

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO.	60X29	

D-91-052-14

FOR INDEX OF SHEETS, SEE SHEET NO. 2

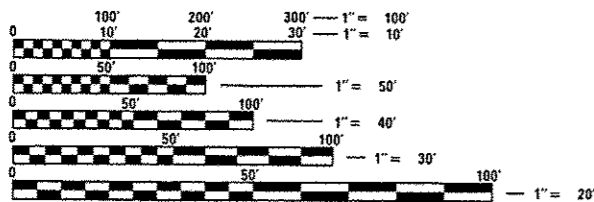
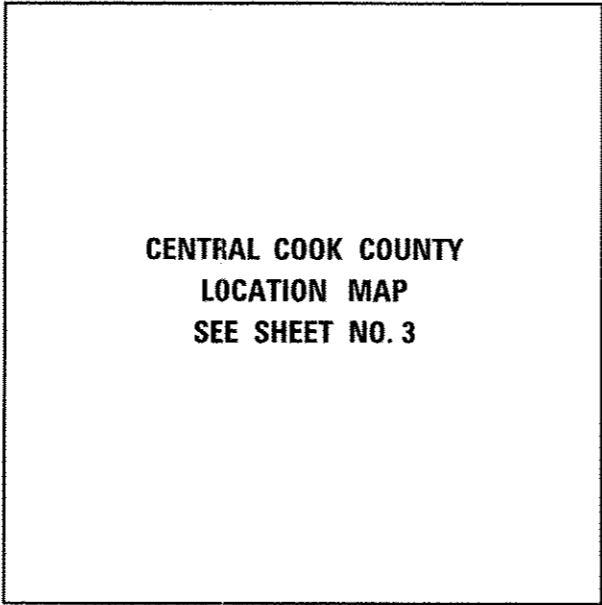
**PROPOSED
HIGHWAY PLANS**

IDOT STANDARDS:

STD. NO.	TITLE
000001-05	STANDARD SYMBOLS, ABBREVIATIONS AND SYMBOLS
701001-02	OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5m) AWAY
701006-05	OFF-ROAD OPERATIONS, 2L, 2W, 15' (4.5m) TO 24" (600mm) FROM PAVEMENT EDGE
701101-04	OFF-ROAD OPERATIONS, MULTILANE, 15' (4.5m) TO 24" (600 mm) FROM PAVEMENT EDGE
701106-02	OFF-ROAD OPERATIONS, MULTILANE, MORE THAN 15' (4.5m) AWAY
701501-06	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
701502-06	URBAN LANE CLOSURE, 2L, 2W, BIDIRECTIONAL LEFT TURN LANE
701601-09	URBAN LANE CLOSURE, MULTILANE, 1W, OR 2W WITH NONTRAVERSABLE MEDIAN
701606-09	URBAN LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
701701-09	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701901-03	TRAFFIC CONTROL DEVICES
720001-01	SIGN PANEL MOUNTING DETAILS
857001-01	STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES
862001-01	UNINTERRUPTABLE POWER SUPPLY (UPS)
880006-01	TRAFFIC SIGNAL MOUNTING DETAILS

**VARIOUS LOCATIONS IN CENTRAL COOK COUNTY
LIGHT EMITTING DIODE (LED) INSTALLATION
CONTRACT #3**

**SECTION 2013-054TS
COOK COUNTY
C-91-052-14**



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

J.U.L.I.E.
JOINT UTILITY LOCATING INFORMATION FOR EXCAVATORS
1-800-892-0123
OR 811

PROJECT ENGINEER: SHAR-DAY SMITH (847) 705-4154
PROJECT MANAGER: SUDUD MAHMOUD (847) 705-4420

CONTRACT NO. 60X29

BRUCE F. TALBOT
REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS
DATE: 12-6-13
Expires 11-30-15

PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60504-9675
Ph: 630.862.2100 Fax: 630.862.2199
E-Mail: oadd@cemcon.com Website: www.cemcon.com

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED Dec-20 2013
James F. Johnson
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

John D. Baranzelli PE, PE
ENGINEER OF DESIGN AND ENVIRONMENT

Jan 24 2014
Omer Osman PE, PE
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

**PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS**

INDEX OF SHEETS

1 COVER SHEET
 2 INDEX OF SHEETS
 3 LOCATION MAP
 4-9 SUMMARY OF QUANTITIES
 10-15 DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAILS

PAGE	TS#	INTERSECTION NAME
16	TS 4835	22ND ST/CERMAK RD @ RIDGELAND AVE
17	TS 2280	IL 43/HARLEM AVE @ 22ND ST/CERMAK RD
18	TS 7950	IL 43/HARLEM AVE @ 32ND ST/ADDISON RD
19	TS 5750	IL 38/ROOSEVELT RD @ RIDGELAND AVE
20	TS 5580	US 34/OGDEN AVE @ EAST AVE
21	TS 7925	OAK PARK AVE @ 16TH ST
22	TS 4795	22ND ST/CERMAK RD @ CERMAK PLAZA NORTH ENTRANCE/WENONAH AVE
23	TS 4805	22ND ST/CERMAK RD @ EAST AVE
24	TS 4810	22ND ST/CERMAK RD @ HOME AVE
25	TS 4815	22ND ST/CERMAK RD @ LOMBARD AVE
26	TS 4830	22ND ST/CERMAK RD @ OAK PARK AVE
27	TS 4840	22ND ST/CERMAK RD @ RIVERSIDE DR/WESLEY AVE
28	TS 7920	26TH ST @ EAST AVE
29	TS 3745	26TH ST @ HIGHLAND BLVD
30	TS 3755	26TH ST @ RIDGELAND AVE
31	TS 7910	26TH ST @ RIVERSIDE DR
32	TS 2110	IL 43/HARLEM AVE @ 16TH ST
33	TS 2120	IL 43/HARLEM AVE @ 25TH ST
34	TS 7915	OAK PARK AVE @ 26TH ST
35	TS 5515	OAK PARK AVE @ 31ST ST
36	TS 7940	OAK PARK AVE @ 34TH ST
37	TS 7935	OAK PARK AVE @ RIVERSIDE DR/23RD ST
38	TS 5595	US 34/OGDEN AVE @ 34TH ST/RIDGELAND AVE
39	TS 5570	US 34/OGDEN AVE @ CLARENCE AVE
40	TS 5575	US 34/OGDEN AVE @ CLINTON AVE
41	TS 5590	US 34/OGDEN AVE @ HOME AVE
42	TS 5520	US 34/OGDEN AVE @ OAK PARK AVE
43	TS 5735	IL 38/ROOSEVELT RD @ EAST AVE
44	TS 5525	IL 38/ROOSEVELT RD @ OAK PARK AVE
45	TS 13870	US 34/OGDEN AVE @ EBERLE AVE/EAST AVE
46	TS 3765	31ST ST @ GOLDFVIEW LN/CUTOFF TO IL 171/1ST AVE
47	TS 3820	47TH ST @ PLAINFIELD RD
48	TS 14175	US 34/OGDEN AVE @ CUSTER AVE
49	TS 13871	US 34/OGDEN AVE @ DUBOIS BLVD
50	TS 13872	US 34/OGDEN AVE @ MAPLE AVE/11TH AVE
51	TS 13873	US 34/OGDEN AVE @ PRAIRIE AVE
52	TS 12825	IL 50/CICERO AVE @ 19TH ST
53	TS 11645	IL 50/CICERO AVE @ 23RD ST
54	TS 12830	IL 50/CICERO AVE @ 29TH ST
55	TS 2445	IL 50/CICERO AVE @ 31ST ST
56	TS 5557	IL 50/CICERO AVE @ OGDEN AVE CONNECTOR RD
57	TS 4760	IL 38/ROOSEVELT RD @ CENTRAL AVE
58-59	TS 12775	22ND ST/CERMAK RD @ 49TH AVE
60-61	TS 12780	22ND ST/CERMAK RD @ 50TH AVE
62	TS 4775	22ND ST/CERMAK RD @ 51TH AVE
63	TS 4780	22ND ST/CERMAK RD @ 58TH AVE
64	TS 4785	22ND ST/CERMAK RD @ AUSTIN BLVD
65	TS 4790	22ND ST/CERMAK RD @ CENTRAL AVE
66	TS 12890	26TH ST @ AUSTIN BLVD
67	TS 5555	OGDEN AVE @ 31ST ST
68	TS 5745	IL 38/ROOSEVELT RD @ MAYFIELD AVE/59TH AVE
69	TS 5556	US 34/OGDEN AVE @ 25TH PL/26TH ST
70	TS 5558	US 34/OGDEN AVE @ CICERO AVE CONNECTOR RD
71	TS 2610	IL 50/CICERO AVE @ IL 38/ROOSEVELT RD
72	TS 5730	IL 38/ROOSEVELT RD @ AUSTIN AVE
73	TS 115	DES PLAINES AVE @ HARRISON ST/I-290 EXPRESSWAY OFF RAMP
74	TS 3650	IL 38/ROOSEVELT RD @ IL 171/1ST AVE
75	TS 2315	IL 43/HARLEM AVE @ GARFIELD ST/HARRISON ST
76	TS 2370	IL 43/HARLEM AVE @ MADISON ST
77	TS 5460	MADISON ST @ JACKSON BLVD
78	TS 5000	IL 38/ROOSEVELT RD @ DES PLAINES AVE
79	TS 13687	DES PLAINES AVE @ CTA
80	TS 13685	DES PLAINES AVE @ JACKSON BLVD
81	TS 2390	IL 43/HARLEM AVE @ RANDOLPH ST
82	TS 2415	IL 43/HARLEM AVE @ WASHINGTON BLVD
83	TS 13700	IL 38/ROOSEVELT RD @ CIRCLE AVE
84	TS 2401	IL 38/ROOSEVELT RD @ LATHROP AVE
85	TS 2400	IL 38/ROOSEVELT RD @ IL 43/HARLEM AVE
86	TS 2350	IL 43/HARLEM AVE @ JACKSON BLVD
87-89	TS 7947	IL 43 HARLEM AVE @ 34TH ST / WINDSOR AVE
90	TS 2395	IL 43/HARLEM AVE @ RIVERSIDE DR/LONGCOMMON RD
91	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS AND DRIVEWAYS (TC-10)	
92	TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) (TC-14)	

GENERAL NOTES:

THE CONTRACTOR SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 72 HOURS IN ADVANCE OF BEGINNING WORK.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION. THIS SHALL INCLUDE LOCATING THE MAST ARM FOUNDATIONS AND VERIFYING THE MAST ARMS LENGTHS.

THE EXACT LOCATION OF ALL UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR BEFORE ORDERING ANY MATERIALS AND STARTING ANY WORK. FOR LOCATIONS OF UTILITIES, LOCALLY OWNED EQUIPMENT, LEASED ENFORCEMENT CAMERA SYSTEM FACILITIES AND IDOT UNDERGROUND FACILITIES, CONTACT THE LOCAL COUNTIES, MUNICIPALITIES AND IDOT FOR LOCATES. THE CONTRACTOR SHALL CALL "JULIE" AT (800) 892-0123 OR 811, IN THE CITY OF CHICAGO CONTACT DIGGER AT (312) 744-7000 FOR FIELD LOCATIONS OF BURIED UTILITIES (48 HOURS NOTIFICATION REQUIRED).

IF THIS CONTRACT REQUIRES THE SERVICES OF AN ELECTRICAL CONTRACTOR, THE CONTRACTOR SHALL BE RESPONSIBLE AT HIS/HER OWN EXPENSE FOR LOCATING EXISTING IDOT ELECTRICAL FACILITIES PRIOR TO PERFORMING ANY WORK. IF THIS CONTRACT DOES NOT REQUIRE THE SERVICES OF AN ELECTRICAL CONTRACTOR, THE CONTRACTOR MAY REQUEST ONE FREE LOCATE FOR EXISTING IDOT ELECTRICAL FACILITIES FROM THE DISTRICT ONE ELECTRICAL MAINTENANCE CONTRACTOR PRIOR TO THE START OF ANY WORK. ADDITIONAL REQUESTS MAY BE AT THE EXPENSE OF THE CONTRACTOR. THE LOCATION OF UNDERGROUND TRAFFIC FACILITIES DOES NOT RELIEVE THE CONTRACTOR OF THEIR RESPONSIBILITY TO REPAIR ANY FACILITIES DAMAGED DURING CONSTRUCTION AT THEIR EXPENSE.

THE CONTRACTOR SHALL CHECK THE PROPOSED TRAFFIC SIGNAL EQUIPMENT LOCATIONS FOR OVERHEAD UTILITY CONFLICTS. THE CONTRACTOR SHALL COORDINATE ANY CONFLICTS WITH THE UTILITY COMPANIES AND THE RESIDENT ENGINEER BEFORE ORDERING MATERIALS.

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, LOCAL GOVERNMENT AGENCIES AND IDOT.

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

ANY REFERENCE TO THE STANDARDS THROUGHOUT THE PLANS OR SPECIAL PROVISIONS SHALL BE INTERPRETED AS THE TEST STANDARD OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION.

THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE PLANS AND SHALL NOTIFY THE ENGINEER AT ONCE OF ANY DISCREPANCIES.

THE CONTRACTOR IS REQUIRED TO ATTEND AN ILLINOIS DEPARTMENT OF TRANSPORTATION (IDOT) PRECONSTRUCTION MEETING AND SHALL INFORM THE IDOT TRAFFIC ENGINEER BEFORE WORK COMMENCES.

THE CONTRACTOR SHALL KEEP PUBLIC STREET PAVEMENTS CLEAN OF DIRT AND DEBRIS.

THE CONTRACTOR SHALL BE RESPONSIBLE IN PROVIDING SAFE AND HEALTHFUL CONDITIONS THROUGHOUT THE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UNDERGROUND AND SURFACE UTILITIES EVEN THOUGH THEY MAY NOT BE SHOWN ON THE PLANS. ANY UTILITY THAT IS DAMAGED DURING CONSTRUCTION SHALL BE RESTORED TO A CONDITION EQUAL TO THAT EXISTING BEFORE THE DAMAGE INCURRED. THIS WORK SHALL BE AT THE CONTRACTOR'S EXPENSE.

NEW CONTROLLER CABINETS SHALL BE PLACED SO THAT, a) THE DOORS OPEN AWAY FROM THE CURB OR TRAVEL WAY., b) AND THE TRAFFIC MOVEMENTS AT THE INTERSECTION ARE VISIBLE FROM THE CONTROLLER.

ANY CONTROLLER CABINET WHETHER NEW OR EXISTING TO RECEIVE UPS, WILL HAVE A "L" SHAPED 3 FOOT CONCRETE MAINTENANCE PAD INSTALLED. THE COST OF INSTALLATION OF CONCRETE PAD IS INCIDENTAL TO NEW CONTROLLER AND OR UPS INSTALLATIONS.

PRIOR TO REMOVING ANY TRAFFIC SIGNAL POST SPECIFIED TO BE REPLACED IN THE SAME LOCATION, THE CONTRACTOR SHALL VERIFY THAT THE PATTERN, SPACING, AND CONDITION OF THE EXISTING BOLTS ARE SUITABLE FOR RE-USE WITH A NEW POST. IF THE BOLTS ARE NOT REUSABLE, THEN THE EXISTING POST SHALL REMAIN IN PLACE OR AS DIRECTED BY THE ENGINEER.

ALL EXISTING SIGNING SHALL BE MAINTAINED PER ARTICLE 107.25 OF THE STANDARD SPECIFICATIONS AND TRANSFERRED TO THE NEW TRAFFIC SIGNALS WHERE APPLICABLE.

CONTRACTOR SHALL REPLACE ALL EXISTING TRAFFIC SIGNAL AND PEDESTRIAN BRACKETS TO NEW POLYCARBONATE BRACKETS. THE COST OF THIS WORK SHALL BE INCLUDED IN THE CORRESPONDING SIGNAL HEAD, LED, RETROFIT PAY ITEM OF THE TYPE AND NUMBER OF SIGNAL HEADS, FACES, AND SECTIONS AS SPECIFIED IN THE PLANS.

ALL COSTS RELATED TO ATTACHING THE POSTS TO THE EXISTING FOUNDATION SHALL BE INCLUDED IN THE UNIT COST OF TRAFFIC SIGNAL POST OF THE SIZE SPECIFIED.

PRIOR TO REMOVING ANY TRAFFIC SIGNAL POST SPECIFIED TO BE REPLACED IN THE SAME LOCATION, THE CONTRACTOR SHALL VERIFY THAT THE PATTERN, SPACING, AND CONDITION OF THE EXISTING BOLTS ARE SUITABLE FOR RE-USE WITH A NEW POST. IF THE BOLTS ARE NOT USABLE, REPLACE AS DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL RELOCATE EXISTING SIGN PANELS FROM POSTS THAT ARE INDICATED FOR REPLACEMENT TO THE NEW POSTS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. THE COST OF REMOVAL, RELOCATION AND ANY NEW MOUNTING HARDWARE NECESSARY TO COMPLETE THIS WORK SHALL BE INCLUDED IN THE UNIT COST OF TRAFFIC SIGNAL POST OF THE SIZE SPECIFIED.

THE CONTRACTOR SHALL RELOCATE ANY EXISTING TRAFFIC SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS, AND PEDESTRIAN PUSH-BUTTONS FROM THE PAINTED POSTS THAT ARE INDICATED FOR REPLACEMENT, TO A NEW POST AS SHOWN ON THE PLANS, EXCEPT AS SHOWN TO BE REPLACED ON THE PLANS, OR AS DIRECTED BY THE ENGINEER. THE COST OF REMOVAL, RELOCATION AND ANY NEW MOUNTING HARDWARE NECESSARY TO COMPLETE THIS WORK SHALL BE INCLUDED IN THE TRAFFIC SIGNAL POST PAY ITEM.

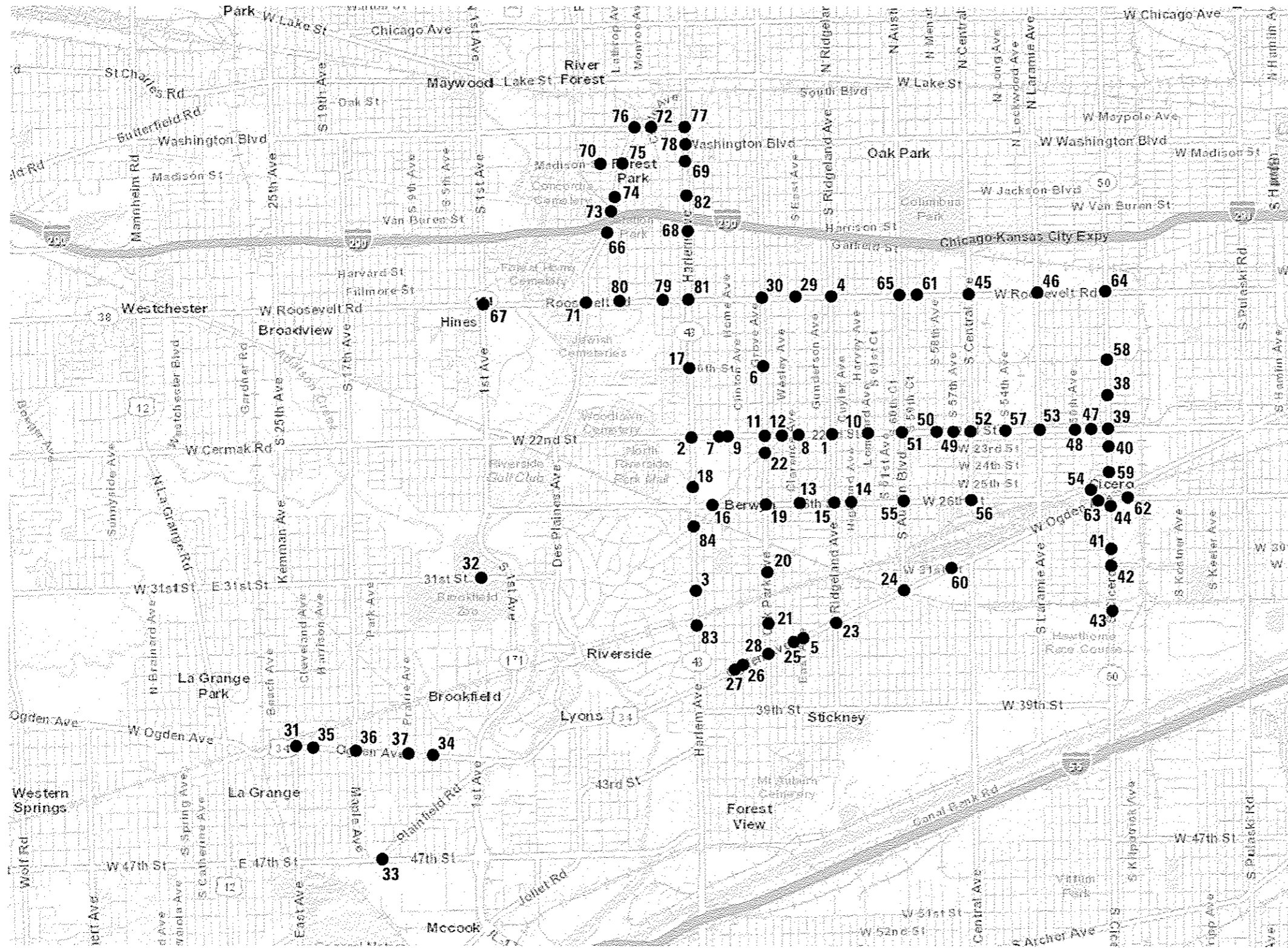
DUE TO THE PRESENCE OF A RED LIGHT RUNNING (RLR) CAMERA FOR THE BELOW LISTED LOCATIONS, CONTRACTOR SHALL NOTIFY THE MUNICIPALITY AND RLR CAMERA COMPANY PRIOR TO THE START OF CONSTRUCTION. THE MUNICIPALITY OR THE RLR CAMERA COMPANY SHALL MAKE THE CAMERA INOPERATIVE FOR THE TIME OF CONSTRUCTION. ANY RLR CAMERA EQUIPMENT THAT IS IN CONFLICT WITH THE PROPOSED CONSTRUCTION SHALL BE REMOVED BY ITS RESPECTIVE OWNERS PRIOR TO THE START OF CONSTRUCTION.

RLR CAMERA LOCATIONS:

TS# 4835	22ND STREET (CERMAK ROAD) AT RIDGELAND AVENUE
CITY OF BERWYN	REDSPEED ILLINOIS
6700 26TH STREET	400 EISENHOWER LANE NORTH
BERWYN, IL 60402	LOMBARD, IL 60148
708-788-2660	630-317-5720
TS# 2280	IL 43 (HARLEM AVENUE) AT 22ND STREET (CERMAK ROAD)
CITY OF BERWYN	SAFESPEED, LLC
6700 26TH STREET	150 N. WACKER DRIVE
BERWYN, IL 60402	CHICAGO, IL 60606
708-788-2660	877-237-2331
TS# 7920	26TH STREET AT EAST AVENUE
CITY OF BERWYN	REDSPEED ILLINOIS
6700 26TH STREET	400 EISENHOWER LANE NORTH
BERWYN, IL 60402	LOMBARD, IL 60148
708-788-2660	630-317-5720
TS# 5000	IL 38 (ROOSEVELT ROAD) AT DESPLAINES AVENUE
VILLAGE OF FOREST PARK	REDSPEED ILLINOIS
517 DES PLAINES AVENUE	400 EISENHOWER LANE NORTH
FOREST PARK, IL 60130	LOMBARD, IL 60148
708-366-2323	630-317-5720
TS# 2400	IL 38 (ROOSEVELT ROAD) AT IL 43 (HARLEM AVENUE)
VILLAGE OF FOREST PARK	REDSPEED ILLINOIS
517 DES PLAINES AVENUE	400 EISENHOWER LANE NORTH
FOREST PARK, IL 60130	LOMBARD, IL 60148
708-366-2323	630-317-5720
VILLAGE OF OAK PARK	
123 MADISON STREET	
OAK PARK, IL 60302	
708-383-6400	

FILE NAME *	USER NAME * JGC	DESIGNED - BPT	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INDEX OF SHEETS	SCALE: 1"=20'	SHEET NO. OF SHEETS STA. TO STA.	F.A.I.L. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
\\MICROST\352109\02-INDEX.DGN		DRAWN - RDS/JGC	REVISED -					VAR.	2013-054TS	COOK	92	2
		CHECKED - BPT	REVISED -					CONTRACT NO. 60X29				
		DATE - 12-04-13	REVISED -					FED. ROAD DIST. NO. ILLINOIS/FED. AID PROJECT				

PREPARED BY:
CEMCON, Ltd.
 Consulting Engineers, Land Surveyors & Planners
 2280 White Oak Circle, Suite 100
 Aurora, Illinois 69504-9875
 Ph: 630.862.2100 Fax: 630.862.2199
 E-Mail: cee@cemcon.com Website: www.cemcon.com



#	TS#	LOCATION
1	TS 4835	22ND ST/CERMAK RD @ RIDGELAND AVE
2	TS 2280	IL 43/HARLEM AVE @ 22ND ST/CERMAK RD
3	TS 7950	IL 43/HARLEM AVE @ 32ND ST
4	TS 5750	IL 38/ROOSEVELT RD @ RIDGELAND AVE
5	TS 5580	US 34/OGDEN AVE @ EAST AVE
6	TS 7925	OAK PARK AVE @ 16TH ST
7	TS 4795	22ND ST/CERMAK RD @ CERMAK PLAZA NORTH ENTRANCE/WENONAH AVE
8	TS 4805	22ND ST/CERMAK RD @ EAST AVE
9	TS 4810	22ND ST/CERMAK RD @ HOME AVE
10	TS 4815	22ND ST/CERMAK RD @ LOMBARD AVE
11	TS 4830	22ND ST/CERMAK RD @ OAK PARK AVE
12	TS 4840	22ND ST/CERMAK RD @ RIVERSIDE DR/WESLEY AVE
13	TS 7920	26TH ST @ EAST AVE
14	TS 3745	26TH ST @ HIGHLAND BLVD
15	TS 3755	26TH ST @ RIDGELAND AVE
16	TS 7910	26TH ST @ RIVERSIDE DR
17	TS 2110	IL 43/HARLEM AVE @ 16TH ST
18	TS 2120	IL 43/HARLEM AVE @ 25TH ST
19	TS 7915	OAK PARK AVE @ 26TH ST
20	TS 5515	OAK PARK AVE @ 31ST ST
21	TS 7940	OAK PARK AVE @ 34TH ST
22	TS 7935	OAK PARK AVE @ RIVERSIDE DR/23RD ST
23	TS 5595	US 34/OGDEN AVE @ 34TH ST/RIDGELAND AVE
24	TS 5565	DELETED
25	TS 5570	US 34/OGDEN AVE @ CLARENCE AVE
26	TS 5575	US 34/OGDEN AVE @ CLINTON AVE
27	TS 5590	US 34/OGDEN AVE @ HOME AVE
28	TS 5520	US 34/OGDEN AVE @ OAK PARK AVE
29	TS 5735	IL 38/ROOSEVELT RD @ EAST AVE
30	TS 5525	IL 38/ROOSEVELT RD @ OAK PARK AVE
31	TS 13870	US 34/OGDEN AVE @ EBERLE AVE/EAST AVE
32	TS 3765	31ST ST @ GOLFVIEW LN/CUTOFF TO IL 171/1ST AVE
33	TS 3820	47TH ST @ PLAINFIELD RD
34	TS 14175	US 34/OGDEN AVE @ CUSTER AVE
35	TS 13871	US 34/OGDEN AVE @ DUBOIS BLVD
36	TS 13872	US 34/OGDEN AVE @ MAPLE AVE/17TH AVE
37	TS 13873	US 34/OGDEN AVE @ PRAIRIE AVE
38	TS 12825	IL 50/CICERO AVE @ 19TH ST
39	TS 12770	DELETED
40	TS 11645	IL 50/CICERO AVE @ 23RD ST
41	TS 12830	IL 50/CICERO AVE @ 29TH ST
42	TS 2445	IL 50/CICERO AVE @ 31ST ST
43	TS 2443	DELETED
44	TS 5557	IL 50/CICERO AVE @ OGDEN AVE CONNECTOR RD
45	TS 4760	IL 38/ROOSEVELT RD @ CENTRAL AVE
46	TS 5740	DELETED
47	TS 12775	22ND ST/CERMAK RD @ 49TH AVE
48	TS 12780	22ND ST/CERMAK RD @ 50TH AVE
49	TS 4775	22ND ST/CERMAK RD @ 57TH AVE
50	TS 4780	22ND ST/CERMAK RD @ 58TH AVE
51	TS 4785	22ND ST/CERMAK RD @ AUSTIN BLVD
52	TS 4790	22ND ST/CERMAK RD @ CENTRAL AVE
53	TS 12785	DELETED
54	TS 3710	DELETED
55	TS 12890	26TH ST @ AUSTIN BLVD
56	TS 12865	DELETED
57	TS 12790	DELETED
58	TS 12795	DELETED
59	TS 20435	DELETED
60	TS 5555	OGDEN AVE @ 31ST ST
61	TS 5745	IL 38/ROOSEVELT RD @ MAYFIELD AVE/59TH AVE
62	TS 6556	US 34/OGDEN AVE @ 25TH PL/26TH ST
63	TS 5558	US 34/OGDEN AVE @ CICERO AVE CONNECTOR RD
64	TS 2610	IL 50/CICERO AVE @ IL 38/ROOSEVELT RD
65	TS 5730	IL 38/ROOSEVELT RD @ AUSTIN AVE
66	TS 115	DES PLAINES AVE @ HARRISON ST/I-290 EXPRESSWAY OFF RAMP
67	TS 3650	IL 38/ROOSEVELT RD @ IL 171/1ST AVE
68	TS 2315	IL 43/HARLEM AVE @ GARFIELD ST/HARRISON ST
69	TS 2370	IL 43/HARLEM AVE @ MADISON ST
70	TS 9460	MADISON ST @ JACKSON BLVD
71	TS 5000	IL 38/ROOSEVELT RD @ DES PLAINES AVE
72	TS 13690	DELETED
73	TS 13687	DES PLAINES AVE @ CTA
74	TS 13685	DES PLAINES AVE @ JACKSON BLVD
75	TS 13680	DELETED
76	TS 13675	DELETED
77	TS 2390	IL 43/HARLEM AVE @ RANDOLPH ST
78	TS 2415	IL 43/HARLEM AVE @ WASHINGTON BLVD
79	TS 13700	IL 38/ROOSEVELT RD @ CIRCLE AVE
80	TS 2401	IL 38/ROOSEVELT RD @ LATHROP AVE
81	TS 2400	IL 38/ROOSEVELT RD @ IL 43/HARLEM AVE
82	TS 2350	IL 43/HARLEM AVE @ JACKSON BLVD
83	TS 7947	IL 43/HARLEM AVE @ 34TH ST / WINDSOR AVE
84	TS 2395	IL 43/HARLEM AVE @ RIVERSIDE DR/LONGCOMMON RD

FILE NAME *
 \MCR051\352188\1
 03-LOC MAP.DGN

USER NAME * JGC	DESIGNED - BPT	REVISED -
PLOT SCALE * NOT TO SCALE	DRAWN - RDS/JGC	REVISED -
PLOT DATE * X	CHECKED - BPT	REVISED -
	DATE - 12-04-13	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

LOCATION MAP

SCALE: 1"=	SHEET NO. OF SHEETS	STA. TO STA.
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PREPARED BY:
CEMCON, Ltd.
 Consulting Engineers, Land Surveyors & Planners
 2280 White Oak Circle, Suite 100
 Aurora, Illinois 60504-9675
 Ph: 630.862.2100 Fax: 630.862.2199
 E-Mail: codd@cemcon.com Website: www.cemcon.com

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-0547S	COOK	92	3
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT				CONTRACT NO. 60X29

SUMMARY OF QUANTITIES HEADING LEGEND

FUNDING PARTICIPATION

LOCATION #	COLUMN #	TS #	INTERSECTION	MUNICIPALITY	STATE	BERWYN	NORTH RIVERSIDE	CICERO	RIVERSIDE	OAK PARK	BROOKFIELD	LAGRANGE	MCCOOK	LYONS	CHICAGO	FOREST PARK	NSCMC o/o CONCORDIA REALTY
1	1	4835	22ND ST/CERMAK RD @ RIDGELAND AVE	BERWYN	100%												
2	1	2280	IL 43/HARLEM AVE @ 22ND ST/CERMAK RD	BERWYN	100%												
3	11	7950	IL 43/HARLEM AVE @ 32ND ST	BERWYN	95%	5%											
4	1	5750	IL 38/ROOSEVELT RD @ RIDGELAND AVE	BERWYN	100%												
5	11	5580	US 34/OGDEN AVE @ EAST AVE	BERWYN	95%	5%											
6	11	7925	OAK PARK AVE @ 16TH ST	BERWYN	95%	5%											
7	19	4795	22ND ST/CERMAK RD @ CERMAK PLAZA NORTH ENTRANCE/WENONAH AVE	BERWYN	95%												5%
8	11	4805	22ND ST/CERMAK RD @ EAST AVE	BERWYN	95%	5%											
9	11	4810	22ND ST/CERMAK RD @ HOME AVE	BERWYN	95%	5%											
10	11	4815	22ND ST/CERMAK RD @ LOMBARD AVE	BERWYN	95%	5%											
11	1	4830	22ND ST/CERMAK RD @ OAK PARK AVE	BERWYN	100%												
12	11	4840	22ND ST/CERMAK RD @ RIVERSIDE DR/WESLEY AVE	BERWYN	95%	5%											
13	11	7920	26TH ST @ EAST AVE	BERWYN	95%	5%											
14	11	3745	26TH ST @ HIGHLAND BLVD	BERWYN	95%	5%											
15	1	3755	26TH ST @ RIDGELAND AVE	BERWYN	100%												
16	11	7910	26TH ST @ RIVERSIDE DR	BERWYN	95%	5%											
17	11	2110	IL 43/HARLEM AVE @ 16TH ST	BERWYN	95%	5%											
18	9	2120	IL 43/HARLEM AVE @ 25TH ST	BERWYN	96.7%		3.3%										
19	1	7915	OAK PARK AVE @ 26TH ST	BERWYN	100%												
20	1	5515	OAK PARK AVE @ 31ST ST	BERWYN	100%												
21	11	7940	OAK PARK AVE @ 34TH ST	BERWYN	95%	5%											
22	11	7935	OAK PARK AVE @ RIVERSIDE DR/23RD ST	BERWYN	95%	5%											
23	1	5595	US 34/OGDEN AVE @ 34TH ST/RIDGELAND AVE	BERWYN	100%												
24		5565	DELETED														
25	11	5570	US 34/OGDEN AVE @ CLARENCE AVE	BERWYN	95%	5%											
26	11	5575	US 34/OGDEN AVE @ CLINTON AVE	BERWYN	95%	5%											
27	11	5590	US 34/OGDEN AVE @ HOME AVE	BERWYN	95%	5%											
28	3	5520	US 34/OGDEN AVE @ OAK PARK AVE	BERWYN	97.5%	2.5%											
29	13	5735	IL 38/ROOSEVELT RD @ EAST AVE	BERWYN	95%	2.5%				2.5%							
30	5	5525	IL 38/ROOSEVELT RD @ OAK PARK AVE	OAK PARK	97.5%					2.5%							
31	6	13870	US 34/OGDEN AVE @ EBERLE AVE/EAST AVE	BROOKFIELD	97.5%						1.25%	1.25%					
32	1	3765	31ST ST @ GOLFVIEW LN/CUTOFF TO IL 171/1ST AVE	BROOKFIELD	100%												
33	7	3820	47TH ST @ PLAINFIELD RD	MCCOOK	97.5%								2.5%				
34	18	14175	US 34/OGDEN AVE @ CUSTER AVE	BROOKFIELD/LYONS	95%						2.5%			2.5%			
35	17	13871	US 34/OGDEN AVE @ DUBOIS BLVD	BROOKFIELD	95%						5%						
36	17	13872	US 34/OGDEN AVE @ MAPLE AVE/17TH AVE	BROOKFIELD	95%						5%						
37	17	13873	US 34/OGDEN AVE @ PRAIRIE AVE	BROOKFIELD	95%						5%						
38	14	12825	IL 50/CICERO AVE @ 19TH ST	CICERO	95%			5%									
39		12770	DELETED														
40	14	11645	IL 50/CICERO AVE @ 23RD ST	CICERO	95%			5%									
41	14	12830	IL 50/CICERO AVE @ 29TH ST	CICERO	95%			5%									
42	4	2445	IL 50/CICERO AVE @ 31ST ST	CICERO	97.5%			2.5%									
43		2443	DELETED														
44	1	5557	IL 50/CICERO AVE @ OGDEN AVE CONNECTOR RD	CICERO	100%												
45	4	4760	IL 38/ROOSEVELT RD @ CENTRAL AVE	CICERO	97.5%			2.5%									
46		5740	DELETED														
47	14	12775	22ND ST/CERMAK RD @ 49TH AVE	CICERO	95%			5%									
48	14	12780	22ND ST/CERMAK RD @ 50TH AVE	CICERO	95%			5%									
49	14	4775	22ND ST/CERMAK RD @ 57TH AVE	CICERO	95%			5%									
50	14	4780	22ND ST/CERMAK RD @ 58TH AVE	CICERO	95%			5%									
51	14	4785	22ND ST/CERMAK RD @ AUSTIN BLVD	CICERO	95%			5%									
52	14	4790	22ND ST/CERMAK RD @ CENTRAL AVE	CICERO	95%			5%									
53		12785	DELETED														
54		3710	DELETED														
55	14	12890	26TH ST @ AUSTIN BLVD	CICERO	95%			5%									
56		12865	DELETED														

FILE NAME *
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USER NAME * JGC
 DESIGNED - BPT
 DRAWN - RDS/JGC
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 DATE - 12-04-13
 PLOT SCALE = NOT TO SCALE
 PLOT DATE * X

REVISED -
 REVISED -
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 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
 (SHEET 1 OF 6)

SCALE: 1"=20' SHEET NO. OF SHEETS STA. TO STA.

PREPARED BY:
CEMCON, Ltd.
 Consulting Engineers, Land Surveyors & Planners
 2280 White Oak Circle, Suite 100
 Aurora, Illinois 60504-9675
 PH: 630.862.2100 Fax: 630.862.2199
 E-Mail: codd@cemcon.com Website: www.cemcon.com

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	4
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 60X29	

SUMMARY OF QUANTITIES HEADING LEGEND

FUNDING PARTICIPATION

LOCATION #	COLUMN #	TS #	INTERSECTION	MUNICIPALITY	STATE	BERWYN	NORTH RIVERSIDE	CICERO	RIVERSIDE	OAK PARK	BROOKFIELD	LAGRANGE	MCCOOK	LYONS	CHICAGO	FOREST PARK	NSCMC o/o CONCORDIA REALTY
57		12790	DELETED														
58		12795	DELETED														
59		20435	DELETED														
60	14	5555	OGDEN AVE @ 31ST ST	CICERO	95%			5%									
61	14	5745	IL 38/ROOSEVELT RD @ MAYFIELD AVE/59TH AVE	CICERO	95%			5%									
62	1	5556	US 34/OGDEN AVE @ 25TH PL/26TH ST	CICERO	100%												
63	1	5558	US 34/OGDEN AVE @ CICERO AVE CONNECTOR RD	CICERO	100%												
64	1	2610	IL 50/CICERO AVE @ IL 38/ROOSEVELT RD	CICERO/CHICAGO	100%												
65	15	5730	IL 38/ROOSEVELT RD @ AUSTIN AVE	CICERO/CHICAGO	95%			2.5%							2.5%		
66	2	115	DES PLAINES AVE @ HARRISON ST/I-290 EXPRESSWAY OFF RAMP	FOREST PARK	98%											2%	
67	1	3650	IL 38/ROOSEVELT RD @ IL 171/1ST AVE	FOREST PARK	100%												
68	16	2315	IL 43/HARLEM AVE @ GARFIELD ST/HARRISON ST	FOREST PARK/OAK PARK	95%					2.5%						2.5%	
69	16	2370	IL 43/HARLEM AVE @ MADISON ST	FOREST PARK/OAK PARK	95%					2.5%						2.5%	
70	10	5460	MADISON ST @ JACKSON BLVD	FOREST PARK	96.7%											3.3%	
71	1	5000	IL 38/ROOSEVELT RD @ DES PLAINES AVE	FOREST PARK	100%												
72		13690	DELETED														
73	10	13687	DES PLAINES AVE @ CTA	FOREST PARK	96.7%											3.3%	
74	20	13685	DES PLAINES AVE @ JACKSON BLVD	FOREST PARK	95%											5%	
75		13680	DELETED														
76		13675	DELETED														
77	5	2390	IL 43/HARLEM AVE @ RANDOLPH ST	OAK PARK	97.5%					2.5%							
78	8	2415	IL 43/HARLEM AVE @ WASHINGTON BLVD	FOREST PARK	97.5%											2.5%	
79	20	13700	IL 38/ROOSEVELT RD @ CIRCLE AVE	FOREST PARK	95%											5%	
80	20	2401	IL 38/ROOSEVELT RD @ LATHROP AVE	FOREST PARK	95%											5%	
81	1	2400	IL 38/ROOSEVELT RD @ IL 43/HARLEM AVE	FOREST PARK/OAK PARK	100%												
82	16	2350	IL 43/HARLEM AVE @ JACKSON BLVD	FOREST PARK/OAK PARK	95%					2.5%						2.5%	
83	21	7947	IL 43 HARLEM AVE @ 34TH ST / WINDSOR AVE	RIVERSIDE/BERWYN	92.5%	3.75%			3.75%								
84	12	2395	IL 43/HARLEM AVE @ RIVERSIDE DR/LONGCOMMON RD	RIVERSIDE	95%	2.5%			2.5%								

FILE NAME *
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USER NAME * JGC
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REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
(SHEET 2 OF 6)

SCALE: 1"=20' SHEET NO. OF SHEETS STA. TO STA.

PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60504-9675
PH: 630.852.2100 FAX: 630.852.2199
E-Mail: cec@cemcon.com Website: www.cemcon.com

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	5
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 60X29	

CODE NUMBER	ITEM	UNIT	TOTAL QUANTITY	070																					
				CONSTRUCTION CODE 0021																					
				TRAFFIC SIGNAL																					
				URBAN																					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21					
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	4	4																					
67100100	MOBILIZATION	L SUM	1	1																					
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1																					
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	71	16	1	1	2	2	1	1	1	1	2	16	1	1	12	1	3	3	1	1	3	1	
87502440	TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	8	1									4			2			1						
87502480	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	80	12		3			3	1		33	5		9				2		1		11		
87502490	TRAFFIC SIGNAL POST, GALVANIZED STEEL 15 FT.	EACH	4													2								2	
87502500	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	42	12						1		11				9	2			4		1		2	
88001640	SIGNAL HEAD, LED, 3-FACE, 2-3 SECTION, 1-4 SECTION, BRACKET MOUNTED	EACH	1	1																					
88030020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	79	6		6		4		3		1		24	2	2	19	4			4		2	2	
88030050	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	74	11				3	4		4		35	2	2	5				4		2		2	
88030070	SIGNAL HEAD, LED, 1-FACE, 4-SECTION, BRACKET MOUNTED	EACH	1	1																					
88030080	SIGNAL HEAD, LED, 1-FACE, 4-SECTION, MAST-ARM MOUNTED	EACH	2															2							
88030100	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	25	2			4						6		2	4	4					1		2	

FILE NAME *
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USER NAME * JGC
 DESIGNED - BPT
 DRAWN - RDS/JGC
 PLDT SCALE - NOT TO SCALE
 PLDT DATE * X
 CHECKED - BPT
 DATE - 12-04-13

REVISED -
 REVISED -
 REVISED -
 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
 (SHEET 3 OF 6)

SCALE: 1"=20' SHEET NO. OF SHEETS STA. TO STA.

PREPARED BY:
CEMCON, Ltd.
 Consulting Engineers, Land Surveyors & Planners
 2280 White Oak Circle, Suite 100
 Aurora, Illinois 60504-9675
 PH: 630.862.2100 FAX: 630.862.2199
 E-Mail: oad@cemcon.com Website: www.cemcon.com

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	6
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 60X29	

CODE NUMBER	ITEM	UNIT	TOTAL QUANTITY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
				CONSTRUCTION CODE 0021																				
				TRAFFIC SIGNAL																				
				URBAN																				
88030110	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	54	6				4	3	1		1		11		2	16	4		4			2	
88030210	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	38	9		4				1	1			9	4	2	8							
88030220	SIGNAL HEAD, LED, 2-FACE, 5 SECTION, BRACKET MOUNTED	EACH	2	2																				
88030230	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-4 SECTION, BRACKET MOUNTED	EACH	2														2							
88030240	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	32	4					3	1		1		5			12			4		2		
88030310	SIGNAL HEAD, LED, 3-FACE, 3-SECTION, BRACKET MOUNTED	EACH	5									1		4										
88030330	SIGNAL HEAD, LED, 3-FACE, 2-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	1																			1		
88055150	OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	4	2										1						1				
88055160	OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	10	3										2			2			3				
88055190	OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	1																	1				
88055200	OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	3														2			1				
88055370	OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	1														1							
88060110	COMBINATION SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION OPTICALLY PROGRAMMED, 1-3 SECTION, BRACKET MOUNTED	EACH	2														2							
88060405	COMBINATION SIGNAL HEAD, LED, 3-FACE, 1-3 SECTION OPTICALLY PROGRAMMED, 1-5 SECTION OPTICALLY PROGRAMMED, 1-3 SECTION, BRACKET MOUNTED	EACH	1														1							

FILE NAME *
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USER NAME * JGC	DESIGNED - BPT	REVISED -
	DRAWN - ROS/JGC	REVISED -
PLDT SCALE * NOT TO SCALE	CHECKED - BPT	REVISED -
PLDT DATE * X	DATE - 12-04-13	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES
 (SHEET 4 OF 6)**

SCALE: 1"=20' SHEET NO. OF SHEETS STA. TO STA.

PREPARED BY:
CEMCON, Ltd.
 Consulting Engineers, Land Surveyors & Planners
 2280 White Oak Circle, Suite 100
 Aurora, Illinois 60504-3675
 PH: 630.862.2100 FAX: 630.862.2199
 E-Mail: cadd@cemcon.com Website: www.cemcon.com

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	7
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT			CONTRACT NO. 60X29	

CODE NUMBER	ITEM	UNIT	TOTAL QUANTITY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
				CONSTRUCTION CODE 0021																				
				TRAFFIC SIGNAL																				
				URBAN																				
88060410	COMBINATION SIGNAL HEAD, LED, 3-FACE, 2-3 SECTION OPTICALLY PROGRAMMED, 1-3 SECTION, BRACKET MOUNTED	EACH	1												1									
88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	130	28	4	8	8	4			2	2	4	32	8	2	12		2	10				4
88102747	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	82	12	2			6			3			18		3	4	4	11	7	4			8
88200210	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	149	15		6		8	3	4		2		37	2	4	42	8		12		2	4	
88800100	PEDESTRIAN PUSH-BUTTON	EACH	178	42		8	8					2	4	58	8		42					2	4	
89502210	MODIFY EXISTING CONTROLLER CABINET	EACH	64	15	1	1	1	2		1	1	1	2	16	1	1	9	1	3	3	1	1	3	
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	68	14	1	1	1	2	1	1	1	1	2	16	1	1	12	1	3	3	1	1	3	1
X8570215	FULL-ACTUATED CONTROLLER IN EXISTING CABINET	EACH	1											1										
X8620050	UNINTERRUPTABLE POWER SUPPLY, GROUND MOUNTED	EACH	5	1						1				1			1		1					
X8620200	UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	59	14	1	1	1	2			1	1	2	15	1	1	8	1	2	3	1	1	3	
X8880015	PEDESTRIAN PUSH-BUTTON, NON-LATCHING	EACH	130	21	6			10	4		4			33		5	13	4	8	10	4		8	
X8803040	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED, RETROFIT	EACH	1	1																				
X8803051	SIGNAL HEAD, LED, 3-FACE, 2-3 SECTION, 1-5 SECTION, BRACKET MOUNTED, RETROFIT	EACH	1	1																				
X8803081	SIGNAL HEAD, LED, 1-FACE, 3 SECTION, HORIZONTAL MOUNTED, RETROFIT	EACH	3	3																				

FILE NAME *
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08-SUMMARY.DGN

USER NAME * JGC
PLOT SCALE = NOT TO SCALE
PLOT DATE * X

DESIGNED - BPT
DRAWN - RDS/JGC
CHECKED - BPT
DATE - 12-04-13

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REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
(SHEET 5 OF 6)

SCALE: 1"=20' SHEET NO. OF SHEETS STA. TO STA.

PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60504-9875
Ph: 630.862.2100 Fax: 630.862.2199
E-Mail: cedd@cemcon.com Website: www.cemcon.com

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	8
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 60X29	

CODE NUMBER	ITEM	UNIT	TOTAL QUANTITY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
				CONSTRUCTION CODE 0021																				
				TRAFFIC SIGNAL																				
				URBAN																				
X8803082	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	24	6										2			4			4	4		4	
X8803084	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	58	22				4			4			6					4	8	8		2	
X8803088	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	17	1				4			4			2					4				2	
X8803090	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	5	1														4						
X8803210	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT	EACH	17	1				4			4			2					4				2	
X8807665	SIGNAL HEAD, LED, 1-SECTION, POST MOUNTED, RETROFIT	EACH	2	2																				
Ø 70070604	TRAINEES - TRAINING PROGRAM GRADUATE	HOUR	500	500																				

Ø 0042

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FILE NAME *
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USER NAME * JGC	DESIGNED - BPT	REVISED -
PLDT SCALE = NOT TO SCALE	DRAWN - RDS/JGC	REVISED -
PLDT DATE * X	CHECKED - BPT	REVISED -
	DATE - 12-04-13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
(SHEET 6 OF 6)

SCALE: 1"=20' SHEET NO. OF SHEETS STA. TO STA.

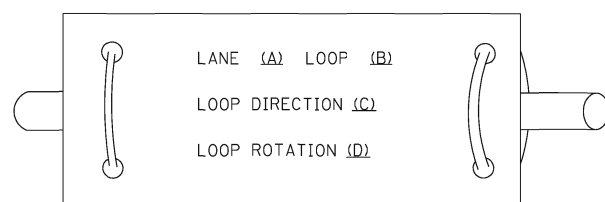
PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60504-9675
Ph: 630.862.2100 Fax: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	9
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 60X29	

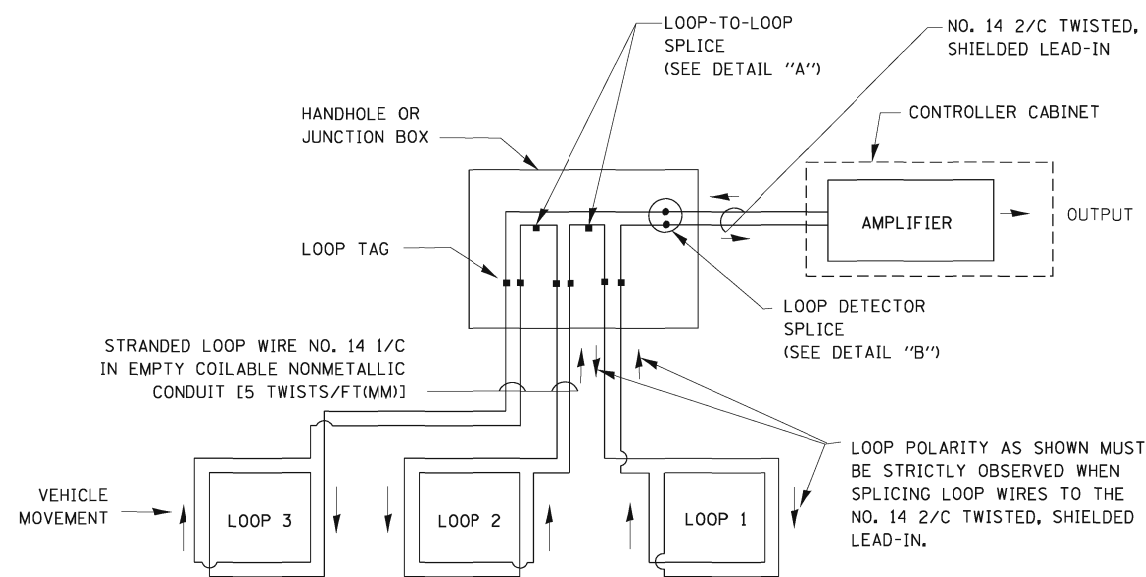
LOOP DETECTOR NOTES

1. EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE EMPTY COILABLE NONMETALLIC CONDUIT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). EMPTY COILABLE NONMETALLIC CONDUIT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
2. THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.
3. EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF INK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.
4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
5. IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVEHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.
6. LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.
7. PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

LOOP LEAD-IN CABLE TAG

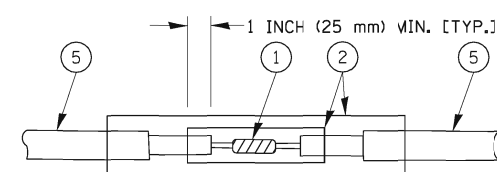


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

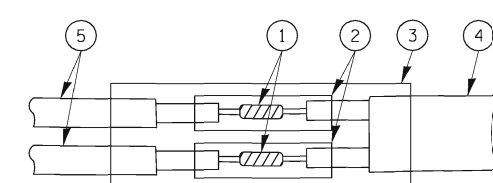


DETECTOR LOOP WIRING SCHEMATIC

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

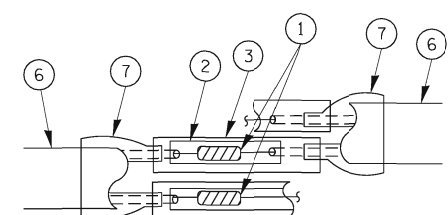


DETAIL "A"
LOOP-TO-LOOP SPLICE

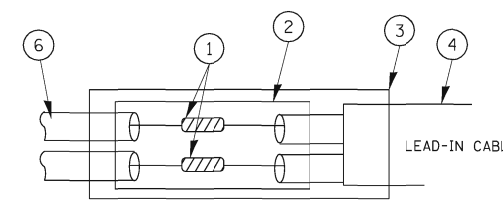


DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

TYPE I LOOP



DETAIL "A"
LOOP-TO-LOOP SPLICE



DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

LOOP DETECTOR SPLICE

1. WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH.
2. WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
3. WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGTH 6" (150 mm), UNDERWATER GRADE.
4. NO. 14 2/C TWISTED, SHIELDED CABLE.
5. LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.
6. PRE-FORMED LOOP
7. XL POLYOLEFIN 2 CONDUCTOR BREAKOUT SEALS. TYCO CBR-2 OR APPROVED EQUAL

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

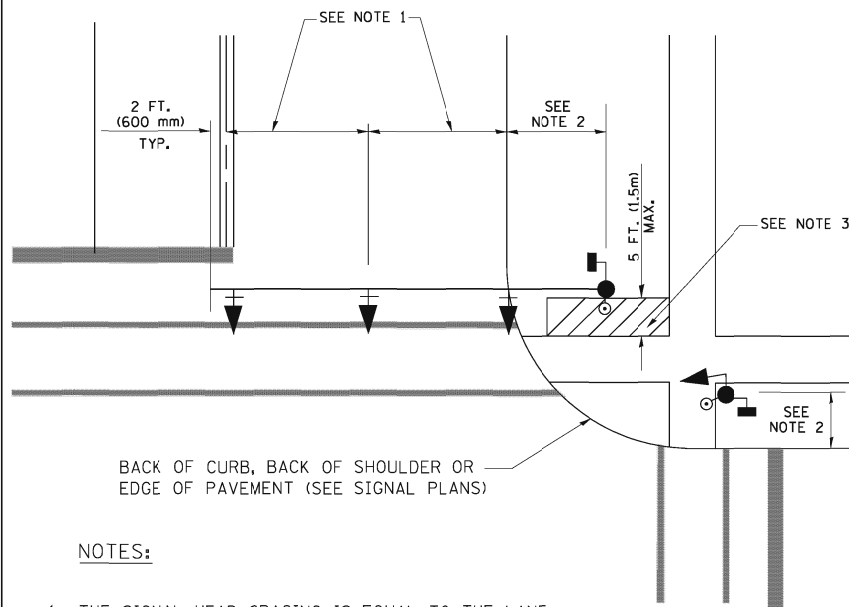
DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: SHEET NO. 1 OF 6 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	10
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 60X29	

TRAFFIC SIGNAL MAST ARM AND SIGNAL POST

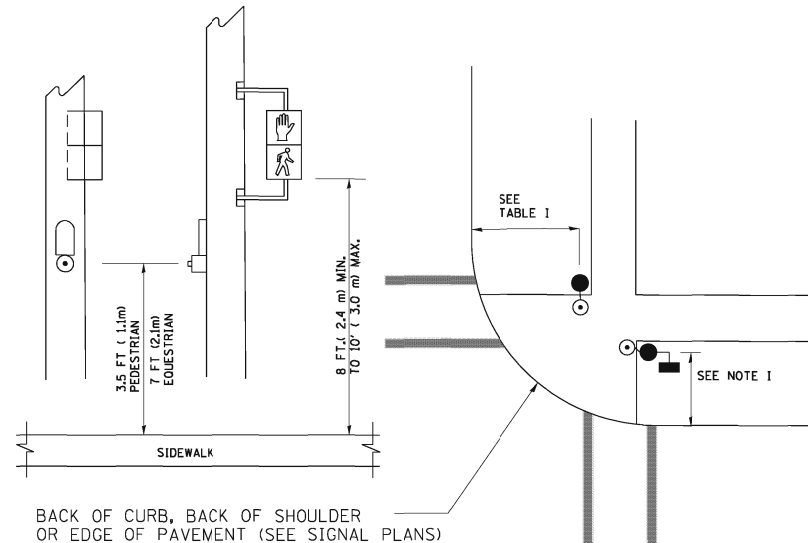
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



NOTES:

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

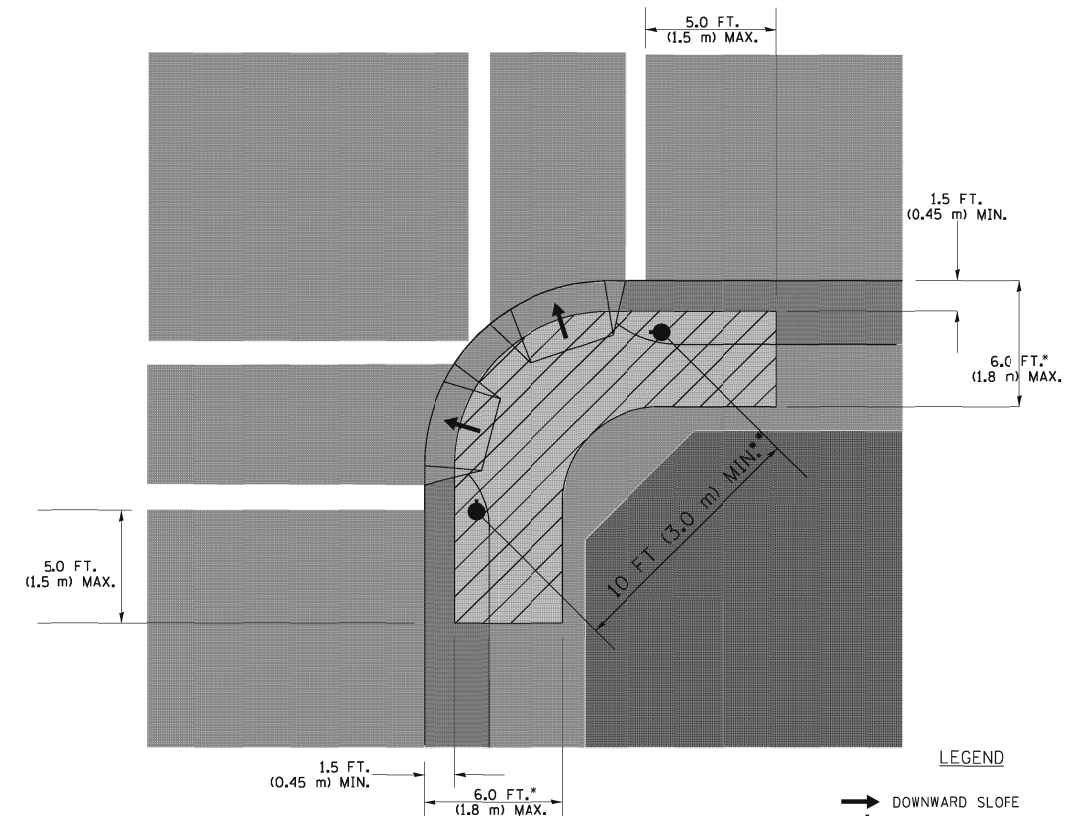
PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST



NOTES:

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

RECOMMENDED PUSHBUTTON LOCATIONS



- WHERE THERE ARE CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON BETWEEN 1.5 FT (0.45 m) AND 6 FT (1.8 m) FROM THE EDGE OF THE CURB, SHOULDER, OR PAVEMENT, IT SHOULD NOT BE FURTHER THAN 10 FT (3 m) FROM THE EDGE OF CURB, SHOULDER, OR PAVEMENT.
- WHERE THERE ARE CONSTRAINTS ON A PARTICULAR CORNER THAT MAKE IT IMPRACTICAL TO PROVIDE THE 10 FT (3 m) SEPERATION BETWEEN THE TWO PEDESTRIAN PUSHBUTTONS, THE PUSHBUTTONS MAY BE PLACED CLOSER TOGETHER OR ON THE SAME POLE.

NOTES:

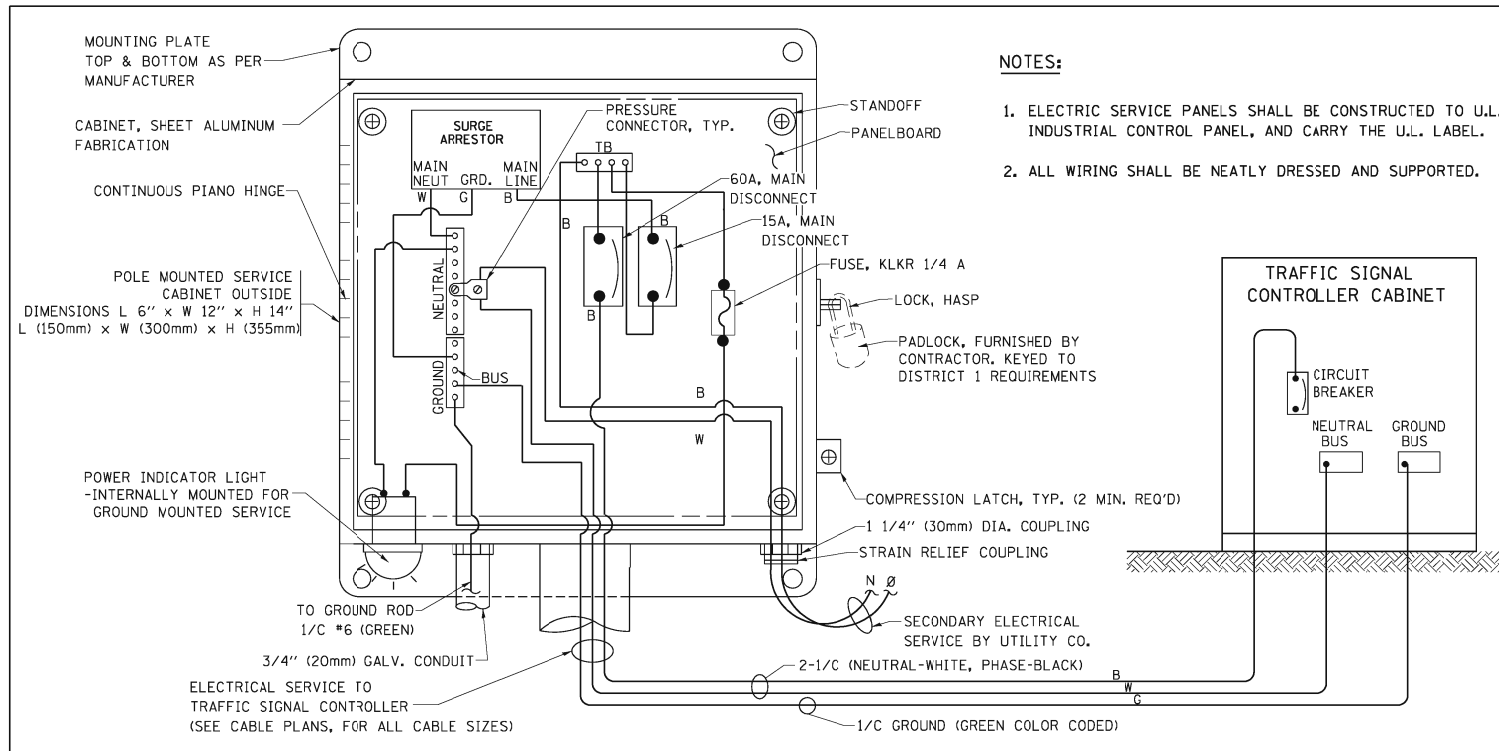
1. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 8 FT (2.4 m) OR MORE THAN 10 FT (3 m) ABOVE SIDEWALK LEVEL, AND SHALL BE POSITIONED AND ADJUSTED TO PROVIDE MAXIMUM VISIBILITY AT THE BEGINNING OF THE CONTROLLED CROSSWALK.
2. THE BOTTOM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

TRAFFIC SIGNAL EQUIPMENT OFFSET

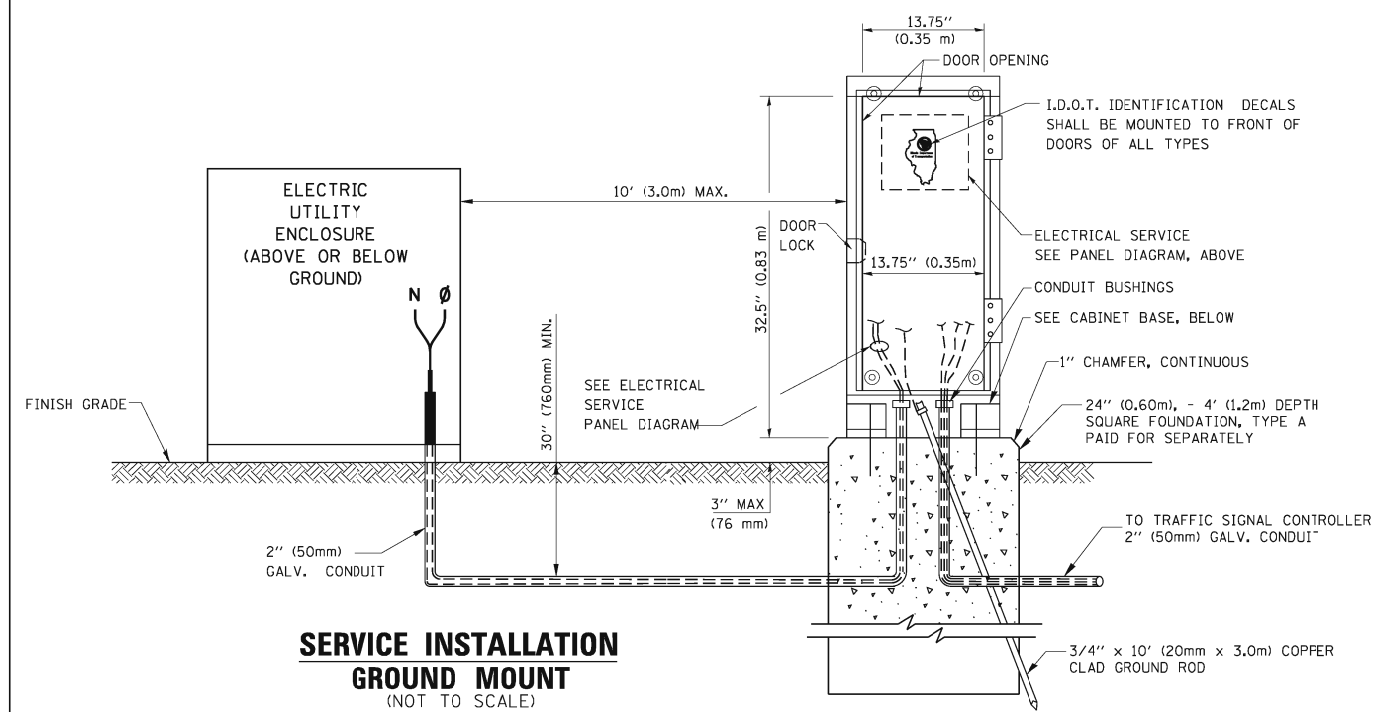
TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION)	SHOULDER/NON-CURBED AREA (MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO CENTERLINE OF FOUNDATION)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10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

NOTES:

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

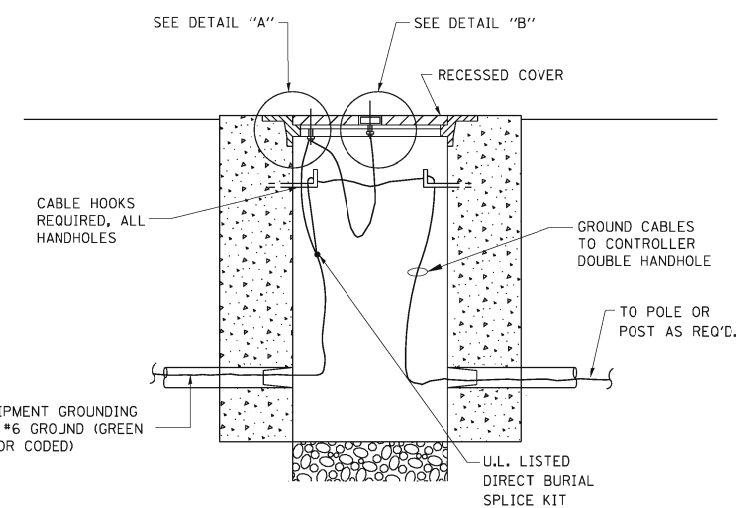
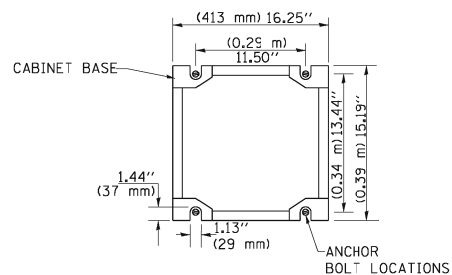


ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)
SERVICE INSTALLATION POLE MOUNT (SHOWN)
 (NOT TO SCALE)

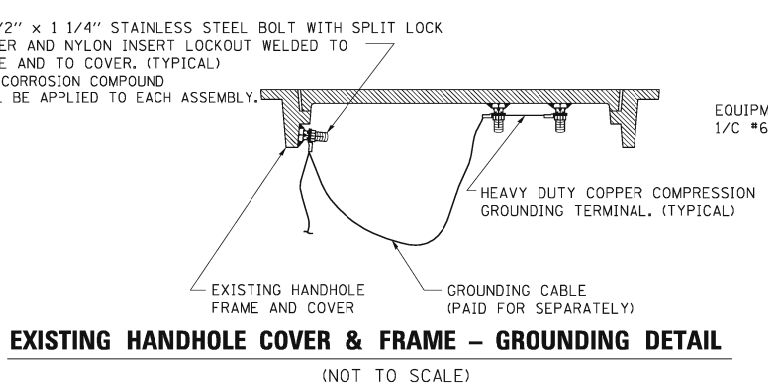


SERVICE INSTALLATION GROUND MOUNT
 (NOT TO SCALE)

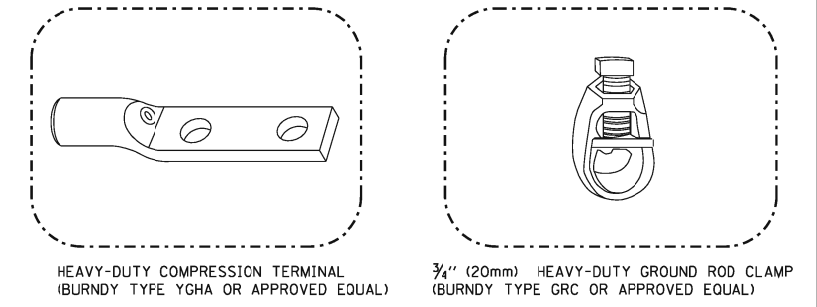
CABINET - BASE BOLT PATTERN
 (NOT TO SCALE)



HANDHOLE COVER & FRAME - GROUNDING DETAIL
 (NOT TO SCALE)

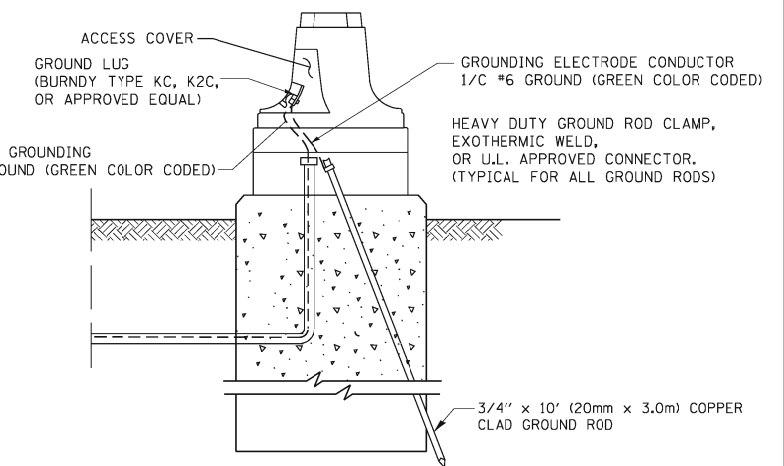


EXISTING HANDHOLE COVER & FRAME - GROUNDING DETAIL
 (NOT TO SCALE)



HEAVY-DUTY COMPRESSION TERMINAL (BURNDY TYPE YGHA OR APPROVED EQUAL)
 3/4" (20mm) HEAVY-DUTY GROUND ROD CLAMP (BURNDY TYPE GRC OR APPROVED EQUAL)

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



MAST ARM POLE / POST-GROUNDING DETAIL
 (NOT TO SCALE)

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

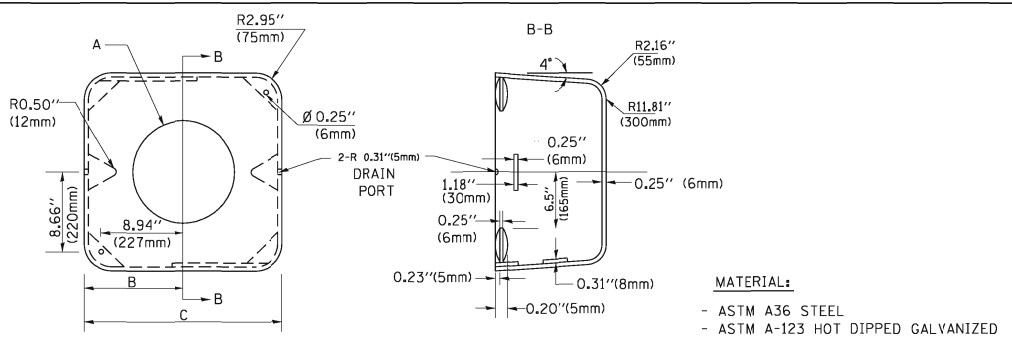
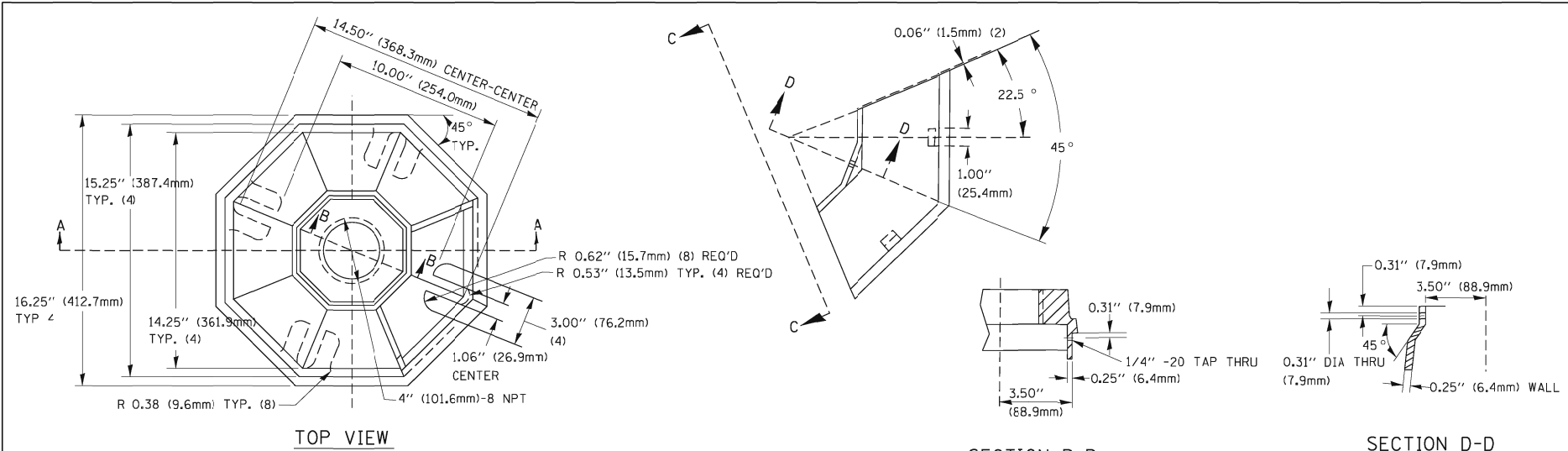
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT 1
 STANDARD TRAFFIC SIGNAL DESIGN DETAILS
 SCALE: SHEET NO. 3 OF 6 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	12
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

CONTRACT NO. 60X29

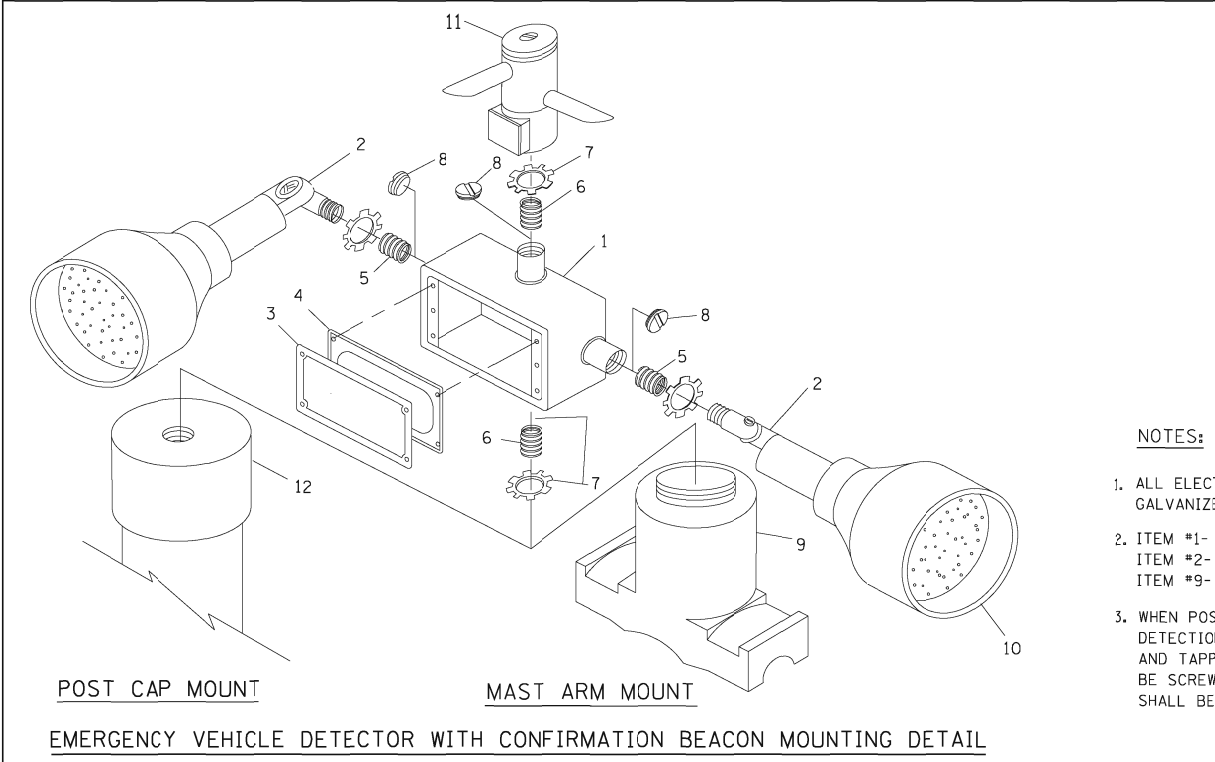
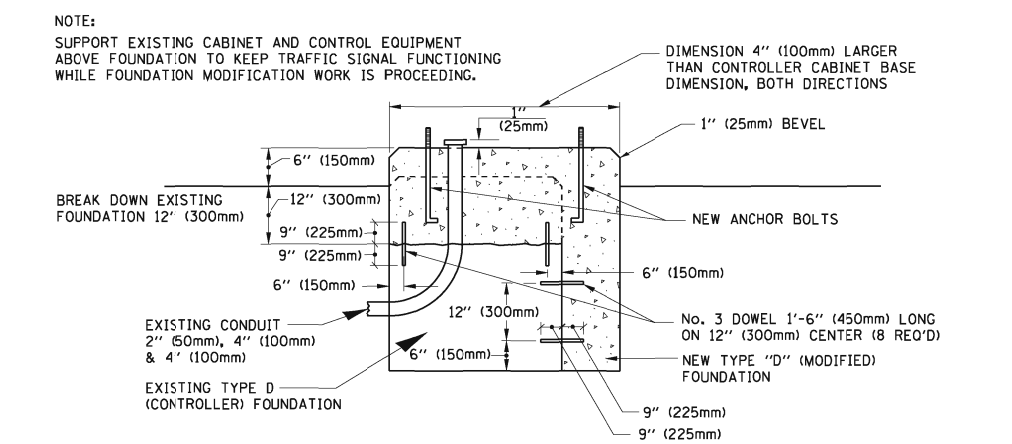
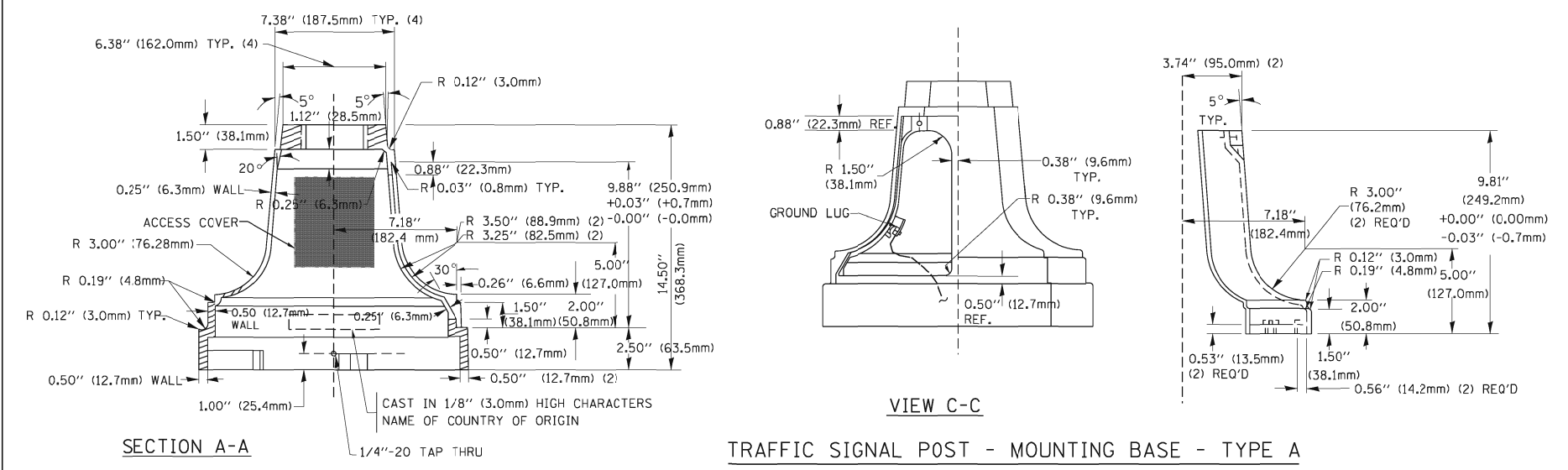


A	B	C	HEIGHT	WEIGHT
VARIABLES	9.5\" (241mm)	19\" (483mm)	7\" (178mm) - 12\" (300mm)	53 lbs (24kg)
VARIABLES	10.75\" (273mm)	21.5\" (546mm)	7\" (178mm) - 12\" (300mm)	68 lbs (31 kg)
VARIABLES	13.0\" (330mm)	26\" (660mm)	7\" (178mm) - 12\" (300mm)	81 lbs (37 kg)
VARIABLES	18.5\" (470mm)	37\" (940mm)	7\"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

SHROUD

NOTES:

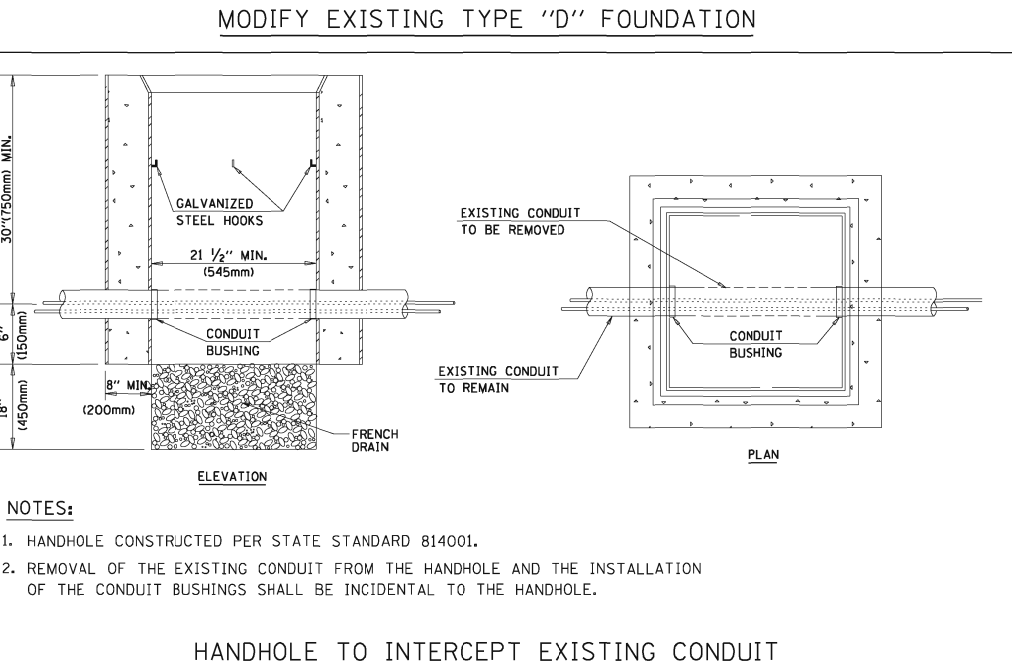
- DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
- THE SUPPLIER SHALL VERIFY THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
- THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.



