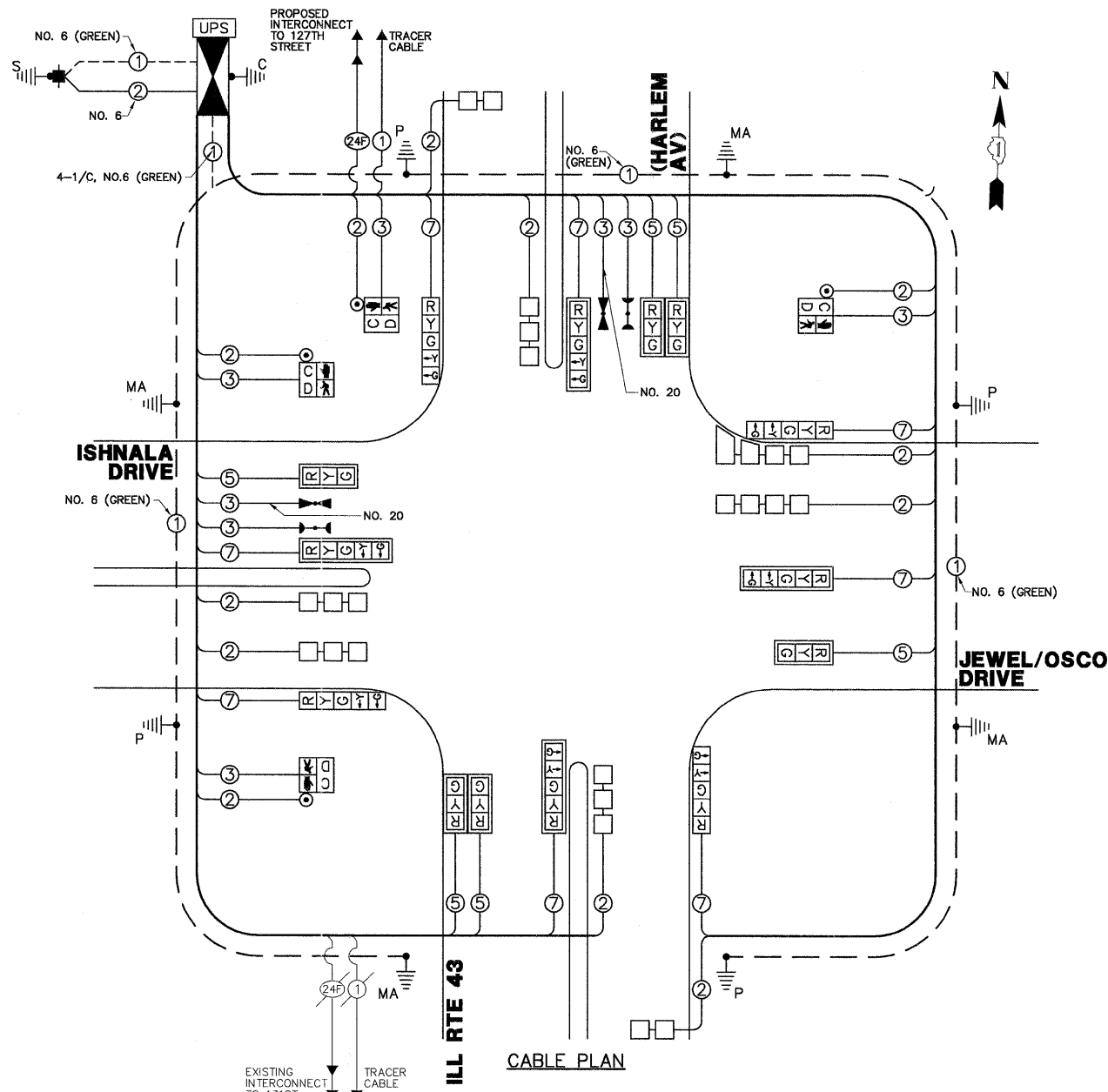


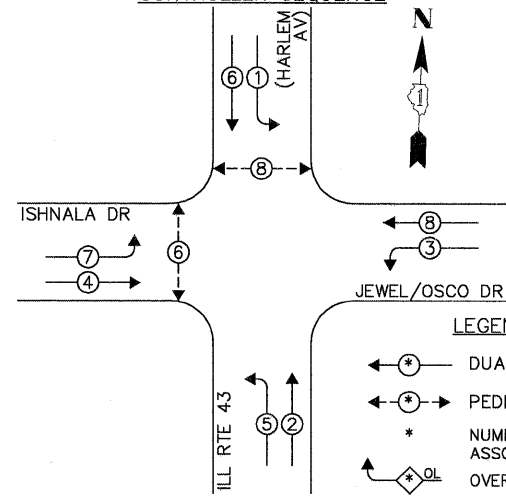
**SCHEDULE OF QUANTITIES**  
ILL ROUTE 43 (HARLEM AV) AT ISHNALA DRIVE

NO.	QUANT.	UNIT	DESCRIPTION
1.	1.50	CAL MO	CHANGEABLE MESSAGE SIGN
2.	15.00	SQ FT	SIGN PANEL - TYPE 1
3.	25.00	SQ FT	SIGN PANEL - TYPE 2
4.	1	EACH	SERVICE INSTALLATION - POLE MOUNTED
5.	861	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.
6.	53	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.
7.	65	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.
8.	467	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.
9.	4	EACH	HANDHOLE
10.	4	EACH	HEAVY-DUTY HANDHOLE
11.	2	FOOT	DOUBLE HANDHOLE
12.	1	EACH	UNINTERRUPTIBLE POWER SUPPLY, EXTENDED
13.	1	EACH	TRANSCIVER - FIBER OPTIC
14.	427	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C
15.	802	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
16.	1,201	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
17.	1,535	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
18.	1,639	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR
19.	88	FOOT	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C
20.	592	FOOT	ELECTRIC CABLE IN CONDUIT EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C
21.	4	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT
22.	1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 34 FT
23.	1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 42 FT
24.	2	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 46 FT
25.	16	FOOT	CONCRETE FOUNDATION, TYPE A
26.	4	FOOT	CONCRETE FOUNDATION, TYPE C
27.	50	FOOT	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER
28.	1	EACH	DRILL EXISTING HANDHOLE
29.	6	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
30.	4	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED
31.	4	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
32.	4	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
33.	10	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINIUM
34.	8	EACH	INDUCTIVE LOOP DETECTOR
35.	846	FOOT	DETECTOR LOOP, TYPE I
36.	2	EACH	LIGHT DETECTOR
37.	1	EACH	LIGHT DETECTOR AMPLIFIER
38.	4	EACH	PEDESTRIAN PUSH-BUTTON
39.	1,091	FOOT	REMOVE AND REINSTALL ELECTRIC CABLE FROM CONDUIT
40.	1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
41.	340	FOOT	ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED



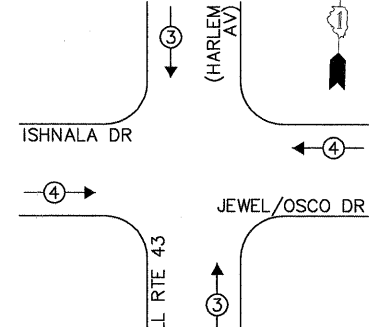
- CONSTRUCTION NOTES:**
