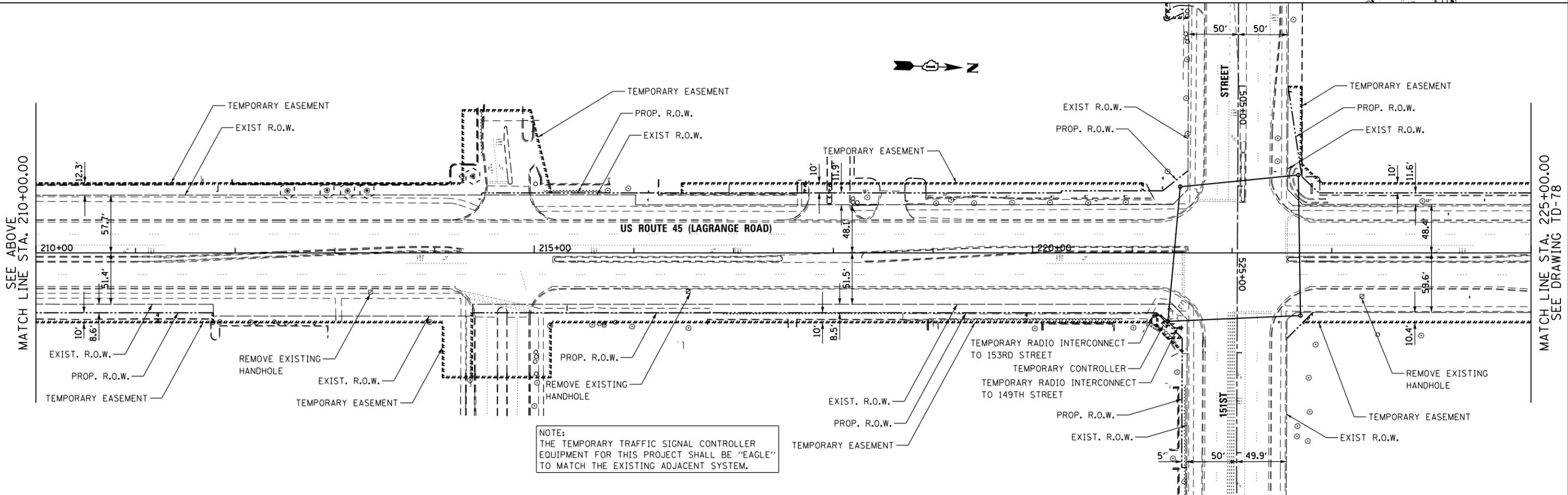
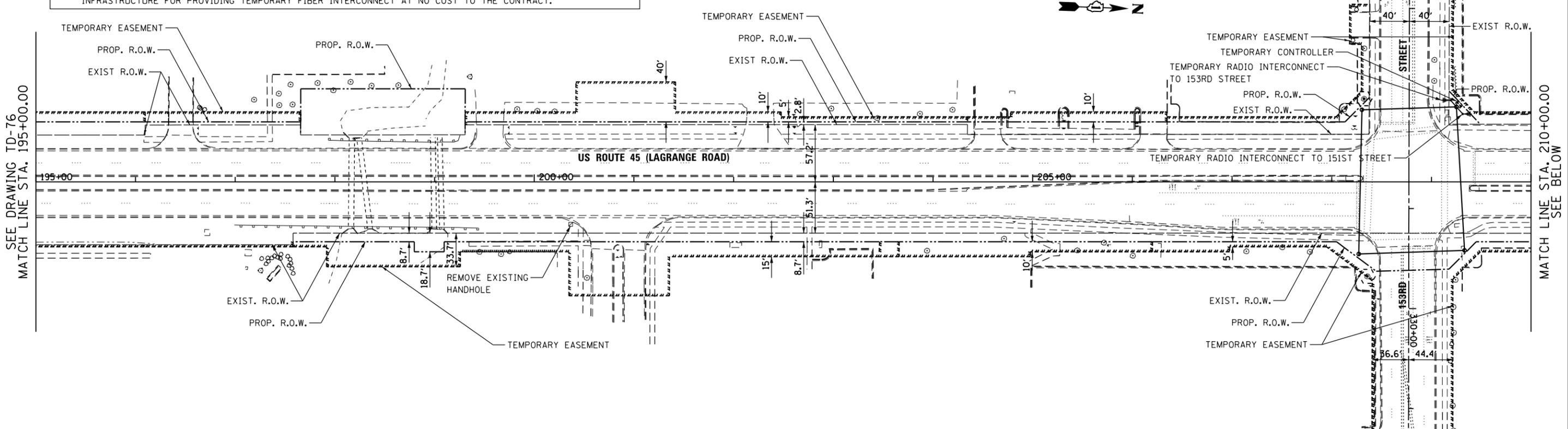


NOTES FOR TEMPORARY & MAINTENANCE OF TRAFFIC SIGNALS

1. THE CONTRACTOR MUST PROVIDE ASSURANCE THAT THE RADIO DEVICE WILL OPERATE PROPERLY AT ALL TIMES AND DURING ALL CONSTRUCTION STAGES. IF WIRELESS INTERCONNECT FAILS DURING TESTING OR OPERATIONS, CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING NECESSARY POLES, FIBER OPTIC CABLE AND OTHER INFRASTRUCTURE FOR PROVIDING TEMPORARY FIBER INTERCONNECT AT NO COST TO THE CONTRACT.



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

100 S. WACKER DR.
10TH FLOOR
CHICAGO, IL 60606
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FAX (312) 939-4998



FILE NAME = D160M61-SHT-TS77.dgn
SHT.DOUBLE.PLAN

USER NAME = Anthony.Plutz
DESIGNED - MRF
DRAWN - MRF
PLOT SCALE = 100.000000' / 1" =
PLOT DATE = 3/14/2013

REVISIED -
REVISIED -
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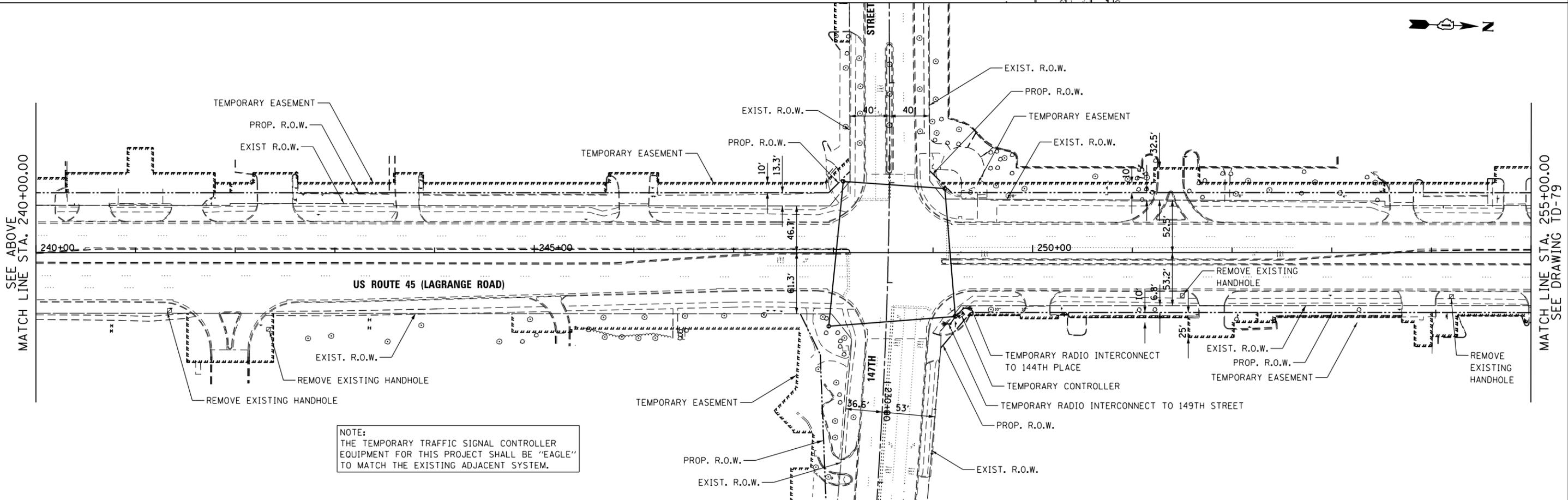
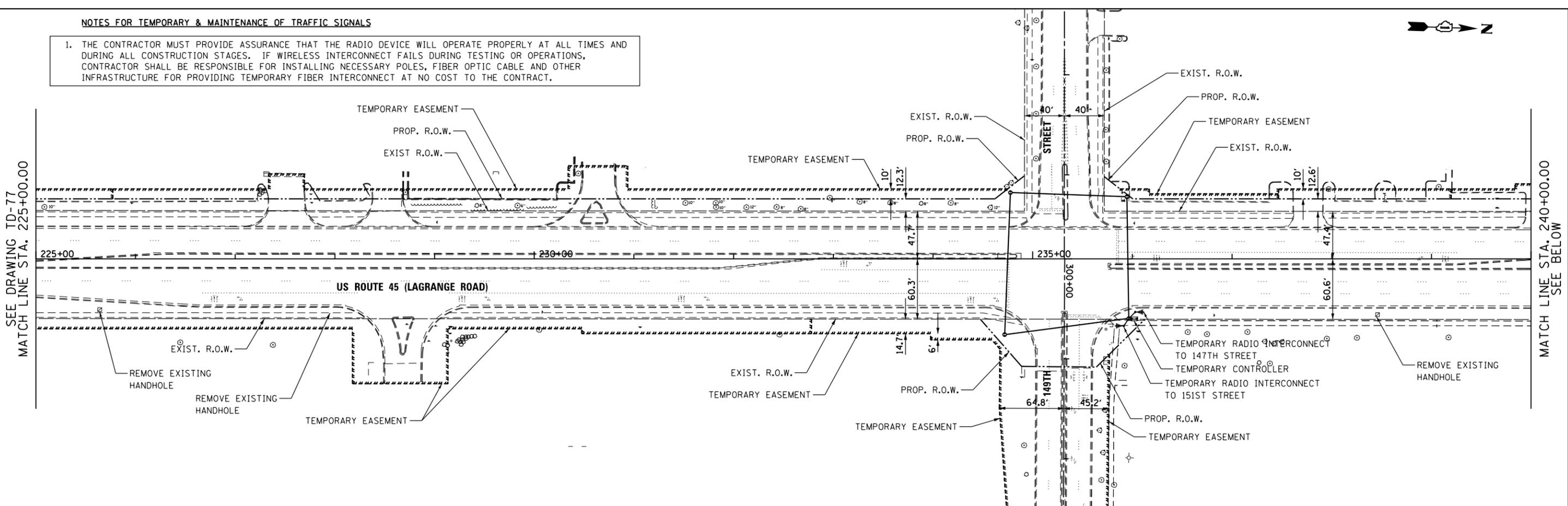
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY INTERCONNECT PLAN
US 45 (LAGRANGE RD)
FROM 159TH STREET TO 143RD STREET
SCALE: 1"=50'
SHEET 2 OF 4 SHEETS
STA. 195+00.00 TO STA. 225+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	401
TD-77			CONTRACT NO. 60M61	
ILLINOIS FED. AID PROJECT				

NOTES FOR TEMPORARY & MAINTENANCE OF TRAFFIC SIGNALS

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NOTE:
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100 S. WACKER DR.
10TH FLOOR
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FILE NAME = D160M61-SHT-TS78.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
		DRAWN - MRF	REVISED -
	PLOT SCALE = 100.000000' / 1" =	CHECKED - MJL	REVISED -
SHT_DOUBLE PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/2013	REVISED -

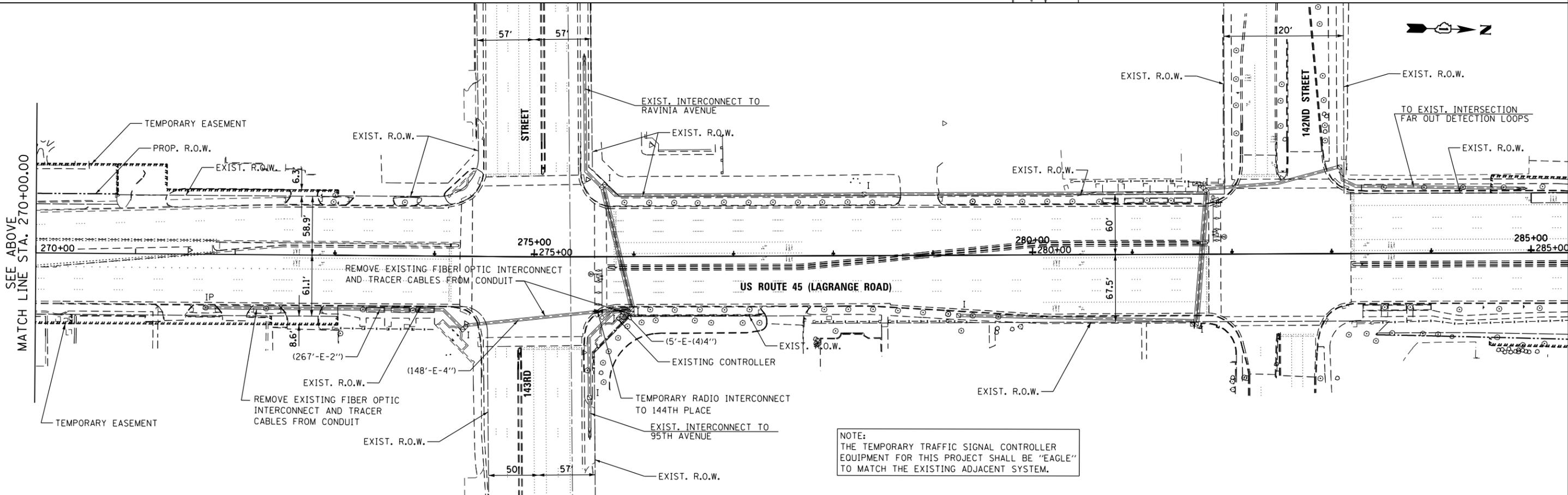
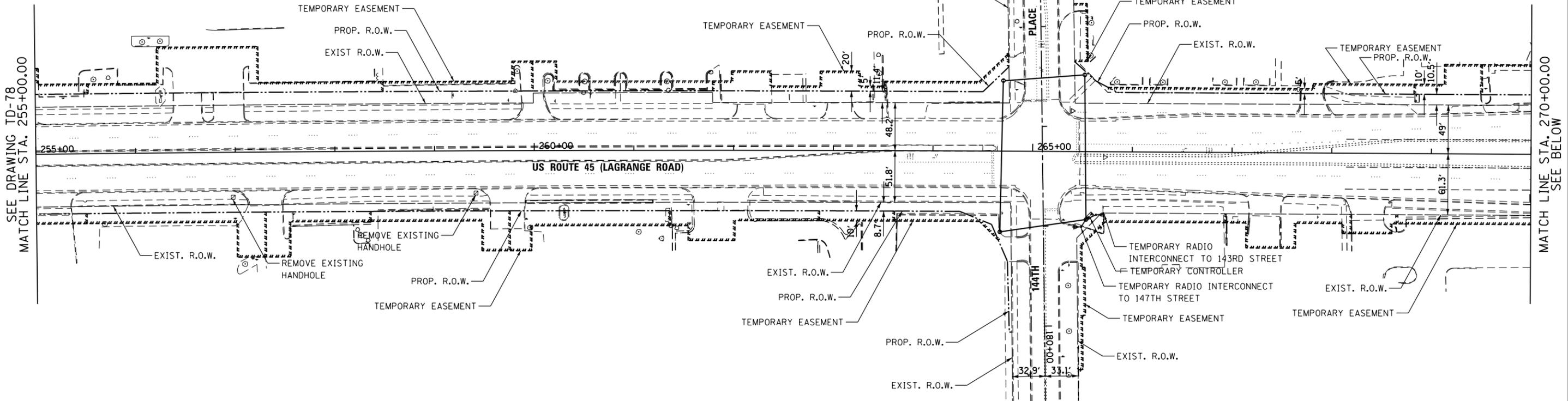
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

TEMPORARY INTERCONNECT PLAN	
US 45 (LAGRANGE RD)	
FROM 159TH STREET TO 143RD STREET	
SCALE: 1"=50'	SHEET 3 OF 4 SHEETS
STA. 225+00.00 TO STA. 255+00.00	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	402
TD-78		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				

NOTES FOR TEMPORARY & MAINTENANCE OF TRAFFIC SIGNALS

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NOTE:
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100 S. WACKER DR.
1000 WEST
CHICAGO, IL 60606
TEL (312) 939-1000
FAX (312) 939-4998



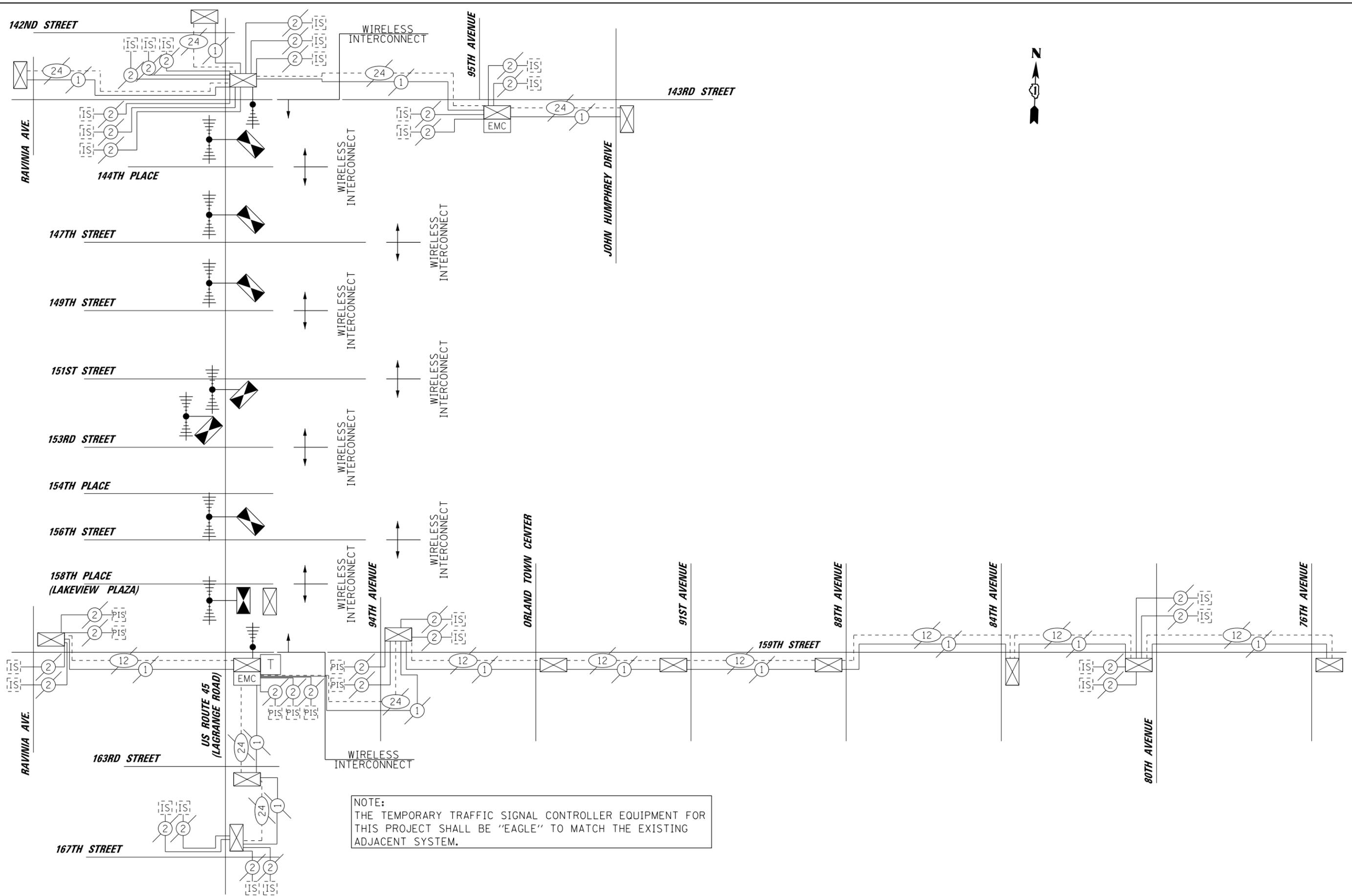
FILE NAME =	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
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		CHECKED - MJL	REVISED -
SHT_DOUBLE PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/2013	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY INTERCONNECT PLAN
US 45 (LAGRANGE RD)
FROM 159TH STREET TO 143RD STREET**

SCALE: 1"=50' SHEET 4 OF 4 SHEETS STA. 255+00.00 TO STA. END

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	403
TD-79		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				



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

FILE NAME = D160M61-SHT-TS80.dgn
 SHT.PLAN

USER NAME = Anthony.Plutz
 PLOT SCALE = 100.0000' / in.
 PLOT DATE = 3/14/2013

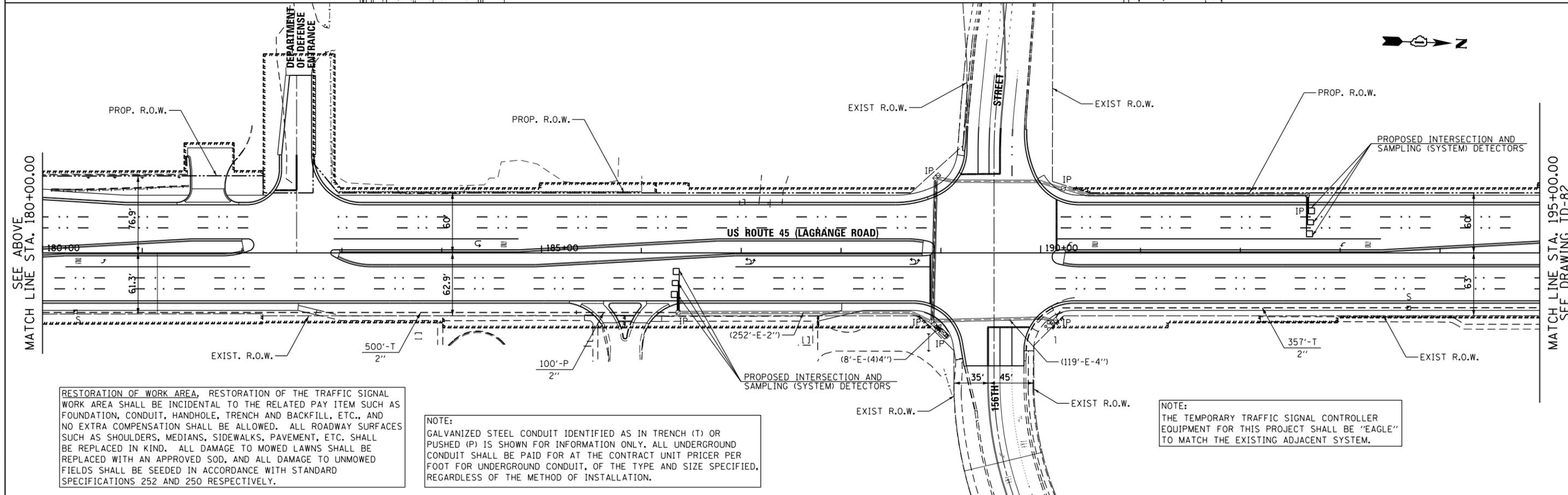
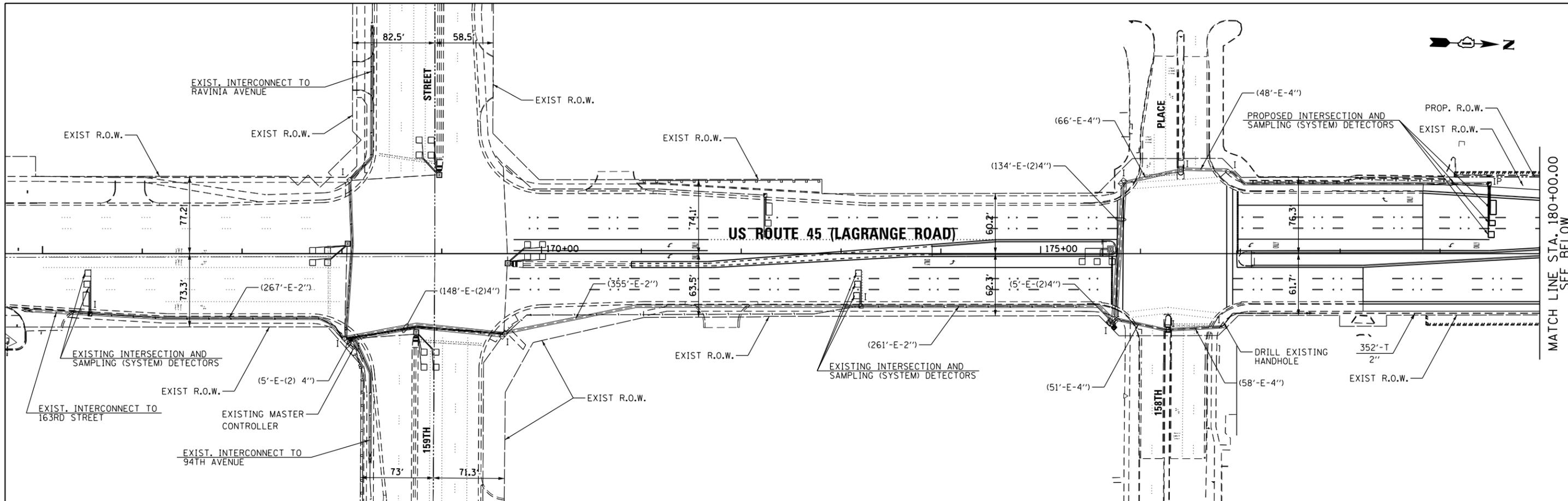
DESIGNED - MRF
 DRAWN - MRF
 CHECKED - MJL
 DATE - 03/13/2013

REVISED -
 REVISED -
 REVISED -
 REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**TEMPORARY INTERCONNECT SCHEMATIC
 US 45 (LAGRANGE RD)
 FROM 159TH STREET TO 143RD STREET**
 SCALE: N.T.S. SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	404
TD-80			CONTRACT NO. 60M61	
ILLINOIS FED. AID PROJECT				



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, MEDIANS, 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 SEEDDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

NOTE:
GALVANIZED STEEL CONDUIT IDENTIFIED AS IN TRENCH (T) OR PUSHED (P) IS SHOWN FOR INFORMATION ONLY. ALL UNDERGROUND CONDUIT SHALL BE PAID FOR AT THE CONTRACT UNIT PRICER PER FOOT FOR UNDERGROUND CONDUIT, OF THE TYPE AND SIZE SPECIFIED, REGARDLESS OF THE METHOD OF INSTALLATION.

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

100 S. WACKER DR.
100 S. WACKER DR.
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FILE NAME =
D160M61-SHT-TS81.dgn
SHT_DOUBLE.PLAN

USER NAME = Anthony.Plutz
PLOT SCALE = 100.000000' / 1" =
PLOT DATE = 3/14/2013

DESIGNED - MRF
DRAWN - MRF
CHECKED - MJL
DATE - 03/13/2013

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

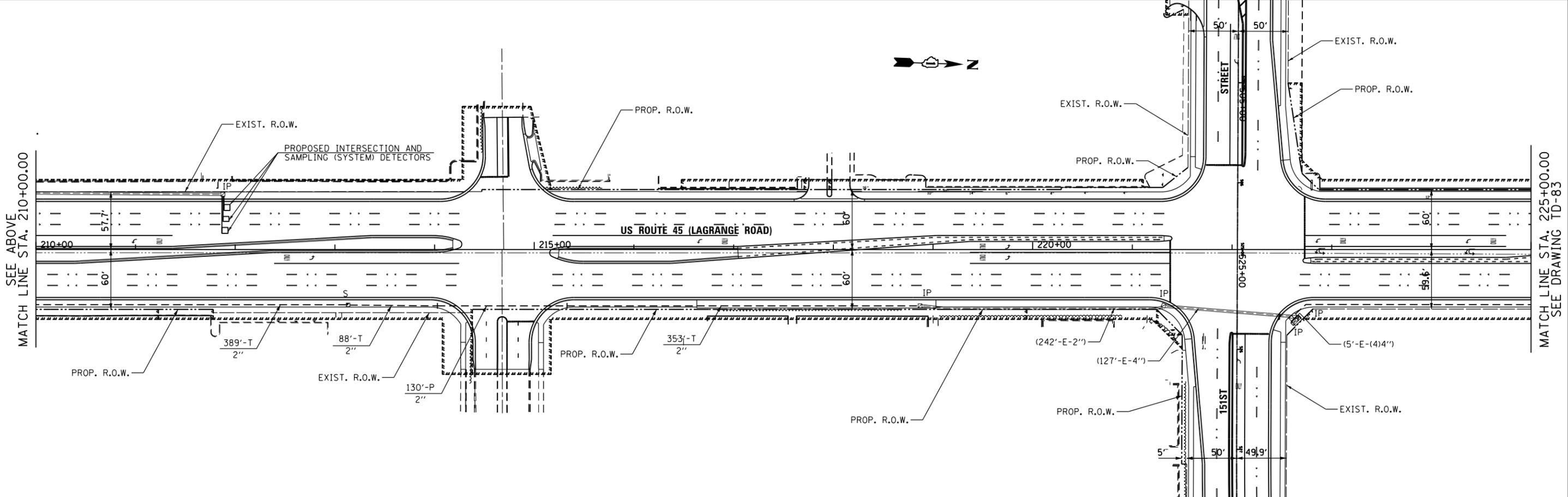
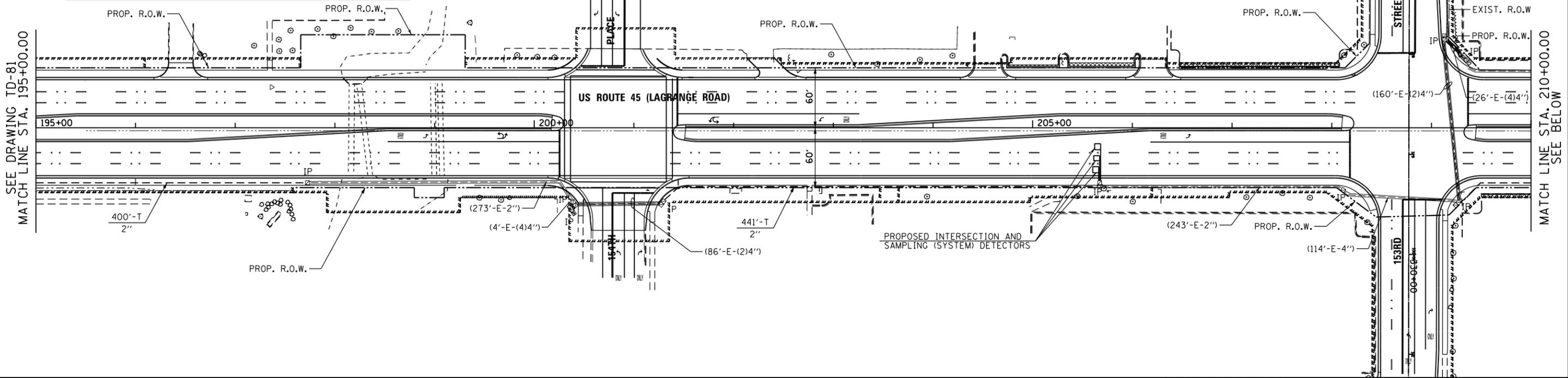
INTERCONNECT PLAN
US 45 (LAGRANGE RD)
FROM 159TH STREET TO 143RD STREET
SCALE: 1"=50'
SHEET 1 OF 4 SHEETS
STA. BEGIN TO STA. 195+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	405
TD-81			CONTRACT NO. 60M61	
ILLINOIS FED. AID PROJECT				

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, MEDIANS, 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.

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NOTE:
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URS
100 S. WACKER DR.
SUITE 600
CHICAGO, IL 60606
TEL (312) 939-1000
FAX (312) 939-4198

FILE NAME = D160M61-SHT-TS82.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
PLOT SCALE = 100.000000' / in.	CHECKED - MJL	DRAWN - MRF	REVISED -
PLOT DATE = 3/14/2013	DATE - 03/13/2013		REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**INTERCONNECT PLAN
US 45 (LAGRANGE RD)
FROM 159TH STREET TO 143RD STREET**

SCALE: 1"=50' SHEET 2 OF 4 SHEETS STA. 195+00.00 TO STA. 225+00.00

F.A.P. RTE. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 406
TD-82		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				

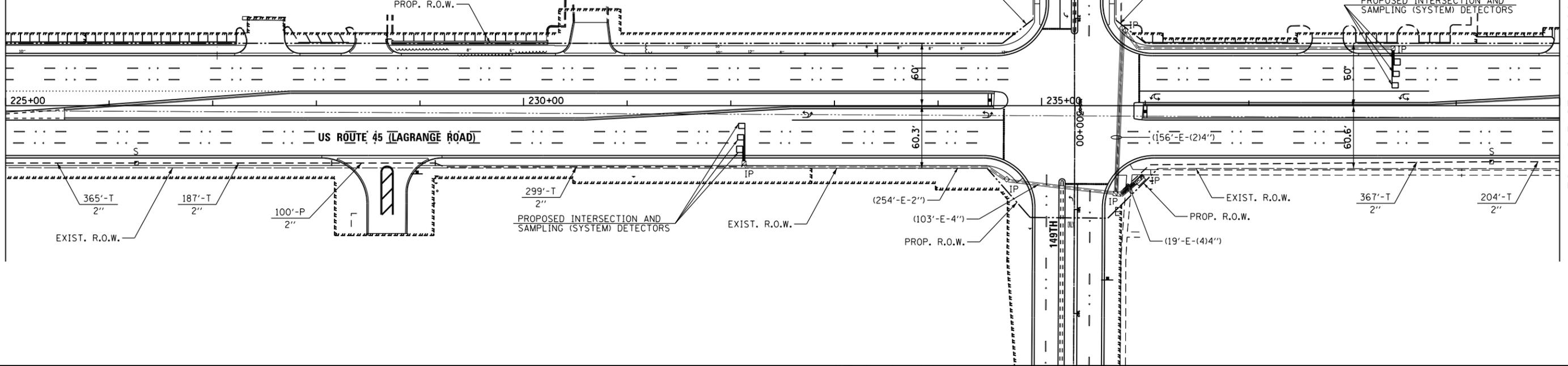
RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL 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.

NOTE:
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NOTE:
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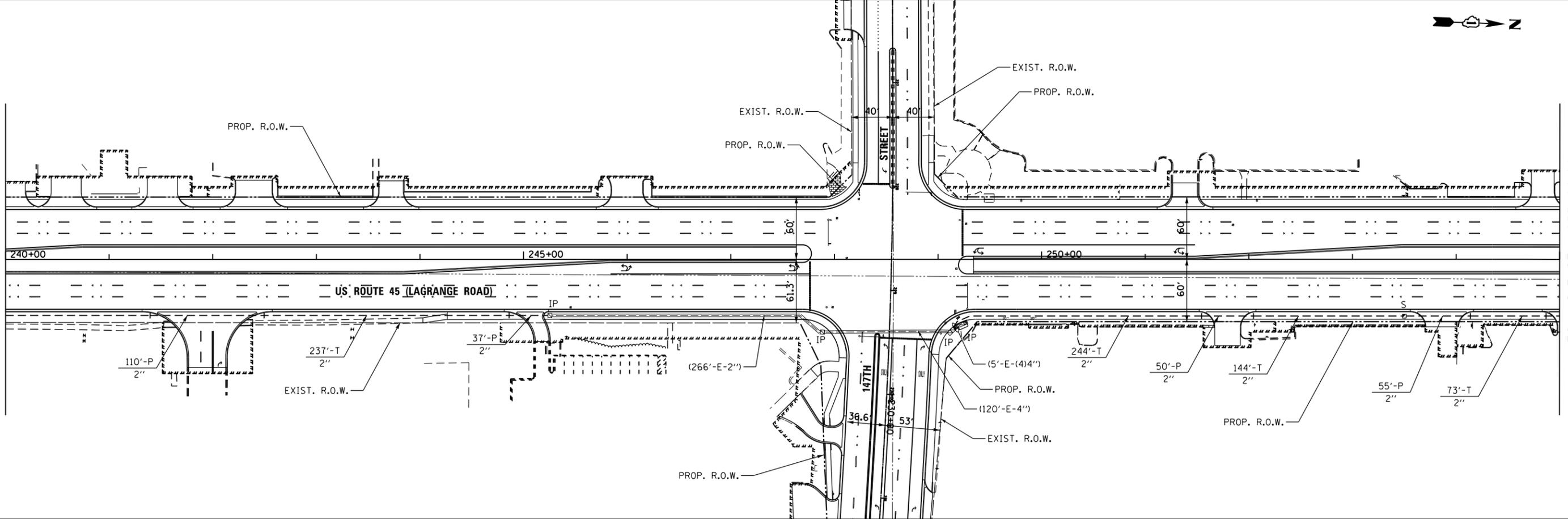
SEE DRAWING TD-82
MATCH LINE STA. 225+00.00

MATCH LINE STA. 240+00.00
SEE BELOW



SEE ABOVE
MATCH LINE STA. 240+00.00

MATCH LINE STA. 255+00.00
SEE DRAWING TD-84



FILE NAME = D:\160M61-SHT-TS83.dgn
SHT_DOUBLE PLAN

USER NAME = Anthony.Plutz
PLOT SCALE = 100.000000' / 1" = 100'
PLOT DATE = 3/14/2013

DESIGNED - MRF
DRAWN - MRF
CHECKED - MJL
DATE - 03/13/2013

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

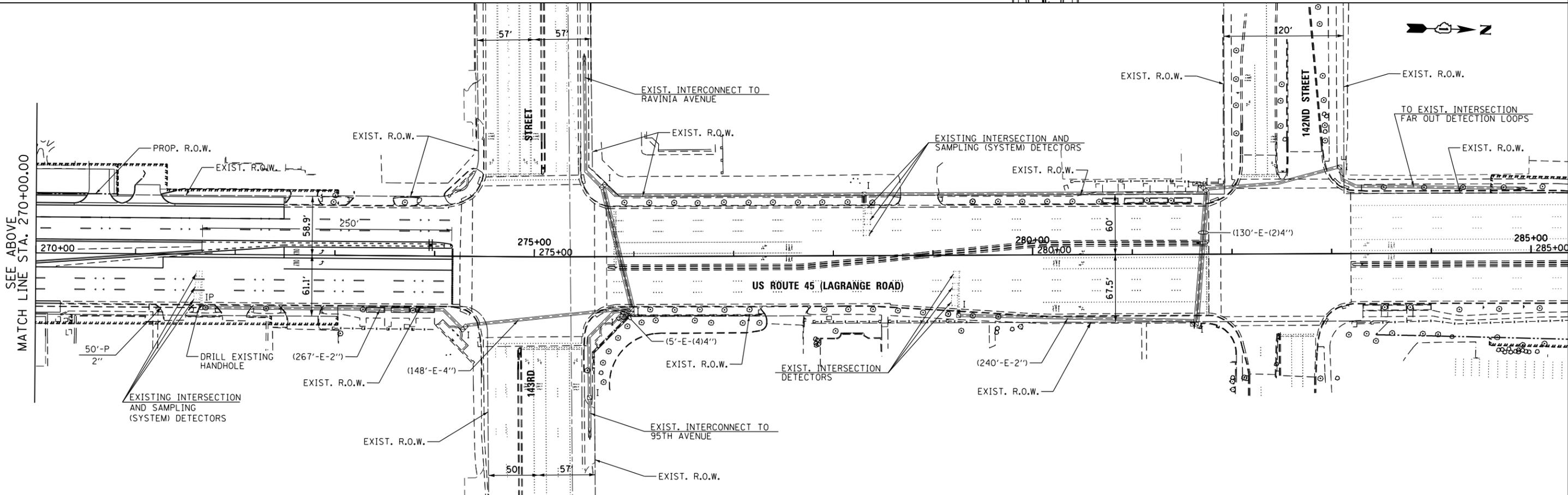
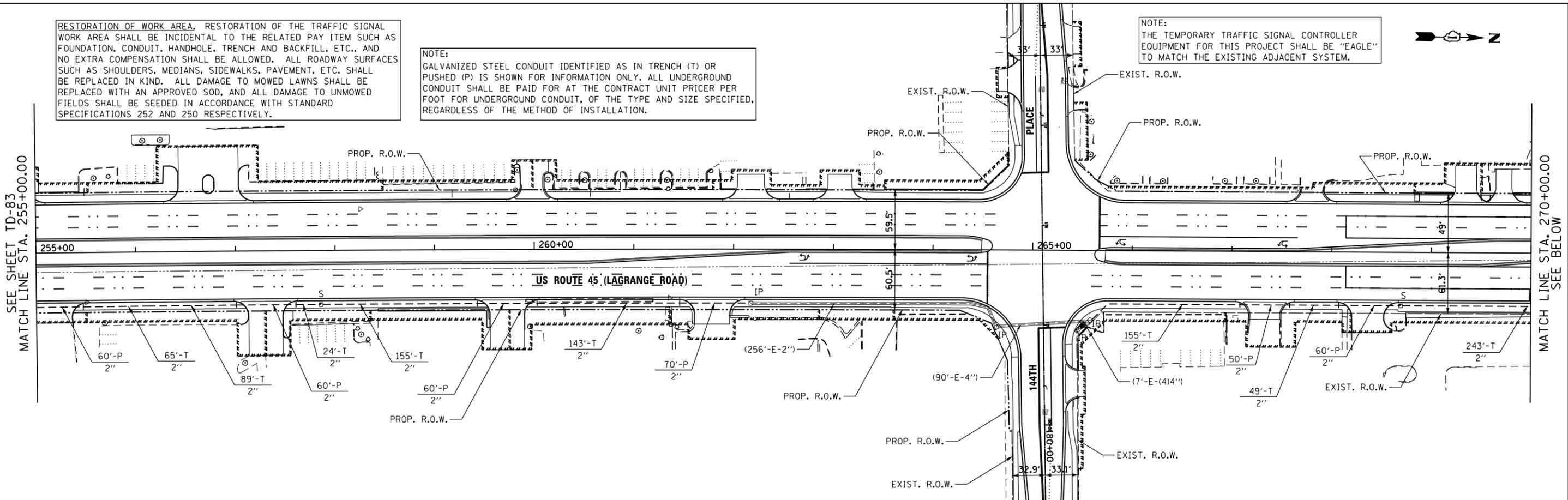
INTERCONNECT PLAN
US 45 (LAGRANGE RD)
FROM 159TH STREET TO 143RD STREET
SCALE: 1"=50'
SHEET 3 OF 4 SHEETS
STA. 225+00.00 TO STA. 255+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	407
TD-83			CONTRACT NO.	60M61
ILLINOIS FED. AID PROJECT				

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, MEDIANS, 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 SEED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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FILE NAME = D160M61-SHT-TS84.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
		DRAWN - MRF	REVISED -
		CHECKED - MJL	REVISED -
SHT_DOUBLE PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/2013	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERCONNECT PLAN
US 45 (LAGRANGE RD)
FROM 159TH STREET TO 143RD STREET

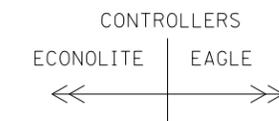
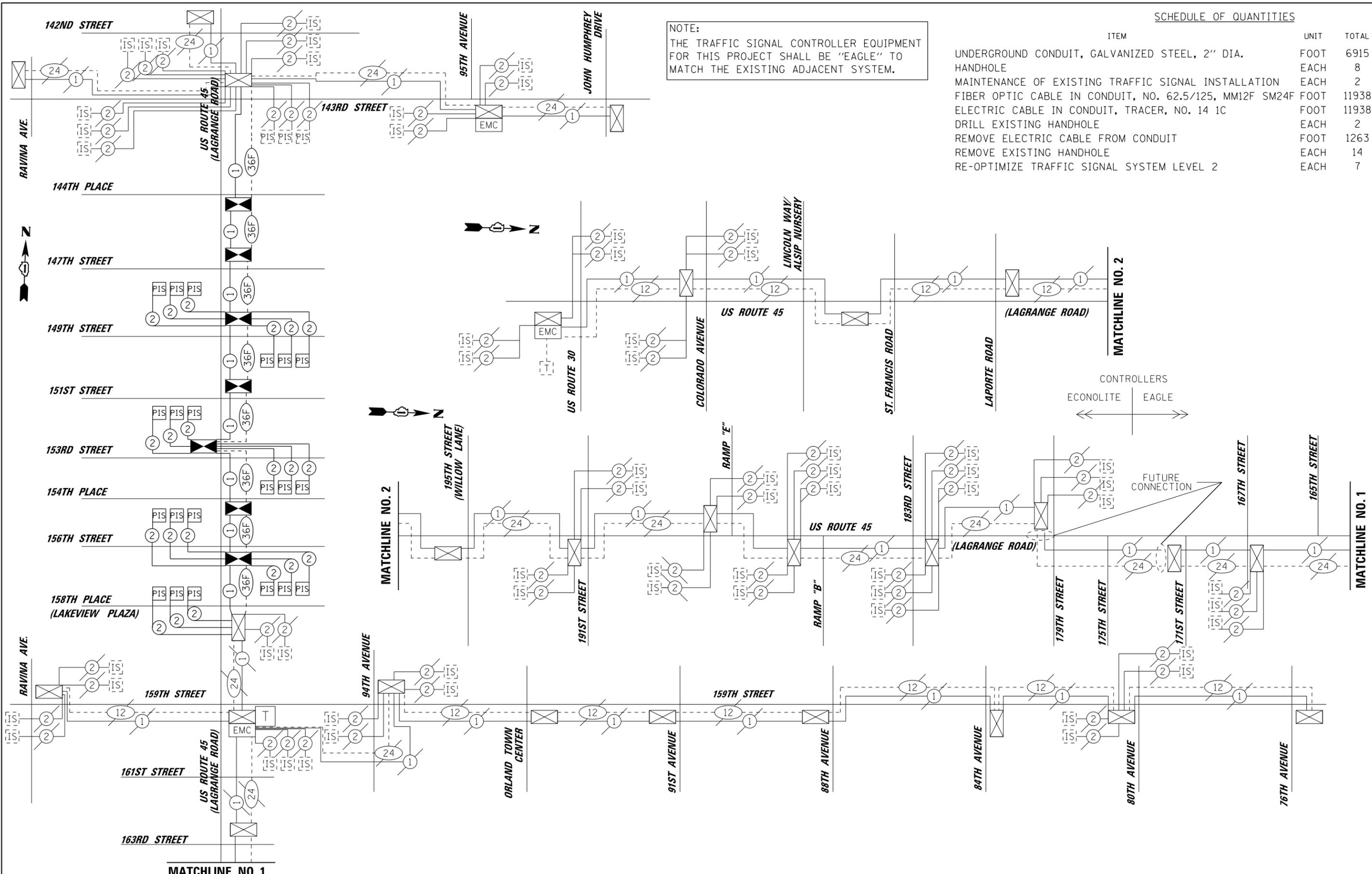
SCALE: 1"=50'
SHEET 4 OF 4 SHEETS
STA. 255+00.00 TO STA. END

F.A.P. RTE. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 408
TD-84		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	6915
HANDHOLE	EACH	8
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	2
FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM24F	FOOT	11938
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	11938
DRILL EXISTING HANDHOLE	EACH	2
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	1263
REMOVE EXISTING HANDHOLE	EACH	14
RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 2	EACH	7

NOTE:
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100 S. WACKER DR.
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FAX (312) 939-4998



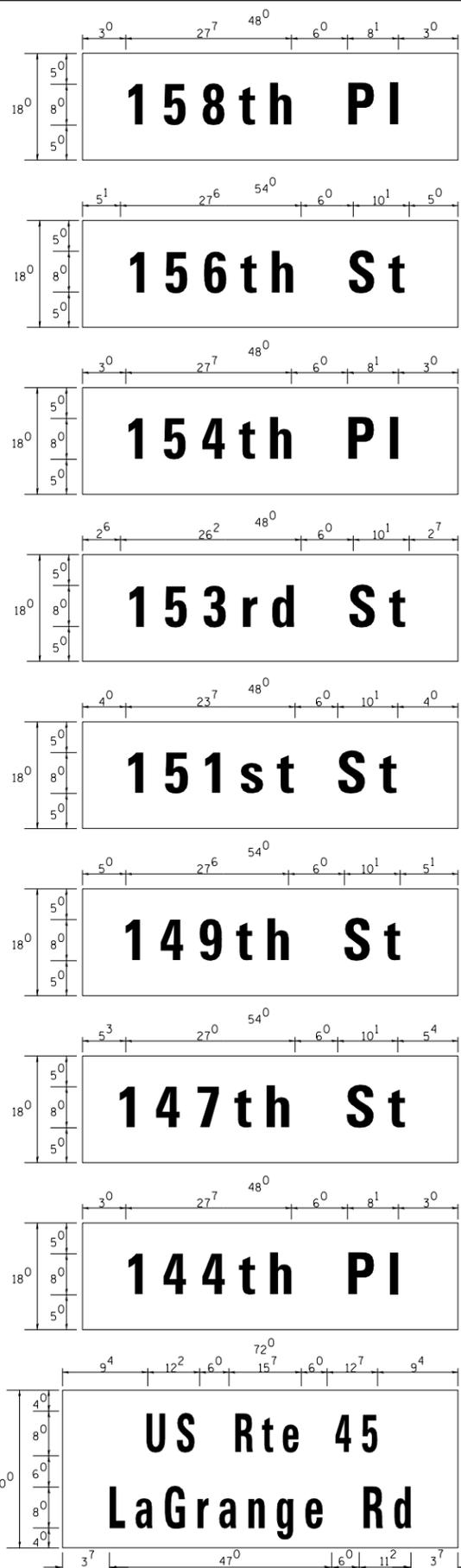
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		DRAWN - MRF	REVISED -
		CHECKED - MJL	REVISED -
		DATE - 03/13/2013	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERCONNECT SCHEMATIC
US 45 (LAGRANGE RD)
FROM 159TH STREET TO 143RD STREET

SCALE: N.T.S. SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 409
TD-85		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				



Upper Case To Lower Case
Spacing Chart 8-6 Inch Series "C & D"

FIRST LETTER	SECOND LETTER															
	acde		bhikl		f w		j		s t		v y		x z			
	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						
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						
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

EXAMPLE, 2⁽³⁾ DENOTES $\frac{3}{8}$

UPPER AND LOWER CASE
LETTER WIDTHS

LETTERS	6 INCH UPPER CASE LETTERS				8 INCH UPPER CASE LETTERS				LETTERS	6 INCH LOWER CASE LETTERS	
	SERIES		SERIES		SERIES		SERIES			C	D
	C	D	C	D	C	D	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				

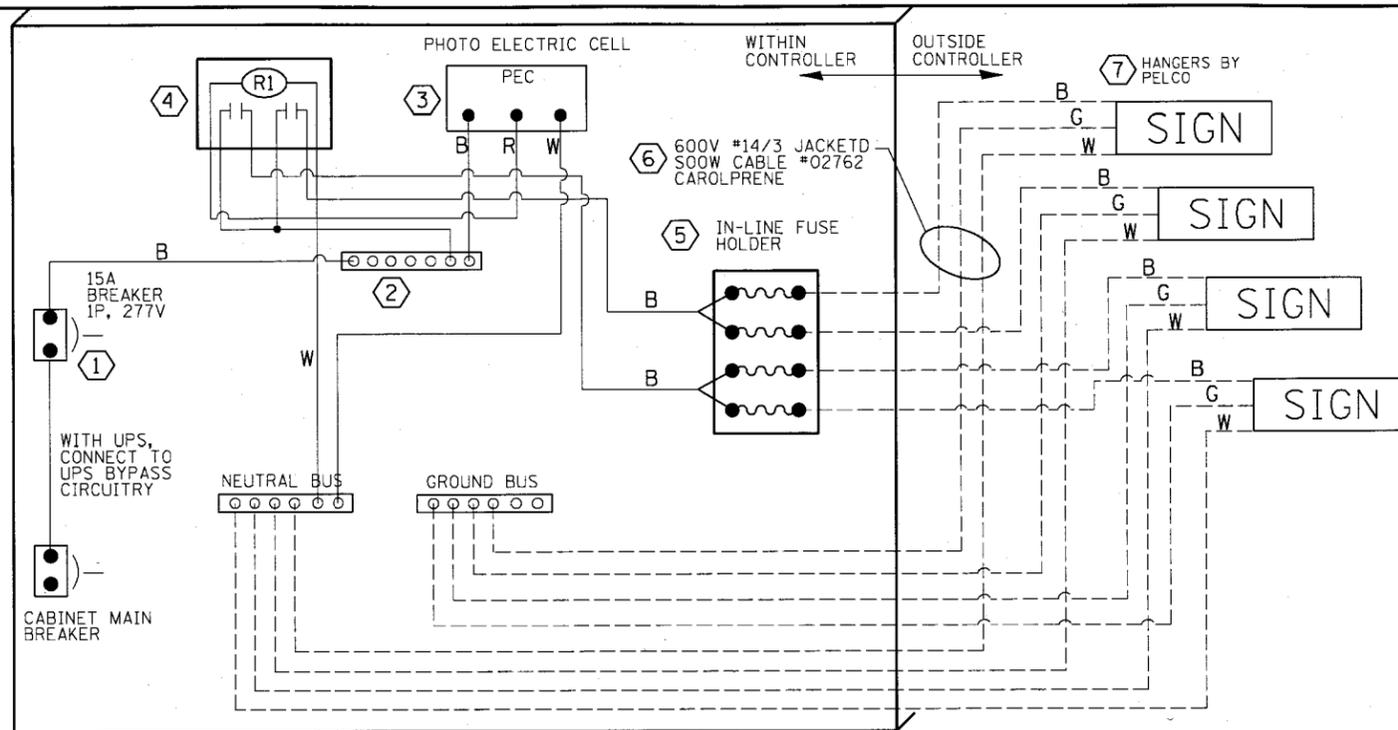
Lower Case To Lower Case
Spacing Chart 6 Inch Series "C & D"

FIRST LETTER	SECOND LETTER															
	acde		bhikl		f w		j		s t		v y		x z			
	C	D	C	D	C	D	C	D	C	D	C	D	C	D		
ad 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						
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

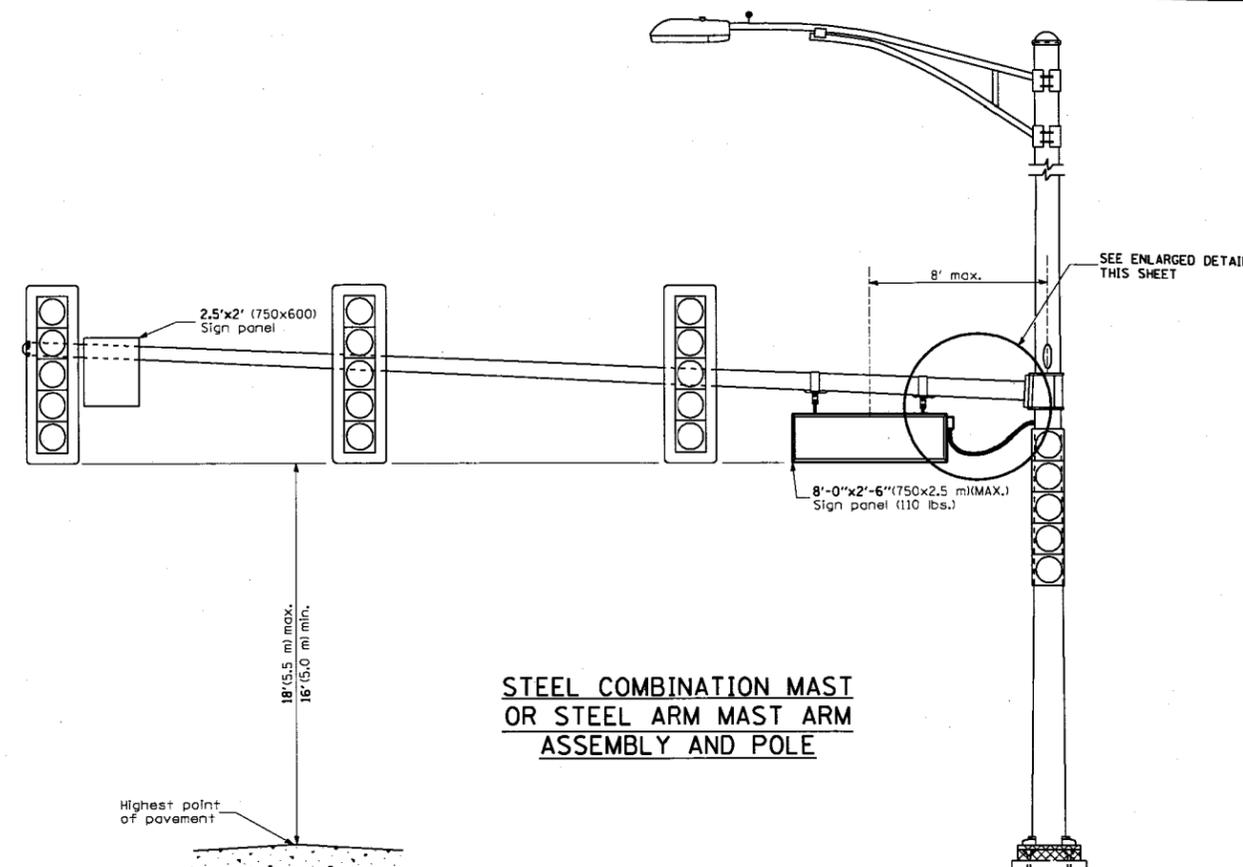
Number To Number
Spacing Chart 8 Inch Series "C & D"

FIRST NUMBER	SECOND NUMBER																			
	0		1		2		3		4		5		6		7		8		9	
	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

NUMBER	6 INCH SERIES		8 INCH SERIES	
	C	D	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



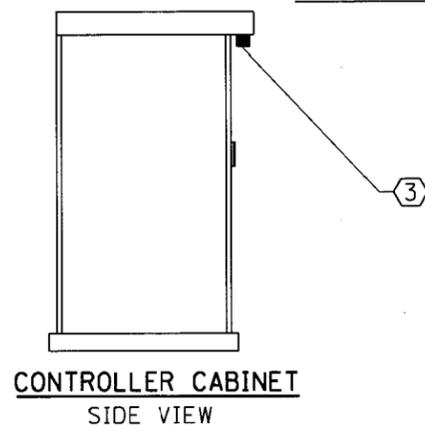
LED SIGN WIRING DETAIL



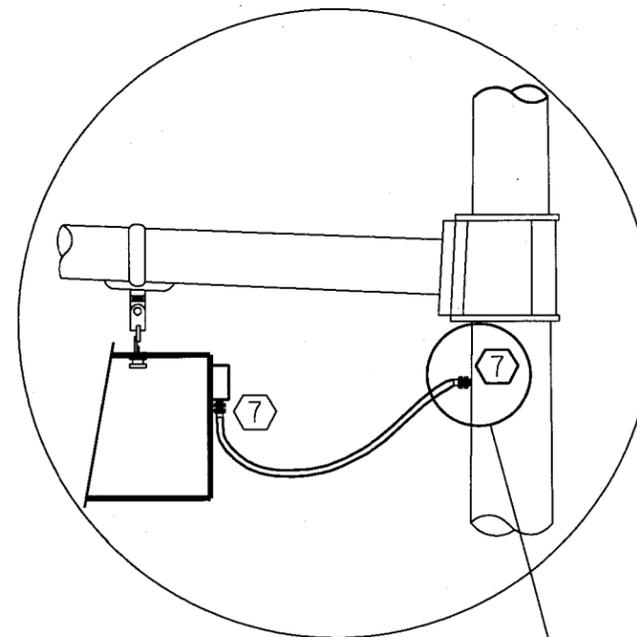
STEEL COMBINATION MAST OR STEEL ARM MAST ARM ASSEMBLY AND POLE

DESCRIPTION	MANUFACTURER	MODEL	NOTES
① CIRCUIT BREAKER		15 AMPERE	Molded case, Thermal Mag. min. R.I. of 14K R.M.S. symmetrical ampere at 277V.
② TERMINAL BLOCK	MARATHON	1502 DJSV	
③ PHOTO ELECTRIC CONTROL	FISHER PIERCE	B124-1.5-07762	
④ CONTROL RELAY	SQUARE D	8501X020V02	BOLT ON W/SCREW TERMINAL
⑤ INLINE FUSE HOLDER WITH 5 AMP FUSE	BUSSMAN	S-8000 BK/S-8-3-4-R	
⑥ ELECTRIC CABLE, NO. 14, 3/C (BLACK, WHITE, GREEN)	CAROLPRENE/SOOW	02762	
⑦ SIGN MOUNTING HARDWARE	PELCO	SE-5015	S.S. HARDWARE

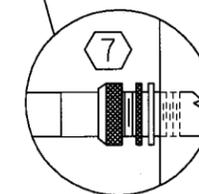
BILL OF MATERIALS



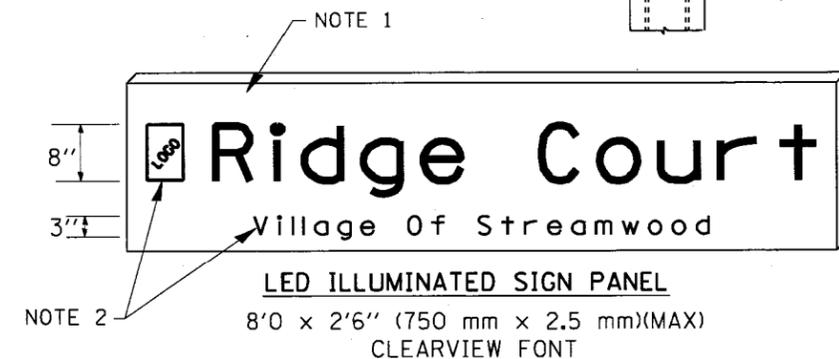
CONTROLLER CABINET SIDE VIEW



L.E.D. SIGN ENLARGED CABLE CONNECTOR DETAIL



L.E.D. SIGN ENLARGED CABLE CONNECTOR DETAIL



NOTES:

- SIGNS SHALL BE DUAL SIDED. FRONT AND BACK OF SIGN WILL BE THE SAME.
- CERTAIN ADDITIONAL INFORMATION MAY BE ALLOWED ON THE SIGN. VERIFY WITH ENGINEER.
- SIGNS SHALL NOT BE ENERGIZED WHEN TRAFFIC SIGNALS ARE POWERED BY THE UPS. THE SIGNS SHALL BE CONNECTED TO THE UPS BYPASS CIRCUITRY.
- ALL WIRING WITHIN THE CABINET SHALL BE COLOR CODED AS INDICATED:
R = RED BL = BLUE W = WHITE
B = BLACK Y = YELLOW G = GREEN
- ALL 120 VOLT SYSTEM AND ALL CONTROL WIRING SHALL BE #12AWG STRANDED UNLESS OTHERWISE INDICATED.
- ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.

ROADWAY ELECTRICAL SYMBOLS	
SYMBOL	DESCRIPTION
	PROPOSED LIGHTING UNIT: 400W, 240V PHASE TO NEUTRAL, HPS LUMINAIRE WITH TYPE III DISTRIBUTION, 45'-2" ALUMINUM POLE SHAFT ON 24" DIAMETER CONCRETE FOUNDATION, 47'-6" MOUNTING HEIGHT, 12'-0" MAST ARM, WITH 5A FUSES, T-BASE AND 20A, 120V GFCI RECEPTACLE, 15'-0" ABOVE THE BASE OF POLE IF INDICATED
	PROPOSED COMBINATION POLE LIGHTING UNIT: 400W, 240V PHASE TO PHASE, HPS LUMINAIRE WITH TYPE III DISTRIBUTION, INSTALLED ON 12'-0" MAST ARM AT 45'-0" MOUNTING HEIGHT, ON POLE AND FOUNDATION SUPPLIED BY THE TRAFFIC SIGNAL CONTRACTOR, WITH 5A FUSES
	RELOCATED LIGHTING UNIT, PROVIDE NEW 250W HPS, 240V, MC-III LUMINAIRE IN PROPOSED LOCATION
	RELOCATED LIGHTING UNIT IN PROPOSED LOCATION
	EXISTING LIGHTING UNIT
	EXISTING COMBINATION POLE LIGHTING UNIT INSTALLED IN AN EARLIER STAGE
	EXISTING LIGHTING UNIT TO BE REMOVED
	EXISTING LIGHTING UNIT TO BE REMOVED AND RELOCATED
	TEMPORARY LIGHTING UNIT: 400W, 240V PHASE TO NEUTRAL, HPS LUMINAIRE WITH TYPE III DISTRIBUTION, 60'-0" CLASS 4 WOOD POLE, 47'-6" MOUNTING HEIGHT, 12'-0" MAST ARM, WITH 5A FUSES
	EXISTING TEMPORARY LIGHTING UNIT TO REMAIN
	EXISTING TEMPORARY LIGHTING UNIT TO BE REMOVED
	UNDERPASS LUMINAIRE, 100 WATT, 240V PHASE TO NEUTRAL, HPS, WITH TYPE III DISTRIBUTION, WALL MOUNTED
	EXISTING PEDESTRIAN LIGHTING UNIT
	EXISTING BOLLARD LIGHTING UNIT
	ELECTRIC JUNCTION BOX, TYPE AND SIZE AS INDICATED
	ELECTRIC HANDHOLE
	GROUND RECEPTACLE

ROADWAY ELECTRICAL SYMBOLS	
SYMBOL	DESCRIPTION
	EXISTING LIGHTING CONTROLLER
	EXISTING COMBINATION LIGHTING CONTROLLER
	EXISTING COMBINATION SERVICE DISCONNECT CABINET, SEE TRAFFIC SIGNAL PLANS
	EXISTING UTILITY SERVICE CONNECTION, POLE MOUNTED TRANSFORMER
	EXISTING UTILITY SERVICE CONNECTION, PAD MOUNTED TRANSFORMER
	PROPOSED LIGHTING CONTROLLER 200A, 240/480V, 1Ø, 3W, SINGLE DOOR, BASE MOUNTED
	PROPOSED COMBINATION LIGHTING CONTROLLER ATTACHED TO TRAFFIC SIGNAL CONTROL CABINET 120/240V, 1Ø, 3W
	PROPOSED COMBINATION LIGHTING AND TRAFFIC SIGNAL SERVICE DISCONNECT CABINET. SEE TRAFFIC SIGNAL PLANS FOR PROPOSED LOCATION
	PROPOSED UTILITY SERVICE CONNECTION, POLE MOUNTED TRANSFORMER
	PROPOSED UTILITY SERVICE CONNECTION, PAD MOUNTED TRANSFORMER
	TEMPORARY WOOD POLE, 60' CLASS 4
	ELECTRIC UTILITY POLE
	ELECTRIC GROUND ROD
	ELECTRIC SERVICE WEATHERHEAD
	EXPOSED CONDUIT
	DIRECT BURIED CABLE, UNIT DUCT, OR RACEWAY
	EXISTING DIRECT BURIED CABLE, UNIT DUCT, OR RACEWAY TO REMAIN
	EXISTING CONDUIT EXPOSED
	EXISTING DIRECT BURIED CABLE, UNIT DUCT, OR RACEWAY TO BE ABANDONED (SEE GENERAL NOTE 1, DRAWING GE-2)
	AERIAL ELECTRIC CABLE
	EXISTING AERIAL ELECTRIC CABLE
	EXISTING AERIAL ELECTRIC CABLE TO BE REMOVED
	CONCEALED CONDUIT IN STRUCTURE
	UNDERGROUND CONDUIT SLEEVE
	CONDUIT TURNED UP
	CONDUIT TURNED DOWN
	LIQUID TIGHT FLEXIBLE METAL CONDUIT

CALL-OUT SAMPLES	
DEFINITION	EXAMPLE
<p>CONDUIT QUANTITY, SIZE, TYPE, LENGTH</p> <p>4" RGC, 40'</p>	<p>1/4" UD, 3-1/2" #6 & 1/2" #8 GND (LIGHTING) 1/2" UD, 3-1/2" #2 & 1/2" #4 GND (RECEPTACLES)</p>
<p>CONTROLLER DESIGNATION RATINGS & DESCRIPTION LOCATION</p> <p>WOOD POLE LOCATION</p>	<p>LIGHTING CONTROLLER "C101"</p> <p>200A, 240/480V, 1Ø, 3 WIRE STA. 188+40, 70 RT</p>
<p>CONTROLLER.CIRCUIT.LIGHT (RECEPTACLE CIRCUIT #) STA. #, OFFSET</p> <p>CONTROLLER.CIRCUIT.LIGHT # (RECEPTACLE CIRCUIT #) STA. #, OFFSET</p>	<p>C101.A.2 (RECP R1)</p> <p>STA. 183+73, 58.7 RT</p>
<p>CONTROLLER.CIRCUIT.POLE # STA. #, OFFSET</p> <p>CONTROLLER.CIRCUIT.POLE # STA. #, OFFSET</p>	<p>T102.A.9</p> <p>STA. 227+22, 56.4 LT</p>
<p>POLE SETBACK: LIGHT POLE SETBACK IS MEASURED FROM FACE OF CURB TO CENTER OF POLE</p> <p>POLE OFFSET: LIGHT POLE OFFSET IS MEASURED FROM ROADWAY CENTERLINE TO CENTER OF TEMPORARY POLE</p>	

ABBREVIATIONS	
ABBREVIATION	DESCRIPTION
AC	ALTERNATING CURRENT
A/C	AERIAL CABLE
A.D.A.	AMERICANS WITH DISABILITIES ACT
AFG	ABOVE FINISHED GRADE
A/R	AERIAL CABLE TO BE REMOVED
ATS	ATTACHED TO STRUCTURE
B	BASELINE
BOE	IDOT BUREAU OF ELECTRICITY
CB	CIRCUIT BREAKER
CKT	CIRCUIT
C	CENTERLINE
CLC	COMBINATION LIGHTING CONTROLLER
CM	CENTIMETER
CNC	COILABLE NONMETALLIC CONDUIT
CP	CONTROL PANEL
CT	CURRENT TRANSFORMER
DA	DAVIT ARM
DC	DIRECT CURRENT
DIA	DIAMETER
DP	DISTRIBUTION PANEL
E	EXISTING UNIT TO REMAIN
ECA	ELECTRIC CABLE ASSEMBLY
EM	EXISTING UNIT TO BE MODIFIED (e.g. NEW LUMINAIRE, BALLAST OR MAST ARM)
EOP	EDGE OF PAVEMENT
ER	EXISTING RELOCATED UNIT IN PROPOSED LOCATION
ET	EXISTING TEMPORARY UNIT TO REMAIN
ETR	EXISTING TEMPORARY RELOCATED UNIT
FT	FEET OR FOOT
FND BW	FOUNDATION BARRIER WALL
FND BW OS	FOUNDATION BARRIER WALL OFFSET
FND CON	FOUNDATION CONCRETE
FND CON OS	FOUNDATION CONCRETE OFFSET
FND MET	FOUNDATION METAL
FND PW	FOUNDATION PARAPET WALL
FU	FUSE
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GND	GROUND
HID	HIGH INTENSITY DISCHARGE
HPS	HIGH PRESSURE SODIUM
IDOT	ILLINOIS DEPARTMENT OF TRANSPORTATION
JB	JUNCTION BOX
KVA	KILOVOLT-AMPERE
KW	KILOWATTS
LT	LEFT
LTFMC	LIQUIDTIGHT FLEXIBLE METAL CONDUIT
LTG	LIGHTING
M	METER
MA	MAST ARM
MM	MILLIMETER
MTG HT	MOUNTING HEIGHT
MW	MESSANGER WIRE
NO. #	NUMBER
P	PROPOSED
PB	PUSH BUTTON
PH, Ø	PHASE
PNL	PANEL
PVC	POLYVINYL CHLORIDE
PVCC RGC	PVC COATED RIGID GALVANIZED STEEL CONDUIT
PT	POTENTIAL TRANSFORMER
R	EXISTING UNIT TO BE REMOVED (OWNER SALVAGED U.N.O.)
RR	EXISTING UNIT TO BE REMOVED AND RELOCATED
RECP	RECEPTACLE
RGC	RIGID GALVANIZED STEEL CONDUIT
RT	RIGHT
SEL SW	SELECTOR SWITCH
SPARE	SPARE
SPACE	SPACE
SS	STAINLESS STEEL
STA	STATION
STRUCT	STRUCTURE
T	TEMPORARY LIGHTING UNIT
TMP	TEMPORARY
TR	TEMPORARY UNIT TO BE REMOVED, SALVAGE EQUIPMENT AS SPECIFIED
TRR	TEMPORARY UNIT TO BE REMOVED AND RELOCATED
TUR	TEMPORARY UNIT ON UTILITY POLE TO BE REMOVED
TYP.	TYPICAL
UD	UNIT DUCT
U.N.O.	UNLESS NOTED OTHERWISE
WP	WOOD POLE
XFMR	TRANSFORMER

FILE NAME =	USER NAME =	DESIGNED -	REVISED -
D160M61-SHT-E01.dgn	michal_bartusiewicz	MAE	-
		DRAWN -	REVISED -
		MAE	-
		PLOT SCALE =	REVISED -
		2.000000' / in.	-
SHT.PLAN		CHECKED -	REVISED -
		DAD	-
		PLOT DATE =	REVISED -
		3/15/2013	-
		DATE -	REVISED -
		03/13/2013	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

US 45 (LaGRANGE ROAD)
ELECTRICAL SYMBOL LIST AND ABBREVIATIONS

SCALE: NONE SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	412
E-1		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				

GENERAL NOTES:

1. UNLESS NOTED OTHERWISE, ALL LIGHTING EQUIPMENT REMOVED AS PART OF THIS CONTRACT SHALL REMAIN THE PROPERTY OF THE VILLAGE OF ORLAND PARK AND SHALL BE DELIVERED TO THE VILLAGE OF ORLAND PARK MAINTENANCE FACILITY. THE CONTRACTOR SHALL TURN OVER TO THE VILLAGE OF ORLAND PARK ALL REMOVED POLES, MAST ARMS, FIXTURES, AND CONTROLLERS.
2. THE CONTRACTOR SHALL COORDINATE ALL WORK AND MATERIALS WITH SPECIAL ATTENTION TO ALL OTHER CONSTRUCTION CONTRACTS. THIS WORK SHALL BE INCLUDED IN THE COST OF THIS CONTRACT. SEPARATE PAYMENT WILL NOT BE MADE.
3. THE CONTRACTOR SHALL CALL J.U.L.I.E. (1-800-892-0123) 72 HOURS BEFORE EXCAVATION FOR UNDERGROUND UTILITY LOCATIONS. UTILITY LOCATIONS SHOWN ON PLANS ARE APPROXIMATE.
4. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKS AND MONUMENTS UNTIL THE OWNER, AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.
5. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO COMMENCING WORK AND COMPLY WITH STATE REGULATIONS REGARDING AIR, WATER, AND NOISE POLLUTION.
6. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH ALL UTILITY COMPANIES.
7. WHEN ELECTRIC LIGHTING IS UTILIZED IN NIGHT OPERATIONS THE CONTRACTOR SHALL EXERCISE THE UTMOST PRECAUTIONS IN PREVENTING ADVERSE VISIBILITY TO THE MOTORING PUBLIC.
8. QUANTITIES OF RIGID GALVANIZED STEEL CONDUIT AND PVC CONDUIT WHERE INDICATED ON THE PLANS ARE APPROXIMATIONS ONLY. THE CONTRACTOR SHALL FIELD VERIFY ALL LENGTHS AND SHALL INSTALL RACEWAYS IN COMPLETE CONFORMANCE WITH SPECIFIED REQUIREMENTS.
9. GROUNDING CONNECTIONS AT ALL EQUIPMENT FOUNDATIONS SHALL BE EXOTHERMICALLY WELDED, UNLESS NOTED OTHERWISE, AS SPECIFIED, AND SHALL BE INSPECTED AND APPROVED BY THE ENGINEER PRIOR TO POURING CONCRETE OR BACKFILLING, AS APPLICABLE.
10. NO EQUIPMENT OR MATERIAL SHALL BE DELIVERED TO THE JOB SITE PRIOR TO THE APPROVAL AND INSPECTION OF THE ENGINEER. ANY EQUIPMENT OR MATERIAL DELIVERED TO THE JOB SITE PRIOR TO APPROVAL AND INSPECTION SHALL BE REMOVED FROM THE JOB SITE AT THE CONTRACTOR'S EXPENSE.
11. THE PROPOSED LIGHTING CONTROL CABINETS SHALL BE INSTALLED WITHIN THE RIGHT OF WAY WITH THE EXACT LOCATION TO BE CONFIRMED BY THE CONTRACTOR IN THE FIELD.
12. THE CONTRACTOR SHALL PREPARE A PRELIMINARY SCHEDULE WHEN THE CONTRACT COMMENCES WHICH ESTABLISHES THE DATE WHEN THE ELECTRICAL SERVICES WILL BE REQUIRED. THIS SCHEDULE SHALL BE FORWARDED IN WRITING TO COMMONWEALTH EDISON COMPANY (ComEd). SUBSEQUENT UPDATING OF THE SCHEDULE SHALL BE FORWARDED TO COMED AS CHANGES MAY OCCUR IN THE DATE OF SERVICE REQUIREMENTS. TEN (10) DAYS BEFORE THE ELECTRICAL SERVICES ARE REQUIRED, THE CONTRACTOR SHALL NOTIFY COMED BY PHONE AND CONFIRM THE REQUEST IN WRITING. COMED SERVICE CONTRACT AND AGREEMENT SHALL BE FORWARDED TO THE VILLAGE OF ORLAND PARK FOR REVIEW AND SIGNATURE.
13. ALL PITS USED FOR ACCESSING CONDUITS UNDER ROADWAYS SHALL BE LOCATED 5'-0" (MINIMUM) CLEAR FROM THE EDGE OF SHOULDER. LOCATIONS OF THE CONDUIT CROSSINGS SHOWN ARE APPROXIMATE AND MAY BE SHIFTED AS NECESSARY TO MEET THE MINIMUM CLEARANCE REQUIRED. THE CONTRACTOR SHALL SUBMIT PLANS FOR THE LOCATION AND SIZE OF EACH PIT AND MAINTENANCE AND PROTECTION OF TRAFFIC AT THE SITE OF EACH PIT FOR THE APPROVAL OF THE ENGINEER BEFORE THE EXCAVATION OF ANY PIT MAY BEGIN.
14. EXISTING LIGHTING CONTROLLERS ARE OWNED AND MAINTAINED BY THE VILLAGE OF ORLAND PARK. PROPOSED LIGHTING CONTROLLERS C101, C103, AND C105 WILL BE OWNED AND MAINTAINED BY THE VILLAGE OF ORLAND PARK.
15. UNDERGROUND CONDUIT SHALL EXTEND (2') BEYOND THE SHOULDER, CURB, BARRIER WALL AND/OR GUARDRAIL, AS APPLICABLE.
16. THE INSTALLATION OF COMBINATION TRAFFIC SIGNAL AND STREET LIGHT POLES IS A COORDINATED EFFORT OF THE TRAFFIC SIGNAL CONTRACTOR AND ELECTRICAL CONTRACTOR. THE COMBINATION LIGHTING CONTROLLER AND STANDARD COMBINATION LIGHTING DISCONNECT DETAILS ARE INCLUDED IN THE TRAFFIC SIGNAL DRAWINGS. THE TRAFFIC SIGNAL CONTRACTOR WILL PROVIDE AND INSTALL THE COMBINATION LIGHTING CONTROLLER, THE COMBINATION POLE, THE LUMINAIRE MAST ARM, AND THE COMBINATION SERVICE DISCONNECT. THE ELECTRICAL CONTRACTOR WILL PROVIDE AND INSTALL THE COMBINATION POLE LUMINAIRE, ALL WIRING INSIDE THE COMBINATION POLE ASSOCIATED WITH THE LUMINAIRE, LIGHTING CONDUCTORS BETWEEN ALL COMBINATION POLES AND THE COMBINATION LIGHTING CONTROLLER, AND THE LIGHTING POWER CONDUCTORS BETWEEN THE COMBINATION LIGHTING CONTROLLER AND THE COMBINATION SERVICE DISCONNECT. THE TRAFFIC SIGNAL CONTRACTOR AND THE ELECTRICAL CONTRACTOR MUST COORDINATE THE INSTALLATION OF TRAFFIC SIGNAL AND LIGHTING CONDUITS IN THE BASE OF THE COMBINATION SERVICE DISCONNECT. THE BASE OF THE TRAFFIC SIGNAL CONTROL CABINET AND COMBINATION LIGHTING CONTROLLER, THE BASES OF ALL COMBINATION POLES, AND THE INSTALLATION OF CONDUIT AND WIRING BETWEEN THE COMBINATION POLE AND THE TRAFFIC SIGNAL CONTROLLER CABINET AND THE COMBINATION LIGHTING CONTROLLER. THE ELECTRICAL CONTRACTOR'S WORK ASSOCIATED WITH THE COMBINATION POLES IS SHOWN ON THE ELECTRICAL SHEETS.
17. COMBINATION LIGHTING WILL BE OWNED AND MAINTAINED BY IDOT, THEREFORE THE COMBINATION POLE UNIT IDENTIFICATION SHALL BE BLACK LETTERS AND NUMERALS ON A SILVER-WHITE REFLECTIVE BACKGROUND. ALL OTHER LIGHTING UNITS AND SYSTEMS ARE NOT MAINTAINED BY IDOT, AND SHALL HAVE AN ALTERNATE COLOR SCHEME IDENTIFICATION OF BLACK ON YELLOW.
18. THE TRAFFIC SIGNAL SHEETS DO NOT SHOW THE TRAFFIC SIGNAL MAST ARM POLES BEING INSTALLED IN ANY PARTICULAR STAGE OF CONSTRUCTION. THE TIMING OF THE INSTALLATION IS LEFT UP TO THE TRAFFIC SIGNAL CONTRACTOR. THE GENERAL CONTRACTOR SHALL INSURE THAT THE COMBINATION TRAFFIC SIGNAL/STREET LIGHTING MAST ARM POLES ARE INSTALLED IN THE STAGE SHOWN ON THE ELECTRICAL SHEETS.
19. THE COORDINATION OF THE SIDE STREET WORK WITH LoGRANGE ROAD WORK IS LEFT UP TO THE CONTRACTOR. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE OPERATING STATUS OF LoGRANGE ROAD STREET LIGHTS REGARDLESS OF THE SIDE STREET STAGING. THIS MEANS THE CONTRACTOR MAY HAVE TO INSTALL TEMPORARY OVERHEAD WIRING FOR LoGRANGE ROAD STREET LIGHTS TO BYPASS STREET LIGHTS NOT YET INSTALLED. NOT ALL POSSIBILITIES FOR TEMPORARY OVERHEAD WIRING NEEDS ARE SHOWN ON THE PLANS, SINCE THIS DEPENDS UPON COORDINATION AS DETERMINED BY THE CONTRACTOR.
20. ALL LIGHT POLE SETBACKS SHOWN ARE MEASURED FROM THE FACE OF CURB TO THE CENTER OF LIGHT POLE, UNLESS STATED OTHERWISE. IF THERE IS NO CURB, THE SETBACK WILL BE MEASURED FROM THE EDGE OF TRAVELLED PAVEMENT.

GENERAL NOTES (CONTINUED):

21. FURNISH AND INSTALL A COMBINATION POLE LIGHTING CONTROLLER TO OPERATE THE LIGHT FIXTURES ON THE PROPOSED LIGHTING/TRAFFIC SIGNALS COMBINATION POLES AS SHOWN ON THESE PLANS. THE COMBINATION LIGHTING CONTROLLER (CLC) SHALL BE ATTACHED TO THE SIDE OF THE TRAFFIC SIGNAL CONTROLLER CABINET AS SHOWN ON THE ATTACHED DETAILS. COMBINATION LIGHTING CONTROLLERS ARE POWERED FROM THE PROPOSED LIGHTING/TRAFFIC SIGNALS COMBINATION SERVICE DISCONNECT CABINET, AND PAID FOR UNDER PAY ITEM NO. X8250090 "COMBINATION POLE LIGHTING CONTROLLER".
22. FURNISH AND INSTALL A 1" UNIT DUCT WITH 3-1/4" #8, 1/4" #10 G. IN A 2" RGC CONDUIT FROM EACH PROPOSED COMBINATION LIGHTING/TRAFFIC SIGNALS SERVICE DISCONNECT CABINET TO EACH PROPOSED COMBINATION LIGHTING CONTROLLER LOCATION. INSTALL THE UNIT DUCT IN A SEPARATE CONDUIT FOR THE ENTIRE RUN. SEE TRAFFIC SIGNAL PLANS FOR LOCATION OF COMED POWER SOURCE FEEDING COMBINATION LIGHTING CONTROLLERS AND LOCATION OF EACH COMBINATION SERVICE DISCONNECT.
23. PROPOSED LIGHT POLE SET BACKS ARE MEASURED FROM THE FACE OF CURB TO THE CENTER OF THE LIGHT POLE. MINIMUM SET BACK SHALL BE 3 FEET. OFFSETS FOR TEMPORARY LIGHTING WOOD POLES ARE MEASURED FROM THE ROADWAY CENTERLINE TO THE CENTER OF THE WOOD POLE.

SUGGESTED LIGHTING PHASING NOTES:

PRE-STAGE (PRIOR TO THE START OF STAGE 1 CONSTRUCTION)

- A. FURNISH AND INSTALL TEMPORARY LIGHTING CONTROLLERS "T101", "T102", AND "T103" AS SHOWN ON DRAWINGS E-11 THROUGH E-13.
 - B. COORDINATE WITH COMED TO GET POWER TO LIGHTING CONTROLLERS "T101", "T102", AND "T103". FURNISH AND INSTALL ALL ITEMS NECESSARY AS COORDINATED WITH COMED TO GET POWER TO LIGHTING CONTROLLERS "T101", "T102", AND "T103".
 - C. FURNISH, INSTALL, AND ENERGIZE ALL TEMPORARY LIGHTING UNITS AS INDICATED ON DRAWINGS E-10 THROUGH E-16 PRIOR TO THE REMOVAL OF EXISTING LIGHTING UNITS.
 - D. REMOVE EXISTING LIGHTING UNITS AND FOUNDATIONS ON THE WEST SIDE OF US-45 (LoGRANGE ROAD) AND ALONG ALL SIDE ROADS IMPACTED BY THIS PROJECT AS INDICATED ON DRAWINGS E-10 THROUGH E-16 IN ACCORDANCE WITH THE SPECIAL PROVISIONS.
 - E. TRANSPORT ALL REMOVED LIGHTING UNITS TO THE OWNER'S ELECTRICAL MAINTENANCE FACILITY FOR PROCESSING AS DETERMINED BY THE ENGINEER, UNLESS NOTED OTHERWISE.
- STAGE 1**
- A. REMOVE EXISTING LIGHTING UNITS AND FOUNDATIONS ON THE EAST SIDE OF US-45 (LoGRANGE ROAD) AS INDICATED ON DRAWINGS E-10 THROUGH E-13 IN ACCORDANCE WITH THE SPECIAL PROVISIONS.
 - B. TRANSPORT ALL REMOVED LIGHTING UNITS TO THE OWNER'S ELECTRICAL MAINTENANCE FACILITY FOR PROCESSING AS DETERMINED BY THE ENGINEER, UNLESS NOTED OTHERWISE.
 - C. COORDINATE WITH COMED FOR THE REMOVAL OF POWER TO LIGHTING CONTROLLERS FOR LIGHT SYSTEMS 3 AND 4 LOCATED ON DRAWINGS E-10 AND E-11. REMOVE THE LIGHTING CONTROLLERS AND FOUNDATIONS. TRANSPORT THE REMOVED LIGHTING CONTROLLERS TO THE OWNER'S ELECTRICAL MAINTENANCE FACILITY FOR PROCESSING PER THE SPECIAL PROVISIONS.
 - D. CONSTRUCT NEW LIGHTING UNIT FOUNDATIONS FOR PROPOSED AND EXISTING TO BE RELOCATED LIGHTING UNITS AS SHOWN ON DRAWING E-20 BETWEEN 144th PLACE AND 143rd STREET ALONG NORTHBOUND (EAST) SIDE OF US-45 (LoGRANGE ROAD). INSTALL LIGHTING UNITS ON PROPOSED FOUNDATIONS. CONNECT LUMINAIRES TO EXISTING LIGHTING CONTROLLER "RWP-1". CONNECT THE RECEPTACLES ON LIGHTING UNITS TO EXISTING RECEPTACLE CONTROLLER "H-2".
 - E. FURNISH AND INSTALL PROPOSED LIGHTING CONTROLLERS "C101", "C103", AND "C105" AND ASSOCIATED UTILITY SERVICES. COORDINATE WORK WITH COMED.
 - F. FURNISH, INSTALL, AND ENERGIZE PROPOSED LIGHTING UNITS ON THE EAST SIDE OF US-45 (LoGRANGE ROAD) AS INDICATED ON DRAWINGS E-17 THROUGH E-20. FURNISH AND INSTALL TEMPORARY CONNECTION FOR LIGHTING CONTROLLER "C103" CIRCUITS G AND H BETWEEN CONTROLLER "C103" AND LIGHTING UNIT "C103.G.3" TO ENERGIZE LUMINAIRES AS SHOWN ON DRAWING E-18.

STAGE 2

- A. REMOVE ALL TEMPORARY LIGHTING UNITS, TEMPORARY LIGHTING CONTROLLERS "T101", "T102", AND "T103", ASSOCIATED UTILITY SERVICES, AND WIRING ONCE TRAFFIC IS SHIFTED TO PROPOSED NORTHBOUND LANES CONSTRUCTED IN STAGE 1.

STAGE 3

- A. CONSTRUCT NEW LIGHTING UNIT FOUNDATIONS FOR PROPOSED AND EXISTING TO BE RELOCATED LIGHTING UNITS AS SHOWN ON DRAWING E-34 BETWEEN 144th PLACE AND 143rd STREET ALONG SOUTHBOUND (WEST) SIDE OF US-45 (LoGRANGE ROAD). INSTALL LIGHTING UNITS ON PROPOSED FOUNDATIONS. CONNECT LUMINAIRES TO EXISTING LIGHTING CONTROLLER "RWP-1". CONNECT THE RECEPTACLES ON LIGHTING UNITS TO EXISTING RECEPTACLE CONTROLLER "H-2".
- B. CONSTRUCT NEW LIGHTING UNIT FOUNDATION FOR EXISTING TO BE RELOCATED LIGHTING UNIT "C6H4" AT LOCATION SHOWN ON DRAWING E-31. REMOVE, REINSTALL, AND ENERGIZE LIGHTING UNIT AT PROPOSED LOCATION.
- C. FURNISH, INSTALL, AND ENERGIZE PROPOSED LIGHTING UNITS ON THE WEST SIDE OF US-45 (LoGRANGE ROAD) AS INDICATED ON DRAWINGS E-31 THROUGH E-34.

SIDE ROAD CONSTRUCTION STAGE A

- A. CONSTRUCT NEW LIGHTING UNIT FOUNDATIONS FOR PROPOSED AND EXISTING TO BE RELOCATED LIGHTING UNITS ALONG SOUTH SIDES (EASTBOUND LANES) OF SIDE ROADS AS SHOWN ON DRAWINGS E-21 THROUGH E-23. INSTALL AND ENERGIZE LIGHTING UNITS ON PROPOSED FOUNDATIONS. COORDINATE INSTALLATION AND CONNECTION OF LIGHTING UNITS WITH CONSTRUCTION STAGES FOR US-45 (LoGRANGE ROAD) AND ALL SIDE ROADS IMPACTED BY THIS PROJECT.

SIDE ROAD CONSTRUCTION STAGE B

- A. CONSTRUCT NEW LIGHTING UNIT FOUNDATIONS FOR PROPOSED AND EXISTING TO BE RELOCATED LIGHTING UNITS ALONG NORTH SIDES (WESTBOUND LANES) OF SIDE ROADS AS SHOWN ON DRAWINGS E-28 THROUGH E-30. INSTALL AND ENERGIZE LIGHTING UNITS ON PROPOSED FOUNDATIONS. CONSTRUCT PERMANENT CONNECTION OF PROPOSED LIGHTING CONTROLLER "C103" CIRCUITS G, H, R2, AND R4. AND REMOVE TEMPORARY AERIAL CONNECTION TO CONTROLLER FROM LIGHTING UNIT "C103.G.3". COORDINATE INSTALLATION AND CONNECTION OF LIGHTING UNITS WITH CONSTRUCTION STAGES FOR US-45 (LoGRANGE ROAD) AND ALL SIDE ROADS IMPACTED BY THIS PROJECT.

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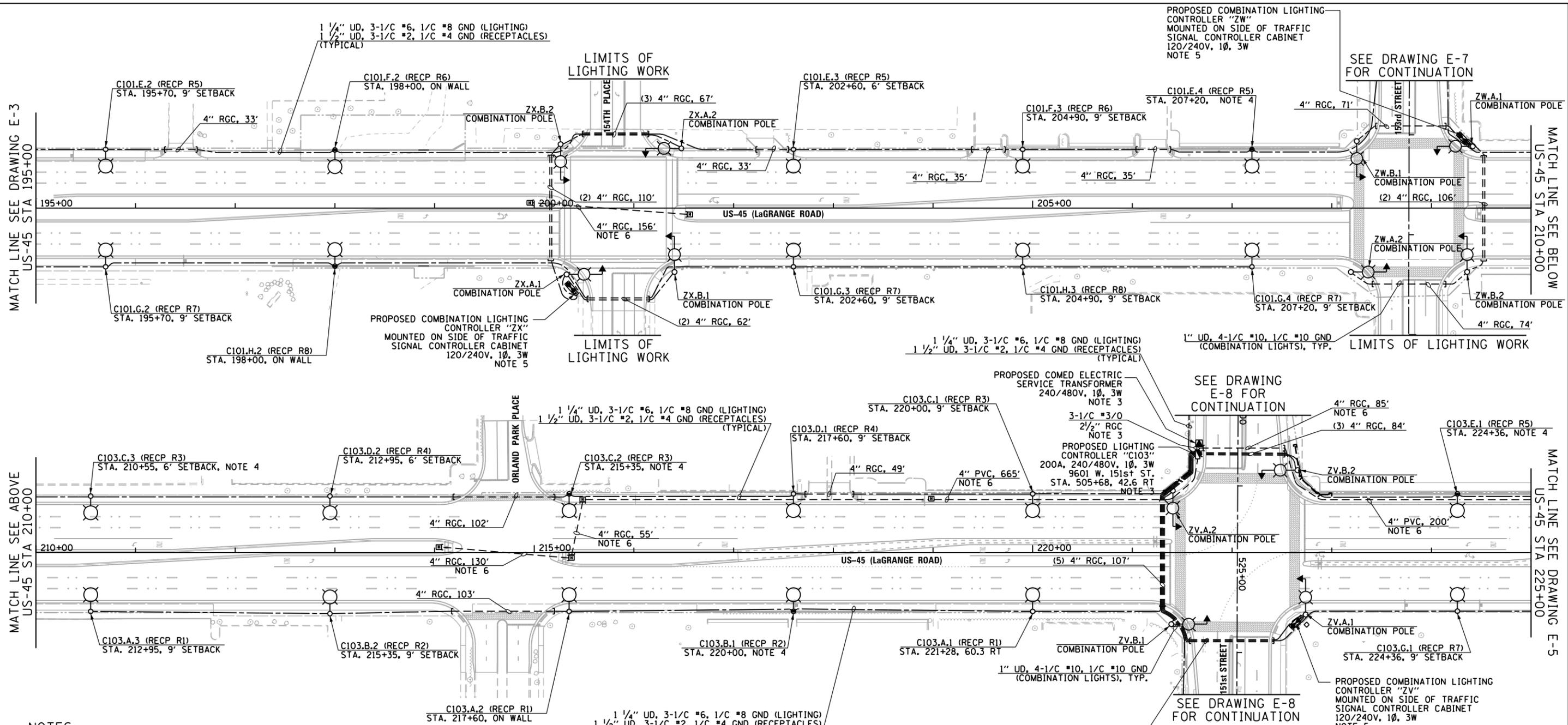
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**US 45 (LoGRANGE ROAD)
ELECTRICAL GENERAL NOTES AND PHASING NOTES**

SCALE: NONE SHEET 2 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	413
E-2		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				



NOTES:

- SEE DRAWING GE-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING GE-2 FOR ELECTRICAL GENERAL NOTES.
- CONTRACTOR SHALL ALTERNATE ALL LIGHTING AND RECEPTACLE CIRCUITS INCLUDING COMBINATION LIGHTING CIRCUITS USING A MINIMUM OF TWO (2) CIRCUIT BREAKERS.
- ALL MATERIALS, EQUIPMENT, AND LABOR NEEDED TO INSTALL AND CONNECT THE SERVICE FROM THE COMED UTILITY TRANSFORMER TO THE LIGHTING CONTROLLER CABINET SHALL BE PART OF PAY ITEM NO. 80400100 - ELECTRIC SERVICE INSTALLATION, THAT SHALL INCLUDE THE APPROVED METER SOCKET/PEDESTAL, CABLE, CONDUIT AND TRENCHING FOR THE CONDUIT SHOWN ON THE PLANS. ALL CONNECTIONS, SPLICING, AND WIRING TO THE NEW LIGHTING CONTROLLER IS ALSO INCLUDED UNDER THE SAME PAY ITEM. THE SERVICE CABLE AND CONDUIT SIZE SHALL BE AS SHOWN ON THE PLANS. THE CONTRACTOR SHALL CONNECT ELECTRIC SERVICE CABLES FROM COMED SERVICE TRANSFORMER TO LIGHTING CONTROLLER. CONTRACTOR SHALL COORDINATE SERVICE INSTALLATION WITH COMED AS SOON AS POSSIBLE TO AVOID ANY DELAYS.
- CONTRACTOR SHALL INSTALL GROUND MOUNTED LIGHT POLE FOUNDATIONS AS CLOSE TO RIGHT OF WAY AS POSSIBLE WHERE SHOWN, AT LOCATIONS WHERE A LIGHT POLE IS PROPOSED ON TOP OF RETAINING WALL, CONTRACTOR SHALL ROUTE RETAINING WALL AROUND LIGHT POLES IF POLE FOUNDATIONS CANNOT BE INSTALLED INTEGRAL TO RETAINING WALL.
- SEE TRAFFIC SIGNAL PLANS FOR LOCATION OF COMED POWER SOURCE FEEDING COMBINATION LIGHTING CONTROLLERS. FURNISH AND INSTALL A 1" UNIT DUCT WITH 3-1/2" #8, 1/2" #10 G. IN A SEPARATE 2" RGC CONDUIT FOR ELECTRIC SERVICE TO POWER THE COMBINATION LIGHTING CONTROLLER.
- FURNISH AND INSTALL ELECTRIC HANDHOLES, 4" CONDUITS (RGC OR PVC, AS SHOWN) FOR FUTURE CONTRACT USE TO PROVIDE SERVICE TO FUTURE MEDIAN RECEPTACLES.

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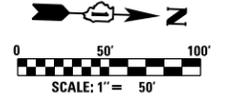
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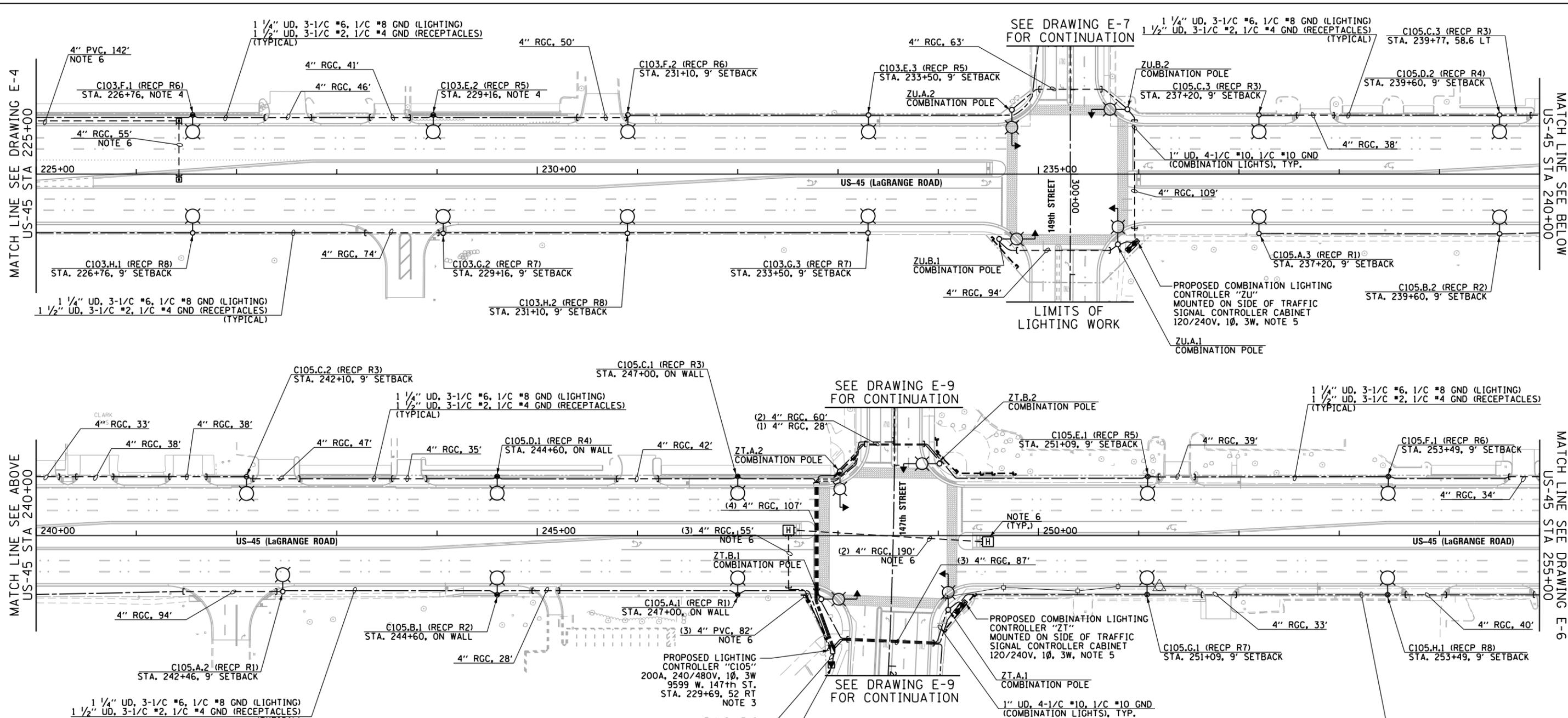
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**US 45 (LaGRANGE ROAD)
PROPOSED ROADWAY LIGHTING PLAN**

SCALE: 1"=50' SHEET 2 OF 7 SHEETS STA. 195+00.00 TO STA. 225+00.00

F.A.P. R.T.E. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 415
E-4			CONTRACT NO. 60M61	
ILLINOIS FED. AID PROJECT				





NOTES:

- SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
- CONTRACTOR SHALL ALTERNATE ALL LIGHTING AND RECEPTACLE CIRCUITS INCLUDING COMBINATION LIGHTING CIRCUITS USING A MINIMUM OF TWO (2) CIRCUIT BREAKERS.
- ALL MATERIALS, EQUIPMENT, AND LABOR NEEDED TO INSTALL AND CONNECT THE SERVICE FROM THE COMED UTILITY TRANSFORMER TO THE LIGHTING CONTROLLER CABINET SHALL BE PART OF PAY ITEM NO. 80400100 - ELECTRIC SERVICE INSTALLATION, THAT SHALL INCLUDE THE APPROVED METER SOCKET/PEDESTAL, CABLE, CONDUIT AND TRENCHING FOR THE CONDUIT SHOWN ON THE PLANS. ALL CONNECTIONS, SPLICING, AND WIRING TO THE NEW LIGHTING CONTROLLER IS ALSO INCLUDED UNDER THE SAME PAY ITEM. THE SERVICE CABLE AND CONDUIT SIZE SHALL BE AS SHOWN ON THE PLANS. THE CONTRACTOR SHALL CONNECT ELECTRIC SERVICE CABLES FROM COMED SERVICE TRANSFORMER TO LIGHTING CONTROLLER. CONTRACTOR SHALL COORDINATE SERVICE INSTALLATION WITH COMED AS SOON AS POSSIBLE TO AVOID ANY DELAYS.
- CONTRACTOR SHALL INSTALL GROUND MOUNTED LIGHT POLE FOUNDATIONS AS CLOSE TO RIGHT OF WAY AS POSSIBLE WHERE SHOWN, AT LOCATIONS WHERE A LIGHT POLE IS PROPOSED ON TOP OF RETAINING WALL, CONTRACTOR SHALL ROUTE RETAINING WALL AROUND LIGHT POLES IF POLE FOUNDATIONS CANNOT BE INSTALLED INTEGRAL TO RETAINING WALL.
- SEE TRAFFIC SIGNAL PLANS FOR LOCATION OF COMED POWER SOURCE FEEDING COMBINATION LIGHTING CONTROLLERS. FURNISH AND INSTALL A 1" UNIT DUCT WITH 3-1/2" #8, 1/2" #10 G. IN A SEPARATE 2" RGC CONDUIT FOR ELECTRIC SERVICE TO POWER THE COMBINATION LIGHTING CONTROLLER.
- FURNISH AND INSTALL ELECTRIC HANDHOLES, 4" CONDUITS (RGC OR PVC, AS SHOWN) FOR FUTURE CONTRACT USE TO PROVIDE SERVICE TO FUTURE MEDIAN RECEPTACLES.