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

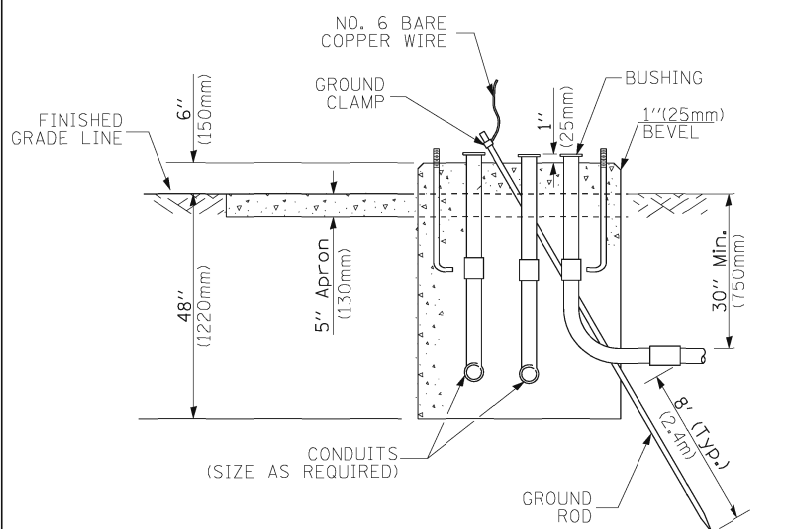
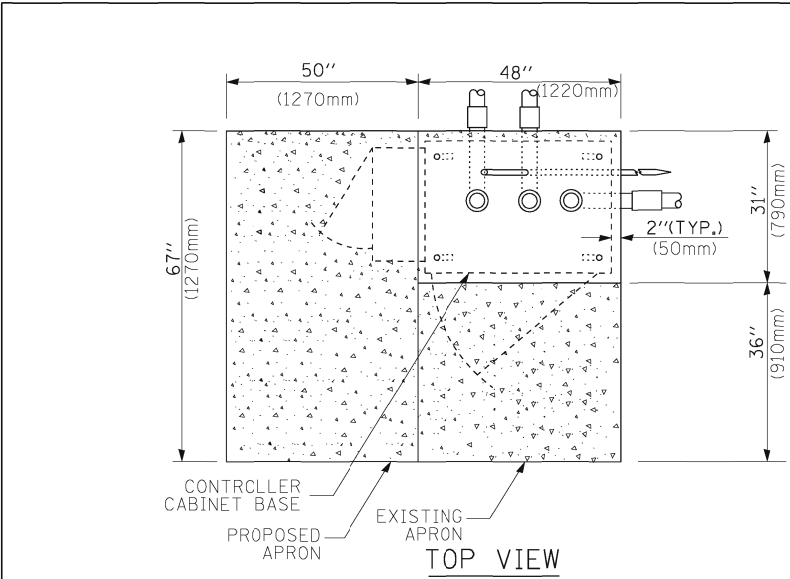
NOTES:

- ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
- ITEM #1- OZ/GEDNEY FSX-1-50 OR EQUIVALENT
ITEM #2- MULBERRY CON-O-SHADE LAMP SHIELD OR EQUIVALENT
ITEM #9- "BAND-IT" SADDLE BRACKET OR EQUIVALENT
- WHEN POST MOUNTING IS SPECIFIED, ITEM #9 SHALL NOT BE REQUIRED. THE DETECTION UNIT SHALL BE MOUNTED DIRECTLY ON TOP OF THE CAP BY DRILLING AND TAPPING A 3/4\" (19 mm) HOLE WITH PIPE THREADS. THE POST CAP SHALL EITHER BE SCREWED TO THE TOP OF THE POST OR A MINIMUM OF 3 TIGHTENING SCREWS SHALL BE REQUIRED ON EACH CAP.

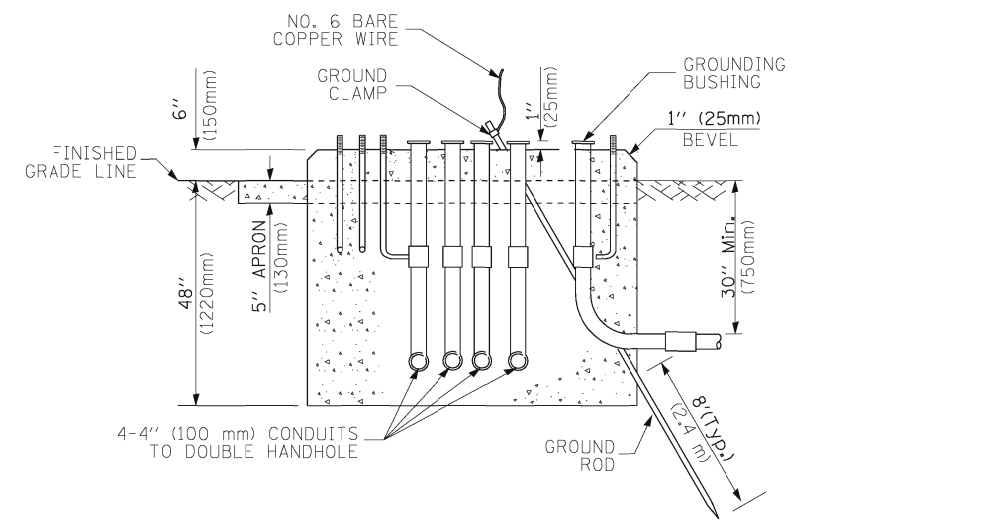
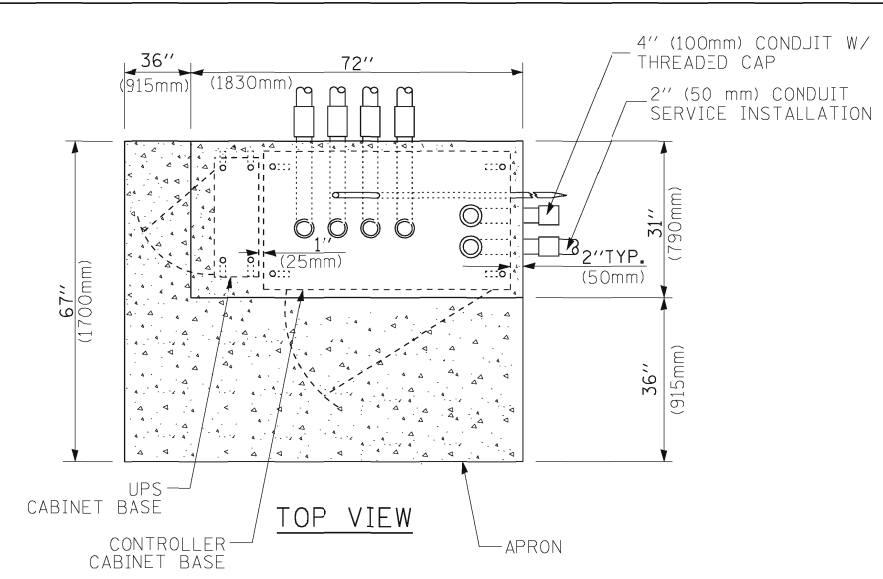


NOTES:

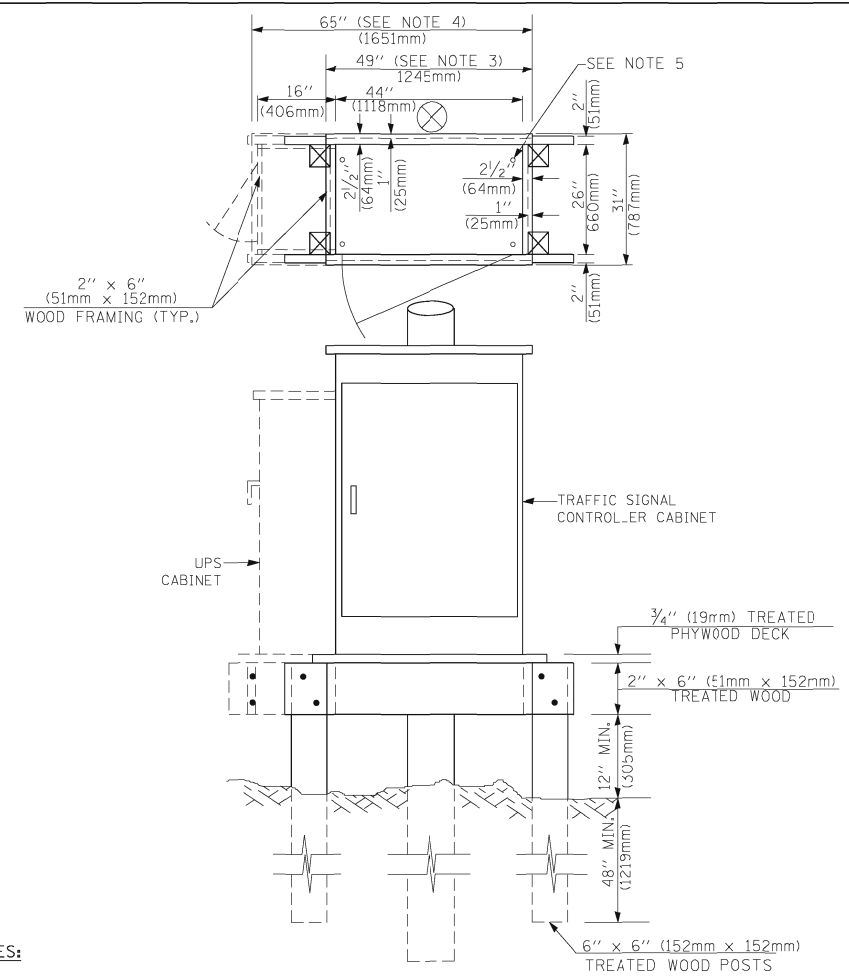
- HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.
- REMOVAL OF THE EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHINGS SHALL BE INCIDENTAL TO THE HANDHOLE.



**TYPE D
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET**



**TYPE C
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET**



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

**TEMPORARY SIGNAL CONTROLLER
WOOD SUPPORT PLATFORM**

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

CABLE SLACK

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

VERTICAL CABLE LENGTH

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

DEPTH OF FOUNDATION

MAST ARM LENGTH	FOUNDATION DEPTH	FOUNDATION DIAMETER	SPIRAL DIAMETER	QUANTITY OF REBARS	SIZE OF REBARS
Less than 30' (9.1 m)	10'-0" (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 30' (9.1 m) and less than 40' (12.2 m)	13'-6" (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	11'-0" (3.4 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	13'-0" (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 55' (16.8 m) and less than 65' (19.8 m)	15'-0" (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 65' (19.8 m) and up to 75' (22.9 m)	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
Greater than or equal to 75' (22.9 m) and up to 85' (25.9 m)	25'-0" (7.6 m)	42" (1060mm)	36" (900mm)	16	8(25)

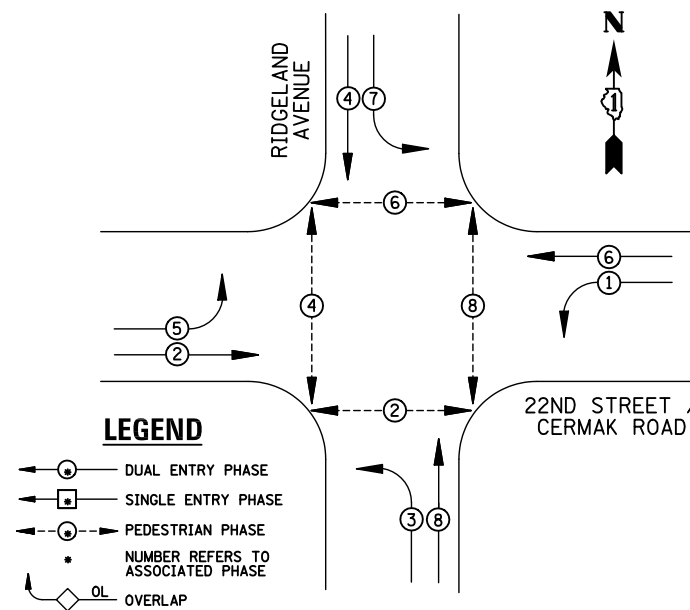
- NOTES:**
1. These foundation depths are for sites which have cohesive soils (clayey silt, sandy clay, etc.) along the length of the shaft, with an average Unconfined Compressive Strength (Qu) > 1.0 tsf (100 kpa). This strength shall be verified by boring data prior to construction or with testing by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

DEPTH OF MAST ARM FOUNDATIONS, TYPE E

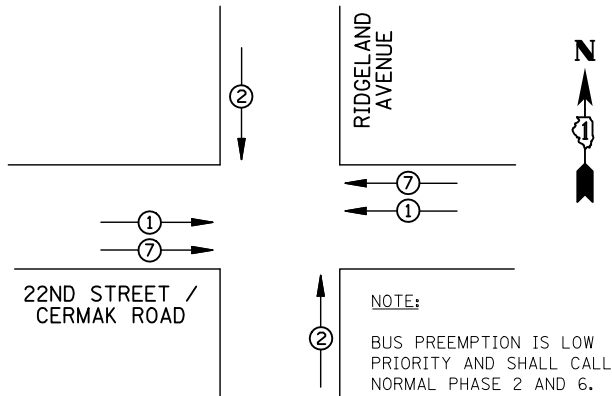
TRAFFIC SIGNAL LEGEND

ITEM	REMOVAL	EXISTING	PROPOSED	ITEM	REMOVAL	EXISTING	PROPOSED	ITEM	REMOVAL	EXISTING	PROPOSED		
CONTROLLER CABINET				EMERGENCY VEHICLE LIGHT DETECTOR				ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1/C, UNLESS NOTED OTHERWISE					
RAILROAD CONTROL CABINET				CONFIRMATION BEACON				COAXIAL CABLE					
COMMUNICATIONS CABINET				HANDHOLE				VENDOR CABLE FOR CAMERA					
MASTER CONTROLLER				HEAVY DUTY HANDHOLE				COPPER INTERCONNECT CABLE, NO. 18 3 PAIR TWISTED, SHIELDED					
MASTER MASTER CONTROLLER				DOUBLE HANDHOLE				FIBER OPTIC CABLE NO. 62.5/125, MM12F					
UNINTERRUPTIBLE POWER SUPPLY				JUNCTION BOX				FIBER OPTIC CABLE NO. 62.5/125, MM12F SM12F					
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT				GALVANIZED STEEL CONDUIT IN TRENCH (T) OR PUSHED (P)				FIBER OPTIC CABLE NO. 62.5/125, MM12F (NUMBER OF FIBERS & TYPE TO BE NOTED ON PLANS)					
TELEPHONE CONNECTION (P) POLE OR (G) GROUND MOUNT				TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE				GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE					
STEEL MAST ARM ASSEMBLY AND POLE				COMMON TRENCH				CONTROLLER CABINET AND FOUNDATION TO BE REMOVED					
ALUMINUM MAST ARM ASSEMBLY AND POLE				COILABLE NONMETALLIC CONDUIT (EMPTY)				STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED					
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE				SYSTEM ITEM				ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED					
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH PTZ CAMERA				INTERSECTION ITEM				STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE AND FOUNDATION TO BE REMOVED					
SIGNAL POST				REMOVE ITEM				SIGNAL POST AND FOUNDATION TO BE REMOVED					
TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM				RELOCATE ITEM				INTERSECTION & SAMPLING (SYSTEM) DETECTOR					
GUY WIRE				ABANDON ITEM				SAMPLING (SYSTEM) DETECTOR					
SIGNAL HEAD				12" (300mm) TRAFFIC SIGNAL SECTION				EXISTING INTERSECTION LOOP DETECTOR					
SIGNAL HEAD CONSTRUCTION STAGES (NUMBERS INDICATE THE CONSTRUCTION STAGE)				12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE				PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR					
SIGNAL HEAD WITH BACKPLATE				SIGNAL FACE				EXISTING PREFORMED INTERSECTION LOOP DETECTOR					
SIGNAL HEAD OPTICALLY PROGRAMMED				SIGNAL FACE WITH BACKPLATE, "P" INDICATES PROGRAMMED HEAD				PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR					
FLASHER INSTALLATION (S DENOTES SOLAR POWER)				12" (300mm) PEDESTRIAN SIGNAL HEAD WALK/DON'T WALK SYMBOL				PREFORMED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR					
PEDESTRIAN SIGNAL HEAD				12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMEOL, OUTLINED				PREFORMED SAMPLING (SYSTEM) DETECTOR					
PEDESTRIAN PUSHBUTTON DETECTOR				12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMEOL, SOLID				RAILROAD SYMBOLS					
ACCESSIBLE PEDESTRIAN PUSHBUTTON DETECTOR				PEDESTRIAN SIGNAL HEAD, INTERNATIONAL SYMBOL, WITH COUNTDOWN TIMER				EXISTING			PROPOSED		
ILLUMINATED SIGN "NO LEFT TURN"				RADIO INTERCONNECT									
ILLUMINATED SIGN "NO RIGHT TURN"				RADIO REPEATER									
DETECTOR LOOP, TYPE I				DENOTES NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE, ALL DETECTOR LOOP CABLE TO BE SHIELDED									
PREFORMED DETECTOR LOOP				GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)									
MICROWAVE VEHICLE SENSOR										RAILROAD SYMBOLS			
VIDEO DETECTION CAMERA													
VIDEO DETECTION ZONE													
PAN, TILT, ZOOM CAMERA													
WIRELESS DETECTOR SENSOR													
WIRELESS ACCESS POINT													

EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM



PREEMPTORS			
PREEMPTOR	1	2	7
MOVEMENT	←→	↑↓	←→

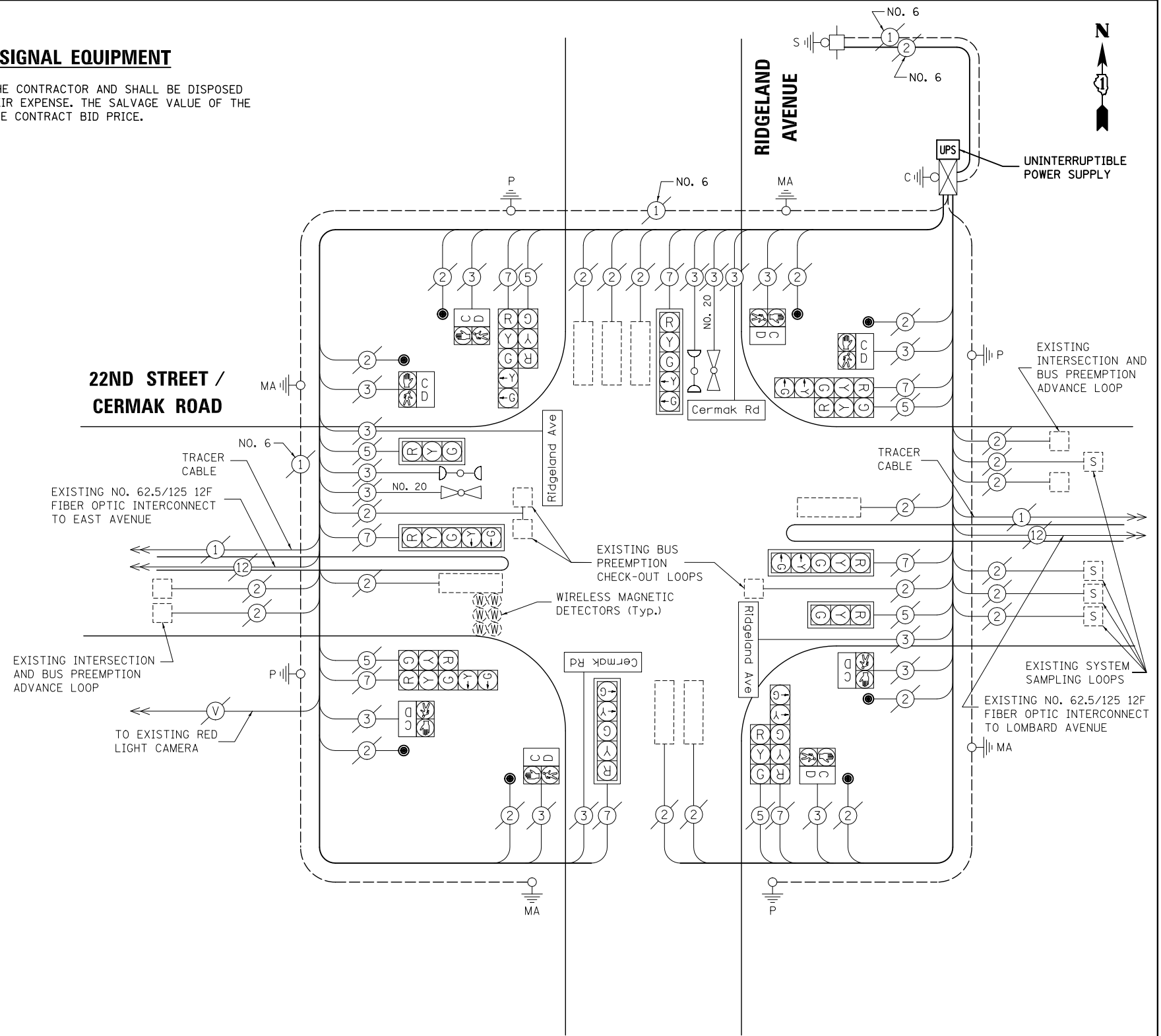
EXISTING EMERGENCY VEHICLE AND BUS PREEMPTION SEQUENCE

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

8 EACH PEDESTRIAN PUSH-BUTTON

22ND STREET / CERMAK ROAD



CABLE PLAN

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	8
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1

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

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	%OPERATION	
SIGNAL (RED)	14	135	17	0.50	119
(YELLOW)	14	135	25	0.25	87.5
(GREEN)	14	135	15	0.25	52.5
ARROW	16	135	12	0.10	19.2
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN	4	84	100	0.50	200
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 778.2
ENERGY SUPPLY	CONTACT: X				
	PHONE: X				
	COMPANY: X				

DESIGNED - BPT	REVISED -
DRAWN - JGC/RDS	REVISED -
CHECKED - BPT	REVISED -
DATE - 12-04-13	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES, CABLE PLAN,
PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION
22ND STREET / CERMAK ROAD AT RIDGELAND AVENUE**

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

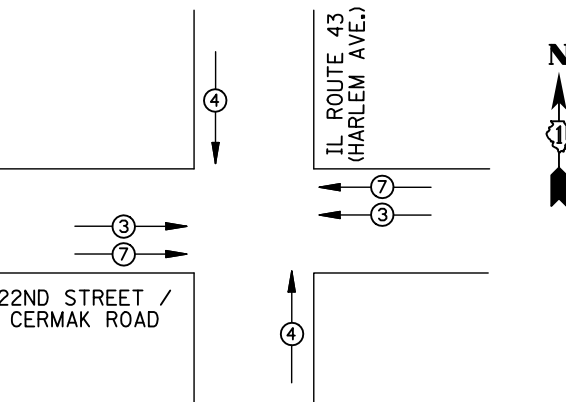
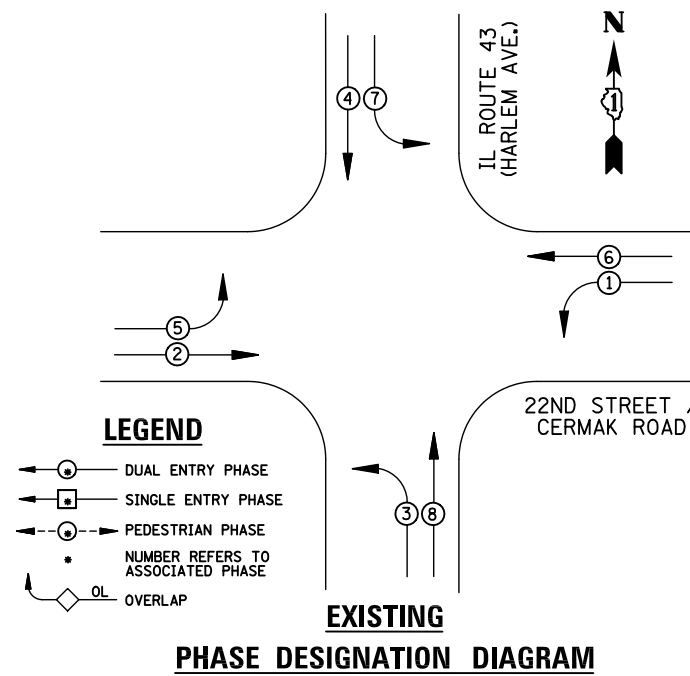
PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60504-9675
Ph: 630.862.2100 Fax: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	16

CONTRACT NO. 60X29
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

TS# 4835
BERWYN

EXISTING CONTROLLER SEQUENCE

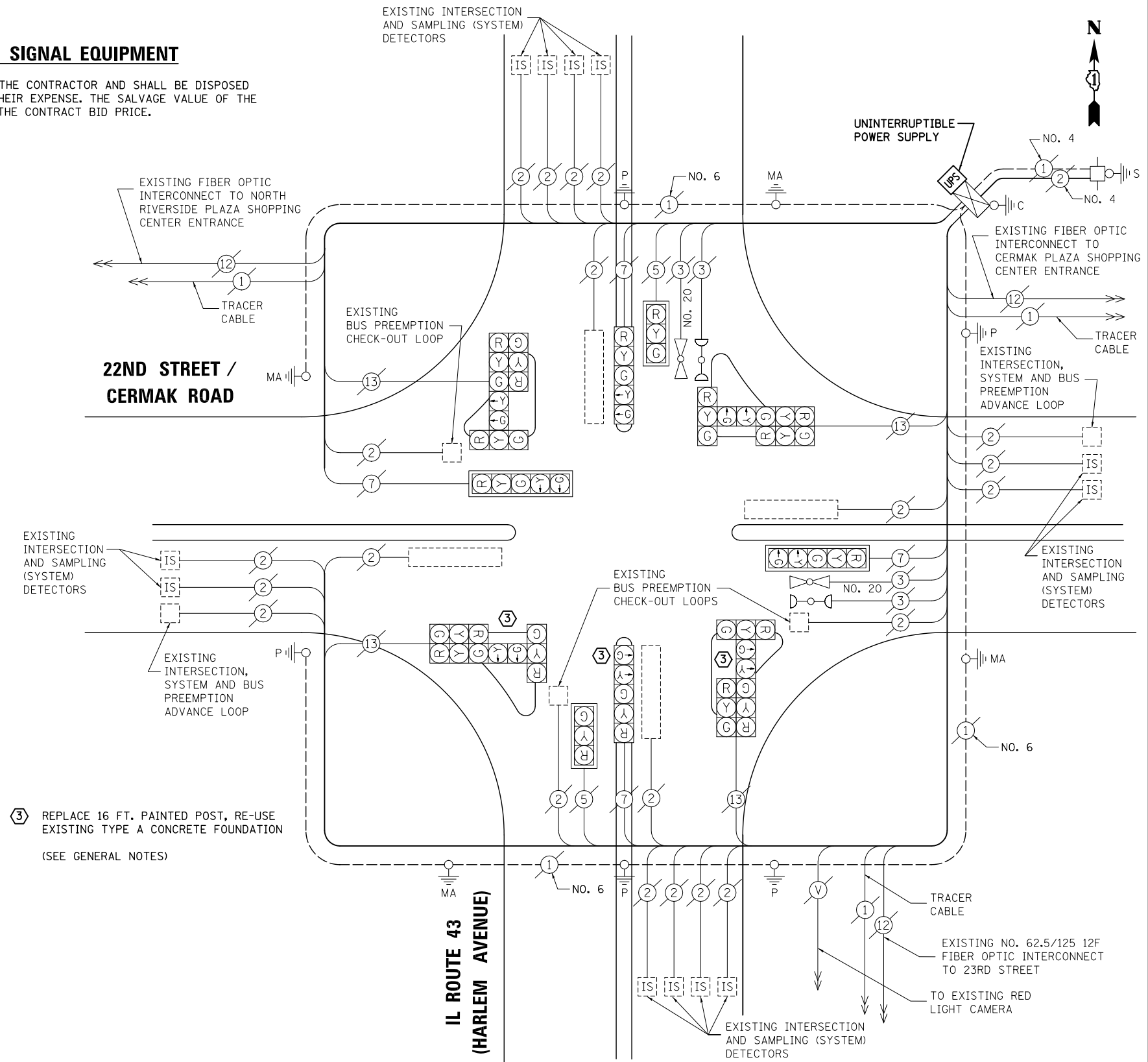


PREEMPTORS				
PREEMPTOR	3	4	7	
MOVEMENT	←→	↑↓	←→	

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 3 EACH TRAFFIC SIGNAL POST



- ③ REPLACE 16 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION (SEE GENERAL NOTES)

SCHEDULE OF QUANTITIES

ITEM

- MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
- TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
- MODIFY EXISTING CONTROLLER CABINET
- REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
- UNINTERRUPTABLE POWER SUPPLY, SPECIAL

UNIT	QUANTITY
EACH	1
EACH	3
EACH	1
EACH	1
EACH	1

CABLE PLAN

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

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	%OPERATION	
SIGNAL (RED)	18	135	17	0.50	153
(YELLOW)	18	135	25	0.25	112.5
(GREEN)	18	135	15	0.25	67.5
ARROW	16	135	12	0.10	19.2
PED. SIGNAL		90	25	1.00	
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 452.2
ENERGY SUPPLY CONTACT:	X				
PHONE:	X				
COMPANY:	X				

DESIGNED - BPT	REVISED -
DRAWN - JGC/RDS	REVISED -
CHECKED - BPT	REVISED -
DATE - 12-04-13	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION IL ROUTE 43 (HARLEM AVENUE) AT 22ND STREET / CERMAK ROAD

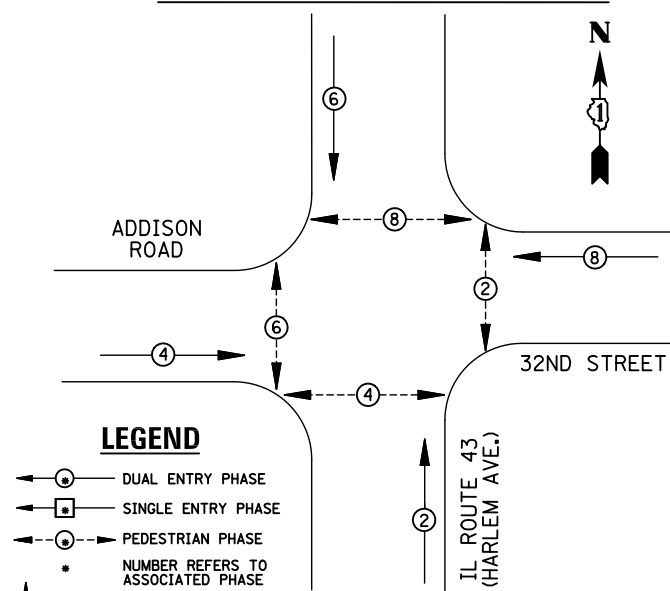
PREPARED BY: **CEMCON, Ltd.**
 Consulting Engineers, Land Surveyors & Planners
 2280 White Oak Circle, Suite 100
 Aurora, Illinois 60504-9675
 Ph: 630.862.2100 Fax: 630.862.2199
 E-Mail: cadd@cemcon.com Website: www.cemcon.com

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	17

CONTRACT NO. 60X29
 FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

TS# 2280 BERWYN

EXISTING CONTROLLER SEQUENCE

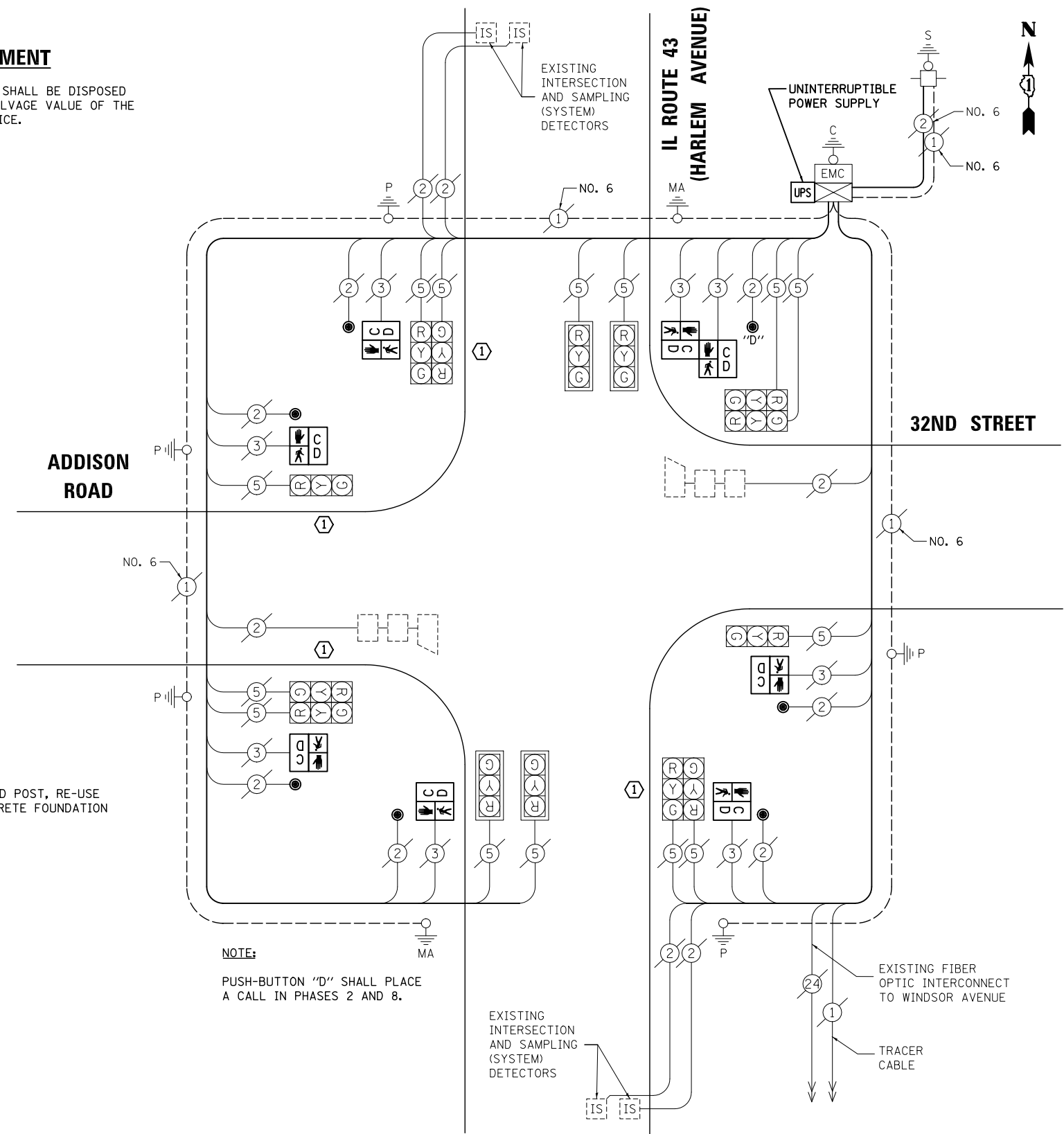


EXISTING PHASE DESIGNATION DIAGRAM

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 4 EACH TRAFFIC SIGNAL POST
- 8 EACH PEDESTRIAN SIGNAL HEAD
- 7 EACH PEDESTRIAN PUSH-BUTTON



CABLE PLAN

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

1 REPLACE 14 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION (SEE GENERAL NOTES)

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	4
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	6
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTIBLE POWER SUPPLY, SPECIAL	EACH	1
PEDESTRIAN PUSH-BUTTON, NON-LATCHING	EACH	7

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	%OPERATION	
SIGNAL (RED)	14	135	17	0.50	119
(YELLOW)	14	135	25	0.25	87.5
(GREEN)	14	135	15	0.25	52.5
ARROW		135	12	0.10	
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 559
ENERGY SUPPLY	CONTACT: X				
	PHONE: X				
	COMPANY: X				

FILE NAME = \MICROST\352108\03-7950.DGN
 USER NAME = JGC
 DESIGNED - BPT
 DRAWN - JGC/RDS
 PLOT SCALE = NOT TO SCALE
 PLOT DATE = X
 CHECKED - BPT
 DATE - 12-04-13

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM
IL ROUTE 43 (HARLEM AVENUE) AT 32ND STREET / ADDISON ROAD
 SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

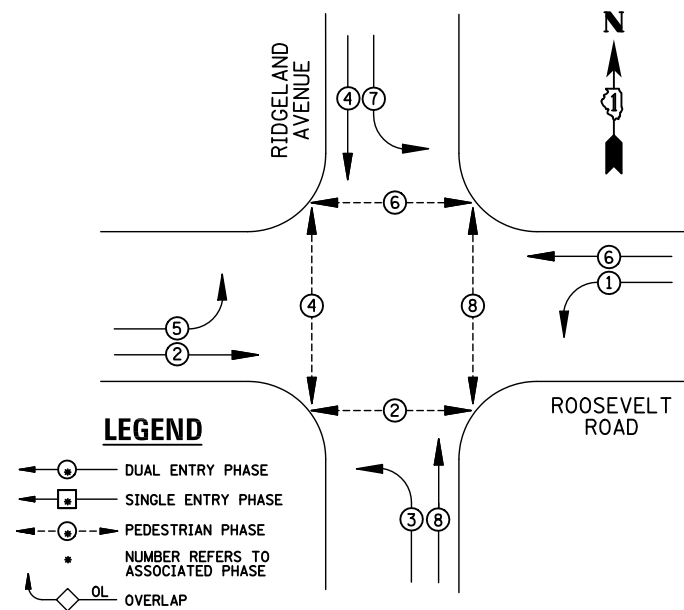
PREPARED BY:
CEMCON, Ltd.
 Consulting Engineers, Land Surveyors & Planners
 2280 White Oak Circle, Suite 100
 Aurora, Illinois 60504-9675
 Ph: 630.862.2100 Fax: 630.862.2199
 E-Mail: cadd@cemcon.com Website: www.cemcon.com

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	18
CONTRACT NO. 60X29				

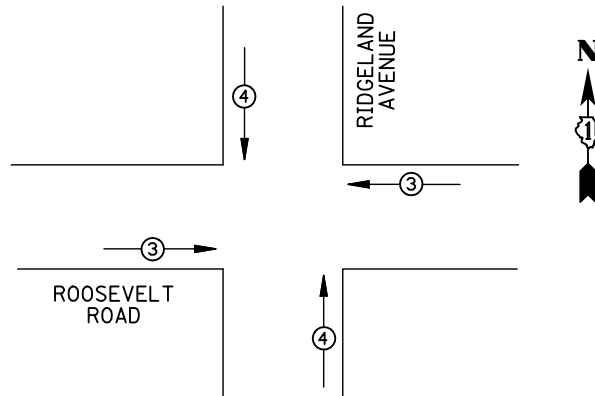
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

TS# 7950 BERWYN

EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	
MOVEMENT	← →	↑ ↓	

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	%OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	16	135	12	0.10	19.2
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 541.2
ENERGY SUPPLY CONTACT: X					
PHONE: X					
COMPANY: X					
FILE NAME = MICROST\352108\ 04-5750.DGN	USER NAME = JGC	DESIGNED - BPT	REVISED -		
	PLOT SCALE = NOT TO SCALE	DRAWN - JGC/RDS	REVISED -		
	PLOT DATE = X	CHECKED - BPT	REVISED -		
		DATE - 12-04-13	REVISED -		

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 8 EACH PEDESTRIAN SIGNAL HEAD
- 4 EACH PEDESTRIAN PUSH-BUTTON

NOTE:

PUSH-BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4.
PUSH-BUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6.
PUSH-BUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8.
PUSH-BUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8.

SCHEDULE OF QUANTITIES

ITEM

- MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
- PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
- MODIFY EXISTING CONTROLLER CABINET
- REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
- UNINTERRUPTIBLE POWER SUPPLY, SPECIAL
- PEDESTRIAN PUSH-BUTTON, NON-LATCHING

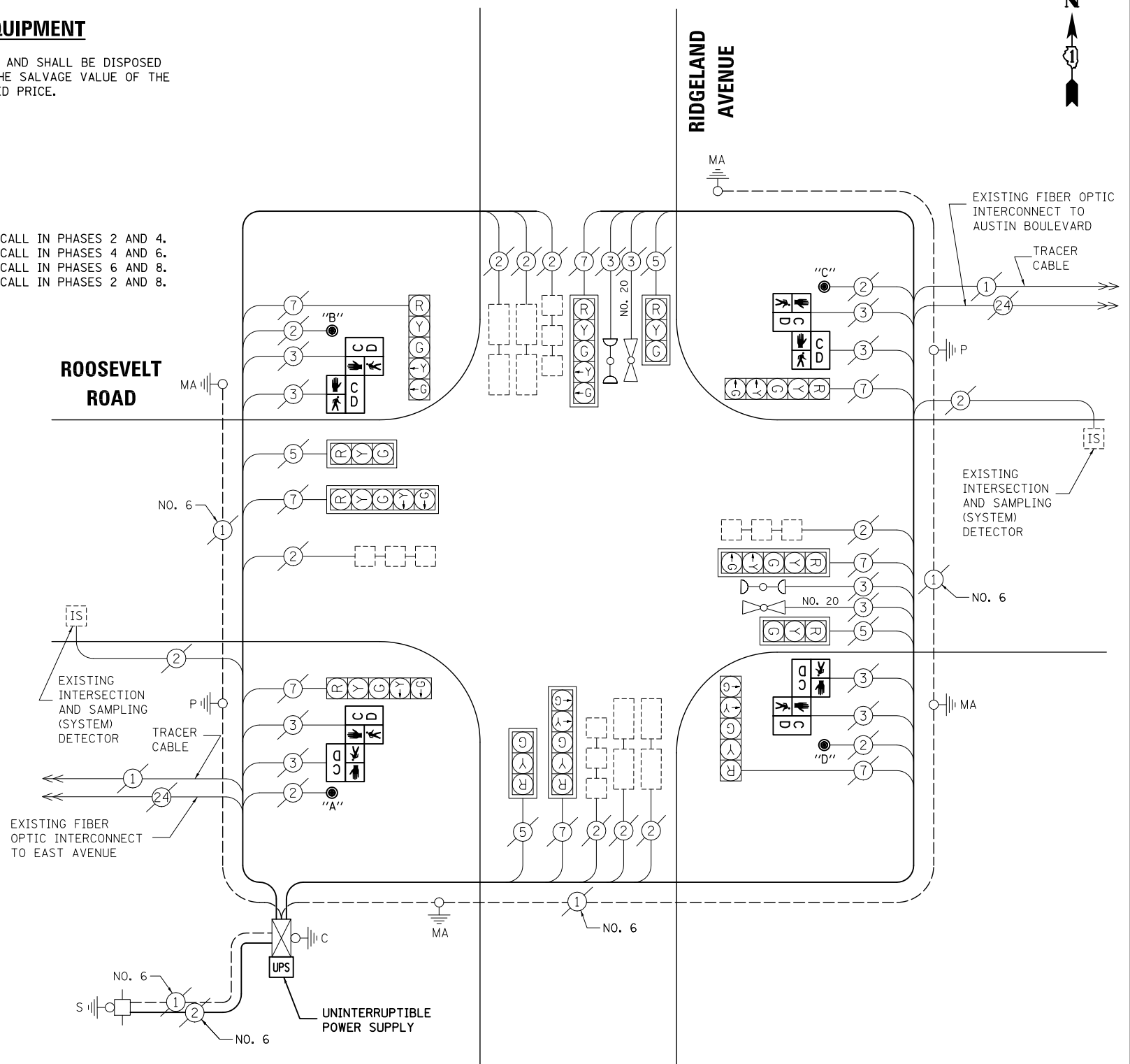
UNIT	QUANTITY
EACH	1
EACH	4
EACH	1
EACH	1
EACH	1
EACH	4

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES, CABLE PLAN,
PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION
ROOSEVELT ROAD AT RIDGELAND AVENUE**

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

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



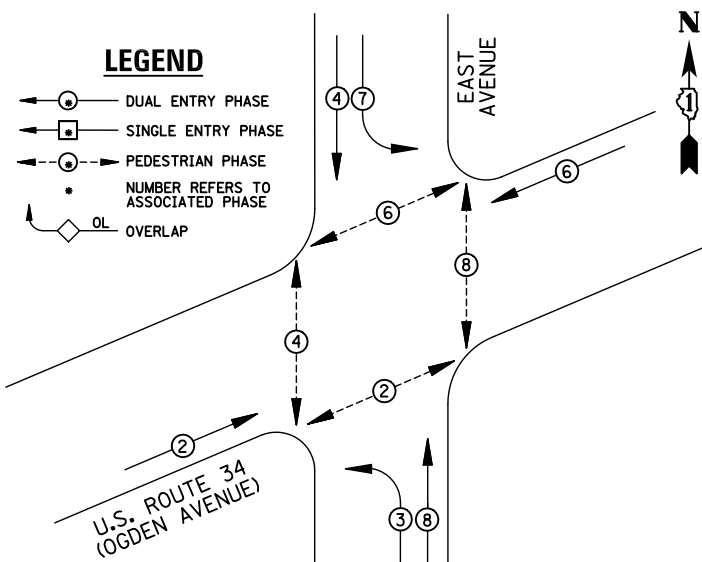
CABLE PLAN

PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60504-9675
Ph: 630.862.2100 Fax: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com

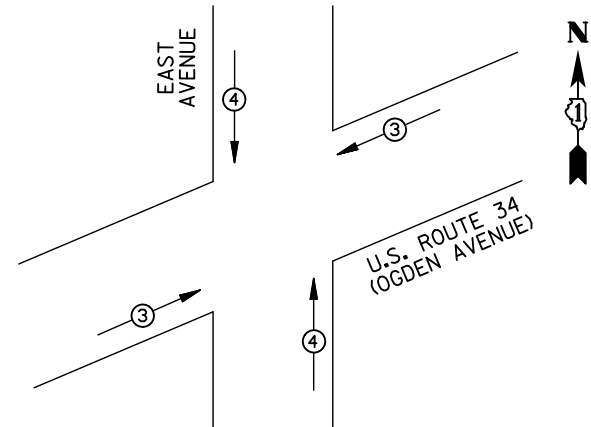
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	19
CONTRACT NO. 60X29				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

TS# 5750
BERWYN

EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	
MOVEMENT	↔	↕	

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. LAMPS	WATTAGE		%OPERATION	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	8	135	12	0.10	9.6
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 531.6
ENERGY SUPPLY	CONTACT: X				
	PHONE: X				
	COMPANY: X				
FILE NAME = MICROST\352108\ 05-5580.DGN	USER NAME = JGC	DESIGNED - BPT	REVISED -		
		DRAWN - JGC/RDS	REVISED -		
	PLOT SCALE = NOT TO SCALE	CHECKED - BPT	REVISED -		
	PLOT DATE = X	DATE - 12-04-13	REVISED -		

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 8 EACH PEDESTRIAN SIGNAL HEAD
- 4 EACH PEDESTRIAN PUSH-BUTTON

NOTE:

PUSH-BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4.
 PUSH-BUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6.
 PUSH-BUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8.
 PUSH-BUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8.

SCHEDULE OF QUANTITIES

ITEM

- MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
- PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
- PEDESTRIAN PUSH-BUTTON NON-LATCHING
- MODIFY EXISTING CONTROLLER CABINET
- REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
- UNINTERRUPTIBLE POWER SUPPLY, SPECIAL

UNIT	QUANTITY
EACH	1
EACH	4
EACH	4
EACH	1
EACH	1
EACH	1

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

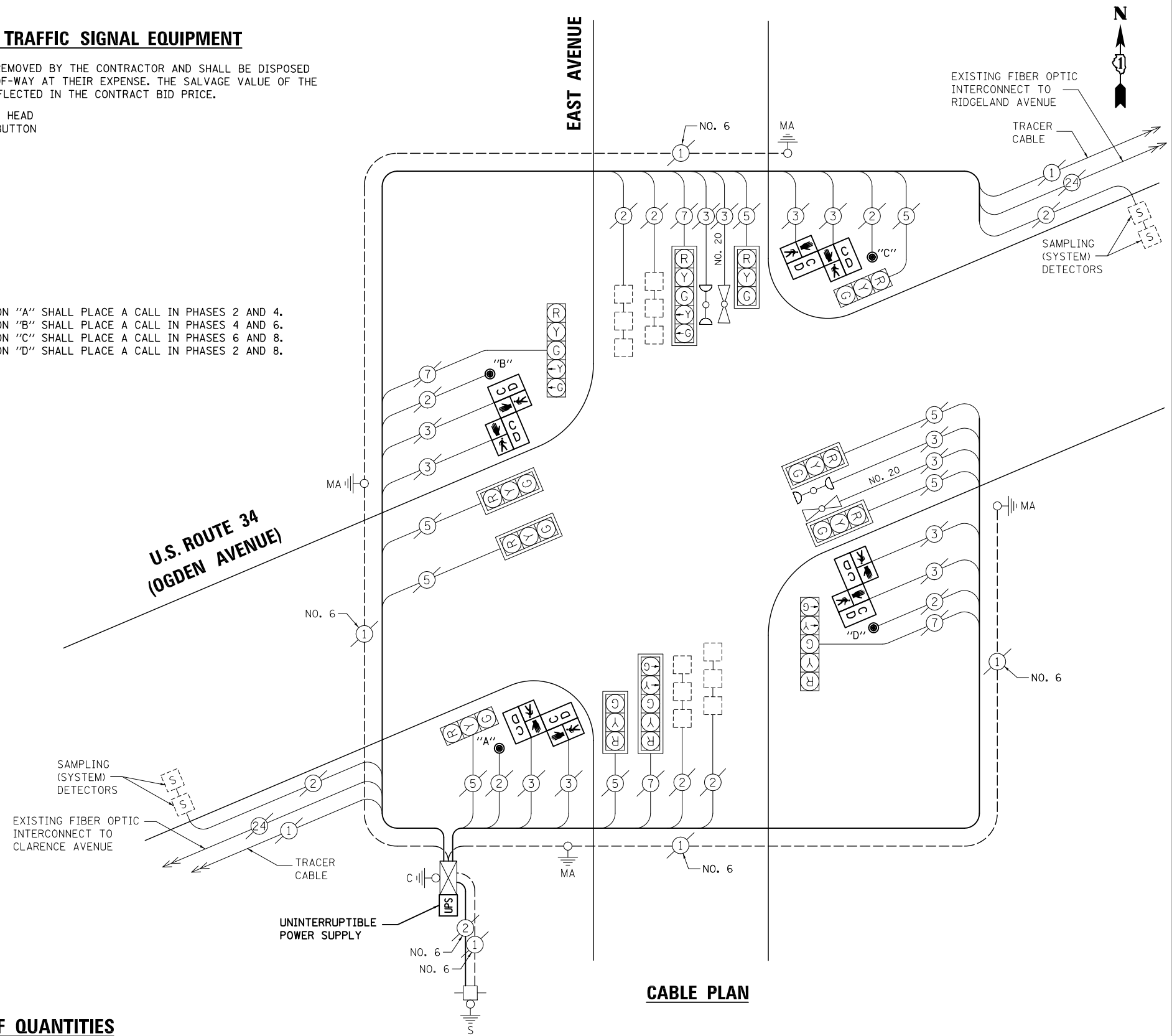
**SCHEDULE OF QUANTITIES, CABLE PLAN,
PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION
U.S. ROUTE 34 (OGDEN AVENUE) AT EAST AVENUE**

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

EAST AVENUE

U.S. ROUTE 34
(OGDEN AVENUE)

CABLE PLAN



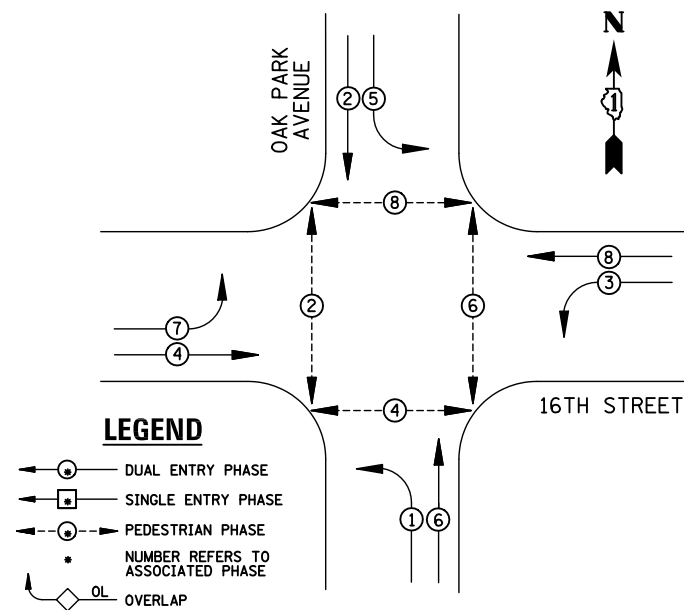
NOTE:
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60504-9675
Ph: 630.862.2100 Fax: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	20
			CONTRACT NO. 60X29	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

TS# 5580
BERWYN

EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

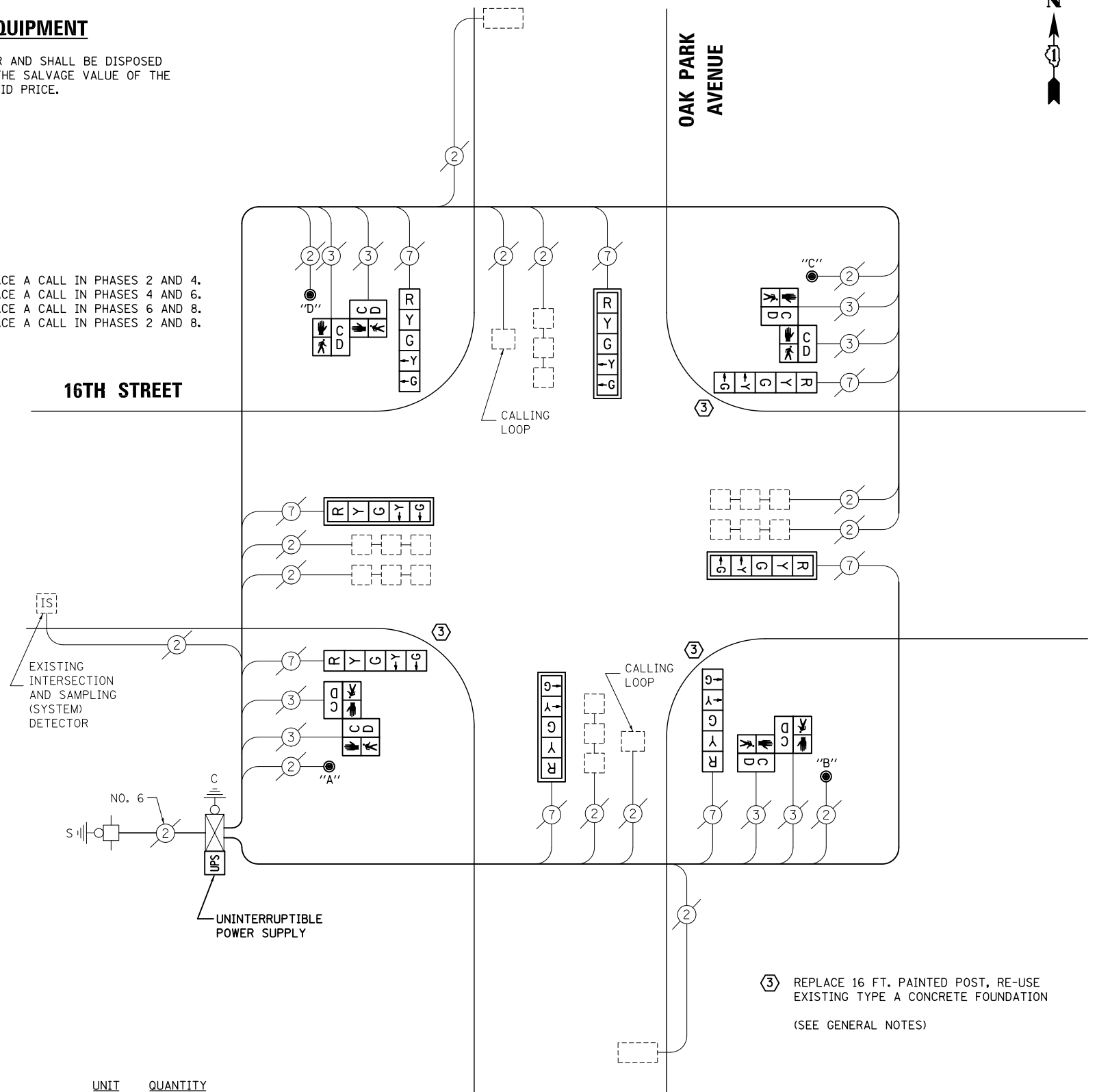
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 3 EACH TRAFFIC SIGNAL POST
- 8 EACH SIGNAL HEAD, 5-SECTION
- 4 EACH TRAFFIC SIGNAL BACKPLATE
- 8 EACH PEDESTRIAN SIGNAL HEAD
- 4 EACH PEDESTRIAN PUSH-BUTTON

NOTE:

PUSH-BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4.
 PUSH-BUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6.
 PUSH-BUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8.
 PUSH-BUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8.

16TH STREET



CABLE PLAN

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

3 REPLACE 16 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION (SEE GENERAL NOTES)

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	%OPERATION	
SIGNAL (RED)	8	135	17	0.50	59.5
(YELLOW)	8	135	25	0.25	50
(GREEN)	8	135	15	0.25	30
ARROW	16	135	12	0.10	19.2
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 458.7
ENERGY SUPPLY	CONTACT: X				
	PHONE: X				
	COMPANY: X				

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	3
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	4
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	4
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTIBLE POWER SUPPLY, SPECIAL	EACH	1
PEDESTRIAN PUSH-BUTTON, NON-LATCHING	EACH	4

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES, CABLE PLAN
 AND PHASE DESIGNATION DIAGRAM
 OAK PARK AVENUE AT 16TH STREET**

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

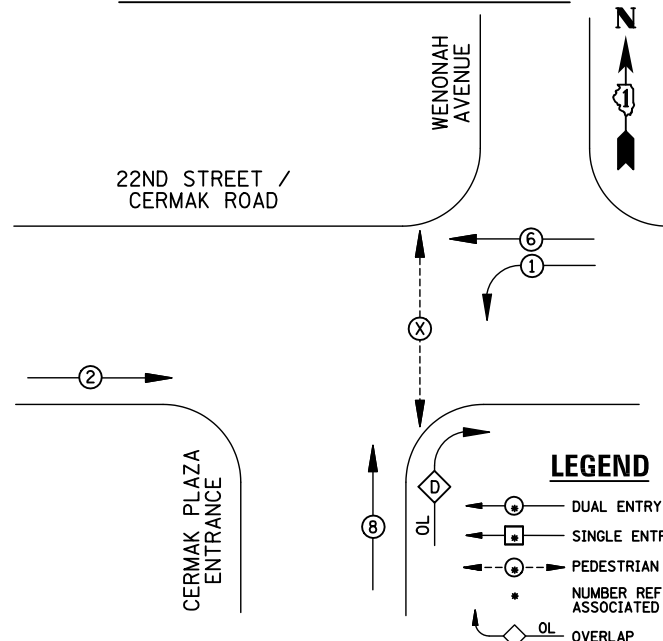
PREPARED BY:
CEMCON, Ltd.
 Consulting Engineers, Land Surveyors & Planners
 2280 White Oak Circle, Suite 100
 Aurora, Illinois 60504-9675
 Ph: 630.862.2100 Fax: 630.862.2199
 E-Mail: cadd@cemcon.com Website: www.cemcon.com

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	21
CONTRACT NO. 60X29				

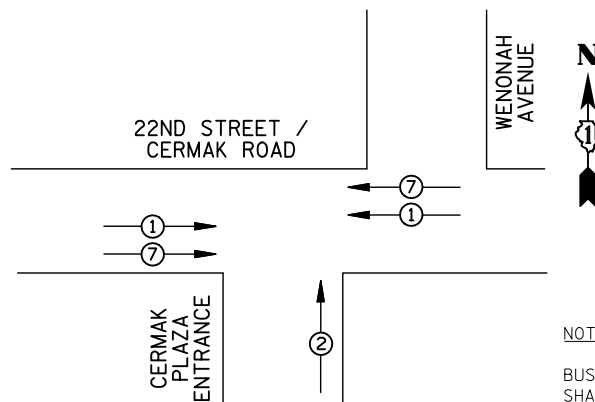
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

TS# 7925
 BERWYN

EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM



PREEMPTORS			
PREEMPTOR	1	2	7
MOVEMENT	←	↑	→

EXISTING EMERGENCY VEHICLE AND BUS PREEMPTION SEQUENCE

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	%OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	8	135	12	0.10	9.6
PED. SIGNAL	2	90	25	1.00	50
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 381.6
ENERGY SUPPLY	CONTACT: X				
	PHONE: X				
	COMPANY: X				

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 2 EACH TRAFFIC SIGNAL POST
- 8 EACH SIGNAL HEAD, 3-SECTION
- 4 EACH SIGNAL HEAD, 5-SECTION
- 2 EACH TRAFFIC SIGNAL BACKPLATE
- 2 EACH PEDESTRIAN PUSH-BUTTON

**RIGHT TURN OVERLAP
PHASE DESIGNATION**

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
D	= 8	+ 1

LEGEND

- DUAL ENTRY PHASE
- SINGLE ENTRY PHASE
- ⬇ PEDESTRIAN PHASE
- NUMBER REFERS TO ASSOCIATED PHASE
- ◇ OL OVERLAP

NOTE:

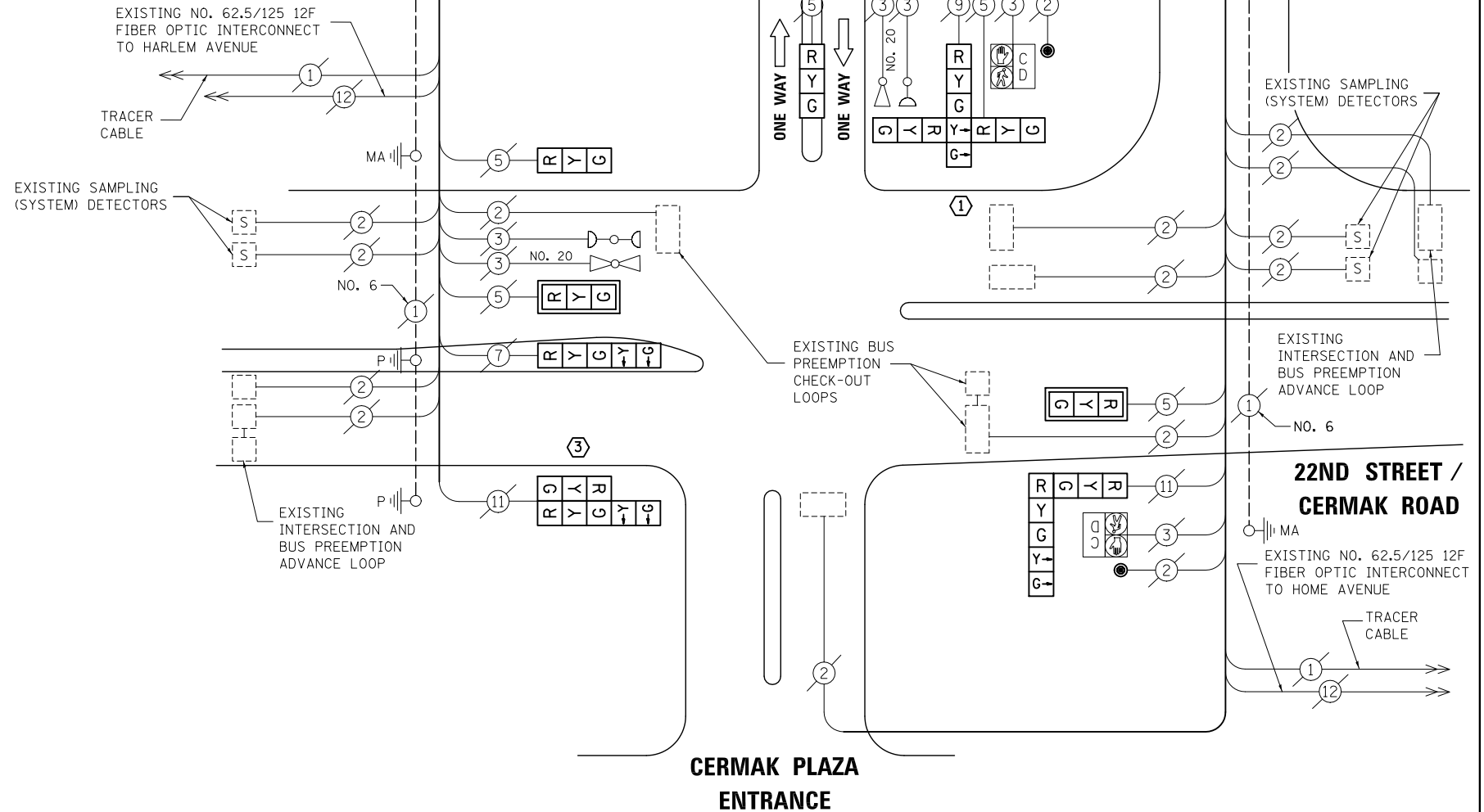
BUS PREEMPTION IS LOW PRIORITY AND SHALL CALL NORMAL PHASE 2 AND 6.

DUE TO CONTROLLER CONFIGURATION AND SOFTWARE LIMITATIONS, EVP AND BUS SEQUENCES ARE NON-CONVENTIONAL.

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 3-FACE, 2-3 SECTION, 1-5 SECTION BRACKET MOUNTED	EACH	1
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	2
PEDESTRIAN PUSH-BUTTON	EACH	2
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTIBLE POWER SUPPLY, SPECIAL	EACH	1

DESIGNED - BPT	REVISED -
DRAWN - JGC/RDS	REVISED -
CHECKED - BPT	REVISED -
DATE - 12-04-13	REVISED -



CABLE PLAN

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

- ① REPLACE 14 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION
 - ③ REPLACE 16 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION
- (SEE GENERAL NOTES)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

**SCHEDULE OF QUANTITIES, CABLE PLAN,
PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION
22ND STREET / CERMAK ROAD AT CERMAK PLAZA / WENONAH AVENUE**

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

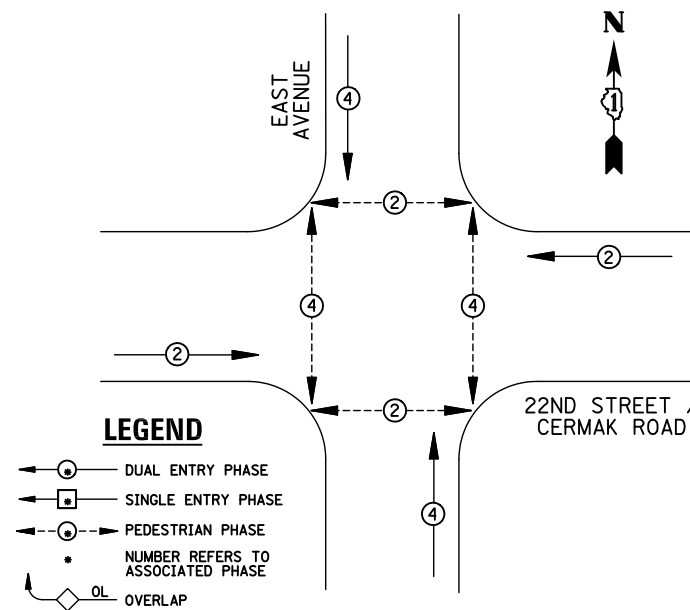
PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60504-9675
Ph: 630.862.2100 Fax: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	22

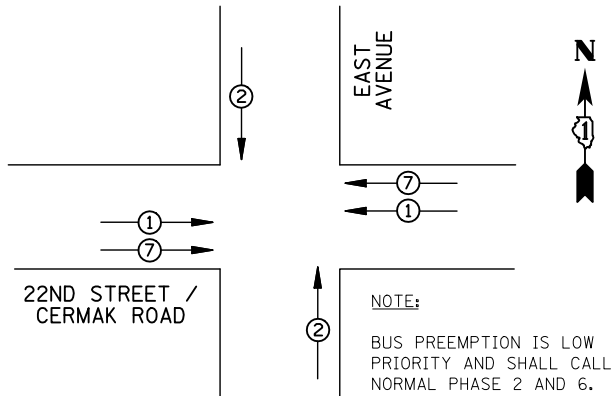
CONTRACT NO. 60X29
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

TS# 4795
BERWYN

EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM



PREEMPTORS			
PREEMPTOR	1	2	7
MOVEMENT	←	↑	→

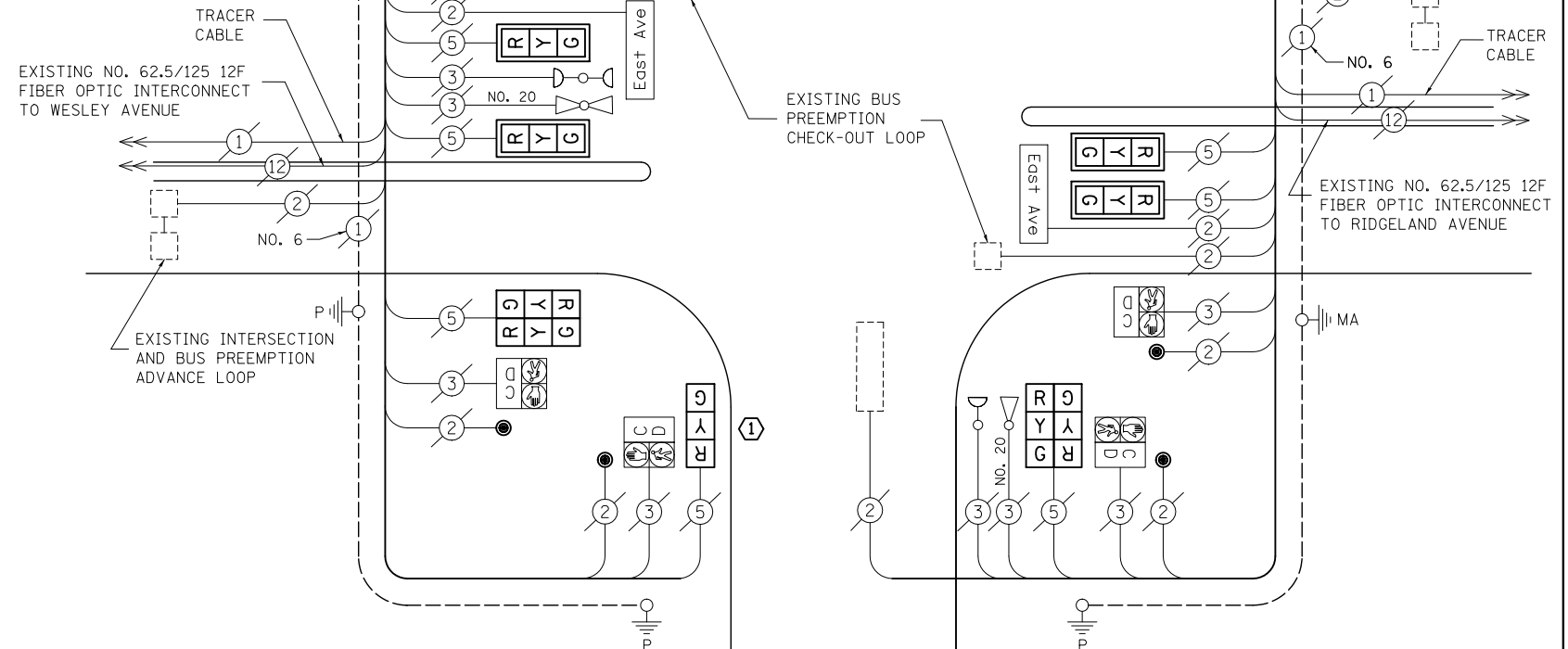
EXISTING EMERGENCY VEHICLE AND BUS PREEMPTION SEQUENCE

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 3 EACH TRAFFIC SIGNAL POST
- 14 EACH SIGNAL HEAD, 3-SECTION
- 4 EACH TRAFFIC SIGNAL BACKPLATE
- 8 EACH PEDESTRIAN PUSH-BUTTON

22ND STREET / CERMAK ROAD



① REPLACE 14 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION (SEE GENERAL NOTES)

CABLE PLAN

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

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	3
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	4
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	4
PEDESTRIAN PUSH-BUTTON	EACH	8
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	%OPERATION	
SIGNAL (RED)	14	135	17	0.50	119
(YELLOW)	14	135	25	0.25	87.5
(GREEN)	14	135	15	0.25	52.5
ARROW		135	12	0.10	
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN	2	84	100	0.50	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 659
ENERGY SUPPLY	CONTACT: X				
	PHONE: X				
	COMPANY: X				
FILE NAME = MICROST\352108\ 08-4805.DGN	USER NAME = JGC	DESIGNED - BPT	REVISED -		
		DRAWN - JGC/RDS	REVISED -		
	PLOT SCALE = NOT TO SCALE	CHECKED - BPT	REVISED -		
	PLOT DATE = X	DATE - XX-XX-13	REVISED -		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN,
PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION
22ND STREET / CERMAK ROAD AT EAST AVENUE

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

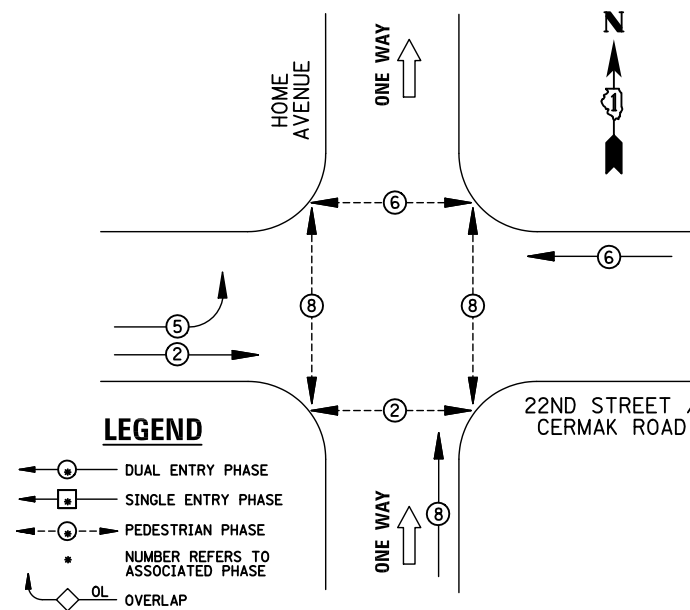
PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60504-9675
Ph: 630.862.2100 Fax: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	23

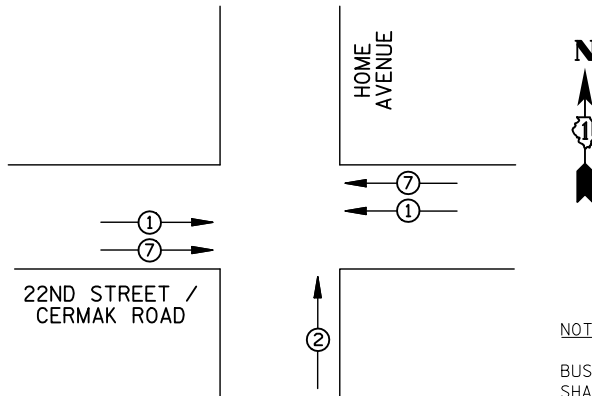
CONTRACT NO. 60X29
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

TS# 4805
BERWYN

EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM



EXISTING EMERGENCY VEHICLE AND BUS PREEMPTION SEQUENCE

PREEMPTORS			
PREEMPTOR	1	2	7
MOVEMENT	←	↑	→

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 5 EACH TRAFFIC SIGNAL POST
- 10 EACH SIGNAL HEAD, 3-SECTION
- 2 EACH SIGNAL HEAD, 5-SECTION
- 2 EACH TRAFFIC SIGNAL BACKPLATE
- 8 EACH PEDESTRIAN PUSH-BUTTON

NOTE:

BUS PREEMPTION IS LOW PRIORITY AND SHALL CALL NORMAL PHASE 2 AND 6.

DUE TO CONTROLLER CONFIGURATION AND SOFTWARE LIMITATIONS, EVP AND BUS SEQUENCES ARE NON-CONVENTIONAL.

