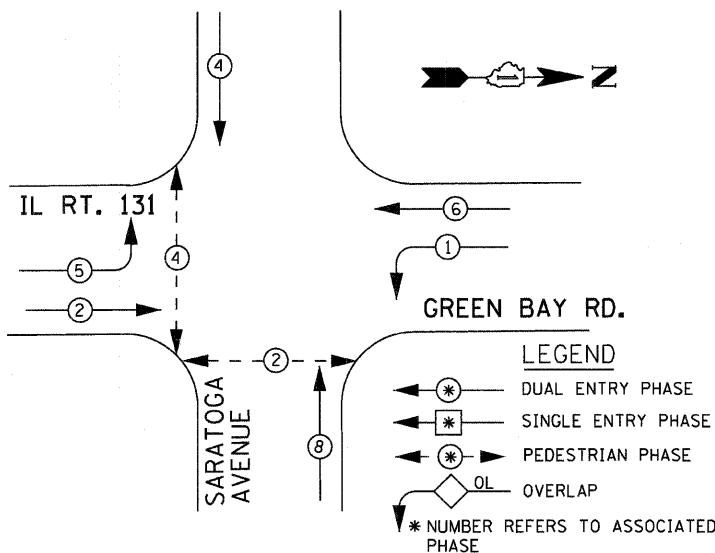


REGINA WEBSTER AND ASSOC. INC.
 CIVIL ENGINEERING CONSULTANTS
 510 North Clearview Ave., Suite 500
 Chicago, Illinois 60623-1969
RWA
 Regina Webster & Associates, Inc.

