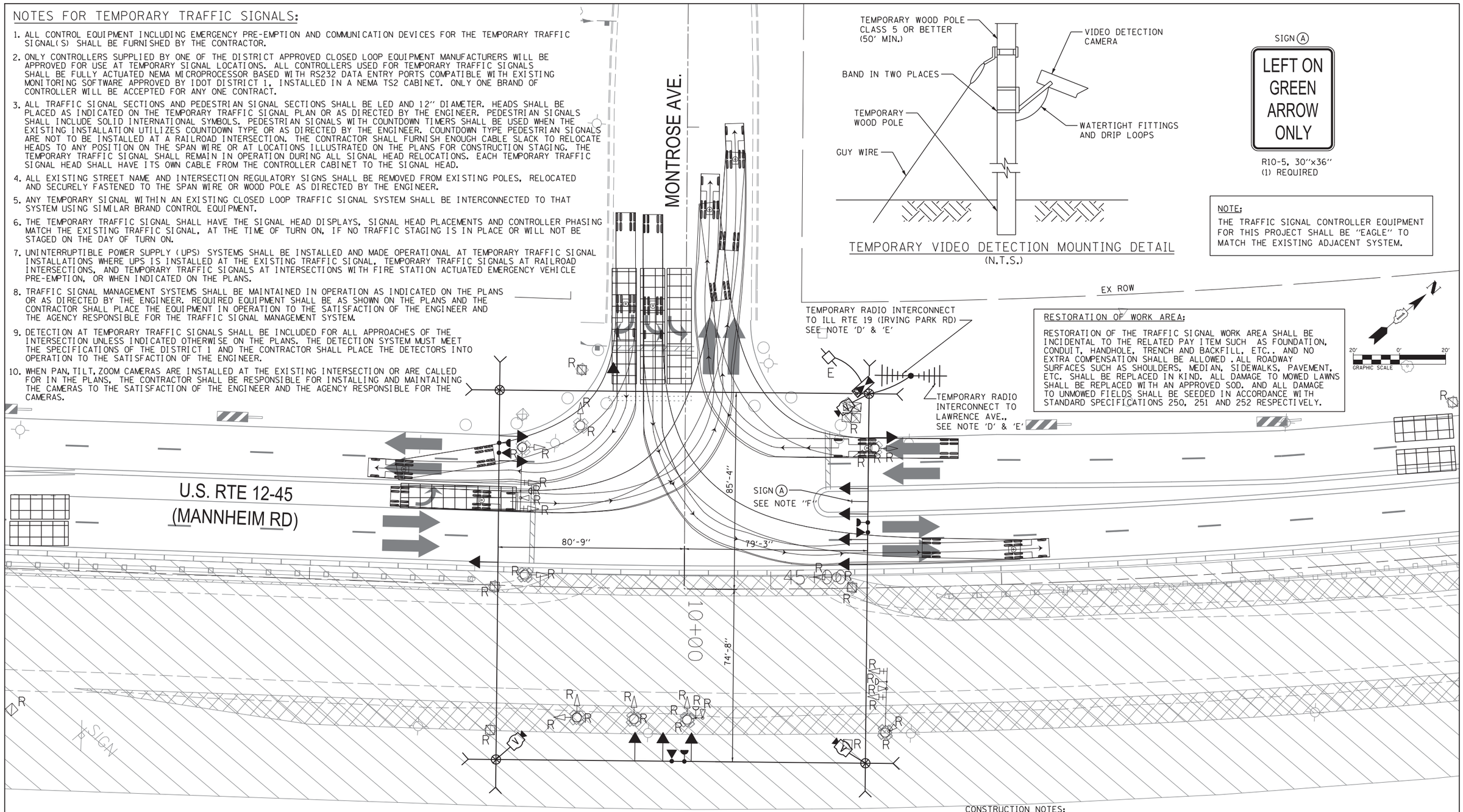
NOTES FOR TEMPORARY TRAFFIC SIGNALS:

1. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
2. ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1. INSTALLED IN A NEMA TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
3. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE LED AND 12" DIAMETER. HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. PEDESTRIAN SIGNALS SHALL INCLUDE SOLID INTERNATIONAL SYMBOLS. PEDESTRIAN SIGNALS WITH COUNTDOWN TIMERS SHALL BE USED WHEN THE EXISTING INSTALLATION UTILIZES COUNTDOWN TYPE OR AS DIRECTED BY THE ENGINEER. COUNTDOWN TYPE PEDESTRIAN SIGNALS ARE NOT TO BE INSTALLED AT A RAILROAD INTERSECTION. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.
4. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
5. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.
6. THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENTS AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF TURN ON, IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF TURN ON.
7. UNINTERRUPTIBLE POWER SUPPLY (UPS) SYSTEMS SHALL BE INSTALLED AND MADE OPERATIONAL AT TEMPORARY TRAFFIC SIGNAL INSTALLATIONS WHERE UPS IS INSTALLED AT THE EXISTING TRAFFIC SIGNAL, TEMPORARY TRAFFIC SIGNALS AT RAILROAD INTERSECTIONS, AND TEMPORARY TRAFFIC SIGNALS AT INTERSECTIONS WITH FIRE STATION ACTUATED EMERGENCY VEHICLE PRE-EMPTION, OR WHEN INDICATED ON THE PLANS.
8. TRAFFIC SIGNAL MANAGEMENT SYSTEMS SHALL BE MAINTAINED IN OPERATION AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. REQUIRED EQUIPMENT SHALL BE AS SHOWN ON THE PLANS AND THE CONTRACTOR SHALL PLACE THE EQUIPMENT IN OPERATION TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE TRAFFIC SIGNAL MANAGEMENT SYSTEM.
9. DETECTION AT TEMPORARY TRAFFIC SIGNALS SHALL BE INCLUDED FOR ALL APPROACHES OF THE INTERSECTION UNLESS INDICATED OTHERWISE ON THE PLANS. THE DETECTION SYSTEM MUST MEET THE SPECIFICATIONS OF THE DISTRICT 1 AND THE CONTRACTOR SHALL PLACE THE DETECTORS INTO OPERATION TO THE SATISFACTION OF THE ENGINEER.
10. WHEN PAN, TILT, ZOOM CAMERAS ARE INSTALLED AT THE EXISTING INTERSECTION OR ARE CALLED FOR IN THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THE CAMERAS TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE CAMERAS.



TEMPORARY VIDEO DETECTION MOUNTING DETAIL
(N.T.S.)

SIGN (A)

LEFT ON GREEN ARROW ONLY

R10-5, 30"x36"
(1) REQUIRED

NOTE:
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

RESTORATION OF WORK AREA:

RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC.. AND NO EXTRA COMPENSATION SHALL BE ALLOWED . ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD. AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 250, 251 AND 252 RESPECTIVELY.

GRAPHIC SCALE 20' 0' 20'

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

1	EACH	CONTROLLER AND CABINET (COMPLETE)
1	EACH	SIGNAL HEAD, 2-FACE, 3-SECTION
9	EACH	SIGNAL HEAD, 1-FACE, 3-SECTION
1	EACH	SIGNAL HEAD, 1-FACE, 5-SECTION
1	EACH	SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-5 SECTION
2	EACH	STEEL MAST ARM AND POLE
7	EACH	SIGNAL POST
1	EACH	SERVICE INSTALLATION

EX ROW

STAGE 1

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL REMAIN THE PROPERTY OF THE AGENCY LISTED BELOW. THE CONTRACTOR SHALL SAFELY REMOVE, STORE AND RELOCATE ALL EQUIPMENT TO NEW LOCATIONS AS INDICATED ON TRAFFIC SIGNAL INSTALLATION PLANS.

AGENCY: VILLAGE OF SCHILLER PARK

3	EACH	LIGHT DETECTOR
1	EACH	LIGHT DETECTOR AMPLIFIER

CONSTRUCTION NOTES:

A. REMOVAL OF TRAFFIC SIGNAL AND LIGHTING AT EXISTING INTERSECTION SHALL BE COORDINATED WITH STAGING OF CONSTRUCTION OR AS DIRECTED BY THE ENGINEER.
B. PROPOSED SERVICE TO THE TEMPORARY TRAFFIC SIGNAL CONTROLLER SHALL BE FROM EXISTNG COMED SERVICE. CONTRACTOR SHALL COORDINATE WITH COMED.
C. CONTRACTOR TO PROVIDE DRIP LOOPS TO THE CABLES.
D. SINGLE OR DUAL ANTENNAS MAY BE REQUIRED BASED ON LINE OF SIGHT TO MASTER CONTROLLER.
E. TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECT TO ILL RTE 19 (IRVING PARK RD) IS INSTALLED AND OPERATIONAL.
F. LEFT ON GREEN ARROW ONLY SIGN SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION.

TS-9

DELTA ENGINEERING GROUP, LLC

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION AND REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT PLAN
US RTE 12-45 (MANNHEIM RD) AND MONTROSE AVE. (STAGE 1)

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

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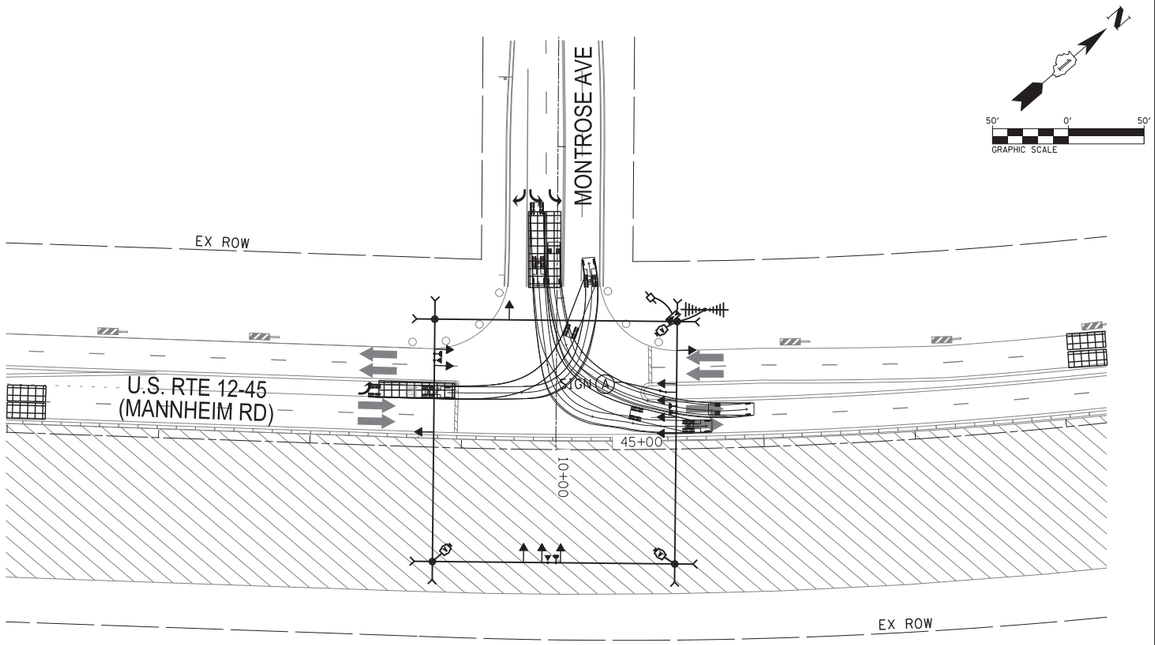
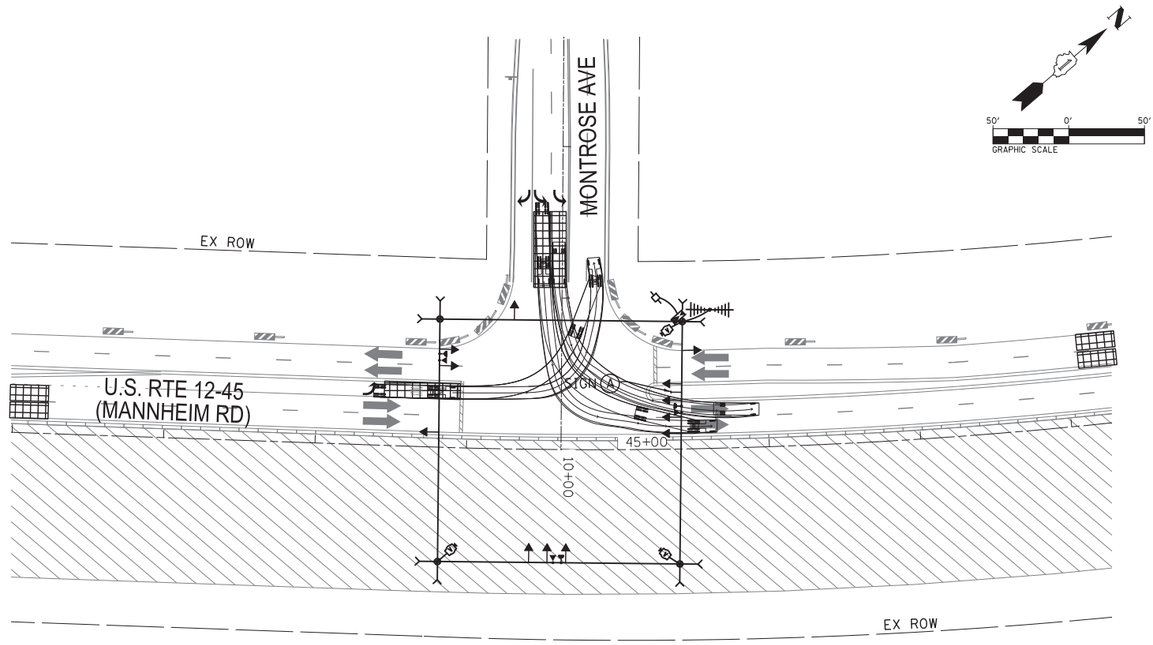
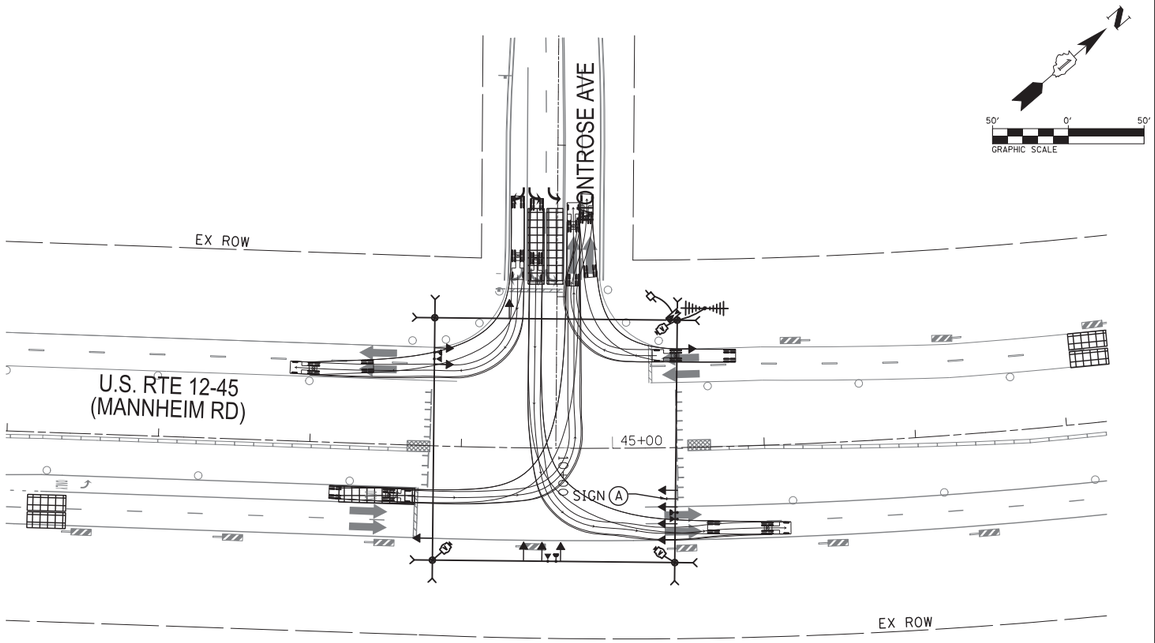


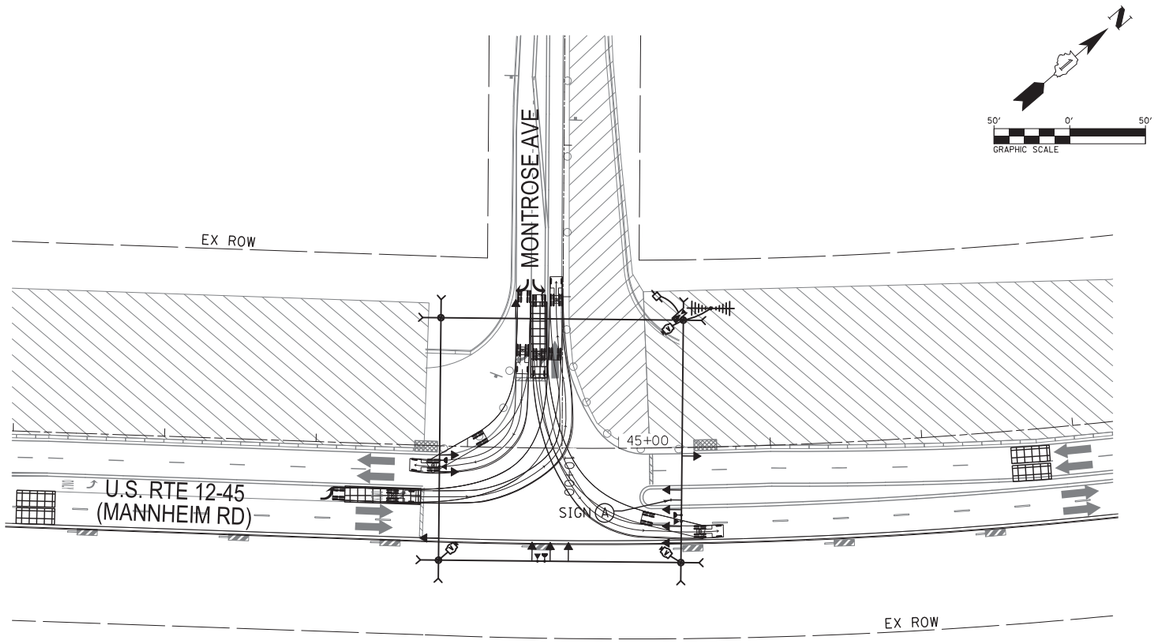
STAGE 1A



STAGE 1B



STAGE 1C



STAGE 2

TS–10

DELTA ENGINEERING GROUP, LLC

USER NAME = rmamucod	DESIGNED JA	REVISED -	
	DRAWN RM	REVISED -	
PLOT SCALE = $SCALE$	CHECKED HS	REVISED -	
PLOT DATE = 11/29/2012	DATE 10/19/2012	REVISED -	

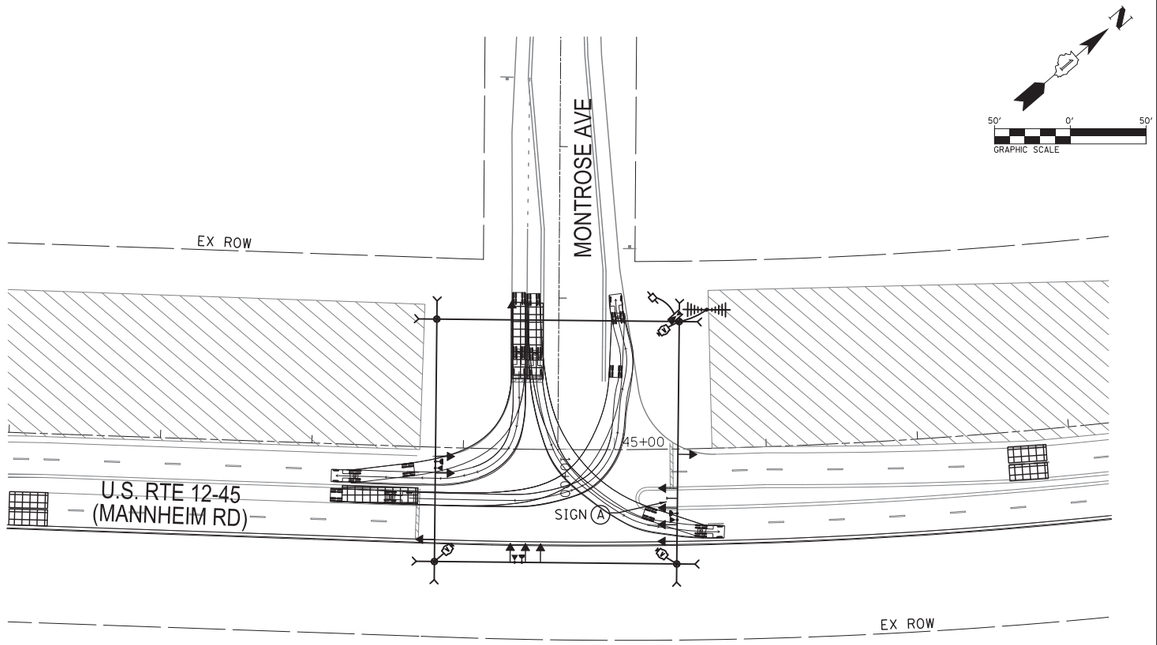
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION
US RTE 12–45 (MANNHEIM RD) AND MONTROSE AVE
(SUB–STAGES 1A–1C THRU STAGE 2)

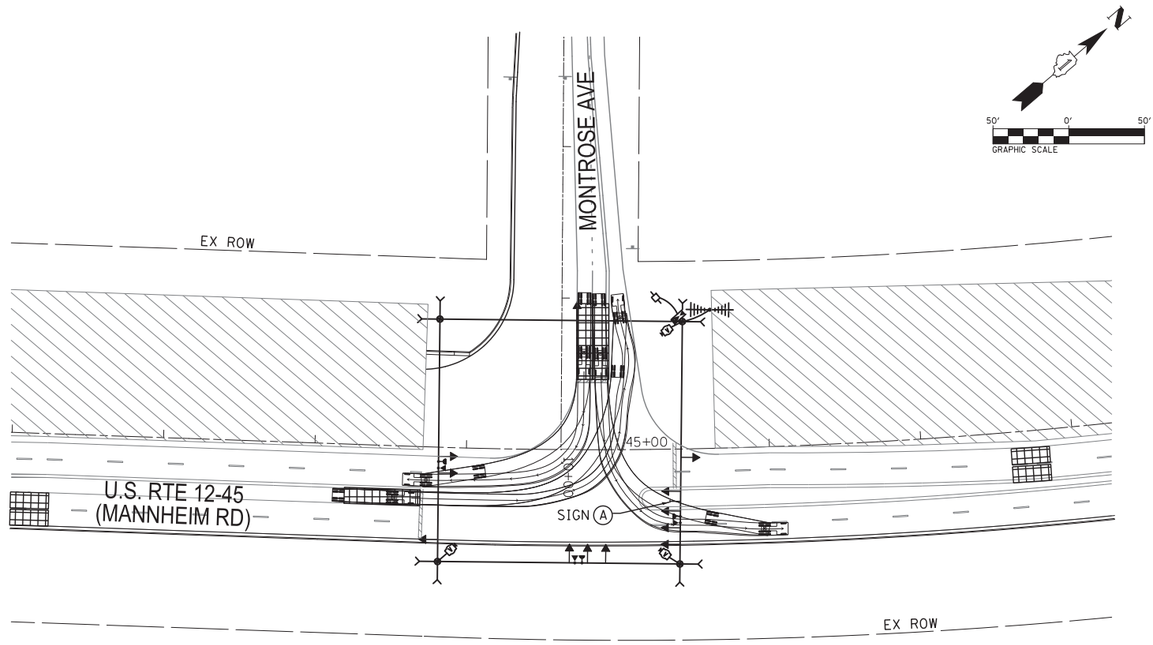
SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	269
		CONTRACT NO. 60G37		
	ILLINOIS	FED. AID PROJECT		

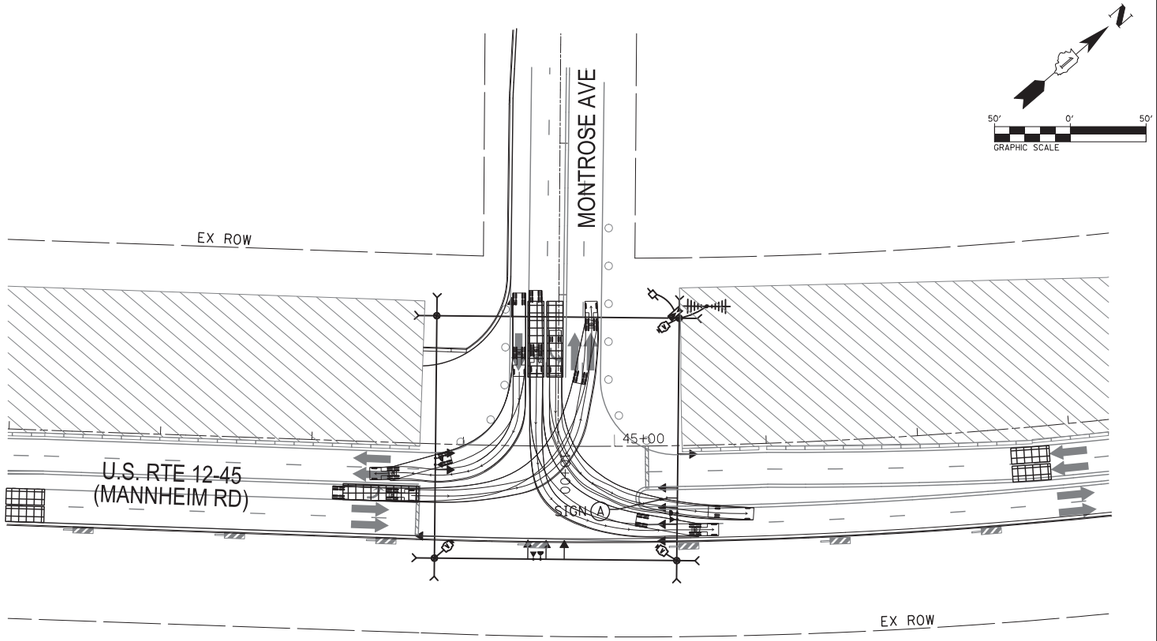
FILE NAME = c:\caddlib\pw\rmamucod2\pwgreat_lakes\dms47844\D160G37-sht_tsl0.dgn



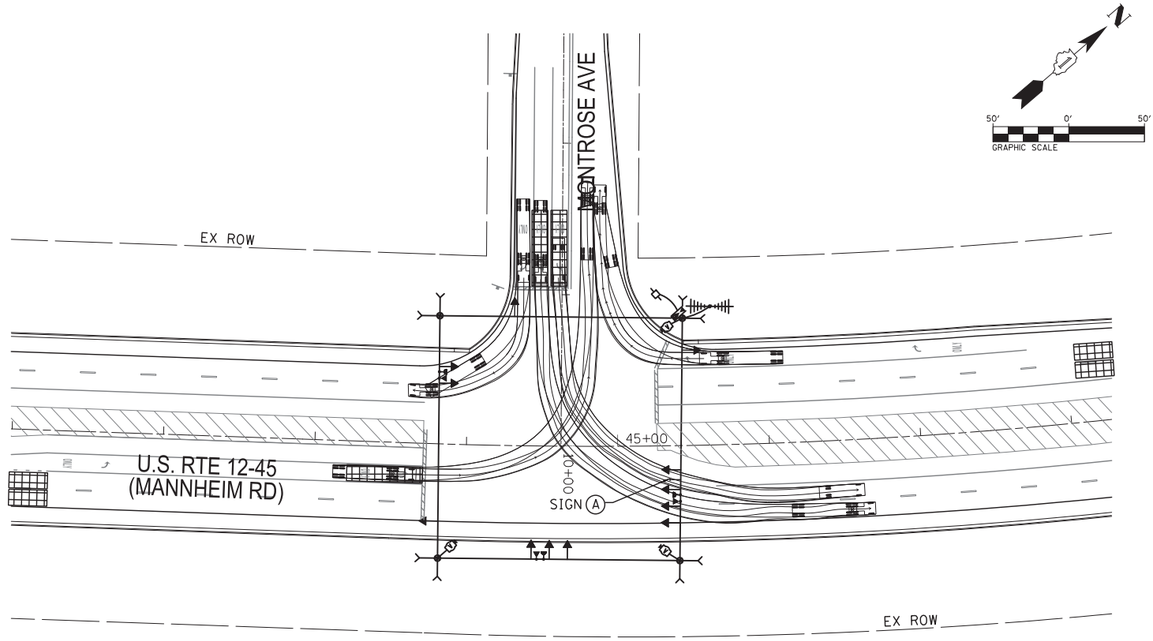
STAGE 2A



STAGE 2B



STAGE 2C



STAGE 3

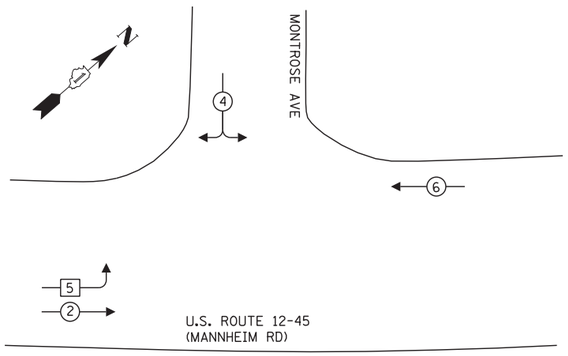
TS–11

DELTA ENGINEERING GROUP, LLC	USER NAME = rmamucod	DESIGNED JA	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY TRAFFIC SIGNAL INSTALLATION US RTE 12–45 (MANNHEIM RD) AND MONTROSE AVE (SUB–STAGES 2A–2C THRU STAGE 3)
		DRAWN RM	REVISED -		
	PLOT SCALE = $SCALE$	CHECKED HS	REVISED -		SCALE: SHEET NO. OF SHEETS STA. TO STA.
	PLOT DATE = 11/29/2012	DATE 10/19/2012	REVISED -		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	270
		CONTRACT NO. 60G37		
	ILLINOIS	FED. AID PROJECT		