SCHEDULE OF QUANTITIES

ITEM

- MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
- TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.
- TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
- SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
- SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
- SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
- SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED
- SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED
- TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
- PEDESTRIAN PUSH-BUTTON
- MODIFY EXISTING CONTROLLER CABINET
- REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
- UNINTERRUPTABLE POWER SUPPLY, SPECIAL

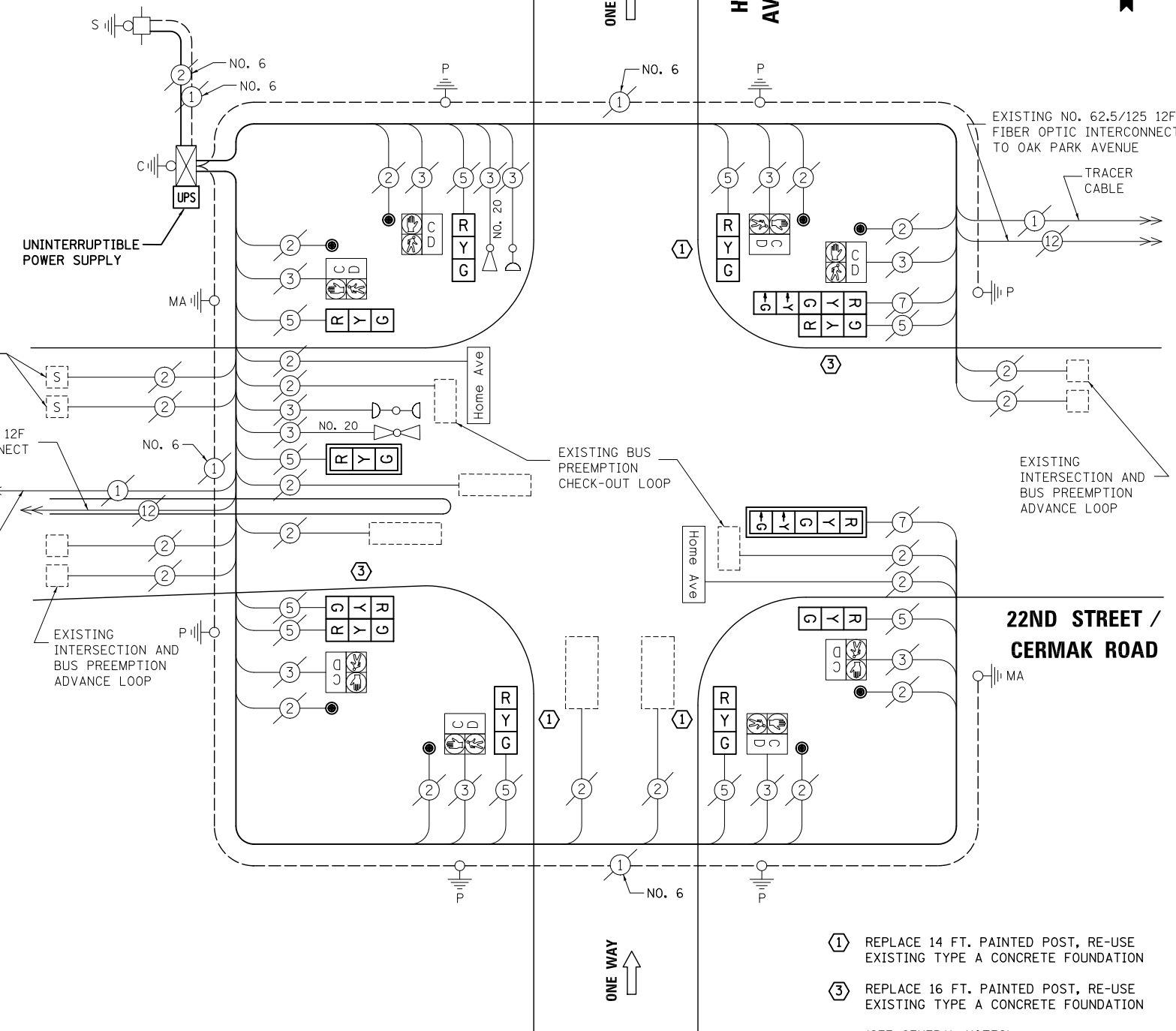
UNIT QUANTITY

- EACH 1
- EACH 3
- EACH 2
- EACH 1
- EACH 6
- EACH 1
- EACH 1
- EACH 1
- EACH 1
- EACH 2
- EACH 8
- EACH 1
- EACH 1
- EACH 1

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES, CABLE PLAN,
PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION
22ND STREET / CERMAK ROAD AT HOME AVENUE**

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.



CABLE PLAN

- ① REPLACE 14 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION
 - ③ REPLACE 16 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION
- (SEE GENERAL NOTES)

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

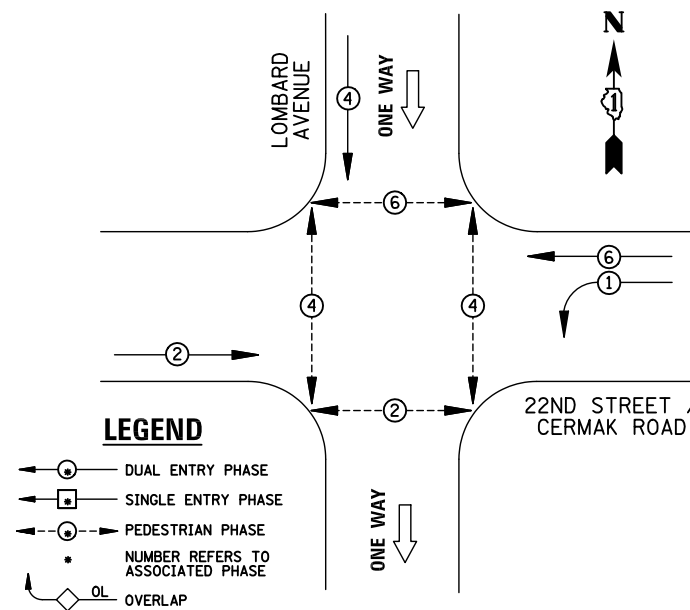
I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	%OPERATION	
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	4	135	12	0.10	4.8
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN	2	84	100	0.50	100
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 626.8
ENERGY SUPPLY	CONTACT: X				
	PHONE: X				
	COMPANY: X				
FILE NAME = MICROST\352108\ 09-4810.DGN	USER NAME = JGC	DESIGNED - BPT	REVISED -		
		DRAWN - JGC/RDS	REVISED -		
	PLOT SCALE = NOT TO SCALE	CHECKED - BPT	REVISED -		
	PLOT DATE = X	DATE - 12-04-13	REVISED -		

PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
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Ph: 630.862.2100 Fax: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com

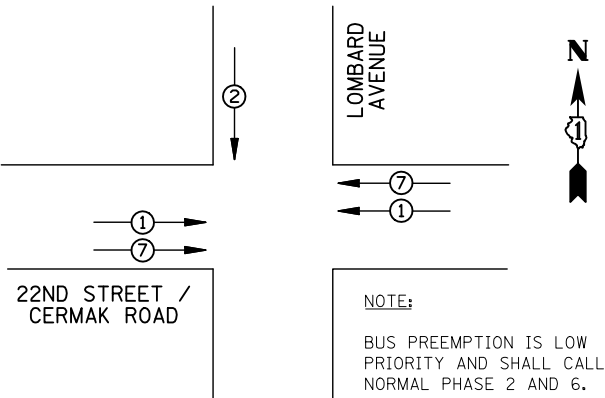
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	24
CONTRACT NO. 60X29				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

TS# 4810
BERWYN

EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM



NOTE:
BUS PREEMPTION IS LOW PRIORITY AND SHALL CALL NORMAL PHASE 2 AND 6.

PREEMPTORS			
PREEMPTOR	1	2	7
MOVEMENT	←→	↓	←→

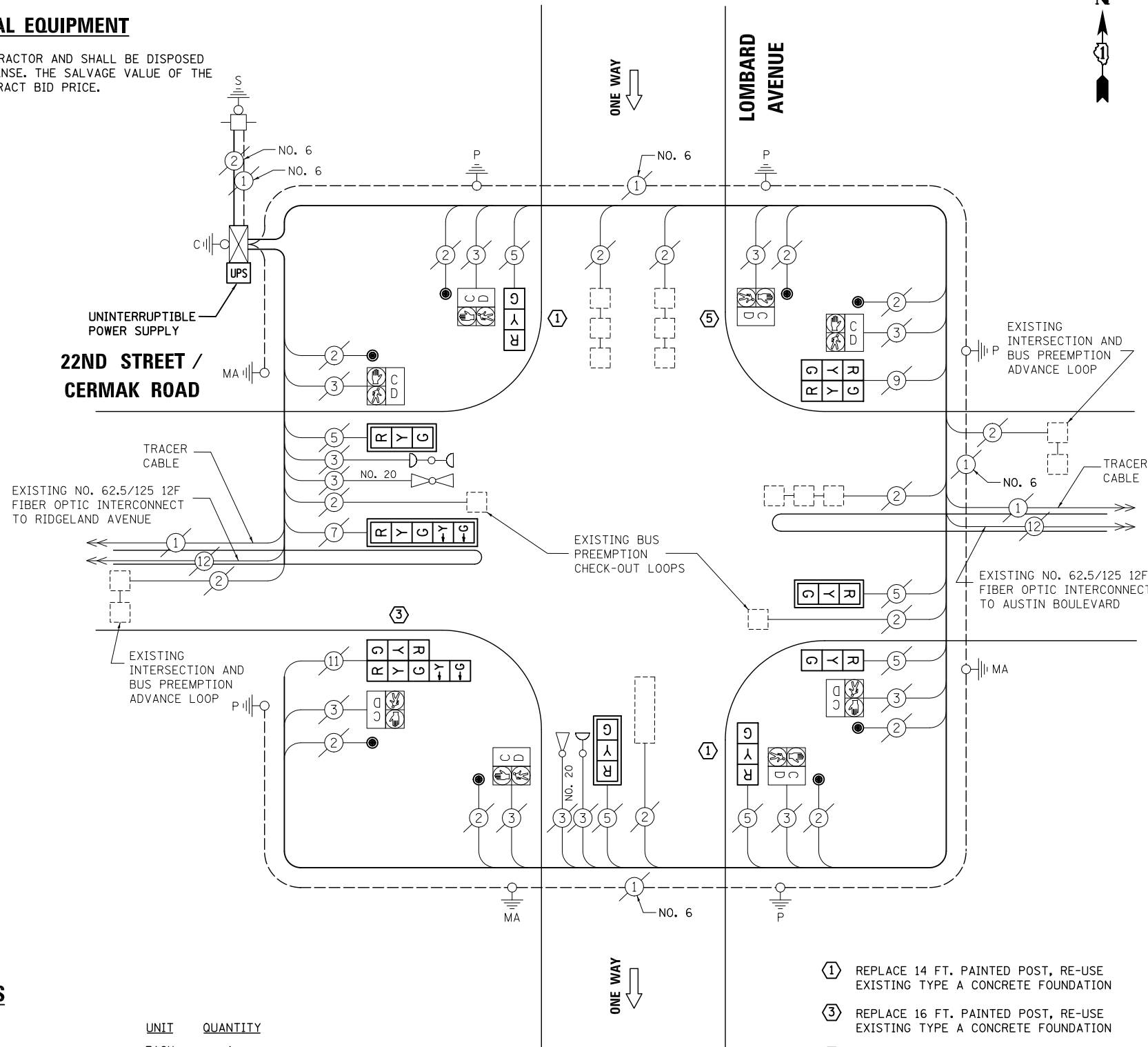
EXISTING EMERGENCY VEHICLE AND BUS PREEMPTION SEQUENCE

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND. LED	%OPERATION		
SIGNAL (RED)	11	135 17	0.50		93.5
(YELLOW)	11	135 25	0.25		68.75
(GREEN)	11	135 15	0.25		41.25
ARROW	4	135 12	0.10		4.8
PED. SIGNAL	8	90 25	1.00		200
CONTROLLER	1	100 100	1.00		100
ILLUM. SIGN		84 100	0.50		
FLASHER		135 25	0.50		
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096				TOTAL =	508.3
ENERGY SUPPLY	CONTACT: X				
	PHONE: X				
	COMPANY: X				

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 4 EACH TRAFFIC SIGNAL POST
- 9 EACH SIGNAL HEAD, 3-SECTION
- 2 EACH SIGNAL HEAD, 5-SECTION
- 4 EACH TRAFFIC SIGNAL BACKPLATE
- 8 EACH PEDESTRIAN PUSH-BUTTON



CABLE PLAN

- ① REPLACE 14 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION
 - ③ REPLACE 16 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION
 - ⑤ REPLACE 10 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION
- (SEE GENERAL NOTES)

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

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	2
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	3
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	3
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	1
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	1
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	4
PEDESTRIAN PUSH-BUTTON	EACH	8
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1

DESIGNED - BPT	REVISED -
DRAWN - JGC/RDS	REVISED -
CHECKED - BPT	REVISED -
DATE - 12-04-13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN,
PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION
22ND STREET / CERMAIK ROAD AT LOMBARD AVENUE

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

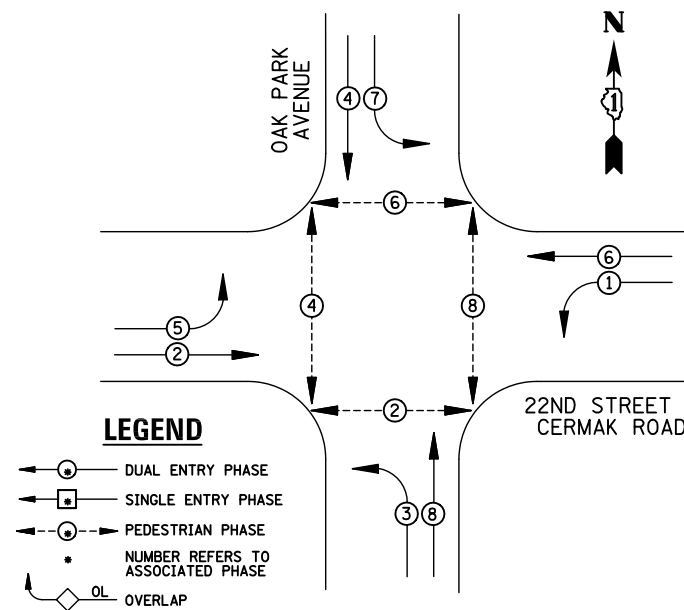
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	25

CONTRACT NO. 60X29
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

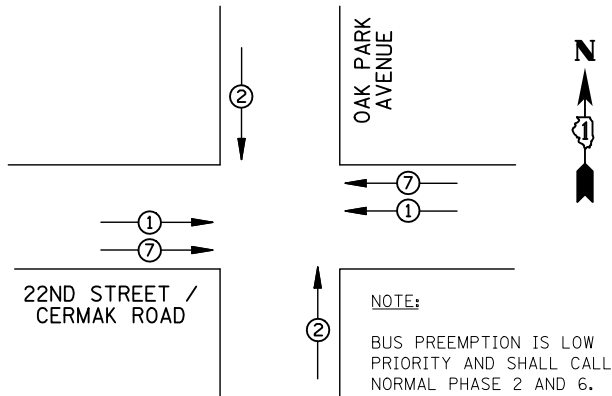
PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60504-9675
Ph: 630.862.2100 Fax: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com

TS# 4815
BERWYN

EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM



PREEMPTORS				
PREEMPTOR	1	2	7	
MOVEMENT	←→	↑↓	←→	

EXISTING EMERGENCY VEHICLE AND BUS PREEMPTION SEQUENCE

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND. LED	%OPERATION		
SIGNAL (RED)	16	135	17	0.50	136
(YELLOW)	16	135	25	0.25	100
(GREEN)	16	135	15	0.25	60
ARROW	24	135	12	0.10	28.8
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN	4	84	100	0.50	200
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096				TOTAL =	824.8
ENERGY SUPPLY	CONTACT: X				
	PHONE: X				
	COMPANY: X				
FILE NAME = MICROST\352108\ 11-4830.DGN	USER NAME = JGC	DESIGNED - BPT	REVISED -		
		DRAWN - JGC/RDS	REVISED -		
	PLOT SCALE = NOT TO SCALE	CHECKED - BPT	REVISED -		
	PLOT DATE = X	DATE - 12-04-13	REVISED -		

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 4 EACH TRAFFIC SIGNAL POST
- 4 EACH SIGNAL HEAD, 3-SECTION
- 12 EACH SIGNAL HEAD, 5-SECTION
- 4 EACH TRAFFIC SIGNAL BACKPLATE
- 8 EACH PEDESTRIAN PUSH-BUTTON

③ REPLACE 16 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION (SEE GENERAL NOTES)

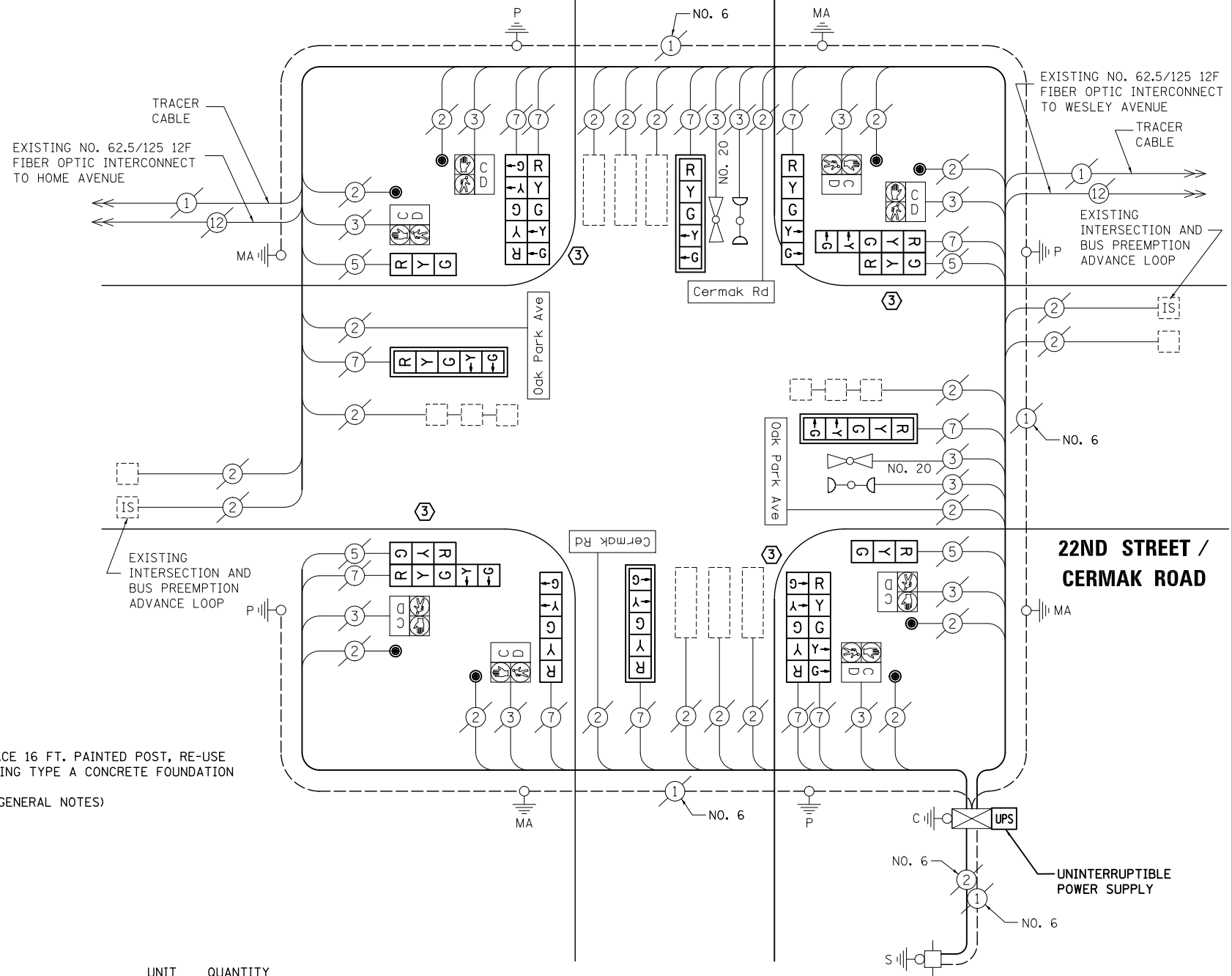
SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	4
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	4
SIGNAL HEAD, LED, 2-FACE, 5-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	2
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	4
PEDESTRIAN PUSH-BUTTON	EACH	8
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

OAK PARK AVENUE

22ND STREET / CERMAK ROAD



CABLE PLAN

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

**SCHEDULE OF QUANTITIES, CABLE PLAN,
PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION
22ND STREET / CERMAK ROAD AT OAK PARK AVENUE**

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

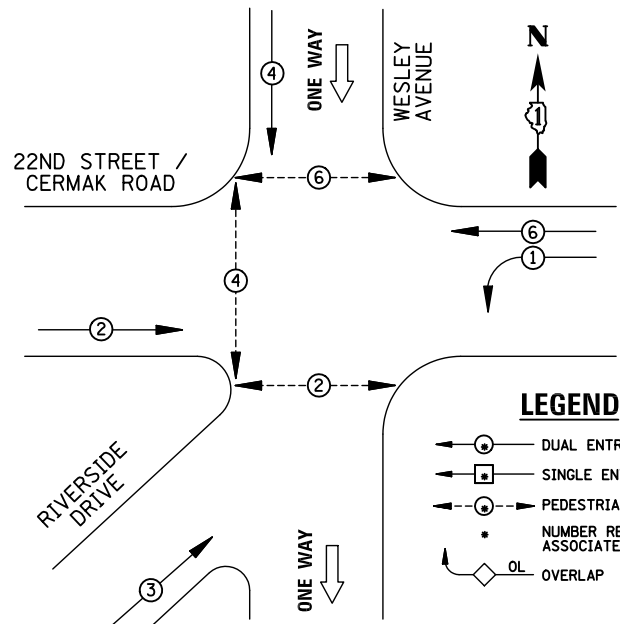
PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60504-9675
Ph: 630.862.2100 Fax: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	26

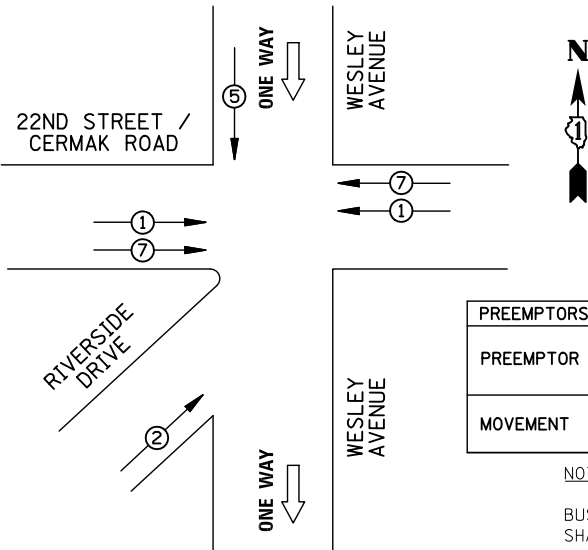
CONTRACT NO. 60X29
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

TS# 4830
BERWYN

EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM



EXISTING EMERGENCY VEHICLE AND BUS PREEMPTION SEQUENCE

PREEMPTOR	1	2	5	7
MOVEMENT	←→	↗	↓	←→

NOTE:
 BUS PREEMPTION IS LOW PRIORITY AND SHALL CALL NORMAL PHASE 2 AND 6.
 DUE TO CONTROLLER CONFIGURATION AND SOFTWARE LIMITATIONS, EVP AND BUS SEQUENCES ARE NON-CONVENTIONAL.

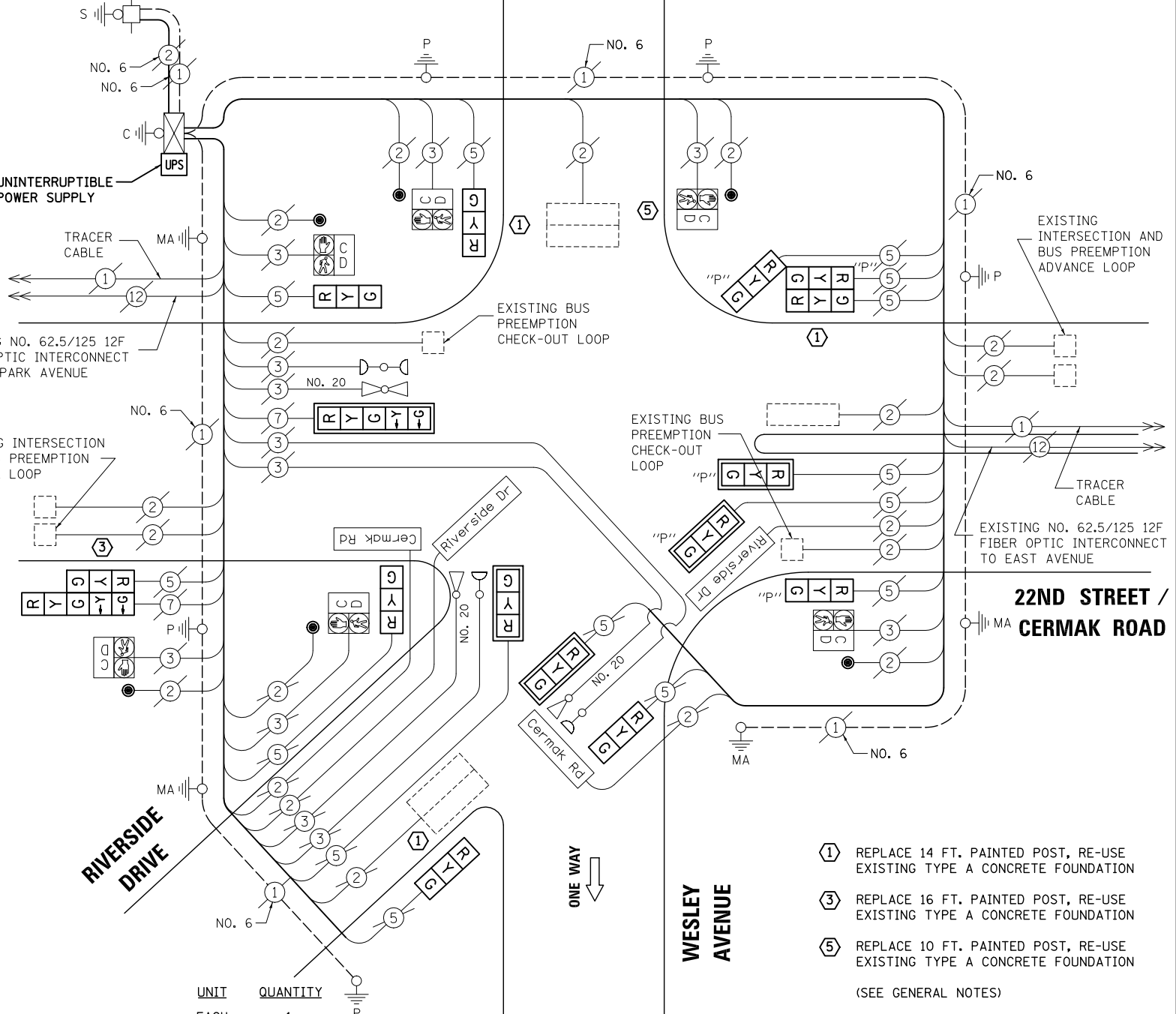
REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 5 EACH TRAFFIC SIGNAL POST
- 14 EACH SIGNAL HEAD, 3-SECTION
- 2 EACH SIGNAL HEAD, 5-SECTION
- 5 EACH TRAFFIC SIGNAL BACKPLATE
- 6 EACH PEDESTRIAN PUSH-BUTTON

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	3
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	5
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	1
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	1
OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	2
COMBINATION SIGNAL HEAD, LED, 3-FACE, 2-3 SECTION OPTICALLY PROGRAMMED, 1-3 SECTION, BRACKET MOUNTED	EACH	1
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	5
PEDESTRIAN PUSH-BUTTON	EACH	6
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1



CABLE PLAN

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

- ① REPLACE 14 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION
 - ③ REPLACE 16 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION
 - ⑤ REPLACE 10 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION
- (SEE GENERAL NOTES)

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	%OPERATION	
SIGNAL (RED)	16	135	17	0.50	136
(YELLOW)	16	135	25	0.25	100
(GREEN)	16	135	15	0.25	60
ARROW	4	135	12	0.10	4.8
PED. SIGNAL	6	90	25	1.00	150
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN	4	84	100	0.50	200
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 750.8
ENERGY SUPPLY	CONTACT: X				
	PHONE: X				
	COMPANY: X				

DESIGNED - BPT	REVISED -
DRAWN - JGC/RDS	REVISED -
CHECKED - BPT	REVISED -
DATE - 12-04-13	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION 22ND STREET / CERMAK ROAD AT WESLEY AVENUE / RIVERSIDE DRIVE			
SCALE: N.T.S.	SHEET NO. OF SHEETS	STA. TO STA.	

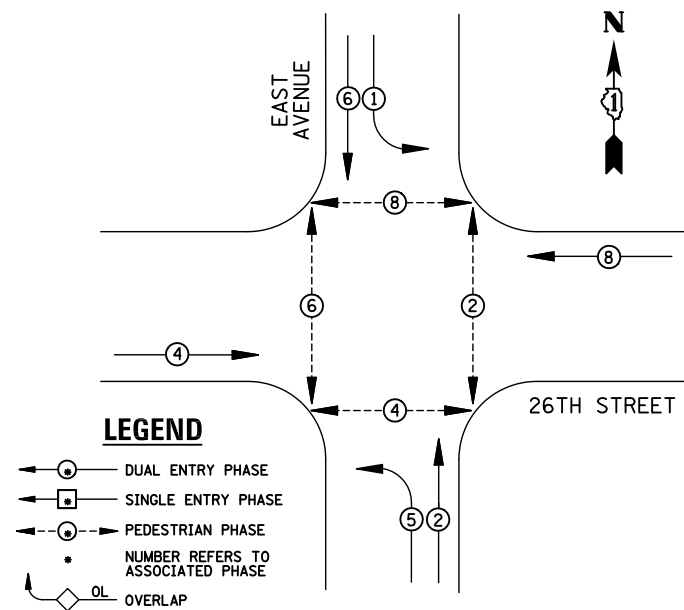
PREPARED BY:
CEMCON, Ltd.
 Consulting Engineers, Land Surveyors & Planners
 2280 White Oak Circle, Suite 100
 Aurora, Illinois 60504-9675
 Ph: 630.862.2100 Fax: 630.862.2199
 E-Mail: cadd@cemcon.com Website: www.cemcon.com

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	27

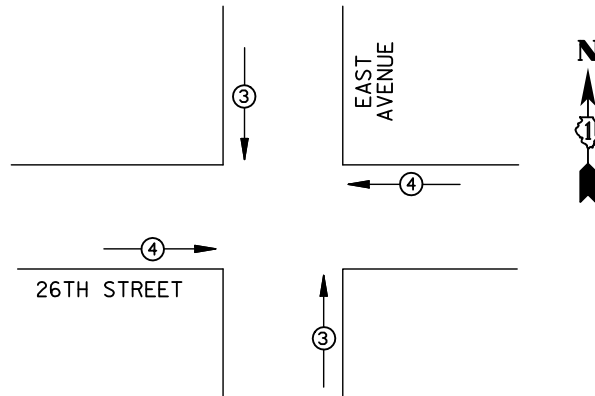
CONTRACT NO. 60X29
 FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

TS# 4840
BERWYN

EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM



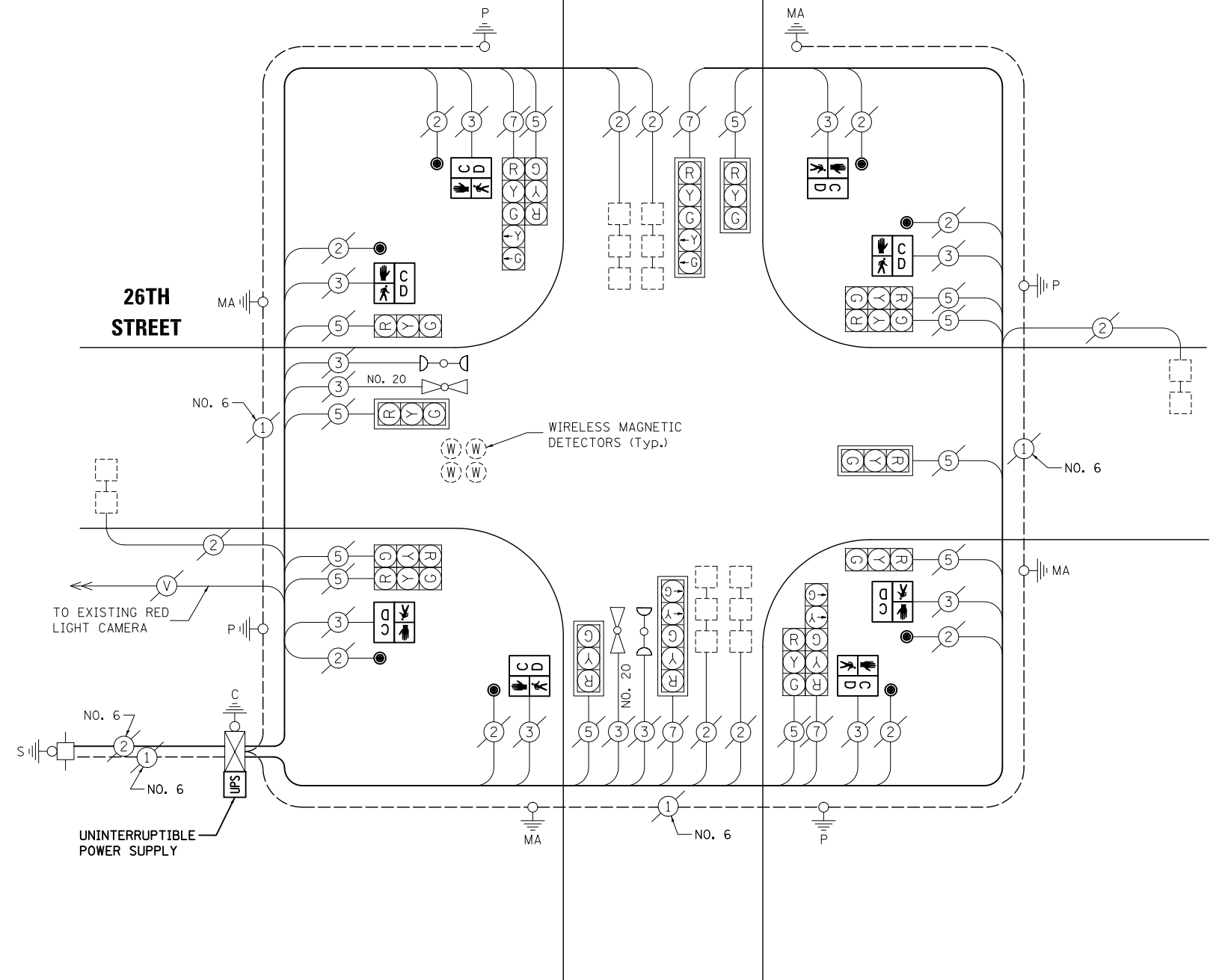
EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	
MOVEMENT	↑	→	

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 8 EACH PEDESTRIAN SIGNAL HEAD
- 8 EACH PEDESTRIAN PUSH-BUTTON



CABLE PLAN

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

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	8
PEDESTRIAN PUSH-BUTTON	EACH	8
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTIBLE POWER SUPPLY, SPECIAL	EACH	1

UNIT	QUANTITY
EACH	1
EACH	8
EACH	8
EACH	1
EACH	1
EACH	1

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE		%OPERATION	
		INCAND.	LED		
SIGNAL (RED)	16	135	17	0.50	136
(YELLOW)	16	135	25	0.25	100
(GREEN)	16	135	15	0.25	60
ARROW	8	135	12	0.10	9.6
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 605.6
ENERGY SUPPLY	CONTACT: X				
	PHONE: X				
	COMPANY: X				
FILE NAME = MICROST\352108\ 13-7920.DGN	USER NAME = JGC	DESIGNED - BPT	REVISED -		
		DRAWN - JGC/RDS	REVISED -		
	PLOT SCALE = NOT TO SCALE	CHECKED - BPT	REVISED -		
	PLOT DATE = X	DATE - 12-04-13	REVISED -		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN,
PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION
26TH STREET AT EAST AVENUE

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

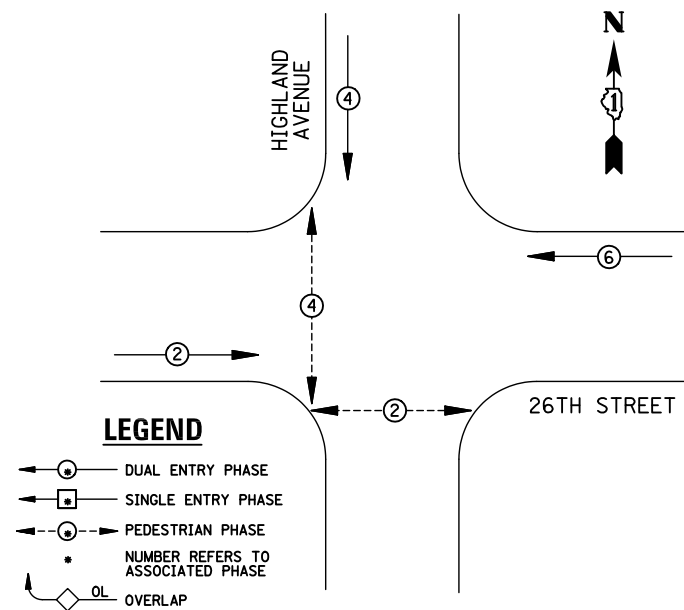
PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60504-9675
Ph: 630.862.2100 Fax: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	28

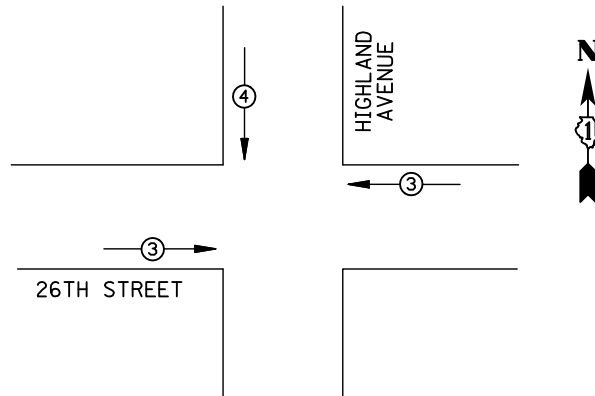
CONTRACT NO. 60X29
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

TS# 7920
BERWYN

EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	
MOVEMENT	←→	↓	

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE

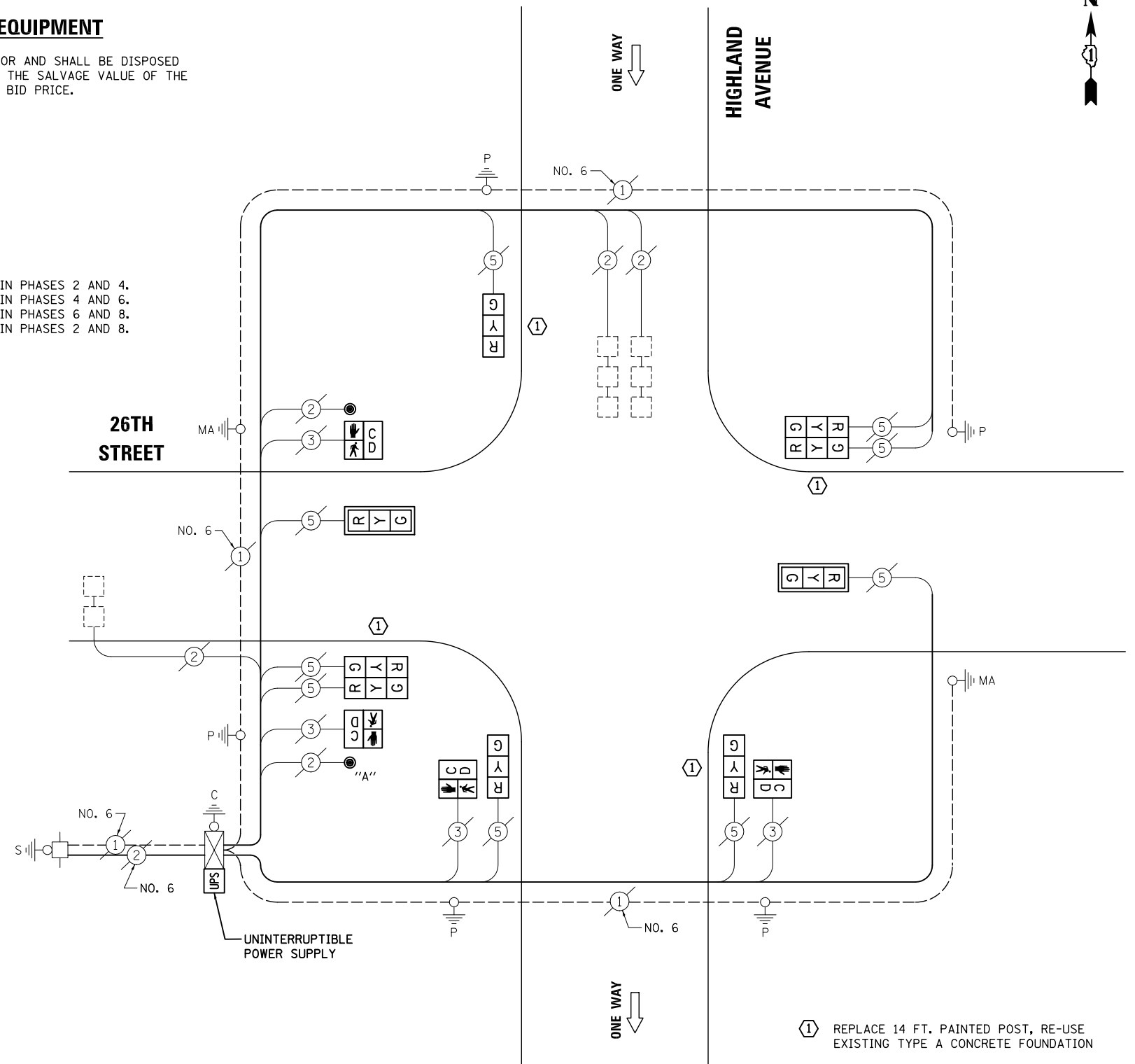
REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 4 EACH TRAFFIC SIGNAL POST
- 9 EACH SIGNAL HEAD, 3-SECTION
- 2 EACH TRAFFIC SIGNAL BACKPLATE
- 4 EACH PEDESTRIAN SIGNAL HEAD
- 2 EACH PEDESTRIAN PUSH-BUTTON

NOTE:

PUSH-BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4.
 PUSH-BUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6.
 PUSH-BUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8.
 PUSH-BUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8.



CABLE PLAN

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

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	4
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	3
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	2
PEDESTRIAN PUSH-BUTTON NON-LATCHING	EACH	2
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTIBLE POWER SUPPLY, SPECIAL	EACH	1

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	%OPERATION	
SIGNAL (RED)	9	135	17	0.50	76.5
(YELLOW)	9	135	25	0.25	56.25
(GREEN)	9	135	15	0.25	33.75
ARROW		135	12	0.10	
PED. SIGNAL	4	90	25	1.00	100
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 366.5
ENERGY SUPPLY	CONTACT: X				
	PHONE: X				
	COMPANY: X				

DESIGNED - BPT	REVISED -
DRAWN - JGC/RDS	REVISED -
CHECKED - BPT	REVISED -
DATE - 12-04-13	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

**SCHEDULE OF QUANTITIES, CABLE PLAN,
 PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION
 26TH STREET AT HIGHLAND AVENUE**

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

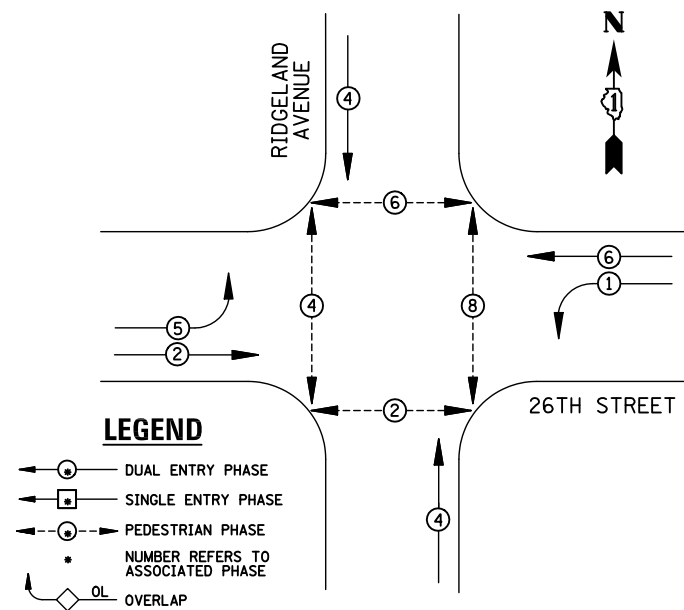
PREPARED BY:
CEMCON, Ltd.
 Consulting Engineers, Land Surveyors & Planners
 2280 White Oak Circle, Suite 100
 Aurora, Illinois 60504-9675
 Ph: 630.862.2100 Fax: 630.862.2199
 E-Mail: cadd@cemcon.com Website: www.cemcon.com

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	29
CONTRACT NO. 60X29				

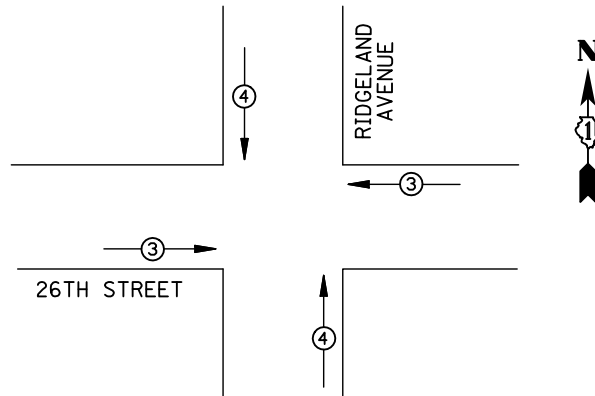
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

TS# 3745
 BERWYN

EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM



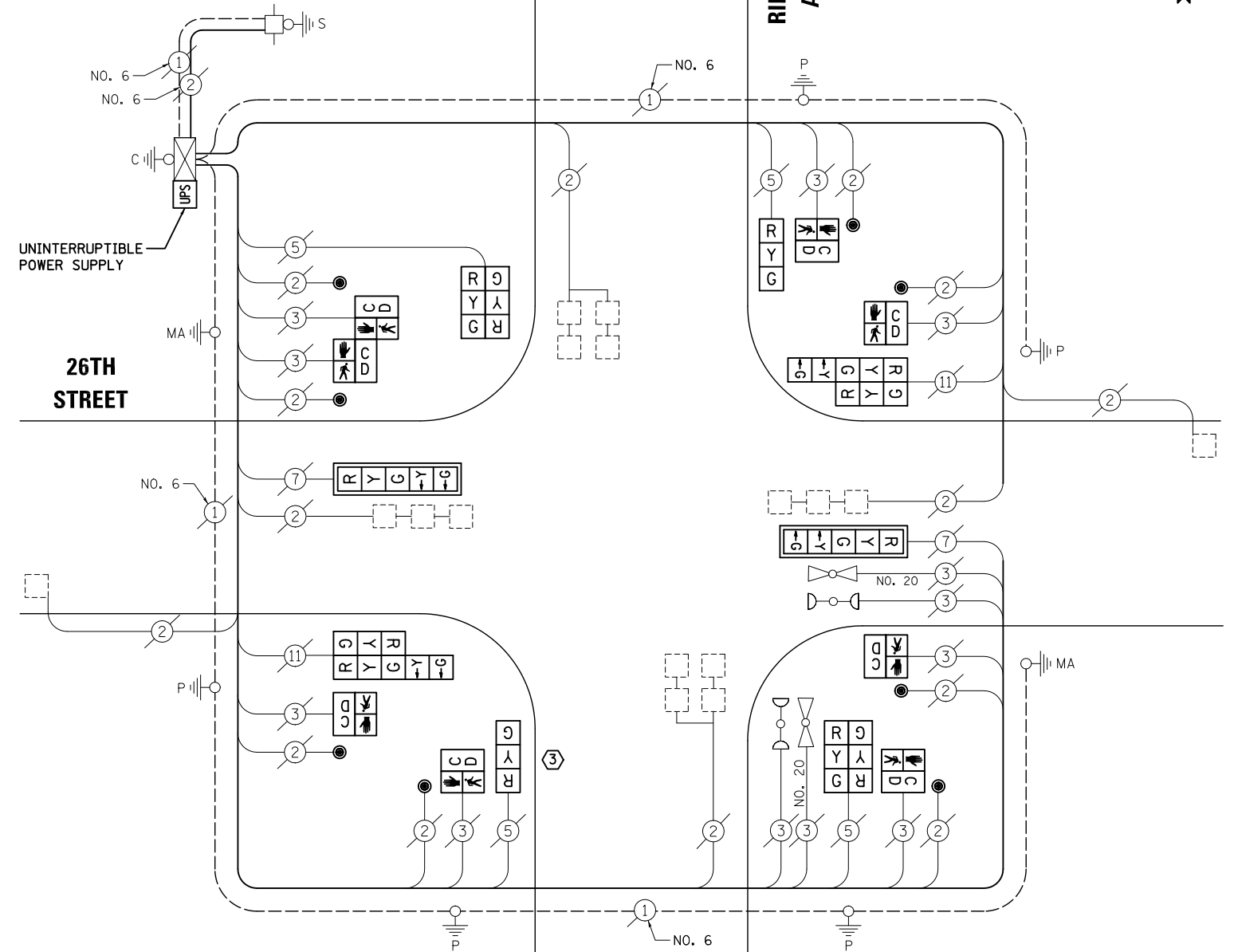
EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	
MOVEMENT	←→	↑↓	

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 1 EACH TRAFFIC SIGNAL POST
- 8 EACH SIGNAL HEAD, 3-SECTION
- 4 EACH SIGNAL HEAD, 5-SECTION
- 2 EACH TRAFFIC SIGNAL BACKPLATE
- 8 EACH PEDESTRIAN SIGNAL HEAD
- 8 EACH PEDESTRIAN PUSH-BUTTON



CABLE PLAN

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

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	2
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	6
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	1
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	2
PEDESTRIAN PUSH-BUTTON	EACH	8
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1

③ REPLACE 16 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION (SEE GENERAL NOTES)

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	%OPERATION	
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	8	135	12	0.10	9.6
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 531.6
ENERGY SUPPLY	CONTACT: X				
	PHONE: X				
	COMPANY: X				

DESIGNED - BPT	REVISED -
DRAWN - JGC/RDS	REVISED -
CHECKED - BPT	REVISED -
DATE - 12-04-13	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION			
SCALE: N.T.S.	SHEET NO. OF SHEETS	STA. TO STA.	

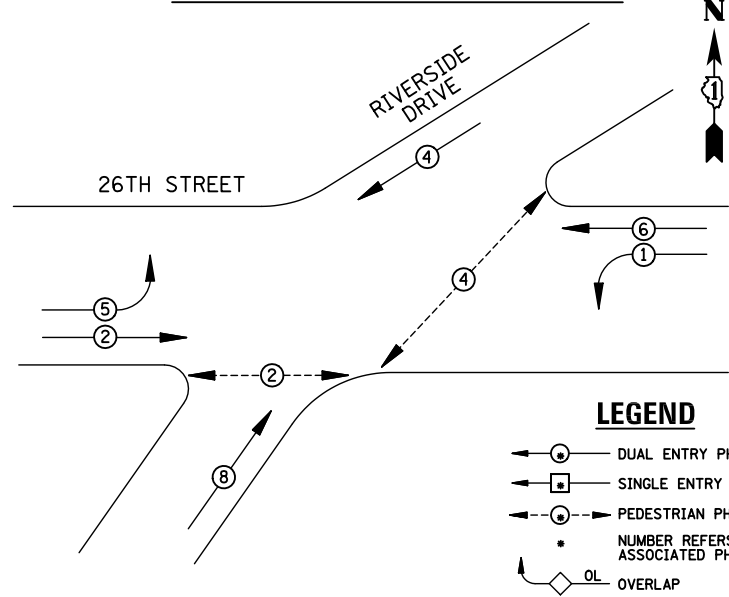
PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60504-9675
Ph: 630.862.2100 Fax: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	30
CONTRACT NO. 60X29				

FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

TS# 3755 BERWYN

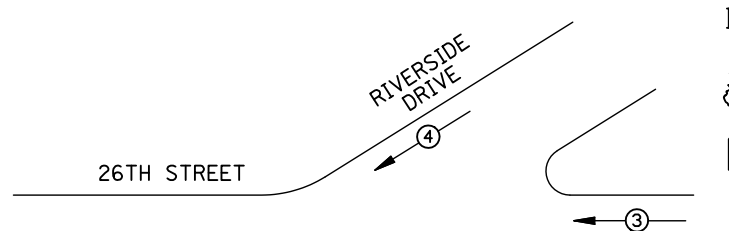
EXISTING CONTROLLER SEQUENCE



LEGEND

- ⊕ DUAL ENTRY PHASE
- ⊞ SINGLE ENTRY PHASE
- ⊖ PEDESTRIAN PHASE
- NUMBER REFERS TO ASSOCIATED PHASE
- OL OVERLAP

EXISTING PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↗↘

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

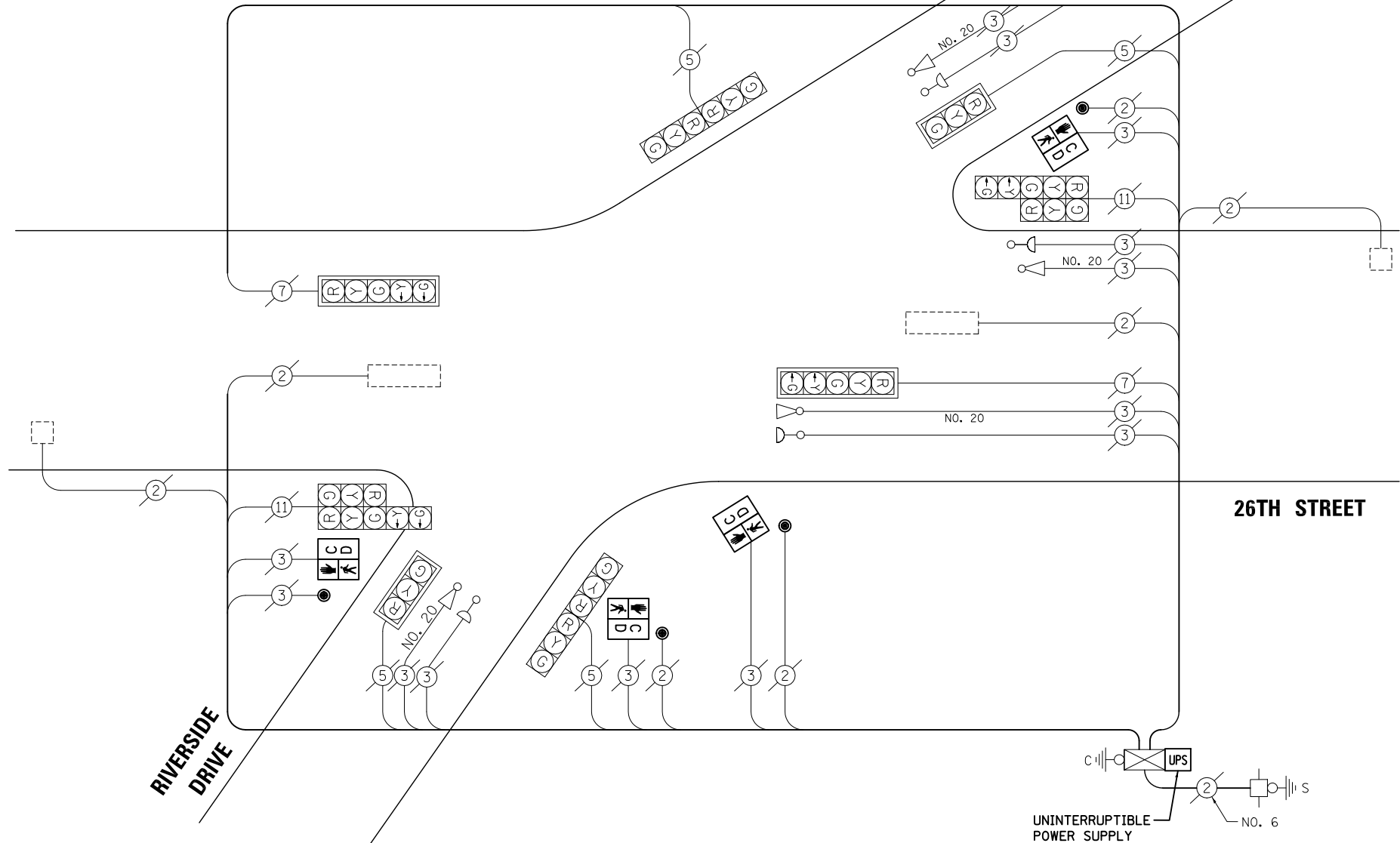
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 4 EACH PEDESTRIAN SIGNAL HEAD
- 4 EACH PEDESTRIAN PUSH-BUTTON

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
PEDESTRIAN PUSH-BUTTON	EACH	4
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1

CABLE PLAN



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

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE		%OPERATION	
		INCAND.	LED		
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	8	135	12	0.10	9.6
PED. SIGNAL	4	90	25	1.00	100
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 431.6
ENERGY SUPPLY	CONTACT: X				
	PHONE: X				
	COMPANY: X				
FILE NAME = \MICROST\352108\16-7910.DGN	USER NAME = JGC	DESIGNED - BPT	REVISED -		
		DRAWN - JGC/RDS	REVISED -		
	PLOT SCALE = NOT TO SCALE	CHECKED - BPT	REVISED -		
	PLOT DATE = X	DATE - 12-04-13	REVISED -		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN,
PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION
26TH STREET AT RIVERSIDE DRIVE

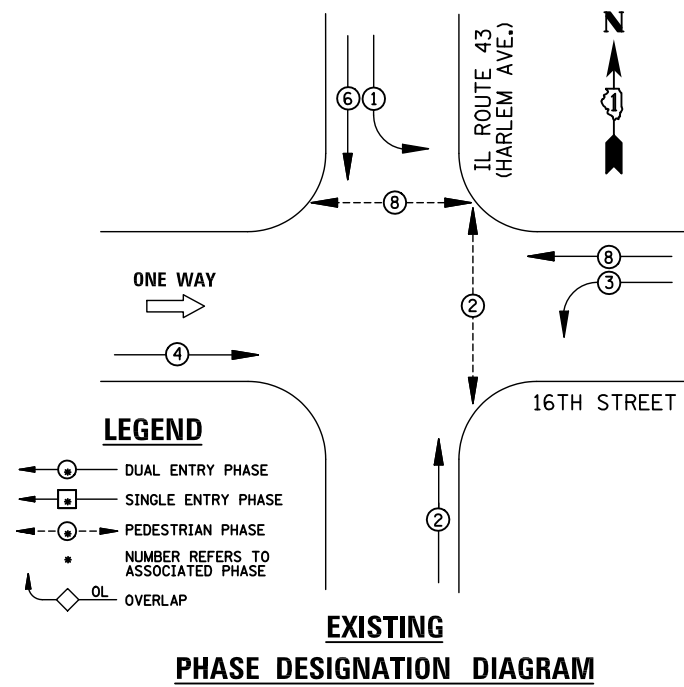
SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60504-9675
Ph: 630.862.2100 Fax: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	31
CONTRACT NO. 60X29				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

TS# 7910
BERWYN

EXISTING CONTROLLER SEQUENCE



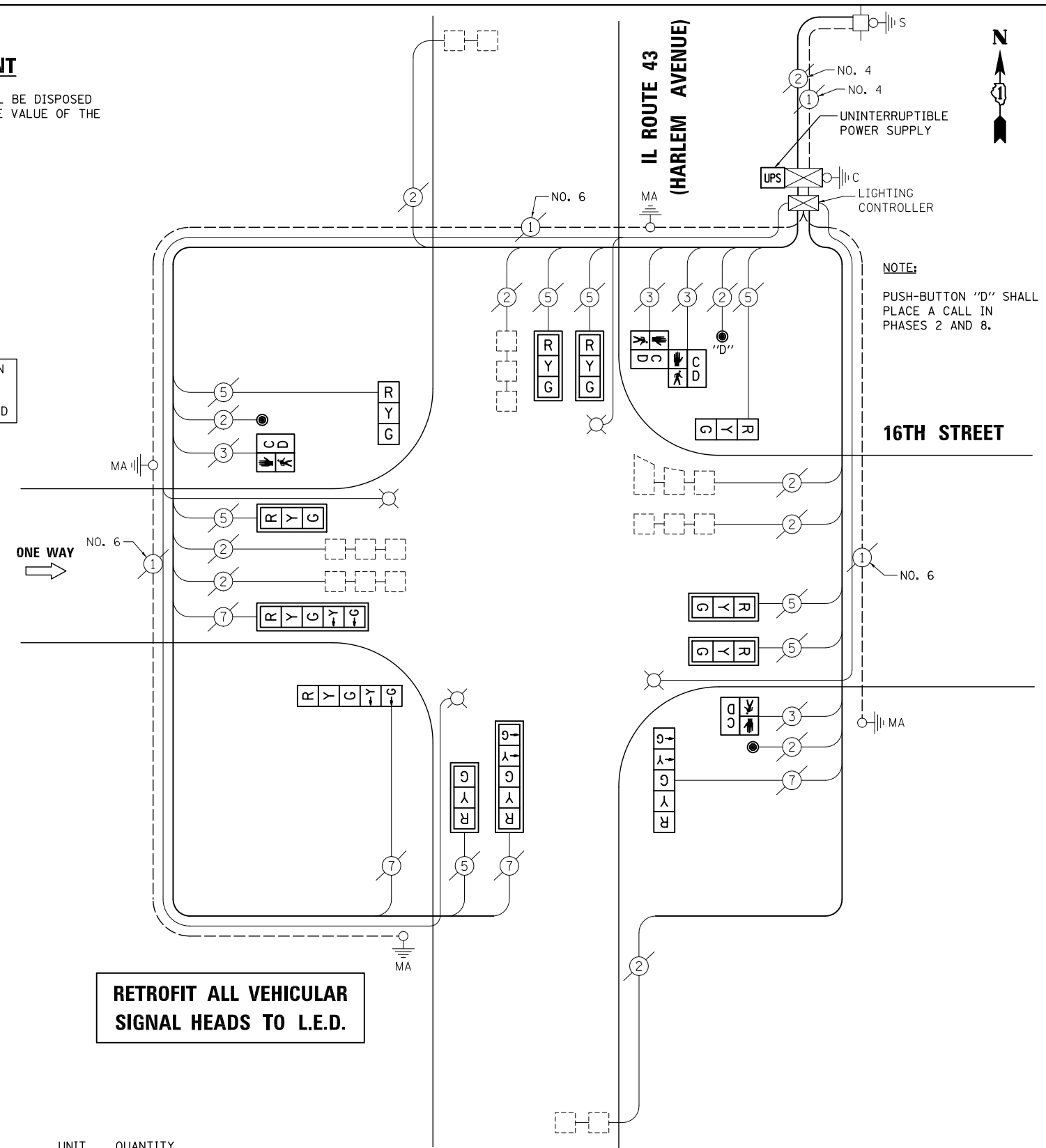
REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 4 EACH PEDESTRIAN SIGNAL HEAD
- 3 EACH PEDESTRIAN PUSH-BUTTON

UPS SHALL BE INSTALLED ON LEFT SIDE OF CONTROLLER CABINET DUE TO PHYSICAL CONSTRAINT, OR AS DIRECTED

RETROFIT ALL VEHICULAR SIGNAL HEADS TO L.E.D.



CABLE PLAN

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

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
PEDESTRIAN PUSH-BUTTON, NON-LATCHING	EACH	3
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	2
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	6
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT	EACH	2

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE		%OPERATION	
		INCAND.	LED		
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	8	135	12	0.10	9.6
PED. SIGNAL	4	90	25	1.00	100
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 431.6
ENERGY SUPPLY	CONTACT: X				
	PHONE: X				
	COMPANY: X				

FILE NAME = \MICROST\352108\17-2110.DGN
 USER NAME = JGC
 PLOT SCALE = NOT TO SCALE
 PLOT DATE = X

DESIGNED - BPT	REVISED -
DRAWN - JGC/RDS	REVISED -
CHECKED - BPT	REVISED -
DATE - 12-04-13	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM IL ROUTE 43 (HARLEM AVENUE) AT 16TH STREET
 SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

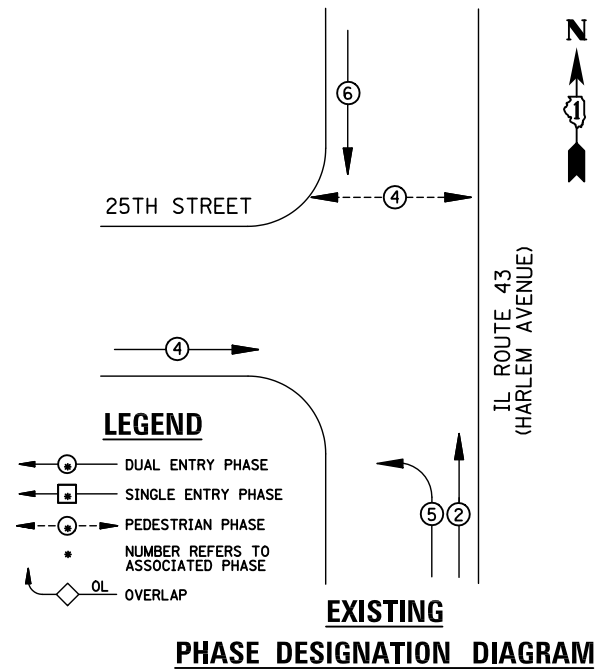
PREPARED BY: **CEMCON, Ltd.**
 Consulting Engineers, Land Surveyors & Planners
 2280 White Oak Circle, Suite 100
 Aurora, Illinois 60504-9675
 Ph: 630.862.2100 Fax: 630.862.2199
 E-Mail: cadd@cemcon.com Website: www.cemcon.com

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	32

CONTRACT NO. 60X29
 FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

TS# 2110 BERWYN

EXISTING CONTROLLER SEQUENCE



EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	
MOVEMENT	↓	↑	→

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE

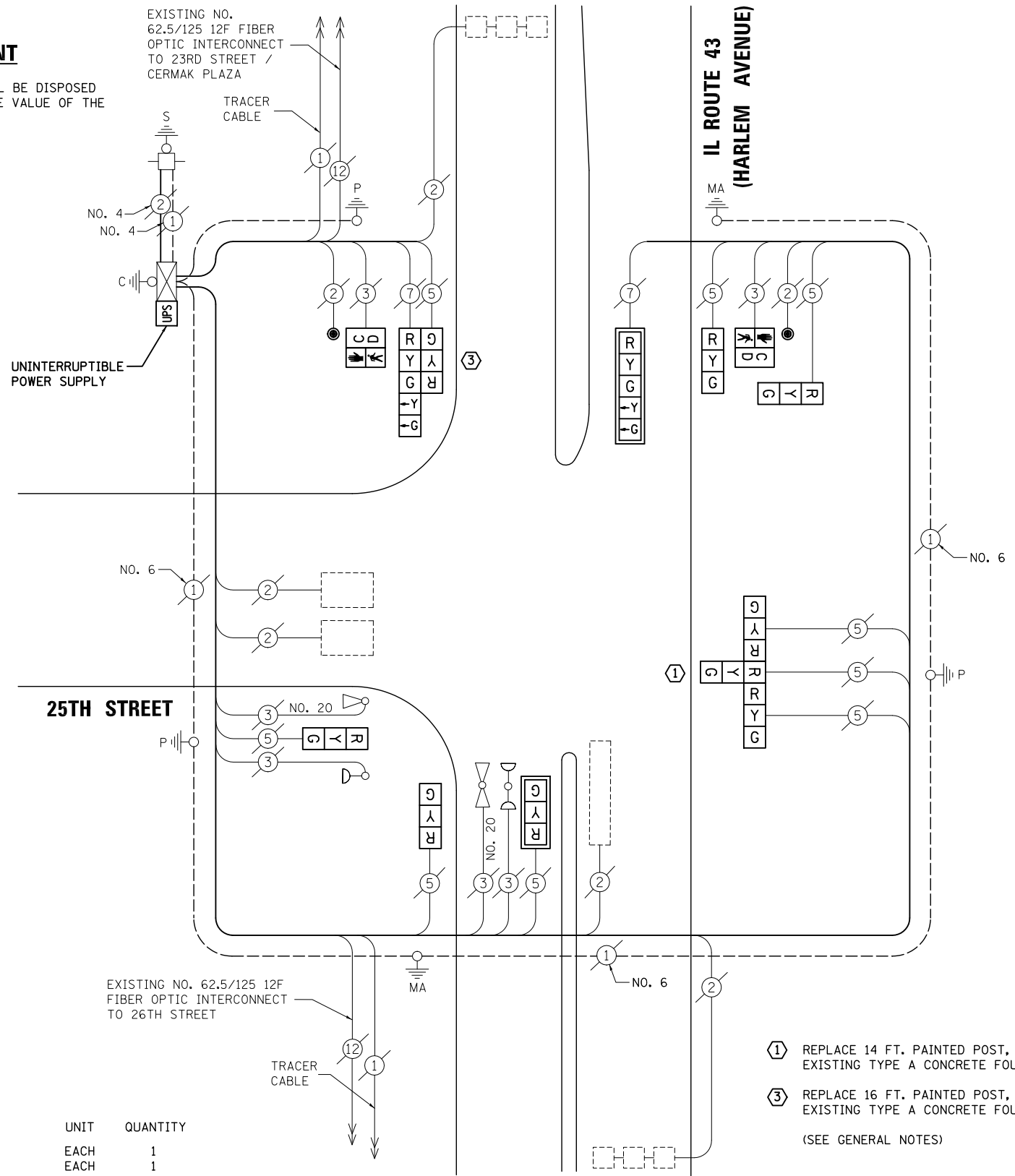
REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 2 EACH TRAFFIC SIGNAL POST
- 9 EACH SIGNAL HEAD, 3-SECTION
- 2 EACH SIGNAL HEAD, 5-SECTION
- 2 EACH TRAFFIC SIGNAL BACKPLATE
- 2 EACH PEDESTRIAN SIGNAL HEAD
- 2 EACH PEDESTRIAN PUSH-BUTTON

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	1
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 3-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	2
PEDESTRIAN PUSH-BUTTON	EACH	2
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1



CABLE PLAN

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

- ① REPLACE 14 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION
 - ③ REPLACE 16 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION
- (SEE GENERAL NOTES)

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	%OPERATION	
SIGNAL (RED)	11	135	17	0.50	93.5
(YELLOW)	11	135	25	0.25	68.75
(GREEN)	11	135	15	0.25	41.25
ARROW	4	135	12	0.10	4.8
PED. SIGNAL	2	90	25	1.00	50
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 358.3
ENERGY SUPPLY CONTACT:	X				
PHONE:	X				
COMPANY:	X				

FILE NAME = \MICROST\352108\18-2120.DGN	USER NAME = JGC	DESIGNED - BPT	REVISED -
		DRAWN - JGC/RDS	REVISED -
		CHECKED - BPT	REVISED -
		DATE - 12-04-13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION IL ROUTE 43 (HARLEM AVENUE) AT 25TH STREET

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

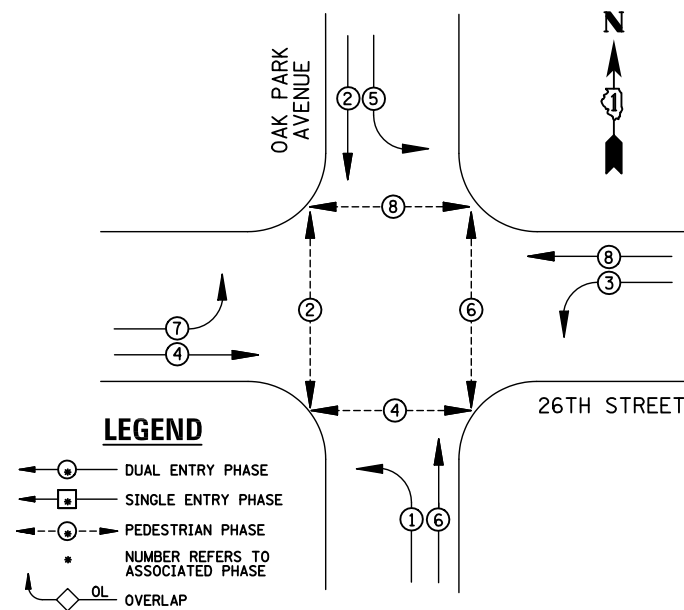
PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60504-9675
Ph: 630.862.2100 Fax: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	33

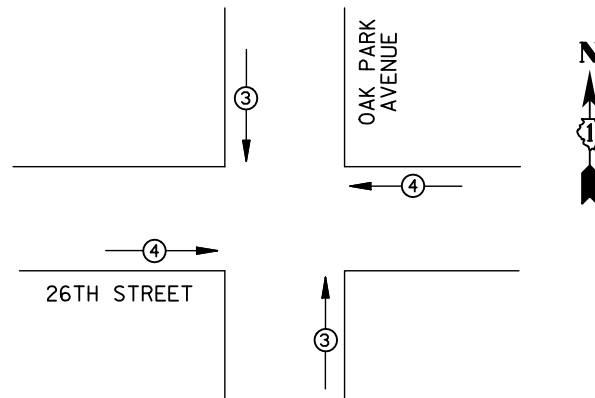
CONTRACT NO. 60X29
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

TS# 2120
BERWYN

EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↑	→

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 8 EACH PEDESTRIAN SIGNAL HEAD
- 4 EACH PEDESTRIAN PUSH-BUTTON

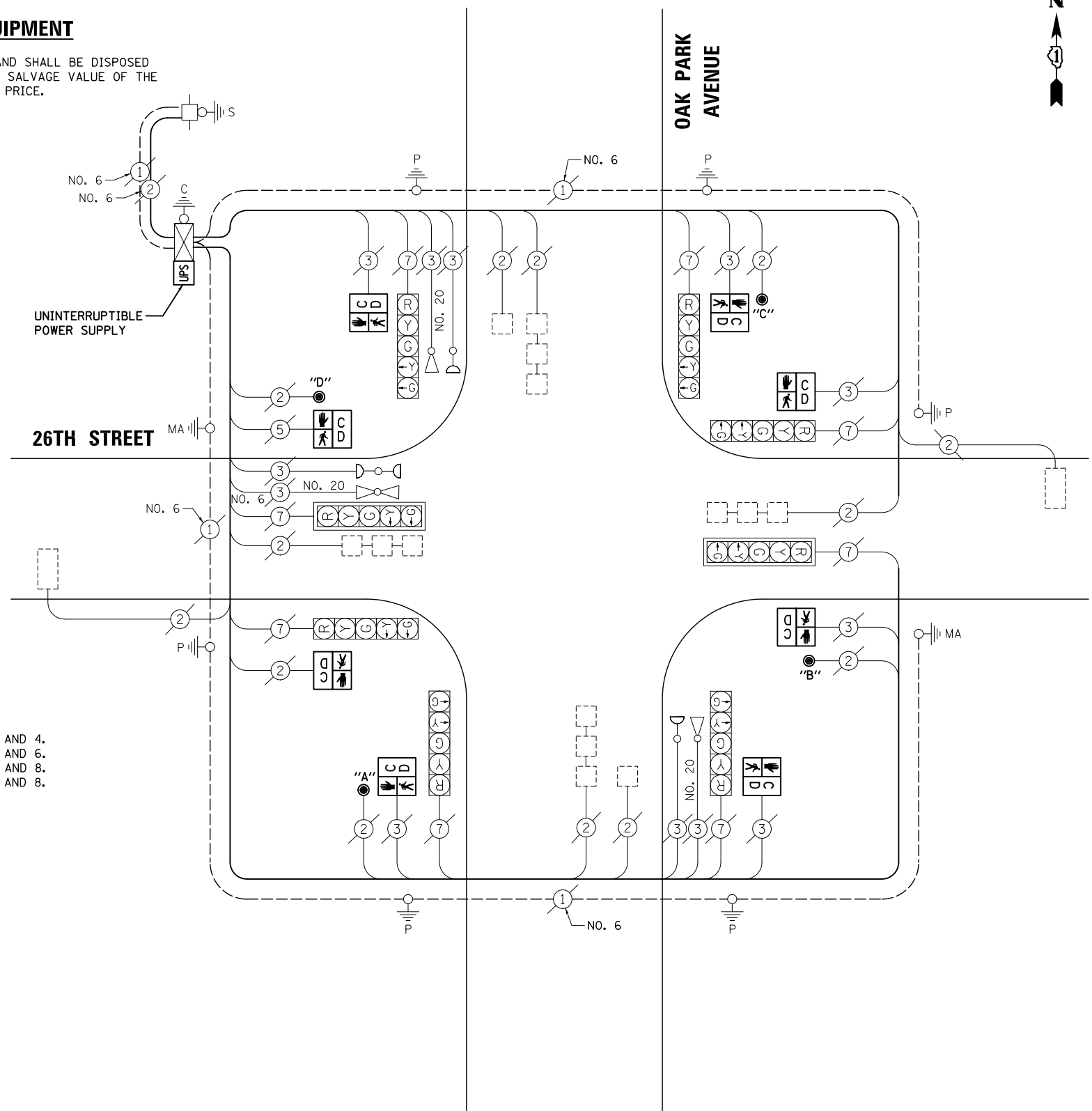
NOTE:

PUSH-BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4.
 PUSH-BUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6.
 PUSH-BUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8.
 PUSH-BUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8.

