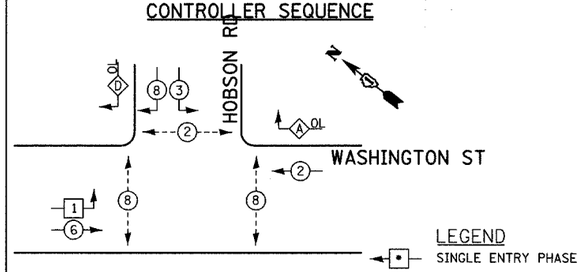
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	00-00114-00-PV	DuPAGE	563	197
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 63024

CONTROLLER SEQUENCE



LEGEND

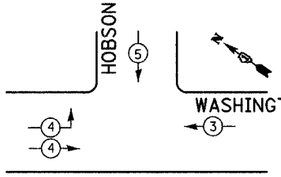
- SINGLE ENTRY PHASE
- DUAL ENTRY PHASE
- OVERLAP
- PEDESTRIAN PHASE
- NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM

RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP LETTER		PERMISSIVE PHASE		PROTECTED PHASE
A	=	2	+	3
D	=	8	+	1

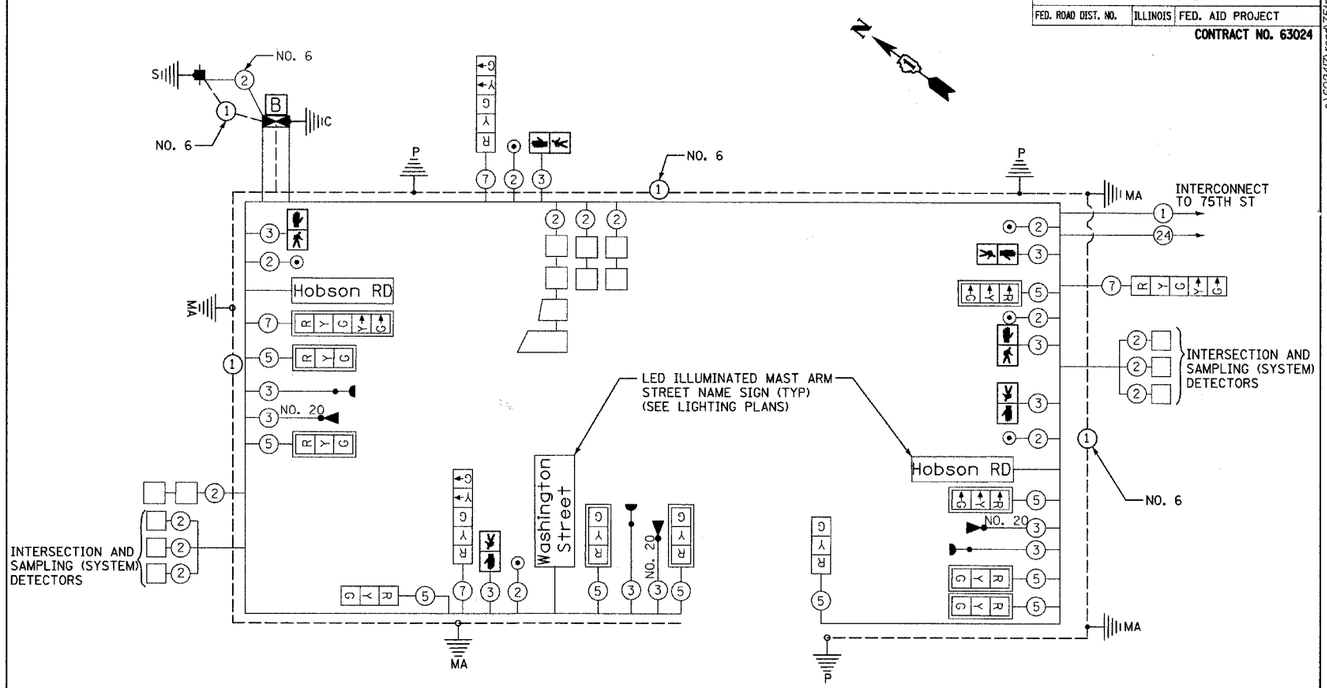
EMERGENCY VEHICLE PREEMPTION SEQUENCE



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

SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QTY
SIGN PANEL - TYPE 1	SQ FT	10
CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	620
CONDUIT IN TRENCH, 2½" DIA., GALVANIZED STEEL	FOOT	48
CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL	FOOT	10
CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	358
HANDHOLE	EACH	8
DOUBLE HANDHOLE	EACH	1
TRENCH AND BACKFILL FOR ELECTRIC WORK	FOOT	678
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1054
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	2229
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	2467
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	607
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	2889
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	52
TRAFFIC SIGNAL POST, GALVANIZED STEEL, 10 FT	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL, 14 FT	EACH	1
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, 46 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 26 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 38 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	12
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	30
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	30
SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	8
SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	1
SIGNAL HEAD, POLYCARBONATE, LED, 2-FACE, 1-3-SECTION, 1-5-SECTION, BRACKET MOUNTED	EACH	1
PEDESTRIAN SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, BRACKET MOUNTED	EACH	6
TRAFFIC SIGNAL BACKPLATE	EACH	10
INDUCTIVE LOOP DETECTOR	EACH	10
DETECTOR LOOP, TYPE 1	FOOT	589
LIGHT DETECTOR	EACH	3
LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH BUTTON	EACH	6
TEMPORARY TRAFFIC SIGNAL INSTALLATION (SPECIAL)	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
TEMPORARY TRAFFIC SIGNAL TIMINGS	EACH	1
SERVICE INSTALLATION - GROUND MOUNTED	EACH	1
FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F, SM12F	FOOT	607