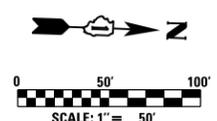
100 S. WACKER DR.
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URS

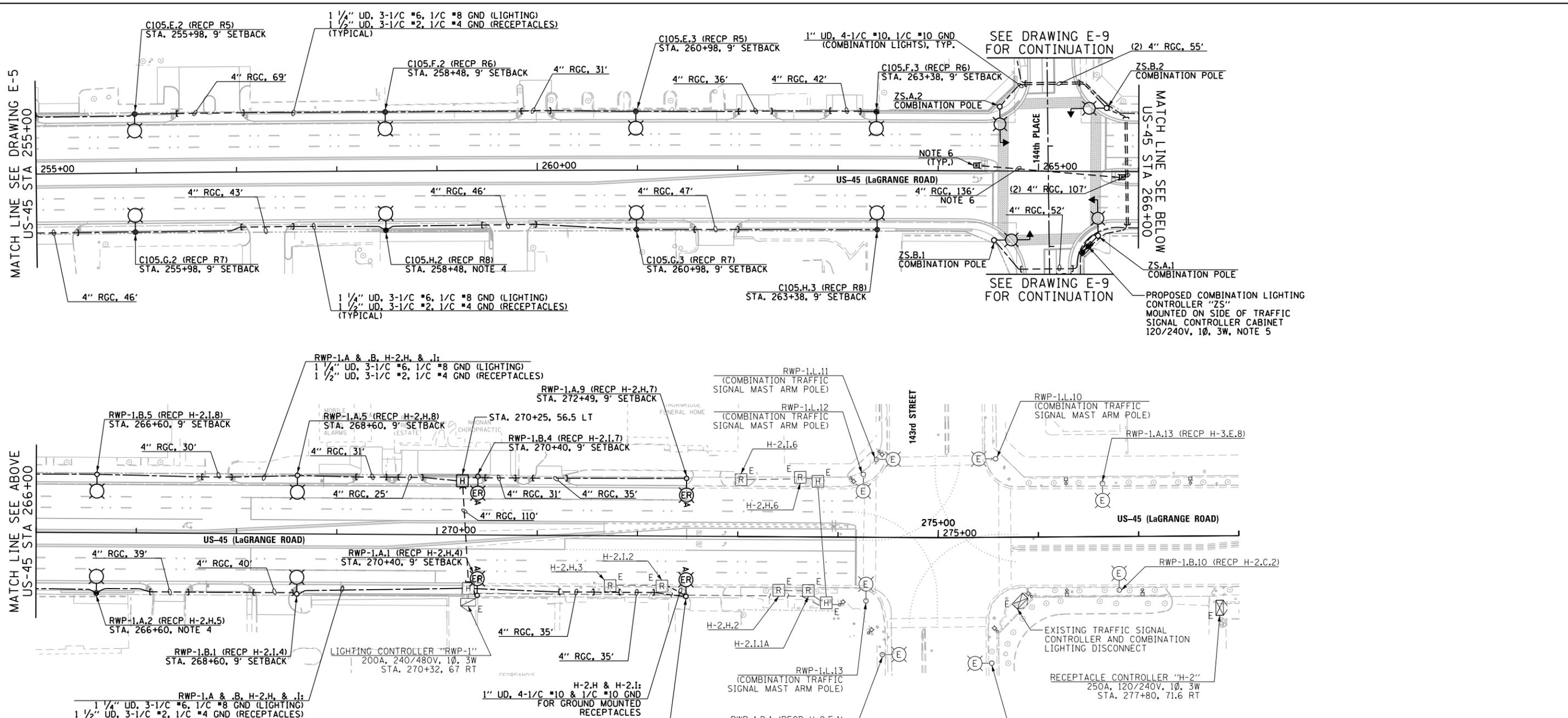
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		CHECKED -	REVISED -
		DAD	-
SHT.PLAN	PLOT DATE =	DATE -	REVISED -
	3/15/2013	03/13/2013	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

US 45 (LaGRANGE ROAD)
PROPOSED ROADWAY LIGHTING PLAN
 SCALE: 1"=50' SHEET 3 OF 7 SHEETS STA. 225+00.00 TO STA.255+00.00

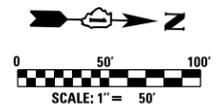
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330	103R-4	COOK	877	416
E-5		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				





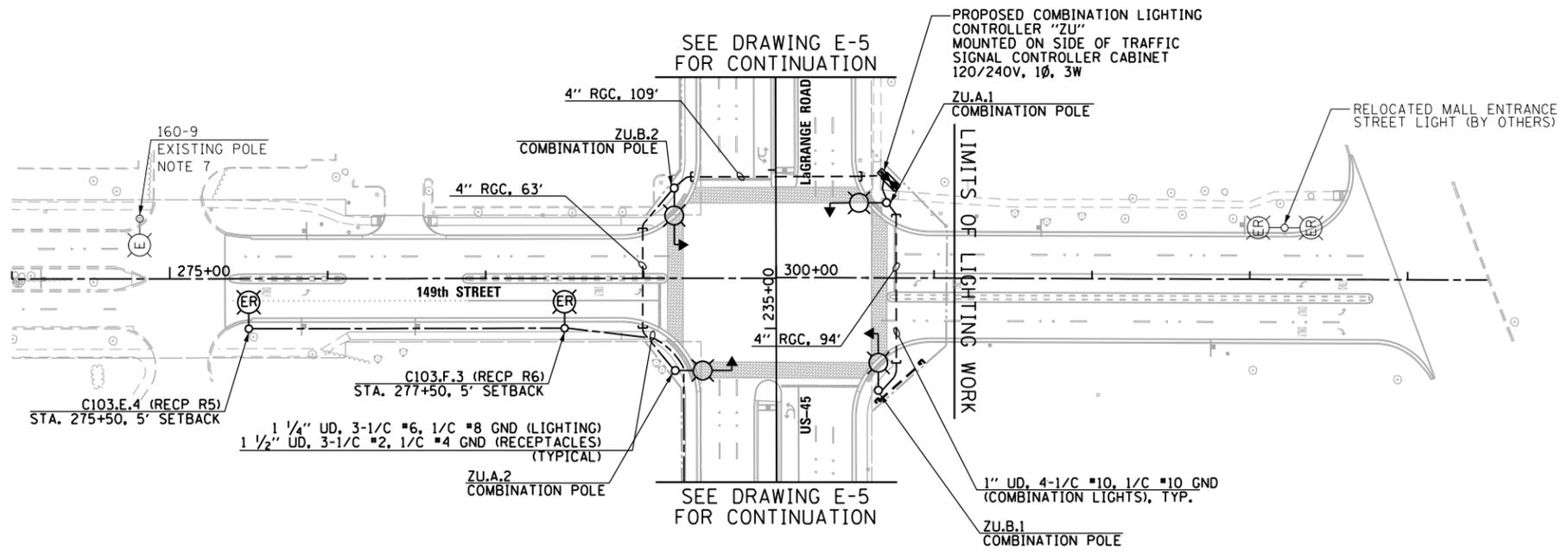
NOTES:

- SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
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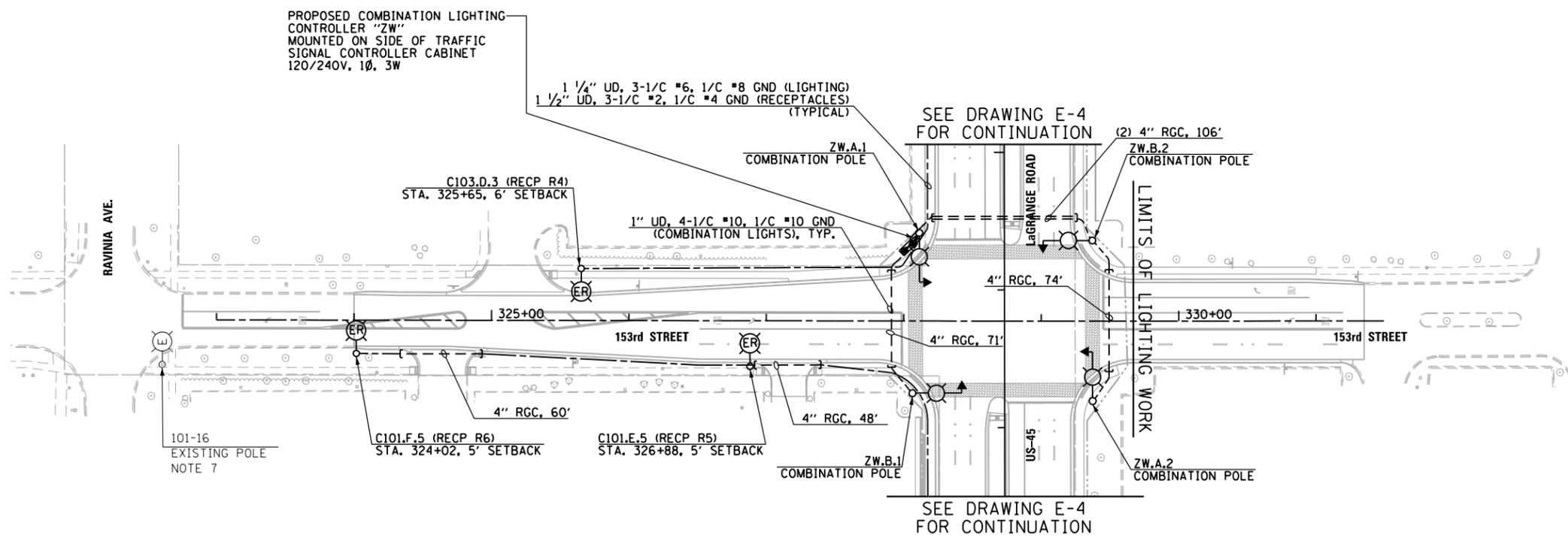


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FILE NAME = D160M61-SHT-E06.dgn	USER NAME = michal_bartusiewicz	DESIGNED - MAE	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	US 45 (LaGRANGE ROAD) PROPOSED ROADWAY LIGHTING PLAN	F.A.P. RTE. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 417		
SHT.PLAN	PLOT SCALE = 100.000000' / in.	CHECKED - DAD	REVISED -			E-6		CONTRACT NO. 60M61		ILLINOIS FED. AID PROJECT		
DT60M61-SHT-E06.dgn 3/15/2013 2:26:37 PM	PLOT DATE = 3/15/2013	DATE - 03/13/2013	REVISED -			SCALE: 1"=50'	SHEET 4 OF 7 SHEETS	STA. 255+00.00 TO STA. 278+00.00				



149TH STREET

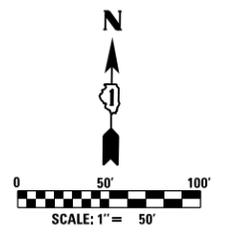


153RD STREET

NOTES:

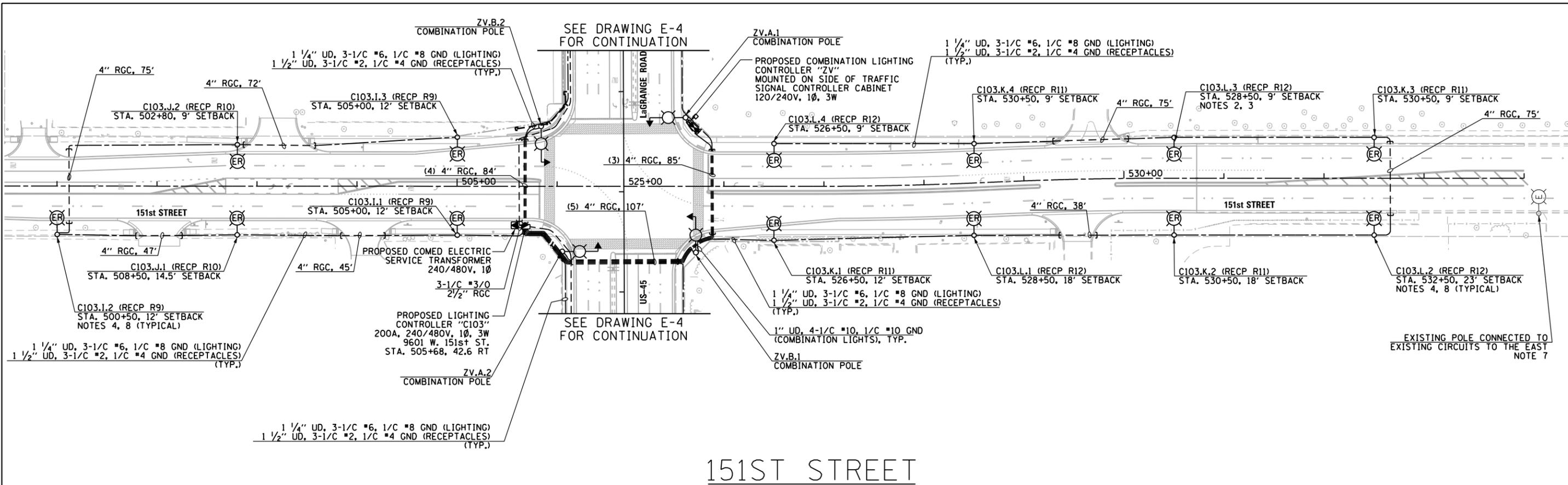
- SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
- CONTRACTOR SHALL ALTERNATE ALL LIGHTING AND RECEPTACLE CIRCUITS INCLUDING COMBINATION LIGHTING CIRCUITS USING A MINIMUM OF TWO (2) CIRCUIT BREAKERS.
- ALL MATERIALS, EQUIPMENT, AND LABOR NEEDED TO INSTALL AND CONNECT THE SERVICE FROM THE COMED UTILITY TRANSFORMER TO THE LIGHTING CONTROLLER CABINET SHALL BE PART OF PAY ITEM NO. 80400100 - ELECTRIC SERVICE INSTALLATION. THAT SHALL INCLUDE THE APPROVED METER SOCKET/PEDESTAL, CABLE, CONDUIT AND TRENCHING FOR THE CONDUIT SHOWN ON THE PLANS. ALL CONNECTIONS, SPLICING, AND WIRING TO THE NEW LIGHTING CONTROLLER IS ALSO INCLUDED UNDER THE SAME PAY ITEM. THE SERVICE CABLE AND CONDUIT SIZE SHALL BE AS SHOWN ON THE PLANS. THE CONTRACTOR SHALL CONNECT ELECTRIC SERVICE CABLES FROM COMED SERVICE TRANSFORMER TO LIGHTING CONTROLLER. CONTRACTOR SHALL COORDINATE SERVICE INSTALLATION WITH COMED AS SOON AS POSSIBLE TO AVOID ANY DELAYS.
- CONTRACTOR SHALL INSTALL GROUND MOUNTED LIGHT POLE FOUNDATIONS AS CLOSE TO RIGHT OF WAY AS POSSIBLE AT THIS LOCATION. AT LOCATIONS WHERE A RETAINING WALL IS PROPOSED, CONTRACTOR SHALL ROUTE RETAINING WALL AROUND LIGHT POLES.
- CONTRACTOR MUST CONFIRM THAT A 20A, 120V GFCI RECEPTACLE HAS BEEN INSTALLED AT 15'-0" ABOVE THE BASE OF EXISTING POLE TO BE RELOCATED. RECEPTACLES MUST BE INSTALLED WHERE ABSENT, AND CONNECTED TO RECEPTACLE PANEL WITHIN PROPOSED LIGHTING CONTROLLER. SEE LIGHT POLE STANDARD FOR PROPOSED RECEPTACLE REQUIREMENTS. THE COST OF ANY REQUIRED RECEPTACLES WILL BE PAID FOR UNDER "GFCI 20 AMP DUPLEX RECEPTACLE" PAY ITEM NO. X0326498.
- CONTRACTOR SHALL FURNISH AND INSTALL NEW DECALS TO REPLACE THE EXISTING LIGHTING UNITS IDENTIFICATION ON THE RELOCATED LIGHTING UNITS TO IDENTIFY POLES AS SHOWN ON THIS DRAWING. SEE GENERAL NOTES SHEET FOR MORE INFORMATION.
- CONTRACTOR SHALL FIELD VERIFY CIRCUITING OF ALL EXISTING LIGHTING UNITS TO REMAIN ESPECIALLY POLES LOCATED ON SIDE STREETS EAST AND WEST OF LAGRANGE ROAD. FURNISH AND INSTALL ALL NECESSARY UNIT DUCTS, CABLES, AND CONDUITS TO PERMANENTLY WIRE AND MAINTAIN OPERATION FOR THESE LIGHT POLES ON EXISTING CIRCUITS AND POWER SOURCES.
- REPLACE ALL EXISTING LUMINAIRES ON POLES RELOCATED FROM US-45 (LAGRANGE ROAD) WITH NEW 250 WATT LUMINAIRES. ALL US-45 LIGHT POLES SHALL HAVE A 400 WATT, HPS, MC-III LUMINAIRES. ALL SIDE STREET RELOCATED POLES SHALL HAVE 250 WATT, HPS, MC-III LUMINAIRES, EXCEPT WHERE NOTED OTHERWISE ON THE PLANS. NEW 250 WATT LUMINAIRES SHALL HAVE THE SAME CATALOG NUMBER AS THE PROPOSED 400 WATT LUMINAIRES EXCEPT THAT THE BALLAST AND LAMP ARE DESIGNED FOR 250 WATT OPERATION.

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FILE NAME = D160M61-SHT-E07.dgn	USER NAME = michael_bartusiewicz	DESIGNED - MAE	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	153rd STREET & 149th STREET PROPOSED ROADWAY LIGHTING PLAN			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 100.000000' / in.	CHECKED - DAD	REVISED -		SCALE: 1"=50'	SHEET 5 OF 7 SHEETS	STA. VARIES TO STA. VARIES	330	103R-4	COOK	877	418
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ILLINOIS FED. AID PROJECT												

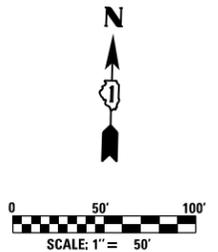
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151ST STREET

NOTES:

- SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
- CONTRACTOR SHALL ALTERNATE ALL LIGHTING AND RECEPTACLE CIRCUITS INCLUDING COMBINATION LIGHTING CIRCUITS USING A MINIMUM OF TWO (2) CIRCUIT BREAKERS.
- ALL MATERIALS, EQUIPMENT, AND LABOR NEEDED TO INSTALL AND CONNECT THE SERVICE FROM THE COMED UTILITY TRANSFORMER TO THE LIGHTING CONTROLLER CABINET SHALL BE PART OF PAY ITEM NO. 80400100 - ELECTRIC SERVICE INSTALLATION, THAT SHALL INCLUDE THE APPROVED METER SOCKET/PEDESTAL, CABLE, CONDUIT AND TRENCHING FOR THE CONDUIT SHOWN ON THE PLANS. ALL CONNECTIONS, SPLICING, AND WIRING TO THE NEW LIGHTING CONTROLLER IS ALSO INCLUDED UNDER THE SAME PAY ITEM. THE SERVICE CABLE AND CONDUIT SIZE SHALL BE AS SHOWN ON THE PLANS. THE CONTRACTOR SHALL CONNECT ELECTRIC SERVICE CABLES FROM COMED SERVICE TRANSFORMER TO LIGHTING CONTROLLER. CONTRACTOR SHALL COORDINATE SERVICE INSTALLATION WITH COMED AS SOON AS POSSIBLE TO AVOID ANY DELAYS.
- CONTRACTOR SHALL INSTALL GROUND MOUNTED LIGHT POLE FOUNDATIONS AS CLOSE TO RIGHT OF WAY AS POSSIBLE WHEN POLE IS SHOWN TO BE INSTALLED CLOSE TO RIGHT OF WAY LINE. AT LOCATIONS WHERE A RETAINING WALL IS PROPOSED, CONTRACTOR SHALL ROUTE RETAINING WALL AROUND LIGHT POLES.
- CONTRACTOR SHALL CONFIRM THAT A 20A, 120V GFCI RECEPTACLE HAS BEEN INSTALLED AT 15'-0" ABOVE THE BASE OF EXISTING POLE TO BE RELOCATED. RECEPTACLES MUST BE INSTALLED WHERE ABSENT, AND CONNECTED TO RECEPTACLE PANEL WITHIN PROPOSED LIGHTING CONTROLLER. SEE LIGHT POLE STANDARD FOR PROPOSED RECEPTACLE REQUIREMENTS. THE COST OF ANY REQUIRED RECEPTACLES WILL BE PAID FOR UNDER "GFCI 20 AMP DUPLEX RECEPTACLE" PAY ITEM NO. X0326498.
- CONTRACTOR SHALL FURNISH AND INSTALL NEW DECALS TO REPLACE THE EXISTING LIGHTING UNITS IDENTIFICATION ON THE RELOCATED LIGHTING UNITS TO IDENTIFY POLES AS SHOWN ON THIS DRAWING. SEE GENERAL NOTES SHEET FOR MORE INFORMATION.
- CONTRACTOR SHALL FIELD VERIFY CIRCUITING OF ALL EXISTING LIGHTING UNITS TO REMAIN ESPECIALLY POLES LOCATED ON SIDE STREETS EAST AND WEST OF LAGRANGE ROAD. FURNISH AND INSTALL ALL NECESSARY UNIT DUCTS, CABLES, AND CONDUITS TO PERMANENTLY WIRE AND MAINTAIN OPERATION FOR THESE LIGHT POLES ON EXISTING CIRCUITS AND POWER SOURCES.
- REPLACE ALL EXISTING LUMINAIRES ON POLES RELOCATED FROM US-45 (LAGRANGE ROAD) WITH NEW 250 WATT LUMINAIRES. ALL US-45 LIGHT POLES SHALL HAVE A 400 WATT, HPS, MC-III LUMINAIRES. ALL SIDE STREET RELOCATED POLES SHALL HAVE 250 WATT, HPS, MC-III LUMINAIRES, EXCEPT WHERE NOTED OTHERWISE ON THE PLANS. NEW 250 WATT LUMINAIRES SHALL HAVE THE SAME CATALOG NUMBER AS THE PROPOSED 400 WATT LUMINAIRES EXCEPT THAT THE BALLAST AND LAMP ARE DESIGNED FOR 250 WATT OPERATION.



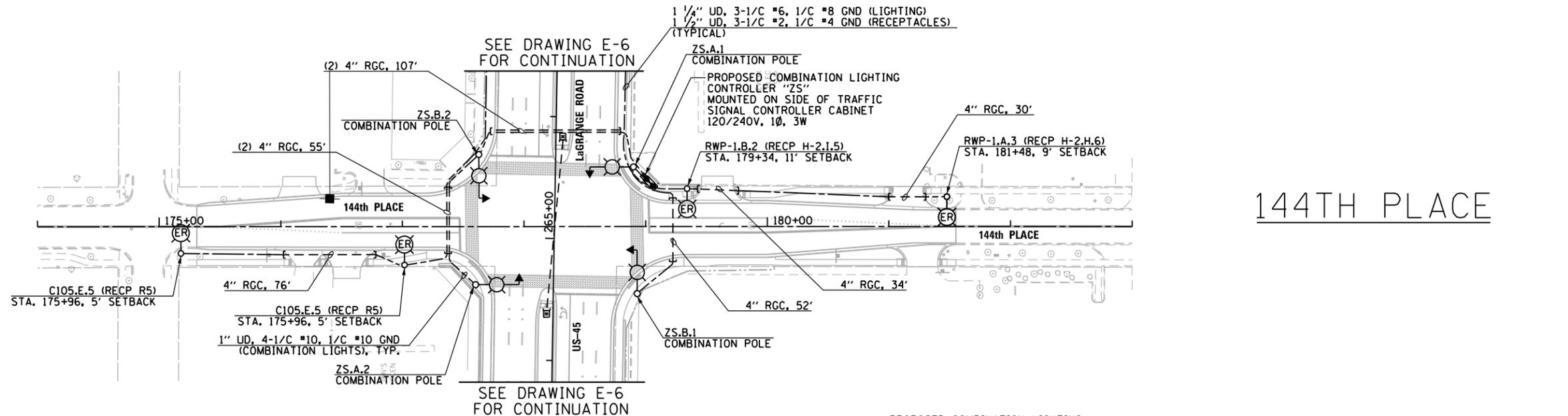
100 S. WACKER DR.
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 CHICAGO, IL 60606
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URS

FILE NAME =	USER NAME =	DESIGNED -	REVISED -
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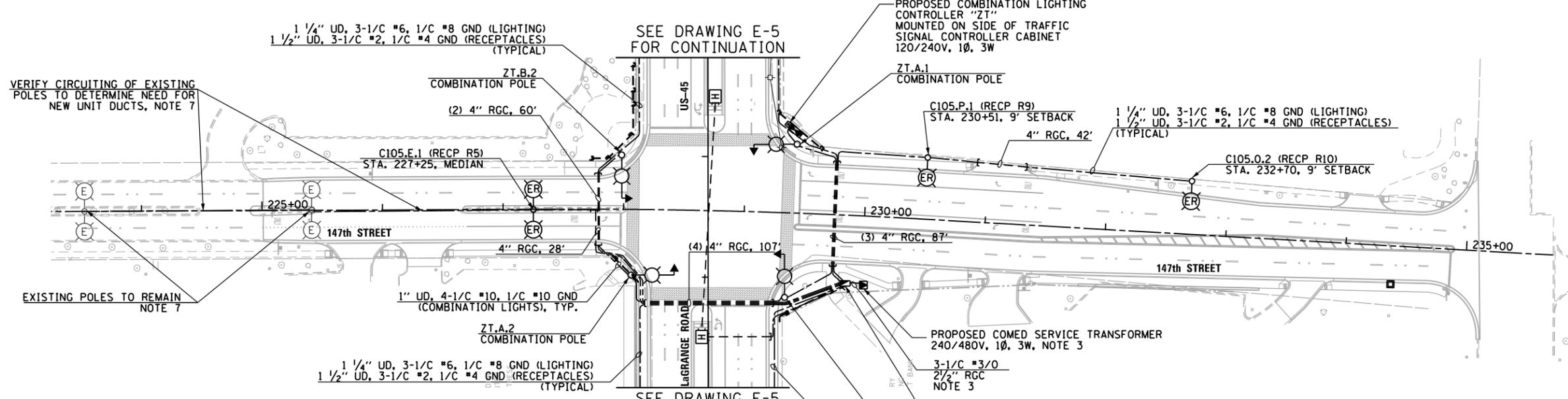
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

151st STREET PROPOSED ROADWAY LIGHTING PLAN
 SCALE: 1"=50' SHEET 6 OF 7 SHEETS STA. 498+50.00 TO STA. 531+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	419
E-8		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				



144TH PLACE



147TH STREET

VERIFY CIRCUITING OF EXISTING POLES TO DETERMINE NEED FOR NEW UNIT DUCTS, NOTE 7

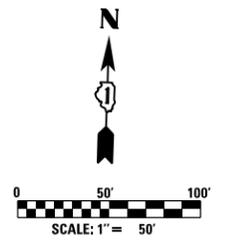
EXISTING POLES TO REMAIN NOTE 7

NOTES:

- SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
- CONTRACTOR SHALL ALTERNATE ALL LIGHTING AND RECEPTACLE CIRCUITS INCLUDING COMBINATION LIGHTING CIRCUITS USING A MINIMUM OF TWO (2) CIRCUIT BREAKERS.
- ALL MATERIALS, EQUIPMENT, AND LABOR NEEDED TO INSTALL AND CONNECT THE SERVICE FROM THE COMED UTILITY TRANSFORMER TO THE LIGHTING CONTROLLER CABINET SHALL BE PART OF PAY ITEM NO. 80400100 - ELECTRIC SERVICE INSTALLATION, THAT SHALL INCLUDE THE APPROVED METER SOCKET PEDESTAL, CABLE, CONDUIT AND TRENCHING FOR THE CONDUIT SHOWN ON THE PLANS. ALL CONNECTIONS, SPLICING, AND WIRING TO THE NEW LIGHTING CONTROLLER IS ALSO INCLUDED UNDER THE SAME PAY ITEM. THE SERVICE CABLE AND CONDUIT SIZE SHALL BE AS SHOWN ON THE PLANS. THE CONTRACTOR SHALL CONNECT ELECTRIC SERVICE CABLES FROM COMED SERVICE TRANSFORMER TO LIGHTING CONTROLLER. CONTRACTOR SHALL COORDINATE SERVICE INSTALLATION WITH COMED AS SOON AS POSSIBLE TO AVOID ANY DELAYS.
- CONTRACTOR SHALL INSTALL GROUND MOUNTED LIGHT POLE FOUNDATIONS AS CLOSE TO RIGHT OF WAY AS POSSIBLE WHEN POLE IS SHOWN TO BE INSTALLED CLOSE TO RIGHT OF WAY LINE. AT LOCATIONS WHERE A RETAINING WALL IS PROPOSED, CONTRACTOR SHALL ROUTE RETAINING WALL AROUND LIGHT POLES.
- CONTRACTOR SHALL CONFIRM THAT A 20A, 120V GFCI RECEPTACLE HAS BEEN INSTALLED AT 15'-0" ABOVE THE BASE OF EXISTING POLE TO BE RELOCATED. RECEPTACLES MUST BE INSTALLED WHERE ABSENT, AND CONNECTED TO RECEPTACLE PANEL WITHIN PROPOSED LIGHTING CONTROLLER. SEE LIGHT POLE STANDARD FOR PROPOSED RECEPTACLE REQUIREMENTS. THE COST OF ANY REQUIRED RECEPTACLES WILL BE PAID FOR UNDER "GFCI 20 AMP DUPLEX RECEPTACLE" PAY ITEM NO. X0326498.
- CONTRACTOR SHALL FURNISH AND INSTALL NEW DECALS TO REPLACE THE EXISTING LIGHTING UNITS IDENTIFICATION ON THE RELOCATED LIGHTING UNITS TO IDENTIFY POLES AS SHOWN ON THIS DRAWING. SEE GENERAL NOTES SHEET FOR MORE INFORMATION.

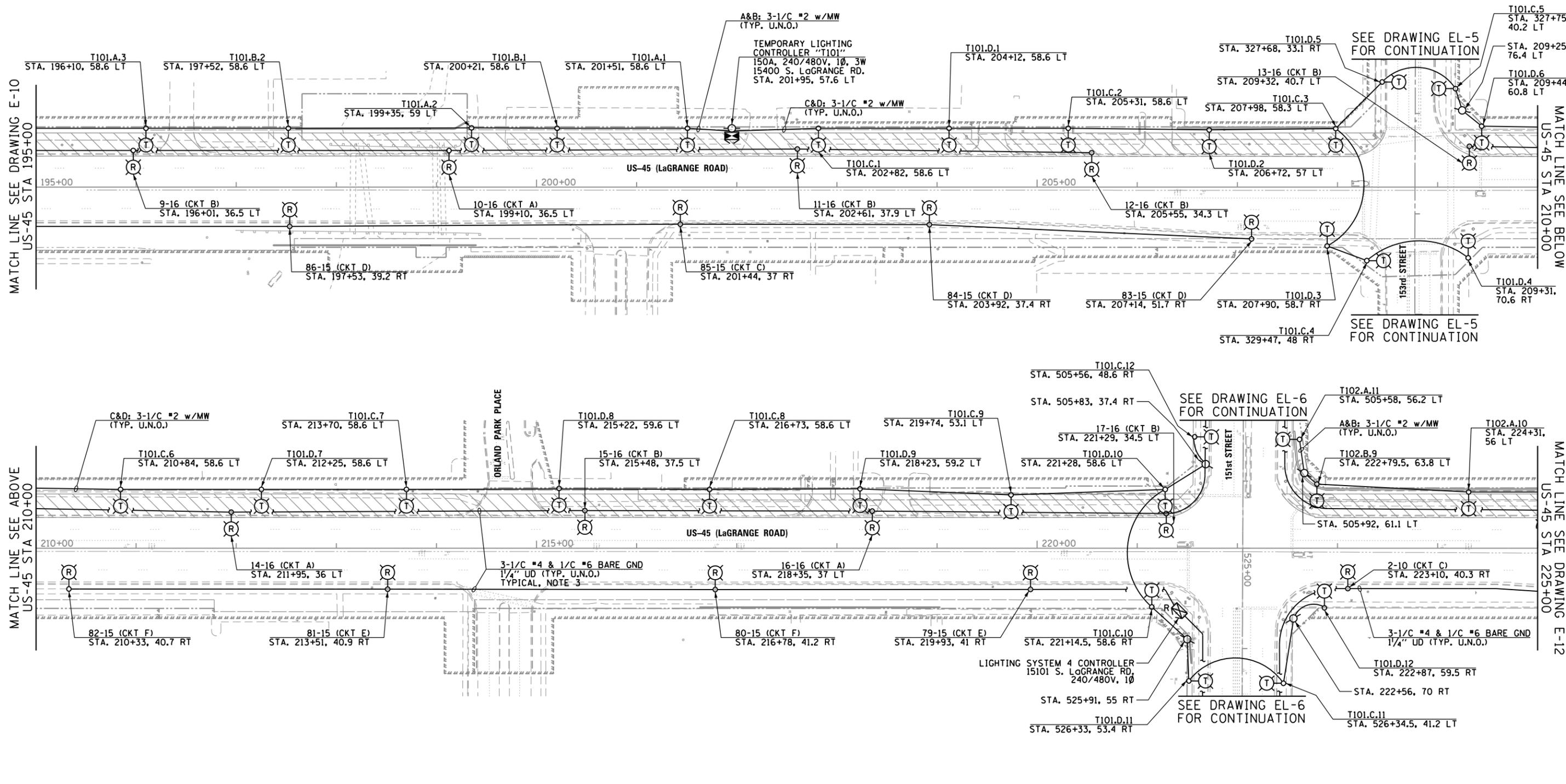
NOTES (CONTINUED)

- CONTRACTOR SHALL FIELD VERIFY CIRCUITING OF ALL EXISTING LIGHTING UNITS TO REMAIN ESPECIALLY POLES LOCATED ON SIDE STREETS EAST AND WEST OF LAGRANGE ROAD. FURNISH AND INSTALL ALL NECESSARY UNIT DUCTS, CABLES, AND CONDUITS TO PERMANENTLY WIRE AND MAINTAIN OPERATION FOR THESE LIGHT POLES ON EXISTING CIRCUITS AND POWER SOURCES.
- REPLACE ALL EXISTING LUMINAIRES ON POLES RELOCATED FROM US-45 (LAGRANGE ROAD) WITH NEW 250 WATT LUMINAIRES. ALL US-45 LIGHT POLES SHALL HAVE A 400 WATT, HPS, MC-III LUMINAIRES. ALL SIDE STREET RELOCATED POLES SHALL HAVE 250 WATT, HPS, MC-III LUMINAIRES, EXCEPT WHERE NOTED OTHERWISE ON THE PLANS. NEW 250 WATT LUMINAIRES SHALL HAVE THE SAME CATALOG NUMBER AS THE PROPOSED 400 WATT LUMINAIRES EXCEPT THAT THE BALLAST AND LAMP ARE DESIGNED FOR 250 WATT OPERATION.



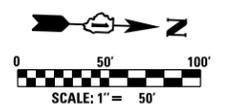
100 S. WACKER DR.
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FILE NAME = D160M61-SHT-E09.dgn	USER NAME = michal_bartusiewicz	DESIGNED - MAE	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	147th STREET & 144th PLACE PROPOSED ROADWAY LIGHTING PLAN				F.A.P. RTE. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 420
SHT-PLAN	PLOT SCALE = 100.000000' / in.	CHECKED - DAD	REVISED -		SCALE: 1"=50'	SHEET 7 OF 7 SHEETS	STA. VARIES	TO STA. VARIES	E-9				
	PLOT DATE = 3/15/2013	DATE - 03/13/2013	REVISED -		CONTRACT NO. 60M61								
ILLINOIS FED. AID PROJECT													



NOTES:

- SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
- INDICATES TEMPORARY PAVEMENT INSTALLATION LIMITS. SEE MAINTENANCE OF TRAFFIC DRAWINGS FOR CONSTRUCTION STAGING INFORMATION.
- EXISTING UNIT DUCTS, CABLE, AND CONDUITS THAT ARE NOT REMOVED AS PART OF THE GENERAL CONTRACT DEMOLITION WORK SHALL BE ABANDONED IN PLACE. IF REMOVAL OF ANY CABLES AND DUCTS IS REQUIRED, PAYMENT FOR THAT WORK SHALL BE INCLUDED IN THE "REMOVAL OF LIGHTING UNIT" PAY ITEM, AND NO SEPARATE PAYMENT WILL BE MADE.



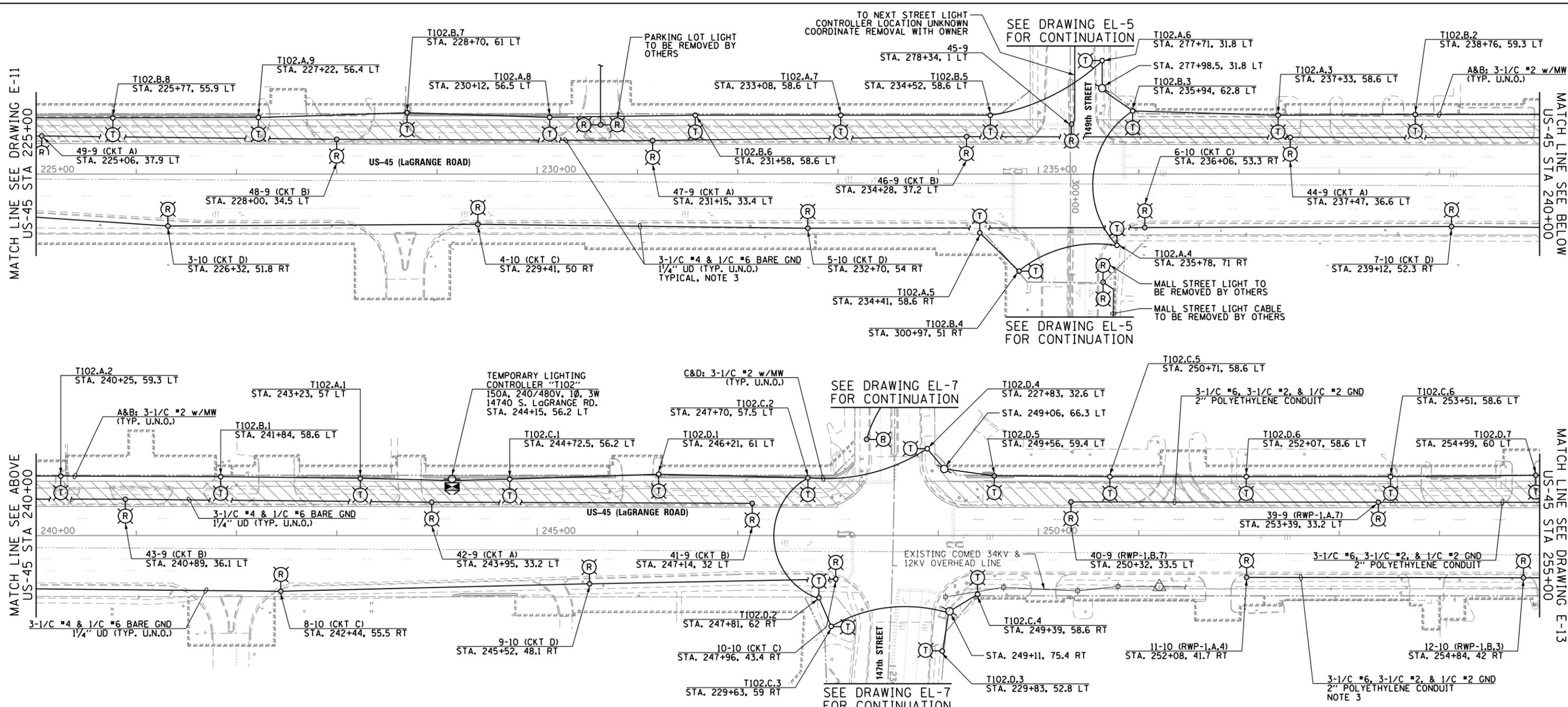
100 S. WACKER DR.
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FILE NAME = D160M61-SHT-E11.dgn	USER NAME = michel_bar_tusiewicz	DESIGNED - MAE	REVISED -
SHT_PLAN	PLOT SCALE = 100.000000' / in.	DRAWN - MAE	REVISED -
D160M61-SHT-E11.dgn 3/15/2013 2:27:03 PM	PLOT DATE = 3/15/2013	CHECKED - DAD	REVISED -
		DATE - 03/13/2013	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

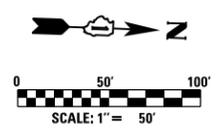
**US 45 (LaGRANGE ROAD)
 TEMPORARY LIGHTING AND DEMOLITION PLAN**
 SCALE: 1"=50' SHEET 2 OF 7 SHEETS STA. 195+00.00 TO STA. 225+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	422
E-11			CONTRACT NO.	60M61
ILLINOIS FED. AID PROJECT				



NOTES:

- SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
- INDICATES TEMPORARY PAVEMENT INSTALLATION LIMITS. SEE MAINTENANCE OF TRAFFIC DRAWINGS FOR CONSTRUCTION STAGING INFORMATION.
- EXISTING UNIT DUCTS, CABLE, AND CONDUITS THAT ARE NOT REMOVED AS PART OF THE GENERAL CONTRACT DEMOLITION WORK SHALL BE ABANDONED IN PLACE. IF REMOVAL OF ANY CABLES AND DUCTS IS REQUIRED, PAYMENT FOR THAT WORK SHALL BE INCLUDED IN THE "REMOVAL OF LIGHTING UNIT" PAY ITEM, AND NO SEPARATE PAYMENT WILL BE MADE.



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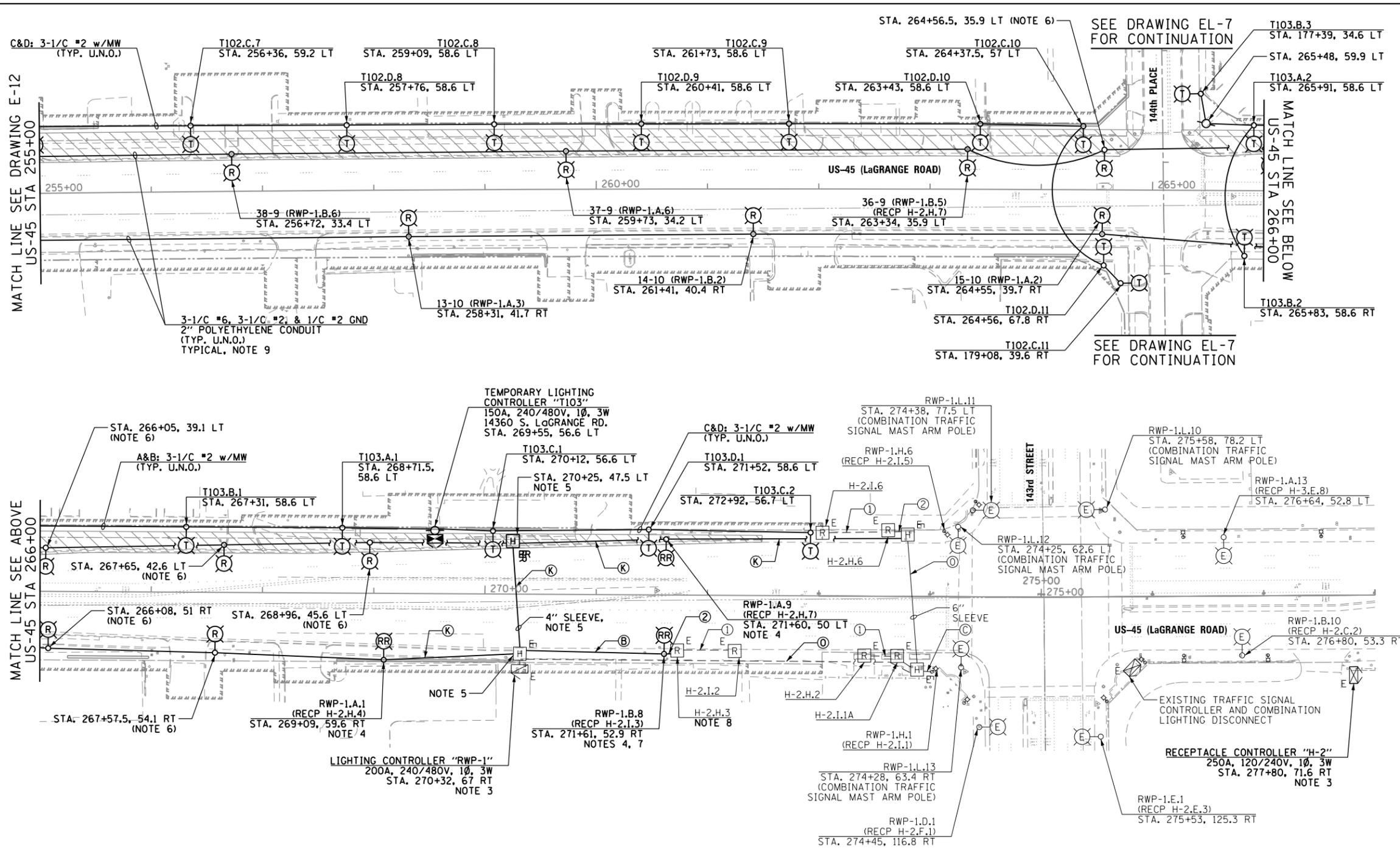


FILE NAME =	USER NAME =	DESIGNED -	REVISED -
D160M61-SHT-E12.dgn	michal_bar_tustewicz	MAE	
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		MAE	
		CHECKED -	REVISED -
		DAD	
SHT_PLAN	PLOT DATE =	DATE -	REVISED -
	3/15/2013	03/13/2013	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

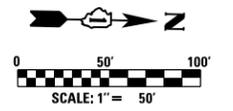
US 45 (LaGRANGE ROAD) TEMPORARY LIGHTING AND DEMOLITION PLAN			
SCALE: 1"=50'	SHEET 3 OF 7 SHEETS	STA. 225+00.00 TO STA. 255+00.00	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	423
E-12			CONTRACT NO.	60M61
ILLINOIS FED. AID PROJECT				



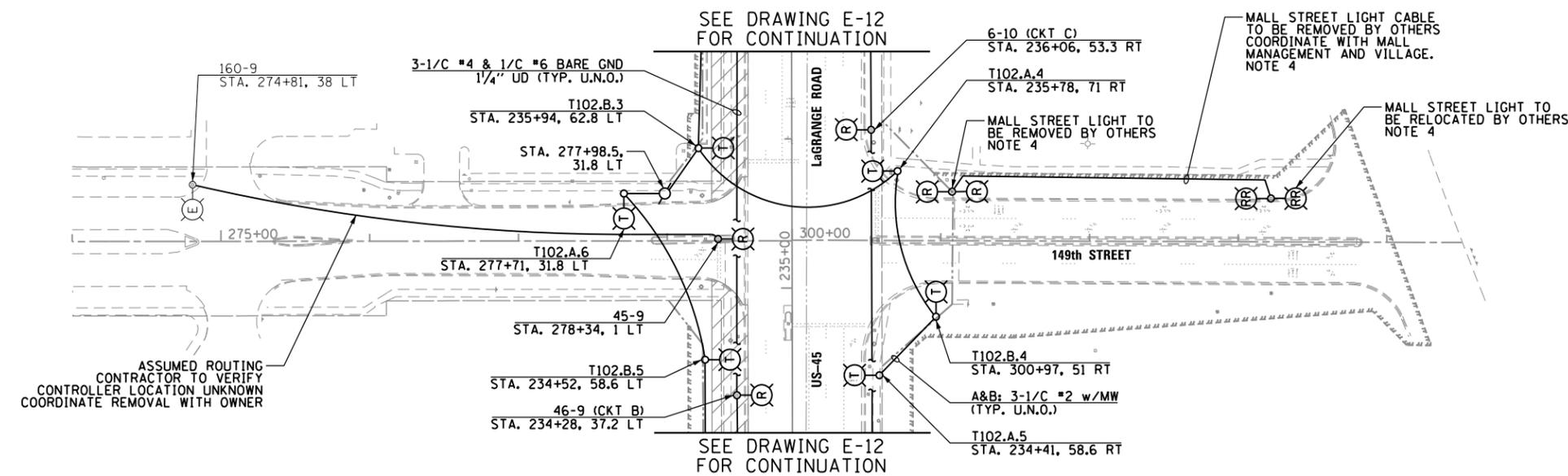
- NOTES:**
- SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
 - INDICATES TEMPORARY PAVEMENT INSTALLATION LIMITS. SEE MAINTENANCE OF TRAFFIC DRAWINGS FOR CONSTRUCTION STAGING INFORMATION.
 - CONTRACTOR MUST DEENERGIZE THE SERVICE FEED TO BOTH CONTROLLERS RWP-1 AND H-2 DURING THE SAME TIME BEFORE COMMENCING WITH DEMOLITION WORK PER OSHA REQUIREMENTS. CONTRACTOR MUST REENERGIZE BOTH CONTROLLERS ONCE THE ELECTRICAL ITEMS TO BE REMOVED ARE DISCONNECTED.
 - CONTRACTOR MUST CONFIRM THE DIAMETER OF BOLT CIRCLE FOR ALL EXISTING LIGHTING UNITS TO BE REMOVED AND RELOCATED.
 - THERE SHOULD BE ADDITIONAL COILED WIRE FOR FUTURE WORK (THIS PROJECT) IN THE WEST HANDHOLE (TO BE RELOCATED) NEAR STATION 270+00. IF THERE IS NOT, THE CONTRACTOR MUST REMOVE EXISTING WIRES FROM CONDUIT BACK TO EXISTING HANDHOLE TO REMAIN (EAST HANDHOLE NEAR STATION 270+00). CONDUIT SHALL REMAIN FOR EXTENSION TO RELOCATED HANDHOLE AS SHOWN ON DRAWING E-34.
 - CONTRACTOR SHALL REMOVE TEMPORARY POLES AND ALL ATTACHED LIGHT FIXTURES AND ARMS. THESE ITEMS ARE TO BE TURNED OVER TO THE VILLAGE OF ORLAND PARK PUBLIC WORKS DEPARTMENT.
 - CONTRACTOR MUST DISCONNECT CONDUCTORS FOR HOLIDAY TREE LIGHTING RECEPTACLE CIRCUITS FROM LOAD SIDE OF FUSES WITHIN EXISTING LIGHT POLE TO BE RELOCATED. FUSES MUST REMAIN WITHIN EXISTING POLE FOR RECONNECTION TO HOLIDAY TREE LIGHTING RECEPTACLES AS SHOWN ON DRAWING E-20.
 - DISCONNECT CONDUIT FROM EXISTING HOLIDAY TREE LIGHTING RECEPTACLE AND SEAL OFF ALL OPENINGS. THIS WORK WILL BE PAID UNDER THE "REMOVE AND RELOCATE EXISTING LIGHT STANDARD" PAY ITEM. SEPARATE PAYMENT WILL NOT BE MADE.
 - EXISTING UNIT DUCTS, CABLE, AND CONDUITS THAT ARE NOT REMOVED AS PART OF THE GENERAL CONTRACT DEMOLITION WORK SHALL BE ABANDONED IN PLACE. IF REMOVAL OF CABLES AND DUCTS IS REQUIRED, PAYMENT FOR THAT WORK SHALL BE INCLUDED IN THE "REMOVAL OF LIGHTING UNIT" PAY ITEM, AND NO SEPARATE PAYMENT WILL BE MADE.

- EXISTING CONDUIT AND WIRE LEGEND**
- ⓑ 2-1/C #6, 2-1/C #10, & 1-1/C #6 GND WIRE 600V (XLP-TYPE-USE) 1/2" POLYETHYLENE CONDUIT
 - ⓒ 3-1/C #6, 3-1/C #10, & 1-1/C #6 GND WIRE 600V (XLP-TYPE-USE) 1/2" POLYETHYLENE CONDUIT
 - Ⓚ 3-1/C #6, 3-1/C #2, & 1-1/C #2 GND WIRE 600V (XLP-TYPE-USE) 2" POLYETHYLENE CONDUIT
 - Ⓛ 13-1/C #6, 3-1/C #2, & 1-1/C #2 GND WIRE 600V (XLP-TYPE-USE) 3" POLYETHYLENE CONDUIT
 - ① 2-1/C #10 & 1-1/C #10 GND WIRE 600V (XLP-TYPE-USE) 3/4" POLYETHYLENE CONDUIT
 - ② 3-1/C #10 & 1-1/C #10 GND WIRE 600V (XLP-TYPE-USE) 3/4" POLYETHYLENE CONDUIT



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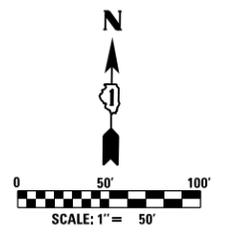
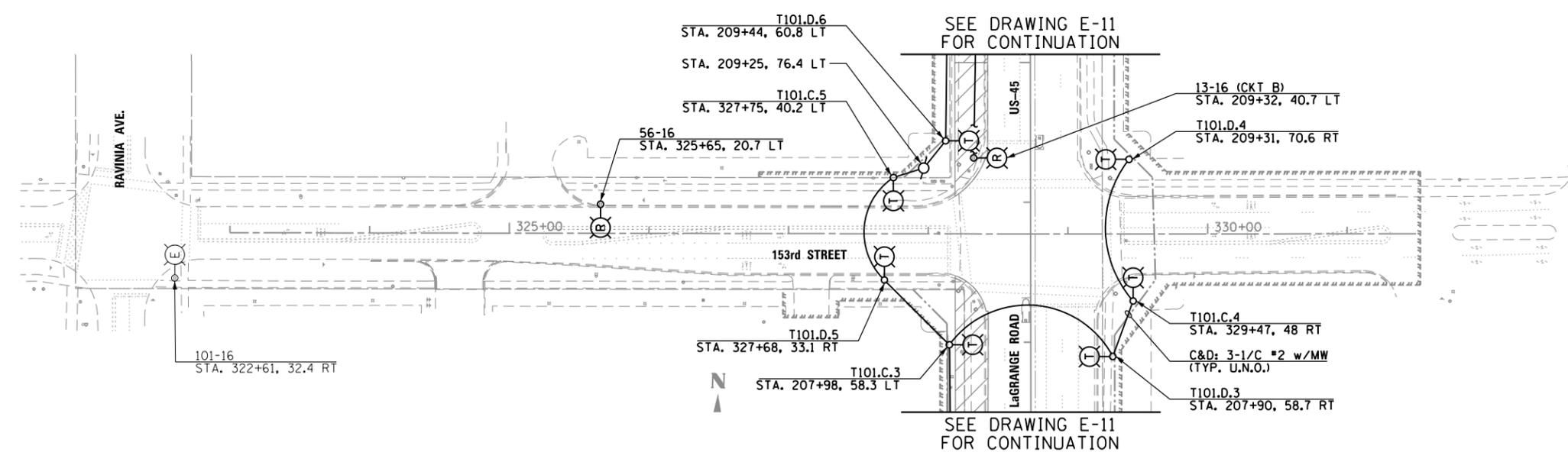
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SHT_PLAN	PLOT SCALE = 100.000000' / in.	CHECKED - DAD	REVISED -			330	103R-4	COOK	877	424	
D160M61-SHT-E13.dgn 3/15/2013 2:27:05 PM	PLOT DATE = 3/15/2013	DATE - 03/13/2013	REVISED -			E-13		CONTRACT NO. 60M61		ILLINOIS FED. AID PROJECT	
						SCALE: 1"=50'	SHEET 4 OF 7 SHEETS	STA. 255+00.00 TO STA. 278+00.00			



ASSUMED ROUTING
CONTRACTOR TO VERIFY
CONTROLLER LOCATION UNKNOWN
COORDINATE REMOVAL WITH OWNER

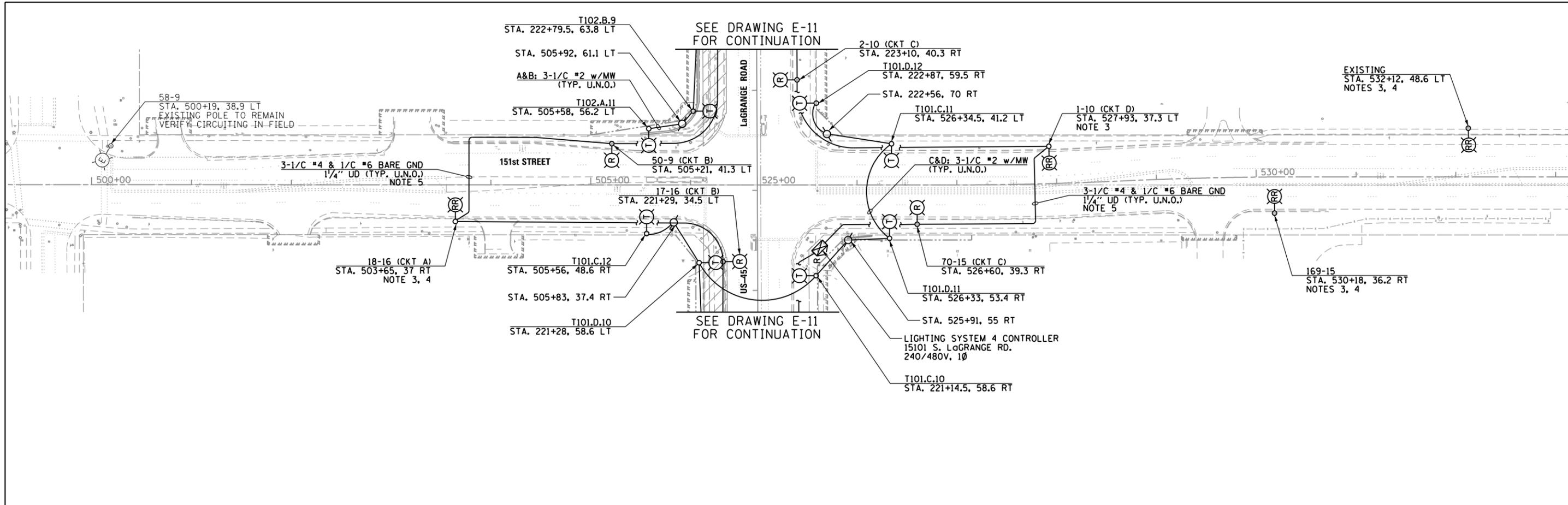
NOTES:

- SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
- INDICATES TEMPORARY PAVEMENT INSTALLATION LIMITS. SEE MAINTENANCE OF TRAFFIC DRAWINGS FOR CONSTRUCTION STAGING INFORMATION.
- EXISTING UNIT DUCTS, CABLE, AND CONDUITS THAT ARE NOT REMOVED AS PART OF THE GENERAL CONTRACT DEMOLITION WORK SHALL BE ABANDONED IN PLACE. IF REMOVAL OF ANY CABLES AND DUCTS IS REQUIRED, PAYMENT FOR THAT WORK SHALL BE INCLUDED IN THE "REMOVAL OF LIGHTING UNIT" PAY ITEM, AND NO SEPARATE PAYMENT WILL BE MADE.
- CONTRACTOR SHALL COORDINATE WITH MALL MANAGEMENT AND THE VILLAGE OF ORLAND PARK. MAKE SURE REMOVAL OF POLES IS COORDINATED WITH CONSTRUCTION STAGING FOR US45 AND 149TH STREET TO MINIMIZE DOWN TIME FOR THE LIGHT POLES IN CONFLICT WITH CONSTRUCTION.
- CONTRACTOR SHALL REMOVE 40' POLES FROM LaGRANGE ROAD AND RELOCATE THEM TO THE SIDE STREETS. AFTER EXISTING STOCK OF 40' POLES IS DEPLETED, THEN SHORTER POLES CAN BE RELOCATED TO SIDE STREETS AWAY FROM LaGRANGE ROAD, IF NEEDED, AS SHOWN ON THE PLANS.



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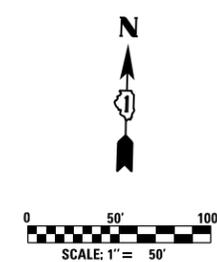
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SHT_PLAN	PLOT SCALE = 100.000000' / in.	CHECKED - DAD	REVISED -		SCALE: 1"=50'	SHEET	5 OF 7 SHEETS	STA.	TO STA.	330	103R-4	COOK	877 425
DT60M61-SHT-E14.dgn 3/15/2013 2:27:05 PM	PLOT DATE = 3/15/2013	DATE - 03/13/2013	REVISED -		E-14		CONTRACT NO. 60M61		ILLINOIS FED. AID PROJECT				



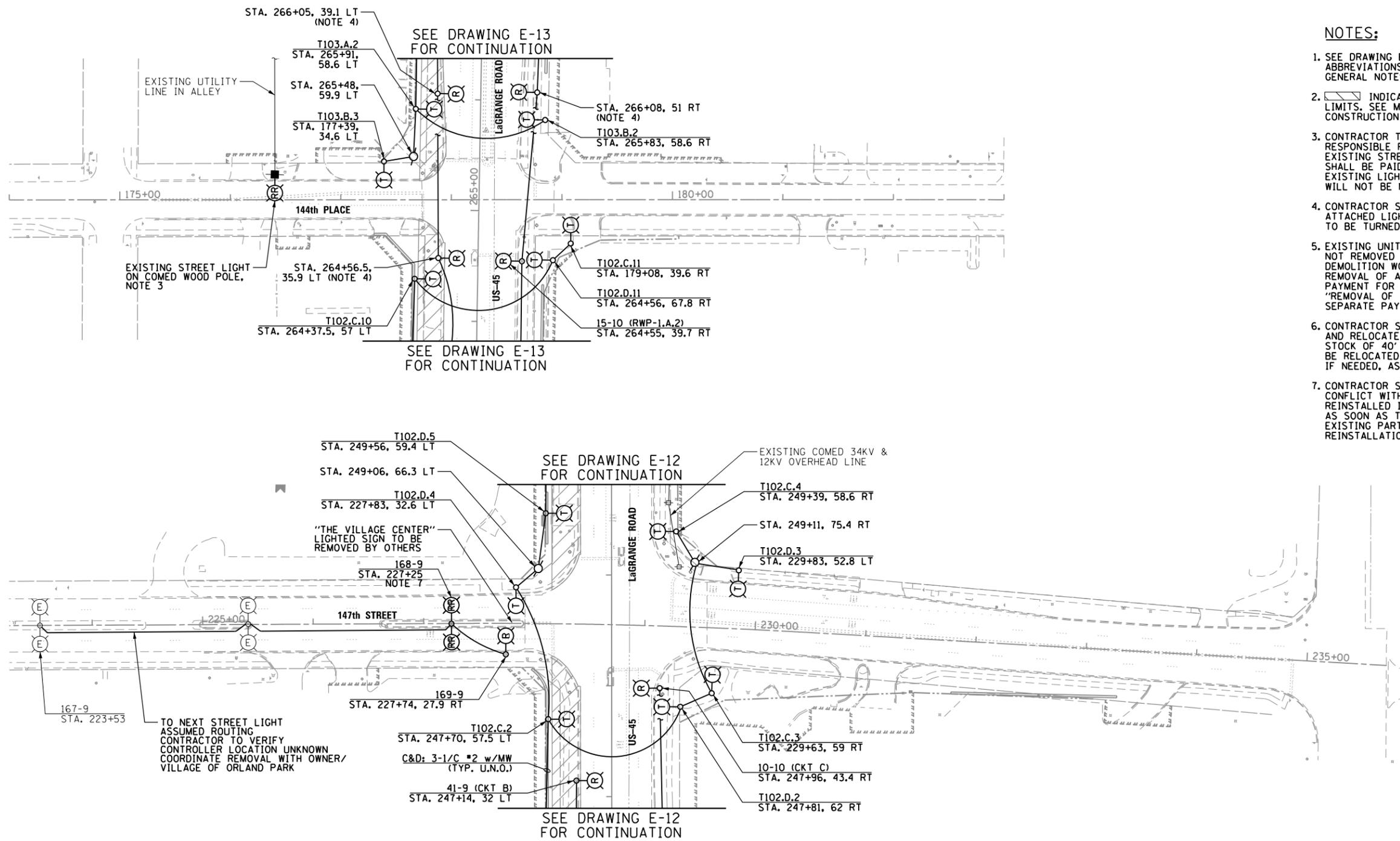
NOTES:

1. SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
2.  INDICATES TEMPORARY PAVEMENT INSTALLATION LIMITS. SEE MAINTENANCE OF TRAFFIC DRAWINGS FOR CONSTRUCTION STAGING INFORMATION.
3. CONTRACTOR MUST CONFIRM THE BOLT CIRCLE DIAMETER FOR ALL EXISTING LIGHTING UNITS TO BE REMOVED AND RELOCATED PRIOR TO REMOVAL OF EXISTING POLE AND CONCRETE FOUNDATION.
4. CONTRACTOR MUST COORDINATE THE REMOVAL AND REINSTALLATION OF LIGHT POLE WITH THE PROPOSED RECONSTRUCTION OF 151st STREET AND WITH THE OWNER. SEE MAINTENANCE OF TRAFFIC DRAWINGS FOR LaGRANGE ROAD CONSTRUCTION AND 151st STREET STAGING PLANS. CONTRACTOR TO DISCONNECT POWER SOURCE AT NEXT LIGHT POLE EAST OF POLE TO BE RELOCATED. THIS WORK SHALL BE PAID FOR UNDER THE "REMOVE AND RELOCATE EXISTING LIGHT STANDARD" AND THE "REMOVAL OF POLE FOUNDATION" PAY ITEMS. SEPARATE PAYMENT WILL NOT BE MADE.
5. EXISTING UNIT DUCTS, CABLE, AND CONDUITS THAT ARE NOT REMOVED AS PART OF THE GENERAL CONTRACT DEMOLITION WORK SHALL BE ABANDONED IN PLACE. IF REMOVAL OF ANY CABLES AND DUCTS IS REQUIRED, PAYMENT FOR THAT WORK SHALL BE INCLUDED IN THE "REMOVAL OF LIGHTING UNIT" PAY ITEM, AND NO SEPARATE PAYMENT WILL BE MADE.
6. CONTRACTOR SHALL REMOVE 40' POLES FROM LaGRANGE AND RELOCATE THEM TO THE SIDE STREETS. AFTER EXISTING STOCK OF 40' POLES IS DEPLETED, THEN SHORTER POLES CAN BE RELOCATED TO SIDE STREETS AWAY FROM LaGRANGE ROAD, IF NEEDED, AS SHOWN ON THE PLANS.

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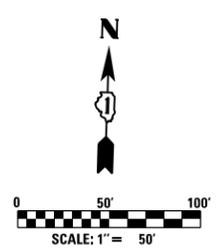
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SHT_PLAN	PLOT SCALE = 100.000000' / in.	DRAWN - MAE	REVISED -					330	103R-4	COOK	877	426
DT60M61-SHT-E15.dgn 3/15/2013 2:27:06 PM	PLOT DATE = 3/15/2013	CHECKED - DAD	REVISED -		E-15			CONTRACT NO. 60M61				
	DATE = 03/13/2013	REVISIONS -	REVISED -		SCALE: 1"=50'	SHEET 6 OF 7 SHEETS	STA. 498+50.00 TO STA. 531+50.00	ILLINOIS FED. AID PROJECT				



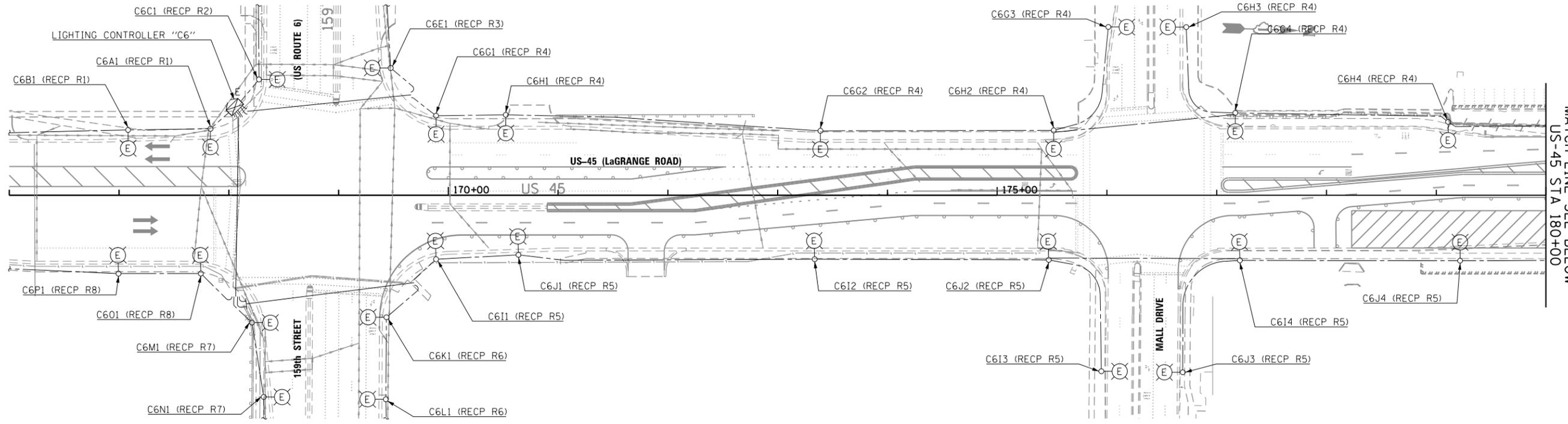
NOTES:

1. SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
2. [Symbol] INDICATES TEMPORARY PAVEMENT INSTALLATION LIMITS. SEE MAINTENANCE OF TRAFFIC DRAWINGS FOR CONSTRUCTION STAGING INFORMATION.
3. CONTRACTOR TO COORDINATE WITH COMED AS TO WHO IS RESPONSIBLE FOR DISCONNECTING AND REMOVING THE EXISTING STREET LIGHT FROM COMED POLE. THIS WORK SHALL BE PAID UNDER THE "REMOVE AND RELOCATE EXISTING LIGHT STANDARD" PAY ITEM. SEPARATE PAYMENT WILL NOT BE MADE.
4. CONTRACTOR SHALL REMOVE TEMPORARY POLES AND ALL ATTACHED LIGHT FIXTURES AND ARMS. THESE ITEMS ARE TO BE TURNED OVER TO THE VILLAGE OF ORLAND PARK.
5. EXISTING UNIT DUCTS, CABLE, AND CONDUITS THAT ARE NOT REMOVED AS PART OF THE GENERAL CONTRACT DEMOLITION WORK SHALL BE ABANDONED IN PLACE. IF REMOVAL OF ANY CABLES AND DUCTS IS REQUIRED, PAYMENT FOR THAT WORK SHALL BE INCLUDED IN THE "REMOVAL OF LIGHTING UNIT" PAY ITEM, AND NO SEPARATE PAYMENT WILL BE MADE.
6. CONTRACTOR SHALL REMOVE 40' POLES FROM LaGRANGE AND RELOCATE THEM TO THE SIDE STREETS. AFTER EXISTING STOCK OF 40' POLES IS DEPLETED, THEN SHORTER POLES CAN BE RELOCATED TO SIDE STREETS AWAY FROM LaGRANGE ROAD, IF NEEDED, AS SHOWN ON THE PLANS.
7. CONTRACTOR SHALL REMOVE THIS TWIN ARM POLE DUE TO CONFLICT WITH CONSTRUCTION ACTIVITIES, AND SHALL BE REINSTALLED IN THE SAME LOCATION, ON A NEW FOUNDATION, AS SOON AS THE CONFLICT HAS BEEN ELIMINATED. KEEP ALL EXISTING PARTS INCLUDING LUMINAIRES WITH POLE FOR REINSTALLATION.

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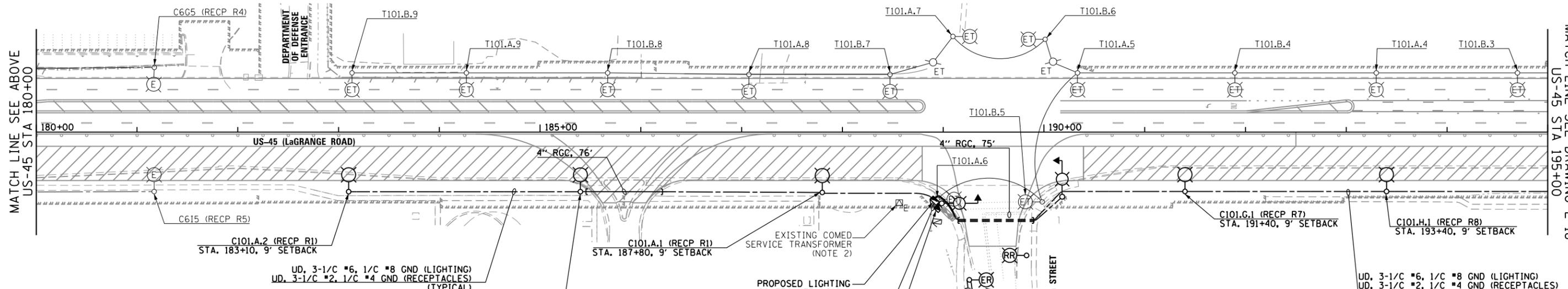
FILE NAME = D160M61-SHT-E16.dgn	USER NAME = michel_bar_tustewicz	DESIGNED - MAE	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	147th STREET & 144th PLACE TEMPORARY LIGHTING AND DEMOLITION PLAN	F.A.P. RTE. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 427		
SHT.PLAN	PLOT SCALE = 100.000000' / in.	CHECKED - DAD	REVISED -			SCALE: 1"=50'	SHEET 7 OF 7 SHEETS	STA. BEGIN	TO STA. END	E-16 CONTRACT NO. 60M61 <small>ILLINOIS FED. AID PROJECT</small>		
D160M61-SHT-E16.dgn 3/15/2013 2:27:07 PM	PLOT DATE = 3/15/2013	DATE - 03/13/2013	REVISED -									



MATCH LINE SEE BELOW
US-45 STA 180+00

MATCH LINE SEE ABOVE
US-45 STA 180+00

MATCH LINE SEE DRAWING E-18
US-45 STA 195+00



NOTES:

- SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
- PROPOSED COMED SERVICE TRANSFORMER AND SERVICE CONDUCTORS SHALL BE INSTALLED AT THE DISCRETION OF COMED AND THE ENGINEER. CONTRACTOR MUST COORDINATE WITH COMED TO IDENTIFY THE SERVICE RATINGS AND OTHER LOADS OF THE EXISTING SERVICE TRANSFORMER. IF POSSIBLE, CONTRACTOR SHALL CONNECT THE PROPOSED LIGHTING CONTROLLER "C101" TO EXISTING TRANSFORMER, OR COORDINATE WITH COMED TO REPLACE THE EXISTING SERVICE TRANSFORMER WITH NEW TRANSFORMER OF THE APPROPRIATE SERVICE RATINGS. THIS WORK SHALL BE PAID FOR UNDER THE "ELECTRIC UTILITY SERVICE CONNECTION" PAY ITEM. SEPARATE PAYMENT WILL NOT BE MADE. REFER TO DRAWING E-60 FOR PROPOSED SERVICE INSTALLATION DETAILS IF PROPOSED COMED SERVICE TRANSFORMER IS REQUIRED.
- SEE DETAIL DRAWING FOR PROPOSED LIGHTING UNIT DETAILS. SEE IDOT STANDARD DRAWING BE-301 FOR PROPOSED LIGHTING UNIT FOUNDATION DETAILS.
- CONTRACTOR SHALL VERIFY ALL EXISTING WIRING TO EXISTING POLES IN THE FIELD, AND MAKE ANY NECESSARY ADJUSTMENTS TO MAKE SURE EXISTING AND RELOCATED POLES ARE WIRED TO THE SAME CONTROLLER AND ON THE SAME CIRCUITS AS EXISTING, UNLESS OTHERWISE SPECIFIED. SEE SHEET E-3 FOR MORE INFORMATION.

UD, 3-1/C #6, 1/C #8 GND (LIGHTING)
UD, 3-1/C #2, 1/C #4 GND (RECEPTACLES)
(TYPICAL)

PROPOSED LIGHTING CONTROLLER "C101"
200A, 240/480V, 1Ø, 3W
15601 S. LaGRANGE RD,
STA. 188+40, 70 RT
(NOTE 2)

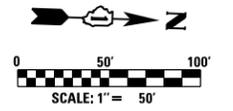
PROPOSED COMED ELECTRIC SERVICE TRANSFORMER
240/480V, 1Ø
(NOTE 2)

EXISTING LOWES DEVELOPMENT LIGHTING CONTROLLER TO REMAIN, SEE SHEET E-3

EXISTING LIGHT POLE RELOCATED FROM OPPOSITE SIDE DUE TO LACK OF SPACE. VERIFY WIRING IN THE FIELD, AND RECONNECT TO EXISTING CIRCUIT

EXISTING VILLAGE OF ORLAND PARK LIGHTING CONTROLLER TO REMAIN, NOTE 4

VERIFY WIRING IN THE FIELD FURNISH AND INSTALL CONDUIT AND UNIT DUCT AS NEEDED
NOTE 4



100 S. WACKER DR.
100 S. WACKER DR.
CHICAGO, IL 60606
TEL (312) 939-1000
FAX (312) 939-4998
URS

FILE NAME =	USER NAME =	DESIGNED -	REVISED -
D160M61-SHT-E17.dgn	michal_bar_tusiewicz	MAE	
		DRAWN -	REVISED -
		MAE	
		CHECKED -	REVISED -
		DAD	
SHT.PLAN	PLOT DATE =	DATE -	REVISED -
	3/15/2013	03/13/2013	

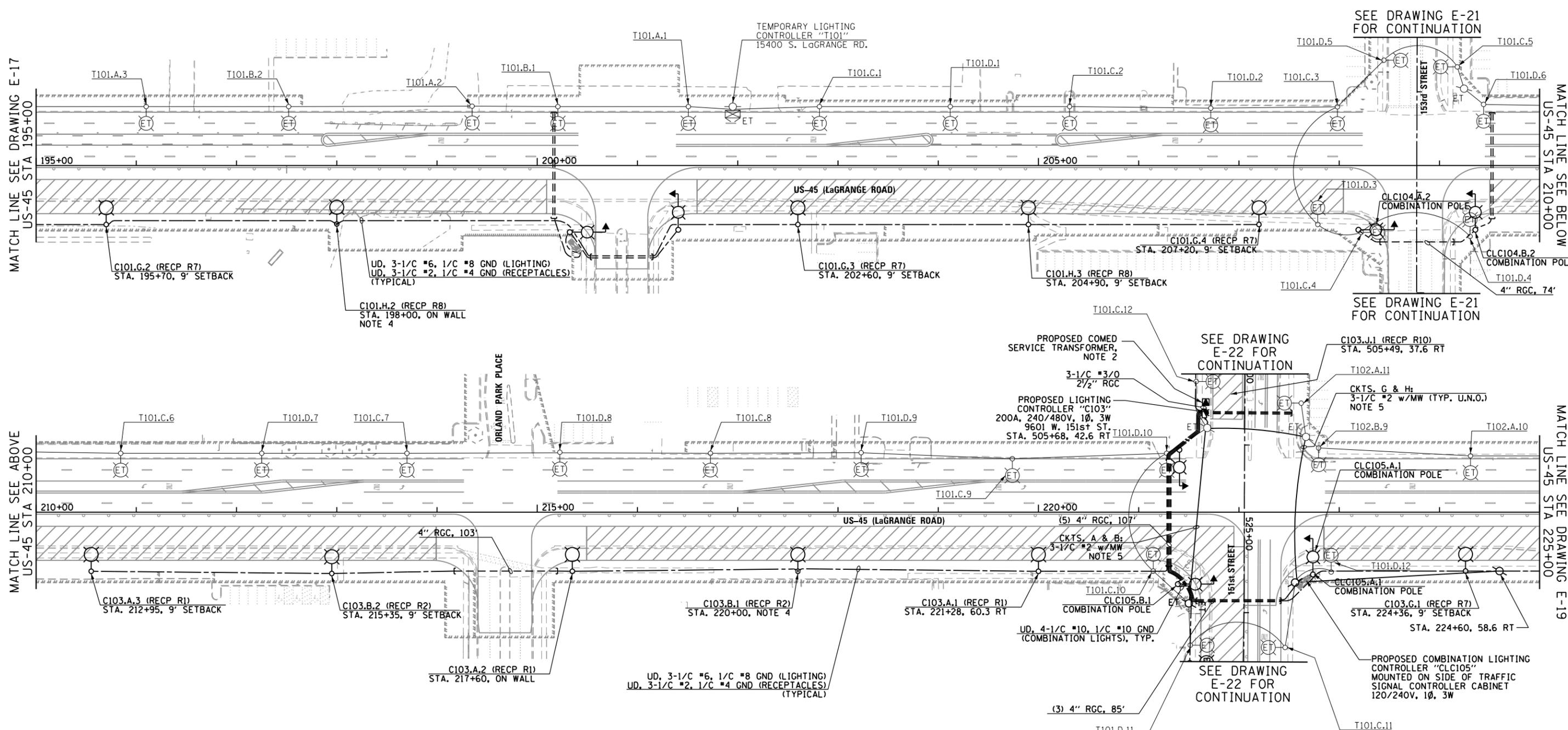
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**US 45 (LaGRANGE ROAD)
TEMPORARY ROADWAY LIGHTING PLAN - STAGE 1A**

SCALE: 1"=50' SHEET 1 OF 7 SHEETS STA. BEGIN TO STA. 195+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	428
E-17			CONTRACT NO. 60M61	
ILLINOIS FED. AID PROJECT				

D160M61-SHT-E17.dgn 3/15/2013 2:27:08 PM



NOTES:

- SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
- CONTRACTOR MUST ROUTE CONDUIT FROM A LOCATION SPECIFIED BY COMED TO THE PRIMARY SIDE OF THE PROPOSED SERVICE TRANSFORMER. CONDUIT MATERIAL AND SIZE TO BE DETERMINED BY COMED, AND PAID FOR UNDER THE "ELECTRIC UTILITY SERVICE CONNECTION" PAY ITEM. SEPARATE PAYMENT WILL NOT BE MADE.
- SEE DETAIL DRAWING FOR PROPOSED LIGHTING UNIT DETAILS. SEE IDOT STANDARD DRAWING BE-301 FOR PROPOSED LIGHTING UNIT FOUNDATION DETAILS, UNLESS NOTED OTHERWISE.
- SEE DRAWING E-59 FOR PROPOSED RETAINING WALL MOUNTED LIGHTING UNIT INSTALLATION DETAILS.
- CONTRACTOR MUST RUN TEMPORARY AERIAL CABLE TO COMPLETE LIGHTING CIRCUITS A, B, G, AND H. 3-1/C #2 & 1/C #4 GROUND ELECTRIC CABLE ASSEMBLY SHALL BE USED FOR TEMPORARY UNDERGROUND AND VERTICAL RUNS ALONG WOOD POLES AS SHOWN ON DRAWING E-67. THE COST OF THIS WORK SHALL BE INCLUDED IN THE "ELECTRIC CABLE ASSEMBLY IN TRENCH, 600V (EPR-TYPE TC) 3-1/C NO. 2 AND NO. 4 GROUND" AND THE "AERIAL CABLE, 3-1/C NO. 2 WITH MESSENGER WIRE" PAY ITEMS. SEPARATE PAYMENT WILL NOT BE MADE. RECEPTACLE CIRCUITS SHALL NOT BE ENERGIZED BY TEMPORARY MEANS.
- CONTRACTOR TO FURNISH AND INSTALL (3) 3/2" x 36" RADIUS PVC CONDUIT RACEWAY ELBOWS IN FOUNDATION PER IDOT STANDARD DRAWING BE-301.

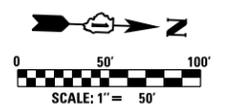
100 S. WACKER DR.
 CHICAGO, IL 60606
 TEL (312) 939-1000
 FAX (312) 939-4998
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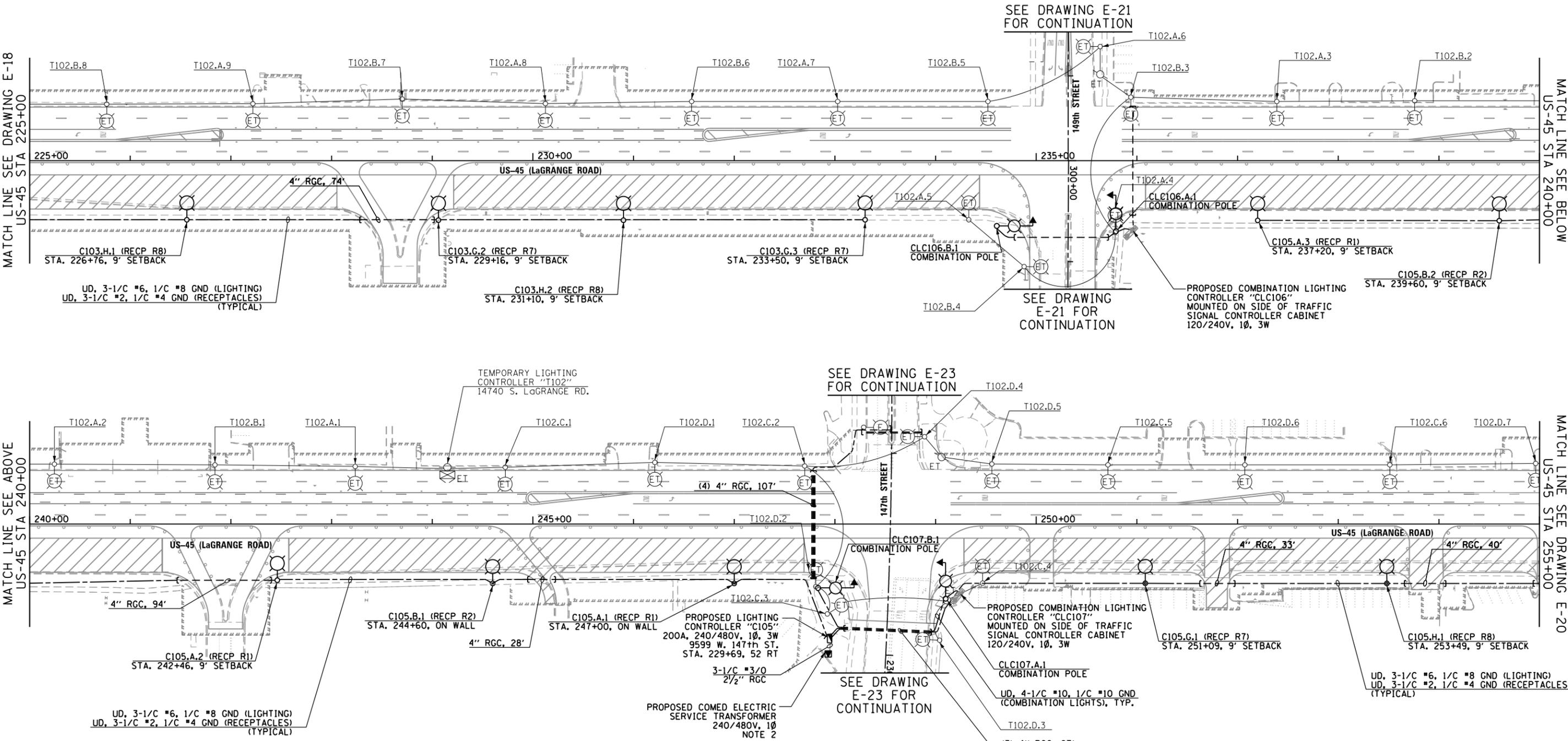
FILE NAME =	USER NAME =	DESIGNED -	REVISED -
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		MAE	
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		DATE -	REVISED -
		03/13/2013	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

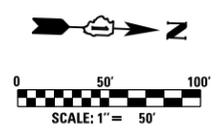
US 45 (LaGRANGE ROAD)
TEMPORARY ROADWAY LIGHTING PLAN - STAGE 1A
 SCALE: 1"=50' SHEET 2 OF 7 SHEETS STA. 195+00.00 TO STA. 225+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	429
E-18			CONTRACT NO.	60M61
ILLINOIS FED. AID PROJECT				





- NOTES:**
- SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
 - CONTRACTOR MUST ROUTE CONDUIT FROM A LOCATION SPECIFIED BY COMED TO THE PRIMARY SIDE OF THE PROPOSED SERVICE TRANSFORMER. CONDUIT MATERIAL AND SIZE TO BE DETERMINED BY COMED, AND PAID FOR UNDER THE "ELECTRIC UTILITY SERVICE CONNECTION" PAY ITEM. SEPARATE PAYMENT WILL NOT BE MADE.
 - SEE DETAIL DRAWING FOR PROPOSED LIGHTING UNIT DETAILS. SEE IDOT STANDARD DRAWING BE-301 FOR PROPOSED LIGHTING UNIT FOUNDATION DETAILS.



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 100 S. WACKER DR.
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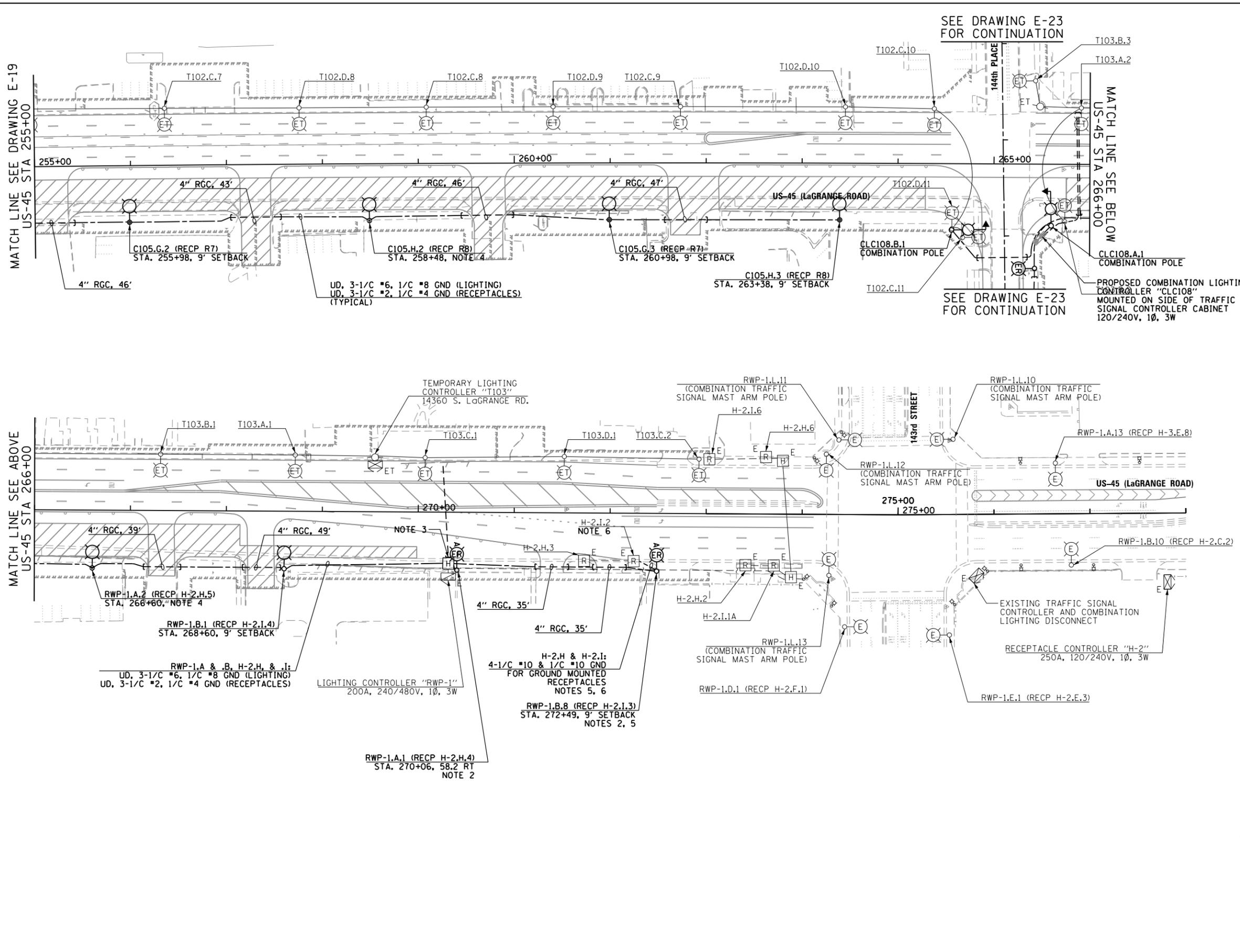
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		MAE	
		CHECKED -	REVISED -
		DAD	
SHT.PLAN	PLOT DATE =	DATE -	REVISED -
	3/15/2013	03/13/2013	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

US 45 (LaGRANGE ROAD)
TEMPORARY ROADWAY LIGHTING PLAN - STAGE 1A

SCALE: 1"=50' SHEET 3 OF 7 SHEETS STA. 225+00.00 TO STA. 255+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	430
E-19			CONTRACT NO.	60M61
ILLINOIS FED. AID PROJECT				



SEE DRAWING E-23 FOR CONTINUATION

SEE DRAWING E-23 FOR CONTINUATION

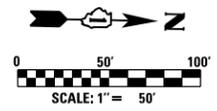
MATCH LINE SEE DRAWING E-19
US-45 STA 255+00

MATCH LINE SEE BELOW
US-45 STA 266+00

MATCH LINE SEE ABOVE
US-45 STA 266+00

NOTES:

- SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
- CONTRACTOR MUST REINSTALL EXISTING LIGHTING UNIT ON NEW POLE FOUNDATION WITH THE SAME BOLT CIRCLE DIAMETER AS WAS DETERMINED PER NOTE 4 ON DRAWING E-13. SEE IDOT STANDARD DRAWING BE-301 FOR PROPOSED LIGHTING UNIT FOUNDATION DETAILS. FOUNDATION WILL BE PAID FOR UNDER THE "LIGHT POLE FOUNDATION, 24" DIAMETER" PAY ITEM. SEPARATE PAYMENT WILL NOT BE MADE.
- CONTRACTOR MUST DEENERGIZE THE SERVICE FEED TO BOTH CONTROLLERS RWP-1 AND H-2 DURING THE SAME TIME BEFORE SPLICING UD CONDUCTORS TO APPROPRIATE EXISTING CIRCUIT CABLES WITHIN THE EXISTING HANDHOLE. CONTRACTOR MUST REENERGIZE BOTH CONTROLLERS AS SOON AS THE ELECTRICAL ITEMS ARE INSTALLED AND CONNECTED.
- SEE DETAIL DRAWING FOR PROPOSED LIGHTING UNIT DETAILS. SEE IDOT STANDARD DRAWING BE-301 FOR PROPOSED LIGHTING UNIT FOUNDATION DETAILS.
- TRANSITION FROM 3/8" PVC CONDUIT ELBOW TO 3/4" POLYETHYLENE CONDUIT TO ROUTE CONDUCTORS FROM RELOCATED LIGHT POLE FOUNDATION TO EXISTING HOLIDAY TREE LIGHTING RECEPTACLE. PROPOSED RECEPTACLE CIRCUIT CONDUCTORS MUST BE CONNECTED TO EXISTING FUSES WITHIN LIGHT POLE TO BE RELOCATED. THIS WORK WILL BE PAID UNDER THE "REMOVE AND RELOCATE EXISTING LIGHT STANDARD" PAY ITEM. SEPARATE PAYMENT WILL NOT BE MADE.
- CONTRACTOR TO CONNECT PROPOSED CONDUIT AND WIRING TO EXISTING HOLIDAY TREE LIGHTING RECEPTACLE IN THE SAME MANNER AS EXISTING CONNECTIONS WERE MADE. THIS WORK WILL BE PAID UNDER THE "REMOVE AND RELOCATE EXISTING LIGHT STANDARD" PAY ITEM. SEPARATE PAYMENT WILL NOT BE MADE.