FILE NAME = c:\caddlib\pw\rmamucod2\pwgreat_lakes\dms47844\D160G37-sht_tsl1.dgn

TEMPORARY CONTROLLER SEQUENCE



TEMPORARY PHASE DESIGNATION DIAGRAM

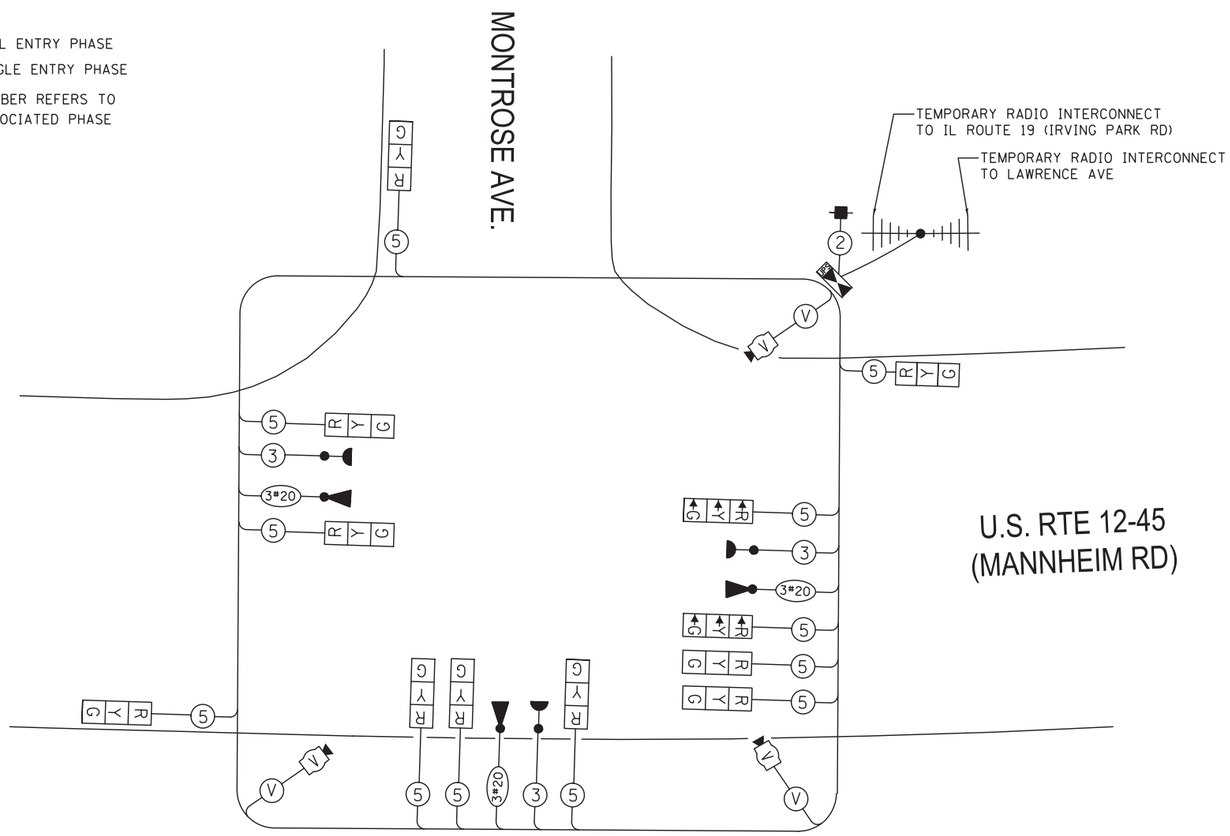
N.T.S.

EMERGENCY VEHICLE PREEMPTION SEQUENCE

TEMPORARY EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	5
MOVEMENT			

LEGEND

- DUAL ENTRY PHASE
- SINGLE ENTRY PHASE
- * NUMBER REFERS TO ASSOCIATED PHASE



TEMPORARY CABLE PLAN

STAGE 1 THRU 1C
STAGE 2 THRU 2C
STAGE 3

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	% OPERATION	
SIGNAL (RED)	12		17	0.50	102.00
(YELLOW)	12		25	0.25	75.00
(GREEN)	12		15	0.25	45.00
ARROW	-		12	0.10	-
PED. SIGNAL	-		25	1.00	-
CONTROLLER	1		100.00	1.00	100.00
ILLUM. SIGN	-		-	-	-
VIDEO SYSTEM	1	150.00	-	1.00	150.00
FLASHER					
ENERGY COSTS TO:				TOTAL =	472.00

ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAY/DISTRICT 1
201 WEST CENTER COURT/SCHAUMBURG, ILLINOIS 60196-1096

ENERGY SUPPLY CONTACT: STEVE FITZGERALD
PHONE: (708) 235-2327
COMPANY: ComEd

NOTE:
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

RESTORATION OF WORK AREA:

RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC.. AND NO EXTRA COMPENSATION SHALL BE ALLOWED .ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD. AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

TS–12

DELTA ENGINEERING GROUP, LLC

USER NAME = rmamucod	DESIGNED JA	REVISED -
	DRAWN RM	REVISED -
PLOT SCALE = $SCALE$	CHECKED HS	REVISED -
PLOT DATE = 11/14/2012	DATE 10/19/2012	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN AND TEMPORARY PHASE DESIGNATION DIAGRAM AND TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE
US RTE 12–45 (MANNHEIM RD) AND MONTROSE AVE (STAGE 1 THRU STAGE 3)

SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	271
		CONTRACT NO. 60G37		
		ILLINOIS FED. AID PROJECT		

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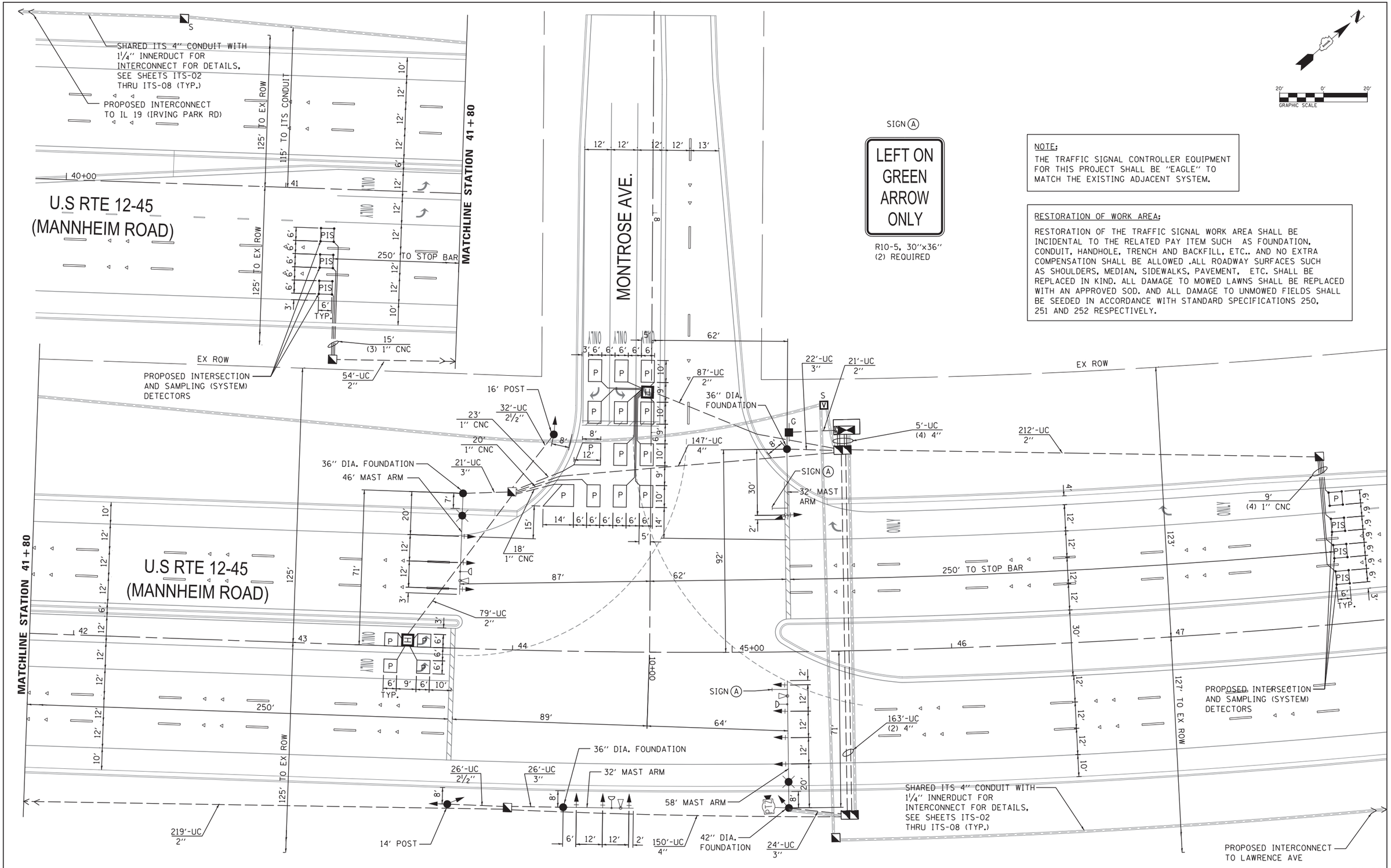

TS–13

DELTA ENGINEERING GROUP, LLC	USER NAME = rmamucod	DESIGNED JA	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL INSTALLATION PLAN US RTE 12–45 (MANNHEIM RD) AND MONTROSE AVE
		DRAWN RM	REVISED -		
	PLOT SCALE = $SCALE$	CHECKED HS	REVISED -		SCALE: SHEET NO. OF SHEETS STA. TO STA.
	PLOT DATE = 11/15/2012	DATE 10/19/2012	REVISED -		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	272
		CONTRACT NO. 60G37		
		ILLINOIS FED. AID PROJECT		

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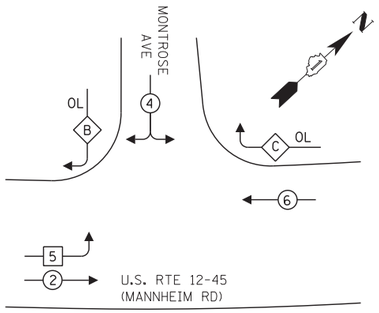
CONTROLLER SEQUENCE



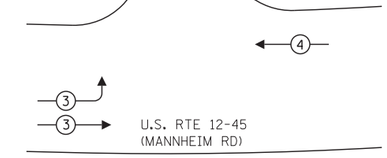
PHASE DESIGNATION DIAGRAM

OVERLAP LETTER		PERMISSIVE PHASE		PROTECTED PHASE
B	=	4	+	5
C	=	6	+	4

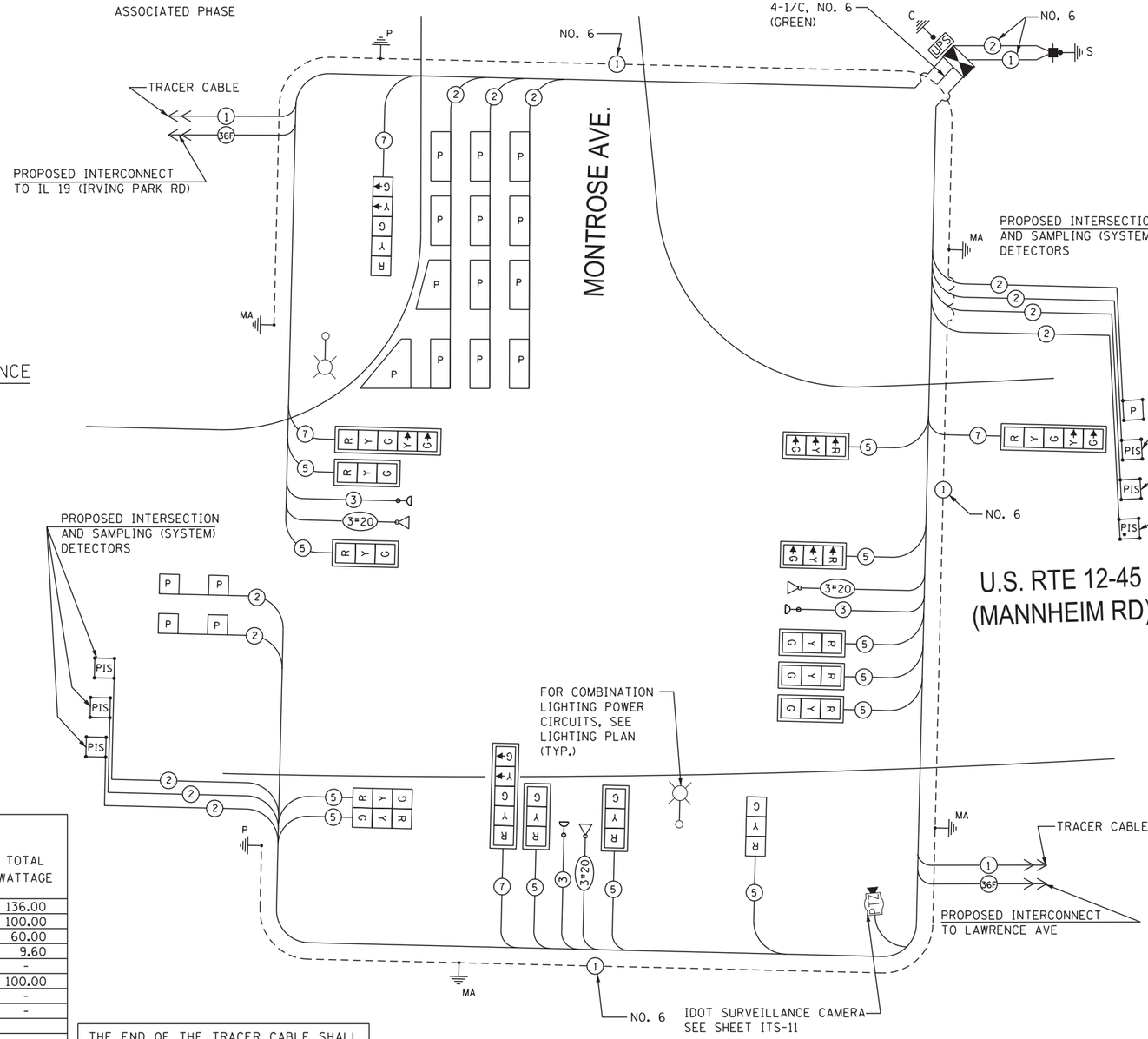
LEGEND

- DUAL ENTRY PHASE
- SINGLE ENTRY PHASE
- OL — OVERLAP
- * — NUMBER REFERS TO ASSOCIATED PHASE

EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	5
MOVEMENT			



CABLE PLAN

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	%OPERATION	
SIGNAL (RED)	16		17	0.50	136.00
(YELLOW)	16		25	0.25	100.00
(GREEN)	16		15	0.25	60.00
ARROW	8		12	0.10	9.60
PED. SIGNAL	-		25	1.00	-
CONTROLLER	1		1.00	1.00	100.00
ILLUM. SIGN	-		25	0.50	-
VIDEO SYSTEM	-	150.00	-	1.00	-
FLASHER					
ENERGY COSTS TO:				TOTAL =	405.60

ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAY/DISTRICT 1
201 WEST CENTER COURT/SCHAUMBURG, ILLINOIS 60196-1096

ENERGY SUPPLY CONTACT: STEVE FITZGERALD
PHONE: (708) 235-2327
COMPANY: ComEd

THE END OF THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINET.

TRAFFIC SIGNAL SERVICE LOAD			
LOCATION	TRAFFIC SIGNAL	CCTV CONTROLLER	TOTAL
MANNHEIM/ MONTROSE	0.406KW	0.5KW	0.906KW

SCHEDULE OF QUANTITIES

NO.	PAY ITEM DESCRIPTION	UNIT	MANNHEIM RD / MONTROSE AV
1	SIGN PANEL - TYPE 1	SQ FT	33
2	SIGN PANEL - TYPE 2	SQ FT	16.25
3	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	680
4	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.	FOOT	81
5	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	71
6	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	643
7	HANDHOLE	EACH	4
8	HEAVY-DUTY HANDHOLE	EACH	2
9	DOUBLE HANDHOLE	EACH	2
10	TRANSCEIVER - FIBER OPTIC	EACH	1
11	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1,006
12	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	3,619
13	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	939
14	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	4,285
15	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	32
16	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	1,444
17	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	1
18	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	1
19	STEEL MAST ARM ASSEMBLY AND POLE, 32 FT.	EACH	2
20	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 46 FT.	EACH	1
21	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 58 FT.	EACH	1
22	CONCRETE FOUNDATION, TYPE A	FOOT	12
23	CONCRETE FOUNDATION, TYPE C	FOOT	4
24	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	35
25	CONCRETE FOUNDATION, TYPE E 42-INCH DIAMETER	FOOT	21
26	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	8
27	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
28	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	1
29	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	2
30	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
31	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	1
32	TRAFFIC SIGNAL BACKPLATE LOUVERED, ALUMINUM	EACH	12
33	INDUCTIVE LOOP DETECTOR	EACH	12
34	PREFORMED DETECTOR LOOP	FOOT	1,107
35	TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
* 36	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, DETECTOR UNIT	EACH	3
* 37	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT	EACH	1
38	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
39	REMOVE EXISTING HANDHOLE	EACH	9
40	REMOVE EXISTING CONCRETE FOUNDATION	EACH	10
* 41	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	1,006
41	SERVICE INSTALLATION - SPECIAL (GROUND MOUNTED)	EACH	1
42	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
43	UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
44	TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1

* 100% COST TO VILLAGE OF SCHILLER PARK.

NOTE:
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TS-14

DELTA ENGINEERING GROUP, LLC

USER NAME = rmamucod	DESIGNED JA	REVISED -
	DRAWN RM	REVISED -
PLOT SCALE = $SCALE$	CHECKED HS	REVISED -
PLOT DATE = 11/29/2012	DATE 10/19/2012	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE
US RTE 12-45 (MANNHEIM RD) AND MONTROSE AVE

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	273
		CONTRACT NO. 60G37		
	ILLINOIS FED. AID PROJECT			

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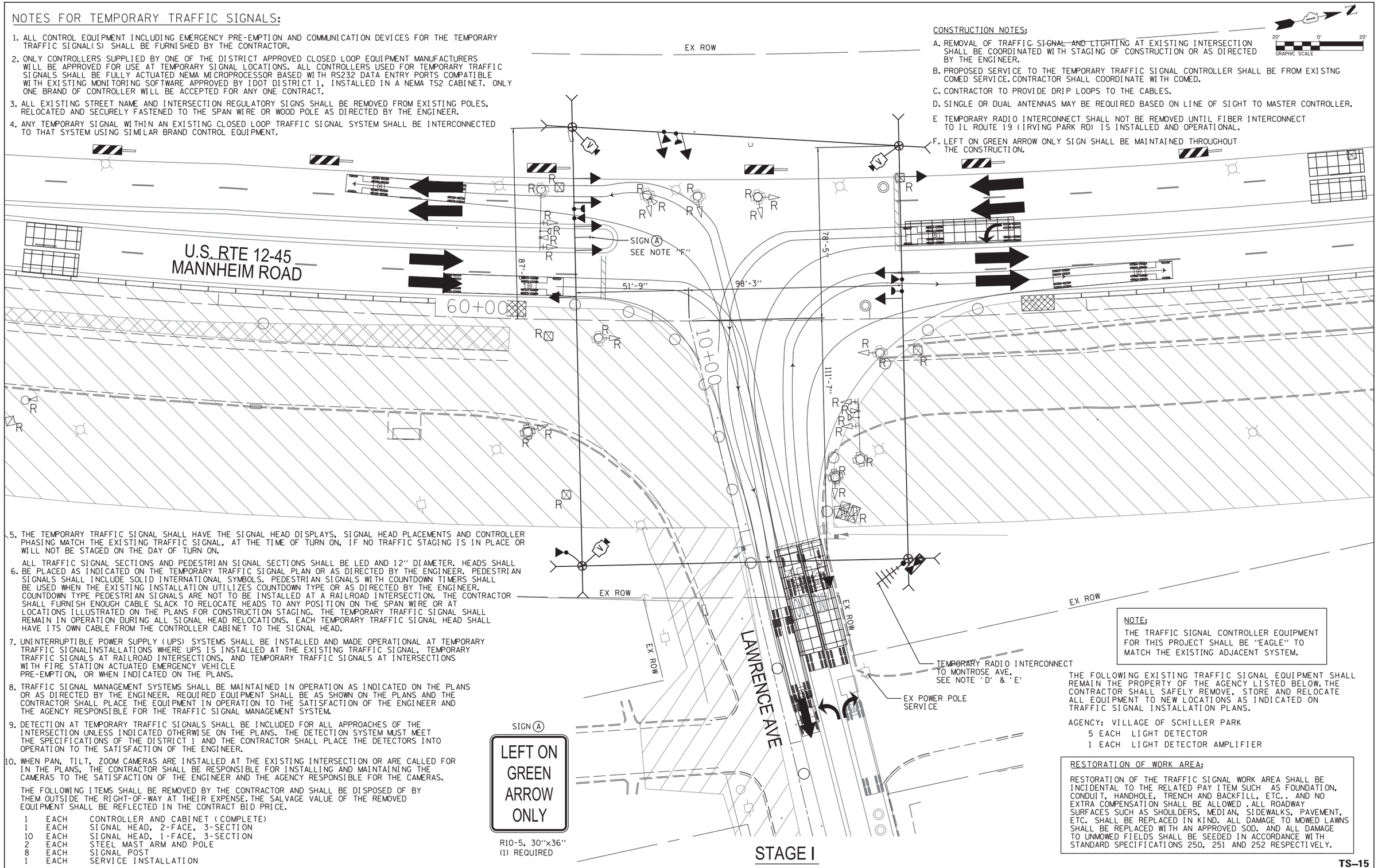
NOTES FOR TEMPORARY TRAFFIC SIGNALS:

1. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
2. ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
3. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
4. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.
5. THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENTS AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF TURN ON, IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF TURN ON.
6. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE LED AND 12" DIAMETER. HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. PEDESTRIAN SIGNALS SHALL INCLUDE SOLID INTERNATIONAL SYMBOLS. PEDESTRIAN SIGNALS WITH COUNTDOWN TIMERS SHALL BE USED WHEN THE EXISTING INSTALLATION UTILIZES COUNTDOWN TYPE OR AS DIRECTED BY THE ENGINEER. COUNTDOWN TYPE PEDESTRIAN SIGNALS ARE NOT TO BE INSTALLED AT A RAILROAD INTERSECTION. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.
7. UNINTERRUPTIBLE POWER SUPPLY (UPS) SYSTEMS SHALL BE INSTALLED AND MADE OPERATIONAL AT TEMPORARY TRAFFIC SIGNALINSTALLATIONS WHERE UPS IS INSTALLED AT THE EXISTING TRAFFIC SIGNAL, TEMPORARY TRAFFIC SIGNALS AT RAILROAD INTERSECTIONS, AND TEMPORARY TRAFFIC SIGNALS AT INTERSECTIONS WITH FIRE STATION ACTUATED EMERGENCY VEHICLE PRE-EMPTION, OR WHEN INDICATED ON THE PLANS.
8. TRAFFIC SIGNAL MANAGEMENT SYSTEMS SHALL BE MAINTAINED IN OPERATION AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. REQUIRED EQUIPMENT SHALL BE AS SHOWN ON THE PLANS AND THE CONTRACTOR SHALL PLACE THE EQUIPMENT IN OPERATION TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE TRAFFIC SIGNAL MANAGEMENT SYSTEM.
9. DETECTION AT TEMPORARY TRAFFIC SIGNALS SHALL BE INCLUDED FOR ALL APPROACHES OF THE INTERSECTION UNLESS INDICATED OTHERWISE ON THE PLANS. THE DETECTION SYSTEM MUST MEET THE SPECIFICATIONS OF THE DISTRICT 1 AND THE CONTRACTOR SHALL PLACE THE DETECTORS INTO OPERATION TO THE SATISFACTION OF THE ENGINEER.
10. WHEN PAN, TILT, ZOOM CAMERAS ARE INSTALLED AT THE EXISTING INTERSECTION OR ARE CALLED FOR IN THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THE CAMERAS TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE CAMERAS.

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

1	EACH	CONTROLLER AND CABINET (COMPLETE)
1	EACH	SIGNAL HEAD, 2-FACE, 3-SECTION
10	EACH	SIGNAL HEAD, 1-FACE, 3-SECTION
2	EACH	STEEL MAST ARM AND POLE
8	EACH	SIGNAL POST
1	EACH	SERVICE INSTALLATION



SIGN (A)

LEFT ON GREEN ARROW ONLY

R10-5, 30"x36"
(1) REQUIRED

STAGE I

CONSTRUCTION NOTES:

A. REMOVAL OF TRAFFIC ~~SIGNAL AND LIGHTING~~ AT EXISTING INTERSECTION SHALL BE COORDINATED WITH STAGING OF CONSTRUCTION OR AS DIRECTED BY THE ENGINEER.

B. PROPOSED SERVICE TO THE TEMPORARY TRAFFIC SIGNAL CONTROLLER SHALL BE FROM EXISTNG COMED SERVICE. CONTRACTOR SHALL COORDINATE WITH COMED.

C. CONTRACTOR TO PROVIDE DRIP LOOPS TO THE CABLES.

D. SINGLE OR DUAL ANTENNAS MAY BE REQUIRED BASED ON LINE OF SIGHT TO MASTER CONTROLLER.

E TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECT TO IL ROUTE 19 (IRVING PARK RD) IS INSTALLED AND OPERATIONAL.

F. LEFT ON GREEN ARROW ONLY SIGN SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION.

NOTE:
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL REMAIN THE PROPERTY OF THE AGENCY LISTED BELOW. THE CONTRACTOR SHALL SAFELY REMOVE, STORE AND RELOCATE ALL EQUIPMENT TO NEW LOCATIONS AS INDICATED ON TRAFFIC SIGNAL INSTALLATION PLANS.

AGENCY: VILLAGE OF SCHILLER PARK
5 EACH LIGHT DETECTOR
1 EACH LIGHT DETECTOR AMPLIFIER

RESTORATION OF WORK AREA:

RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC.. AND NO EXTRA COMPENSATION SHALL BE ALLOWED . ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD. AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 250, 251 AND 252 RESPECTIVELY.