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	8
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
PEDESTRIAN PUSH-BUTTON, NON-LATCHING	EACH	4

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



CABLE PLAN

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

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE		%OPERATION	
		INCAND.	LED		
SIGNAL (RED)	8	135	17	0.50	68
(YELLOW)	8	135	25	0.25	50
(GREEN)	8	135	15	0.25	30
ARROW	16	135	12	0.10	19.2
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 467.2
ENERGY SUPPLY	CONTACT: X				
	PHONE: X				
	COMPANY: X				
FILE NAME = MICROST\352108\ 19-7915.DGN	USER NAME = JGC	DESIGNED - BPT	REVISED -		
		DRAWN - JGC/RDS	REVISED -		
		CHECKED - BPT	REVISED -		
		DATE - 12-04-13	REVISED -		

SCHEDULE OF QUANTITIES, CABLE PLAN,
PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION
OAK PARK AVENUE AT 26TH STREET

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

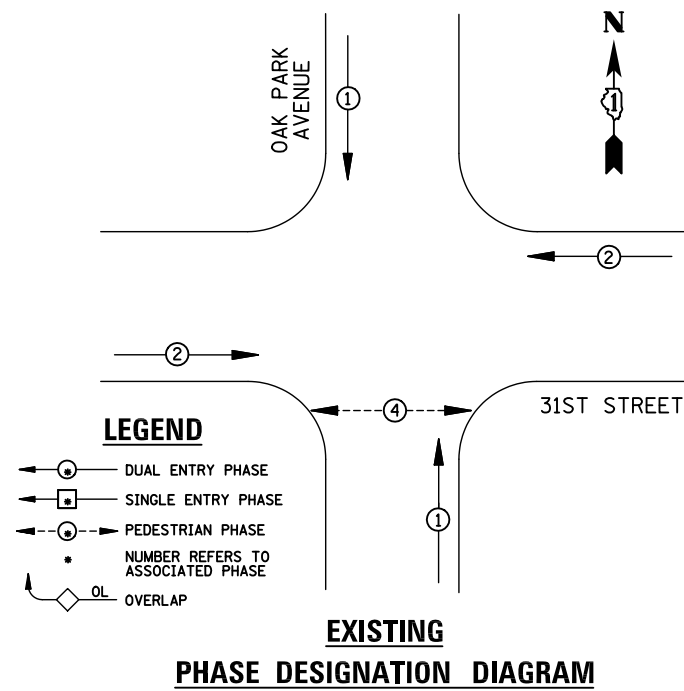
PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60504-9675
Ph: 630.862.2100 Fax: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	34
CONTRACT NO. 60X29				

FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

TS# 7915
BERWYN

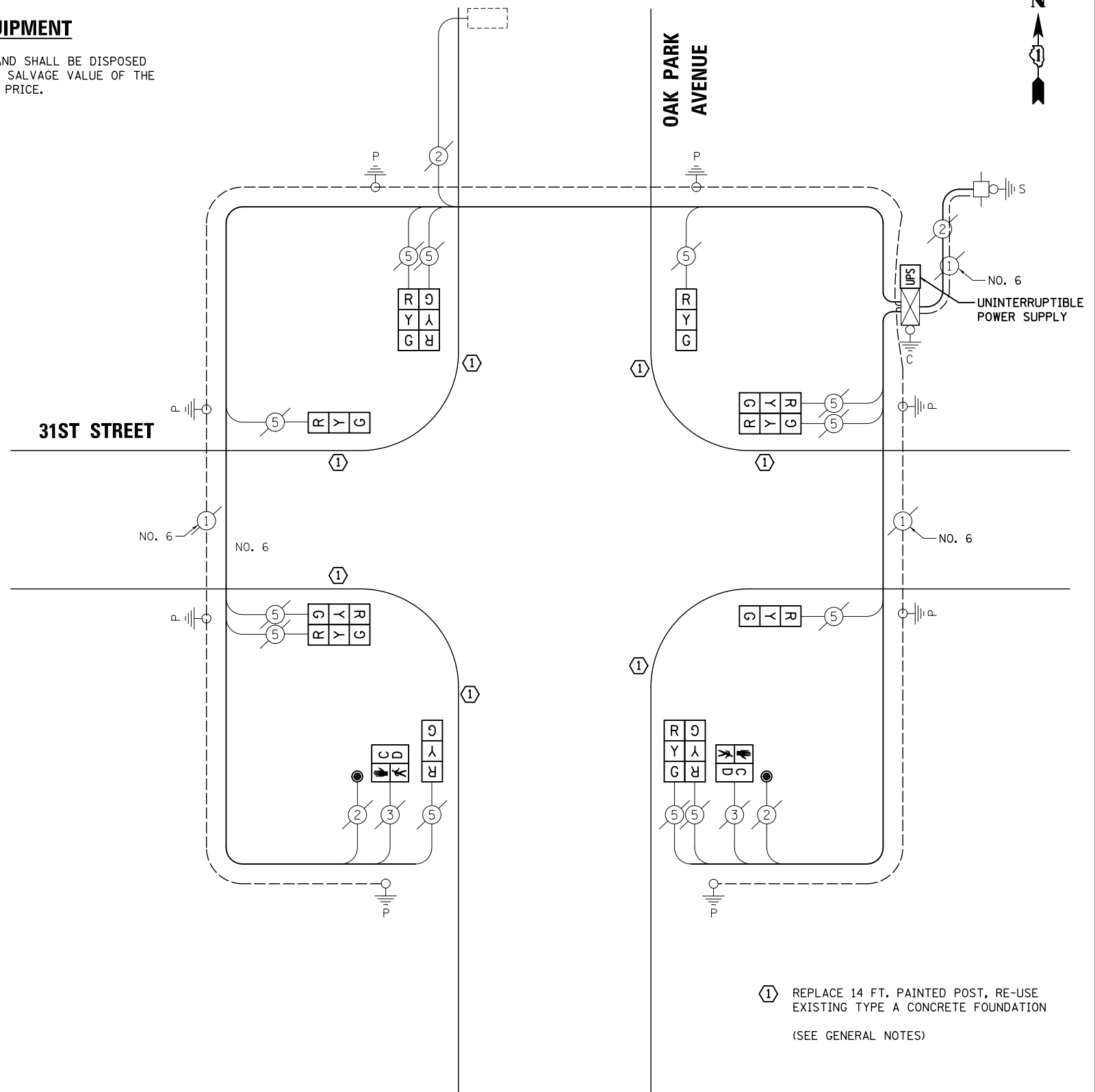
EXISTING CONTROLLER SEQUENCE



REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 7 EACH TRAFFIC SIGNAL POST
- 12 EACH SIGNAL HEAD, 3-SECTION
- 2 EACH PEDESTRIAN SIGNAL HEAD
- 2 EACH PEDESTRIAN PUSH-BUTTON



CABLE PLAN

① REPLACE 14 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION (SEE GENERAL NOTES)

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

SCHEDULE OF QUANTITIES

- ITEM
- MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
 - TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.
 - SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
 - SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED
 - PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
 - PEDESTRIAN PUSH-BUTTON
 - MODIFY EXISTING CONTROLLER CABINET
 - REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
 - UNINTERRUPTIBLE POWER SUPPLY, GROUND MOUNTED

UNIT	QUANTITY
EACH	1
EACH	7
EACH	4
EACH	4
EACH	2
EACH	2
EACH	1
EACH	1
EACH	1

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE		%OPERATION	
		INCAND.	LED		
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW		135	12	0.10	
PED. SIGNAL	2	90	25	1.00	50
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 372
ENERGY SUPPLY	CONTACT: X				
	PHONE: X				
	COMPANY: X				

FILE NAME = \MICROST\352108\
20-5515.DGN
USER NAME = JGC
DESIGNED - BPT
DRAWN - JGC/RDS
PLOT SCALE = NOT TO SCALE
CHECKED - BPT
PLOT DATE = X
DATE - 12-04-13

REVISED -
REVISED -
REVISED -
REVISED -
REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES, CABLE PLAN
AND PHASE DESIGNATION DIAGRAM
OAK PARK AVENUE AT 31ST STREET**

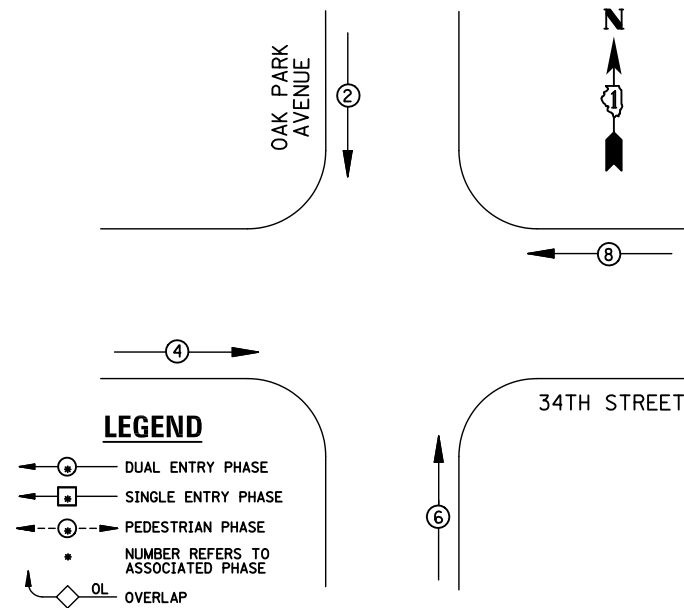
SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60504-9675
Ph: 630.862.2100 Fax: 630.862.2199
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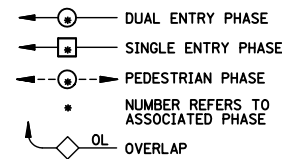
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	35
			CONTRACT NO. 60X29	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

TS* 5515
BERWYN

EXISTING AND PROPOSED CONTROLLER SEQUENCE



LEGEND



EXISTING AND PROPOSED PHASE DESIGNATION DIAGRAM

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 4 EACH TRAFFIC SIGNAL POST
- 12 EACH SIGNAL HEAD, 3-SECTION
- 1 EACH CONTROLLER

CONSTRUCTION NOTE:

THE UPS SHALL BE INSTALLED IN A SEPARATE TYPE "A" FOUNDATION DUE TO THE PHYSICAL CONSTRAINTS, OR AS DIRECTED BY THE ENGINEER. THIS WORK AND ALL CONDUIT AND ELECTRIC CABLE NEEDED TO PROPERLY INSTALL THE UPS SHALL BE INCLUDED IN THE PAY ITEM "UNINTERRUPTABLE POWER SUPPLY, GROUND MOUNTED".

SCHEDULE OF QUANTITIES

ITEM

- MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
- TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.
- SIGNAL HEAD, LED, 3-FACE, 3-SECTION, BRACKET MOUNTED
- MODIFY EXISTING CONTROLLER CABINET
- REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
- FULL-ACTUATED CONTROLLER IN EXISTING CABINET
- UNINTERRUPTABLE POWER SUPPLY, GROUND MOUNTED

UNIT QUANTITY

- EACH 1
- EACH 4
- EACH 4
- EACH 1
- EACH 1
- EACH 1
- EACH 1

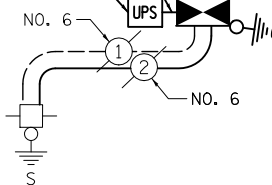
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES, CABLE PLAN
AND PHASE DESIGNATION DIAGRAM
OAK PARK AVENUE AT 34TH STREET**

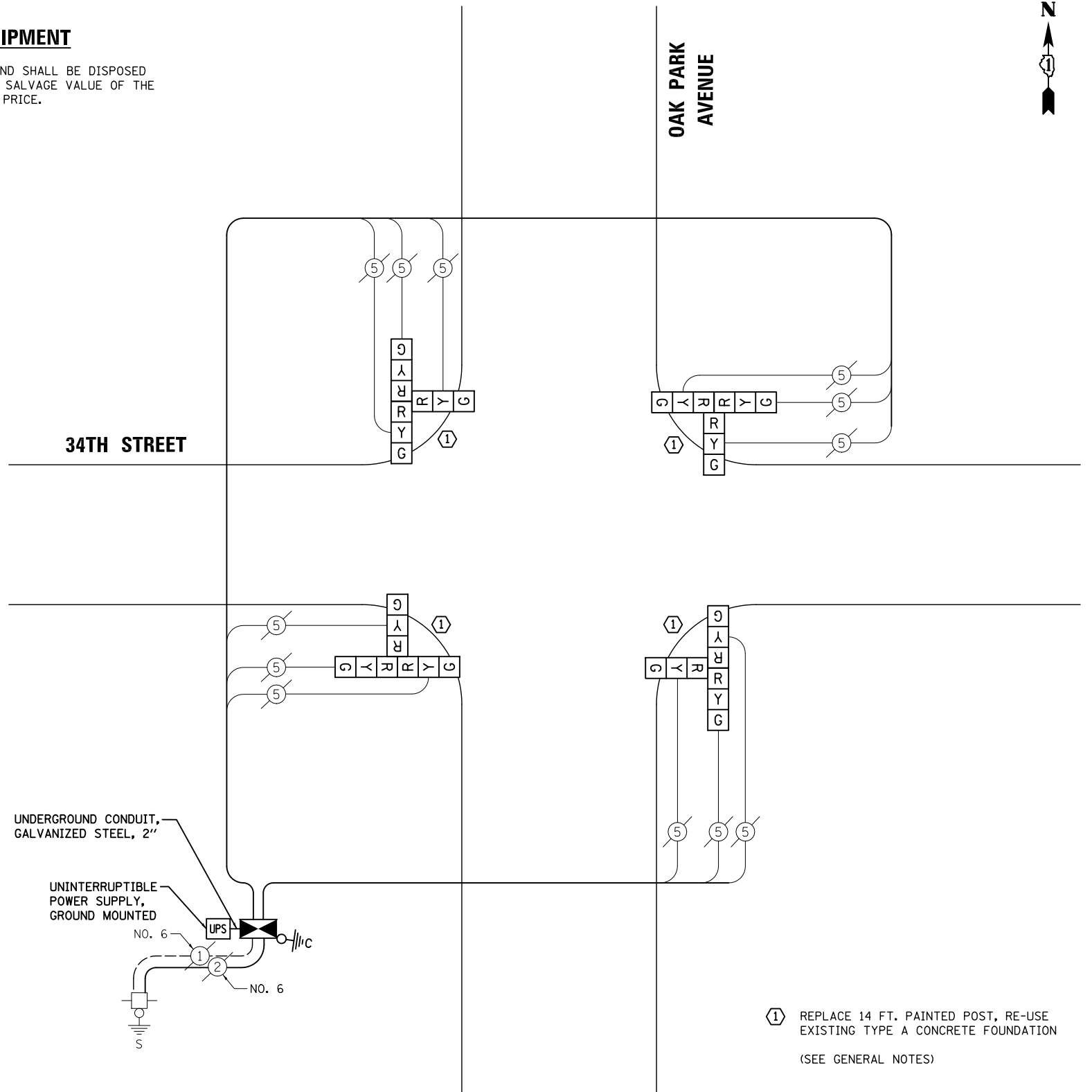
SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

UNDERGROUND CONDUIT,
GALVANIZED STEEL, 2"

UNINTERRUPTIBLE
POWER SUPPLY,
GROUND MOUNTED



CABLE PLAN



① REPLACE 14 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION (SEE GENERAL NOTES)

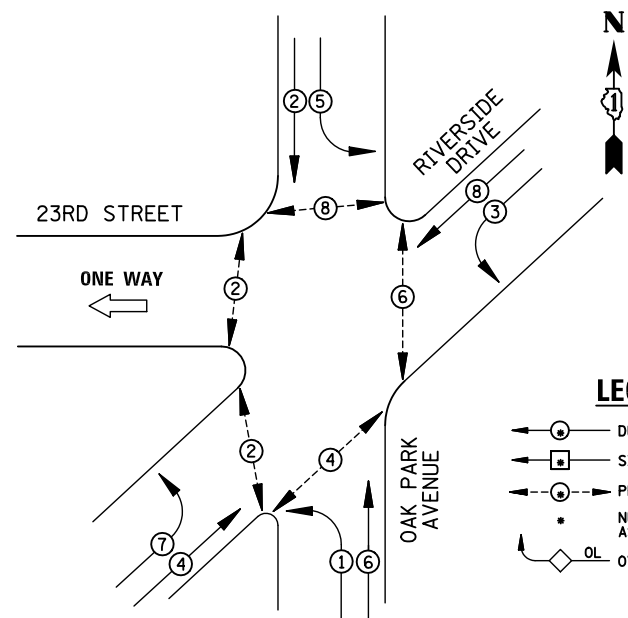
I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND. LED	%OPERATION		
SIGNAL (RED)	12	135 17	0.50	102	
(YELLOW)	12	135 25	0.25	75	
(GREEN)	12	135 15	0.25	45	
ARROW		135 12	0.10		
PED. SIGNAL		90 25	1.00		
CONTROLLER	1	100 100	1.00	100	
ILLUM. SIGN		84 100	0.50		
FLASHER		135 25	0.50		
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096				TOTAL =	322
ENERGY SUPPLY CONTACT: X					
PHONE: X					
COMPANY: X					
FILE NAME = MICROST\352108\ 21-7940.DGN	USER NAME = JGC	DESIGNED - BPT	REVISED -		
	PLOT SCALE = NOT TO SCALE	DRAWN - JGC/RDS	REVISED -		
	PLOT DATE = X	CHECKED - BPT	REVISED -		
		DATE - 12-04-13	REVISED -		

TS# 7940
BERWYN

PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60504-9675
Ph: 630.862.2100 Fax: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	36
				CONTRACT NO. 60X29
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 5 EACH TRAFFIC SIGNAL POST
- 2 EACH SIGNAL HEAD, 3-SECTION
- 8 EACH SIGNAL HEAD, 5-SECTION
- 4 EACH TRAFFIC SIGNAL BACKPLATE
- 10 EACH PEDESTRIAN SIGNAL HEAD
- 6 EACH PEDESTRIAN PUSH-BUTTON

NOTE:

PUSH-BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4.
 PUSH-BUTTON "B" SHALL PLACE A CALL IN PHASE 2.
 PUSH-BUTTON "C" SHALL PLACE A CALL IN PHASES 2 AND 8.
 PUSH-BUTTON "D" SHALL PLACE A CALL IN PHASES 6 AND 8.
 PUSH-BUTTON "E" SHALL PLACE A CALL IN PHASE 6.
 PUSH-BUTTON "F" SHALL PLACE A CALL IN PHASE 4.

- ③ REPLACE 16 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION
 - ⑤ REPLACE 10 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION
- (SEE GENERAL NOTES)

SCHEDULE OF QUANTITIES

ITEM

MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
 TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.
 TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
 SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED
 SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
 SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED
 TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
 MODIFY EXISTING CONTROLLER CABINET
 REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
 UNINTERRUPTABLE POWER SUPPLY, SPECIAL
 PEDESTRIAN PUSH-BUTTON, NON-LATCHING

UNIT	QUANTITY
EACH	1
EACH	1
EACH	4
EACH	2
EACH	4
EACH	2
EACH	4
EACH	1
EACH	1
EACH	1
EACH	6

OAK PARK AVENUE

23RD STREET

ONE WAY

CABLE PLAN

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

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE		%OPERATION	
		INCAND.	LED		
SIGNAL (RED)	10	135	17	0.50	85
(YELLOW)	10	135	25	0.25	62.5
(GREEN)	10	135	15	0.25	37.5
ARROW	16	135	12	0.10	19.2
PED. SIGNAL	10	90	25	1.00	250
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 554.2
ENERGY SUPPLY	CONTACT: X				
	PHONE: X				
	COMPANY: X				

DESIGNED - BPT	REVISED -
DRAWN - JGC/RDS	REVISED -
CHECKED - BPT	REVISED -
DATE - 12-04-13	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM			
OAK PARK AVENUE AT RIVERSIDE DRIVE / 23RD STREET			
SCALE: N.T.S.	SHEET NO.	OF SHEETS	STA. TO STA.

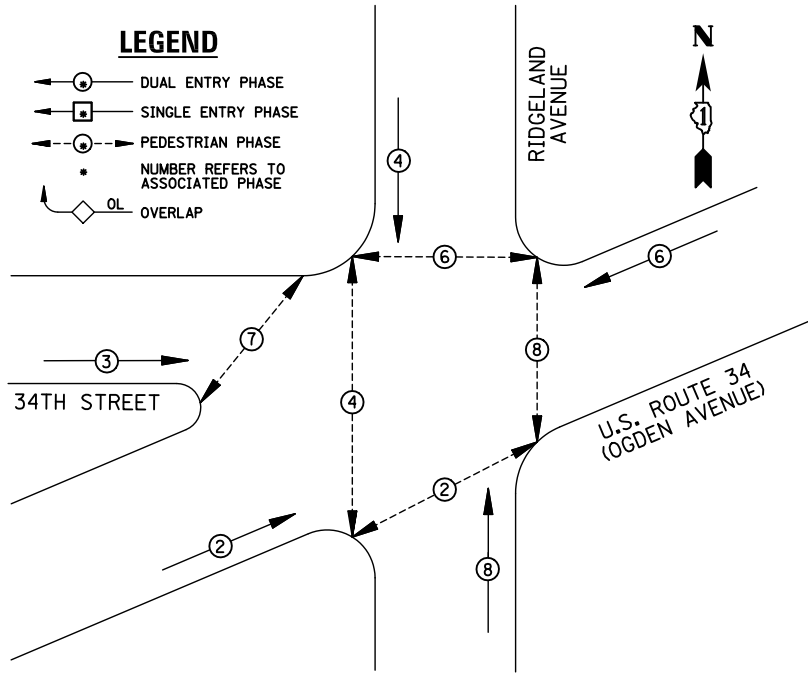
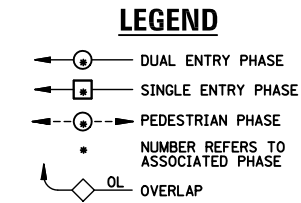
PREPARED BY:
CEMCON, Ltd.
 Consulting Engineers, Land Surveyors & Planners
 2280 White Oak Circle, Suite 100
 Aurora, Illinois 60504-9675
 Ph: 630.862.2100 Fax: 630.862.2199
 E-Mail: cadd@cemcon.com Website: www.cemcon.com

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	37
CONTRACT NO. 60X29				

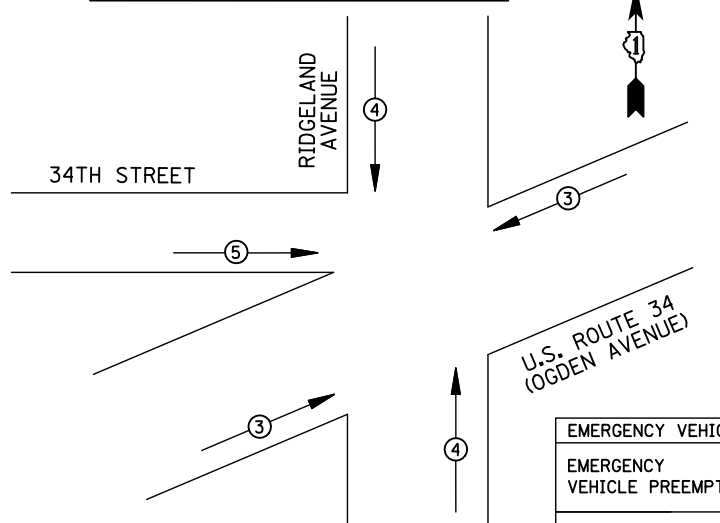
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

TS# 7935
 BERWYN

EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM



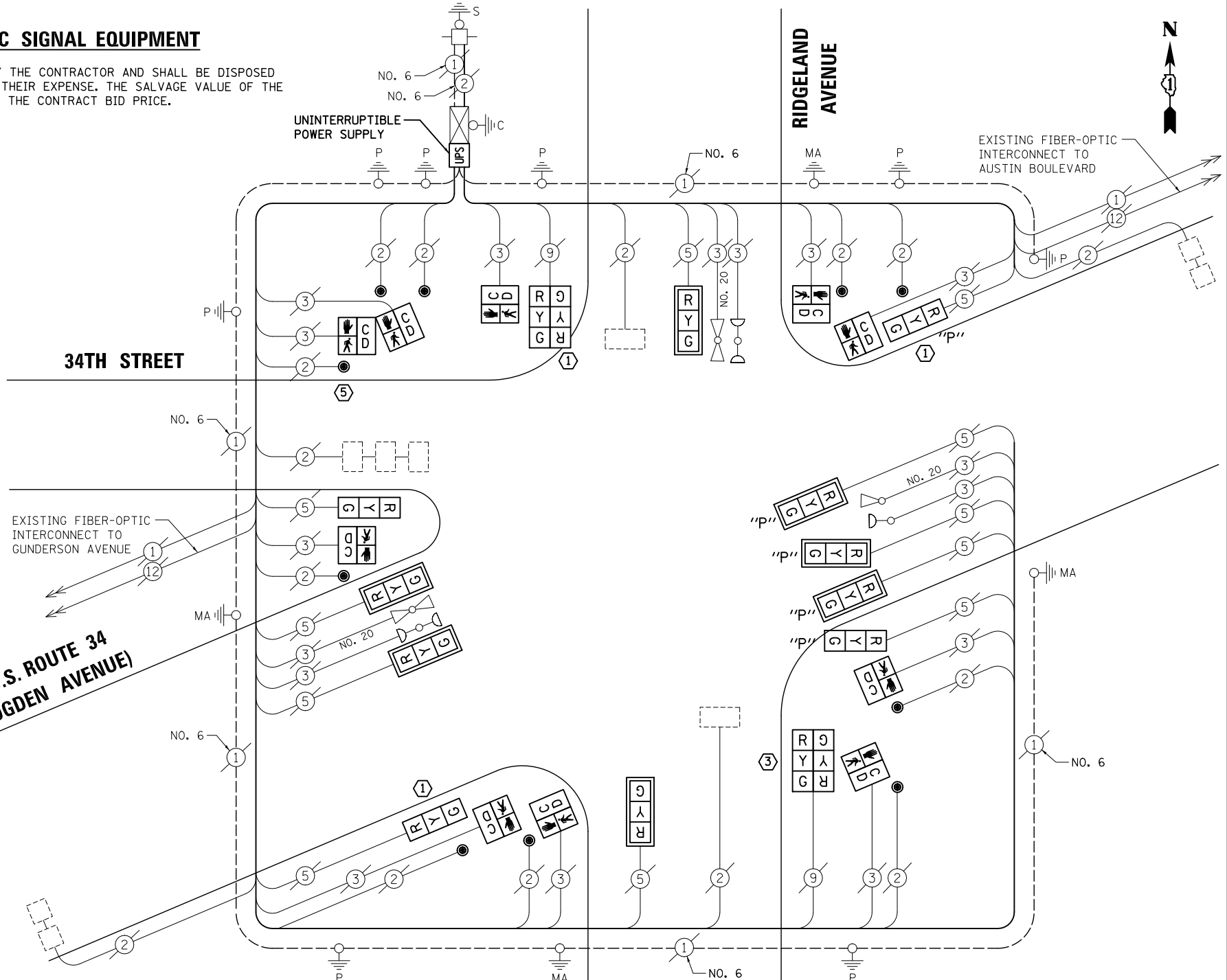
EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	5
MOVEMENT	↖ ↗	↕	→

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 5 EACH TRAFFIC SIGNAL POST
- 15 EACH SIGNAL HEAD, 3-SECTION
- 7 EACH TRAFFIC SIGNAL BACKPLATE
- 10 EACH PEDESTRIAN SIGNAL HEAD
- 10 EACH PEDESTRIAN PUSH-BUTTON



CABLE PLAN

- 1 REPLACE 14 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION
- 3 REPLACE 16 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION
- 5 REPLACE 10 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION (SEE GENERAL NOTES)

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

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	3
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	3
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	8
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	1
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	7
PEDESTRIAN PUSH-BUTTON	EACH	10
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	%OPERATION	
SIGNAL (RED)	15	135	17	0.50	127.5
(YELLOW)	15	135	25	0.25	93.75
(GREEN)	15	135	15	0.25	56.25
ARROW		135	12	0.10	
PED. SIGNAL	10	90	25	1.00	250
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 627.5
ENERGY SUPPLY CONTACT:	X				
PHONE:	X				
COMPANY:	X				

FILE NAME = \MICROST\352108\23-5595.DGN
USER NAME = JGC
DESIGNED - BPT
DRAWN - JGC/RDS
PLOT SCALE = NOT TO SCALE
CHECKED - BPT
PLOT DATE = X
REVISED -
REVISED -
REVISED -
REVISED -
DATE - 12-04-13

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN,
PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION
U.S. ROUTE 34 (OGDEN AVENUE) AT 34TH STREET & RIDGELAND AVENUE
SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

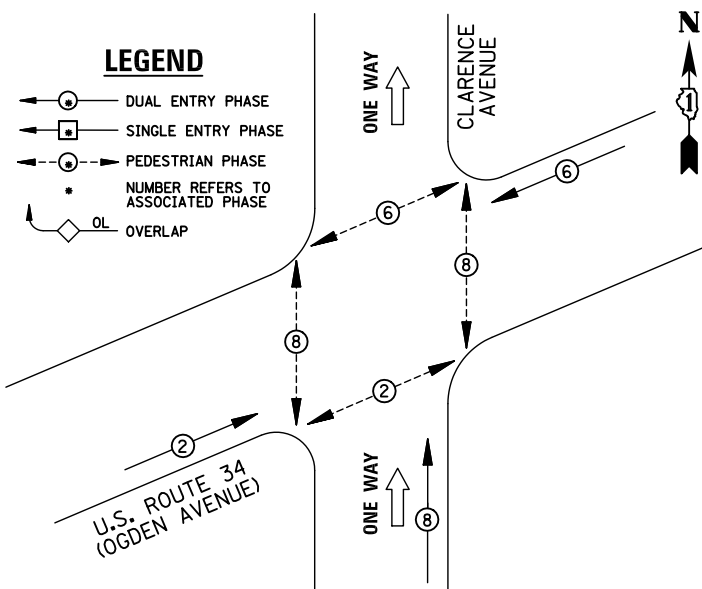
PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60504-9675
Ph: 630.862.2100 Fax: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	38

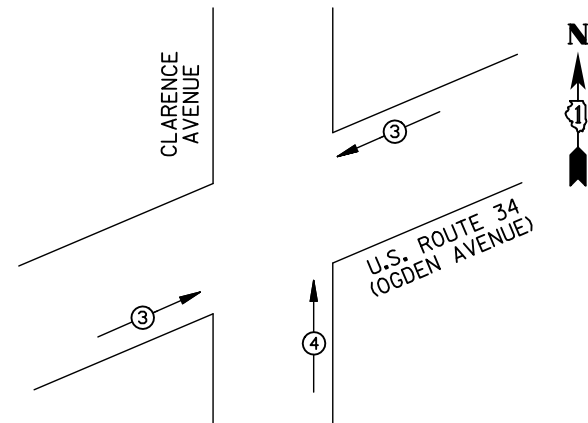
CONTRACT NO. 60X29
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

TS# 5595
BERWYN

EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	
MOVEMENT	↔	↑	

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE		%OPERATION	
		INCAND.	LED		
SIGNAL (RED)	9	135	17	0.50	76.5
(YELLOW)	9	135	25	0.25	56.25
(GREEN)	9	135	15	0.25	33.75
ARROW		135	12	0.10	
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 466.5
ENERGY SUPPLY	CONTACT: X				
	PHONE: X				
	COMPANY: X				

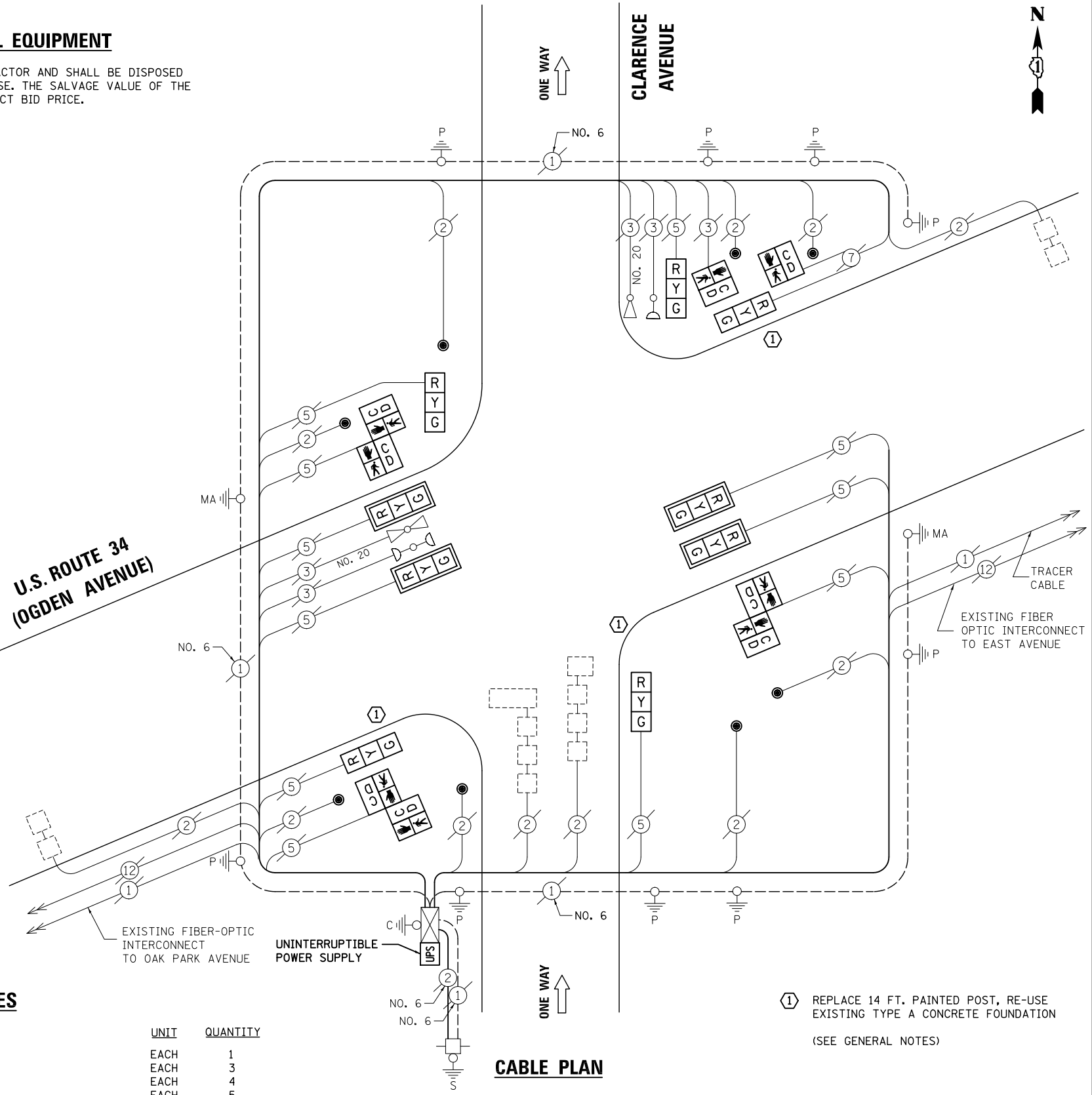
REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 3 EACH TRAFFIC SIGNAL POST
- 9 EACH SIGNAL HEAD, 3-SECTION
- 4 EACH TRAFFIC SIGNAL BACKPLATE
- 8 EACH PEDESTRIAN SIGNAL HEAD
- 8 EACH PEDESTRIAN PUSH-BUTTON

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	3
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	5
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	3
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	4
PEDESTRIAN PUSH-BUTTON	EACH	8
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1



CABLE PLAN

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

① REPLACE 14 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION (SEE GENERAL NOTES)

FILE NAME = \MICROST\352108\25-5570.DGN
USER NAME = JGC
DESIGNED - BPT
DRAWN - JGC/RDS
PLOT SCALE = NOT TO SCALE
PLOT DATE = X

REVISIONS:
REVISED -
REVISED -
REVISED -
REVISED -
DATE - 12-04-13

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

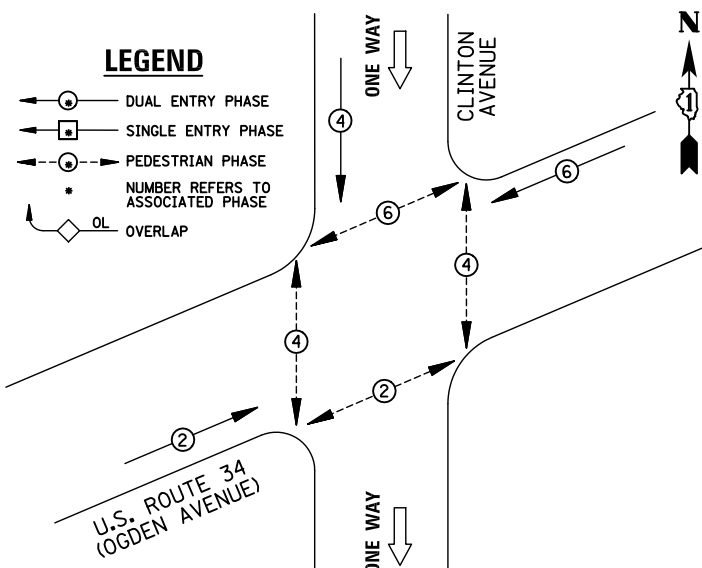
**SCHEDULE OF QUANTITIES, CABLE PLAN,
PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION
U.S. ROUTE 34 (OGDEN AVENUE) AT CLARENCE AVENUE**
SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60504-9675
Ph: 630.862.2100 Fax: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com

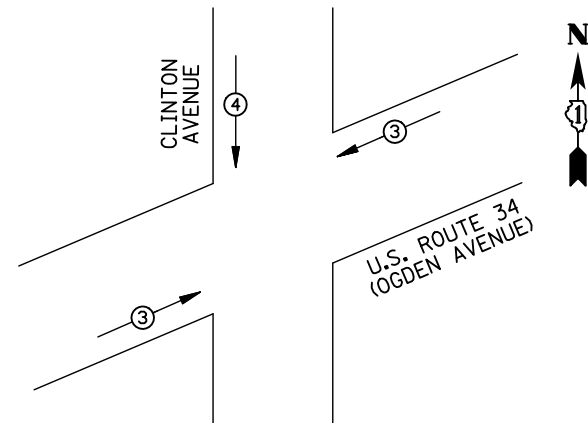
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	39
CONTRACT NO. 60X29				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

TS# 5570
BERWYN

EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	
MOVEMENT	↔	↓	

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 4 EACH TRAFFIC SIGNAL POST
- 9 EACH SIGNAL HEAD, 3-SECTION
- 4 EACH TRAFFIC SIGNAL BACKPLATE
- 8 EACH PEDESTRIAN SIGNAL HEAD
- 7 EACH PEDESTRIAN PUSH-BUTTON

NOTE:

PUSH-BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4.
 PUSH-BUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6.
 PUSH-BUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8.
 PUSH-BUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8.

SCHEDULE OF QUANTITIES

ITEM

MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
 TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.
 TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.
 SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
 SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
 PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
 PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
 TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
 MODIFY EXISTING CONTROLLER CABINET
 REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
 UNINTERRUPTIBLE POWER SUPPLY, SPECIAL
 PEDESTRIAN PUSH-BUTTON, NON-LATCHING

UNIT QUANTITY

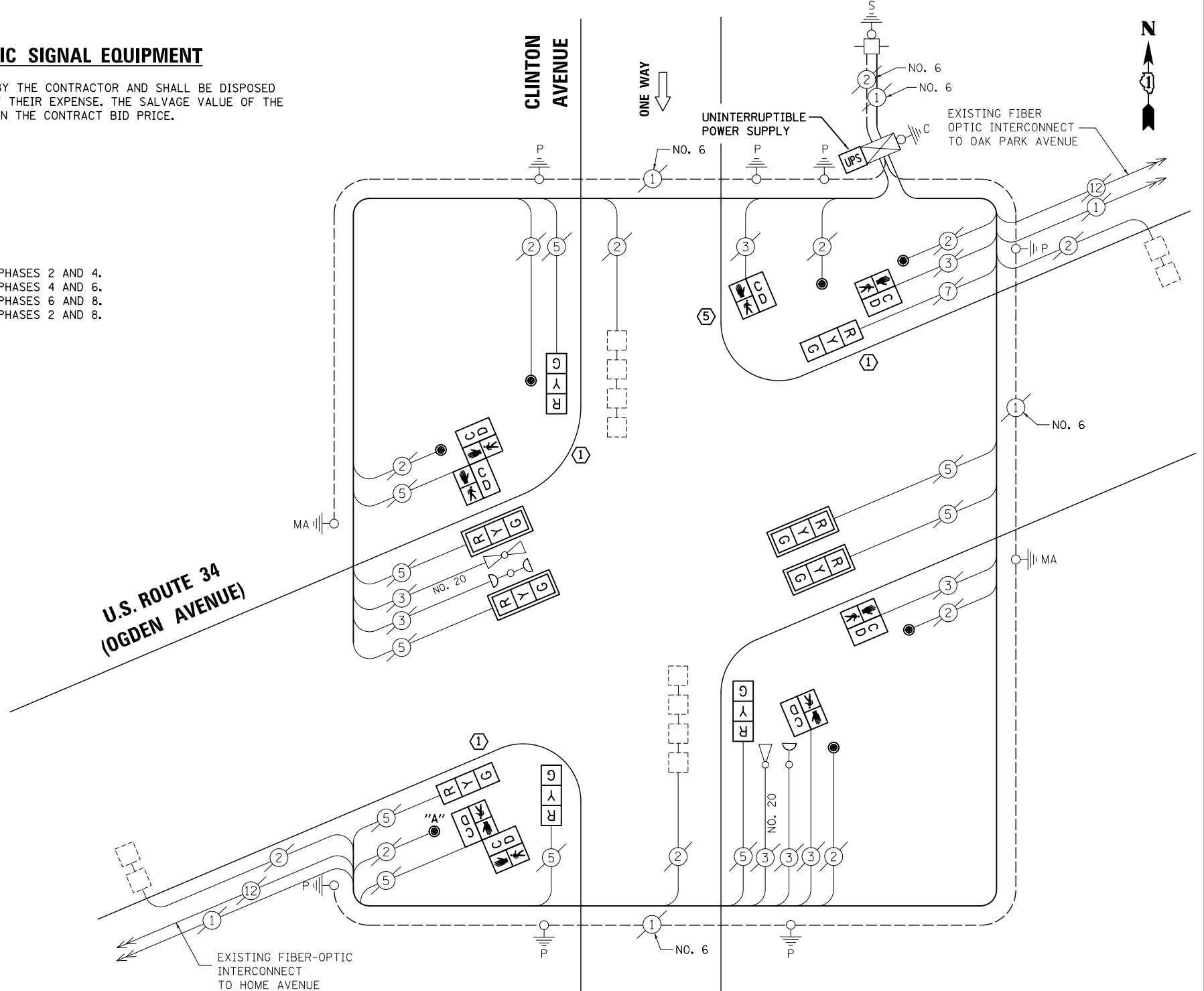
EACH 1
 EACH 1
 EACH 3
 EACH 4
 EACH 5
 EACH 4
 EACH 2
 EACH 4
 EACH 1
 EACH 1
 EACH 1
 EACH 7

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

DESIGNED - BPT	REVISED -
DRAWN - JGC/RDS	REVISED -
CHECKED - BPT	REVISED -
DATE - 12-04-13	REVISED -

**SCHEDULE OF QUANTITIES, CABLE PLAN,
 PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION
 U.S. ROUTE 34 (OGDEN AVENUE) AT CLINTON AVENUE**

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.



CABLE PLAN

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

- ① REPLACE 14 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION
- ⑤ REPLACE 10 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION (SEE GENERAL NOTES)

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	%OPERATION	
SIGNAL (RED)	9	135	17	0.50	76.5
(YELLOW)	9	135	25	0.25	56.25
(GREEN)	9	135	15	0.25	33.75
ARROW		135	12	0.10	
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 466.5
ENERGY SUPPLY	CONTACT: X				
	PHONE: X				
	COMPANY: X				

FILE NAME = \MICROST\352108\26-5575.DGN

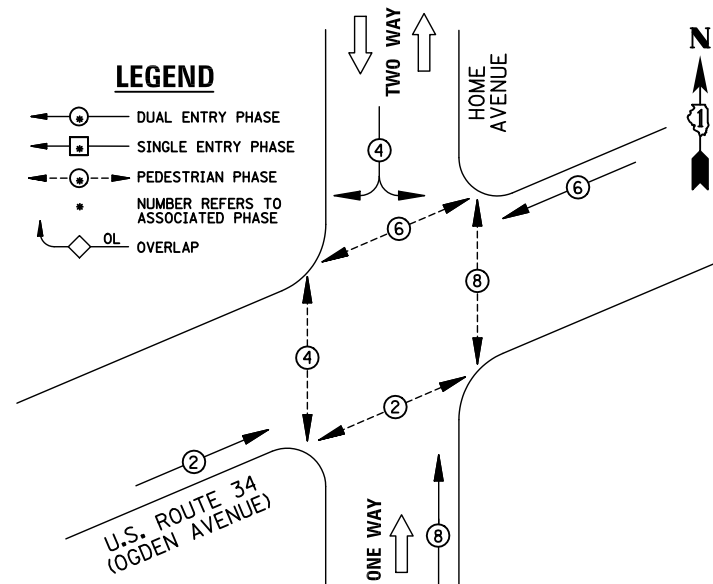
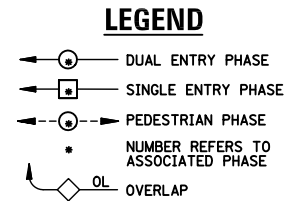
USER NAME = JGC
 PLOT SCALE = NOT TO SCALE
 PLOT DATE = X

PREPARED BY:
CEMCON, Ltd.
 Consulting Engineers, Land Surveyors & Planners
 2280 White Oak Circle, Suite 100
 Aurora, Illinois 60504-9675
 Ph: 630.862.2100 Fax: 630.862.2199
 E-Mail: cadd@cemcon.com Website: www.cemcon.com

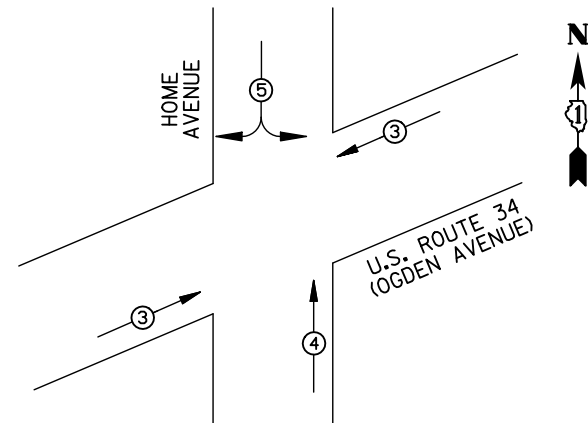
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	40
			CONTRACT NO. 60X29	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

TS# 5575
 BERWYN

EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTORS

EMERGENCY VEHICLE PREEMPTOR	3	4	5
MOVEMENT	↔	↑	↔

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. LAMPS	WATTAGE INCAND.	LED	%OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW		135	12	0.10	
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 522
ENERGY SUPPLY	CONTACT: X				
	PHONE: X				
	COMPANY: X				

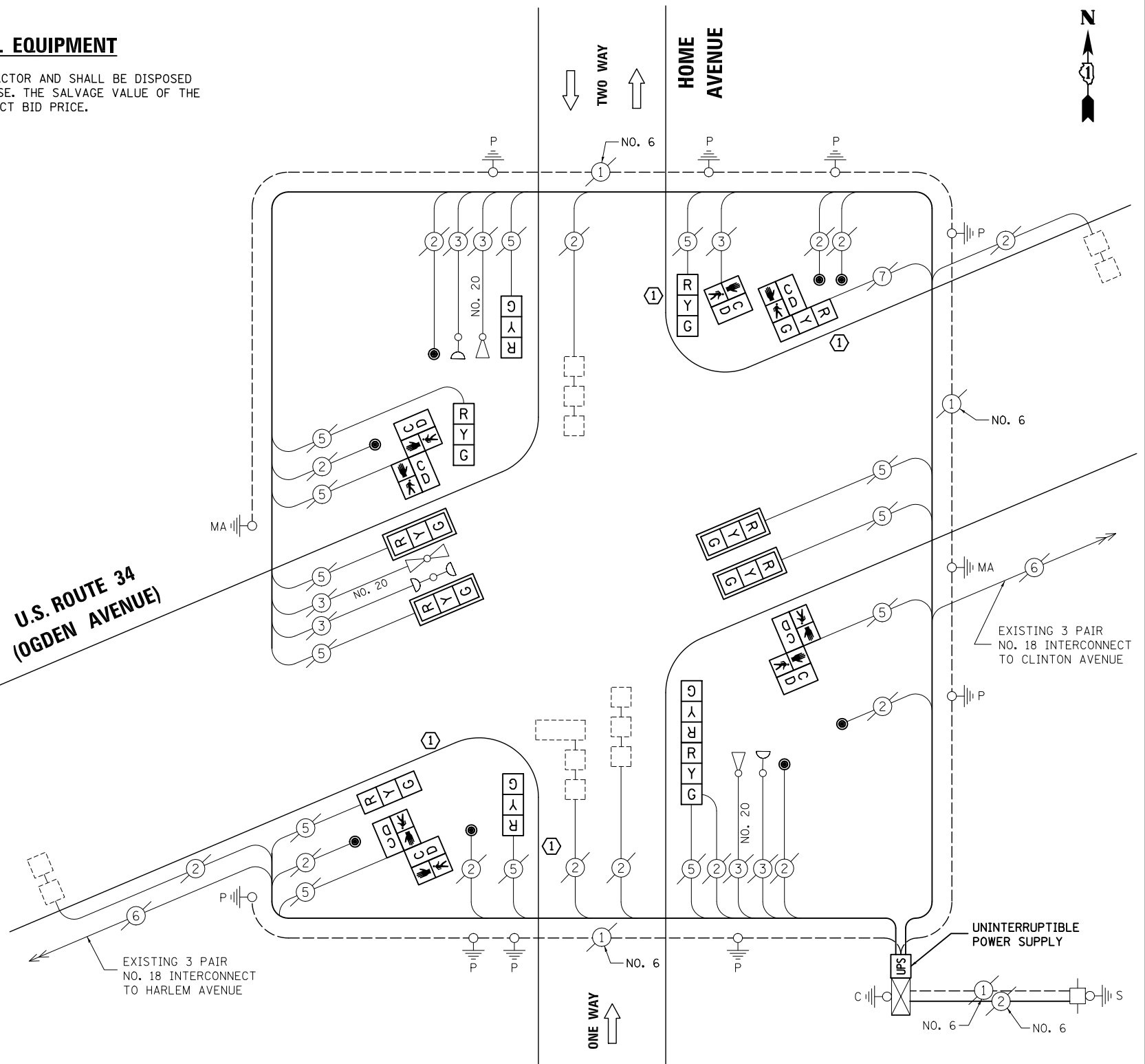
REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 4 EACH TRAFFIC SIGNAL POST
- 12 EACH SIGNAL HEAD, 3-SECTION
- 4 EACH TRAFFIC SIGNAL BACKPLATE
- 8 EACH PEDESTRIAN SIGNAL HEAD
- 8 EACH PEDESTRIAN PUSH-BUTTON

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	4
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	6
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	3
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	4
PEDESTRIAN PUSH-BUTTON	EACH	8
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1



CABLE PLAN

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

① REPLACE 14 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION (SEE GENERAL NOTES)

TS# 5590 BERWYN

PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60504-9675
Ph: 630.862.2100 Fax: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com

FILE NAME = \MICROST\352108\ 27-5590.DGN

USER NAME = JGC
DESIGNED - BPT
DRAWN - JGC/RDS
CHECKED - BPT
DATE - 12-04-13

REVISED -
REVISED -
REVISED -
REVISED -

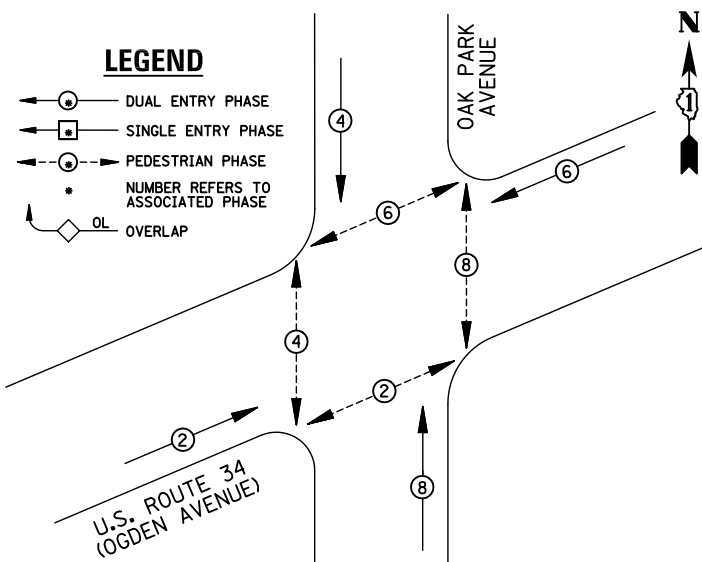
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION U.S. ROUTE 34 (OGDEN AVENUE) AT HOME AVENUE

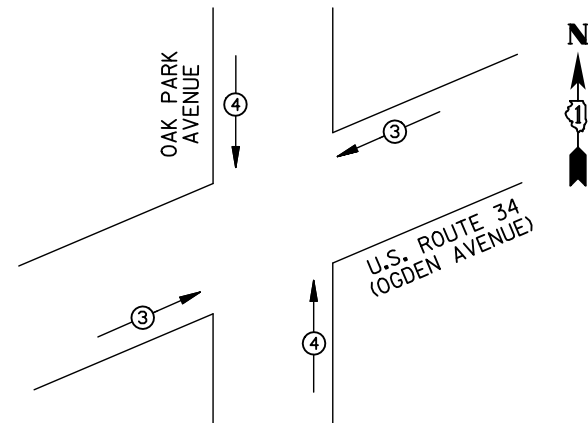
SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	41
			CONTRACT NO. 60X29	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM



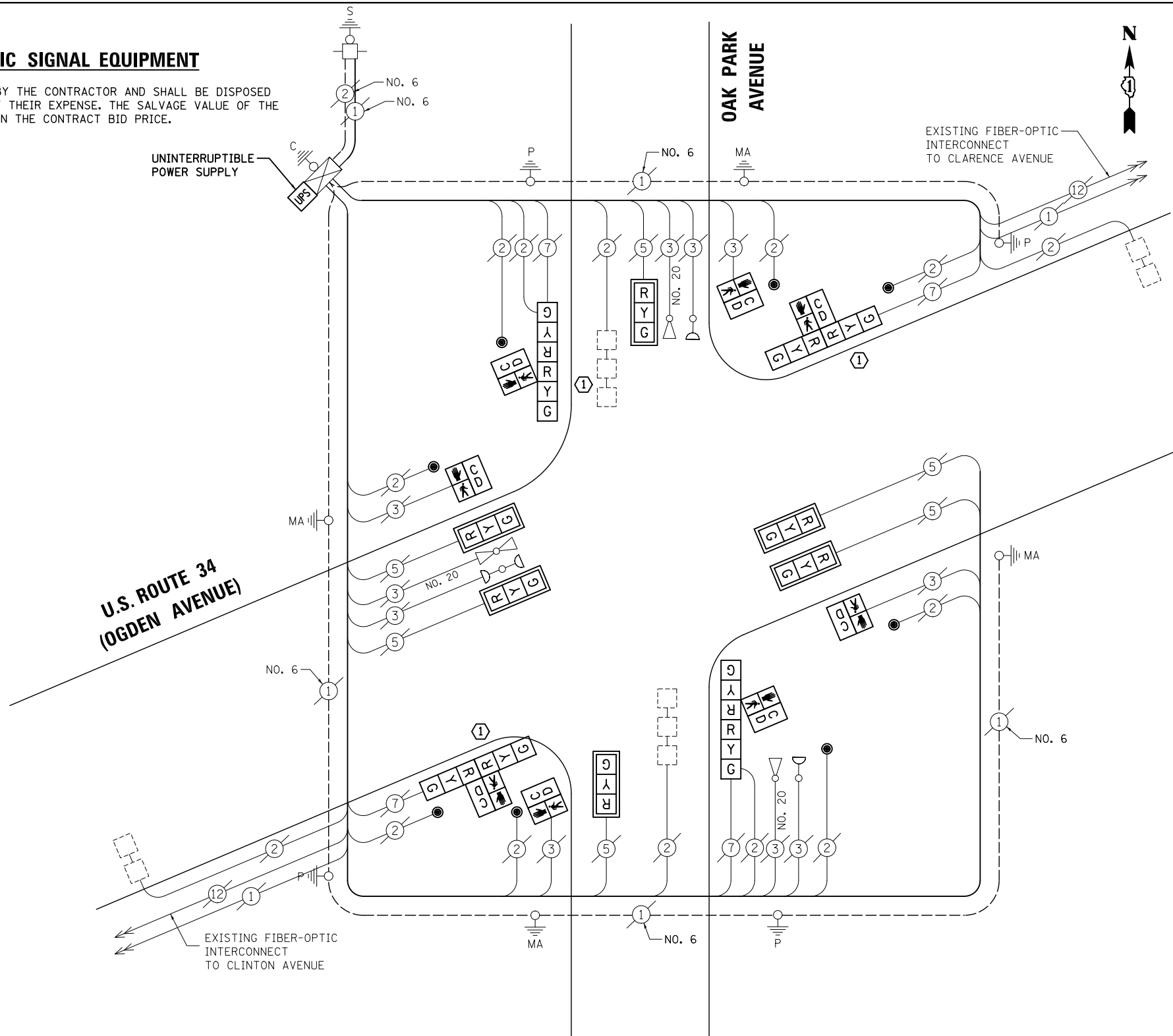
EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	
MOVEMENT	↔	↕	

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 3 EACH TRAFFIC SIGNAL POST
- 14 EACH SIGNAL HEAD, 3-SECTION
- 6 EACH TRAFFIC SIGNAL BACKPLATE
- 8 EACH PEDESTRIAN SIGNAL HEAD
- 8 EACH PEDESTRIAN PUSH-BUTTON



SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	3
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	6
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	4
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	8
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	6
PEDESTRIAN PUSH-BUTTON	EACH	8
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTIBLE POWER SUPPLY, SPECIAL	EACH	1

CABLE PLAN

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

① REPLACE 14 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION (SEE GENERAL NOTES)

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	%OPERATION	
SIGNAL (RED)	14	135	17	0.50	119
(YELLOW)	14	135	25	0.25	87.5
(GREEN)	14	135	15	0.25	52.5
ARROW		135	12	0.10	
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 559
ENERGY SUPPLY	CONTACT: X				
	PHONE: X				
	COMPANY: X				

DESIGNED - BPT	REVISED -
DRAWN - JGC/RDS	REVISED -
CHECKED - BPT	REVISED -
DATE - 12-04-13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

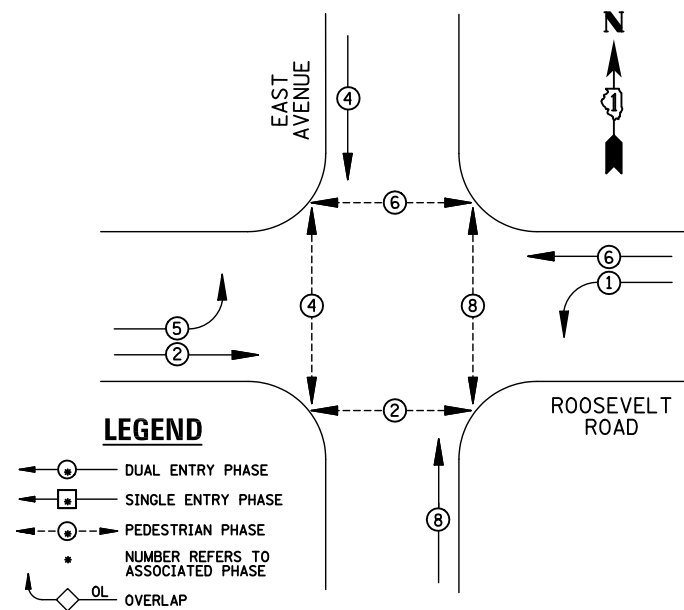
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION U.S. ROUTE 34 (OGDEN AVENUE) AT OAK PARK AVENUE			
SCALE: N.T.S.	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	42
CONTRACT NO. 60X29				

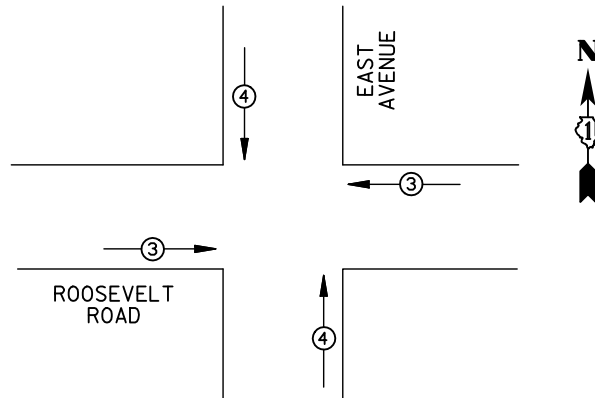
PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60504-9675
Ph: 630.862.2100 Fax: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com

TS# 5520
BERWYN

EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM



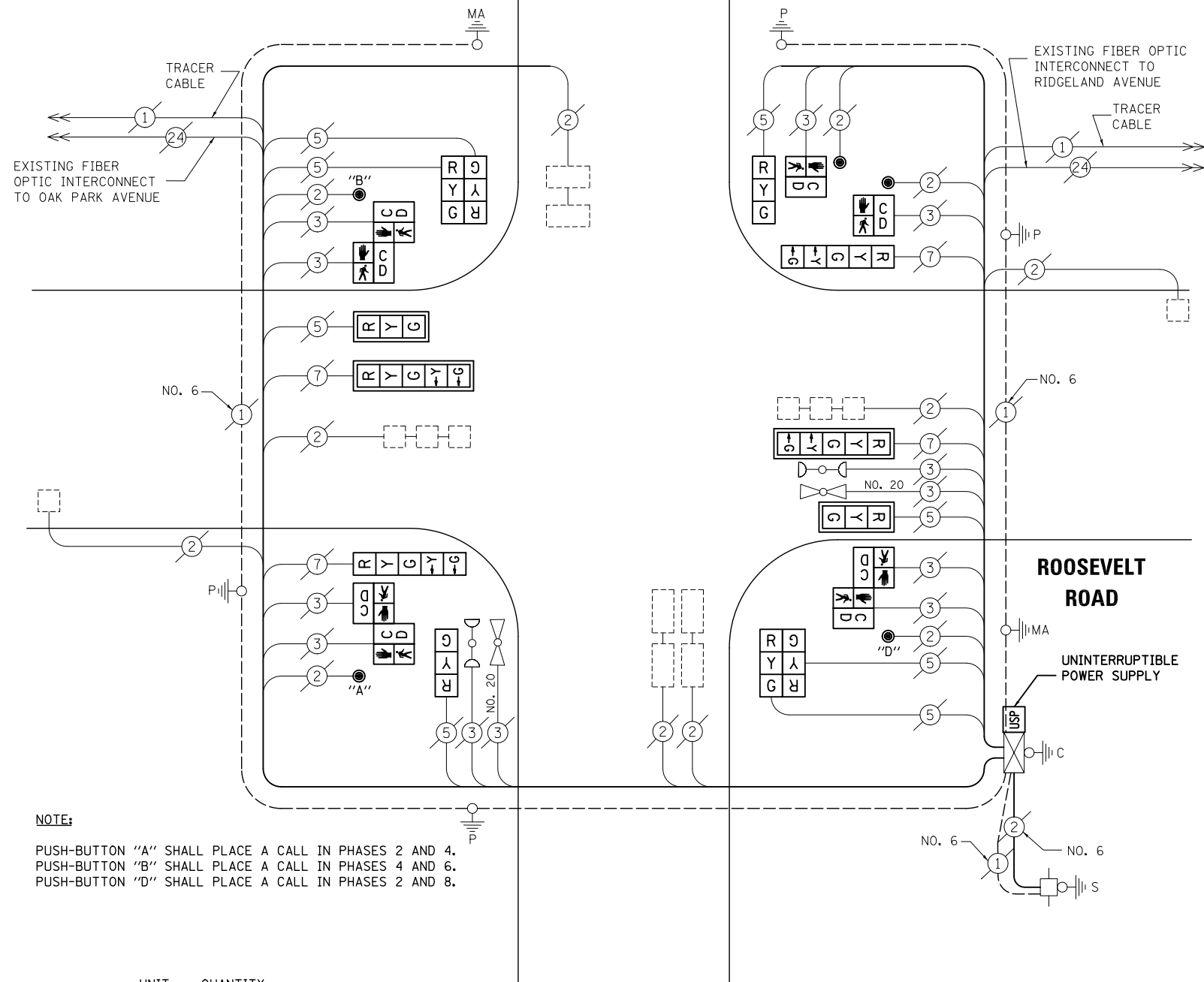
EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	← →	↑ ↓

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 4 EACH SIGNAL HEAD, 3-SECTION
- 4 EACH SIGNAL HEAD, 5-SECTION
- 4 EACH TRAFFIC SIGNAL BACKPLATE
- 8 EACH PEDESTRIAN SIGNAL HEAD
- 5 EACH PEDESTRIAN PUSH-BUTTON



NOTE:
 PUSH-BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4.
 PUSH-BUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6.
 PUSH-BUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8.

CABLE PLAN

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

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	2
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	3
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	4
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTIBLE POWER SUPPLY, SPECIAL	EACH	1
PEDESTRIAN PUSH-BUTTON, NON-LATCHING	EACH	5

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	%OPERATION	
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	8	135	12	0.10	9.6
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 531.6
ENERGY SUPPLY	CONTACT: X				
	PHONE: X				
	COMPANY: X				

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES, CABLE PLAN,
PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION
ROOSEVELT ROAD AT EAST AVENUE**

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

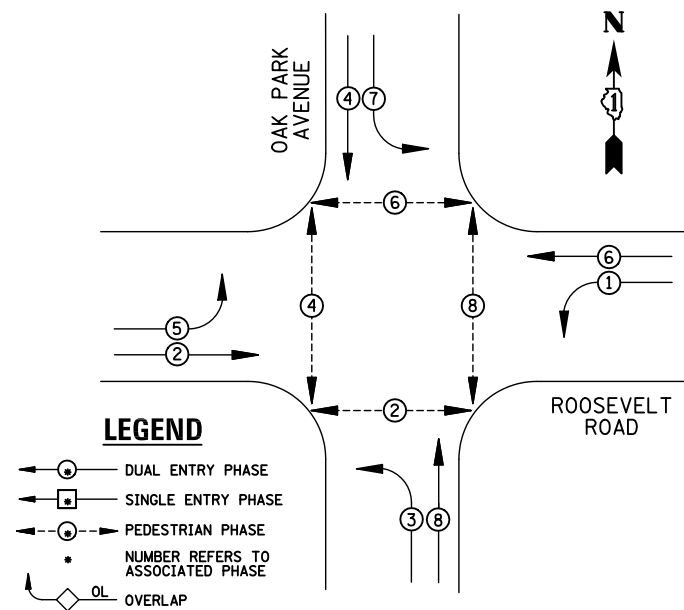
PREPARED BY:
CEMCON, Ltd.
 Consulting Engineers, Land Surveyors & Planners
 2280 White Oak Circle, Suite 100
 Aurora, Illinois 60504-9675
 Ph: 630.862.2100 Fax: 630.862.2199
 E-Mail: cadd@cemcon.com Website: www.cemcon.com

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	43

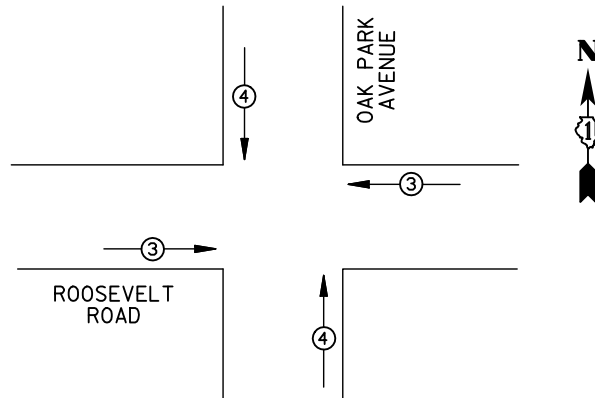
CONTRACT NO. 60X29
 FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

TS# 5735
BERWYN

EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	
MOVEMENT	←→	↑↓	

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

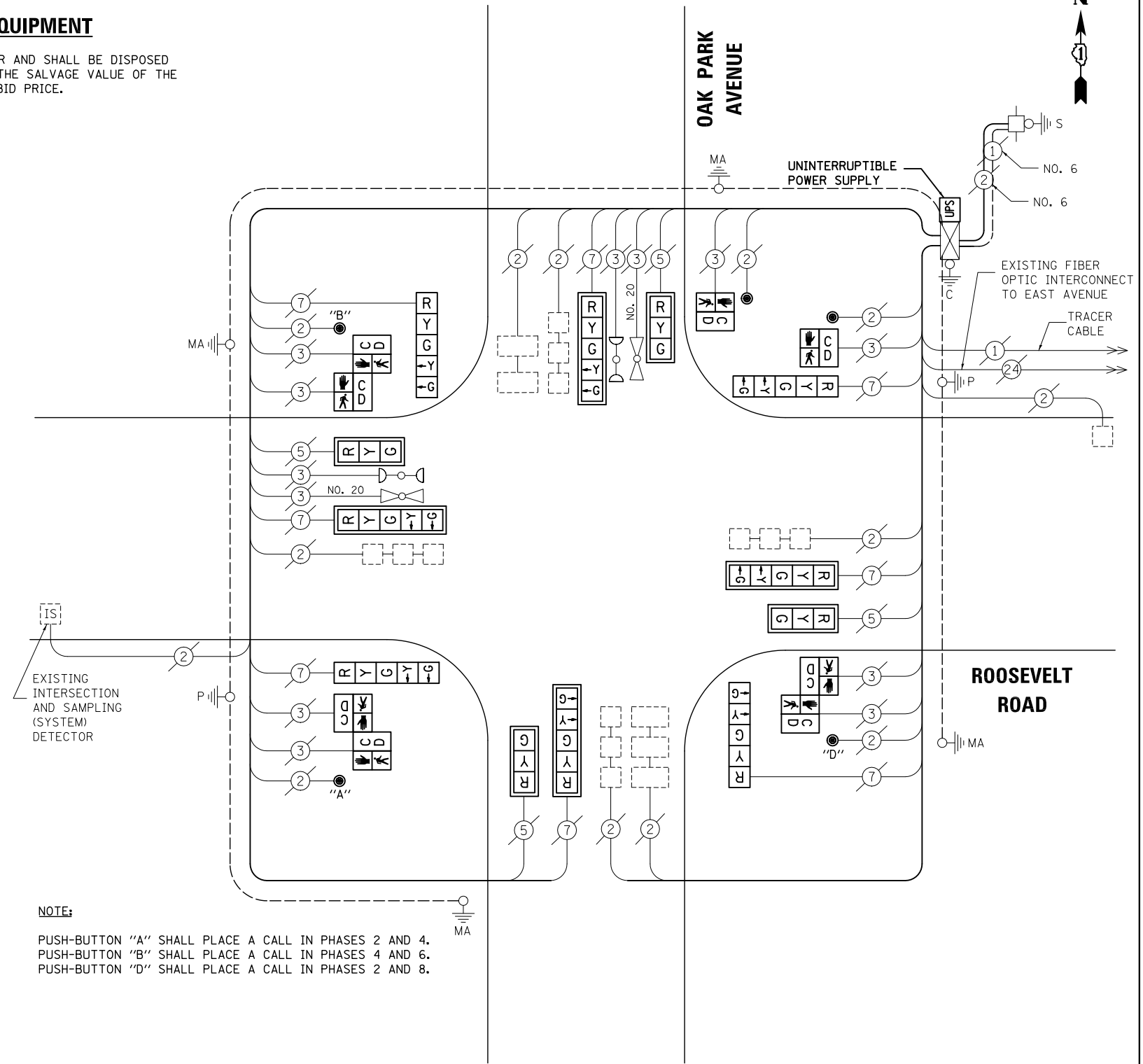
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 4 EACH SIGNAL HEAD, 3-SECTION
- 8 EACH SIGNAL HEAD, 5-SECTION
- 8 EACH TRAFFIC SIGNAL BACKPLATE
- 8 EACH PEDESTRIAN SIGNAL HEAD
- 5 EACH PEDESTRIAN PUSH-BUTTON

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	4
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	3
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	8
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
PEDESTRIAN PUSH-BUTTON, NON-LATCHING	EACH	5

CABLE PLAN



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

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	%OPERATION	
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	16	135	12	0.10	19.2
PED. SIGNAL	8	90	25	1.00	100
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 441.2
ENERGY SUPPLY	CONTACT: X				
	PHONE: X				
	COMPANY: X				

DESIGNED - BPT	REVISED -
DRAWN - JGC/RDS	REVISED -
CHECKED - BPT	REVISED -
DATE - 12-04-13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN,
PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION
ROOSEVELT ROAD AT OAK PARK AVENUE

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

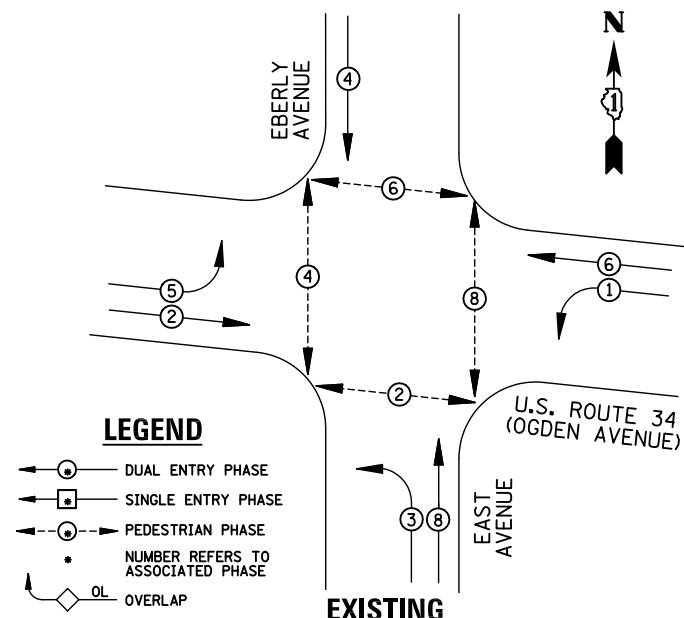
PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60504-9675
Ph: 630.862.2100 Fax: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	44

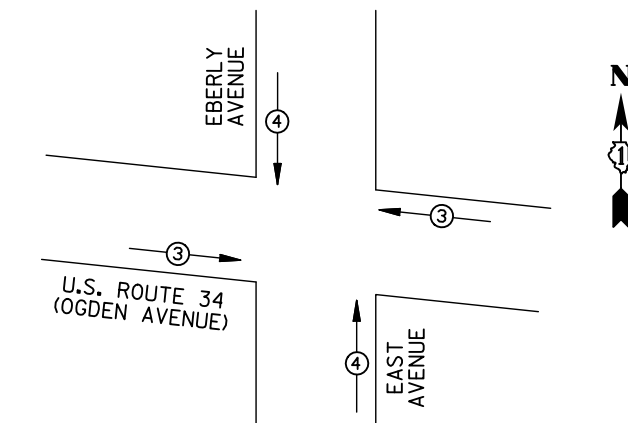
CONTRACT NO. 60X29
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

TS# 5525
BERWYN

EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	
MOVEMENT	←→	↑↓	

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 8 EACH SIGNAL HEAD, 3-SECTION
- 6 EACH SIGNAL HEAD, 5-SECTION
- 3 EACH TRAFFIC SIGNAL BACKPLATE
- 4 EACH PEDESTRIAN PUSH-BUTTON

NOTE:
 PUSH-BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4.
 PUSH-BUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6.
 PUSH-BUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8.
 PUSH-BUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8.