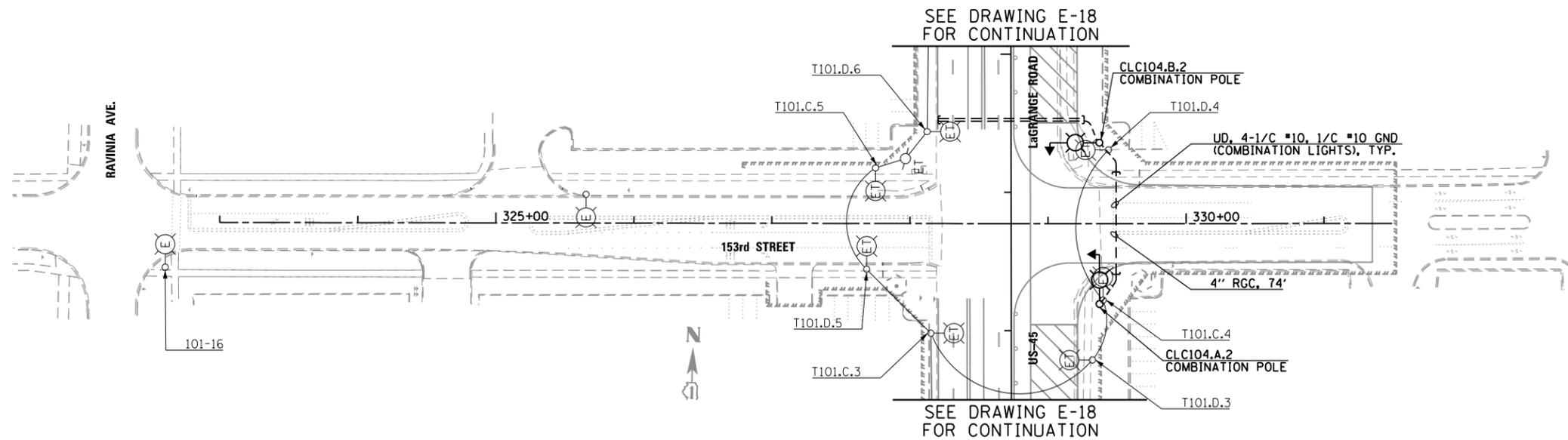
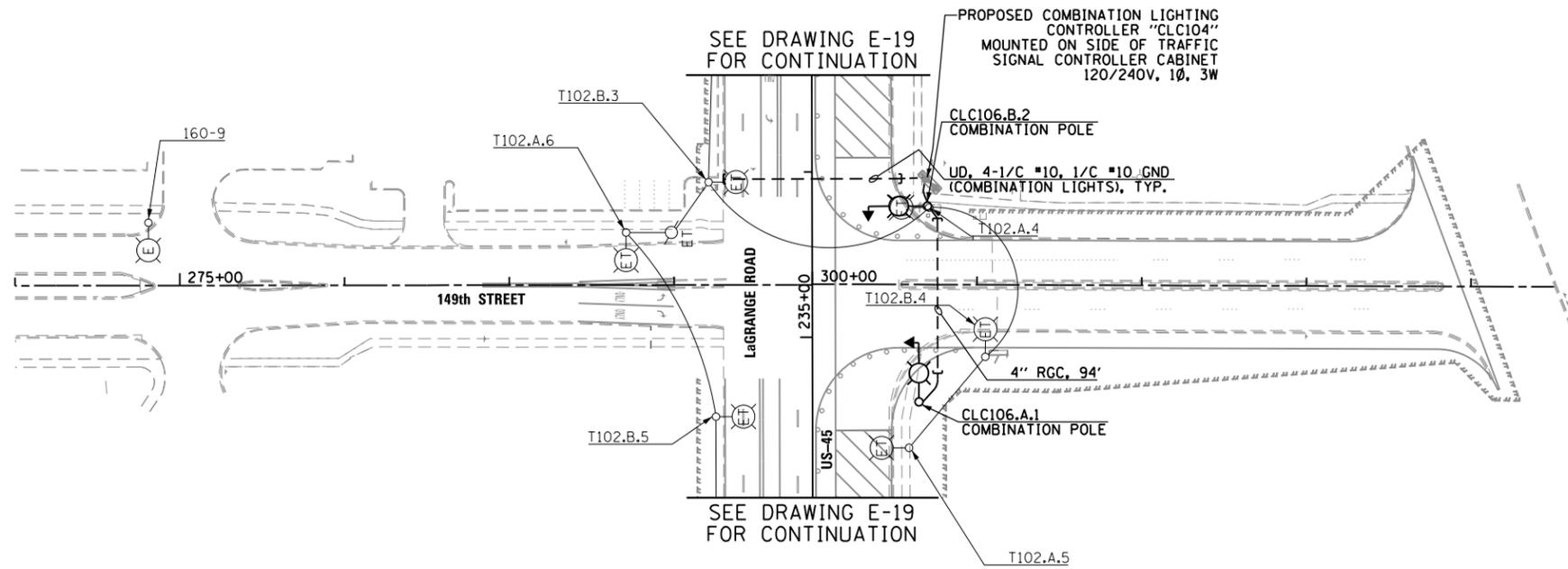


100 S. WACKER DR.
 SUITE 600
 CHICAGO, IL 60606
 TEL (312) 939-1000
 FAX (312) 939-4998
URS

FILE NAME = D160M61-SHT-E20.dgn	USER NAME = michal_bar_tustewicz	DESIGNED - MAE	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	US 45 (LaGRANGE ROAD) TEMPORARY ROADWAY LIGHTING PLAN - STAGE 1A	F.A.P. RTE. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 431	
SHT.PLAN	PLOT SCALE = 100.000000' / in.	CHECKED - DAD	REVISED -			SCALE: 1"=50'	SHEET 4 OF 7 SHEETS	STA. 255+00.00 TO STA. 278+00.00	E-20		CONTRACT NO. 60M61
PLOT DATE = 3/15/2013	DATE = 03/13/2013	REVISED -	REVISED -			ILLINOIS FED. AID PROJECT					
DT160M61-SHT-E20.dgn 3/15/2013 2:27:10 PM											

NOTES:

1. SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.



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 CHICAGO, IL 60606
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 FAX (312) 935-4198

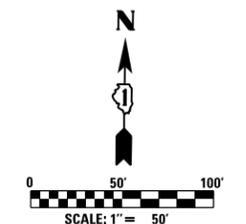
FILE NAME =	USER NAME =	DESIGNED -	REVISED -
D160M61-SHT-E21.dgn	michal_bartusiewicz	MAE	
		DRAWN -	REVISED -
		MAE	
		CHECKED -	REVISED -
		DAD	
		DATE -	REVISED -
		03/13/2013	

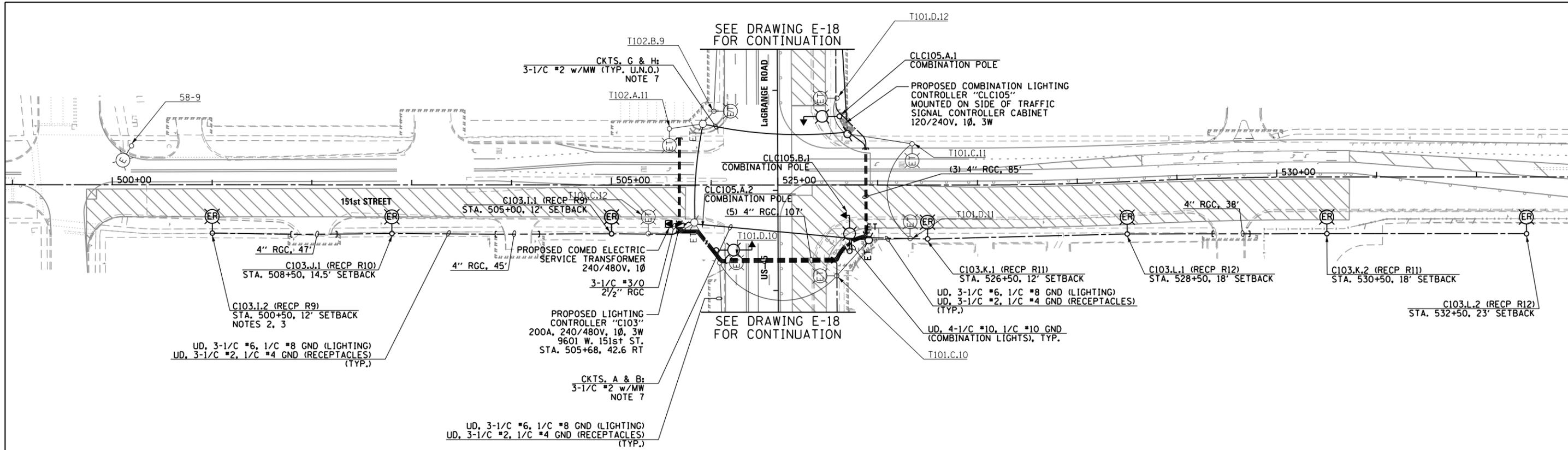
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**153rd STREET & 149th STREET
 TEMPORARY ROADWAY LIGHTING PLAN - STAGE 1A**

SCALE: 1"=50' SHEET 5 OF 7 SHEETS STA. VARIES TO STA. VARIES

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	432
E-21			CONTRACT NO. 60M61	



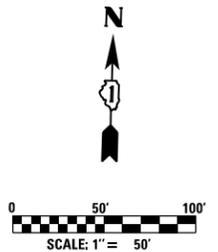


SEE DRAWING E-18 FOR CONTINUATION

SEE DRAWING E-18 FOR CONTINUATION

NOTES:

1. SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
 2. CONTRACTOR MUST ROUTE CONDUIT FROM A LOCATION SPECIFIED BY COMED TO THE PRIMARY SIDE OF THE PROPOSED SERVICE TRANSFORMER. CONDUIT MATERIAL AND SIZE TO BE DETERMINED BY COMED, AND PAID FOR UNDER THE "ELECTRIC UTILITY SERVICE CONNECTION" PAY ITEM. SEPARATE PAYMENT WILL NOT BE MADE.
 3. CONTRACTOR MUST REINSTALL EXISTING LIGHTING UNIT ON NEW POLE FOUNDATION WITH THE SAME BOLT CIRCLE DIAMETER AS WAS DETERMINED PER NOTE 3 ON DRAWING EL-6. SEE IDOT STANDARD DRAWING BE-301 FOR PROPOSED LIGHTING UNIT FOUNDATION DETAILS. FOUNDATION WILL BE PAID FOR UNDER THE "LIGHT POLE FOUNDATION, 24" DIAMETER" PAY ITEM. SEPARATE PAYMENT WILL NOT BE MADE.
 4. CONTRACTOR MUST CONFIRM THAT A 20A, 120V GFCI RECEPTACLE HAS BEEN INSTALLED AT 15'-0" ABOVE THE BASE OF EXISTING POLE TO BE RELOCATED. RECEPTACLES MUST BE INSTALLED WHERE ABSENT, AND CONNECTED TO RECEPTACLE PANEL WITHIN THE PROPOSED LIGHTING CONTROLLER "C103". SEE IDOT STANDARD BE-400 FOR PROPOSED RECEPTACLE REQUIREMENTS. THE COST OF ALL REQUIRED RECEPTACLES WILL BE INCLUDED IN THE "LIGHT POLE, ALUMINUM, 47.5 FT. M.H., 12 FT. MAST ARM" PAY ITEM. SEPARATE PAYMENT WILL NOT BE MADE.
 5. CONTRACTOR MUST CHANGE THE LIGHTING UNIT IDENTIFICATION ON THE REINSTALLED LIGHTING UNIT TO THE NEW NAME SHOWN ON THIS DRAWING.
 6. SEE DETAIL DRAWING FOR PROPOSED LIGHTING UNIT DETAILS. SEE IDOT STANDARD DRAWING BE-301 FOR PROPOSED LIGHTING UNIT FOUNDATION DETAILS.
- CONTRACTOR MUST RUN TEMPORARY AERIAL CABLE TO COMPLETE LIGHTING CIRCUITS A, B, G, AND H. 3-1/2" #2 & 1/2" #4 GROUND ELECTRIC CABLE ASSEMBLY SHALL BE USED FOR TEMPORARY UNDERGROUND AND VERTICAL RUNS ALONG WOOD POLES AS SHOWN ON DRAWING ED-8. THE COST OF THIS WORK SHALL BE INCLUDED IN THE "ELECTRIC CABLE ASSEMBLY IN TRENCH, 600V (EPR-TYPE TC) 3-1/2" NO. 2 AND NO. 4 GROUND" AND "AERIAL CABLE, 3-1/2" NO. 2 WITH MESSENGER WIRE" PAY ITEMS. SEPARATE PAYMENT WILL NOT BE MADE. RECEPTACLE CIRCUITS SHALL NOT BE ENERGIZED BY TEMPORARY MEANS.



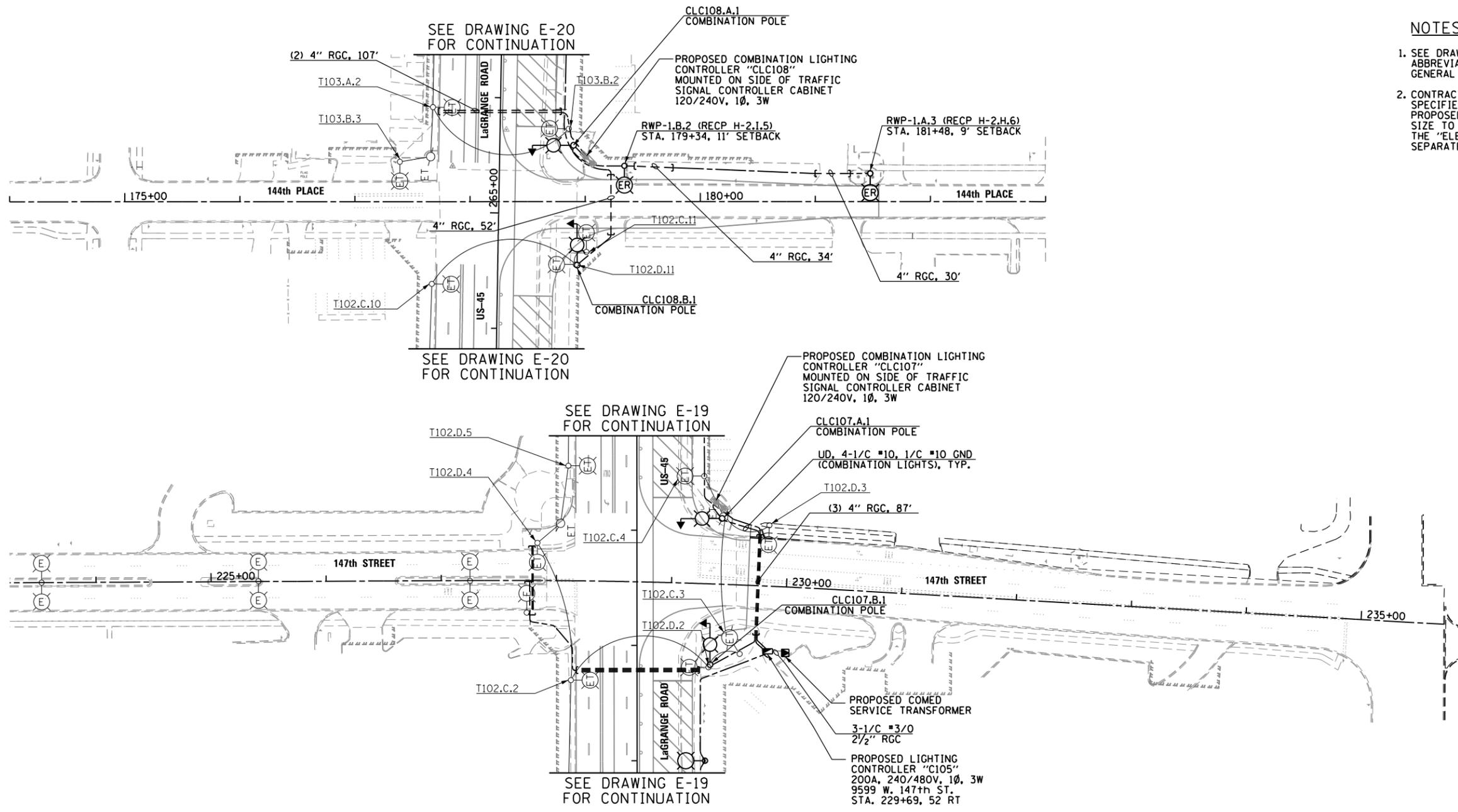
100 S. WACKER DR.
 SUITE 500
 CHICAGO, IL 60606
 TEL (312) 939-1000
 FAX (312) 939-4198
URS

FILE NAME = D160M61-SHT-E22.dgn	USER NAME = michael.barstewicz	DESIGNED - MAE	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	151st STREET TEMPORARY ROADWAY LIGHTING PLAN - STAGE 1A	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SHT_PLAN	PLOT SCALE = 100.000000' / in.	DRAWN - MAE	REVISED -			330	103R-4	COOK	877	433
	PLOT DATE = 3/15/2013	CHECKED - DAD	REVISED -			E-22		CONTRACT NO. 60M61		
		DATE - 03/13/2013	REVISED -			SCALE: 1"=50'	SHEET 6 OF 7 SHEETS	STA. 498+50.00 TO STA. 531+50.00	ILLINOIS FED. AID PROJECT	

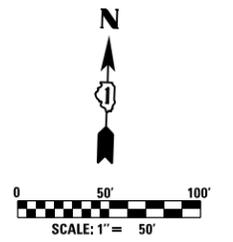
D160M61-SHT-E22.dgn 3/15/2013 2:27:11 PM

NOTES:

1. SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
2. CONTRACTOR MUST ROUTE CONDUIT FROM A LOCATION SPECIFIED BY COMED TO THE PRIMARY SIDE OF THE PROPOSED SERVICE TRANSFORMER. CONDUIT MATERIAL AND SIZE TO BE DETERMINED BY COMED, AND PAID FOR UNDER THE "ELECTRIC UTILITY SERVICE CONNECTION" PAY ITEM. SEPARATE PAYMENT WILL NOT BE MADE.

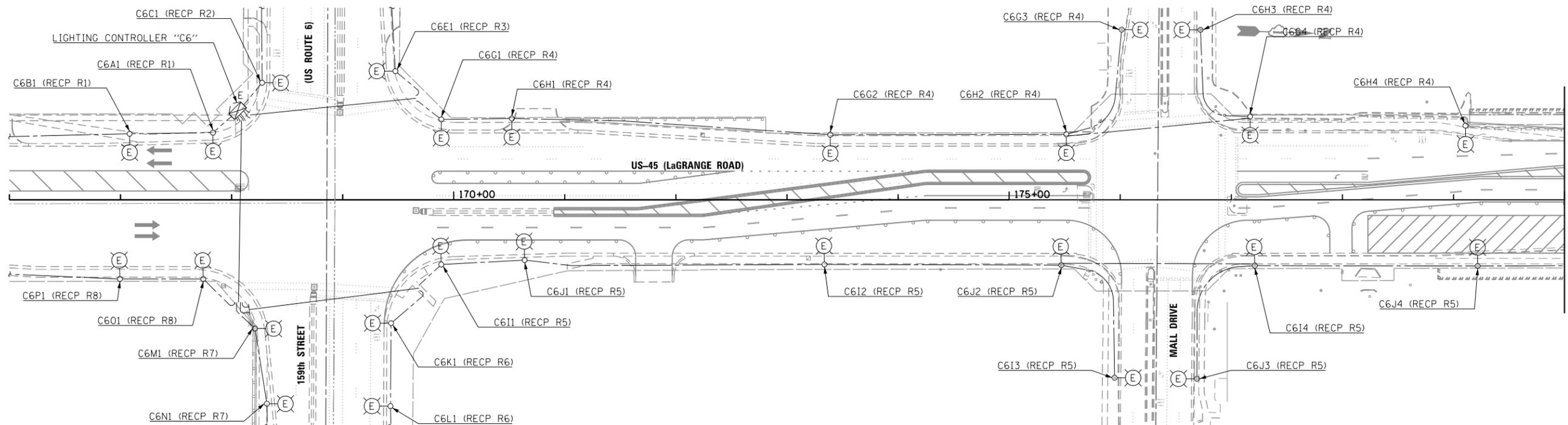


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 SUITE 600
 CHICAGO, IL 60606
 TEL (312) 935-1000
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FILE NAME = D160M61-SHT-E23.dgn	USER NAME = michal_bartusiewicz	DESIGNED - MAE	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	147th STREET & 144th PLACE TEMPORARY ROADWAY LIGHTING PLAN - STAGE 1A	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SHT.PLAN	PLOT SCALE = 100.000000' / in.	DRAWN - MAE	REVISED -			330	103R-4	COOK	877	434
PLOT DATE = 3/15/2013	CHECKED - DAD	REVISED -	REVISED -			E-23		CONTRACT NO. 60M61		
DATE - 03/13/2013	REVISI	REVISI	REVISI			SCALE: 1"=50'		SHEET 7 OF 7 SHEETS		STA. VARIES TO STA. VARIES

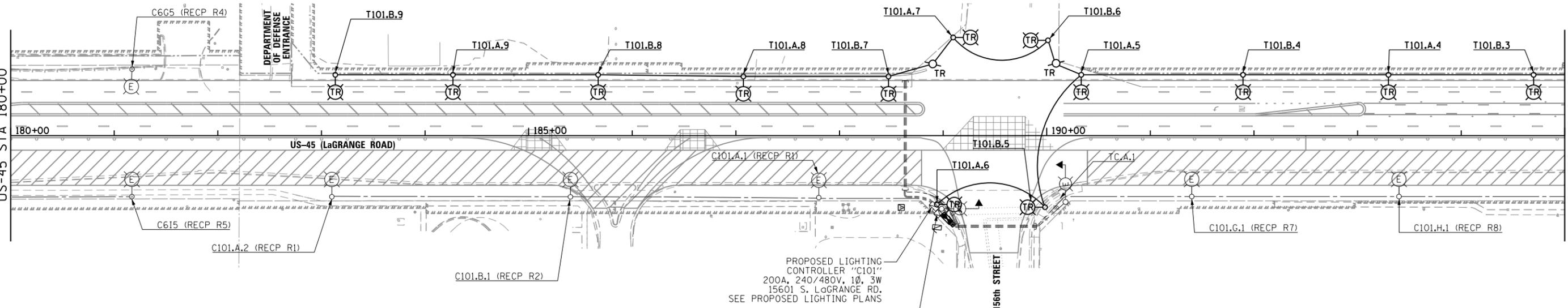
D160M61-SHT-E23.dgn 3/15/2013 2:27:12 PM



MATCH LINE SEE BELOW
US-45 STA 180+00

MATCH LINE SEE ABOVE
US-45 STA 180+00

MATCH LINE SEE DRAWING E-25
US-45 STA 195+00

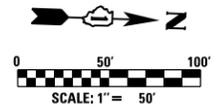


PROPOSED LIGHTING CONTROLLER "C101"
200A, 240/480V, 1Ø, 3W
15601 S. LaGRANGE RD.
SEE PROPOSED LIGHTING PLANS

PROPOSED COMED SERVICE TRANSFORMER
SEE PROPOSED LIGHTING PLANS

NOTES:

- SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
- CONTRACTOR SHALL REMOVE THE IDENTIFIED TEMPORARY LIGHTING UNITS, TEMPORARY LIGHTING CONTROLLERS, ALL ASSOCIATED UTILITY SERVICE WORK, AND THE TEMPORARY WIRING DURING CONSTRUCTION STAGE 2, ONCE ALL OF THE PROPOSED ROADWAY LIGHTING UNITS ALONG THE EAST SIDE OF LaGRANGE ROAD ARE INSTALLED, ENERGIZED, TESTED, AND APPROVED BY THE ENGINEER.



URS
 100 S. WACKER DR.
 CHICAGO, IL 60606
 TEL (312) 939-1000
 FAX (312) 939-4198

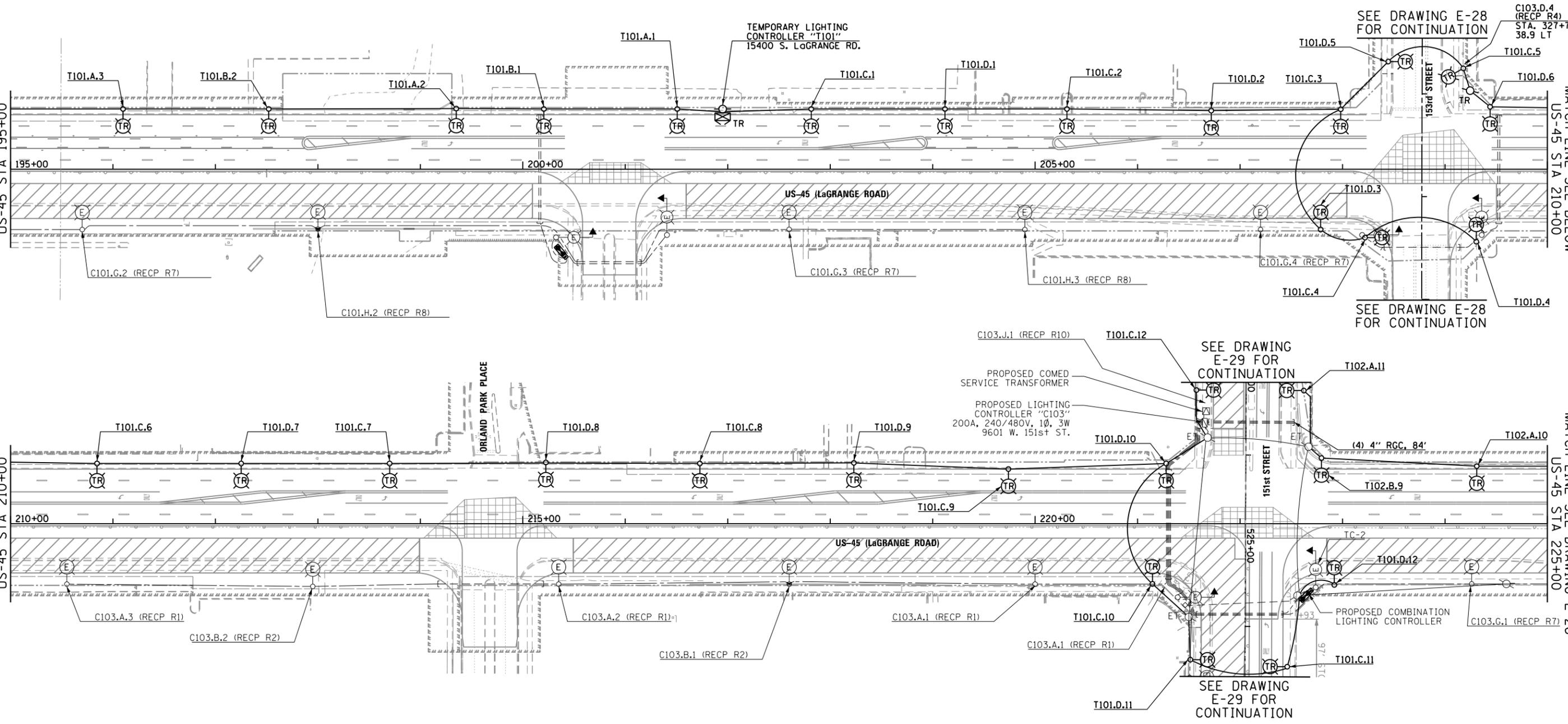
FILE NAME = D160M61-SHT-E24.dgn	USER NAME = michal_bar_tusiewicz	DESIGNED - MAE	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	US 45 (LaGRANGE ROAD) TEMPORARY ROADWAY LIGHTING PLAN - STAGE 1B			F.A.P. RTE. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 435
SHT_PLAN	PLOT SCALE = 100.000000' / 1in.	CHECKED - DAD	REVISED -		SCALE: 1"=50'	SHEET 1 OF 7 SHEETS	STA. BEGIN TO STA. 195+00.00	E-24		CONTRACT NO. 60M61		
PLOT DATE = 3/15/2013	DATE = 03/13/2013	REVISED -	REVISED -		ILLINOIS FED. AID PROJECT							
DT60M61-SHT-E24.dgn 3/15/2013 2:27:13 PM												

MATCH LINE SEE DRAWING E-24
US-45 STA 195+00

MATCH LINE SEE ABOVE
US-45 STA 210+00

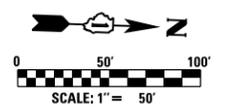
MATCH LINE SEE BELOW
US-45 STA 210+00

MATCH LINE SEE DRAWING E-26
US-45 STA 225+00



NOTES:

- SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
- CONTRACTOR SHALL REMOVE THE IDENTIFIED TEMPORARY LIGHTING UNITS, TEMPORARY LIGHTING CONTROLLERS, ALL ASSOCIATED UTILITY SERVICE WORK, AND THE TEMPORARY WIRING DURING CONSTRUCTION STAGE 2, ONCE ALL OF THE PROPOSED ROADWAY LIGHTING UNITS ALONG THE EAST SIDE OF LAGRANGE ROAD ARE INSTALLED, ENERGIZED, TESTED, AND APPROVED BY THE ENGINEER.



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FILE NAME = D160M61-SHT-E25.dgn
SHT_PLAN
DT60M61-SHT-E25.dgn 3/15/2013 2:27:14 PM

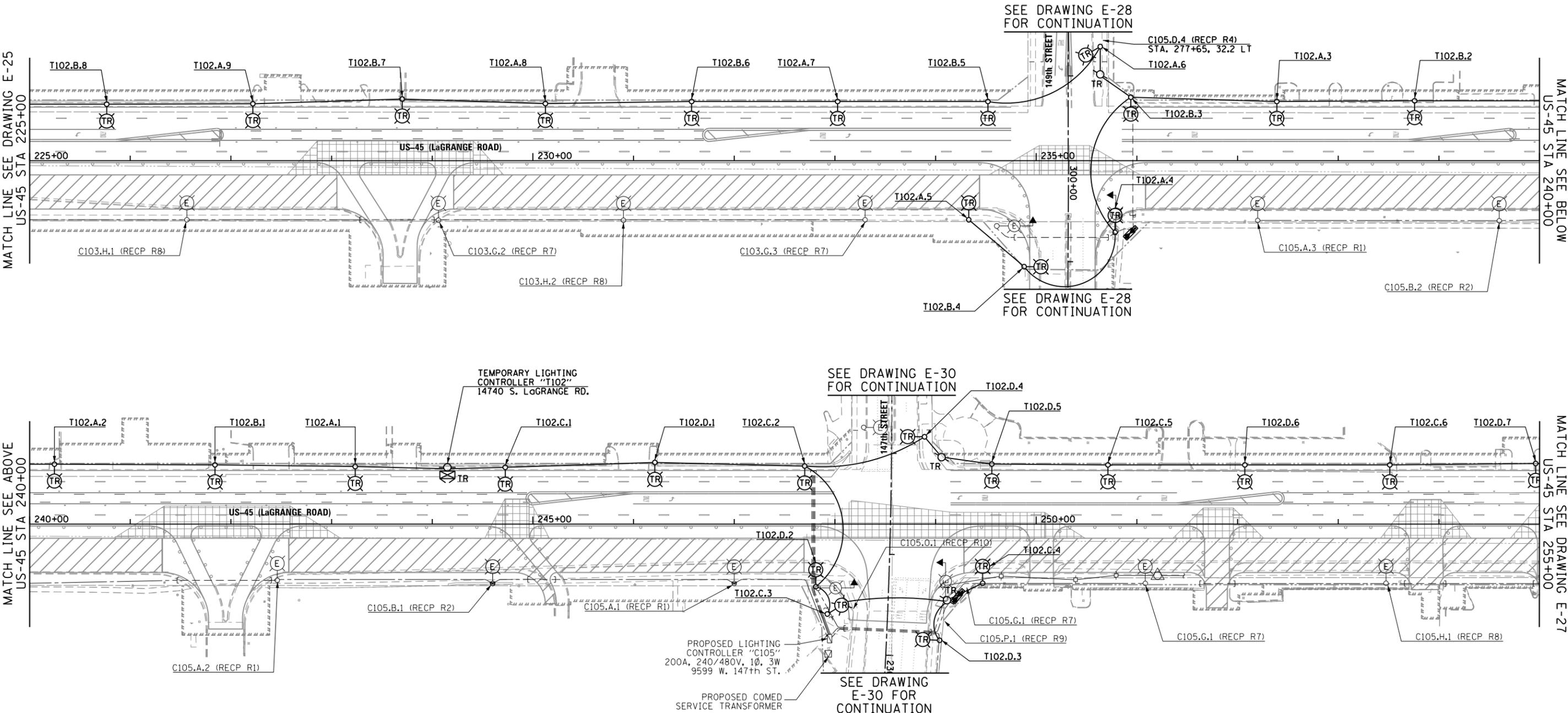
USER NAME = michael_bartusiewicz	DESIGNED - MAE	REVISED -
PLOT SCALE = 100.000000' / in.	DRAWN - MAE	REVISED -
PLOT DATE = 3/15/2013	CHECKED - DAD	REVISED -
	DATE - 03/13/2013	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

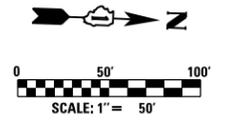
**US 45 (LaGRANGE ROAD)
TEMPORARY ROADWAY LIGHTING PLAN - STAGE 1B**

SCALE: 1"=50' SHEET 2 OF 7 SHEETS STA. 195+00.00 TO STA. 225+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	436
E-25			CONTRACT NO. 60M61	
ILLINOIS FED. AID PROJECT				



- NOTES:**
- SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
 - CONTRACTOR SHALL REMOVE THE IDENTIFIED TEMPORARY LIGHTING UNITS, TEMPORARY LIGHTING CONTROLLERS, ALL ASSOCIATED UTILITY SERVICE WORK, AND THE TEMPORARY WIRING DURING CONSTRUCTION STAGE 2, ONCE ALL OF THE PROPOSED ROADWAY LIGHTING UNITS ALONG THE EAST SIDE OF LAGRANGE ROAD ARE INSTALLED, ENERGIZED, TESTED, AND APPROVED BY THE ENGINEER.



100 S. WACKER DR.
 5TH FLOOR
 CHICAGO, IL 60606
 TEL (312) 939-1000
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FILE NAME = D160M61-SHT-E26.dgn	USER NAME = michal_bar_tustewicz	DESIGNED - MAE	REVISED -
SHT.PLAN	PLOT SCALE = 100.000000' / 1"	DRAWN - MAE	REVISED -
D160M61-SHT-E26.dgn 3/15/2013 2:27:14 PM	PLOT DATE = 3/15/2013	CHECKED - DAD	REVISED -
	DATE = 03/13/2013	REVISIONS -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

US 45 (LaGRANGE ROAD)
TEMPORARY ROADWAY LIGHTING PLAN - STAGE 1B

SCALE: 1"=50' SHEET 3 OF 7 SHEETS STA. 225+00.00 TO STA.255+00.00

F.A.P. RFE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	437
E-26			CONTRACT NO. 60M61	
ILLINOIS FED. AID PROJECT				

SEE DRAWING E-30 FOR CONTINUATION

SEE DRAWING E-30 FOR CONTINUATION

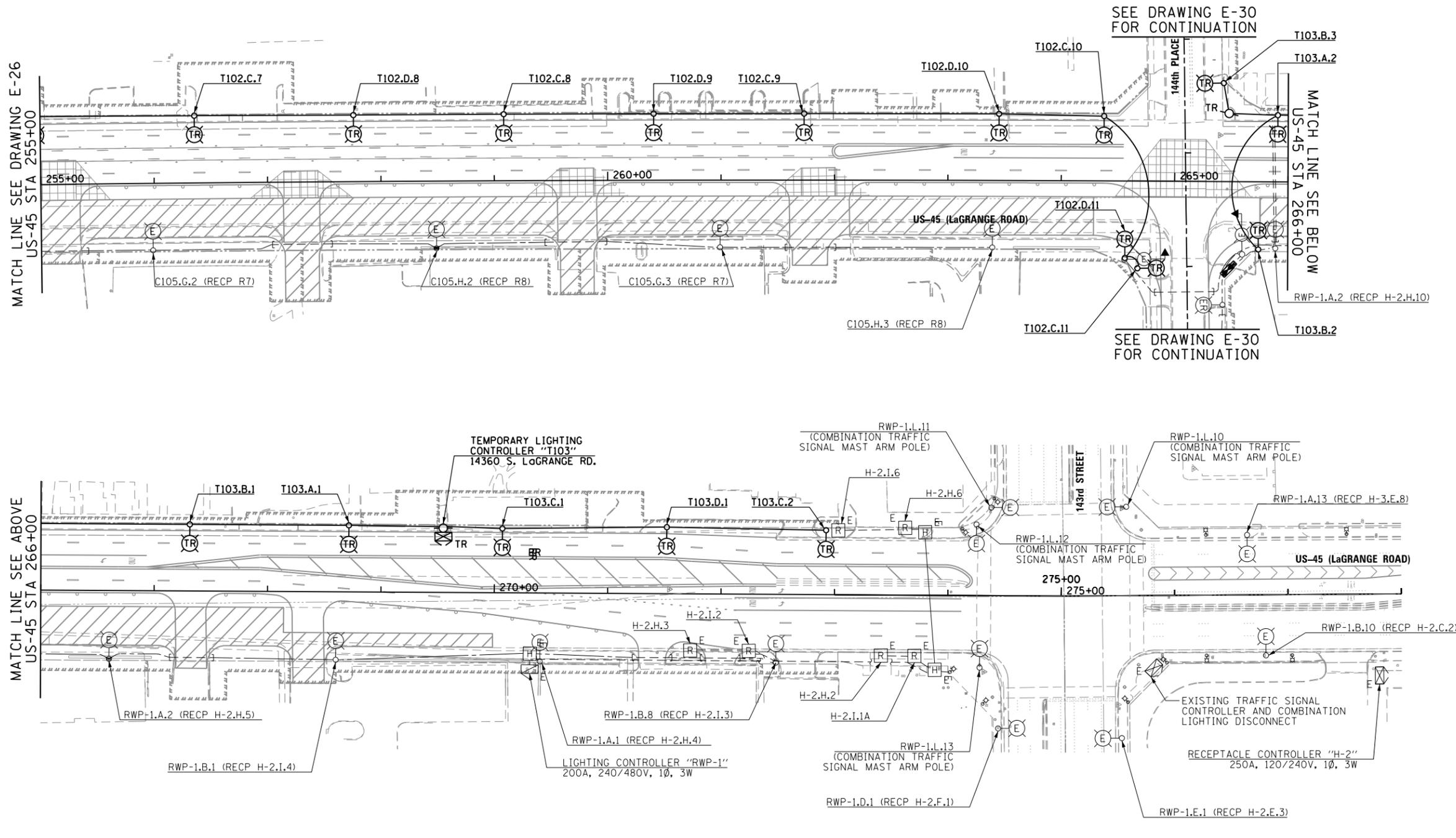
NOTES:

- SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
- CONTRACTOR SHALL REMOVE THE IDENTIFIED TEMPORARY LIGHTING UNITS, TEMPORARY LIGHTING CONTROLLERS, ALL ASSOCIATED UTILITY SERVICE WORK, AND THE TEMPORARY WIRING DURING CONSTRUCTION STAGE 2, ONCE ALL OF THE PROPOSED ROADWAY LIGHTING UNITS ALONG THE EAST SIDE OF LAGRANGE ROAD ARE INSTALLED, ENERGIZED, TESTED, AND APPROVED BY THE ENGINEER.

MATCH LINE SEE DRAWING E-26
US-45 STA 255+00

MATCH LINE SEE ABOVE
US-45 STA 266+00

MATCH LINE SEE BELOW
US-45 STA 266+00



100 S. WACKER DR.
100 S. WACKER DR.
CHICAGO, IL 60606
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FILE NAME =	USER NAME =	DESIGNED -	REVISED -
D160M61-SHT-E27.dgn	michal_bar_tusiewicz	MAE	
		DRAWN -	REVISED -
		MAE	
SHT_PLAN	PLOT SCALE =	CHECKED -	REVISED -
	100.000000' / in.	DAD	
	PLOT DATE =	DATE -	REVISED -
	3/15/2013	03/13/2013	

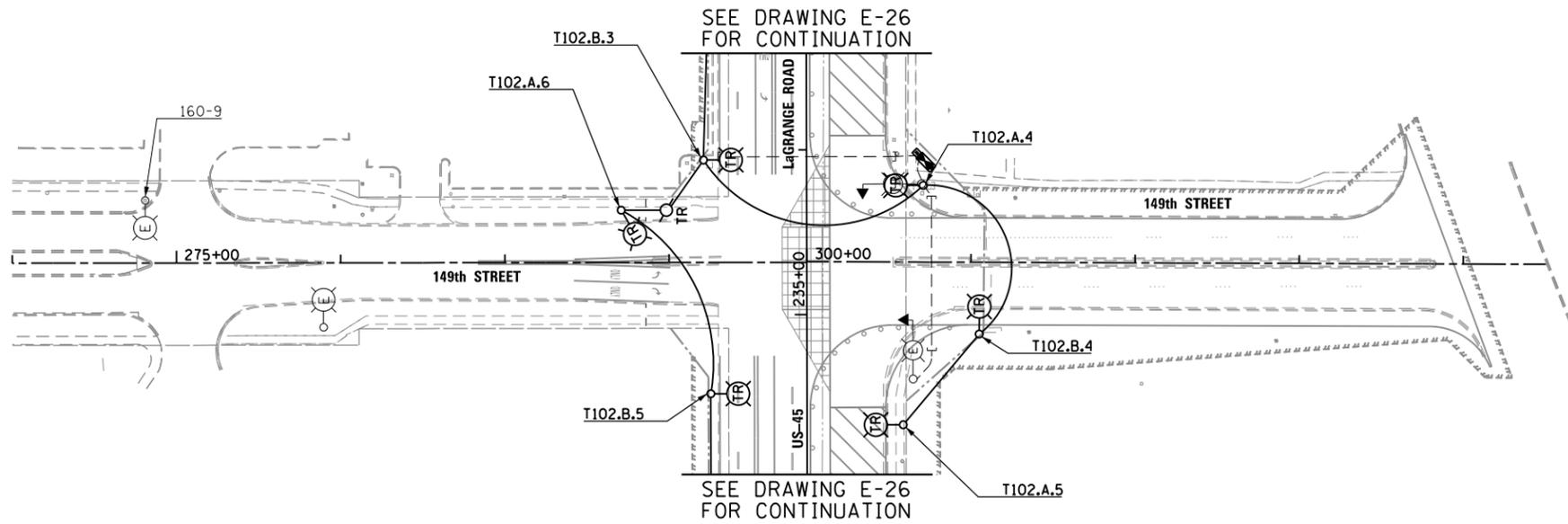
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**US 45 (LaGRANGE ROAD)
TEMPORARY ROADWAY LIGHTING PLAN - STAGE 1B**

SCALE: 1"=50' SHEET 4 OF 7 SHEETS STA. 255+00.00 TO STA. 278+00.00

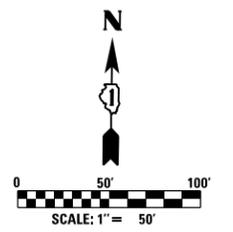
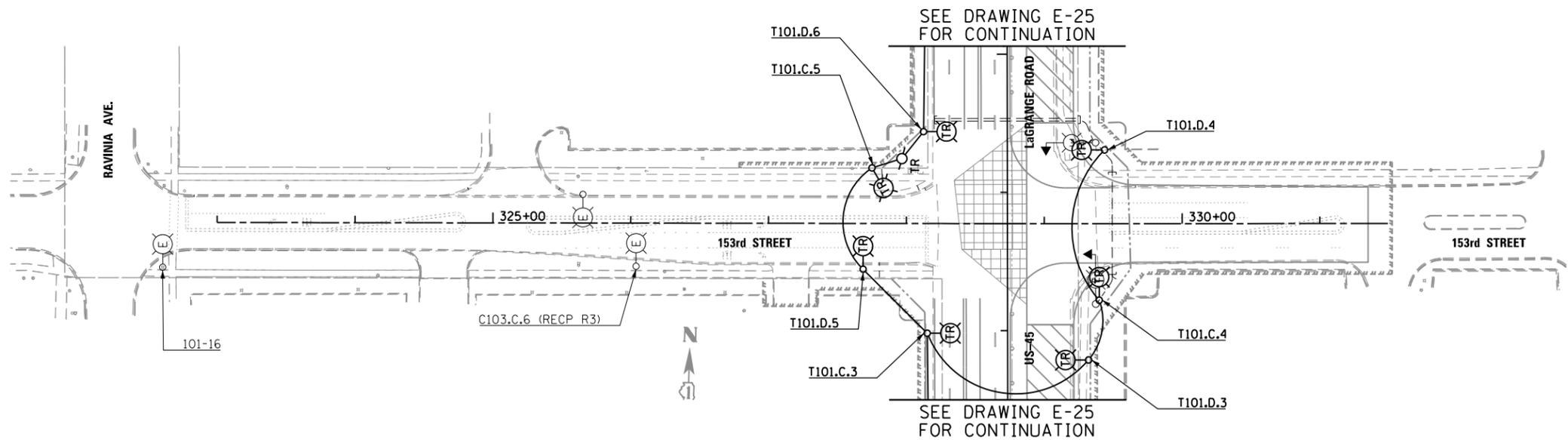
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	438
E-27			CONTRACT NO. 60M61	
ILLINOIS FED. AID PROJECT				

D160M61-SHT-E27.dgn 3/15/2013 2:27:15 PM



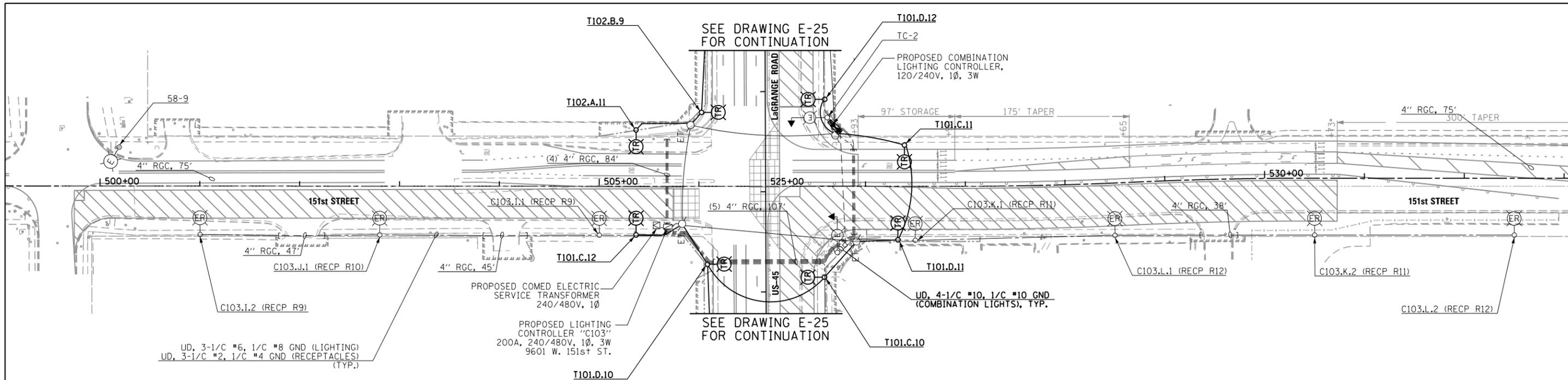
NOTES:

1. SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
2. CONTRACTOR SHALL REMOVE THE IDENTIFIED TEMPORARY LIGHTING UNITS, TEMPORARY LIGHTING CONTROLLERS, ALL ASSOCIATED UTILITY SERVICE WORK, AND THE TEMPORARY WIRING DURING CONSTRUCTION STAGE 2, ONCE ALL OF THE PROPOSED ROADWAY LIGHTING UNITS ALONG THE EAST SIDE OF LAGRANGE ROAD ARE INSTALLED, ENERGIZED, TESTED, AND APPROVED BY THE ENGINEER.



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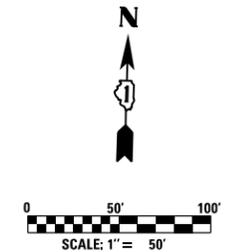
FILE NAME = D160M61-SHT-E28.dgn	USER NAME = michal_bartusiewicz	DESIGNED - MAE	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	153rd STREET & 149th STREET TEMPORARY ROADWAY LIGHTING PLAN - STAGE 1B			F.A.P. RTE. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 439
SHT.PLAN	PLOT SCALE = 100.000000' / in.	CHECKED - DAD	REVISED -		SCALE: 1"=50'	SHEET 5 OF 7 SHEETS	STA. VARIES TO STA. VARIES	E-28		CONTRACT NO. 60M61		
DT60M61-SHT-E28.dgn 3/15/2013 2:27:16 PM	PLOT DATE = 3/15/2013	DATE - 03/13/2013	REVISED -		ILLINOIS FED. AID PROJECT							



NOTES:

1. SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
2. CONTRACTOR SHALL REMOVE THE IDENTIFIED TEMPORARY LIGHTING UNITS, TEMPORARY LIGHTING CONTROLLERS, ALL ASSOCIATED UTILITY SERVICE WORK, AND THE TEMPORARY WIRING DURING CONSTRUCTION STAGE 2, ONCE ALL OF THE PROPOSED ROADWAY LIGHTING UNITS ALONG THE EAST SIDE OF LAGRANGE ROAD ARE INSTALLED, ENERGIZED, TESTED, AND APPROVED BY THE ENGINEER.
3. CONTRACTOR MUST REINSTALL EXISTING LIGHTING UNIT ON NEW POLE FOUNDATION WITH THE SAME BOLT CIRCLE DIAMETER AS WAS DETERMINED PER NOTE 3 ON DRAWING EL-6. SEE IDOT STANDARD DRAWING BE-301 FOR PROPOSED LIGHTING UNIT FOUNDATION DETAILS. FOUNDATION WILL BE PAID FOR UNDER THE "LIGHT POLE FOUNDATION, 24" DIAMETER" PAY ITEM. SEPARATE PAYMENT WILL NOT BE MADE.
4. CONTRACTOR MUST CONFIRM THAT A 20A, 120V GFCI RECEPTACLE HAS BEEN INSTALLED AT 15'-0" ABOVE THE BASE OF EXISTING POLE TO BE RELOCATED. RECEPTACLES MUST BE INSTALLED WHERE ABSENT, AND CONNECTED TO RECEPTACLE PANEL WITHIN THE PROPOSED LIGHTING CONTROLLER "C103". SEE IDOT STANDARD BE-400 FOR PROPOSED RECEPTACLE REQUIREMENTS. THE COST OF ALL REQUIRED RECEPTACLES WILL BE INCLUDED IN THE "LIGHT POLE, ALUMINUM, 47.5 FT. M.H., 12 FT. MAST ARM" PAY ITEM. SEPARATE PAYMENT WILL NOT BE MADE.
5. CONTRACTOR MUST CHANGE THE LIGHTING UNIT IDENTIFICATION ON THE REINSTALLED LIGHTING UNIT TO THE NEW NAME SHOWN ON THIS DRAWING.

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FILE NAME =	USER NAME =	DESIGNED -	REVISED -
D160M61-SHT-E29.dgn	michal_bartusiewicz	MAE	
		DRAWN -	REVISED -
		MAE	
		CHECKED -	REVISED -
		DAD	
SHT_PLAN	PLOT DATE =	DATE -	REVISED -
	3/15/2013	03/13/2013	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

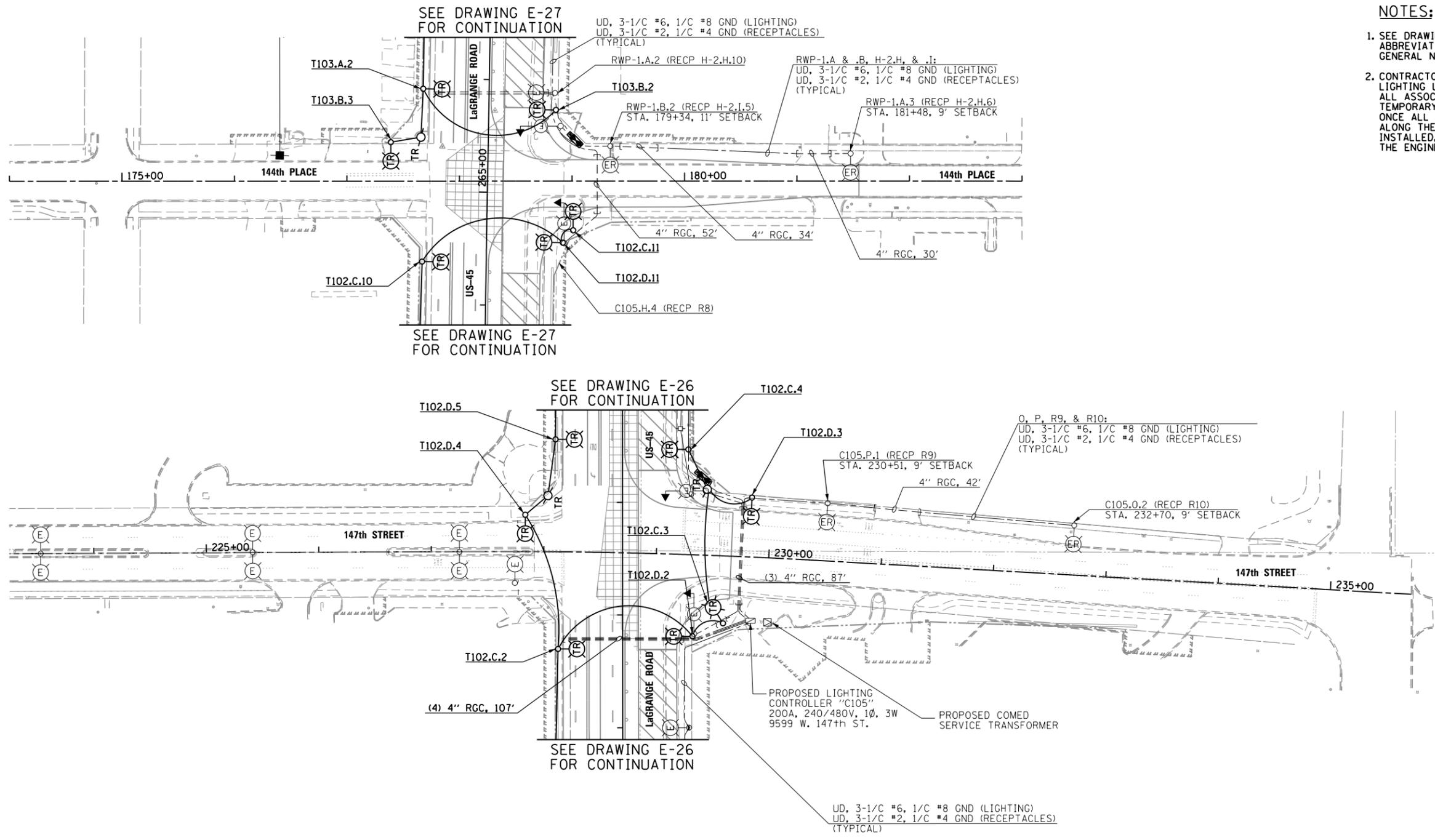
151st STREET TEMPORARY ROADWAY LIGHTING PLAN - STAGE 1B

SCALE: 1"=50' SHEET 6 OF 7 SHEETS STA. 498+50.00 TO STA. 531+50.00

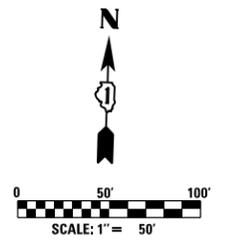
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	440
E-29			CONTRACT NO. 60M61	
ILLINOIS FED. AID PROJECT				

NOTES:

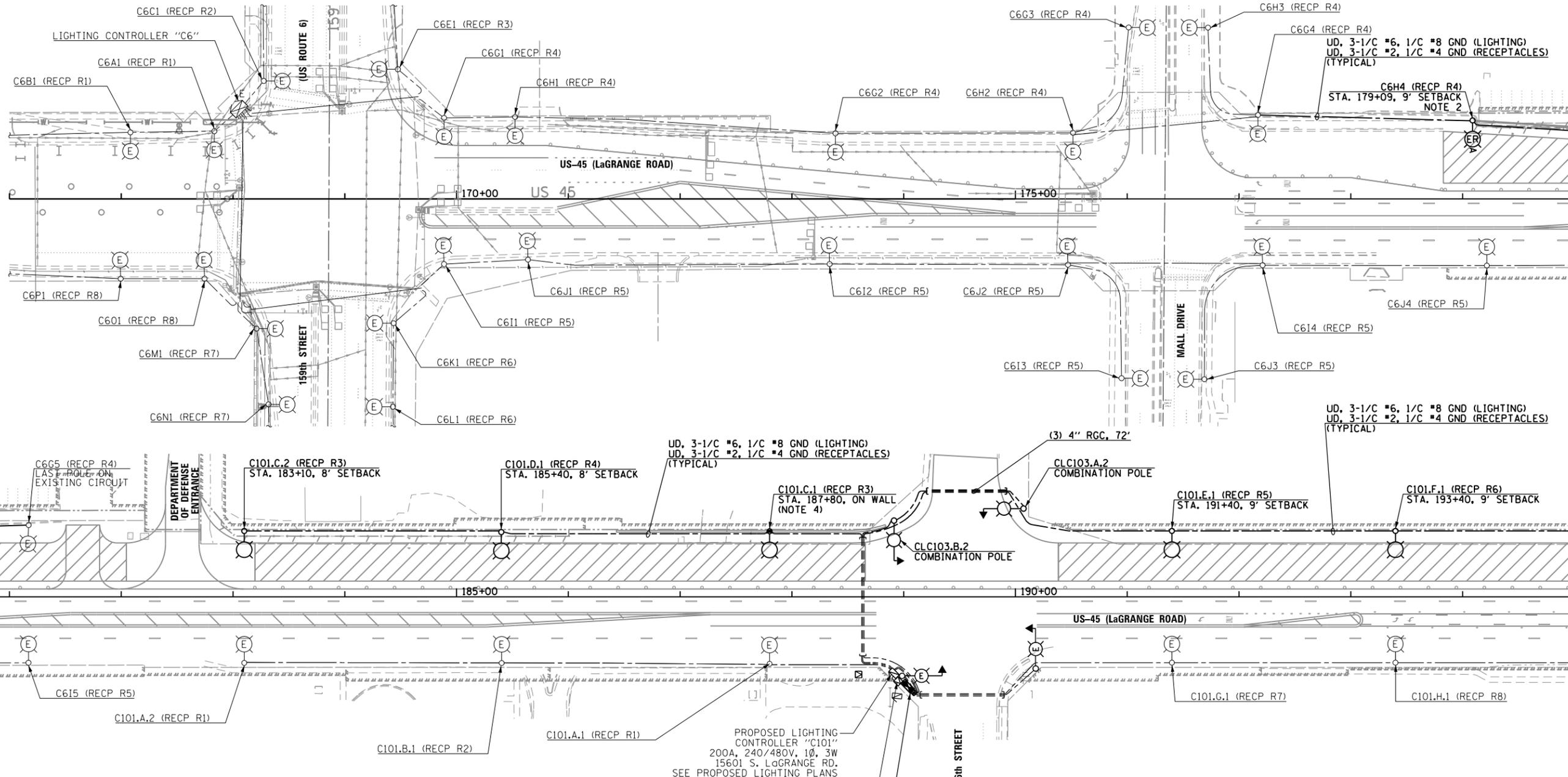
1. SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
2. CONTRACTOR SHALL REMOVE THE IDENTIFIED TEMPORARY LIGHTING UNITS, TEMPORARY LIGHTING CONTROLLERS, ALL ASSOCIATED UTILITY SERVICE WORK, AND THE TEMPORARY WIRING DURING CONSTRUCTION STAGE 2, ONCE ALL OF THE PROPOSED ROADWAY LIGHTING UNITS ALONG THE EAST SIDE OF LAGRANGE ROAD ARE INSTALLED, ENERGIZED, TESTED, AND APPROVED BY THE ENGINEER.



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FILE NAME = D160M61-SHT-E30.dgn	USER NAME = michael_bartusiewicz	DESIGNED - MAE	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	147th STREET & 144th PLACE TEMPORARY ROADWAY LIGHTING PLAN - STAGE 1B	F.A.P. RTE. = 330	SECTION = 103R-4	COUNTY = COOK	TOTAL SHEETS = 877	SHEET NO. = 441		
SHT_PLAN	PLOT SCALE = 100.000000' / in.	CHECKED - DAD	REVISED -			E-30	CONTRACT NO. 60M61		ILLINOIS FED. AID PROJECT			
D160M61-SHT-E30.dgn 3/15/2013 2:27:17 PM	PLOT DATE = 3/15/2013	DATE = 03/13/2013	REVISED -			SCALE: 1"=50'	SHEET 7 OF 7 SHEETS	STA. VARIES TO STA. VARIES				



MATCH LINE SEE ABOVE
US-45 STA 180+00

MATCH LINE SEE BELOW
US-45 STA 180+00

MATCH LINE SEE DRAWING E-32
US-45 STA 195+00

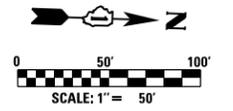
NOTES:

- SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
- CONTRACTOR MUST REINSTALL EXISTING LIGHTING UNIT ON NEW POLE FOUNDATION WITH THE SAME BOLT CIRCLE DIAMETER AS WAS DETERMINED PER NOTE 3 ON DRAWING E-10. SEE IDOT STANDARD DRAWING BE-301 FOR PROPOSED LIGHTING UNIT FOUNDATION DETAILS. FOUNDATION WILL BE PAID FOR UNDER THE "LIGHT POLE FOUNDATION, 24" DIAMETER" PAY ITEM. SEPARATE PAYMENT WILL NOT BE MADE.
- SEE DETAIL DRAWING FOR PROPOSED LIGHTING UNIT DETAILS. SEE IDOT STANDARD DRAWING BE-301 FOR PROPOSED LIGHTING UNIT FOUNDATION DETAILS.
- SEE DRAWING E-66 FOR PROPOSED RETAINING WALL MOUNTED LIGHTING UNIT INSTALLATION DETAILS.

PROPOSED LIGHTING CONTROLLER "C101"
200A, 240/480V, 1Ø, 3W
15601 S. LaGRANGE RD.
SEE PROPOSED LIGHTING PLANS

PROPOSED COMED SERVICE TRANSFORMER
SEE PROPOSED LIGHTING PLANS

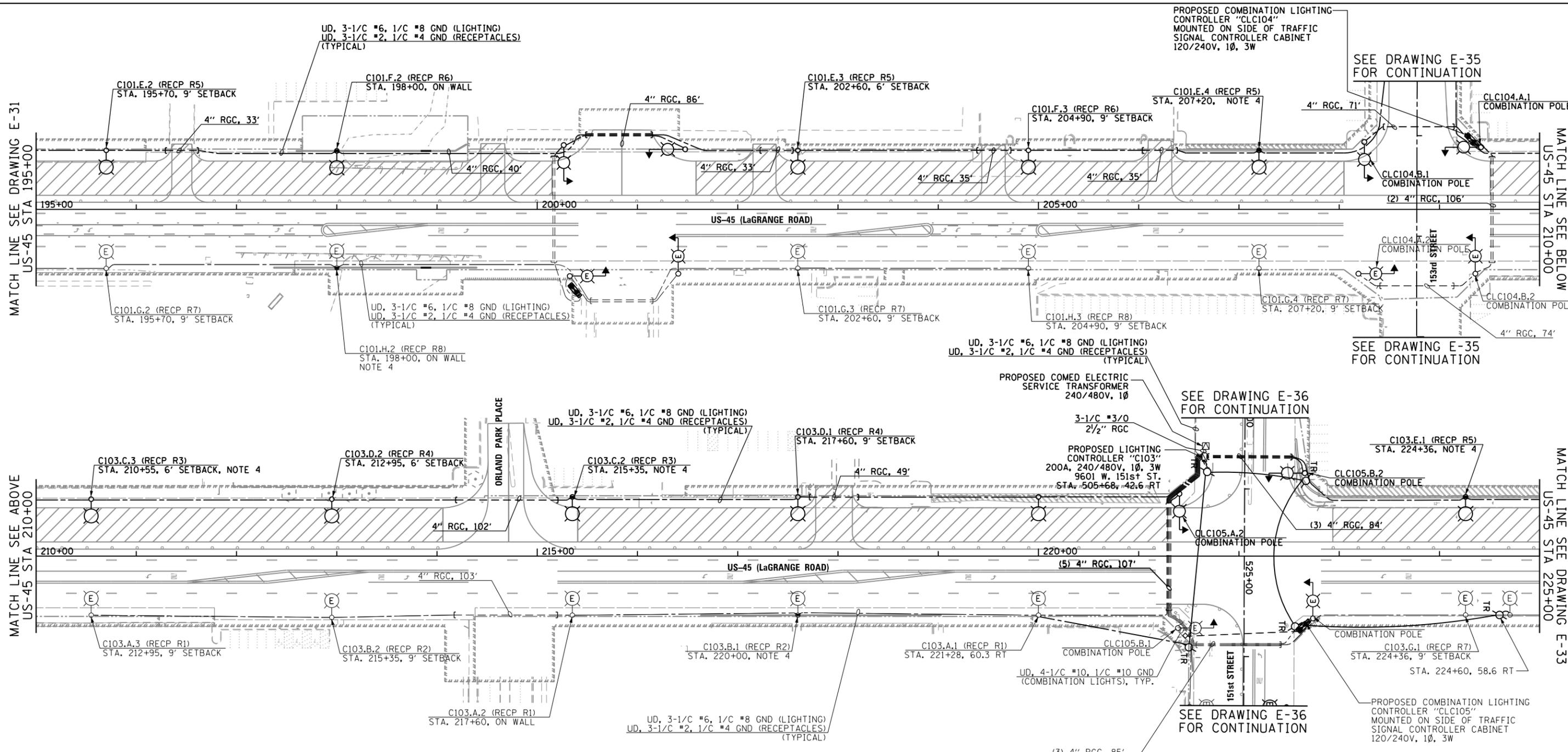
PROPOSED COMBINATION LIGHTING CONTROLLER "CLC103"
MOUNTED ON SIDE OF TRAFFIC SIGNAL CONTROLLER CABINET
120/240V, 1Ø, 3W



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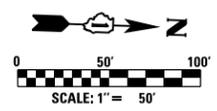
URS

FILE NAME = D160M61-SHT-E31.dgn	USER NAME = michal_bar_tustewicz	DESIGNED - MAE	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	US 45 (LaGRANGE ROAD) TEMPORARY ROADWAY LIGHTING PLAN - STAGE 3	F.A.P. RTE. = 330	SECTION = 103R-4	COUNTY = COOK	TOTAL SHEETS = 877	SHEET NO. = 442		
SHT_PLAN	PLOT SCALE = 100.000000' / 1" =	CHECKED - DAD	REVISED -			SCALE: 1"=50'	SHEET 1 OF 7 SHEETS	STA. BEGIN	TO STA. 195+00.00	E-31 CONTRACT NO. 60M61		
	PLOT DATE = 3/15/2013	DATE = 03/13/2013	REVISED -			ILLINOIS FED. AID PROJECT						
DT60M61-SHT-E31.dgn 3/15/2013 2:27:18 PM												



NOTES:

1. SEE DRAWING GE-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING GE-2 FOR ELECTRICAL GENERAL NOTES.
2. SEE IDOT STANDARD DRAWING BE-400 FOR PROPOSED LIGHTING UNIT DETAILS. SEE IDOT STANDARD DRAWING BE-301 FOR PROPOSED LIGHTING UNIT FOUNDATION DETAILS, UNLESS NOTED OTHERWISE.
3. SEE DRAWING ED-7 FOR PROPOSED RETAINING WALL MOUNTED LIGHTING UNIT INSTALLATION DETAILS.
4. CONTRACTOR SHALL DISCONNECT AND REMOVE TEMPORARY AERIAL SERVICES AND CONNECT THE NEW UNIT DUCT TO PREVIOUSLY INSTALLED UNIT DUCT. CONTRACTOR SHALL EXCAVATE AT LIGHTING UNIT FOUNDATION, PULL THE TEMPORARY WIRING FROM ELBOW, AND INSTALL NEW WIRING IN ELBOW AND SPLICE TO PREVIOUSLY INSTALLED UNIT DUCT IN LIGHTING UNIT HANDHOLE. CHANGE OVER SHALL BE DONE DURING DAYLIGHT HOURS AFTER ALL OTHER WORK IS DONE. MAINTAIN EXISTING LIGHTING DURING HOURS OF DARKNESS.



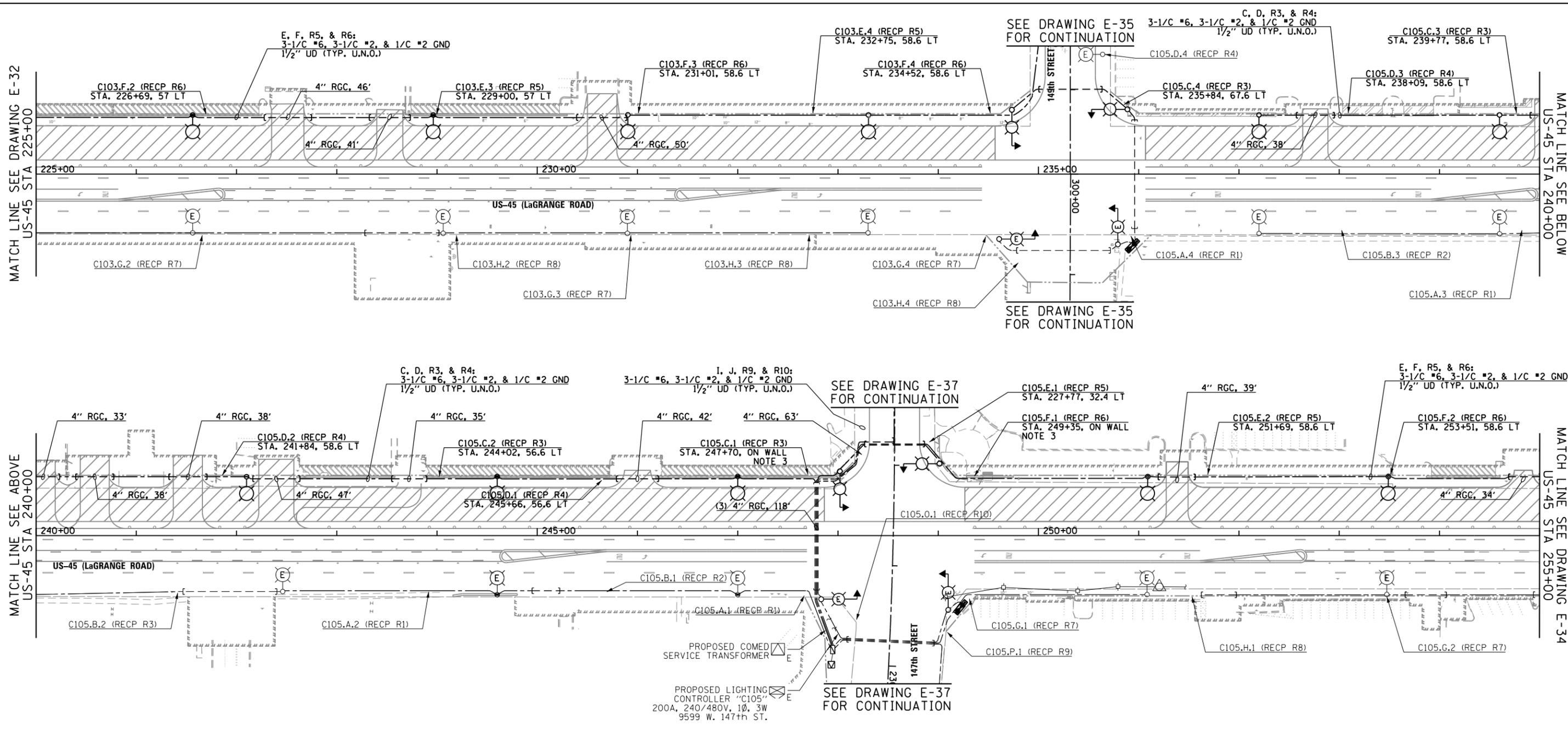
100 S. WACKER DR.
 SUITE 500
 CHICAGO, IL 60606
 TEL (312) 939-1000
 FAX (312) 939-4198
URS

FILE NAME = D160M61-SHT-E32.dgn	USER NAME = michal_bartusiewicz	DESIGNED - MAE	REVISED -
SHT.PLAN	PLOT SCALE = 100.000000' / in.	DRAWN - MAE	REVISED -
D160M61-SHT-E32.dgn 3/15/2013 2:27:19 PM	PLOT DATE = 3/15/2013	CHECKED - DAD	REVISED -
	DATE = 03/13/2013	DATE -	REVISED -

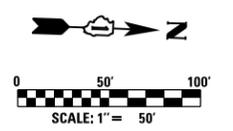
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

US 45 (LaGRANGE ROAD) TEMPORARY ROADWAY LIGHTING PLAN - STAGE 3			
SCALE: 1"=50'	SHEET 2 OF 7 SHEETS	STA. 195+00.00 TO STA. 225+00.00	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	443
E-32			CONTRACT NO.	60M61
ILLINOIS FED. AID PROJECT				



- NOTES:**
- SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
 - SEE DETAIL DRAWING FOR PROPOSED LIGHTING UNIT DETAILS. SEE IDOT STANDARD DRAWING BE-301 FOR PROPOSED LIGHTING UNIT FOUNDATION DETAILS.
 - SEE DRAWING E-66 FOR PROPOSED RETAINING WALL MOUNTED LIGHTING UNIT INSTALLATION DETAILS.



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FILE NAME =	USER NAME =	DESIGNED -	REVISED -
D160M61-SHT-E33.dgn	michal_bar_tusiewicz	MAE	
		DRAWN -	REVISED -
		MAE	
		CHECKED -	REVISED -
		DAD	
SHT_PLAN	PLOT DATE =	DATE -	REVISED -
	3/15/2013	03/13/2013	

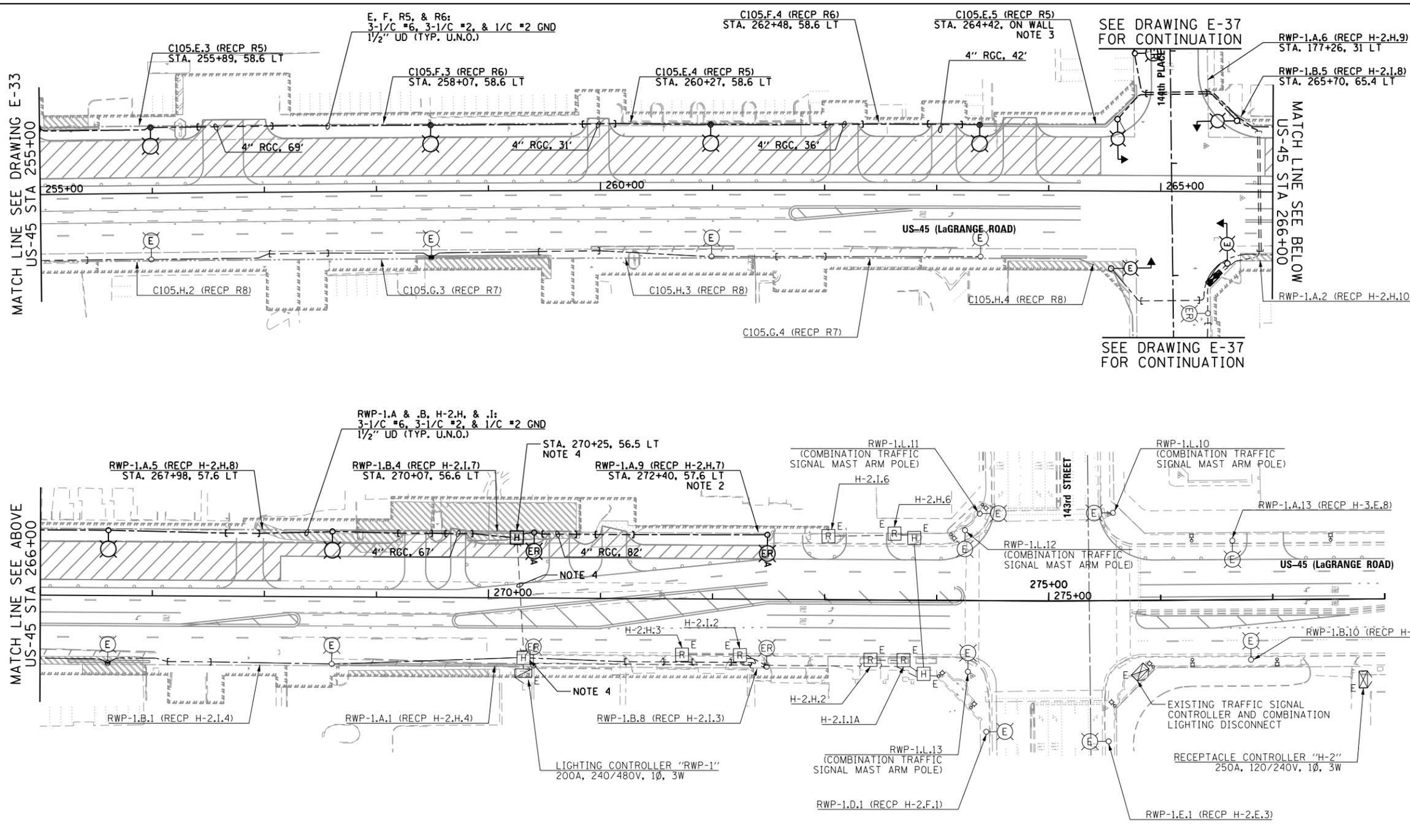
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

US 45 (LaGRANGE ROAD)
TEMPORARY ROADWAY LIGHTING PLAN - STAGE 3

SCALE: 1"=50' SHEET 3 OF 7 SHEETS STA. 225+00.00 TO STA. 255+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	444
E-33		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				

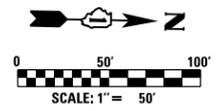
D160M61-SHT-E33.dgn 3/15/2013 2:27:19 PM



NOTES:

1. SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
2. CONTRACTOR MUST REINSTALL EXISTING LIGHTING UNIT ON NEW POLE FOUNDATION WITH THE SAME BOLT CIRCLE DIAMETER AS WAS DETERMINED PER NOTE 4 ON DRAWING E-13. SEE IDOT STANDARD DRAWING BE-301 FOR PROPOSED LIGHTING UNIT FOUNDATION DETAILS. FOUNDATION WILL BE PAID FOR UNDER THE "LIGHT POLE FOUNDATION, 24" DIAMETER" PAY ITEM. SEPARATE PAYMENT WILL NOT BE MADE.
3. SEE DRAWING E-66 FOR PROPOSED RETAINING WALL MOUNTED LIGHTING UNIT INSTALLATION DETAILS.
4. CONTRACTOR MUST EXTEND EXISTING CONDUIT TO REACH THE RELOCATED HANDHOLE, AND ROUTE THE EXISTING EXCESS COILED 3-1/2" #6, 3-1/2" #2, AND 1/2" #2 GROUND WIRING THROUGH TO THE RELOCATED HANDHOLE. IF THERE IS NOT SUFFICIENT EXISTING EXCESS COILED WIRE TO REACH THE RELOCATED HANDHOLE, THE CONTRACTOR SHALL INSTALL NEW 3-1/2" #6, 3-1/2" #2, AND 1/2" #2 GROUND WIRING FROM THE EAST HANDHOLE NEAR STATION 270+00 TO THE RELOCATED WEST HANDHOLE NEAR STATION 270+00. CONTRACTOR MUST DEENERGIZE THE SERVICE FEED TO BOTH CONTROLLERS RWP-1 AND H-2 DURING THE SAME TIME BEFORE SPLICING CONDUCTORS TO THE APPROPRIATE EXISTING CIRCUIT CABLES WITHIN THE EXISTING HANDHOLE. CONTRACTOR MUST REENERGIZE BOTH CONTROLLERS AS SOON AS THE ELECTRICAL ITEMS ARE INSTALLED AND CONNECTED. EXTENSION OF EXISTING CONDUIT WILL BE PAID UNDER THE "RELOCATE EXISTING HANDHOLE" PAY ITEM, AND ALL REQUIRED NEW CABLES SHALL BE PAID UNDER THE APPROPRIATE "ELECTRIC CABLE IN CONDUIT" PAY ITEMS. SEPARATE PAYMENTS WILL NOT BE MADE.
5. SEE DETAIL DRAWING FOR PROPOSED LIGHTING UNIT DETAILS. SEE IDOT STANDARD DRAWING BE-301 FOR PROPOSED LIGHTING UNIT FOUNDATION DETAILS.

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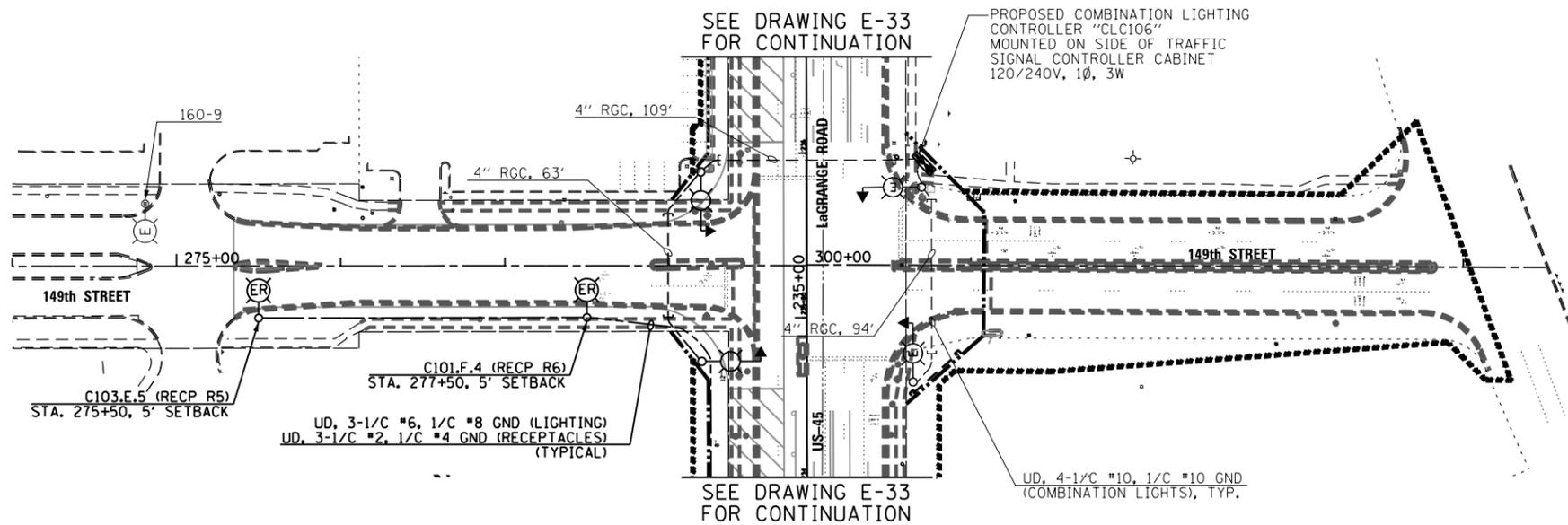
FILE NAME =	USER NAME =	DESIGNED -	REVISED -
D160M61-SHT-E34.dgn	michel_bar_tustewicz	MAE	
		DRAWN -	REVISED -
		MAE	
		CHECKED -	REVISED -
		DAD	
		DATE -	REVISED -
		03/13/2013	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

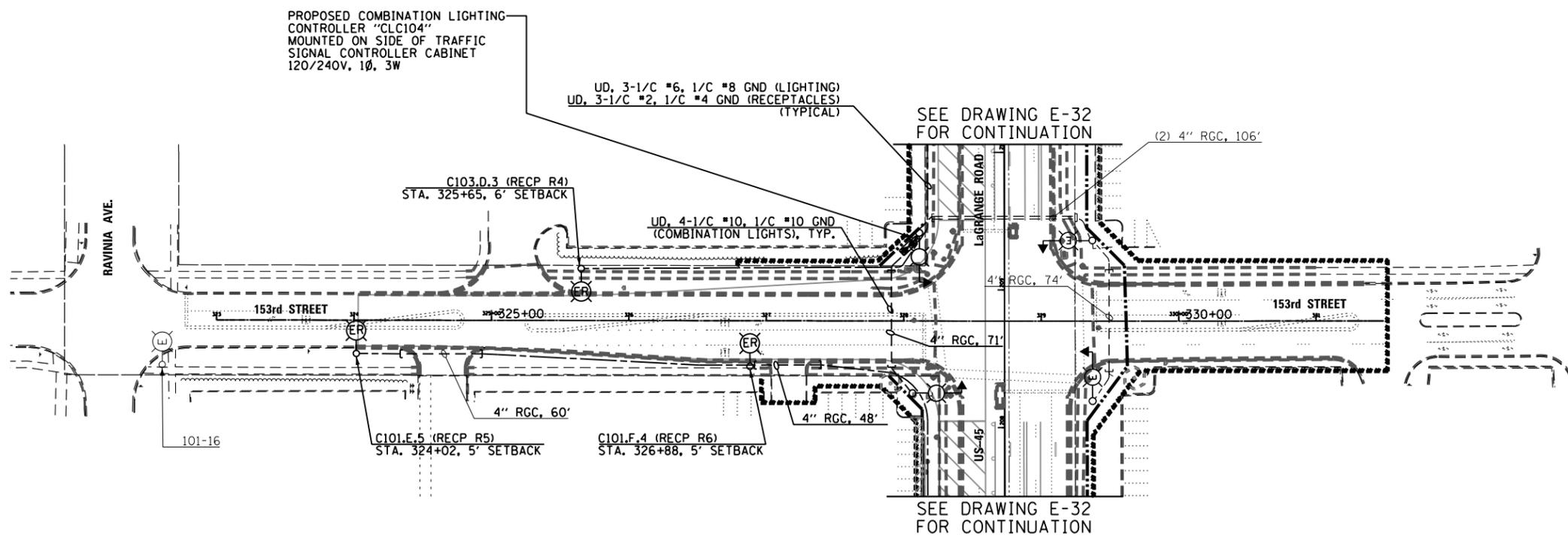
US 45 (LaGRANGE ROAD)
TEMPORARY ROADWAY LIGHTING PLAN - STAGE 3
 SCALE: 1"=50' SHEET 4 OF 7 SHEETS STA. 255+00.00 TO STA. 278+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	445
E-34			CONTRACT NO. 60M61	
ILLINOIS FED. AID PROJECT				

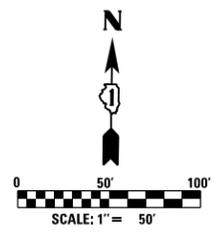
D160M61-SHT-E34.dgn 3/15/2013 2:27:20 PM



- NOTES:**
- SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
 - SEE DETAIL DRAWING FOR PROPOSED LIGHTING UNIT DETAILS. SEE IDOT STANDARD DRAWING BE-301 FOR PROPOSED LIGHTING UNIT FOUNDATION DETAILS.

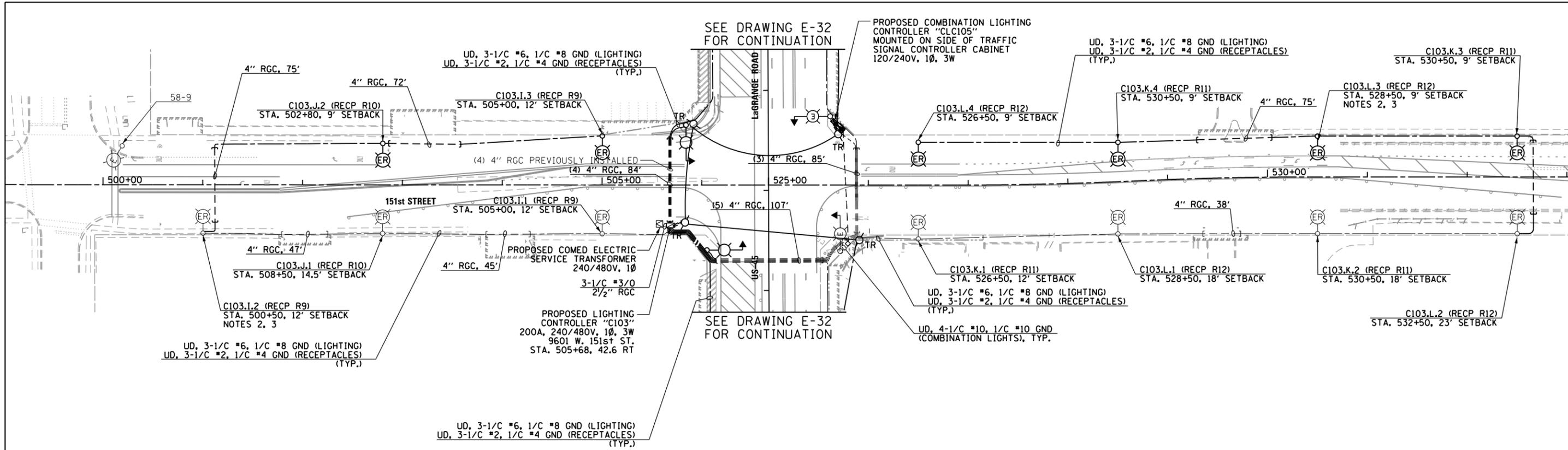


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 SUITE 500
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 TEL (312) 939-1000
 FAX (312) 939-4998
URS



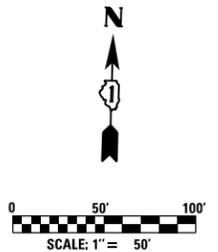
FILE NAME = D160M61-SHT-E35.dgn	USER NAME = michael_bartusiewicz	DESIGNED - MAE	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	153rd STREET & 149th STREET TEMPORARY ROADWAY LIGHTING PLAN - STAGE 3	F.A.P. RTE. = 330	SECTION = 103R-4	COUNTY = COOK	TOTAL SHEETS = 877	SHEET NO. = 446
	PLOT SCALE = 100.000000' / 1" =	CHECKED - DAD	REVISED -			E-35		CONTRACT NO. 60M61		ILLINOIS FED. AID PROJECT
SHT_PLAN	PLOT DATE = 3/15/2013	DATE = 03/13/2013	REVISED -	SCALE: 1"=50'	SHEET 5 OF 7 SHEETS	STA. VARIES	TO STA. VARIES			

D160M61-SHT-E35.dgn 3/15/2013 2:27:22 PM



NOTES:

- SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
- SEE DETAIL DRAWING FOR PROPOSED LIGHTING UNIT DETAILS. SEE IDOT STANDARD DRAWING BE-301 FOR PROPOSED LIGHTING UNIT FOUNDATION DETAILS.
- CONTRACTOR SHALL DISCONNECT AND REMOVE TEMPORARY AERIAL SERVICES AND CONNECT THE NEW UNIT DUCT TO PREVIOUSLY INSTALLED UNIT DUCT. CONTRACTOR SHALL EXCAVATE AT LIGHTING UNIT FOUNDATION, PULL THE TEMPORARY WIRING FROM ELBOW, AND INSTALL NEW WIRING IN ELBOW AND SPLICE TO PREVIOUSLY INSTALLED UNIT DUCT IN LIGHTING UNIT HANDHOLE. CHANGE OVER SHALL BE DONE DURING DAYLIGHT HOURS AFTER ALL OTHER WORK IS DONE. MAINTAIN EXISTING LIGHTING DURING HOURS OF DARKNESS.

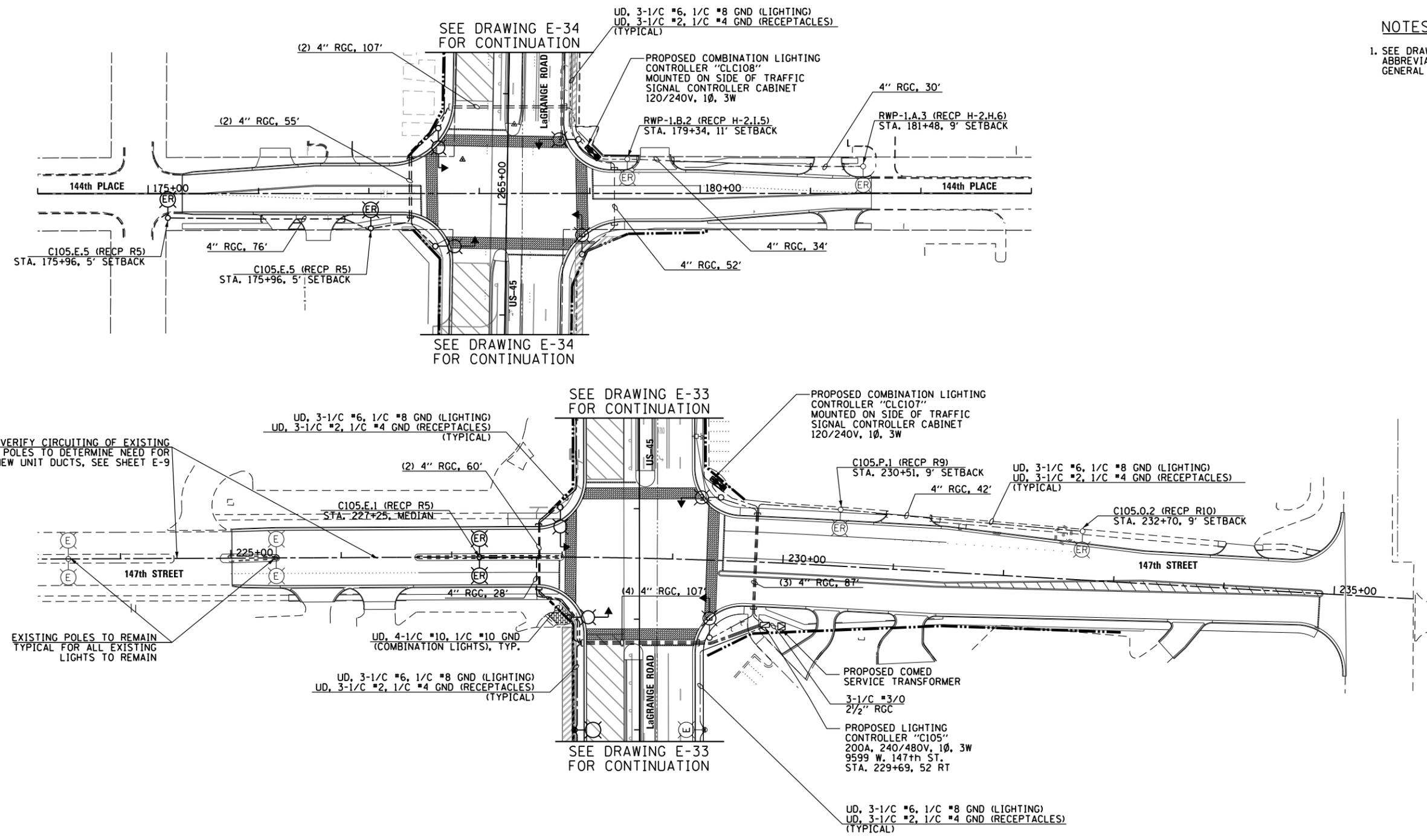


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 10TH FLOOR
 CHICAGO, IL 60606
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FILE NAME = D160M61-SHT-E36.dgn	USER NAME = michal_bartusiewicz	DESIGNED - MAE	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	151st STREET TEMPORARY ROADWAY LIGHTING PLAN - STAGE 3			F.A.P. RTE. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 447
SHT.PLAN	PLOT SCALE = 100.000000' / 1" =	CHECKED - DAD	REVISED -		SCALE: 1"=50'	SHEET	6 OF 7 SHEETS	STA. 498+50.00	TO STA. 531+50.00	E-36		CONTRACT NO. 60M61
	PLOT DATE = 3/15/2013	DATE - 03/13/2013	REVISED -		ILLINOIS FED. AID PROJECT							
DT60M61-SHT-E36.dgn 3/15/2013 2:27:22 PM												

NOTES:

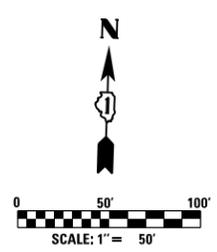
1. SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.



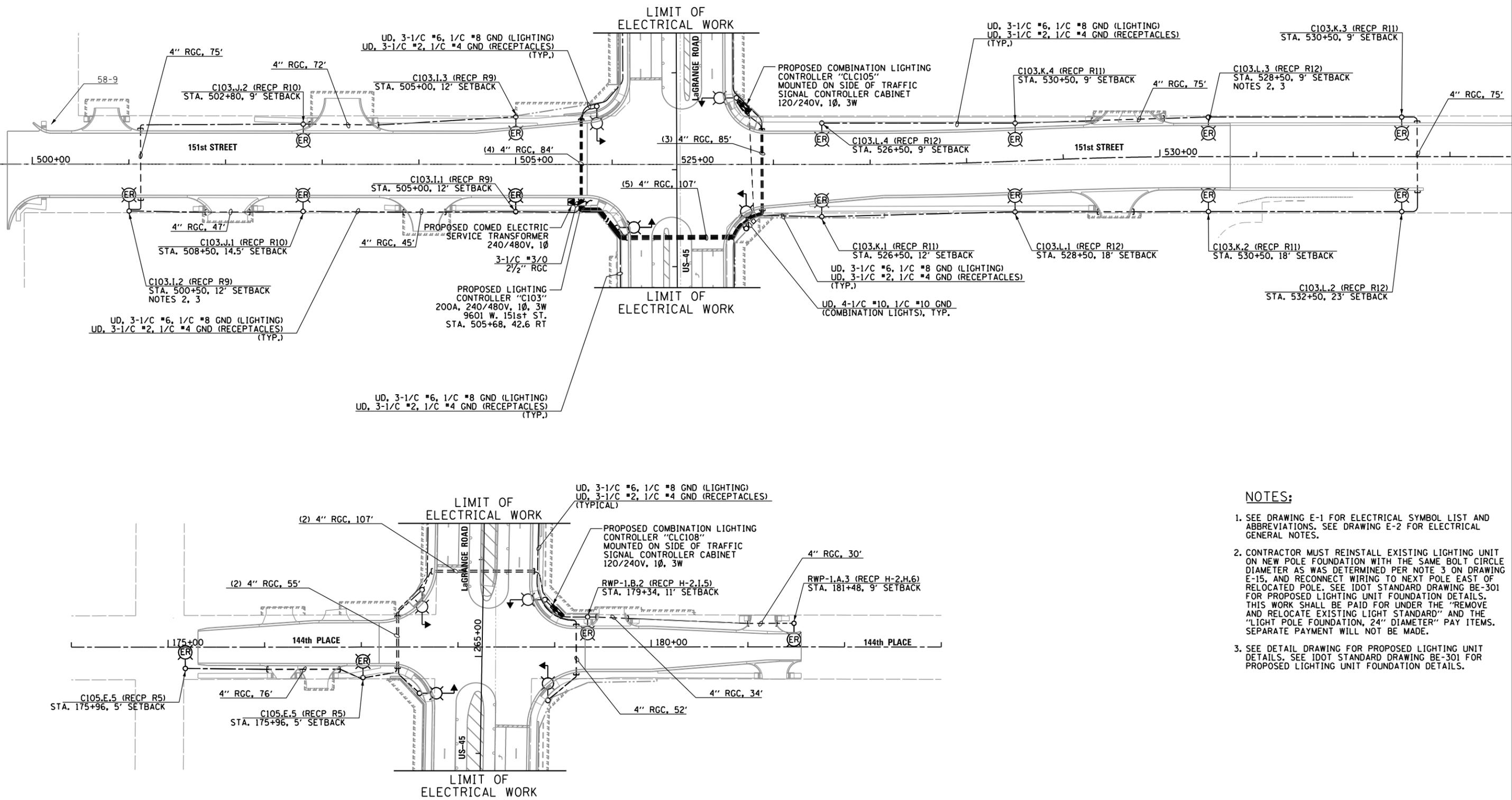
VERIFY CIRCUITING OF EXISTING POLES TO DETERMINE NEED FOR NEW UNIT DUCTS, SEE SHEET E-9

100 S. WACKER DR.
SUITE 600
CHICAGO, IL 60606
TEL (312) 939-1000
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URS

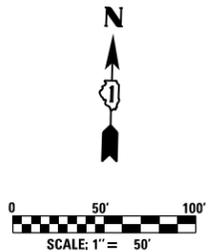


FILE NAME = D160M61-SHT-E37.dgn	USER NAME = michal_bartusiewicz	DESIGNED - MAE	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	147th STREET & 144th PLACE TEMPORARY ROADWAY LIGHTING PLAN - STAGE 3	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SHT.PLAN	PLOT SCALE = 100.000000' / 1" =	DRAWN - MAE	REVISED -			330	103R-4	COOK	877	448
DT60M61-SHT-E37.dgn 3/15/2013 2:27:23 PM	PLOT DATE = 3/15/2013	CHECKED - DAD	REVISED -			E-37		CONTRACT NO. 60M61		ILLINOIS FED. AID PROJECT
	DATE - 03/13/2013	REVIS	REVISED -			SCALE: 1"=50'	SHEET 7 OF 7 SHEETS	STA. VARIES TO STA. VARIES		



NOTES:

- SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
- CONTRACTOR MUST REINSTALL EXISTING LIGHTING UNIT ON NEW POLE FOUNDATION WITH THE SAME BOLT CIRCLE DIAMETER AS WAS DETERMINED PER NOTE 3 ON DRAWING E-15, AND RECONNECT WIRING TO NEXT POLE EAST OF RELOCATED POLE. SEE IDOT STANDARD DRAWING BE-301 FOR PROPOSED LIGHTING UNIT FOUNDATION DETAILS. THIS WORK SHALL BE PAID FOR UNDER THE "REMOVE AND RELOCATE EXISTING LIGHT STANDARD" AND THE "LIGHT POLE FOUNDATION, 24" DIAMETER" PAY ITEMS. SEPARATE PAYMENT WILL NOT BE MADE.
- SEE DETAIL DRAWING FOR PROPOSED LIGHTING UNIT DETAILS. SEE IDOT STANDARD DRAWING BE-301 FOR PROPOSED LIGHTING UNIT FOUNDATION DETAILS.