DELTA ENGINEERING GROUP, LLC

USER NAME = rmamucod	DESIGNED	JA	REVISED -
	DRAWN	RM	REVISED -
PLOT SCALE = $SCALE$	CHECKED	HS	REVISED -
PLOT DATE = 11/29/2012	DATE	10/19/2012	REVISED -

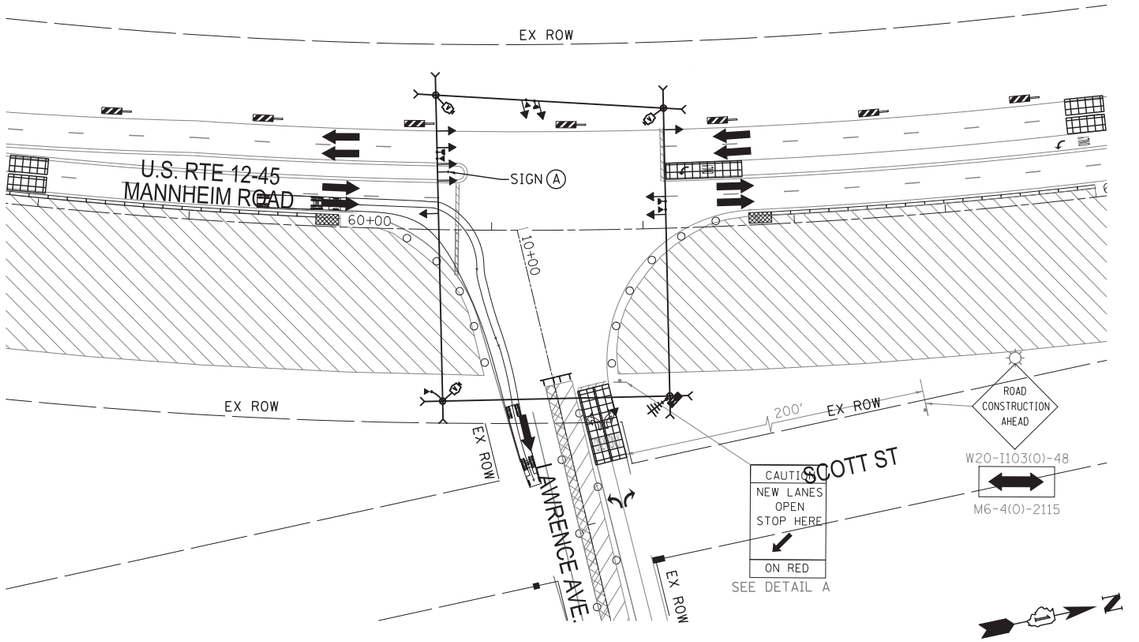
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION AND REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT PLAN
US RTE 12-45 (MANNHEIM RD) AND LAWRENCE AVE. (STAGE 1)

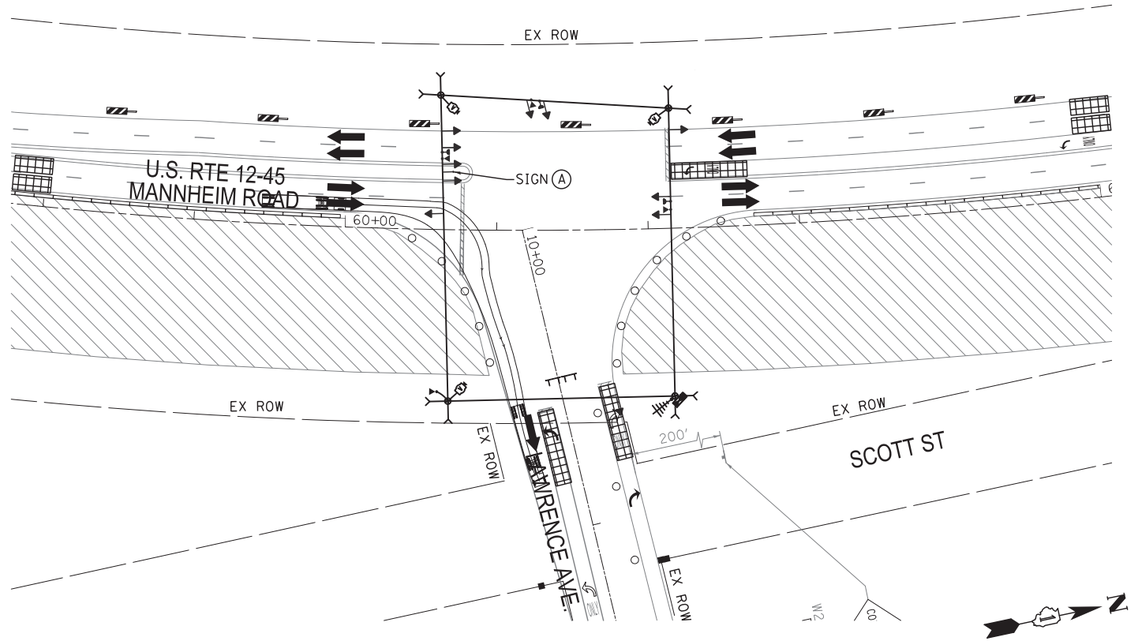
SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	274
		CONTRACT NO. 60G37		
	ILLINOIS	FED. AID PROJECT		

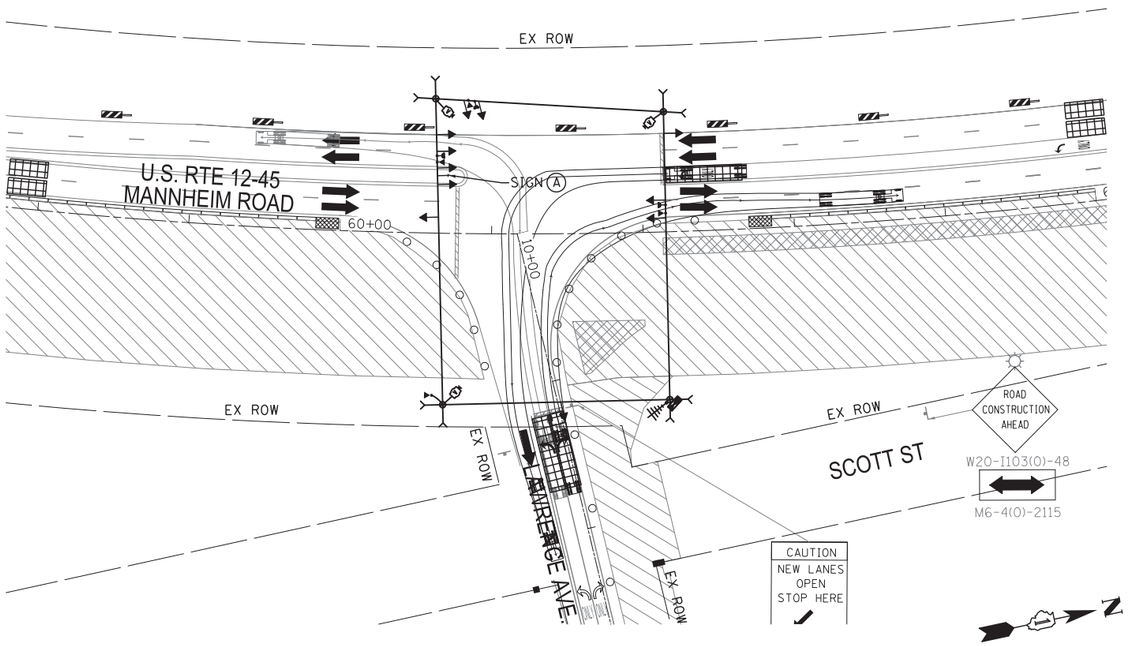
FILE NAME = c:\caddlib\pw\rmamucod2\pwgreat_lakes\dms47844\D160G37-sht_ts15.dgn



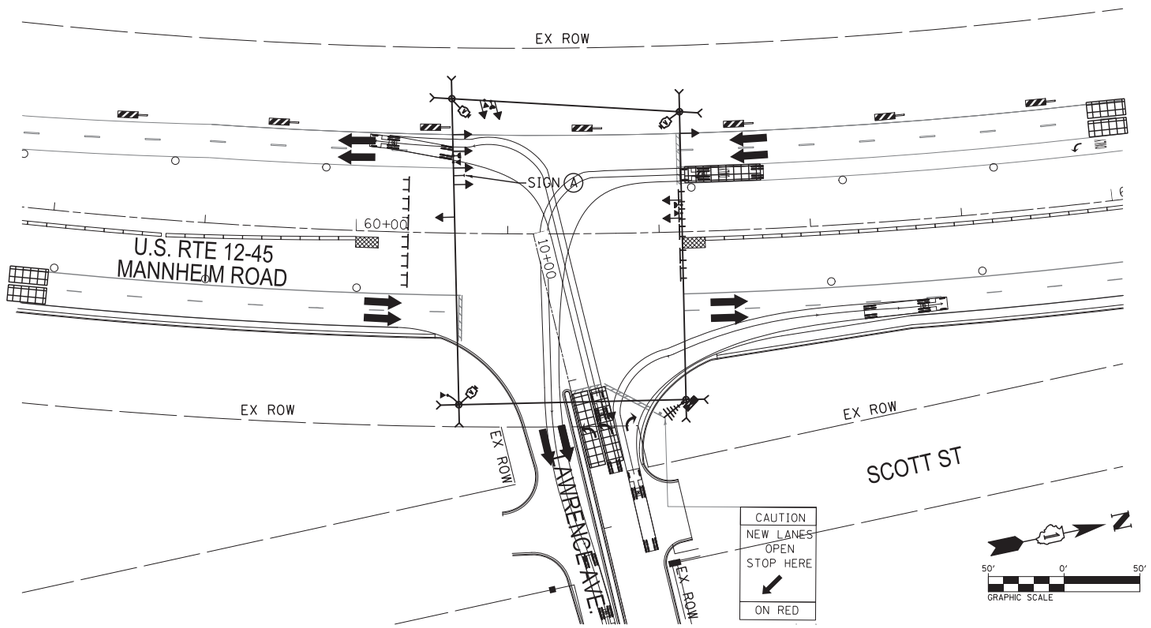
STAGE 1A



STAGE 1AB



STAGE 1B



STAGE 1C

TS–16

DELTA ENGINEERING GROUP, LLC

USER NAME = rmamucod	DESIGNED JA	REVISED -	
	DRAWN RM	REVISED -	
PLOT SCALE = $SCALE$	CHECKED HS	REVISED -	
PLOT DATE = 11/20/2012	DATE 10/19/2012	REVISED -	

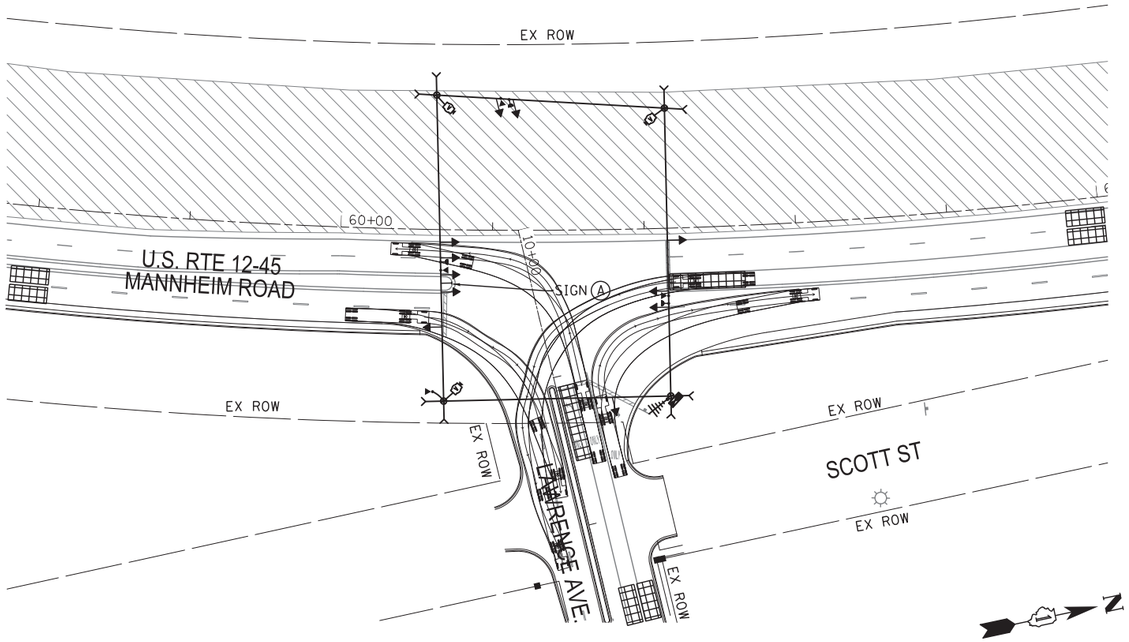
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION
US RTE 12–45 (MANNHEIM RD) AND LAWRENCE AVE
(SUB–STAGES 1A THRU STAGE 1C)

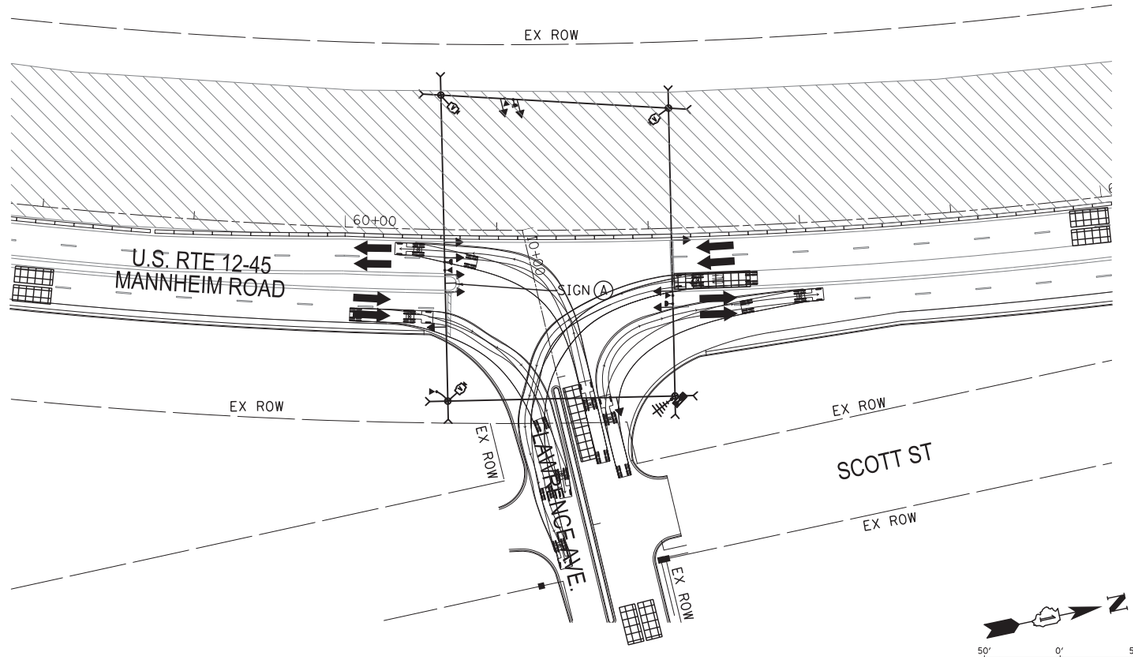
SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	275
		CONTRACT NO. 60G37		
	ILLINOIS	FED. AID PROJECT		

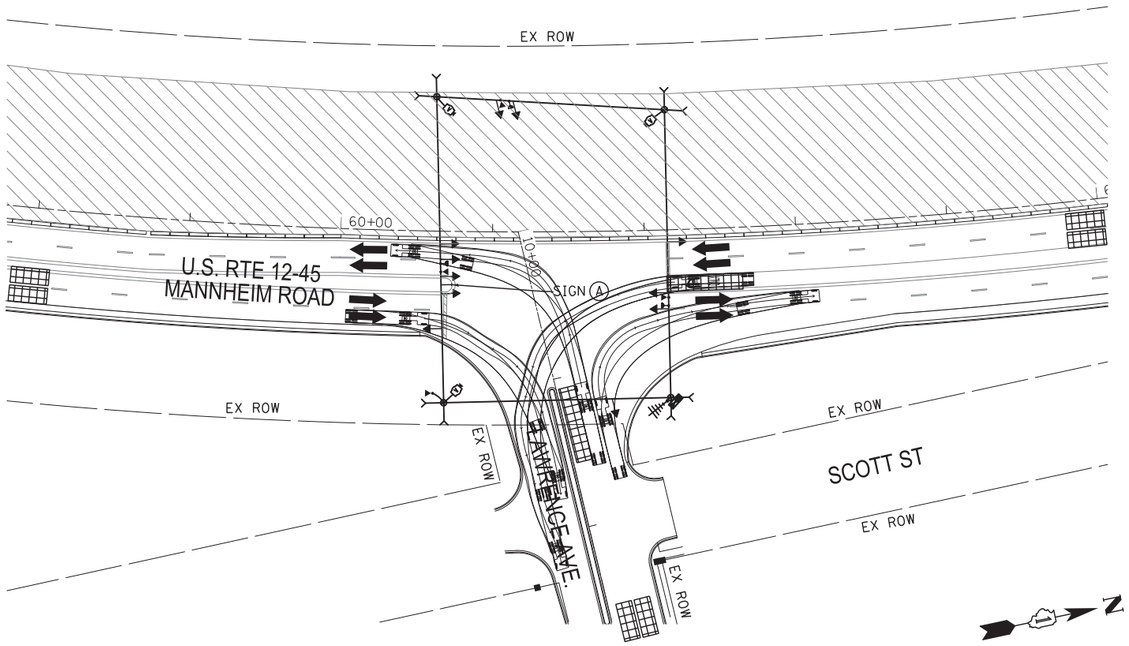
FILE NAME = c:\caddlib\pw\rmamucod2\pwgreat_lakes\dms47844\D160G37-sht_ts16.dgn



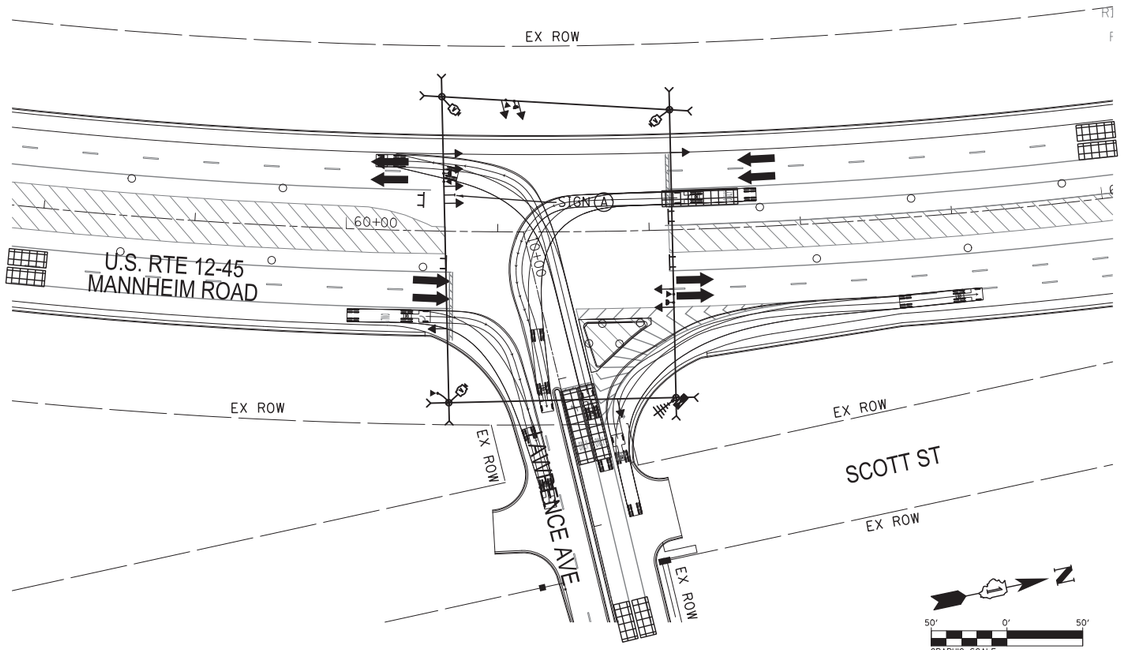
STAGE 2



STAGE 2A



STAGE 2B



STAGE 3

TS–17

DELTA ENGINEERING GROUP, LLC

USER NAME = rmamucod	DESIGNED JA	REVISED -	
	DRAWN RM	REVISED -	
PLOT SCALE = $SCALE$	CHECKED HS	REVISED -	
PLOT DATE = 11/29/2012	DATE 10/19/2012	REVISED -	

FILE NAME = c:\caddlib\pw\rmamucod2\pwgreat_lakes\dms47844\D160G37-sht_tsl7.dgn

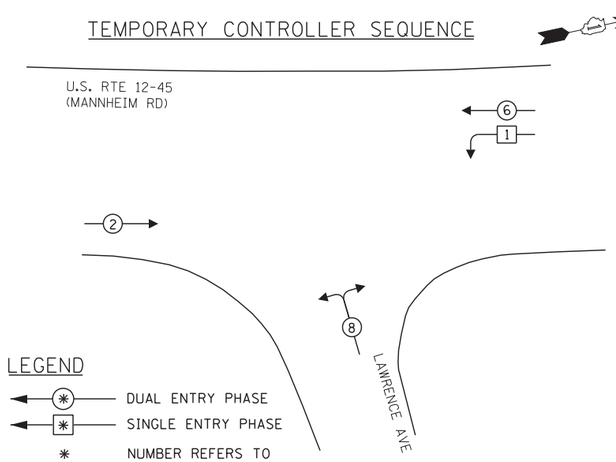
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION
US RTE 12–45 9MANNHEIM RD) AND LAWRENCE AVE
(SUB–STAGES 2A THRU STAGE 2B)

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	276
		CONTRACT NO. 60G37		
	ILLINOIS FED. AID PROJECT			

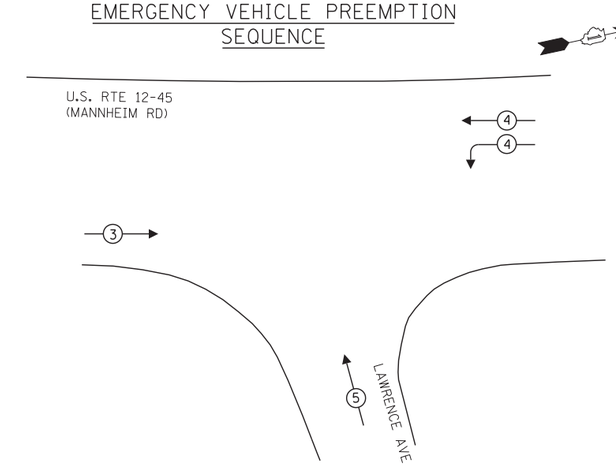
TEMPORARY CONTROLLER SEQUENCE



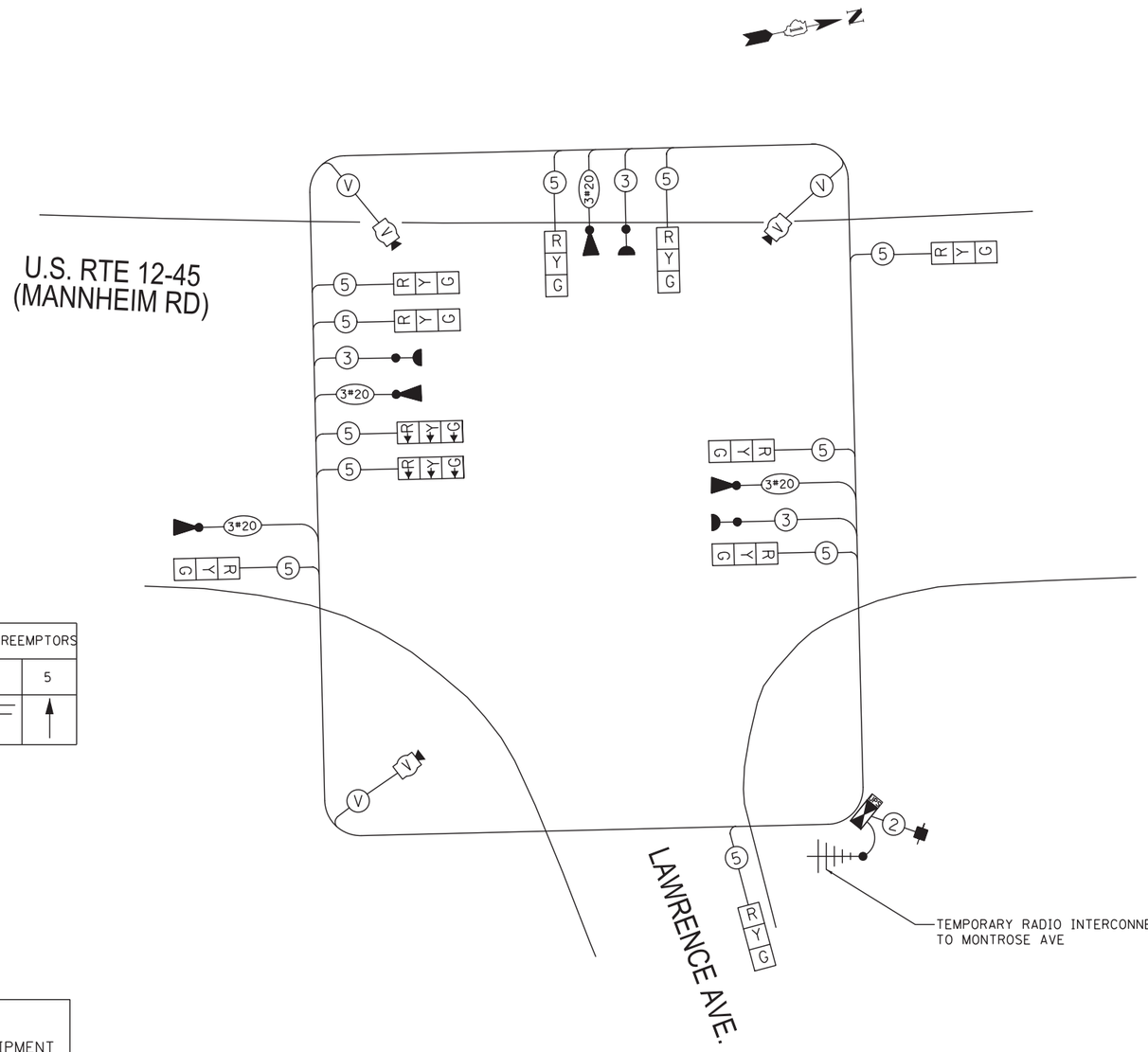
LEGEND

- ⊛ DUAL ENTRY PHASE
- ✱ SINGLE ENTRY PHASE
- * NUMBER REFERS TO ASSOCIATED PHASE

EMERGENCY VEHICLE PREEMPTION SEQUENCE



TEMPORARY EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	5
MOVEMENT	→	← ↓	↑



TEMPORARY CABLE PLAN

STAGE 1 THRU 1C
STAGE 2 THRU 2B
STAGE 3

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	%OPERATION	
SIGNAL (RED)	11		17	0.50	93.50
(YELLOW)	11		25	0.25	68.75
(GREEN)	11		15	0.25	41.25
ARROW	-		12	0.10	-
PED. SIGNAL	-		25	1.00	-
CONTROLLER	-		100.00	1.00	100.00
ILLUM. SIGN	-		-	-	-
VIDEO SYSTEM	1	150.00	-	1.00	150.00
FLASHER					
ENERGY COSTS TO:				TOTAL =	453.50

ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAY/DISTRICT 1
201 WEST CENTER COURT/SCHAUMBURG, ILLINOIS 60196-1096

ENERGY SUPPLY CONTACT: STEVE FITZGERALD
PHONE: (708) 235-2327
COMPANY: ComEd

NOTE:
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

RESTORATION OF WORK AREA:
RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC.. AND NO EXTRA COMPENSATION SHALL BE ALLOWED .ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD. AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

TS–18

DELTA ENGINEERING GROUP, LLC

USER NAME = rmamucod	DESIGNED JA	REVISED -
	DRAWN RM	REVISED -
PLOT SCALE = $SCALE$	CHECKED HS	REVISED -
PLOT DATE = 11/20/2012	DATE 10/19/2012	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN AND TEMPORARY PHASE DESIGNATION DIAGRAM AND TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE MANNHEIM RD AND LAWRENCE AVE. (STAGES 1 THRU 3)

SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	277
		CONTRACT NO. 60G37		
		ILLINOIS FED. AID PROJECT		

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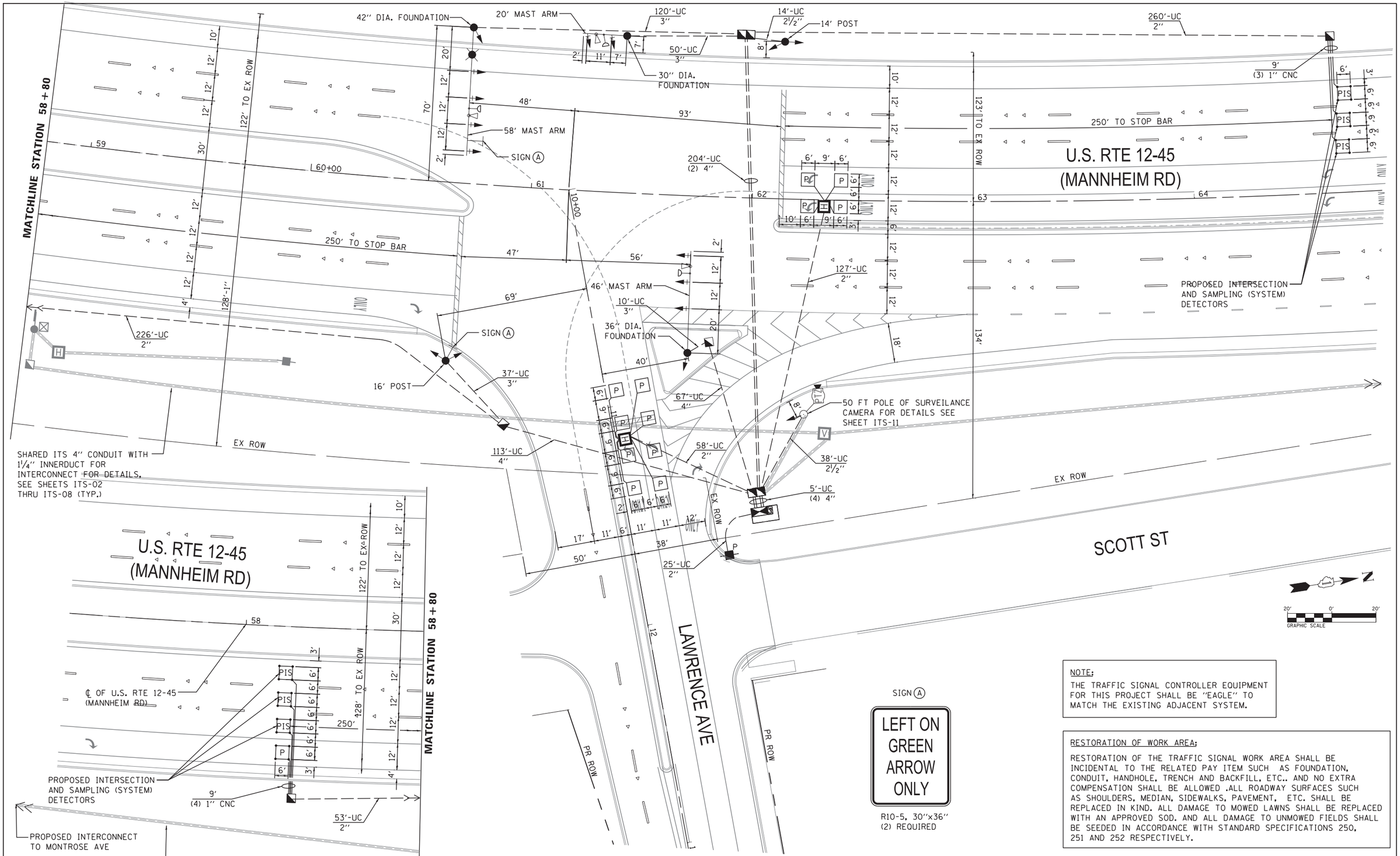

SIGN (A)

LEFT ON GREEN ARROW ONLY

R10-5, 30"x36"
(2) REQUIRED

NOTE:

THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

RESTORATION OF WORK AREA:

RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC.. AND NO EXTRA COMPENSATION SHALL BE ALLOWED .ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD. AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 250, 251 AND 252 RESPECTIVELY.