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	716
ELECTRIC CABLE IN CONDUIT, NO. 20 3/C, TWISTED, SHIELDED	FOOT	1
MODIFY TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
UNINTERRUPTABLE POWER SUPPLY	EACH	



CABLE PLAN LEGEND

EXISTING	PROPOSED	
G	G	8" (200mm) TRAFFIC SIGNAL SECTION
R	R	12" (300mm) TRAFFIC SIGNAL SECTION
W	W	12" (300mm) PEDESTRIAN SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION
		CONTROLLER CABINET
		SERVICE INSTALLATION
		TELEPHONE CONNECTION
		MAGNETIC DETECTOR
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
		PUSHBUTTON DETECTOR
		VEHICLE DETECTOR, INDUCTION LOOP
(2)	(2)	DENOTES NUMBER OF CONDUCTORS, ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.

EXISTING	PROPOSED	
R Y G ←Y ←G "P"	R Y G ←Y ←G "P"	SIGNAL FACE WITH BACKPLATE "P" INDICATES PROGRAMMED HEAD
H/C	H/C	GROUND ROD AT HANDHOLE, DOUBLE HANDHOLE, OR CONTROLLER
P	P	GROUND ROD AT POST OR MAST ARM POLE
S	S	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
(1)	(1)	GROUND CABLE IN CONDUIT, NO.6 SOLID COPPER (GREEN)
(24)	(24)	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125 2-MM12F & SM12F
B	B	UNINTERRUPTABLE POWER SUPPLY

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

TYPE	NO. OF LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	12	135	17	0.50	119
(YELLOW)	12	135	25	0.25	87.5
(GREEN)	12	135	15	0.25	52.5
ARROW	14	135	12	0.10	9.6
PED. SIGNAL	6	90	25	1.00	150
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN	3			0.05	0
FLASHER	0			0.05	0
ENERGY COSTS TO:				TOTAL =	518.6

CITY OF NAPERVILLE

CONTACT: _____
PHONE: _____
COMPANY: CITY OF NAPERVILLE - DPU-E

NOTES:

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

FOUNDATION (DEPTH)	FT.	(m)	CABLE SLACK	FT.	(m)	VERTICAL	FT.	(m)
TYPE A - POST	4	(1.2)	HANDHOLE	6.5	(2.0)	ALL FOUNDATIONS	3.5	(1.0)
D - CONTROLLER	4	(1.2)	DOUBLE HANDHOLE	13	(4.0)	MAST ARM (L) POLE	20'+ L-2 = (6m+L-0.6m)	
E - MAST ARM POLE			SIGNAL POST	2	(1.0)			
24" (600mm)	10	(3.0)	CONTROLLER CAB.	1	(0.5)	BRACKET MOUNTED	13	(4.0)
30" (750mm)	15	(4.6)	FIBER OPTIC	13	(4.0)	PED. PUSHBUTTON	4	(1.2)
			ELECTRIC SERVICE	1	(0.5)	ELECTRIC SERVICE	13.5	(4.1)
			GROUND CABLE	1	(0.5)	SERVICE TO GROUND	13.5	(4.1)
						POST MOUNTED	6	(1.8)

REVISIONS NAME	DATE

INTERSECTION IMPROVEMENT
WASHINGTON STREET - 75th STREET
SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM
WASHINGTON STREET AND HOBSON ROAD
SHEET 3 OF 3

CONSULTANT
TYLIN INTERNATIONAL

City of Naperville

DRAWN: CBS	SHEET NO.
CHECKED: DAJ	
APPROVED:	
DATE: APRIL 11, 2008	
SCALE: NONE	
JOB NO.: P-91-494-00	PROJECT NO.: M-CMM-7003 (985)

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