100 S. WACKER DR.
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FILE NAME =	USER NAME =	DESIGNED -	REVISED -
D160M61-SHT-E38.dgn	michal_bartusiewicz	MAE	
		DRAWN -	REVISED -
		MAE	
		CHECKED -	REVISED -
		DAD	
		DATE -	REVISED -
		03/13/2013	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

151st STREET & 144th PLACE	
TEMPORARY ROADWAY LIGHTING PLANS - STAGE 4	
SCALE: 1"=50'	SHEET 1 OF 1 SHEETS
STA. 498+50.00 TO STA. 531+50.00	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	449
E-38		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				

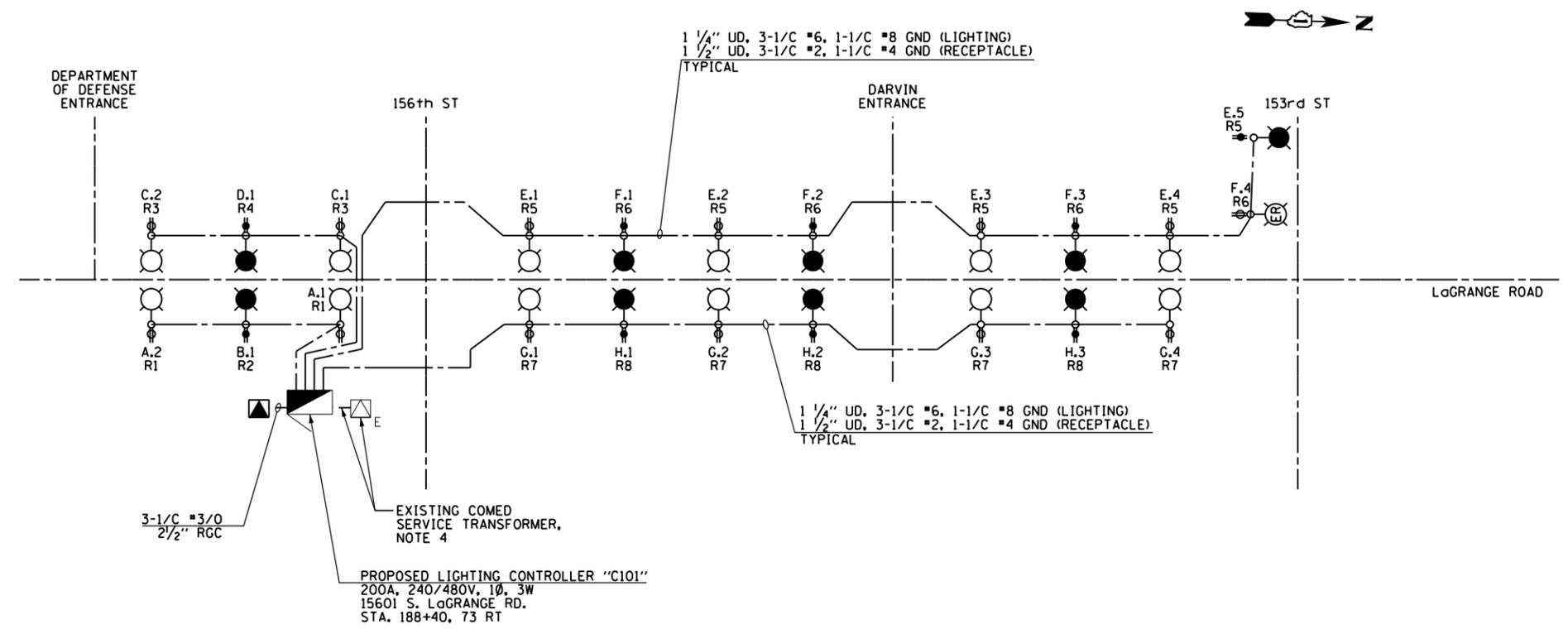
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LEGEND:

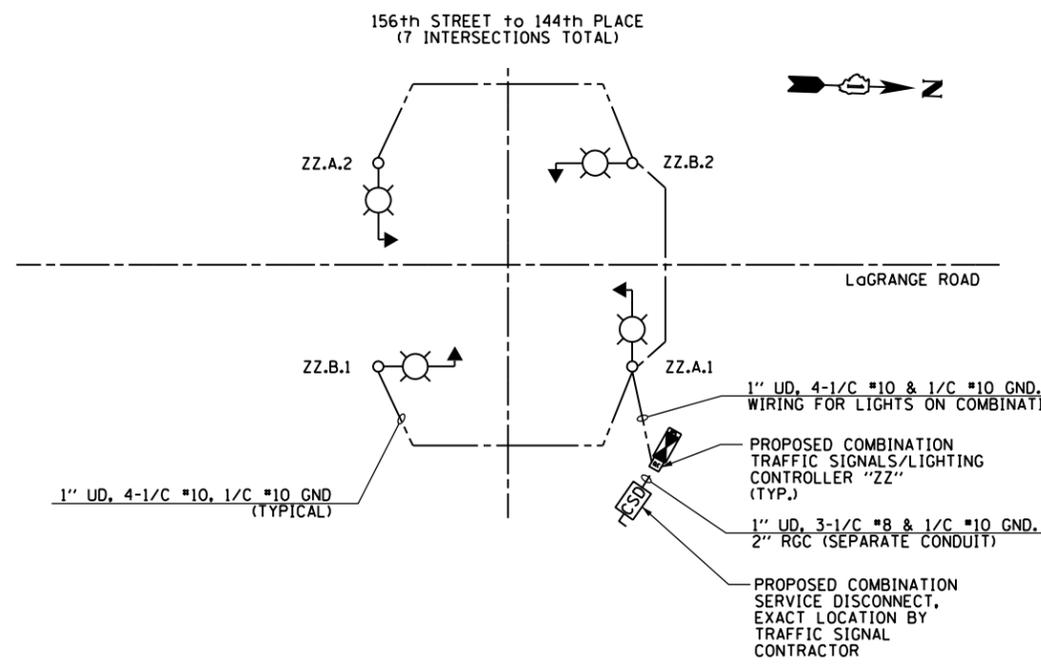
- PROPOSED LIGHTING UNIT: 400W, 240V PHASE TO NEUTRAL, HPS LUMINAIRE WITH TYPE MC-III DISTRIBUTION, 45'-2" ALUMINUM POLE SHAFT ON 24" DIAMETER CONCRETE FOUNDATION, 47'-6" MOUNTING HEIGHT, 12'-0" MAST ARM, WITH 5A FUSES AND T-BASE (RED PHASE- OPEN SYMBOL, BLACK PHASE-SHADED SYMBOL)
- PROPOSED 120V, 20A, GFCI RECEPTACLE ON PROPOSED LIGHTING UNIT (ORANGE PHASE- OPEN SYMBOL, BROWN PHASE-SHADED SYMBOL)
- EXISTING LIGHTING POLE RELOCATED WITH NEW 250 HPS AND GFCI RECEPTACLE, 5A FUSES (LIGHTING UNIT ON RED PHASE- OPEN SYMBOL, BLACK PHASE-SHADED SYMBOL)
- PROPOSED ROADWAY LIGHTING CONTROLLER 200A, 240/480V, 1Ø, 3W, SPECIAL SINGLE DOOR, BASE MOUNTED
- EXISTING COMED PAD-MOUNTED TRANSFORMER FOR UTILITY SERVICE CONNECTION
- PROPOSED COMED PAD-MOUNTED TRANSFORMER FOR UTILITY SERVICE CONNECTION
- PROPOSED CONDUIT AND CABLE AS INDICATED TO SECONDARY SIDE OF UTILITY SERVICE CONNECTION
- PROPOSED UNIT DUCT: SIZE AND QUANTITY OF CONDUCTORS AS INDICATED

NOTES:

1. SEE DRAWING E-1 FOR ELECTRICAL ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
2. COLOR CODING OF CONDUCTORS FOR 240/480V, 1Ø, 3W LIGHTING SYSTEM IS AS FOLLOWS:
 "A" PHASE - RED
 "B" PHASE - BLACK
 NEUTRAL - WHITE
 GROUND - GREEN
3. COLOR CODING OF CONDUCTORS FOR 120/240V, 1Ø, 3W RECEPTACLE SYSTEM IS AS FOLLOWS:
 "A" PHASE - ORANGE
 "B" PHASE - BROWN
 NEUTRAL - GRAY
 GROUND - GREEN
4. CONTRACTOR TO CONNECT PROPOSED ROADWAY LIGHTING CONTROLLER "C101" TO THE EXISTING COMED SERVICE TRANSFORMER AT DISCRETION OF COMED AND THE ENGINEER. FURNISH AND INSTALL NEW CABLE IN CONDUIT BETWEEN COMED TRANSFORMER AND CONTROLLER AS SHOWN. REFER TO NOTE 2 ON DRAWING E-17 FOR FURTHER INFORMATION.



LIGHTING CONTROLLER "C101" WIRING DIAGRAM
N.T.S.



TYPICAL COMBINATION LIGHTING CONTROLLER WIRING DIAGRAM
TYPICAL FOR ALL INTERSECTIONS
N.T.S.

- PROPOSED COMBINATION POLE LIGHTING UNIT: 400W, 2.0A AT 240V PHASE TO PHASE, HPS LUMINAIRE WITH TYPE MC-III DISTRIBUTION
- PROPOSED COMBINATION LIGHTING CONTROLLER ATTACHED TO SIDE OF TRAFFIC SIGNAL CABINET 120/240V, 1Ø, 3W
- COMBINATION SERVICE DISCONNECT CABINET GROUND OR POLE MOUNTED, SEE TRAFFIC SIGNAL PLANS FOR LOCATION AT EACH INTERSECTION

COMBINATION TRAFFIC/LIGHTING CONTROLLER ROADWAY LIGHTING PANEL LOAD TABLE (TYPICAL FOR ALL INTERSECTIONS IN THIS CONTRACT)

CIRCUIT	AMPS	WATTS	CIRCUIT	AMPS	WATTS
A	4	960	B	4	960
C	--	--	D	--	--
TOTAL	4.0	960	TOTAL	4.0	960

LOAD TABULATION IS BASED ON THE FOLLOWING:
400W HPS LUMINAIRE: 2.0A AT 240V

LIGHTING CONTROLLER "C101" ROADWAY LIGHTING PANEL LOAD TABLE

CIRCUIT	RED PHASE		CIRCUIT	BLACK PHASE	
	AMPS	WATTS		AMPS	WATTS
A	4	960	B	2	480
C	4	960	D	2	480
E	9.1	1920	F	9.1	1920
G	8	1920	H	8	1920
I	--	--	J	--	--
K	--	--	L	--	--
M	--	--	N	--	--
O	--	--	P	--	--
Q	--	--	R	--	--
S	--	--	T	--	--
U	--	--	V	--	--
W	9.75	2340	X	7.5	1980
TOTAL	34.85	8364	TOTAL	28.6	6864

LOAD TABULATION IS BASED ON THE FOLLOWING:
400W HPS LUMINAIRE: 2.0A AT 240V
250W HPS LUMINAIRE: 1.1A AT 240V

LIGHTING CONTROLLER "C101" RECEPTACLE PANEL LOAD TABLE

CIRCUIT	ORANGE PHASE		CIRCUIT	BROWN PHASE	
	AMPS	WATTS		AMPS	WATTS
R1	3	360	R2	1.5	180
R3	3	360	R4	1.5	180
R5	7.5	900	R6	7.5	900
R7	6	720	R8	6	720
R9	--	--	R10	--	--
R11	--	--	R12	--	--
R13	--	--	R14	--	--
R15	--	--	R16	--	--
R17	--	--	R18	--	--
TOTAL	19.5	2340	TOTAL	16.5	1980

LOAD TABULATION IS BASED ON THE FOLLOWING:
180W RECEPTACLE: 1.5A AT 120V
• FOR FUTURE MEDIAN RECEPTACLE LOADS

100 S. WACKER DR.
 15TH FLOOR
 CHICAGO, IL 60606
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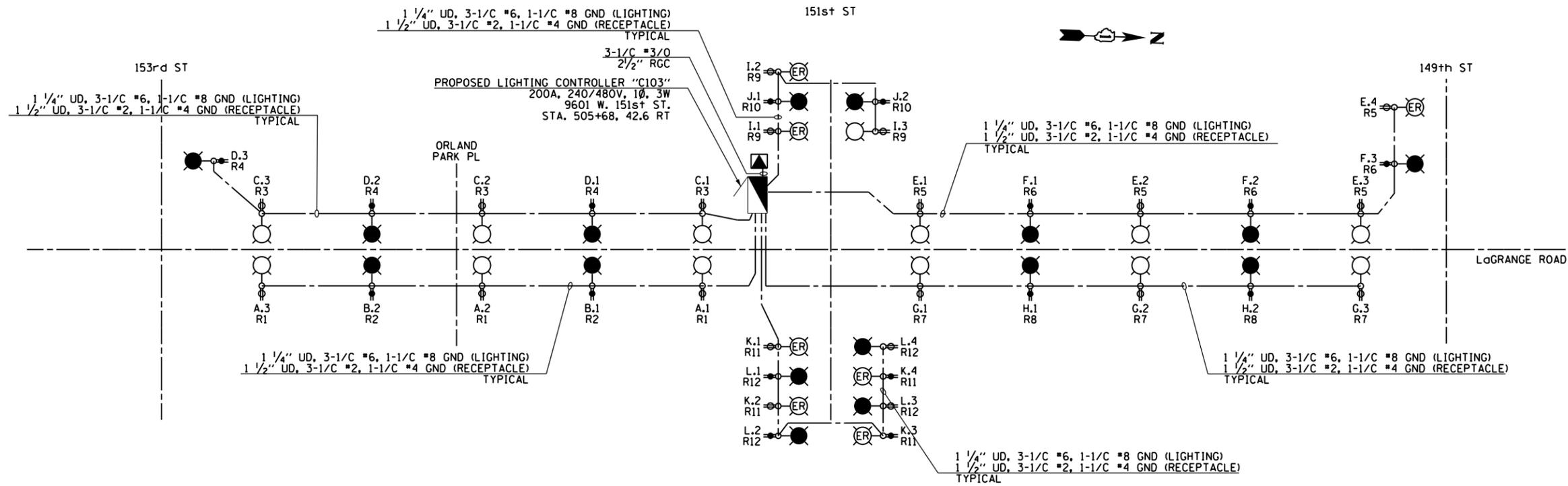
FILE NAME = D160M61-SHT-E39.dgn	USER NAME = michal_bartusiewicz	DESIGNED - DAD	REVISED -
SHT_PLAN	PLOT SCALE = 2.000000' / in.	DRAWN - DAD	REVISED -
DT60M61-SHT-E39.dgn 3/15/2013 2:27:26 PM	PLOT DATE = 3/15/2013	CHECKED - DAD	REVISED -
	DATE = 03/13/2013	DATE - 03/13/2013	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**US 45 (LaGRANGE ROAD)
LIGHTING CONTROLLER "C101" WIRING DIAGRAM**

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 450
E-39		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				



LIGHTING CONTROLLER "C103" WIRING DIAGRAM
N.T.S.

LEGEND:

- PROPOSED LIGHTING UNIT: 400W, 240V PHASE TO NEUTRAL, HPS LUMINAIRE WITH TYPE III DISTRIBUTION, 45'-2" ALUMINUM POLE SHAFT ON 24" DIAMETER CONCRETE FOUNDATION, 47'-6" MOUNTING HEIGHT, 12'-0" MAST ARM, WITH 5A FUSES AND T-BASE (RED PHASE- OPEN SYMBOL, BLACK PHASE-SHADED SYMBOL)
- EXISTING LIGHTING POLE RELOCATED WITH NEW 250 HPS AND GFCI RECEPTACLE, 5A FUSES (LIGHTING UNIT ON RED PHASE- OPEN SYMBOL, BLACK PHASE-SHADED SYMBOL)
- PROPOSED 120V, 20A, GFCI RECEPTACLE ON PROPOSED LIGHTING UNIT (ORANGE PHASE- OPEN SYMBOL, BROWN PHASE-SHADED SYMBOL)
- PROPOSED ROADWAY LIGHTING CONTROLLER 200A, 240/480V, 1Ø, 3W, SPECIAL SINGLE DOOR, BASE MOUNTED
- PROPOSED COMED PAD-MOUNTED TRANSFORMER FOR UTILITY SERVICE CONNECTION
- PROPOSED CONDUIT AND CABLE AS INDICATED TO SECONDARY SIDE OF UTILITY SERVICE CONNECTION
- PROPOSED UNIT DUCT; SIZE AND QUANTITY OF CONDUCTORS AS INDICATED

CIRCUIT	RED PHASE		CIRCUIT	BLACK PHASE	
	AMPS	WATTS		AMPS	WATTS
A	6	1440	B	4	480
C	6	1440	D	5.1	1224
E	7.1	1704	F	5.1	1224
G	6	1440	H	4	480
I	3.3	792	J	2.2	528
K	4.4	1056	L	4.4	1056
M	--	--	N	--	--
O	--	--	P	--	480
Q	--	--	R	--	--
S	--	--	T	--	--
U	--	--	V	--	--
W	15	3600	X	12	2880
TOTAL	47.8	11472	TOTAL	52.625	8832

LOAD TABULATION IS BASED ON THE FOLLOWING:

400W HPS LUMINAIRE: 2.0A AT 240V
250W HPS LUMINAIRE: 1.1A AT 240V

CIRCUIT	ORANGE PHASE		CIRCUIT	BROWN PHASE	
	AMPS	WATTS		AMPS	WATTS
R1	4.5	540	R2	3	360
R3	4.5	540	R4	4.5	540
R5	6	720	R6	4.5	540
R7	4.5	540	R8	3	360
R9	4.5	540	R10	3	360
R11	6	720	R12	6	720
R13	--	--	R14	--	--
R15	--	--	R16	--	--
R17	--	--	R18	--	--
TOTAL	30	3600	TOTAL	24	2880

LOAD TABULATION IS BASED ON THE FOLLOWING:

180W RECEPTACLE: 1.5A AT 120V
• FOR FUTURE MEDIAN RECEPTACLE LOADS

NOTES:

1. SEE DRAWING E-1 FOR ELECTRICAL ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
2. COLOR CODING OF CONDUCTORS FOR 240/480V, 1Ø, 3W LIGHTING SYSTEM IS AS FOLLOWS:
"A" PHASE - RED
"B" PHASE - BLACK
NEUTRAL - WHITE
GROUND - GREEN
3. COLOR CODING OF CONDUCTORS FOR 120/240V, 1Ø, 3W RECEPTACLE SYSTEM IS AS FOLLOWS:
"A" PHASE - ORANGE
"B" PHASE - BROWN
NEUTRAL - GRAY
GROUND - GREEN

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FILE NAME = D160M61-SHT-E40.dgn	USER NAME = michal_bartusiewicz	DESIGNED - DAD	REVISED -
		DRAWN - DAD	REVISED -
SHT_PLAN	PLOT SCALE = 2.000000' / in.	CHECKED - DAD	REVISED -
	PLOT DATE = 3/15/2013	DATE - 03/13/2013	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

US 45 (LaGRANGE ROAD)
LIGHTING CONTROLLER "C103" WIRING DIAGRAM

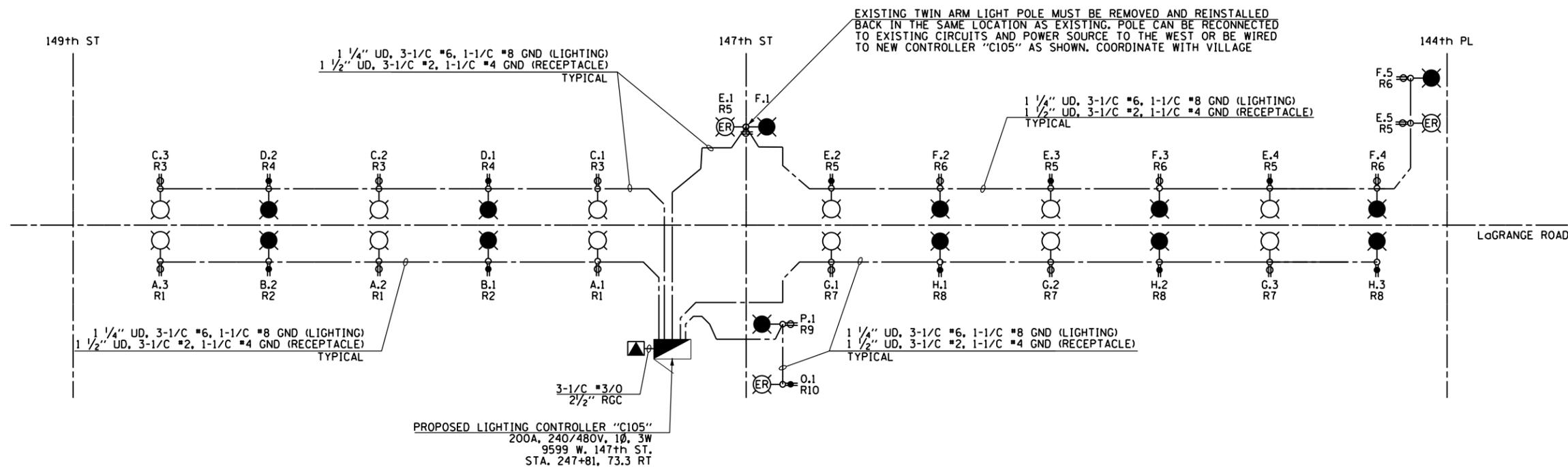
SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	451
E-40		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				



LEGEND:

- PROPOSED LIGHTING UNIT: 400W, 240V PHASE TO NEUTRAL, HPS LUMINAIRE WITH TYPE III DISTRIBUTION, 45'-2" ALUMINUM POLE SHAFT ON 24" DIAMETER CONCRETE FOUNDATION, 47'-6" MOUNTING HEIGHT, 12'-0" MAST ARM, WITH 5A FUSES AND T-BASE (RED PHASE-OPEN SYMBOL, BLACK PHASE-SHADED SYMBOL)
- EXISTING LIGHTING POLE RELOCATED WITH NEW 250 HPS AND GFCI RECEPTACLE, 5A FUSES (LIGHTING UNIT ON RED PHASE- OPEN SYMBOL, BLACK PHASE-SHADED SYMBOL)
- PROPOSED 120V, 20A, GFCI RECEPTACLE ON PROPOSED LIGHTING UNIT (ORANGE PHASE- OPEN SYMBOL, BROWN PHASE-SHADED SYMBOL)
- PROPOSED ROADWAY LIGHTING CONTROLLER 200A, 240/480V, 1Ø, 3W, SPECIAL SINGLE DOOR, BASE MOUNTED
- PROPOSED COMED PAD-MOUNTED TRANSFORMER FOR UTILITY SERVICE CONNECTION
- PROPOSED CONDUIT AND CABLE AS INDICATED TO SECONDARY SIDE OF UTILITY SERVICE CONNECTION
- PROPOSED UNIT DUCT: SIZE AND QUANTITY OF CONDUCTORS AS INDICATED



LIGHTING CONTROLLER "C105" WIRING DIAGRAM
N.T.S.

NOTES:

1. SEE DRAWING E-1 FOR ELECTRICAL ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
2. COLOR CODING OF CONDUCTORS FOR 240/480V, 1Ø, 3W LIGHTING SYSTEM IS AS FOLLOWS:
 "A" PHASE - RED
 "B" PHASE - BLACK
 NEUTRAL - WHITE
 GROUND - GREEN
3. COLOR CODING OF CONDUCTORS FOR 120/240V, 1Ø, 3W RECEPTACLE SYSTEM IS AS FOLLOWS:
 "A" PHASE - ORANGE
 "B" PHASE - BROWN
 NEUTRAL - GRAY
 GROUND - GREEN

CIRCUIT	RED PHASE		CIRCUIT	BLACK PHASE	
	AMPS	WATTS		AMPS	WATTS
A	6	1440	B	4	960
C	6	1440	D	4	960
E	8.2	1968	F	8.2	1968
G	6	1440	H	6	1440
I	--	--	J	--	--
K	--	--	L	--	--
M	--	--	N	--	--
O	1.1	250	P	1.1	250
Q	--	--	R	--	--
S	--	--	T	--	--
U	--	--	V	--	--
W	10.5	2520	X	9	2160
TOTAL	37.8	9072	TOTAL	32.3	7752

LOAD TABULATION IS BASED ON THE FOLLOWING:
 400W HPS LUMINAIRE: 2.0A AT 240V
 250W HPS LUMINAIRE: 1.1A AT 240V

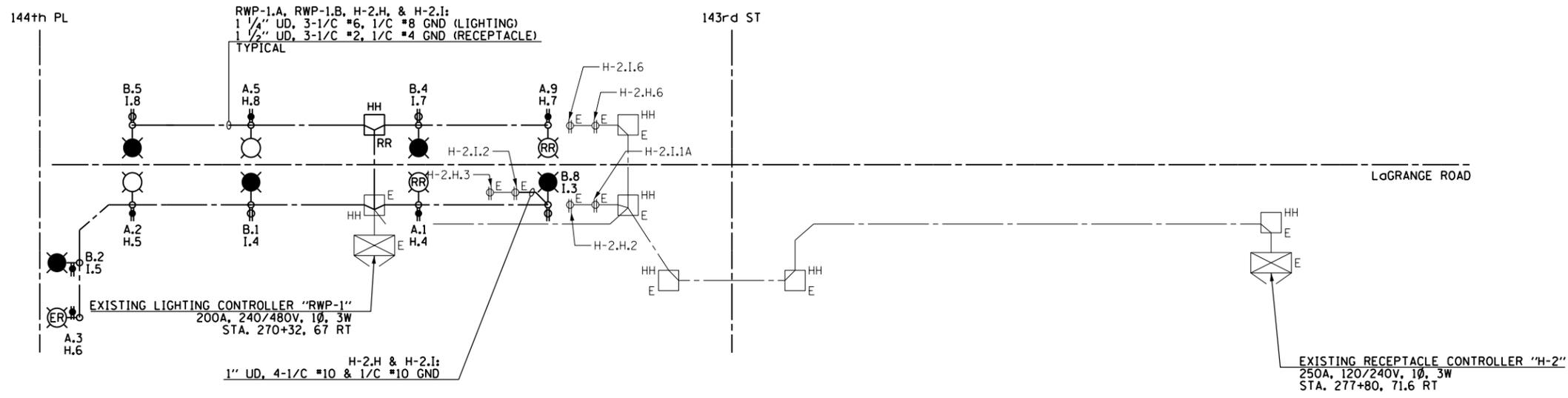
CIRCUIT	ORANGE PHASE		CIRCUIT	BROWN PHASE	
	AMPS	WATTS		AMPS	WATTS
R1	4.5	540	R2	3	360
R3	4.5	540	R4	3	360
R5	7.5	900	R6	7.5	900
R7	3	360	R8	3	360
R9	1.5	180	R10	1.5	180
R11	--	--	R12	--	--
R13	--	--	R14	--	--
R15	--	--	R16	--	--
R17	--	--	R18	--	--
TOTAL	21	2520	TOTAL	18	2160

LOAD TABULATION IS BASED ON THE FOLLOWING:
 180W RECEPTACLE: 1.5A AT 120V
 • FOR FUTURE MEDIAN RECEPTACLE LOADS

100 S. WACKER DR.
 SUITE 600
 CHICAGO, IL 60606
 TEL (312) 935-1000
 FAX (312) 935-4998
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LEGEND:

-  PROPOSED LIGHTING UNIT: 400W, 240V PHASE TO NEUTRAL, HPS LUMINAIRE WITH TYPE III DISTRIBUTION, 45'-2" ALUMINUM POLE SHAFT ON 24" DIAMETER CONCRETE FOUNDATION, 47'-6" MOUNTING HEIGHT, 12'-0" MAST ARM, WITH 5A FUSES AND T-BASE (RED PHASE-OPEN SYMBOL, BLACK PHASE-SHADED SYMBOL)
-  EXISTING LIGHTING UNIT WITH RECEPTACLE TO BE RELOCATED (LIGHTING UNIT ON RED PHASE-OPEN SYMBOL, BLACK PHASE-SHADED SYMBOL) (RECEPTACLE ON ORANGE PHASE-OPEN SYMBOL, BROWN PHASE-SHADED SYMBOL)
-  EXISTING LIGHTING POLE TO BE RELOCATED WITH NEW 250 W HPS FIXTURE AND GFCI RECEPTACLE (LIGHTING UNIT ON RED PHASE-OPEN SYMBOL, BLACK PHASE-SHADED SYMBOL) (RECEPTACLE ON ORANGE PHASE-OPEN SYMBOL, BROWN PHASE-SHADED SYMBOL)
-  PROPOSED 120V, 20A, GFCI RECEPTACLE ON PROPOSED LIGHTING UNIT (ORANGE PHASE-OPEN SYMBOL, BROWN PHASE-SHADED SYMBOL)
-  EXISTING RECEPTACLE INSTALLED BY OTHERS (ORANGE PHASE-OPEN SYMBOL, BROWN PHASE-SHADED SYMBOL)
-  EXISTING ROADWAY LIGHTING OR RECEPTACLE CONTROLLER AS INDICATED
-  EXISTING ROADWAY LIGHTING HANDHOLE TO BE RELOCATED
-  EXISTING ROADWAY LIGHTING HANDHOLE
-  PROPOSED ELECTRICAL CONDUCTORS: SIZE AND QUANTITY AS INDICATED
-  ELECTRICAL CONDUCTORS: EXISTING OR INSTALLED IN EARLIER CONSTRUCTION STAGE



EXISTING LIGHTING CONTROLLERS "RWP-1" & "H-2" WIRING MODIFICATION DIAGRAM
 N.T.S. (NOTES 2, 3, 4)

NOTES:

1. SEE DRAWING E-1 FOR ELECTRICAL ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
2. WIRING DIAGRAM ONLY SHOWS THE CHANGES BEING MADE TO THE CONTROLLERS. EXISTING LOADS ON THE CONTROLLERS ARE NOT SHOWN FOR CLARITY.
3. COLOR CODING OF PROPOSED CONDUCTORS FOR 240/480V, 1Ø, 3W LIGHTING SYSTEM IS AS FOLLOWS:
 "A" PHASE - RED
 "B" PHASE - BLACK
 NEUTRAL - WHITE
 GROUND - GREEN
4. COLOR CODING OF PROPOSED CONDUCTORS FOR 120/240V, 1Ø, 3W RECEPTACLE SYSTEM IS AS FOLLOWS:
 "A" PHASE - ORANGE
 "B" PHASE - BROWN
 NEUTRAL - GRAY
 GROUND - GREEN

FILE NAME =	USER NAME = michael_bartusiewicz	DESIGNED - JLW	REVISED -
D160M61-SHT-E42.dgn		DRAWN - CJM	REVISED -
SHT.PLAN	PLOT SCALE = 2.000000' / in.	CHECKED - KMY	REVISED -
	PLOT DATE = 3/15/2013	DATE - 03/13/2013	REVISED -

US 45 (LaGRANGE ROAD)			
EXISTING LIGHTING CONTROLLERS "RWP-1" & "H-2"			
WIRING MODIFICATION DIAGRAM			
SCALE: NONE	SHEET 1 OF 1 SHEETS	STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	453
E-42		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				

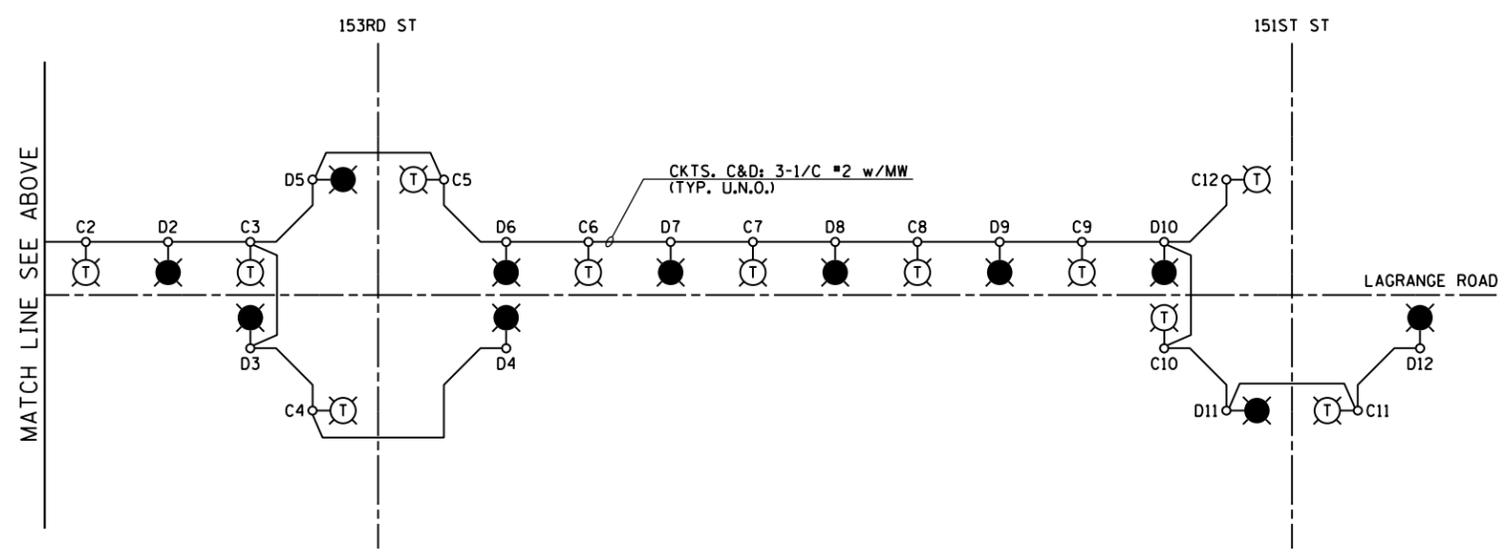
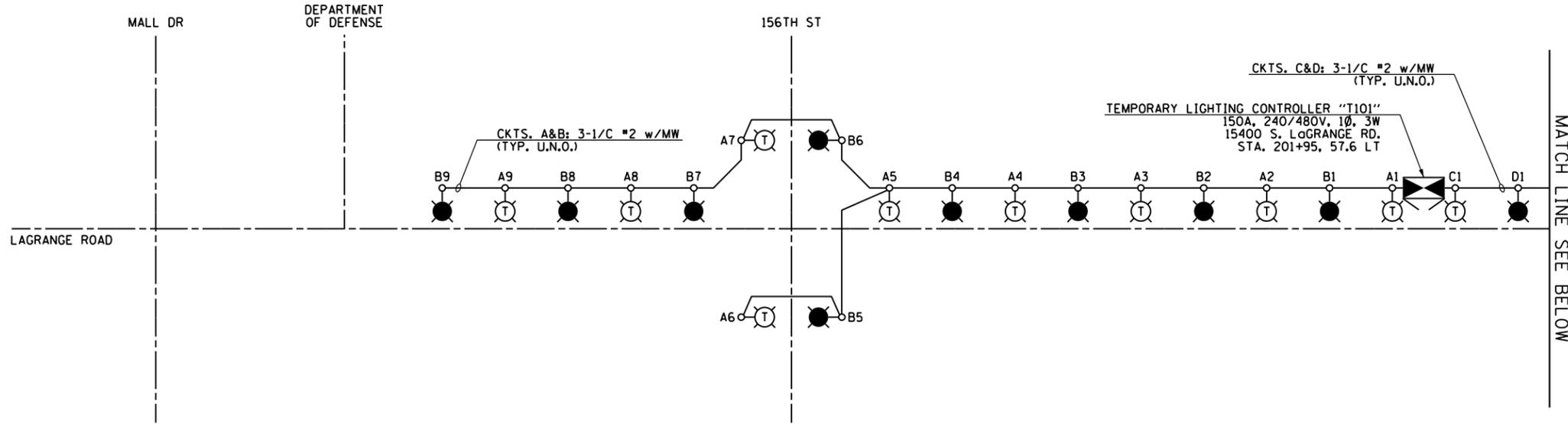
LEGEND:

-  TEMPORARY LIGHTING UNIT: 400W, 240V PHASE TO NEUTRAL, HPS LUMINAIRE WITH TYPE III DISTRIBUTION, 60'-0" CLASS 4 WOOD POLE, 47'-6" MOUNTING HEIGHT, 12'-0" MAST ARM, WITH 5A FUSES (RED PHASE-OPEN SYMBOL, BLACK PHASE-SHADED SYMBOL)
-  TEMPORARY ROADWAY LIGHTING CONTROLLER 150A, 240/480V, 1Ø, 3W
-  TEMPORARY AERIAL CABLE AND MESSENGER WIRE AS IDENTIFIED

NOTES:

1. SEE DRAWING E-1 FOR ELECTRICAL ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
2. COLOR CODING OF CONDUCTORS FOR 240/480V, 1Ø, 3W LIGHTING SYSTEM IS AS FOLLOWS:

- "A" PHASE - RED
- "B" PHASE - BLACK
- NEUTRAL - WHITE
- GROUND - GREEN



TEMPORARY LIGHTING CONTROLLER T101 WIRING DIAGRAM
N.T.S.



LIGHTING CONTROLLER "T101" ROADWAY LIGHTING PANEL LOAD TABLE					
CIRCUIT	RED PHASE		CIRCUIT	BLACK PHASE	
	AMPS	WATTS		AMPS	WATTS
A	18	4320	B	18	4320
C	24	5760	D	24	5760
E	--	--	F	--	--
G	--	--	H	--	--
I	--	--	J	--	--
K	--	--	L	--	--
TOTAL	42	10080	TOTAL	42	10080

LOAD TABULATION IS BASED ON THE FOLLOWING:

400W HPS LUMINAIRE: 2.0A AT 240V

100 S. WACKER DR.
 SUITE 500
 CHICAGO, IL 60606
 TEL (312) 935-1000
 FAX (312) 935-4198



FILE NAME =	USER NAME =	DESIGNED -	REVISED -
D160M61-SHT-E43.dgn	michal_bartusiewicz	JLW	
		DRAWN -	REVISED -
		CJM	
		CHECKED -	REVISED -
		KMY	
SHT_PLAN	PLOT DATE =	DATE -	REVISED -
	3/15/2013	03/13/2013	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

US 45 (LaGRANGE ROAD)
TEMPORARY LIGHTING CONTROLLER "T101" WIRING DIAGRAM

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

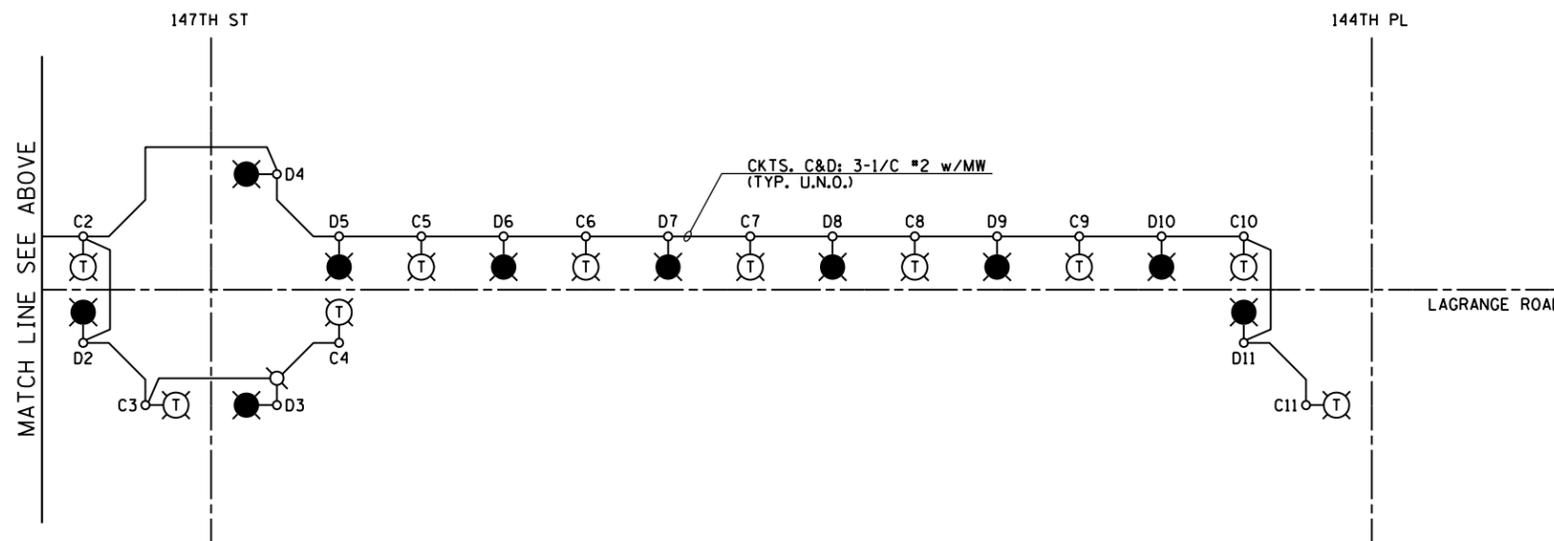
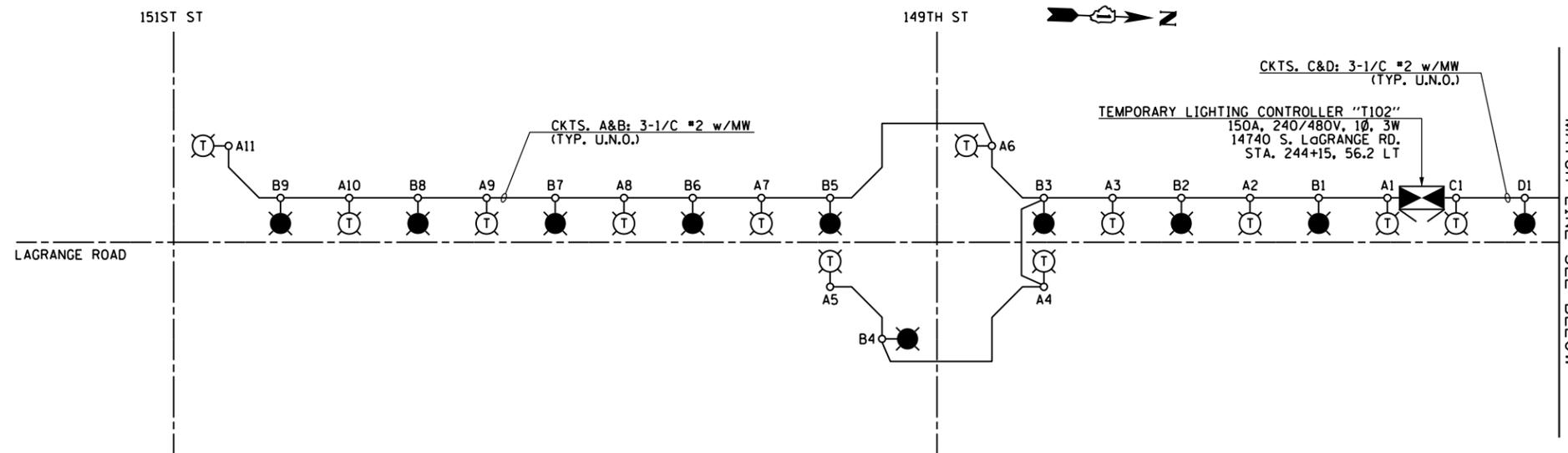
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	454
E-43		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				

LEGEND:

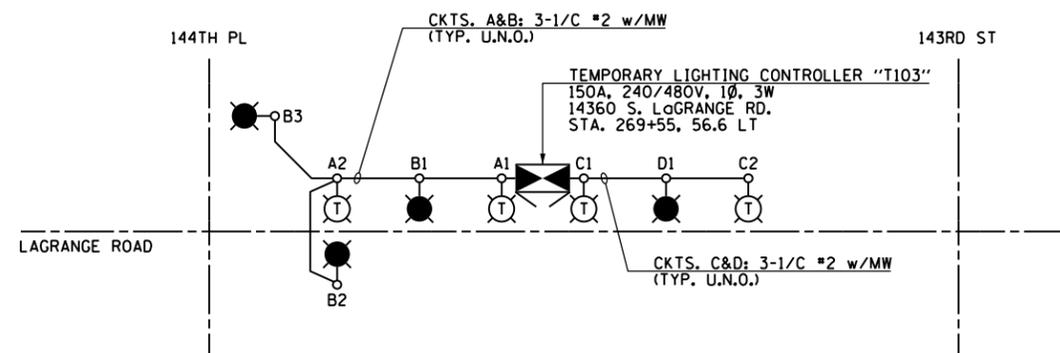
- TEMPORARY LIGHTING UNIT: 400W, 240V PHASE TO NEUTRAL, HPS LUMINAIRE WITH TYPE III DISTRIBUTION, 60'-0" CLASS 4 WOOD POLE, 47'-6" MOUNTING HEIGHT, 12'-0" MAST ARM, WITH 5A FUSES (RED PHASE-OPEN SYMBOL, BLACK PHASE-SHADED SYMBOL)
- EXISTING PERMANENT LIGHTING UNIT
- TEMPORARY ROADWAY LIGHTING CONTROLLER 150A, 240/480V, 1Ø, 3W
- PROPOSED TEMPORARY WOOD POLE (NOTE 3)
- TEMPORARY AERIAL CABLE AND MESSENGER WIRE AS IDENTIFIED

NOTES:

1. SEE DRAWING E-1 FOR ELECTRICAL ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
2. COLOR CODING OF CONDUCTORS FOR 240/480V, 1Ø, 3W LIGHTING SYSTEM IS AS FOLLOWS:
 "A" PHASE - RED
 "B" PHASE - BLACK
 NEUTRAL - WHITE
 GROUND - GREEN
3. TEMPORARY POLES SHOWN ONLY AT LOCATIONS WHERE THREE OR MORE AERIAL CABLE RUNS MEET. REFER TO DRAWINGS E-10 THROUGH E-16 FOR ALL TEMPORARY POLE LOCATIONS.



TEMPORARY LIGHTING CONTROLLER T102 WIRING DIAGRAM
N.T.S.



TEMPORARY LIGHTING CONTROLLER T103 WIRING DIAGRAM
N.T.S.

LIGHTING CONTROLLER "T102" ROADWAY LIGHTING PANEL LOAD TABLE					
CIRCUIT	RED PHASE		CIRCUIT	BLACK PHASE	
	AMPS	WATTS		AMPS	WATTS
A	22	5280	B	18	4320
C	22	5280	D	22	5280
E	--	--	F	--	--
G	--	--	H	--	--
I	--	--	J	--	--
K	--	--	L	--	--
TOTAL	44	10560	TOTAL	40	9600

LOAD TABULATION IS BASED ON THE FOLLOWING:
400W HPS LUMINAIRE: 2.0A AT 240V

LIGHTING CONTROLLER "T103" ROADWAY LIGHTING PANEL LOAD TABLE					
CIRCUIT	RED PHASE		CIRCUIT	BLACK PHASE	
	AMPS	WATTS		AMPS	WATTS
A	4	960	B	6	1440
C	4	960	D	2	480
E	--	--	F	--	--
G	--	--	H	--	--
I	--	--	J	--	--
K	--	--	L	--	--
TOTAL	8	1920	TOTAL	8	1920

LOAD TABULATION IS BASED ON THE FOLLOWING:
400W HPS LUMINAIRE: 2.0A AT 240V

100 S. WACKER DR.
 SUITE 500
 CHICAGO, IL 60606
 TEL (312) 939-1000
 FAX (312) 939-4998

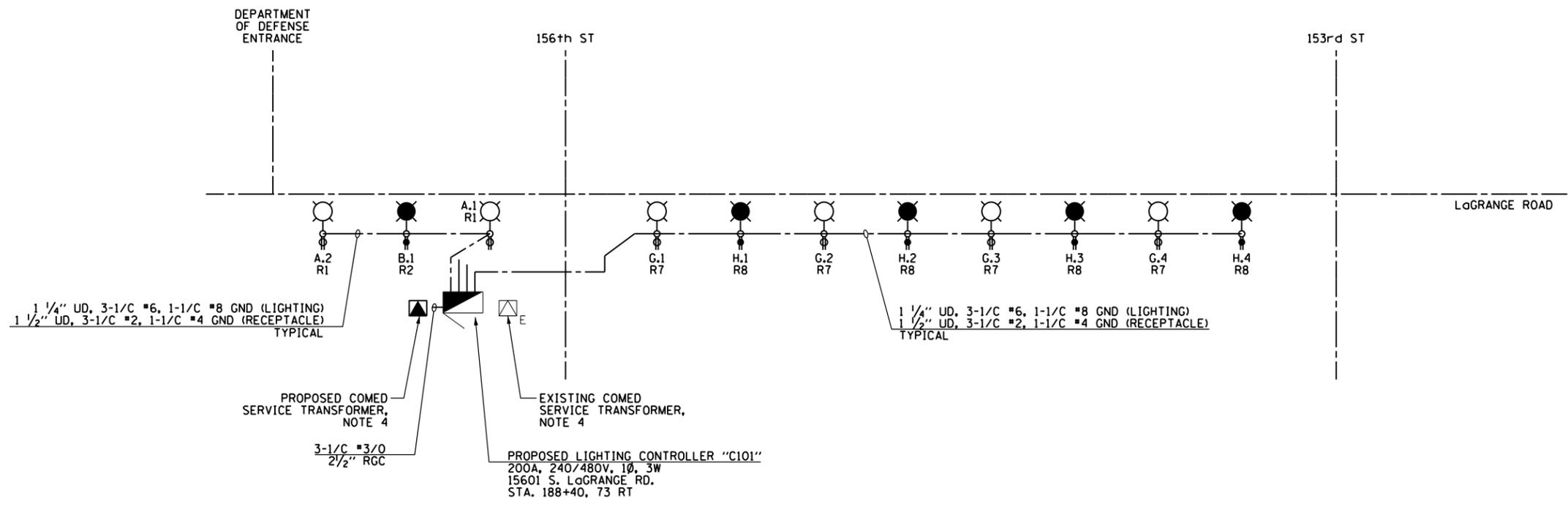
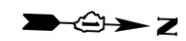
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		DATE - 03/13/2013	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

US 45 (LaGRANGE ROAD)
TEMPORARY LIGHTING CONTROLLER "T102" AND "T103"
WIRING DIAGRAMS

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 455
E-44		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				



LEGEND:

- PROPOSED LIGHTING UNIT: 400W, 240V PHASE TO NEUTRAL, HPS LUMINAIRE WITH TYPE III DISTRIBUTION, 45'-2" ALUMINUM POLE SHAFT ON 24" DIAMETER CONCRETE FOUNDATION, 47'-6" MOUNTING HEIGHT, 12'-0" MAST ARM, WITH 5A FUSES AND T-BASE (RED PHASE- OPEN SYMBOL, BLACK PHASE-SHADED SYMBOL)
- PROPOSED 120V, 20A, GFCI RECEPTACLE ON PROPOSED LIGHTING UNIT (ORANGE PHASE- OPEN SYMBOL, BROWN PHASE-SHADED SYMBOL)
- EXISTING LIGHTING POLE RELOCATED WITH NEW 250 HPS AND GFCI RECEPTACLE, 5A FUSES (LIGHTING UNIT ON RED PHASE- OPEN SYMBOL, BLACK PHASE-SHADED SYMBOL)
- PROPOSED ROADWAY LIGHTING CONTROLLER 200A, 240/480V, 1Ø, 3W, SPECIAL SINGLE DOOR, BASE MOUNTED
- EXISTING COMED PAD-MOUNTED TRANSFORMER FOR UTILITY SERVICE CONNECTION
- PROPOSED COMED PAD-MOUNTED TRANSFORMER FOR UTILITY SERVICE CONNECTION
- PROPOSED CONDUIT AND CABLE AS INDICATED TO SECONDARY SIDE OF UTILITY SERVICE CONNECTION
- PROPOSED UNIT DUCT: SIZE AND QUANTITY OF CONDUCTORS AS INDICATED

LIGHTING CONTROLLER "C101" STAGE 1 WIRING DIAGRAM
N.T.S.

CIRCUIT	RED PHASE		CIRCUIT	BLACK PHASE	
	AMPS	WATTS		AMPS	WATTS
A	4	960	B	2	480
C	--	--	D	--	--
E	--	--	F	--	--
G	8	1920	H	8	1920
I	--	--	J	--	--
K	--	--	L	--	--
M	--	--	N	--	--
O	--	--	P	--	--
Q	--	--	R	--	--
S	--	--	T	--	--
U	--	--	V	--	--
W	4.5	1080	X	3.8	900
TOTAL	16.5	3960	TOTAL	13.8	3312

CIRCUIT	ORANGE PHASE		CIRCUIT	BROWN PHASE	
	AMPS	WATTS		AMPS	WATTS
R1	3	360	R2	1.5	180
R3	--	--	R4	--	--
R5	--	--	R6	--	--
R7	6	720	R8	6	720
R9	--	--	R10	--	--
R11	--	--	R12	--	--
R13	--	--	R14	--	--
R15	--	--	R16	--	--
R17	--	--	R18	--	--
TOTAL	9	1080	TOTAL	7.5	900

LOAD TABULATION IS BASED ON THE FOLLOWING:
400W HPS LUMINAIRE: 2.0A AT 240V
250W HPS LUMINAIRE: 1.1A AT 240V

LOAD TABULATION IS BASED ON THE FOLLOWING:
180W RECEPTACLE: 1.5A AT 120V
• FOR FUTURE MEDIAN RECEPTACLE LOADS

NOTES:

- SEE DRAWING E-1 FOR ELECTRICAL ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
- COLOR CODING OF CONDUCTORS FOR 240/480V, 1Ø, 3W LIGHTING SYSTEM IS AS FOLLOWS:
"A" PHASE - RED
"B" PHASE - BLACK
NEUTRAL - WHITE
GROUND - GREEN
- COLOR CODING OF CONDUCTORS FOR 120/240V, 1Ø, 3W RECEPTACLE SYSTEM IS AS FOLLOWS:
"A" PHASE - ORANGE
"B" PHASE - BROWN
NEUTRAL - GRAY
GROUND - GREEN
- CONTRACTOR TO CONNECT PROPOSED ROADWAY LIGHTING CONTROLLER "C101" TO THE EXISTING COMED SERVICE TRANSFORMER AT DISCRETION OF COMED AND THE ENGINEER, REFER TO NOTE 2 ON DRAWING E-17 FOR FURTHER INFORMATION.

100 S. WACKER DR.
 SUITE 600
 CHICAGO, IL 60606
 TEL (312) 939-1000
 FAX (312) 939-4998
URS

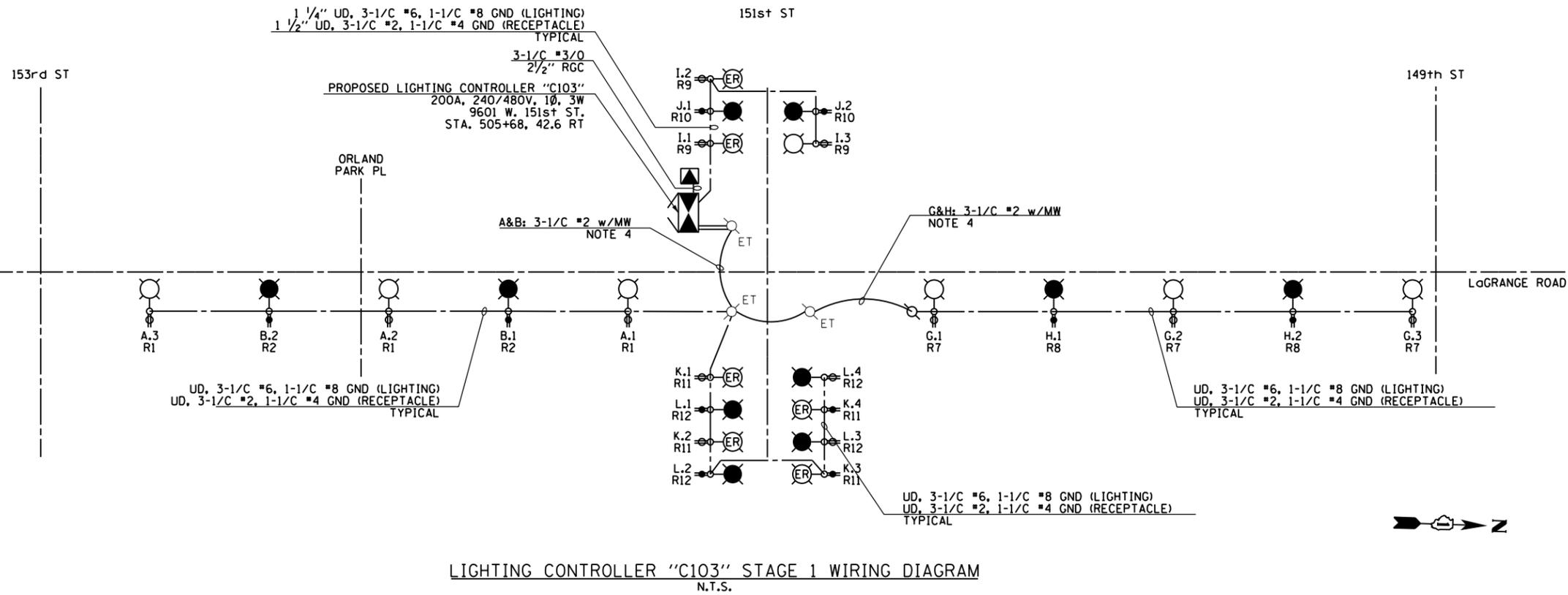
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	PLOT DATE = 3/15/2013	CHECKED - KMY	REVISED -
		DATE - 03/13/2013	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**US 45 (LaGRANGE ROAD)
LIGHTING CONTROLLER "C101" STAGE 1 WIRING DIAGRAM**

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	456
E-45		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				



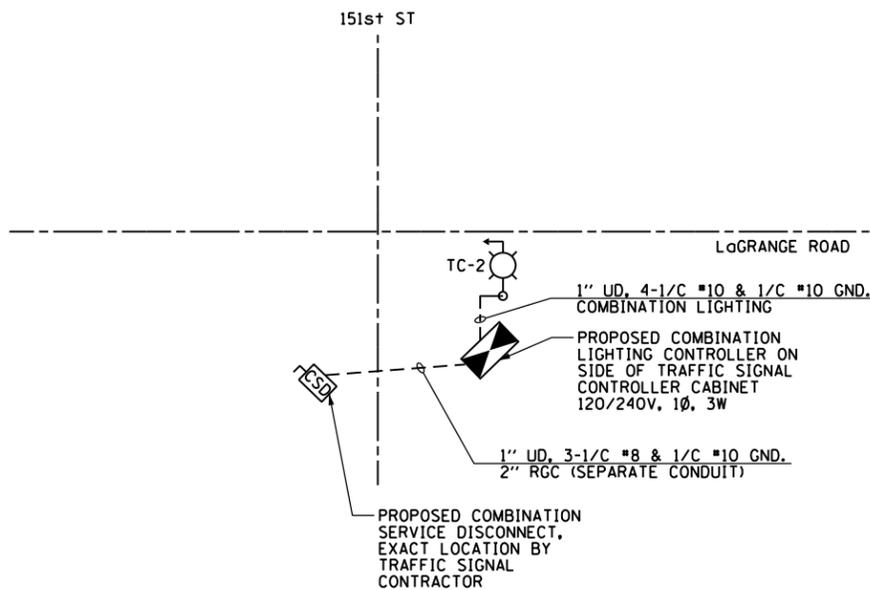
LIGHTING CONTROLLER "C103" STAGE 1 WIRING DIAGRAM
N.T.S.

LEGEND:

- PROPOSED LIGHTING UNIT: 400W, 240V PHASE TO NEUTRAL, HPS LUMINAIRE WITH TYPE III DISTRIBUTION, 45'-2" ALUMINUM POLE SHAFT ON 24" DIAMETER CONCRETE FOUNDATION, 47'-6" MOUNTING HEIGHT, 12'-0" MAST ARM, WITH 5A FUSES AND T-BASE (RED PHASE-OPEN SYMBOL, BLACK PHASE-SHADED SYMBOL)
- EXISTING LIGHTING UNIT WITH RECEPTACLE TO BE RELOCATED (LIGHTING UNIT ON RED PHASE-OPEN SYMBOL, BLACK PHASE-SHADED SYMBOL) (RECEPTACLE ON ORANGE PHASE-OPEN SYMBOL, BROWN PHASE-SHADED SYMBOL)
- EXISTING LIGHTING POLE RELOCATED WITH NEW 250 HPS AND RECEPTACLE, 5A FUSES (LIGHTING UNIT ON RED PHASE- OPEN SYMBOL, BLACK PHASE-SHADED SYMBOL)
- PROPOSED 120V, 20A, GFCI RECEPTACLE ON PROPOSED LIGHTING UNIT (ORANGE PHASE- OPEN SYMBOL, BROWN PHASE-SHADED SYMBOL)
- PROPOSED TEMPORARY WOOD POLE
- PROPOSED COMBINATION POLE LIGHTING UNIT: 400W, 2.0A AT 240V PHASE TO PHASE, HPS LUMINAIRE WITH TYPE III DISTRIBUTION
- PROPOSED TEMPORARY WOOD POLE INSTALLED IN EARLIER CONSTRUCTION STAGE
- PROPOSED ROADWAY LIGHTING CONTROLLER
- PROPOSED COMBINATION LIGHTING CONTROLLER
- COMBINATION SERVICE DISCONNECT
- PROPOSED COMED PAD-MOUNTED TRANSFORMER FOR UTILITY SERVICE CONNECTION
- PROPOSED CONDUIT AND CABLE AS INDICATED TO SECONDARY SIDE OF UTILITY SERVICE CONNECTION
- PROPOSED UNIT DUCT; SIZE AND QUANTITY OF CONDUCTORS AS INDICATED
- TEMPORARY AERIAL CABLE AND MESSENGER WIRE AS INDICATED

NOTES:

1. SEE DRAWING E-1 FOR ELECTRICAL ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
2. COLOR CODING OF CONDUCTORS FOR 240/480V, 1Ø, 3W LIGHTING SYSTEM IS AS FOLLOWS:
"A" PHASE - RED
"B" PHASE - BLACK
NEUTRAL - WHITE
GROUND - GREEN
3. COLOR CODING OF CONDUCTORS FOR 120/240V, 1Ø, 3W RECEPTACLE SYSTEM IS AS FOLLOWS:
"A" PHASE - ORANGE
"B" PHASE - BROWN
NEUTRAL - GRAY
GROUND - GREEN
4. AERIAL CABLES ARE ONLY PROVIDED TO COMPLETE THE ROADWAY LIGHTING CIRCUITS C103.A, C103.B, C103.G, AND C103.H. RECEPTACLE CIRCUITS C103.R1, C103.R2, C103.R3, AND C103.R4 WILL NOT BE CONNECTED AND ENERGIZED UNTIL THE PERMANENT WIRING CONNECTION IS COMPLETED AS SHOWN ON DRAWING EW3-2.



COMBINATION LIGHTING CONTROLLER "ZV" STAGE 1 WIRING DIAGRAM
N.T.S.

NOTES:

1. CONTRACTOR SHALL COORDINATE INSTALLATION OF ALL COMBINATION LIGHTING EQUIPMENT WITH THE TRAFFIC SIGNAL CONTRACTOR. STAGING OF THE INSTALLATION OF THE COMBINATION LIGHTING EQUIPMENT MUST FOLLOW THE STAGING OF THE PERMANENT TRAFFIC SIGNAL EQUIPMENT INSTALLATION.
2. NOT ALL COMBINATION LIGHTING EQUIPMENT STAGING IS SHOWN SINCE CONSTRUCTION STAGING WILL VARY BETWEEN INTERSECTIONS.
3. REFER TO TRAFFIC SIGNAL PLANS FOR EXACT LOCATIONS OF TRAFFIC SIGNAL CONTROLLER CABINET, COMED SERVICE TRANSFORMER FEEDING THE COMBINATION LIGHTING, AND LOCATION OF THE COMBINATION SERVICE DISCONNECT CABINET.

LIGHTING CONTROLLER "C103" ROADWAY LIGHTING PANEL LOAD TABLE

CIRCUIT	RED PHASE		BLACK PHASE		
	AMPS	WATTS	AMPS	WATTS	
A	6	1440	B	4	480
C	--	--	--	--	1224
E	--	--	F	--	--
G	6	1440	H	4	480
I	3.3	792	J	2.2	528
K	4.4	1056	L	4.4	1056
M	--	--	N	--	--
O	--	--	P	--	480
Q	--	--	R	--	--
S	--	--	T	--	--
U	--	--	V	--	--
W	15	3600	X	12	2880
TOTAL	47.8	11472	TOTAL	52.625	8832

LOAD TABULATION IS BASED ON THE FOLLOWING:

400W HPS LUMINAIRE: 2.0A AT 240V
250W HPS LUMINAIRE: 1.1A AT 240V

LIGHTING CONTROLLER "C103" RECEPTACLE PANEL LOAD TABLE

CIRCUIT	ORANGE PHASE		BROWN PHASE		
	AMPS	WATTS	AMPS	WATTS	
R1	4.5	540	R2	3	360
R3	--	--	R4	--	--
R5	--	--	R6	--	--
R7	4.5	540	R8	3	360
R9	4.5	540	R10	3	360
R11	6	720	R12	6	720
R13	--	--	R14	--	--
R15	--	--	R16	--	--
R17	--	--	R18	--	--
TOTAL	30	3600	TOTAL	24	2880

LOAD TABULATION IS BASED ON THE FOLLOWING:

180W RECEPTACLE: 1.5A AT 120V
• FOR FUTURE MEDIAN RECEPTACLE LOADS

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		CHECKED -	REVISED -
		DAD	DAD
SHT_PLAN	PLOT DATE =	DATE -	REVISED -
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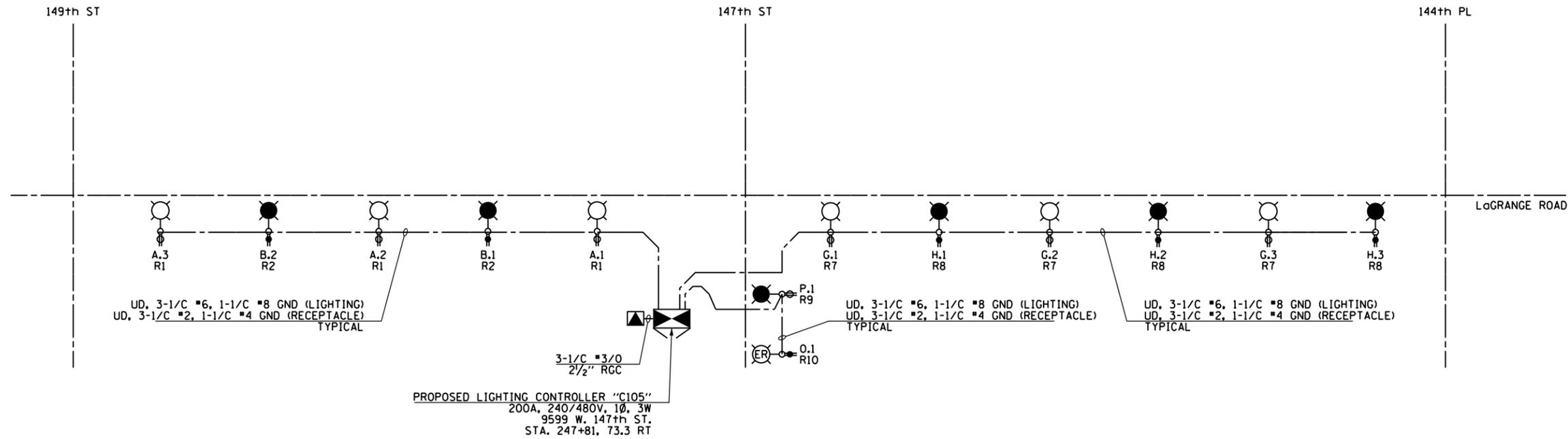
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	457
E-46		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				

LEGEND:

-  PROPOSED LIGHTING UNIT: 400W, 240V PHASE TO NEUTRAL, HPS LUMINAIRE WITH TYPE III DISTRIBUTION, 45'-2" ALUMINUM POLE SHAFT ON 24" DIAMETER CONCRETE FOUNDATION, 47'-6" MOUNTING HEIGHT, 12'-0" MAST ARM, WITH 5A FUSES AND T-BASE (RED PHASE- OPEN SYMBOL, BLACK PHASE-SHADED SYMBOL)
-  EXISTING LIGHTING POLE RELOCATED WITH NEW 250 HPS AND RECEPTACLE, 5A FUSES (LIGHTING UNIT ON RED PHASE- OPEN SYMBOL, BLACK PHASE-SHADED SYMBOL)
-  PROPOSED 120V, 20A, GFCI RECEPTACLE ON PROPOSED LIGHTING UNIT (ORANGE PHASE- OPEN SYMBOL, BROWN PHASE-SHADED SYMBOL)
-  PROPOSED ROADWAY LIGHTING CONTROLLER
-  PROPOSED COMED PAD-MOUNTED TRANSFORMER FOR UTILITY SERVICE CONNECTION
-  PROPOSED CONDUIT AND CABLE AS INDICATED TO SECONDARY SIDE OF UTILITY SERVICE CONNECTION
-  PROPOSED UNIT DUCT: SIZE AND QUANTITY OF CONDUCTORS AS INDICATED

NOTES:

1. SEE DRAWING E-1 FOR ELECTRICAL ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
2. COLOR CODING OF CONDUCTORS FOR 240/480V, 1Ø, 3W LIGHTING SYSTEM IS AS FOLLOWS:
 "A" PHASE - RED
 "B" PHASE - BLACK
 NEUTRAL - WHITE
 GROUND - GREEN
3. COLOR CODING OF CONDUCTORS FOR 120/240V, 1Ø, 3W RECEPTACLE SYSTEM IS AS FOLLOWS:
 "A" PHASE - ORANGE
 "B" PHASE - BROWN
 NEUTRAL - GRAY
 GROUND - GREEN



LIGHTING CONTROLLER "C105" STAGE 1 WIRING DIAGRAM
 N.T.S.

LIGHTING CONTROLLER "C105" ROADWAY LIGHTING PANEL LOAD TABLE					
CIRCUIT	RED PHASE		CIRCUIT	BLACK PHASE	
	AMPS	WATTS		AMPS	WATTS
A	6	1440	B	4	960
C	--	--	D	--	--
E	--	--	F	--	--
G	6	1440	H	6	1440
I	--	--	J	--	--
K	--	--	L	--	--
M	--	--	N	--	--
O	1.1	250	P	1.1	250
Q	--	--	R	--	--
S	--	--	T	--	--
U	--	--	V	--	--
W	4.5	1080	X	3.8	900
TOTAL	17.6	4224	TOTAL	14.9	3576

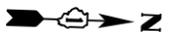
LOAD TABULATION IS BASED ON THE FOLLOWING:

400W HPS LUMINAIRE: 2.0A AT 240V
 250W HPS LUMINAIRE: 1.1A AT 240V

LIGHTING CONTROLLER "C105" RECEPTACLE PANEL LOAD TABLE					
CIRCUIT	ORANGE PHASE		CIRCUIT	BROWN PHASE	
	AMPS	WATTS		AMPS	WATTS
R1	4.5	540	R2	3	360
R3	--	--	R4	--	--
R5	--	--	R6	--	--
R7	3	360	R8	3	360
R9	1.5	180	R10	1.5	180
R11	--	--	R12	--	--
R13	--	--	R14	--	--
R15	--	--	R16	--	--
R17	--	--	R18	--	--
TOTAL	9	1080	TOTAL	7.5	900

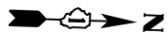
LOAD TABULATION IS BASED ON THE FOLLOWING:

180W RECEPTACLE: 1.5A AT 120V
 * FOR FUTURE MEDIAN RECEPTACLE LOADS



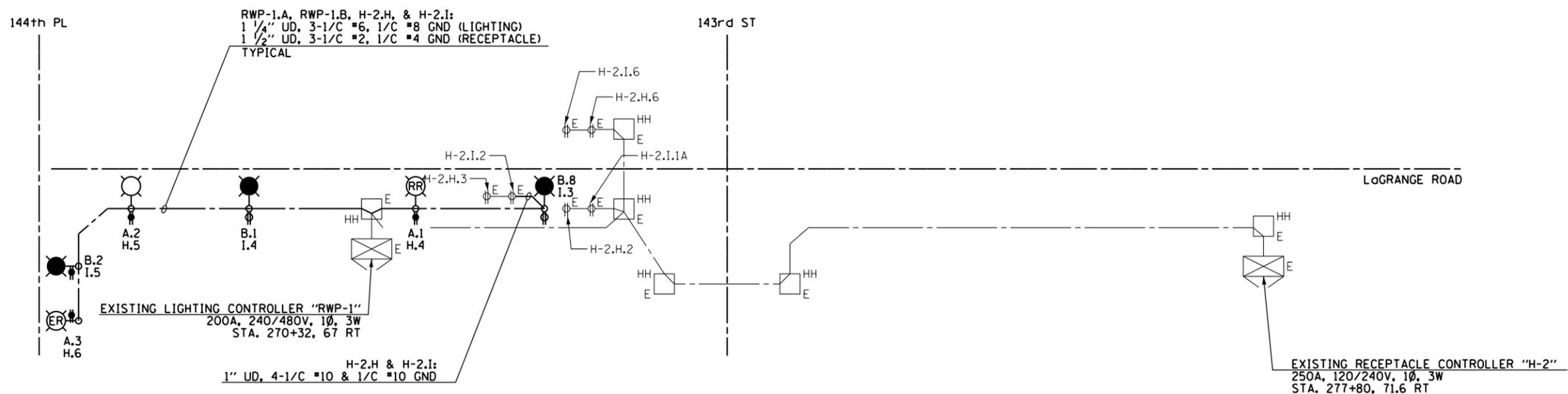
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	PLOT DATE = 3/15/2013	DATE - 03/13/2013	REVISED -

F.A.P. RFE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	458
E-47			CONTRACT NO. 60M61	
ILLINOIS FED. AID PROJECT				



LEGEND:

-  PROPOSED LIGHTING UNIT: 400W, 240V PHASE TO NEUTRAL, HPS LUMINAIRE WITH TYPE III DISTRIBUTION, 45'-2" ALUMINUM POLE SHAFT ON 24" DIAMETER CONCRETE FOUNDATION, 47'-6" MOUNTING HEIGHT, 12'-0" MAST ARM, WITH 5A FUSES AND T-BASE (RED PHASE-OPEN SYMBOL, BLACK PHASE-SHADED SYMBOL)
-  EXISTING LIGHTING UNIT WITH RECEPTACLE TO BE RELOCATED (LIGHTING UNIT ON RED PHASE-OPEN SYMBOL, BLACK PHASE-SHADED SYMBOL) (RECEPTACLE ON ORANGE PHASE-OPEN SYMBOL, BROWN PHASE-SHADED SYMBOL)
-  EXISTING LIGHTING POLE RELOCATED WITH NEW 250 HPS AND GFCI RECEPTACLE, 5A FUSES (LIGHTING UNIT ON RED PHASE- OPEN SYMBOL, BLACK PHASE-SHADED SYMBOL)
-  PROPOSED 120V, 20A, GFCI RECEPTACLE ON PROPOSED LIGHTING UNIT (ORANGE PHASE-OPEN SYMBOL, BROWN PHASE-SHADED SYMBOL)
-  EXISTING RECEPTACLE INSTALLED BY OTHERS (ORANGE PHASE-OPEN SYMBOL, BROWN PHASE-SHADED SYMBOL)
-  EXISTING ROADWAY LIGHTING OR RECEPTACLE CONTROLLER AS INDICATED
-  EXISTING ROADWAY LIGHTING HANDHOLE
-  - - - PROPOSED ELECTRICAL CONDUCTORS: SIZE AND QUANTITY AS INDICATED
-  - - - ELECTRICAL CONDUCTORS: EXISTING OR INSTALLED IN EARLIER CONSTRUCTION STAGE



EXISTING LIGHTING CONTROLLERS "RWP-1" & "H-2" STAGE 1 WIRING MODIFICATION DIAGRAM
N.T.S. (NOTES 2, 3, 4)

NOTES:

1. SEE DRAWING E-1 FOR ELECTRICAL ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
2. WIRING DIAGRAM ONLY SHOWS THE CHANGES BEING MADE TO THE CONTROLLERS. EXISTING LOADS ON THE CONTROLLERS ARE NOT SHOWN FOR CLARITY.
3. COLOR CODING OF PROPOSED CONDUCTORS FOR 240/480V, 1Ø, 3W LIGHTING SYSTEM IS AS FOLLOWS:
 "A" PHASE - RED
 "B" PHASE - BLACK
 NEUTRAL - WHITE
 GROUND - GREEN
4. COLOR CODING OF PROPOSED CONDUCTORS FOR 120/240V, 1Ø, 3W RECEPTACLE SYSTEM IS AS FOLLOWS:
 "A" PHASE - ORANGE
 "B" PHASE - BROWN
 NEUTRAL - GRAY
 GROUND - GREEN

100 S. WACKER DR.
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URS

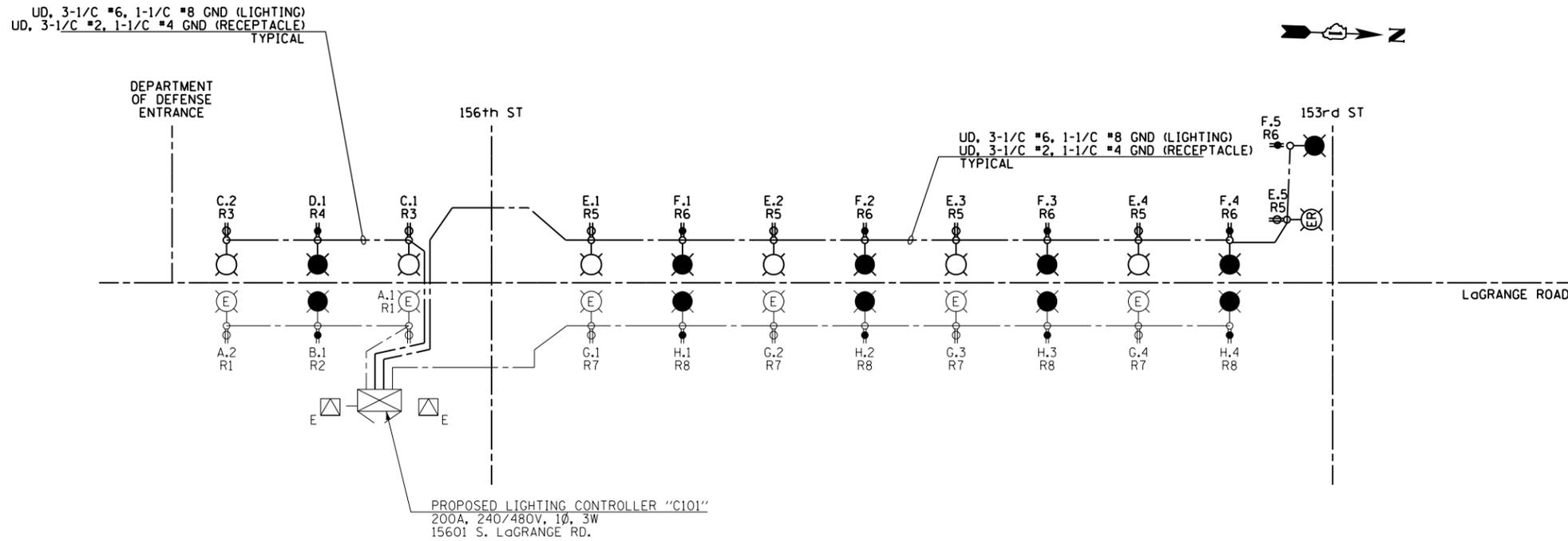
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	PLOT DATE = 3/15/2013	DATE - 03/13/2013	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

US 45 (LaGRANGE ROAD)
EXISTING LIGHTING CONTROLLERS "RWP-1" & "H-2"
STAGE 1 WIRING MODIFICATION DIAGRAM

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	459
E-48			CONTRACT NO. 60M61	
ILLINOIS FED. AID PROJECT				



LIGHTING CONTROLLER "C101" STAGE 3 WIRING DIAGRAM
N.T.S.

LEGEND:

- PROPOSED LIGHTING UNIT: 400W, 240V PHASE TO NEUTRAL, HPS LUMINAIRE WITH TYPE III DISTRIBUTION, 45'-2" ALUMINUM POLE SHAFT ON 24" DIAMETER CONCRETE FOUNDATION, 47'-6" MOUNTING HEIGHT, 12'-0" MAST ARM, WITH 5A FUSES AND T-BASE (RED PHASE- OPEN SYMBOL, BLACK PHASE-SHADED SYMBOL)
- EXISTING LIGHTING POLE RELOCATED WITH NEW 250 HPS AND RECEPTACLE, 5A FUSES (LIGHTING UNIT ON RED PHASE- OPEN SYMBOL, BLACK PHASE-SHADED SYMBOL)
- EXISTING LIGHTING POLE RELOCATED WITH NEW 250 HPS AND RECEPTACLE, 5A FUSES (LIGHTING UNIT ON RED PHASE- OPEN SYMBOL, BLACK PHASE-SHADED SYMBOL)
- PROPOSED 120V, 20A, GFCI RECEPTACLE ON PROPOSED LIGHTING UNIT (ORANGE PHASE- OPEN SYMBOL, BROWN PHASE-SHADED SYMBOL)
- PROPOSED ROADWAY LIGHTING UNIT INSTALLED IN EARLIER CONSTRUCTION STAGE
- PROPOSED 120V, 20A, GFCI RECEPTACLE INSTALLED IN EARLIER CONSTRUCTION STAGE
- PROPOSED COMBINATION POLE LIGHTING UNIT INSTALLED IN EARLIER CONSTRUCTION STAGE
- PROPOSED ROADWAY LIGHTING CONTROLLER INSTALLED IN EARLIER CONSTRUCTION STAGE
- PROPOSED COMBINATION LIGHTING CONTROLLER INSTALLED IN EARLIER CONSTRUCTION STAGE
- COMBINATION SERVICE DISCONNECT INSTALLED IN EARLIER CONSTRUCTION STAGE
- EXISTING COMED PAD-MOUNTED TRANSFORMER FOR UTILITY SERVICE CONNECTION
- PROPOSED CONDUIT AND CABLE TO SECONDARY SIDE OF UTILITY SERVICE CONNECTION INSTALLED IN EARLIER CONSTRUCTION STAGE
- PROPOSED UNIT DUCT: SIZE AND QUANTITY OF CONDUCTORS AS INDICATED
- PROPOSED UNIT DUCT INSTALLED IN EARLIER CONSTRUCTION STAGE

NOTES:

1. SEE DRAWING E-1 FOR ELECTRICAL ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
2. COLOR CODING OF CONDUCTORS FOR 240/480V, 1Ø, 3W LIGHTING SYSTEM IS AS FOLLOWS:
 "A" PHASE - RED
 "B" PHASE - BLACK
 NEUTRAL - WHITE
 GROUND - GREEN
3. COLOR CODING OF CONDUCTORS FOR 120/240V, 1Ø, 3W RECEPTACLE SYSTEM IS AS FOLLOWS:
 "A" PHASE - ORANGE
 "B" PHASE - BROWN
 NEUTRAL - GRAY
 GROUND - GREEN

LIGHTING CONTROLLER "C101" ROADWAY LIGHTING PANEL LOAD TABLE					
CIRCUIT	RED PHASE		CIRCUIT	BLACK PHASE	
	AMPS	WATTS		AMPS	WATTS
A	4	960	B	2	480
C	4	960	D	2	480
E	9.1	1920	F	9.1	1920
G	8	1920	H	8	1920
I	--	--	J	--	--
K	--	--	L	--	--
M	--	--	N	--	--
O	--	--	P	--	--
Q	--	--	R	--	--
S	--	--	T	--	--
U	--	--	V	--	--
W	9.75	2340	X	7.5	1980
TOTAL	34.85	8364	TOTAL	28.6	6864

LOAD TABULATION IS BASED ON THE FOLLOWING:

400W HPS LUMINAIRE: 2.0A AT 240V
 250W HPS LUMINAIRE: 1.1A AT 240V

LIGHTING CONTROLLER "C101" RECEPTACLE PANEL LOAD TABLE					
CIRCUIT	ORANGE PHASE		CIRCUIT	BROWN PHASE	
	AMPS	WATTS		AMPS	WATTS
R1	3	360	R2	1.5	180
R3	3	360	R4	1.5	180
R5	7.5	900	R6	7.5	900
R7	6	720	R8	6	720
R9	--	--	R10	--	--
R11	--	--	R12	--	--
R13	--	--	R14	--	--
R15	--	--	R16	--	--
R17	--	--	R18	--	--
TOTAL	19.5	2340	TOTAL	16.5	1980

LOAD TABULATION IS BASED ON THE FOLLOWING:

180W RECEPTACLE: 1.5A AT 120V
 • FOR FUTURE MEDIAN RECEPTACLE LOADS

FILE NAME =	USER NAME = michael_bartusiewicz	DESIGNED - JLW	REVISED -
D160M61-SHT-E49.dgn		DRAWN - CJM	REVISED -
SHT.PLAN	PLOT SCALE = 2.000000' / in.	CHECKED - KMY	REVISED -
DT60M61-SHT-E49.dgn 3/15/2013 2:27:31 PM	PLOT DATE = 3/15/2013	DATE - 03/13/2013	REVISED -

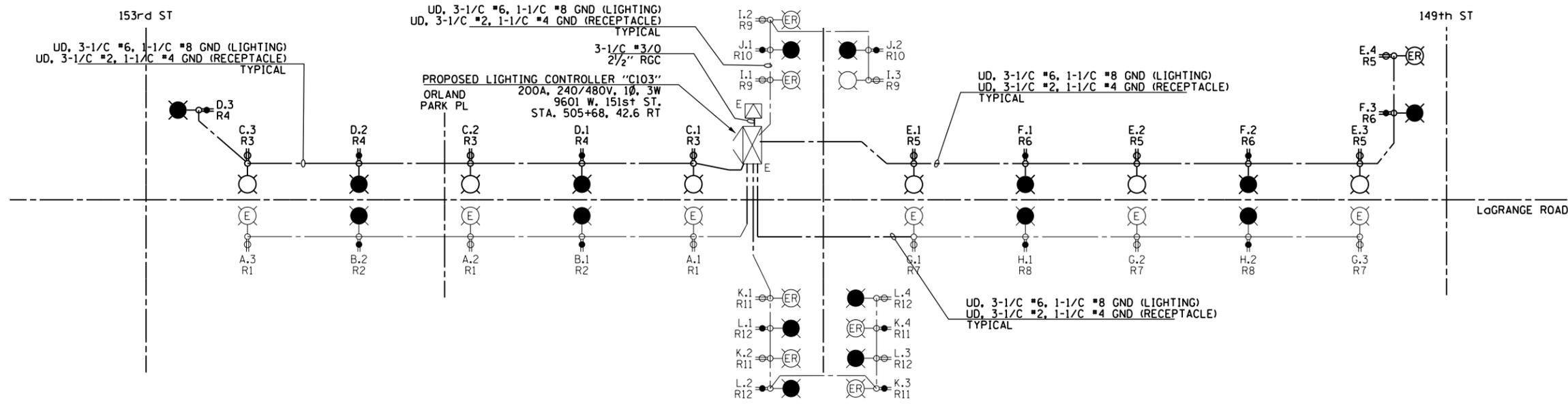
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	460
E-49			CONTRACT NO. 60M61	
ILLINOIS FED. AID PROJECT				

LEGEND:

- PROPOSED LIGHTING UNIT: 400W, 240V PHASE TO NEUTRAL, HPS LUMINAIRE WITH TYPE III DISTRIBUTION, 45'-2" ALUMINUM POLE SHAFT ON 24" DIAMETER CONCRETE FOUNDATION, 47'-6" MOUNTING HEIGHT, 12'-0" MAST ARM, WITH 5A FUSES AND T-BASE (RED PHASE-OPEN SYMBOL, BLACK PHASE-SHADED SYMBOL)
- PROPOSED 120V, 20A, GFCI RECEPTACLE ON PROPOSED LIGHTING UNIT (ORANGE PHASE-OPEN SYMBOL, BROWN PHASE-SHADED SYMBOL)
- PROPOSED COMBINATION POLE LIGHTING UNIT: 400W, 2.0A AT 240V PHASE TO PHASE, HPS LUMINAIRE WITH TYPE III DISTRIBUTION
- PROPOSED ROADWAY LIGHTING UNIT INSTALLED IN EARLIER CONSTRUCTION STAGE
- PROPOSED 120V, 20A, GFCI RECEPTACLE INSTALLED IN EARLIER CONSTRUCTION STAGE
- PROPOSED COMBINATION POLE LIGHTING UNIT INSTALLED IN EARLIER CONSTRUCTION STAGE
- PROPOSED ROADWAY LIGHTING CONTROLLER INSTALLED IN EARLIER CONSTRUCTION STAGE
- PROPOSED COMBINATION LIGHTING CONTROLLER INSTALLED IN EARLIER CONSTRUCTION STAGE
- COMBINATION SERVICE DISCONNECT INSTALLED IN EARLIER CONSTRUCTION STAGE
- EXISTING COMED PAD-MOUNTED TRANSFORMER FOR UTILITY SERVICE CONNECTION
- PROPOSED CONDUIT AND CABLE TO SECONDARY SIDE OF UTILITY SERVICE CONNECTION INSTALLED IN EARLIER CONSTRUCTION STAGE
- PROPOSED UNIT DUCT: SIZE AND QUANTITY OF CONDUCTORS AS INDICATED
- PROPOSED UNIT DUCT INSTALLED IN EARLIER CONSTRUCTION STAGE

NOTES:

1. SEE DRAWING E-1 FOR ELECTRICAL ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
2. COLOR CODING OF CONDUCTORS FOR 240/480V, 1Ø, 3W LIGHTING SYSTEM IS AS FOLLOWS:
 "A" PHASE - RED
 "B" PHASE - BLACK
 NEUTRAL - WHITE
 GROUND - GREEN
3. COLOR CODING OF CONDUCTORS FOR 120/240V, 1Ø, 3W RECEPTACLE SYSTEM IS AS FOLLOWS:
 "A" PHASE - ORANGE
 "B" PHASE - BROWN
 NEUTRAL - GRAY
 GROUND - GREEN



LIGHTING CONTROLLER "C103" STAGE 3 WIRING DIAGRAM
N.T.S.

CIRCUIT	RED PHASE		BLACK PHASE		
	AMPS	WATTS	AMPS	WATTS	
A	6	1440	B	4	480
C	6	1440	D	5.1	1224
E	7.1	1704	F	5.1	1224
G	6	1440	H	4	480
I	3.3	792	J	2.2	528
K	4.4	1056	L	4.4	1056
M	--	--	N	--	--
O	--	--	P	--	480
Q	--	--	R	--	--
S	--	--	T	--	--
U	--	--	V	--	--
W	15	3600	X	12	2880
TOTAL	47.8	11472	TOTAL	52.625	8832

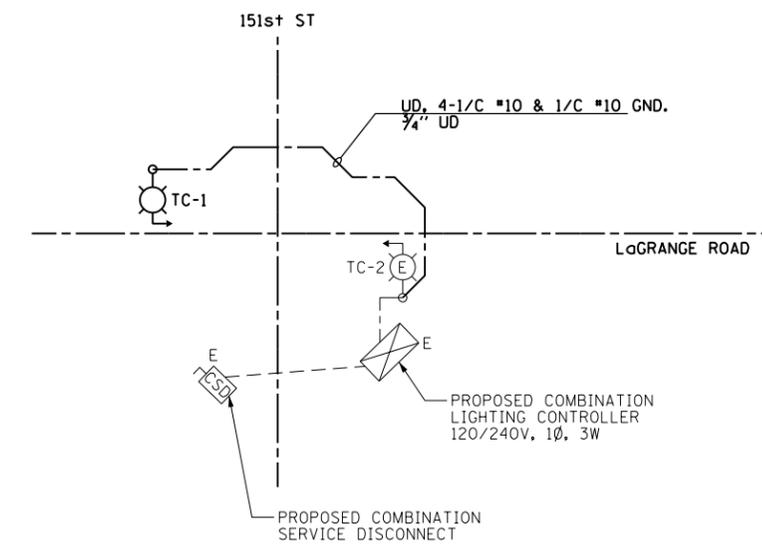
LOAD TABULATION IS BASED ON THE FOLLOWING:

400W HPS LUMINAIRE: 2.0A AT 240V
 250W HPS LUMINAIRE: 1.1A AT 240V

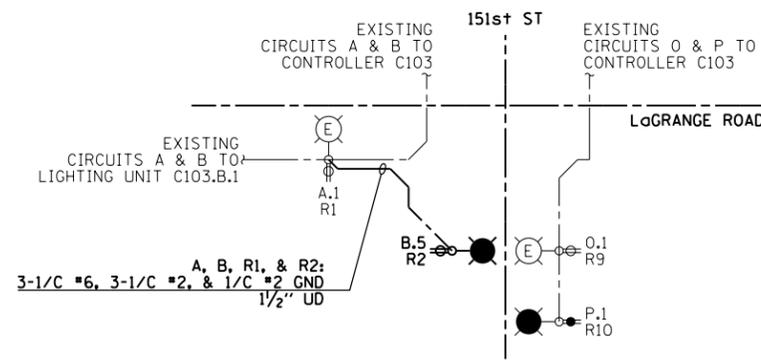
CIRCUIT	ORANGE PHASE		BROWN PHASE		
	AMPS	WATTS	AMPS	WATTS	
R1	4.5	540	R2	3	360
R3	4.5	540	R4	4.5	540
R5	6	720	R6	4.5	540
R7	4.5	540	R8	3	360
R9	4.5	540	R10	3	360
R11	6	720	R12	6	720
R13	--	--	R14	--	--
R15	--	--	R16	--	--
R17	--	--	R18	--	--
TOTAL	30	3600	TOTAL	24	2880

LOAD TABULATION IS BASED ON THE FOLLOWING:

180W RECEPTACLE: 1.5A AT 120V
 * FOR FUTURE MEDIAN RECEPTACLE LOADS



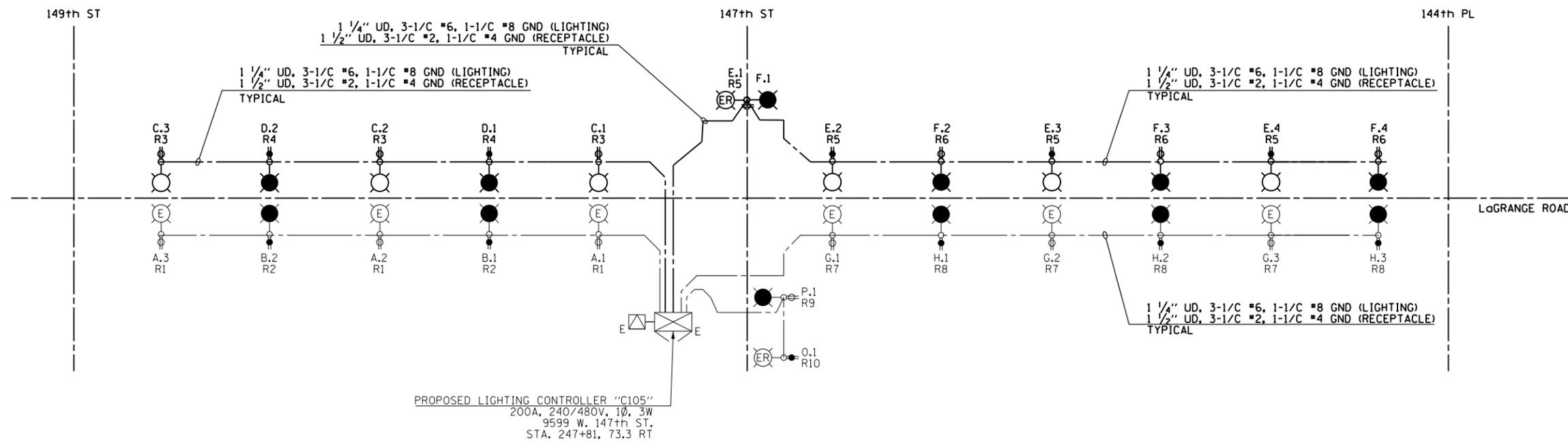
COMBINATION LIGHTING CONTROLLER "C103" STAGE 3 WIRING DIAGRAM
N.T.S.



LIGHTING CONTROLLER "C103" STAGE 4 PARTIAL WIRING DIAGRAM
N.T.S.

FILE NAME = D160M61-SHT-E50.dgn	USER NAME = michal_bartusiewicz	DESIGNED - JLW	REVISED -
SHT_PLAN	PLOT SCALE = 2.000000' / in.	DRAWN - CJM	REVISED -
DT60M61-SHT-E50.dgn 3/15/2013 2:27:31 PM	PLOT DATE = 3/15/2013	CHECKED - KMY	REVISED -
	DATE = 03/13/2013	DATE - 03/13/2013	REVISED -

F.A.P. RTE. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 461
E-50		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				



PROPOSED LIGHTING CONTROLLER "C105"
 200A, 240/480V, 1Ø, 3W
 9599 W. 147th ST.
 STA. 247+81, 73.3 RT

LIGHTING CONTROLLER "C105" STAGE 3 WIRING DIAGRAM
 N.T.S.