DELTA ENGINEERING GROUP, LLC

USER NAME = rmamucod	DESIGNED JA	REVISED -	
	DRAWN RM	REVISED -	
PLOT SCALE = $SCALE$	CHECKED HS	REVISED -	
PLOT DATE = 11/29/2012	DATE 10/19/2012	REVISED -	

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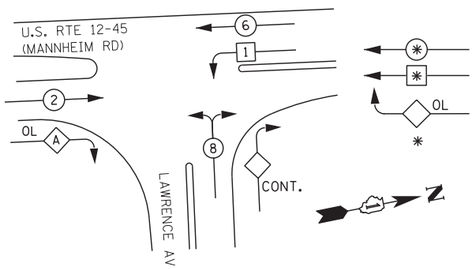
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL INSTALLATION PLAN
US RTE 12-45 (MANNHEIM RD) AND LAWRENCE AVE.

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	278
		CONTRACT NO. 60G37		
	ILLINOIS FED. AID PROJECT			

CONTROLLER SEQUENCE

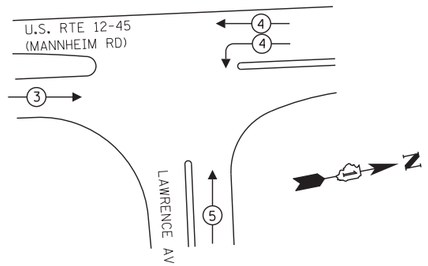


LEGEND

- DUAL ENTRY PHASE
- SINGLE ENTRY PHASE
- OL — OVERLAP
- * — NUMBER REFERS TO ASSOCIATED PHASE

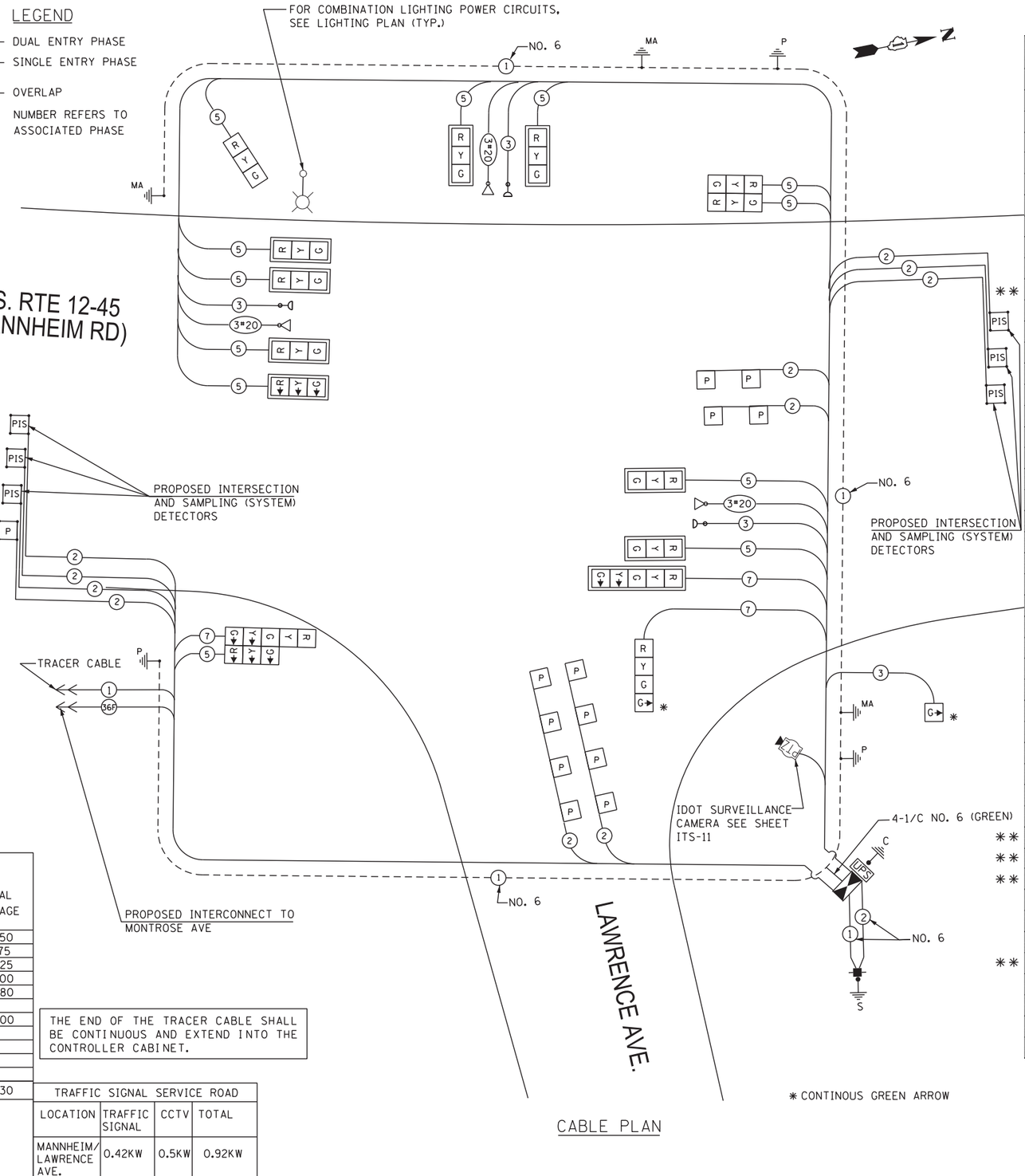
PHASE DESIGNATION DIAGRAM

OVERLAP LETTER		PERMISSIVE PHASE		PROTECTED PHASE
A	=	2	+	8



EMERGENCY VEHICLE PREEMPTION SEQUENCE

PROPOSED EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	5
MOVEMENT	→	←	↑



I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	* %OPERATION	
SIGNAL (RED)	15		17	0.50	127.50
(YELLOW)	15		25	0.25	93.75
(GREEN)	15		15	0.25	56.25
SIGNAL CONT. (GREEN)	2		15	1.00	30.00
ARROW	4		12	0.10	4.80
PED. SIGNAL	-		25	1.00	-
CONTROLLER	1		1.00	1.00	100.00
ILLUM. SIGN	-		25	0.50	-
VIDEO SYSTEM	-		-	1.00	-
FLASHER					
ENERGY COSTS TO:				TOTAL =	412.30

ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAY/DISTRICT 1
201 WEST CENTER COURT/SCHAUMBURG, ILLINOIS 60196-1096
ENERGY SUPPLY CONTACT: STEVE FITZGERALD
PHONE: (708) 235-2327
COMPANY: ComEd

TRAFFIC SIGNAL SERVICE ROAD			
LOCATION	TRAFFIC SIGNAL	CCTV	TOTAL
MANNHEIM/ LAWRENCE AVE.	0.42KW	0.5KW	0.92KW

THE END OF THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINET.

SCHEDULE OF QUANTITIES

NO.	PAY ITEM DESCRIPTION	UNIT	MANNHEIM RD / LAWRENCE AV
1	SIGN PANEL - TYPE 1	SQ FT	33
2	SIGN PANEL - TYPE 2	SQ FT	16.25
3	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	739
4	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.	FOOT	52
5	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	241
6	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	608
7	HANDHOLE	EACH	4
8	HEAVY-DUTY HANDHOLE	EACH	2
9	DOUBLE HANDHOLE	EACH	2
10	TRANSCEIVER - FIBER OPTIC	EACH	1
11	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1,027
12	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	3,823
13	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	496
14	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	3,684
15	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	43
16	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	1,281
17	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	1
18	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	1
19	STEEL MAST ARM ASSEMBLY AND POLE 20 FT.	EACH	1
20	STEEL MAST ARM ASSEMBLY AND POLE 46 FT.	EACH	1
21	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 58 FT.	EACH	1
22	CONCRETE FOUNDATION, TYPE A	FOOT	12
23	CONCRETE FOUNDATION, TYPE C	FOOT	4
24	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	10
25	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	13
26	CONCRETE FOUNDATION, TYPE E 42-INCH DIAMETER	FOOT	21
27	SIGNAL HEAD, LED, 1-FACE, 1-SECTION, BRACKET MOUNTED	EACH	1
28	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	8
29	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
30	SIGNAL HEAD, LED, 1-FACE, 4-SECTION, BRACKET MOUNTED	EACH	1
31	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	1
32	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
33	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	1
34	TRAFFIC SIGNAL BACKPLATE LOUVERED, ALUMINUM	EACH	9
35	INDUCTIVE LOOP DETECTOR	EACH	11
36	PREFORMED DETECTOR LOOP	FOOT	732
37	TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
38	RELOCATE EXISTING EMERGENCY VEHICLE PRORITY SYSTEM, DETECTOR UNIT	EACH	3
39	RELOCATE EXISTING EMERGENCY VEHICLE PRORITY SYSTEM, PHASING UNIT	EACH	1
40	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
41	REMOVE EXISTING HANDHOLE	EACH	8
42	REMOVE EXISTING CONCRETE FOUNDATION	EACH	10
43	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	948
44	SERVICE INSTALLATION (SPECIAL)	EACH	1
45	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
46	UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
47	TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1

** 100% COST TO VILLAGE OF SCHILLER PARK.

NOTE:
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TS–20

DELTA ENGINEERING GROUP, LLC

USER NAME = rmamucod	DESIGNED JA	REVISED -
	DRAWN RM	REVISED -
PLOT SCALE = $SCALE$	CHECKED HS	REVISED -
PLOT DATE = 11/29/2012	DATE 10/19/2012	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE
US RTE 12–45 (MANNHEIM RD) AND LAWRENCE AVE.

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	279
		CONTRACT NO. 60G37		
		ILLINOIS	FED. AID PROJECT	

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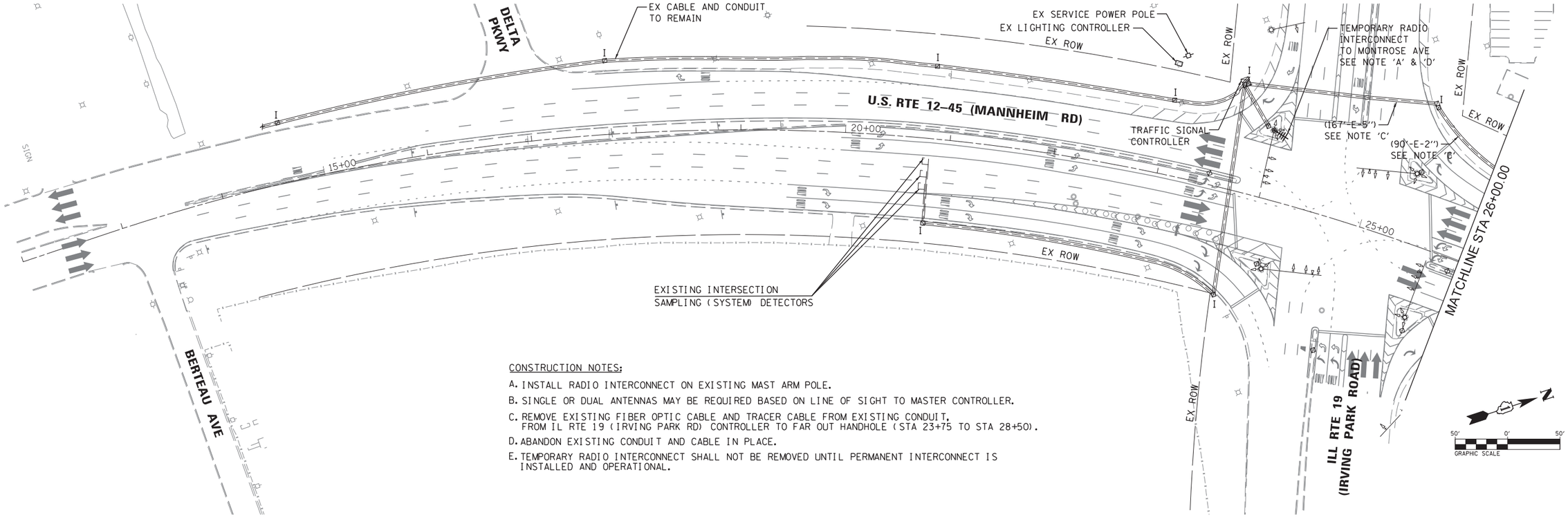


CONSTRUCTION NOTES:

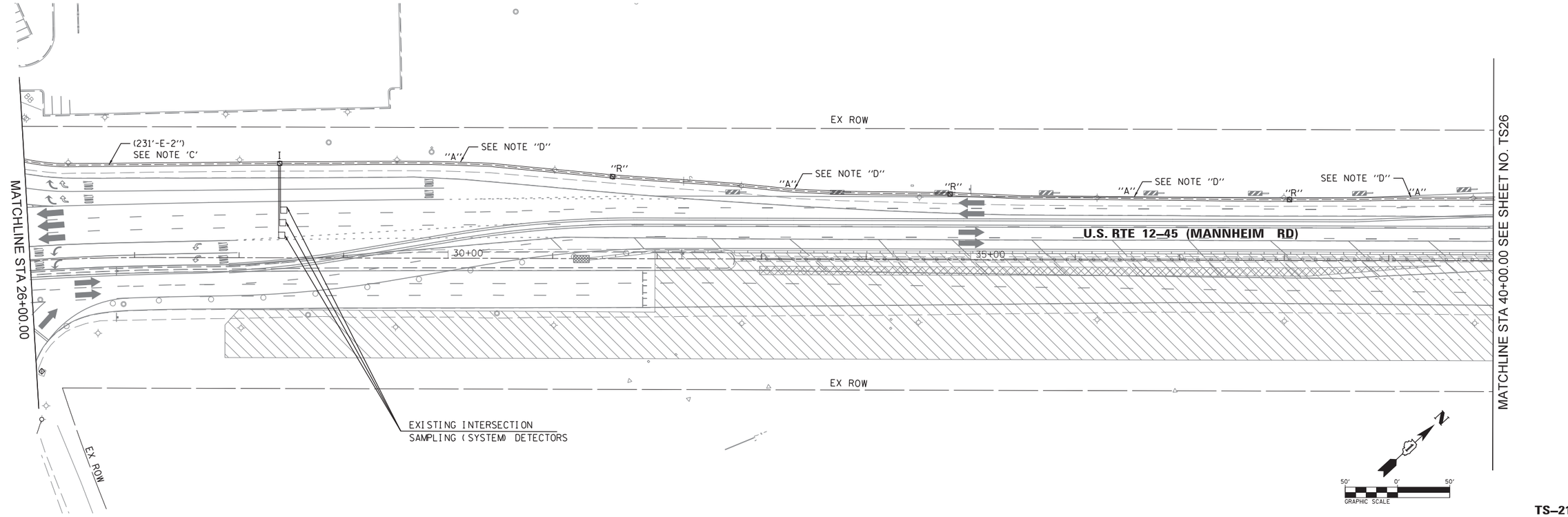
A. INSTALL RADIO INTERCONNECT ON EXISTING MAST ARM POLE.

B. SINGLE OR DUAL ANTENNAS MAY BE REQUIRED BASED ON LINE OF SIGHT TO MASTER CONTROLLER.

C. REMOVE EXISTING FIBER OPTIC CABLE AND TRACER CABLE FROM EXISTING CONDUIT, FROM IL RTE 19 (IRVING PARK RD) CONTROLLER TO FAR OUT HANDHOLE (STA 23+75 TO STA 28+50).

D. ABANDON EXISTING CONDUIT AND CABLE IN PLACE.

E. TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL PERMANENT INTERCONNECT IS INSTALLED AND OPERATIONAL.



TS–21

DELTA ENGINEERING GROUP, LLC	USER NAME = rmamucod	DESIGNED JA	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY INTERCONNECT PLAN US RTE 12–45 (MANNHEIM RD) FROM IRVING PARK RD TO LAWRENCE AVE (SHEET 1 OF 2)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN RM	REVISED -			330	0105 WRS&HB	COOK	605	280
	PLOT SCALE = $SCALE$	CHECKED HS	REVISED -					CONTRACT NO. 60G37		
	PLOT DATE = 11/20/2012	DATE 10/19/2012	REVISED -		SCALE: SHEET NO. OF SHEETS STA. TO STA.			ILLINOIS FED. AID PROJECT		

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NOTE:
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

MONTROSE AVE

TEMPORARY RADIO INTERCONNECT TO IL ROUTE 19 (IRVING PARK RD)

TEMPORARY RADIO INTERCONNECT TO LAWRENCE AVE

MATCHLINE STA 40+00.00 SEE SHEET NO. TS25

MATCHLINE STA 54+00.00

SEE NOTE "D"

"A"

"R"

40+00

45+00

50+00

10+00

125'

129'

U.S. RTE 12-45
(MANNHEIM RD)

SIGN

EX ROW

TOWER

N

50' 0' 50'
GRAPHIC SCALE

MATCHLINE STA 54+00.00

55+00

60+00

65+00

10+00

122'

128'

126'

105'

96'

104'

LAWRENCE AVE

SCOTT ST

TEMPORARY RADIO INTERCONNECT TO MONTROSE AVE

TS-22

DELTA ENGINEERING GROUP, LLC

USER NAME = rmamucod	DESIGNED JA	REVISED -	
	DRAWN RM	REVISED -	
PLOT SCALE = $SCALE$	CHECKED HS	REVISED -	
PLOT DATE = 11/20/2012	DATE 10/19/2012	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY INTERCONNECT PLAN
US RTE 12-45 (MANNHEIM RD) FROM IRVING PARK RD TO LAWRENCE AVE (SHEET 2 OF 2)

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	281
		CONTRACT NO. 60G37		
	ILLINOIS FED. AID PROJECT			

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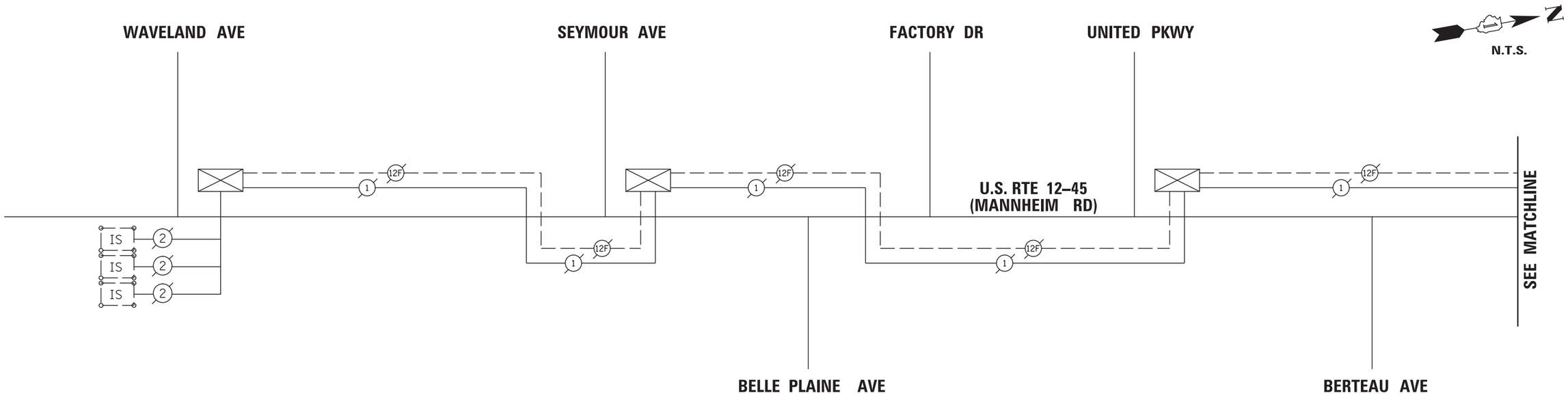

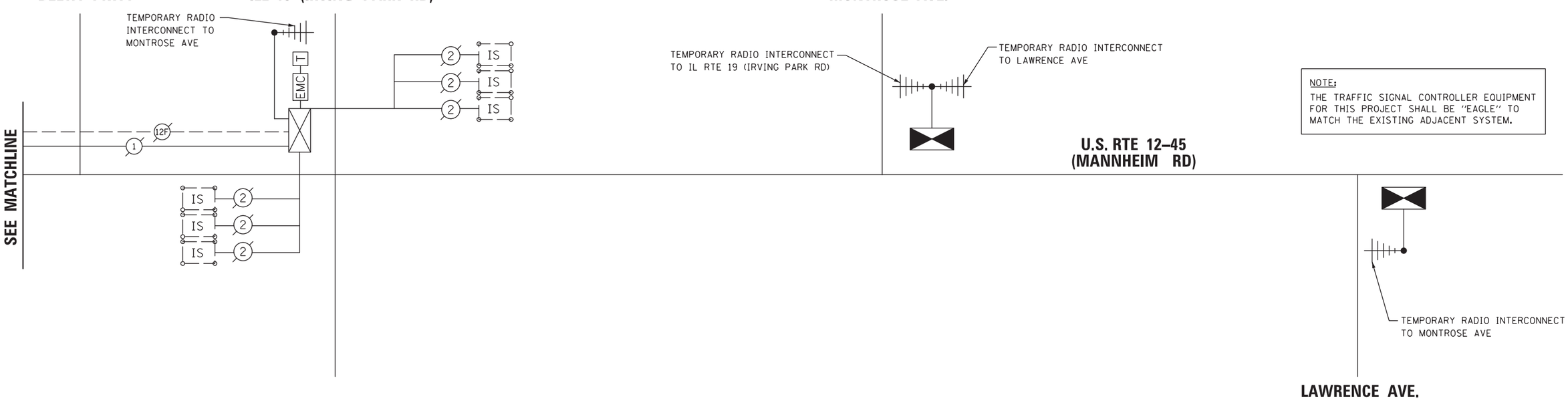

TS–23

DELTA ENGINEERING GROUP, LLC

USER NAME = rmamucod	DESIGNED JA	REVISED -	
	DRAWN RM	REVISED -	
PLOT SCALE = $SCALE$	CHECKED HS	REVISED -	
PLOT DATE = 11/29/2012	DATE 10/19/2012	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY INTERCONNECT SCHEMATIC PLAN
US RTE 12–45 (MANNHEIM RD) FROM WAVELAND AVE TO LAWRENCE AVE

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	282
		CONTRACT NO. 60G37		
	ILLINOIS	FED. AID PROJECT		

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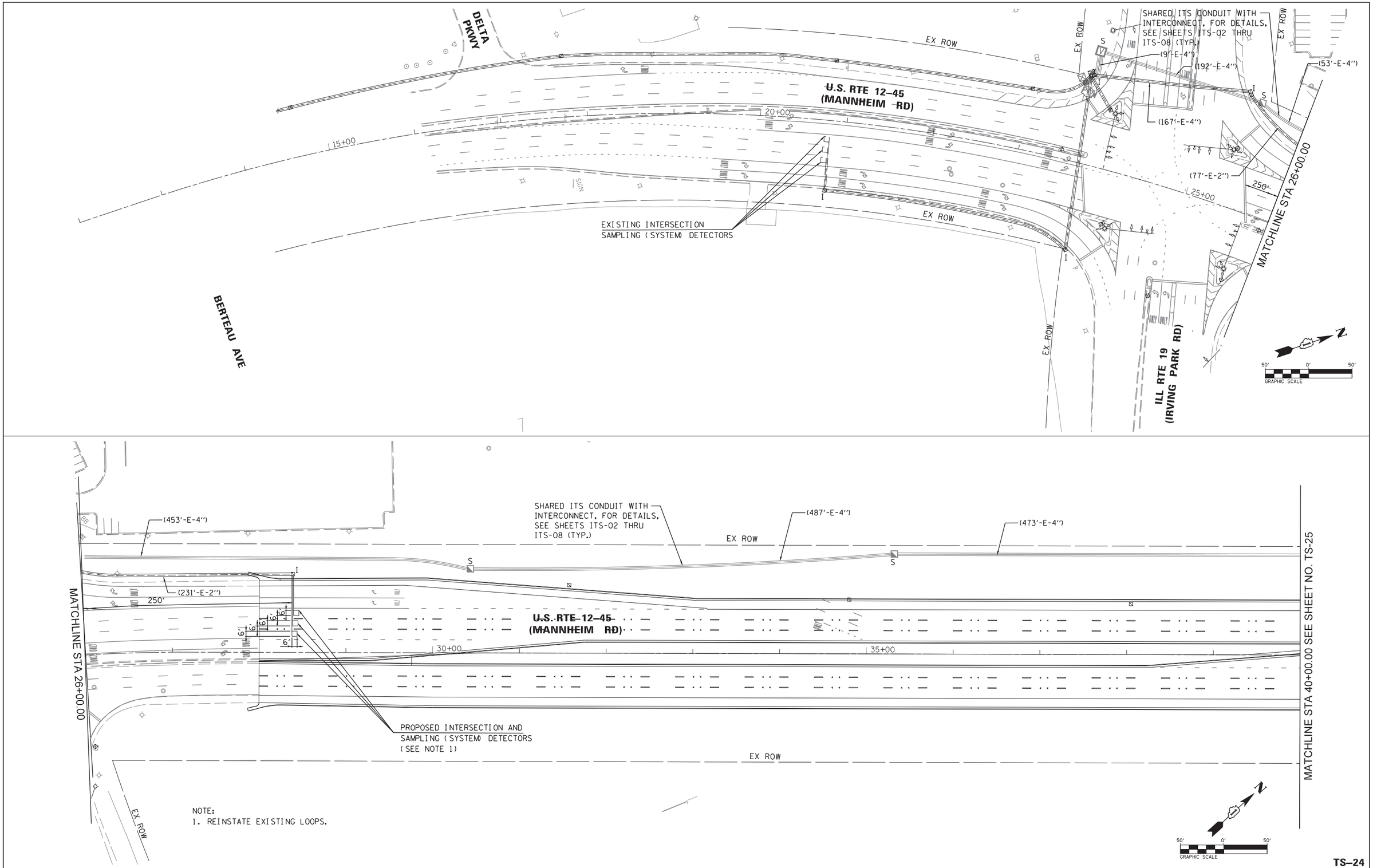

NOTE:
1. REINSTATE EXISTING LOOPS.