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	3
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	3
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	3
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	3
PEDESTRIAN PUSH-BUTTON, NON-LATCHING	EACH	4
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

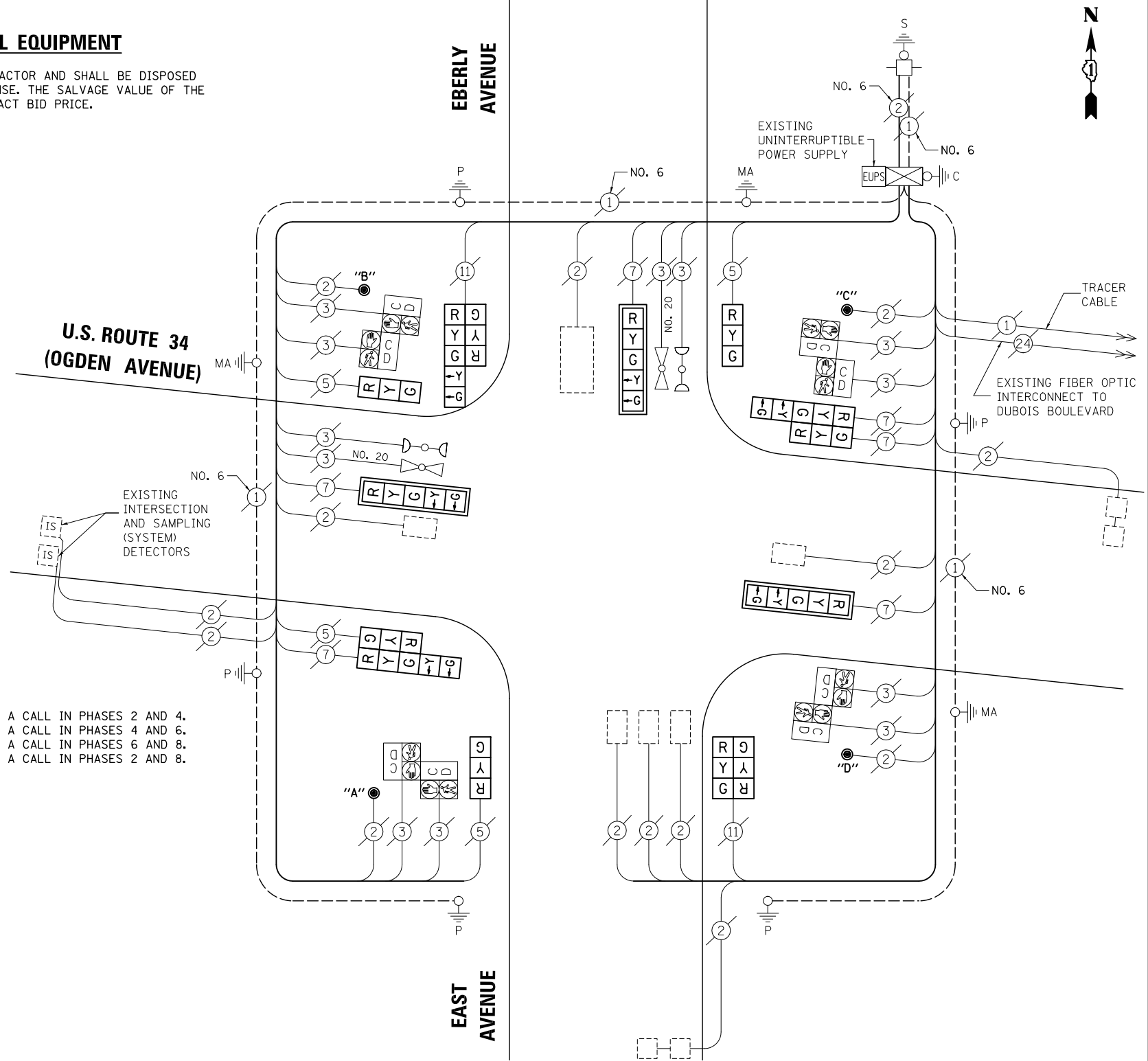
**SCHEDULE OF QUANTITIES, CABLE PLAN,
 PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION
 U.S. ROUTE 34 (OGDEN AVENUE) AT EBERLY AVENUE / EAST AVENUE**

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

EBERLY AVENUE

EAST AVENUE

**U.S. ROUTE 34
 (OGDEN AVENUE)**



CABLE PLAN

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

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. LAMPS	WATTAGE		%OPERATION	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	14	135	17	0.50	119
(YELLOW)	14	135	25	0.25	87.5
(GREEN)	14	135	15	0.25	52.5
ARROW	12	135	12	0.10	14.4
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 573.4
ENERGY SUPPLY	CONTACT: X				
	PHONE: X				
	COMPANY: X				
FILE NAME = MICROST\352108\ 31-13870.DGN	USER NAME = JGC	DESIGNED - BPT	REVISED -		
		DRAWN - JGC/RDS	REVISED -		
		PLOT SCALE = NOT TO SCALE	CHECKED - BPT	REVISED -	
		PLOT DATE = X	DATE - 12-04-13	REVISED -	

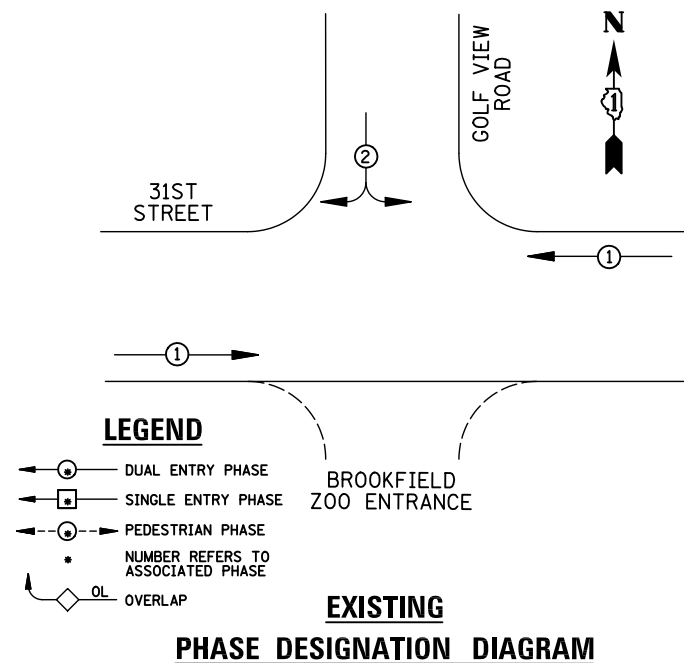
PREPARED BY:
CEMCON, Ltd.
 Consulting Engineers, Land Surveyors & Planners
 2280 White Oak Circle, Suite 100
 Aurora, Illinois 60504-9675
 Ph: 630.862.2100 Fax: 630.862.2199
 E-Mail: cadd@cemcon.com Website: www.cemcon.com

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	45

CONTRACT NO. 60X29
 FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

TS# 13870
 BROOKFIELD

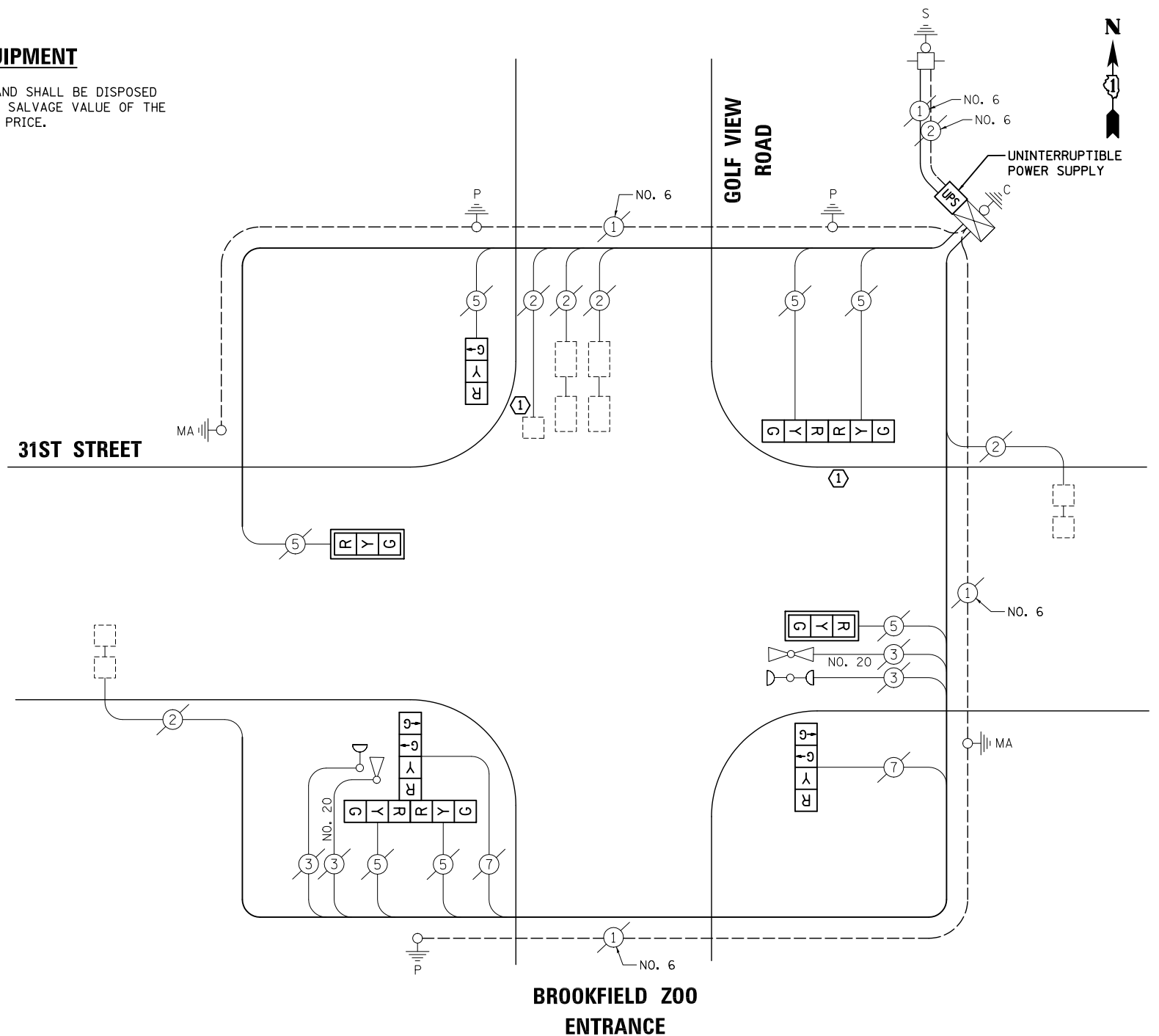
EXISTING CONTROLLER SEQUENCE



REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 2 EACH TRAFFIC SIGNAL POST
- 7 EACH SIGNAL HEAD, 3-SECTION
- 2 EACH SIGNAL HEAD, 4-SECTION
- 2 EACH TRAFFIC SIGNAL BACKPLATE



BROOKFIELD ZOO ENTRANCE

CABLE PLAN

① REPLACE 14 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION (SEE GENERAL NOTES)

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

EXISTING PHASE DESIGNATION DIAGRAM

EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	← →	↓

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	2
SIGNAL HEAD, LED, 3-FACE, 2-3 SECTION, 1-4 SECTION BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 1-FACE, 4-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	2
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	%OPERATION	
SIGNAL (RED)	9	135	17	0.50	76.5
(YELLOW)	9	135	25	0.25	56.25
(GREEN)	11	135	15	0.25	41.25
ARROW		135	12	0.10	
PED. SIGNAL		90	25	1.00	
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 274
ENERGY SUPPLY CONTACT: X					
PHONE: X					
COMPANY: X					

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION 31ST STREET AT GOLF VIEW ROAD

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

PREPARED BY: **CEMCON, Ltd.**
 Consulting Engineers, Land Surveyors & Planners
 2280 White Oak Circle, Suite 100
 Aurora, Illinois 60504-9675
 Ph: 630.862.2100 Fax: 630.862.2199
 E-Mail: cadd@cemcon.com Website: www.cemcon.com

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	46

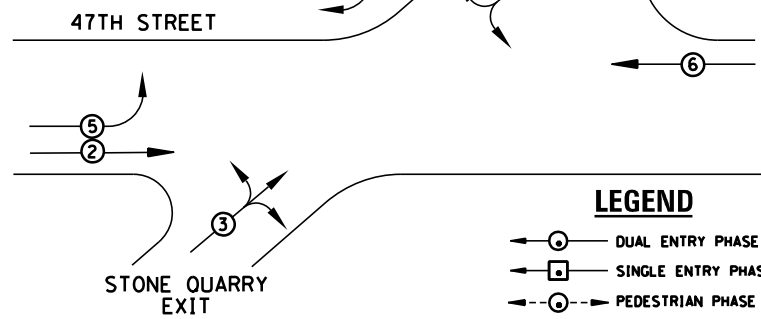
CONTRACT NO. 60X29
 FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

TS# 3765 BROOKFIELD

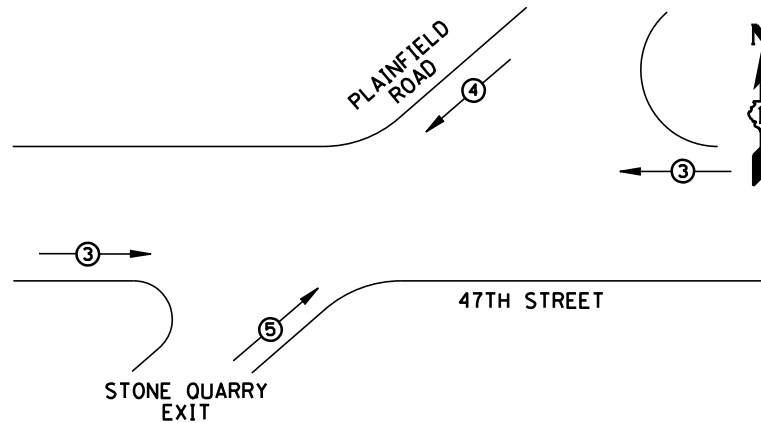
EXISTING CONTROLLER SEQUENCE

**RIGHT TURN OVERLAP
PHASE DESIGNATION**

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
B	= 4	+ 5



EXISTING PHASE DESIGNATION DIAGRAM



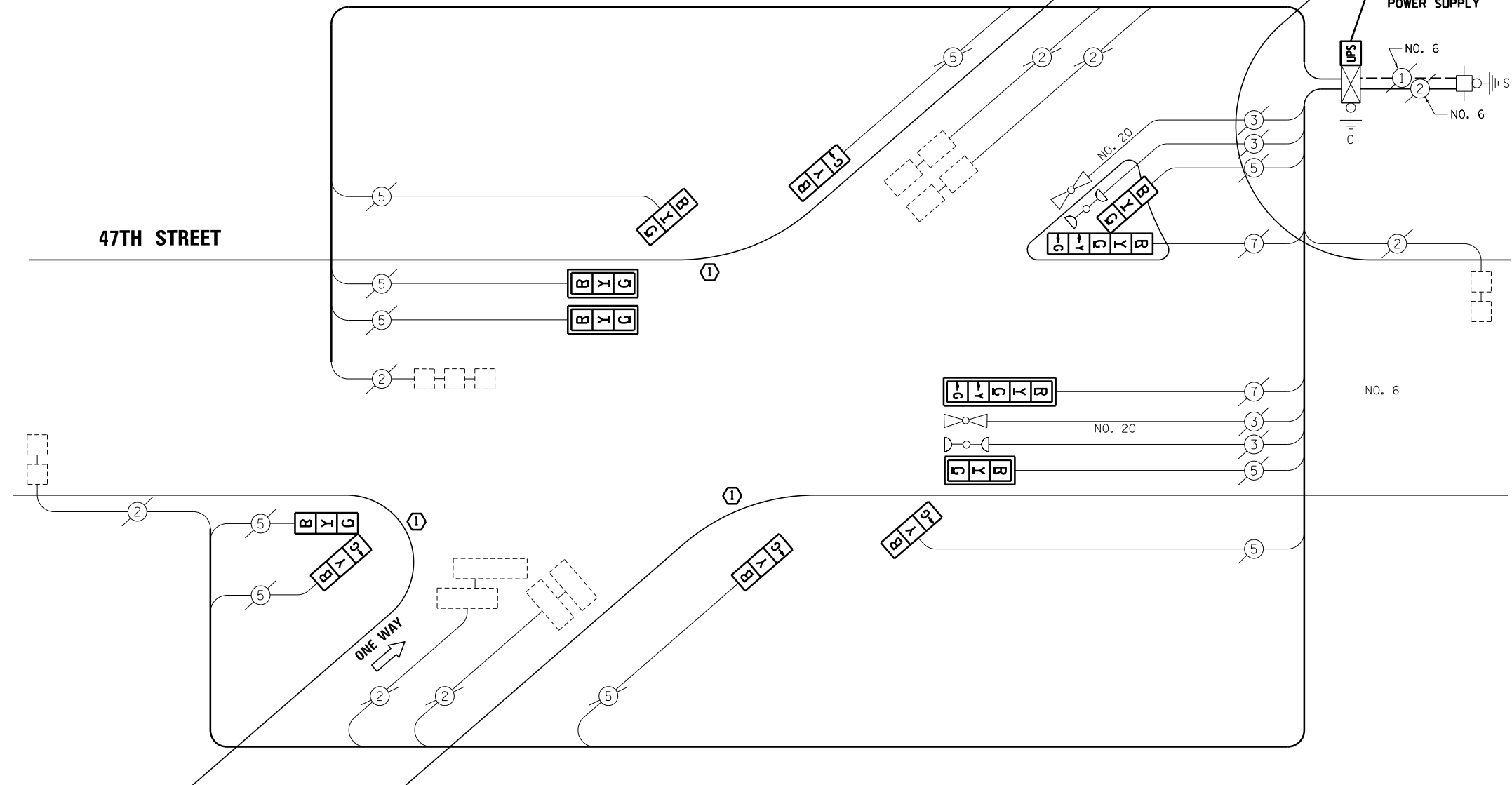
EMERGENCY VEHICLE PREEMPTOR	3	4	5
MOVEMENT	←→	↓	↑

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 3 EACH TRAFFIC SIGNAL POST
- 10 EACH SIGNAL HEAD, 3-SECTION
- 2 EACH SIGNAL HEAD, 5-SECTION
- 4 EACH TRAFFIC SIGNAL BACKPLATE



STONE QUARRY EXIT

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	3
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	3
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	1
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	1
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	4
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTIBLE POWER SUPPLY, GROUND MOUNTED	EACH	1

CABLE PLAN

- ① REPLACE 14 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION (SEE GENERAL NOTES)

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

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				TOTAL WATTAGE	
TYPE	NO. LAMPS	WATTAGE (INCAND.)	LED	%OPERATION	
SIGNAL (RED)	12	135	12	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	4	135	12	0.10	4.8
PED. SIGNAL	4	90	25	1.00	100
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096				TOTAL =	426.8
ENERGY SUPPLY	CONTACT: X				
	PHONE: X				
	COMPANY: X				

DESIGNED - BEI	REVISED -
DRAWN - JGC/BQS	REVISED -
CHECKED - BEI	REVISED -
DATE - 12-04-13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION 47TH STREET AT PLAINFIELD ROAD		
SCALE: N.I.S.	SHEET NO. ___ OF ___ SHEETS	STA. _____ TO STA. _____

TS# 3820
BROOKFIELD

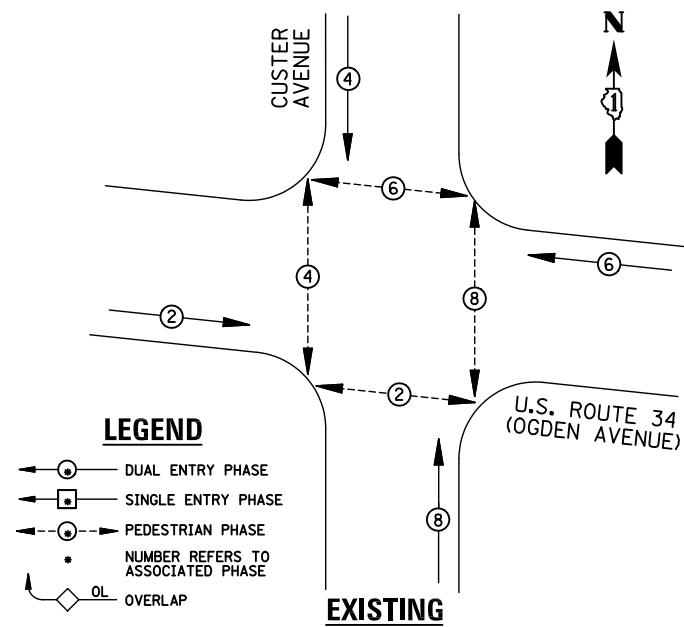
PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60504-9675
Ph: 630.862.2100 Fax: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
V.A.R.	2013-0591S	COOK	92	47

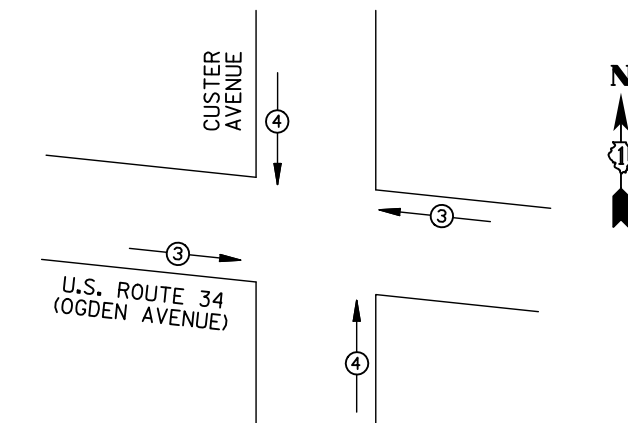
CONTRACT NO. 60829

FED. ROAD DIST. NO. ___ ILLINOIS FED. AID PROJECT

EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM



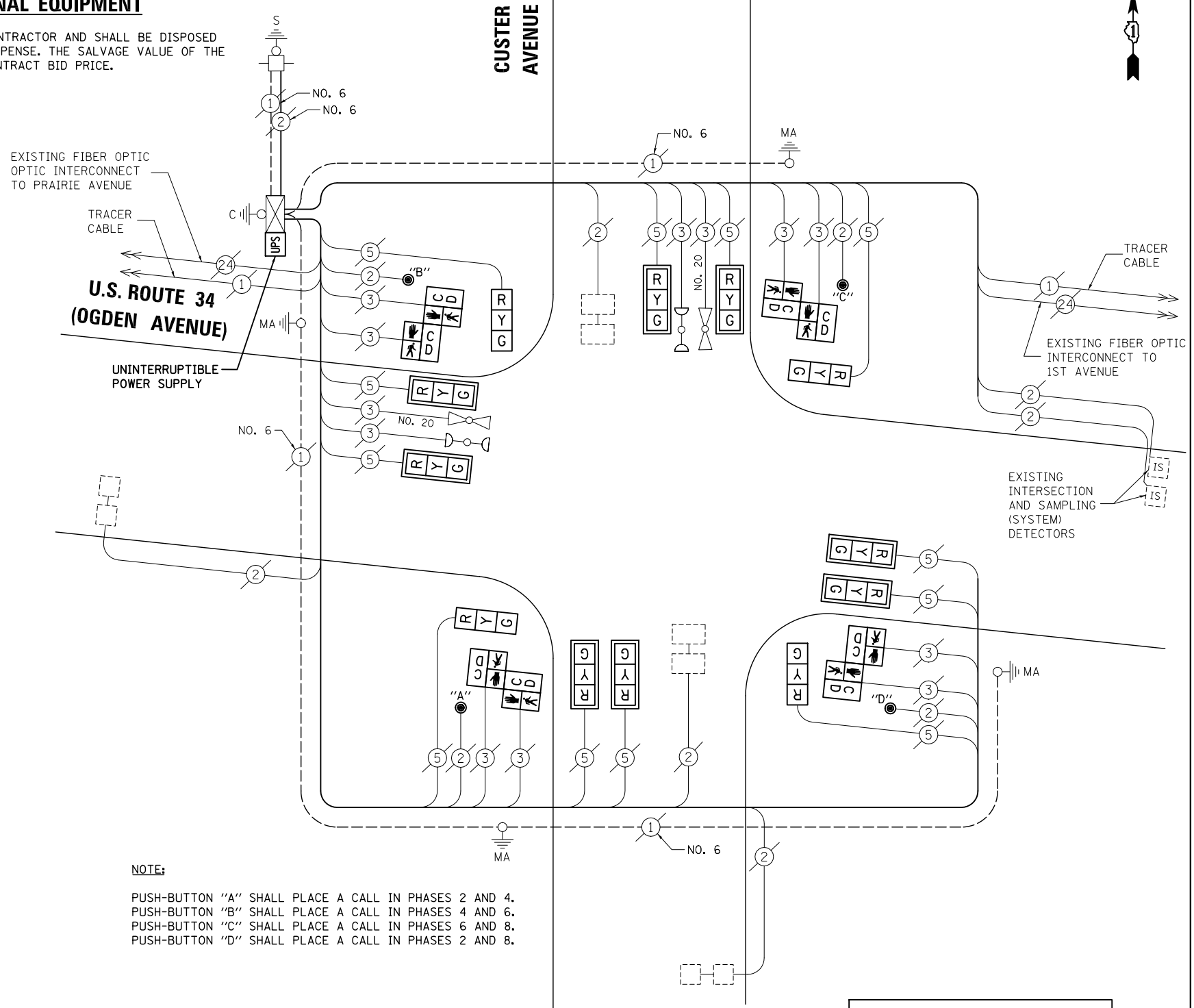
EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	
MOVEMENT	←→	↑↓	

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 8 EACH PEDESTRIAN SIGNAL HEAD
- 4 EACH PEDESTRIAN PUSH-BUTTON



NOTE:

PUSH-BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4.
 PUSH-BUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6.
 PUSH-BUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8.
 PUSH-BUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8.

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTIBLE POWER SUPPLY, SPECIAL	EACH	1
PEDESTRIAN PUSH-BUTTON, NON-LATCHING	EACH	4
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	4
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	8

CABLE PLAN

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

RETROFIT ALL VEHICULAR SIGNAL HEADS TO L.E.D.

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	%OPERATION	
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW		135	12	0.10	
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION, 201 WEST CENTER COURT, SCHAUMBURG, IL 60196-1096					TOTAL = 522
ENERGY SUPPLY	CONTACT: X				
	PHONE: X				
	COMPANY: X				

DESIGNED - BPT	REVISED -
DRAWN - JGC/RDS	REVISED -
CHECKED - BPT	REVISED -
DATE - 12-04-13	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION U.S. ROUTE 34 (OGDEN AVENUE) AT CUSTER AVENUE

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

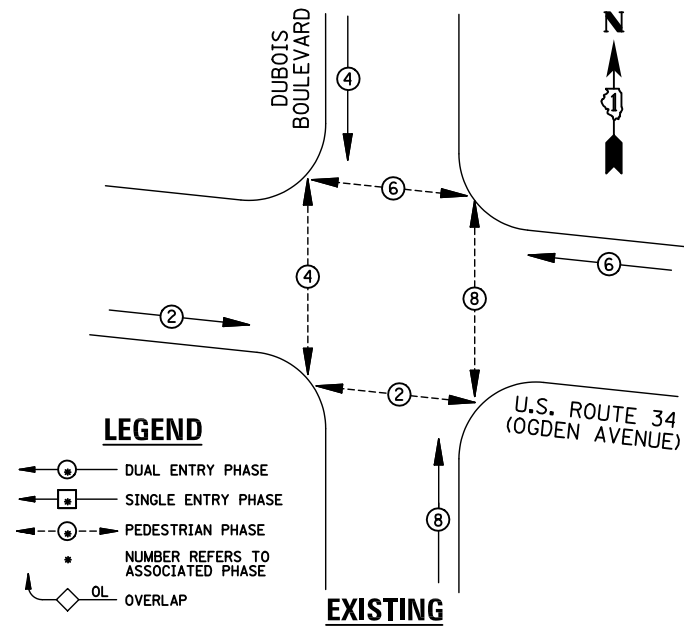
PREPARED BY:
CEMCON, Ltd.
 Consulting Engineers, Land Surveyors & Planners
 2280 White Oak Circle, Suite 100
 Aurora, Illinois 60504-9675
 Ph: 630.862.2100 Fax: 630.862.2199
 E-Mail: cadd@cemcon.com Website: www.cemcon.com

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	48
CONTRACT NO. 60X29				

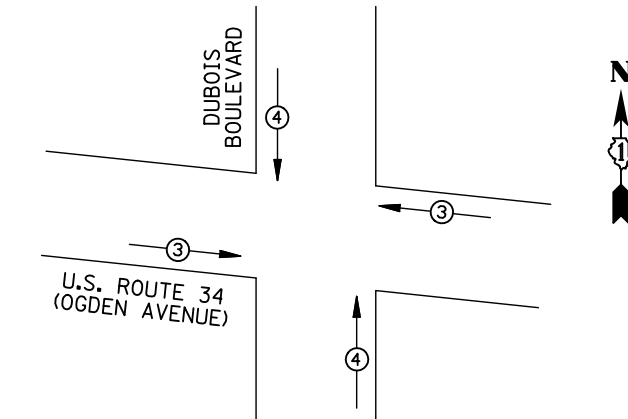
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

TS# 14175 BROOKFIELD

EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	
MOVEMENT	←→	↑↓	

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. LAMPS	WATTAGE		%OPERATION	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW		135	12	0.10	
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 522
ENERGY SUPPLY	CONTACT: X				
	PHONE: X				
	COMPANY: X				
FILE NAME = MICROST\352108\ 35-13871.DGN	USER NAME = JGC	DESIGNED - BPT	REVISED -		
		DRAWN - JGC/RDS	REVISED -		
	PLOT SCALE = NOT TO SCALE	CHECKED - BPT	REVISED -		
	PLOT DATE = X	DATE - 12-04-13	REVISED -		

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 8 EACH PEDESTRIAN SIGNAL HEAD
- 4 EACH PEDESTRIAN PUSH-BUTTON

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTIBLE POWER SUPPLY, SPECIAL	EACH	1
PEDESTRIAN PUSH-BUTTON, NON-LATCHING	EACH	4
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	4
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	8

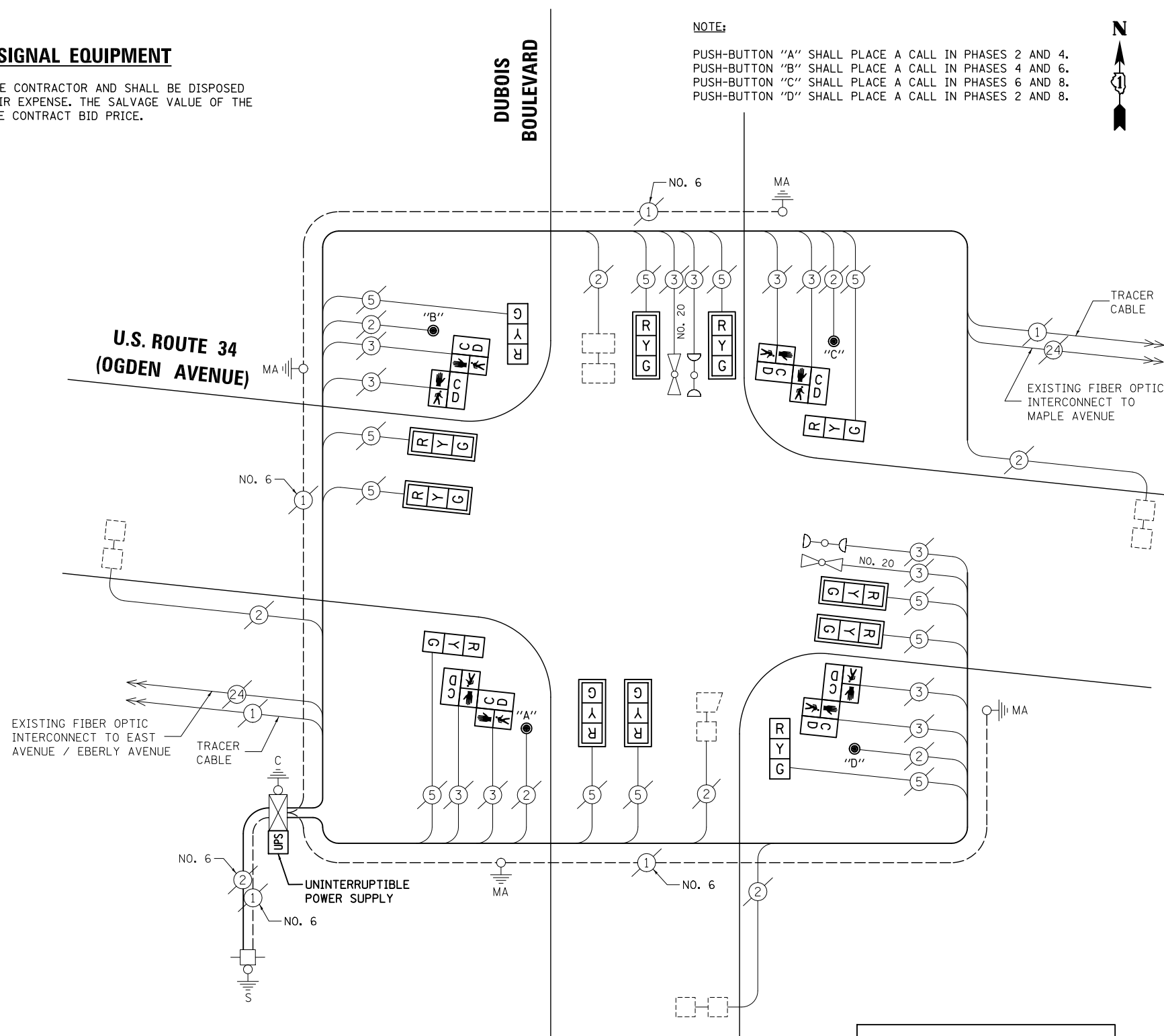
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

**SCHEDULE OF QUANTITIES, CABLE PLAN,
PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION
U.S. ROUTE 34 (OGDEN AVENUE) AT DUBOIS BOULEVARD**

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

NOTE:

- PUSH-BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4.
- PUSH-BUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6.
- PUSH-BUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8.
- PUSH-BUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8.



CABLE PLAN

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

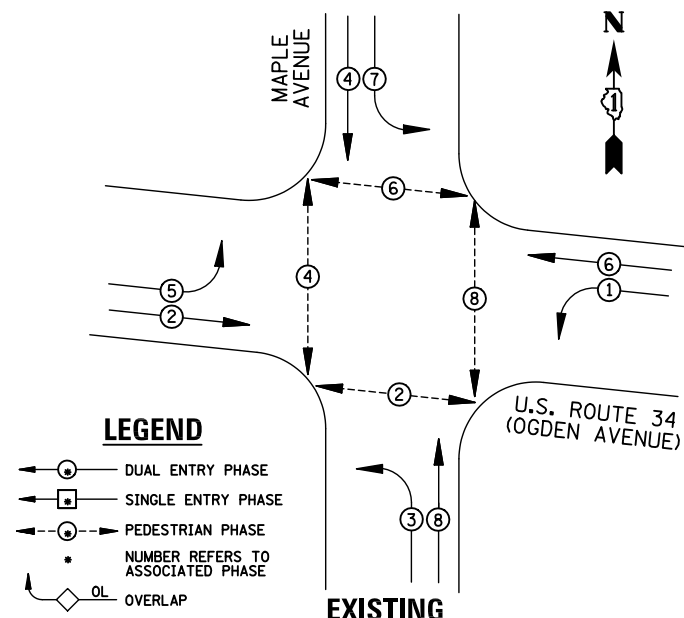
**RETROFIT ALL VEHICULAR
SIGNAL HEADS TO L.E.D.**

TS# 13871
BROOKFIELD

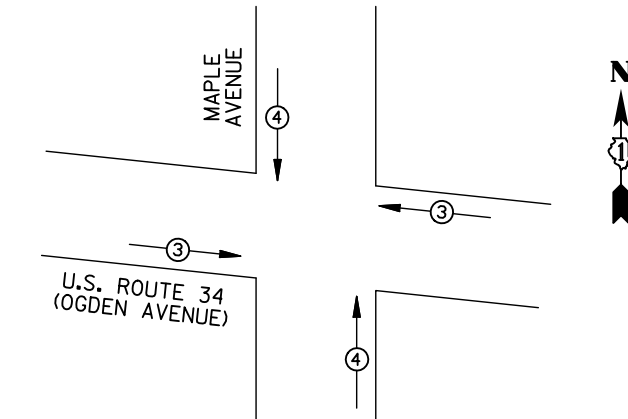
PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60504-9675
Ph: 630.862.2100 Fax: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	49
				CONTRACT NO. 60X29
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	
MOVEMENT	← →	↑ ↓	

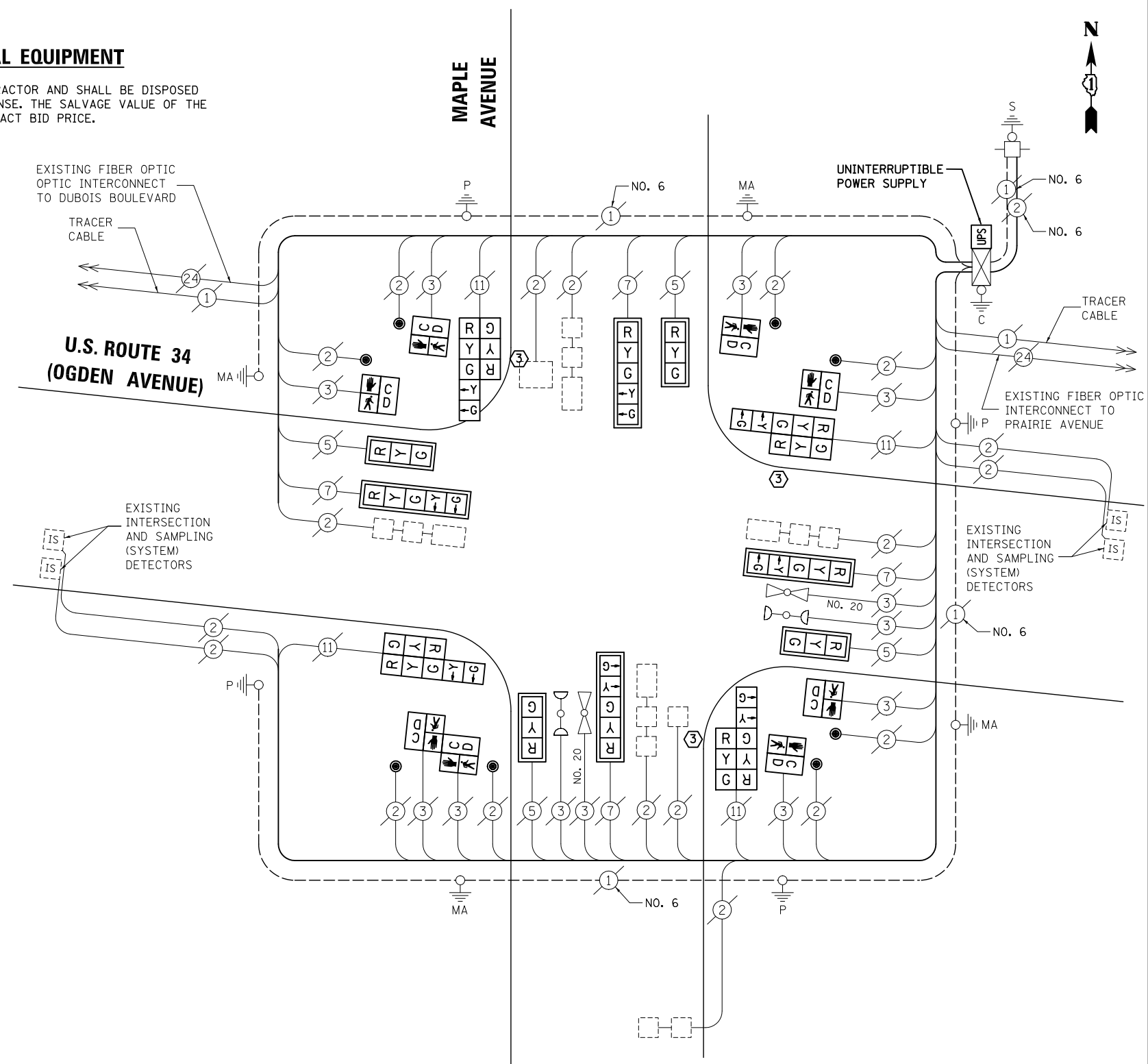
EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. LAMPS	WATTAGE		%OPERATION	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	16	135	17	0.50	136
(YELLOW)	16	135	25	0.25	100
(GREEN)	16	135	15	0.25	60
ARROW	16	135	12	0.10	19.2
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 615.2
ENERGY SUPPLY	CONTACT: X				
	PHONE: X				
	COMPANY: X				

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 3 EACH TRAFFIC SIGNAL POST
- 8 EACH SIGNAL HEAD, 3-SECTION
- 8 EACH SIGNAL HEAD, 5-SECTION
- 8 EACH TRAFFIC SIGNAL BACKPLATE
- 8 EACH PEDESTRIAN SIGNAL HEAD
- 8 EACH PEDESTRIAN PUSH-BUTTON



CABLE PLAN

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

③ REPLACE 16 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION (SEE GENERAL NOTES)

SCHEDULE OF QUANTITIES

- | ITEM | UNIT | QUANTITY |
|---|------|----------|
| MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION | EACH | 1 |
| TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT. | EACH | 3 |
| SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED | EACH | 4 |
| SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED | EACH | 4 |
| SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED | EACH | 4 |
| PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER | EACH | 6 |
| PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER | EACH | 1 |
| TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM | EACH | 8 |
| MODIFY EXISTING CONTROLLER CABINET | EACH | 1 |
| REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT | EACH | 1 |
| UNINTERRUPTABLE POWER SUPPLY, SPECIAL | EACH | 1 |

FILE NAME =
MICROST\352108\
36-13872.DGN

USER NAME = JGC
DESIGNED - BPT
DRAWN - JGC/RDS
PLOT SCALE = NOT TO SCALE
CHECKED - BPT
PLOT DATE = X

REVISIED -
REVISIED -
REVISIED -
REVISIED -

DATE - 12-04-13

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN,
PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION
U.S. ROUTE 34 (OGDEN AVENUE) AT MAPLE AVENUE

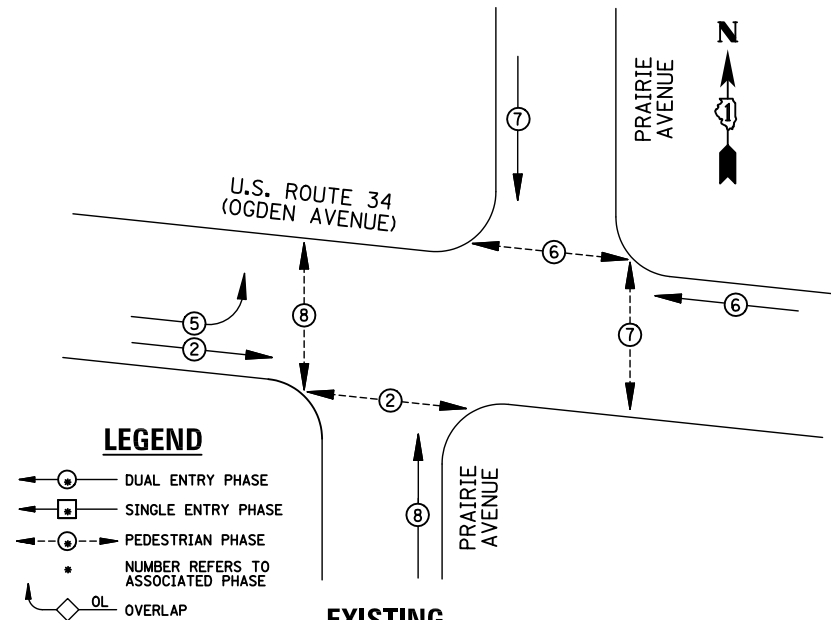
SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

PREPARED BY:
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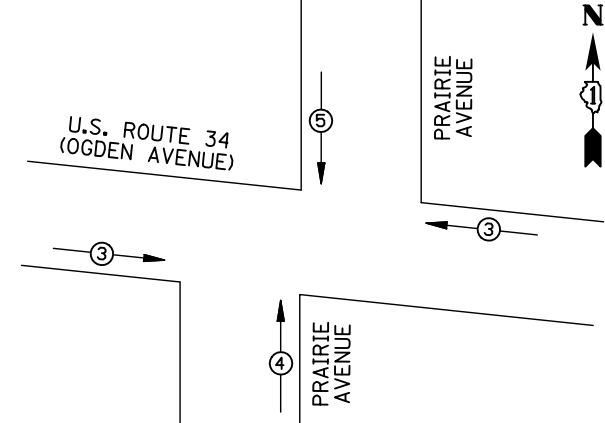
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	50
			CONTRACT NO. 60X29	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

TS# 13872
BROOKFIELD

EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4	5	
MOVEMENT	←→	↑	↓	

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	%OPERATION	TOTAL WATTAGE
SIGNAL (RED)	10	135	17	0.50	85
(YELLOW)	10	135	25	0.25	62.5
(GREEN)	10	135	15	0.25	37.5
ARROW	4	135	12	0.10	4.8
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 489.8
ENERGY SUPPLY CONTACT:	X				
PHONE:	X				
COMPANY:	X				

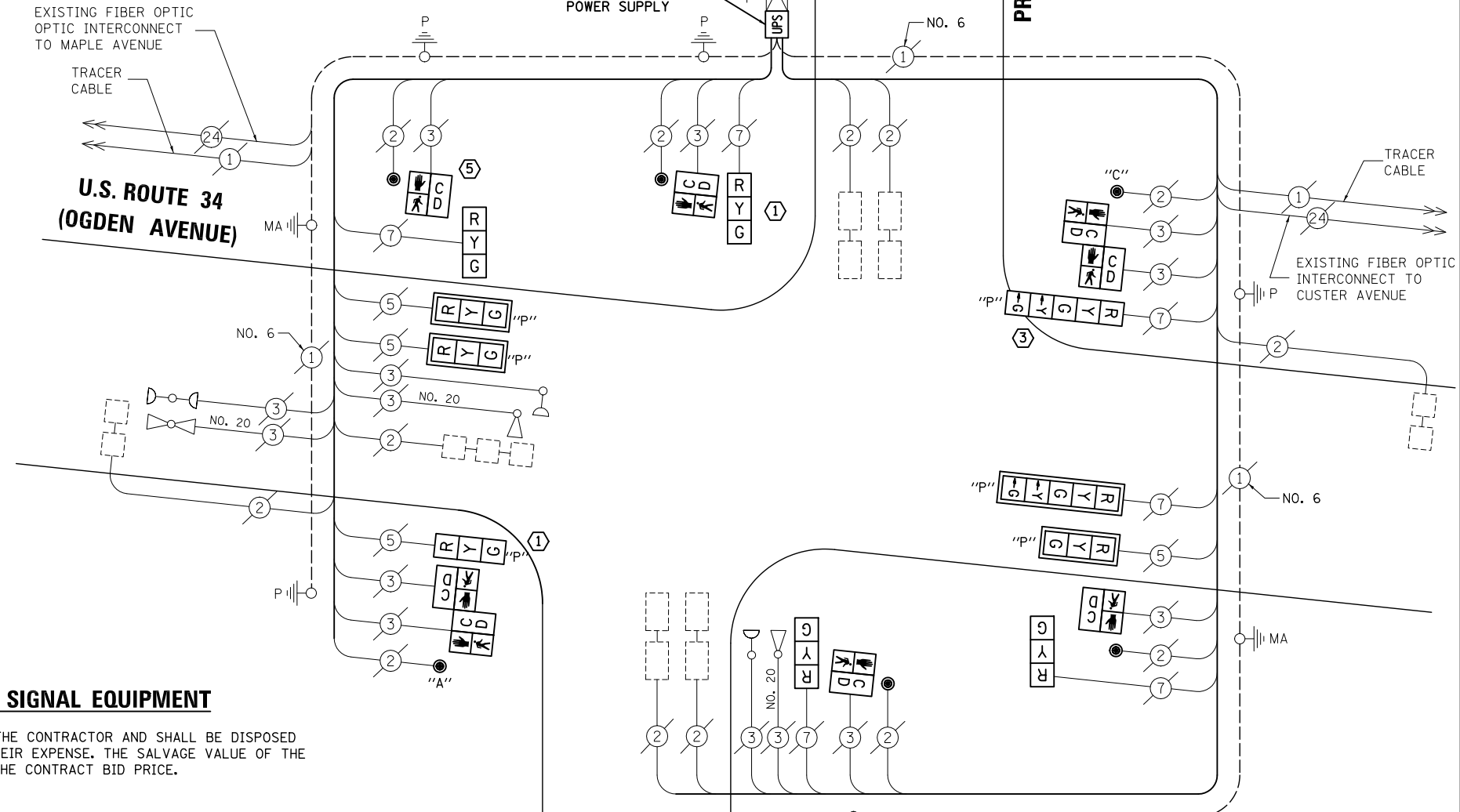
REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 4 EACH TRAFFIC SIGNAL POST
- 8 EACH SIGNAL HEAD, 3-SECTION
- 2 EACH SIGNAL HEAD, 5-SECTION
- 4 EACH TRAFFIC SIGNAL BACKPLATE
- 8 EACH PEDESTRIAN SIGNAL HEAD
- 6 EACH PEDESTRIAN PUSH-BUTTON

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	2
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	4
OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	3
OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	1
OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	4
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
PEDESTRIAN PUSH-BUTTON, NON-LATCHING	EACH	6



CABLE PLAN

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

- NOTE:**
- ① REPLACE 14 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION
 - ③ REPLACE 16 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION
 - ⑤ REPLACE 10 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION
- (SEE GENERAL NOTES)

FILE NAME = \MICROST\352108\37-13873.DGN

USER NAME = JGC
DESIGNED - BPT
DRAWN - JGC/RDS
PLOT SCALE = NOT TO SCALE
PLOT DATE = X

REVISIONS:
REVISOR -
DATE - 12-04-13

REVISIONS:
REVISOR -
DATE -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN,
PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION
U.S. ROUTE 34 (OGDEN AVENUE) AT PRAIRIE AVENUE

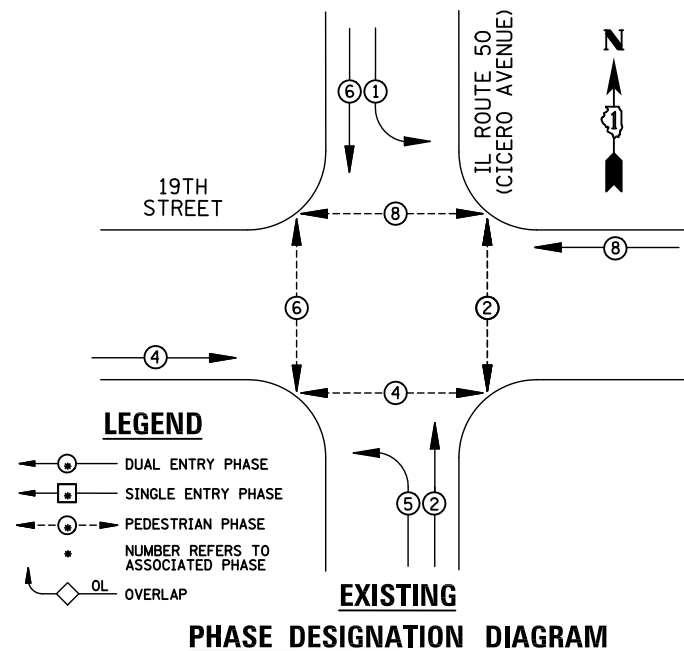
SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60504-9675
Ph: 630.862.2100 Fax: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com

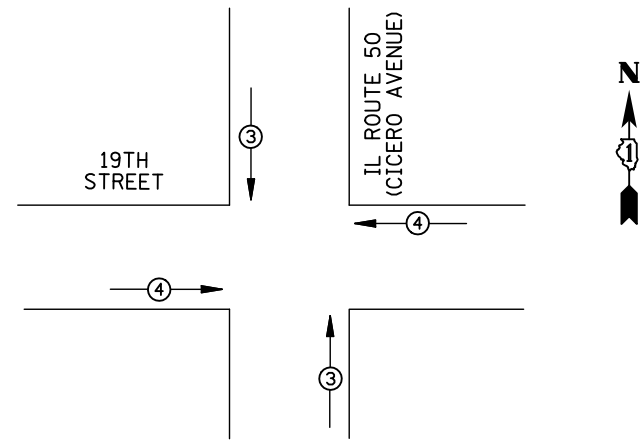
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	51
			CONTRACT NO. 60X29	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

TS# 13873
BROOKFIELD

EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	
MOVEMENT	↑	→	

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. LAMPS	WATTAGE		%OPERATION	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	14	135	17	0.50	119
(YELLOW)	14	135	25	0.25	87.5
(GREEN)	14	135	15	0.25	52.5
ARROW	8	135	12	0.10	9.6
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 568.6
ENERGY SUPPLY CONTACT: X					
PHONE: X					
COMPANY: X					
FILE NAME = \MICROST\352108\38-12825.DGN	USER NAME = JGC	DESIGNED - BPT	REVISED -		
	PLOT SCALE = NOT TO SCALE	DRAWN - JGC/RDS	REVISED -		
	PLOT DATE = X	CHECKED - BPT	REVISED -		
		DATE - 12-04-13	REVISED -		

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

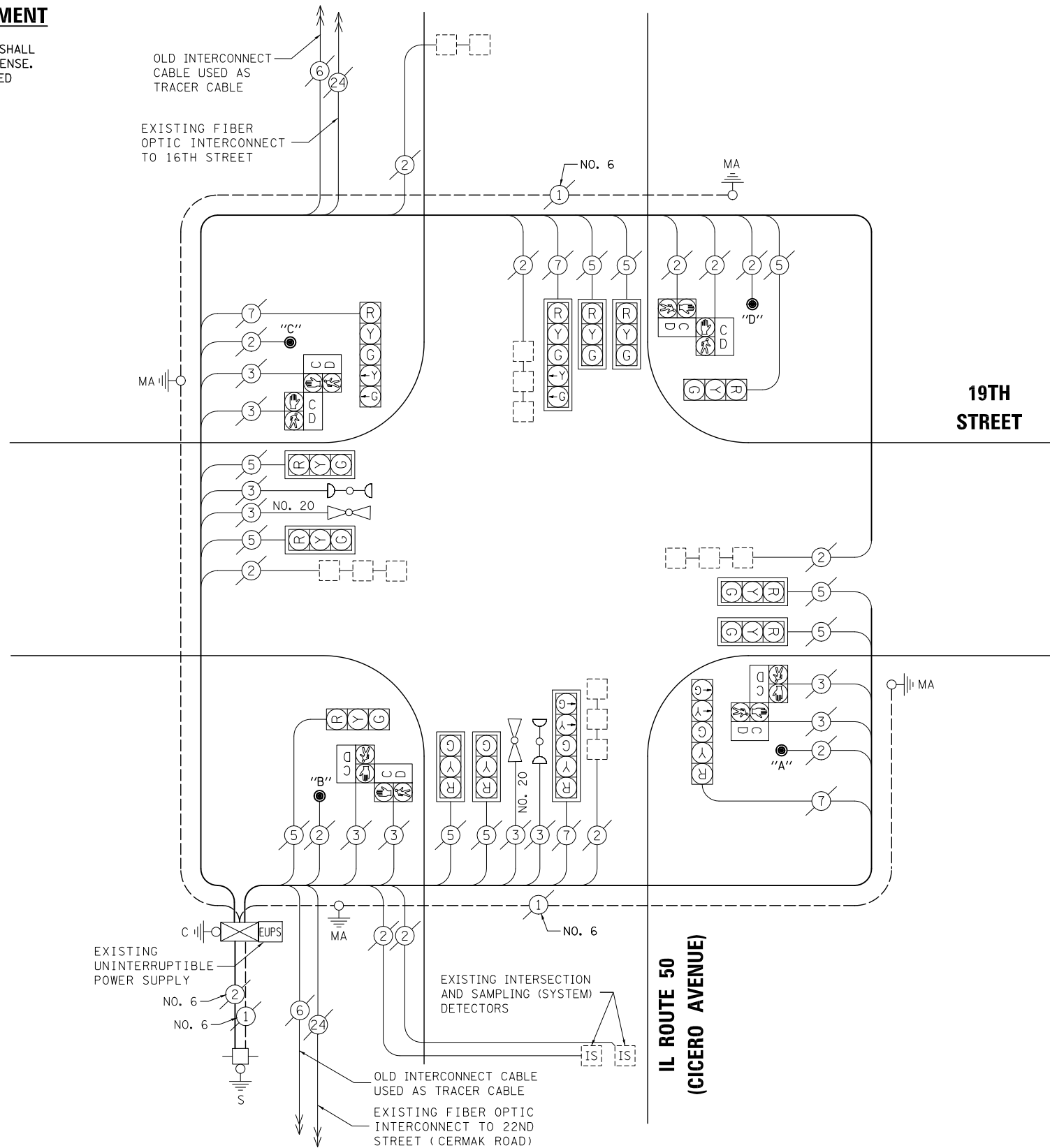
- 4 EACH PEDESTRIAN PUSH-BUTTON

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
PEDESTRIAN PUSH-BUTTON, NON-LATCHING	EACH	4

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CABLE PLAN



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

SCHEDULE OF QUANTITIES, CABLE PLAN,
PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION
IL ROUTE 50 (CICERO AVENUE) AT 19TH STREET

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60504-9675
Ph: 630.862.2100 Fax: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com

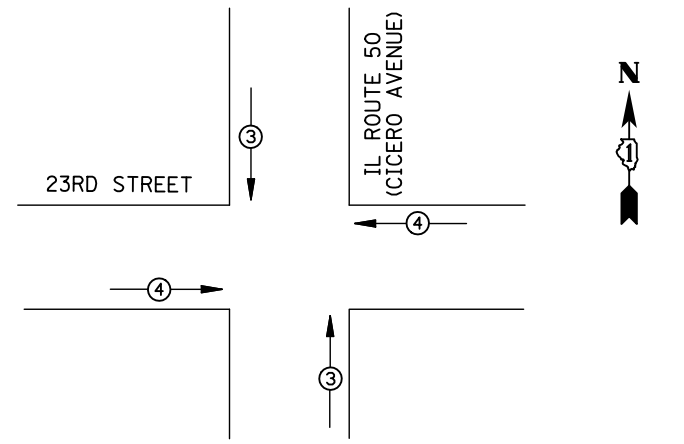
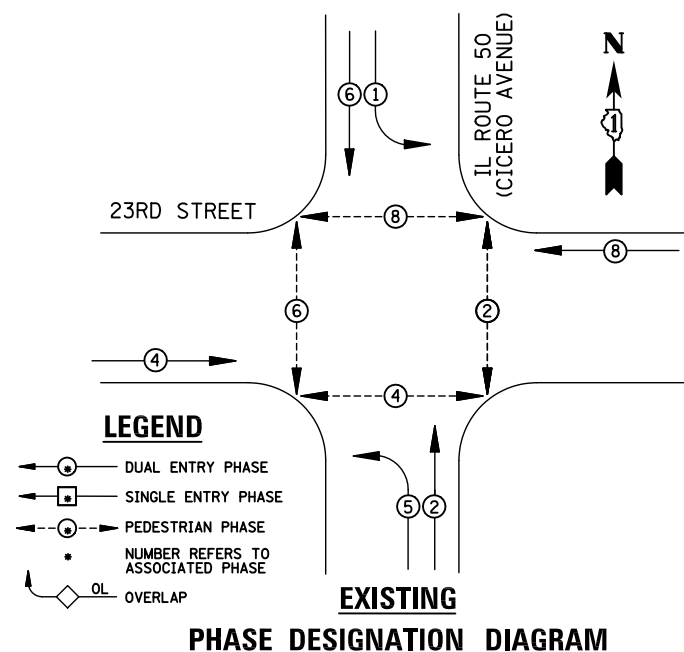
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	52

CONTRACT NO. 60X29

FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

TS# 12825
CICERO

EXISTING CONTROLLER SEQUENCE

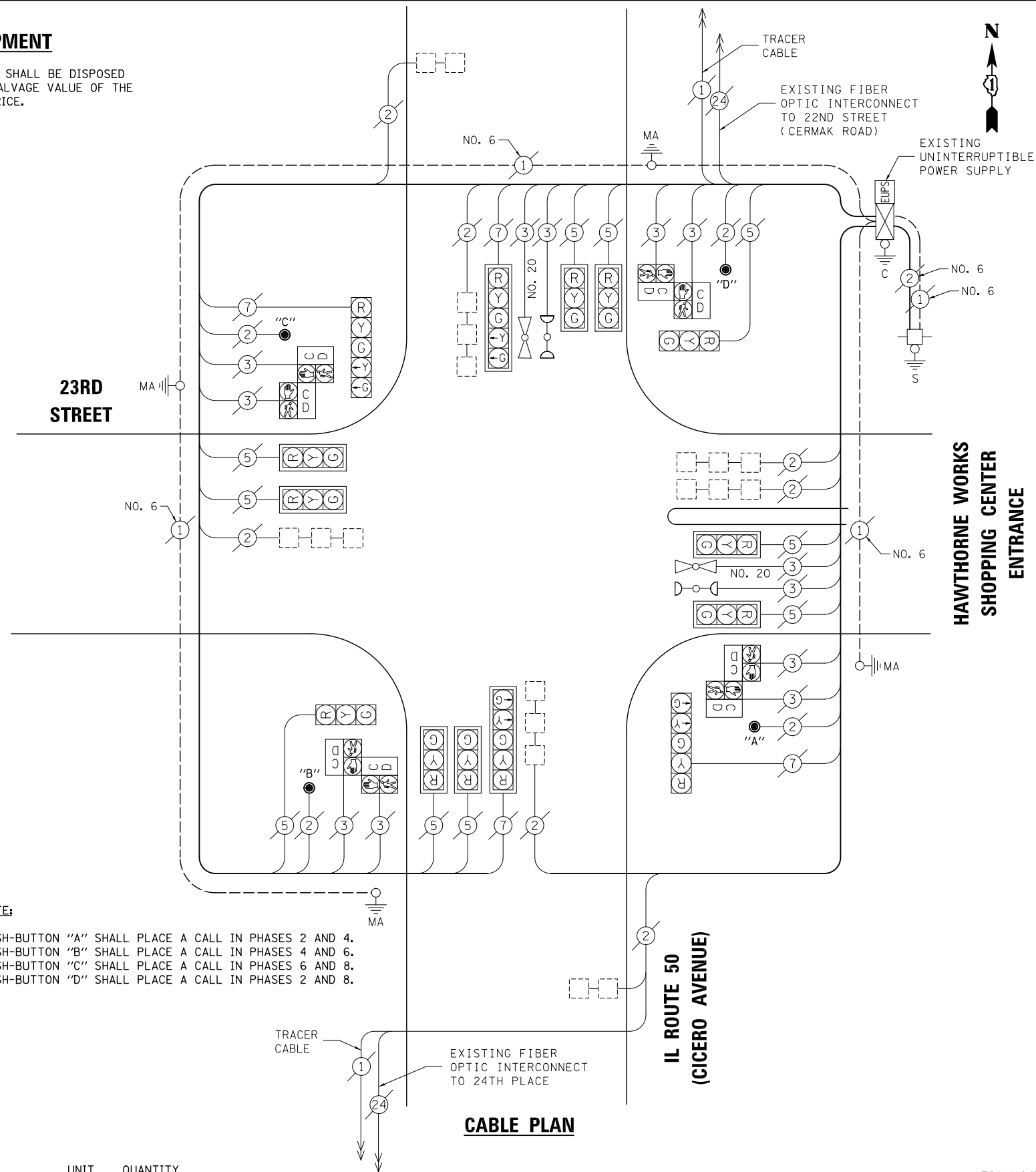


EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	
MOVEMENT	↑	→	

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

4 EACH PEDESTRIAN PUSH-BUTTON



SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
PEDESTRIAN PUSH-BUTTON, NON-LATCHING	EACH	4

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	%OPERATION	
SIGNAL (RED)	14	135	17	0.50	119
(YELLOW)	14	135	25	0.25	87.5
(GREEN)	14	135	15	0.25	52.5
ARROW	8	135	12	0.10	9.6
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 568.6
ENERGY SUPPLY	CONTACT: X				
	PHONE: X				
	COMPANY: X				
FILE NAME = \MICROST\352108\40-11645.DGN	USER NAME = JGC	DESIGNED - BPT	REVISED -		
		DRAWN - JGC/RDS	REVISED -		
	PLOT SCALE = NOT TO SCALE	CHECKED - BPT	REVISED -		
	PLOT DATE = X	DATE - 12-04-13	REVISED -		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

**SCHEDULE OF QUANTITIES, CABLE PLAN,
PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION
IL ROUTE 50 (CICERO AVENUE) AT 23RD STREET**

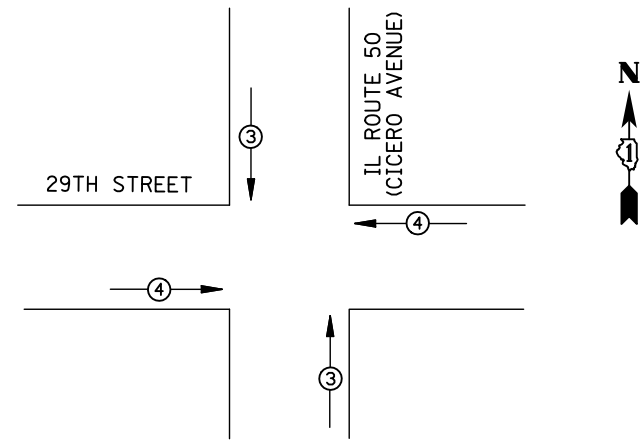
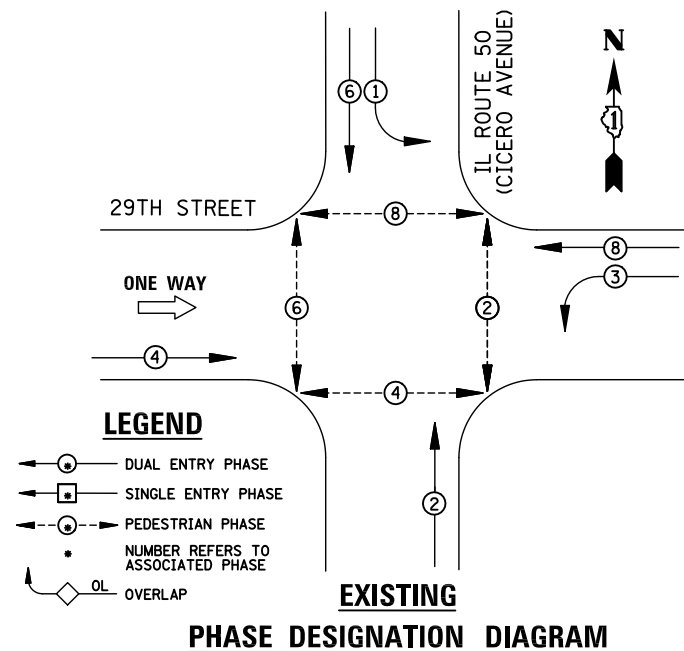
SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60504-9675
Ph: 630.862.2100 Fax: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	53
CONTRACT NO. 60X29				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

TS# 11645
CICERO

EXISTING CONTROLLER SEQUENCE



EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	
MOVEMENT	↑	→	

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

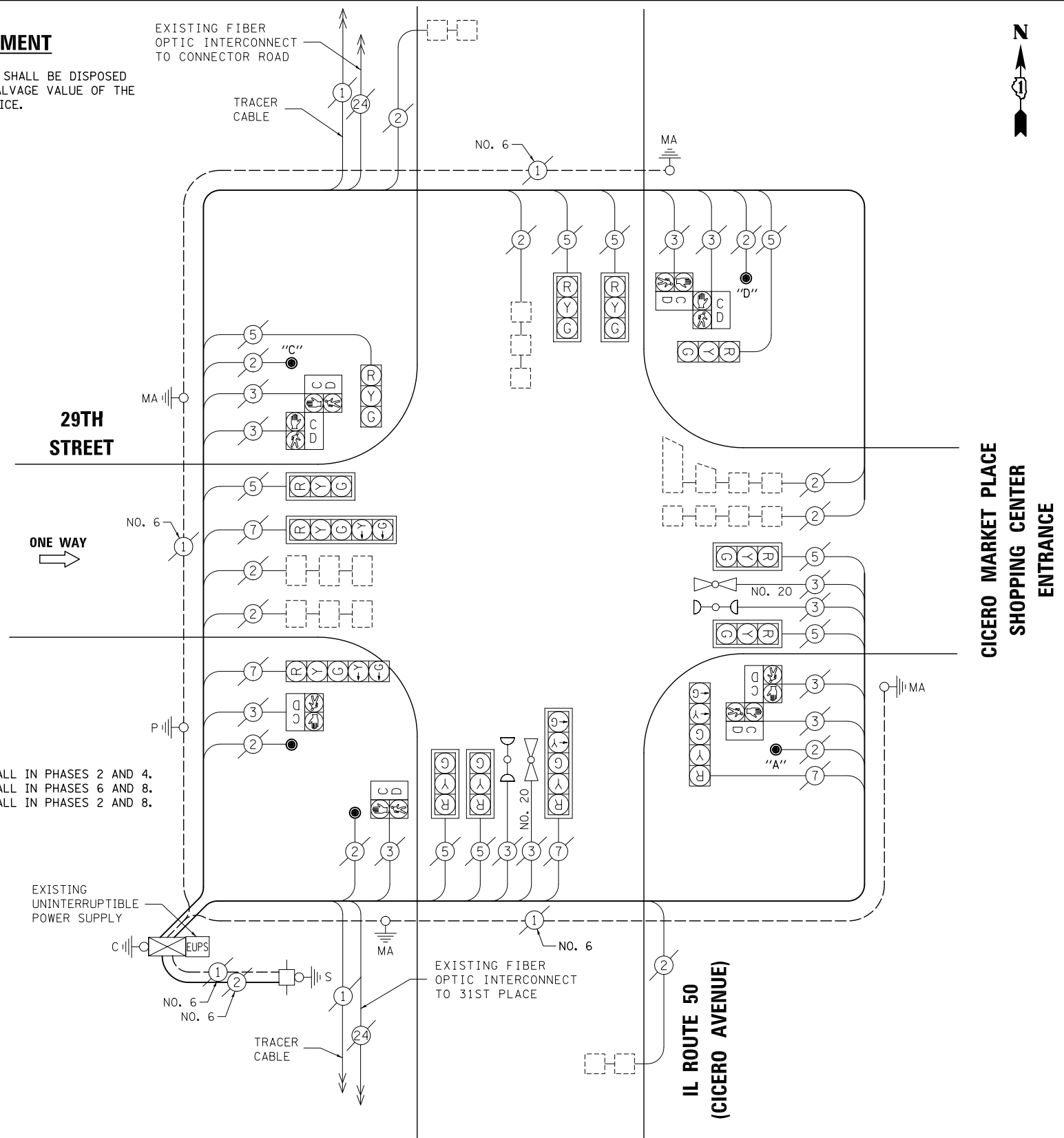
- 5 EACH PEDESTRIAN PUSH-BUTTON

NOTE:

PUSH-BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4.
 PUSH-BUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8.
 PUSH-BUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8.

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
PEDESTRIAN PUSH-BUTTON, NON-LATCHING	EACH	5



CABLE PLAN

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

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. LAMPS	WATTAGE		%OPERATION	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	13	135	17	0.50	110.5
(YELLOW)	13	135	25	0.25	81.25
(GREEN)	13	135	15	0.25	48.75
ARROW	8	135	12	0.10	9.6
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 550.1
ENERGY SUPPLY	CONTACT: X				
	PHONE: X				
	COMPANY: X				
FILE NAME = \MICROST\352108\41-12830.DGN	USER NAME = JGC	DESIGNED - BPT	REVISED -		
		DRAWN - JGC/RDS	REVISED -		
	PLOT SCALE = NOT TO SCALE	CHECKED - BPT	REVISED -		
	PLOT DATE = X	DATE - 12-04-13	REVISED -		

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION IL ROUTE 50 (CICERO AVENUE) AT 29TH STREET

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

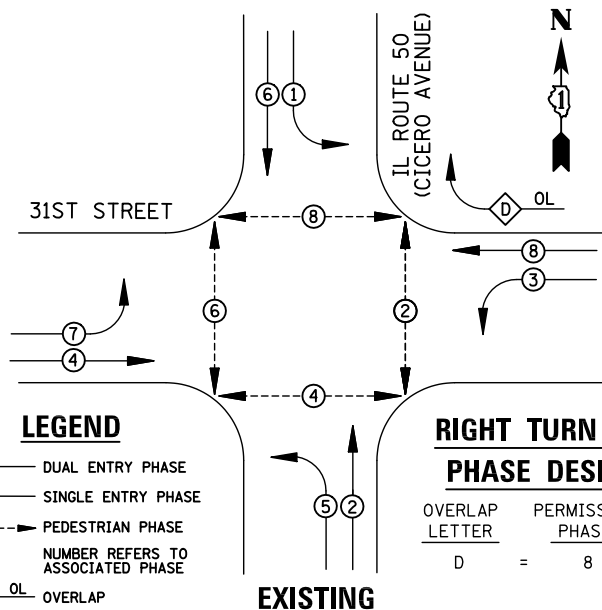
PREPARED BY:
CEMCON, Ltd.
 Consulting Engineers, Land Surveyors & Planners
 2280 White Oak Circle, Suite 100
 Aurora, Illinois 60504-9675
 Ph: 630.862.2100 Fax: 630.862.2199
 E-Mail: cadd@cemcon.com Website: www.cemcon.com

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	54

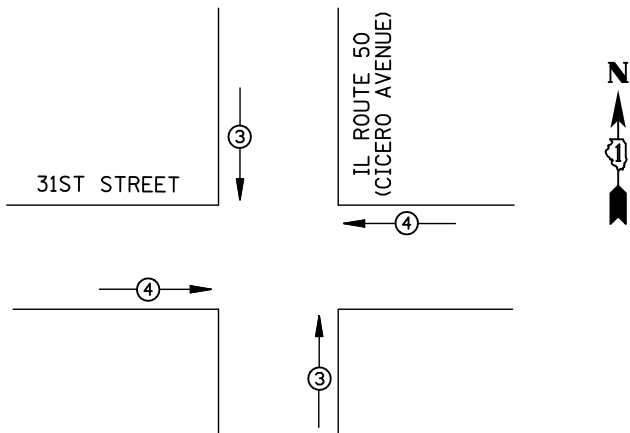
CONTRACT NO. 60X29
 FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

TS# 12830
 CICERO

EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	
MOVEMENT	↑	→	

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. LAMPS	WATTAGE		%OPERATION	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	21	135	17	0.50	178.5
(YELLOW)	21	135	25	0.25	131.25
(GREEN)	21	135	15	0.25	78.75
ARROW	16	135	12	0.10	19.2
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 707.7
ENERGY SUPPLY	CONTACT: X				
	PHONE: X				
	COMPANY: X				
FILE NAME = \MICROST\352108\42-2445.DGN	USER NAME = JGC	DESIGNED - BPT	REVISED -		
	PLOT SCALE = NOT TO SCALE	DRAWN - JGC/RDS	REVISED -		
	PLOT DATE = X	CHECKED - BPT	REVISED -		
		DATE - 12-04-13	REVISED -		

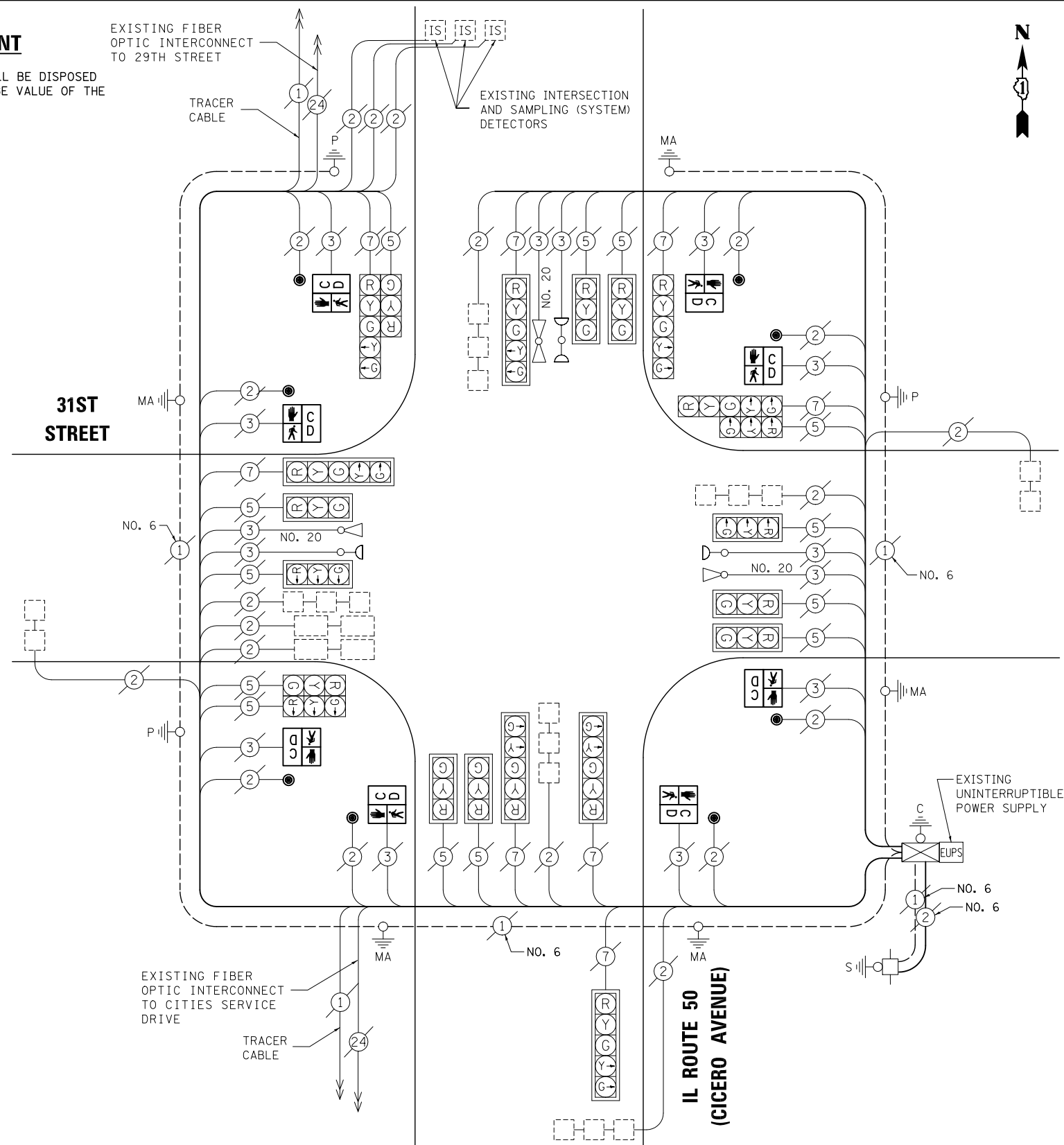
REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 8 EACH PEDESTRIAN SIGNAL HEAD
- 8 EACH PEDESTRIAN PUSH-BUTTON

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	8
PEDESTRIAN PUSH-BUTTON	EACH	8
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1



CABLE PLAN

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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION IL ROUTE 50 (CICERO AVENUE) AT 31ST STREET

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

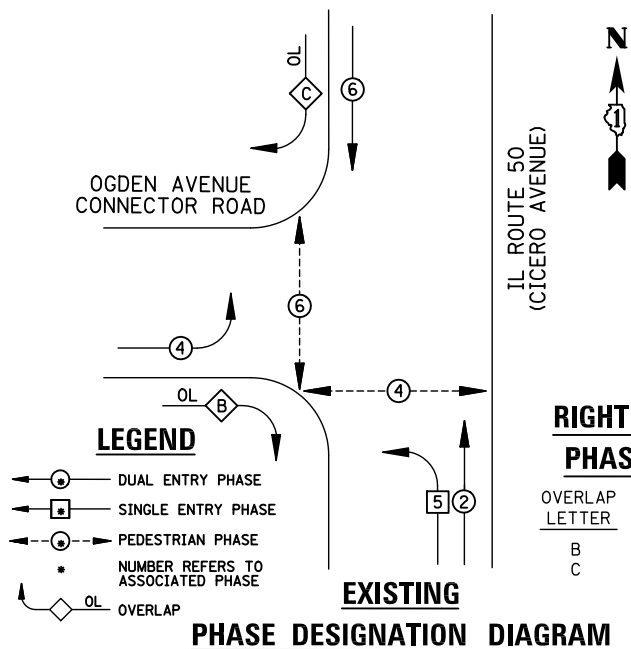
PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60504-9675
Ph: 630.862.2100 Fax: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	55

CONTRACT NO. 60X29
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

TS* 2445
CICERO

EXISTING CONTROLLER SEQUENCE



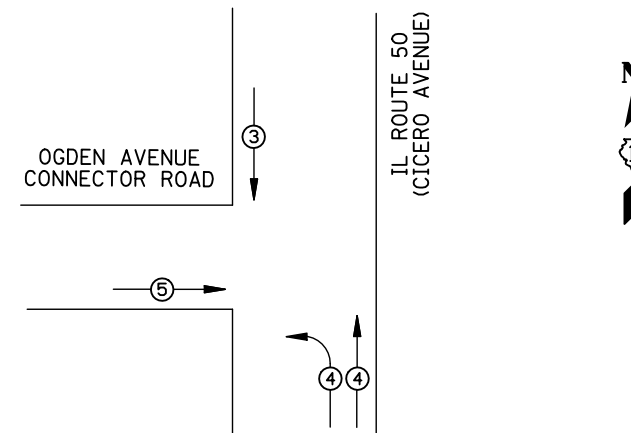
REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 3 EACH PEDESTRIAN PUSH-BUTTON

RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
B	= 4	+ 5
C	= 6	+ 4



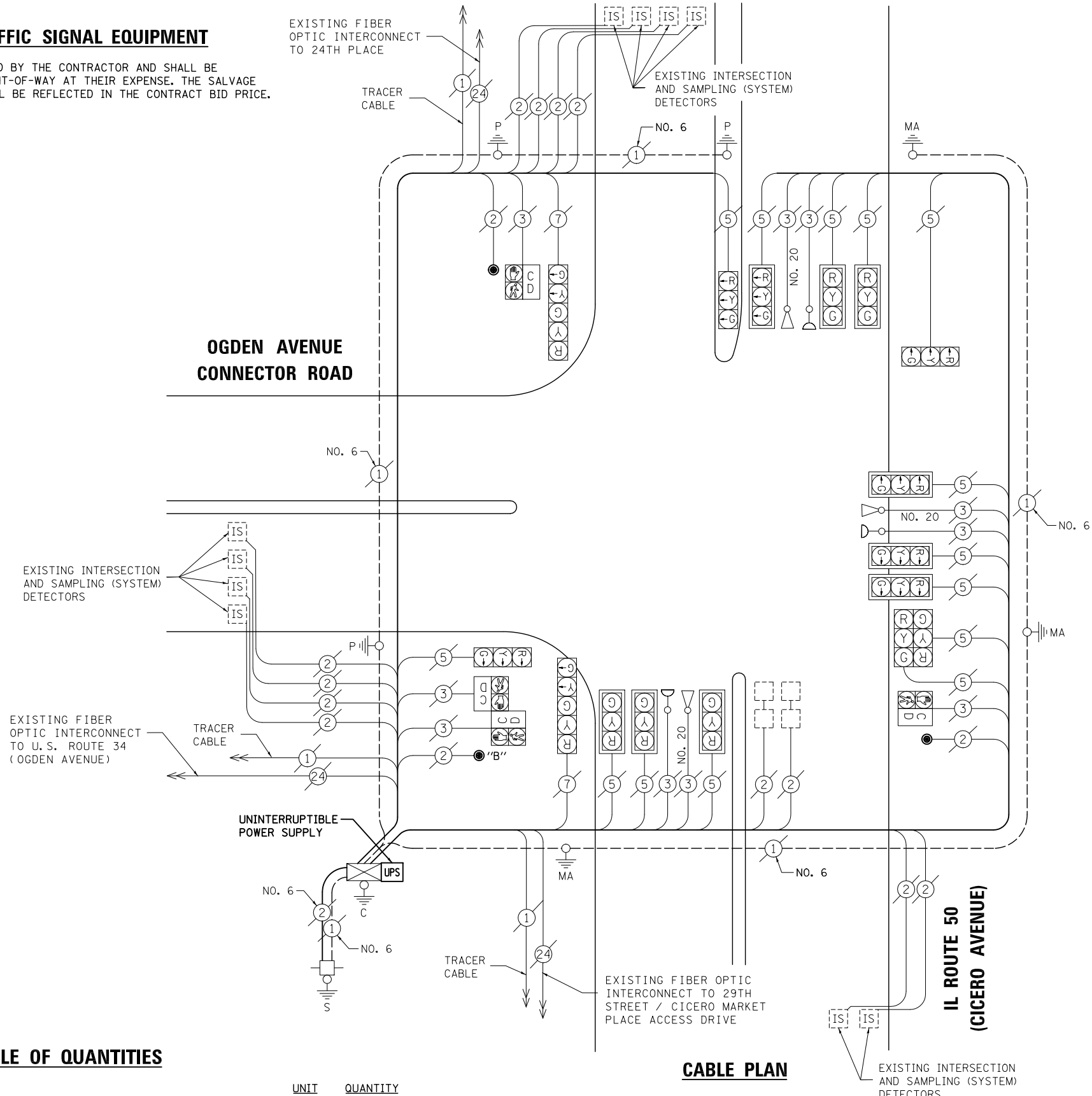
EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	5
MOVEMENT	↓	↶ ↷	→

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. LAMPS	WATTAGE		%OPERATION	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	16	135	17	0.50	136
(YELLOW)	16	135	25	0.25	100
(GREEN)	16	135	15	0.25	60
ARROW	4	135	12	0.10	4.8
PED. SIGNAL	4	90	25	1.00	100
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 500.8
ENERGY SUPPLY	CONTACT: X				
	PHONE: X				
	COMPANY: X				

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTIBLE POWER SUPPLY, SPECIAL	EACH	1
PEDESTRIAN PUSH-BUTTON, NON-LATCHING	EACH	3

OGDEN AVENUE CONNECTOR ROAD



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

FILE NAME = \MICROST\352108\44-5557.DGN	USER NAME = JGC	DESIGNED - BPT	REVISED -
	PLOT SCALE = NOT TO SCALE	DRAWN - JGC/RDS	REVISED -
	PLOT DATE = X	CHECKED - BPT	REVISED -
		DATE - 12-04-13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION IL ROUTE 50 (CICERO AVENUE) AT OGDEN AVENUE CONNECTOR ROAD

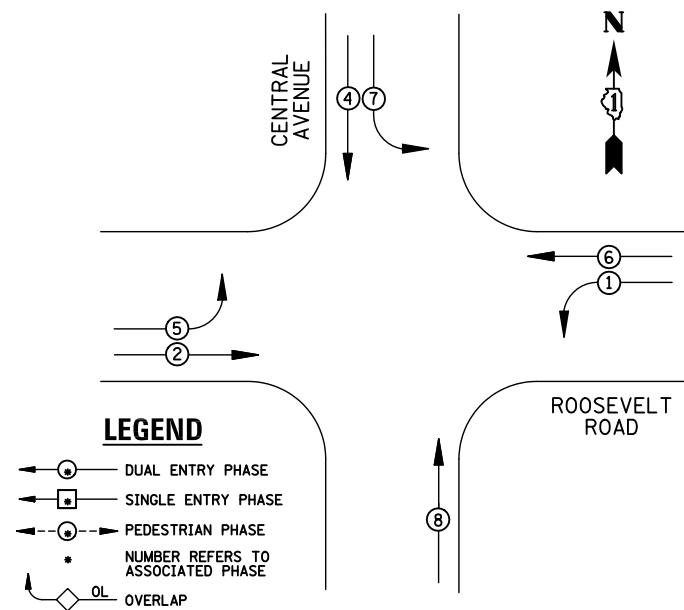
SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60504-9675
Ph: 630.862.2100 Fax: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com

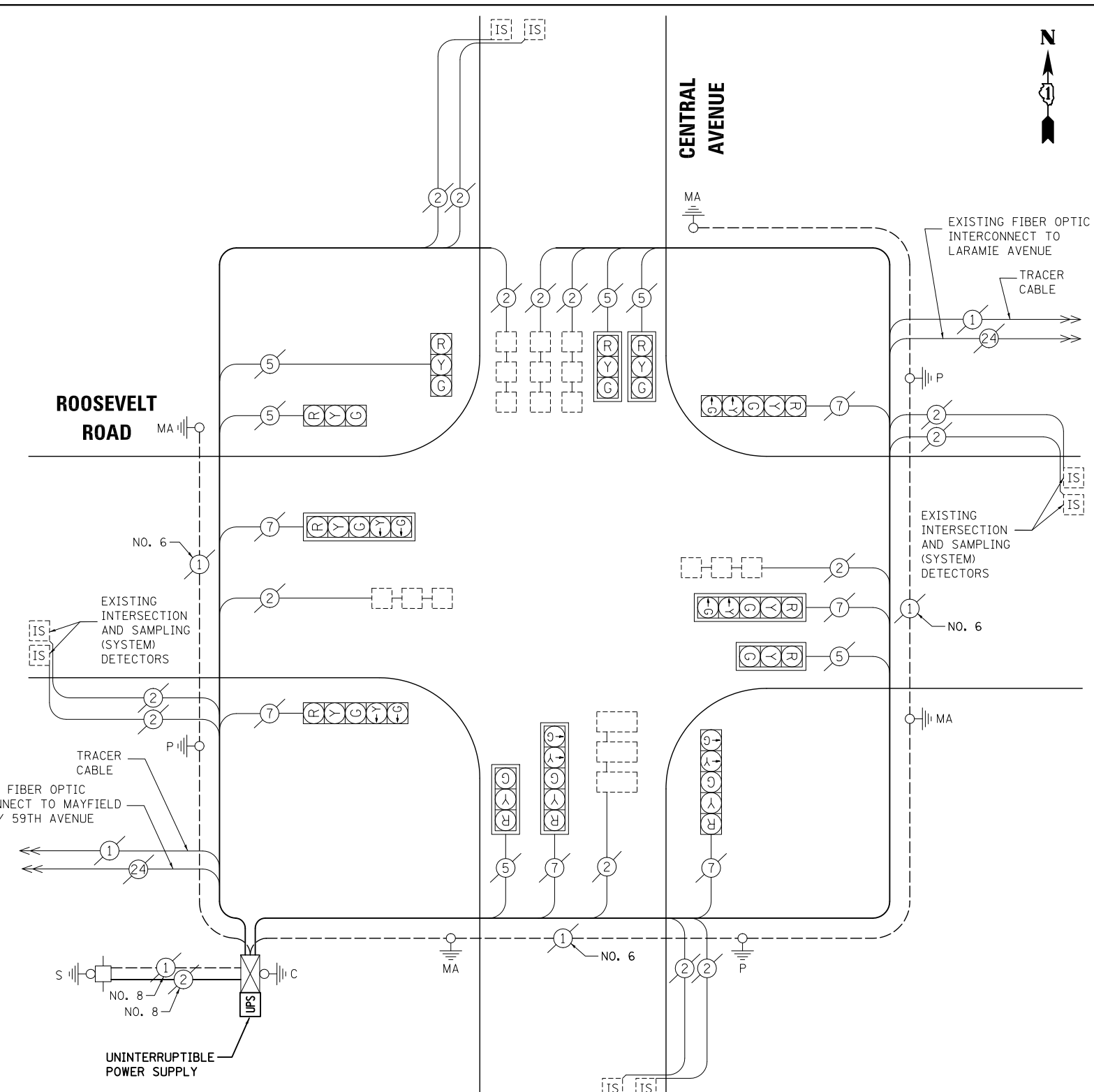
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	56
CONTRACT NO. 60X29				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

TS# 5557
CICERO

EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM



CABLE PLAN

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. LAMPS	WATTAGE		%OPERATION	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	10	135	12	0.10	12
PED. SIGNAL		90	25	1.00	
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 334
ENERGY SUPPLY	CONTACT: X				
	PHONE: X				
	COMPANY: X				

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1

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

FILE NAME = \MICROST\352108\45-4760.DGN
USER NAME = JGC
DESIGNED - BPT
DRAWN - JGC/RDS
PLOT SCALE = NOT TO SCALE
CHECKED - BPT
PLOT DATE = X
DATE - 12-04-13

REVISED -
REVISED -
REVISED -
REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES, CABLE PLAN
AND PHASE DESIGNATION DIAGRAM
ROOSEVELT ROAD AT CENTRAL AVENUE**

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60504-9675
Ph: 630.862.2100 Fax: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	57
CONTRACT NO. 60X29				

FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

TS# 4760
CICERO

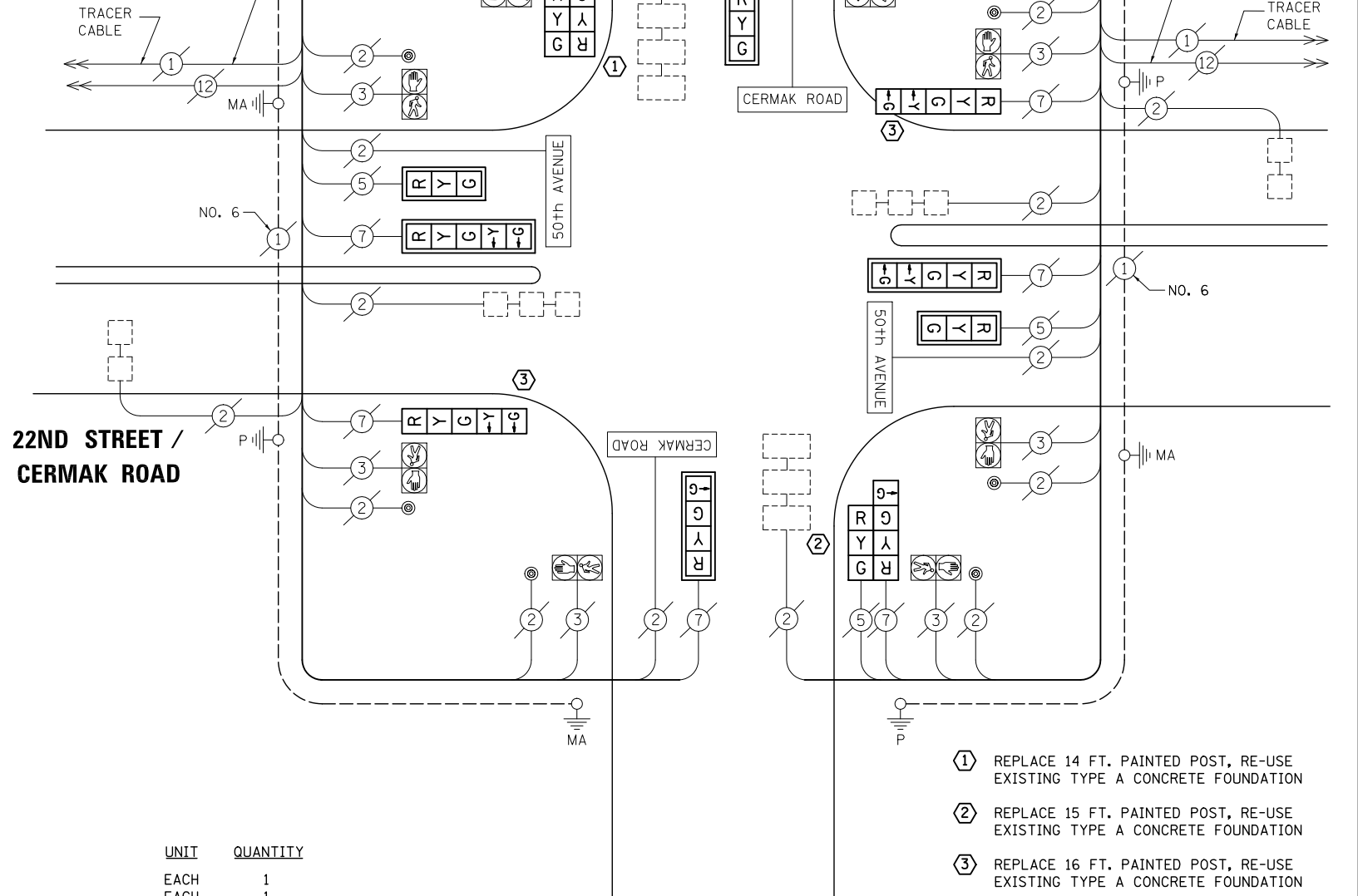
SEE NEXT SHEET FOR
CONTROLLER SEQUENCE

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 4 EACH TRAFFIC SIGNAL POST
- 6 EACH SIGNAL HEAD, 3-SECTION
- 2 EACH SIGNAL HEAD, 4-SECTION
- 4 EACH SIGNAL HEAD, 5-SECTION
- 6 EACH TRAFFIC SIGNAL BACKPLATE

EXISTING NO. 62.5/125 12F FIBER OPTIC INTERCONNECT TO 50TH AVENUE



22ND STREET /
CERMAK ROAD

CABLE PLAN

- ① REPLACE 14 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION
 - ② REPLACE 15 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION
 - ③ REPLACE 16 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION
- (SEE GENERAL NOTES)

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

SCHEDULE OF QUANTITIES

ITEM

- MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
- TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.
- TRAFFIC SIGNAL POST, GALVANIZED STEEL 15 FT.
- TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
- SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
- SIGNAL HEAD, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED
- SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED
- SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
- SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED
- SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-4 SECTION, BRACKET MOUNTED
- TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
- MODIFY EXISTING CONTROLLER CABINET
- REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
- UNINTERRUPTIBLE POWER SUPPLY, SPECIAL

UNIT QUANTITY

- EACH 1
- EACH 1
- EACH 1
- EACH 2
- EACH 3
- EACH 1
- EACH 2
- EACH 2
- EACH 1
- EACH 1
- EACH 6
- EACH 1
- EACH 1
- EACH 1

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	%OPERATION	
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	10	135	12	0.10	12
PED. SIGNAL	8	90	25	1.00	100
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN	4	84	100	0.50	200
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 634
ENERGY SUPPLY CONTACT: X					
PHONE: X					
COMPANY: X					

FILE NAME = \MICROST\352108\
47-12775_1.DGN

USER NAME = JGC

PLOT SCALE = NOT TO SCALE

PLOT DATE = X

DESIGNED - BPT	REVISED -
DRAWN - JGC/RDS	REVISED -
CHECKED - BPT	REVISED -
DATE - 12-04-13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES AND CABLE PLAN 22ND STREET / CERMAK ROAD AT 49TH AVENUE			
SCALE: N.T.S.	SHEET NO. OF SHEETS	STA. TO STA.	

PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60504-9675
Ph: 630.862.2100 Fax: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	58

CONTRACT NO. 60X29

FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

TS# 12775
CICERO

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS
		COOK	NO.
STA.	TO STA.		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		

SEQUENCE OF OPERATION

MOVEMENT	1	2	3	4	5	6	7	8	9	10	11	12	13A	13B	14	15	16A	16B			
PHASE	1 + 5				1 + 6			2 + 5			2 + 6			4 + 8							
INTERVAL	1	2	3	4	5	6	7	8	9	10	11	12	13A	13B	14	15	16A	16B			
CHANGE TO		1+6	2+5	2+6	φ	φ	2+6	φ	φ	2+6			4+8				1+5	1+6	2+5	2+6	
CERMAK ROAD (22ND STREET) FAR RIGHT MAST ARM SIGNAL	E/B	R	R	R	R	R	R	R	G	G	G	G	G	Y	R	R	R	R	R	R	
CERMAK ROAD (22ND STREET) END MAST ARM AND FAR LEFT SIGNALS	E/B	R	R	R	R	R	R	R	G	G	G	G	G	Y	R	R	R	R	R	R	
CERMAK ROAD (22ND STREET) FAR RIGHT MAST ARM SIGNAL	W/B	R	R	R	R	G	G	G	R	R	R	R	G	G	Y	R	R	R	R	R	
CERMAK ROAD (22ND STREET) END MAST ARM AND FAR LEFT SIGNALS	W/B	R	R	R	R	G	G	G	R	R	R	R	G	G	Y	R	R	R	R	R	
49TH AVENUE ALL SIGNALS	N/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	Y	R	R
49TH AVENUE NEAR RIGHT SIGNAL	S/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	Y	R	R
49TH AVENUE END MAST ARM AND FAR LEFT SIGNALS	S/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	Y	R	R
PEDESTRIAN SIGNALS CROSSING 49TH AVENUE ON NORTH SIDE OF CERMAK ROAD		DW	DW	DW	DW	**FL DW	DW	DW	DW	DW	DW	**FL DW	DW	DW	DW	DW	DW	DW	DW	DW	DW
PEDESTRIAN SIGNALS CROSSING 49TH AVENUE ON SOUTH SIDE OF CERMAK ROAD		DW	DW	DW	DW	DW	DW	**FL DW	DW	DW	DW	**FL DW	DW	DW	DW	DW	DW	DW	DW	DW	DW
PEDESTRIAN SIGNALS CROSSING CERMAK ROAD ON EAST SIDE OF 49TH AVENUE		DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	**FL DW	DW	DW	DW	DW
PEDESTRIAN SIGNALS CROSSING CERMAK ROAD ON WEST SIDE OF 49TH AVENUE		DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	**FL DW	DW	DW	DW	DW

- * TO APPEAR ONLY UPON PUSHBUTTON ACTUATION
 - ** FLASHING "DON'T WALK" IS TO TERMINATE AT THE COMPLETION OF THE PEDESTRIAN INTERVAL CLEARANCE.
 - φ THIS "WALK" OR FLASHING "DON'T WALK" INTERVAL MAY FINISH TIMING IN THE BIDIRECTIONAL STRAIGHT THROUGH MOVEMENT IF THE LEFT ARROW TIME IS NOT SUFFICIENT TO COMPLETE "WALK" OR FLASHING "DON'T WALK" INTERVALS.
- W = "WALK"
 FL = FLASHING "DON'T WALK"
 DW = "DON'T WALK"

PHASE 2+6 SHALL BE PLACED ON RECALL.

RAILROAD PREEMPTION SEQUENCE OF OPERATION

CHANGE FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER	1	5	8	11	14	PREEMPTION NUMBER 2								
RAILROAD PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	1A	1B	1C	1D	1E	1F	1G	1H	1J	2	3	4	5	CLEAR TO NORMAL SEQUENCE
CHANGE TO RAILROAD PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	2	1C	2	1E	2	1G	2	1J	2	3	4	5		
CERMAK ROAD (22ND STREET) FAR RIGHT MAST ARM SIGNAL	E/B	R	R	R	Y	R	Y	R	R	R	R	R	G	Δ
CERMAK ROAD (22ND STREET) END MAST ARM AND FAR LEFT SIGNALS	E/B	R	R	R	Y	R	Y	R	R	R	R	R	G	Δ
CERMAK ROAD (22ND STREET) FAR RIGHT MAST ARM SIGNAL	W/B	R	Y	R	R	R	Y	R	R	R	R	R	G	Δ
CERMAK ROAD (22ND STREET) END MAST ARM AND FAR LEFT SIGNALS	W/B	R	Y	R	R	R	Y	R	R	R	R	R	G	Δ
49TH AVENUE ALL SIGNALS	N/B	R	R	R	R	R	R	Y	R	R	R	R	R	Δ
49TH AVENUE NEAR RIGHT SIGNAL	S/B	R	R	R	R	R	R	G	G	G	Y	R	R	Δ
49TH AVENUE END MAST ARM AND FAR LEFT SIGNALS	S/B	R	R	R	R	R	R	G	G	G	Y	R	R	Δ
PEDESTRIAN SIGNALS CROSSING 49TH AVENUE ON NORTH SIDE OF CERMAK ROAD		DW	FL DW	DW	DW	FL DW	DW	DW	DW	DW	DW	DW	DW	Δ
PEDESTRIAN SIGNALS CROSSING 49TH AVENUE ON SOUTH SIDE OF CERMAK ROAD		DW	DW	DW	FL DW	FL DW	DW	DW	DW	DW	DW	DW	DW	Δ
PEDESTRIAN SIGNALS CROSSING CERMAK ROAD ON EAST SIDE OF 49TH AVENUE		DW	DW	DW	DW	DW	DW	FL DW	DW	DW	DW	DW	DW	Δ
PEDESTRIAN SIGNALS CROSSING CERMAK ROAD ON WEST SIDE OF 49TH AVENUE		DW	DW	DW	DW	DW	DW	FL DW	DW	DW	DW	DW	DW	Δ

Δ RAILROAD PREEMPTION SEQUENCE SHALL PROVIDE THE PROPER CLEARANCE INTERVAL TO RESUME THE NORMAL SEQUENCE OF OPERATION OR PROPER CLEARANCE INTERVAL TO DISPLAY AN EMERGENCY VEHICLE INTERVAL (IF APPLICABLE) AFTER RAILROAD PREEMPTION INTERVAL 5 IS TERMINATED.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SEQUENCE OF OPERATION AND RAILROAD PREEMPTION SEQUENCE OF OPERATION
 CERMAK ROAD (22ND STREET) AND 49TH AVENUE
 SCALE: N.T.S. DRAWN BY: FN
 DATE: 2-22-99 CHECKED BY: GMZ

CHRISTOPHER B. BURKE ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (630) 823-0500

EXISTING SEQUENCES - INCLUDED FOR REFERENCE ONLY

FILE NAME = \MICROST\352108\47-12775_2.DGN	USER NAME = JGC	DESIGNED - BPT	REVISED -
PLOT SCALE = NOT TO SCALE	CHECKED - BPT	REVISOR -	REVISOR -
PLOT DATE = X	DATE - 12-04-13	REVISOR -	REVISOR -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SEQUENCE OF OPERATION, RAILROAD PREEMPTION SEQUENCE OF OPERATION AND EMERGENCY VEHICLE PREEMPTION
 22ND STREET / CERMAK ROAD AT 49TH AVENUE
 SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

PREPARED BY:
CEMCON, Ltd.
 Consulting Engineers, Land Surveyors & Planners
 2280 White Oak Circle, Suite 100
 Aurora, Illinois 60504-9675
 Ph: 630.862.2100 Fax: 630.862.2199
 E-Mail: cadd@cemcon.com Website: www.cemcon.com

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS
VAR.	2013-054TS	COOK	92 47
CONTRACT NO. 60X29			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		

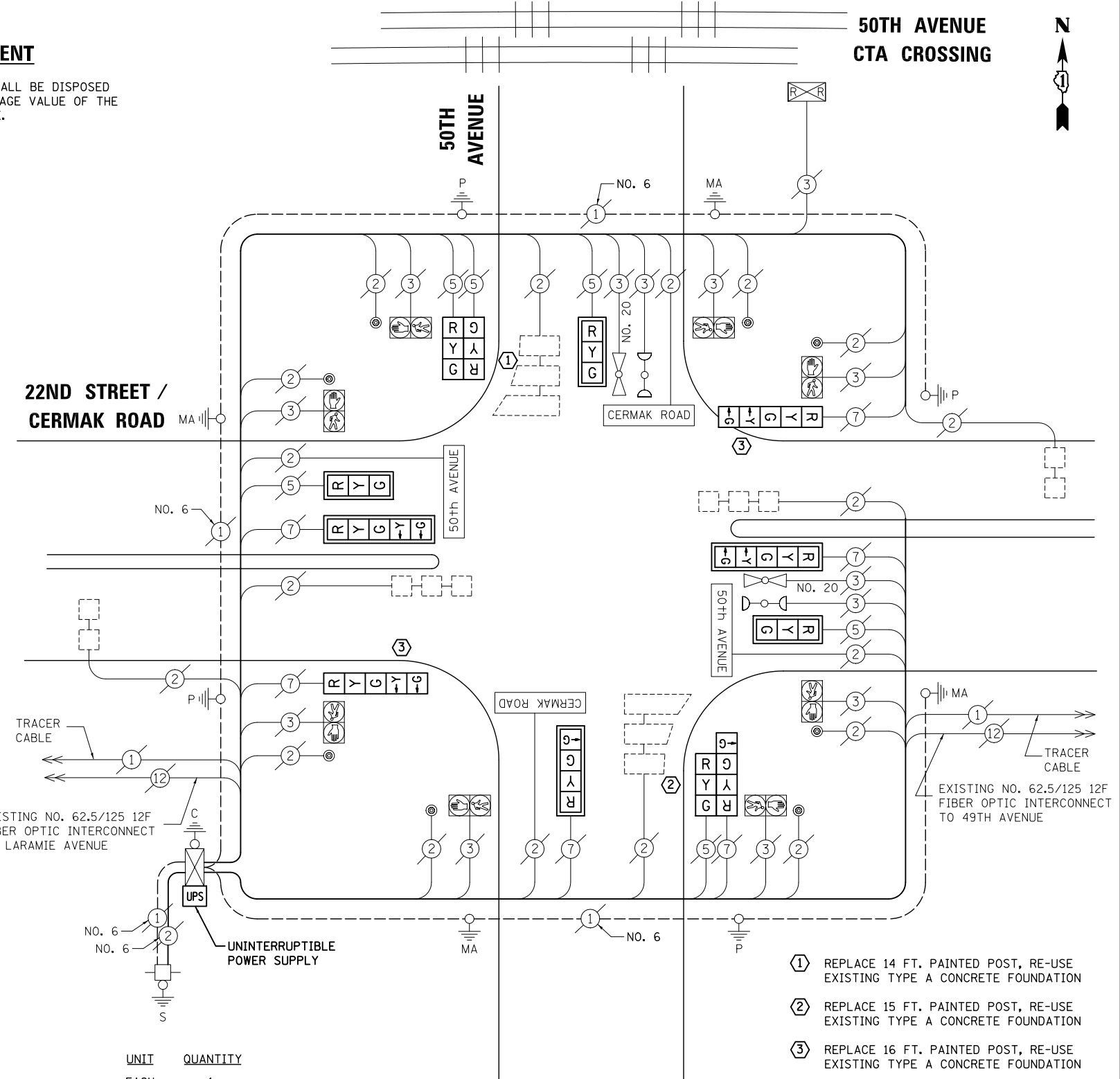
TS# 12775
 CICERO

**SEE NEXT SHEET FOR
CONTROLLER SEQUENCE**

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 4 EACH TRAFFIC SIGNAL POST
- 6 EACH SIGNAL HEAD, 3-SECTION
- 2 EACH SIGNAL HEAD, 4-SECTION
- 4 EACH SIGNAL HEAD, 5-SECTION
- 6 EACH TRAFFIC SIGNAL BACKPLATE



CABLE PLAN

- ① REPLACE 14 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION
 - ② REPLACE 15 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION
 - ③ REPLACE 16 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION
- (SEE GENERAL NOTES)

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

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 15 FT.	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	2
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	3
SIGNAL HEAD, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED	EACH	1
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	2
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-4 SECTION, BRACKET MOUNTED	EACH	1
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	6
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	%OPERATION	
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	10	135	12	0.10	12
PED. SIGNAL	8	90	25	1.00	100
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN	4	84	100	0.50	200
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 634
ENERGY SUPPLY	CONTACT: X				
	PHONE: X				
	COMPANY: X				

FILE NAME = \MICROST\352108\
48-12780_1.DGN
USER NAME = JGC
DESIGNED - BPT
DRAWN - JGC/RDS
PLOT SCALE = NOT TO SCALE
PLOT DATE = X
CHECKED - BPT
DATE - 12-04-13

REVISED -
REVISED -
REVISED -
REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES AND CABLE PLAN
22ND STREET / CERMAK ROAD AT 50TH AVENUE**
SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

TS# 12780
CICERO

PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60504-9675
Ph: 630.862.2100 Fax: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	60

CONTRACT NO. 60X29
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		COOK		
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

SEQUENCE OF OPERATION

MOVEMENT	1	2	3	4	5	6	7	8	9	10	11	12	13A	13B	14	15	16A	16B		
PHASE	1 + 5				1 + 6			2 + 5			2 + 6			4 + 8						
INTERVAL	1	2	3	4	5	6	7	8	9	10	11	12	13A	13B	14	15	16A	16B		
CHANGE TO		1+6	2+5	2+5	ϕ	ϕ	2+6	ϕ	ϕ	2+6			4+8				1+5	1+6	2+5	2+6
CERMAK ROAD (22ND STREET) FAR RIGHT MAST ARM SIGNAL	E/B	R	R	R	R	R	R	R	G	G	G	G	G	Y	R	R	R	R	R	R
CERMAK ROAD (22ND STREET) END MAST ARM AND FAR LEFT SIGNALS	E/B	R	R	R	R	R	R	R	G	G	G	G	G	Y	R	R	R	R	R	R
CERMAK ROAD (22ND STREET) FAR RIGHT MAST ARM SIGNAL	W/B	R	R	R	R	G	G	G	R	R	R	G	G	Y	R	R	R	R	R	R
CERMAK ROAD (22ND STREET) END MAST ARM AND FAR LEFT SIGNALS	W/B	R	R	R	R	G	G	G	R	R	R	G	G	Y	R	R	R	R	R	R
50TH AVENUE ALL SIGNALS	N/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	Y	R	R
50TH AVENUE NEAR RIGHT SIGNAL	S/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	Y	R	R
50TH AVENUE END MAST ARM AND FAR LEFT SIGNALS	S/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	Y	R	R
PEDESTRIAN SIGNALS CROSSING 50TH AVENUE ON NORTH SIDE OF CERMAK ROAD	DW	DW	DW	DW	DW	FL DW	DW	DW	DW	DW	DW	FL DW	DW	DW	DW	DW	DW	DW	DW	DW
PEDESTRIAN SIGNALS CROSSING 50TH AVENUE ON SOUTH SIDE OF CERMAK ROAD	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	FL DW	DW	DW	DW	DW	DW	DW	DW	DW
PEDESTRIAN SIGNALS CROSSING CERMAK ROAD ON EAST SIDE OF 50TH AVENUE	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	FL DW	DW	DW	DW
PEDESTRIAN SIGNALS CROSSING CERMAK ROAD ON WEST SIDE OF 50TH AVENUE	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	FL DW	DW	DW	DW

- * TO APPEAR ONLY UPON PUSHBUTTON ACTUATION
- ** FLASHING "DON'T WALK" IS TO TERMINATE AT THE COMPLETION OF THE PEDESTRIAN INTERVAL CLEARANCE.
- ϕ THIS "WALK" OR FLASHING "DON'T WALK" INTERVAL MAY FINISH TIMING IN THE BIDIRECTIONAL STRAIGHT THROUGH MOVEMENT IF THE LEFT ARROW TIME IS NOT SUFFICIENT TO COMPLETE "WALK" OR FLASHING "DON'T WALK" INTERVALS.

W = "WALK"
 FL DW = FLASHING "DON'T WALK"
 DW = "DON'T WALK"

PHASE 2+6 SHALL BE PLACED ON RECALL.

RAILROAD PREEMPTION SEQUENCE OF OPERATION

CHANGE FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER	1	5	8	11	14	PREEMPTION NUMBER 2														
RAILROAD PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	1A	1B	1C	1D	1E	1F	1G	1H	1J	2	3	4	5	CLEAR TO NORMAL SEQUENCE						
CHANGE TO RAILROAD PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	2	1C	2	1E	2	1G	2	1J	2	3	4	5								
CERMAK ROAD (22ND STREET) FAR RIGHT MAST ARM SIGNAL	E/B	R	R	R	Y	R	Y	R	R	R	R	R	R	G	Δ					
CERMAK ROAD (22ND STREET) END MAST ARM AND FAR LEFT SIGNALS	E/B	R	R	R	Y	R	Y	R	R	R	R	R	R	G	Δ					
CERMAK ROAD (22ND STREET) FAR RIGHT MAST ARM SIGNAL	W/B	R	Y	R	R	R	Y	R	R	R	R	R	R	G	Δ					
CERMAK ROAD (22ND STREET) END MAST ARM AND FAR LEFT SIGNALS	W/B	R	Y	R	R	R	Y	R	R	R	R	R	R	G	Δ					
50TH AVENUE ALL SIGNALS	N/B	R	R	R	R	R	R	R	Y	R	R	R	R	R	Δ					
50TH AVENUE NEAR RIGHT SIGNAL	S/B	R	R	R	R	R	R	R	G	G	G	Y	R	R	Δ					
50TH AVENUE END MAST ARM AND FAR LEFT SIGNALS	S/B	R	R	R	R	R	R	R	G	G	G	Y	R	R	Δ					
PEDESTRIAN SIGNALS CROSSING 50TH AVENUE ON NORTH SIDE OF CERMAK ROAD	DW	FL DW	DW	DW	DW	FL DW	DW	DW	DW	DW	DW	DW	DW	DW	Δ					
PEDESTRIAN SIGNALS CROSSING 50TH AVENUE ON SOUTH SIDE OF CERMAK ROAD	DW	DW	DW	FL DW	DW	FL DW	DW	DW	DW	DW	DW	DW	DW	DW	Δ					
PEDESTRIAN SIGNALS CROSSING CERMAK ROAD ON EAST SIDE OF 50TH AVENUE	DW	DW	DW	DW	DW	DW	DW	FL DW	DW	DW	DW	DW	DW	DW	Δ					
PEDESTRIAN SIGNALS CROSSING CERMAK ROAD ON WEST SIDE OF 50TH AVENUE	DW	DW	DW	DW	DW	DW	DW	FL DW	DW	DW	DW	DW	DW	DW	Δ					

Δ RAILROAD PREEMPTION SEQUENCE SHALL PROVIDE THE PROPER CLEARANCE INTERVAL TO RESUME THE NORMAL SEQUENCE OF OPERATION OR PROPER CLEARANCE INTERVAL TO DISPLAY AN EMERGENCY VEHICLE INTERVAL (IF APPLICABLE) AFTER RAILROAD PREEMPTION INTERVAL 5 IS TERMINATED.

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION SEQUENCE OF OPERATION AND RAILROAD PREEMPTION SEQUENCE OF OPERATION CERMAK ROAD (22ND STREET) AND 50TH AVENUE
NAME	DATE	
		SCALE N.T.S. DRAWN BY FN
		DATE 2-22-99 CHECKED BY GMZ

CHRISTOPHER B. BURKE ENGINEERING LTD.
 3515 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0500

EXISTING SEQUENCES - INCLUDED FOR REFERENCE ONLY

FILE NAME = \MICROST\352108\48-12780_2.DGN	USER NAME = JGC	DESIGNED - BPT	REVISED -
		DRAWN - JGC/RDS	REVISED -
		CHECKED - BPT	REVISED -
		DATE - 12-04-13	REVISED -

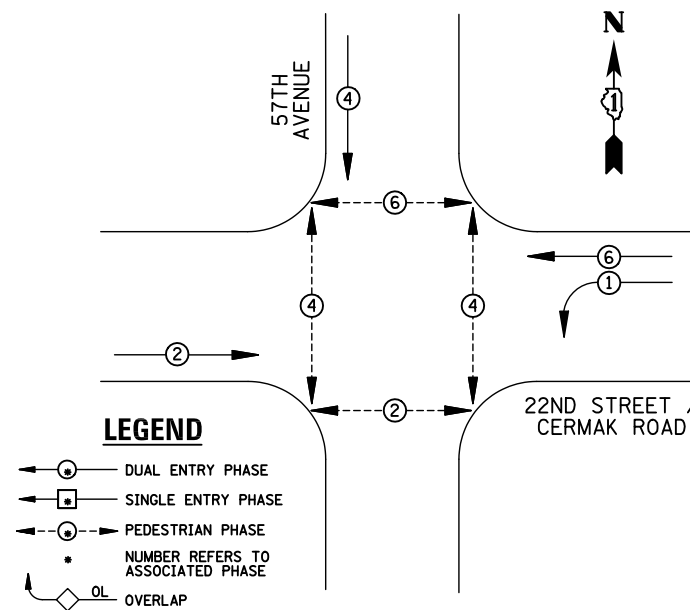
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SEQUENCE OF OPERATION, RAILROAD PREEMPTION SEQUENCE OF OPERATION AND EMERGENCY VEHICLE PREEMPTION
 22ND STREET / CERMAK ROAD AT 50TH AVENUE
 SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

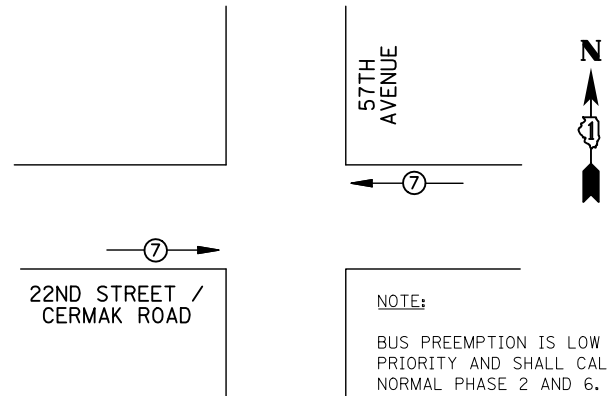
PREPARED BY:
CEMCON, Ltd.
 Consulting Engineers, Land Surveyors & Planners
 2280 White Oak Circle, Suite 100
 Aurora, Illinois 60504-9675
 Ph: 630.862.2100 Fax: 630.862.2199
 E-Mail: cadd@cemcon.com Website: www.cemcon.com

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	61
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
CONTRACT NO. 60X29				

EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM



PREEMPTORS	
PREEMPTOR	7
MOVEMENT	→

EXISTING BUS PREEMPTION SEQUENCE

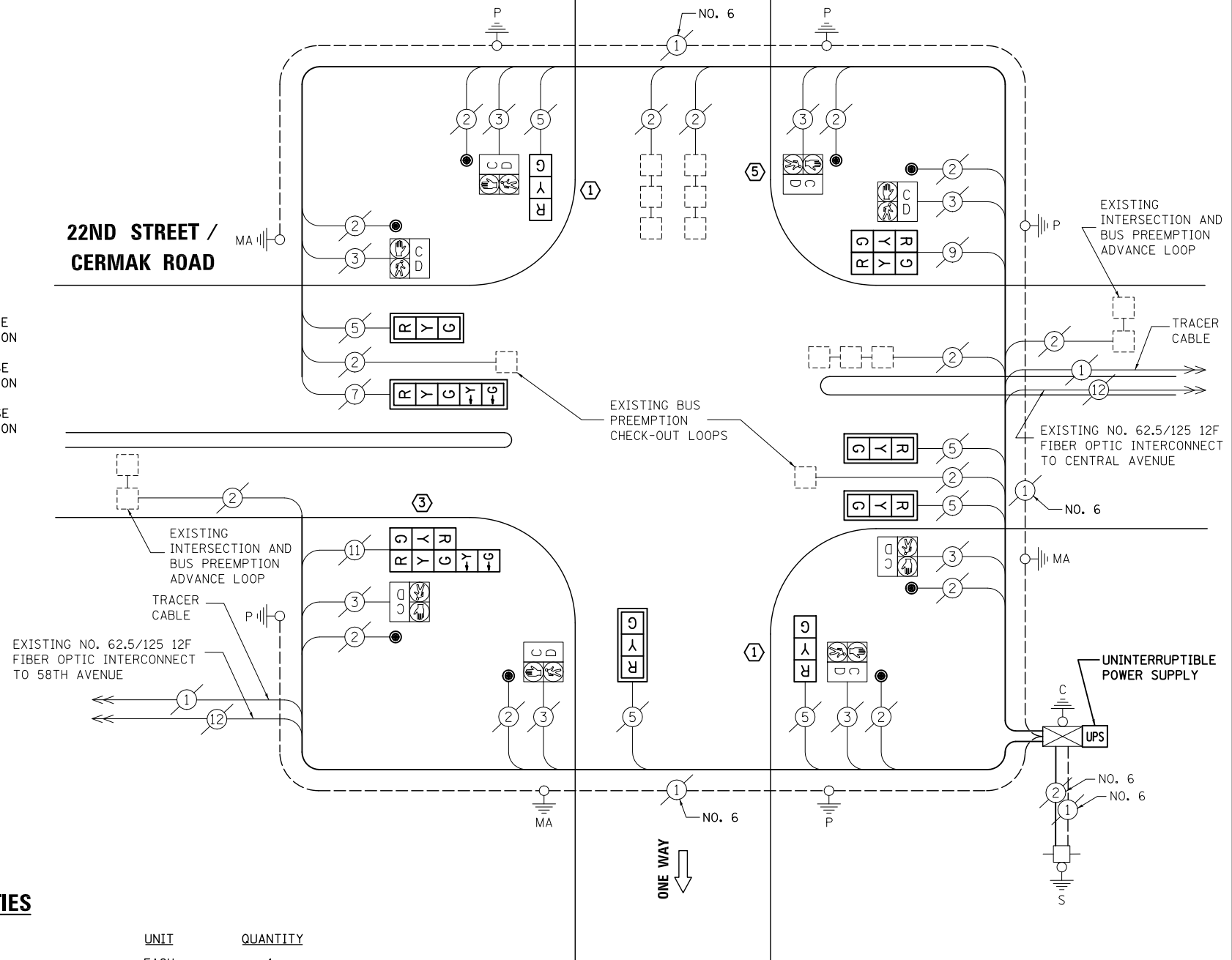
REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 4 EACH TRAFFIC SIGNAL POST
- 9 EACH SIGNAL HEAD, 3-SECTION
- 2 EACH SIGNAL HEAD, 5-SECTION
- 6 EACH TRAFFIC SIGNAL BACKPLATE
- 8 EACH PEDESTRIAN PUSH-BUTTON

- ① REPLACE 14 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION
- ③ REPLACE 16 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION
- ⑤ REPLACE 10 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION (SEE GENERAL NOTES)

22ND STREET / CERMAK ROAD



CABLE PLAN

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

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	2
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	1
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	1
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	6
PEDESTRIAN PUSH-BUTTON	EACH	8
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	%OPERATION	
SIGNAL (RED)	11	135	17	0.50	93.5
(YELLOW)	11	135	25	0.25	68.75
(GREEN)	11	135	15	0.25	41.25
ARROW	4	135	12	0.10	4.8
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 508.3
ENERGY SUPPLY	CONTACT: X				
	PHONE: X				
	COMPANY: X				

DESIGNED - BPT	REVISED -
DRAWN - JGC/RDS	REVISED -
CHECKED - BPT	REVISED -
DATE - 12-04-13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN,
PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION
22ND STREET / CERMAK ROAD AT 57TH AVENUE

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

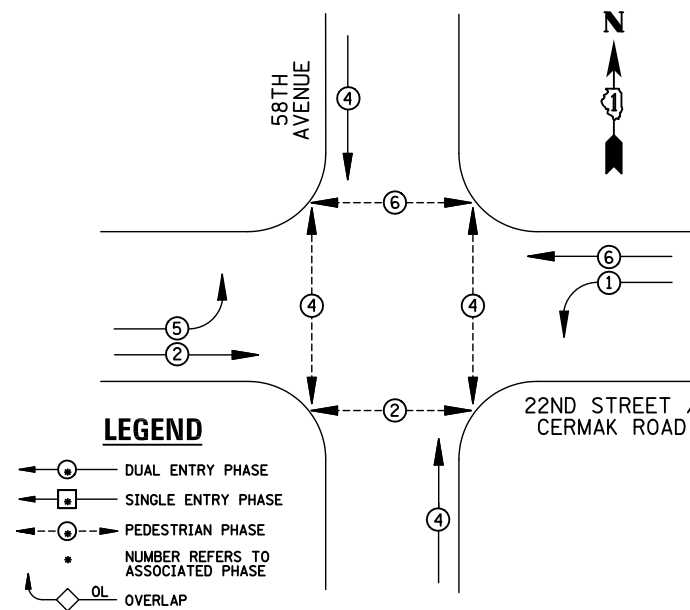
PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60504-9675
Ph: 630.862.2100 Fax: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	62

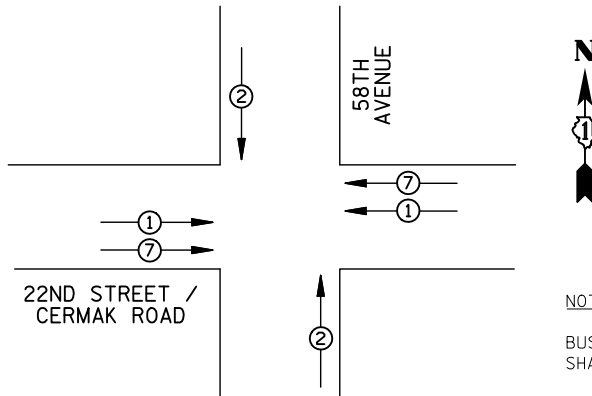
CONTRACT NO. 60X29
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

TS# 4775
CICERO

EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM



PREEMPTORS			
PREEMPTOR	1	2	7
MOVEMENT	←→	↑↓	←→

EXISTING EMERGENCY VEHICLE AND BUS PREEMPTION SEQUENCE

NOTE:

BUS PREEMPTION IS LOW PRIORITY AND SHALL CALL NORMAL PHASE 2 AND 6.

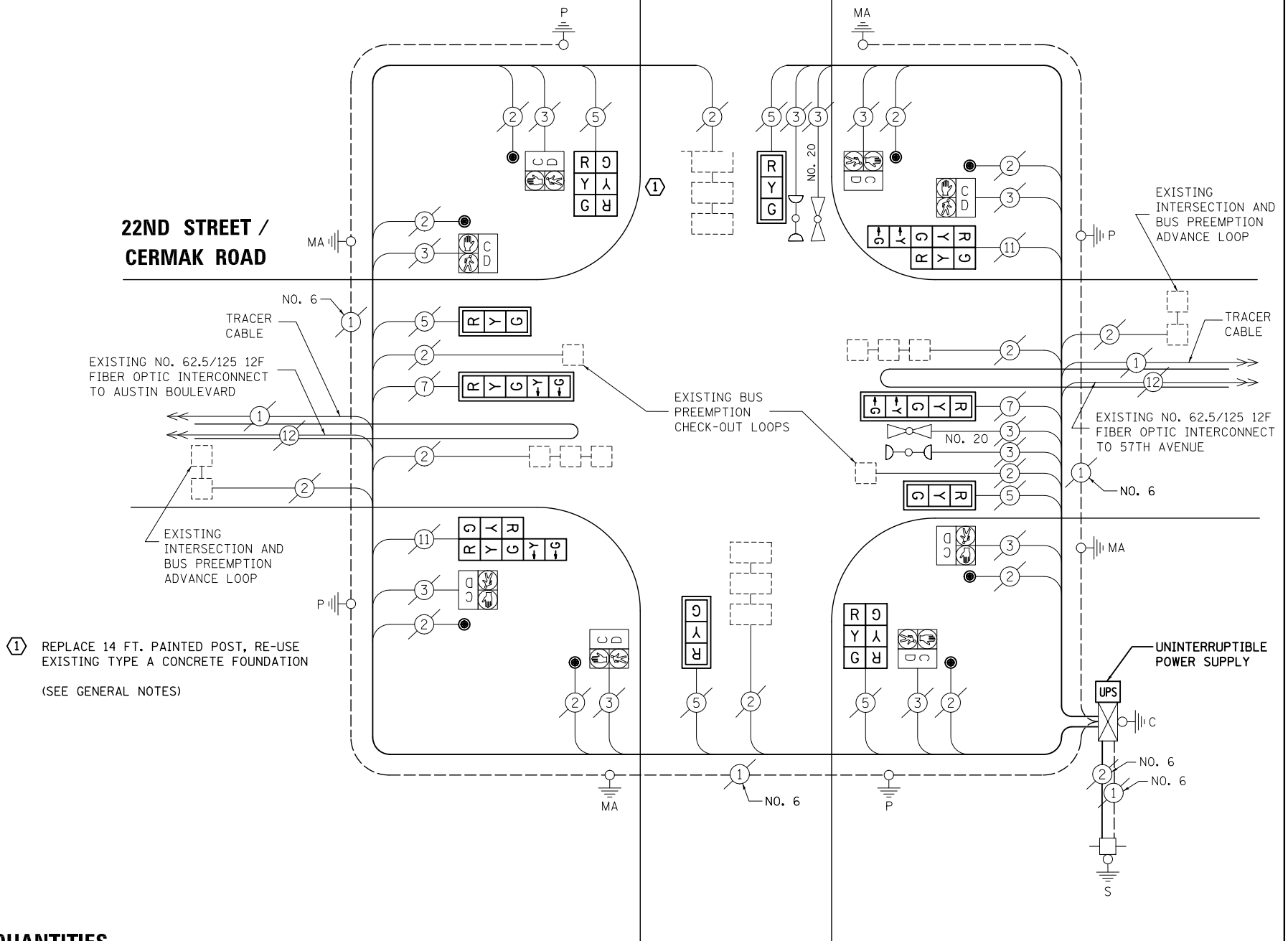
DUE TO CONTROLLER CONFIGURATION AND SOFTWARE LIMITATIONS, EVP AND BUS SEQUENCES ARE NON-CONVENTIONAL.

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 1 EACH TRAFFIC SIGNAL POST
- 10 EACH SIGNAL HEAD, 3-SECTION
- 4 EACH SIGNAL HEAD, 5-SECTION
- 6 EACH TRAFFIC SIGNAL BACKPLATE
- 8 EACH PEDESTRIAN PUSH-BUTTON

22ND STREET / CERMAK ROAD



- ① REPLACE 14 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION (SEE GENERAL NOTES)

SCHEDULE OF QUANTITIES

ITEM

- MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
- TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.
- SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
- SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
- SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED
- SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED
- TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
- PEDESTRIAN PUSH-BUTTON
- MODIFY EXISTING CONTROLLER CABINET
- REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
- UNINTERRUPTIBLE POWER SUPPLY, SPECIAL

UNIT	QUANTITY
EACH	1
EACH	1
EACH	4
EACH	2
EACH	2
EACH	2
EACH	6
EACH	8
EACH	1
EACH	1
EACH	1

CABLE PLAN

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

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	%OPERATION	
SIGNAL (RED)	14	135	17	0.50	119
(YELLOW)	14	135	25	0.25	87.5
(GREEN)	14	135	15	0.25	52.5
ARROW	8	135	12	0.10	9.6
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 568.6
ENERGY SUPPLY	CONTACT: X				
	PHONE: X				
	COMPANY: X				
FILE NAME = \MICROST\352108\50-4780.DGN	USER NAME = JGC	DESIGNED - BPT	REVISED -		
		DRAWN - JGC/RDS	REVISED -		
		PLOT SCALE = NOT TO SCALE	CHECKED - BPT	REVISED -	
		PLOT DATE = X	DATE - 12-04-13	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN,
PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION
22ND STREET / CERMAK ROAD AT 58TH AVENUE

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

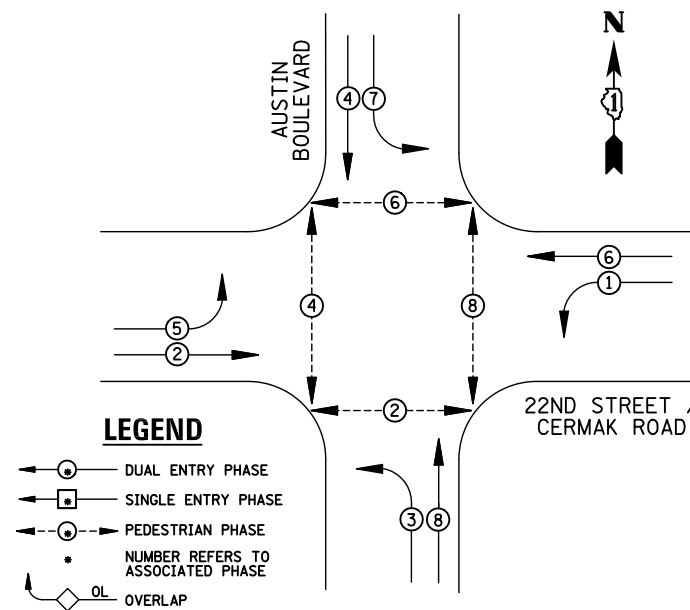
PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60504-9675
Ph: 630.862.2100 Fax: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	63

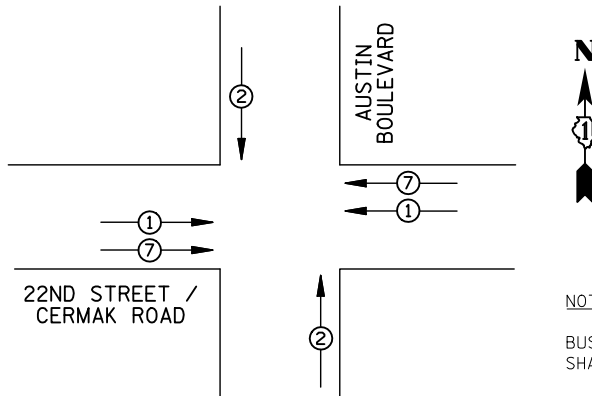
CONTRACT NO. 60X29
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

TS# 4780
CICERO

EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM



PREEMPTORS			
PREEMPTOR	1	2	7
MOVEMENT	←→	↑↓	←→

EXISTING EMERGENCY VEHICLE AND BUS PREEMPTION SEQUENCE

NOTE:

BUS PREEMPTION IS LOW PRIORITY AND SHALL CALL NORMAL PHASE 2 AND 6.

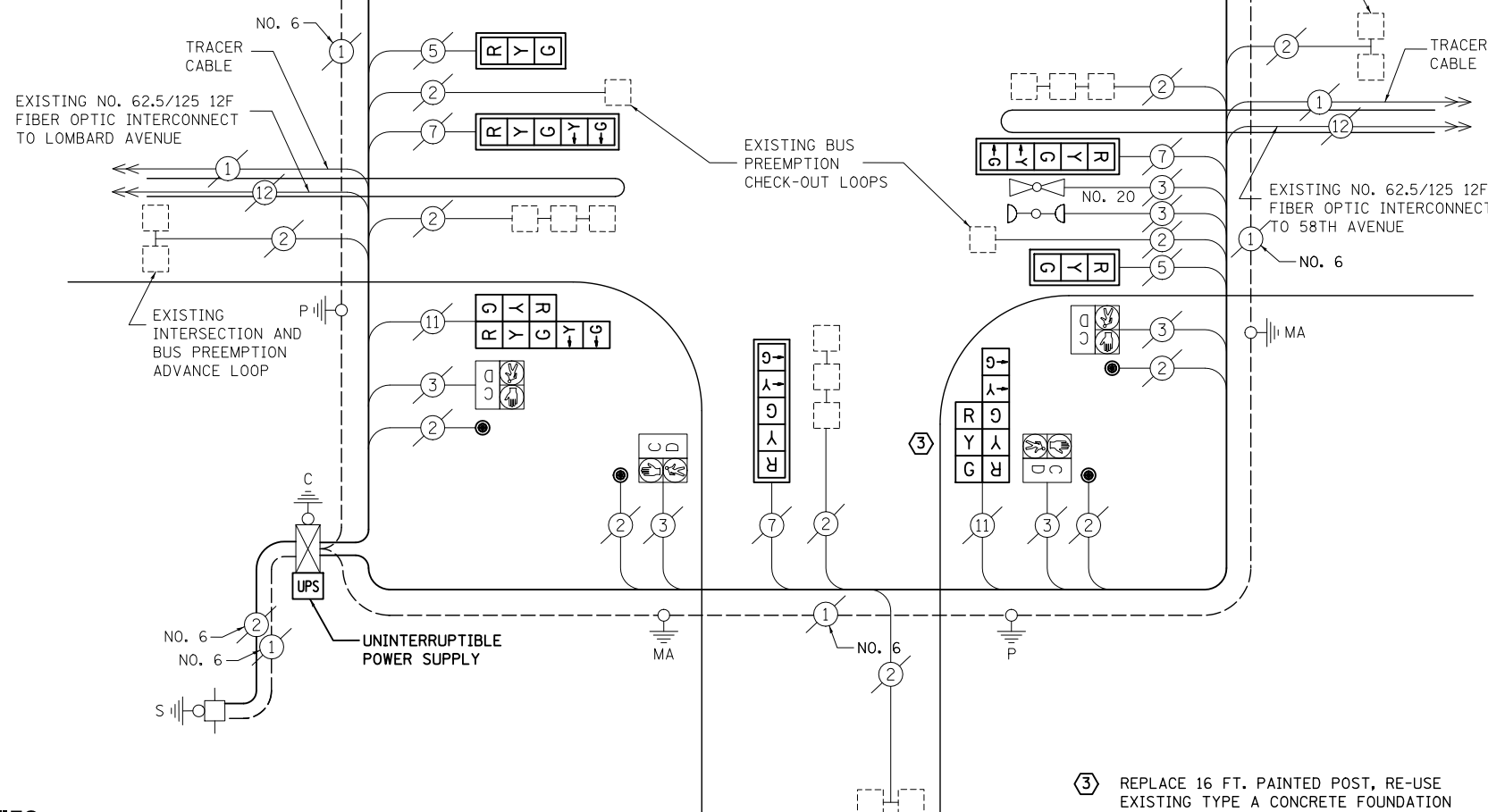
DUE TO CONTROLLER CONFIGURATION AND SOFTWARE LIMITATIONS, EVP AND BUS SEQUENCES ARE NON-CONVENTIONAL.

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 2 EACH TRAFFIC SIGNAL POST
- 6 EACH SIGNAL HEAD, 3-SECTION
- 8 EACH SIGNAL HEAD, 5-SECTION
- 6 EACH TRAFFIC SIGNAL BACKPLATE
- 8 EACH PEDESTRIAN PUSH-BUTTON

22ND STREET / CERMAK ROAD



CABLE PLAN

3) REPLACE 16 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION (SEE GENERAL NOTES)

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

SCHEDULE OF QUANTITIES

ITEM

- MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
- TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
- SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
- SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
- SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED
- TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
- PEDESTRIAN PUSH-BUTTON
- MODIFY EXISTING CONTROLLER CABINET
- REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
- UNINTERRUPTIBLE POWER SUPPLY, SPECIAL

UNIT QUANTITY

- EACH 1
- EACH 2
- EACH 2
- EACH 4
- EACH 4
- EACH 6
- EACH 8
- EACH 1
- EACH 1
- EACH 1

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	%OPERATION	
SIGNAL (RED)	14	135	17	0.50	119
(YELLOW)	14	135	25	0.25	87.5
(GREEN)	14	135	15	0.25	52.5
ARROW	16	135	12	0.10	19.2
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 578.2
ENERGY SUPPLY	CONTACT: X				
	PHONE: X				
	COMPANY: X				

DESIGNED - BPT	REVISED -
DRAWN - JGC/RDS	REVISED -
CHECKED - BPT	REVISED -
DATE - 12-04-13	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION 22ND STREET / CERMAK ROAD AT AUSTIN BOULEVARD

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

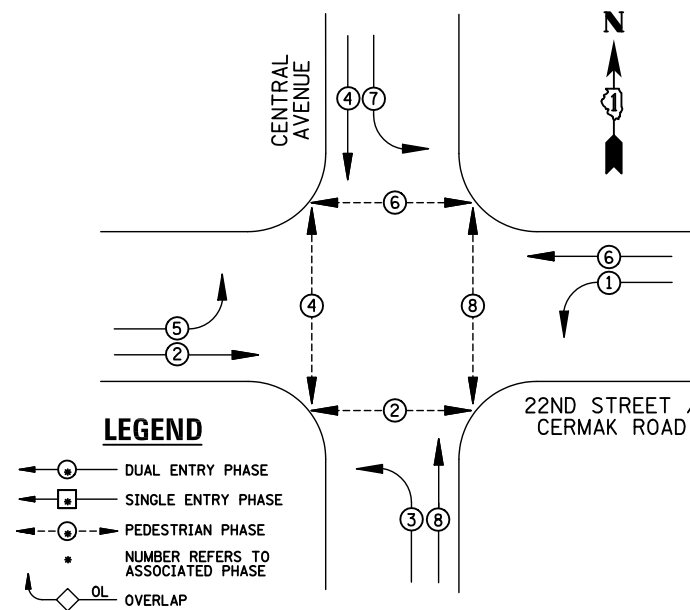
PREPARED BY: **CEMCON, Ltd.**
 Consulting Engineers, Land Surveyors & Planners
 2280 White Oak Circle, Suite 100
 Aurora, Illinois 60504-9675
 Ph: 630.862.2100 Fax: 630.862.2199
 E-Mail: cadd@cemcon.com Website: www.cemcon.com

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	64
CONTRACT NO. 60X29				

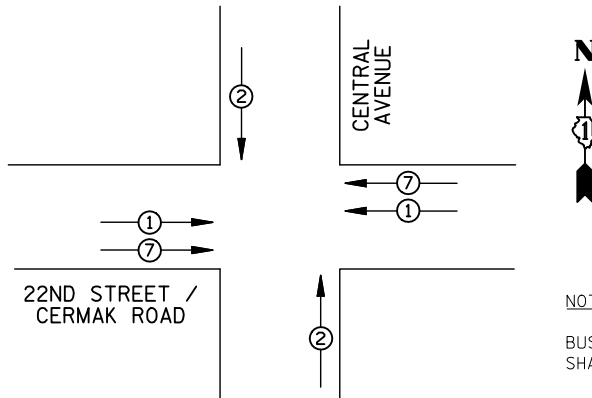
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

TS# 4785 CICERO

EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM



PREEMPTORS			
PREEMPTOR	1	2	7
MOVEMENT	←→	↑↓	←→

EXISTING EMERGENCY VEHICLE AND BUS PREEMPTION SEQUENCE

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND. LED	%OPERATION		
SIGNAL (RED)	14	135	17	0.50	119
(YELLOW)	14	135	25	0.25	87.5
(GREEN)	14	135	15	0.25	52.5
ARROW	16	135	12	0.10	19.2
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096				TOTAL =	578.2
ENERGY SUPPLY	CONTACT: X				
	PHONE: X				
	COMPANY: X				

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 2 EACH TRAFFIC SIGNAL POST
- 6 EACH SIGNAL HEAD, 3-SECTION
- 8 EACH SIGNAL HEAD, 5-SECTION
- 4 EACH TRAFFIC SIGNAL BACKPLATE
- 8 EACH PEDESTRIAN PUSH-BUTTON

NOTE:

BUS PREEMPTION IS LOW PRIORITY AND SHALL CALL NORMAL PHASE 2 AND 6.

DUE TO CONTROLLER CONFIGURATION AND SOFTWARE LIMITATIONS, EVP AND BUS SEQUENCES ARE NON-CONVENTIONAL.

SCHEDULE OF QUANTITIES

ITEM

- MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
- TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
- SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
- SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
- SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED
- TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
- PEDESTRIAN PUSH-BUTTON
- MODIFY EXISTING CONTROLLER CABINET
- REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
- UNINTERRUPTABLE POWER SUPPLY, SPECIAL

UNIT QUANTITY

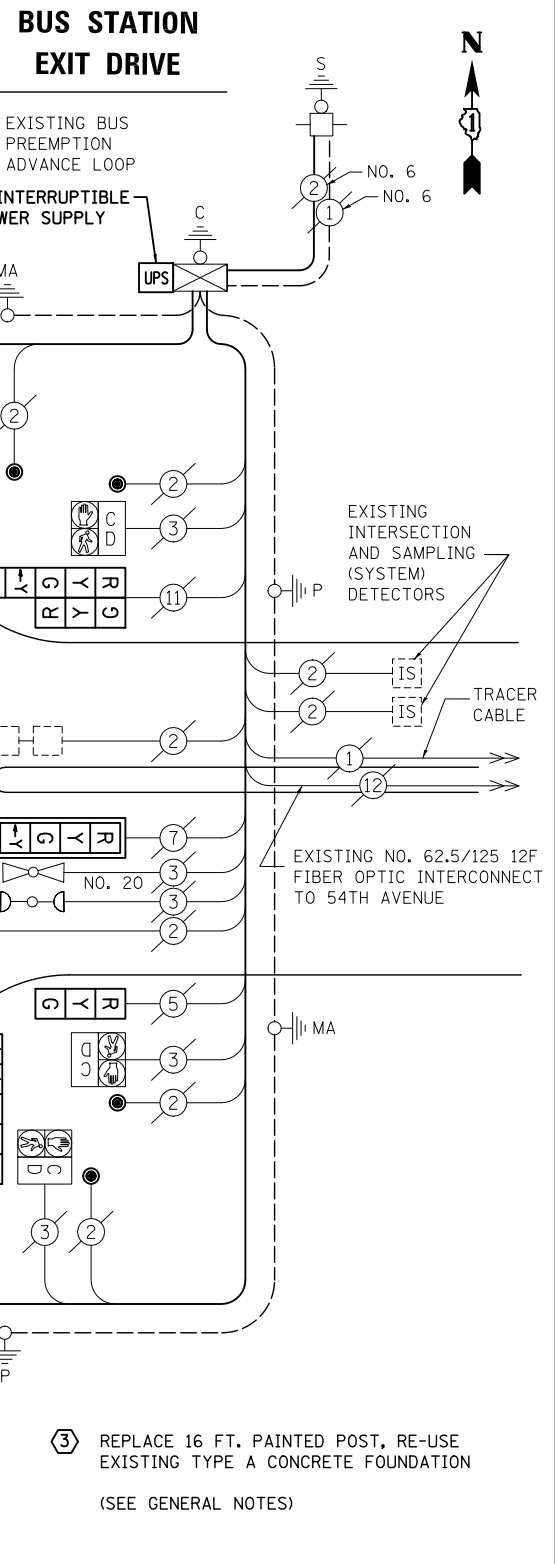
- EACH 1
- EACH 2
- EACH 2
- EACH 4
- EACH 4
- EACH 4
- EACH 8
- EACH 1
- EACH 1
- EACH 1

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DESIGNED - BPT	REVISED -
DRAWN - JGC/RDS	REVISED -
CHECKED - BPT	REVISED -
DATE - 12-04-13	REVISED -

**SCHEDULE OF QUANTITIES, CABLE PLAN,
PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION
22ND STREET / CERMAK ROAD AT CENTRAL AVENUE**

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.



CABLE PLAN

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

PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60504-9675
Ph: 630.862.2100 Fax: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com

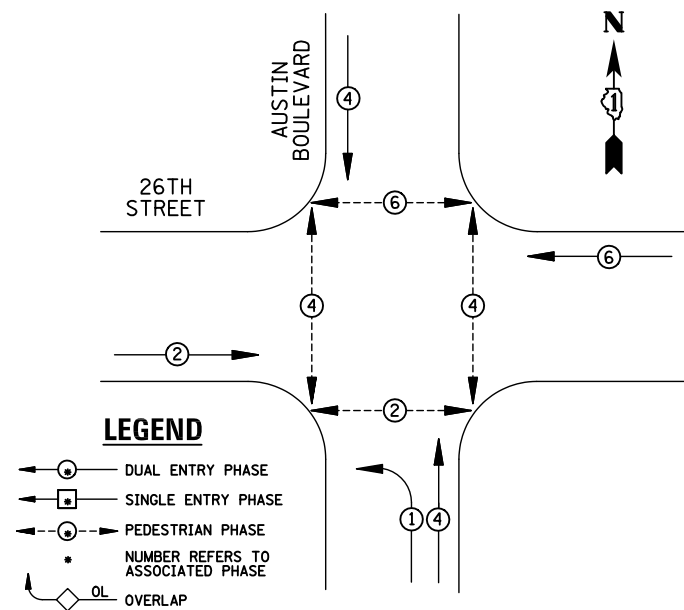
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	65
CONTRACT NO. 60X29				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

FILE NAME =
MICROST\352108\
52-4790.DGN

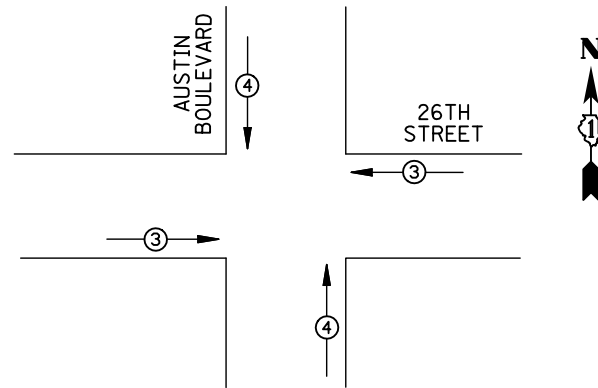
USER NAME = JGC
PLOT SCALE = NOT TO SCALE
PLOT DATE = X

TS# 4790
CICERO

EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	
MOVEMENT	←→	↑↓	

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND. LED	%OPERATION		
SIGNAL (RED)	12	135 17	0.50	102	
(YELLOW)	12	135 25	0.25	75	
(GREEN)	12	135 15	0.25	45	
ARROW	4	135 12	0.10	4.8	
PED. SIGNAL	8	90 25	1.00	200	
CONTROLLER	1	100 100	1.00	100	
ILLUM. SIGN		84 100	0.50		
FLASHER		135 25	0.50		
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096				TOTAL =	526.8
ENERGY SUPPLY	CONTACT: X				
	PHONE: X				
	COMPANY: X				
FILE NAME = MICROST\352108\ 55-12890.DGN	USER NAME = JGC	DESIGNED - BPT	REVISED -		
		DRAWN - JGC/RDS	REVISED -		
	PLOT SCALE = NOT TO SCALE	CHECKED - BPT	REVISED -		
	PLOT DATE = X	DATE - 12-04-13	REVISED -		

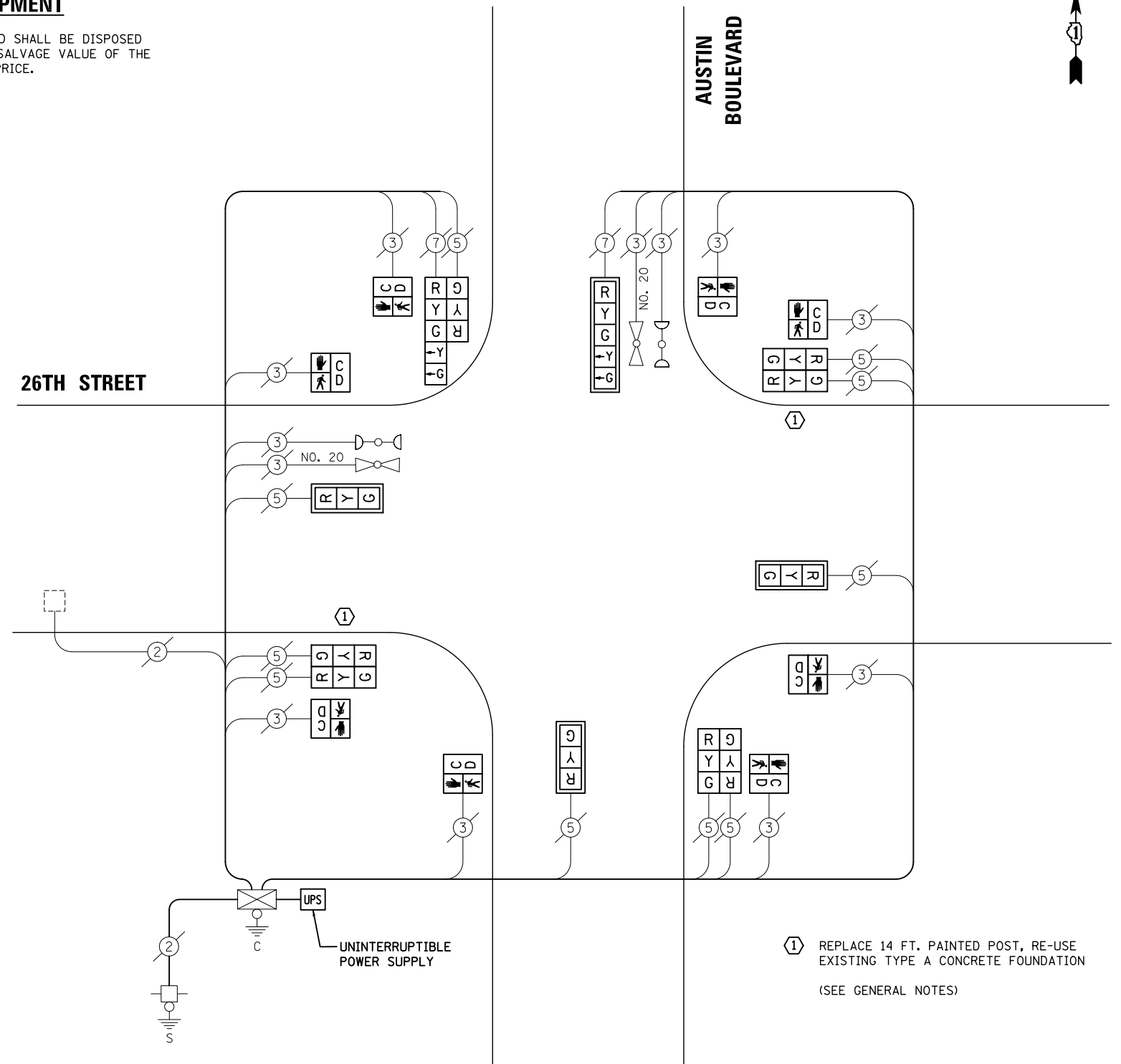
REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 2 EACH TRAFFIC SIGNAL POST
- 10 EACH SIGNAL HEAD, 3-SECTION
- 2 EACH SIGNAL HEAD, 5-SECTION
- 4 EACH TRAFFIC SIGNAL BACKPLATE
- 8 EACH PEDESTRIAN SIGNAL HEAD

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	2
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	3
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	1
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	3
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	8
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	4
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, GROUND MOUNTED	EACH	1



CABLE PLAN

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

① REPLACE 14 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION (SEE GENERAL NOTES)

TS# 12890
CICERO

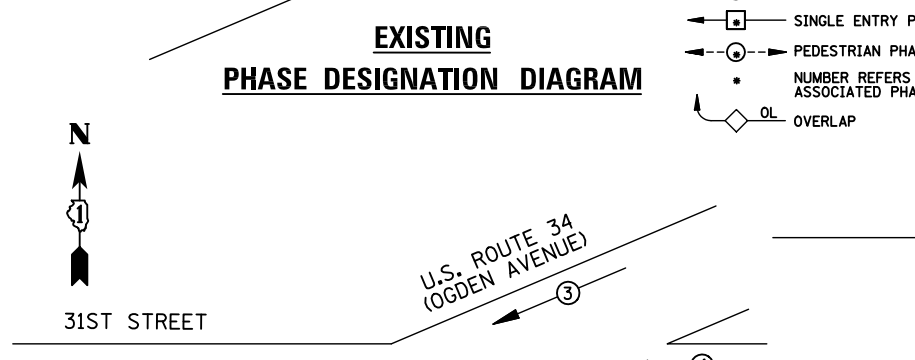
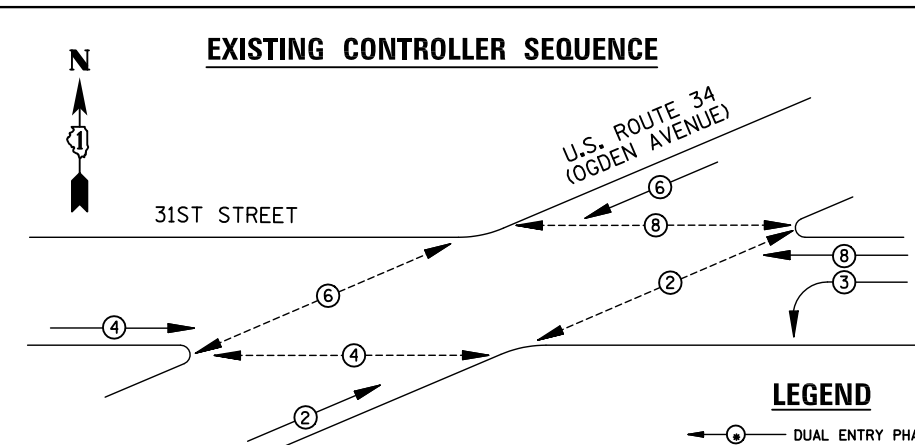
PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60504-9675
Ph: 630.862.2100 Fax: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN,
PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION
26TH STREET AT AUSTIN BOULEVARD

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	66
			CONTRACT NO. 60X29	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

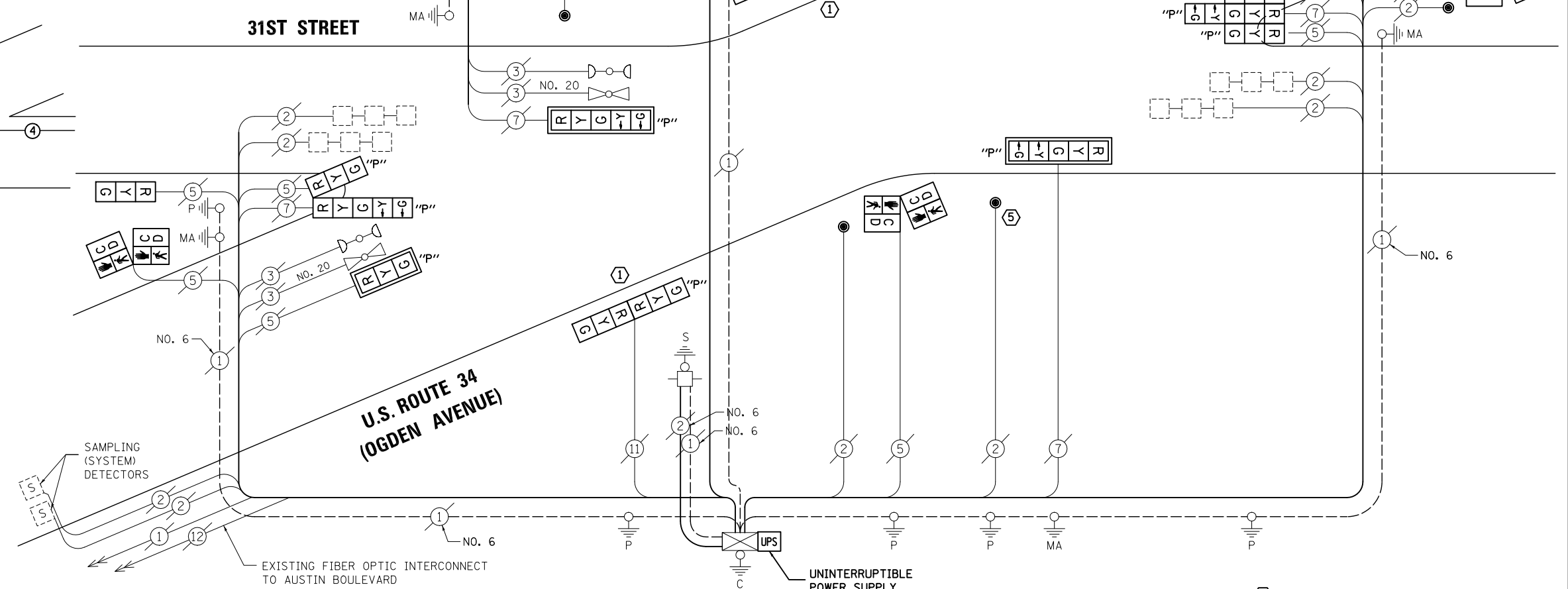
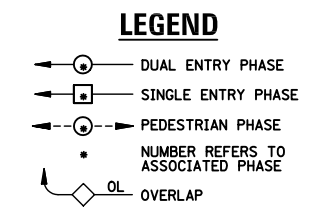


EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↔

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

- THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.
- 3 EACH TRAFFIC SIGNAL POST
 - 10 EACH SIGNAL HEAD, 3-SECTION
 - 4 EACH SIGNAL HEAD, 5-SECTION
 - 4 EACH TRAFFIC SIGNAL BACKPLATE
 - 8 EACH PEDESTRIAN SIGNAL HEAD
 - 6 EACH PEDESTRIAN PUSH-BUTTON



SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	2
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	2
OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	2
OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	1
COMBINATION SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION OPTICALLY PROGRAMMED, 1-3 SECTION, BRACKET MOUNTED	EACH	2
COMBINATION SIGNAL HEAD, LED, 3-FACE, 1-3 SECTION OPTICALLY PROGRAMMED, 1-5 SECTION OPTICALLY PROGRAMMED, 1-3 SECTION, BRACKET MOUNTED	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	4
PEDESTRIAN PUSH-BUTTON	EACH	6
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTIBLE POWER SUPPLY, SPECIAL	EACH	1

CABLE PLAN

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

- ① REPLACE 14 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION
 - ⑤ REPLACE 10 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION
- (SEE GENERAL NOTES)

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	%OPERATION	
SIGNAL (RED)	14	135	17	0.50	119
(YELLOW)	14	135	25	0.25	87.5
(GREEN)	14	135	15	0.25	52.5
ARROW	8	135	12	0.10	9.6
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 568.6
ENERGY SUPPLY	CONTACT: X				
	PHONE: X				
	COMPANY: X				

FILE NAME = \MICROST\352108\60-5555.DGN
USER NAME = JGC
DESIGNED - BPT
DRAWN - JGC/RDS
PLOT SCALE = NOT TO SCALE
PLOT DATE = X
CHECKED - BPT
DATE - 12-04-13

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION
U.S. ROUTE 34 (OGDEN AVENUE) AT 31ST STREET
SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

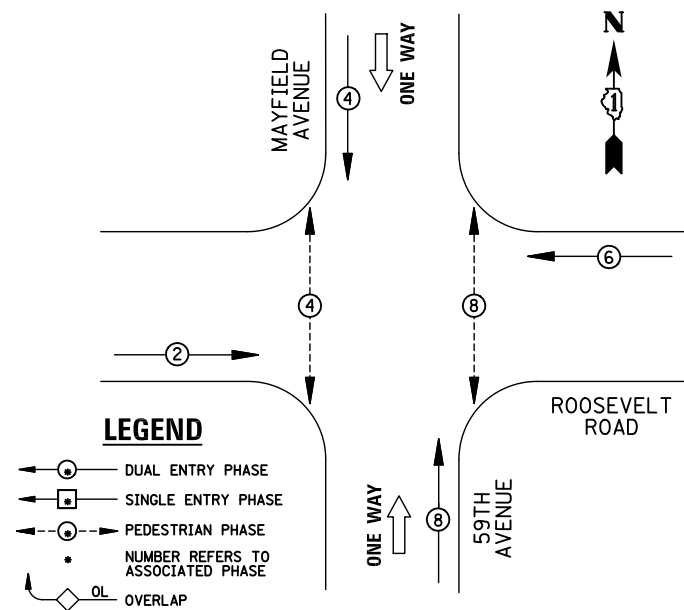
PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60504-9675
Ph: 630.862.2100 Fax: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	67

CONTRACT NO. 60X29
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

TS# 5555
CICERO

EXISTING CONTROLLER SEQUENCE

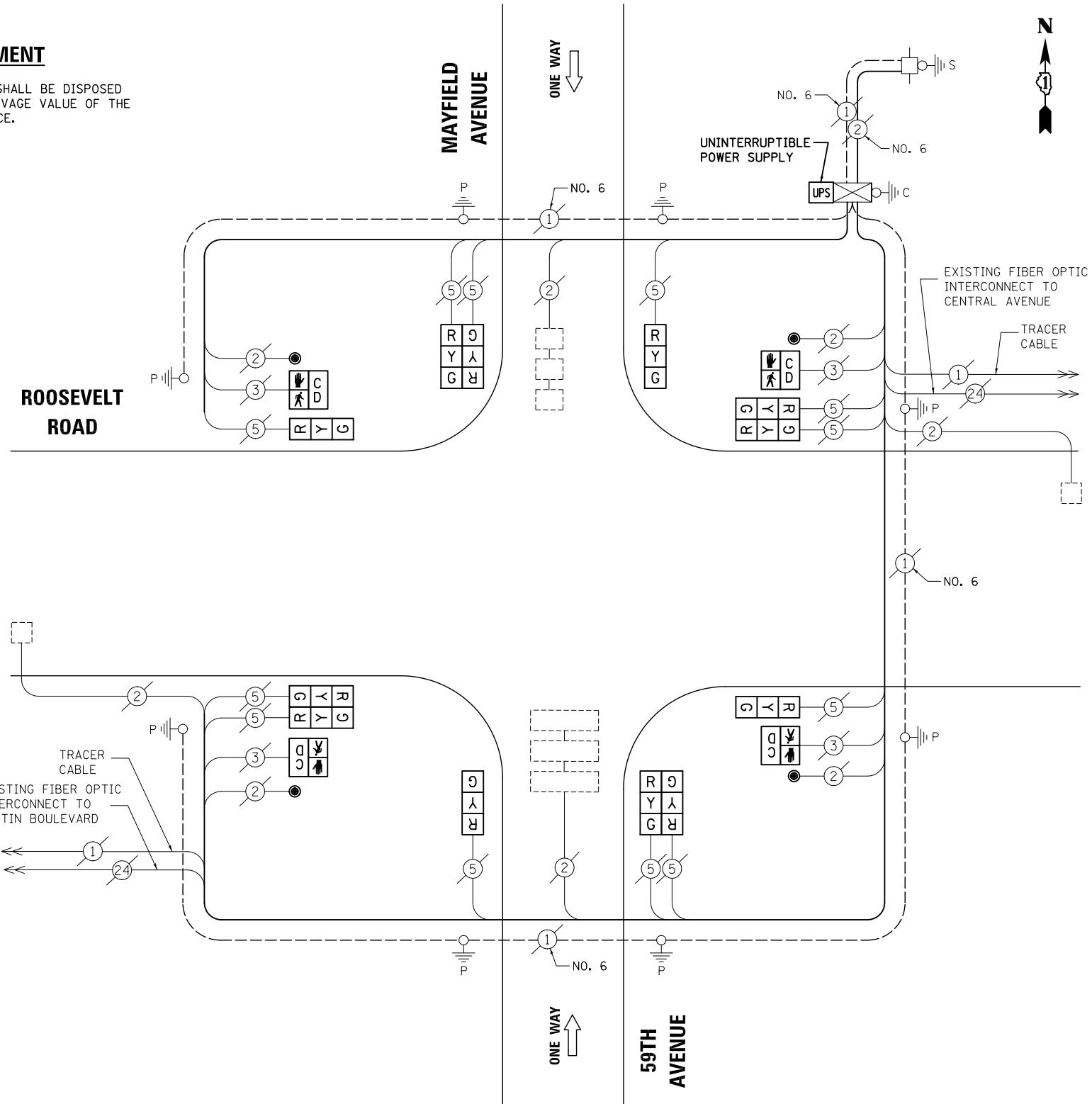


EXISTING PHASE DESIGNATION DIAGRAM

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 4 EACH PEDESTRIAN SIGNAL HEAD
- 4 EACH PEDESTRIAN PUSH-BUTTON



CABLE PLAN

RETROFIT ALL VEHICULAR SIGNAL HEADS TO L.E.D.

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
PEDESTRIAN PUSH-BUTTON	EACH	4
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTIBLE POWER SUPPLY, SPECIAL	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	4
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	4

UNIT	QUANTITY
EACH	1
EACH	4
EACH	4
EACH	1
EACH	1
EACH	4
EACH	4

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

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE		%OPERATION	
		INCAND.	LED		
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW		135	12	0.10	
PED. SIGNAL	4	90	25	1.00	100
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
FLASHER		135	25	0.50	
ENERGY COSTS TO:					TOTAL = 422
ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					
ENERGY SUPPLY	CONTACT:	X			
	PHONE:	X			
	COMPANY:	X			

FILE NAME = \MICROST\352108\61-5745.DGN	USER NAME = JGC	DESIGNED - BPT	REVISED -
		DRAWN - JGC/RDS	REVISED -
	PLOT SCALE = NOT TO SCALE	CHECKED - BPT	REVISED -
	PLOT DATE = X	DATE - 12-04-13	REVISED -

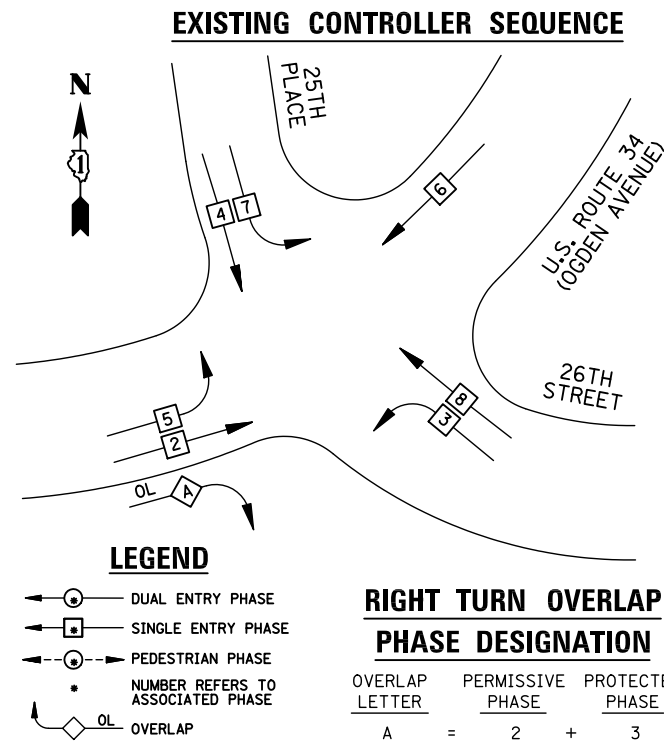
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM			
ROOSEVELT ROAD AT MAYFIELD AVENUE / 59TH AVENUE			
SCALE: N.T.S.	SHEET NO.	OF SHEETS	STA. TO STA.