LEGEND:

- PROPOSED LIGHTING UNIT: 400W, 240V PHASE TO NEUTRAL, HPS LUMINAIRE WITH TYPE III DISTRIBUTION, 45'-2" ALUMINUM POLE SHAFT ON 24" DIAMETER CONCRETE FOUNDATION, 47'-6" MOUNTING HEIGHT, 12'-0" MAST ARM, WITH 5A FUSES AND T-BASE (RED PHASE-OPEN SYMBOL, BLACK PHASE-SHADED SYMBOL)
- PROPOSED 120V, 20A, GFCI RECEPTACLE ON PROPOSED LIGHTING UNIT (ORANGE PHASE-OPEN SYMBOL, BROWN PHASE-SHADED SYMBOL)
- PROPOSED ROADWAY LIGHTING UNIT INSTALLED IN EARLIER CONSTRUCTION STAGE
- PROPOSED ROADWAY LIGHTING CONTROLLER INSTALLED IN EARLIER CONSTRUCTION STAGE
- PROPOSED COMED PAD-MOUNTED TRANSFORMER FOR UTILITY SERVICE CONNECTION INSTALLED IN EARLIER CONSTRUCTION STAGE
- PROPOSED CONDUIT AND CABLE TO SECONDARY SIDE OF UTILITY SERVICE CONNECTION INSTALLED IN EARLIER CONSTRUCTION STAGE
- PROPOSED UNIT DUCT: SIZE AND QUANTITY OF CONDUCTORS AS INDICATED
- PROPOSED UNIT DUCT INSTALLED IN EARLIER CONSTRUCTION STAGE

NOTES:

1. SEE DRAWING E-1 FOR ELECTRICAL ABBREVIATIONS, SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
2. COLOR CODING OF CONDUCTORS FOR 240/480V, 1Ø, 3W LIGHTING SYSTEM IS AS FOLLOWS:
 "A" PHASE - RED
 "B" PHASE - BLACK
 NEUTRAL - WHITE
 GROUND - GREEN
3. COLOR CODING OF CONDUCTORS FOR 120/240V, 1Ø, 3W RECEPTACLE SYSTEM IS AS FOLLOWS:
 "A" PHASE - ORANGE
 "B" PHASE - BROWN
 NEUTRAL - GRAY
 GROUND - GREEN

CIRCUIT	RED PHASE		CIRCUIT	BLACK PHASE	
	AMPS	WATTS		AMPS	WATTS
A	6	1440	B	4	960
C	6	1440	D	4	960
E	8.2	1968	F	8.2	1968
G	6	1440	H	6	1440
I	--	--	J	--	--
K	--	--	L	--	--
M	--	--	N	--	--
O	1.1	250	P	1.1	250
Q	--	--	R	--	--
S	--	--	T	--	--
U	--	--	V	--	--
W	10.5	2520	X	9	2160
TOTAL	37.8	9072	TOTAL	32.3	7752

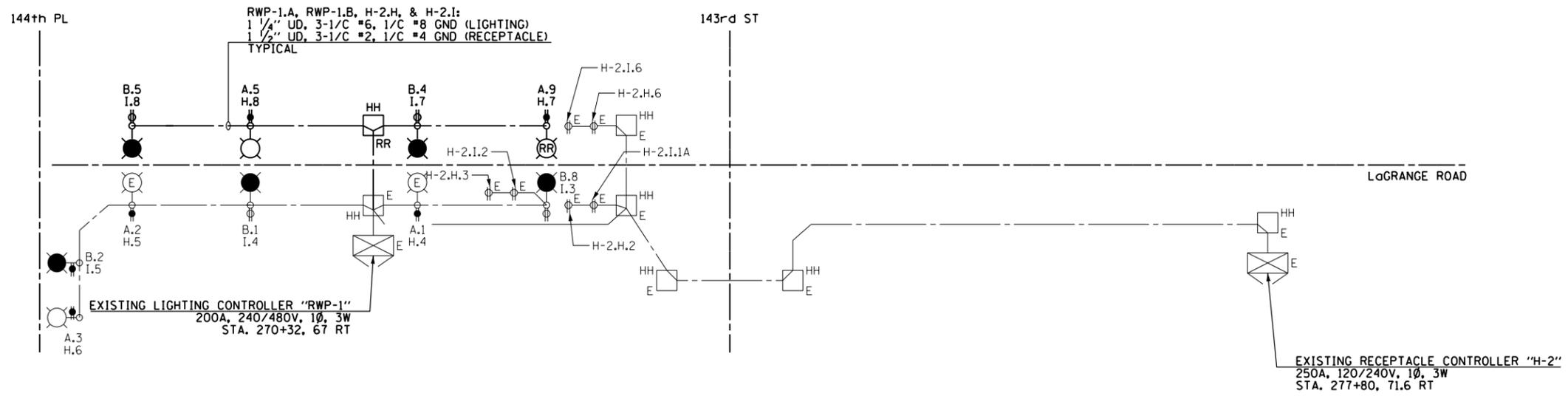
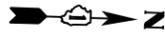
LOAD TABULATION IS BASED ON THE FOLLOWING:
 400W HPS LUMINAIRE: 2.0A AT 240V
 250W HPS LUMINAIRE: 1.1A AT 240V

CIRCUIT	ORANGE PHASE		CIRCUIT	BROWN PHASE	
	AMPS	WATTS		AMPS	WATTS
R1	4.5	540	R2	3	360
R3	4.5	540	R4	3	360
R5	7.5	900	R6	7.5	900
R7	3	360	R8	3	360
R9	1.5	180	R10	1.5	180
R11	--	--	R12	--	--
R13	--	--	R14	--	--
R15	--	--	R16	--	--
R17	--	--	R18	--	--
TOTAL	21	2520	TOTAL	18	2160

LOAD TABULATION IS BASED ON THE FOLLOWING:
 180W RECEPTACLE: 1.5A AT 120V
 • FOR FUTURE MEDIAN RECEPTACLE LOADS

100 S. WACKER DR.
 SUITE 500
 CHICAGO, IL 60606
 TEL (312) 939-1000
 FAX (312) 939-4998
URS

FILE NAME = D160M61-SHT-E51.dgn	USER NAME = michal_bartusiewicz	DESIGNED - JLW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	US 45 (LaGRANGE ROAD) LIGHTING CONTROLLER "C105" STAGE 3 & 4 WIRING DIAGRAMS	F.A.P. RTE. = 330	SECTION = 103R-4	COUNTY = COOK	TOTAL SHEETS = 877	SHEET NO. = 462	
SHT.PLAN	PLOT SCALE = 2.000000' / in.	CHECKED - KMY	REVISED -			SCALE: NONE	SHEET 1 OF 1 SHEETS	STA. TO STA.	E-51		CONTRACT NO. 60M61
	PLOT DATE = 3/15/2013	DATE = 03/13/2013	REVISED -			ILLINOIS FED. AID PROJECT					
DT60M61-SHT-E51.dgn 3/15/2013 2:27:32 PM											



EXISTING LIGHTING CONTROLLERS "RWP-1" & "H-2" STAGE 3 WIRING MODIFICATION DIAGRAM
N.T.S. (NOTES 2, 3, 4)

LEGEND:

- PROPOSED LIGHTING UNIT: 400W, 240V PHASE TO NEUTRAL, HPS LUMINAIRE WITH TYPE III DISTRIBUTION, 45'-2" ALUMINUM POLE SHAFT ON 24" DIAMETER CONCRETE FOUNDATION, 47'-6" MOUNTING HEIGHT, 12'-0" MAST ARM, WITH 5A FUSES AND T-BASE (RED PHASE-OPEN SYMBOL, BLACK PHASE-SHADED SYMBOL)
- EXISTING LIGHTING UNIT WITH RECEPTACLE TO BE RELOCATED (LIGHTING UNIT ON RED PHASE-OPEN SYMBOL, BLACK PHASE-SHADED SYMBOL) (RECEPTACLE ON ORANGE PHASE-OPEN SYMBOL, BROWN PHASE-SHADED SYMBOL)
- EXISTING LIGHTING UNIT OR LIGHTING UNIT INSTALLED IN EARLIER CONSTRUCTION STAGE (RED PHASE-OPEN SYMBOL, BLACK PHASE-SHADED SYMBOL)
- PROPOSED 120V, 20A, GFCI RECEPTACLE ON PROPOSED LIGHTING UNIT (ORANGE PHASE-OPEN SYMBOL, BROWN PHASE-SHADED SYMBOL)
- EXISTING RECEPTACLE INSTALLED BY OTHERS (ORANGE PHASE-OPEN SYMBOL, BROWN PHASE-SHADED SYMBOL)
- EXISTING ROADWAY LIGHTING OR RECEPTACLE CONTROLLER AS INDICATED
- EXISTING ROADWAY LIGHTING HANDHOLE TO BE RELOCATED
- EXISTING ROADWAY LIGHTING HANDHOLE
- PROPOSED ELECTRICAL CONDUCTORS: SIZE AND QUANTITY AS INDICATED
- ELECTRICAL CONDUCTORS: EXISTING OR INSTALLED IN EARLIER CONSTRUCTION STAGE

NOTES:

1. SEE DRAWING E-1 FOR ELECTRICAL ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
2. WIRING DIAGRAM ONLY SHOWS THE CHANGES BEING MADE TO THE CONTROLLERS. EXISTING LOADS ON THE CONTROLLERS ARE NOT SHOWN FOR CLARITY.
3. COLOR CODING OF PROPOSED CONDUCTORS FOR 240/480V, 1Ø, 3W LIGHTING SYSTEM IS AS FOLLOWS:
 "A" PHASE - RED
 "B" PHASE - BLACK
 NEUTRAL - WHITE
 GROUND - GREEN
4. COLOR CODING OF PROPOSED CONDUCTORS FOR 120/240V, 1Ø, 3W RECEPTACLE SYSTEM IS AS FOLLOWS:
 "A" PHASE - ORANGE
 "B" PHASE - BROWN
 NEUTRAL - GRAY
 GROUND - GREEN

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FILE NAME = D160M61-SHT-E52.dgn	USER NAME = michael_bartusiewicz	DESIGNED - DAD	REVISED -
SHT_PLAN	PLOT SCALE = 2.000000' / in.	DRAWN - DAD	REVISED -
	PLOT DATE = 3/15/2013	CHECKED - DAD	REVISED -
		DATE - 03/13/2013	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

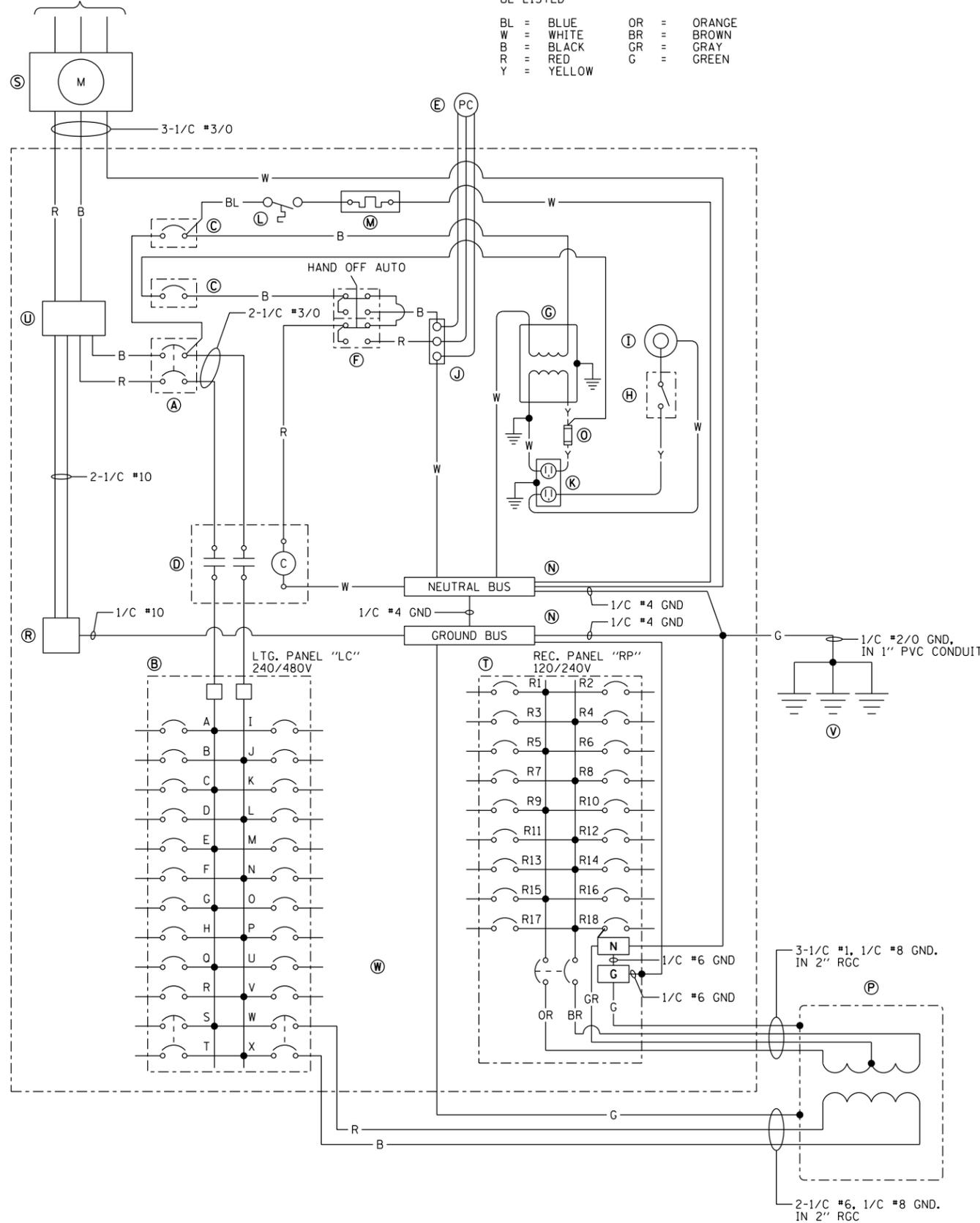
US 45 (LaGRANGE ROAD)	
EXISTING LIGHTING CONTROLLERS "RWP-1" & "H-2"	
STAGE 3 WIRING MODIFICATION DIAGRAM	
SCALE: NONE	SHEET 1 OF 1 SHEETS
STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	463
E-52		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				

ELECTRICAL SERVICE FROM
COMED PAD MOUNTED TRANSFORMER
200A, 240/480V, 1Ø, 3W

POWER WIRING: RHH/RHW
CONTROL WIRING: #12 MTW
NEUTRAL BUS COLOR CODED WHITE
GROUND BUS COLOR CODED GREEN
UL LISTED

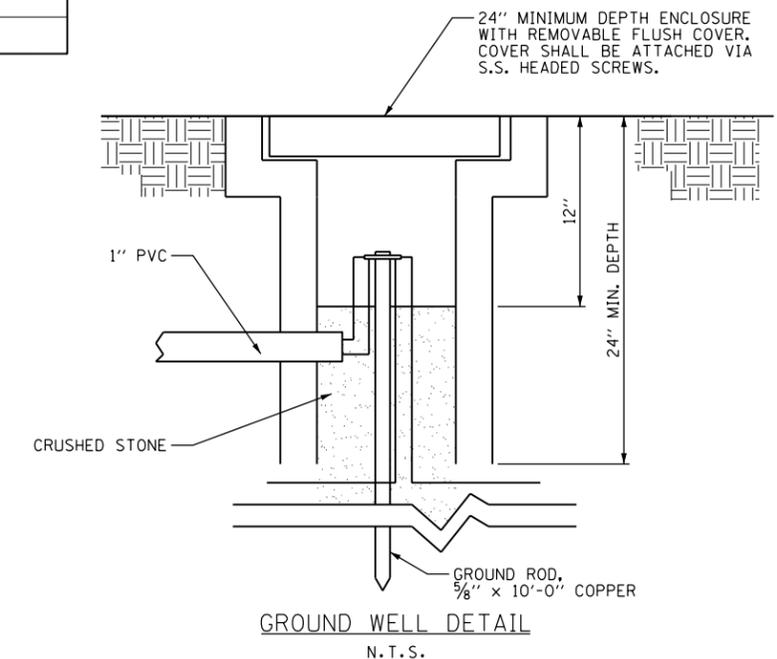
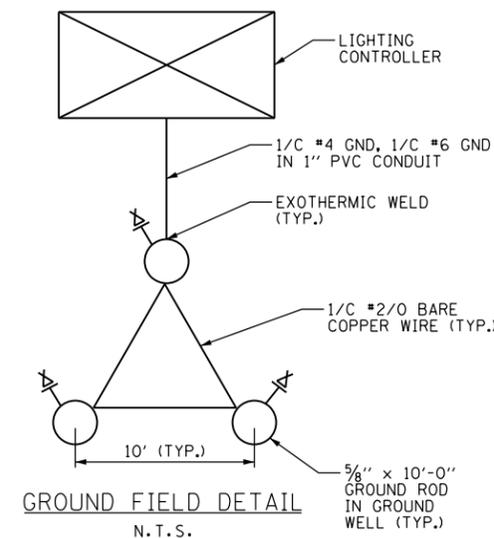
BL = BLUE OR = ORANGE
W = WHITE BR = BROWN
B = BLACK GR = GRAY
R = RED G = GREEN
Y = YELLOW



BILL OF MATERIALS	
ITEM/ QTY.	DESCRIPTION
(A) 1	MAIN CIRCUIT BREAKER, MOLDED CASE, THERMAL MAGNETIC, 200 AMP, 480V, 2-POLE, NON-INTERCHANGEABLE TRIP, INTERRUPTING RATING 65,000 AMPERES AT 480 VOLTS
(B) 1	EATON, POW-R-LINE C PANELBOARD, 480/240 VOLT, 1-PHASE, 3-WIRE, 30 BRANCH CIRCUITS, 225 AMPERE MAIN LUGS, WITH (20) 1-POLE 30 AMPERE, 240 VOLT, BOLT-ON BRANCH CIRCUIT BREAKERS, INTERRUPTING RATING 65,000 AMPERES AT 277 VOLTS (4 SPARE) AND (2) 2-POLE 50 AMPERE, 480 VOLT, BOLT-ON BRANCH CIRCUIT BREAKERS, INTERRUPTING RATING 65,000 AMPERES AT 480 VOLTS (1 SPARE)
(C) 2	EATON, HFD1015, 1-POLE, 15 AMPERE, 240 VOLT CIRCUIT BREAKER, INTERRUPTING RATING 65,000 AMPERES AT 277 VOLTS
(D) 1	EATON, A202K4BA, 2-POLE, 200 AMPERE CONTACTOR, 240 VOLT COIL
(E) 1	PHOTOCELL (MOUNTED ON THE FRONT OF THE CABINET UNDER THE DRIP EDGE AND TO THE SIDE OF THE ACCESS DOOR)
(F) 1	SQUARE D, 9001KYK111, HAND-OFF-AUTO SELECTOR SWITCH
(G) 1	JEFFERSON, 21-0071-055, 1 KILOVOLT-AMPERE TRANSFORMER
(H) 1	OMRON, A20G07BK, DOOR SWITCH
(I) 1	GENERAL ELECTRIC, H7-120V-15F-3W-DD, 60 WATT ENCLOSED AND GASKETED INCANDESCENT FIXTURE
(J) 1	3 POINT TERMINAL BLOCK
(K) 1	HUBBELL, HBL5362ISA, 20 AMPERE GROUND FAULT CIRCUIT INTERRUPTOR RECEPTACLE, WITH WEATHERPROOF BOX & COVER
(L) 1	WHITE-RODGERS, #2E552, 0-50 DEGREE THERMOSTAT
(M) 1	VULCAN #OS1408-250B 250 WATT STAINLESS STEEL HEATER
(N) 2	COPPER GROUND AND NEUTRAL BUS, MINIMUM 1/4"x1"x12"
(O) 1	BUSSMANN, KTK15, FUSE
(P) 1	OLSUN ELECTRIC CORPORATION, #GS15LE-6, 25 KILOVOLT-AMPERE, 1-PHASE, 480-120/240 VOLT TRANSFORMER IN NEMA 3R ENCLOSURE
(R) 1	BRACKET MOUNTED SURGE ARRESTER FOR 480/240 VOLT, 3 WIRE SERVICE
(S) 1	METER SOCKET/PEDESTAL FOR ELECTRIC UTILITY CO. METER
(T) 1	EATON, POW-R-LINE C PANELBOARD, 240/120 VOLT, 1-PHASE, 3-WIRE, 18 BRANCH CIRCUITS, 100 AMPERE, 2-POLE, 240 VOLT MAIN BREAKER, INTERRUPTING RATING 14,000 AMPERES AT 277 VOLTS, WITH (18) 1-POLE 30 AMPERE, 120 VOLT, BOLT-ON GROUND FAULT CIRCUIT INTERRUPTING BRANCH CIRCUIT BREAKERS, CATALOG NUMBER GHBFEP1030, INTERRUPTING RATING 14,000 AMPERES AT 120 VOLTS (2 SPARE)
(U) 1	MARATHON, #1402401, 175A, 2-POLE, 600 VOLT POWER DISTRIBUTION BLOCK
(V) 3	COPPER GROUND ROD, 5/8"x10'
(W) 18	POWER DIST SPLICE BLOCKS #2 AWG TO #14 AWG SINGLE POLE. (NOT SHOWN ON BACKPLATE)

NOTES:

- SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
- SEE DRAWING E-20 FOR CONTROLLER CABINET DETAILS.
- THE CONTROLLER SHALL BE SUITABLE FOR USE AS SERVICE EQUIPMENT PER NEC 230.66 AND U.L. LISTED.
- BOND PANELBOARD ENCLOSURES "LC" AND "RP" TO THE CONTROLLER ENCLOSURE WITH #6 GND.
- IF THERE IS NOT ENOUGH RIGHT OF WAY TO INSTALL THE GROUNDING TRIAD AS SHOWN, REDUCE SPACING TO 6".
- ALL EQUIPMENT, MATERIALS AND COMPONENTS MUST BE SPECIFICATION GRADE OR BETTER. COMPLETE CABINET CONSTRUCTION SHALL FOLLOW ALL APPLICABLE IDOT SPECIFICATIONS, STANDARDS, AND DETAILS.
- MANUFACTURER MODEL AND PART NUMBERS SHOWN ARE MINIMUM ACCEPTABLE COMPONENTS AND CAN BE SUBSTITUTED WITH EQUAL OR BETTER MATERIALS FROM OTHER MANUFACTURERS WITH THE WRITTEN APPROVAL FROM THE ENGINEER OF RECORD.



100 S. WACKER DR.
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CHICAGO, IL 60606
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FAX (312) 939-4198

URS

FILE NAME =	USER NAME =	DESIGNED -	REVISED -
D160M61-SHT-E53.dgn	michal_bar_tustewicz	DAD	
		DRAWN -	REVISED -
		DAD	
		CHECKED -	REVISED -
		DAD	
		DATE -	REVISED -
		03/13/2013	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

US 45 (LaGRANGE ROAD)
LIGHTING CONTROLLER WIRING DIAGRAM & GROUNDING DETAILS

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	464
E-53		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				

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SPECIFICATIONS:

PERFORMANCE - THE ENCLOSURE WILL MEET OR EXCEED THE REQUIREMENTS OF A NEMA 3R RATING AND SHALL BE U.L. LISTED PER U.L. 508.

MATERIAL - SHEET ALUMINUM 1/8" THICKNESS, ALLOY 5052 H32. SURFACE SHALL HAVE A SMOOTH, NATURAL ALUMINUM MILL FINISH. ALL WELDS TO BE HELIARC AND SHALL BE NEATLY FORMED AND FREE OF CRACKS, BLOW HOLES, AND OTHER DEFECTS. ALL EDGES TO BE FREE OF BURRS.

CABINET FEATURES - CABINET TOP SLOPED 1/2" TO THE REAR, WITH 1/8" X 1" VENT SLOTS UNDER FRONT OVERHANG.

DOORS AND LOCKS - THE MAIN DOOR IS OF NEMA TYPE 3R CONSTRUCTION WITH CELLULAR NEOPRENE GASKET, WHICH IS RAIN TIGHT. HINGE IS 2" OPEN AND IS CONTINUOUS 14 GAUGE STAINLESS STEEL WITH A 1/4" DIA. PIN AND IS CAPPED AT THE TOP TO RENDER IT TAMPER PROOF. THE HINGE IS SECURED WITH 1/4-20 STAINLESS STEEL CARRIAGE BOLTS AND ESNA LOCK NUTS. STANDARD EQUIPMENT INCLUDES A THREE POINT LOCKING SYSTEM, WHICH SECURES THE DOOR AT THE TOP, BOTTOM, AND CENTER. A CORBIN LOCK WITH TWO KEYS IS ALSO FURNISHED. THE MAIN DOOR IS ALSO EQUIPPED WITH A THREE POSITION DOOR STOP, ONE AT 90°, ONE AT 120°, AND ONE AT 180°. DOOR LOCKING RODS ARE 1/4" X 3/4" ALUMINUM TURNED EDGEWAYS WITH 1" NYLON ROLLERS. MAIN DOOR HANDLE IS 3/4" DIAMETER STAINLESS STEEL. THE CABINET DOOR SHALL BE HINGED ON THE RIGHT SIDE WHEN FACING THE FRONT OF THE CABINET.

EQUIPMENT MOUNTING - THE CABINET SHALL BE EQUIPPED WITH TWO ADJUSTABLE "L" MOUNTING CHANNELS WELDED TO EACH SIDE WALL AND THE BACK WALL ALLOWING FULL ADJUSTMENT OF SHELVES OR PANELS.

VENTILATION - VENT SLOTS (1/8" X 1") ARE PROVIDED ON THE UNDERSIDE OF THE COVER OVERHANG AND LOUVER SLOTS ARE FORMED IN THE LOWER PORTION OF THE MAIN DOOR. THIS CREATES A NATURAL MOVEMENT OF AIR AND HAS A COOLING EFFECT ON THE ELECTRICAL EQUIPMENT.

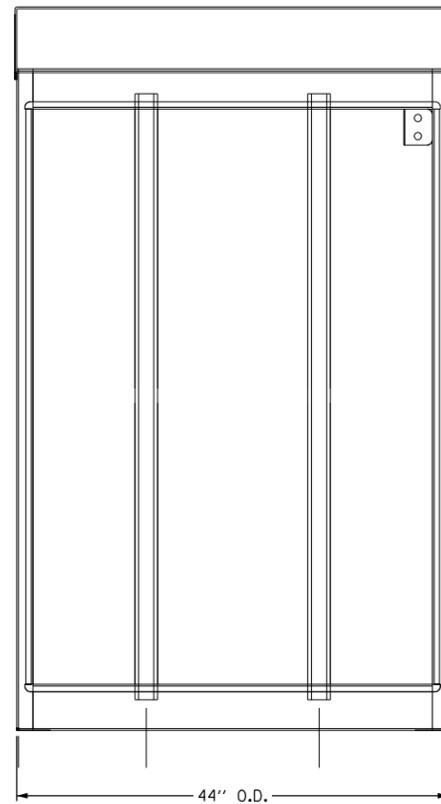
CABINET TYPE FOR PERMANENT CONTROLLERS "C101", "C103", AND "C105" ARE BASE MOUNTED AND EQUIPPED WITH INSIDE FLANGES AT THE FRONT, BACK, AND SIDES FOR ANCHORING TO A BASE (SEE INSTALLATION DETAILS ON DRAWING E-55).

CABINET TYPE FOR TEMPORARY CONTROLLERS "T101", "T102", AND "T103" ARE POLE MOUNTED (SEE INSTALLATION DETAILS ON DRAWING E-56).

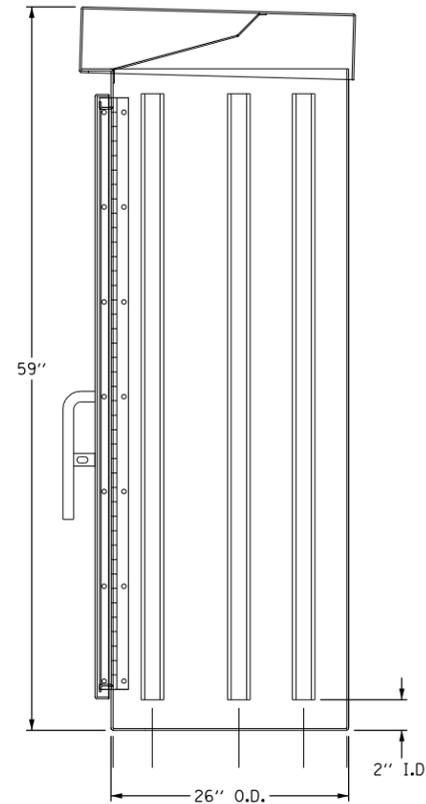
THIS SPECIFICATION IS PER IDOT STANDARD SPECIFICATIONS.

INDICATED DIMENSIONS REPRESENT THE MINIMUM REQUIREMENTS. DIMENSIONS SHALL BE INCREASED AS REQUIRED TO COMPLY WITH THE CODE AND TO ADEQUATELY HOUSE ALL REQUIRED COMPONENTS WITH AMPLE ROOM FOR ARRANGEMENT AND TERMINATION OF WIRING.

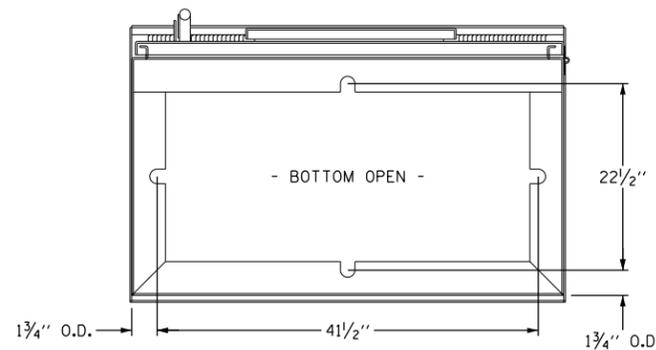
THE SERVICE EQUIPMENT SHALL BE MARKED TO IDENTIFY AS BEING SUITABLE AS SERVICE EQUIPMENT IN ACCORDANCE WITH NEC ARTICLE 230.66.



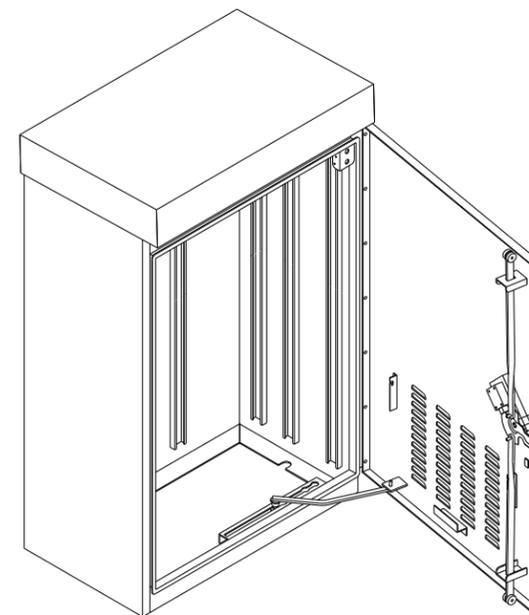
FRONT VIEW
DOOR REMOVED



RIGHT SIDE VIEW



BOTTOM VIEW
MOUNTING PATTERN



ALUMINUM TYPE IV CONTROL CABINET 3R
59"x44"x26"
SCALE: NOT TO SCALE

100 S. WACKER DR.
SUITE 600
CHICAGO, IL 60606
TEL (312) 939-1000
FAX (312) 939-4198

URS

FILE NAME =	USER NAME = michael_bar_tusiewicz	DESIGNED - DAD	REVISED -
D160M61-SHT-E54.dgn		DRAWN - DAD	REVISED -
	PLOT SCALE = 2.000000' / in.	CHECKED - DAD	REVISED -
SHT.PLAN	PLOT DATE = 3/15/2013	DATE - 03/13/2013	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

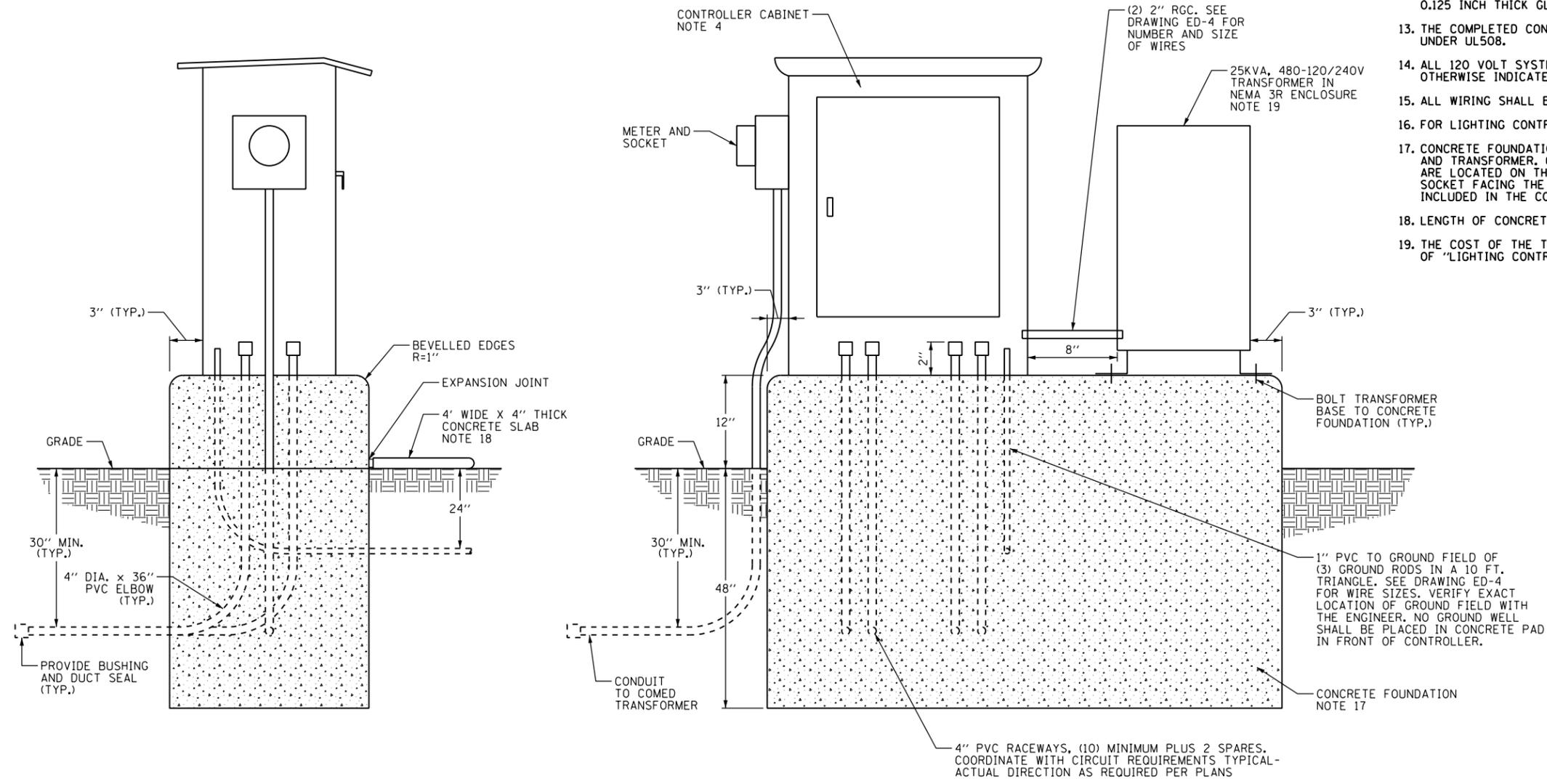
US 45 (LaGRANGE ROAD)
LIGHTING CONTROLLER DETAILS

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	465
E-54			CONTRACT NO. 60M61	
ILLINOIS FED. AID PROJECT				

NOTES:

1. COORDINATE PLACEMENT OF RACEWAYS WITH CONTROLLER MANUFACTURER TO ASSURE DOOR LATCH DOES NOT INTERFERE WITH CABLES OR OTHER DEVICES.
2. THE CONTRACTOR SHALL PROVIDE A GROUND FIELD AT EACH CABINET LOCATION. THE GROUND RODS, ANCHOR BOLTS AND REINFORCEMENT STEEL SHALL ALL BE INTERCONNECTED.
3. THE CONTRACTOR SHALL VERIFY EXACT LOCATION OF CONTROLLER FOUNDATION AND GROUND FIELD WITH THE ENGINEER.
4. SEE DRAWING E-54 FOR CONTROL CABINET DETAILS.
5. ALL SCREWS AND HARDWARE SHALL BE PLATED, GALVANIZED, OR MADE OF BRASS, ALUMINUM OR STAINLESS STEEL.
6. NAME PLATE SHALL HAVE ENGRAVED 0.75 INCH HIGH LETTERS FILLED IN BLACK: "ROADWAY LIGHTING CONTROLLER, VILLAGE OF ORLAND PARK".
7. ONE INCH THICK POLYISOCYANURATE INSULATION SHALL BE INSTALLED AND PERMANENTLY CEMENTED ON ALL SIDES OF THE CABINET AND DOORS.
8. ALL DEVICES SHALL BE FRONT REMOVABLE.
9. ALL LUGS SHALL BE OF COPPER SCREWS AND CONNECTORS, SPRING HELD.
10. ALL CONTROL WIRING SHALL BE 600V MACHINE TOOL WIRE TYPE MTW.
11. ALL POWER WIRING SHALL BE 600V TYPE RHH/RHW.
12. CIRCUIT BREAKERS, CONTACTORS AND OTHER COMPONENTS SHALL BE PANEL MOUNTED ON 0.125 INCH THICK GLASTIC INSULATION BACK PANEL.
13. THE COMPLETED CONTROLLER SHALL BE U.L. LISTED AS AN INDUSTRIAL CONTROL PANEL UNDER UL508.
14. ALL 120 VOLT SYSTEM AND ALL CONTROL WIRING SHALL BE #12AWG STRANDED UNLESS OTHERWISE INDICATED.
15. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.
16. FOR LIGHTING CONTROLLER WIRING DIAGRAM, SEE DRAWING E-53.
17. CONCRETE FOUNDATION SHALL BE CONSTRUCTED AS REQUIRED TO SUPPORT CONTROL CABINET AND TRANSFORMER. CONTRACTOR TO INSURE THE CONTROLLER CABINET AND METER SOCKET ARE LOCATED ON THE FOUNDATION END CLOSEST TO THE UTILITY SERVICE, WITH THE METER SOCKET FACING THE DIRECTION OF THE UTILITY SERVICE. CONCRETE FOUNDATION SHALL BE INCLUDED IN THE COST OF "LIGHTING CONTROLLER, SPECIAL" PAY ITEM.
18. LENGTH OF CONCRETE SLAB SHOULD MATCH LENGTH OF CONCRETE FOUNDATION.
19. THE COST OF THE TRANSFORMER AND THE RELATED WORK SHALL BE INCLUDED IN THE COST OF "LIGHTING CONTROLLER, SPECIAL" ITEM.



LIGHTING CONTROLLER FOUNDATION DETAILS
N.T.S.

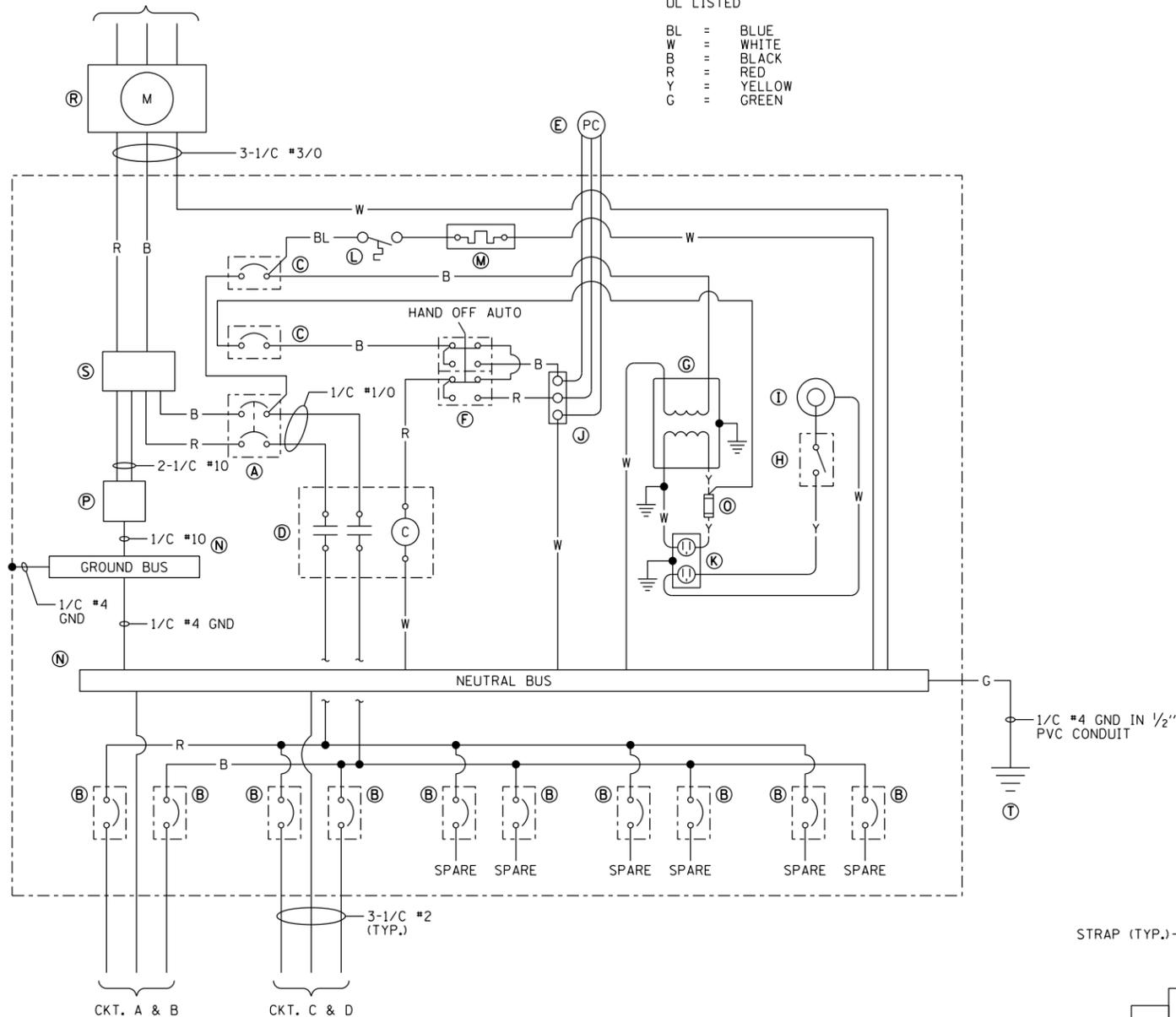
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		KMY	
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	3/15/2013	03/13/2013	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	466
E-55			CONTRACT NO. 60M61	
ILLINOIS FED. AID PROJECT				

ELECTRICAL SERVICE FROM COMED
150A, 240/480V, 1Ø, 3W

POWER WIRING: RHH/RHW
CONTROL WIRING: #12 MTW
NEUTRAL BUS COLOR CODED WHITE
GROUND BUS COLOR CODED GREEN
UL LISTED

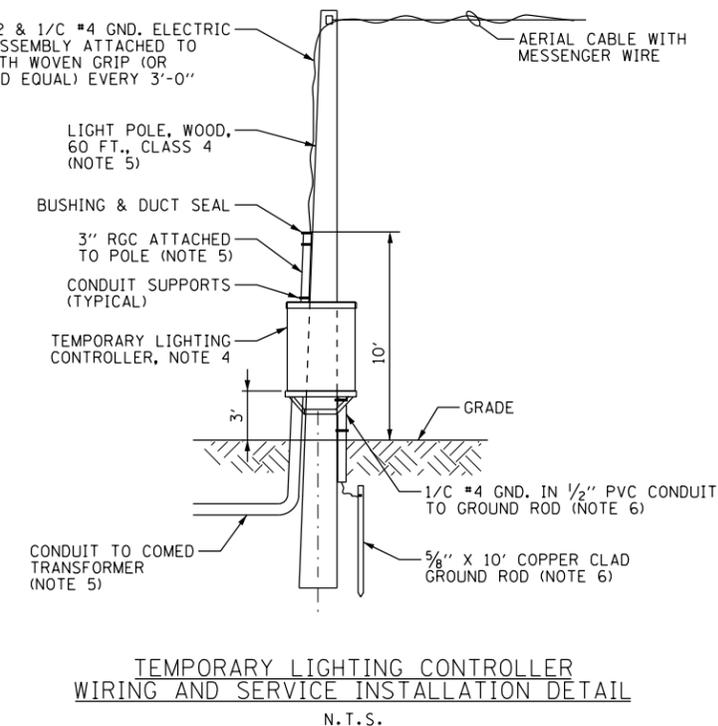
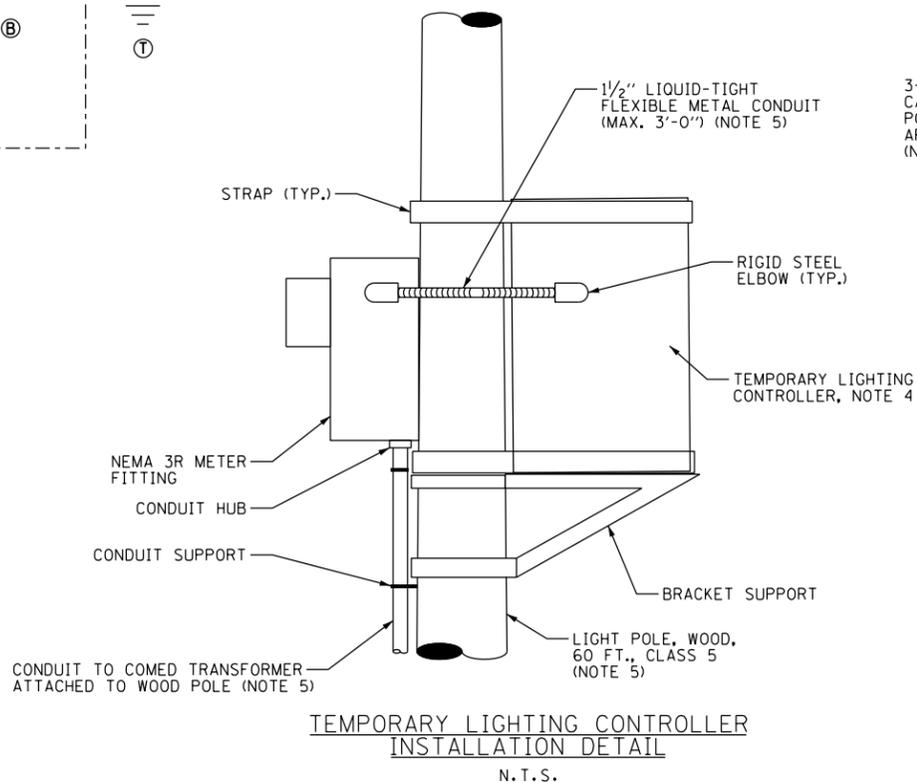
BL = BLUE
W = WHITE
B = BLACK
R = RED
Y = YELLOW
G = GREEN



ITEM QTY.		DESCRIPTION
(A)	1	MAIN CIRCUIT BREAKER, MOLDED CASE, THERMAL MAGNETIC, 150 AMPERE, 480 VOLT, 2-POLE, NON-INTERCHANGEABLE TRIP, INTERRUPTING RATING 25,000 AMPERES AT 480 VOLTS
(B)	10	CUTLER HAMMER, GHB1040, 1-POLE, 40 AMPERE, 240 VOLT, BOLT-ON BRANCH CIRCUIT BREAKER, INTERRUPTING RATING 14,000 AMPERES AT 277 VOLTS (6 SPARE)
(C)	2	CUTLER HAMMER, EHD1015, 1-POLE, 15 AMPERE, 240 VOLT CIRCUIT BREAKER, INTERRUPTING RATING 14,000 AMPERES AT 277 VOLTS
(D)	1	CUTLER HAMMER, A202K4BA, 2-POLE, 200 AMPERE, 120 VOLT COIL CONTACTOR
(E)	1	NITELIGHTER, FA105M, PHOTOCCELL (MOUNTED ON THE TOP OF CONTROL CABINET)
(F)	1	SQUARE D, 9001KYK111, HAND-OFF-AUTO SELECTOR SWITCH
(G)	1	JEFFERSON, 21-0071-055, 1 KILOVOLT-AMPERE TRANSFORMER
(H)	1	OMRON, A20G07BK, DOOR SWITCH
(I)	1	LEVITON, 29816-C, LIGHT FIXTURE
(J)	1	CINCH, 3 POINT TERMINAL BLOCK
(K)	1	LEVITON, 6599, 15 AMPERE GROUND FAULT CIRCUIT INTERRUPTOR RECEPTACLE, WITH WEATHERPROOF COVER
(L)	1	WHITE-RODGERS, #2E552, 0-50 DEGREE THERMOSTAT
(M)	1	VULCAN #OS1408-250B 250 WATT STAINLESS STEEL HEATER
(N)	2	COPPER GROUND AND NEUTRAL BUS, MINIMUM 1/4"x1"x12"
(O)	1	BUSSMANN, KTK15, FUSE
(P)	1	BRACKET MOUNTED SURGE ARRESTER FOR 480/240 VOLT, 3-WIRE SERVICE
(R)	1	METER SOCKET FOR ELECTRIC UTILITY COMPANY METER
(S)	1	MARATHON, #1402401, 175A, 2-POLE, 600 VOLT POWER DISTRIBUTION BLOCK
(T)	1	COPPER-CLAD GROUND ROD, 5/8"x10'

NOTES:

- SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
- THE COST OF CONTROLLER MOUNTING HARDWARE AND RELATED APPURTENANCES SHALL BE INCLUDED IN "TEMPORARY LIGHTING CONTROLLER" PAY ITEM.
- SEE DRAWING E-54 FOR CONTROLLER CABINET DETAILS.
- THE CONTROLLER SHALL BE SUITABLE FOR USE AS SERVICE EQUIPMENT PER NEC 230.66.
- THE COST OF WOOD POLE AND ALL NECESSARY CABLES AND CONDUITS SHALL BE INCLUDED IN THE COST OF "ELECTRIC SERVICE INSTALLATION" PAY ITEM. SEPARATE PAYMENT WILL NOT BE MADE.
- THE COST OF GROUND ROD AND ASSOCIATED GROUND WIRE AND PVC CONDUIT SHALL BE INCLUDED IN "ELECTRIC SERVICE INSTALLATION" PAY ITEM.
- THE COST OF ELECTRIC CABLE ASSEMBLIES SHALL BE CONSIDERED INCIDENTAL TO THE "AERIAL CABLE, 3-1/C NO. 2 WITH MESSENGER WIRE" PAY ITEM. SEPARATE PAYMENT WILL NOT BE MADE.



100 S. WACKER DR.
SUITE 500
CHICAGO, IL 60606
TEL (312) 939-1000
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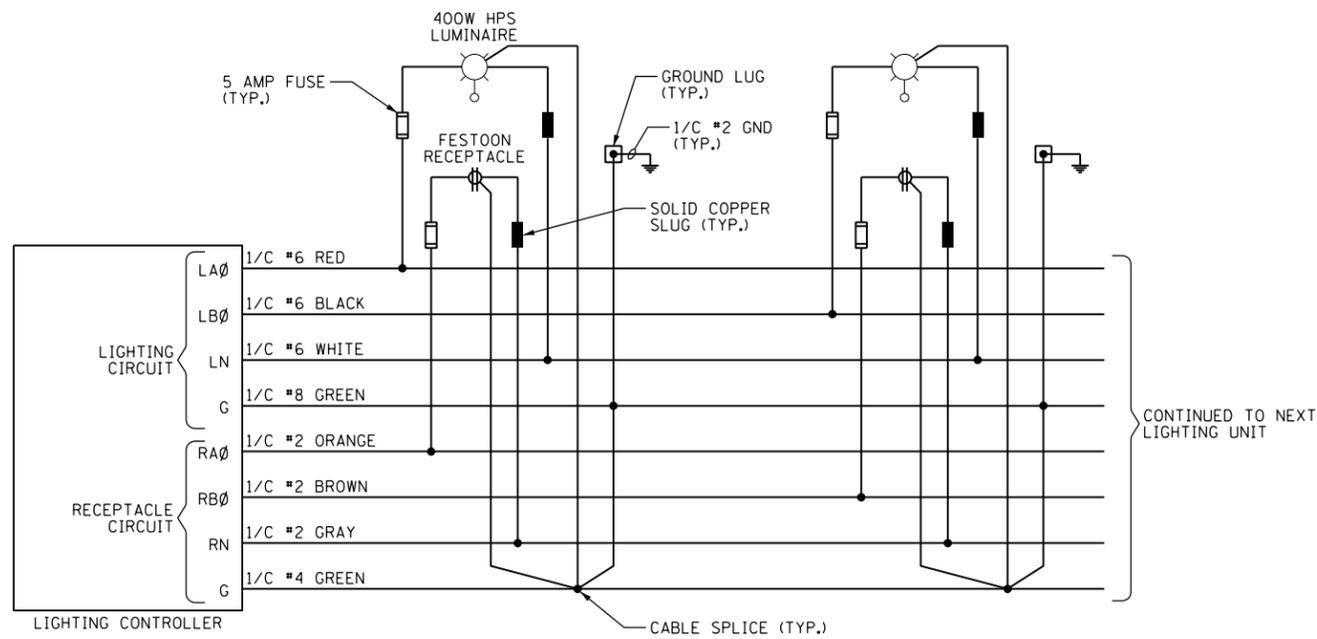
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

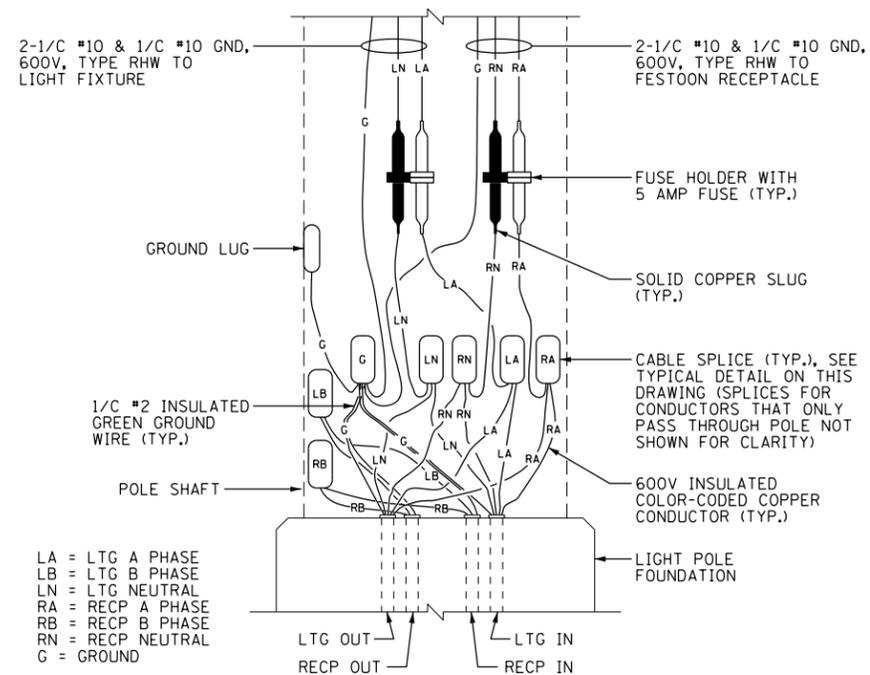
US 45 (LaGRANGE ROAD)
TEMPORARY LIGHTING CONTROLLER DETAILS & DIAGRAMS

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

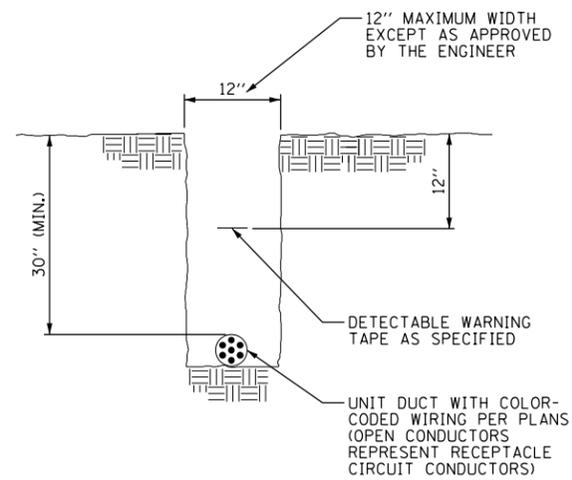
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	467
E-56		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				



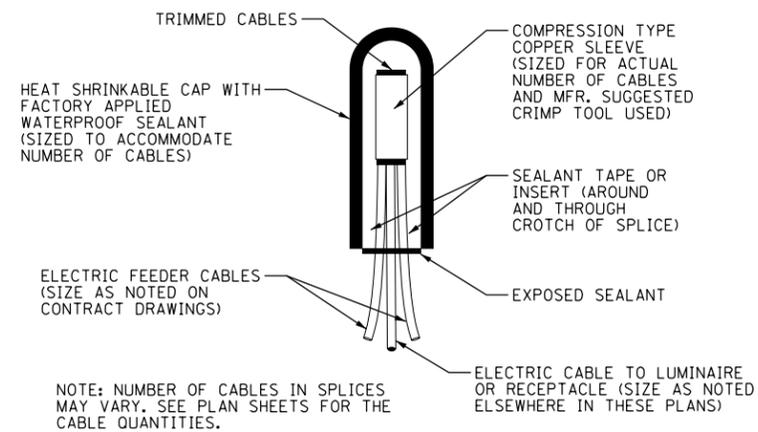
TYPICAL LIGHTING UNIT AND RECEPTACLE WIRING DIAGRAM
N.T.S.



TYPICAL POLE BASE WIRING DETAIL
N.T.S.



TYPICAL UNIT DUCT IN TRENCH DETAIL
N.T.S.



TYPICAL SPLICE DETAIL
N.T.S.

FILE NAME = D160M61-SHT-E57.dgn	USER NAME = michal_bartusiewicz	DESIGNED - DAD	REVISED -
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F.A.P. RTE. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 468
E-57			CONTRACT NO. 60M61	
ILLINOIS FED. AID PROJECT				

1-PH COMPT TR PAD - ESS/RSS

167kVA MAXIMUM CAPACITY

ITEM	MATERIAL DESCRIPTION (By ComEd)	MIG	SI	UNIT	QTY
A	GROUNDING INSTALLATION (1) C8550_GG	C			1
C	Wire, Copper; #1/0-19 Strand, Soft Drawn, Tin Coated, Bare	C	355082	FT	35
D	Connector, Compression; 1/0 Or 2/0 Strt Cu. Rim & Top	U	362545	EA	1

NOTES:

APPLICATION

- THIS STANDARD SHALL BE USED FOR THE INSTALLATION OF AN ELECTRIC OR RESIDENTIAL SERVICE STATION FOUNDATION AS DESCRIBED IN THE "INFORMATION AND REQUIREMENTS FOR THE SUPPLY OF ELECTRIC SERVICE BOOK", SECTIONS 2.02 AND 2.07.

SUPPLEMENTARY MATERIAL

- WHEN BARE LEAD COVERED CABLES ARE LOCATED OR PLANNED WITHIN 200 FEET, OMIT ITEM "C" AND REPLACE WITH 1/0 LEAD CLAD COPPER CONDUCTOR (SI 360809). SPECIFY STAINLESS STEEL GROUNDS PER C8550.GG.
- PRECAST ALTERNATIVES TO THIS POURED DESIGN MAY BE AVAILABLE. CONTACT CONSTRUCTION STANDARDS GROUP.

INFORMATION

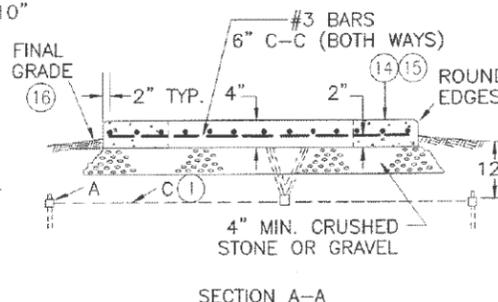
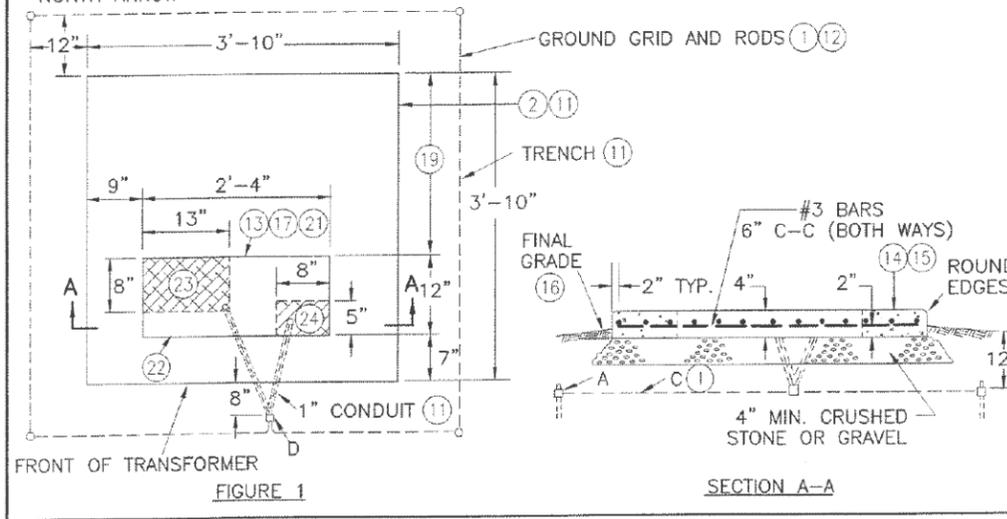
- THE CUSTOMER TO INSTALL THE TRANSFORMER FOUNDATION, 1 INCH CONDUITS, AND TRENCH FOR ComEd GROUND WIRE.
- ComEd TO PROVIDE AND INSTALL THE GROUND WIRE AND GRID.
- AFTER PRIMARY AND SECONDARY CONDUITS ARE IN PLACE, BACKFILL WITH SCREENINGS, SAND, OR FINE EXCAVATED MATERIAL. COMPACT THOROUGHLY BEFORE POURING FOUNDATION.
- CONCRETE TO BE IN ACCORDANCE WITH THE LATEST EDITION OF THE APPLICABLE ACI CODE AND AIR ENTRAINED. IT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS. AIR ENTRAINMENT SHALL BE 4 TO 7 PERCENT OF THE VOLUME OF CONCRETE.

- TOP OF FOUNDATION TO BE SMOOTH AND LEVEL.
- GRADE AWAY FROM FOUNDATION. FINAL GRADE SHALL BE WELL DRAINED AT ALL TIMES.
- PRIMARY AND SECONDARY CONDUIT MUST COME THROUGH FOUNDATION IN DESIGNATED AREAS.
- SEE C7723 FOR BURNDY-HUSKY DIE SET CROSS REFERENCE.
- DO NOT PLACE CONDUITS UNDER THIS SECTION OF FOUNDATION IF AVOIDABLE.
- DO NOT DISTURB EARTH IN FOUNDATION AREA MORE THAN NECESSARY WHEN INSTALLING CONDUIT.
- TERMINATE PRIMARY AND SECONDARY CONDUITS FLUSH WITH TOP OF FOUNDATION.
- BOX OUT CONDUIT OPENING.
- SECONDARY CONDUIT LOCATION.
- PRIMARY CONDUIT LOCATION.
- PLEASE CONSULT GP 345 (SPCC) OR ENVIRONMENTAL SERVICES IF EITHER OF THE FOLLOWING EXISTS:
 - A SINGLE ABOVE GROUND TANK WITH A CAPACITY OF 660 GALLONS OR MORE.
 - MORE THAN ONE ABOVE GROUND TANK WITH TOTAL CAPACITY EQUAL TO OR EXCEEDING 1320 GALLONS.

ITEM	TOOL & DIE	
	Y-35	NO. OF CRIMPS
D	U-O	1
	U-E	3



NORTH ARROW

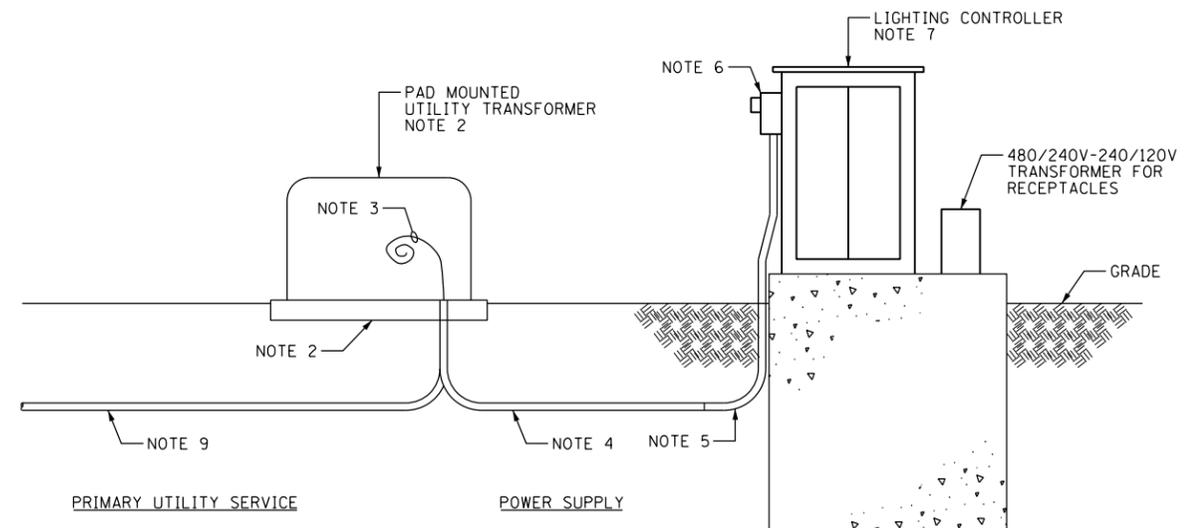


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ComEd SYSTEM STANDARD

NOTES:

- THIS WORK SHALL BE INSTALLED UNDER THE "ELECTRIC SERVICE INSTALLATION" PAY ITEM, UNLESS NOTED OTHERWISE.
- COMMONWEALTH EDISON COMPANY (COMED) SHALL FURNISH AND INSTALL THE PAD MOUNTED TRANSFORMER COMPLETE WITH GROUNDING SYSTEM INCLUDING GROUND RODS, GROUNDING CONDUCTOR, PRIMARY CABLE, CUT-OUT SWITCH, LIGHTNING ARRESTOR, CONNECTORS, AND ANY OTHER EQUIPMENT AND LABOR DEEMED NECESSARY. SEE COMED SYSTEM STANDARD C5288 FOR INSTALLATION REQUIREMENTS.
- ELECTRIC SERVICE CONDUCTORS FROM THE INSIDE OF THE CABINET TO THE TRANSFORMER. PROVIDE 10 FT OF SLACK FOR CONNECTION TO TRANSFORMER BY COMED. CABLE SHALL CONFORM TO THE REQUIREMENTS SPECIFIED FOR ELECTRIC CABLE IN CONDUIT. LABEL CABLE ON BOTH ENDS. SEE PLAN DRAWINGS FOR CABLE TYPE AND SIZE.
- UNDERGROUND CONDUIT. SEE PLAN DRAWINGS FOR CONDUIT MATERIAL AND SIZE.
- RGC 90 DEGREES LONG SWEEP ELBOW IN TRENCH, SEE PLAN DRAWINGS FOR CONDUIT, TYPE, SIZE, AND QUANTITY. THIS WORK SHALL BE INSTALLED UNDER THE "ELECTRIC SERVICE INSTALLATION" PAY ITEM.
- UNDER THE "ELECTRIC UTILITY SERVICE CONNECTION" PAY ITEM, COMED SHALL FURNISH AND INSTALL METER ON CONTROLLER CABINET.
- SEE DRAWING E-55 FOR LIGHTING CONTROLLER AND FOUNDATION DETAILS.
- SUBMIT A PLAN DRAWING SHOWING THE PROPOSED PRIMARY CONDUIT INSTALLATION TO COMED FOR THEIR APPROVAL. THIS WORK SHALL BE COVERED UNDER THE "ELECTRIC UTILITY SERVICE CONNECTION" PAY ITEM. SEPARATE PAYMENT WILL NOT BE MADE.
- COORDINATE DETAILS WITH COMED. FOR BID, ASSUME 200 FEET OF 4" DIA. UNDERGROUND RGC WITH 3-1/2" #2/0 12KV CABLES.



FILE NAME = D160M61-SHT-E58.dgn	USER NAME = michal_bartusiewicz	DESIGNED - JLW	REVISED -
SHT_PLAN	PLOT SCALE = 2:8.000000 '1' / in.	DRAWN - CJM	REVISED -
	PLOT DATE = 3/15/2013	CHECKED - KMY	REVISED -
		DATE - 03/13/2013	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

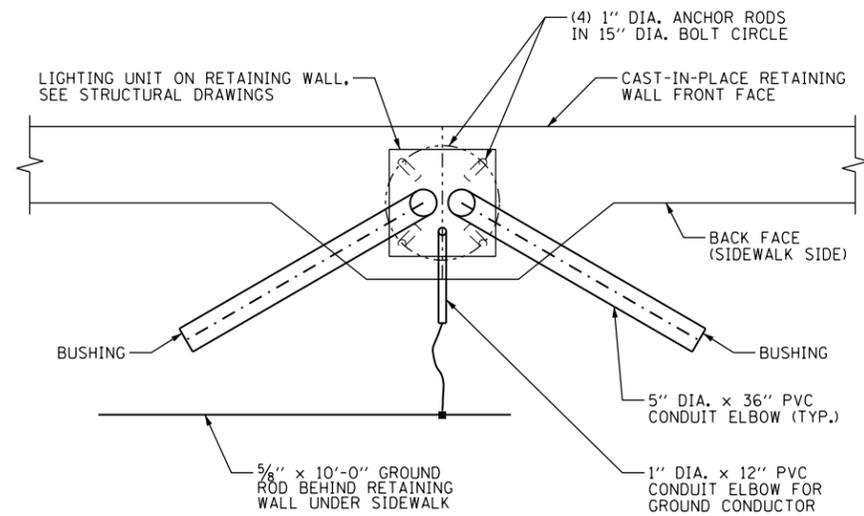
US 45 (LaGRANGE ROAD)
ELECTRIC SERVICE INSTALLATION PAD MOUNTED TRANSFORMER

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

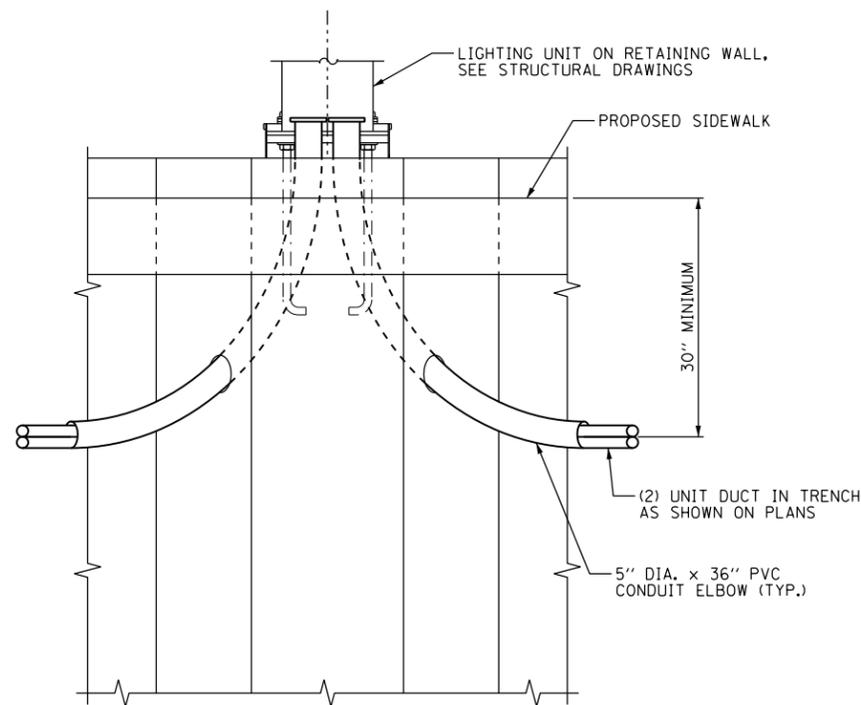
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	469
E-58			CONTRACT NO. 60M61	
ILLINOIS FED. AID PROJECT				

NOTES:

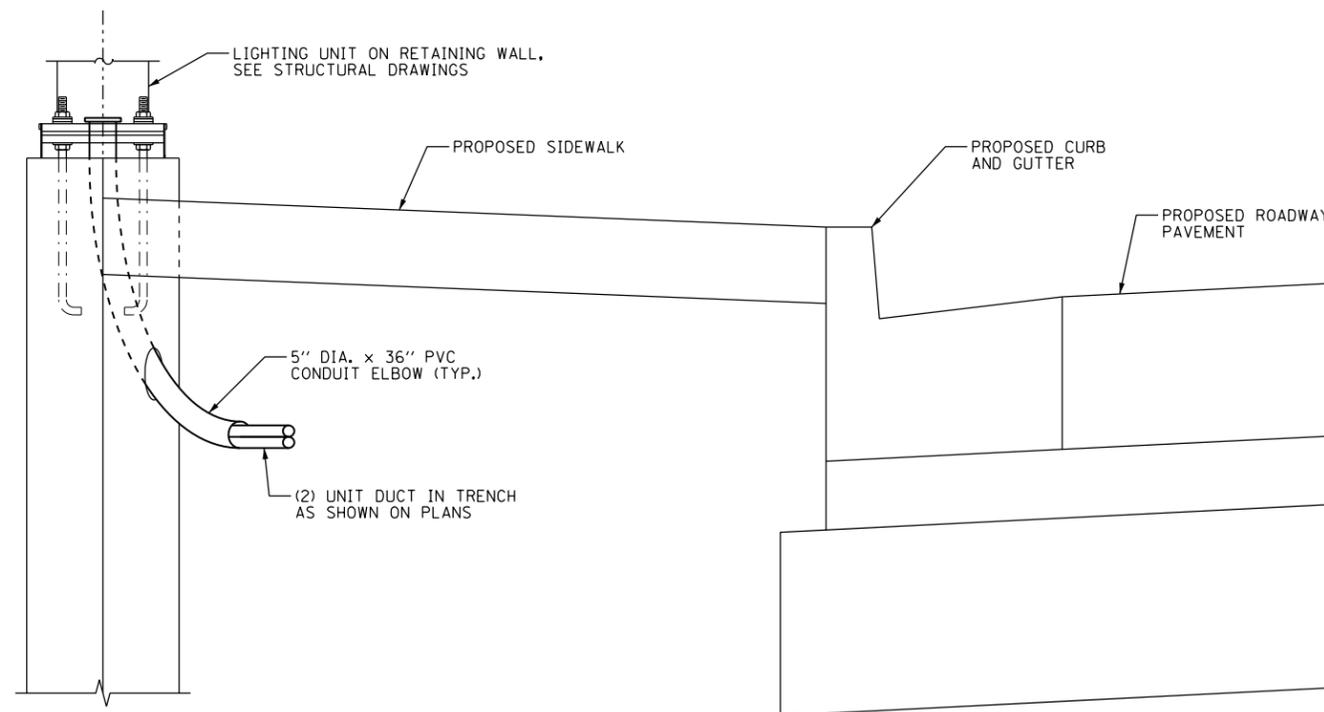
1. SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.



PLAN VIEW



BACK FACE ELEVATION
(GROUNDING SYSTEM OMITTED)



SECTION

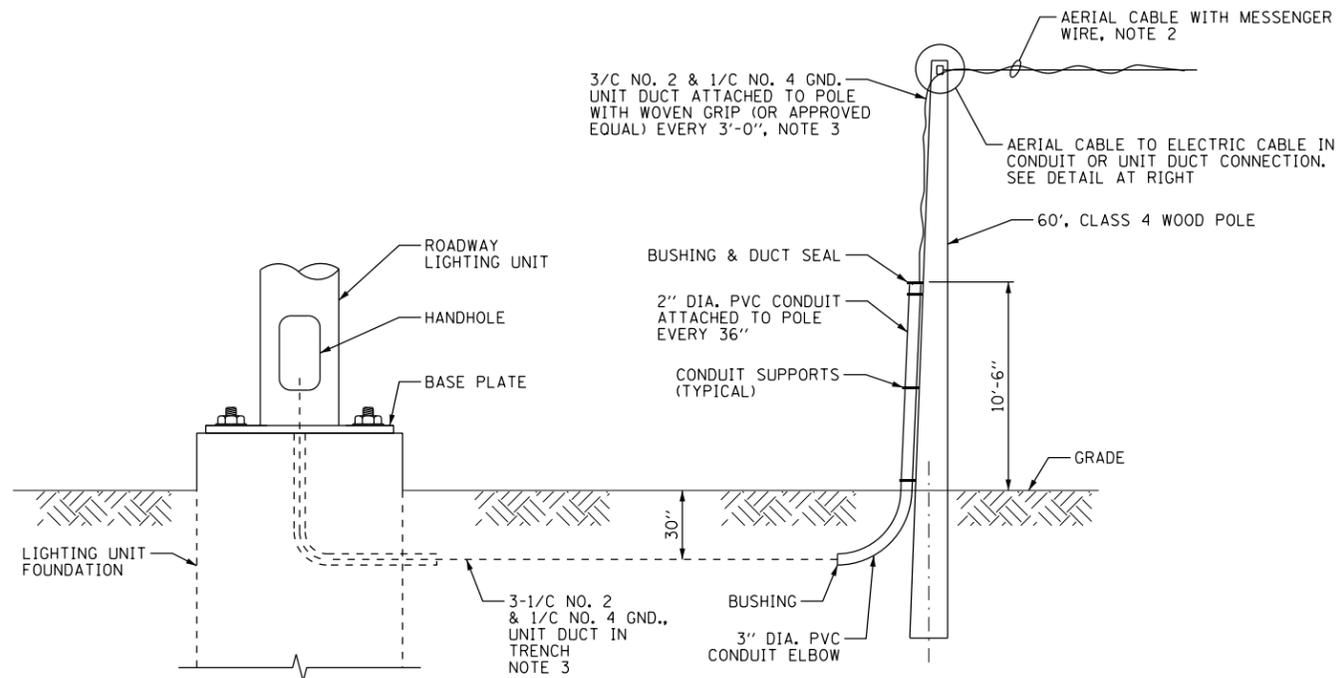
LIGHT POLE ON CAST-IN-PLACE RETAINING WALL
N.T.S.

100 S. WACKER DR.
 SUITE 600
 CHICAGO, IL 60606
 TEL (312) 939-1000
 FAX (312) 939-4198
URS

FILE NAME = D160M61-SHT-E59.dgn	USER NAME = michal_bartusiewicz	DESIGNED - JLW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	US 45 (LaGRANGE ROAD) RETAINING WALL MOUNTED LIGHT POLE INSTALLATION DETAILS	F.A.P. RTE. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 470		
SHT.PLAN	PLOT SCALE = 2.0000' / in.	CHECKED - KMY	REVISED -			SCALE: NONE	SHEET 1 OF 1 SHEETS	STA.	TO STA.	E-59		
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									CONTRACT NO. 60M61			

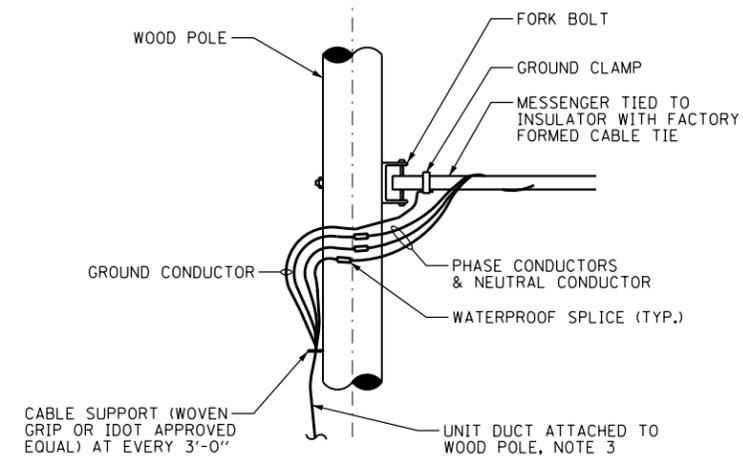
NOTES:

1. SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
2. AERIAL CABLE MUST HAVE A MINIMUM CLEARANCE OF 20'-0" TO GRADE AT ALL LOCATIONS.
3. CONTRACTOR HAS THE OPTION TO SUBSTITUTE THE UNIT DUCT WITH ELECTRIC CABLE IN CONDUIT. NO ADDITIONAL PAYMENT WILL BE ALLOWED FOR ANY ADDITIONAL MATERIALS AS A RESULT OF THIS SUBSTITUTION.



NOTE: DETAIL FOR WOOD POLE TO ROADWAY LIGHTING CONTROLLER WIRING CONNECTION IS SIMILAR.

**WOOD POLE TO ROADWAY LIGHTING UNIT
WIRING CONNECTION DETAIL**
N.T.S.



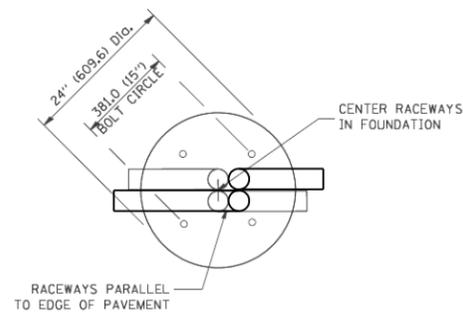
**AERIAL CABLE TO ELECTRIC
CABLE ASSEMBLY CONNECTION DETAIL**
N.T.S.

FILE NAME =	USER NAME =	DESIGNED -	REVISED -
D160M61-SHT-E60.dgn	michal_bartusiewicz	JLW	
		DRAWN -	REVISED -
		CJM	
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	3/15/2013	03/13/2013	

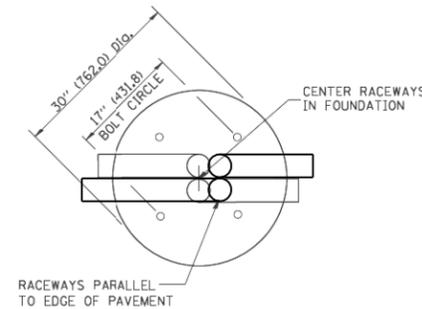
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	471
E-60			CONTRACT NO. 60M61	
ILLINOIS FED. AID PROJECT				

LIGHT POLE FOUNDATION DEPTH TABLE
40 FT. (12.192 m) TO 47.5 FT. (14.478 m) MOUNTING HEIGHT

SOIL CONDITIONS	DESIGN DEPTH "D" OF FOUNDATION	
	SINGLE ARM POLE	TWIN ARM POLE
SOFT CLAY Qu = 0.375 TON/SQ. FT.	13'-0" (3.96 m)	15'-0" (4.57 m)
MEDIUM CLAY Qu = 0.75 TON/SQ.FT	9'-6" (2.93 m)	10'-9" (3.23 m)
STIFF CLAY Qu = 1.50 TON/SQ. FT.	7'-0" (2.13 m)	8'-0" (2.44 m)
LOOSE SAND φ = 34°	9'-0" (2.74 m)	10'-0" (3.05 m)
MEDIUM SAND φ = 37.5°	8'-3" (2.52 m)	9'-0" (2.74 m)
DENSE SAND φ = 40°	7'-9" (2.36 m)	8'-0" (2.44 m)



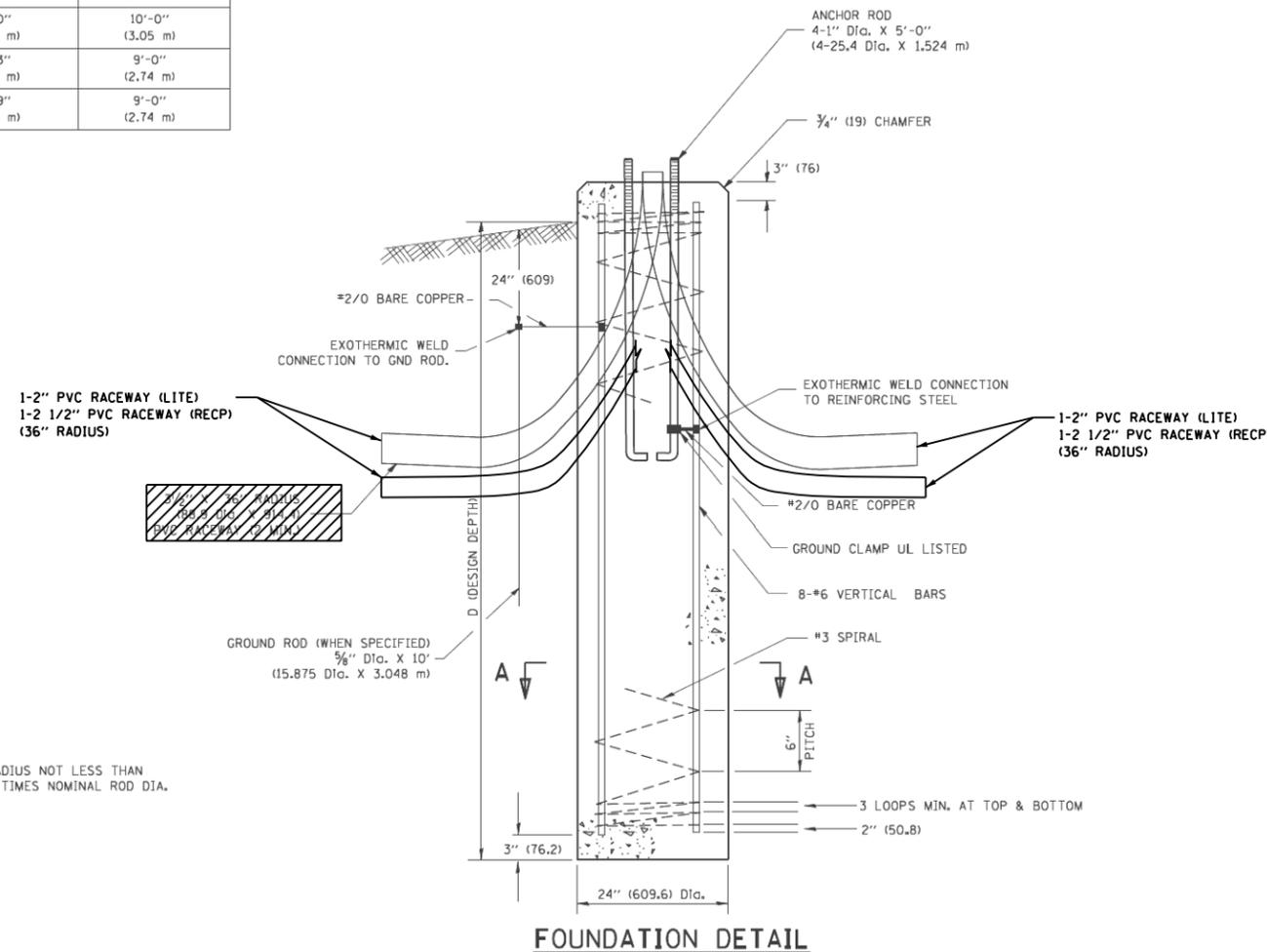
TOP VIEW



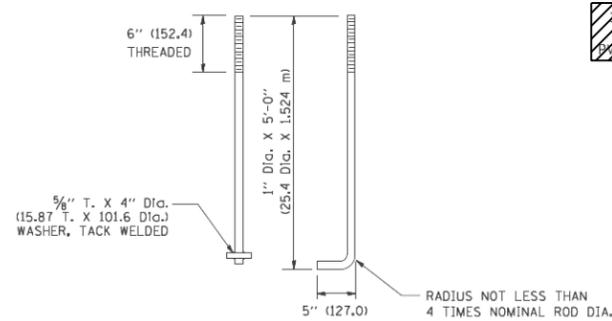
TOP VIEW

NOTES

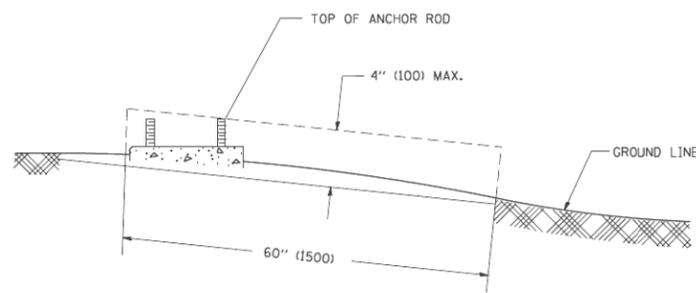
- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- THE ANCHOR RODS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED.
- THE FOUNDATION SHALL NOT PROTRUDE MORE THAN 100MM (4 IN.) ABOVE THE FINISHED GRADE WITHIN A 60 IN. (1.5 m) CHORD ACROSS THE FOUNDATION, WITH ANCHOR RODS INCLUDED, IN ACCORDANCE WITH AASHTO GUIDELINES. IF THE FOUNDATION HEIGHT, INCLUDING ANCHOR RODS, EXTENDS BEYOND THESE SPECIFIED LIMITS, THE FOUNDATION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. SEE FOUNDATION EXTENSION DETAIL.
- THE HOLE FOR THE FOUNDATION SHALL BE MADE BY DRILLING WITH AN AUGER, OF THE SAME DIAMETER AS THE FOUNDATION. IF SOIL CONDITIONS REQUIRE THE USE OF A LINER TO FORM THE HOLE, THE LINER SHALL BE WITHDRAWN AS THE CONCRETE IS DEPOSITED.
- THE TOP OF THE FOUNDATION SHALL BE CONSTRUCTED LEVEL. A LINER OR FORM SHALL BE USED TO PRODUCE A UNIFORM SMOOTH SIDE TO THE TOP OF THE FOUNDATION. FOUNDATION TOP SHALL BE CHAMFERED 3/4-IN. (20 mm).
- THE CONCRETE SHALL BE CLASS SI. CONCRETE SHALL CURE ACCORDING TO ARTICLE 1020.13 BEFORE LIGHT POLES ARE INSTALLED.
- THE ANCHOR ROD SHALL BE A HOOK ROD TYPE. COLD BENDING OF THE ANCHOR ROD WILL NOT BE ALLOWED. THE RADIUS OF THE HOOK BEND SHALL NOT BE LESS THAN 4 TIMES THE NOMINAL DIAMETER OF THE ANCHOR ROD. A TACK WELDED ANCHOR ROD MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ENGINEER.
- THE ANCHOR RODS SHALL BE ACCORDING TO ASTM F1554 GRADE 725 (GRADE 105). NUTS SHALL BE HEXAGON NUTS ACCORDING TO ASTM A 194 2H OR ASTM A 563 DH, AND WASHERS SHALL BE ACCORDING TO ASTM F 436.
- ANCHOR RODS, NUTS AND WASHERS SHALL BE COMPLETELY GALVANIZED BY EITHER THE HOT-DIPPED PROCESS CONFORMING WITH AASHTO M 232, THE MECHANICAL PLATING METHOD CONFORMING TO AASHTO M 298, CLASS 50 WITH A MAXIMUM COATING THICKNESS OF 150 UM(6 MILS) OR THE ELECTROLYTIC PROCESS ACCORDING TO ASTM F 1136.
- THE ANCHOR RODS SHALL BE THREADED A MINIMUM OF 6 INCHES (150 mm) WITH A MINIMUM OF 3 INCHES (75 mm) OF THREADED ANCHOR ROD EMBEDDED IN THE FOUNDATION.
- ANCHOR RODS SHALL PROJECT 2 3/4" (69.9 mm) ABOVE THE TOP OF THE FOUNDATION. IF BREAKAWAY COUPLINGS ARE SPECIFIED, THE CONTRACTOR SHALL CAREFULLY COORDINATE THE ANCHOR ROD PROJECTION WITH THE INSTALLATION REQUIREMENTS OF THE BREAKAWAY COUPLINGS.
- THE CONTRACTOR SHALL USE A #3 SPIRAL AT 6" (152.4 mm) PITCH OR MAY SUBSTITUTE #3 TIES AT 12" (304.8 mm) O.C. WITH THE APPROVAL OF THE ENGINEER.
- THE CABLE TRENCHES AND FOUNDATION SHALL BE BACK FILLED AND COMPACTED AS SPECIFIED BEFORE THE LIGHT POLE IS ERECTED.
- THE RACEWAYS SHALL PROJECT 1" (25.4 mm) ABOVE THE TOP OF THE FOUNDATION.
- CONTRACTOR MUST INSURE THAT THE SETBACK FROM THE BACK OF CURB TO CENTERLINE OF ALL FOUNDATIONS IS KEPT AT A MINIMUM OF 3'-0". CONTRACTOR MUST ALSO INSURE THAT 4'-0" OF MINIMUM SIDEWALK PAVEMENT WIDTH IS GIVEN WHEREVER A FOUNDATION IS WITHIN THE SIDEWALK OR PATH LIMITS PER A.D.A. REQUIREMENTS.



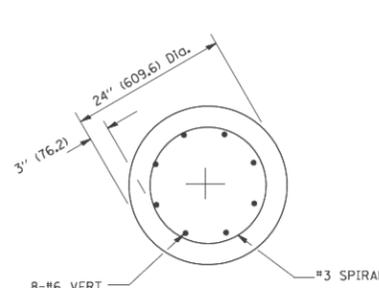
FOUNDATION DETAIL



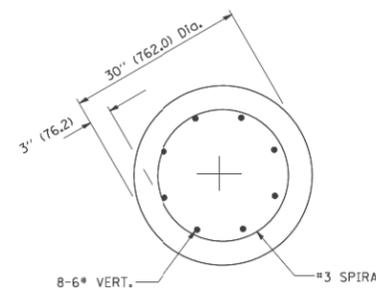
ANCHOR ROD DETAIL



FOUNDATION EXTENSION DETAIL



SECTION A-A



SECTION A-A

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		DATE - 03/13/2013	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

US-45 (LaGRANGE ROAD)
LIGHT POLE FOUNDATION
40' (12.192 m) TO 47 1/2" (14.478 m) M.H., 15" (381mm) BOLT CIRCLE
 SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	472
E-61		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				

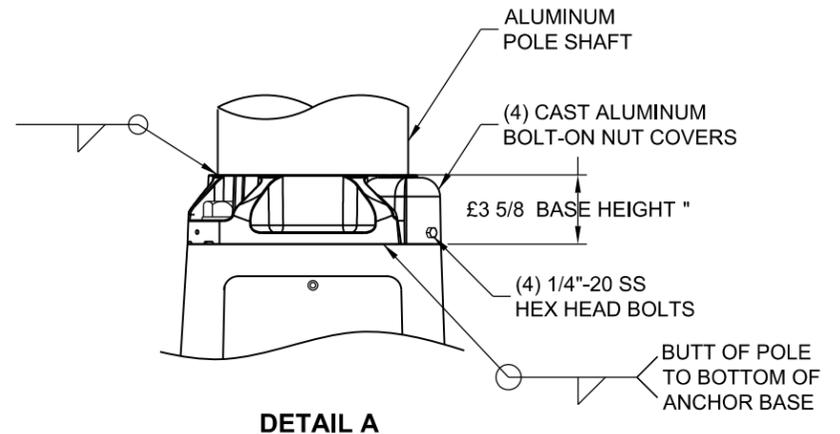
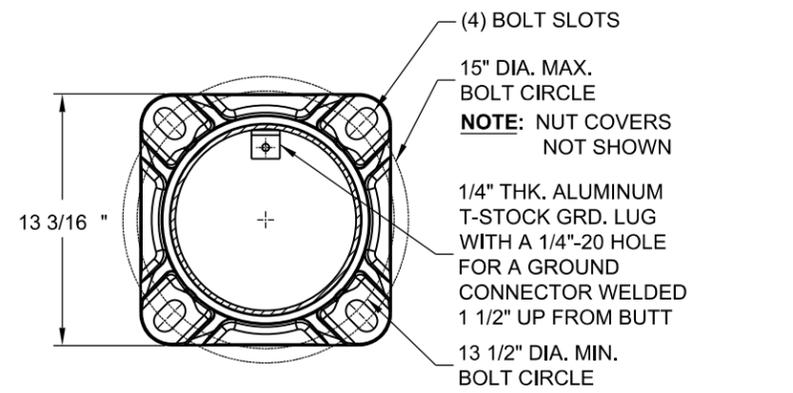
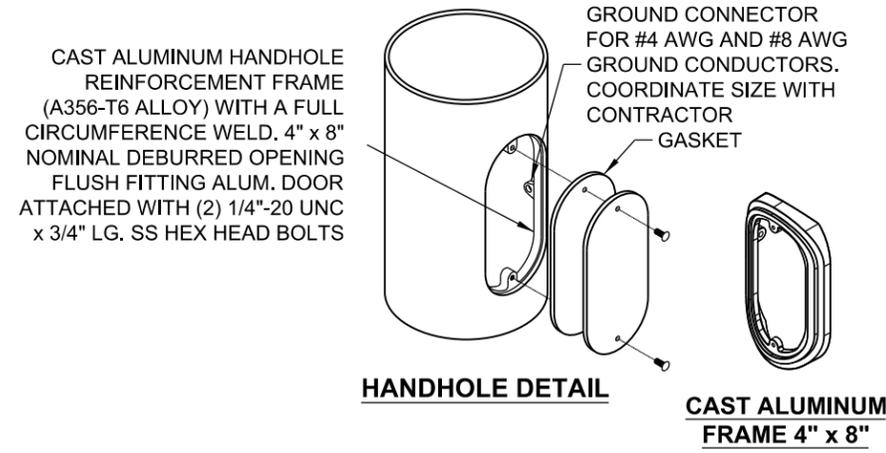
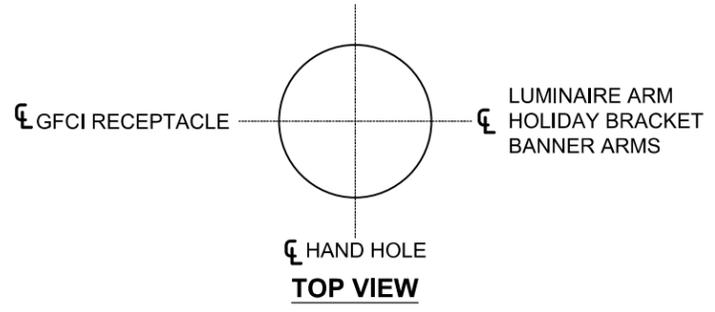
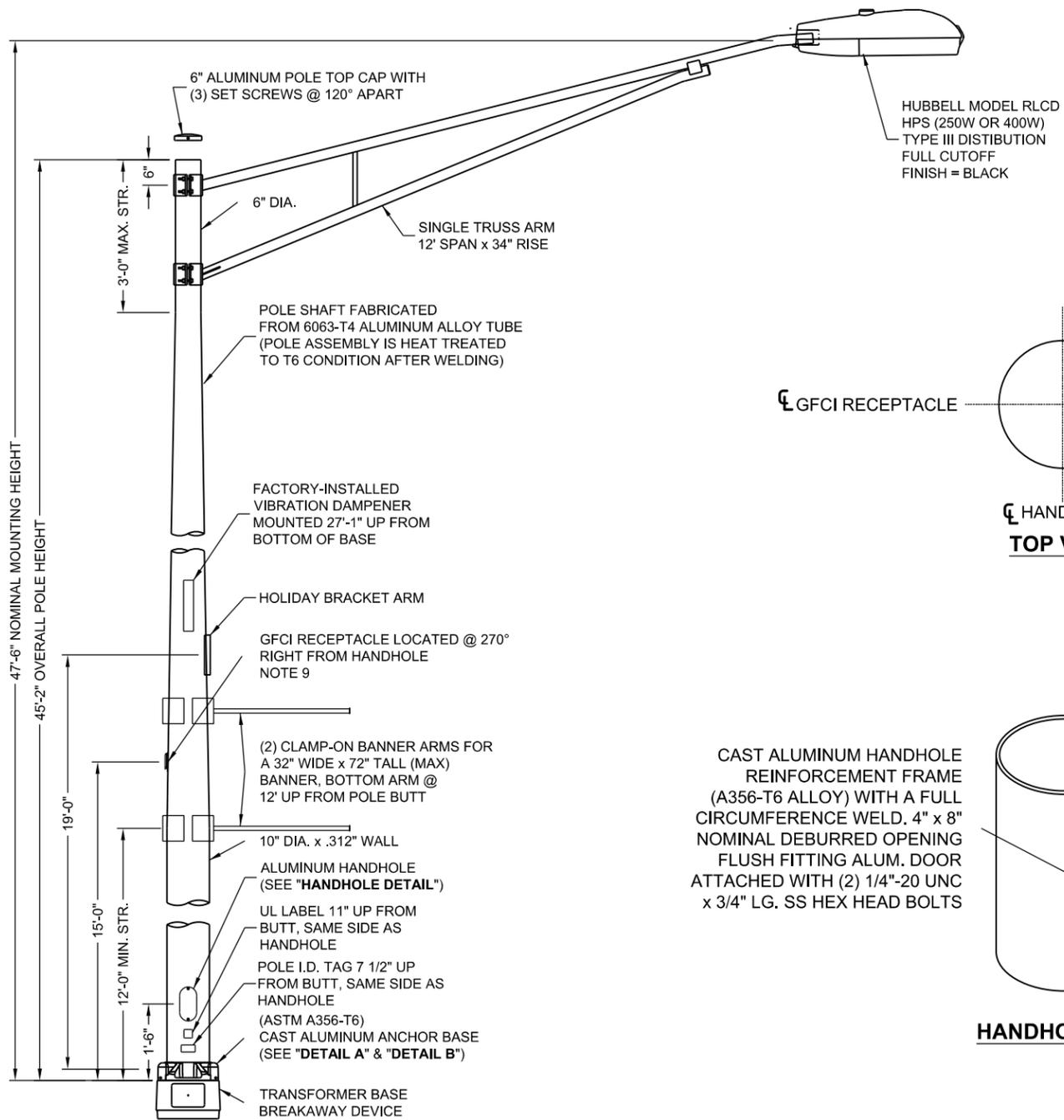
POLE PART NUMBERS

LIGHT POLE:
VALMONT MODEL # 450260108T4C
ALUMINUM ALLOY
FINISH: POWDER BLACK DBL

LUMINAIRE:
HUBBELL LIGHTING
400 WATT LUMINAIRE: RLCD-40S38-032-1-2-5-F3-BLACK
250 WATT LUMINAIRE: RLCD-25S38-032-1-2-5-F3-BLACK

TRANSFORMER BASE:
FINISH: POWDER BLACK DBL

HOLIDAY BRACKET ARM SUPPLIER:
PERMALITES
1305 SCHOOLHOUSE RD
NEW LENOX, IL
815-485-5530
815-953-7116



- NOTES:**
1. ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SHOWN.
 2. MOUNTING HEIGHT IS DEFINED AS THE DISTANCE FROM THE CENTERLINE OF THE TENON TO THE BOTTOM OF THE ANCHOR BASE.
 3. TWO PIECE SHAFT WILL BE MATCHED, MARKED AND INTERCHANGEABLE BETWEEN DIFFERENT UNITS. FIELD DRILLING OF THE HOLES WILL NOT BE ALLOWED.
 4. THE LIGHT POLE WILL MEET AASHTO DESIGN CRITERIA AS SPECIFIED.
 5. THE INSTALLING CONTRACTOR WILL PROVIDE A UL LISTED GROUNDING CONNECTOR. CONTRACTOR SHALL COORDINATE LUGS WITH POLE MANUFACTURER FOR BONDING LUGS.
 6. LIGHT POLES WILL NOT BE INSTALLED WITHOUT MAST ARMS AND LUMINAIRES.
 7. LIGHT POLES WILL BE SET PLUMB ON THE FOUNDATION WITHOUT THE USE OF LEVELING NUTS, WASHERS OR SHIMS.
 8. LIGHTING UNIT IDENTIFICATION NUMBERS SHALL BE INSTALLED BEFORE THE LIGHTING UNIT IS ENERGIZED.
 9. ALL PROPOSED LIGHTING UNITS SHALL HAVE A 20A, 120V, GFCI RECEPTACLE WITH IN-USE WEATHERPROOF RUGGED U.V. RESISTANT POLYCARBONATE COVER INSTALLED ON BACK OF POLE AT 15'-0" ABOVE THE BASE OF POLE. RECEPTACLE AND BOX SHALL BE BLACK.
 10. CONTRACTOR MUST PROVIDE A BREAKAWAY DEVICE, TRANSFORMER BASE WITH 15" DIA. BOLT CIRCLE, FOR ALL PROPOSED LIGHTING UNITS. TRANSFORMER BASE SHALL BE INCLUDED IN PAY ITEM "LIGHT POLE SPECIAL".
 11. LIGHT POLE SHALL BE LISTED OR CLASSIFIED BY A NATIONALLY RECOGNIZED TESTING LABORATORY SUCH AS UL, ETL, OR EQUIVALENT.
 12. CONTRACTOR MUST VERIFY ALL INFORMATION, PART NUMBERS, DIMENSIONS, MEASUREMENTS, AND COMPONENTS SHOWN ON THIS SHEET WITH THE VILLAGE OF ORLAND PARK PUBLIC WORKS DEPARTMENT AND THE EQUIPMENT MANUFACTURERS BEFORE ORDERING.