TS–24

USER NAME = rmamucod	DESIGNED JA	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN RM	REVISED -	
PLOT SCALE = $SCALE$	CHECKED HS	REVISED -	
PLOT DATE = 11/29/2012	DATE 10/19/2012	REVISED -	

DELTA ENGINEERING GROUP, LLC

INTERCONNECT PLAN
US RTE 12–45 (MANNHEIM RD) FROM WAVELAND AVE TO LAWRENCE AVE (SHEET 1 OF 2)

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	283
		CONTRACT NO. 60G37		
	ILLINOIS	FED. AID PROJECT		

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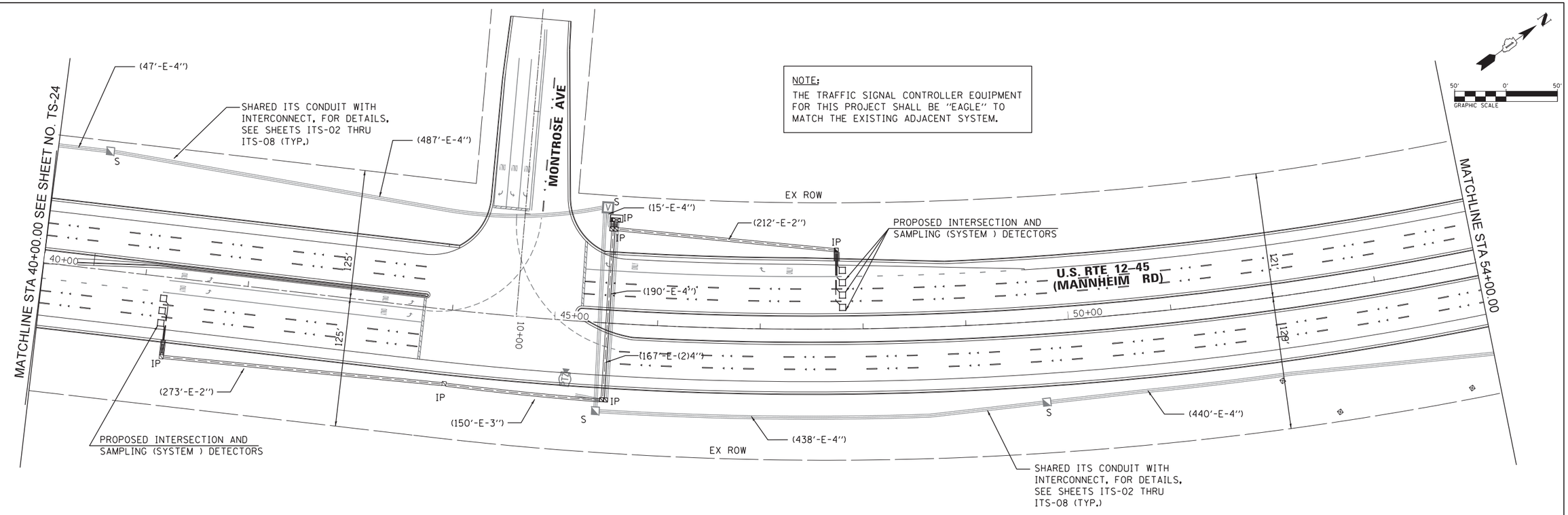

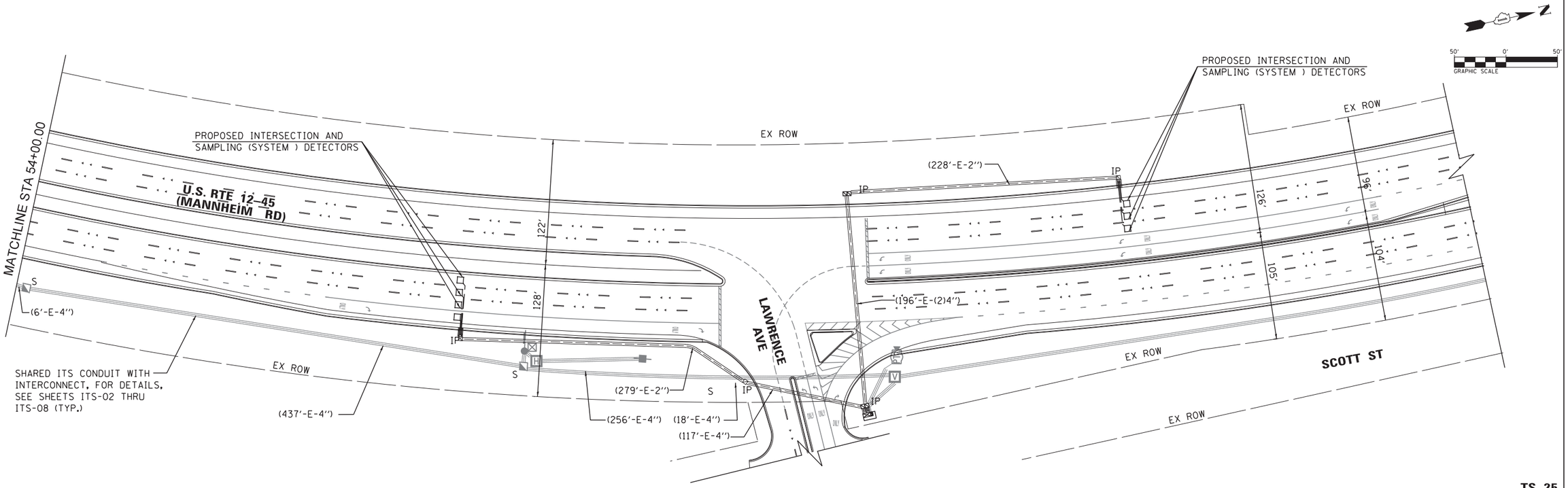

TS-25

DELTA ENGINEERING GROUP, LLC	USER NAME = rmamucod	DESIGNED JA	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INTERCONNECT PLAN US RTE 12–45 (MANNHEIM RD) FROM WAVELAND AVE TO LAWRENCE AVE (SHEET 2 OF 2)
		DRAWN RM	REVISED -		
	PLOT SCALE = $SCALE$	CHECKED HS	REVISED -		
	PLOT DATE = 11/14/2012	DATE 10/19/2012	REVISED -		SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	284
		CONTRACT NO. 60G37		
	ILLINOIS	FED. AID PROJECT		

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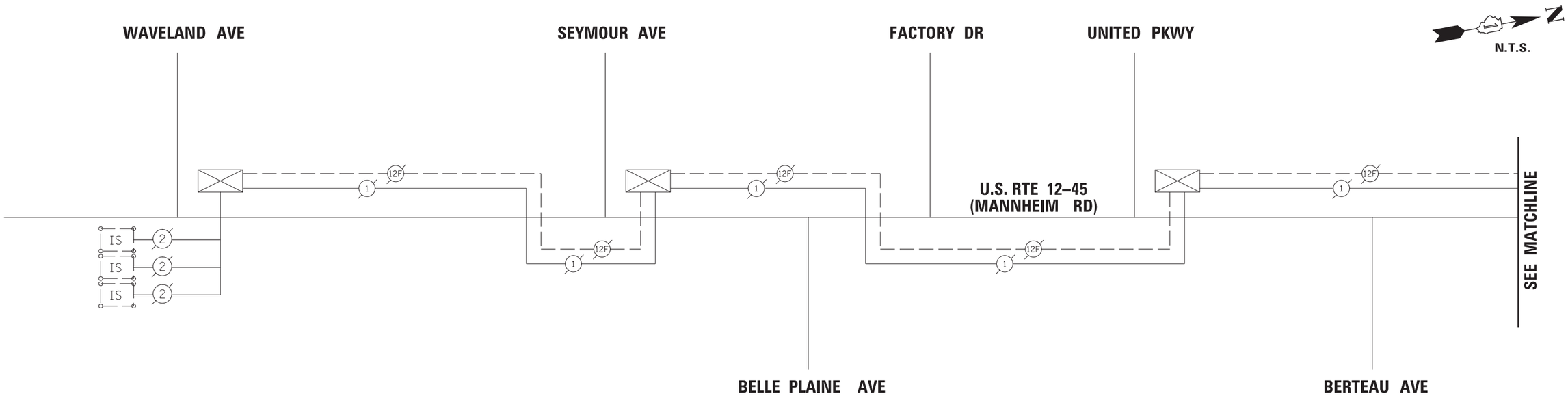
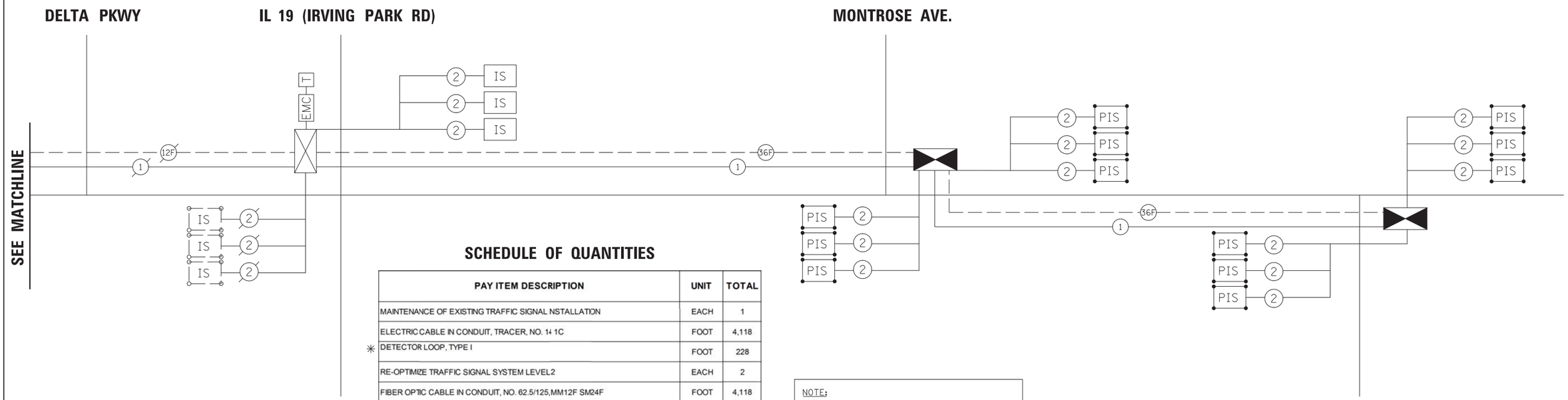




SCHEDULE OF QUANTITIES

PAY ITEM DESCRIPTION	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL NSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	4,118
✳ DETECTOR LOOP, TYPE I	FOOT	228
RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL2	EACH	2
FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125,MM12F SM24F	FOOT	4,118
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	1,010
REMOVE EXISTING HANDHOLE	EACH	7

✳ (IL-19 SB FAR OUT DETECTOR LOOPS)

NOTE:
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

LAWRENCE AVE.

TS–26

DELTA ENGINEERING GROUP, LLC

USER NAME = rmamucod	DESIGNED JA	REVISED -	
	DRAWN RM	REVISED -	
PLOT SCALE = $SCALE$	CHECKED HS	REVISED -	
PLOT DATE = 11/29/2012	DATE 10/19/2012	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

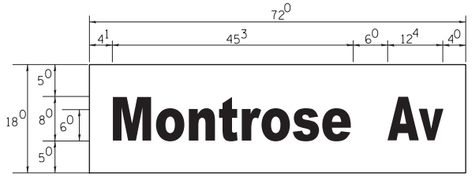
INTERCONNECT SCHEMATIC PLAN
US RTE 12–45 (MANNHEIM RD) FROM WAVELAND AVE TO LAWRENCE AVE

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

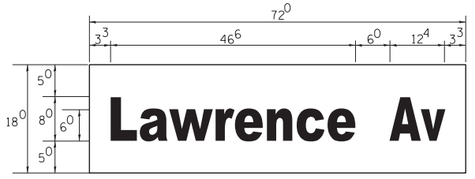
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	285
		CONTRACT NO. 60G37		
	ILLINOIS FED. AID PROJECT			

FILE NAME = c:\caddlib\pw\rmamucod2\pwgreat_lakes\dms47844\D160G37-sht_ts26.dgn

PANEL SIGN DESIGN TYPE 1

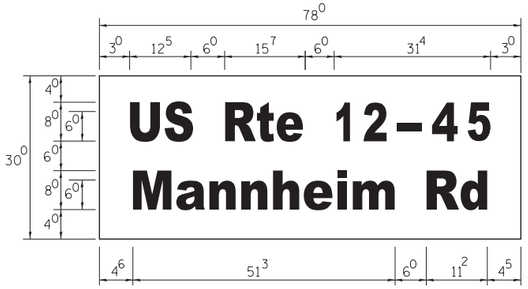


___ Sq. M. each
9 Sq. Ft. each
2 Required
Design Series D



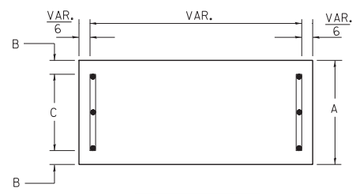
___ Sq. M. each
9 Sq. Ft. each
2 Required
Design Series D

PANEL SIGN DESIGN TYPE 2

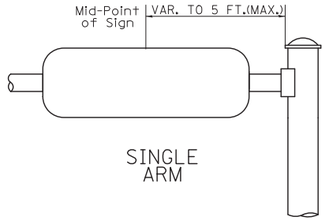


___ Sq. M. each
16.25 Sq. Ft. each
2 Required
Design Series D

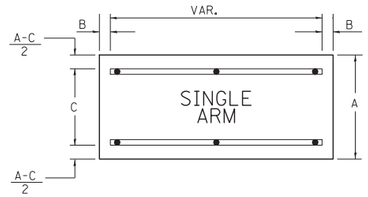
SUPPORTING CHANNELS



A	B	C
18″	2″	14″



SUPPORTING CHANNELS



A	B	C
18″	2″	12″
30″	2″	22″

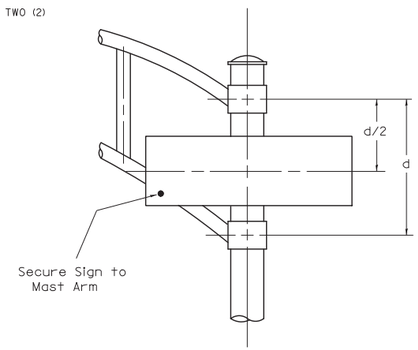
GENERAL NOTES

1. WHERE MAST ARM MOUNTED STREET NAME SIGNS ARE SPECIFIED, THE MAST ARM ASSEMBLY AND POLES SHALL BE DESIGNED TO SUPPORT THE LOADINGS CALLED FOR ON STANDARDS 834001, 834006 AND 834011, AS APPLICABLE, PLUS TWO (2) SIGN PANELS 2′-6″ x 6′-0″ MOUNTED AS SHOWN. THE DESIGN SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS" AS PUBLISHED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS FOR 80 M.P.H. WIND VELOCITY.
2. ALL SIGNS SHALL HAVE A WHITE REFLECTORIZED LEGEND AND BORDER ON A GREEN REFLECTORIZED BACKGROUND, TYPE A SHEETING.
3. THE SIGN LENGTH SHOULD BE INCREASED IN 6-INCH INCREMENTS, BUT THE OVERALL LENGTH SHOULD NOT EXCEED 6′-0″.
4. ALL BORDERS SHALL BE ¾″ WIDE AND CORNER RADIUS SHALL BE 2-1/4 ″.
5. SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM SHALL BE USED FOR ALL SIGNS ATTACHED TO SIGNAL POLES AND POSTS. LOCAL SUPPLIERS OF THE SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM ARE:
   - ✱ A.K.T. CORPORATION SCHAUMBURG, IL
   - ✱ TUCKER COMPANY, INC. WAUWATOSA, WI
   - ✱ AMERICAN FABRICATION CO. CHICAGO HEIGHTS, IL
   - ✱ WESTERN TRAFFIC CONTROL INC. CICERO, IL

PARTS LISTING:

SIGN CHANNEL	PART #HPN053 (MED. CHANNEL)
SIGN SCREWS	¼″ x 14 x 1″ H.W.H. #3 SELF TAPPING WITH NEOPRENE WASHER
BRACKETS	PART #HPN034 (UNIVERSAL) CHANNEL CLAMPS WITH STAINLESS STEEL STRAPPING

OTHER BRANDS OF MOUNTING HARDWARE ARE ACCEPTABLE, BASED UPON THE DEPARTMENT'S APPROVAL AND COMPATIBILITY WITH THE CHANNEL/BRACKET OF THE ABOVE PRODUCT.



SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM
Shall be used. See Note #5.

Upper Case To Lower Case
Spacing Chart 8-6 Inch Series "C & D"

FIRST LETTER	SECOND LETTER: a c d e g o q		b h i k l m n p r u		f w		j		s t		v y		x		z	
SERIES	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
A W X	1^2	1^4	1^4	1^5	1^2	1^4	0^6	1^0	1^1	1^4	0^6	1^0	1^1	1^2	1^2	1^4
B	1^4	1^5	2^0	2^1	1^4	1^5	1^1	1^2	1^4	1^5	1^2	1^4	1^2	1^4	1^6	1^7
C E G	1^4	1^5	2^0	2^1	1^2	1^4	0^6	1^0	1^2	1^4	1^2	1^4	1^4	1^5	1^4	1^5
D O Q R	1^4	1^5	2^0	2^1	1^4	1^5	0^6	1^0	1^2	1^4	1^2	1^4	1^4	1^5	1^4	1^5
F	0^5	0^6	1^4	1^5	0^6	1^0	0^5	0^6	0^6	1^0	0^6	1^0	0^6	1^0	1^1	1^2
H I M N	2^0	2^1	2^2	2^4	2^0	2^1	1^4	1^5	1^6	1^7	1^6	1^7	2^0	2^1	2^0	2^1
J U	2^0	2^1	2^0	2^1	1^6	1^7	1^4	1^5	1^6	1^7	1^6	1^7	1^6	1^7	2^0	2^1
K L	1^1	1^2	1^6	1^7	1^1	1^2	0^5	0^6	1^1	1^2	1^1	1^2	1^1	1^2	1^2	1^4
P	1^2	1^4	1^4	1^5	1^2	1^4	0^5	0^6	1^1	1^2	1^1	1^2	1^2	1^4	1^2	1^4
S	1^2	1^4	1^6	1^7	1^2	1^4	0^6	1^0	1^2	1^4	1^2	1^4	1^2	1^4	1^2	1^4
T	1^1	1^2	1^6	1^7	0^6	1^0	0^6	1^0	1^1	1^2	1^1	1^2	1^1	1^2	1^2	1^4
V	0^6	1^0	1^4	1^5	1^1	1^2	0^6	1^0	1^2	1^4	1^2	1^4	1^2	1^4	1^2	1^4
Y	0^5	0^6	1^4	1^5	0^6	1^0	0^5	0^6	0^5	0^7	0^5	0^6	0^6	1^0	1^1	1^2
Z	1^6	1^7	2^2	2^4	1^6	1^7	1^2	1^4	1^6	1^7	1^6	1^7	1^6	1^7	2^0	2^1

Lower Case To Lower Case
Spacing Chart 6 Inch Series "C & D"

FIRST LETTER	SECOND LETTER: a c d e g o q		b h i k l m n p r u		f w		j		s t		v y		x		z	
SERIES	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
a d h g i j l m n q u	1^6	1^7	2^2	2^4	1^6	1^7	1^2	1^4	1^4	1^5	1^4	1^5	1^6	1^7	1^6	1^7
b f k o p s	1^2	1^4	1^6	1^7	1^1	1^2	0^5	0^6	1^1	1^2	1^1	1^2	1^2	1^4	1^2	1^4
c e	1^2	1^4	1^6	1^7	1^2	1^4	0^6	1^0	1^2	1^4	1^2	1^4	1^2	1^4	1^2	1^4
r	0^6	1^0	1^2	1^4	0^6	1^0	0^3	0^3	0^5	0^6	0^5	0^6	0^6	1^0	0^6	1^0
t z	1^2	1^4	1^6	1^7	1^2	1^4	0^6	1^0	1^1	1^2	1^1	1^2	1^2	1^4	1^2	1^4
v y	1^1	1^2	1^4	1^5	1^1	1^2	0^5	0^6	0^6	1^0	0^6	1^0	1^1	1^2	1^1	1^2
w	1^1	1^2	1^4	1^5	1^1	1^2	0^5	0^6	1^1	1^2	1^1	1^2	1^1	1^2	1^2	1^4
x	1^2	1^4	1^6	1^7	1^1	1^2	0^5	0^6	1^1	1^2	1^1	1^2	1^1	1^2	1^2	1^4

Number To Number
Spacing Chart 8 Inch Series "C & D"

FIRST NUMBER	SECOND NUMBER: 0		1		2		3		4		5		6		7		8		9	
SERIES	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
0 9	1^6	1^7	1^6	1^7	1^4	1^5	1^2	1^4	1^4	1^5	1^4	1^5	1^6	1^7	1^2	1^4	1^6	1^7	1^6	1^7
1	2^0	2^1	2^0	2^1	2^0	2^1	1^6	1^7	1^4	1^5	2^0	2^1	2^0	2^1	1^4	1^5	2^0	2^1	2^0	2^1
2 3 4	1^4	1^5	1^4	1^5	1^4	1^5	1^2	1^4	1^2	1^4	1^4	1^5	1^4	1^5	1^1	1^2	1^6	1^7	1^4	1^5
5	1^4	1^5	1^4	1^5	1^4	1^5	1^1	1^2	1^1	1^2	1^4	1^5	1^4	1^5	1^1	1^2	1^4	1^5	1^4	1^5
6	1^6	1^7	1^4	1^5	1^4	1^5	1^2	1^5	1^2	1^4	1^4	1^5	1^4	1^5	1^1	1^2	1^4	1^5	1^4	1^5
7	1^2	1^4	1^2	1^4	1^4	1^5	1^2	1^5	0^5	0^6	1^2	1^4	1^4	1^5	1^1	1^2	1^4	1^5	1^2	1^4
8	1^6	1^7	1^6	1^7	1^4	1^5	1^2	1^5	1^2	1^4	1^4	1^5	1^6	1^7	1^2	1^4	1^6	1^7	1^4	1^5

EXAMPLE, $2^{(3)}$ DENOTES $\frac{3''}{8}$

UPPER AND LOWER CASE LETTER WIDTHS

LETTERS	6 INCH UPPER CASE LETTERS SERIES C	D	8 INCH UPPER CASE LETTERS SERIES C	D	LETTERS	6 INCH LOWER CASE LETTERS SERIES C	D
A	3^6	5^0	5^0	6^5	a	3^5	4^2
B	3^2	4^0	4^3	5^3	b	3^5	4^2
C	3^2	4^0	4^3	5^3	c	3^5	4^1
D	3^2	4^0	4^3	5^3	d	3^5	4^2
E	3^0	3^5	4^0	4^7	e	3^5	4^2
F	3^0	3^5	4^0	4^7	f	2^3	2^6
G	3^2	4^0	4^3	5^3	g	3^5	4^2
H	3^2	4^0	4^3	5^3	h	3^5	4^2
I	0^7	0^7	1^1	1^2	i	1^1	1^1
J	3^0	3^6	4^0	5^0	j	2^0	2^2
K	3^2	4^1	4^3	5^4	k	3^5	4^2
L	3^0	3^5	4^0	4^7	l	1^1	1^1
M	3^7	4^5	5^1	6^1	m	6^0	7^0
N	3^2	4^0	4^3	5^3	n	3^5	4^2
O	3^4	4^2	4^5	5^5	o	3^6	4^3
P	3^2	4^0	4^3	5^3	p	3^5	4^2
Q	3^4	4^2	4^5	5^5	q	3^5	4^2
R	3^2	4^0	4^3	5^3	r	2^6	3^2
S	3^2	4^0	4^3	5^3	s	3^6	4^2
T	3^0	3^5	4^0	4^7	t	2^7	3^2
U	3^2	4^0	4^3	5^3	u	3^5	4^2
V	3^5	4^4	4^7	6^0	v	4^2	4^7
W	4^4	5^2	6^0	7^0	w	5^5	6^4
X	3^4	4^0	4^5	5^3	x	4^4	5^1
Y	3^6	5^0	5^0	6^6	y	4^6	5^3
Z	3^2	4^0	4^3	5^3	z	3^6	4^3

NUMBER	6 INCH SERIES C	D	8 INCH SERIES C	D
1	1^2	1^4	1^5	2^0
2	3^2	4^0	4^3	5^3
3	3^2	4^0	4^3	5^3
4	3^5	4^3	4^7	5^7
5	3^2	4^0	4^3	5^3
6	3^2	4^0	4^3	5^3
7	3^2	4^0	4^3	5^3
8	3^2	4^0	4^3	5^3
9	3^2	4^0	4^3	5^3
0	3^4	4^2	4^5	5^5

REVISIONS NAME	DATE
D.A.Z./D.A.G.	11/90
	6/98
CADD	10/00

Illinois Department of Transportation
DISTRICT 1

MAST ARM MOUNTED STREET NAME SIGNS

SCALE: NONE
DATE: $$DATE$$

DRAWN BY: RDB
DESIGNED BY: JHE
CHECKED BY: DAD

TS–27

DELTA ENGINEERING GROUP, LLC

USER NAME = rmamucod	DESIGNED	JA	REVISED -
	DRAWN	RM	REVISED -
PLOT SCALE = $SCALE$	CHECKED	HS	REVISED -
PLOT DATE = 11/14/2012	DATE	10/19/2012	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT 1 MAST ARM MOUNTED STREET NAME SIGNS

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	286
		CONTRACT NO. 60G37		
	ILLINOIS FED. AID PROJECT			

FILE NAME = c:\caddlib\pw\rmamucod2\pwgreat_lakes\dms47844\D160G37-sht_ts27.dgn

INDEX OF SHEETS

DISTRICT 1 DETAILS

BE-205	LIGHTING CONTROLLER, RADIO CONTROL - DUPLEX TYPE WITH SCADA
BE-220	ELECTRIC SERVICE INSTALLATION - AERIAL, REMOTE DISCONNECT
BE-301	LIGHT POLE FOUNDATION - 40' TO 47 1/2' M.H. 15'' BOLT CIRCLE
BE-310	LIGHT POLE FOUNDATION OFFSET - 40' TO 47 1/2' M.H. - 15'' BOLT CIRCLE
BE-322	24'' DIA. LIGHT POLE FOUNDATION - INTEGRAL WITH DOUBLE FACE BARRIER WALL
BE-329	LIGHT POLE MOUNTED ON CONCRETE PARAPET WALL - 11 1/2'' BOLT CIRCLE
BE-410	DAVIT LIGHT POLE - 47'-6'' MOUNTING HEIGHT
BE-411	DAVIT LIGHT POLE - 40'-0'' MOUNTING HEIGHT
BE-412	DAVIT LIGHT POLE - 35'-0'' MOUNTING HEIGHT
BE-701	LUMINAIRE SAFETY CABLE ASSEMBLY
BE-702	MISC. ELECTRICAL DETAILS - SHEET A
BE-800	TEMPORARY LIGHT POLE DETAILS
BE-801	TEMPORARY AERIAL CABLE INSTALLATION

ABBREVIATIONS

ALSF	HIGH INTENSITY APPROACH LIGHTING SYSTEM WITH SEQUENCED FLASHING LIGHTS
AMP	AMPER
AWG	AMERICAN WIRE GAUGE
BC	BOLT CIRCLE
C	CONDUIT
CDA	CHICAGO DEPARTMENT OF AVIATION
DIA	DIAMETER
GRD	GROUND
GS	GALVANIZED STEEL
HDP	HIGH DENSITY POLYETHTLENE
HPS	HIGH PRESSURE SODIUM
JB	JUNCTION BOX
MA	MAST ARM
MALSR	MEDIUM INTENSITY APPROACH LIGHTING SYSTEM WITH RUNWAY ALIGNMENT INDICATOR LIGHTS
MH	MOUNTING HEIGHT
N	NEUTRAL
PH	PHASE
PVC	POLYVINYL CHLORIDE
RGS	RIGID GALVANIZED STEEL
USE	UNDERGROUND SERVICE ENTERANCE
W	WATTS
XLP	CROSS-LINKED POLYETHYLENE

FINAL LIGHTING GENERAL NOTES

1. PRIOR TO INSTALLATION ON THE NEW UNIT DUCT, CONDUITS, JUNCTION BOXES, LIGHT STANDARD FOUNDATION AND APPURTENANCES, THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION OF EXISTING CONDUITS, CABLE AND UNDERGROUND UTILITIES. THE CONTRACTOR SHALL CALL J.U.L.I.E. (1-800-892-0123 OR 811) TO AID IN THIS TASK.
2. THE CONTRACTOR MUST VERIFY ALL OF THE INFORMATION SHOWN ON THE CONTRACT PLANS WHICH WOULD EFFECT HIS WORK UNDER THIS CONTRACT FOR THE OPERATION OF THE EXISTING ROADWAY LIGHTING SYSTEM.
3. NO MATERIAL OR EQUIPMENT SHALL BE DELIVERED TO THE JOB SITE WITHOUT PRIOR INSPECTION AND APPROVAL BY THE ENGINEER. ANY MATERIAL AND EQUIPMENT NOT APPROVED BY THE ENGINEER MUST BE REMOVED FROM THE JOB SITE AT THE CONTRACTOR'S EXPENSE.
4. ALL NEW UNIT DUCT, CONDUIT, JUNCTION BOXES AND APPURTENANCES ARE SHOWN DIAGRAMMATICALLY. THE ACTUAL LOCATION IN THE FIELD MUST MEET THE APPROVAL OF THE ENGINEER.
5. CONDUIT AND UNIT DUCT MUST BE POSITIONED IN THE FIELD TO AVOID CONFLICT WITH UNDER DRAINS.
6. ALL ELECTRICAL SYSTEMS, EQUIPMENT AND APPURTENANCES SHALL BE PROPERLY GROUNDED IN STRICT CONFORMANCE WITH NATIONAL ELECTRICAL CODE EVEN THOUGH EVERY DETAIL OF REQUIREMENTS IS NOT SPECIFIED OR SHOWN.
7. GROUNDING OF POLE INCLUDING GROUND ROD, CONDUCTOR, LUGS INCLUDING EXOTHERMIC WELD TO GROUND ROD SHALL NOT BE PAID SEPARATELY. COST MUST BE INCLUDED IN UNIT PRICE OF EACH POLE.
8. ALL UNDERGROUND WIRING SHALL BE 30 INCHES MINIMUM BELOW GRADE PER IDOT SECTION 810.
9. THE NEW ELECTRICAL MATERIALS MUST MEET REQUIREMENTS OF STANDARDS BY THE FOLLOWING ORGANIZATIONS.
   - NATIONAL ELECTRICAL MANUFACTURER ASSOCIATION. (NEMA)
   - INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS. (IEEE)
   - ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA. (IES)
   - AMERICAN ASSOCIATION OF TRANSPORTATION OFFICIALS. (AATO)
   - U.S. DEPARTMENT OF TRANSPORTATION. (U.S.D.O.T)
   - UNDERWRITERS LABORATORIES. (UL)
   - AMERICAN STANDARD INSTITUTE. (ASI)
   - INSULATED POWER AND CABLE ENGINEERS ASSOCIATION. (IPCEA)
   - NATIONAL ELECTRICAL SAFETY CODE (NESC)
   - NATIONAL ELECTRICAL CODE 2011
   - AMERICAN NATIONAL STANDARD PRACTICE FOR ROADWAY LIGHTING (ANSI/IESNA RP-8)
10. ALL LIGHT POLES EXCEPT POLES MOUNTED ON CONCRETE BARRIER WALL/BRIDGE PARAPET WALL/ ABUTMENT WALL/BEHIND GUARD RAIL, SHALL HAVE FRANGIBLE TYPE BREAKAWAY TRANSFORMER BASE FOR 11 1/2'' OR 15'' BOLT CIRCLE. IT SHALL BE AASHTO APPROVED BREAKAWAY
11. ALL SPLICING MUST BE IN POLE BASES OR JUNCTION BOXES ABOVE GRADE WITH WATERPROOF SEALANT AND HEAT SHRINKABLE PLASTIC CAPS.
12. UNLESS NOTED OTHERWISE ALL SHOULDER MOUNTED POLES SHALL HAVE MINIMUM SETBACK REQUIREMENT AS FOLLOWS:
    1- FACE OF THE CURB TO CENTERLINE OF THE POLE AS 3 FT.
    2- WHERE CURB IS NOT THERE, THE MINIMUM SETBACK SHALL BE 13 FT FROM THE EDGE OF TRAVELLED PAVEMENT. ALL POLES MUST BE ALIGNED IN STRAIGHT LINE AS APPROVED BY THE ENGINEER.
13. AS ALL GROUND MOUNTED POLES EXCEPT LOW HEIGHT POLES HAVE 15FT MAST ARM. CONTRACTOR SHALL PROVIDE LUMINAIRE SAFETY CABLE WHERE LUMINAIRE IS LOCATED OVER THE TRAVELLED PAVEMENT.
14. FOR OFFSET FOUNDATION SEE IDOT STANDARD SHEET BE-310.

