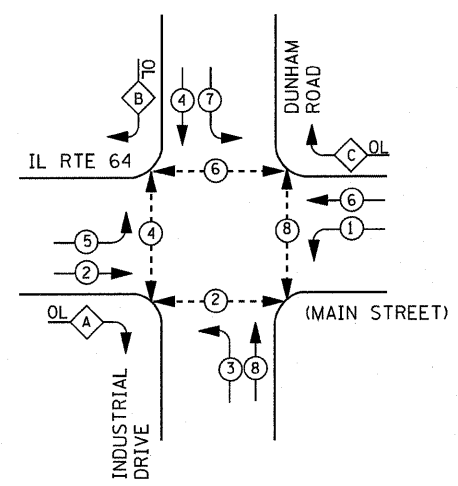


CIVIL ENGINEERING CONSULTANTS  
**RWA**  
 Regina Webster & Associates, Inc.  
 8619 W. Bryn Mawr Ave., Suite 602  
 Chicago, IL 60631-3551  
 773-283-2600 Fax 773-283-2602  
 www.RWEngineers.com

**CONTROLLER SEQUENCE**



**LEGEND**

- ⊙ DUAL ENTRY PHASE
- ⊙ PEDESTRIAN PHASE
- ⊙ SINGLE ENTRY PHASE
- ⊙ OVERLAP
- \* NUMBER REFERS TO ASSOCIATED PHASE

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

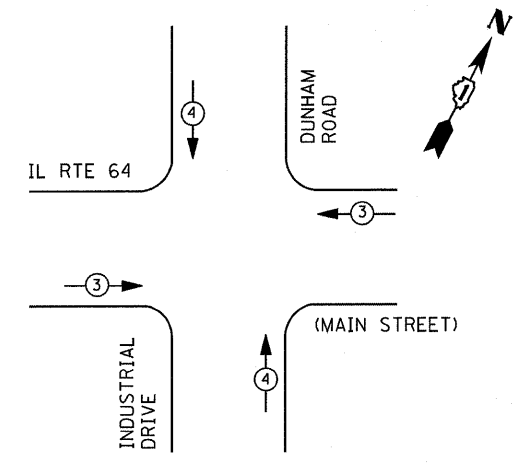
THE END OF THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINET.

**RIGHT TURN OVERLAP PHASE DESIGNATION**

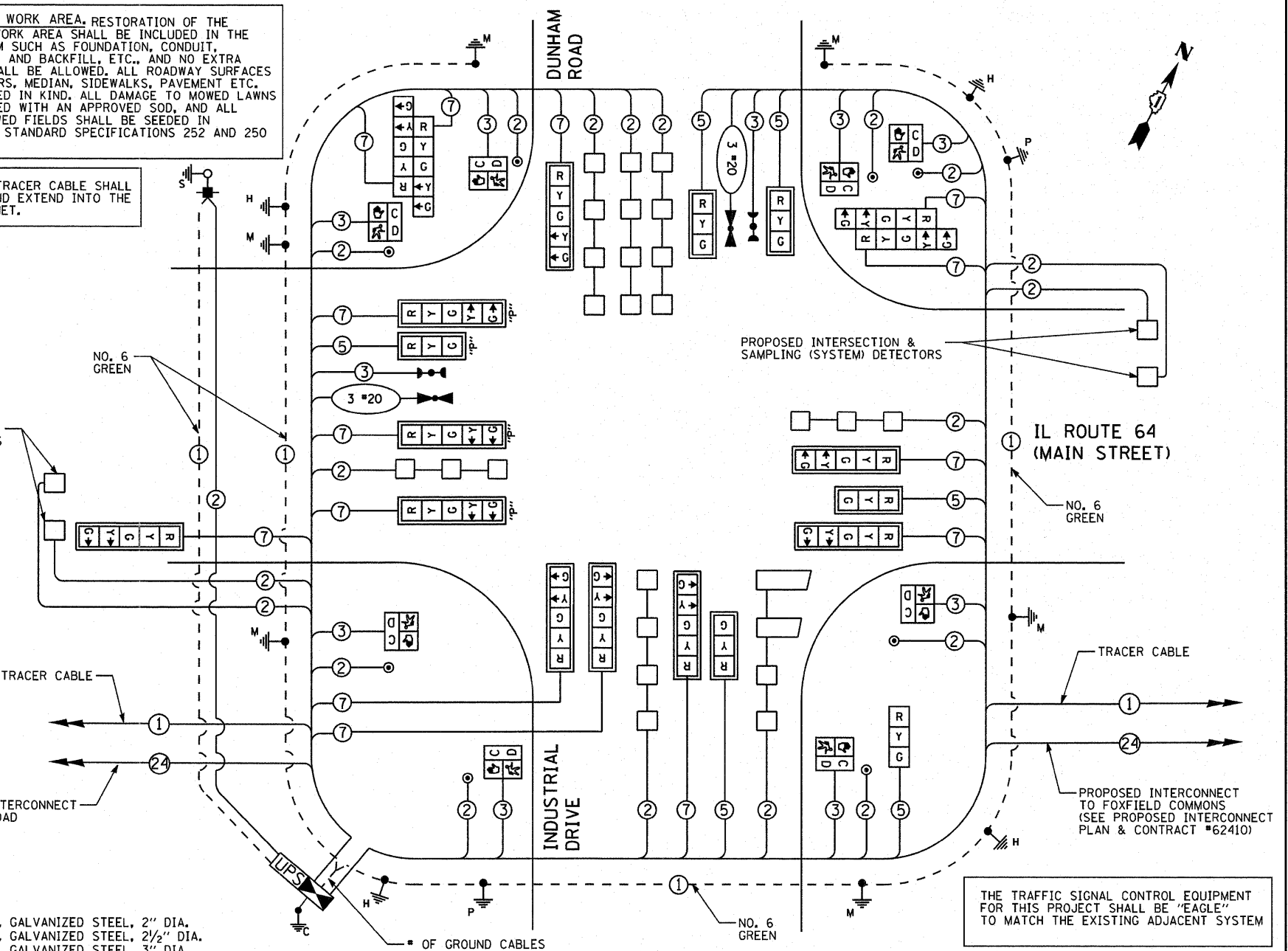
OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A	2	3
B	4	5
C	6	7