100 S. WACKER DR.
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CHICAGO, IL 60606
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FAX (312) 939-4998

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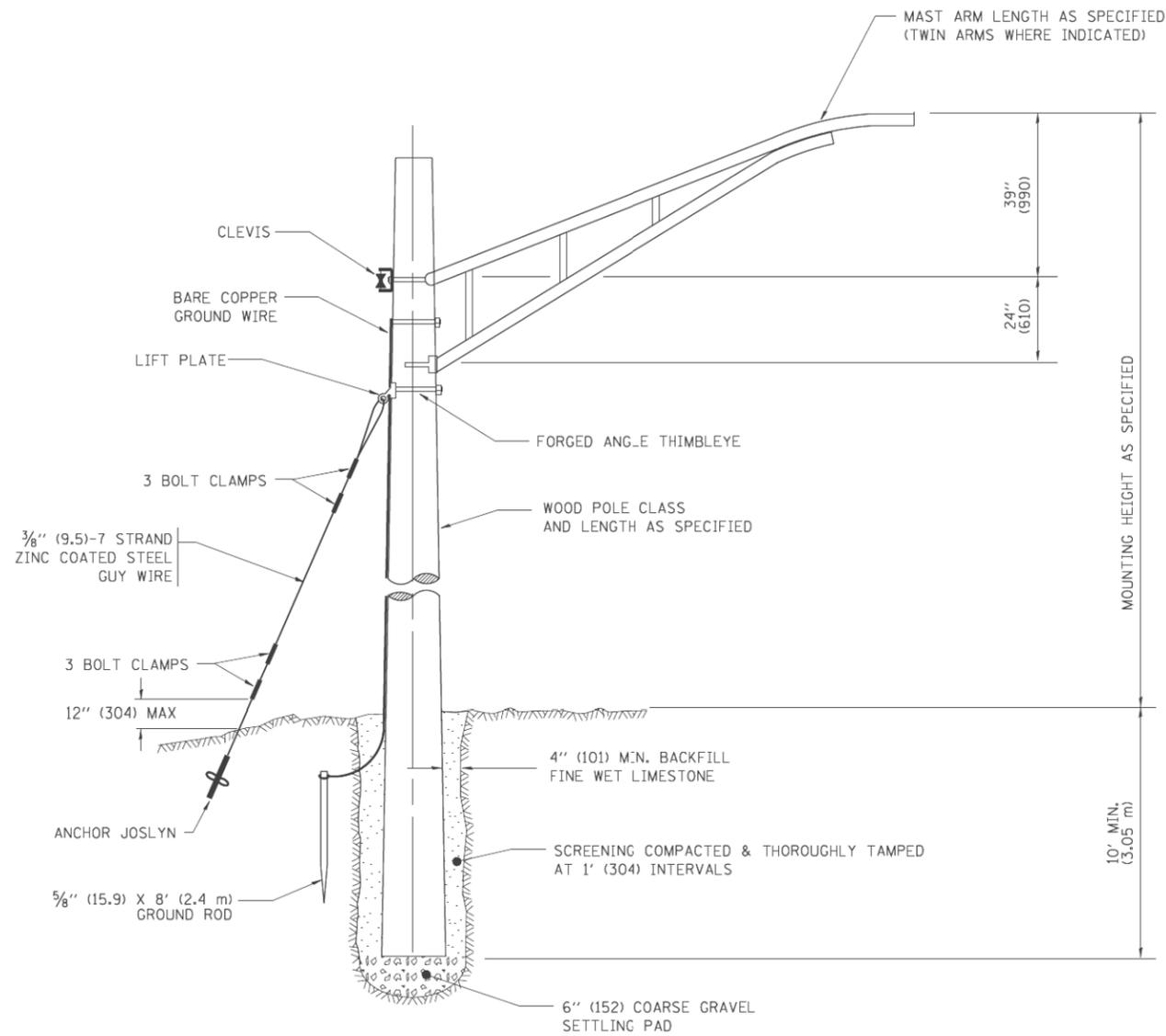
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		DATE - 03/13/2013	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

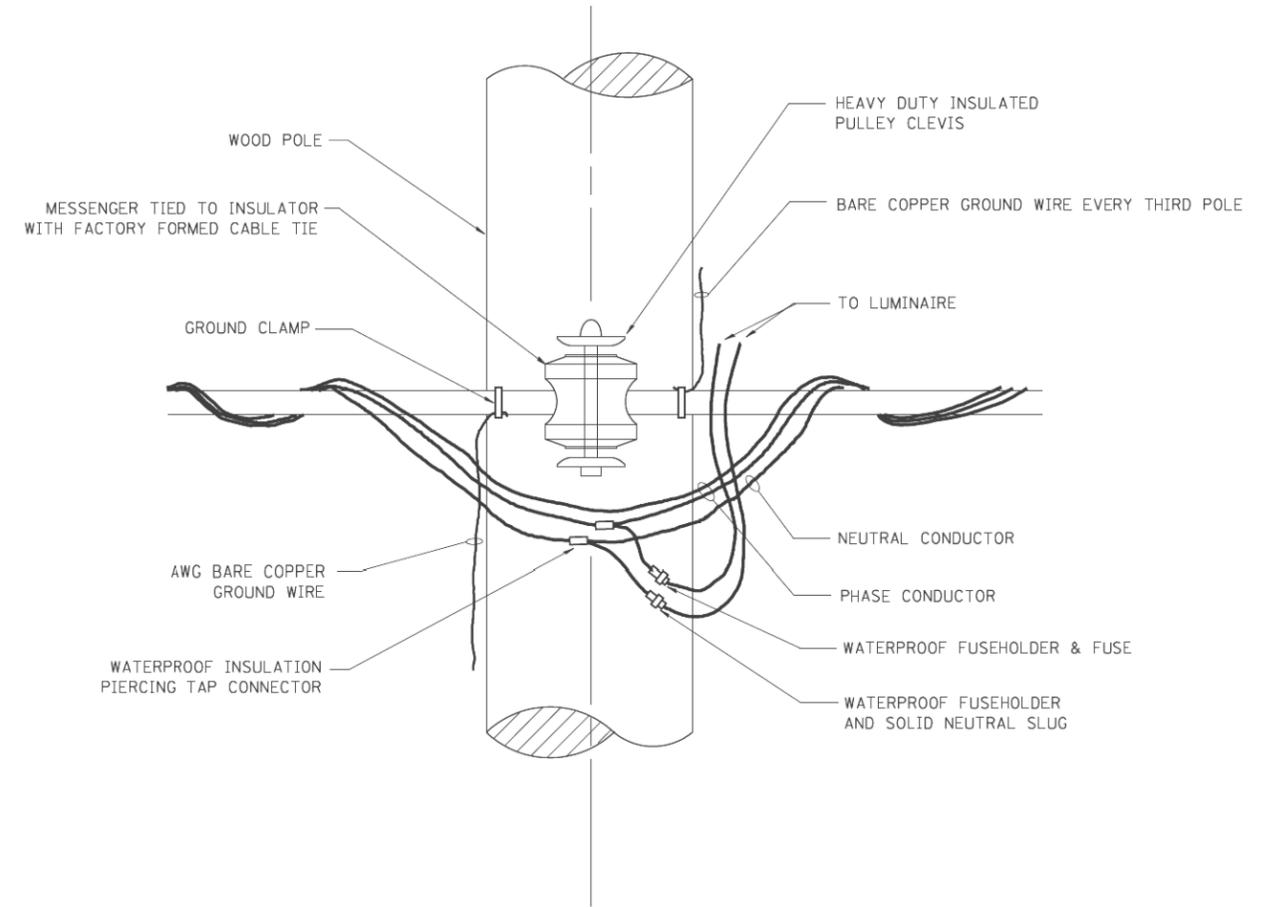
**US-45 (LaGRANGE ROAD)
ALUMINUM LIGHT POLE, 47 1/2" (14.478 m) MOUNTING HEIGHT**

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	473
E-62		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				



TEMPORARY LIGHT POLE DETAIL



TEMPORARY LIGHT POLE ATTACHMENT DETAIL

NOTES:

1. ALL DIMENSIONS IN INCHES (MILLIMETERS) UNLESS OTHERWISE INDICATED

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

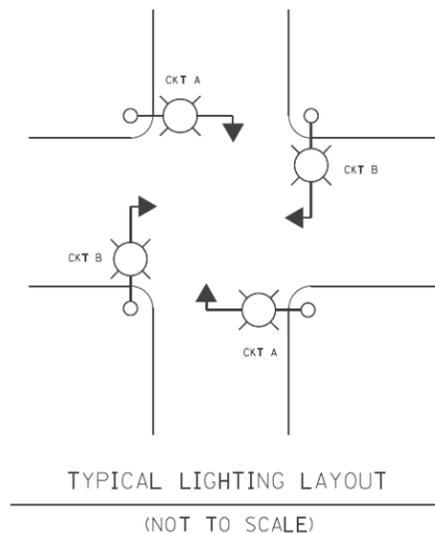
US-45 (LaGRANGE ROAD)
TEMPORARY LIGHT POLE DETAILS

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 474
E-63		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				

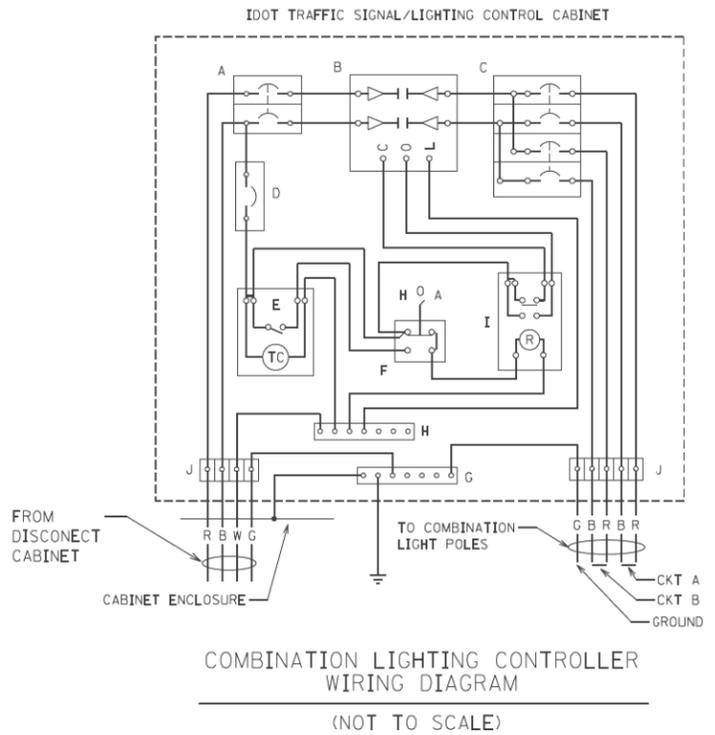
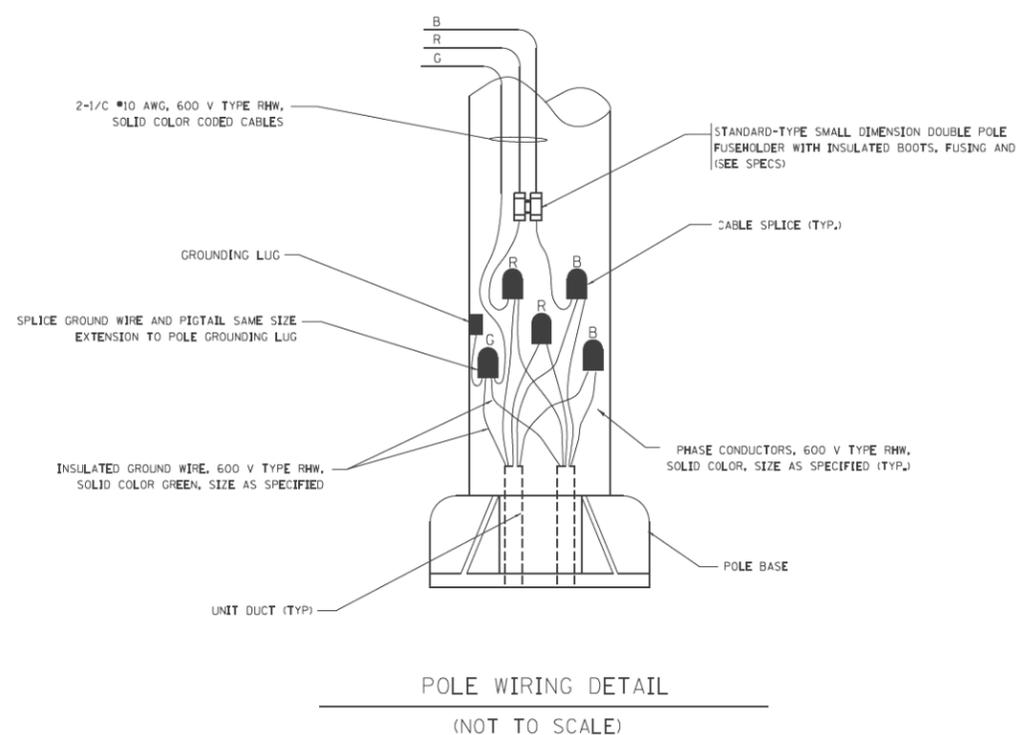
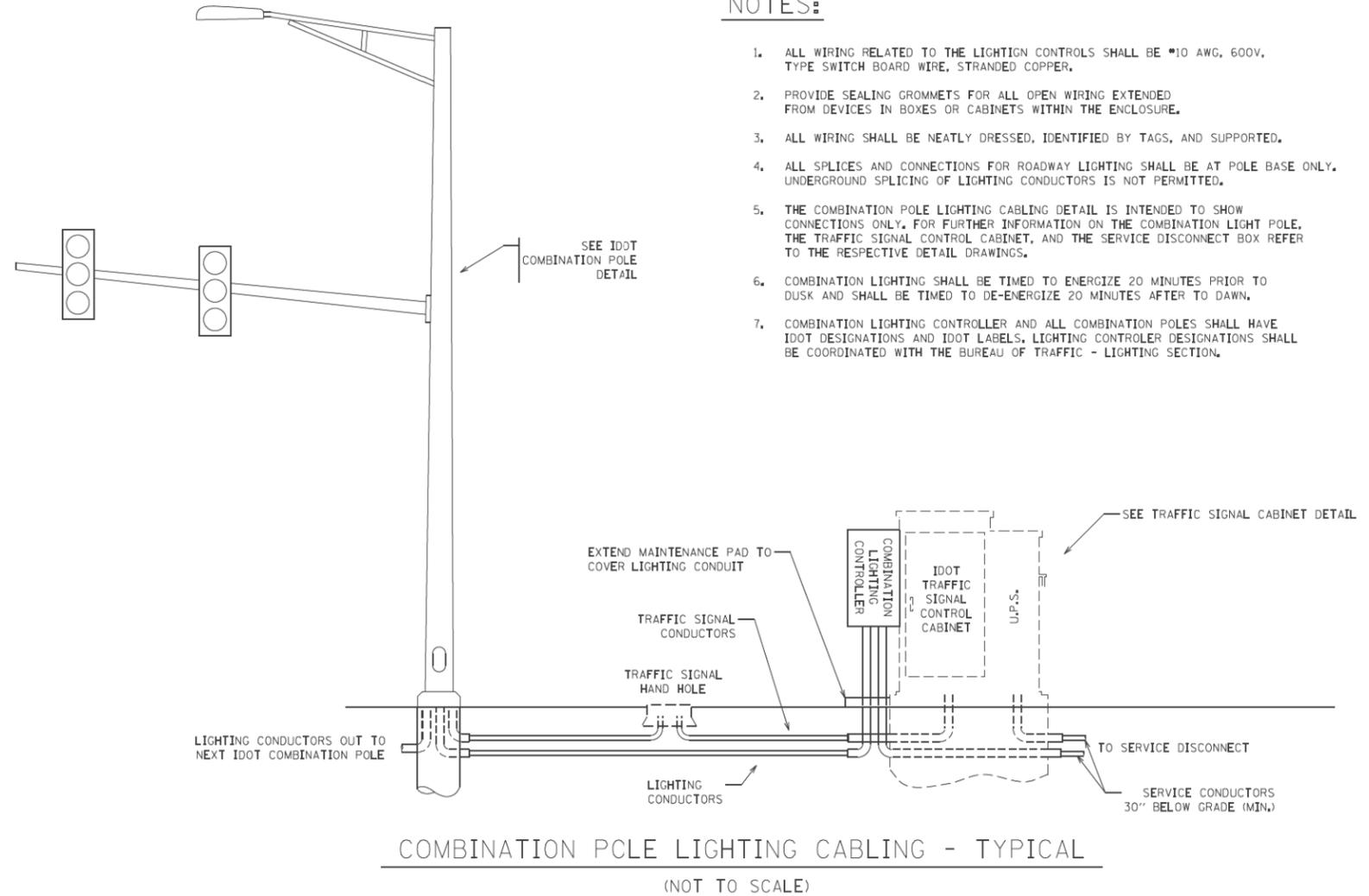
PANEL EQUIPMENT

BILL OF MATERIALS		
ITEM	QUANTITY	DESCRIPTION
A	1	CIRCUIT BREAKER, THERMAL MAGNETIC MOLDED CASE, 2 POLE, 240 VOLT 100 AMP FRAME, 30 AMP TRIP, INTERRUPTING RATING 22K RMS SYMETRICALL AMP
B	1	REMOTE CONTROL SWITCH, ELECTRICALLY OPERATED, MECHANICALLY HELD, 2 POLE, SINGLE THROW, 30 AMP., 600 VOLTS CONTROL CIRCUIT 120 VOLT.
C	2	CIRCUIT BREAKERS, 2 POLE, 100 AMP. FRAME 20 AMP. NON-INTERCHANGABLE TRIP INTERRUPTING RATING NEMA 10,000 AMP AT 240 V.
D	1	CONTROL CIRCUIT-CIRCUIT BREAKER, 1 POLE, 100 AMP FRAME, 15 AMP NON-INTERCHANGABLE TRIP, INTERRUPTING RATING 22K RMS SYMETRICAL AMP AT 240V.
E	1	ASTRONOMIC MICROPROCESSOR-BASED 2-CHANNEL CONTROLLER [TIME SWITCH]
F	1	H-O-A SWITCH
G	1	COPPER GROUND BUS 1/4" (6,35) X 1" (25,4) X 12" (304,8 mm) LONG MOUNTED ON PANEL WITH LUGS AND 4 SPARE LUGS
H	1	COPPER NEUTRAL BUS 1/4" (6,35) X 1" (25,4) X 12" (304,8 mm) LONG MOUNTED ON PANEL WITH LUGS AND 4 SPARE LUGS
I	1	RELAY, 2 POLE, SINGLE THROW, 120 VOLT COIL, CURRENT RATING TO BE COORDINATED WITH CONTACTOR
J	2	TERMINAL BLOCK



NOTES:

- ALL WIRING RELATED TO THE LIGHTIGN CONTROLS SHALL BE #10 AWG, 600V, TYPE SWITCH BOARD WIRE, STRANDED COPPER.
- PROVIDE SEALING GROMMETS FOR ALL OPEN WIRING EXTENDED FROM DEVICES IN BOXES OR CABINETS WITHIN THE ENCLOSURE.
- ALL WIRING SHALL BE NEATLY DRESSED, IDENTIFIED BY TAGS, AND SUPPORTED.
- ALL SPLICES AND CONNECTIONS FOR ROADWAY LIGHTING SHALL BE AT POLE BASE ONLY. UNDERGROUND SPLICING OF LIGHTING CONDUCTORS IS NOT PERMITTED.
- THE COMBINATION POLE LIGHTING CABLING DETAIL IS INTENDED TO SHOW CONNECTIONS ONLY. FOR FURTHER INFORMATION ON THE COMBINATION LIGHT POLE, THE TRAFFIC SIGNAL CONTROL CABINET, AND THE SERVICE DISCONNECT BOX REFER TO THE RESPECTIVE DETAIL DRAWINGS.
- COMBINATION LIGHTING SHALL BE TIMED TO ENERGIZE 20 MINUTES PRIOR TO DUSK AND SHALL BE TIMED TO DE-ENERGIZE 20 MINUTES AFTER TO DAWN.
- COMBINATION LIGHTING CONTROLLER AND ALL COMBINATION POLES SHALL HAVE IDOT DESIGNATIONS AND IDOT LABELS, LIGHTING CONTROLLER DESIGNATIONS SHALL BE COORDINATED WITH THE BUREAU OF TRAFFIC - LIGHTING SECTION.



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		DATE - 03/13/2013	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

US-45 (LaGRANGE ROAD)	
COMBINATION POLE LIGHTING CONTROLLER	
SCALE: NONE	SHEET 1 OF 1 SHEETS STA. TO STA.

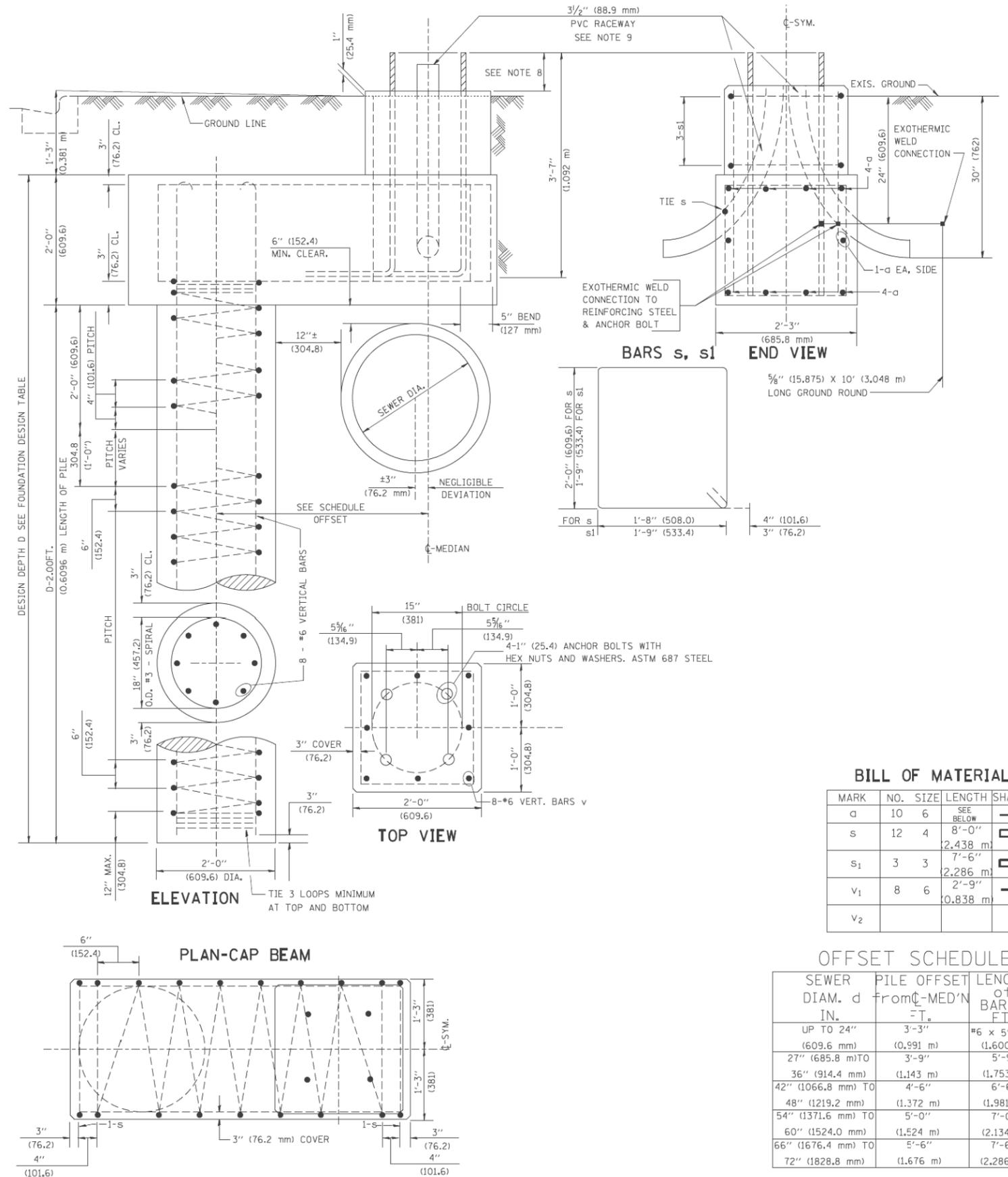
F.A.P. RTE. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 475
E-64			CONTRACT NO. 60M61	
ILLINOIS FED. AID PROJECT				

FOUNDATION DESIGN TABLE

TYPE OF SOIL	DESIGN DEPTH OF FOUNDATION		REINFORCEMENT IN FOUNDATION			
	SINGLE ARM D	TWIN ARM D	SINGLE ARM		TWIN ARM	
			VERT BARS	SPIRAL	VERT BARS	SPIRAL
SOFT CLAY	13'-0" (3.962 m)	15'-0" (4.572 m)	8-#6X12'-6" (3.810 m)	#3X122' (37.186 m)	8-#6X14'-3" (4.343 m)	#3X141' (42.977 m)
MEDIUM CLAY	9'-6" (2.896 m)	10'-9" (3.277 m)	8-#6X9'-0" (2.743 m)	#3X90' (27.432 m)	8-#6X10'-0" (3.048 m)	#3X100' (30.480 m)
STIFF CLAY	7'-0" (2.134 m)	8'-0" (2.438 m)	8-#6X6'-6" (1.981 m)	#3X56' (20.112 m)	8-#6X7'-6" (2.286 m)	#3X76' (23.165 m)
LOOSE SAND	9'-0" (2.743 m)	10'-0" (3.048 m)	8-#6X8'-6" (2.591 m)	#3X85' (25.908 m)	8-#6X9'-6" (2.896 m)	#3X94' (28.651 m)
MEDIUM SAND	8'-3" (2.515 m)	9'-0" (2.743 m)	8-#6X8'-0" (2.438 m)	#3X78' (23.774 m)	8-#6X8'-6" (2.591 m)	#3X85' (25.908 m)
DENSE SAND	7'-9" (2.362 m)	9'-0" (2.743 m)	8-#6X7'-6" (2.286 m)	#3X73' (22.250 m)	8-#6X8'-6" (2.591 m)	#3X85' (25.908 m)
ROCK OR SOLIDIFIED SLAG	5'-0" (1.524 m)	5'-0" (1.524 m)	NONE	NONE	NONE	NONE

NOTES

- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- THE ENGINEER SHALL DETERMINE THE CLASS OF SOIL DURING EXCAVATION AND SELECT THE DESIGN DEPTH OF FOUNDATION FROM THE DESIGN TABLE.
- EXCAVATION OF THE POLE FOUNDATION SHALL BE MADE WITH AN AUGER, 24" (609.6 mm) OR 30" (762.0 mm) IN DIAMETER.
- THE ANCHOR ROD SHALL BE A HOOK ROD TYPE. COLD BENDING OF THE ANCHOR ROD WILL NOT BE ALLOWED. THE RADIUS OF THE HOOK BEND SHALL NOT BE LESS THAN 4 TIMES THE NOMINAL DIAMETER OF THE ANCHOR ROD. A TACK WELDED ANCHOR ROD MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ENGINEER.
- THE ANCHOR BOLTS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED IN THE FORM.
- THE ANCHOR RODS SHALL BE ACCORDING TO ASTM F1554 GRADE 725 (GRADE 105). NUTS SHALL BE HEXAGON NUTS ACCORDING TO ASTM A 194 2H OR ASTM A 563 DH, AND WASHERS SHALL BE ACCORDING TO ASTM F 436.
- THE CONTRACTOR SHALL COORDINATE EXTENSION OF ANCHOR BOLTS ABOVE TOP OF FOUNDATION WITH THE BREAKAWAY DEVICE MANUFACTURER'S REQUIREMENTS. IF LIGHT POLE IS MOUNTED WITHOUT BREAKAWAY DEVICE, ANCHOR BOLTS SHALL PROJECT 2 3/4" (69.9 mm) ABOVE TOP OF THE FOUNDATION. THE CONTRACTOR SHALL CONFIRM ANCHOR BOLT EXTENTION WITH ENGINEER.
- RACEWAYS SHALL PROJECT 1" (25.4 mm) ABOVE THE TOP OF THE FOUNDATION.
- THE CABLE TRENCH SHALL BE BACKFILLED AND FIRMLY COMPACTED BEFORE THE LIGHT IS ERCTED.



BILL OF MATERIAL

MARK	NO.	SIZE	LENGTH	SHAPE
a	10	6	SEE BELOW	—
s	12	4	8'-0" (2,438 m)	□
s ₁	3	3	7'-6" (2,286 m)	□
v ₁	8	6	2'-9" (0,838 m)	—
v ₂				

OFFSET SCHEDULE

SEWER DIAM. d	PILE OFFSET from C-MEDIAN	LENGTH of BAR a
UP TO 24" (609.6 mm)	3'-3" (0,991 m)	#6 x 5'-3" (1,600 m)
27" (685.8 mm) TO	3'-9" (1,143 m)	5'-9" (1,753 m)
36" (914.4 mm) TO	4'-6" (1,372 m)	6'-6" (1,981 m)
42" (1066.8 mm) TO	5'-0" (1,524 m)	7'-0" (2,134 m)
48" (1219.2 mm) TO	5'-6" (1,676 m)	7'-6" (2,286 m)
54" (1371.6 mm) TO	6'-0" (1,828.8 mm)	
60" (1524.0 mm) TO		
66" (1676.4 mm) TO		
72" (1828.8 mm) TO		

FILE NAME = D160M61-SHT-E65.dgn	USER NAME = michal_bar_tustiewicz	DESIGNED - MAE	REVISED -
		DRAWN - WM	REVISED -
		CHECKED - DAD	REVISED -
SHT.PLAN	PLOT DATE = 3/15/2013	DATE - 03/13/2013	REVISED -

DESIGN SPECIFICATIONS
2002 AASHTO Standard Specifications
for Highway Bridges

DESIGN STRESSES
FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (ASTM A 572
Grade 50 Sheet Piling)

WALL TYPES

CIP = Cast-in-place
Sht. Pile = Permanent Sheet Piling
with concrete facing/cap
Block = Segmental concrete block wall

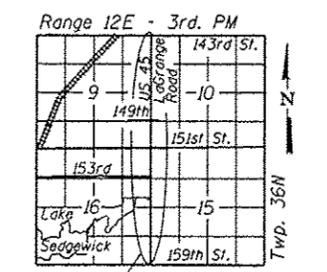
INDEX OF SHEETS

- 1 Key Plan & General Notes
- 2 Typical Sections & Details
- 3 Retaining Wall No. 1 - S.N. 016-2028
- 4 Retaining Wall No. 3 - S.N. 016-2029
- 5 Retaining Wall No. 4 - S.N. 016-2030
- 6 Retaining Wall No. 6 - S.N. 016-2032
- 7 Retaining Wall No. 7 - S.N. 016-2033
- 9 Retaining Wall No. 8 - S.N. 016-2034
- 10 Retaining Wall No. 9 - S.N. 016-2035
- 11 Retaining Wall No. 10 - S.N. 016-2036
- 12 Retaining Wall No. 11 - S.N. 016-2037
- 13 Retaining Wall No. 12 - S.N. 016-2038
- 14 Retaining Wall No. 14 - S.N. 016-2040
- 15 Retaining Wall No. 15 - S.N. 016-2041
- 16 Retaining Wall No. 16 - S.N. 016-2042
- 17 Retaining Wall No. 17 - S.N. 016-2043
- 18 Retaining Wall No. 18 - S.N. 016-2044
- 19 Retaining Wall No. 19 - S.N. 016-2045
- 20 Retaining Wall No. 20 - S.N. 016-2046
- 21 Retaining Wall No. 21 - S.N. 016-2047
- 21 Retaining Wall No. 22 - S.N. 016-2048
- 22 Retaining Wall No. 23 - S.N. 016-2049
- 23 Retaining Wall No. 24 - S.N. 016-2050
- 24 Retaining Wall No. 25 - S.N. 016-2051
- 25 Retaining Wall No. 26 - S.N. 016-2052
- 26-42 Soil Boring Logs

Note:
For structure numbers 016-W001
and 016-W002 see respective wall
sheets following miscellaneous walls.

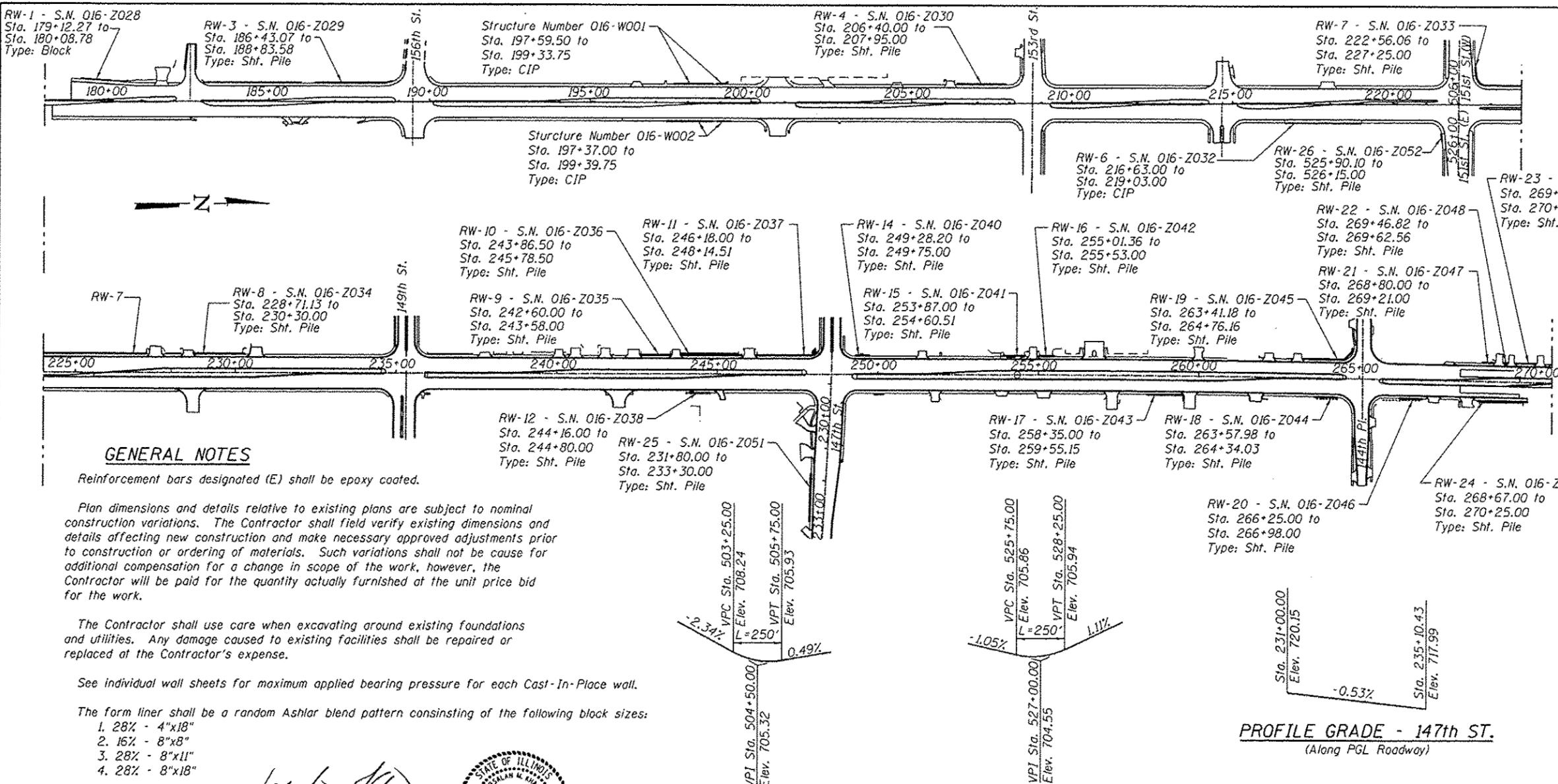
EXISTING UTILITY LEGEND

- A — Aerial Lines
- CTV — Cable TV
- E — Electric
- FO — Fiber Optic
- G — Gas
- S — Sanitary Sewer
- T — Telephone
- W — Water



LOCATION SKETCH

KEY PLAN & GENERAL NOTES
U.S. ROUTE 45 LAGRANGE ROAD
FAP RTE. 330 - SEC 103R-4
COOK COUNTY



GENERAL NOTES

Reinforcement bars designated (E) shall be epoxy coated.

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

The Contractor shall use care when excavating around existing foundations and utilities. Any damage caused to existing facilities shall be repaired or replaced at the Contractor's expense.

See individual wall sheets for maximum applied bearing pressure for each Cast-In-Place wall.

The form liner shall be a random Ashlar blend pattern consisting of the following block sizes:

1. 28% - 4"x18"
2. 16% - 8"x8"
3. 28% - 8"x11"
4. 28% - 8"x18"

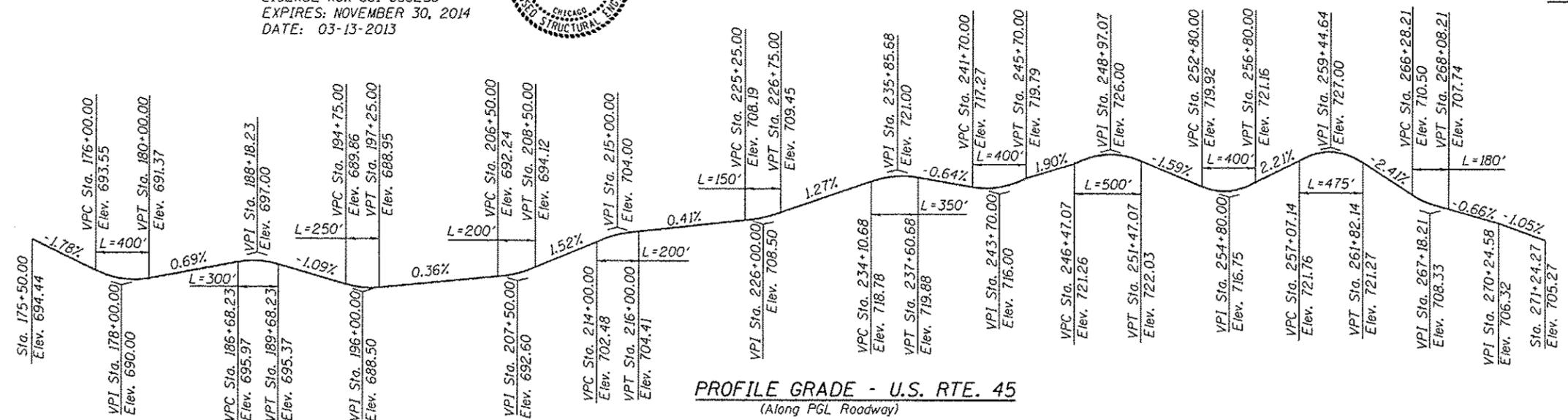
Arsalan M. Khan
ARSALAN M. KHAN, S.E.
LICENSE NO.: 081-006258
EXPIRES: NOVEMBER 30, 2014
DATE: 03-13-2013



PROFILE GRADE - 151st ST.
(Retaining Wall 7, Along PGL Roadway)

PROFILE GRADE - 151st ST.
(Retaining Wall 26, Along PGL Roadway)

PROFILE GRADE - 147th ST.
(Along PGL Roadway)



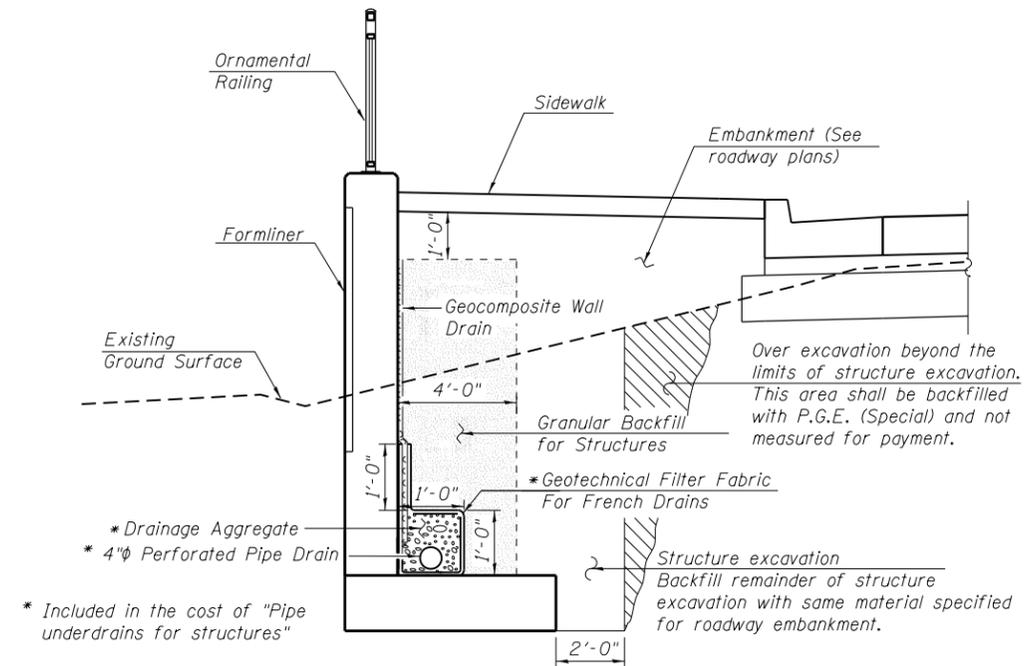
PROFILE GRADE - U.S. RTE. 45
(Along PGL Roadway)

URS
100 S. WACKER DR.
SUITE 500
CHICAGO, IL 60606
TEL (312) 999-0000
FAX (312) 999-4198

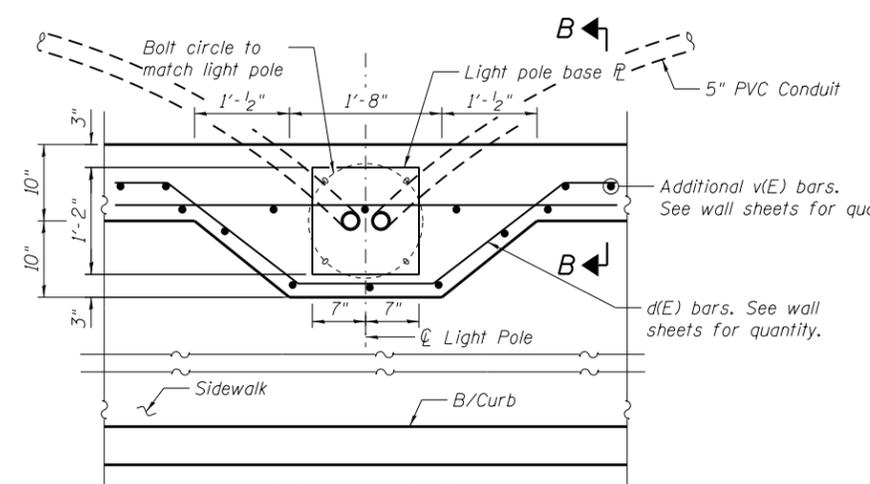
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	PLOT SCALE = 375.00' / in.	CHECKED - PMH	REVISED -		SHEET NO. 1 OF 42 SHEETS				
	PLOT DATE = 3/15/2013	DRAWN - ML	REVISED -						
		CHECKED - PMH	REVISED -						

ILLINOIS FED. AID PROJECT

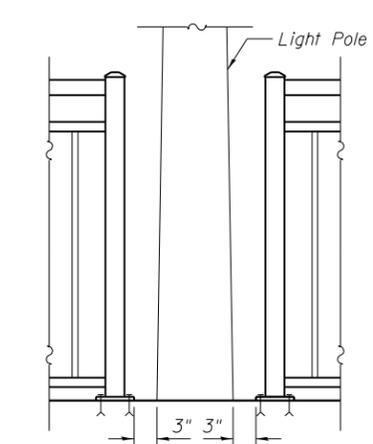
Note:
 All outlets for drainage system components shall be determined in the field by the contractor and approved by the Engineer. They shall either extend 2'-0" from the end of each wall, extend until intersecting with the side slopes or outlet through a core drilled hole at low point of wall. The pipes shall drain into concrete headwalls if extended to side slopes. (See Article 601.05 of the Standard Specifications and Highway Standard 601101). Cost of outlets included in the cost of pipe underdrains for structures.



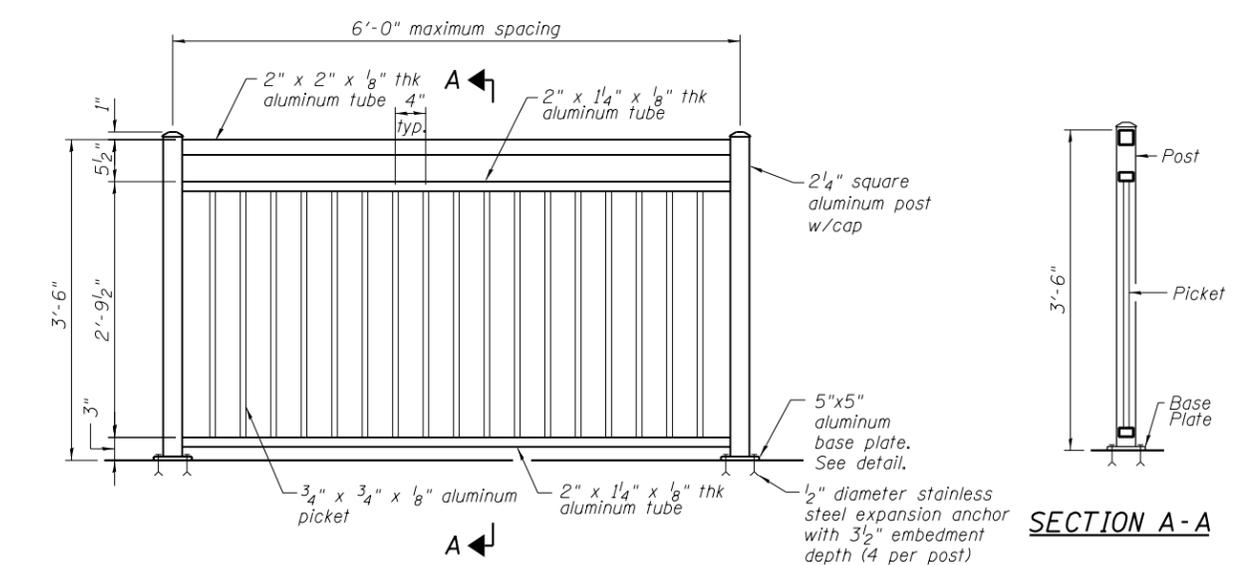
TYPICAL SECTION THRU C.I.P. WALL



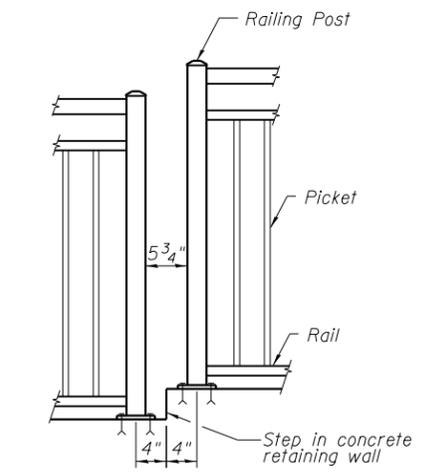
TYPICAL PLAN WITH LIGHT POLE



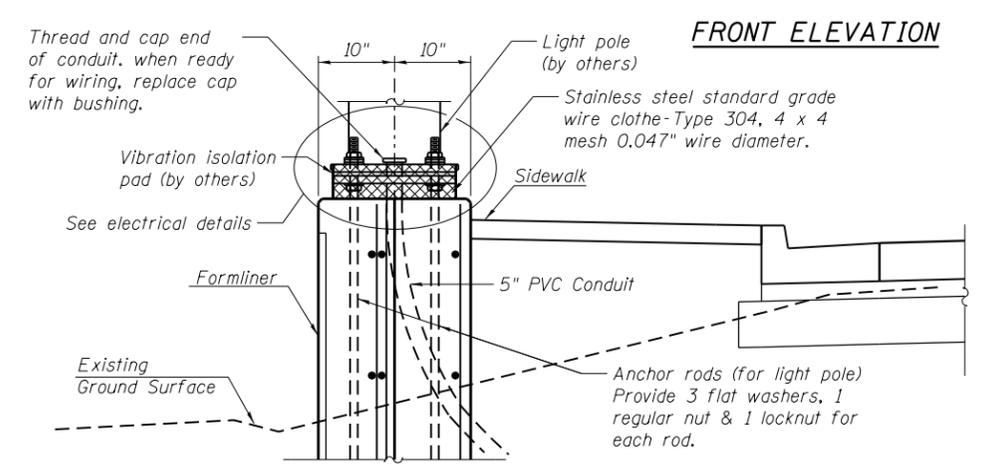
FRONT ELEVATION



TYPICAL ORNAMENTAL RAILING

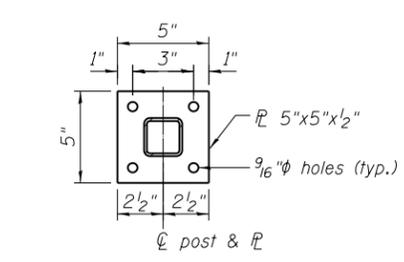


TYPICAL DETAIL AT STEP IN WALL

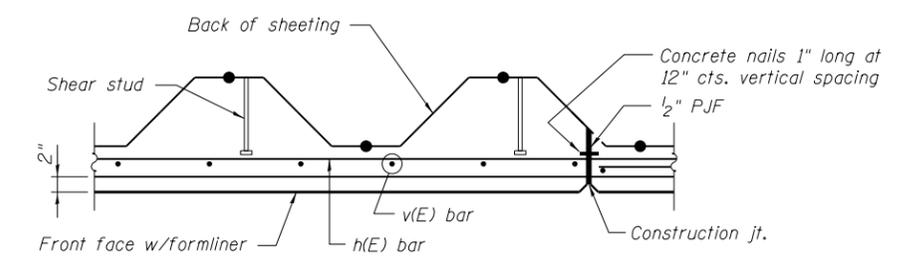


SECTION B-B

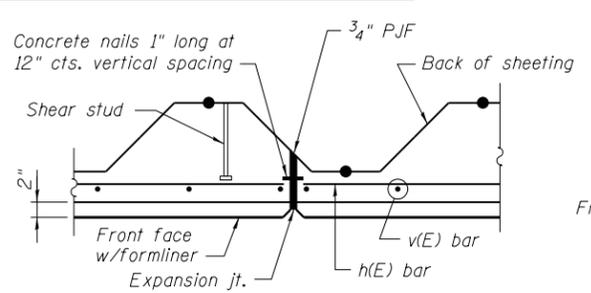
Note: Cost of anchor rods, conduit and ground rods is included with Concrete Structures.



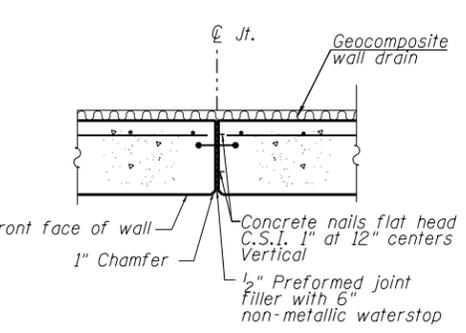
BASE PLATE DETAIL



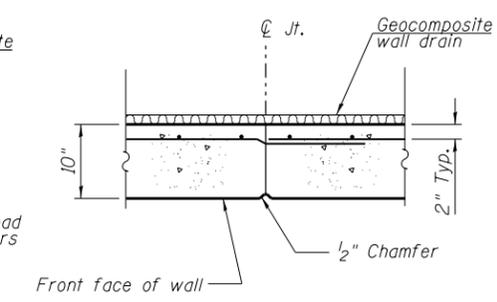
PLAN SECTION THROUGH SHEET PILE WALL AT CONSTRUCTION JOINT



PLAN SECTION THROUGH SHEET PILE WALL AT EXPANSION JOINT



EXPANSION JOINT DETAILS



CONSTRUCTION JOINT DETAILS

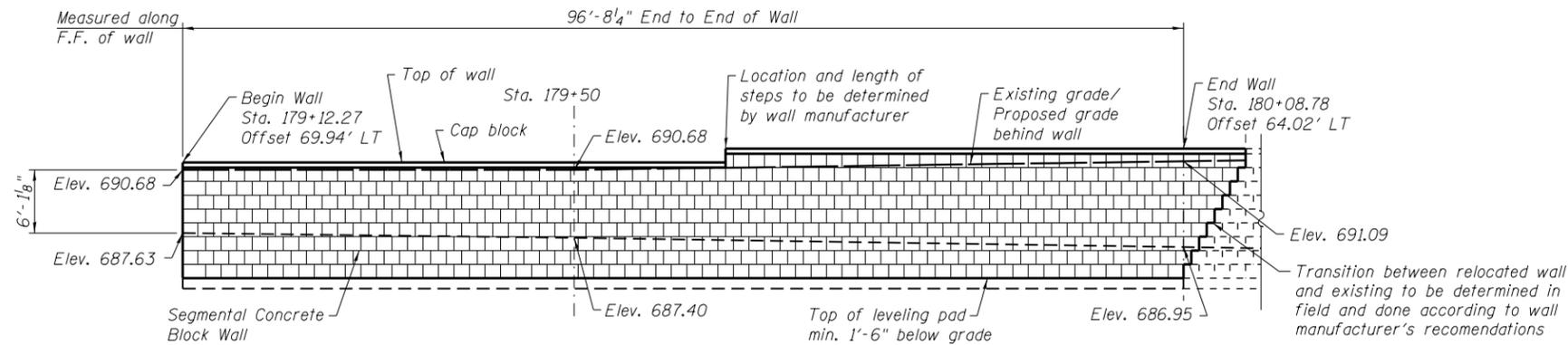
URS
 100 S. WACKER DR.
 SUITE 600
 CHICAGO, IL 60606
 TEL (312) 935-1000
 FAX (312) 935-4998

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

RETAINING WALL
 TYPICAL SECTIONS & DETAILS
 SHEET NO. 2 OF 42 SHEETS

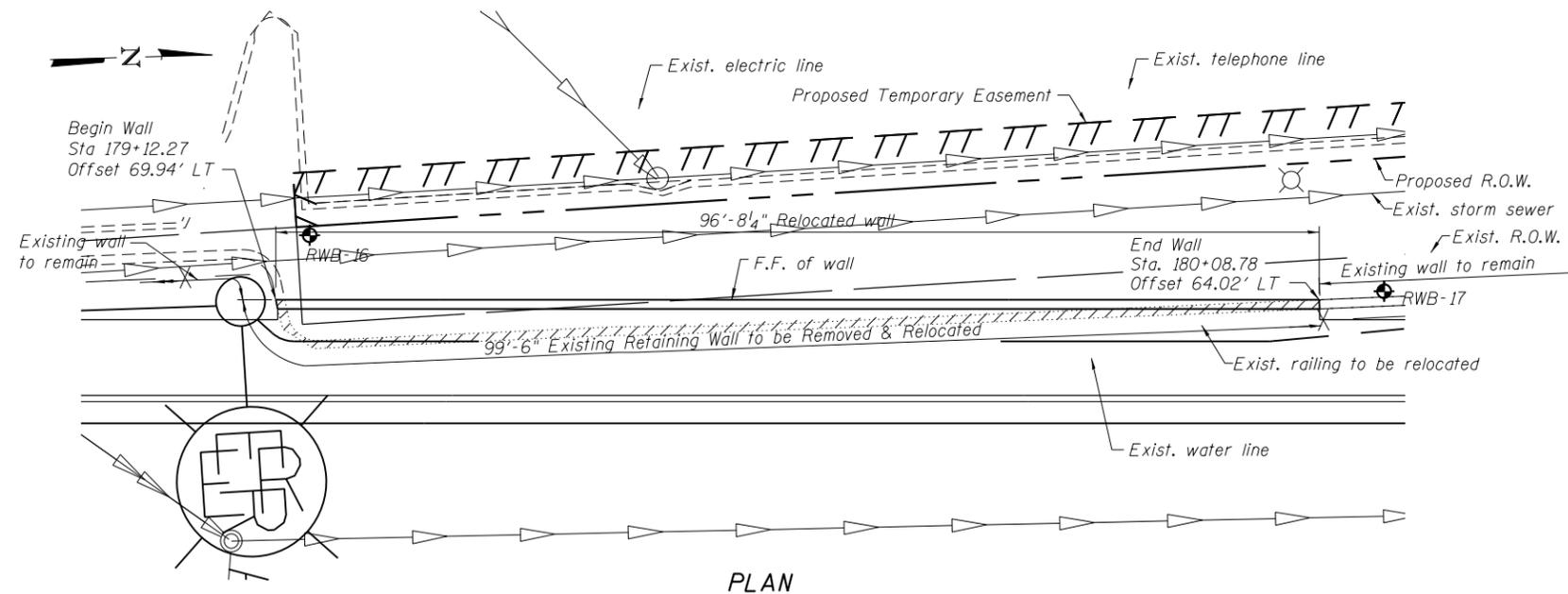
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	478
CONTRACT NO. 60M61				
ILLINOIS FED. AID PROJECT				

FILE NAME =	USER NAME = Anthony.Plutz	DESIGNED - JCE	REVISED -
D160M61-SHT-Wall_Details.dgn		CHECKED -	REVISED -
	PLOT SCALE = 2.0000' / in.	DRAWN - JCE	REVISED -
	PLOT DATE = 3/14/2013	CHECKED -	REVISED -



ELEVATION
(Looking east at F.F. wall)

EXISTING WAL SECTION



PLAN

EXISTING RAILING

Existing wall and railing details are taken from existing plans and may not reflect actual field conditions.

LEGEND

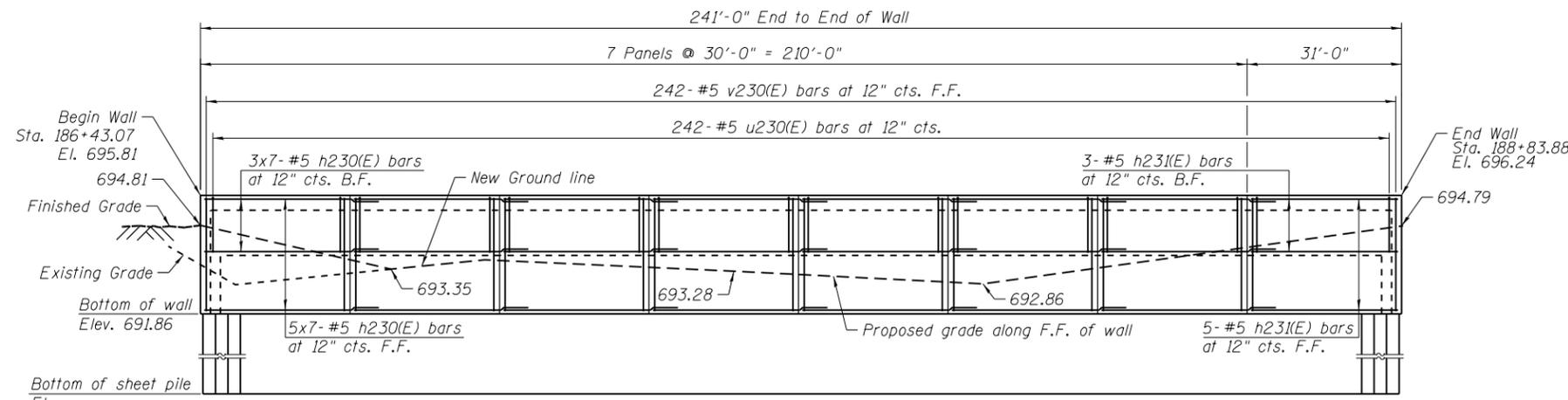
- ◆ Soil Boring
- F.F. Front Face
- B.F. Back Face
- E.F. Each Face

BILL OF MATERIAL

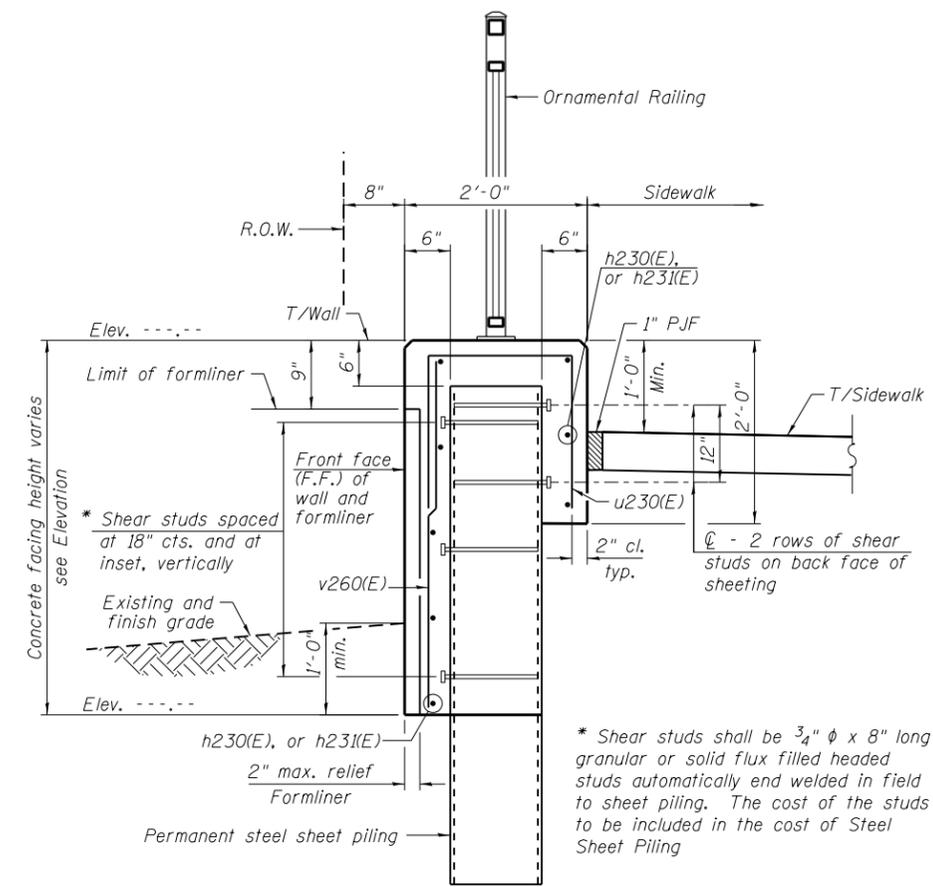
ITEM	UNIT	QUANTITY
Remove and Re-Erect Segmental Block Retaining Wall	Sq. Ft.	633

100 S. WACKER DR.
 SUITE 600
 CHICAGO, IL 60606
 TEL (312) 939-1000
 FAX (312) 939-4998
URS

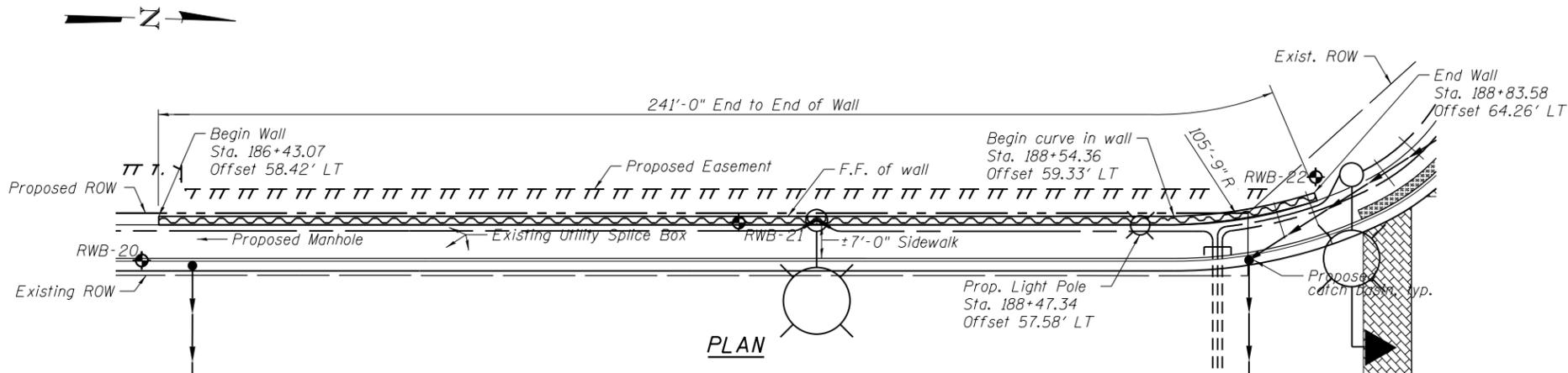
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PLOT SCALE = 16.0000' / in.	DRAWN - PMH	CHECKED - JCE	REVISED -			CONTRACT NO. 60M61					
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						ILLINOIS FED. AID PROJECT					



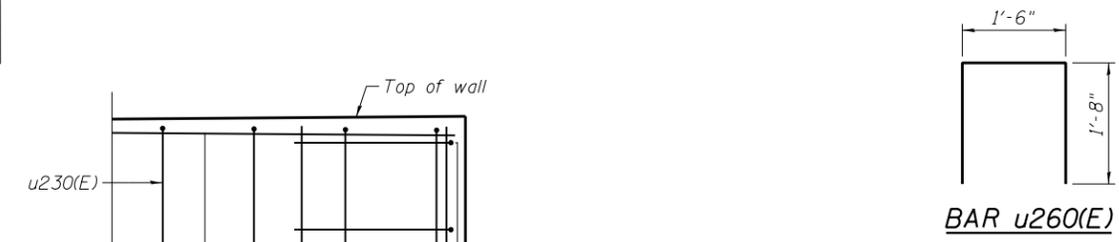
ELEVATION



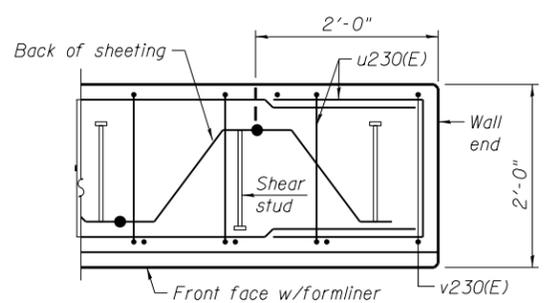
TYPICAL SECTION THROUGH WALL



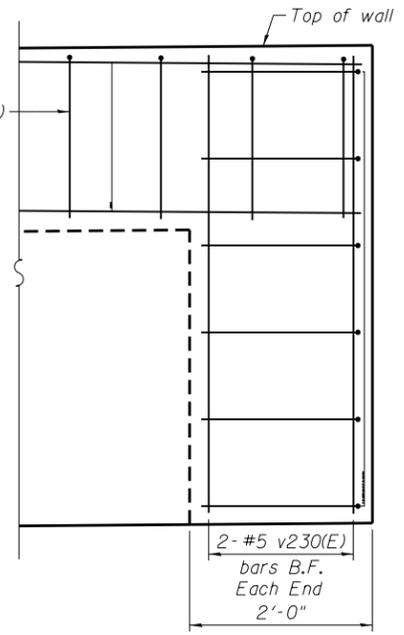
PLAN



BAR u260(E)



PLAN AT END OF WALL



TYPICAL END CAP DETAIL
(v260(E) bars in F.F. not shown for clarity)

LEGEND

- ◆ Soil Boring
- F.F. Front Face
- B.F. Back Face
- E.F. Each Face

BAR LAPS

- Basic Lap
#5 bars - 2'-7"
- Top Bar Lap
#5 bars - 2'-11"

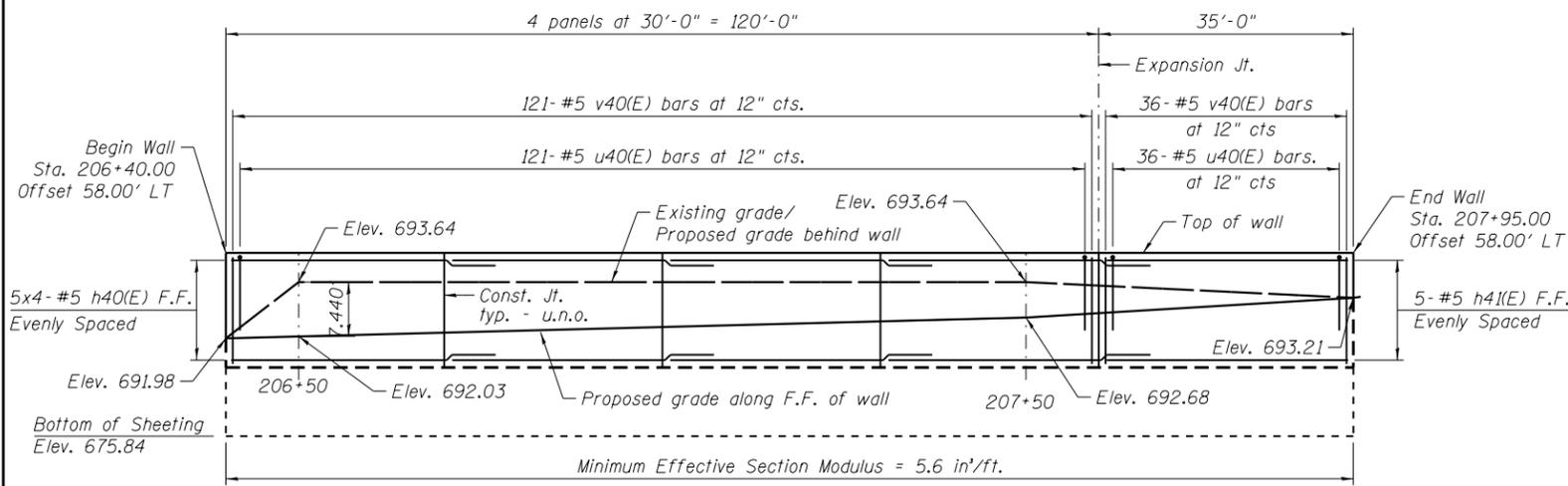
NOTES:

Wall stations, offsets and dimensions are measured at front face of wall.
 All exposed corners shall have a 1" chamfer.
 For General Notes, Wall Key Plan and US 45 Profile, see Sheet 1.
 For Typical Wall Details and Ornamental Railing see Sheet 2.
 The details for the concrete cap, reinforcement and required number of shear stud connectors are based on Section AZ 18 sheet piling. If the Contractor chooses to use any other section, then the Contractor shall submit revised concrete cap and reinforcement configuration for approval by the Engineer. Such changes shall not be cause for additional compensation.

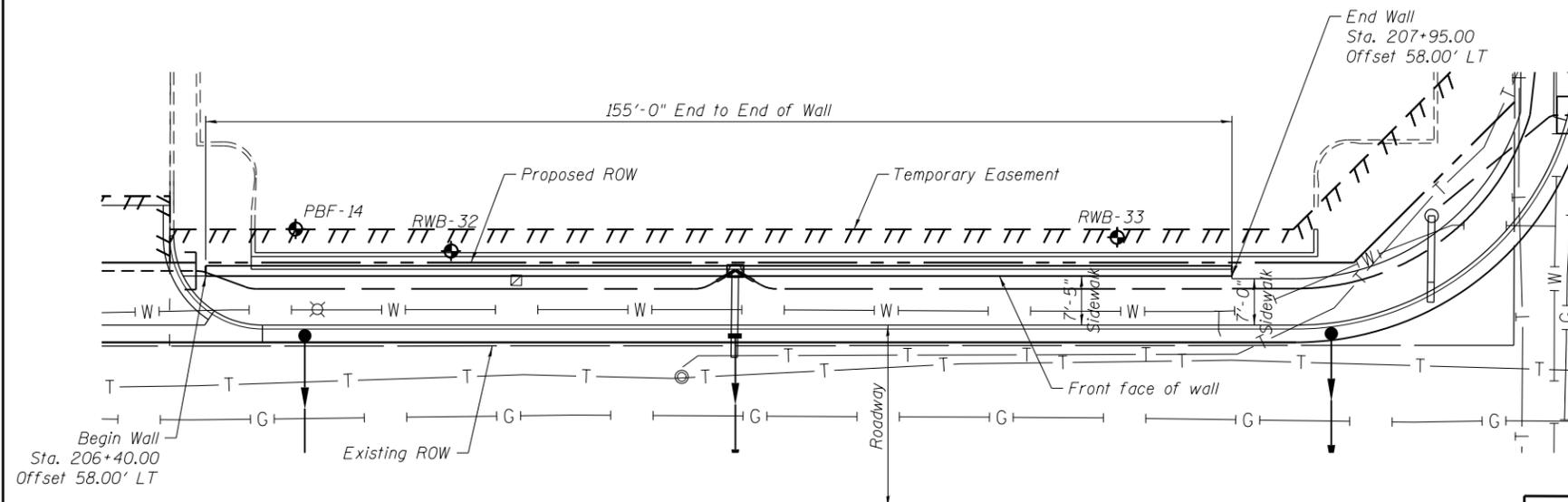
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h30(E)	35	#5	33'-8"	—
h31(E)	21	#5	29'-8"	—
u30(E)	247	#5	4'-7"	□
v30(E)	251	#5	3'-2"	—
Structure Excavation			Cu. Yd.	34
Concrete Structures			Cu. Yd.	118.0
Form Liner Textured Surface			Sq. Ft.	670
Reinforcement Bars, Epoxy Coated			Pound	3890
Geocomposite Wall Drain			Sq. Yd.	1391
Ornamental Railing			Foot	242

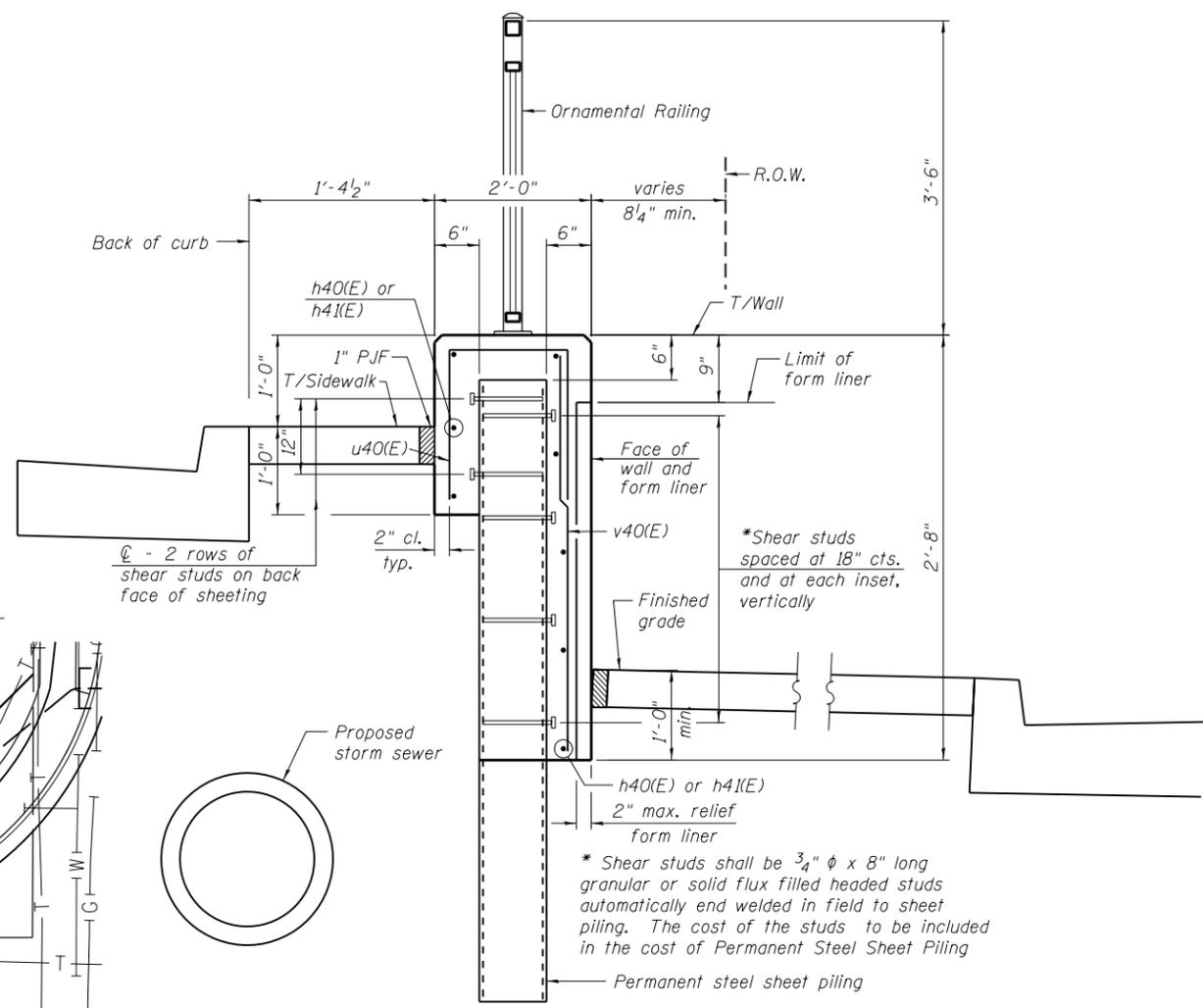
100 S. WACKER DR.
 CHICAGO, IL 60606
 TEL (312) 935-1000
 FAX (312) 935-4998
URS



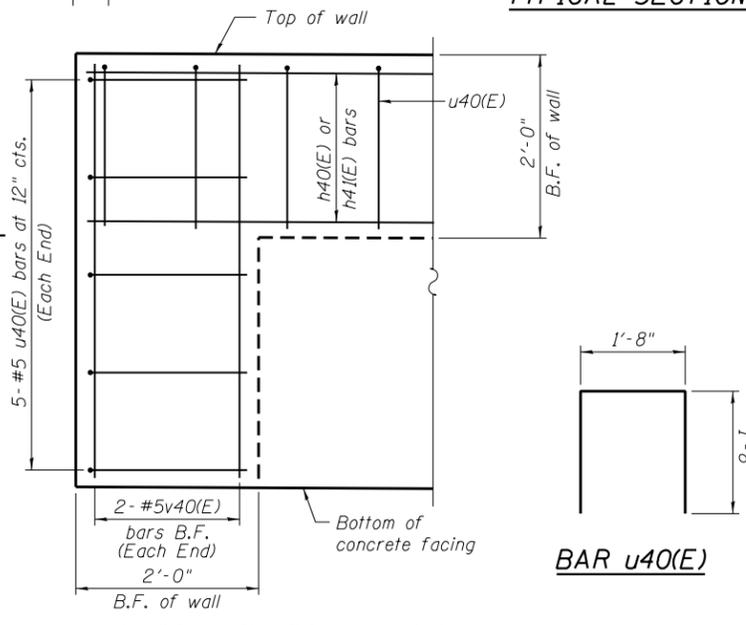
ELEVATION
(Sta. 206+40 to 207+95)



PLAN



TYPICAL SECTION THROUGH WALL



TYPICAL END CAP DETAIL
(v(E) bars in F.F. not shown for clarity)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h40(E)	24	#5	32'-11"	—
h41(E)	16	#5	29'-8"	—
u40(E)	163	#5	4'-7"	⊏
v40(E)	157	#5	4'-5"	—
Structure Excavation			Cu. Yd.	23
Concrete Structures			Cu. Yd.	16.7
Form Liner Textured Surface			Sq. Ft.	298
Reinforcement Bars, Epoxy Coated			Pound	2,830
Permanent Sheet Piling			Sq. Ft.	2,837
Ornamental Railing			Foot	155

Bars indicated thus 3x2-#5 etc. indicates 3 lines of bars with 2 lengths per line.

LEGEND

○ - Panel No.

⊕ - Soil Boring

F.F. - Front Face

B.F. - Back Face

E.F. - Each Face

NOTES:

Wall stations, offsets and dimensions are measured at front face of wall.

All exposed corners shall have a 1" chamfer.

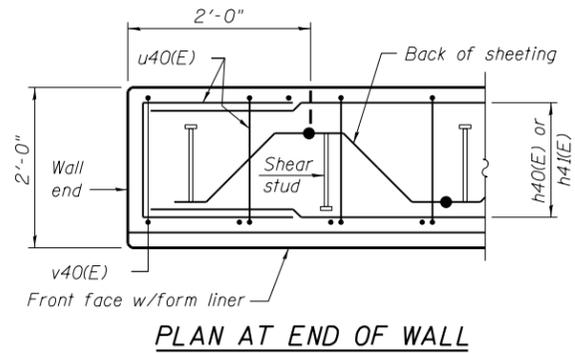
For General Notes, Wall Key Plan and US 45 Profile, see Sheet 1.

For Typical Wall Details and Ornamental Railing see Sheet 2.

BAR LAPS

Basic Lap #5 bars - 2'-7"

Top Bar Lap #5 bars - 2'-11"



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BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d60(E)	10	#5	5'-6"	
h60(E)	47	#5	32'-11"	
h61(E)	29	#5	29'-8"	
v60(E)	92	#6	8'-11"	
v61(E)	46	#6	9'-1"	
v62(E)	46	#6	9'-3"	
v63(E)	144	#6	9'-6"	
v64(E)	46	#6	8'-8"	
t60(E)	322	#6	8'-2"	
w60(E)	60	#5	32'-7"	
w61(E)	20	#5	31'-3"	
w62(E)	10	#5	4'-8"	
Granular Embankment, Special		Cu. Yd.	141	
Structure Excavation		Cu. Yd.	478	
Removal and Disposal of Unsuitable Material for Structures		Cu. Yd.	134	
Concrete Structures		Cu. Yd.	132.5	
Form Liner Textured Surface		Sq. Ft.	1,122	
Reinforcement Bars, Epoxy Coated		Pound	14,420	
Geocomposite Wall Drain		Sq. Yd.	164	
Granular Backfill for Structures		Cu. Yd.	219	
Ornamental Railing		Foot	240	
Pipe Underdrains for Structures, 4"		Foot	240	

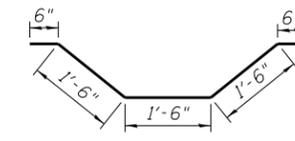
Bars indicated thus 10x6-#5 etc. indicates 10 lines of bars with 6 lengths per line.

NOTES:

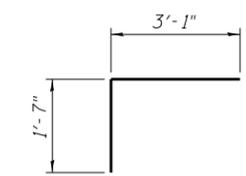
Wall stations, offsets and dimensions are measured at front face of wall. All exposed corners shall have a 1" chamfer. For General Notes, Wall Key Plan and US 45 Profile, see Sheet 1. For Typical Wall Details and Ornamental Railing see Sheet 2.

BAR LAPS

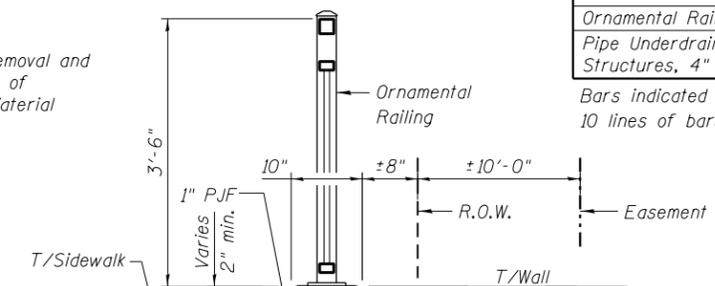
Basic Lap #5 bars - 2'-7"
Top Bar Lap #5 bars - 2'-11"



BAR d60(E)



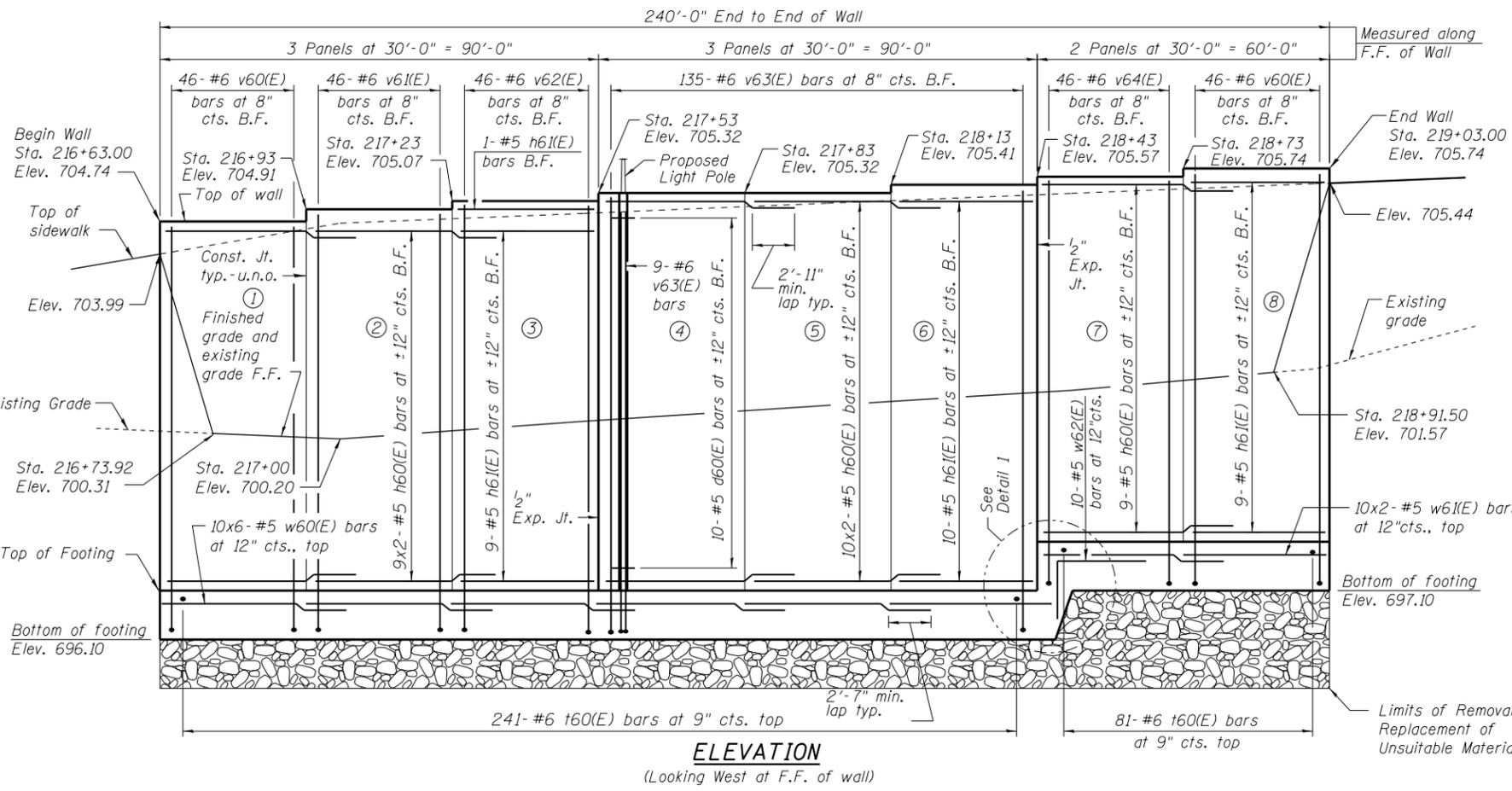
BAR w62(E)



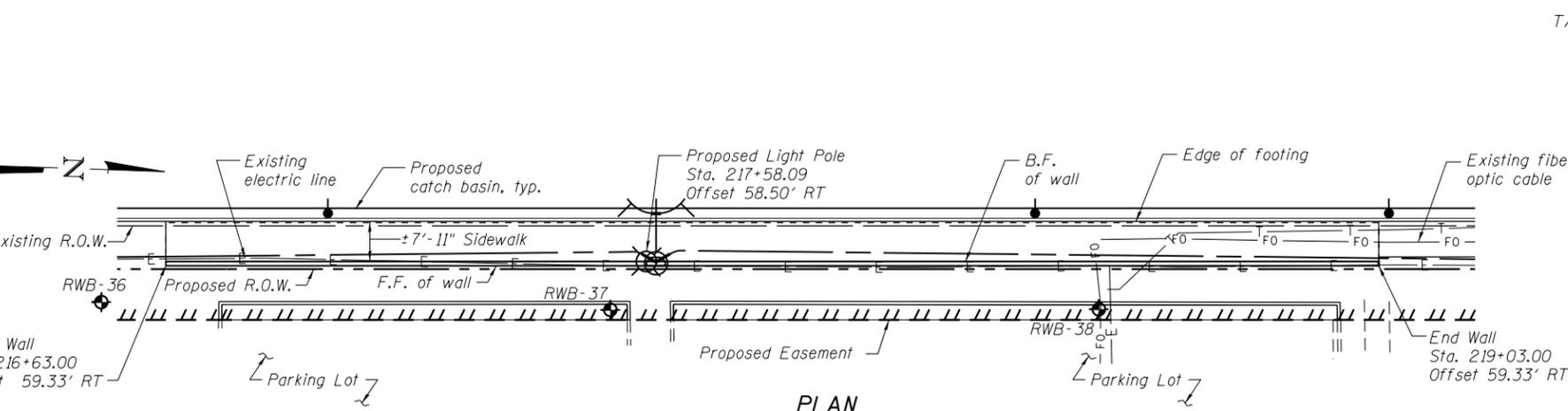
BARS v60(E), v61(E), v62(E), v63(E) & v64(E)

A DIMENSIONS

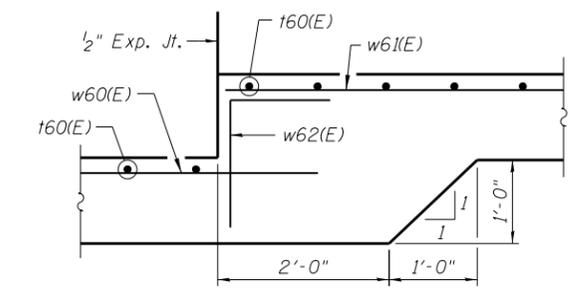
Bar	A
v60(E)	8'-3"
v61(E)	8'-5"
v62(E)	8'-7"
v63(E)	8'-10"
v64(E)	8'-0"



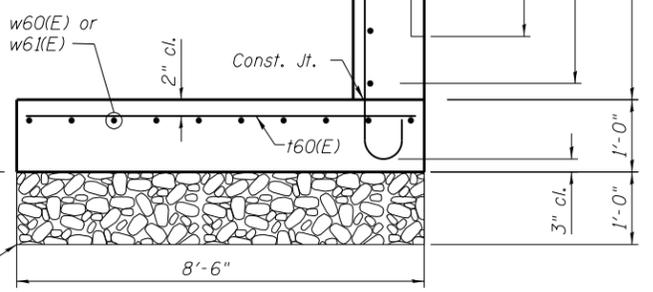
ELEVATION
(Looking West at F.F. of wall)



PLAN



DETAIL 1



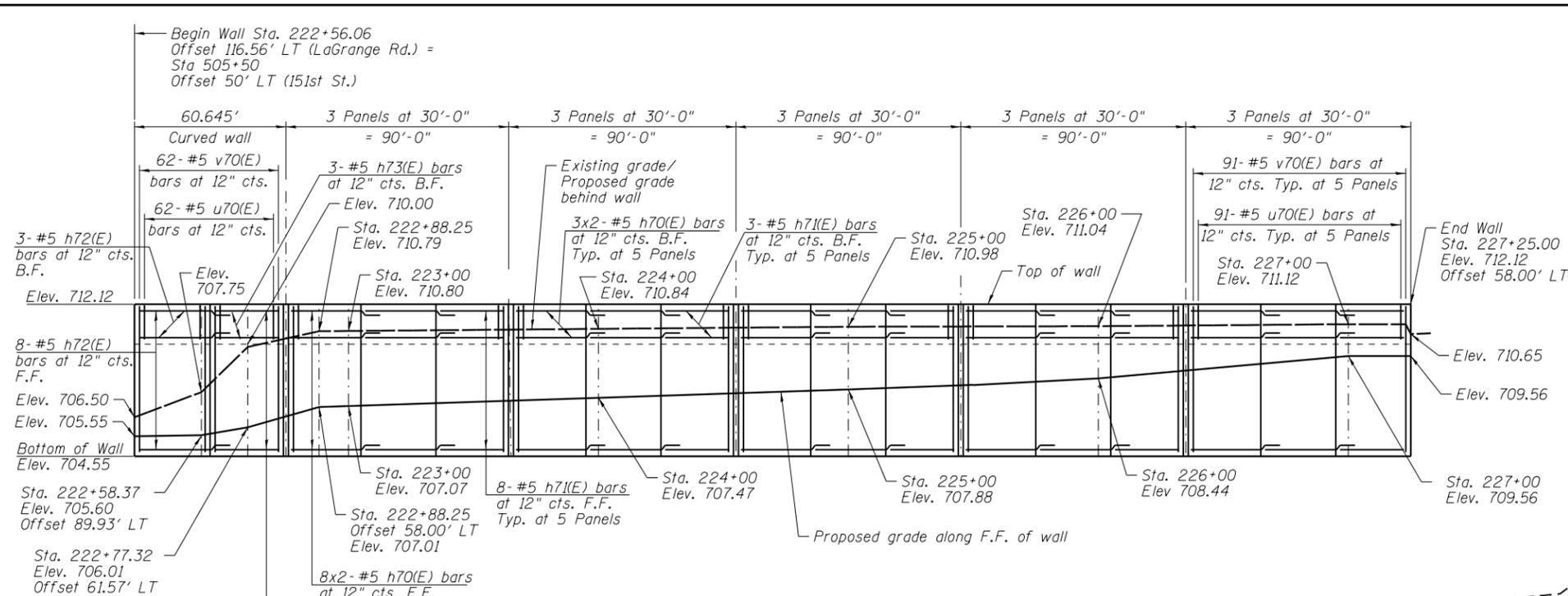
TYPICAL SECTION THRU WALL

- LEGEND**
- ① - Panel number
 - ◆ - Soil Boring
 - F.F. - Front Face
 - B.F. - Back Face
 - E.F. - Each Face

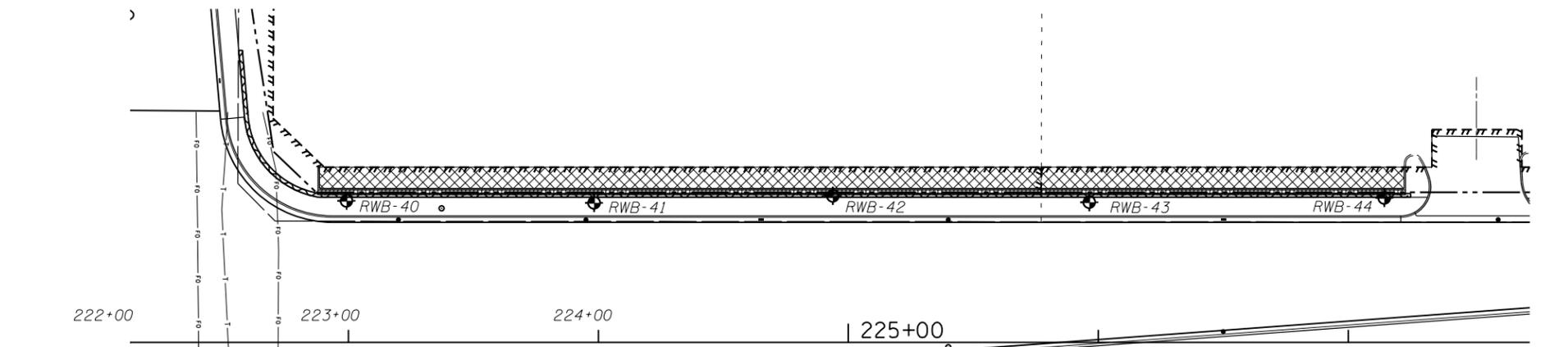
Limits of "Removal and Disposal of Unsuitable Material for Structures." Backfill with "Granular Embankment, Special" (compacted CA-6".

URS
100 S. WACKER DR.
CHICAGO, IL 60606
TEL (312) 939-1000
FAX (312) 939-4998

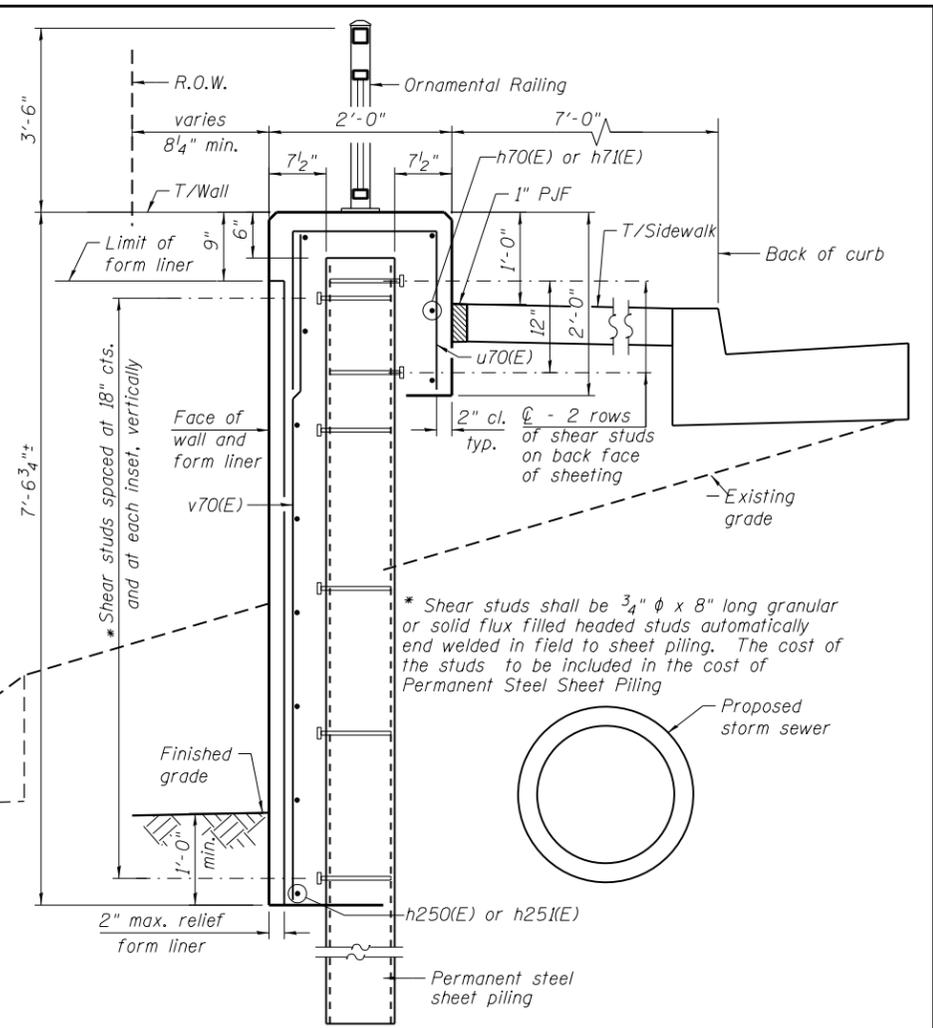
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	PLOT SCALE = 3/20" = 1' in.	DRAWN -	REVISD -			CONTRACT NO. 60M61					
	PLOT DATE = 3/14/2013	CHECKED -	REVISD -			ILLINOIS FED. AID PROJECT					
SHEET NO. 6 OF 42 SHEETS											



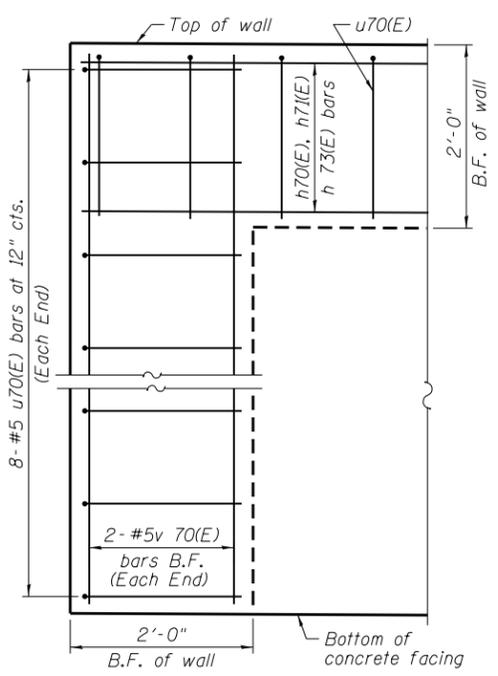
ELEVATION



PLAN



TYPICAL SECTION THROUGH WALL



TYPICAL END CAP DETAIL
(v(E) bars in F.F. not shown for clarity)

BILL OF MATERIAL

Bar	No.	Size	Length	
d70(E)	16	#5	5'-6"	
d71(E)	14	#5	8'-3"	
h70(E)	80	#5	32'-11"	
h71(E)	20	#5	29'-8"	
h72(E)	20	#5	26'-0"	
h73(E)	20	#5	24'-4"	
v70(E)	468	#5	6'-1"	
u70(E)	436	#5	4'-7"	
Structure Excavation			Cu. Yd.	154
Concrete Structures			Cu. Yd.	169.1
Form Liner Textured Surface			Sq. Ft.	2,952
Reinforcement Bars, Epoxy Coated			Pound	9,690
Permanent Sheet Piling			Foot	5,532
Ornamental Railing			Foot	511

Bars indicated thus 3x2-#5 h110(E) etc. indicates 3 lines of bars with 2 lengths per line.

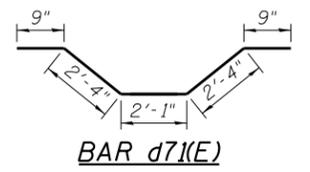
NOTES:
 Wall stations, offsets and dimensions are measured at front face of wall.
 All exposed corners shall have a 1" chamfer.
 For General Notes, Wall Key Plan and US 45 Profile, see Sheet 1.
 For Typical Wall Details and Ornamental Railing see Sheet 2.
 The details for the concrete cap, reinforcement and required number of shear stud connectors are based on Section AZ 18 sheet piling. If the Contractor chooses to use any other section, then the Contractor shall submit revised concrete cap and reinforcement configuration for approval by the Engineer. Such changes shall not be cause for additional compensation.

LEGEND

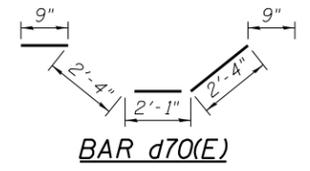
- ① - Panel No.
- ◆ - Soil Boring
- F.F. - Front Face
- B.F. - Back Face
- E.F. - Each Face

BAR LAPS

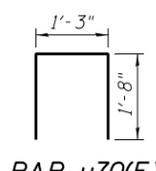
- Basic Lap
- #5 bars - 2'-7"
- Top Bar Lap
- #5 bars - 2'-11"



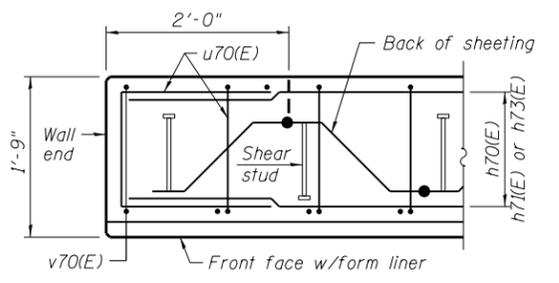
BAR d71(E)



BAR d70(E)



BAR u70(E)



PLAN AT END OF WALL

100 S. WACKER DR.
 10TH FLOOR
 CHICAGO, IL 60606
 TEL (312) 939-1000
 FAX (312) 939-4998
URS

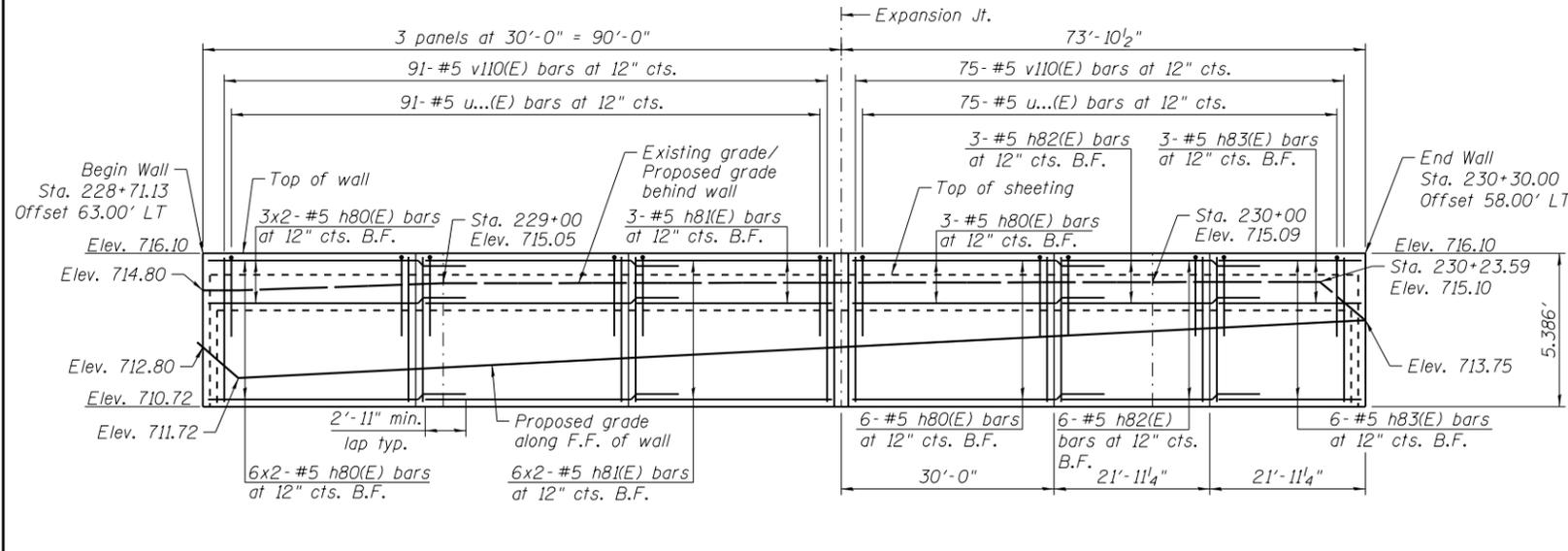
FILE NAME =	USER NAME = Anthony.Plutz	DESIGNED -	REVISED -
D160M61-SHT-Wall.07-1.dgn		CHECKED -	REVISED -
	PLOT SCALE = 60.0000' / in.	DRAWN -	REVISED -
	PLOT DATE = 3/14/2013	CHECKED -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

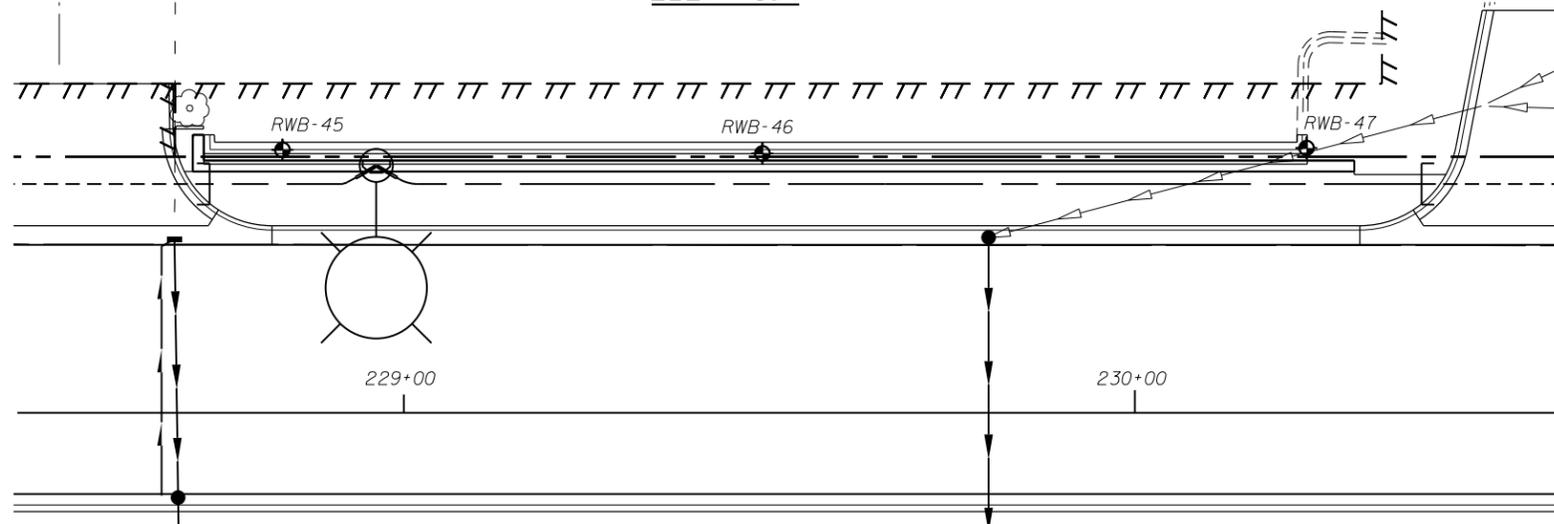
**RETAINING WALL NO. 7 - S.N. 016-2033
 STA. 222+56.06 TO 227+25.00**

SHEET NO. 7 OF 42 SHEETS

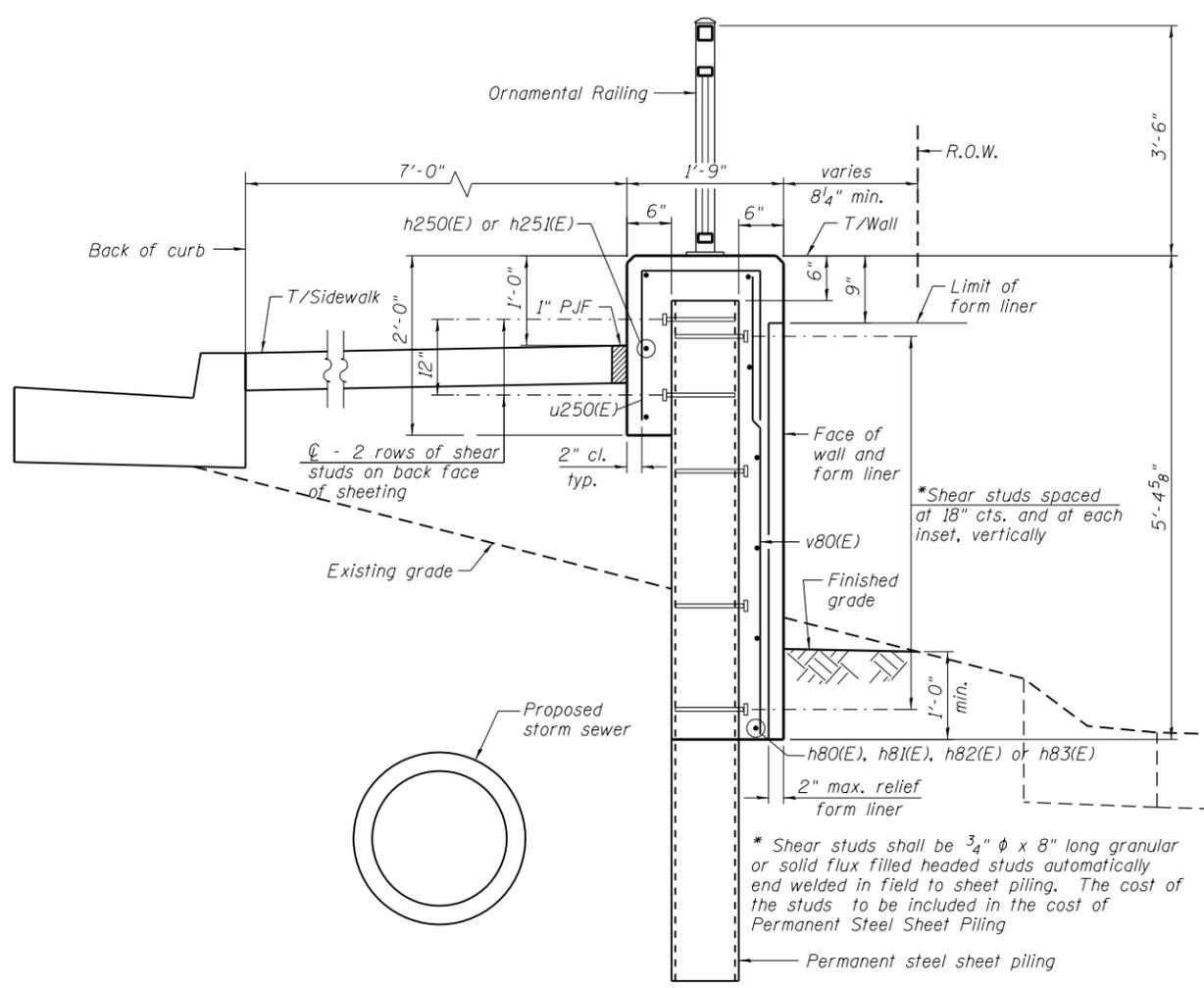
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	483
				CONTRACT NO. 60M61
ILLINOIS FED. AID PROJECT				



ELEVATION



PLAN



TYPICAL SECTION THROUGH WALL

- LEGEND**
- ① - Panel No.
 - ⊕ - Soil Boring
 - F.F. - Front Face
 - B.F. - Back Face
 - E.F. - Each Face

NOTES:

Wall stations, offsets and dimensions are measured at front face of wall.