TEMPORARY LIGHTING GENERAL NOTES

1. THE LAYOUT OF THE TEMPORARY EQUIPMENT WILL VARY BASED ON FIELD CONDITIONS, STAGING, UTILITY IMPACTS, AND THE ELECTRIC SERVICE LOCATION AS COORDINATED WITH THE ELECTRIC UTILITY COMPANY. THE CONTRACTOR SHALL SUBMIT A PLAN INDICATING THE SETTING OF POLES. THIS PLAN MUST BE APPROVED BY THE ENGINEER BEFORE ANY POLES ARE PLACED; APPROVAL DOESN'T RELIVE CONTRACTOR OF RESPONSIBILITY FOR CONFLICTS.
2. THE ELECTRIC SERVICE SHALL BE SINGLE PHASE, 3 WIRE 240/480V. DROP CABLE, MAIN BREAKER, AND ALL OTHER SERVICE APPURTENANCES SHALL BE APPROPRIATELY RATED AND INCLUDED REGARDLESS OF THE SERVICE VOLTAGE APPLIED.
3. THE TEMPORARY LIGHT POLE SETBACK FROM THE FURTHEST EDGE OF TRAVEL PAVEMENT (PER MOT PLANS) SHALL BE 18 FT UNLESS OTHERWISE NOTED BY OFFSET FROM EXISTING EDGE OF PAVEMENT FOR THAT STAGE. TEMPORARY LIGHT POLES INSTALLED BEHIND GUARDRAIL OR BARRIER WALL SHOULD HAVE AT LEAST 2 FEET SETBACK FROM THE GUARDRAIL OR WALL OR AS OTHERWISE DIRECTED BY THE ENGINEER. ALL TEMPORARY LIGHTING SHALL BE WOODEN.
4. EACH LIGHTING UNIT SHALL BE CONTROLLED BY THE INDICATED LIGHTING CONTROLLER. NO LIGHT SHALL BE INDIVIDUALLY CONTROLLED BY PHOTOCELL.
5. THE CONTRACTOR SHALL SPLICE AERIAL CABLE AT THE LIGHT POLE USING HEAT SHRINKABLE CAPS WITH FACTORY APPLIED WATERPROOF SEALENT OR AN APPROVED UL LISTED AERIAL TAP DEVICE.

TEMPORARY LIGHTING GENERAL NOTES (CONTINUED)

6. UNLESS NOTED OTHERWISE TEMPORARY UNDERGROUND CONDUCTORS SHALL BE 3-1/C#2, 1-1/C#4 GND; XLP-TYPE USE, COPPER; TEMPORARY OVERHEAD CONDUCTORS SHALL BE 3-1/C#2 AL WITH MESSENGER WIRE.
7. WHENEVER POSSIBLE THE CONTRACTOR SHALL INSTALL TEMPORARY LIGHTING UNITS IN THE PRESTAGE. TEMPORARY LIGHTING MUST BE FULLY OPERATIONABLE BEFORE THE EXISTING LIGHTING ON THE WEST SIDE OF MANNHEIM ROAD MAY BE REMOVED. (EXISTING LIGHTING MUST BE REMOVED BEFORE THE OUTER SHOULDERS MAY BE USED AS A DRIVING LANE.)
8. EVERY THIRD TEMPORARY LIGHTING POLE SHALL BE FURNISHED WITH A GROUND ROD CONNECTION. THIS GROUND ROD IS NOT SHOWN IN PLAN. 5/8'' X 10' COPPER CLAD STEEL GROUND ROD, #2 BARE TINNED COPPER DOWN CONDUCTOR, CABLE GUARD TO 10' ABOVE GRADE ARE INCIDENTAL TO TEMPORARY LIGHTING.
9. IN ACCORDANCE WITH NEC 225.18 AERIAL CONDUCTOR TO MAINTAIN 18' CLEARANCE ABOVE ROAD SURFACE AT ALL TIMES.
10. CONTRACTOR SHALL TURN OFF CIRCUITS AT THE CONTROLLER BEFORE WORKING ON EXISTING LIGHTING UNITS. CONTRACTOR MUST COORDINATE A POWER OUTAGE WITH COMED PRIOR TO RELOCATING THE EXISTING CONTROLLER B.
11. CONTRACTOR MAY ADJUST TEMPORARY POLE LOCATIONS UP TO 10' IN ANY DIRECTION EXCEPT CLOSER TO THE ROAD, IN ORDER TO ADJUST FOR FIELD CONDITIONS.

LIGHTING REMOVAL GENERAL NOTES

1. PRIOR TO SUBMITTING A BID, THE CONTRACTOR SHALL REVIEW THE CONTRACT DRAWINGS AND ASCERTAIN EXISTING SITE CONDITIONS TO VERIFY THE EXTENT OF DEMOLITION AND REMODELING WORK. FAILURE TO DO SO SHALL NOT RELIEVE THE CONTRACTOR FROM PERFORMING ALL RELOCATIONS AND REMOVALS REQUIRED IN THIS CONTRACT. CONTRACTOR SHALL VERIFY IN THE FIELD THE EXISTING CONDITIONS AND COORDINATE AS REQUIRED.
2. THE CONTRACTOR SHALL PROVIDE ALL CONDUITS AND WIRES OF THE SAME TYPE AND SIZE REQUIRED TO MAINTAIN THE CONTINUITY OF THE CIRCUIT TO EXISTING LIGHT POLES TO REMAIN WHICH MAY BE AFFECTED BY THIS DEMOLITION. SHUTDOWN OF EXISTING SERVICES SHALL ONLY BE PERMITTED UPON WRITTEN APPROVAL FROM THE IDOT, AND THEN ONLY FOR THE DATE AND DURATION AGREED UPON.
3. BRANCH CIRCUIT WIRING FOR EXISTING EQUIPMENT TO BE REMOVED SHALL BE DISCONNECTED AT SOURCE AND REMOVED. REMOVE EXISTING WIRING.
4. COMMENCEMENT OF WORK SHALL BE CONSTRUED AS EVIDENCE THAT A CAREFUL EXAMINATION OF THE PORTIONS OF THE EXISTING ROADWAY FOR THIS WORK, AND ACCESS TO WORK SPACES, HAS BEEN MADE AND THAT THE CONTRACTOR IS FAMILIAR WITH EXISTING CONDITIONS AND DIFFICULTIES THAT WILL AFFECT THE EXECUTION OF THE WORK. LATER CLAIMS SHALL NOT BE MADE FOR ADDITIONAL LABOR, EQUIPMENT OR MATERIALS REQUIRED BECAUSE OF DIFFICULTIES ENCOUNTERED WHICH COULD HAVE BEEN FORESEEN DURING SUCH AN EXAMINATION. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING, REINSTALLING, REPAIRING, OR REPLACING EQUIPMENT.
5. ALL EXISTING EQUIPMENT THAT ARE TO BE REMOVED SHALL BE RETURNED TO STATE STOCK.
6. LOCATIONS SELECTED FOR COLLECTION OF DEBRIS AND/OR STORAGE OF EQUIPMENT SHALL BE SUBJECT TO THE IDOT PROJECT MANAGER'S APPROVAL.
7. WHERE THE CONTINUITY OF CIRCUITS OR CONDUITS SERVING ANY EXISTING LIGHTING/EQUIPMENT TO REMAIN IN OPERATION IS INTERFERED WITH, RE-ROUTE AND RECONNECT SUCH CIRCUITS OR CONDUITS.
8. THE REMOVAL OF THE EXISTING CABLE DUCT SHALL BE INCIDENTAL TO ROADWAY CONSTRUCTION.
9. TEMPORARY LIGHTS SHALL BE REMOVED AFTER ALL PROPOSED LIGHT POLES HAVE BEEN INSTALLED AND FULLY FUNCTIONAL OR AS DIRECT BY ENGINEER. REMOVAL OF TEMPORARY LIGHTING UNIT OR 60 FT POLE WOODED SUPPORT POLE REQUIRED ON THIS CONTRACT SHALL BE AT NO ADDITIONAL COST TO THIS CONTRACT. REMOVAL AND RELOCATION WILL INCLUDE ALL ITEMS SUCH AS LUMINAIRE'S, MAST ARM, AERIAL CABLE, CABLE DUCT AND MOUNTING HARDWARE.

HNTB

USER NAME = mkosir	DESIGNED KA	REVISED -
	DRAWN MMK	REVISED -
PLOT SCALE = 50:1	CHECKED MCD	REVISED -
PLOT DATE = 19-OCT-2012	DATE 10/19/12	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SHEET INDEX, GENERAL NOTES AND ABBREVIATIONS

SCALE: NONE | SHEET NO. 1 OF 2 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	287
		CONTRACT NO. 60G37		
		ILLINOIS FED. AID PROJECT		

FILE NAME = IP_PWP:dms47844\D160G37-sht-light-gennote01.dgn

LEGENDS

PROPOSED LIGHTING UNIT 47.5FT MH
ALUMINUM POLE, 15FT DAVIT ARM,
LUMINAIRE M-C-III 310W HPS, AND LUMINAIRE
SAFETY CABLE

PROPOSED LIGHTING UNIT 40FT MH
ALUMINUM POLE, 15FT DAVIT ARM,
LUMINAIRE M-C-III 310W HPS, AND LUMINAIRE
SAFETY CABLE

PROPOSED LIGHTING UNIT 47.5FT MH
ALUMINUM POLE, (2) 6FT DAVIT ARM, MOUNTED ON
CONCRETE BARRIER WALL, LUMINAIRE M-C-III 310W HPS

PROPOSED LIGHTING UNIT 35FT MH
ALUMINUM POLE, (2) 6FT DAVIT ARM, MOUNTED ON
CONCRETE BARRIER WALL, LUMINAIRE M-C-III 310W HPS

PROPOSED LIGHTING UNIT 15FT MH
STAINLESS STEEL POLE, MOUNTED ON CONCRETE
BARRIER WALL. (2) UNDERPASS LUMINAIRE, M-C-IV 100W HPS.

PROPOSED LIGHTING UNIT 15FT MH
STAINLESS STEEL POLE, MOUNTED ON BRIDGE
PARAPET WALL. (1) UNDERPASS LUMINAIRE, M-C-IV 100W HPS.

PROPOSED LIGHTING UNIT 17'-6" MH
STAINLESS STEEL POLE, MOUNTED ON CONCRETE
FOUNDATION. (1) UNDERPASS LUMINAIRE, M-C-IV
100W HPS.

PROPOSED LIGHTING UNIT 17'-6" MH
STAINLESS STEEL POLE, MOUNTED ON CONCRETE
FOUNDATION. (2) UNDERPASS LUMINAIRE, M-C-IV
100W HPS.

LIGHTING UNIT COMBINATION ON TRAFFIC SIGNAL
POLE 15FT MAST ARM AND M-C-III 310W HPS

EXISTING LIGHTING UNIT

EXISTING LIGHTING UNIT TO BE REMOVED

PROPOSED TEMPORARY LIGHTING UNIT 310W, 240V
MCIII HPS, 15 FT MA, 40 FT MH ON WOOD POLE, CLASS 4

PROPOSED TEMPORARY LIGHTING UNIT 400W, 240V
MCIII HPS, 15 FT MA, 40 FT MH ON WOOD POLE, CLASS 4

PROPOSED TEMPORARY LIGHTING UNIT 250W, 240V
MCIII HPS, 20 FT MA, 17'-6" MH ON WOOD POLE, CLASS 4

PROPOSED TEMPORARY LIGHTING UNIT 400W, 240V
MCIII HPS, 20 FT MA, 40 FT MH ON WOOD POLE, CLASS 4

PROPOSED TEMPORARY LIGHTING UNIT 400W, 240V
MCIII HPS, 15 FT MA, 40 FT MH ON WOOD POLE, CLASS 4,
INITIAL EMBEDMENT 20 FT

EXISTING LIGHT TO REMAIN

PROPOSED TEMPORARY LIGHTING UNIT INSTALLED IN EARLIER
STAGE

ELECTRICAL JUNCTION BOX

ELECTRICAL PULL BOX

ELECTRICAL HANDHOLE

GROUND FIELD FOR CONTROLLERS
GROUND RODS 5/8" x 10'-0"
2/0 AWG BARE COPPER WIRE

GROUND ROD 5/8" DIA. X 10'

3" RIGID GALVANIZED STEEL CONDUIT SLEEVE BELOW PAVEMENT
L-LENGTH
U-UNDERGROUND
R-RIGID
S-STEEL
C-CONDUIT

UNIT DUCT, 1 1/2" DIA POLYETHYLENE, SCH-40
600V, 3-1/C #2 & 1/C #4 GROUND (XLP-TYPE USE),
(UNLESS NOTED OTHERWISE)

4" DIA PVC CONDUIT EMBEDDED IN CONCRETE
BARRIER WALL INCLUDING UNIT DUCT.
(3)4"C CONDUIT SHALL BE EMBEDDED IN WALL.
(1)4"C FOR LIGHTING
(1)4"C FOR ITS CABLE (REFER TO ITS PLANS)
(1)4"C SPARE (REFER TO ITS PLANS)

3-1/C#2, AERIAL CABLE WITH MESSENGER WIRE (TYPE ALUMINIUM)

PROPOSED LIGHTING CONTROLLER RADIO CONTROL
DUPLEX CONSOLETYPE WITH SCADA 240/480V, 1PH, 3 WIRE

EXISTING LIGHTING CONTROLLER RADIO CONTROL
DUPLEX CONSOLETYPE WITH SCADA 240/480V,
1PH, 3 WIRE

TEMPORARY WOOD POLE - 40 FT MH, CLASS 4

3-1/C#2, AERIAL CABLE WITH MESSENGER WIRE (TYPE ALUMINIUM)
INSTALLED IN EARLIER STAGE

POLE /UNIT IDENTIFICATION

B, C, BD - DENOTES IDOT CONTROLLER
2 - VILLAGE OF SCHILLER PARK CONTROLLER
A - DENOTES CIRCUIT NUMBER
X - DENOTES POLE NUMBER ON THE CIRCUIT

TEMPORARY LIGHTING PHASING

• UNLESS OTHERWISE NOTED TEMP POLES REMOVED IN STAGE 3 AFTER PROPOSED POLES ARE IN-SERVICE, WHICH OCCURS AFTER TRAFFIC IS IN FINAL CONFIGURATION.
• STATION NUMBERS ARE APPROXIMATE, SEE PLANS FOR ACTUAL LOCATIONS.

STA 26+00 TO STA 31+00
WEST SIDE: NO TEMP POLES NEEDED, EXISTING POLES REPLACED IN STAGE 3.
MEDIAN: N/A
EAST SIDE: TEMP POLES INSTALLED IN PRE-STAGE AND ACTIVATED IN STAGE 1 WHEN THE EXISTING POLES ARE REMOVED.

STA 31+00 TO LAWRENCE INTERSECTIONWEST SIDE: TEMP POLES INSTALLED AND PUT INTO SERVICE BEFORE REMOVING EXISTING POLES IN PRE-STAGE.
MEDIAN: N/A
EAST SIDE: TEMP POLES INSTALLED IN PRE-STAGE, EXISTING POLES REMOVED IN STAGE 1, TEMP POLES IN-SERVICE FOR STAGE 1D.

LAWRENCE INTERSECTION TO STA 68+00
WEST SIDE: TEMP POLES INSTALLED AND PUT INTO SERVICE BEFORE REMOVING EXISTING POLES IN PRE-STAGE.
MEDIAN: N/A
EAST SIDE: TEMP SPAN POLES INSTALLED IN PRE-STAGE (IN ORDER TO POWER TEMP LIGHTS NORTH OF STATION 75+00), EXISTING POLES REMOVED IN STAGE 1, PROPOSED POLES IN-SERVICE FOR STAGE 1D.

STA 68+00 TO STA 71+00
WEST SIDE: TEMP POLES INSTALLED AND PUT INTO SERVICE BEFORE REMOVING EXISTING POLES IN PRE-STAGE.
MEDIAN: EXISTING POLES REMOVED IN STAGE 1, NO NEW MEDIAN POLES INSTALLED
EAST SIDE: TEMP SPAN POLES INSTALLED IN PRE-STAGE (IN ORDER TO POWER TEMP LIGHTS NORTH OF STATION 75+00), EXISTING POLES REMOVED IN STAGE 1, PROPOSED POLES IN-SERVICE FOR STAGE 1D.

STA 71+00 TO STA 76+00
WEST SIDE: TEMP POLES INSTALLED AND PUT INTO SERVICE IN PRE-STAGE, NO EXISTING POLES TO BE REMOVED
MEDIAN: EXISTING POLES REMOVED IN STAGE 1, PROPOSED POLES INSTALLED AND PUT INTO SERVICE IN STAGE 3
EAST SIDE: TEMP SPAN POLES INSTALLED IN PRE-STAGE (IN ORDER TO POWER TEMP LIGHTS NORTH OF STATION 75+00), EXISTING POLES REMOVED IN STAGE 1, TEMP POLES IN-SERVICE FOR STAGE 1D.
STA 76+00 TO STA 80+50
WEST SIDE: TEMP POLES INSTALLED AND PUT INTO SERVICE IN PRE-STAGE, EXISTING POLES TO BE REMOVED BY STAGE 2, PROPOSED POLES INSTALLED AND PUT INTO SERVICE FOR STAGE 3.
MEDIAN: EXISTING POLES REMOVED IN STAGE 1, PROPOSED POLES INSTALLED AND PUT INTO SERVICE IN STAGE 3.
EAST SIDE: TEMP POLES INSTALLED IN PRE-STAGE AND IN SERVICE BY STAGE 1D, EXISTING POLES REMOVED IN STAGE 1.

STA 80+50 TO STA 85+00
WEST SIDE: TEMP POLES INSTALLED AND PUT INTO SERVICE IN PRE-STAGE, EXISTING POLES TO BE REMOVED BY STAGE 2, TEMP POLES TO BE RELOCATED AND PUT BACK INTO SERVICE FOR STAGE 3
MEDIAN: EXISTING POLES REMOVED IN PRE-STAGE, PROPOSED POLES INSTALLED AND PUT INTO SERVICE IN STAGE 3.
EAST SIDE: TEMP POLES INSTALLED AND PUT INTO SERVICE IN PRE-STAGE, NO EXISTING POLES

STA 85+00 TO STA 94+00
WEST SIDE: TEMP POLES INSTALLED AND PUT INTO SERVICE IN PRE-STAGE, EXISTING POLES TO BE REMOVED BY STAGE 2.
MEDIAN: EXISTING POLES REMOVED IN PRE-STAGE, PROPOSED POLES INSTALLED AND PUT INTO SERVICE IN STAGE 3.
EAST SIDE: TEMP POLES INSTALLED AND PUT INTO SERVICE IN PRE-STAGE, EXISTING POLES REMOVED BY STAGE 1.

STA 94+00 TO STA 99+00
WEST SIDE: NO TEMP POLES MAY BE INSTALLED, NO EXISTING POLES TO BE REMOVED
MEDIAN: EXISTING POLES TO BE REMOVED IN PRE-STAGE; TEMP POLES INSTALLED AND ACTIVATED IN PRE-STAGE; TEMP POLES RELOCATED FOR STAGE 2, 2B, AND 3; PROPOSED POLES INSTALLED AND PUT INTO SERVICE IN STAGE 3
EAST SIDE: TEMP POLES INSTALLED AND PUT INTO SERVICE IN PRE-STAGE, EXISTING POLES REMOVED BY STAGE 1.

STA 99+00 TO STA 103+00
WEST SIDE: TEMP POLES INSTALLED AND PUT INTO SERVICE IN PRE-STAGE, EXISTING POLES TO BE REMOVED IN PRE-STAGE.
MEDIAN: EXISTING POLES TO BE REMOVED DURING STAGE 1, PROPOSED POLES INSTALLED AND PUT INTO SERVICE IN STAGE 3.
EAST SIDE: TEMP POLES TO BE INSTALLED AND PUT INTO SERVICE IN PRE-STAGE AND THEN RELOCATED IN STAGE 1A, EXISTING POLES TO BE REMOVED IN STAGE 1, PROPOSED POLES ALONG RAMP M2CD1 TO BE PUT INTO SERVICE IN STAGE 1A

STA 103+00 TO STA 107+00
WEST SIDE: TEMP POLES INSTALLED AND PUT INTO SERVICE IN PRE-STAGE, EXISTING POLES TO BE REMOVED BY STAGE 2.
MEDIAN: EXISTING POLES TO BE REMOVED DURING STAGE 1, PROPOSED POLES INSTALLED AND PUT INTO SERVICE IN STAGE 3
WEST SIDE: TEMP POLE TO BE INSTALLED AND PUT INTO SERVICE IN STAGE 1, EXISTING POLES ALONG RAMP M2CD1 TO BE REMOVED IN STAGE 1, PROPOSED POLES ALONG RAMP M2CD1 TO BE PUT INTO SERVICE IN STAGE 1A.

STA 107+00 TO STA 114+00
WEST SIDE: TEMP POLES INSTALLED AND PUT INTO SERVICE IN PRE-STAGE, EXISTING POLES TO BE REMOVED BY STAGE 2.
MEDIAN: NO EXISTING POLES, PROPOSED POLES INSTALLED AND PUT INTO SERVICE IN STAGE 3.
WEST SIDE: TEMP POLES TO BE INSTALLED AND PUT INTO SERVICE IN PRE-STAGE INCLUDING ONE FOR TEMPORARY RAMP M2CD1 ALIGNMENT, EXISTING POLES TO BE REMOVED IN STAGE

E-02

HNTB

USER NAME = mkosir	DESIGNED KA	REVISED -
	DRAWN MMK	REVISED -
PLOT SCALE = 50:1	CHECKED MCD	REVISED -
PLOT DATE = 19-OCT-2012	DATE 10/19/12	REVISED -

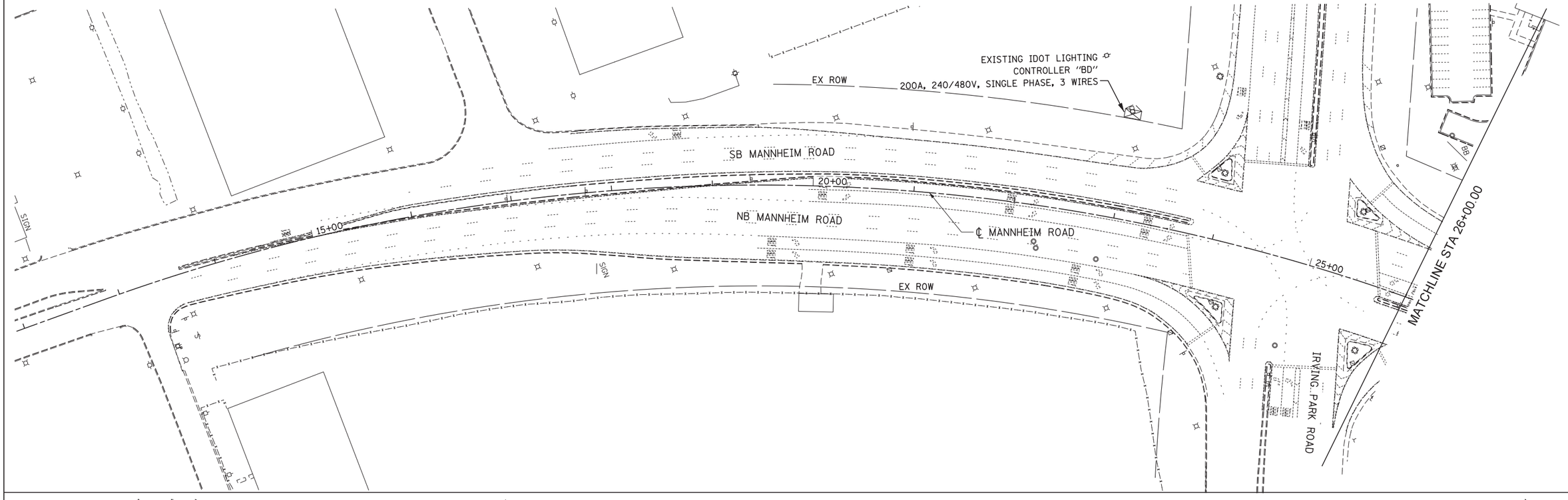
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ELECTRICAL LEGENDS

SCALE: NONE | SHEET NO. 2 OF 2 SHEETS | STA. | TO STA.