- THE CONTRACTOR SHALL MAINTAIN THE EXISTING INTERCONNECT BETWEEN 127TH STREET AND 131ST STREET DURING THE CONSTRUCTION OF THE NEW TRAFFIC SIGNAL AT ISHNALA DRIVE.
  - THE CONTRACTOR SHALL ABANDON THE EXISTING INTERCONNECT CONDUIT WHERE INDICATED, AFTER THE INTERCONNECT RACEWAY BETWEEN 127TH STREET AND 131ST STREET IS CONSTRUCTED AND OPERATIONAL.
  - THE CONTRACTOR SHALL REMOVE THE EXISTING FIBER OPTIC AND TRACER CABLES FROM THIS HANDHOLE TO THE 127TH STREET CONTROLLER CABINET AND REINSTALL THEM IN THE NEW 2" CONDUIT AND TERMINATE THEM AT THE NEW CONTROLLER CABINET AT ISHNALA DRIVE. DISCARD ANY ADDITIONAL FIBER OPTIC AND TRACER CABLES.
  - THE CONTRACTOR SHALL PULL IN NEW FIBER OPTIC AND TRACER CABLES IN THE NEW 2" CONDUIT AND THEN THROUGH THE EXISTING HANDHOLES AND CONDUIT TO 127TH STREET. TERMINATE NEW CABLES AT BOTH CONTROLLER CABINETS.
  - THE STOP BARS ON ILL RTE 43 (HARLEM AVE) SHALL BE INSTALLED AT THE TIME OF THE TRAFFIC SIGNAL TURN-ON.
  - TWO CHANGEABLE MESSAGE SIGNS WILL NEED TO BE IN PLACE TWO WEEKS PRIOR AND ONE WEEK AFTER THE TRAFFIC SIGNAL TURN-ON. SIGNS SHALL BE PLACED, ONE EACH, NORTH AND SOUTH OF ISHNALA ON ILL RTE 43.

**CONTROLLER SEQUENCE**



**PROPOSED PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



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

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO LAMPS	WATTAGE	% OPERATION		
SIGNAL (RED)	14	135	17	0.50	119.0
SIGNAL (YELLOW)	14	135	25	0.10	35.0
SIGNAL (GREEN)	14	135	15	0.40	84.0
ARROW	16	135	12	0.10	19.2
PED.SIGNAL	4	90	25	1.00	100.0
CONTROLLER	1	-	100	1.00	100.0
LUMINAIRE	-	-	250	0.50	-
L.E.D. ST. NAME SIGN	-	-	64	0.50	-
VIDEO SYSTEM	-	-	150	1.00	-
BATTERY BACKUP	1	-	25	1.00	25.0
<b>TOTAL =</b>					<b>482.2</b>

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

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

ENERGY COSTS - BILLED TO: CITY OF PALOS HEIGHTS (ADDRESS) 7607 W. COLLEGE DRIVE (ADDRESS) PALOS HEIGHTS IL, 60463  
ENERGY SUPPLY - CONTACT: NEW BUSINESS PHONE: (866) 639-3532 COMPANY: COMED

DESIGNED - JRD  
DRAWN - ZCW  
CHECKED - KLB  
DATE - 11/10/2011

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE  
ILL RTE 43 (HARLEM AVE) & ISHNALA DR

FILE NAME = 2806-240-TR1.dwg  
USER NAME = GHA  
PLOT SCALE = 1"=1"  
PLOT DATE = 11/10/2011

SCALE: N.A. SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE. 348 SECTION 10-00047-00-TL COUNTY COOK TOTAL SHEETS 30 SHEET NO. 21 CONTRACT # 63626

ILLINOIS FED. AID PROJECT