All exposed corners shall have a 1" chamfer.

For General Notes, Wall Key Plan and US 45 Profile, see Sheet 1.

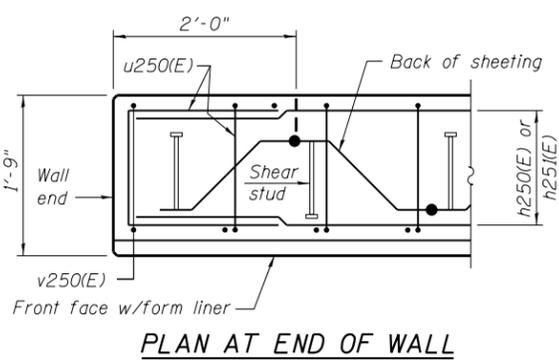
For Typical Wall Details and Ornamental Railing see Sheet 2.

The details for the concrete cap, reinforcement and required number of shear stud connectors are based on Section AZ 18 sheet piling. If the Contractor chooses to use any other section, then the Contractor shall submit revised concrete cap and reinforcement configuration for approval by the Engineer. Such changes shall not be cause for additional compensation.

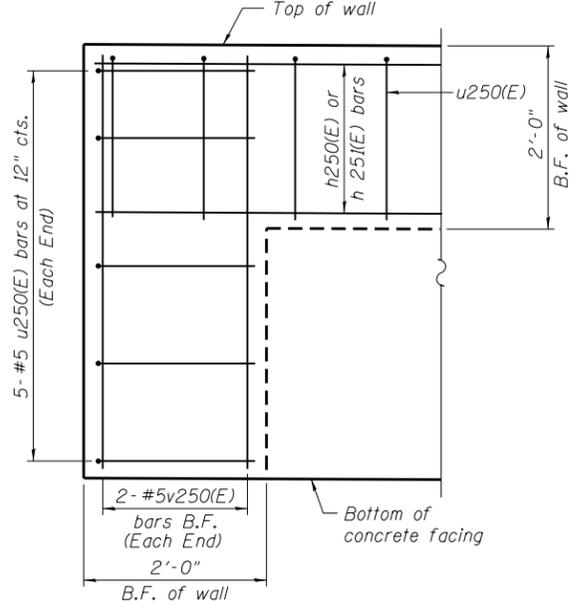
BAR LAPS

Basic Lap
#5 bars - 2'-7"

Top Bar Lap
#5 bars - 2'-11"



PLAN AT END OF WALL



TYPICAL END CAP DETAIL
(v(E) bars in F.F. not shown for clarity)

BAR u80(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h80(E)	24	#5	32'-11"	—
h81(E)	16	#5	29'-8"	—
u80(E)	163	#5	4'-7"	⊏
v80(E)	157	#5	4'-5"	—
Structure Excavation			Cu. Yd.	38
Concrete Structures			Cu. Yd.	46.1
Form Liner Textured Surface			Sq. Ft.	598
Reinforcement Bars, Epoxy Coated			Pound	2,830
Permanent Sheet Piling			Sq. Ft.	2,617
Ornamental Railing			Foot	164

Bars indicated thus 3x2-#5 etc. indicates 3 lines of bars with 2 lengths per line.

100 S. WACKER DR.
 SUITE 600
 CHICAGO, IL 60606
 TEL (312) 939-1000
 FAX (312) 939-4998
URS

FILE NAME =
D160M61-SHT-Wall.08-1.dgn

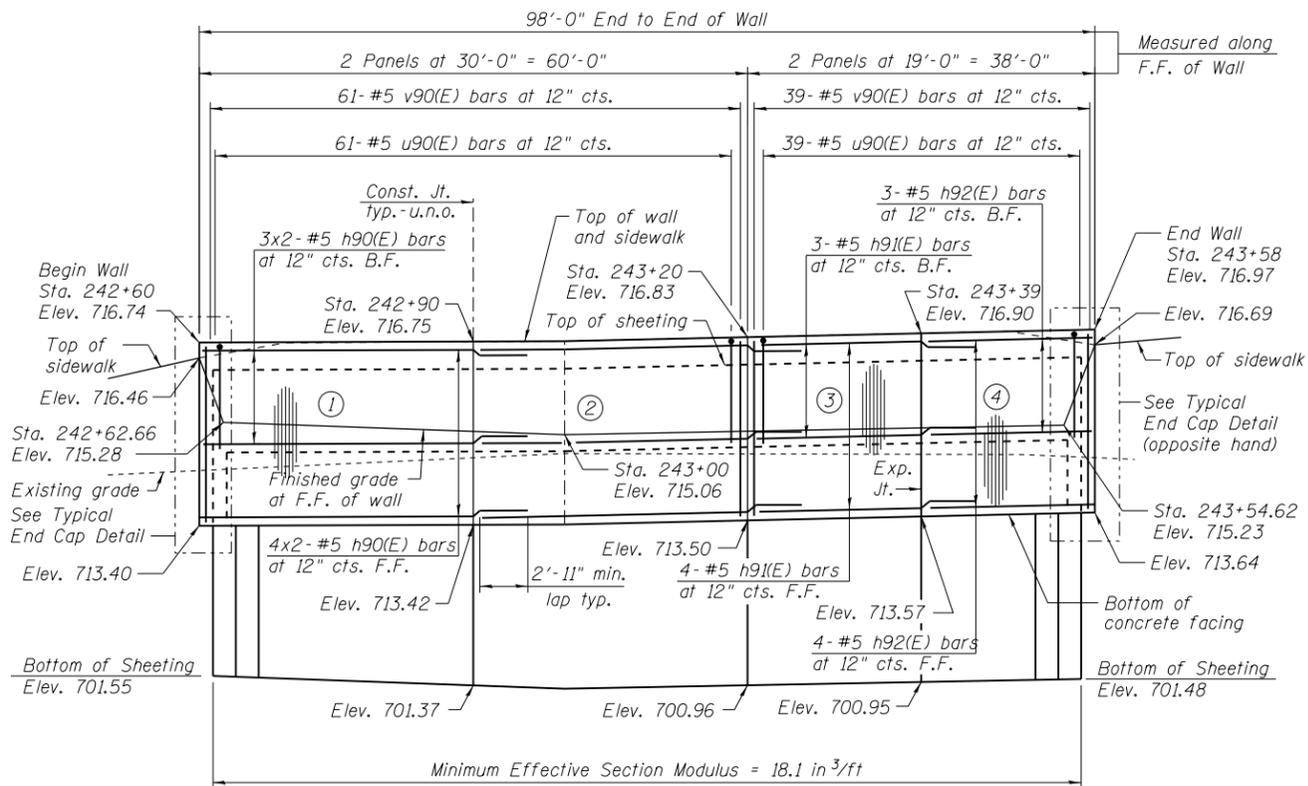
USER NAME = Anthony.Plutz	DESIGNED -	REVISED -
PLOT SCALE = 25.0000' / in.	CHECKED -	REVISED -
PLOT DATE = 3/14/2013	DRAWN -	REVISED -
	CHECKED -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**RETAINING WALL NO. 8 - S.N. 016-2034
STA. 228 + 71.13 TO 230 + 30.00**

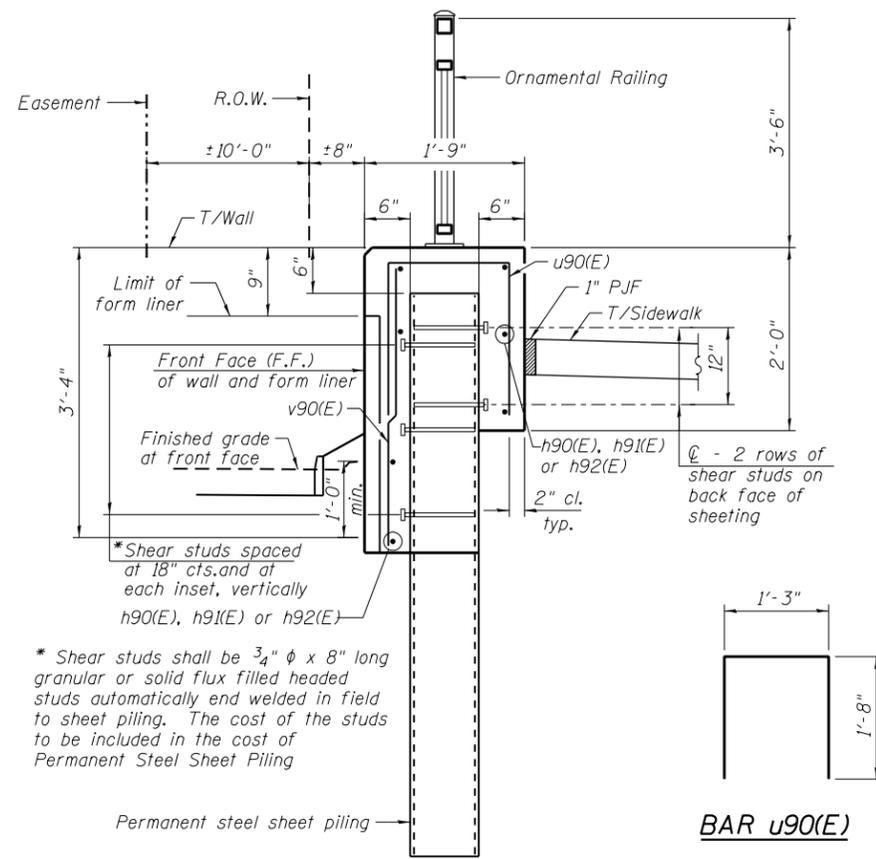
SHEET NO. 8 OF 42 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	484
CONTRACT NO. 60M61			ILLINOIS FED. AID PROJECT	



ELEVATION

(Looking West - F.F. of wall shown)



TYPICAL SECTION THROUGH WALL

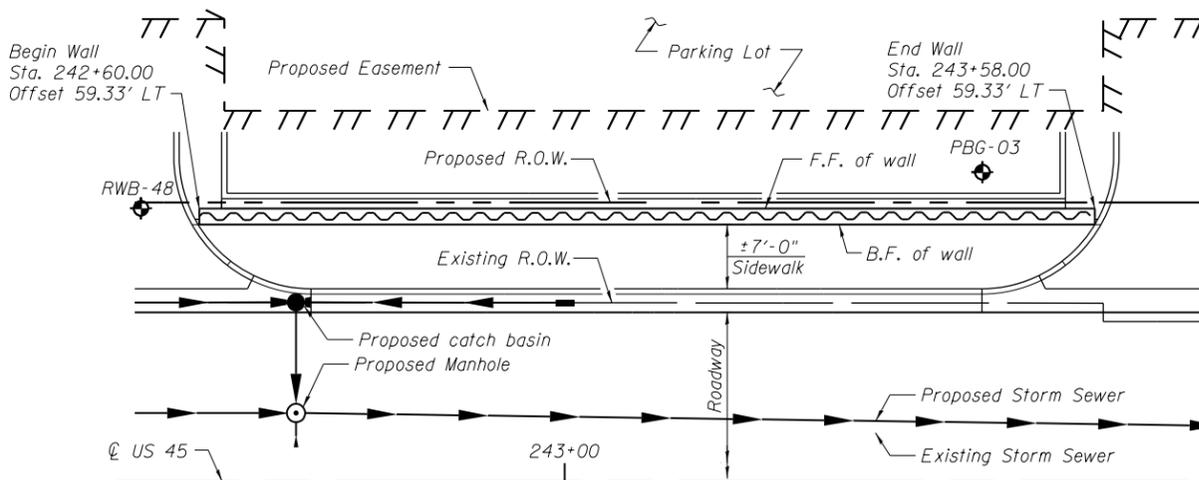
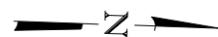
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h90(E)	14	#5	32'-11"	—
h91(E)	14	#5	18'-8"	—
u90(E)	108	#5	4'-7"	⊏
v90(E)	104	#5	3'-0"	—
Structure Excavation			Cu. Yd.	20
Concrete Structures			Cu. Yd.	21.2
Form Liner Textured Surface			Sq. Ft.	241
Reinforcement Bars, Epoxy Coated			Pound	1,600
Permanent Sheet Piling			Sq. Ft.	1,480
Ornamental Railing			Foot	98

Bars indicated thus 4x2-#5 etc. indicates 4 lines of bars with 2 lengths per line.

NOTES:

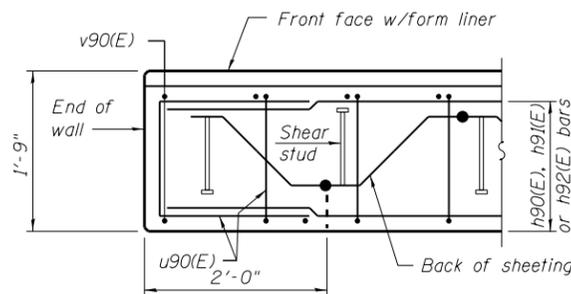
Wall stations, offsets and dimensions are measured at front face of wall. All exposed corners shall have a 1" chamfer. For General Notes, Wall Key Plan and US 45 Profile, see Sheet 1. For Typical Wall Details and Ornamental Railing see Sheet 2. The details for the concrete cap, reinforcement and required number of shear stud connectors are based on Section AZ 18 sheet piling. If the Contractor chooses to use any other section, then the Contractor shall submit revised concrete cap and reinforcement configuration for approval by the Engineer. Such changes shall not be cause for additional compensation.



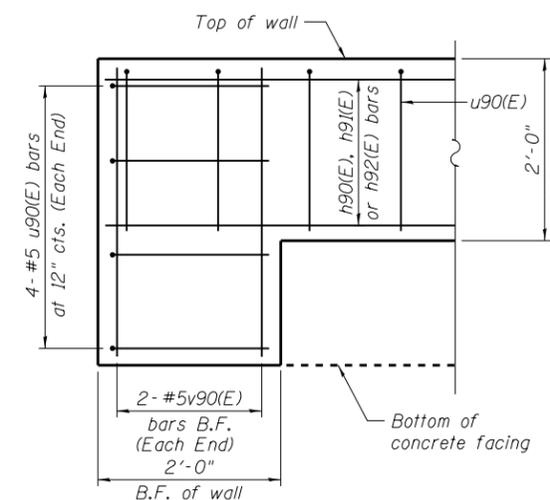
PLAN

BAR LAPS

Basic Lap #5 bars - 2'-7"
Top Bar Lap #5 bars - 2'-11"



PLAN AT END OF WALL



TYPICAL END CAP DETAIL

(v90(E) bars at F.F. not shown for clarity)

LEGEND

- ⊙ - Panel No.
- ⊕ - Soil Boring
- F.F. - Front Face
- B.F. - Back Face
- E.F. - Each Face

FILE NAME = D160M61-SHT-Wall.09-1.dgn

USER NAME = Anthony.Plutz
PLOT SCALE = 20.0000' / in.
PLOT DATE = 3/14/2013

DESIGNED - SAT
CHECKED -
DRAWN - SAT
CHECKED - MJL

REVISED -
REVISED -
REVISED -
REVISED -

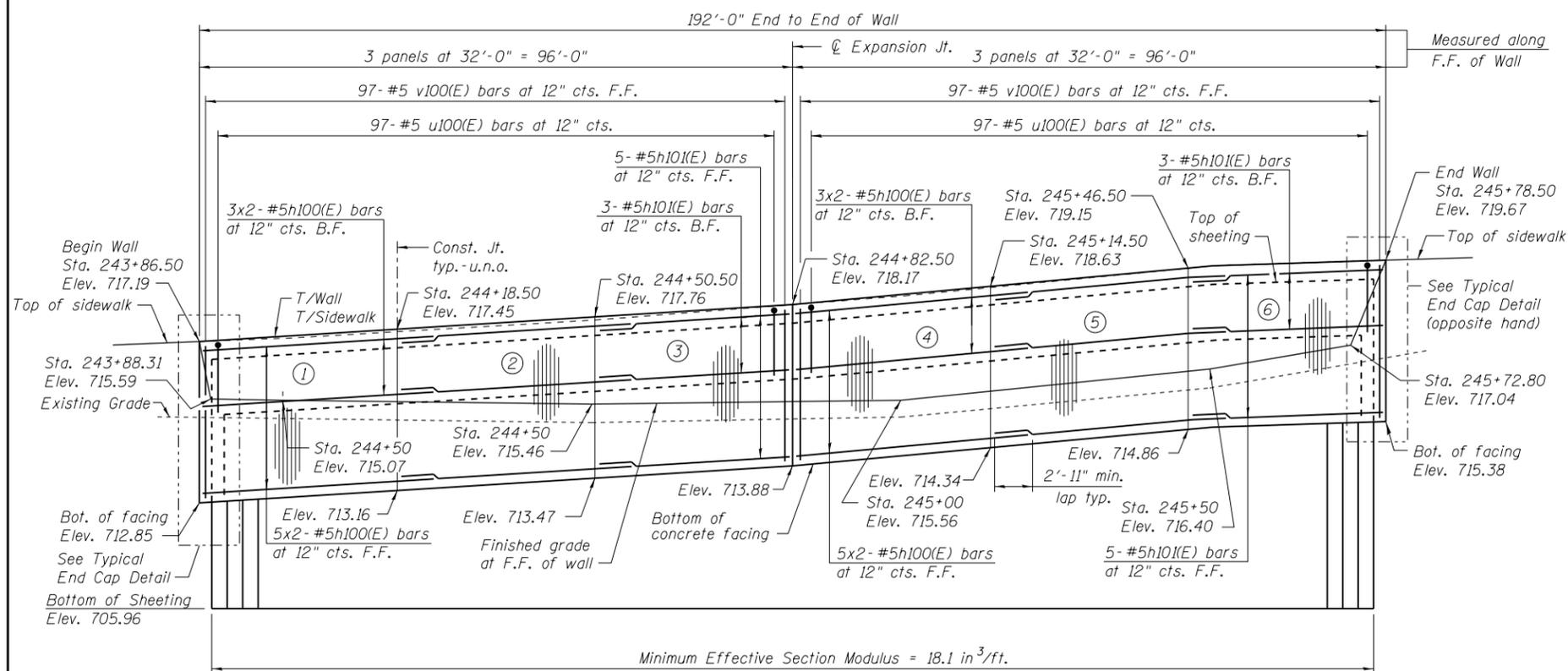
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**RETAINING WALL NO. 9 - S.N.016-2035
STA. 242+60.00 TO 243+58.00**

SHEET NO. 9 OF 42 SHEETS

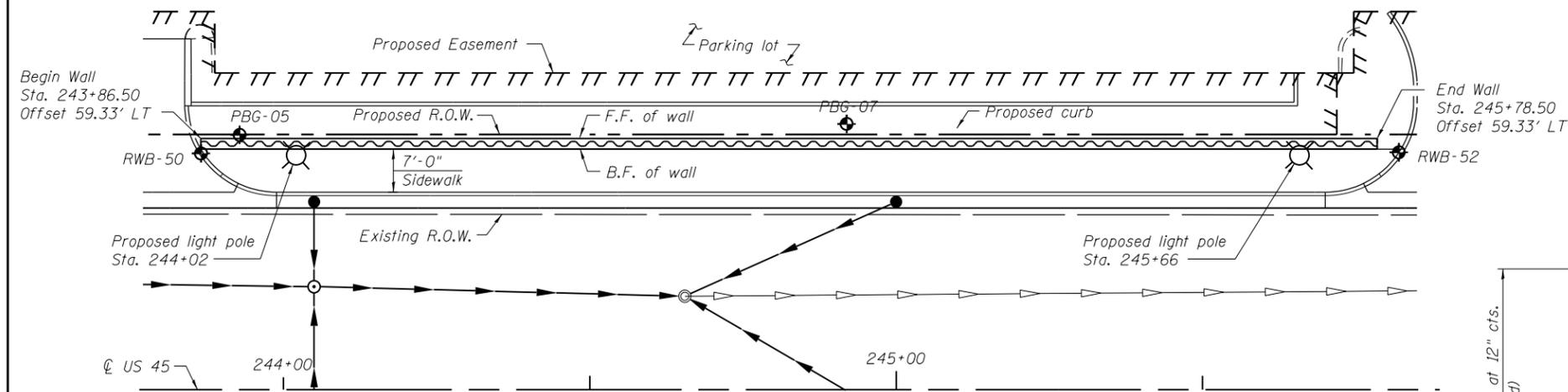
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	485
CONTRACT NO. 60M61				

ILLINOIS FED. AID PROJECT



ELEVATION

(Looking West - F.F. of wall shown)



PLAN

NOTES:

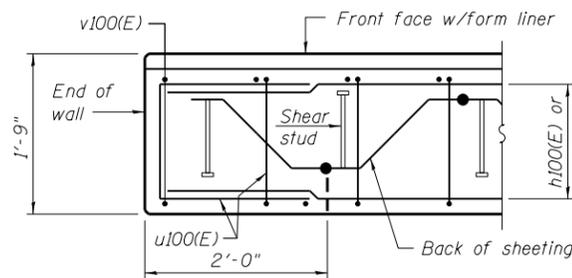
Wall stations, offsets and dimensions are measured at front face of wall.
 All exposed corners shall have a 1" chamfer.
 For General Notes, Wall Key Plan and US 45 Profile, see Sheet 1.
 For Typical Wall Details and Ornamental Railing see Sheet 2.
 The details for the concrete cap, reinforcement and required number of shear stud connectors are based on Section AZ 18 sheet piling. If the Contractor chooses to use any other section, then the Contractor shall submit revised concrete cap and reinforcement configuration for approval by the Engineer. Such changes shall not be cause for additional compensation.

LEGEND

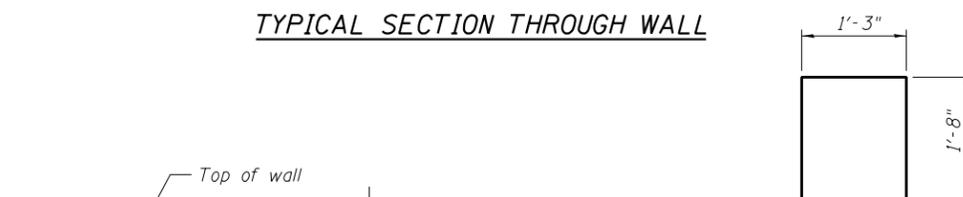
- ① - Panel No.
- ⊕ - Soil Boring
- F.F. - Front Face
- B.F. - Back Face
- E.F. - Each Face

BAR LAPS

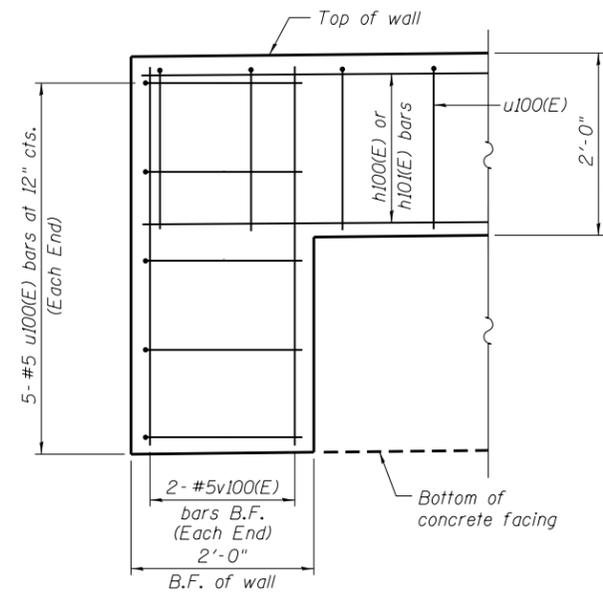
Basic Lap #5 bars - 2'-7"
 Top Bar Lap #5 bars - 2'-11"



PLAN AT END OF WALL



TYPICAL SECTION THROUGH WALL



TYPICAL END CAP DETAIL

(v100(E) bars in F.F. not shown for clarity)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h100(E)	32	#5	34'-11"	—
h101(E)	16	#5	31'-8"	—
u100(E)	204	#5	4'-7"	⊏
v100(E)	198	#5	4'-0"	—
Structure Excavation			Cu. Yd.	33
Concrete Structures			Cu. Yd.	53.5
Form Liner Textured Surface			Sq. Ft.	682
Reinforcement Bars, Epoxy Coated			Pound	3500
Permanent Sheet Piling			Sq. Ft.	2189
Ornamental Railing			Foot	192

Bars indicated thus 3x2-#5 etc. indicates 3 lines of bars with 2 lengths per line.

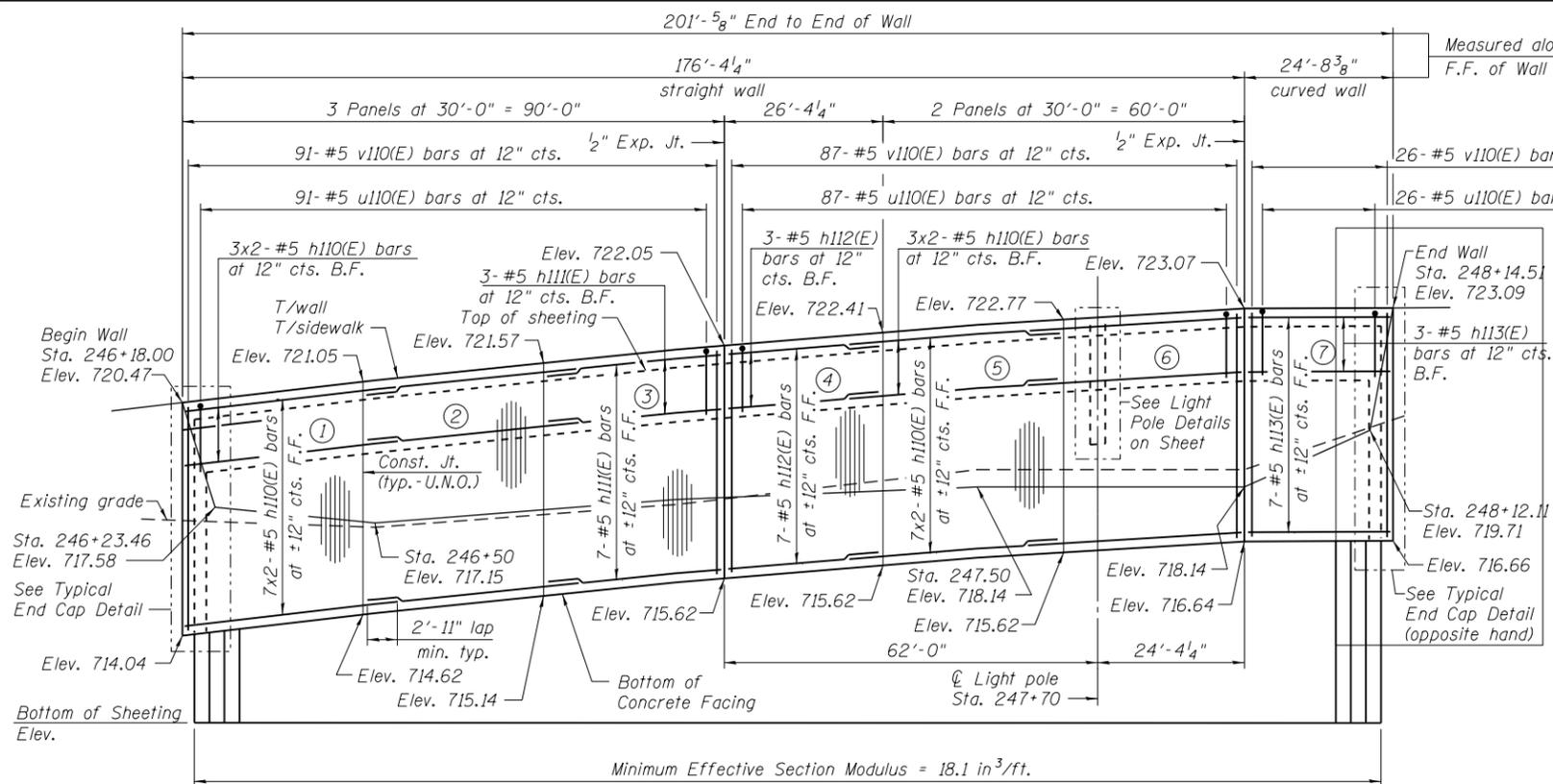
FILE NAME = D160M61-SHT-Wall-10-1.dgn	USER NAME = Anthony.Plutz	DESIGNED - SAT	REVISD -
		CHECKED - MJL	REVISD -
	PLOT SCALE = 25x0 1/4" / in.	DRAWN - SAT/AMV	REVISD -
	PLOT DATE = 3/14/2013	CHECKED - MJL	REVISD -

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	486
				CONTRACT NO. 60M61
ILLINOIS FED. AID PROJECT				

BILL OF MATERIAL

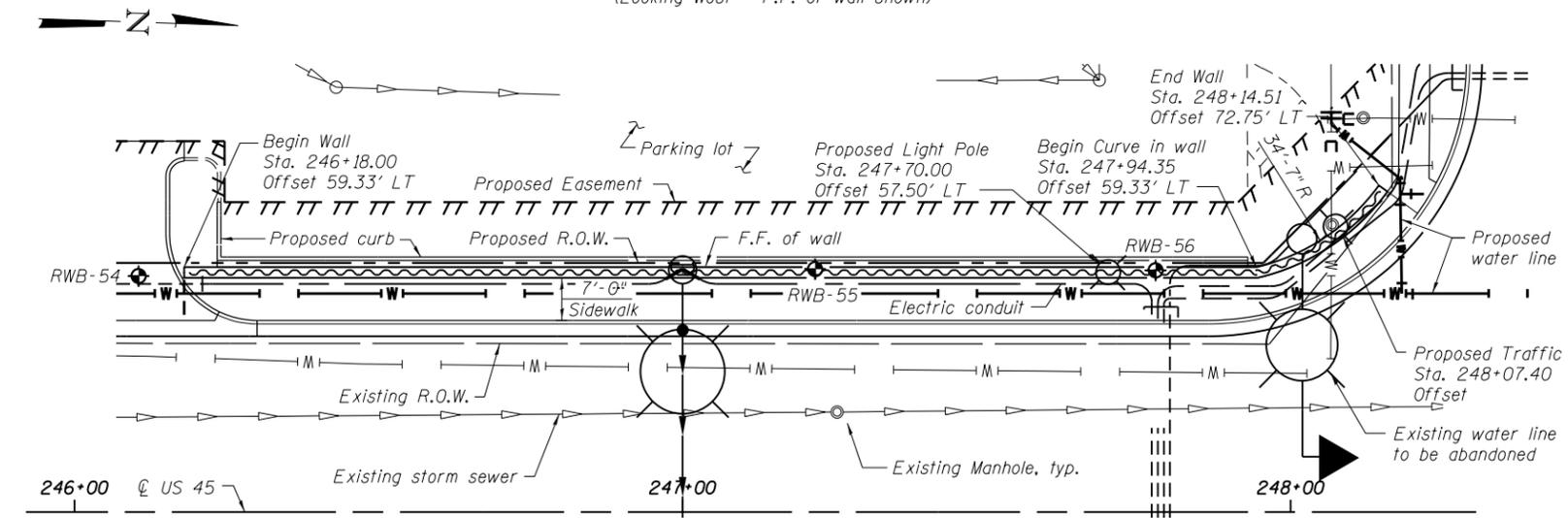
Bar	No.	Size	Length	Shape
d110(E)	8	#5	5'-6"	
d111(E)	7	#5	8'-3"	
h110(E)	40	#5	32'-11"	
h111(E)	10	#5	29'-8"	
h112(E)	10	#5	26'-0"	
h113(E)	10	#5	24'-4"	
v110(E)	234	#5	6'-1"	
u110(E)	218	#5	4'-7"	
Structure Excavation		Cu. Yd.	62	
Concrete Structures		Cu. Yd.	67.7	
Form Liner Textured Surface		Sq. Ft.	1,181	
Reinforcement Bars, Epoxy Coated		Pound	4,850	
Permanent Sheet Piling		Foot	2,213	
Ornamental Railing		Foot	202	

Bars indicated thus 3x2-#5 h110(E) etc. indicates 3 lines of bars with 2 lengths per line.

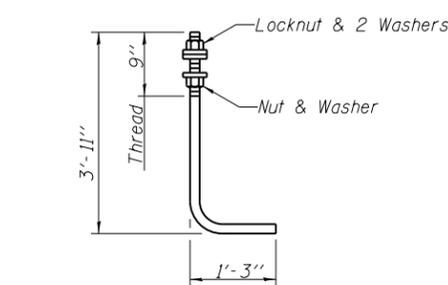


ELEVATION

(Looking West - F.F. of wall shown)



PLAN



ANCHOR ROD

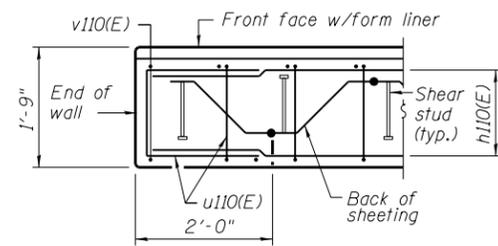
Diameter as specified for light poles. (ASTM F 1554 Grade 105)

LEGEND

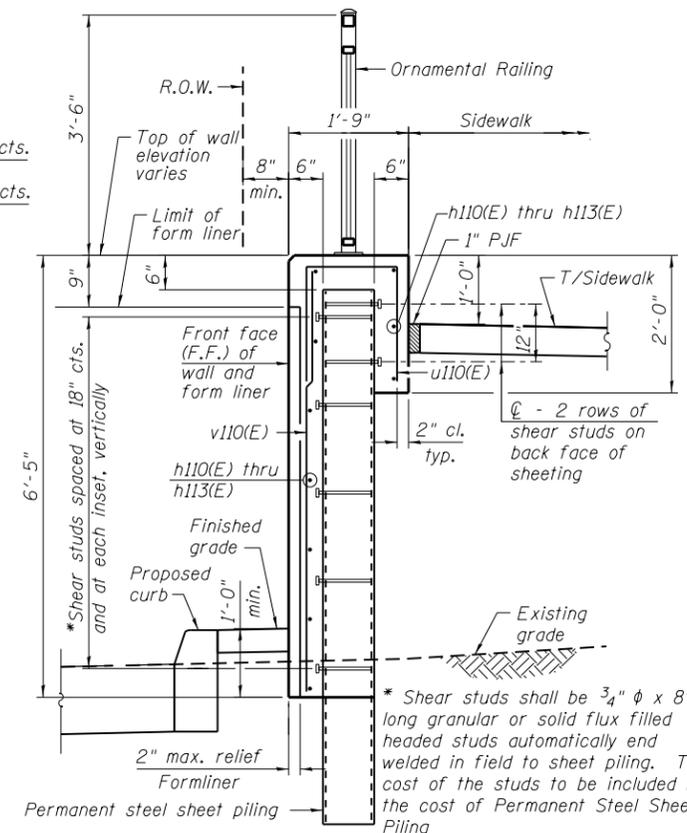
- ① - Panel No.
- ⊕ - Soil Boring
- F.F. - Front Face
- B.F. - Back Face
- E.F. - Each Face

BAR LAPS

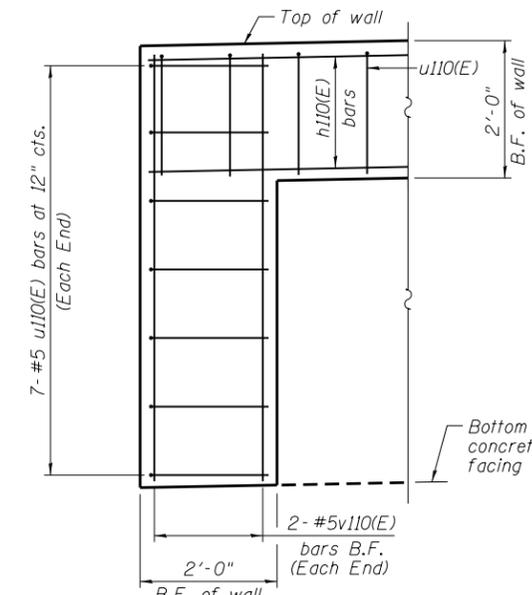
Basic Lap #5 bars - 2'-7"
Top Bar Lap #5 bars - 2'-11"



PLAN AT END OF WALL

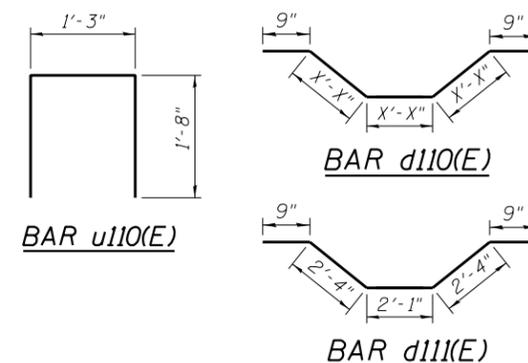


TYPICAL SECTION THROUGH WALL



TYPICAL END CAP DETAIL

(v110(E) bars in F.F. not shown for clarity)



NOTES:

- Wall stations, offsets and dimensions are measured at front face of wall.
- All exposed corners shall have a 1" chamfer.
- For General Notes, Wall Key Plan and US 45 Profile, see Sheet 1.
- For Typical Wall Details and Ornamental Railing see Sheet 2.
- The details for the concrete cap, reinforcement and required number of shear stud connectors are based on Section AZ 18 sheet piling. If the Contractor chooses to use any other section, then the Contractor shall submit revised concrete cap and reinforcement configuration for approval by the Engineer. Such changes shall not be cause for additional compensation.

URS
 100 S. WACKER DR.
 CHICAGO, IL 60606
 TEL (312) 939-1000
 FAX (312) 939-4998

FILE NAME = D160M61-SHT-Wall_11-1.dgn	USER NAME = Anthony.Plutz	DESIGNED - SAT	REVISED -
PLOT SCALE = 29.1667' / in.	DRAWN - AMV	CHECKED - MJL	REVISED -
PLOT DATE = 3/14/2013	CHECKED - MJL	REVISED -	REVISED -

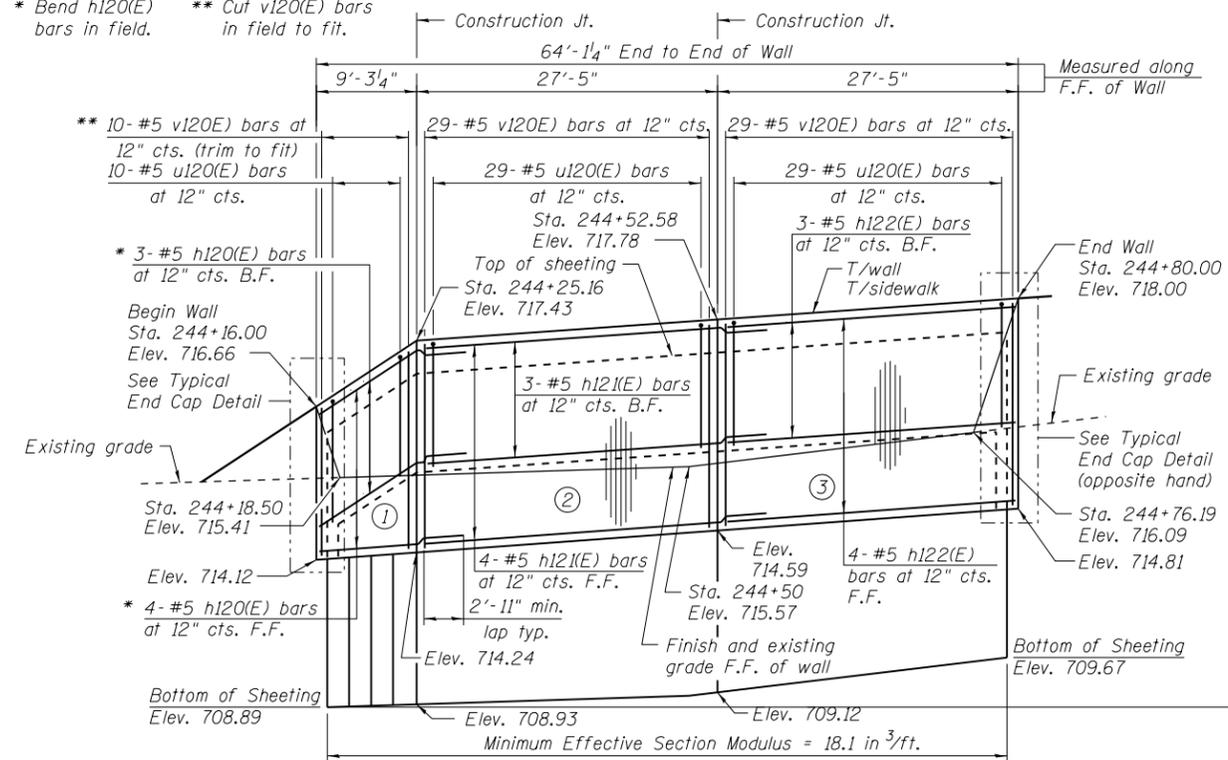
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**RETAINING WALL NO. 11 - S.N. 016-2037
STA. 246 + 18.00 TO 248 + 14.51**

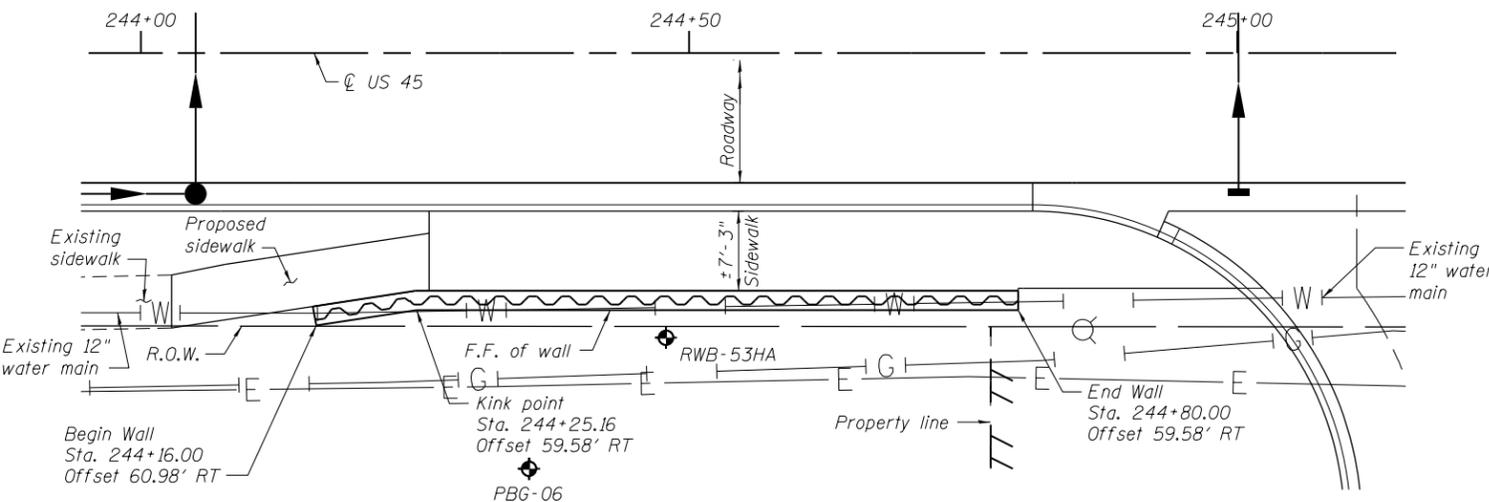
SHEET NO. 11 OF 42 SHEETS

F.A.P. RTE. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 487
CONTRACT NO. 60M61			ILLINOIS FED. AID PROJECT	

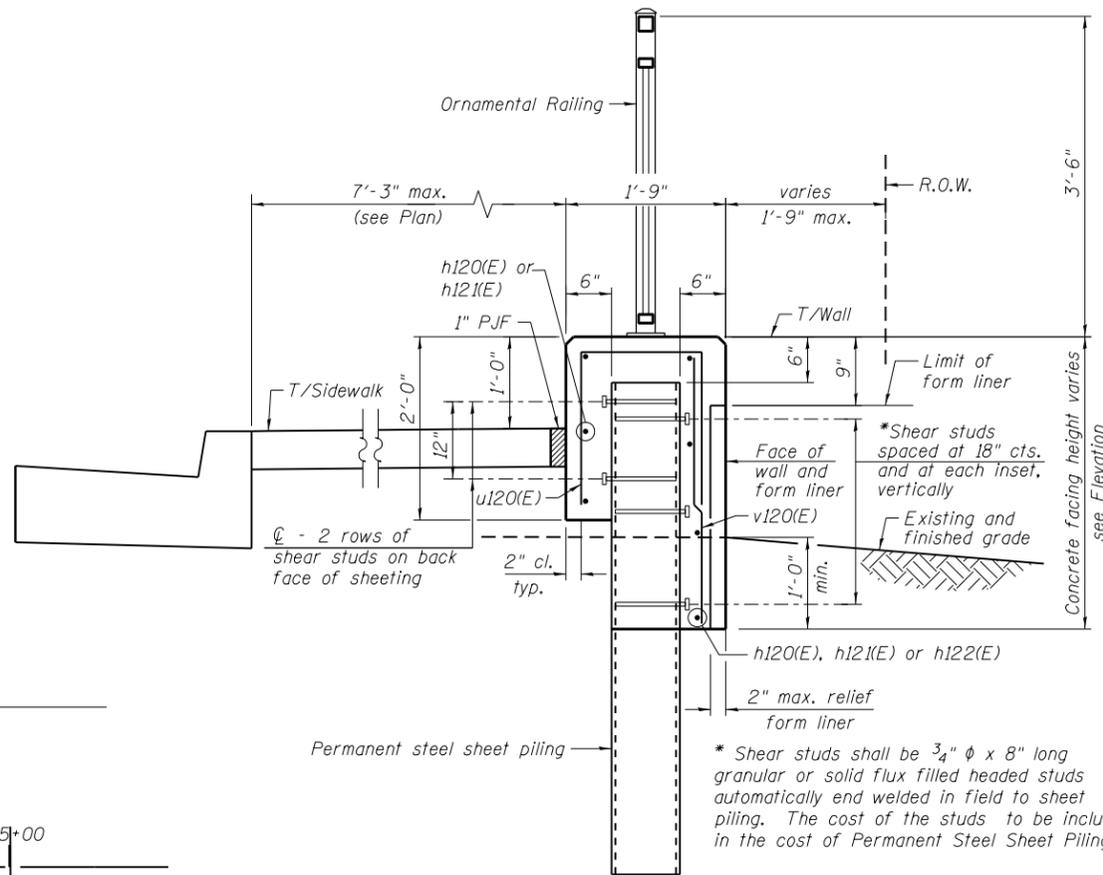
* Bend h120(E) bars in field. ** Cut v120(E) bars in field to fit.



ELEVATION
(Looking West at F.F. of wall)



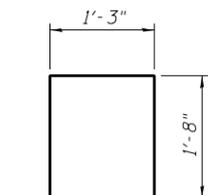
PLAN



TYPICAL SECTION THROUGH WALL

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h120(E)	7	#5	12'-3"	—
h121(E)	7	#5	30'-4"	—
h122(E)	7	#5	27'-1"	—
u120(E)	75	#5	4'-7"	□
v120(E)	72	#5	2'-10"	—
Structure Excavation			Cu. Yd.	9
Concrete Structures			Cu. Yd.	13.1
Form Liner Textured Surface			Sq. Ft.	154
Reinforcement Bars, Epoxy Coated			Pound	1080
Permanent Sheet Piling			Sq. Ft.	512
Ornamental Railing			Foot	64



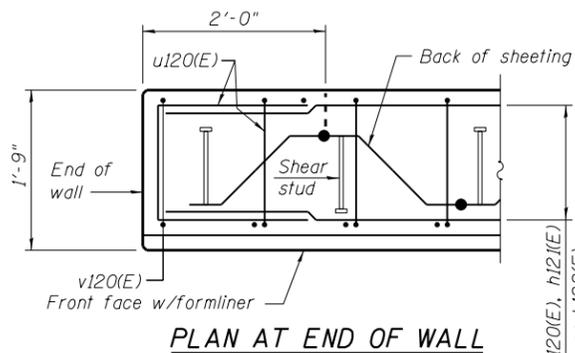
BAR u120(E)

LEGEND

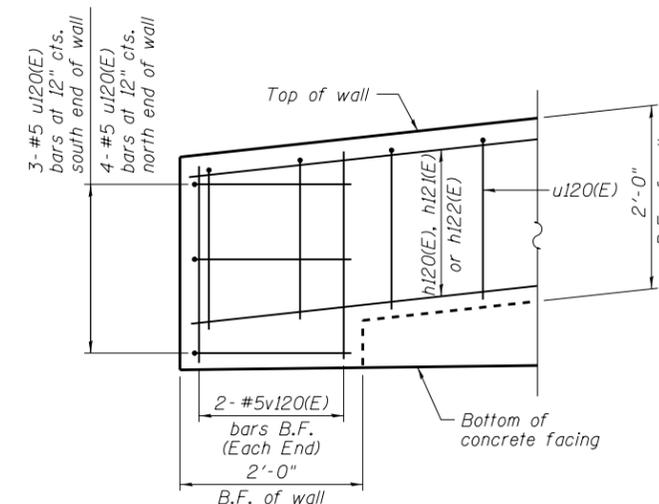
- - Panel No.
- ⊕ - Soil Boring
- F.F. - Front Face
- B.F. - Back Face
- E.F. - Each Face

BAR LAPS

Basic Lap	Top Bar Lap
#5 bars - 2'-7"	#5 bars - 2'-11"



PLAN AT END OF WALL



TYPICAL END CAP DETAIL

(v120(E) bars at F.F. not shown for clarity)

NOTES:

Wall stations, offsets and dimensions are measured at front face of wall. All exposed corners shall have a 1" chamfer. For General Notes, Wall Key Plan and US 45 Profile, see Sheet 1. For Typical Wall Details and Ornamental Railing see Sheet 2. The details for the concrete cap, reinforcement and required number of shear stud connectors are based on Section AZ 18 sheet piling. If the Contractor chooses to use any other section, then the Contractor shall submit revised concrete cap and reinforcement configuration for approval by the Engineer. Such changes shall not be cause for additional compensation.

100 S. WACKER DR.
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URS

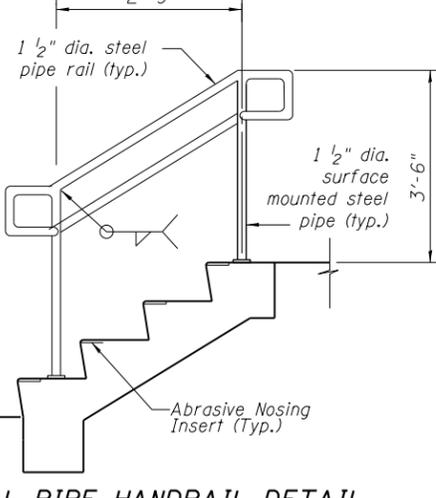
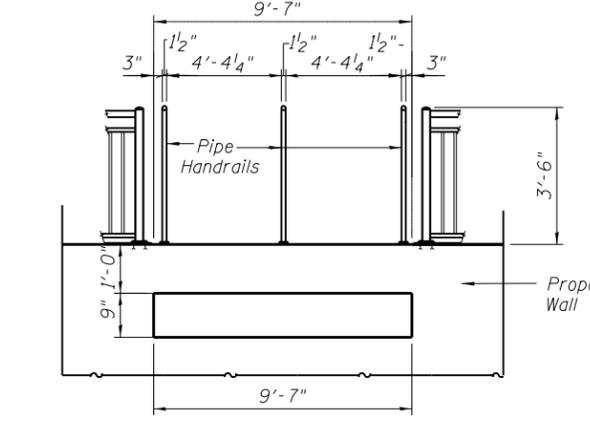
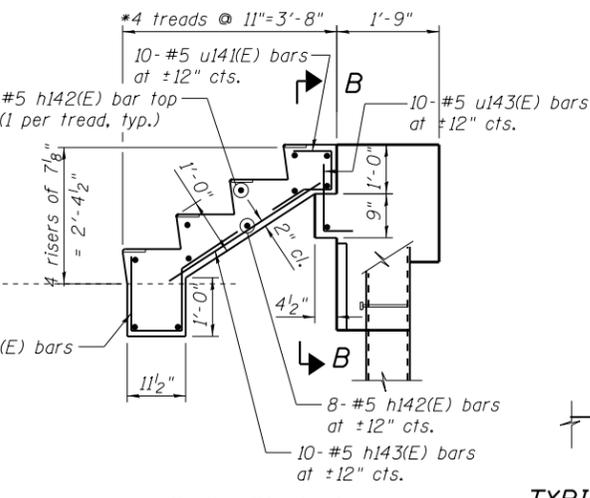
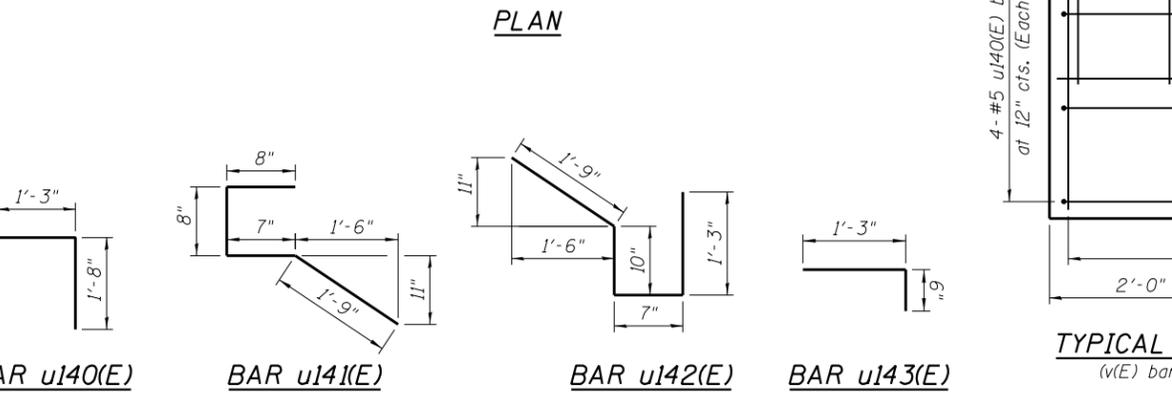
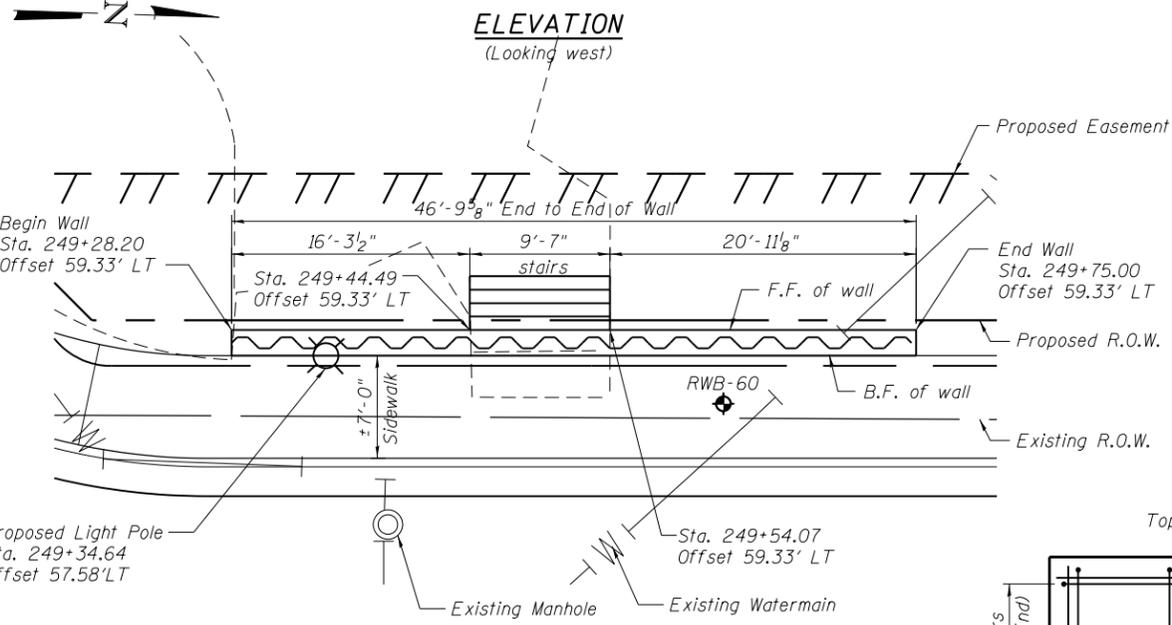
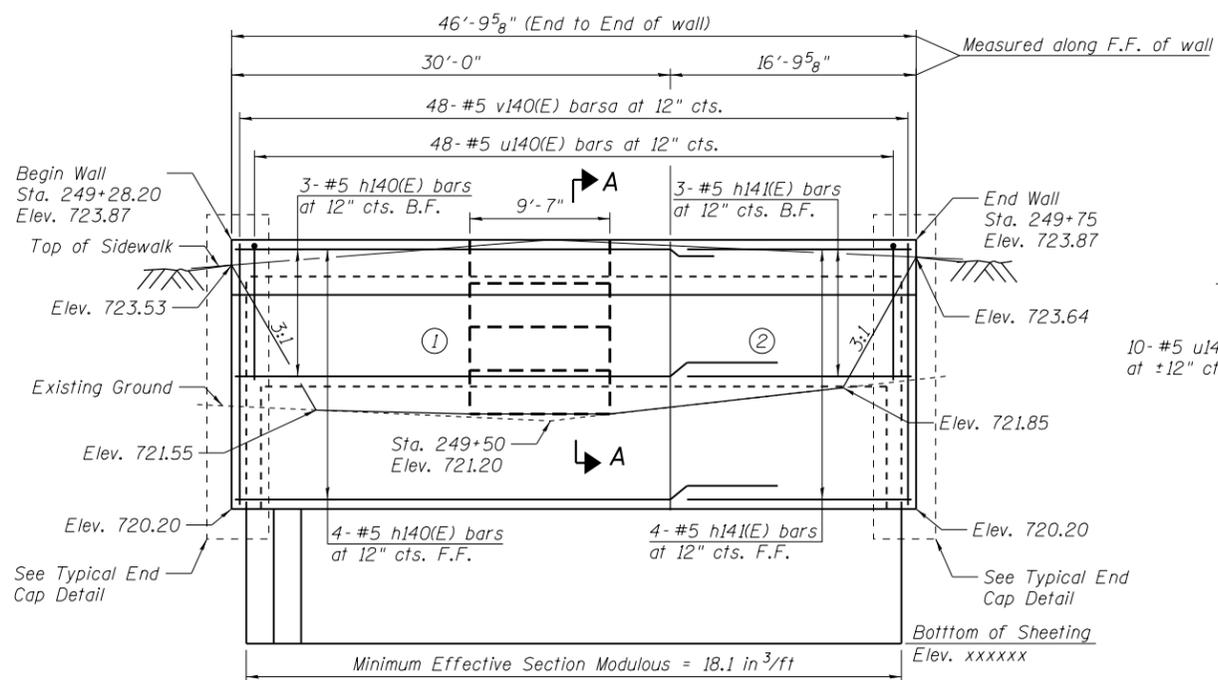
FILE NAME = D160M61-SHT-Wall_12-1.dgn	USER NAME = Anthony.Plutz	DESIGNED - SAT	REVISED -
		CHECKED - MJL	REVISED -
		PLOT SCALE = 1/8" = 1'-0"	REVISED -
		DRAWN - AMV	REVISED -
		PLOT DATE = 3/14/2013	REVISED -
		CHECKED - MJL	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RETAINING WALL NO. 12 - S.N. 016-2038
STA. 244 + 16.00 TO 244 + 80.00

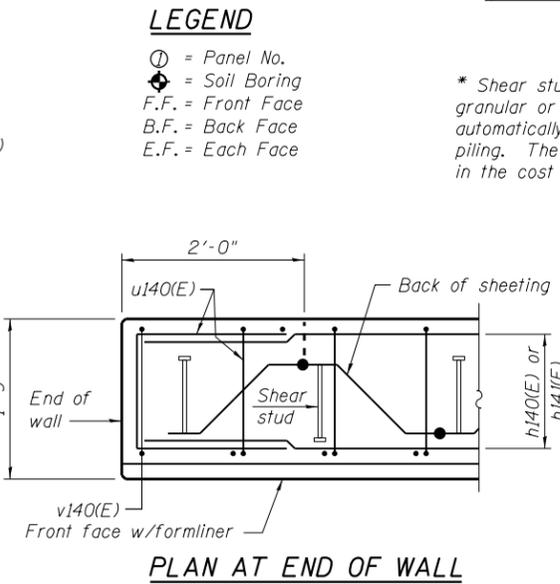
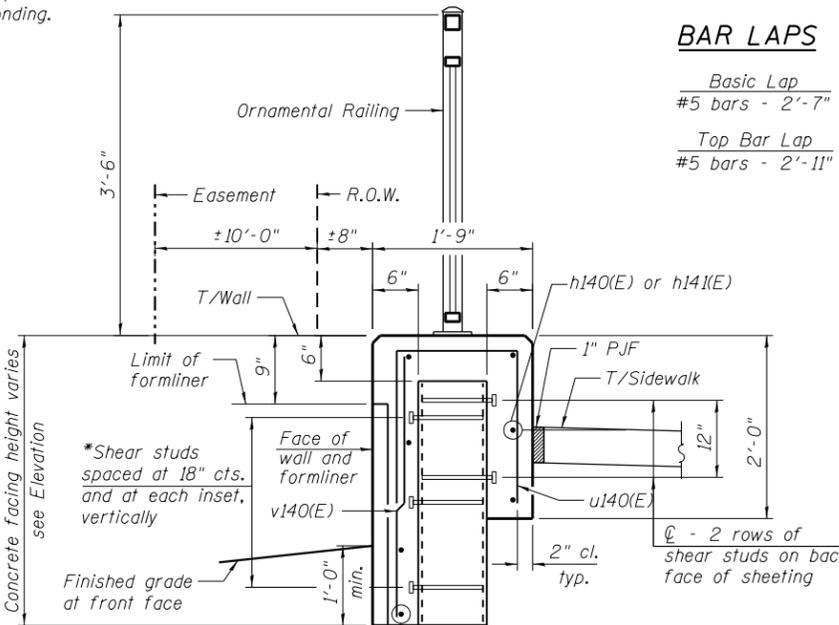
SHEET NO. 12 OF 42 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	488
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60M61	



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h140(E)	7	#5	33'-8"	▬
h141(E)	7	#5	16'-6"	▬
h142(E)	12	#5	9'-3"	▬
h143(E)	10	#5	3'-5"	▬
u140(E)	55	#5	4'-9"	⊏
u141(E)	10	#5	3'-8"	⊏
u142(E)	10	#5	4'-5"	⊏
u143(E)	10	#5	1'-9"	⊏
v140(E)	47	#5	3'-4"	▬
Structure Excavation		Cu. Yd.	31	
Concrete Structures		Cu. Yd.	11.6	
Form Liner Textured Surface		Sq. Ft.	116	
Reinforcement Bars, Epoxy Coated		Pound	1,060	
Pipe Handrail		Foot	12	
Permanent Sheet Piling		Sq. Ft.	626	
Ornamental Railing		Foot	38	



LEGEND

- ⊙ = Panel No.
- ⊕ = Soil Boring
- F.F. = Front Face
- B.F. = Back Face
- E.F. = Each Face

NOTES:

Wall stations, offsets and dimensions are measured at front face of wall.
All exposed corners shall have a 1" chamfer.
For General Notes, Wall Key Plan and US 45 Profile, see Sheet 1.
For Typical Wall Details and Ornamental Railing see Sheet 2.

The details for the concrete cap, reinforcement and required number of shear stud connectors are based on Section AZ 18 sheet piling. If the Contractor chooses to use any other section, then the Contractor shall submit revised concrete cap and reinforcement configuration for approval by the Engineer. Such changes shall not be cause for additional compensation.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h150(E)	16	#5	32'-11"	—
h151(E)	8	#5	13'-2"	└
u150(E)	84	#5	4'-7"	┌
v150(E)	78	#5	4'-3"	—
Structure Excavation			Cu. Yd.	16
Concrete Structures			Cu. Yd.	21.2
Form Liner Textured Surface			Sq. Ft.	234
Reinforcement Bars, Epoxy Coated			Pound	1410
Permanent Sheet Piling			Sq. Ft.	1686
Ornamental Railing			Foot	74

NOTES:

Wall stations, offsets and dimensions are measured at front face of wall. All exposed corners shall have a 1" chamfer.

For General Notes, Wall Key Plan and US 45 Profile, see Sheet 1. For Typical Wall Details and Ornamental Railing see Sheet 2.

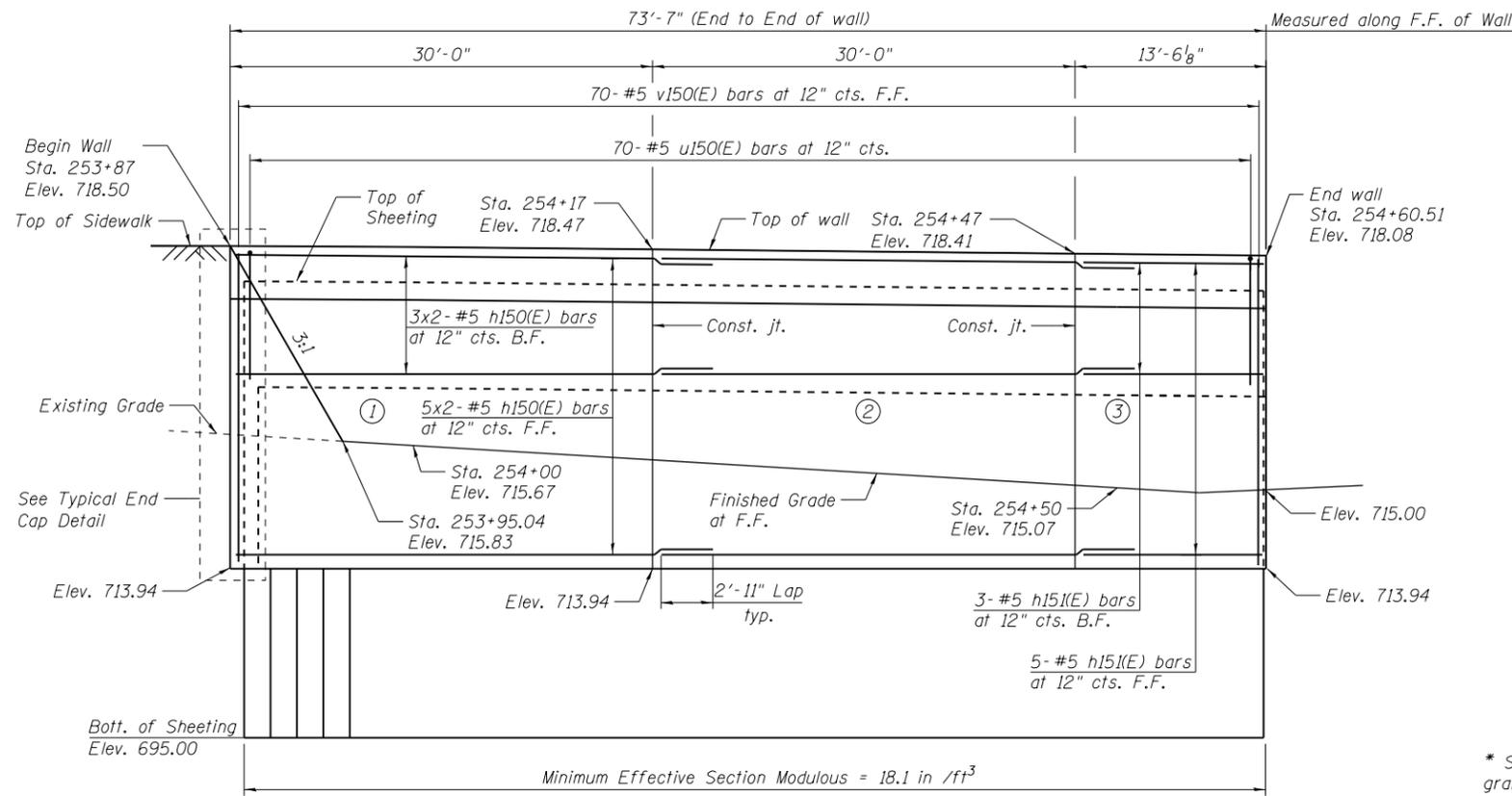
The details for the concrete cap, reinforcement and required number of shear stud connectors are based on Section AZ 18 sheet piling. If the Contractor chooses to use any other section, then the Contractor shall submit revised concrete cap and reinforcement configuration for approval by the Engineer. Such changes shall not be cause for additional compensation.

BAR LAPS

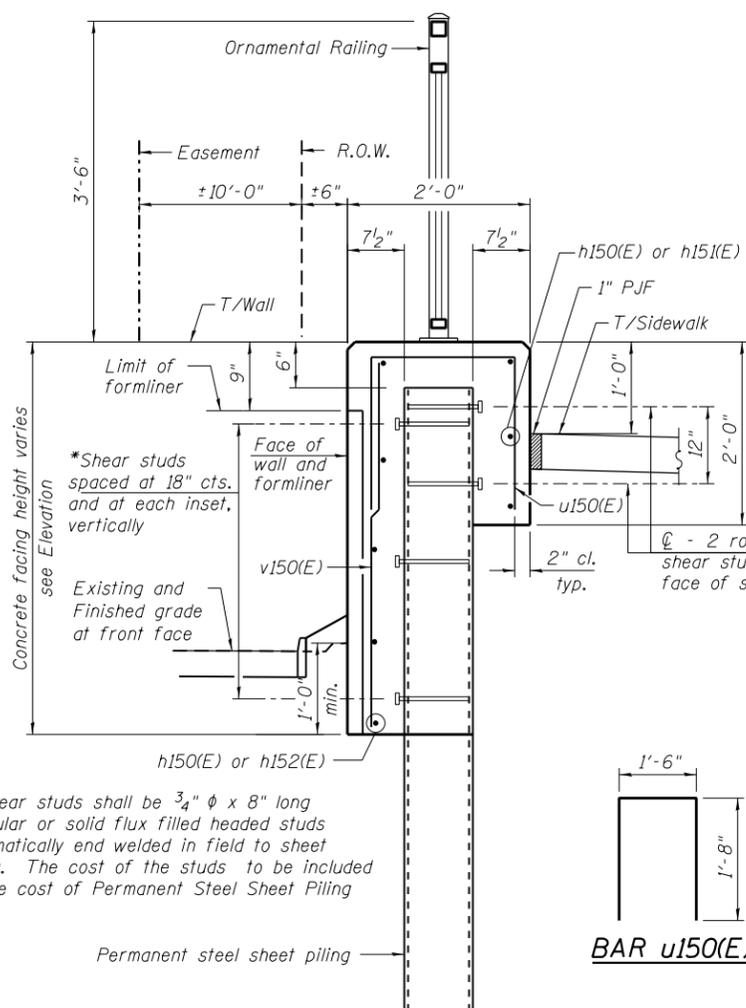
Basic Lap	Top Bar Lap
#5 bars - 2'-7"	#5 bars - 2'-11"

LEGEND

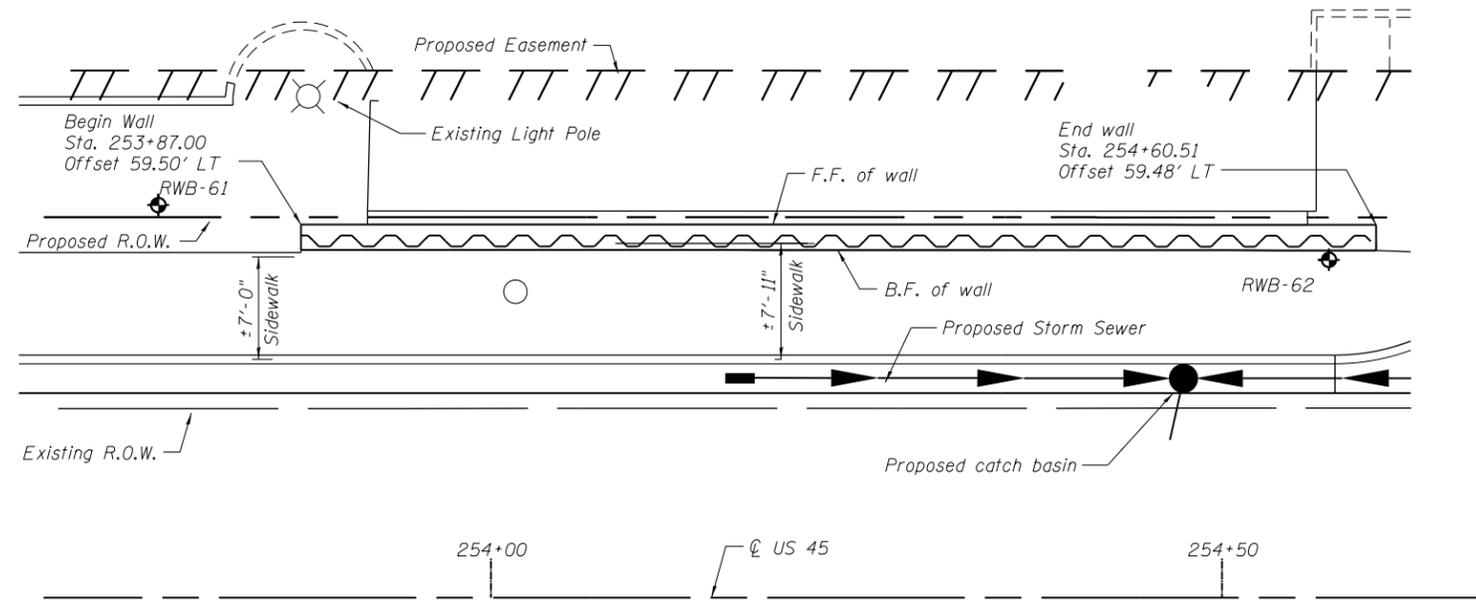
- ① = Panel No.
- ⊕ = Soil Boring
- F.F. = Front Face
- B.F. = Back Face
- E.F. = Each Face



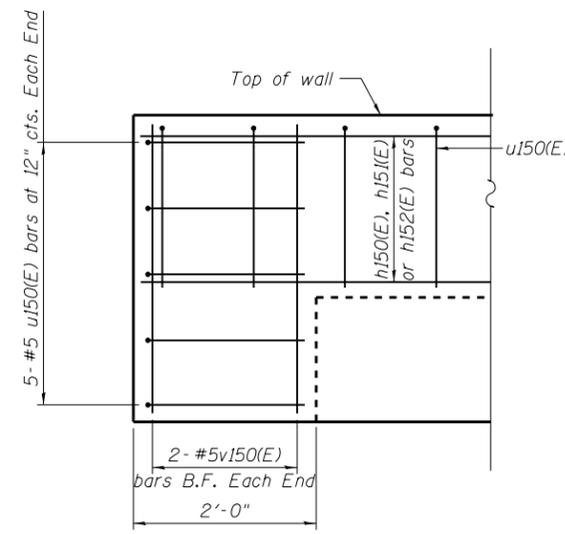
ELEVATION
(Looking East at F.F. of wall)



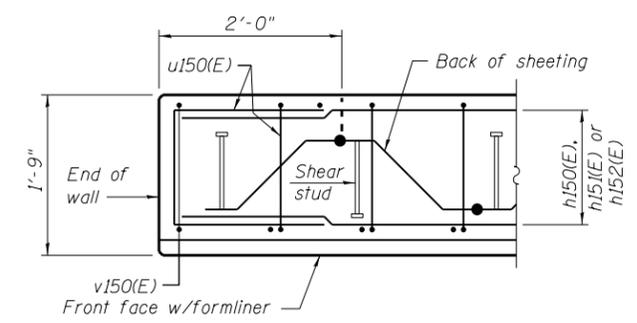
TYPICAL SECTION THROUGH WALL



PLAN

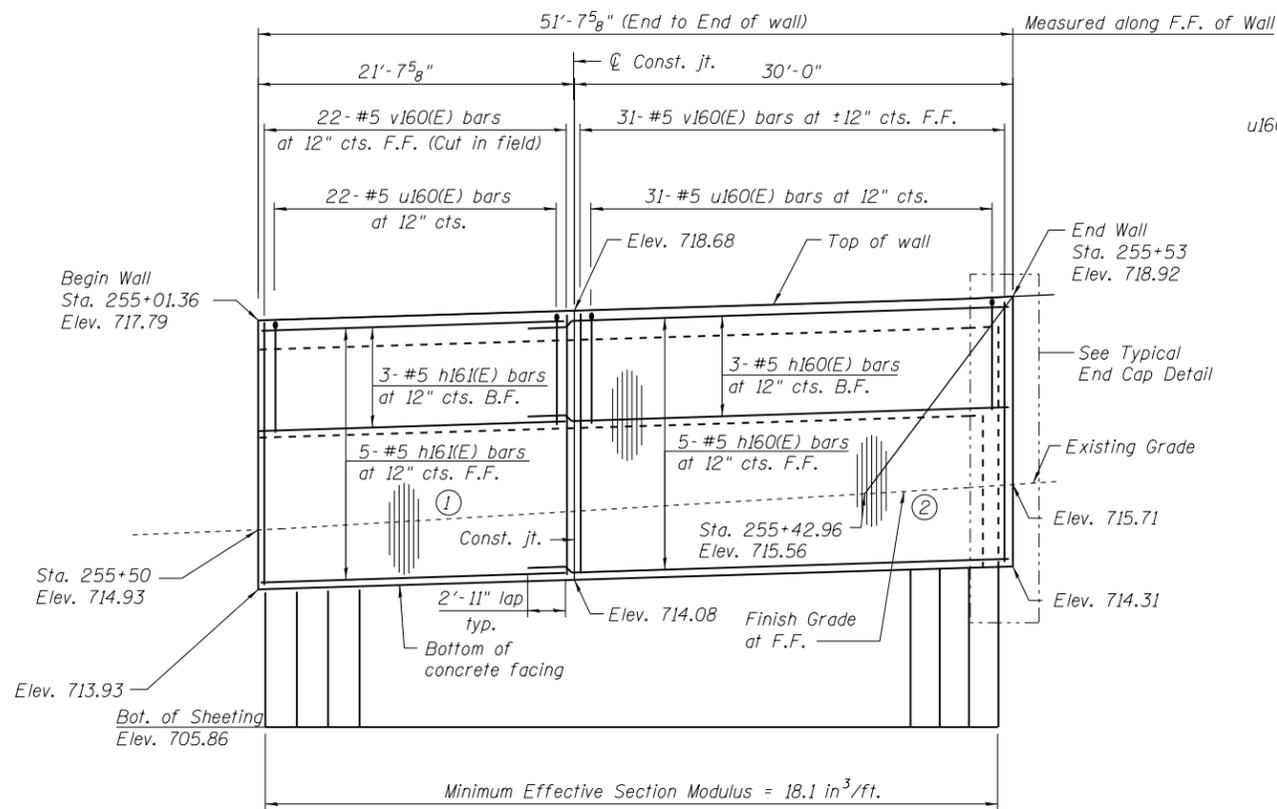


TYPICAL END CAP DETAIL
(v(E) bars at F.F. not shown for clarity)

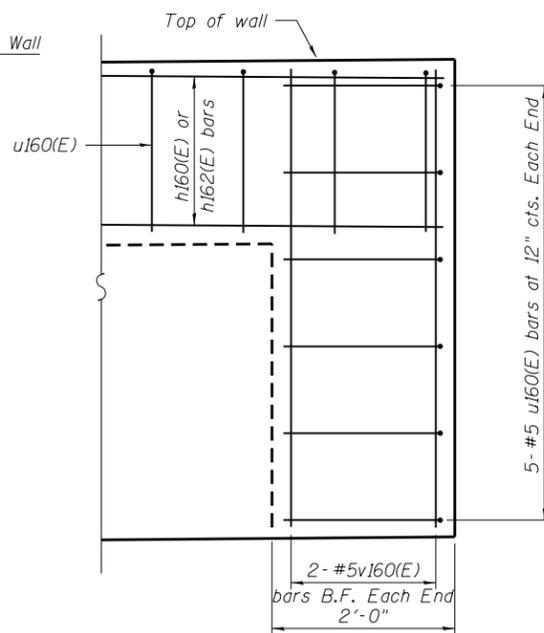


PLAN AT END OF WALL

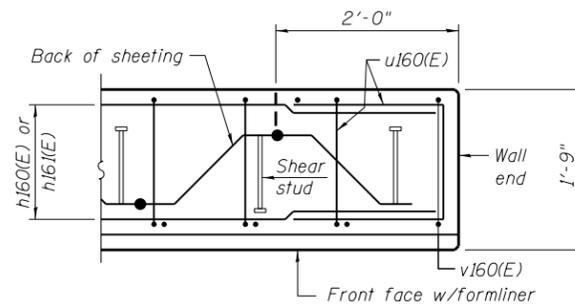
URS
 100 S. WACKER DR.
 SUITE 600
 CHICAGO, IL 60606
 TEL (312) 939-1000
 FAX (312) 939-4998



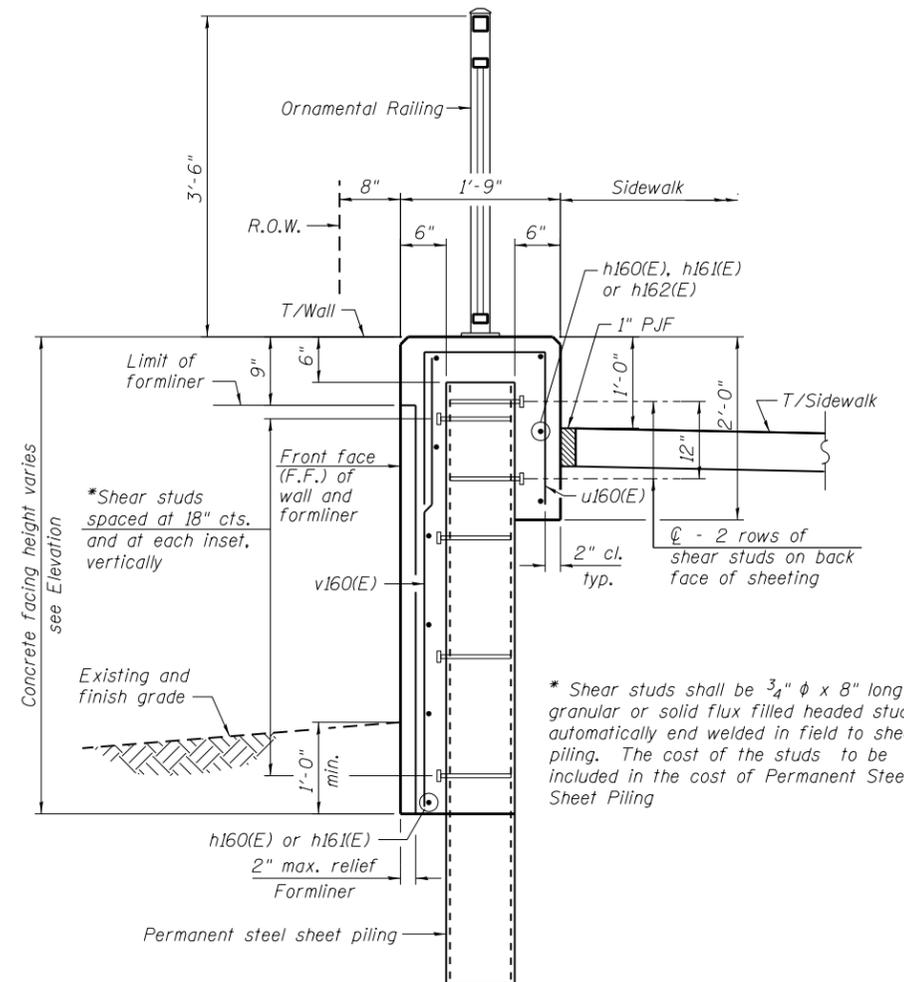
ELEVATION
(Looking East at F.F. of wall)



TYPICAL END CAP DETAIL
(v160(E) bars in F.F. not shown for clarity)



PLAN AT END OF WALL



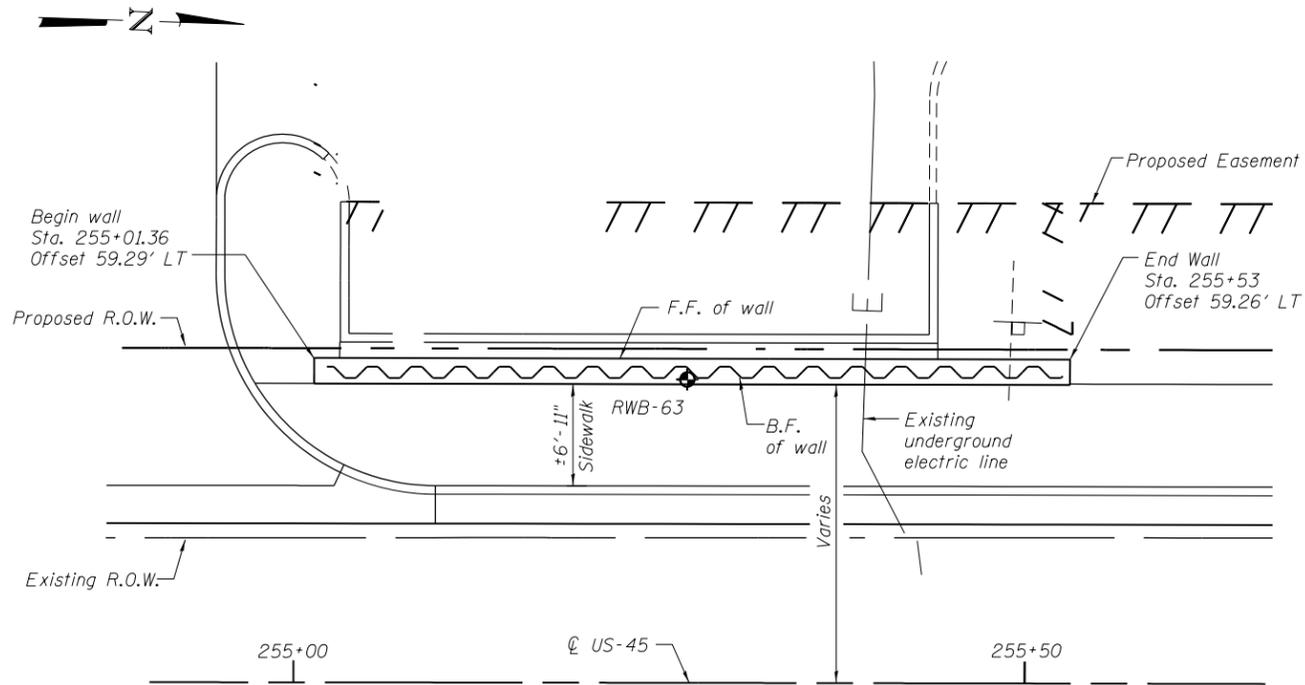
TYPICAL SECTION THROUGH WALL

NOTES:

Wall stations, offsets and dimensions are measured at front face of wall. All exposed corners shall have a 1" chamfer. For General Notes, Wall Key Plan and US 45 Profile, see Sheet 1. For Typical Wall Details and Ornamental Railing see Sheet 2. The details for the concrete cap, reinforcement and required number of shear stud connectors are based on Section AZ 18 sheet piling. If the Contractor chooses to use any other section, then the Contractor shall submit revised concrete cap and reinforcement configuration for approval by the Engineer. Such changes shall not be cause for additional compensation.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h160(E)	8	#5	32'-11"	—
h161(E)	8	#5	21'-4"	—
u160(E)	63	#5	4'-7"	□
v160(E)	57	#5	4'-3"	—
Structure Excavation			Cu. Yd.	8
Concrete Structures			Cu. Yd.	14.9
Form Liner Textured Surface			Sq. Ft.	185
Reinforcement Bars, Epoxy Coated			Pound	1010
Permanent Sheet Piling			Sq. Ft.	1065
Ornamental Railing			Foot	52



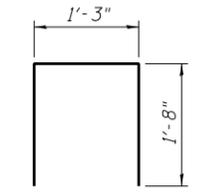
PLAN

LEGEND

- ⊙ = Panel No.
- ⊕ = Soil Boring
- F.F. = Front Face
- B.F. = Back Face
- E.F. = Each Face

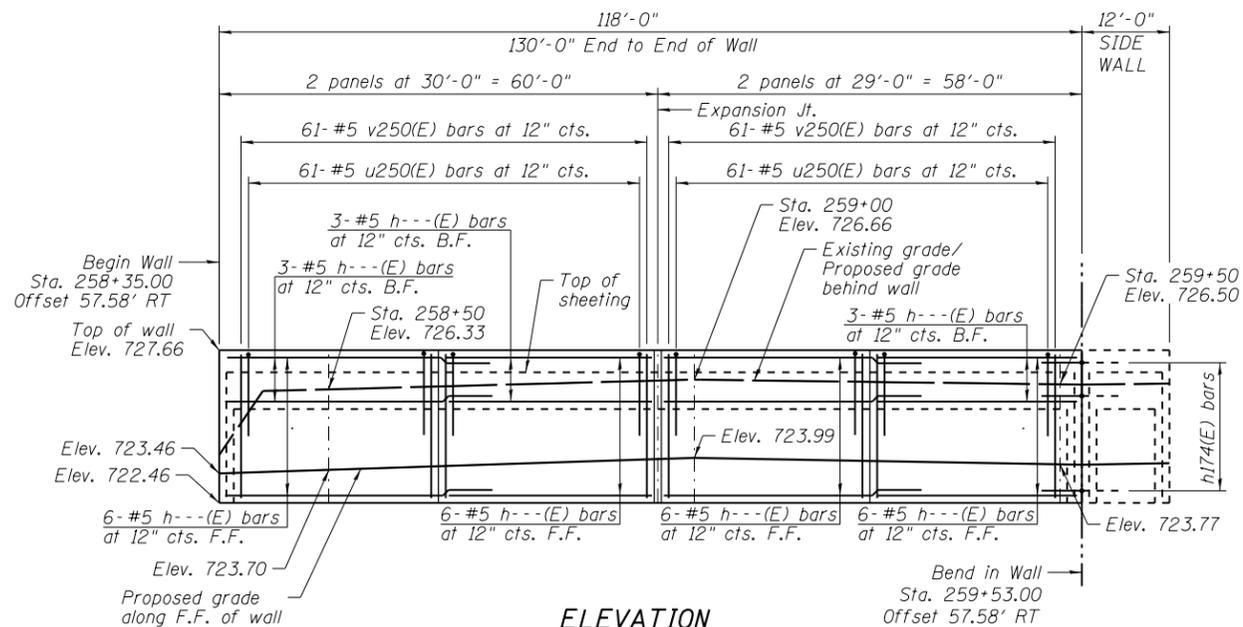
BAR LAPS

Basic Lap: #5 bars - 2'-7"
Top Bar Lap: #5 bars - 2'-11"

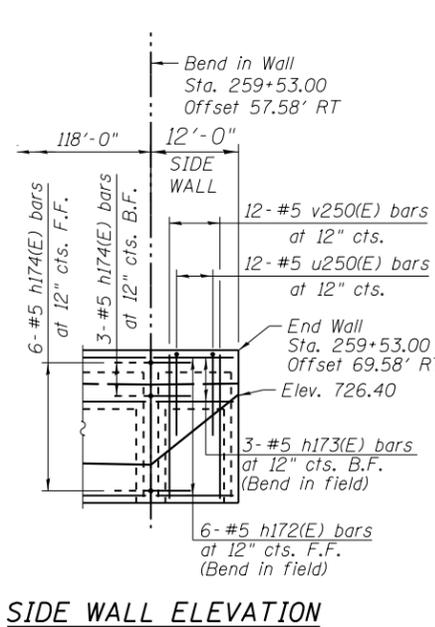


BAR u160(E)

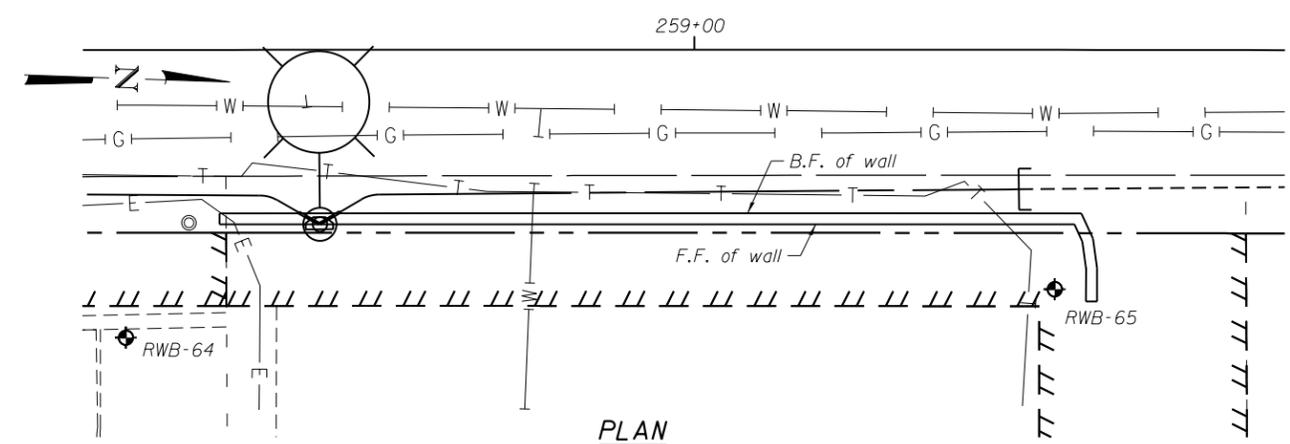
URS
 100 S. WACKER DR.
 CHICAGO, IL 60606
 TEL (312) 935-1000
 FAX (312) 935-4998



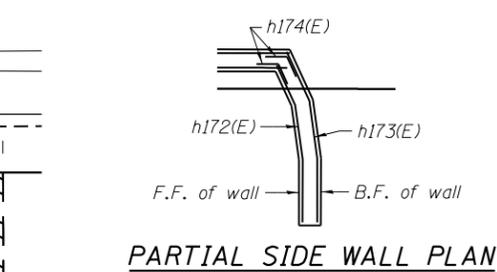
ELEVATION



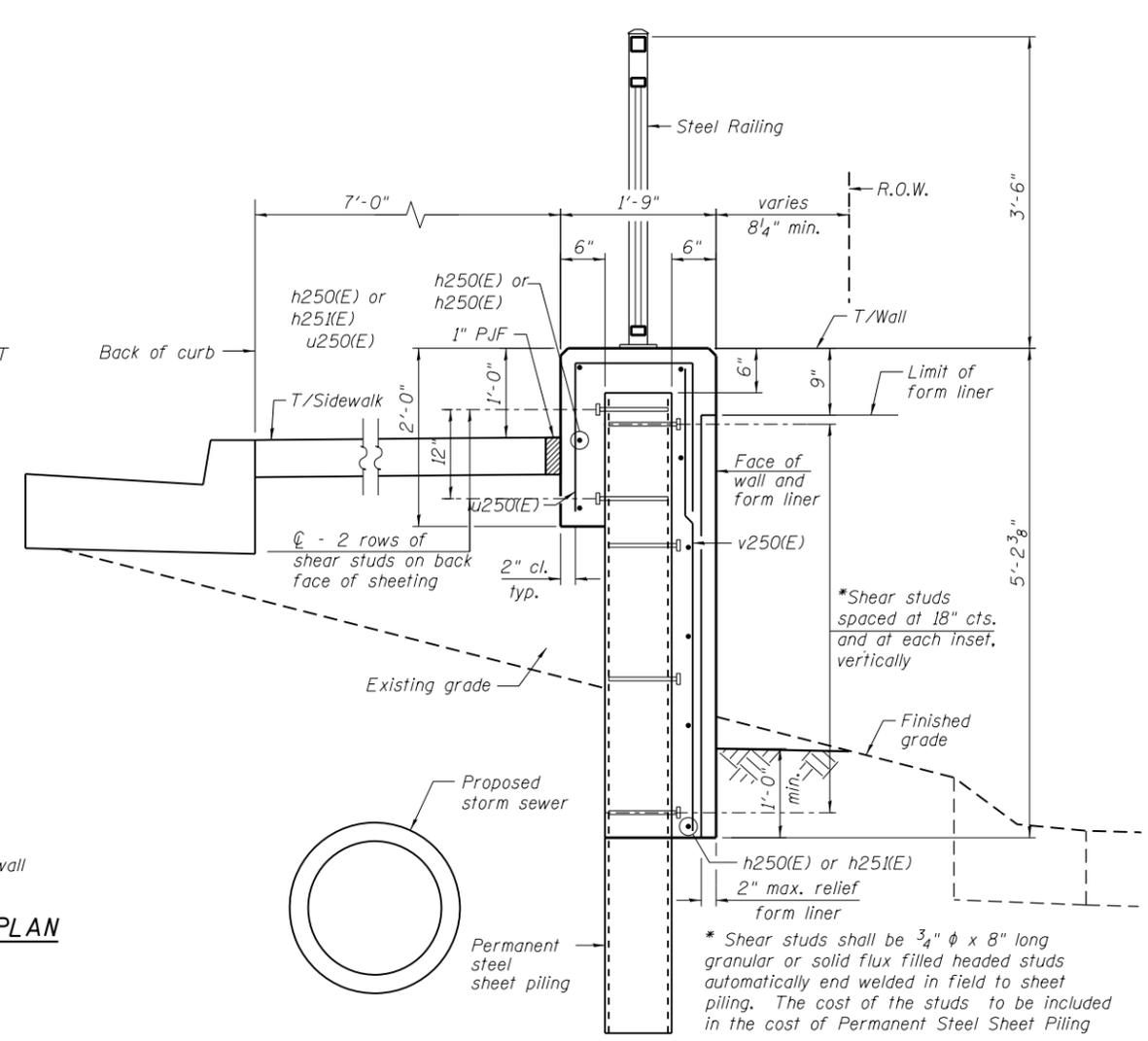
SIDE WALL ELEVATION



PLAN

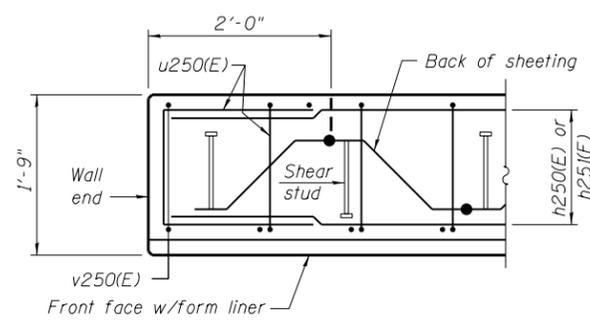


PARTIAL SIDE WALL PLAN

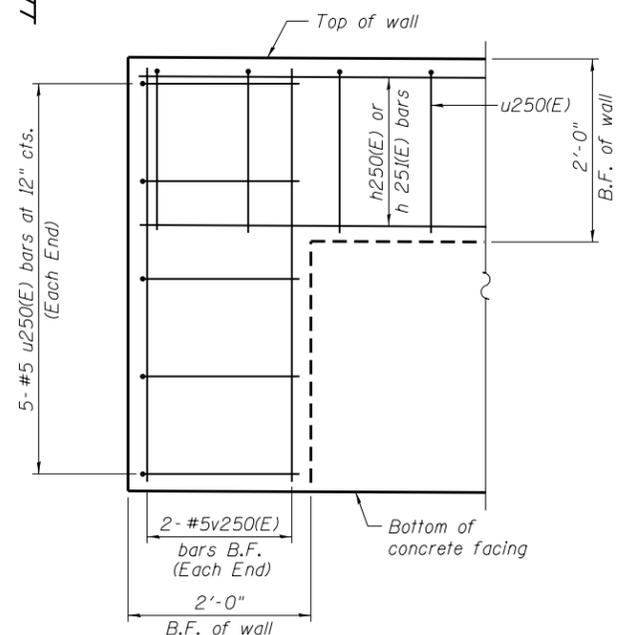


TYPICAL SECTION THROUGH WALL

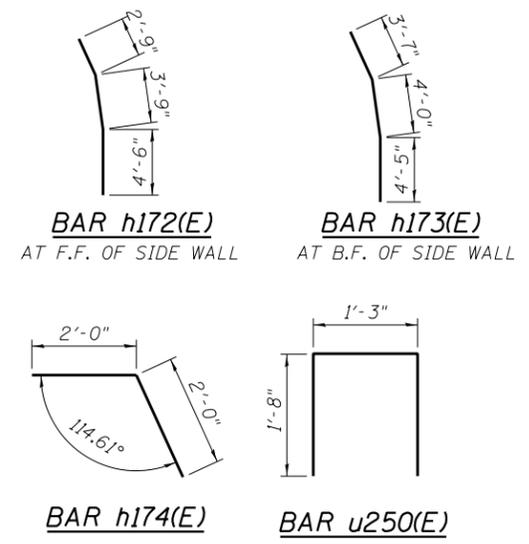
NOTES:
 Wall stations, offsets and dimensions are measured at front face of wall.
 All exposed corners shall have a 1" chamfer.
 For General Notes, Wall Key Plan and US 45 Profile, see Sheet 1.
 For Typical Wall Details and Ornamental Railing see Sheet 2.
 The details for the concrete cap, reinforcement and required number of shear stud connectors are based on Section AZ 18 sheet piling. If the Contractor chooses to use any other section, then the Contractor shall submit revised concrete cap and reinforcement configuration for approval by the Engineer. Such changes shall not be cause for additional compensation.