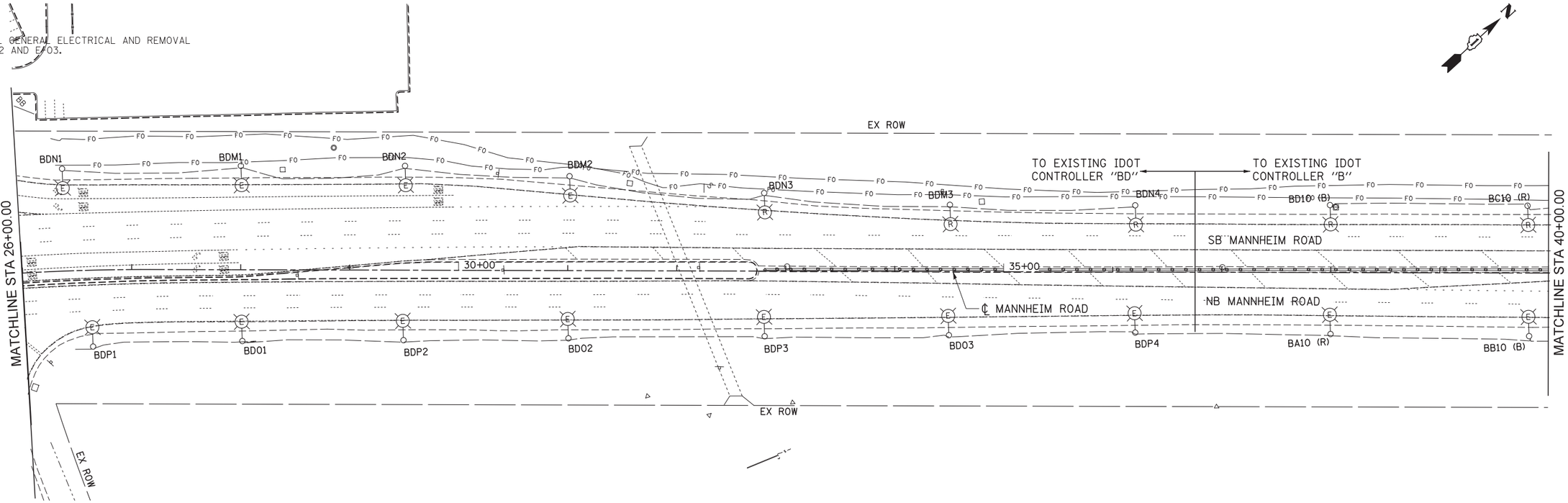
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	288
		CONTRACT NO. 60G37		
	ILLINOIS	FED. AID PROJECT		

FILE NAME = IP_PWP:dms47844\D160G37-sht-light-gennote02.dgn



NOTES:

1. REFER TO ELECTRICAL GENERAL ELECTRICAL AND REMOVAL NOTES ON SHEET E-02 AND E-03.

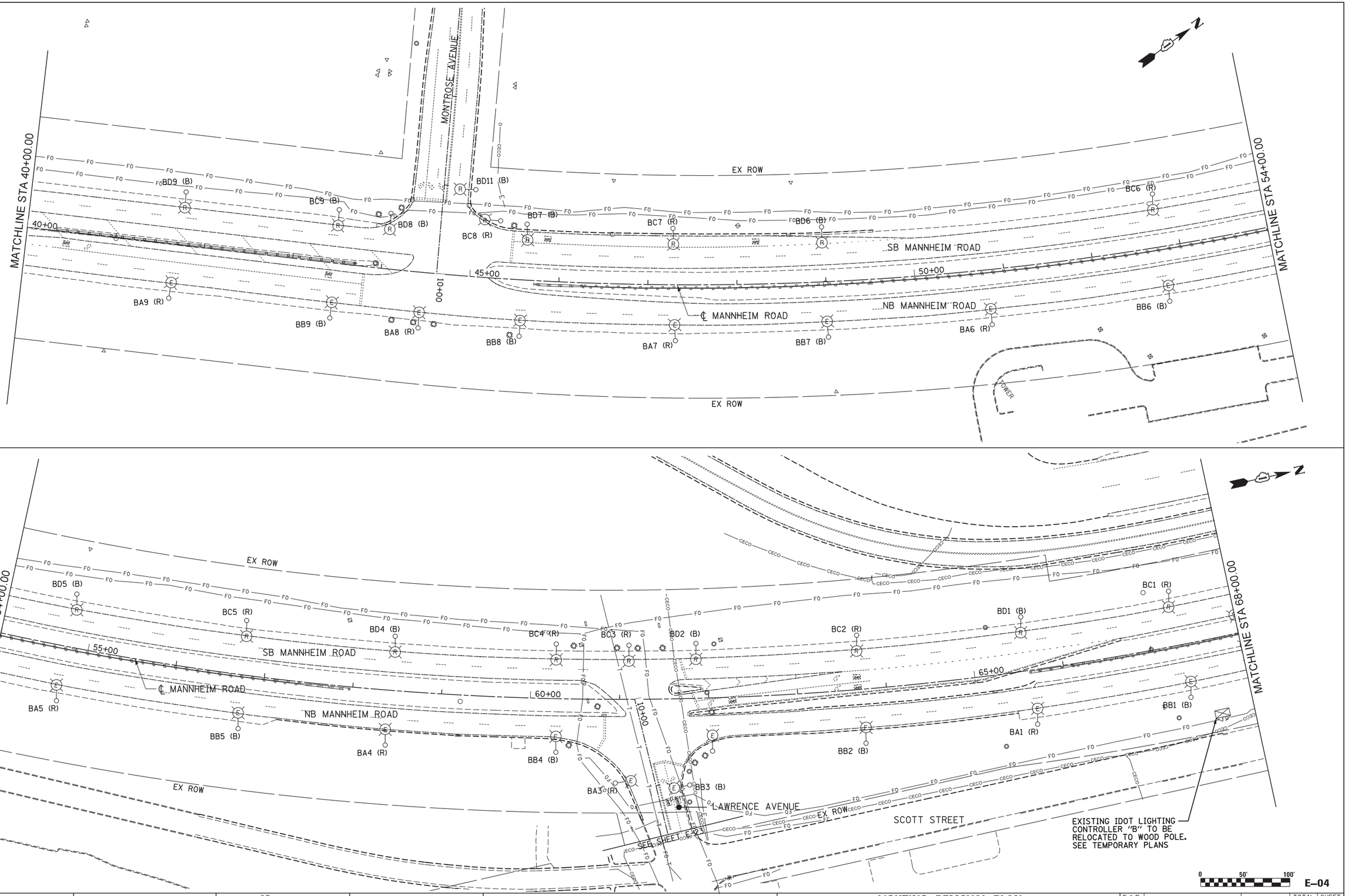


E–03

Globetrotters® Engineering Corporation ENGINEERS ARCHITECTS 300 South Wacker Drive Chicago, Illinois 60606	USER NAME = mkosir	DESIGNED CD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LIGHTING REMOVAL PLAN PRE STAGE MANNHEIM ROAD
		DRAWN RL	REVISED -		
	PLOT SCALE = 50:1	CHECKED CD	REVISED -		
	PLOT DATE = 16-OCT-2012	DATE 10/19/12	REVISED -		SCALE: 1" = 50' SHEET NO. OF SHEETS STA. 26.+00 TO STA. 40+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	289
		CONTRACT NO. 60G37		
		ILLINOIS FED. AID PROJECT		

FILE NAME = IP_PWP:dms47844\D160G37-sht-E-Rmv1 StagingP 1.dgn



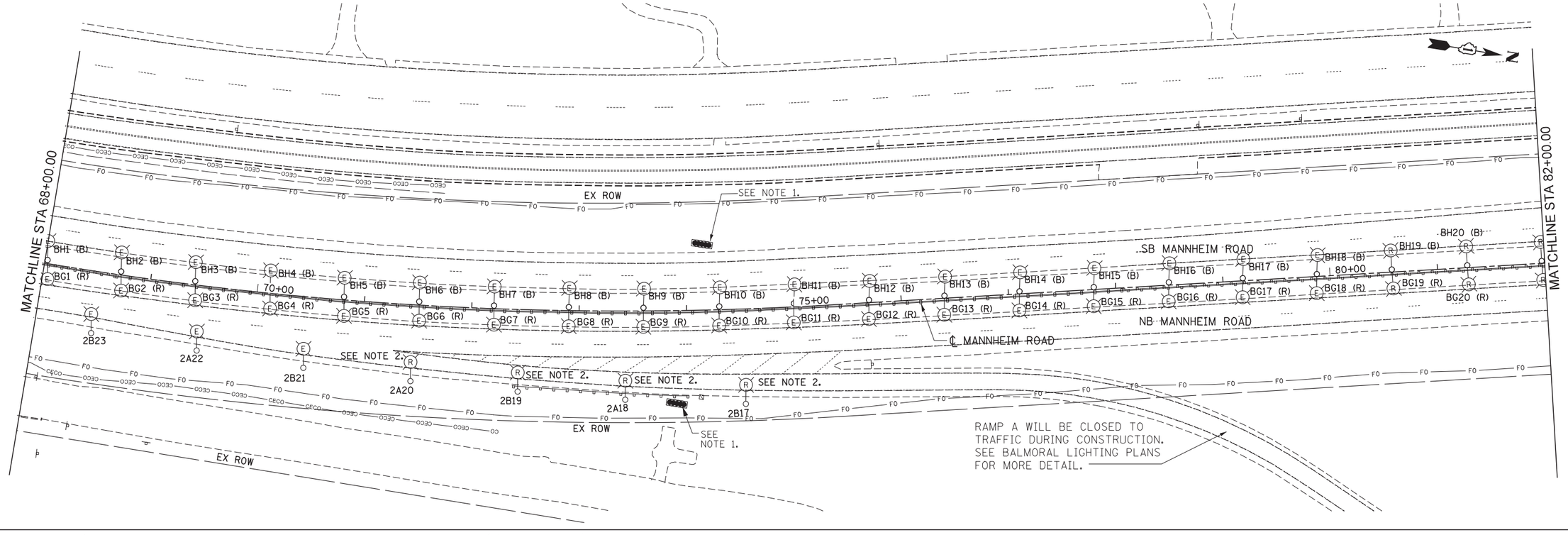
Globetrotters® Engineering Corporation ENGINEERS ARCHITECTS 300 South Wacker Drive Chicago, Illinois 60606	USER NAME = mkosir	DESIGNED CD	REVISED -	**STATE OF ILLINOIS** **DEPARTMENT OF TRANSPORTATION**
		DRAWN RL	REVISED -	
	PLOT SCALE = 50:1	CHECKED CD	REVISED -	
	PLOT DATE = 16-OCT-2012	DATE 10/19/12	REVISED -	

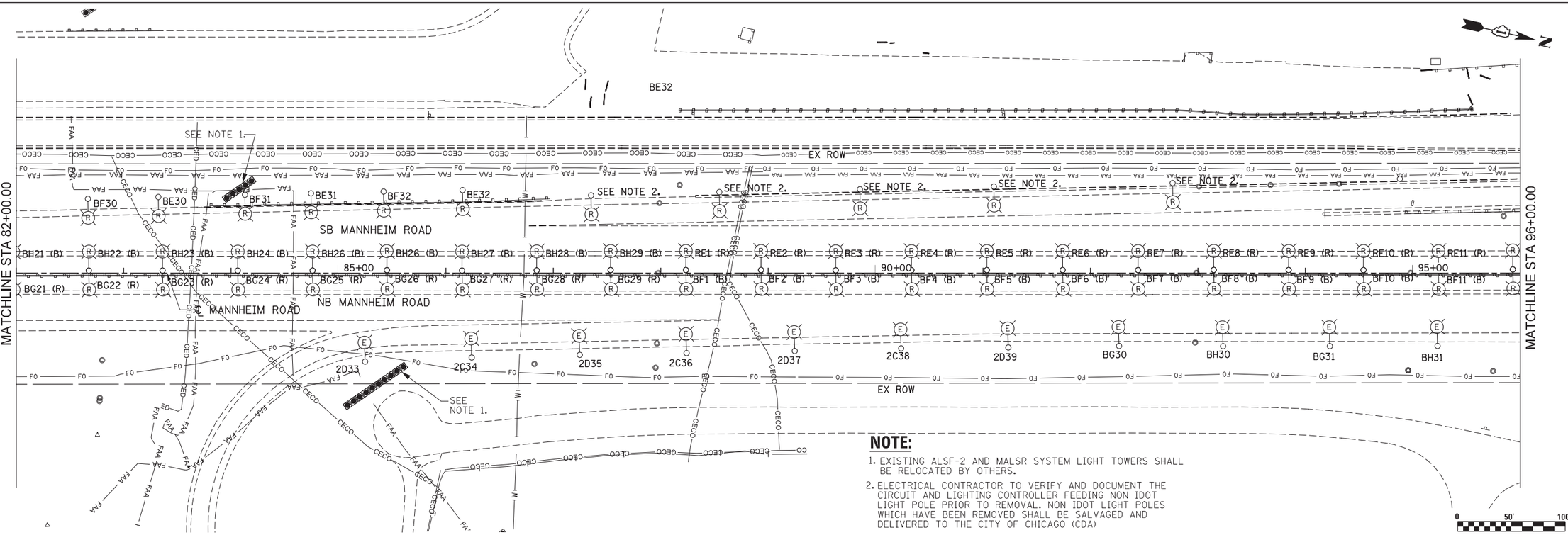
LIGHTING REMOVAL PLAN
PRE STAGE
MANNHEIM ROAD

SCALE: 1" = 50' | SHEET NO. 2 OF 5 SHEETS | STA. 40+00.00 TO STA. 68+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	290
		CONTRACT NO. 60G37		
	ILLINOIS FED. AID PROJECT			

FILE NAME = IP_PWP:dms47844\D160G37-sht-E-Rmvl Staging P 2.dgn





NOTE:

1. EXISTING ALSF-2 AND MALSR SYSTEM LIGHT TOWERS SHALL BE RELOCATED BY OTHERS.
2. ELECTRICAL CONTRACTOR TO VERIFY AND DOCUMENT THE CIRCUIT AND LIGHTING CONTROLLER FEEDING NON IDOT LIGHT POLE PRIOR TO REMOVAL. NON IDOT LIGHT POLES WHICH HAVE BEEN REMOVED SHALL BE SALVAGED AND DELIVERED TO THE CITY OF CHICAGO (CDA)

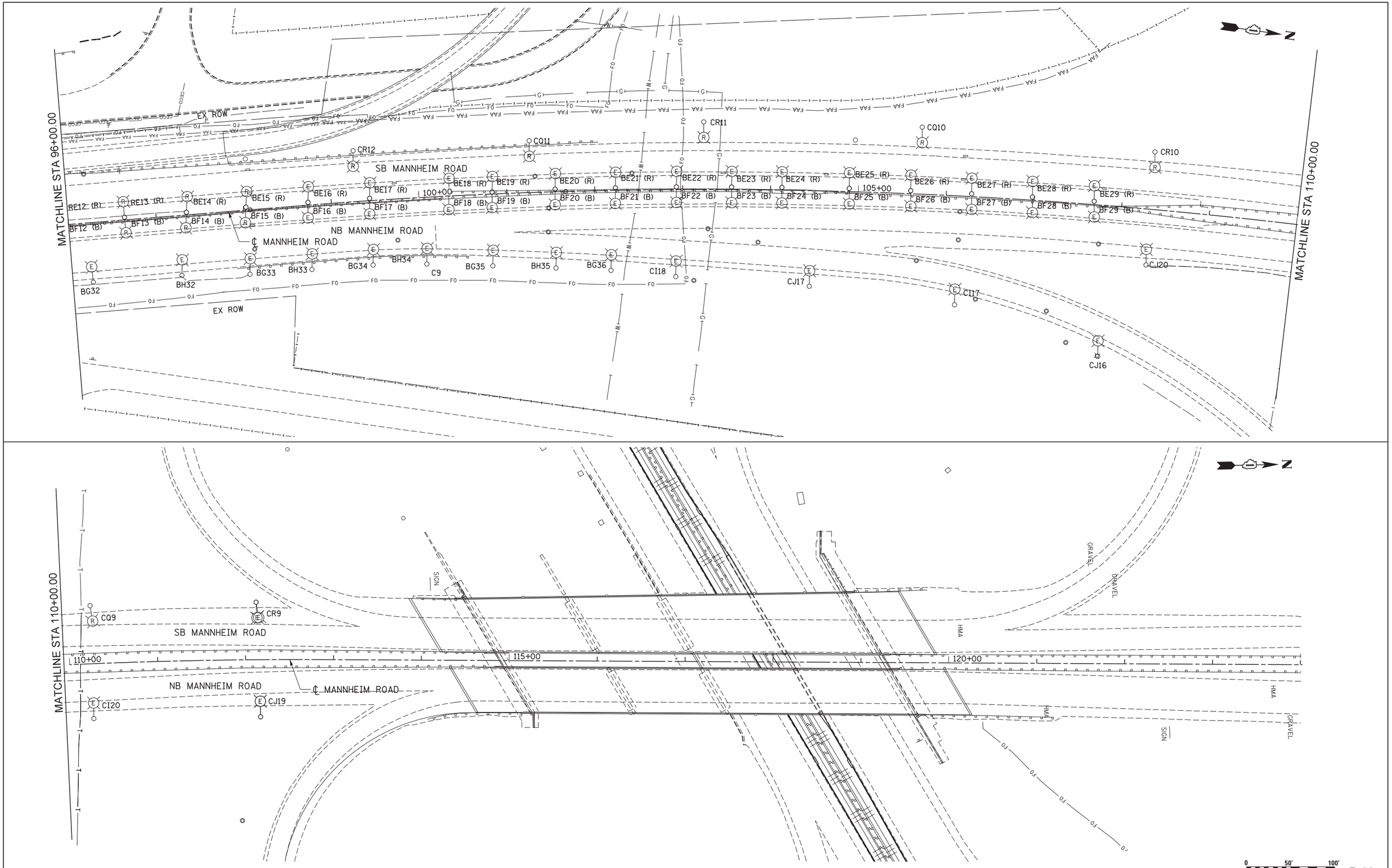
0 50' 100'

E–05

Globetrotters® Engineering Corporation ENGINEERS ARCHITECTS 300 South Wacker Drive Chicago, Illinois 60606	USER NAME = mkosir	DESIGNED CD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LIGHTING REMOVAL PLAN PRE STAGE MANNHEIM ROAD
		DRAWN RN	REVISED -		
	PLOT SCALE = 50:1	CHECKED CD	REVISED -		SCALE: 1" = 50' | SHEET NO. 3 OF 5 SHEETS | STA. 68+00.00 TO STA. 96+00.00
	PLOT DATE = 16-OCT-2012	DATE 10/19/12	REVISED -		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	291
		CONTRACT NO. 60G37		
		ILLINOIS FED. AID PROJECT		

FILE NAME = IP_PWP:dms47844\D160G37-sht-E-Rmv1 StagingP 3.dgn



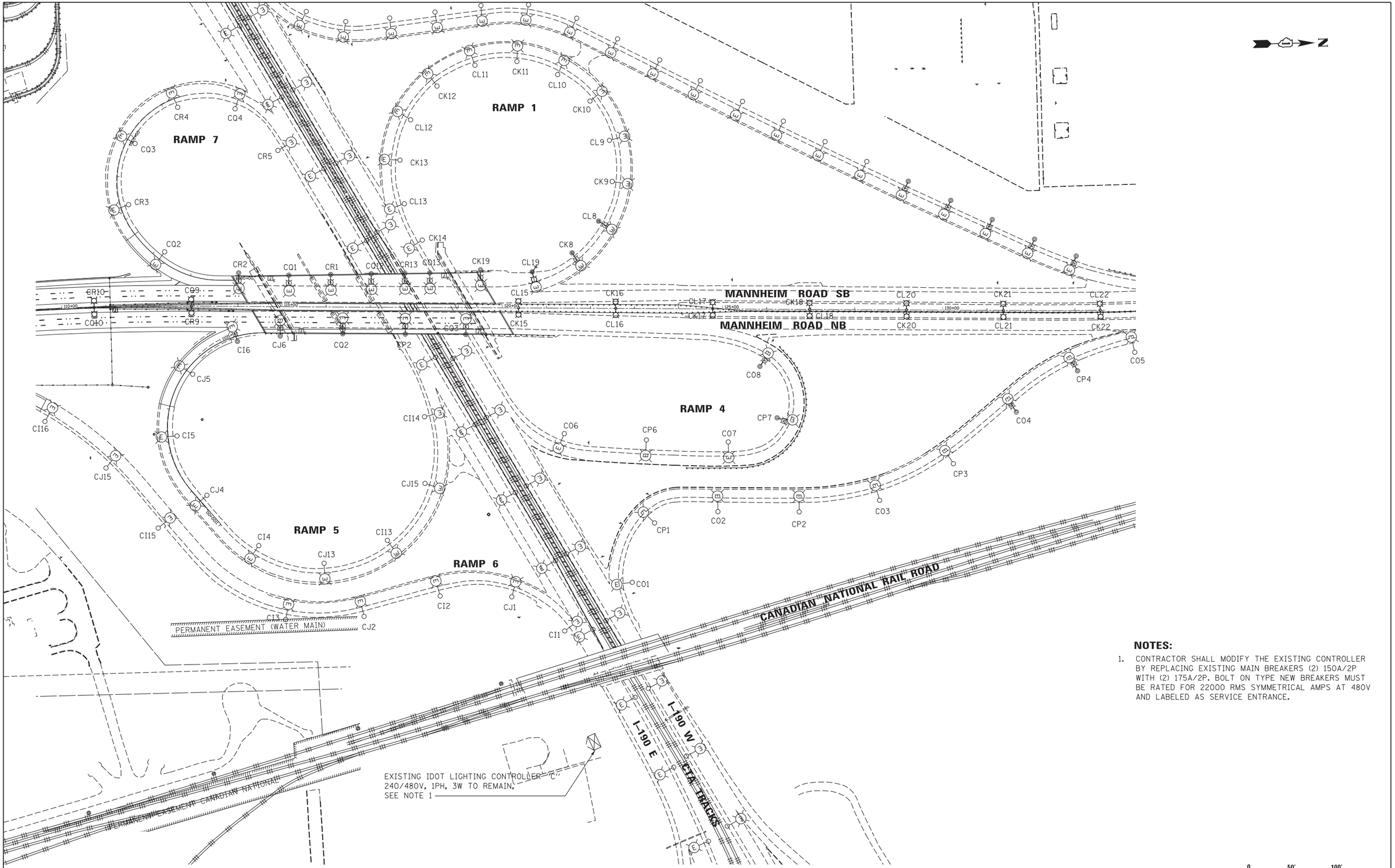
0 50' 100'

E–06

Globetrotters® Engineering Corporation ENGINEERS ARCHITECTS 300 South Wacker Drive Chicago, Illinois 60606	USER NAME = mkosir	DESIGNED CD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LIGHTING REMOVAL PLAN PRE STAGE MANNHEIM ROAD
		DRAWN RL	REVISED -		
	PLOT SCALE = 50:1	CHECKED CD	REVISED -		
	PLOT DATE = 16-OCT-2012	DATE 10/19/12	REVISED -		SCALE: 1" = 50' | SHEET NO. 4 OF 5 SHEETS | STA. 96+00.00 TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	292
		CONTRACT NO. 60G37		
	ILLINOIS FED. AID PROJECT			

FILE NAME = IP_PWP:dms47844\D160G37-sht-E-Rmv1 StagingP 4.dgn



NOTES:

1. CONTRACTOR SHALL MODIFY THE EXISTING CONTROLLER BY REPLACING EXISTING MAIN BREAKERS (2) 150A/2P WITH (2) 175A/2P. BOLT ON TYPE NEW BREAKERS MUST BE RATED FOR 22000 RMS SYMMETRICAL AMPS AT 480V AND LABELED AS SERVICE ENTRANCE.

0 50' 100'

E-07

Globetrotters® Engineering Corporation ENGINEERS ARCHITECTS 300 South Wacker Drive Chicago, Illinois 60606	USER NAME = mkosir	DESIGNED CD	REVISED -
		DRAWN RL	REVISED -
	PLOT SCALE = 100:1	CHECKED CD	REVISED -
	PLOT DATE = 19-OCT-2012	DATE 10/19/12	REVISED -

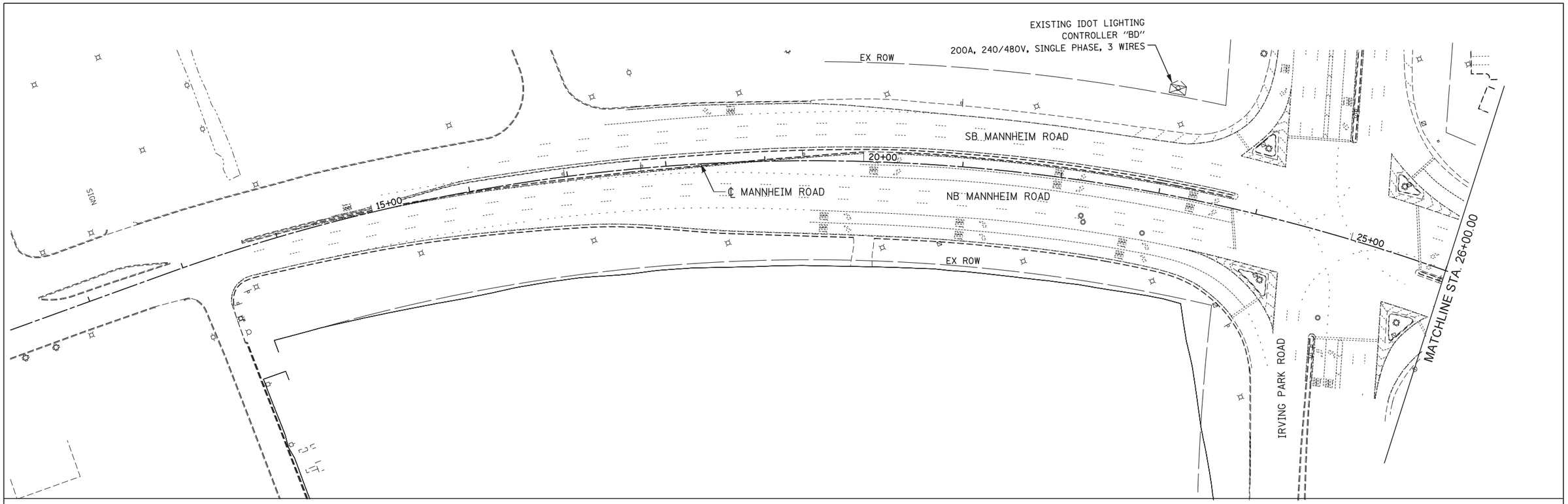
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LIGHTING REMOVAL PLAN, PRE STAGE, CONTROLLER C MODIFICATION

SCALE: 1" = 100' | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	293
		CONTRACT NO. 60G37		
	ILLINOIS FED. AID PROJECT			