CONTROLLER SEQUENCE

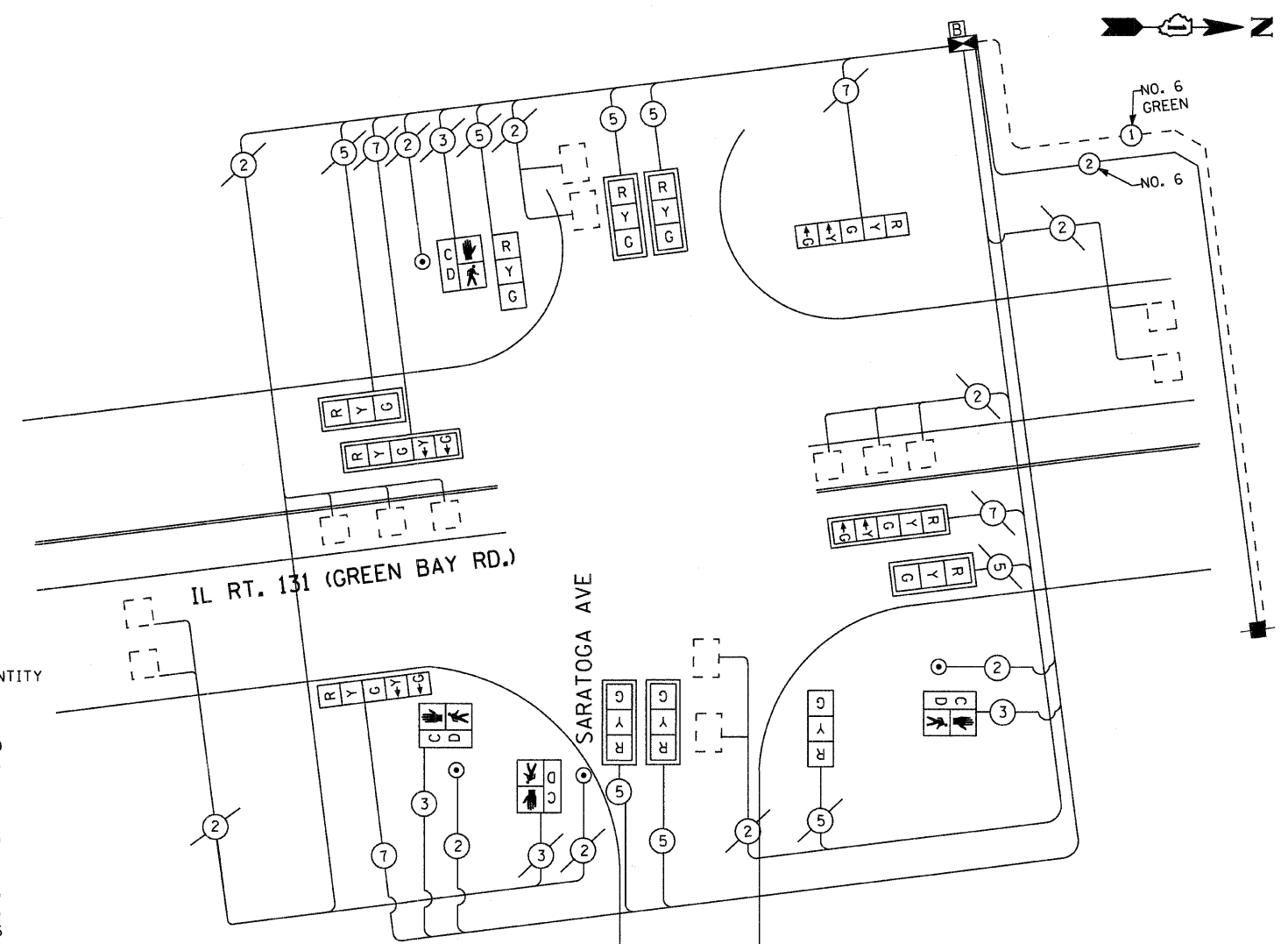


PHASE DESIGNATION DIAGRAM

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "NTCIP" COMPLIANT

SCHEDULE OF QUANTITIES

ITEM DESCRIPTION	UNIT	QUANTITY
THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	218
THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	95
THERMOPLASTIC PAVEMENT MARKING REMOVAL	SO FT	260
CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	295
CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL	FOOT	28
CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	143
HANDHOLE	EACH	1
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	323
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULLY ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	335
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	335
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	606
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	200
ELECTRIC CABLE IN CONDUIT, NO. 6 2C	FOOT	403
DRILL EXISTING HANDHOLE	EACH	8
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
STEEL MAST ARM ASSEMBLY AND POLE, 26 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.	EACH	1
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	15
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	15
SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	6
SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	2
INDUCTIVE LOOP DETECTOR	EACH	6
PEDESTRIAN SIGNAL HEAD, L.E.D., 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	8
PEDESTRIAN PUSH-BUTTON	EACH	4
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	2
TEMPORARY INFORMATION SIGNING	SO FT	102.8
SERVICE INSTALLATION, POLE MOUNT	EACH	1
UNINTERRUPTABLE POWER SUPPLY (UPS)	EACH	1
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO.6 1C	FOOT	403
SIGN PANEL - TYPE II	SO FT	27.5



CABLE PLAN LEGEND

EXISTING	PROPOSED	DESCRIPTION
		8" (200mm) TRAFFIC SIGNAL SECTION
		12" (300mm) TRAFFIC SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION W/ COUNTDOWN TIMER
		CONTROLLER CABINET
		SERVICE INSTALLATION
		TELEPHONE CONNECTION
		MAGNETIC DETECTOR
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
		PUSHBUTTON DETECTOR
		VEHICLE DETECTOR, INDUCTION LOOP
		② DENOTES NUMBER OF CONDUCTORS, ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
		RAILROAD CONTROL CABINET
		ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN"
		ILLUMINATED SIGN, FIBER OPTIC "NO RIGHT TURN"
		GROUND ROD AT HANDHOLE, DOUBLE HANDHOLE, OR CONTROLLER
		GROUND ROD AT POST OR MAST ARM POLE
		GROUND ROD AT ELECTRIC SERVICE INSTALLATION
		GROUND CABLE IN CONDUIT, NO.6 SOLID COPPER (GREEN)
		FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125 2-MM12F & SM12F
		UNINTERRUPTED POWER SUPPLY

I. D. O. T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	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	4	90	25	1.00	100
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN	-	252	25	0.05	-
VIDEO SYSTEM	-	150	-	1.00	-
FLASHER LED					
TOTAL =				431.6	

FOUNDATION DEPTH	DEPTH (FT.)	CABLE SLACK	(FT.)	VERTICAL	(FT.)
TYPE A - POST	4	HANDHOLE	6.5	ALL FOUNDATIONS	3.5
D - CONTROLLER	4	DOUBLE HANDHOLE	13	MAST ARM (L) POLE	=20' H-2
E - MAST ARM POLE		SIGNAL POST	2	BRACKET MOUNTED	13
30"	15	CONTROLLER CAB.	1	PED. PUSHBUTTON	4
36"	15	FIBER OPTIC	13	ELECTRICAL SERVICE	13.5
42"	25	ELECTRICAL SERVICE	1	SERVICE TO GROUND	13.5
		GROUND CABLE	1	POSTMOUNTED	6

ENERGY COSTS- BILLED TO: NORTH CHICAGO
 1850 LEWIS AVE
 NORTH CHICAGO, IL 60064

ENERGY SUPPLY - CONTACT NEW BUSINESS
 PHONE 1-866-639-3552
 COMPANY COMED