**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	←	↑



**CABLE PLAN**

**SCHEDULE OF QUANTITIES**

QUANTITY	UNIT	ITEM
34.5	SO FT	SIGN PANEL - TYPE 1
27.5	SO FT	SIGN PANEL - TYPE 2
910	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.
23	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.
89	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.
532	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.
4	EACH	HANDHOLE
4	EACH	HEAVY-DUTY HANDHOLE
2	EACH	DOUBLE HANDHOLE
* 1	EACH	FULL-ACTUATED CONTROLLER AND CABINET, TYPE IV, SPECIAL
1	EACH	TRANSCEIVER - FIBER OPTIC
1460	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C
1516	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
* 617	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
1562.5	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
2767.5	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
2800	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR
152	FOOT	ELECTRIC CABLE IN CONDUIT, NO. 6 2C
1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.
1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.
2	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 34 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 40 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 42 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 56 FT.
1	EACH	STEEL MAST ARM ASSEMBLY & POLE WITH DUAL MAST ARMS, 36 FT. & 22 FT.
8	FOOT	CONCRETE FOUNDATION, TYPE A
4	FOOT	CONCRETE FOUNDATION, TYPE C
13.5	FOOT	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER
36	FOOT	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER
21	FOOT	CONCRETE FOUNDATION, TYPE E 42-INCH DIAMETER
1	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, BRACKET MOUNTED
4	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, MAST ARM MOUNTED
7	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, MAST ARM MOUNTED
2	EACH	SIGNAL HEAD, L.E.D., 2-FACE, 5 SECTION, BRACKET MOUNTED

QUANTITY	UNIT	ITEM
11	EACH	INDUCTIVE LOOP DETECTOR
1717	FOOT	DETECTOR LOOP, TYPE 1
8	EACH	PEDESTRIAN SIGNAL HEAD, L.E.D., 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
15	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
8	EACH	PEDESTRIAN PUSH-BUTTON
* 2	EACH	LIGHT DETECTOR
* 1	EACH	LIGHT DETECTOR AMPLIFIER
1	EACH	TEMPORARY TRAFFIC SIGNAL INSTALLATION
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	REMOVE EXISTING HANDHOLE
11	EACH	REMOVE EXISTING CONCRETE FOUNDATION
8	EACH	REMOVE EXISTING CONCRETE FOUNDATION
1	EACH	TEMPORARY TRAFFIC SIGNAL TIMING
1	EACH	SERVICE INSTALLATION - POLE MOUNTED
1	EACH	UNINTERRUPTIBLE POWER SUPPLY SPECIAL
585	FOOT	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C
1	EACH	OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED
3	EACH	OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED
* 617	FOOT	ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED

\* - 100% COST TO THE CITY OF ST. CHARLES  
 \*\* - 100% COST TO CMAQ

I. D. O. T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				
TYPE	NO. LAMPS	WATTAGE		TOTAL WATTAGE
		INCAND.	LED	
SIGNAL (RED)	20	135	17	170
(YELLOW)	20	135	25	125
(GREEN)	20	135	15	75
ARROW	28	135	12	36
PED. SIGNAL	8	90	25	200
CONTROLLER	1	100	100	100
ILLUM. SIGN		252	25	0.05
VIDEO SYSTEM		150	-	1.00
TOTAL =				706.0

ENERGY COSTS- BILLED TO: IDOT DISTRICT 1  
 201 WEST CENTER COURT  
 SCHAMBURG, IL 60196-1096  
 ENERGY SUPPLY - CONTACT TOM BRUHL  
 PHONE 630-377-4401  
 COMPANY CITY OF ST. CHARLES

FILE NAME =	USER NAME = *USER*	DESIGNED - DW	REVISED -
*FILE#		DRAWN - DW	REVISED -
		CHECKED - JS	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

IL ROUTE 64 (MAIN STREET) AND DUNHAM ROAD /INDUSTRIAL DRIVE  
 CABLE PLAN, SCHEDULE OF QUANTITIES & PHASE DESIGNATION DIAGRAM  
 SCALE: NTS SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
307	129 R-2	KANE	243	131
				CONTRACT NO. 62195
ILLINOIS FED. AID PROJECT				