PLAN AT END OF WALL



TYPICAL END CAP DETAIL
 (v(E) bars in F.F. not shown for clarity)



BILL OF MATERIAL

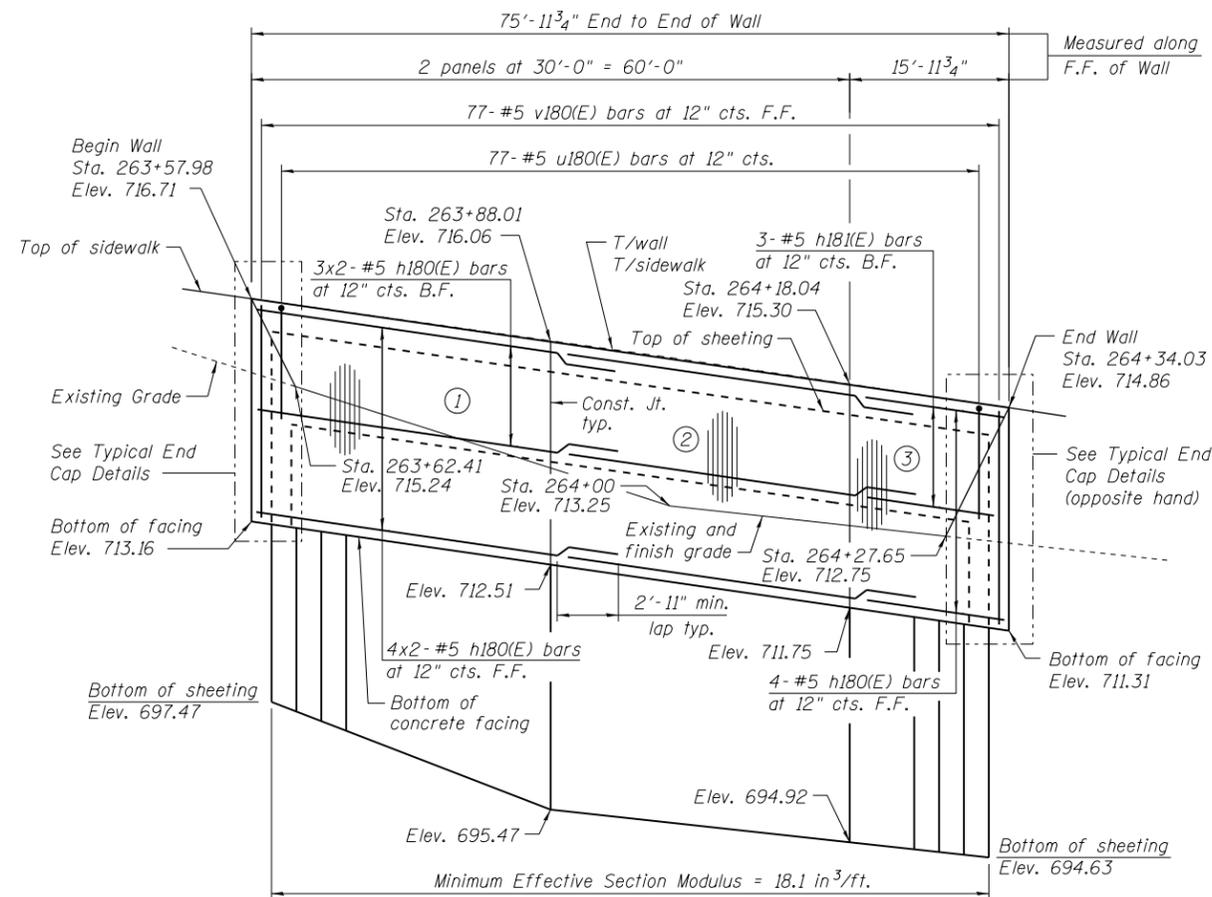
Bar	No.	Size	Length	Shape
h170(E)	24	#5	32'-11"	—
h171(E)	16	#5	29'-8"	—
u170(E)	163	#5	4'-7"	□
v170(E)	157	#5	4'-5"	—
Structure Excavation		Cu. Yd.	29	
Concrete Structures		Cu. Yd.	34.6	
Form Liner Textured Surface		Sq. Ft.	448	
Reinforcement Bars, Epoxy Coated		Pound	2,830	
Permanent Sheet Piling		Sq. Ft.	1,963	
Ornamental Railing		Foot	118	

Bars indicated thus 3x2-#5 etc. indicates 3 lines of bars with 2 lengths per line.

LEGEND
 ⊙ - Panel No.
 ⊕ - Soil Boring
 F.F. - Front Face
 B.F. - Back Face
 E.F. - Each Face

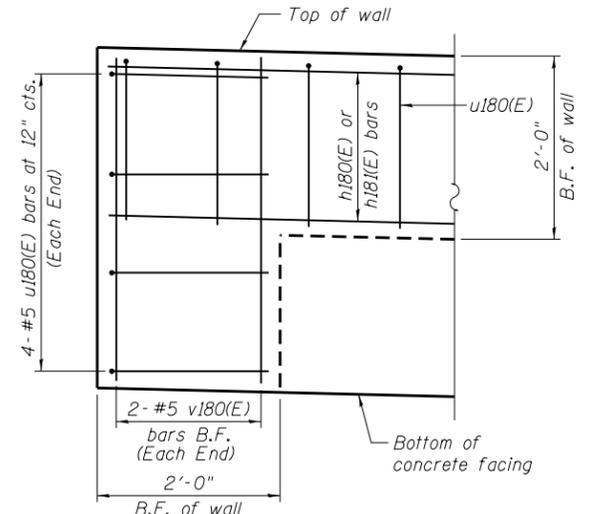
BAR LAPS
 Basic Lap
 #5 bars - 2'-7"
 Top Bar Lap
 #5 bars - 2'-11"

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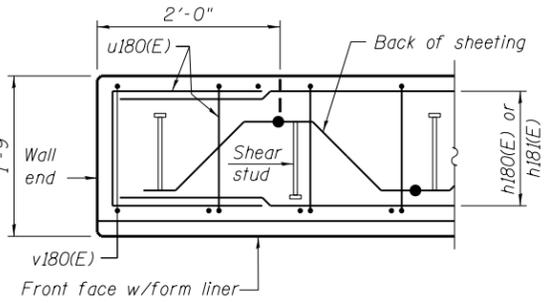
ELEVATION

(Looking West at F.F. of wall)

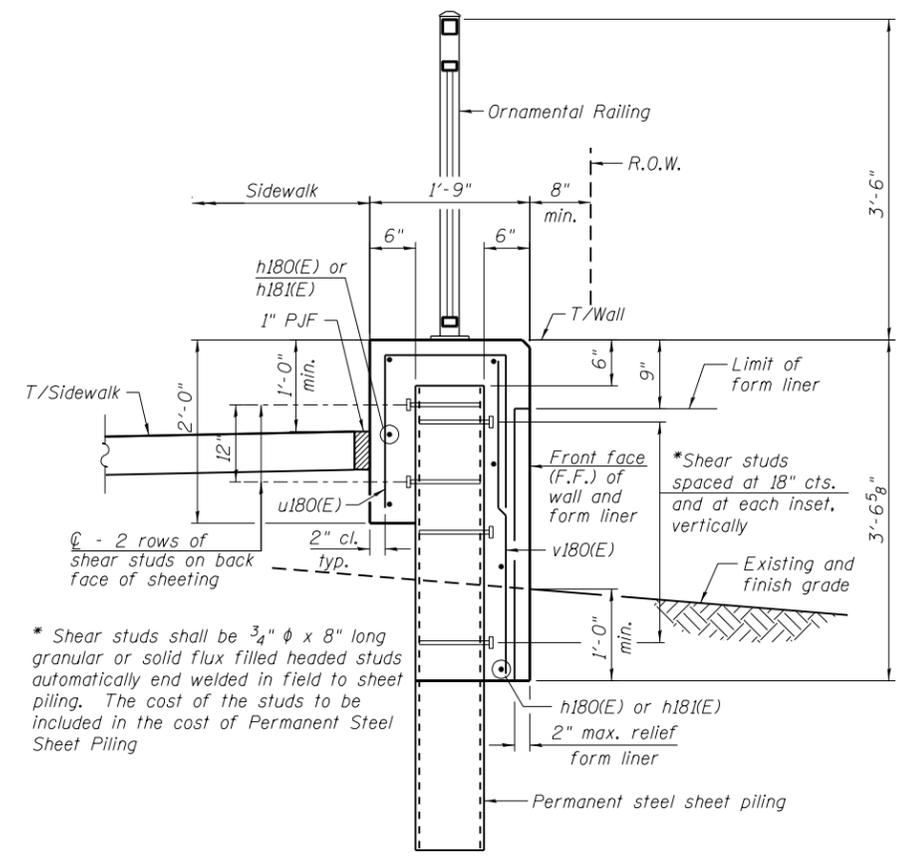


TYPICAL END CAP DETAIL

(v180(E) bars in F.F. not shown for clarity)

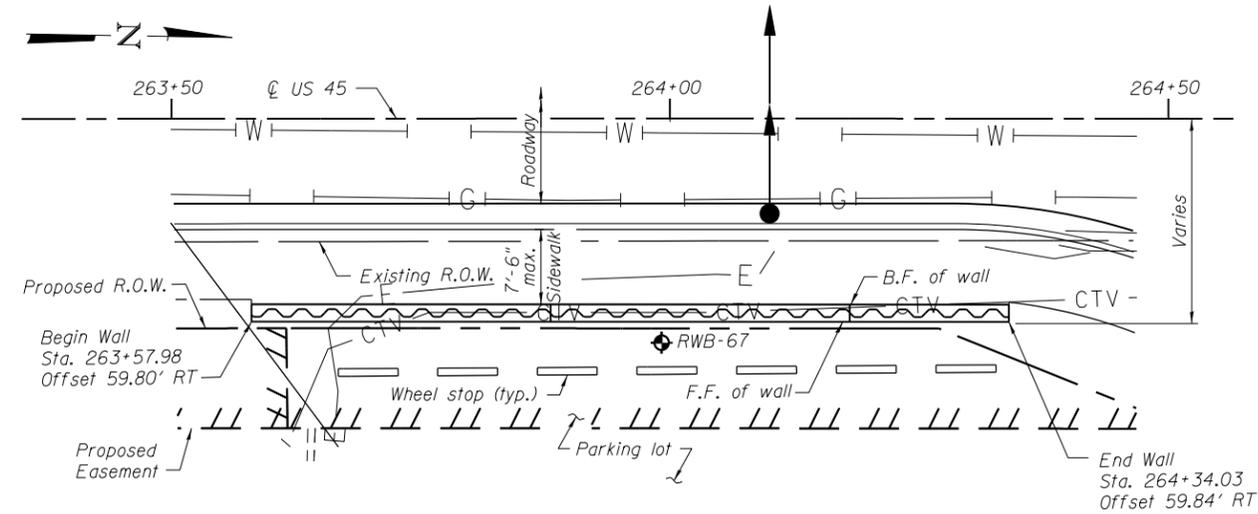


PLAN AT END OF WALL



TYPICAL SECTION THROUGH WALL

* Shear studs shall be 3/4" φ x 8" long granular or solid flux filled headed studs automatically end welded in field to sheet piling. The cost of the studs to be included in the cost of Permanent Steel Sheet Piling



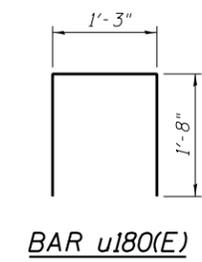
PLAN

LEGEND

- ① - Panel No.
- ⊕ - Soil Boring
- F.F. - Front Face
- B.F. - Back Face
- E.F. - Each Face

NOTES:

Wall stations, offsets and dimensions are measured at front face of wall.
 All exposed corners shall have a 1" chamfer.
 For General Notes, Wall Key Plan and US 45 Profile, see Sheet 1.
 For Typical Wall Details and Ornamental Railing see Sheet 2.
 The details for the concrete cap, reinforcement and required number of shear stud connectors are based on Section AZ 18 sheet piling. If the Contractor chooses to use any other section, then the Contractor shall submit revised concrete cap and reinforcement configuration for approval by the Engineer. Such changes shall not be cause for additional compensation.



BAR u180(E)

BAR LAPS

Basic Lap #5 bars - 2'-7"
 Top Bar Lap #5 bars - 2'-11"

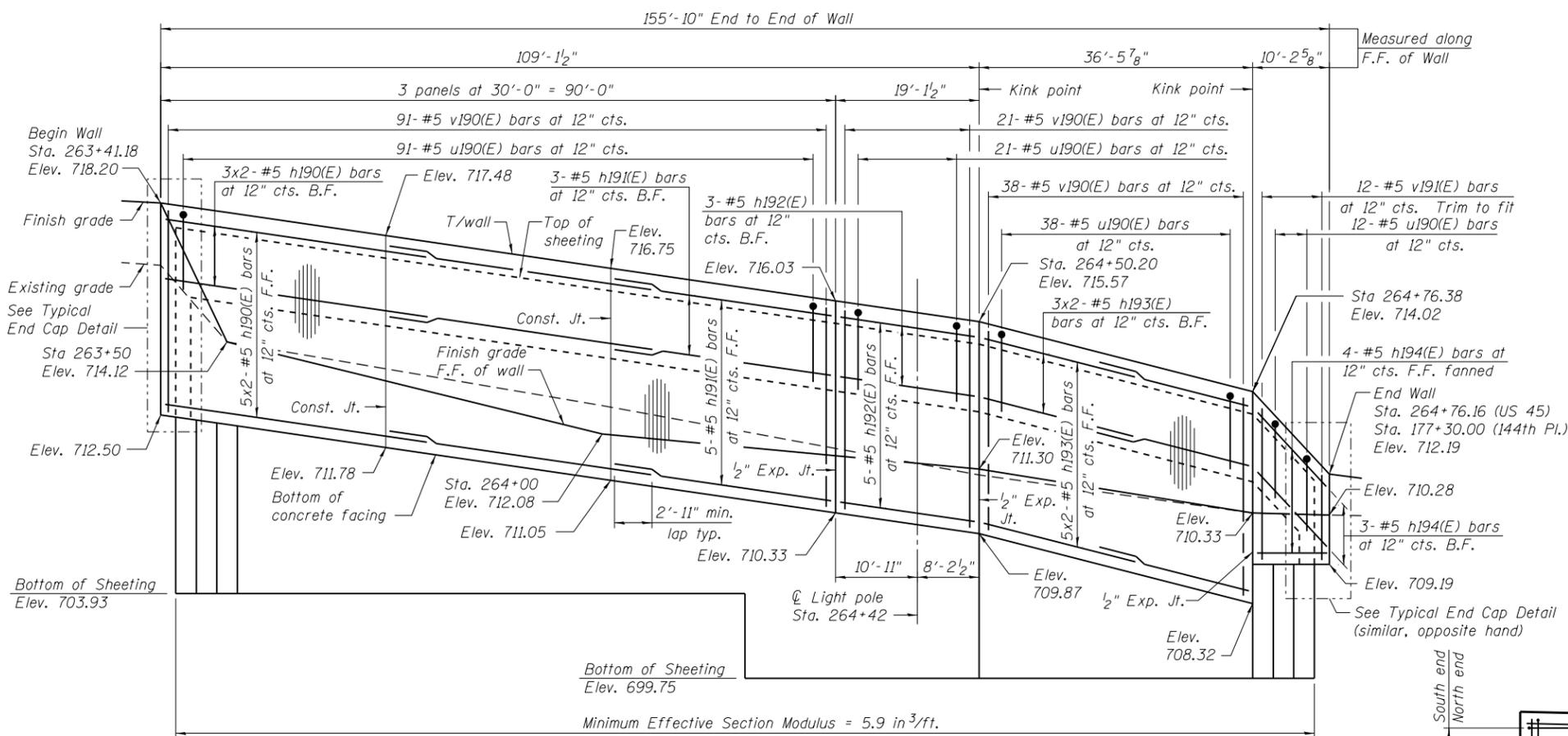
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h180(E)	14	#5	32'-11"	—
h181(E)	7	#5	15'-6"	—
u180(E)	85	#5	4'-7"	□
v180(E)	81	#5	3'-4"	—
Structure Excavation			Cu. Yd.	24
Concrete Structures			Cu. Yd.	17.5
Form Liner Textured Surface			Sq. Ft.	213
Reinforcement Bars, Epoxy Coated			Pound	1290
Permanent Sheet Piling			Sq. Ft.	1499
Ornamental Railing			Foot	76

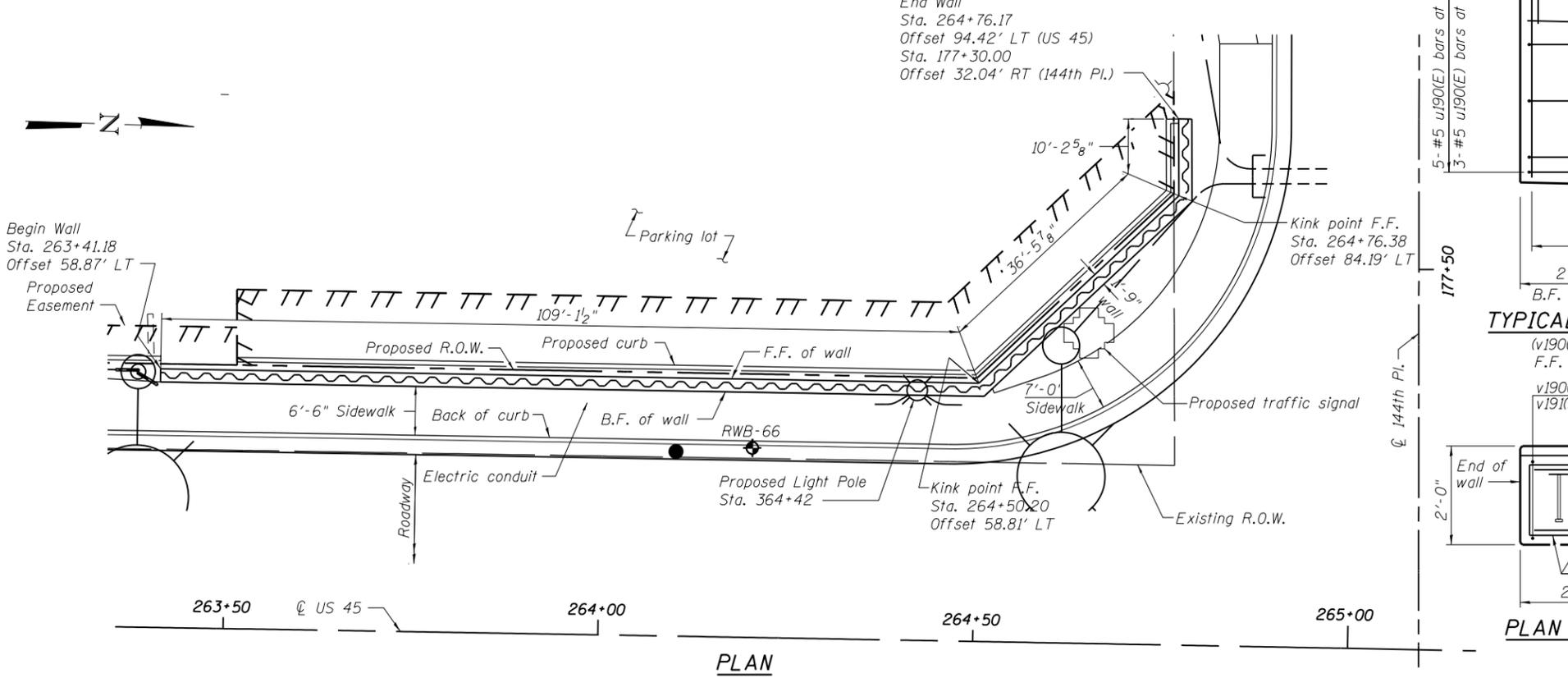
Bars indicated thus 4x2-#5 etc. indicates 4 lines of bars with 2 lengths per line.

100 S. WACKER DR.
 10TH FLOOR
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 TEL (312) 939-1000
 FAX (312) 939-4998
URS

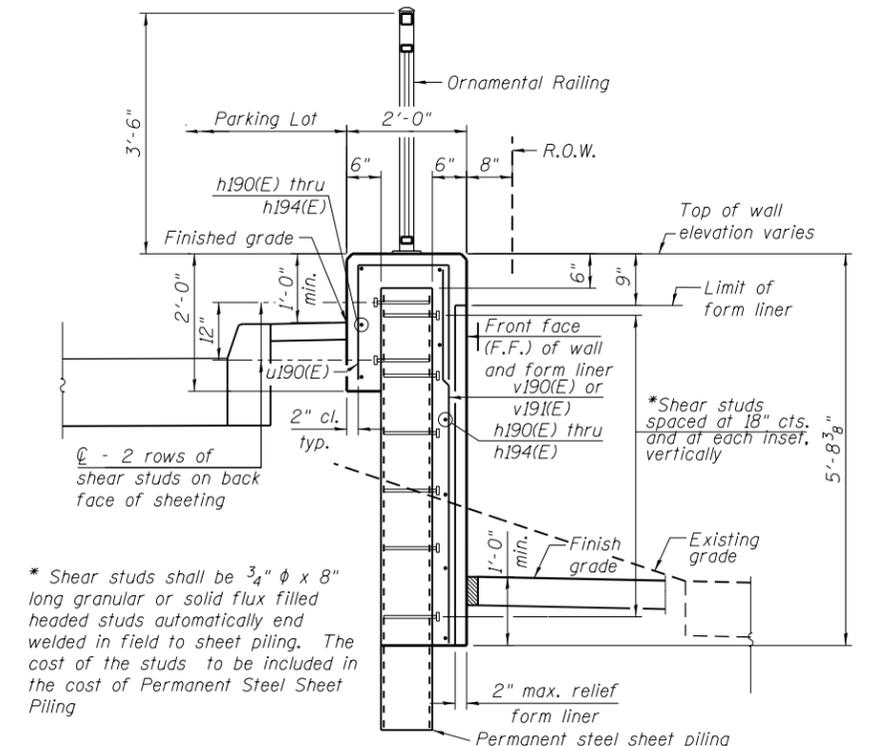
FILE NAME = D160M61-SHT-Wall_18-1.dgn	USER NAME = Anthony.Plutz	DESIGNED - SAT	REVISIONS -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	RETAINING WALL NO. 18 - S.N. 016-Z044 STA. 263+57.98 TO 264+34.03	F.A.P. R.T.E. = 330	SECTION = 103R-4	COUNTY = COOK	TOTAL SHEETS = 877	SHEET NO. = 493	
PLOT SCALE = 18.33' / in.	DRAWN - AMV	CHECKED - MJL	REVISIONS -			CONTRACT NO. 60M61					
PLOT DATE = 3/14/2013	CHECKED - MJL	REVISIONS -	REVISIONS -			ILLINOIS FED. AID PROJECT					
SHEET NO. 17 OF 42 SHEETS											



ELEVATION
(Looking West - F.F. of wall shown)



PLAN



TYPICAL SECTION THROUGH WALL

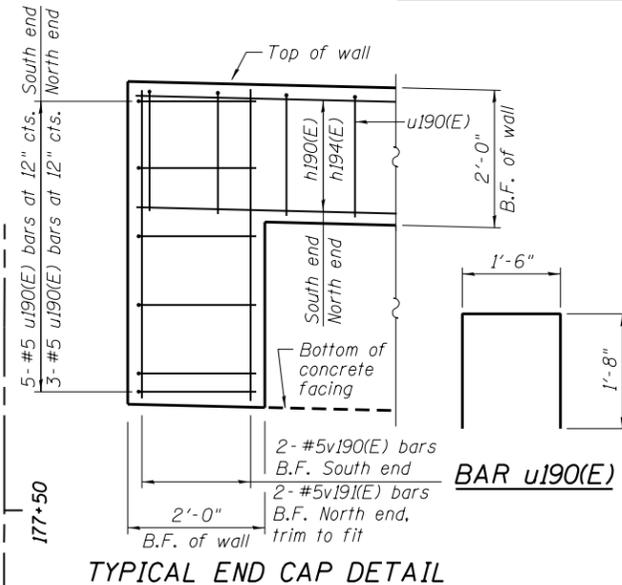
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h190(E)	16	#5	32'-11"	—
h191(E)	8	#5	29'-8"	—
h192(E)	8	#5	18'-9"	—
h193(E)	16	#5	20'-0"	—
h194(E)	7	#5	9'-10"	—
u190(E)	170	#5	4'-10"	⊓
v190(E)	152	#5	5'-4"	—
v191(E)	14	#5	4'-6"	—
Structure Excavation			Cu. Yd.	47
Concrete Structures			Cu. Yd.	64.5
Form Liner Textured Surface			Sq. Ft.	744
Reinforcement Bars, Epoxy Coated			Pound	3130
Permanent Steel Sheet Piling			Sq. Yd.	2140
Ornamental Railing			Foot	156

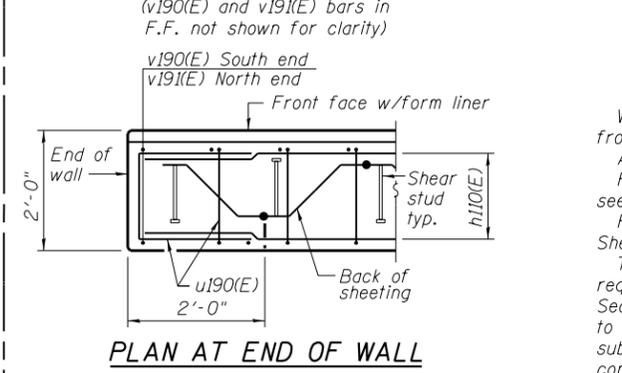
Bars indicated thus 5x2-#5 h10(E) etc. indicates 5 lines of bars with 2 lengths per line.

NOTES:

Wall stations, offsets and dimensions are measured at front face of wall.
 All exposed corners shall have a 1" chamfer.
 For General Notes, Wall Key Plan and US 45 Profile, see Sheet 1.
 For Typical Wall Details and Ornamental Railing see Sheet 2.
 The details for the concrete cap, reinforcement and required number of shear stud connectors are based on Section AZ 18 sheet piling. If the Contractor chooses to use any other section, then the Contractor shall submit revised concrete cap and reinforcement configuration for approval by the Engineer. Such changes shall not be cause for additional compensation.

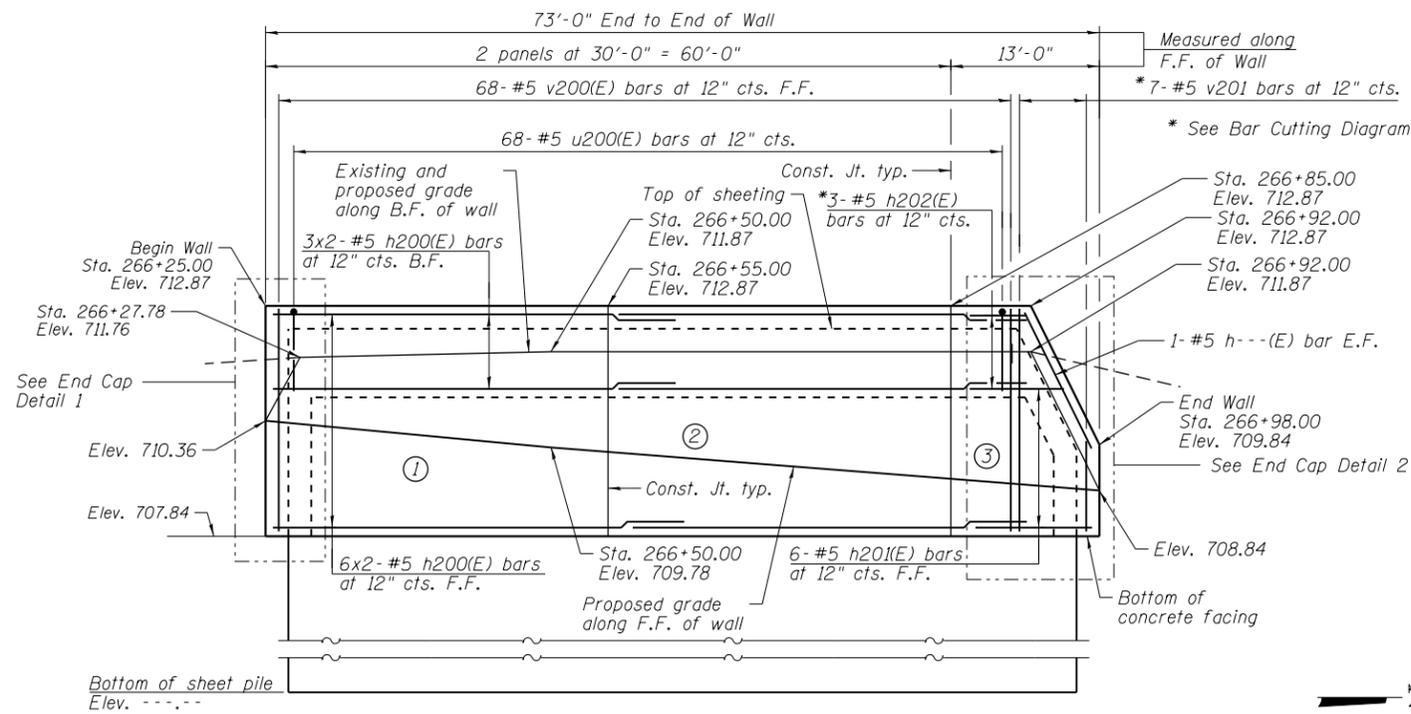


TYPICAL END CAP DETAIL

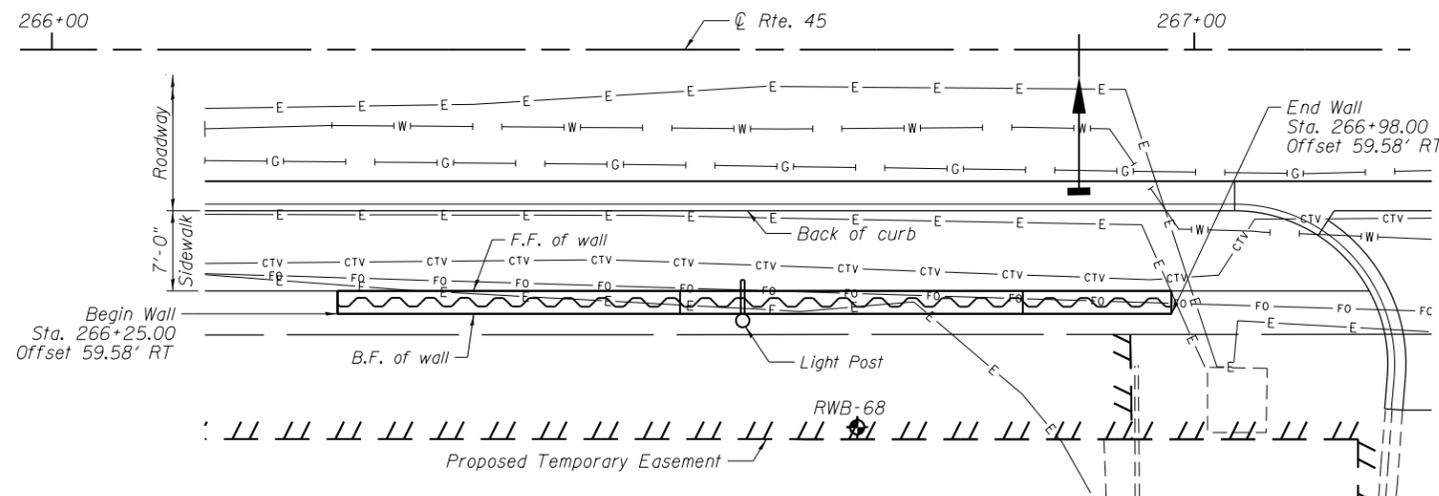


PLAN AT END OF WALL

URS
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CHICAGO, IL 60606
TEL (312) 939-1000
FAX (312) 939-4998



ELEVATION
(Looking West)



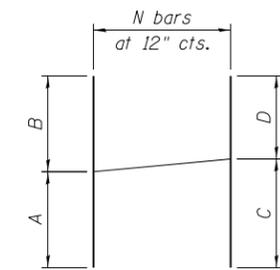
PLAN

BAR LAPS

Basic Lap
#5 bars - 2'-7"
Top Bar Lap
#5 bars - 2'-11"

LEGEND:

- ① - Panel No.
- ⊕ - Soil Boring
- F.F. - Front Face
- B.F. - Back Face
- E.F. - Each Face



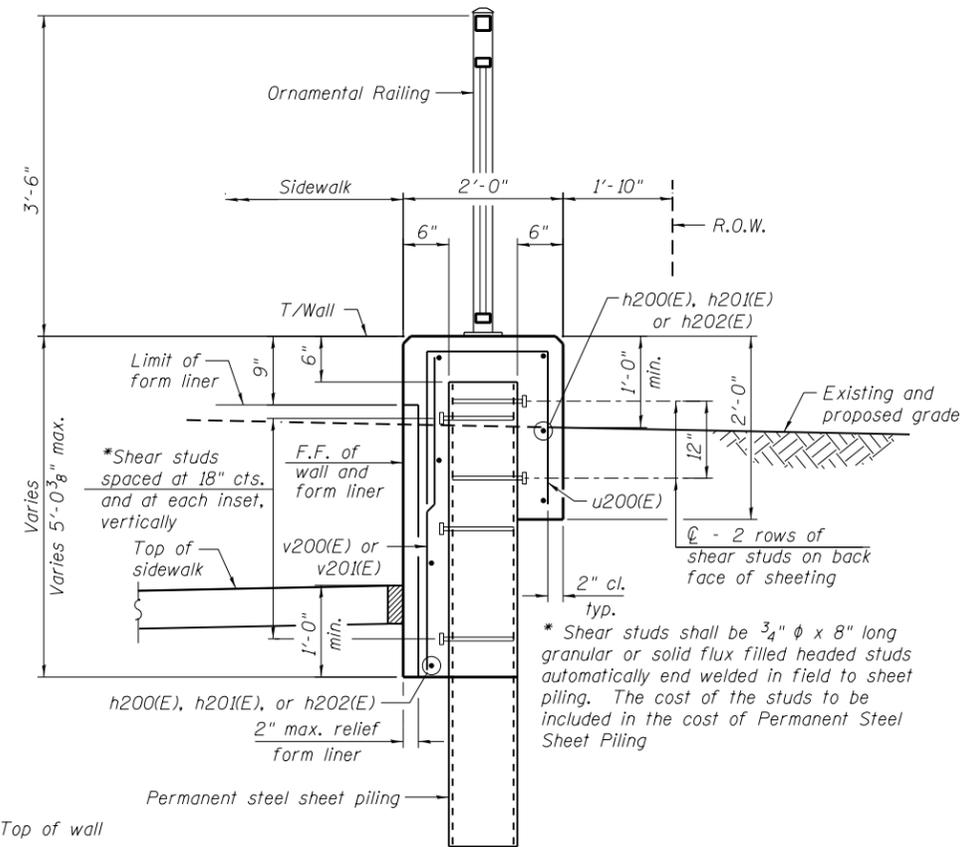
BAR CUTTING DIAGRAM

Order v201(E) and h202(E) bars full length. Cut as shown and use remainder of bars in opposite face.

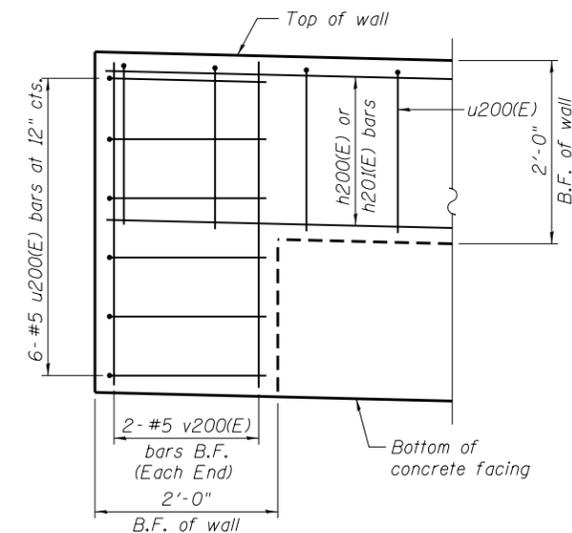
Bar	A	B	C	D	N
v201(E)	3'-0"	4'-7"	4'-7"	3'-0"	7
h202(E)	6'-8"	10'-8"	10'-8"	6'-8"	4

NOTES:

- Wall stations, offsets and dimensions are measured at front face of wall.
- All exposed corners shall have a 1" chamfer.
- For General Notes, Wall Key Plan and US 45 Profile, see Sheet 1.
- For Typical Wall Details, Ornamental Railing, and Lighting Details see Sheet 2.
- The details for the concrete cap, reinforcement and required number of shear stud connectors are based on Section AZ 18 sheet piling. If the Contractor chooses to use any other section, then the Contractor shall submit revised concrete cap and reinforcement configuration for approval by the Engineer. Such changes shall not be cause for additional compensation.

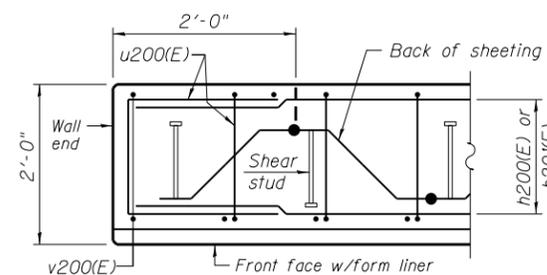


TYPICAL SECTION THROUGH WALL

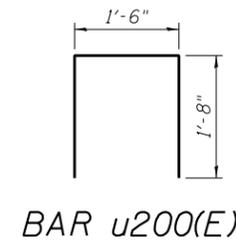


END CAP DETAIL 1

(v200(E) bars in F.F. not shown for clarity)



PLAN AT END OF WALL



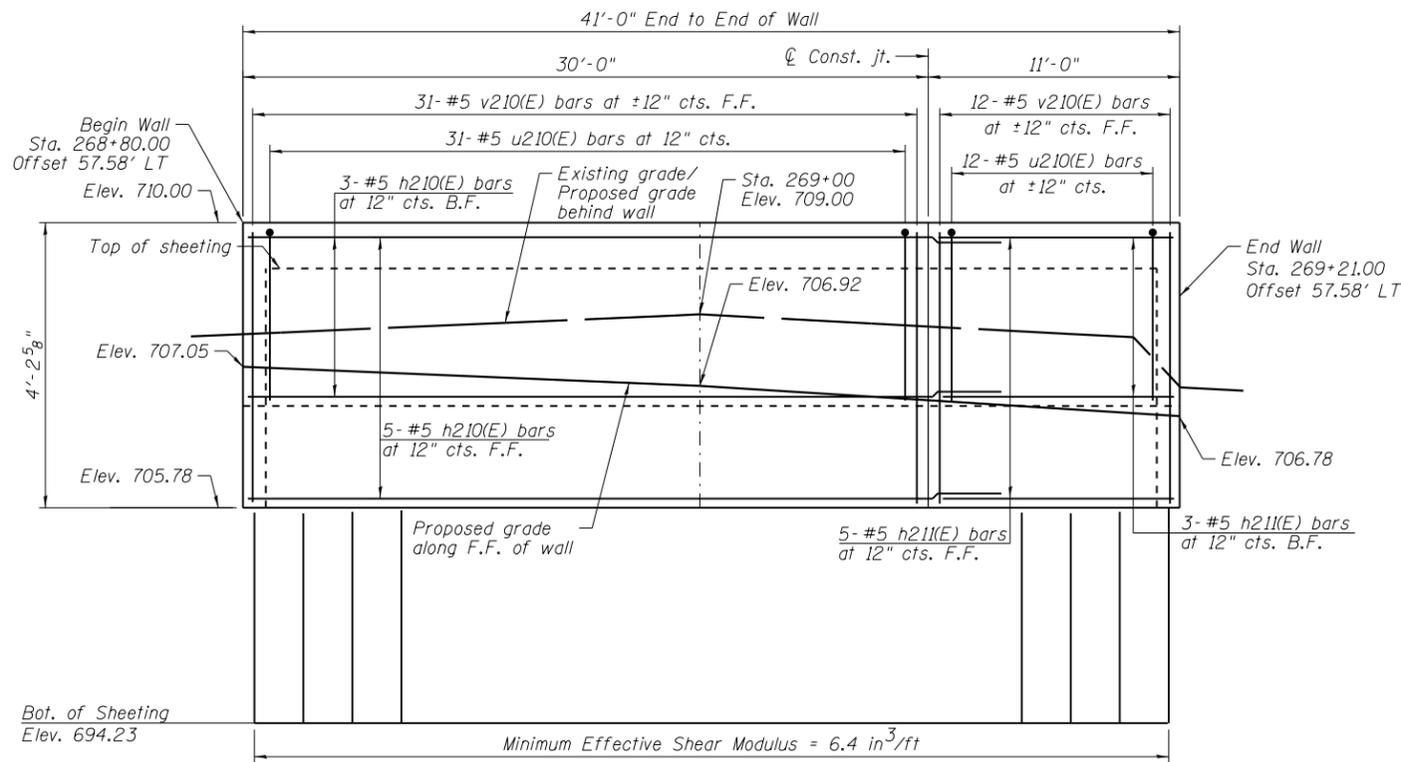
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h200(E)	14	#5	32'-11"	—
h201(E)	7	#5	15'-6"	—
u200(E)	85	#5	4'-7"	□
v200(E)	81	#5	3'-4"	—
Structure Excavation			Cu. Yd.	42
Concrete Structures			Cu. Yd.	26.6
Form Liner Textured Surface			Sq. Ft.	304
Reinforcement Bars, Epoxy Coated			Pound	1290
Permanent Sheet Piling			Sq. Ft.	1175
Ornamental Railing			Foot	73

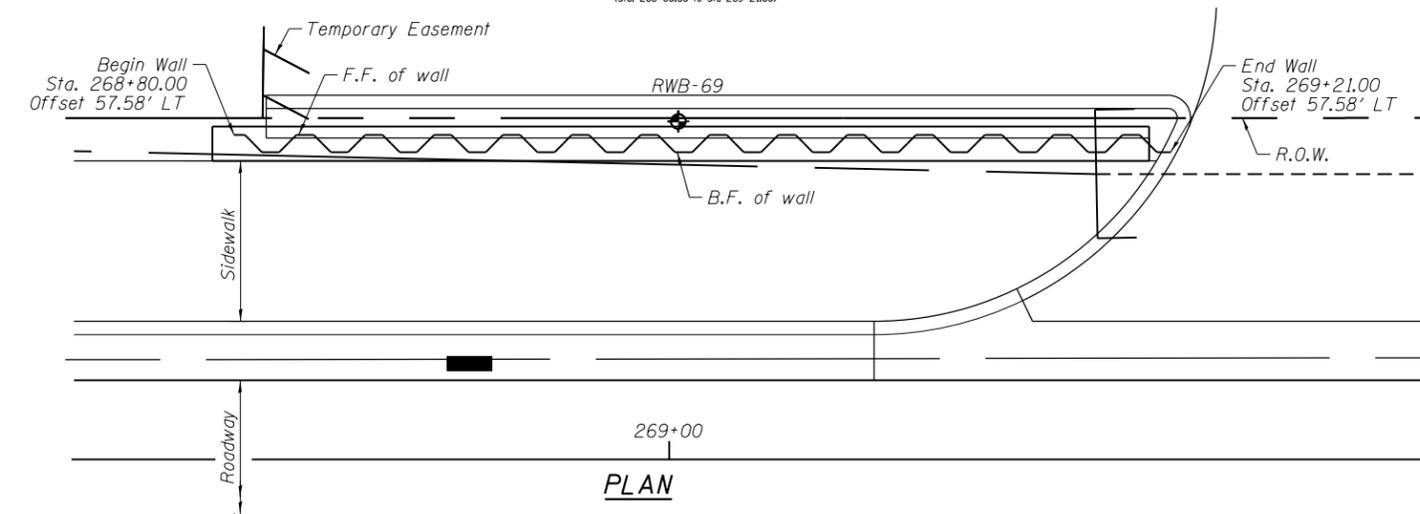
Bars indicated thus 3x2-#5 etc. indicates 3 lines of bars with 2 lengths per line.

FILE NAME = D160M61-SHT-Wall.20-1.dgn	USER NAME = Anthony.Plutz	DESIGNED -	REVISED -
		CHECKED -	REVISED -
		PLOT SCALE = 16.0000' / in.	REVISED -
		DRAWN -	REVISED -
		CHECKED -	REVISED -
		PLOT DATE = 3/14/2013	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	495
CONTRACT NO. 60M61				
ILLINOIS FED. AID PROJECT				



ELEVATION
Sta. 268+80.00 to Sta. 269+21.00



PLAN

NOTES:

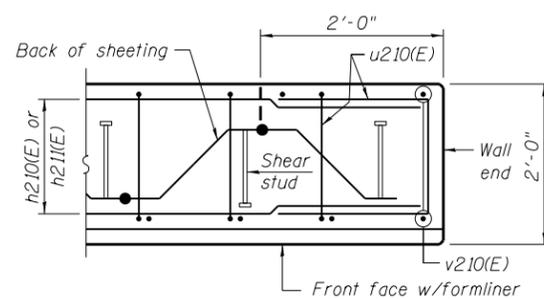
Wall stations, offsets and dimensions are measured at front face of wall.
 All exposed corners shall have a 1" chamfer.
 For General Notes, Wall Key Plan and US 45 Profile, see Sheet 1.
 For Typical Wall Details and Ornamental Railing see Sheet 2.
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LEGEND

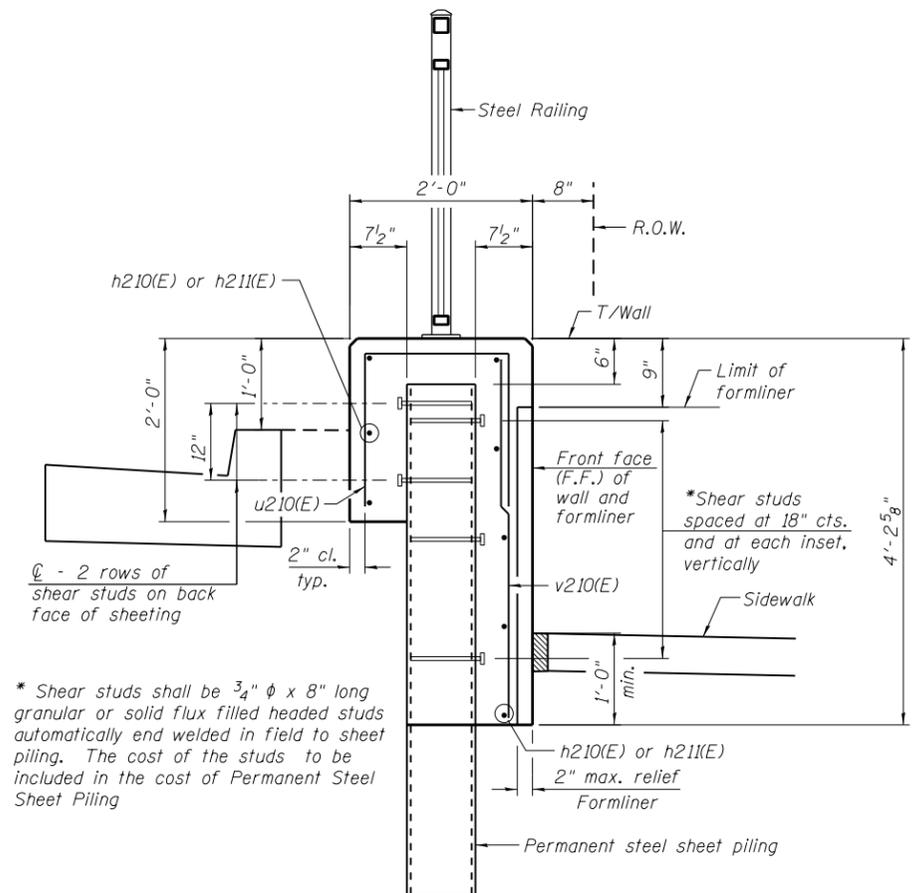
- = Panel No.
- ⊕ = Soil Boring
- F.F. = Front Face
- B.F. = Back Face
- E.F. = Each Face

BAR LAPS

- Basic Lap
#5 bars - 2'-7"
- Top Bar Lap
#5 bars - 2'-11"

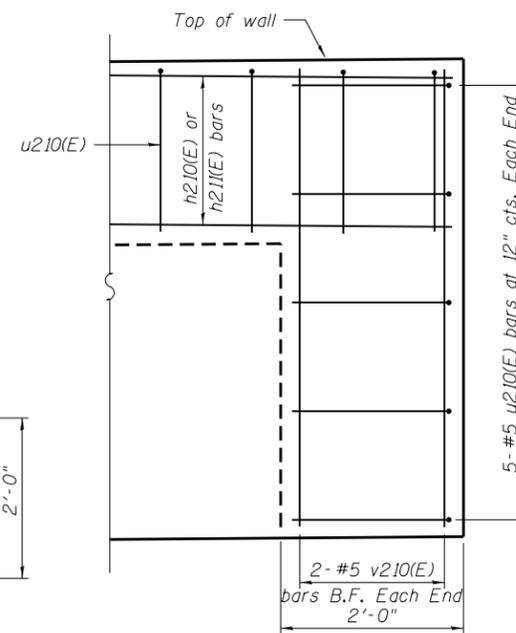


PLAN AT END OF WALL



TYPICAL SECTION THROUGH WALL

* Shear studs shall be 3/4" φ x 8" long granular or solid flux filled headed studs automatically end welded in field to sheet piling. The cost of the studs to be included in the cost of Permanent Steel Sheet Piling



TYPICAL END CAP DETAIL

(v210(E) bars in F.F. not shown for clarity)

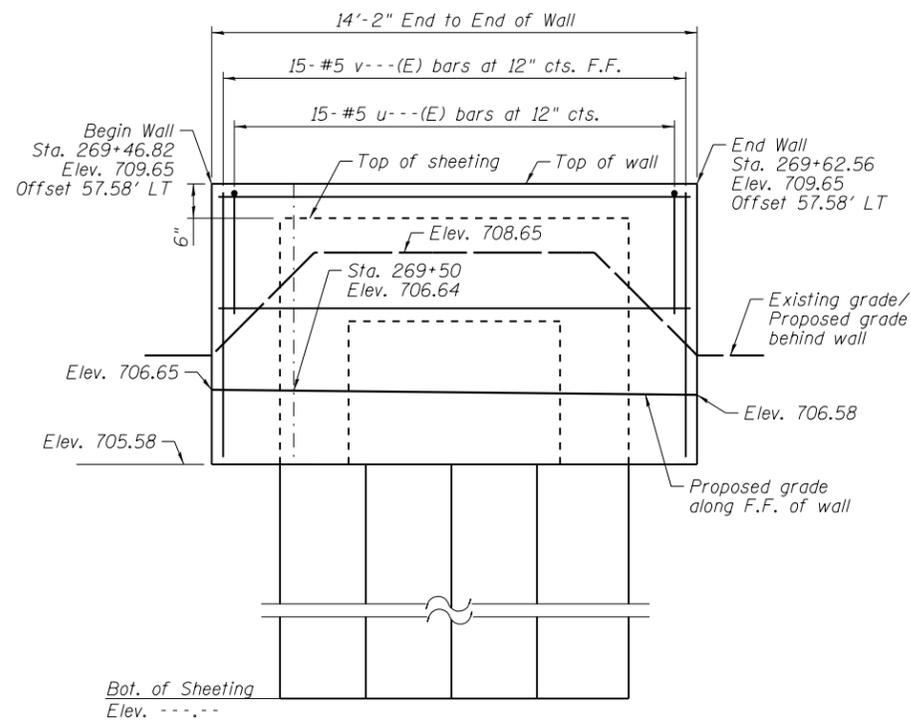
BAR u210(E)

BILL OF MATERIAL

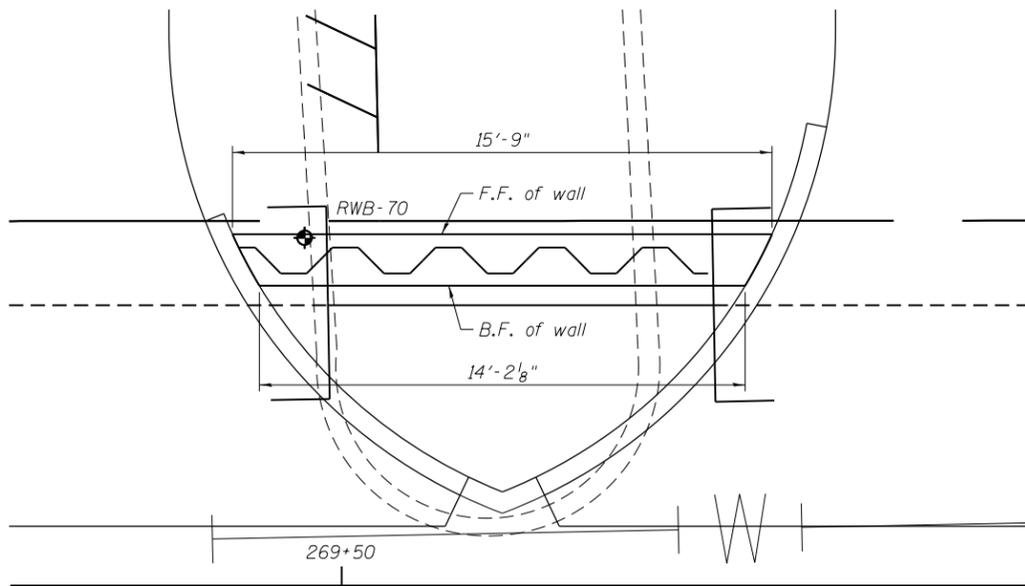
Bar	No.	Size	Length	Shape
h210(E)	8	#5	32'-11"	—
h211(E)	8	#5	10'-8"	—
u210(E)	53	#5	4'-10"	□
v210(E)	47	#5	3'-10"	—
Structure Excavation			Cu. Yd.	9
Concrete Structures			Cu. Yd.	12.9
Form Liner Textured Surface			Sq. Ft.	137
Reinforcement Bars, Epoxy Coated			Pound	820
Permanent Sheet Piling			Sq. Ft.	607
Ornamental Railing			Foot	41

FILE NAME = D160M61-SHT-Wall.21-1.dgn	USER NAME = Anthony.Plutz	DESIGNED -	REVISED -
		CHECKED -	REVISED -
	PLOT SCALE = 8.0000' / in.	DRAWN -	REVISED -
	PLOT DATE = 3/14/2013	CHECKED -	REVISED -

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	496
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60M61	



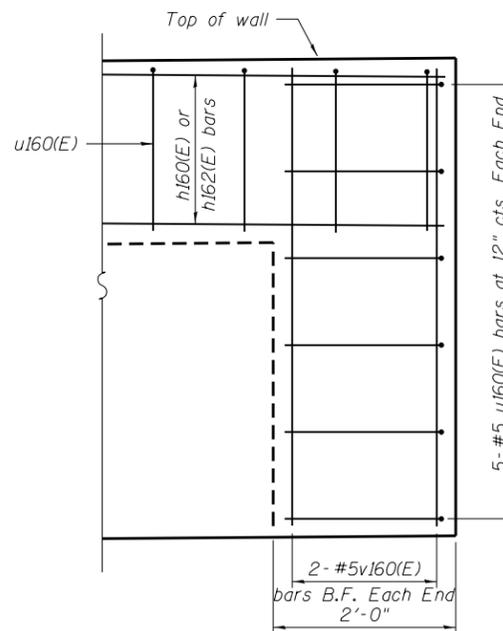
WALL NO. 22
(Sta. 269+47.60 to Sta 269+61.77)



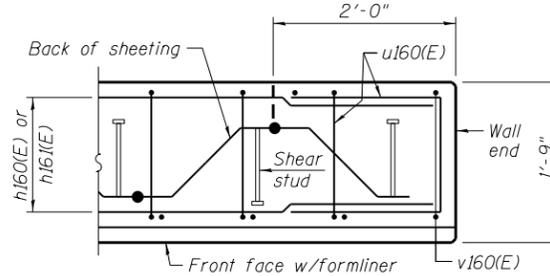
PLAN

BAR LAPS

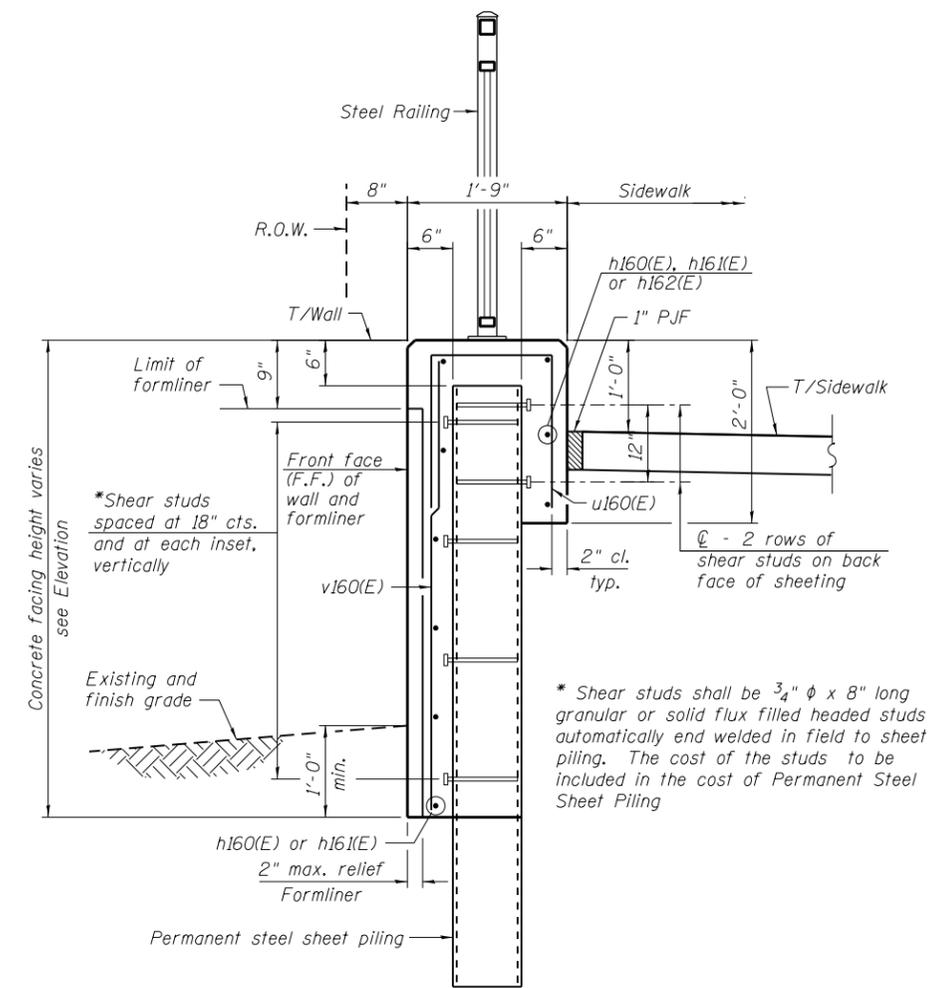
Basic Lap: #5 bars - 2'-7"
Top Bar Lap: #5 bars - 2'-11"



TYPICAL END CAP DETAIL
(v160(E) bars in F.F. not shown for clarity)



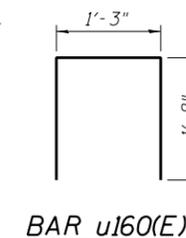
PLAN AT END OF WALL



TYPICAL SECTION THROUGH WALL

NOTES:

Wall stations, offsets and dimensions are measured at front face of wall.
All exposed corners shall have a 1" chamfer.
For General Notes, Wall Key Plan and US 45 Profile, see Sheet 1.
For Typical Wall Details and Ornamental Railing see Sheet 2.
The details for the concrete cap, reinforcement and required number of shear stud connectors are based on Section AZ 18 sheet piling. If the Contractor chooses to use any other section, then the Contractor shall submit revised concrete cap and reinforcement configuration for approval by the Engineer. Such changes shall not be cause for additional compensation.



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h220(E)	6	#5	32'-11"	—
h221(E)	6	#5	21'-4"	—
u220(E)	21	#5	4'-7"	□
v220(E)	19	#5	4'-3"	—
Structure Excavation		Cu. Yd.	3	
Concrete Structures		Cu. Yd.	5.0	
Form Liner Textured Surface		Sq. Ft.	62	
Reinforcement Bars, Epoxy Coated		Pound	530	
Permanent Sheet Piling		Sq. Ft.	355	
Ornamental Railing		Foot	15	

100 S. WACKER DR.
SUITE 600
CHICAGO, IL 60606
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FAX (312) 939-4998

URS

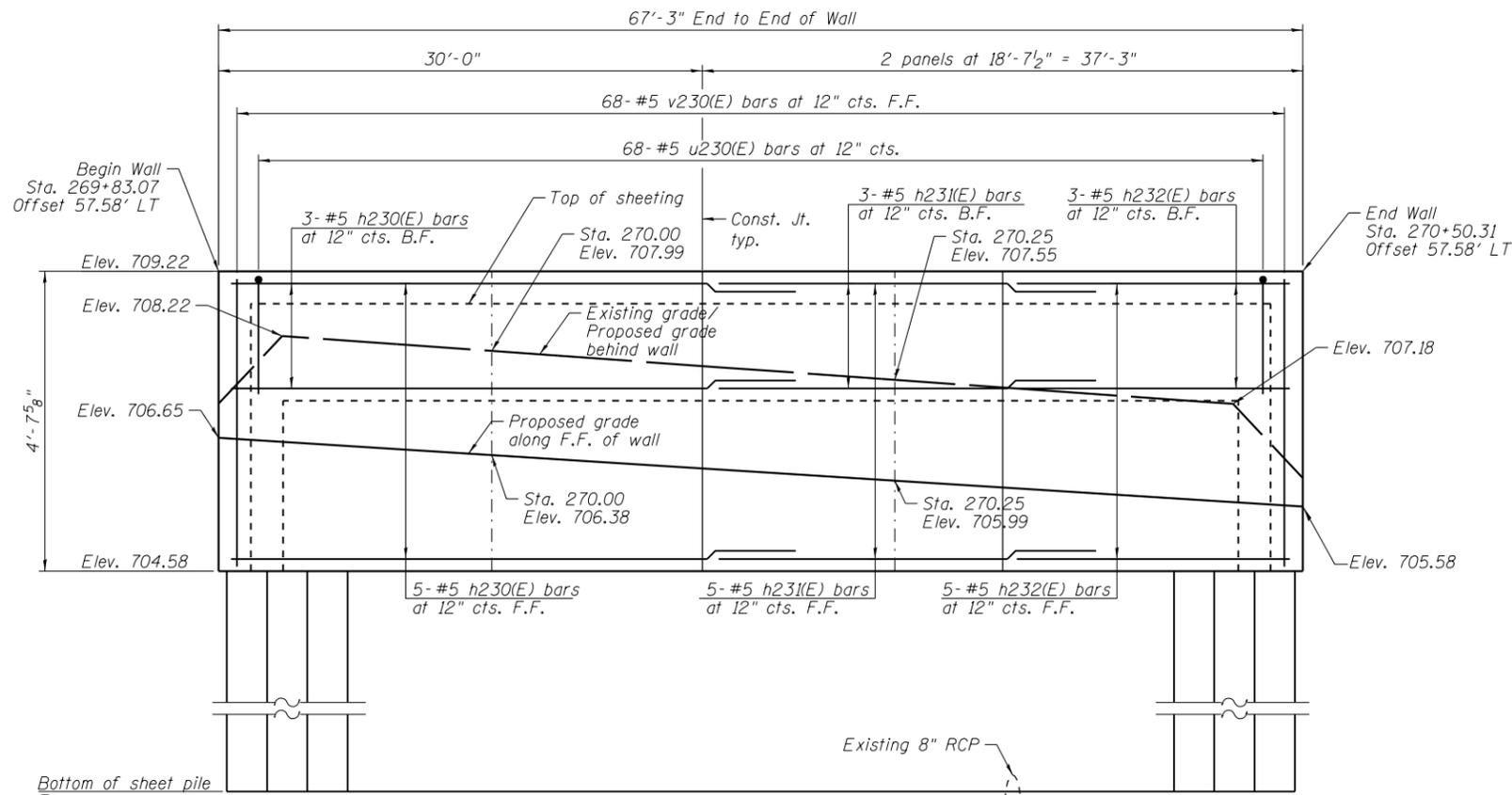
FILE NAME = D160M61-SHT-Wall.22-1.dgn	USER NAME = Anthony.Plutz	DESIGNED -	REVISED -
		CHECKED -	REVISED -
	PLOT SCALE = 5.333' / in.	DRAWN -	REVISED -
	PLOT DATE = 3/14/2013	CHECKED -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

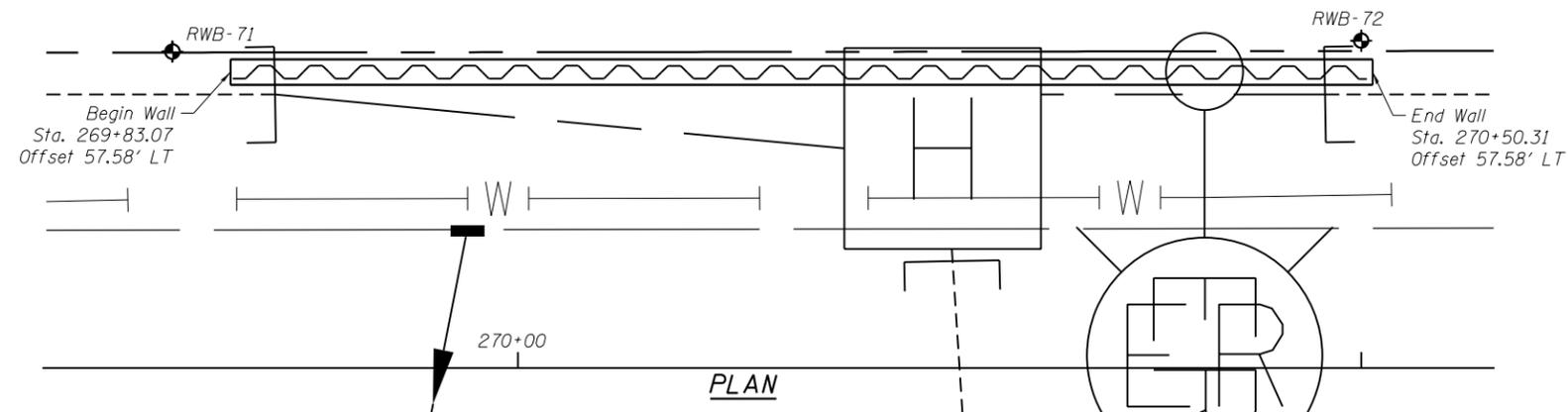
**RETAINING WALL NO. 22 - S.N. 016-2048
STA. 269+46.82 TO 269+62.56**

SHEET NO. 21 OF 42 SHEETS

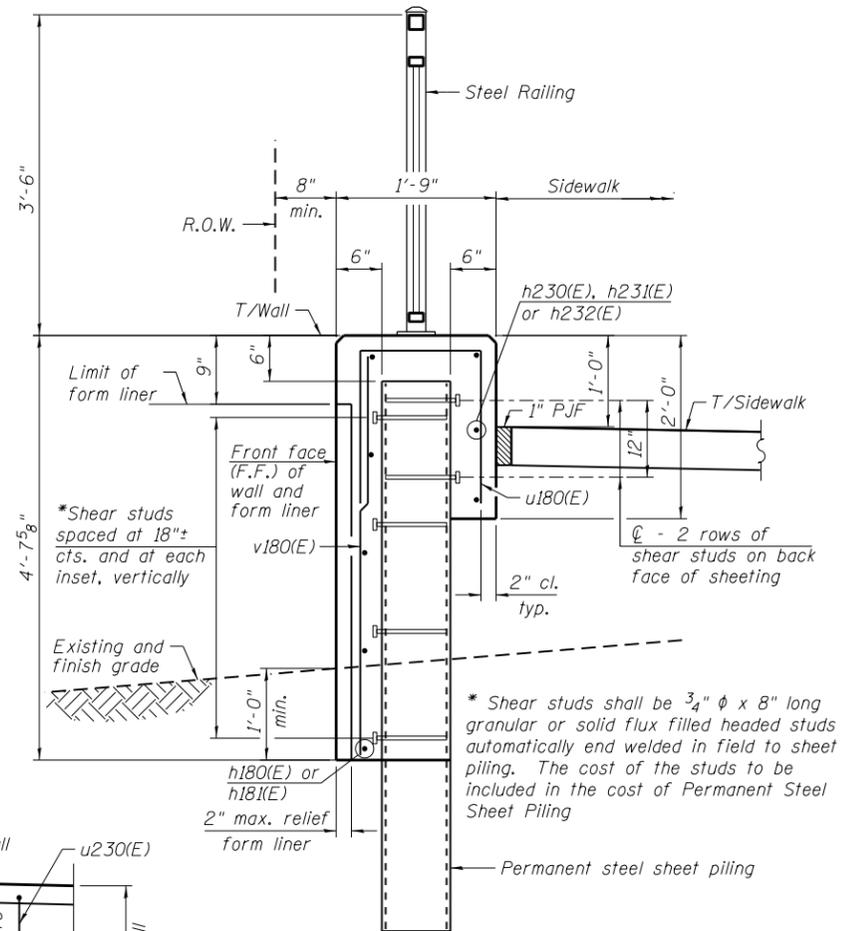
F.A.P. RTE. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 497
CONTRACT NO. 60M61				ILLINOIS FED. AID PROJECT



ELEVATION
(Sta. 269+83.07 to Sta. 270+50.31)

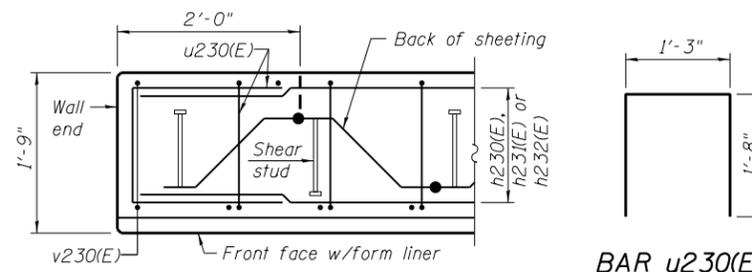


PLAN



TYPICAL END CAP DETAIL

(v180(E) bars in F.F. not shown for clarity)



PLAN AT END OF WALL

BAR u230(E)

h230(E)
h231(E)
h232(E)

u230(E)
v230(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h230(E)	14	#5	32'-11"	—
h231(E)	7	#5	15'-6"	—
u230(E)	85	#5	4'-7"	□
v230(E)	81	#5	3'-4"	—
Structure Excavation			Cu. Yd.	24
Concrete Structures			Cu. Yd.	17.5
Form Liner Textured Surface			Sq. Ft.	213
Reinforcement Bars, Epoxy Coated			Pound	1290
Permanent Sheet Piling			Sq. Ft.	1499
Ornamental Railing			Foot	68

Bars indicated thus 4x2-#5 etc., indicates 4 lines of bars with 2 lengths per line.

NOTES:

Wall stations, offsets and dimensions are measured at front face of wall.
All exposed corners shall have a 1" chamfer.
For General Notes, Wall Key Plan and US 45 Profile, see Sheet 1.
For Typical Wall Details and Ornamental Railing see Sheet 2.
The details for the concrete cap, reinforcement and required number of shear stud connectors are based on Section AZ 18 sheet piling. If the Contractor chooses to use any other section, then the Contractor shall submit revised concrete cap and reinforcement configuration for approval by the Engineer. Such changes shall not be cause for additional compensation.

LEGEND

- ① - Panel No.
- ⊕ - Soil Boring
- F.F. - Front Face
- B.F. - Back Face
- E.F. - Each Face

BAR LAPS

Basic Lap #5 bars - 2'-7"
Top Bar Lap #5 bars - 2'-11"

100 S. WACKER DR.
 SUITE 600
 CHICAGO, IL 60606
 TEL (312) 939-1000
 FAX (312) 939-4998
URS

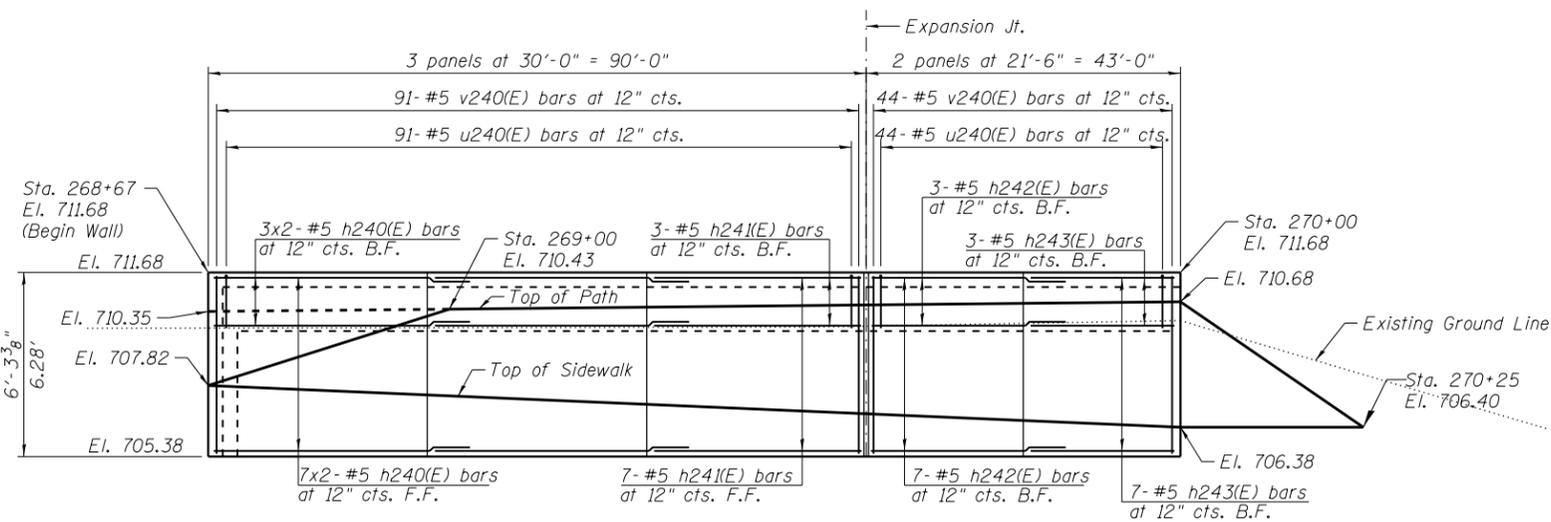
FILE NAME = D160M61-SHT-Wall.23-1.dgn	USER NAME = Anthony.Plutz	DESIGNED -	REVISED -
		CHECKED -	REVISED -
	PLOT SCALE = 1/8" = 1' / in.	DRAWN -	REVISED -
	PLOT DATE = 3/14/2013	CHECKED -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

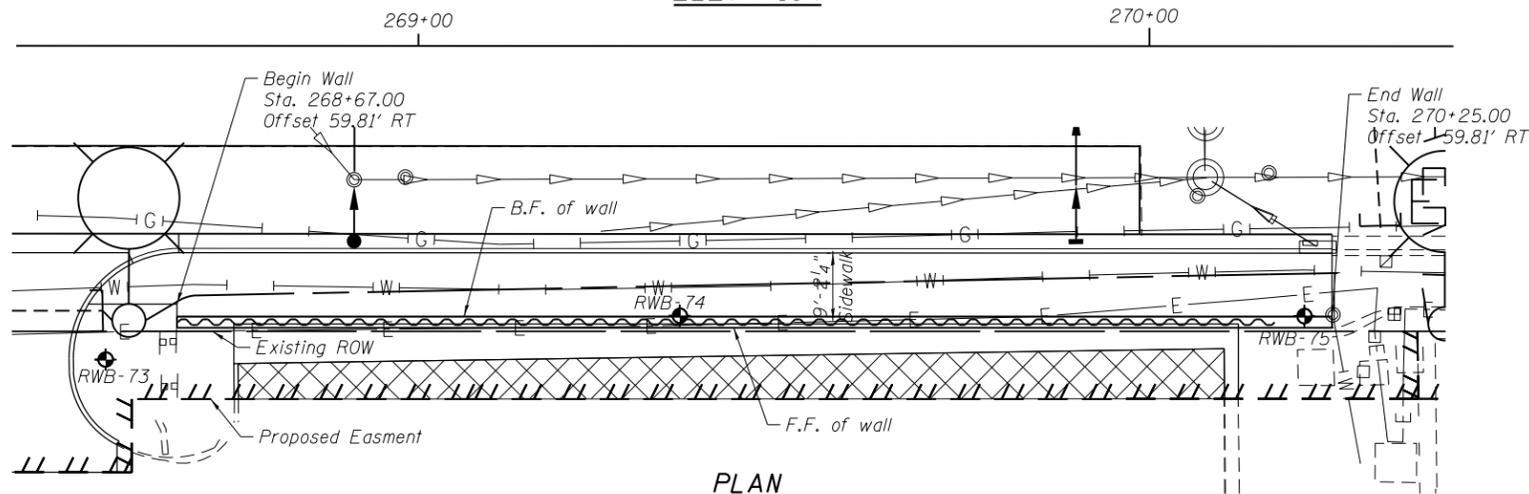
**RETAINING WALL NO. 23 - S.N. 016-2049
STA. 269 + 83.07 TO 270 + 50.31**

SHEET NO. 22 OF 42 SHEETS

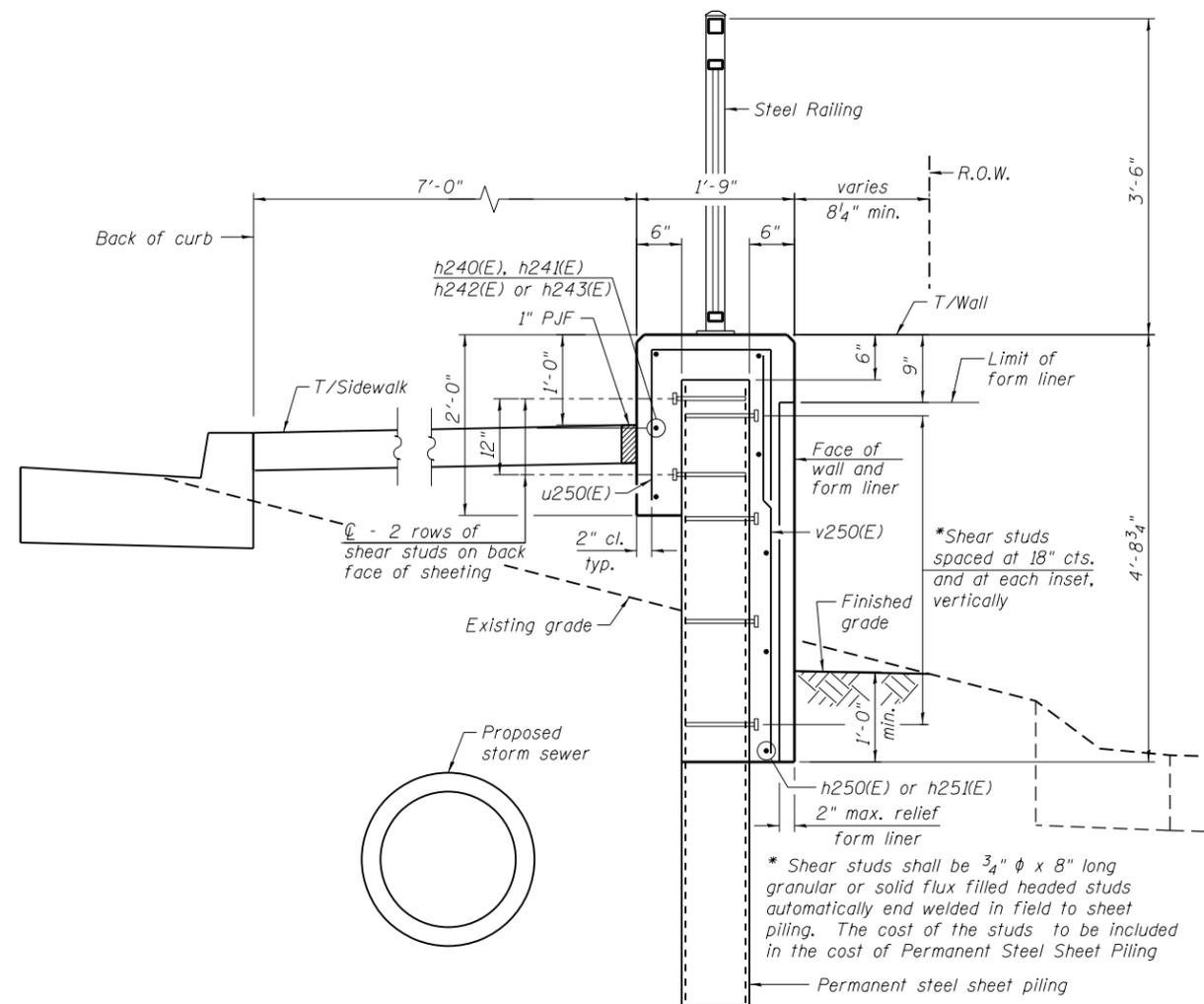
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	498
CONTRACT NO. 60M61			ILLINOIS FED. AID PROJECT	



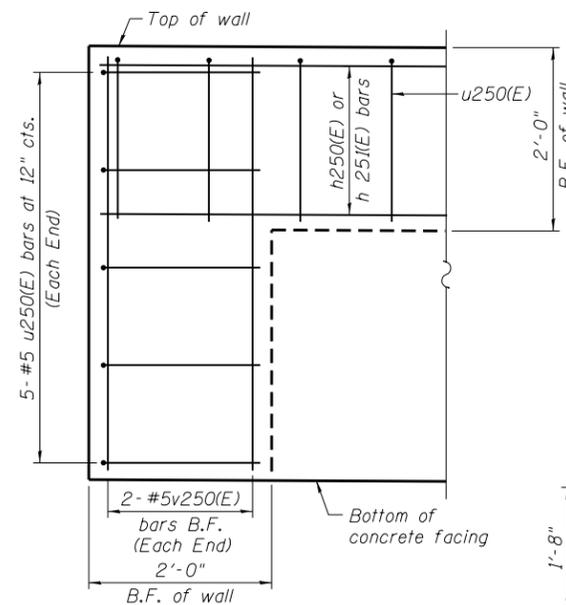
ELEVATION



PLAN

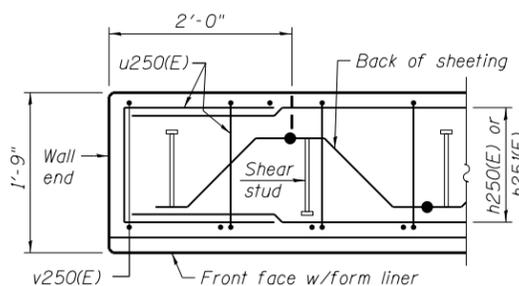


TYPICAL SECTION THROUGH WALL



TYPICAL END CAP DETAIL
(v(E) bars in F.F. not shown for clarity)

BAR u250(E)



PLAN AT END OF WALL

BILL OF MATERIAL

Bar	No.	Size	Length	Shape	
h240(E)					
h241(E)					
h242(E)	h240(E)	24	#5	32'-11"	—
h243(E)	h241(E)	16	#5	29'-8"	—
u240(E)	u240(E)	163	#5	4'-7"	□
v240(E)	v240(E)	157	#5	4'-5"	—
Structure Excavation			Cu. Yd.	38	
Concrete Structures			Cu. Yd.	46.1	
Form Liner Textured Surface			Sq. Ft.	598	
Reinforcement Bars, Epoxy Coated			Pound	2,830	
Permanent Sheet Piling			Sq. Ft.	2,617	
Ornamental Railing			Foot	158	

Bars indicated thus 3x2-#5 etc. indicates 3 lines of bars with 2 lengths per line.

NOTES:

- Wall stations, offsets and dimensions are measured at front face of wall.
- All exposed corners shall have a 1" chamfer.
- For General Notes, Wall Key Plan and US 45 Profile, see Sheet 1.
- For Typical Wall Details and Ornamental Railing see Sheet 2.
- The details for the concrete cap, reinforcement and required number of shear stud connectors are based on Section AZ 18 sheet piling. If the Contractor chooses to use any other section, then the Contractor shall submit revised concrete cap and reinforcement configuration for approval by the Engineer. Such changes shall not be cause for additional compensation.

LEGEND

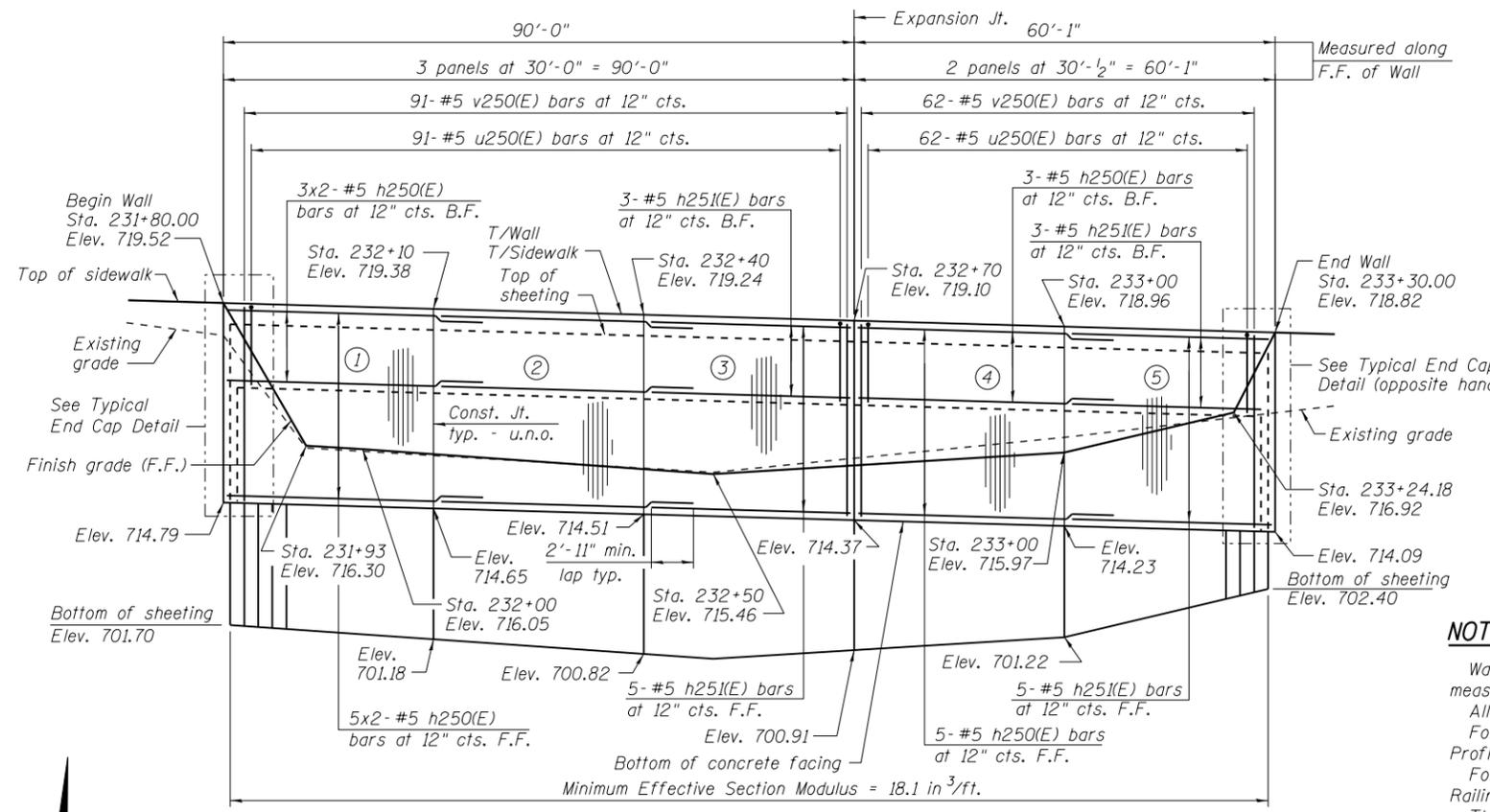
- ① - Panel No.
- ⊕ - Soil Boring
- F.F. - Front Face
- B.F. - Back Face
- E.F. - Each Face

BAR LAPS

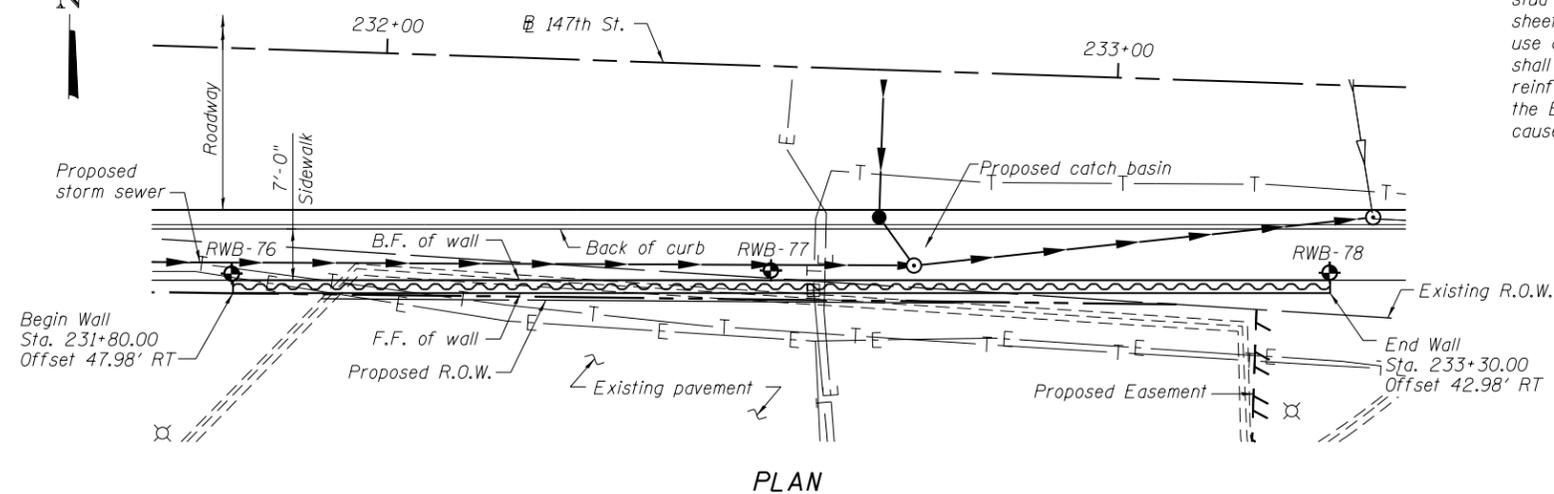
- Basic Lap
- #5 bars - 2'-7"
- Top Bar Lap
- #5 bars - 2'-11"

FILE NAME =	USER NAME = Anthony.Plutz	DESIGNED -	REVISED -
D160M61-SHT-Wall.24-1.dgn		CHECKED -	REVISED -
		DRAWN -	REVISED -
		CHECKED -	REVISED -

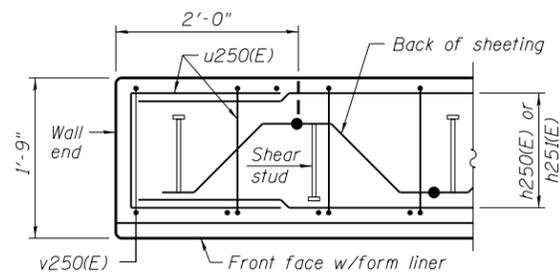
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	499
CONTRACT NO. 60M61			ILLINOIS FED. AID PROJECT	



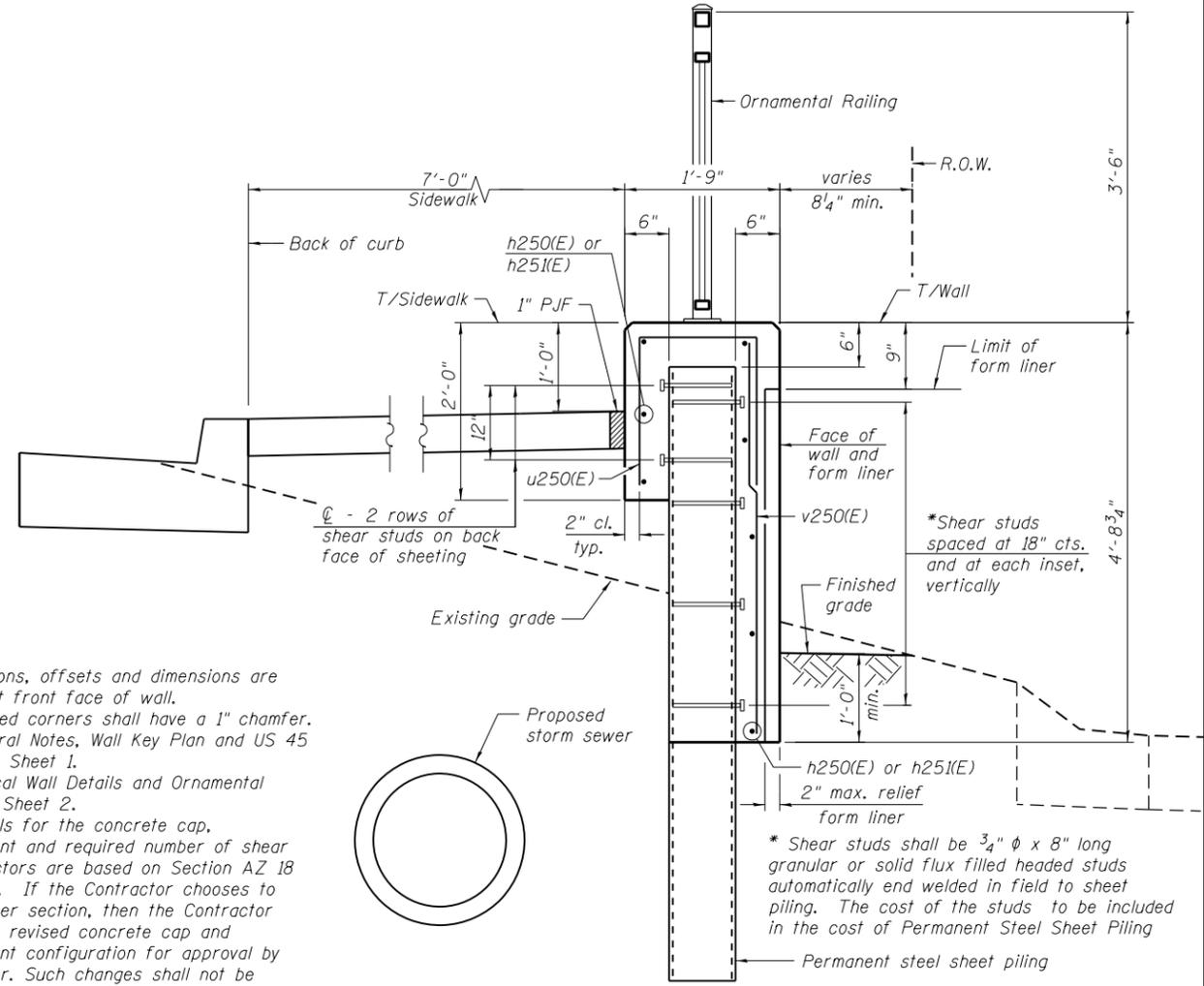
ELEVATION



PLAN



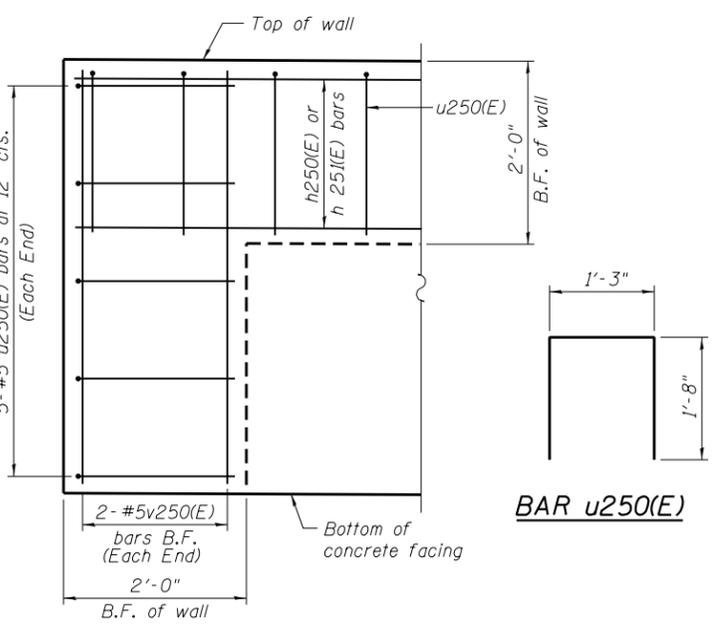
PLAN AT END OF WALL



TYPICAL SECTION THROUGH WALL

NOTES:

Wall stations, offsets and dimensions are measured at front face of wall.
 All exposed corners shall have a 1" chamfer.
 For General Notes, Wall Key Plan and US 45 Profile, see Sheet 1.
 For Typical Wall Details and Ornamental Railing see Sheet 2.
 The details for the concrete cap, reinforcement and required number of shear stud connectors are based on Section AZ 18 sheet piling. If the Contractor chooses to use any other section, then the Contractor shall submit revised concrete cap and reinforcement configuration for approval by the Engineer. Such changes shall not be cause for additional compensation.



TYPICAL END CAP DETAIL

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h250(E)	24	#5	32'-11"	—
h251(E)	16	#5	29'-8"	—
u250(E)	163	#5	4'-7"	□
v250(E)	157	#5	4'-5"	—
Structure Excavation			Cu. Yd.	38
Concrete Structures			Cu. Yd.	46.1
Form Liner Textured Surface			Sq. Ft.	598
Reinforcement Bars, Epoxy Coated			Pound	2,830
Permanent Sheet Piling			Sq. Ft.	2,617
Ornamental Railing			Foot	151

Bars indicated thus 3x2-#5 etc. indicates 3 lines of bars with 2 lengths per line.

LEGEND

- ① - Panel No.
- ◆ - Soil Boring
- F.F. - Front Face
- B.F. - Back Face
- E.F. - Each Face

BAR LAPS

Basic Lap #5 bars - 2'-7"
 Top Bar Lap #5 bars - 2'-11"

100 S. WACKER DR.
 CHICAGO, IL 60606
 TEL (312) 935-1000
 FAX (312) 935-4998
URS

FILE NAME = D160M61-SHT-Wall_25-1.dgn
 USER NAME = Anthony.Plutz
 DESIGNED - SAT
 CHECKED - MJL
 PLOT SCALE = 25.00000' / in.
 DRAWN - AMV/SAT
 PLOT DATE = 3/14/2013
 CHECKED - MJL
 REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**RETAINING WALL NO. 25 - S.N. 016-2051
 147th ST. STATION 231+80.00 TO 233+30.00**

SHEET NO. 24 OF 42 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	500

CONTRACT NO. 60M61
 ILLINOIS FED. AID PROJECT