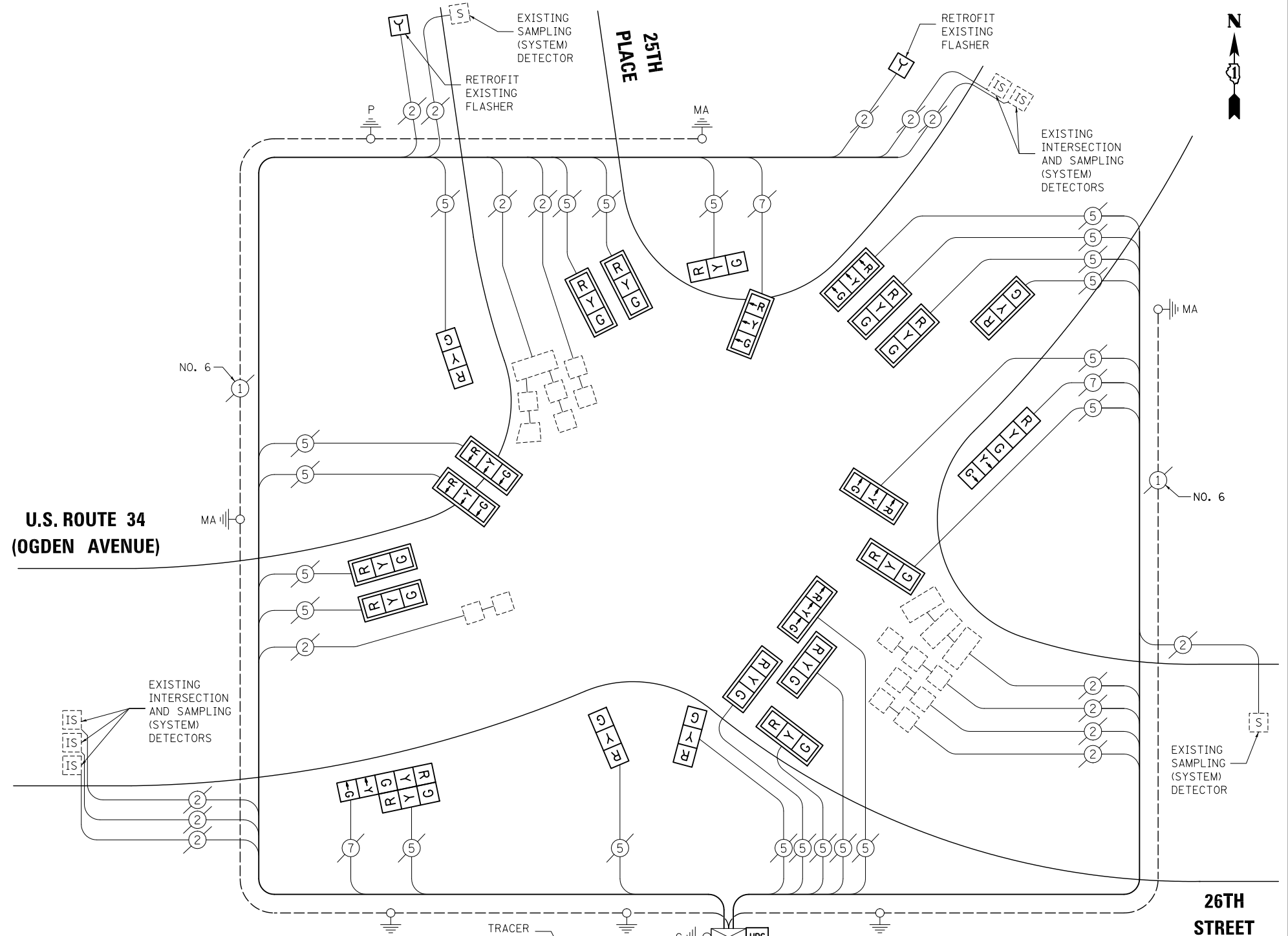
PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60504-9675
Ph: 630.862.2100 Fax: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	68
CONTRACT NO. 60X29				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

TS# 5745
CICERO



EXISTING PHASE DESIGNATION DIAGRAM



SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
UNINTERRUPTIBLE POWER SUPPLY, SPECIAL	EACH	1
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED, RETROFIT	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	4
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	14
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT	EACH	1
SIGNAL HEAD, LED, 1-SECTION, POST MOUNTED, RETROFIT	EACH	2
SIGNAL HEAD, LED, 3-SECTION, HORIZONTAL MOUNTED, RETROFIT	EACH	3

CABLE PLAN

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

RETROFIT ALL VEHICULAR SIGNAL HEADS TO L.E.D.

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	%OPERATION	
SIGNAL (RED)	24	135	17	0.50	204
(YELLOW)	24	135	25	0.25	150
(GREEN)	24	135	15	0.25	90
ARROW	4	135	12	0.10	4.8
PED. SIGNAL		90	25	1.00	
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
FLASHER	2	135	25	0.50	25
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 573.8
ENERGY SUPPLY CONTACT:	X				
PHONE:	X				
COMPANY:	X				

FILE NAME = \MICROST\352108\62-5556.DGN
USER NAME = JGC
DESIGNED - BPT
DRAWN - JGC/RDS
PLOT SCALE = NOT TO SCALE
PLOT DATE = X

REVISIONS:
REVISED -
REVISED -
REVISED -
REVISED -
DATE - 12-04-13

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM
U.S. ROUTE 34 (OGDEN AVENUE) AT 25TH PLACE / 26TH STREET
SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60504-9675
Ph: 630.862.2100 Fax: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	69

CONTRACT NO. 60X29
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

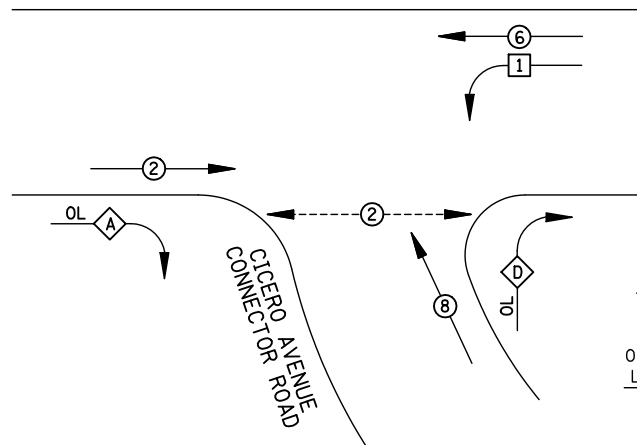
TS# 5556
CICERO

EXISTING CONTROLLER SEQUENCE

LEGEND

- ⊙ DUAL ENTRY PHASE
- ⊠ SINGLE ENTRY PHASE
- ⊖ PEDESTRIAN PHASE
- NUMBER REFERS TO ASSOCIATED PHASE
- OL OVERLAP

U.S. ROUTE 34
(OGDEN AVENUE)



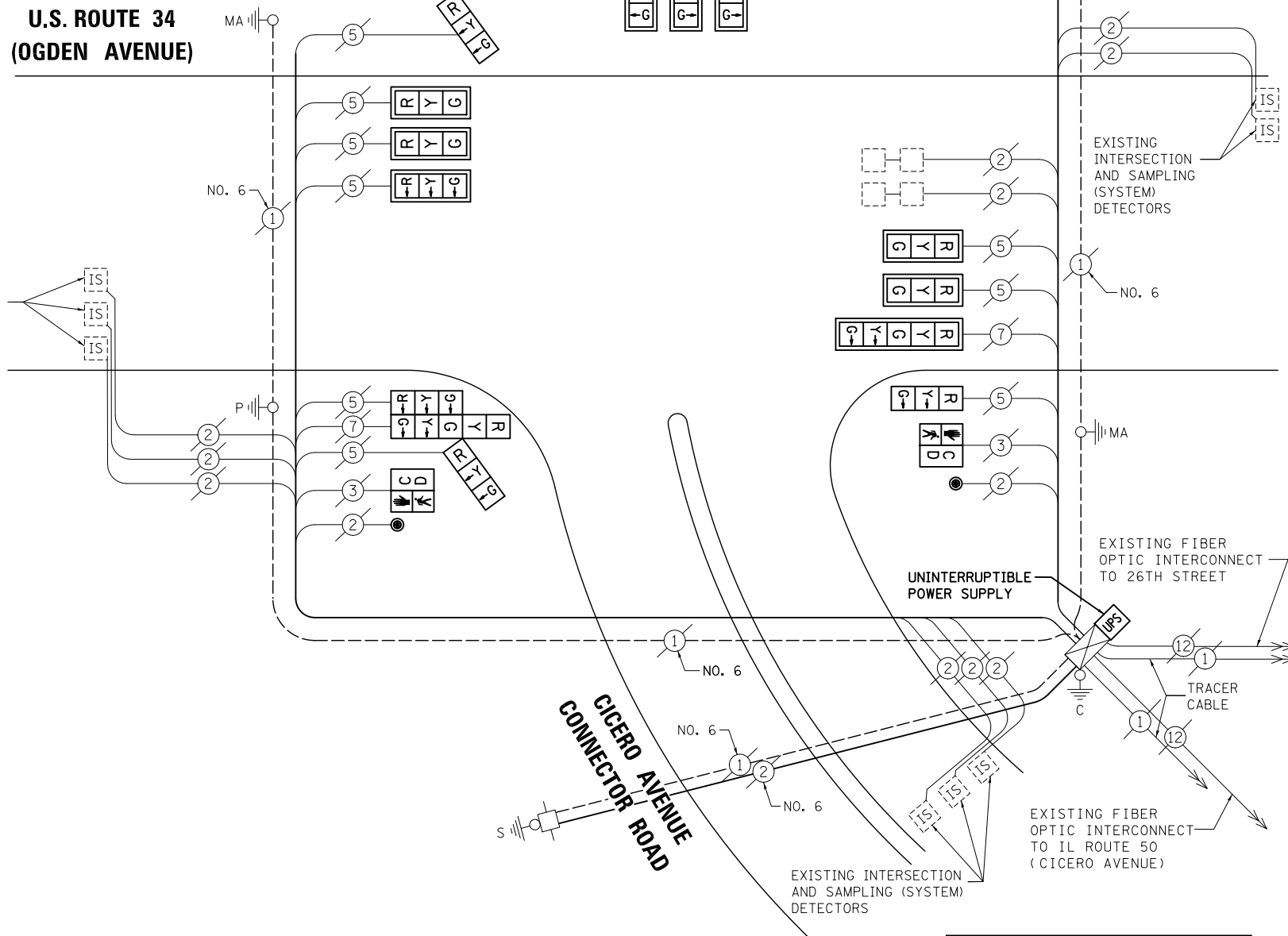
EXISTING PHASE DESIGNATION DIAGRAM

RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A	= 2	+ 8
D	= 6	+ 1

U.S. ROUTE 34
(OGDEN AVENUE)

EXISTING INTERSECTION AND SAMPLING (SYSTEM) DETECTORS



CABLE PLAN

RETROFIT ALL VEHICULAR SIGNAL HEADS TO L.E.D.

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

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	%OPERATION	
SIGNAL (RED)	16	135	17	0.50	136
(YELLOW)	16	135	25	0.25	100
(GREEN)	16	135	15	0.25	60
ARROW	4	135	12	0.10	4.8
PED. SIGNAL	2	90	25	1.00	50
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 450.8
ENERGY SUPPLY CONTACT: X					
PHONE: X					
COMPANY: X					

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
PEDESTRIAN PUSH-BUTTON	EACH	2
MODIFY EXISTING CONTROLLER CABINET	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
SIGNAL HEAD, LED, 3-FACE, 2-3 SECTION, 1-5 SECTION, BRACKET MOUNTED, RETROFIT	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	2
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED, RETROFIT	EACH	8
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED, RETROFIT	EACH	1
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	1

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM
U.S. ROUTE 34 (OGDEN AVENUE) AT CICERO AVENUE CONNECTOR ROAD
SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

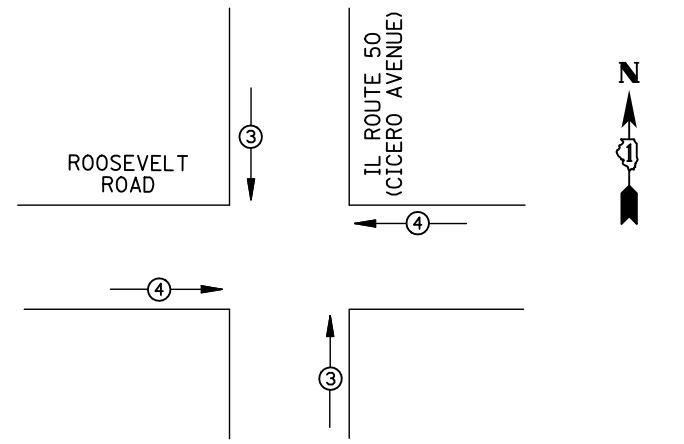
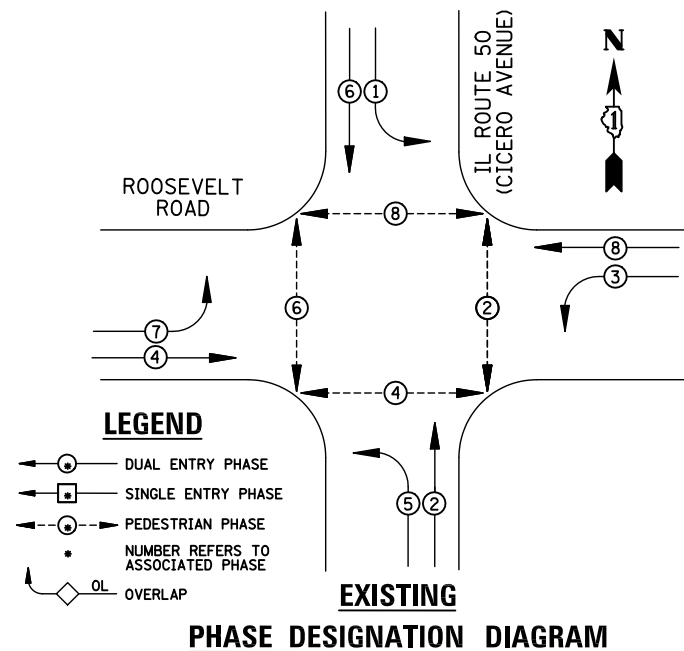
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	70

CONTRACT NO. 60X29
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60504-9675
Ph: 630.862.2100 Fax: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com

TS# 5558
CICERO

EXISTING CONTROLLER SEQUENCE

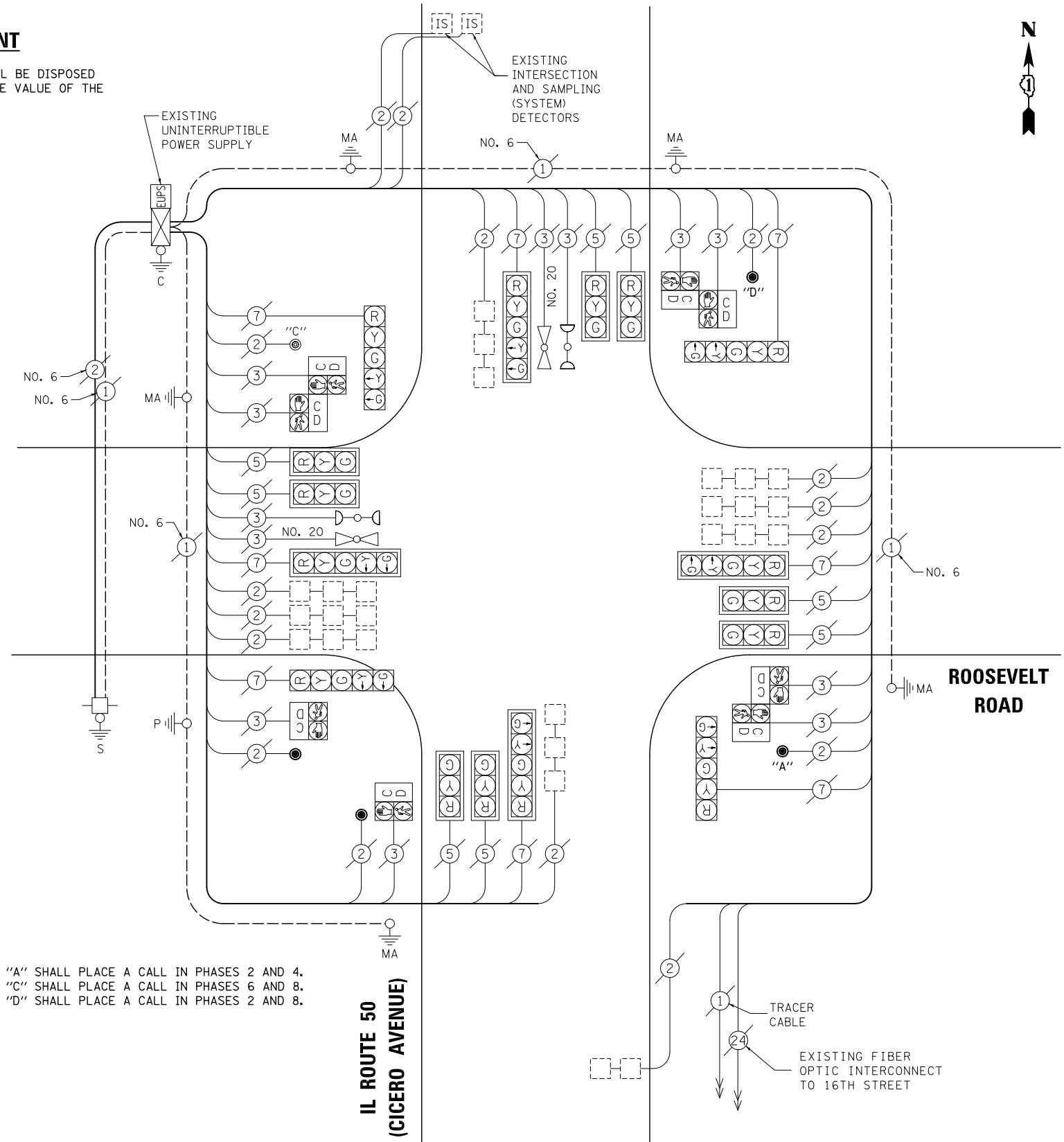


EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	
MOVEMENT	↑	→	

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 4 EACH PEDESTRIAN PUSH-BUTTON



NOTE:

PUSH-BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4.
 PUSH-BUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8.
 PUSH-BUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8.

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
PEDESTRIAN PUSH-BUTTON, NON-LATCHING	EACH	4

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. LAMPS	WATTAGE		%OPERATION	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	16	135	17	0.50	136
(YELLOW)	16	135	25	0.25	100
(GREEN)	16	135	15	0.25	60
ARROW	16	135	12	0.10	19.2
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 615.2
ENERGY SUPPLY CONTACT: X					
PHONE: X					
COMPANY: X					
FILE NAME =	USER NAME = JGC				
DESIGNED - BPT	REVISED -				
DRAWN - JGC/RDS	REVISED -				
CHECKED - BPT	REVISED -				
DATE - 12-04-13	REVISED -				

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION IL ROUTE 50 (CICERO AVENUE) AT ROOSEVELT ROAD

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

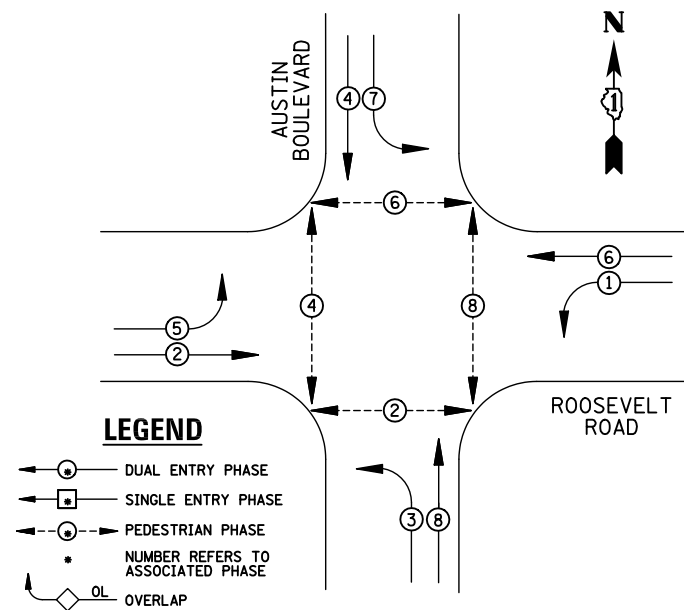
PREPARED BY:
CEMCON, Ltd.
 Consulting Engineers, Land Surveyors & Planners
 2280 White Oak Circle, Suite 100
 Aurora, Illinois 60504-9675
 Ph: 630.862.2100 Fax: 630.862.2199
 E-Mail: cadd@cemcon.com Website: www.cemcon.com

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	71
CONTRACT NO. 60X29				

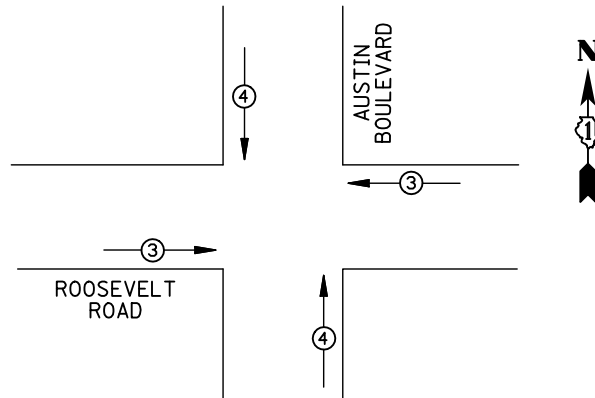
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

TS# 2610
CICERO

EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM



EXISTING EMERGENCY VEHICLE AND BUS PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	
MOVEMENT	←→	↑↓	

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 2 EACH TRAFFIC SIGNAL POST
- 4 EACH SIGNAL HEAD, 3-SECTION
- 8 EACH SIGNAL HEAD, 5-SECTION
- 8 EACH TRAFFIC SIGNAL BACKPLATE
- 8 EACH PEDESTRIAN SIGNAL HEAD
- 4 EACH PEDESTRIAN PUSH-BUTTON

- ③ REPLACE 16 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION (SEE GENERAL NOTES)

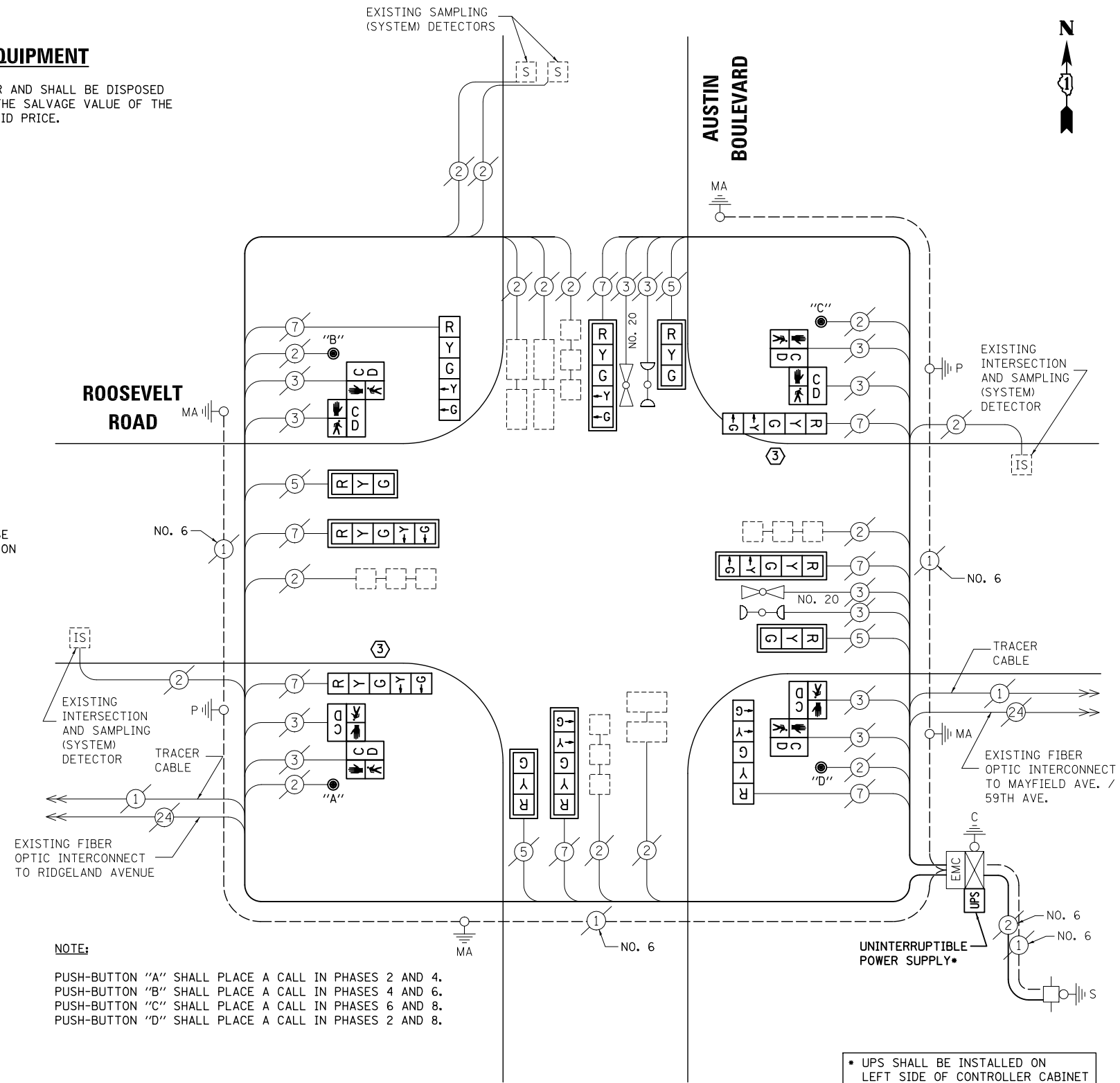
SCHEDULE OF QUANTITIES

ITEM

MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
 TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
 SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
 SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED
 SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
 PEDESTRIAN SIGNAL HEAD, LED, 2-FACE BRACKET MOUNTED WITH COUNTDOWN TIMER
 TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
 MODIFY EXISTING CONTROLLER CABINET
 REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
 UNINTERRUPTIBLE POWER SUPPLY, SPECIAL
 PEDESTRIAN PUSH-BUTTON, NON-LATCHING

UNIT	QUANTITY
EACH	1
EACH	2
EACH	4
EACH	4
EACH	4
EACH	4
EACH	4
EACH	8
EACH	1
EACH	1
EACH	1
EACH	4

EXISTING SAMPLING (SYSTEM) DETECTORS



NOTE:

PUSH-BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4.
 PUSH-BUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6.
 PUSH-BUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8.
 PUSH-BUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8.

CABLE PLAN

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

• UPS SHALL BE INSTALLED ON LEFT SIDE OF CONTROLLER CABINET DUE TO PHYSICAL CONSTRAINT, OR AS DIRECTED BY THE ENGINEER.

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	%OPERATION	
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	16	135	12	0.10	19.2
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	2	100	100	1.00	200
ILLUM. SIGN		84	100	0.50	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 641.2
ENERGY SUPPLY	CONTACT: X				
	PHONE: X				
	COMPANY: X				

DESIGNED - BPT	REVISED -
DRAWN - JGC/RDS	REVISED -
CHECKED - BPT	REVISED -
DATE - 12-04-13	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES, CABLE PLAN,
PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION
ROOSEVELT ROAD AT AUSTIN BOULEVARD**

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

TS# 5730
CICERO/CHICAGO

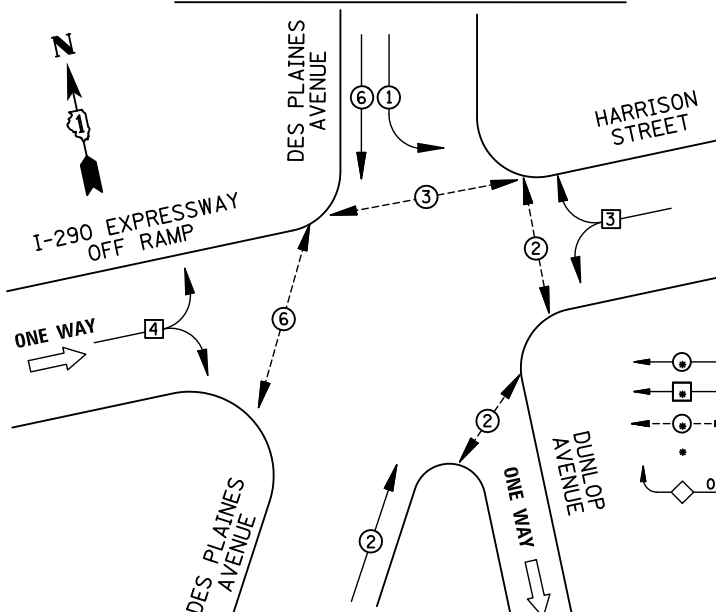
PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60504-9675
Ph: 630.862.2100 Fax: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	72

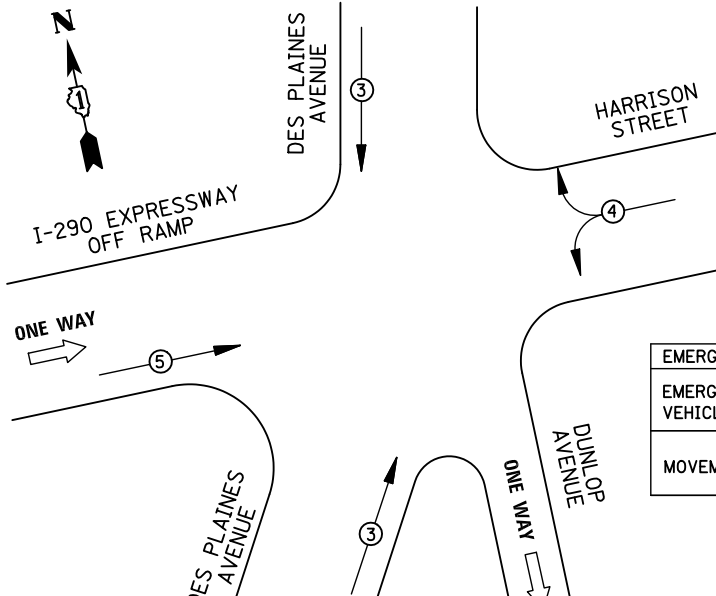
CONTRACT NO. 60X29

FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM



EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 8 EACH PEDESTRIAN SIGNAL HEAD
- 6 EACH PEDESTRIAN PUSH-BUTTON

LEGEND

- ◀ ○ ▶ DUAL ENTRY PHASE
- ◀ □ ▶ SINGLE ENTRY PHASE
- ◀ ○ ▶ PEDESTRIAN PHASE
- NUMBER REFERS TO ASSOCIATED PHASE
- ◊ OL OVERLAP

EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	5
MOVEMENT	↑ ↓	↔	↕

SCHEDULE OF QUANTITIES

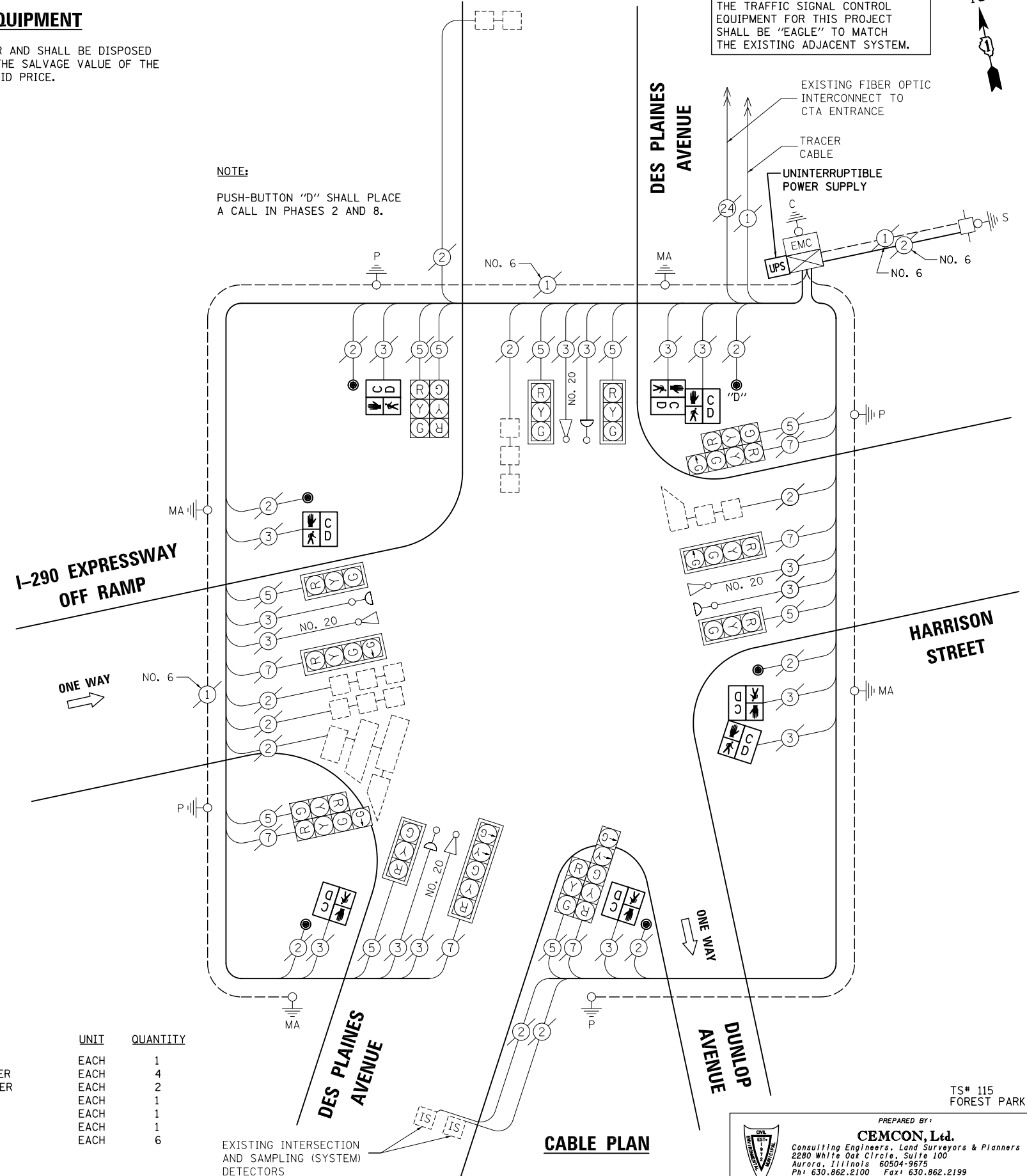
ITEM

- MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
- PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
- PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
- MODIFY EXISTING CONTROLLER CABINET
- REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
- UNINTERRUPTIBLE POWER SUPPLY, SPECIAL
- PEDESTRIAN PUSH-BUTTON, NON-LATCHING

UNIT	QUANTITY
EACH	1
EACH	4
EACH	2
EACH	1
EACH	1
EACH	1
EACH	6

NOTE:
PUSH-BUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8.

I-290 EXPRESSWAY OFF RAMP



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

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE		%OPERATION	
		INCAND.	LED		
SIGNAL (RED)	16	135	17	0.50	136
(YELLOW)	16	135	25	0.25	100
(GREEN)	16	135	15	0.25	60
ARROW	8	135	12	0.10	9.6
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	2	100	100	1.00	200
ILLUM. SIGN		84	100	0.50	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 705.6
ENERGY SUPPLY	CONTACT: X				
	PHONE: X				
	COMPANY: X				

FILE NAME = \MICROST\352108\ 66-115.DGN
USER NAME = JGC
DESIGNED - BPT
DRAWN - JGC/RDS
PLOT SCALE = NOT TO SCALE
CHECKED - BPT
PLOT DATE = X
REVISOR -
REVISED -
REVISOR -
REVISED -
DATE - 12-04-13
REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES, CABLE PLAN,
PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION
DES PLAINES AVENUE AT HARRISON ST./I-290 EXPRESSWAY OFF RAMP**
SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

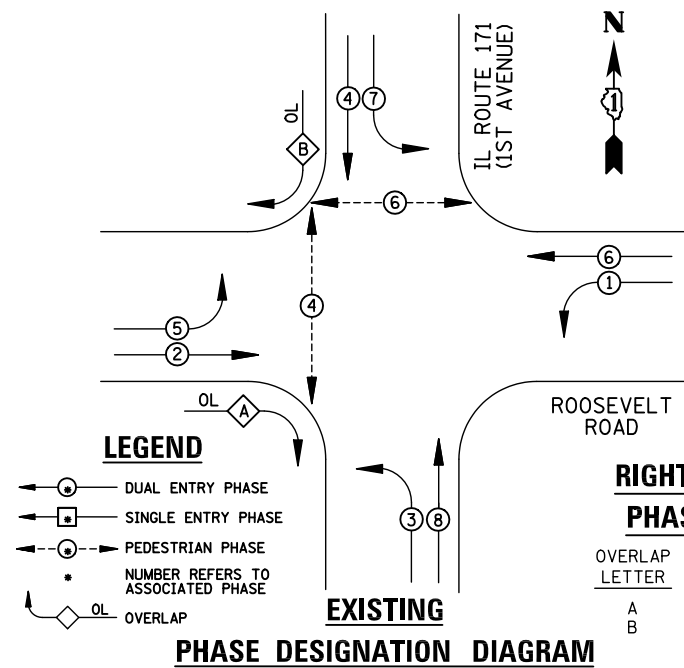
PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60504-9675
Ph: 630.862.2100 Fax: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	73

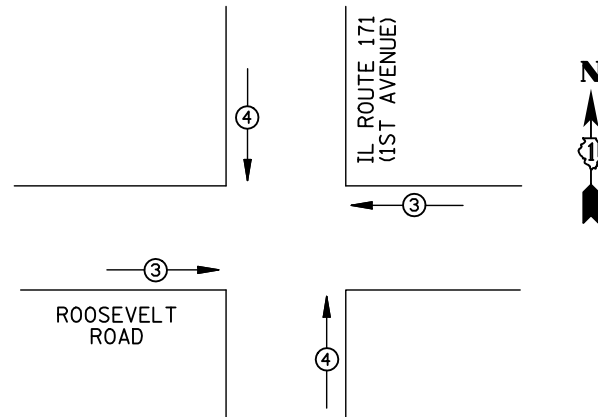
CONTRACT NO. 60X29
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

TS# 115
FOREST PARK

EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTORS

EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	← →	↑ ↓

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS						TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	%OPERATION		
SIGNAL (RED)	16	135	17	0.50		136
(YELLOW)	16	135	25	0.25		100
(GREEN)	16	135	15	0.25		60
ARROW	24	135	12	0.10		28.8
PED. SIGNAL	4	90	25	1.00		100
CONTROLLER	2	100	100	1.00		200
ILLUM. SIGN		84	100	0.50		
FLASHER		135	25	0.50		
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL =	624.8
ENERGY SUPPLY	CONTACT: X					
	PHONE: X					
	COMPANY: X					

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

3 EACH TRAFFIC SIGNAL POST

SCHEDULE OF QUANTITIES

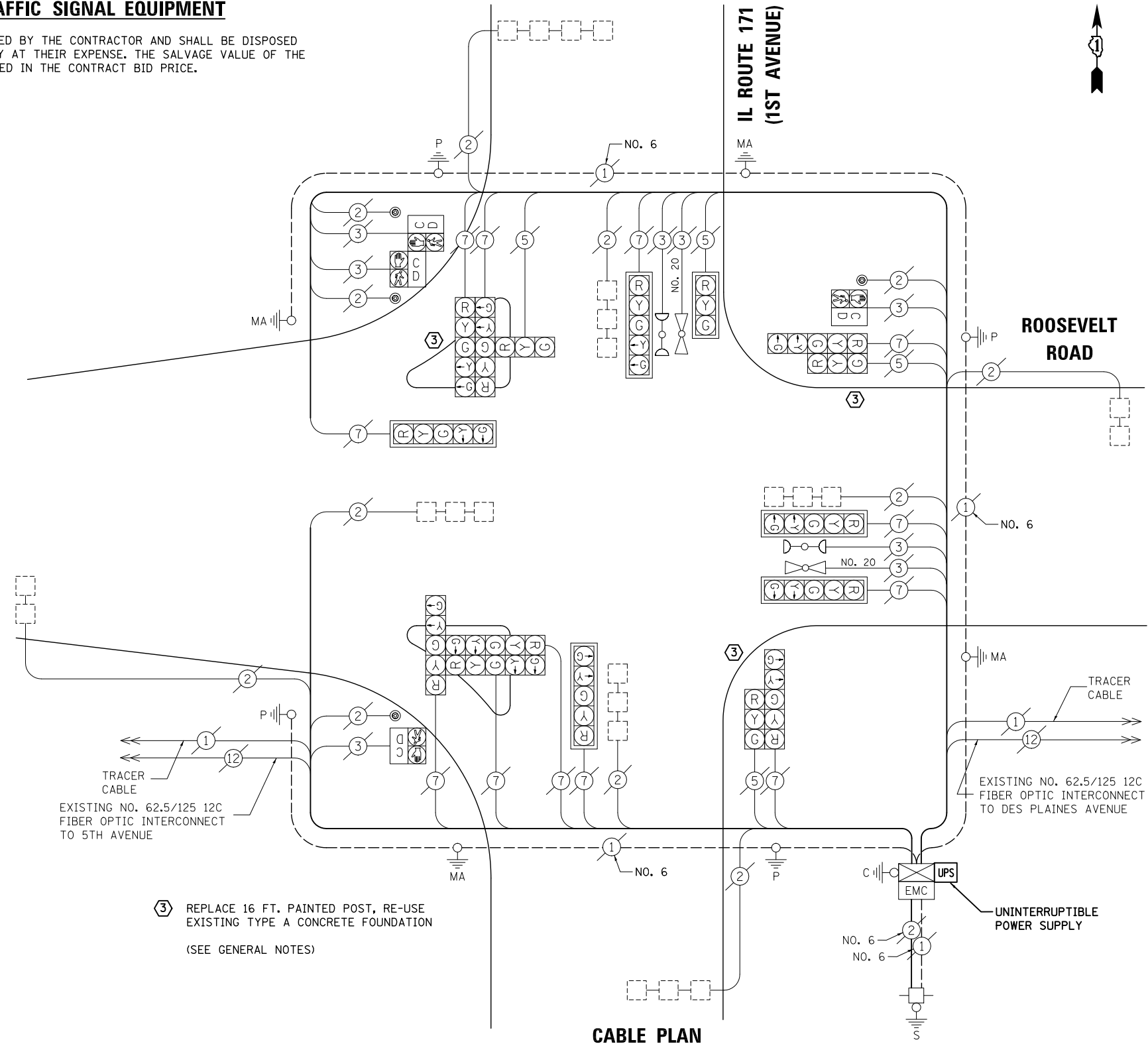
ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	3
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DESIGNED - BPT	REVISED -
DRAWN - JGC/RDS	REVISED -
CHECKED - BPT	REVISED -
DATE - 12-04-13	REVISED -

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION
ROOSEVELT ROAD AT IL ROUTE 171 (1ST AVENUE)

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.



CABLE PLAN

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

PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
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Aurora, Illinois 60504-9675
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E-Mail: cadd@cemcon.com Website: www.cemcon.com

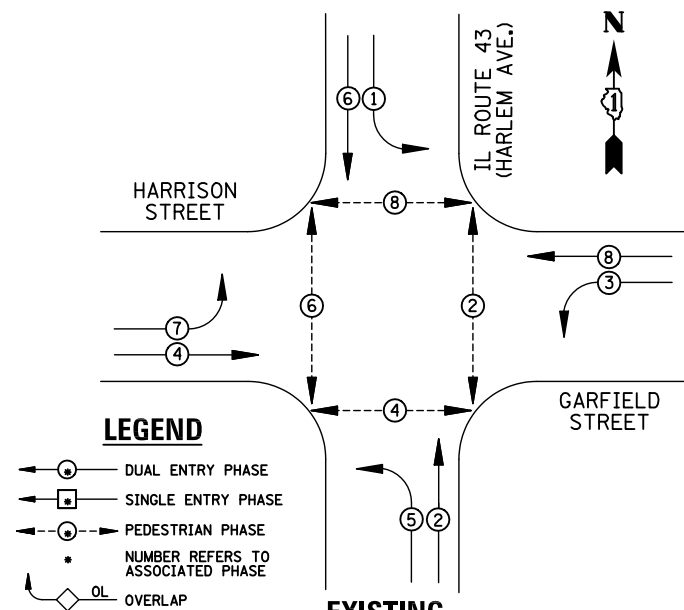
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	74

CONTRACT NO. 60X29

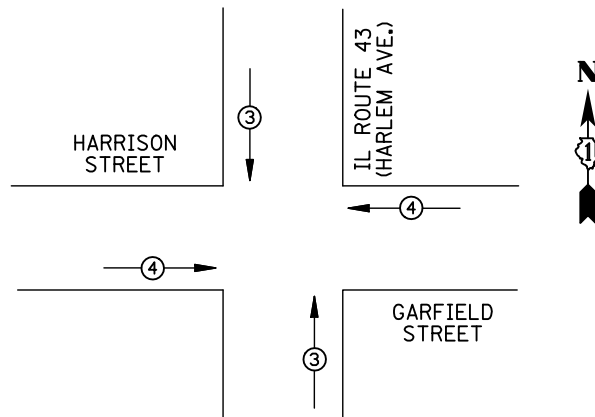
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

TS# 3650
FOREST PARK

EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	
MOVEMENT	↓ ↑	→ ←	

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. LAMPS	WATTAGE		%OPERATION	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	16	135	12	0.10	19.2
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 541.2
ENERGY SUPPLY	CONTACT: X				
	PHONE: X				
	COMPANY: X				
FILE NAME = MICROST\352108\ 68-2315.DGN	USER NAME = JGC	DESIGNED - BPT	REVISED -		
		DRAWN - JGC/RDS	REVISED -		
	PLOT SCALE = NOT TO SCALE	CHECKED - BPT	REVISED -		
	PLOT DATE = X	DATE - 12-04-13	REVISED -		

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 8 EACH PEDESTRIAN SIGNAL HEAD
- 4 EACH PEDESTRIAN PUSH-BUTTON

NOTE:

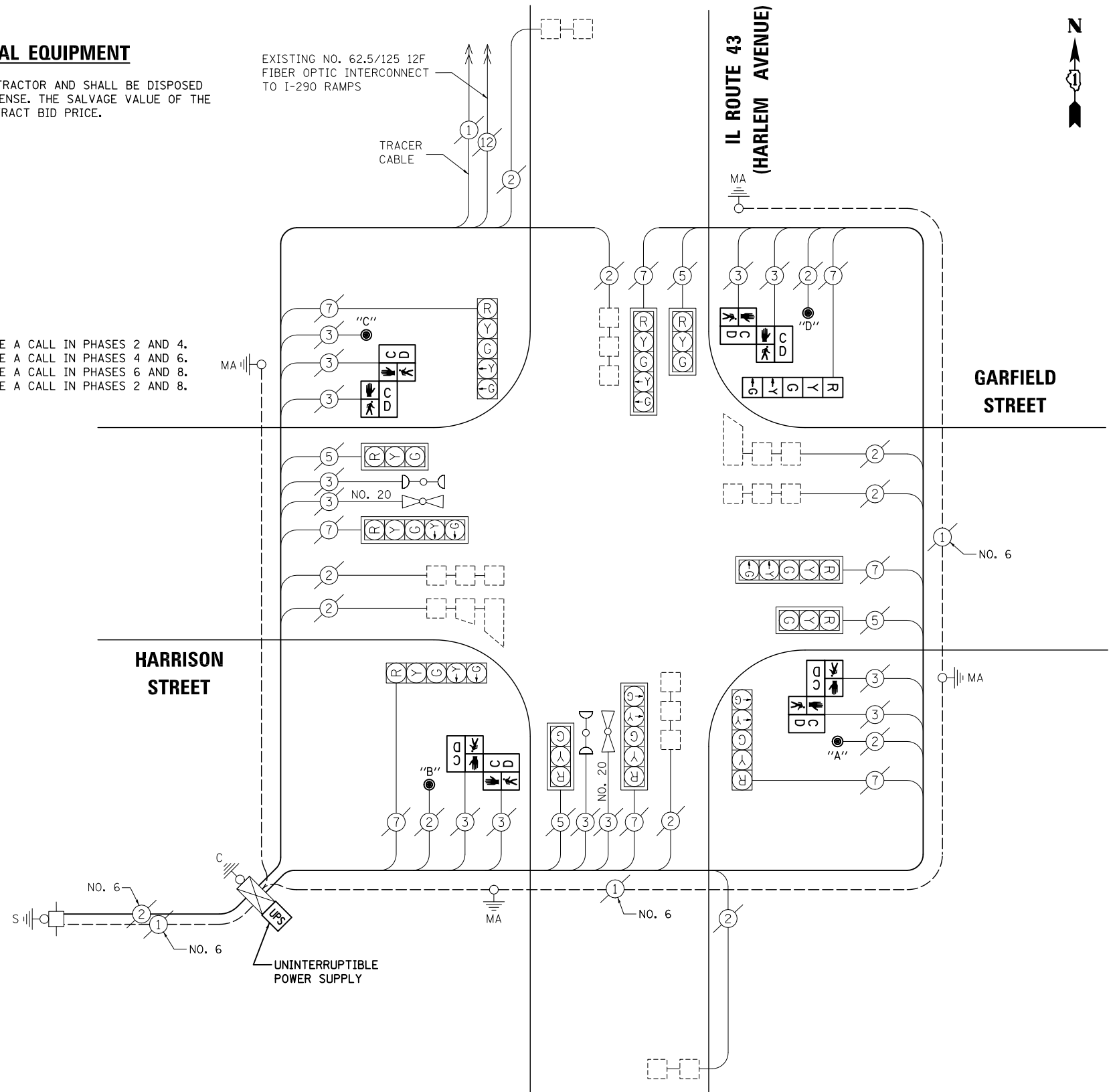
PUSH-BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4.
 PUSH-BUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6.
 PUSH-BUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8.
 PUSH-BUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8.

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTIBLE POWER SUPPLY, SPECIAL	EACH	1
PEDESTRIAN PUSH-BUTTON, NON-LATCHING	EACH	4

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING NO. 62.5/125 12F
FIBER OPTIC INTERCONNECT
TO I-290 RAMPS



CABLE PLAN

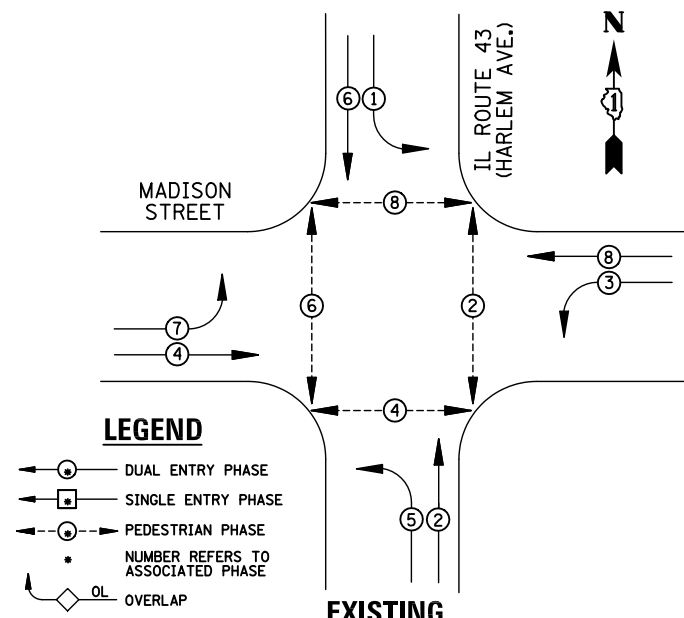
NOTE:
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION IL ROUTE 43 (HARLEM AVENUE) AT GARFIELD STREET / HARRISON STREET			
SCALE: N.T.S.	SHEET NO.	OF SHEETS	STA. TO STA.

PREPARED BY: CEMCON, Ltd. Consulting Engineers, Land Surveyors & Planners 2280 White Oak Circle, Suite 100 Aurora, Illinois 60504-9675 Ph: 630.862.2100 Fax: 630.862.2199 E-Mail: cadd@cemcon.com Website: www.cemcon.com			
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS
VAR.	2013-054TS	COOK	92
			SHEET NO. 75
CONTRACT NO. 60X29			
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			

TS# 2315
FOREST PARK

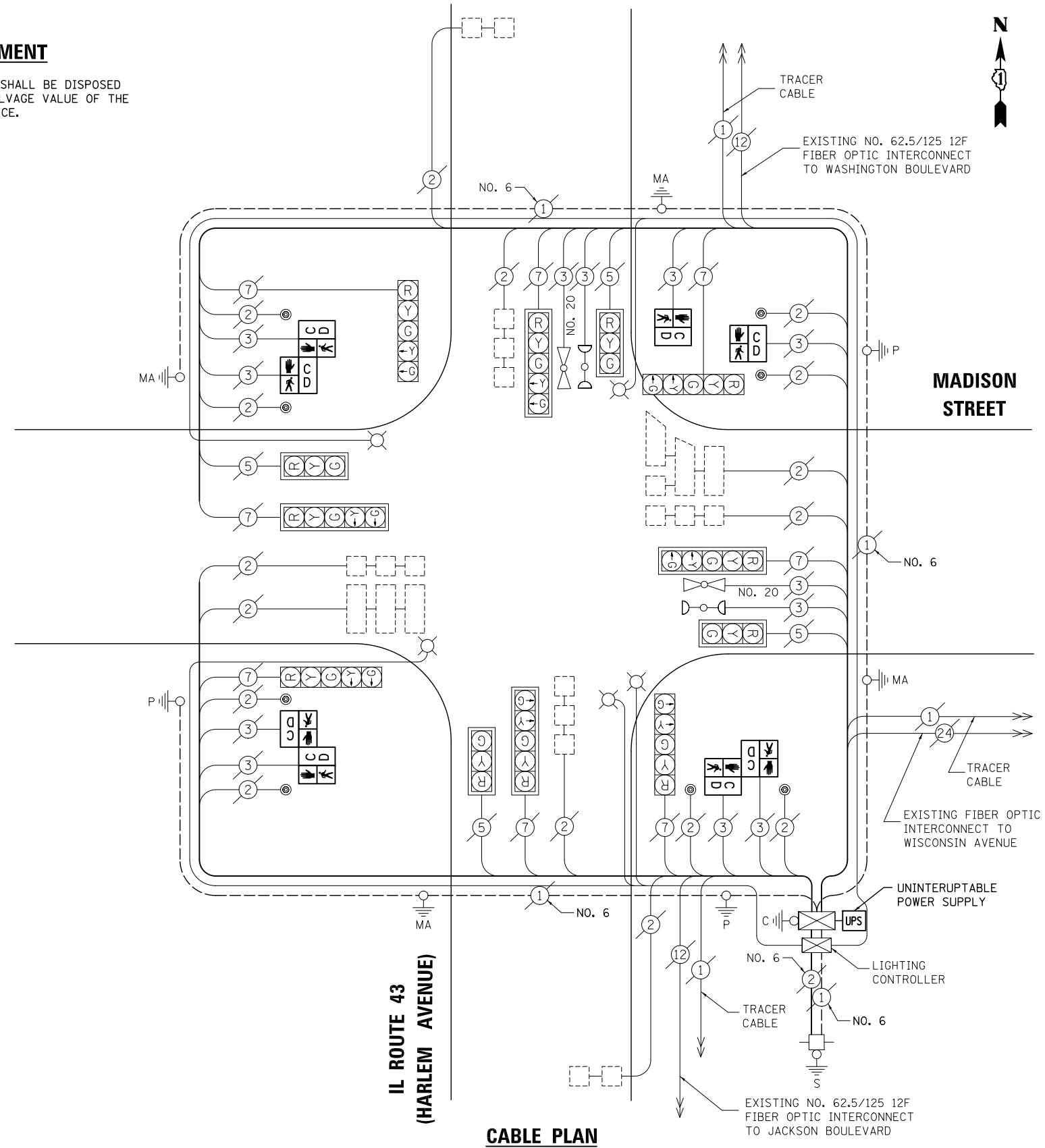
EXISTING CONTROLLER SEQUENCE



REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 8 EACH PEDESTRIAN SIGNAL HEAD



SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	3
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTIBLE POWER SUPPLY, GROUND MOUNTED	EACH	1

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. LAMPS	WATTAGE		%OPERATION	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	14	135	12	0.10	16.8
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 538.8
ENERGY SUPPLY	CONTACT: X				
	PHONE: X				
	COMPANY: X				
FILE NAME = MICROST\352108\ 69-2370.DGN	USER NAME = JGC	DESIGNED - BPT	REVISED -		
		DRAWN - JGC/RDS	REVISED -		
	PLOT SCALE = NOT TO SCALE	CHECKED - BPT	REVISED -		
	PLOT DATE = X	DATE - 12-04-13	REVISED -		

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES, CABLE PLAN,
PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION
IL ROUTE 43 (HARLEM AVENUE) AT MADISON STREET**

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

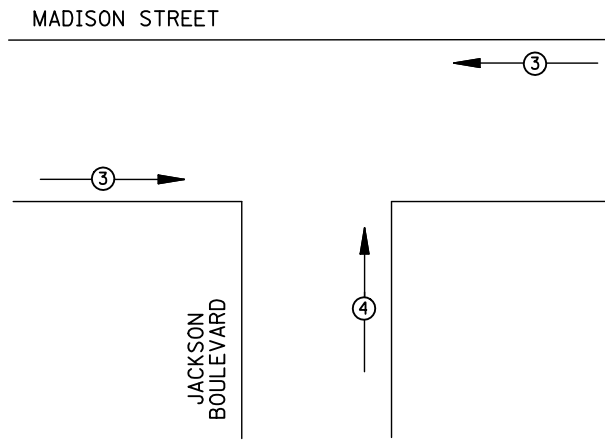
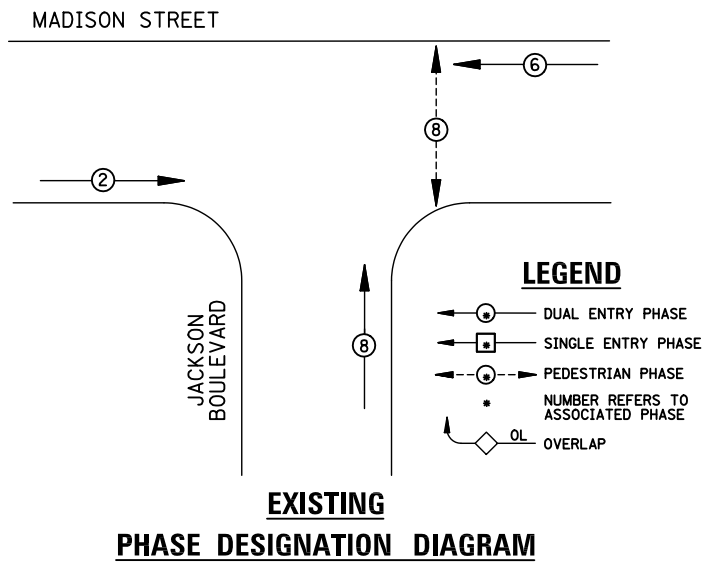
NOTE:
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60504-9675
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E-Mail: cadd@cemcon.com Website: www.cemcon.com

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	76
				CONTRACT NO. 60X29
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

TS# 2370
FOREST PARK

EXISTING CONTROLLER SEQUENCE



EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	
MOVEMENT	←→	↑	

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	%OPERATION	TOTAL WATTAGE
SIGNAL (RED)	9	135	17	0.50	76.5
(YELLOW)	9	135	25	0.25	56.25
(GREEN)	9	135	15	0.25	33.75
ARROW		135	12	0.10	
PED. SIGNAL	2	90	25	1.00	50
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 316.5
ENERGY SUPPLY CONTACT:	X				
PHONE:	X				
COMPANY:	X				
FILE NAME = MICROST\352108\ 70-5460.DGN	USER NAME = JGC	DESIGNED - BPT	REVISED -		
	PLOT SCALE = NOT TO SCALE	DRAWN - JGC/RDS	REVISED -		
	PLOT DATE = X	CHECKED - BPT	REVISED -		
		DATE - 12-04-13	REVISED -		

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

2 EACH PEDESTRIAN SIGNAL HEAD
2 EACH PEDESTRIAN PUSH-BUTTON

SCHEDULE OF QUANTITIES

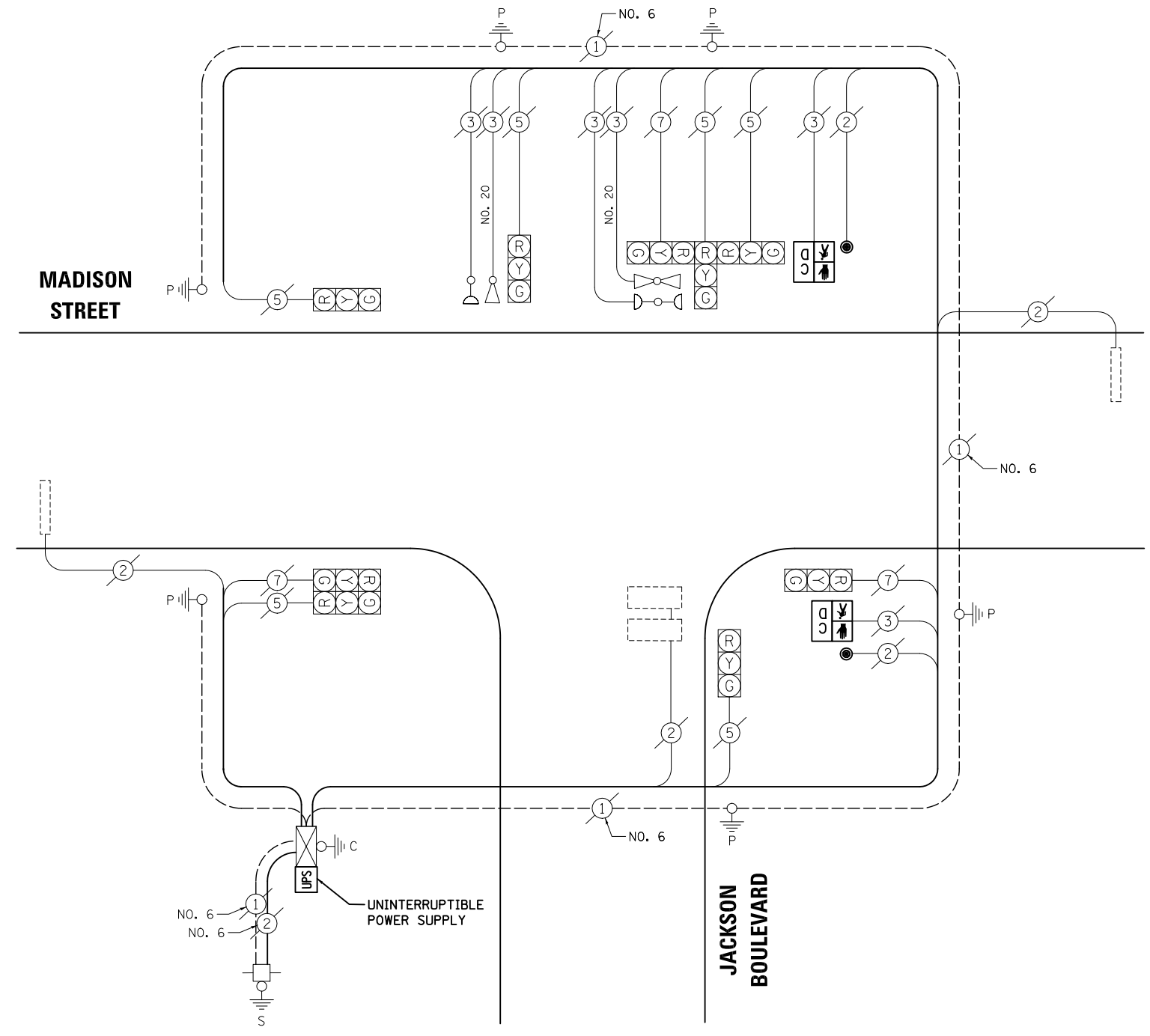
ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
PEDESTRIAN PUSH-BUTTON	EACH	2
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

UNIT	QUANTITY
EACH	1
EACH	2
EACH	2
EACH	1
EACH	1
EACH	1

**SCHEDULE OF QUANTITIES, CABLE PLAN,
PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION
MADISON STREET AT JACKSON BOULEVARD**

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.



CABLE PLAN

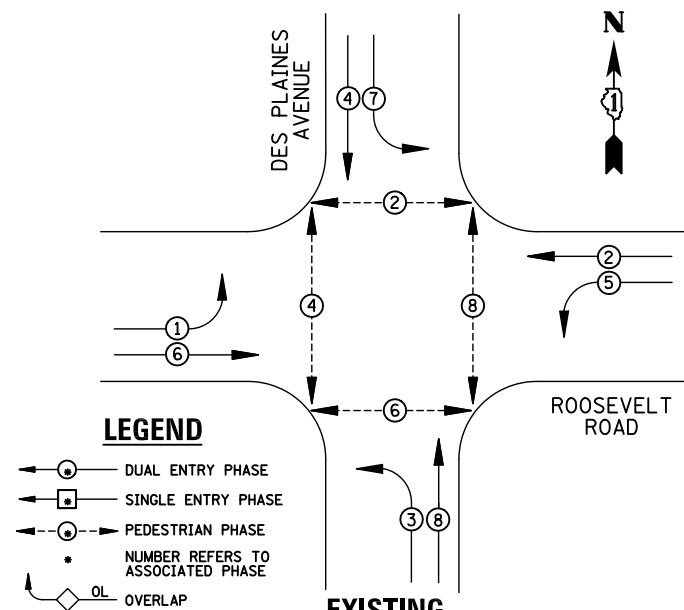
NOTE:
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60504-9675
Ph: 630.862.2100 Fax: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com

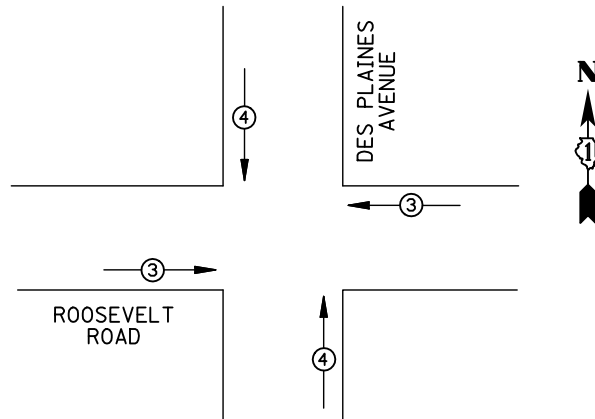
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	77
CONTRACT NO. 60X29				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

TS# 5460
FOREST PARK

EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	
MOVEMENT	←→	↑↓	

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	%OPERATION	TOTAL WATTAGE
SIGNAL (RED)	16	135	17	0.50	136
(YELLOW)	16	135	25	0.25	100
(GREEN)	16	135	15	0.25	60
ARROW	16	135	12	0.10	19.2
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 615.2
ENERGY SUPPLY	CONTACT: X				
	PHONE: X				
	COMPANY: X				

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

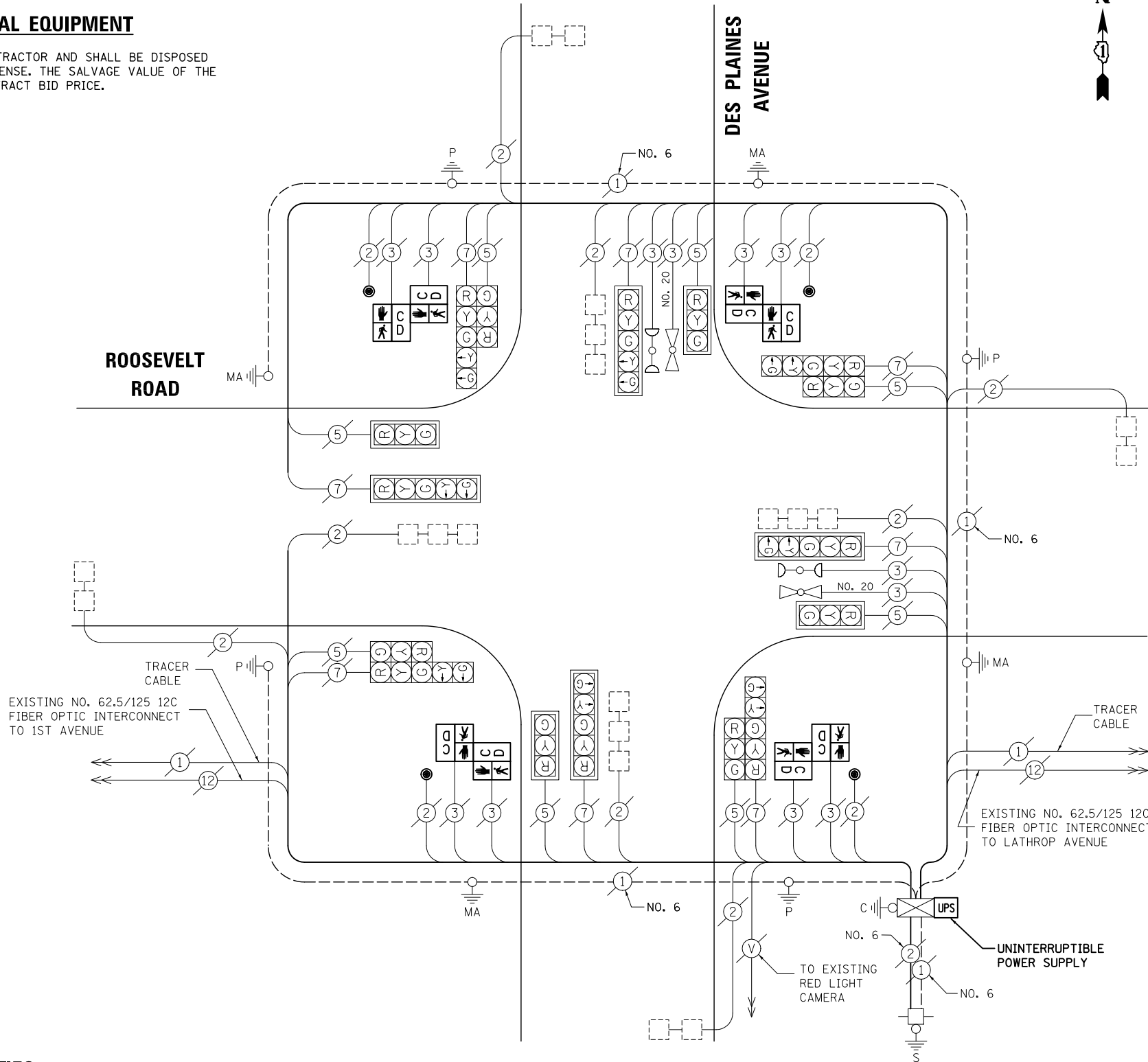
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 8 EACH PEDESTRIAN SIGNAL HEAD
- 4 EACH PEDESTRIAN PUSH-BUTTON

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
PEDESTRIAN PUSH-BUTTON	EACH	4
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1

CABLE PLAN



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

FILE NAME = MICROST\352108\ 71-5000.DGN	USER NAME = JGC	DESIGNED - BPT	REVISED -
		DRAWN - JGC/RDS	REVISED -
	PLOT SCALE = NOT TO SCALE	CHECKED - BPT	REVISED -
	PLOT DATE = X	DATE - 12-04-13	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES, CABLE PLAN,
PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION
ROOSEVELT ROAD AT DES PLAINES AVENUE**

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

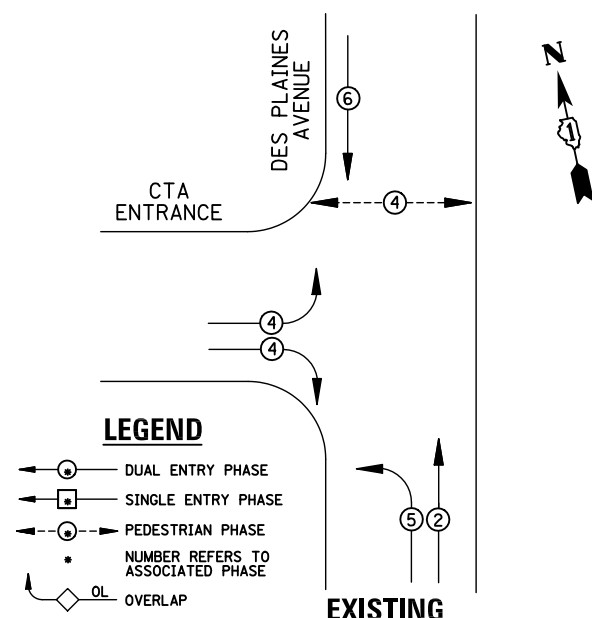
PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60504-9675
Ph: 630.862.2100 Fax: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	78
CONTRACT NO. 60X29				

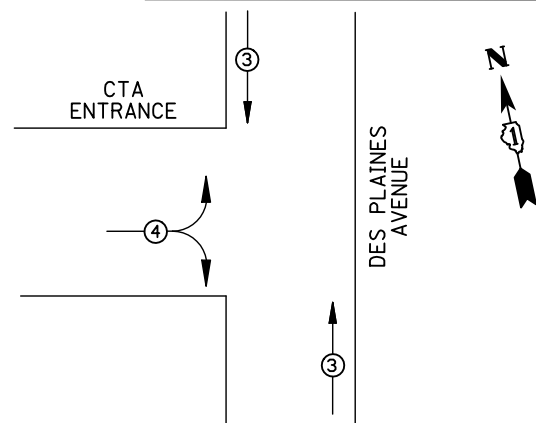
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

TS# 5000
FOREST PARK

EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM



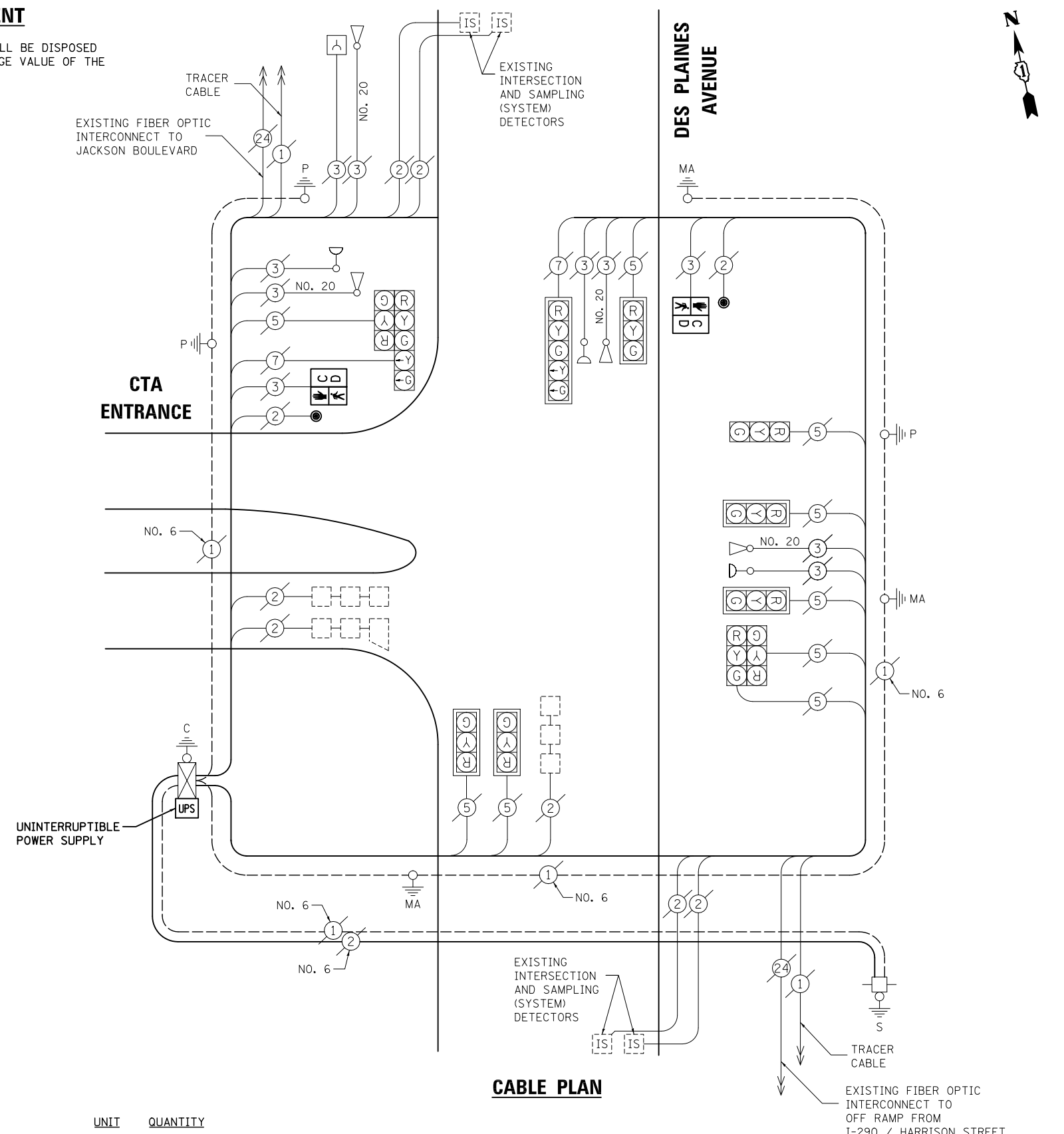
EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	
MOVEMENT	↑	↓	↔

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 2 EACH PEDESTRIAN SIGNAL HEAD
- 2 EACH PEDESTRIAN PUSH-BUTTON



CABLE PLAN

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

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
PEDESTRIAN PUSH-BUTTON	EACH	2
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. LAMPS	WATTAGE		%OPERATION	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	11	135	17	0.50	93.5
(YELLOW)	11	135	25	0.25	68.75
(GREEN)	11	135	15	0.25	41.25
ARROW	4	135	12	0.10	4.8
PED. SIGNAL	2	90	25	1.00	50
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
FLASHER	1	135	25	0.50	12.5
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 370.8
ENERGY SUPPLY	CONTACT: X				
	PHONE: X				
	COMPANY: X				

FILE NAME = \MICROST\352108\73-13687.DGN	USER NAME = JGC	DESIGNED - BPT	REVISED -
		DRAWN - JGC/RDS	REVISED -
	PLOT SCALE = NOT TO SCALE	CHECKED - BPT	REVISED -
	PLOT DATE = X	DATE - 12-04-13	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION DES PLAINES AVENUE AT CTA ENTRANCE
SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

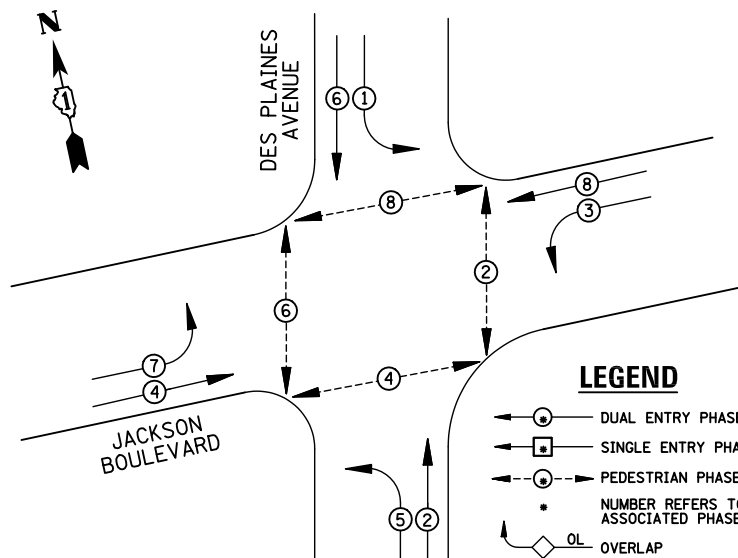
PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60504-9675
Ph: 630.862.2100 Fax: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	79
CONTRACT NO. 60X29				

FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

TS# 13687 FOREST PARK

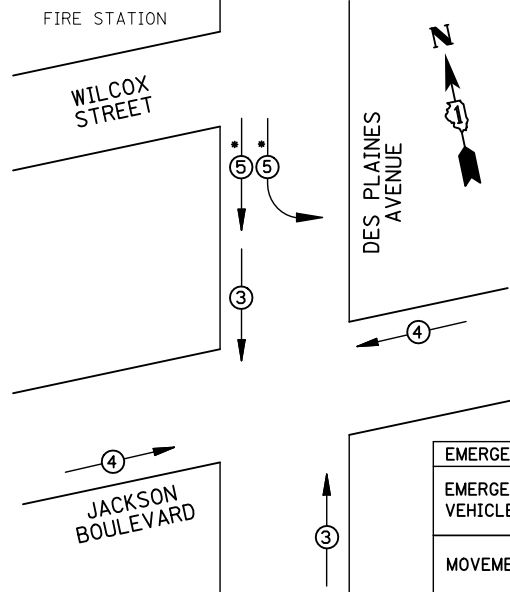
EXISTING CONTROLLER SEQUENCE



LEGEND

- ◻ DUAL ENTRY PHASE
- ◻ SINGLE ENTRY PHASE
- ◻ PEDESTRIAN PHASE
- NUMBER REFERS TO ASSOCIATED PHASE
- OL OVERLAP

EXISTING PHASE DESIGNATION DIAGRAM



NOTE:

EMERGENCY VEHICLE PREEMPTOR 5 SHALL ONLY BE ACTIVATED BY THE EXISTING FIRE STATION PUSH-BUTTON AND WILL INITIATE AN ALL-RED CLEARANCE PHASE FOLLOWED BY A GREEN BALL, GREEN ARROW FOR ONLY SOUTHBOUND TRAFFIC AT JACKSON BOULEVARD.

EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4	5*	
MOVEMENT	↑	←	↓	→

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE

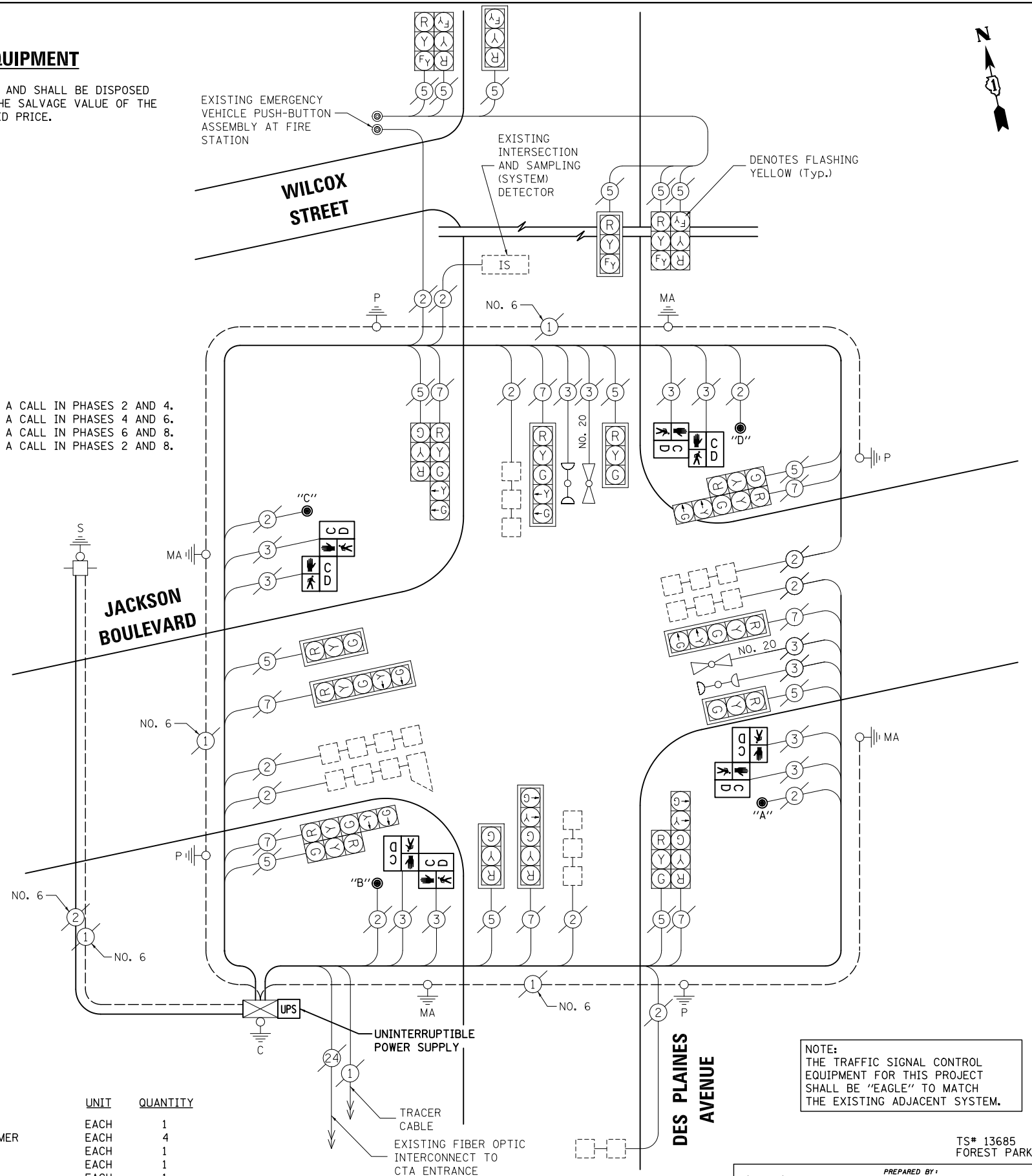
REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 8 EACH PEDESTRIAN SIGNAL HEAD
- 4 EACH PEDESTRIAN PUSH-BUTTON

NOTE:

PUSH-BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4.
 PUSH-BUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6.
 PUSH-BUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8.
 PUSH-BUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8.



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

SCHEDULE OF QUANTITIES

ITEM

- MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
- PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
- MODIFY EXISTING CONTROLLER CABINET
- REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
- UNINTERRUPTIBLE POWER SUPPLY, SPECIAL
- PEDESTRIAN PUSH-BUTTON, NON-LATCHING

UNIT QUANTITY

- EACH 1
- EACH 4
- EACH 1
- EACH 1
- EACH 1
- EACH 4

CABLE PLAN

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. LAMPS	WATTAGE		%OPERATION	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	16	135	17	0.50	136
(YELLOW)	16	135	25	0.25	100
(GREEN)	16	135	15	0.25	60
ARROW	16	135	12	0.10	19.2
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
RED	6		17	0.01	1.02
YELLOW	6		25	0.01	1.50
FLASHER	6	135	25	0.50	75
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 602.72
ENERGY SUPPLY	CONTACT: X				
	PHONE: X				
	COMPANY: X				

DESIGNED - BPT	REVISED -
DRAWN - JGC/RDS	REVISED -
CHECKED - BPT	REVISED -
DATE - 12-04-13	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES, CABLE PLAN,
 PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION
 DES PLAINES AVENUE AT JACKSON BOULEVARD**

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

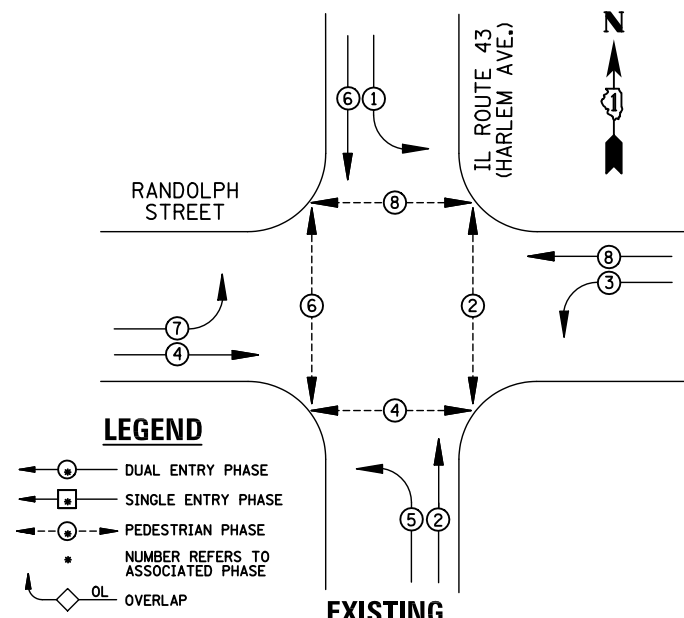
PREPARED BY:
CEMCON, Ltd.
 Consulting Engineers, Land Surveyors & Planners
 2280 White Oak Circle, Suite 100
 Aurora, Illinois 60504-9675
 Ph: 630.862.2100 Fax: 630.862.2199
 E-Mail: cadd@cemcon.com Website: www.cemcon.com

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	80
CONTRACT NO. 60X29				

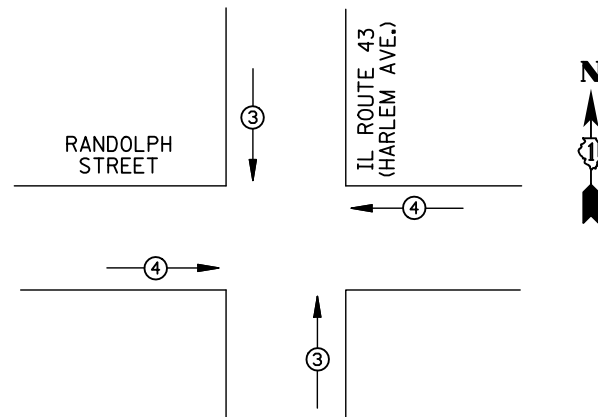
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

TS# 13685
 FOREST PARK

EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	
MOVEMENT	↓	↑	→

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	%OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	16	135	12	0.10	19.2
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 541.2
ENERGY SUPPLY CONTACT: X					
PHONE: X					
COMPANY: X					

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 8 EACH PEDESTRIAN SIGNAL HEAD
- 5 EACH PEDESTRIAN PUSH-BUTTON

NOTE:

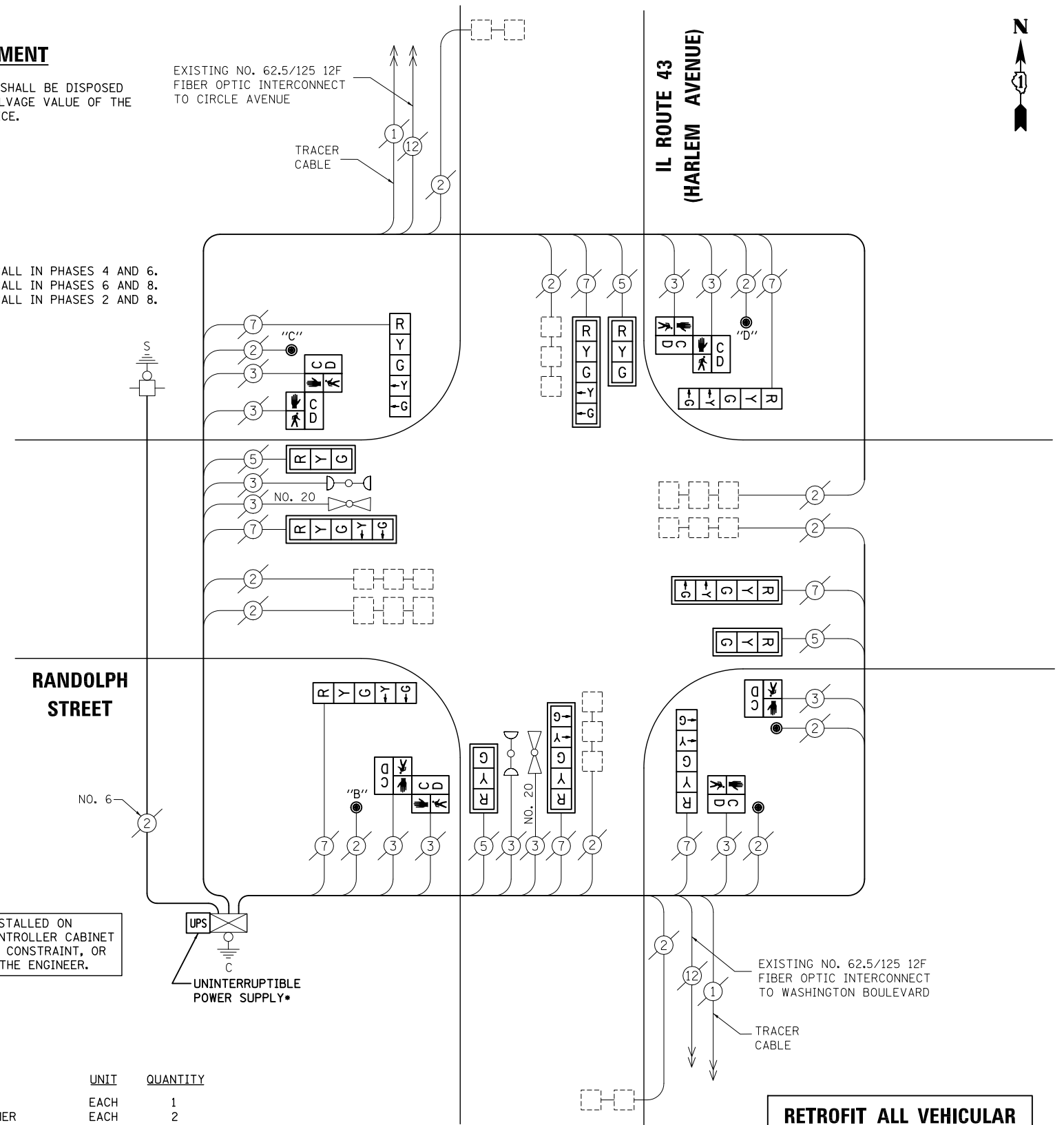
PUSH-BUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6.
 PUSH-BUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8.
 PUSH-BUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8.

UPS SHALL BE INSTALLED ON LEFT SIDE OF CONTROLLER CABINET DUE TO PHYSICAL CONSTRAINT, OR AS DIRECTED BY THE ENGINEER.

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	3
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
PEDESTRIAN PUSH-BUTTON, NON-LATCHING	EACH	5
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT	EACH	4

EXISTING NO. 62.5/125 12F FIBER OPTIC INTERCONNECT TO CIRCLE AVENUE



CABLE PLAN

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

RETROFIT ALL VEHICULAR SIGNAL HEADS TO L.E.D.

TS# 2390 FOREST PARK

PREPARED BY:
CEMCON, Ltd.
 Consulting Engineers, Land Surveyors & Planners
 2280 White Oak Circle, Suite 100
 Aurora, Illinois 60504-9675
 Ph: 630.862.2100 Fax: 630.862.2199
 E-Mail: cadd@cemcon.com Website: www.cemcon.com

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	81

CONTRACT NO. 60X29
 FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

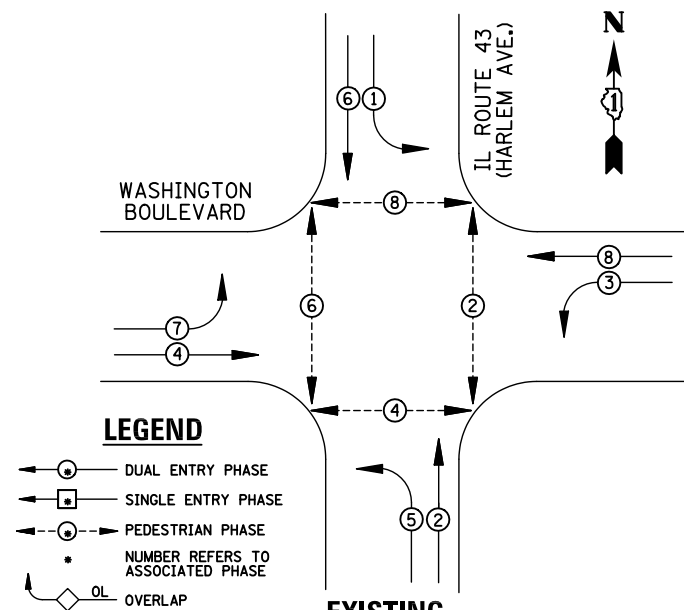
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION IL ROUTE 43 (HARLEM AVENUE) AT RANDOLPH STREET

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

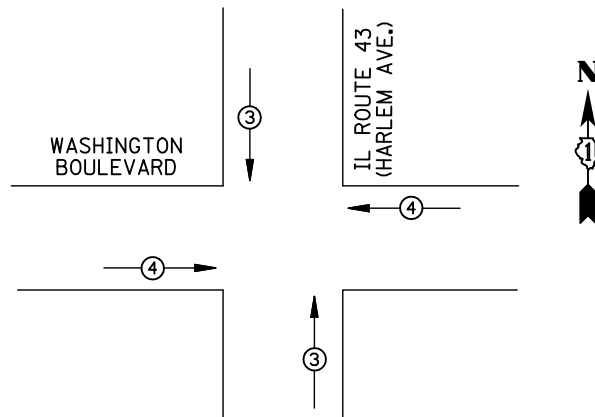
DESIGNED - BPT	REVISED -
DRAWN - JGC/RDS	REVISED -
CHECKED - BPT	REVISED -
DATE - 12-04-13	REVISED -

FILE NAME = \MICROST\352108\77-2390.DGN	USER NAME = JGC
PLOT SCALE = NOT TO SCALE	
PLOT DATE = X	

EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	
MOVEMENT	↑	→	←

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. LAMPS	WATTAGE		%OPERATION	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	16	135	12	0.10	19.2
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 541.2
ENERGY SUPPLY	CONTACT: X				
	PHONE: X				
	COMPANY: X				

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 8 EACH PEDESTRIAN SIGNAL HEAD
- 4 EACH PEDESTRIAN PUSH-BUTTON

• UPS SHALL BE INSTALLED ON LEFT SIDE OF CONTROLLER CABINET DUE TO PHYSICAL CONSTRAINT, OR AS DIRECTED BY THE ENGINEER.

NOTE:

- PUSH-BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4.
- PUSH-BUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6.
- PUSH-BUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8.
- PUSH-BUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8.

SCHEDULE OF QUANTITIES

ITEM

- MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
- PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
- PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
- MODIFY EXISTING CONTROLLER CABINET
- REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
- UNINTERRUPTABLE POWER SUPPLY, SPECIAL
- PEDESTRIAN PUSH-BUTTON, NON-LATCHING
- SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT
- SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT
- SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT

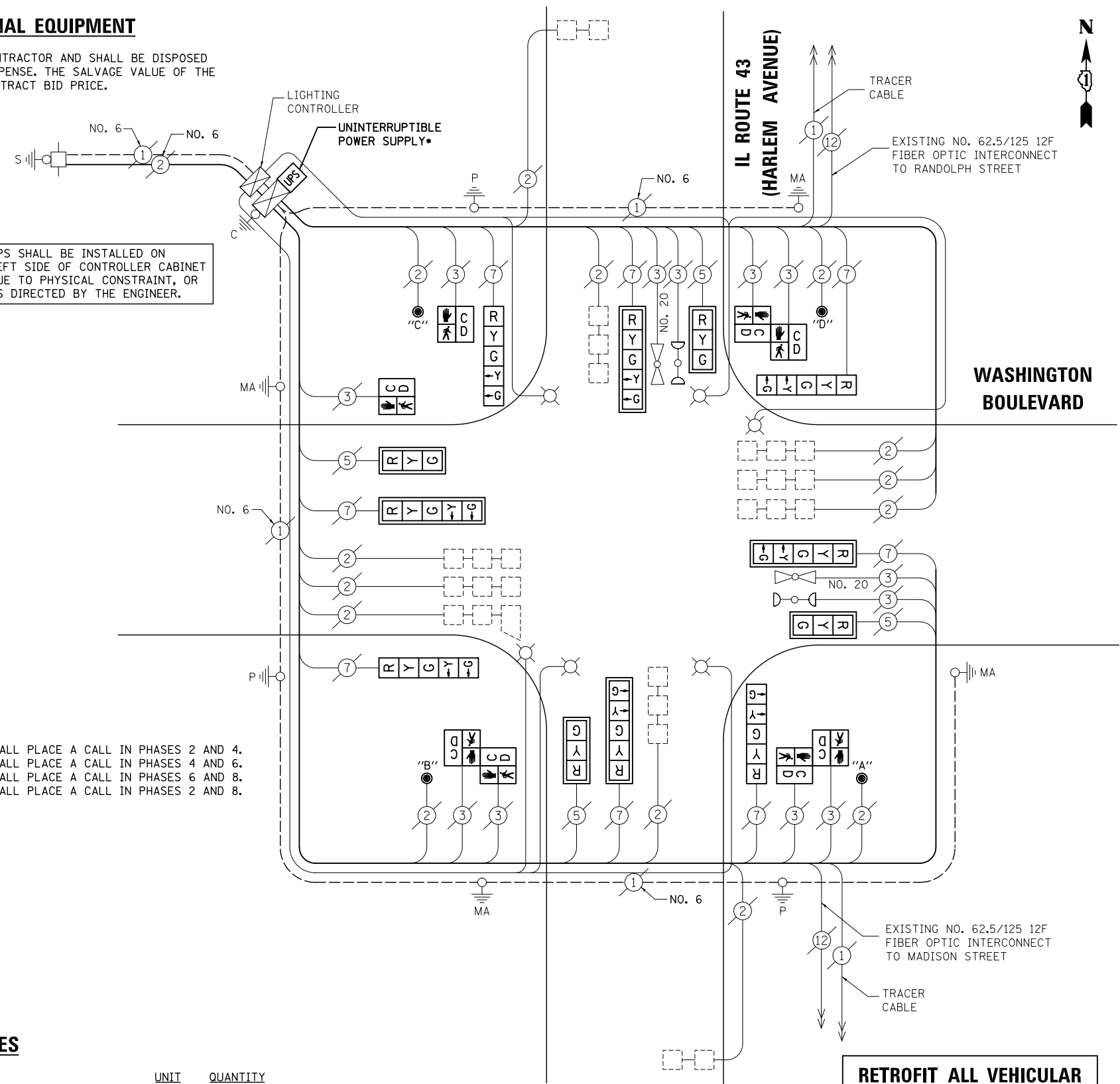
UNIT	QUANTITY
EACH	1
EACH	2
EACH	3
EACH	1
EACH	1
EACH	1
EACH	4
EACH	4
EACH	4
EACH	4

DESIGNED - BPT	REVISED -
DRAWN - JGC/RDS	REVISED -
CHECKED - BPT	REVISED -
DATE - 12-04-13	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES, CABLE PLAN,
PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION
IL ROUTE 43 (HARLEM AVENUE) AT WASHINGTON BOULEVARD**

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.



CABLE PLAN

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

**RETROFIT ALL VEHICULAR
SIGNAL HEADS TO L.E.D.**

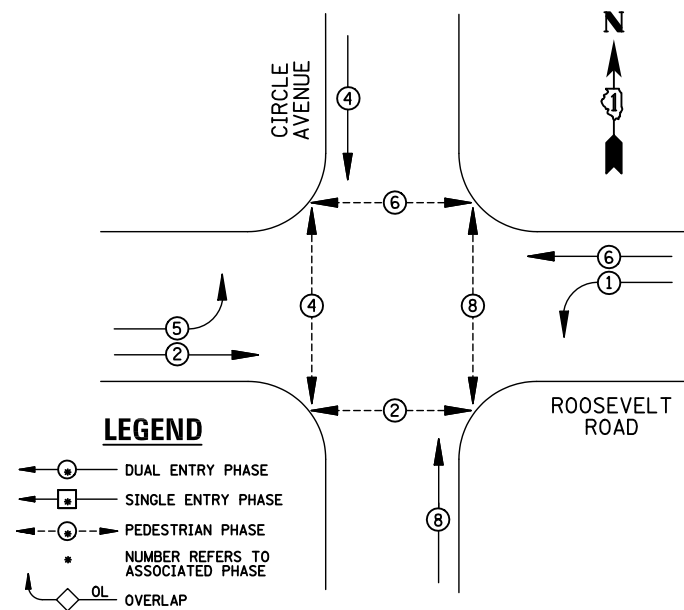
PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60504-9675
Ph: 630.862.2100 Fax: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	82
			CONTRACT NO. 60X29	

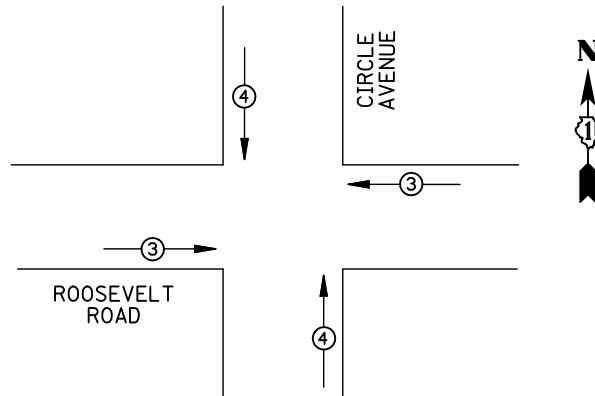
TS# 2415
FOREST PARK

FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	← →	↑ ↓

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	%OPERATION	
SIGNAL (RED)	10	135	17	0.50	85
(YELLOW)	10	135	25	0.25	62.5
(GREEN)	10	135	15	0.25	37.5
ARROW	8	135	12	0.10	9.6
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 494.6
ENERGY SUPPLY CONTACT: X					
PHONE: X					
COMPANY: X					
FILE NAME = \MICROST\352108\79-13700.DGN	USER NAME = JGC	DESIGNED - BPT	REVISED -		
	PLOT SCALE = NOT TO SCALE	DRAWN - JGC/RDS	REVISED -		
	PLOT DATE = X	CHECKED - BPT	REVISED -		
		DATE - 12-04-13	REVISED -		

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

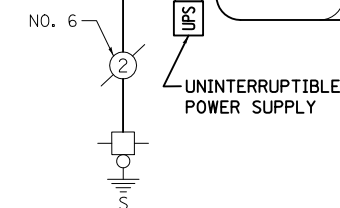
- 8 EACH PEDESTRIAN SIGNAL HEAD
- 4 EACH PEDESTRIAN PUSH-BUTTON

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTIBLE POWER SUPPLY, SPECIAL	EACH	1
PEDESTRIAN PUSH-BUTTON, NON-LATCHING	EACH	4
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	4
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT	EACH	2

EXISTING SYSTEM SAMPLING LOOPS

EXISTING NO. 62.5/125 12C FIBER OPTIC INTERCONNECT TO LATHROP AVENUE



CABLE PLAN

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

NOTE: PUSH-BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4. PUSH-BUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6. PUSH-BUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8. PUSH-BUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8.

RETROFIT ALL VEHICULAR SIGNAL HEADS TO L.E.D.

TS# 13700 FOREST PARK

PREPARED BY: **CEMCON, Ltd.**
 Consulting Engineers, Land Surveyors & Planners
 2280 White Oak Circle, Suite 100
 Aurora, Illinois 60504-9675
 Ph: 630.862.2100 Fax: 630.862.2199
 E-Mail: cadd@cemcon.com Website: www.cemcon.com

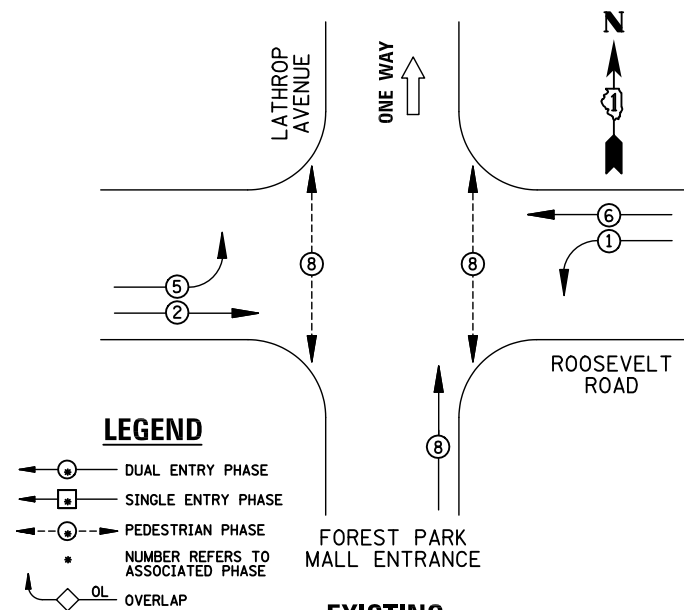
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION ROOSEVELT ROAD AT CIRCLE AVENUE

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

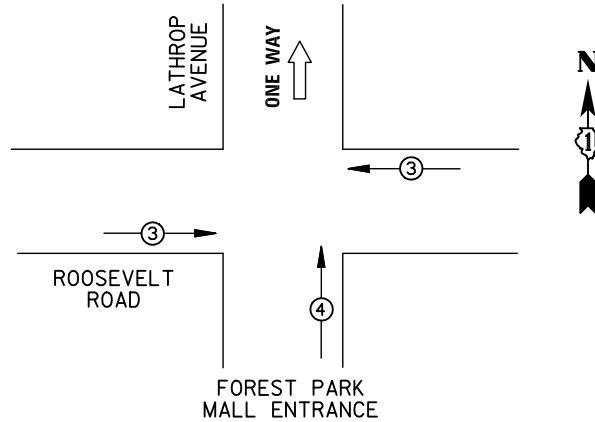
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	83
CONTRACT NO. 60X29				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM



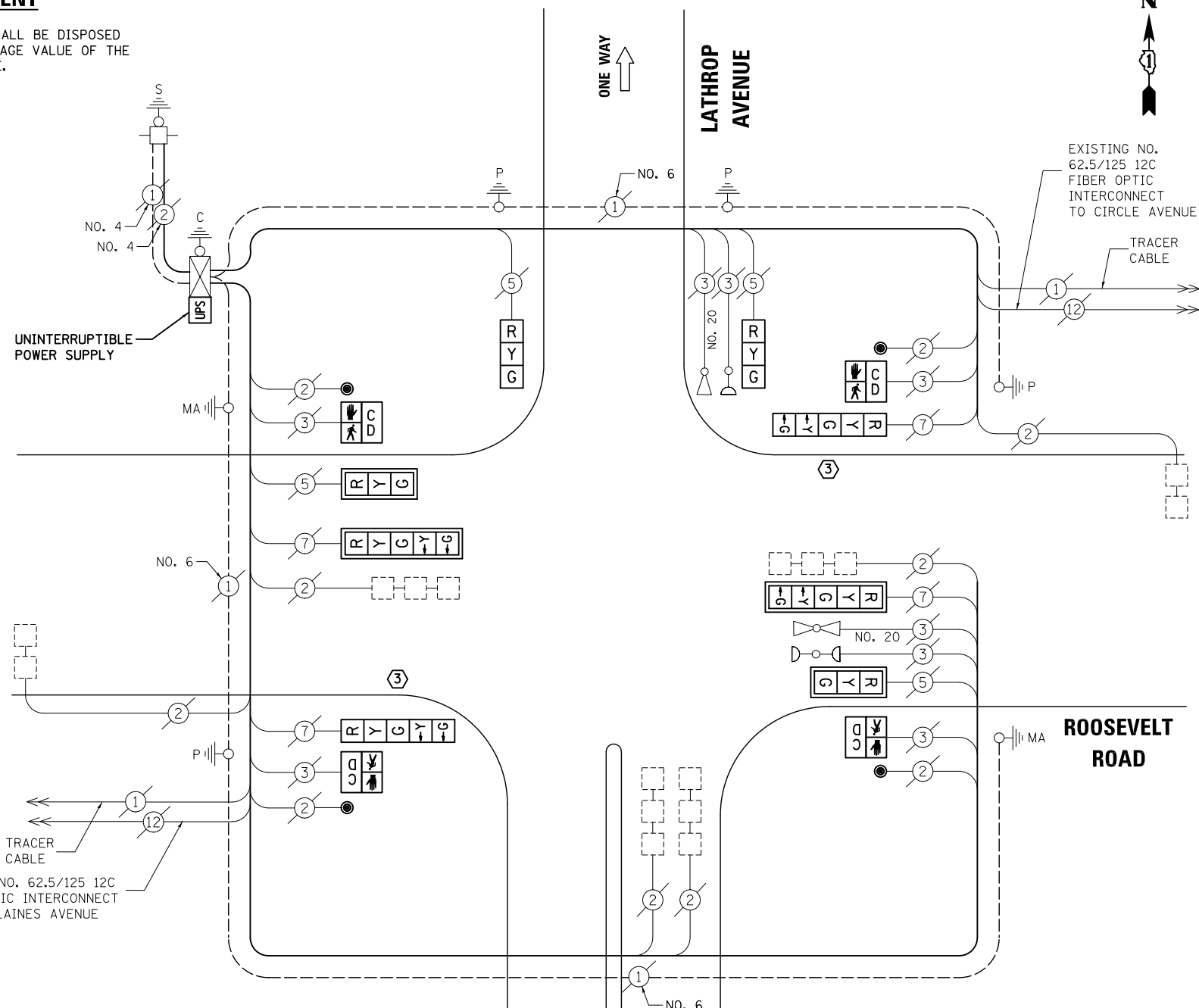
EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	
MOVEMENT	←→	↑	

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 2 EACH TRAFFIC SIGNAL POST
- 4 EACH SIGNAL HEAD, 3-SECTION
- 4 EACH SIGNAL HEAD, 5-SECTION
- 4 EACH TRAFFIC SIGNAL BACKPLATE
- 4 EACH PEDESTRIAN SIGNAL HEAD
- 4 EACH PEDESTRIAN PUSH-BUTTON



EXISTING NO. 62.5/125 12C FIBER OPTIC INTERCONNECT TO DES PLAINES AVENUE

FOREST PARK MALL ENTRANCE

③ REPLACE 16 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION (SEE GENERAL NOTES)

SCHEDULE OF QUANTITIES

ITEM

- MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
- TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
- SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
- SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
- SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED
- SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
- PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
- TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
- PEDESTRIAN PUSH-BUTTON
- MODIFY EXISTING CONTROLLER CABINET
- REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
- UNINTERRUPTABLE POWER SUPPLY, SPECIAL

UNIT	QUANTITY
EACH	1
EACH	2
EACH	2
EACH	2
EACH	2
EACH	2
EACH	4
EACH	4
EACH	4
EACH	1
EACH	1
EACH	1

CABLE PLAN

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

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	%OPERATION	
SIGNAL (RED)	8	135	17	0.50	68
(YELLOW)	8	135	25	0.25	50
(GREEN)	8	135	15	0.25	30
ARROW	8	135	12	0.10	9.6
PED. SIGNAL	4	90	25	1.00	100
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 357.6
ENERGY SUPPLY CONTACT: X					
PHONE: X					
COMPANY: X					
FILE NAME = \MICROST\352108\80-2401.DGN	USER NAME = JGC	DESIGNED - BPT	REVISED -		
		DRAWN - JGC/RDS	REVISED -		
		PLOT SCALE = NOT TO SCALE	CHECKED - BPT	REVISED -	
		PLOT DATE = X	DATE - 12-04-13	REVISED -	

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION ROOSEVELT ROAD AT LATHROP AVENUE

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

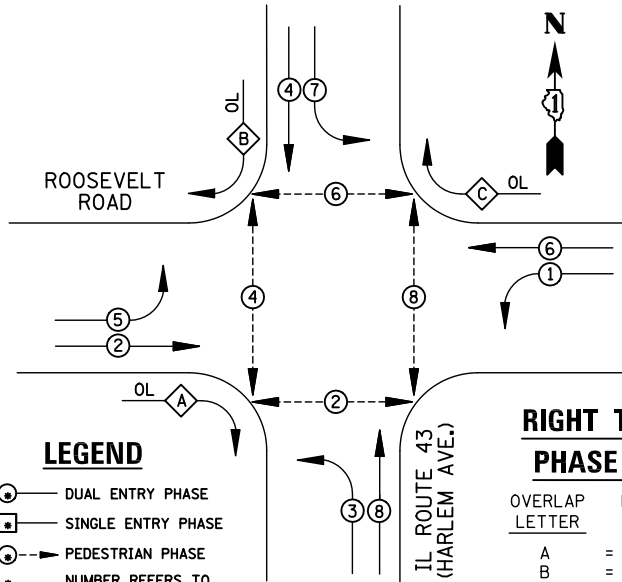
PREPARED BY: **CEMCON, Ltd.**
 Consulting Engineers, Land Surveyors & Planners
 2280 White Oak Circle, Suite 100
 Aurora, Illinois 60504-9675
 Ph: 630.862.2100 Fax: 630.862.2199
 E-Mail: cadd@cemcon.com Website: www.cemcon.com

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	84

CONTRACT NO. 60X29
 FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

TS# 2401 FOREST PARK

EXISTING CONTROLLER SEQUENCE



REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

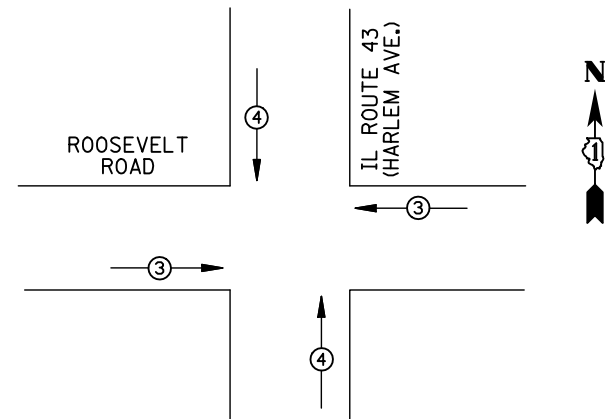
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 8 EACH PEDESTRIAN SIGNAL HEAD
- 6 EACH PEDESTRIAN PUSH-BUTTON

RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A	= 2 +	3
B	= 4 +	5
C	= 6 +	7

EXISTING PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	←→	↑↓

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. LAMPS	WATTAGE		%OPERATION	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	16	135	17	0.50	136
(YELLOW)	16	135	25	0.25	100
(GREEN)	16	135	15	0.25	60
ARROW	28	135	12	0.10	33.6
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 629.6
ENERGY SUPPLY CONTACT: X					
PHONE: X					
COMPANY: X					

SCHEDULE OF QUANTITIES

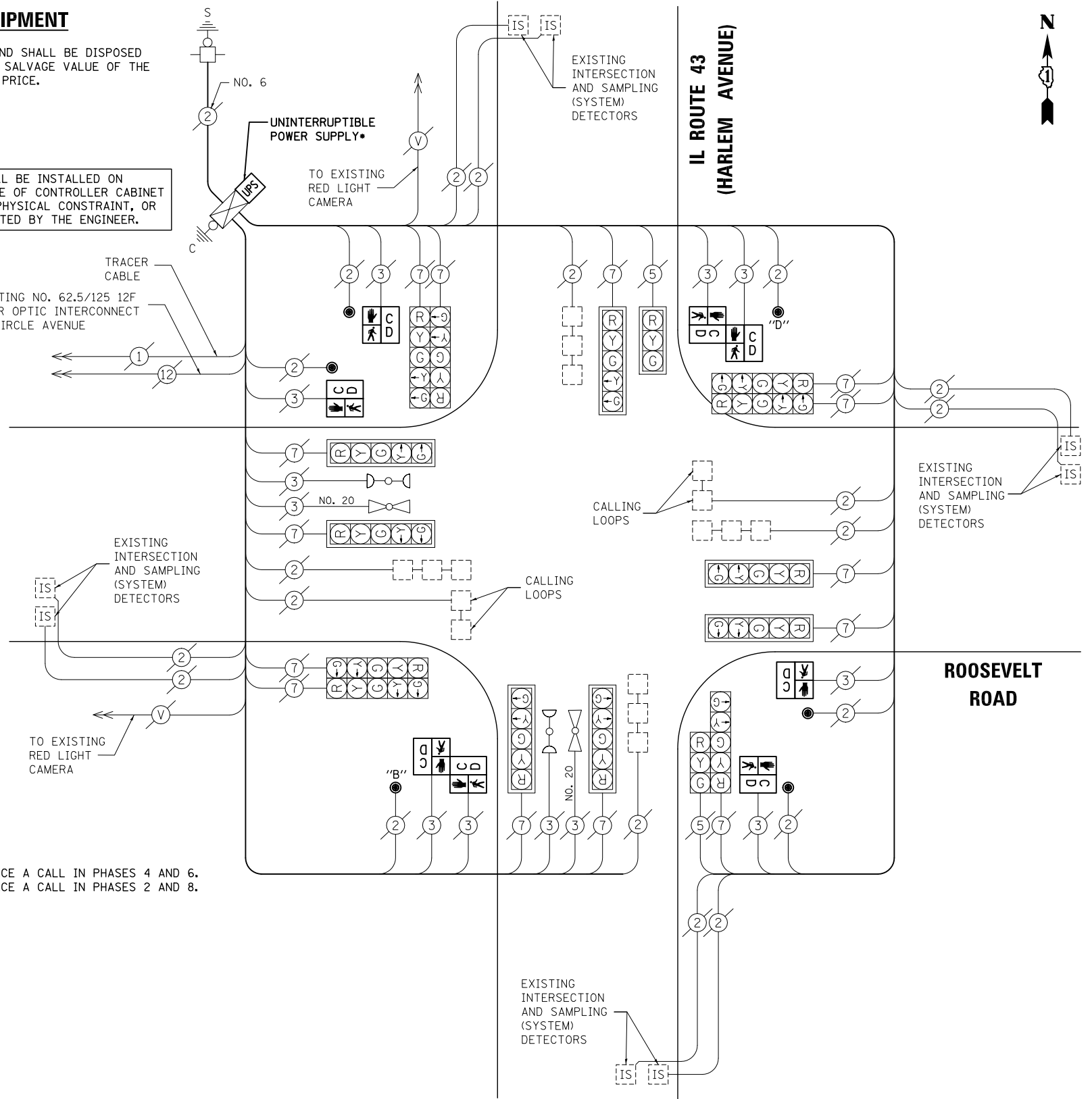
ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
PEDESTRIAN PUSH-BUTTON, NON-LATCHING	EACH	6

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DESIGNED - BPT	REVISED -
DRAWN - JGC/RDS	REVISED -
CHECKED - BPT	REVISED -
DATE - 12-04-13	REVISED -

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION IL ROUTE 43 (HARLEM AVENUE) AT ROOSEVELT ROAD

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.



* UPS SHALL BE INSTALLED ON LEFT SIDE OF CONTROLLER CABINET DUE TO PHYSICAL CONSTRAINT, OR AS DIRECTED BY THE ENGINEER.

NOTE:
PUSH-BUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6.
PUSH-BUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8.

CABLE PLAN

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

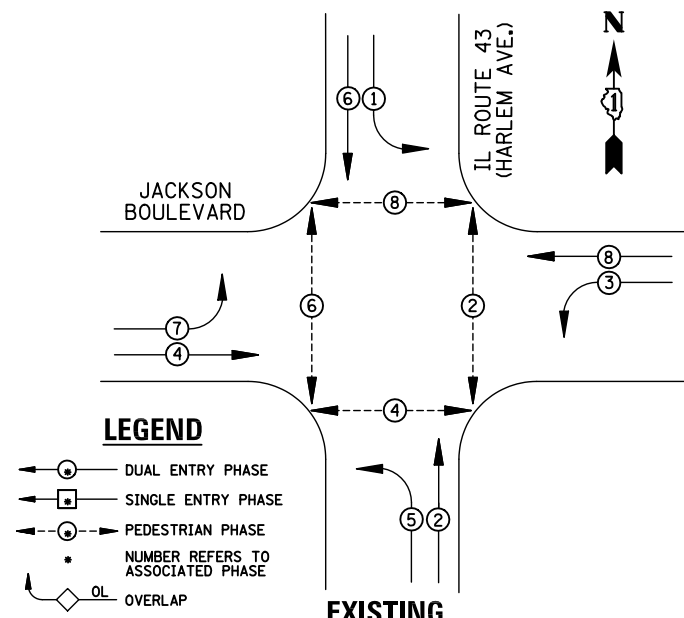
TS# 2400
FOREST PARK / OAK PARK

PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60504-9675
Ph: 630.862.2100 Fax: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com

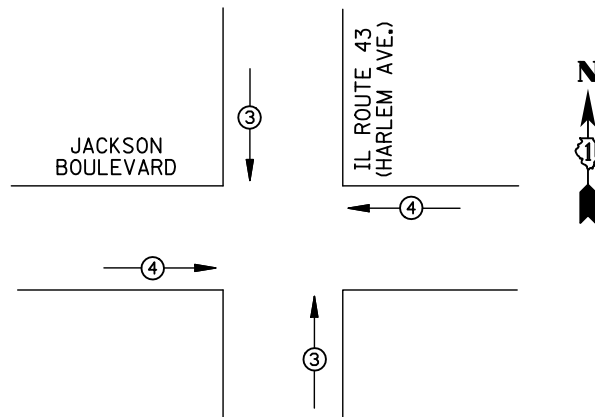
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	85
CONTRACT NO. 60X29				

FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	
MOVEMENT	↓ ↑	← →	

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

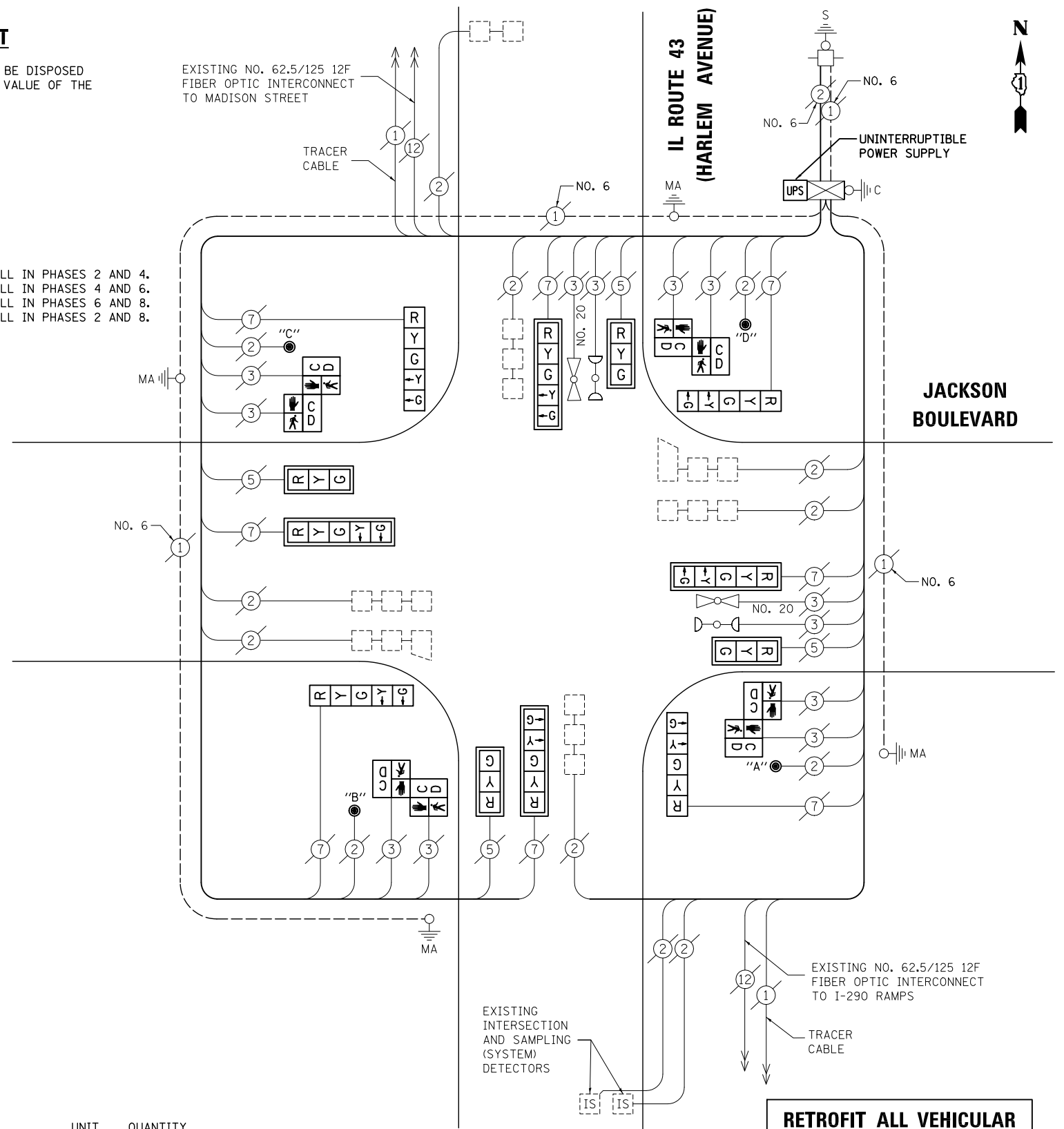
- 8 EACH PEDESTRIAN SIGNAL HEAD
- 4 EACH PEDESTRIAN PUSH-BUTTON

NOTE:

PUSH-BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4.
 PUSH-BUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6.
 PUSH-BUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8.
 PUSH-BUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8.

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
PEDESTRIAN PUSH-BUTTON, NON-LATCHING	EACH	4
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT	EACH	4



CABLE PLAN

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

RETROFIT ALL VEHICULAR SIGNAL HEADS TO L.E.D.

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. LAMPS	WATTAGE		%OPERATION	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	16	135	12	0.10	19.2
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
FLASHER		135	25		
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 541.2
ENERGY SUPPLY	CONTACT: X				
	PHONE: X				
	COMPANY: X				

DESIGNED - BPT	REVISED -
DRAWN - JGC/RDS	REVISED -
CHECKED - BPT	REVISED -
DATE - 12-04-13	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION IL ROUTE 43 (HARLEM AVENUE) AT JACKSON BOULEVARD

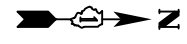
SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	86

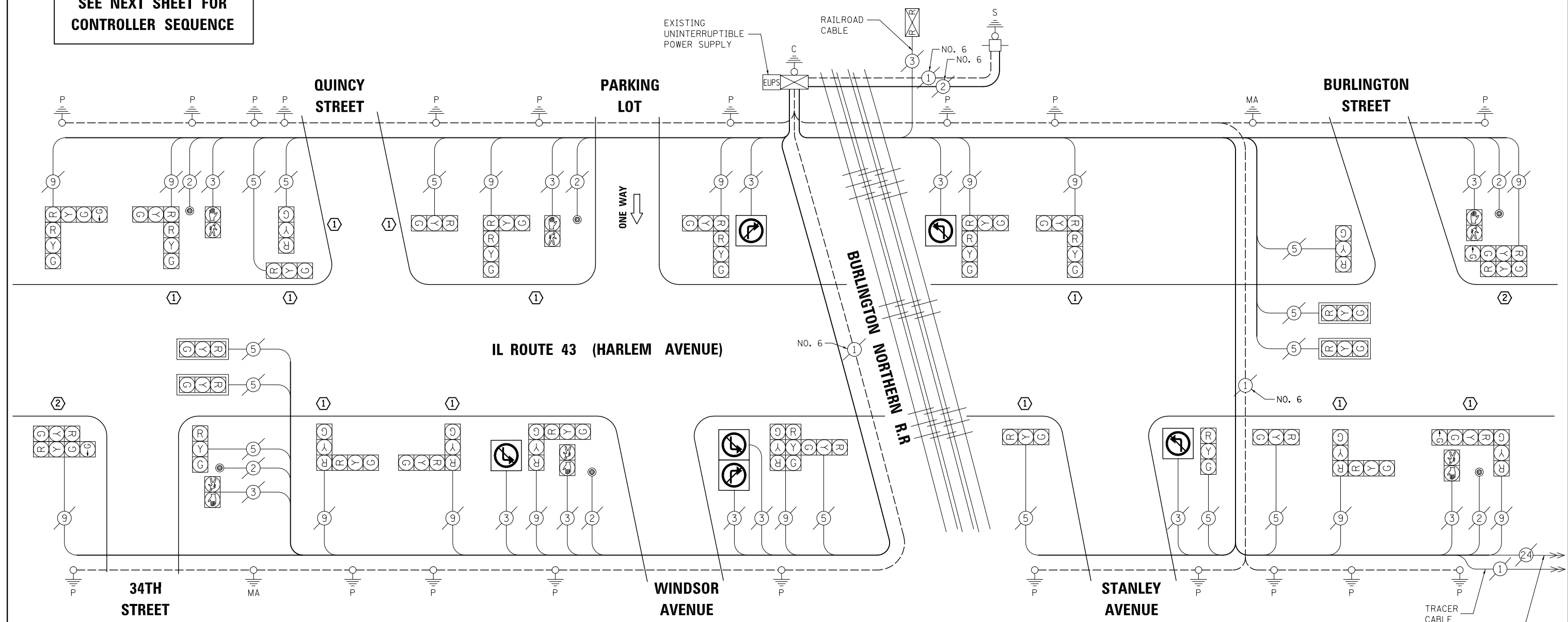
CONTRACT NO. 60X29
 FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

PREPARED BY:
CEMCON, Ltd.
 Consulting Engineers, Land Surveyors & Planners
 2280 White Oak Circle, Suite 100
 Aurora, Illinois 60504-9675
 Ph: 630.862.2100 Fax: 630.862.2199
 E-Mail: cadd@cemcon.com Website: www.cemcon.com

TS# 2350
 FOREST PARK / OAK PARK



**SEE NEXT SHEET FOR
CONTROLLER SEQUENCE**



- ① REPLACE 14 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION
 - ② REPLACE 15 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION
- (SEE GENERAL NOTES)

CABLE PLAN

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

- 13 EACH TRAFFIC SIGNAL POST

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. LAMPS	WATTAGE		%OPERATION	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	41	135	17	0.50	348.5
(YELLOW)	41	135	25	0.25	256.25
(GREEN)	41	135	15	0.25	153.75
ARROW	4	135	12	0.10	4.8
PED. SIGNAL	6	90	25	1.00	150
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 1013.3
ENERGY SUPPLY CONTACT: X PHONE: X COMPANY: X					

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	11
TRAFFIC SIGNAL POST, GALVANIZED STEEL 15 FT.	EACH	2
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1

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

FILE NAME = \MICROST\352108\
83-7947.1.DGN
USER NAME = JGC
DESIGNED - BPT
DRAWN - JGC/RDS
PLOT SCALE = NOT TO SCALE
PLOT DATE = X

REVISIED -
REVISIED -
REVISIED -
REVISIED -
DATE - 12-04-13

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES AND CABLE PLAN
IL ROUTE 43 (HARLEM AVENUE) FROM 34TH STREET
TO EAST BURLINGTON ROAD**
SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60504-9675
Ph: 630.862.2100 Fax: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	87
CONTRACT NO. 60X29				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

TS# 7947
RIVERSIDE

TRAFFIC SIGNAL SEQUENCE OF OPERATION

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
34B	2001-059 TS	COOK	14	11
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

MOVEMENT	1													2		F L A S H		
	1	2A	2B	2C	2D	2E	2F	2G	2H	2J	2K	3	4	5A	5B			
PHASE	1													2				
INTERVAL	1													2				
CHANGE TO	2													1				
ILL. RTE. 43 (HARLEM AV.) AT E. BURLINGTON RD. ALL SIGNALS	S/B	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
ILL. RTE. 43 (HARLEM AV.) AT E. BURLINGTON RD. END MAST ARM AND FAR LEFT SIGNALS	N/B	G	G	G	G	G	G	G	G	G	G	Y	R	R	R	R	R	
ILL. RTE. 43 (HARLEM AV.) AT E. BURLINGTON RD. NEAR AND FAR RIGHT SIGNALS	N/B	G	G	G	G	G	G	G	G	G	Y	R	R	R	R	R	R	
ILL. RTE. 43 (HARLEM AV.) AT STANLEY AVE. ALL SIGNALS	S/B	G	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	
ILL. RTE. 43 (HARLEM AV.) AT STANLEY AVE. ALL SIGNALS	N/B	G	G	G	G	G	G	G	Y	R	R	R	R	R	R	R	R	
ILL. RTE. 43 (HARLEM AV.) AT WINDSOR AVE. ALL SIGNALS	S/B	G	G	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	
ILL. RTE. 43 (HARLEM AV.) AT WINDSOR AVE. ALL SIGNALS	N/B	G	G	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	
ILL. RTE. 43 (HARLEM AV.) AT QUINCY STREET ALL SIGNALS	S/B	G	G	G	G	G	G	G	Y	R	R	R	R	R	R	R	R	
ILL. RTE. 43 (HARLEM AV.) AT QUINCY STREET ALL SIGNALS	N/B	G	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	
ILL. RTE. 43 (HARLEM AV.) AT 34TH STREET FAR LEFT AND FAR RIGHT SIGNALS	S/B	G	G	G	G	G	G	G	G	G	Y	R	R	R	R	R	R	
ILL. RTE. 43 (HARLEM AV.) AT 34TH STREET NEAR RIGHT SIGNALS	S/B	G	G	G	G	G	G	G	G	G	Y	R	R	R	R	R	R	
ILL. RTE. 43 (HARLEM AV.) AT 34TH STREET ALL SIGNALS	N/B	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
E. BURLINGTON ROAD ALL SIGNALS	E/B	R	R	R	R	R	R	R	R	R	R	R	G	G	Y	R	R	
STANLEY AVE. ALL SIGNALS	W/B	R	R	R	R	R	R	R	R	R	R	R	G	G	Y	R	R	
WINDSOR AVE. ALL SIGNALS	E/B	R	R	R	R	R	R	R	R	R	R	R	G	G	Y	R	R	
WINDSOR AVE. ALL SIGNALS	W/B	R	R	R	R	R	R	R	R	R	R	R	G	G	Y	R	R	
QUINCY STREET ALL SIGNALS	E/B	R	R	R	R	R	R	R	R	R	R	R	G	G	Y	R	R	
34TH STREET ALL SIGNALS	W/B	R	R	R	R	R	R	R	R	R	R	R	G	G	Y	R	R	
PEDESTRIAN SIGNALS CROSSING ILL. RTE. 43 (HARLEM AV.)		H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	DK

P = ILLUMINATED PERSON = WALK
 FH = ILLUMINATED FLASHING HAND = FLASHING DON'T WALK
 H = ILLUMINATED SOLID HAND = DON'T WALK

• TO APPEAR ONLY UPON PUSHBUTTON ACTUATION
 • FLASHING [Symbol] IS TO TERMINATE AT THE COMPLETION OF THE PEDESTRIAN INTERVAL CLEARANCE.

THIS [Symbol] OR FLASHING [Symbol] INTERVAL MAY FINISH TIMING IN THE BIDIRECTIONAL STRAIGHT THROUGH MOVEMENT IF THE LEFT ARROW TIME IS NOT SUFFICIENT TO COMPLETE [Symbol] OR FLASHING [Symbol] INTERVALS.
 [Symbol] AND FLASHING [Symbol] TIMINGS TO BE SET ONLY ON PHASES WHERE [Symbol] AND FLASHING [Symbol] ARE INDICATED IN THE SEQUENCE OF OPERATION.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SEQUENCE OF OPERATION AND RAILROAD
 PREEMPTION SEQUENCE OF OPERATION
 ILL. ROUTE 43 (HARLEM AV.) AND
 34TH ST./QUINCY ST./WINDSOR AVE.
 /STANLEY/EAST BURLINGTON RD.
 SCALE: NONE
 DATE: 12/03/2002
 DRAWN BY: BCK
 DESIGNED BY: RKE
 CHECKED BY: DAD

09:29:42 12/03/2002

**SEE NEXT SHEET FOR RAILROAD
 PREEMPTION SEQUENCE OF OPERATION**

EXISTING SEQUENCES - INCLUDED FOR REFERENCE ONLY

TS# 7947
 RIVERSIDE

PREPARED BY:
CEMCON, Ltd.
 Consulting Engineers, Land Surveyors & Planners
 2280 White Oak Circle, Suite 100
 Aurora, Illinois 60504-9675
 Ph: 630.862.2100 Fax: 630.862.2199
 E-Mail: cadd@cemcon.com Website: www.cemcon.com

FILE NAME =	USER NAME = JGC	DESIGNED - BPT	REVISED -
\\MICROST\352108\83-7947.2.DGN		DRAWN - JGC/RDS	REVISED -
		CHECKED - BPT	REVISED -
		DATE - 12-04-13	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**



TRAFFIC SIGNAL SEQUENCE OF OPERATION			
IL ROUTE 43 (HARLEM AVENUE) FROM 34TH STREET TO EAST BURLINGTON ROAD			
SCALE: N.T.S.	SHEET NO. OF SHEETS	STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	88
CONTRACT NO. 60X29				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

RAILROAD PREEMPTION SEQUENCE OF OPERATION

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	2001-059 TS	COOK	14	12
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CHANGE FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER	PREEMPTOR NUMBER 2											CLEAR TO NORMAL SEQUENCE
	1A	1B	1C	1D	2	3	4	5	6	7		
RAILROAD PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER												
CHANGE TO RAILROAD PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	1B	2	1D	2	3	4	5	6	7			
ILL. RTE. 43 (HARLEM AV.) AT E. BURLINGTON RD. ALL SIGNALS	S/B	Y	R	R	R	R	R	R	R	R	R	△
ILL. RTE. 43 (HARLEM AV.) AT E. BURLINGTON RD. END MAST ARM AND FAR LEFT SIGNALS	N/B	G	G	R	R	G ←	G ←	G ←	Y	R	R	△
ILL. RTE. 43 (HARLEM AV.) AT E. BURLINGTON RD. NEAR AND FAR RIGHT SIGNALS	N/B	G	G	R	R	G	G	G	Y	R	R	△
ILL. RTE. 43 (HARLEM AV.) AT STANLEY AVE. ALL SIGNALS	S/B	Y	R	R	R	R	R	R	R	R	R	△
ILL. RTE. 43 (HARLEM AV.) AT STANLEY AV. ALL SIGNALS	N/B	G	G	R	R	G	Y	R	R	R	R	△
ILL. RTE. 43 (HARLEM AV.) AT WINDSOR AV. ALL SIGNALS	S/B	G	G	R	R	G	Y	R	R	R	R	△
ILL. RTE. 43 (HARLEM AV.) AT WINDSOR AV. ALL SIGNALS	N/B	Y	R	R	R	R	R	R	R	R	R	△
ILL. RTE. 43 (HARLEM AV.) AT QUINCY STREET ALL SIGNALS	S/B	G	G	R	R	G	G	G	Y	R	R	△
ILL. RTE. 43 (HARLEM AV.) AT QUINCY STREET ALL SIGNALS	N/B	Y	R	R	R	R	R	R	R	R	R	△
ILL. RTE. 43 (HARLEM AV.) AT 34TH STREET FAR LEFT AND FAR RIGHT SIGNALS	S/B	G	G	R	R	G ←	G ←	G ←	Y	R	R	△
ILL. RTE. 43 (HARLEM AV.) AT 34TH STREET NEAR RIGHT SIGNALS	S/B	G	G	R	R	G	G	G	Y	R	R	△
ILL. RTE. 43 (HARLEM AV.) AT 34TH STREET ALL SIGNALS	N/B	Y	R	R	R	R	R	R	R	R	R	△
E. BURLINGTON ROAD ALL SIGNALS	E/B	R	R	Y	R	R	R	R	R	R	G	△
STANLEY AV. ALL SIGNALS	W/B	R	R	Y	R	R	R	R	R	R	G	△
WINDSOR AV. ALL SIGNALS	E/B	R	R	Y	R	R	R	R	R	R	G	△
WINDSOR AV. ALL SIGNALS	W/B	R	R	Y	R	R	R	R	R	R	G	△
QUINCY STREET ALL SIGNALS	E/B	R	R	Y	R	R	R	R	R	R	G	△
34TH STREET ALL SIGNALS	W/B	R	R	Y	R	R	R	R	R	R	G	△
PEDESTRIAN SIGNALS CROSSING ILL. RTE. 43 (HARLEM AV.)		H	H	FH	H	H	H	H	H	H	H	△
INTERNALLY ILLUMINATED SIGNS NO RIGHT TURN SIGNS		NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	△
INTERNALLY ILLUMINATED SIGNS NO LEFT TURN SIGNS		NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	△

NRT = "NO RIGHT TURN" OR 
 NLT = "NO LEFT TURN" OR 
 P = ILLUMINATED PERSON = WALK
 FH = ILLUMINATED FLASHING HAND = FLASHING DON'T WALK
 H = ILLUMINATED SOLID HAND = DON'T WALK
 △ = RAILROAD PREEMPTION SEQUENCE SHALL PROVIDE THE PROPER CLEARANCE INTERVAL TO RESUME THE NORMAL SEQUENCE OF OPERATION OR PROPER CLEARANCE INTERVAL TO DISPLAY AN EMERGENCY VEHICLE INTERVAL (IF APPLICABLE) AFTER RAILROAD PREEMPTION INTERVAL 7 IS TERMINATED.

HOLD

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION RAILROAD PREEMPTION SEQUENCE OF OPERATION ILL. ROUTE 43 (HARLEM AVE.) AND 34TH ST./QUINCY ST./WINDSOR AVE. /STANLEY/EAST BURLINGTON RD.
NAME	DATE	

SCALE: NONE
 DATE: 12/03/2002
 DRAWN BY: BCK
 DESIGNED BY: RKF
 CHECKED BY: DAD

09:29:32 12/03/2002

EXISTING SEQUENCES – INCLUDED FOR REFERENCE ONLY

FILE NAME = MICROST\352108\ 83-7947.3.DGN	USER NAME = JGC	DESIGNED - BPT	REVISED -
		DRAWN - JGC/RDS	REVISED -
		CHECKED - BPT	REVISED -
		DATE - 12-04-13	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

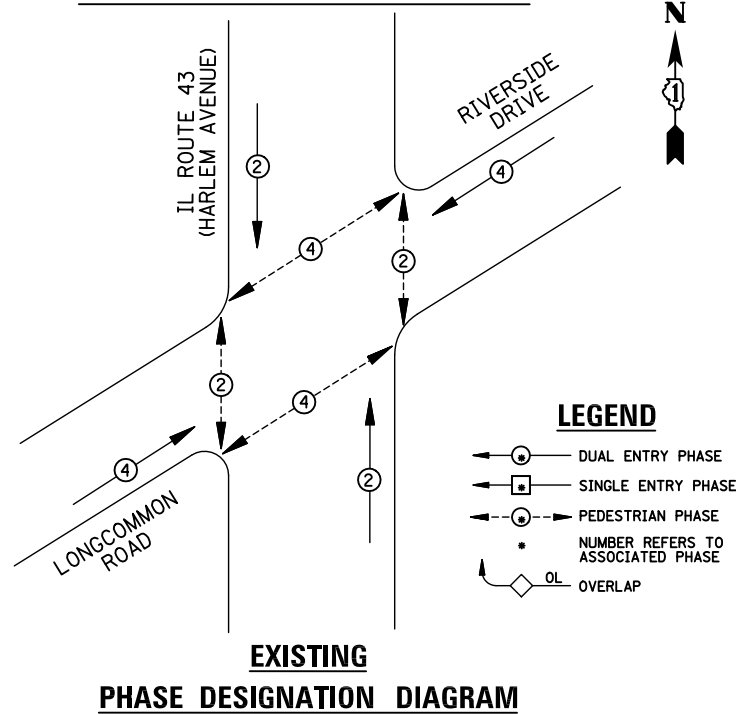
**RAILROAD PREEMPTION SEQUENCE OF OPERATION
IL ROUTE 43 (HARLEM AVENUE) FROM 34TH STREET
TO EAST BURLINGTON ROAD**

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100
Aurora, Illinois 60504-9675
Ph: 630.862.2100 Fax: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	89
CONTRACT NO. 60X29				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

EXISTING CONTROLLER SEQUENCE



SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	5
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	4
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	8
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	2
PEDESTRIAN PUSH-BUTTON	EACH	8
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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

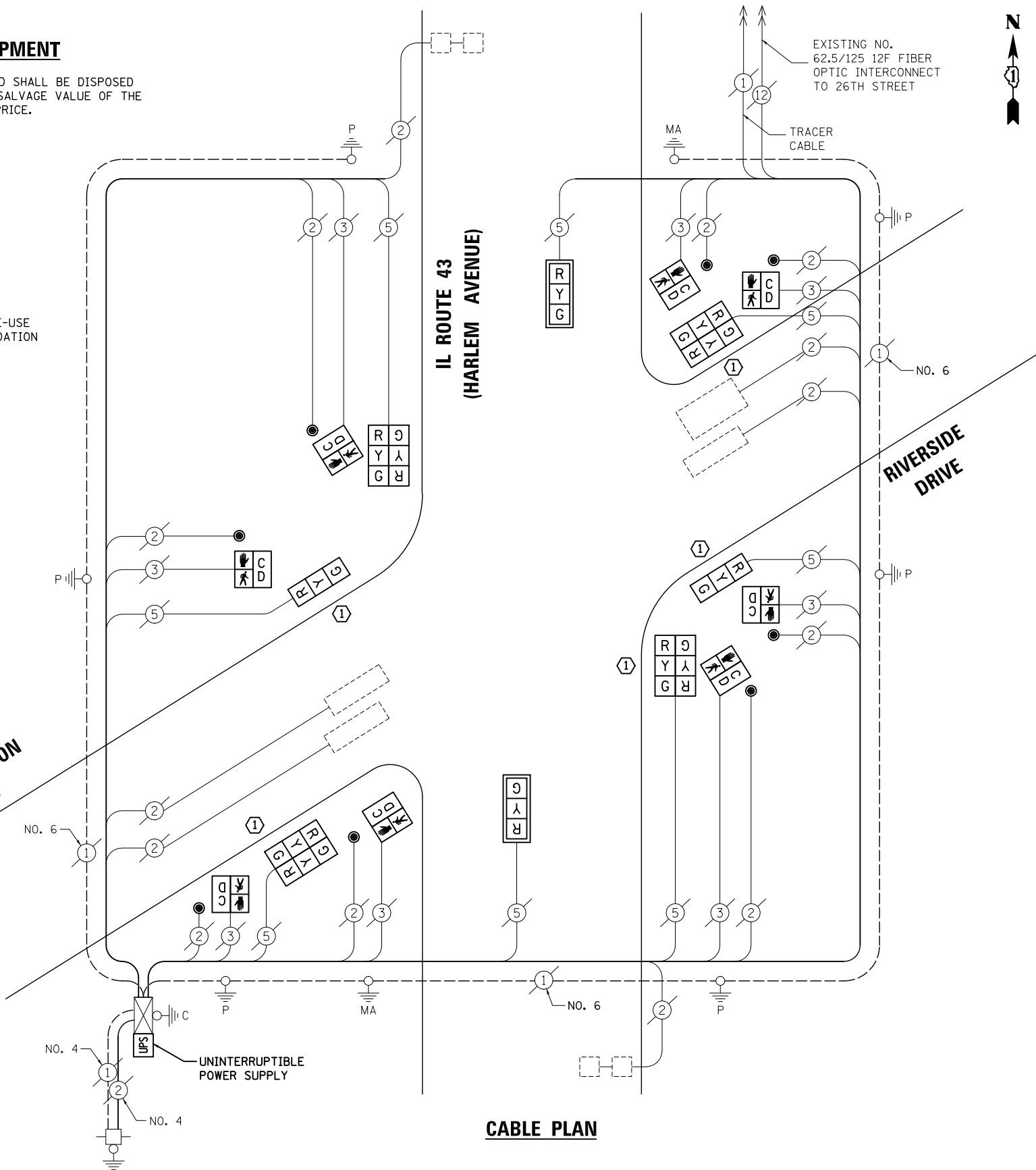
5	EACH	TRAFFIC SIGNAL POST
12	EACH	SIGNAL HEAD, 3-SECTION
2	EACH	TRAFFIC SIGNAL BACKPLATE
8	EACH	PEDESTRIAN SIGNAL HEAD
8	EACH	PEDESTRIAN PUSH-BUTTON

① REPLACE 14 FT. PAINTED POST, RE-USE EXISTING TYPE A CONCRETE FOUNDATION (SEE GENERAL NOTES)

LONGCOMMON ROAD

IL ROUTE 43 (HARLEM AVENUE)

RIVERSIDE DRIVE



CABLE PLAN

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

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	%OPERATION	
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW		135	12	0.10	
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84	100	0.50	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 522
ENERGY SUPPLY CONTACT:	X				
PHONE:	X				
COMPANY:	X				

DESIGNED - BPT	REVISED -
DRAWN - JGC/RDS	REVISED -
CHECKED - BPT	REVISED -
DATE - 12-04-13	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

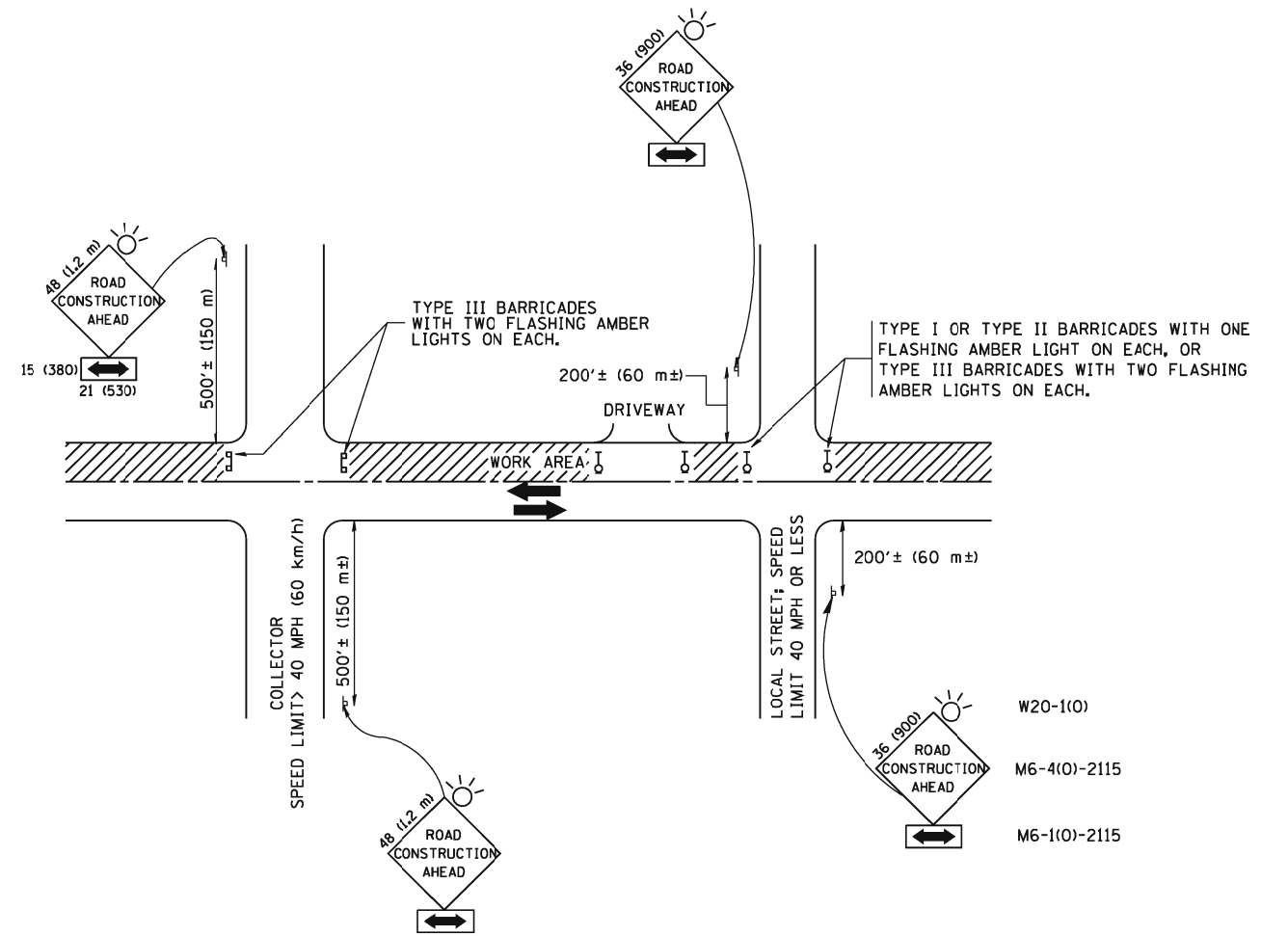
SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM			
SCALE: N.T.S.	SHEET NO.	OF SHEETS	STA. TO STA.

PREPARED BY: **CEMCON, Ltd.**
 Consulting Engineers, Land Surveyors & Planners
 2280 White Oak Circle, Suite 100
 Aurora, Illinois 60504-9675
 Ph: 630.862.2100 Fax: 630.862.2199
 E-Mail: cadd@cemcon.com Website: www.cemcon.com

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	90

CONTRACT NO. 60X29
 FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

TS# 2395 RIVERSIDE



TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

NOTES:

A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS

1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:

a) ONE ROAD CONSTRUCTION AHEAD SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.

b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.

2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:

a) ONE ROAD CONSTRUCTION AHEAD SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.

b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.

3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:

USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.

C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.

D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

All dimensions are in millimeters (inches) unless otherwise shown.

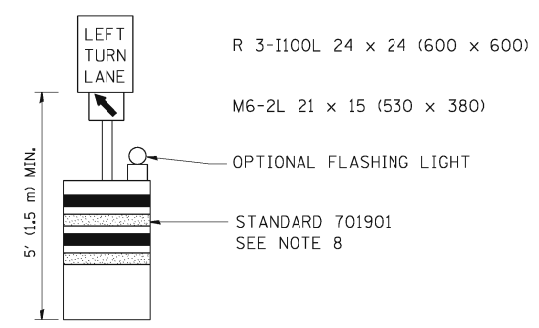
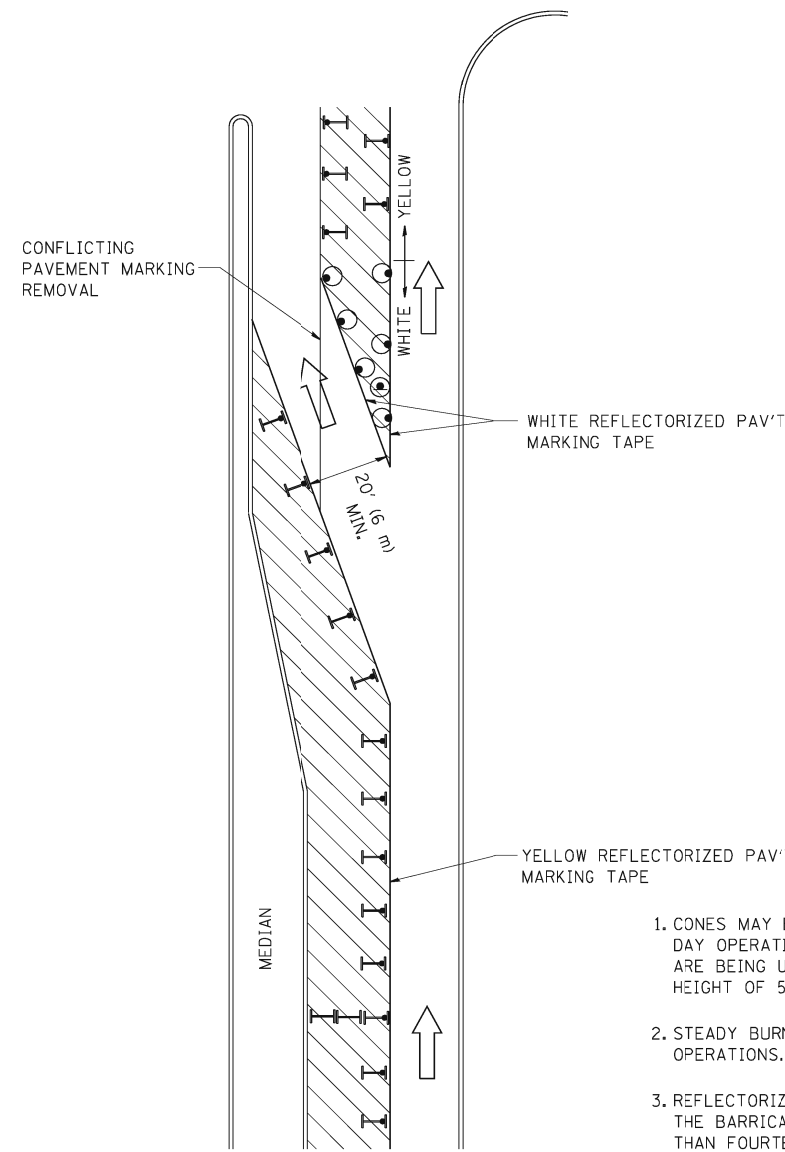
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		DRAWN -	REVISED - A. HOUSEH 03-06-96
	PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED - A. HOUSEH 10-15-96
	PLOT DATE = 1/4/2008	DATE - 06-89	REVISED - T. RAMMACH 01-06-00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL AND PROTECTION FOR
SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	91
TC-10		CONTRACT NO. 60X29		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				









GENERAL NOTES

1. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT. WHEN CONES ARE BEING USED, THE "LEFT TURN LANE" SIGN MAY BE SKID MOUNTED AT A MINIMUM HEIGHT OF 5' (1.5 m).
2. STEADY BURNING LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.
3. REFLECTORIZED TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE BARRICADED AREA OF EACH TURN BAY WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS.
4. THIS APPLICATION ALSO APPLIES WHEN WORK IS BEING PERFORMED IN THE RIGHT LANE(S) AND THE RIGHT TURN BAY IS TO REMAIN OPEN. UNDER THIS CONDITION, "RIGHT TURN LANE" R3-100 24 x 24 (600 x 600) AND M6-2R 21 x 15 (530 x 380) SHALL BE USED.
5. THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.
6. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS.
7. FORM OPER 725 IS REQUIRED.
8. IF A DRUM OR TYPE II BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 REQUIREMENTS IS NOT AVAILABLE, THE SIGNS SHALL BE MOUNTED, ABOVE THE BARRICADES, ON SEPARATE SIGNS SUPPORTS THAT MEET NCHRP 350 REQUIREMENTS.
9. TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

All dimensions are in inches (millimeters) unless otherwise shown.

LEGEND

-  WORK AREA
-  LANE OPEN TO TRAFFIC
-  TYPE I OR II BARRICADE WITH STEADY BURN LIGHT
-  DRUM WITH STEADY BURN LIGHT
-  DRUM WITH SIGN (WITH OPTIONAL FLASHING LIGHT) SEE DETAIL
-  TYPE I OR II CHECK BARRICADE WITH FLASHING LIGHT

FILE NAME =	USER NAME = drivakosgn	REVISED - T. RAMMACHER 09-08-94	REVISED - R. BORO 09-14-09
ct:\pw\work\PKWIDOT\DRIVAKOS\N\d0108315\14.dgn		REVISED - A. HOUSEH 11-07-95	REVISED -
		REVISED - A. HOUSEH 10-12-96	REVISED -
PLOT SCALE = 49.9999 / / IN.		REVISED - T. RAMMACHER 01-06-00	REVISED -
PLOT DATE = 9/14/2009			

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC CONTROL AND PROTECTION AT TURN BAYS
(TO REMAIN OPEN TO TRAFFIC)**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-054TS	COOK	92	92
TC-14		CONTRACT NO. 60X29		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				