FILE NAME = IP_PWP:dms47844\D160G37-sht-light-41.dgn

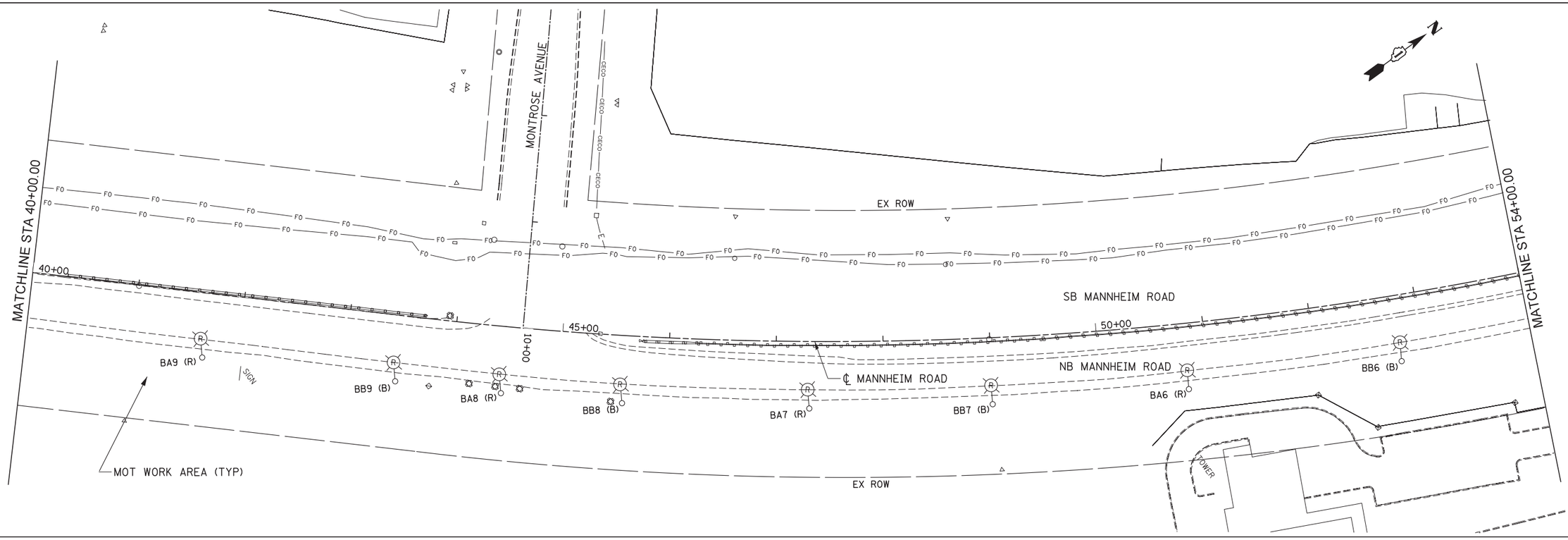


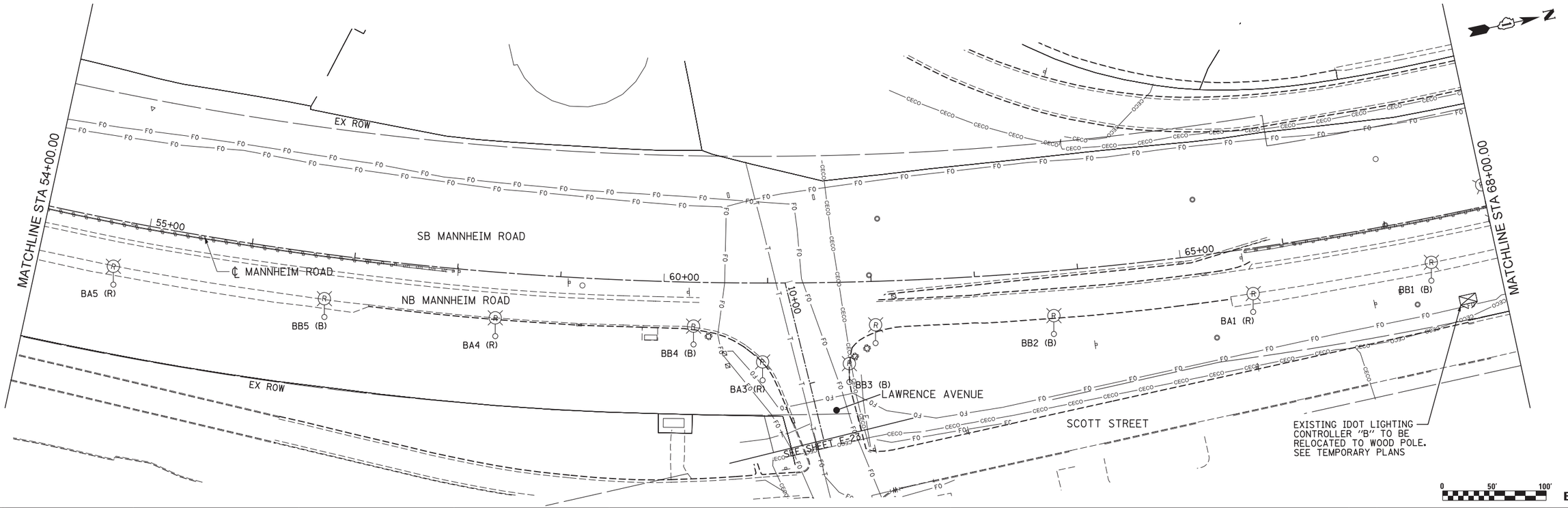
E–08

Globetrotters® Engineering Corporation ENGINEERS ARCHITECTS 300 South Wacker Drive Chicago, Illinois 60606	USER NAME = mkosir	DESIGNED CD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LIGHTING REMOVAL PLAN STAGE 1 MANNHEIM ROAD
		DRAWN RL	REVISED -		
	PLOT SCALE = 50:1	CHECKED CD	REVISED -		
	PLOT DATE = 16-OCT-2012	DATE 10/19/12	REVISED -		SCALE: 1" = 50' SHEET NO. OF SHEETS STA. 26.+00 TO STA. 40+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	294
		CONTRACT NO. 60G37		
	ILLINOIS FED. AID PROJECT			

FILE NAME = IP_PWP:dms47844\D160G37-sht-E-Rmv1 Staging1 1.dgn





E–09

Globetrotters®
Engineering Corporation
ENGINEERS ARCHITECTS
300 South Wacker Drive
Chicago, Illinois 60606

USER NAME = mkosir	DESIGNED CD	REVISED -
	DRAWN RL	REVISED -
PLOT SCALE = 50:1	CHECKED CD	REVISED -
PLOT DATE = 16-OCT-2012	DATE 10/19/12	REVISED -

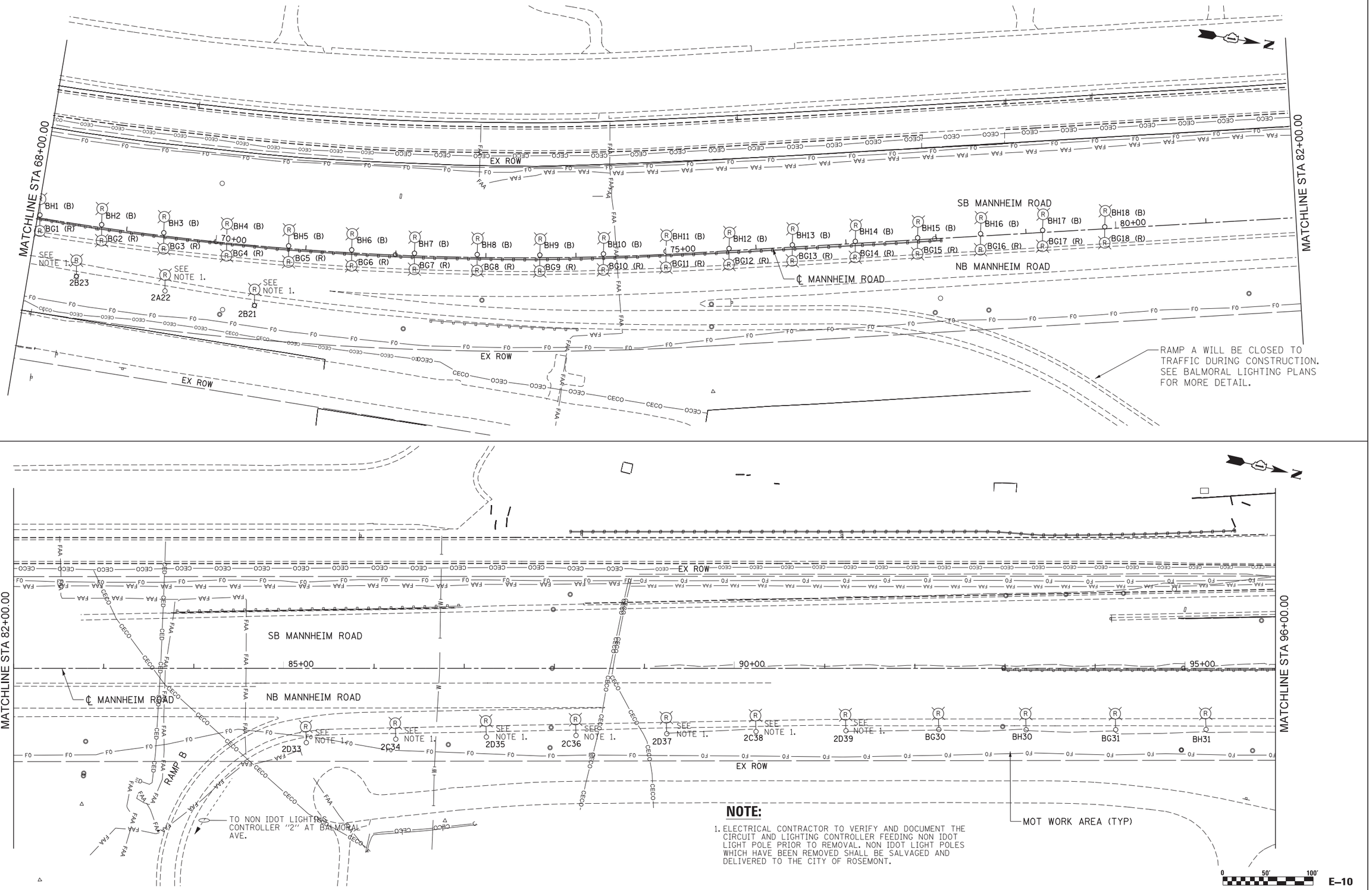
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LIGHTING REMOVAL PLAN
STAGE 1
MANNHEIM ROAD

SCALE: 1" = 50' | SHEET NO. 2 OF 5 SHEETS | STA. 40+00.00 TO STA. 68+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	295
		CONTRACT NO. 60G37		
	ILLINOIS FED. AID PROJECT			

FILE NAME = IP_PWP:dms47844\D160G37-sht-E-Rmv1 Staging1 2.dgn



NOTE:

1. ELECTRICAL CONTRACTOR TO VERIFY AND DOCUMENT THE CIRCUIT AND LIGHTING CONTROLLER FEEDING NON IDOT LIGHT POLE PRIOR TO REMOVAL. NON IDOT LIGHT POLES WHICH HAVE BEEN REMOVED SHALL BE SALVAGED AND DELIVERED TO THE CITY OF ROSEMONT.

Globetrotters®
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ENGINEERS ARCHITECTS
300 South Wacker Drive
Chicago, Illinois 60606

USER NAME = mkosir	DESIGNED CD	REVISED -
	DRAWN RL	REVISED -
PLOT SCALE = 50:1	CHECKED CD	REVISED -
PLOT DATE = 16-OCT-2012	DATE 10/19/12	REVISED -

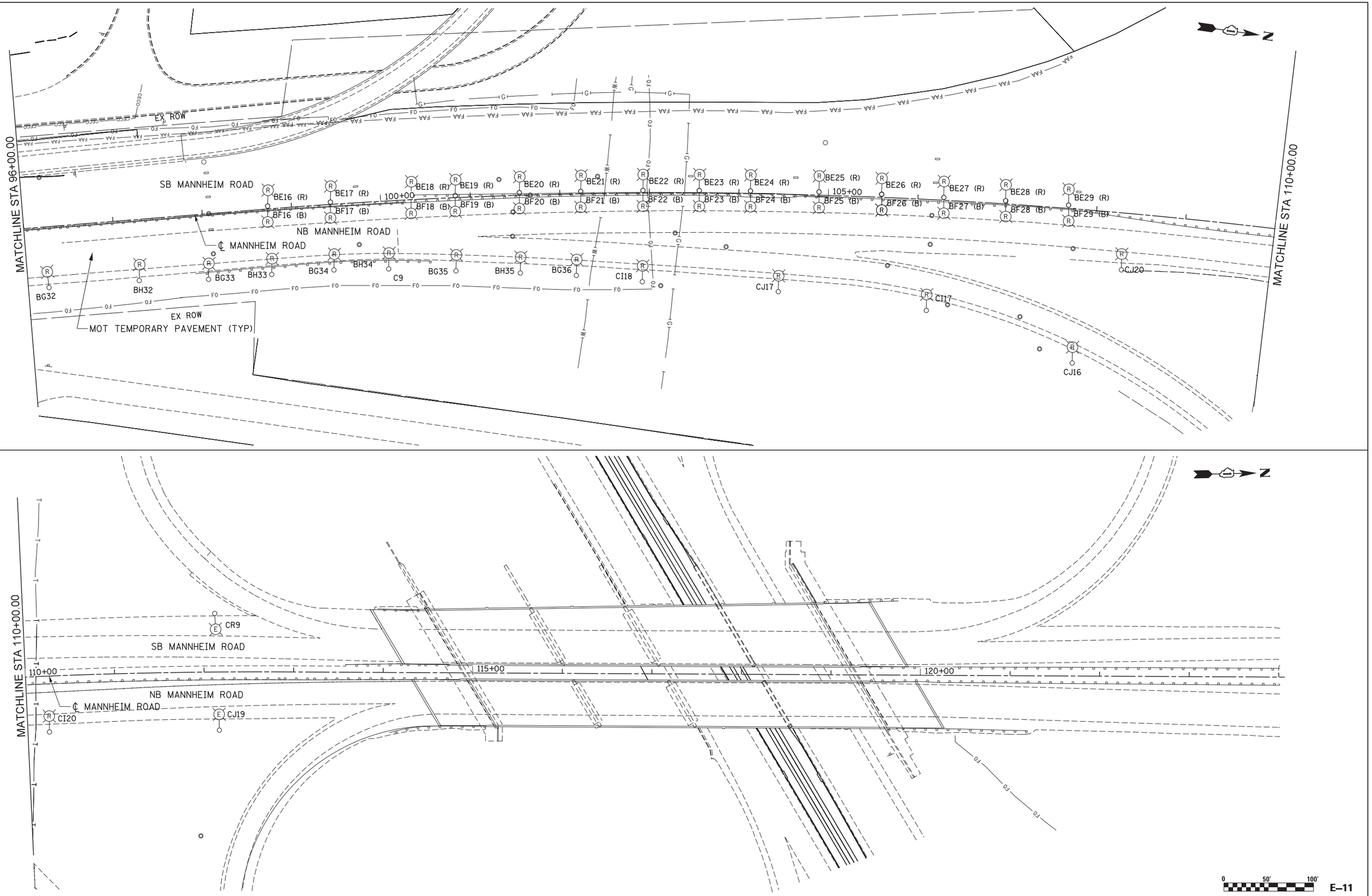
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LIGHTING REMOVAL PLAN
STAGE 1
MANNHEIM ROAD

SCALE: 1" = 50' | SHEET NO. 3 OF 5 SHEETS | STA. 68+00.00 TO STA. 96+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	296
		CONTRACT NO. 60G37		
	ILLINOIS FED. AID PROJECT			

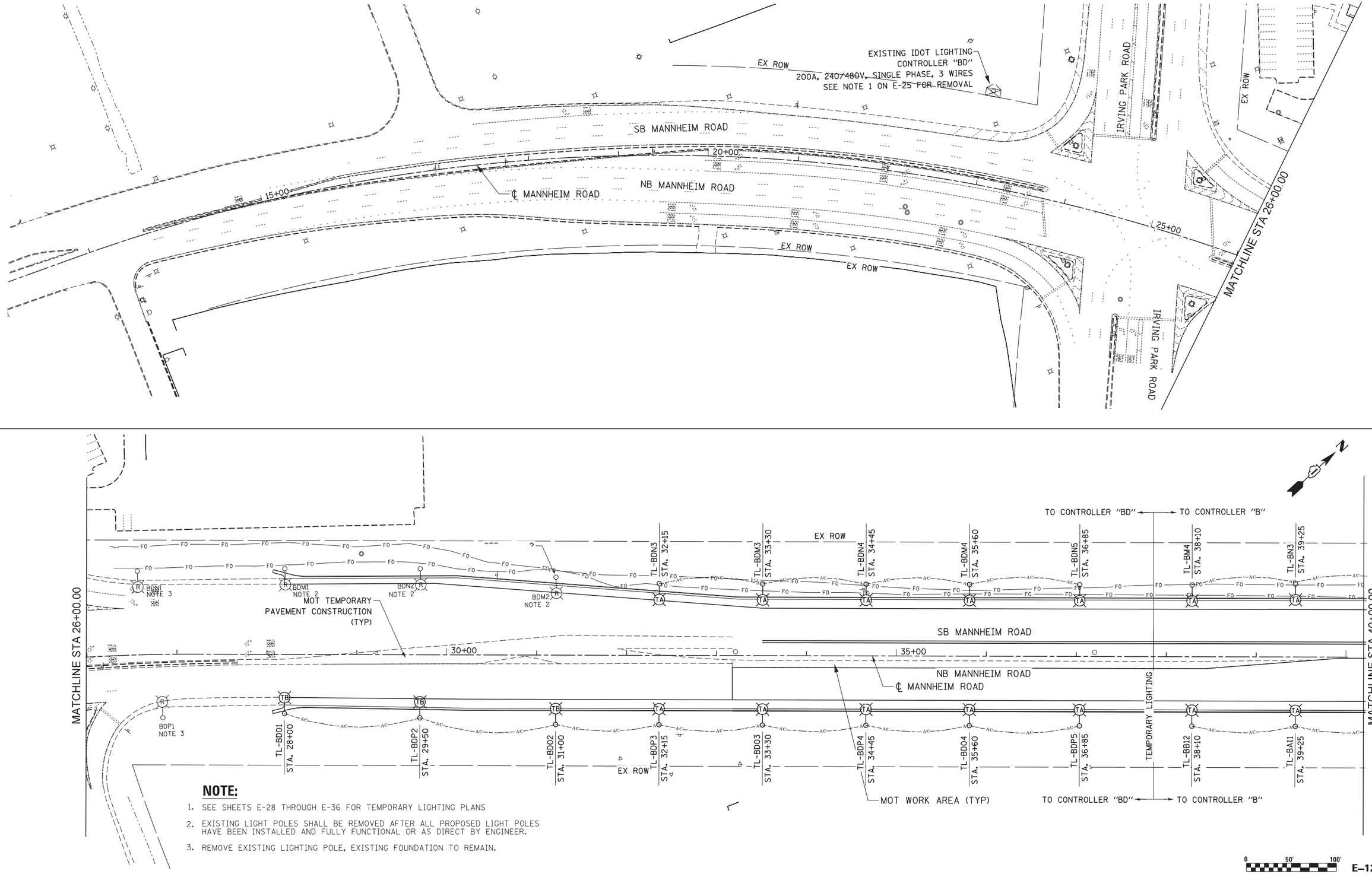
FILE NAME = IP_PWP:dms47844\D160G37-sht-E-Rmv1 Staging1 3.dgn



E–11

Globetrotters® Engineering Corporation ENGINEERS ARCHITECTS 300 South Wacker Drive Chicago, Illinois 60606	USER NAME = mkosir	DESIGNED CD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LIGHTING REMOVAL PLAN STAGE 1 MANNHEIM ROAD	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN RL	REVISED -			330	0105 WRS&HB	COOK	605	297
	PLOT SCALE = 50:1	CHECKED CD	REVISED -					CONTRACT NO. 60G37		
	PLOT DATE = 16-OCT-2012	DATE 10/19/12	REVISED -		SCALE: 1" = 50' SHEET NO. 4 OF 5 SHEETS STA. 96+00.00 TO STA.110+00.00			ILLINOIS FED. AID PROJECT		

FILE NAME = IP_PWP:dms47844\D160G37-sht-E-Rmv1 Staging1 4.dgn



NOTE:

1. SEE SHEETS E-28 THROUGH E-36 FOR TEMPORARY LIGHTING PLANS
2. EXISTING LIGHT POLES SHALL BE REMOVED AFTER ALL PROPOSED LIGHT POLES HAVE BEEN INSTALLED AND FULLY FUNCTIONAL OR AS DIRECT BY ENGINEER.
3. REMOVE EXISTING LIGHTING POLE, EXISTING FOUNDATION TO REMAIN.

E–12

Globetrotters®
Engineering Corporation
ENGINEERS ARCHITECTS
300 South Wacker Drive
Chicago, Illinois 60606

USER NAME = mkosir	DESIGNED LLS/CD	REVISED -
	DRAWN MMK/RL	REVISED -
PLOT SCALE = 50:1	CHECKED CD	REVISED -
PLOT DATE = 19-OCT-2012	DATE 10/19/12	REVISED -

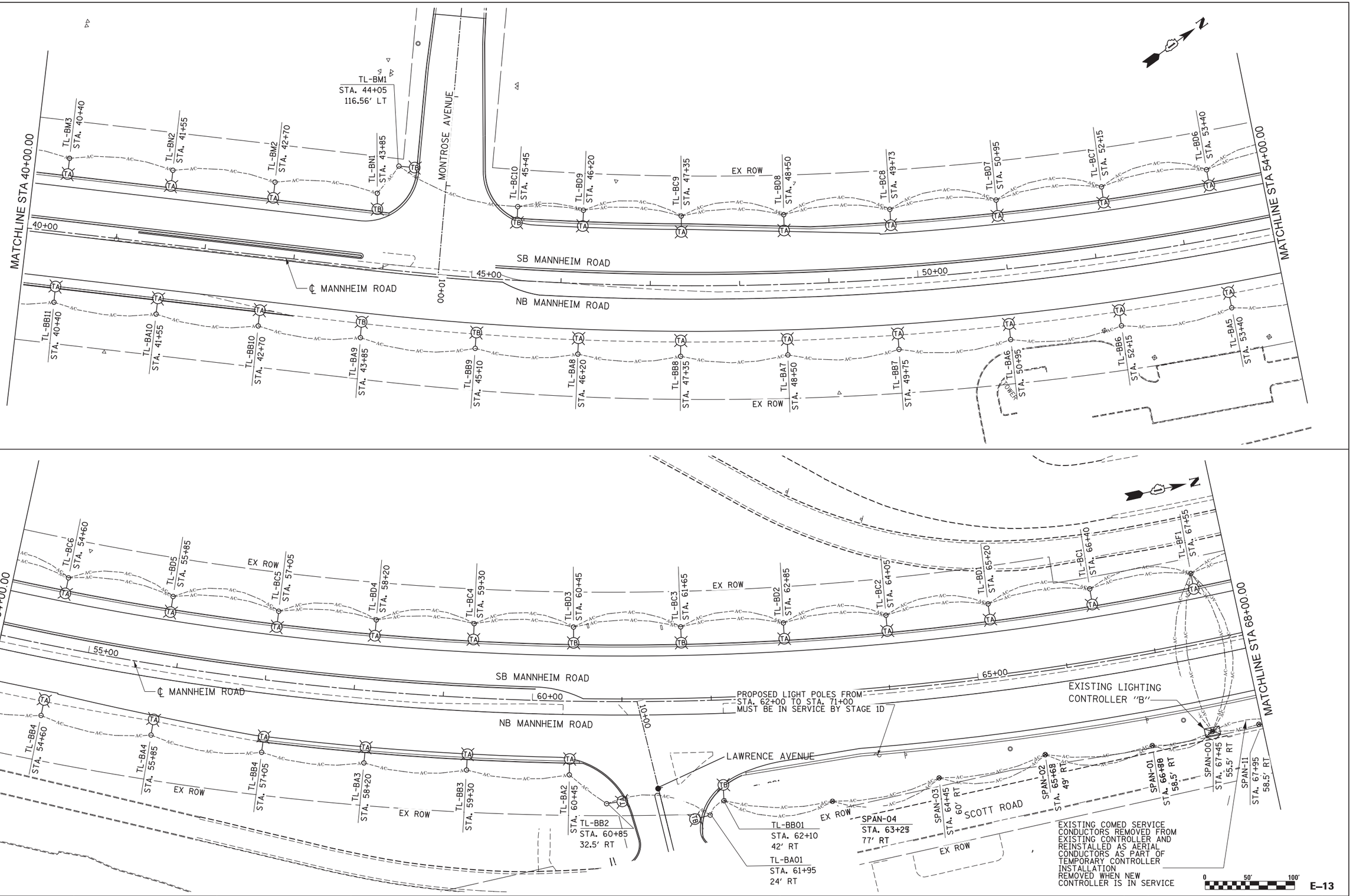
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LIGHTING REMOVAL PLAN
STAGE 3
MANNHEIM ROAD

SCALE: 1" = 50' | SHEET NO. OF SHEETS | STA. 26+00 TO STA. 40+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	298
		CONTRACT NO. 60G37		
	ILLINOIS FED. AID PROJECT			

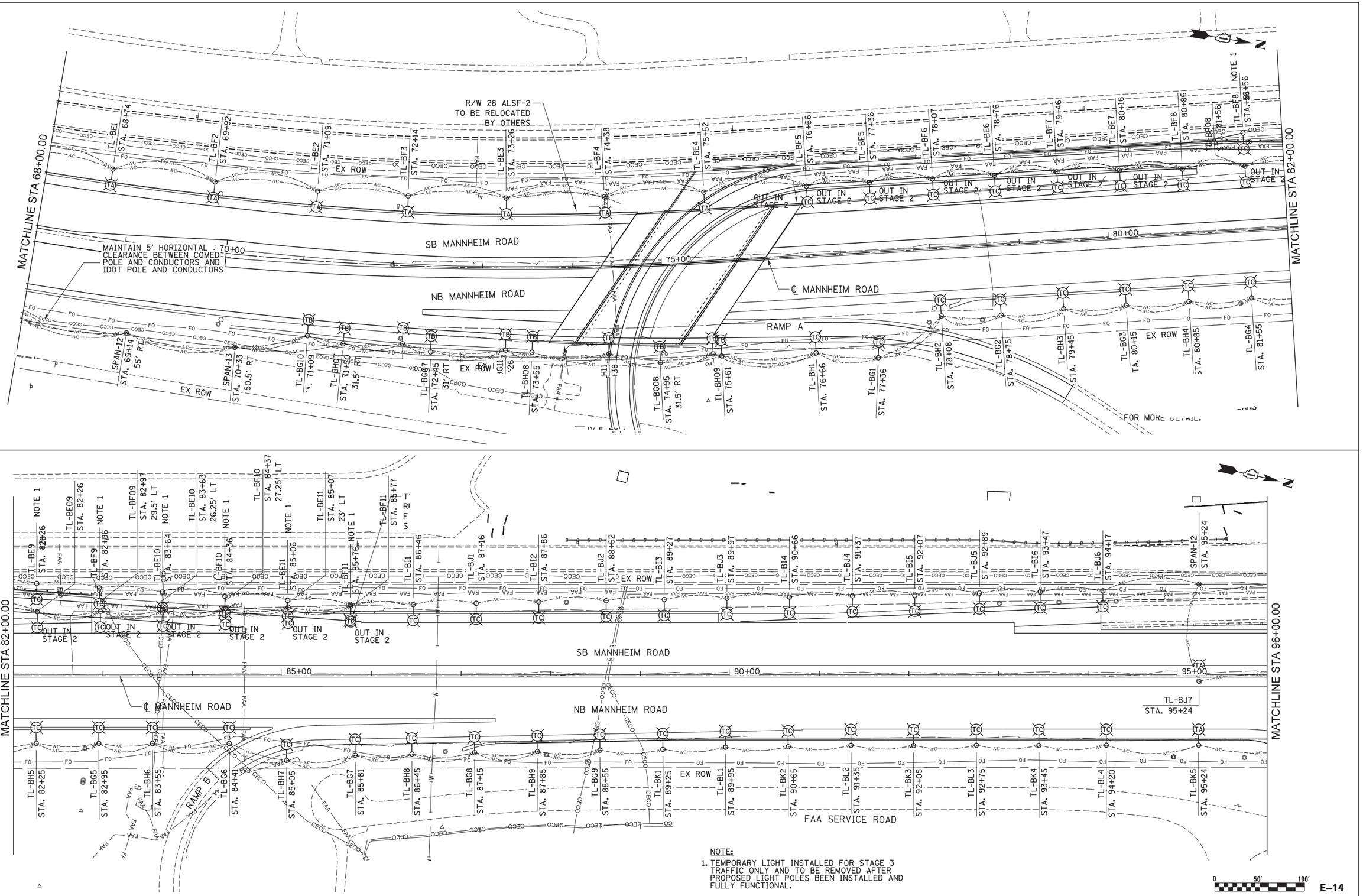
FILE NAME = IP_PWP:dms47844\D160G37-sht-E-Temp-Rmvl- Staging2 1.dgn



E–13

Globetrotters® Engineering Corporation ENGINEERS ARCHITECTS 300 South Wacker Drive Chicago, Illinois 60606	USER NAME = mkosir	DESIGNED LLS/CD	REVISED -	**STATE OF ILLINOIS** **DEPARTMENT OF TRANSPORTATION**	**LIGHTING REMOVAL PLAN** **STAGE 3** **MANNHEIM ROAD**	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN MMK/RL	REVISED -			330	0105 WRS&HB	COOK	605	299
	PLOT SCALE = 50:1	CHECKED CD	REVISED -					CONTRACT NO. 60G37		
	PLOT DATE = 19-OCT-2012	DATE 10/19/12	REVISED -		SCALE: 1" = 50' | SHEET NO. 2 OF 5 SHEETS | STA. 40+00.00 TO STA. 68+00.00			ILLINOIS FED. AID PROJECT		

FILE NAME = IP_PWP:dms47844\D160G37-sht-E-Temp-Rmvl Staging3 2.dgn



NOTE:

1. TEMPORARY LIGHT INSTALLED FOR STAGE 3 TRAFFIC ONLY AND TO BE REMOVED AFTER PROPOSED LIGHT POLES BEEN INSTALLED AND FULLY FUNCTIONAL.

E–14

Globetrotters® Engineering Corporation
ENGINEERS ARCHITECTS
300 South Wacker Drive
Chicago, Illinois 60606

USER NAME = mkosir	DESIGNED LLS/CD	REVISED -	
	DRAWN MMK/RL	REVISED -	
PLOT SCALE = 50:1	CHECKED CD	REVISED -	
PLOT DATE = 16-OCT-2012	DATE 10/19/12	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LIGHTING REMOVAL PLAN
STAGE 3
MANNHEIM ROAD

SCALE: 1" = 50' | SHEET NO. 3 OF 5 SHEETS | STA. 68+00.00 TO STA. 96+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	300
		CONTRACT NO. 60G37		
	ILLINOIS FED. AID PROJECT			

FILE NAME = IP_PWP:dms47844\D1608037-sht-ETemp--Rmvl StagingP 3.dgn