

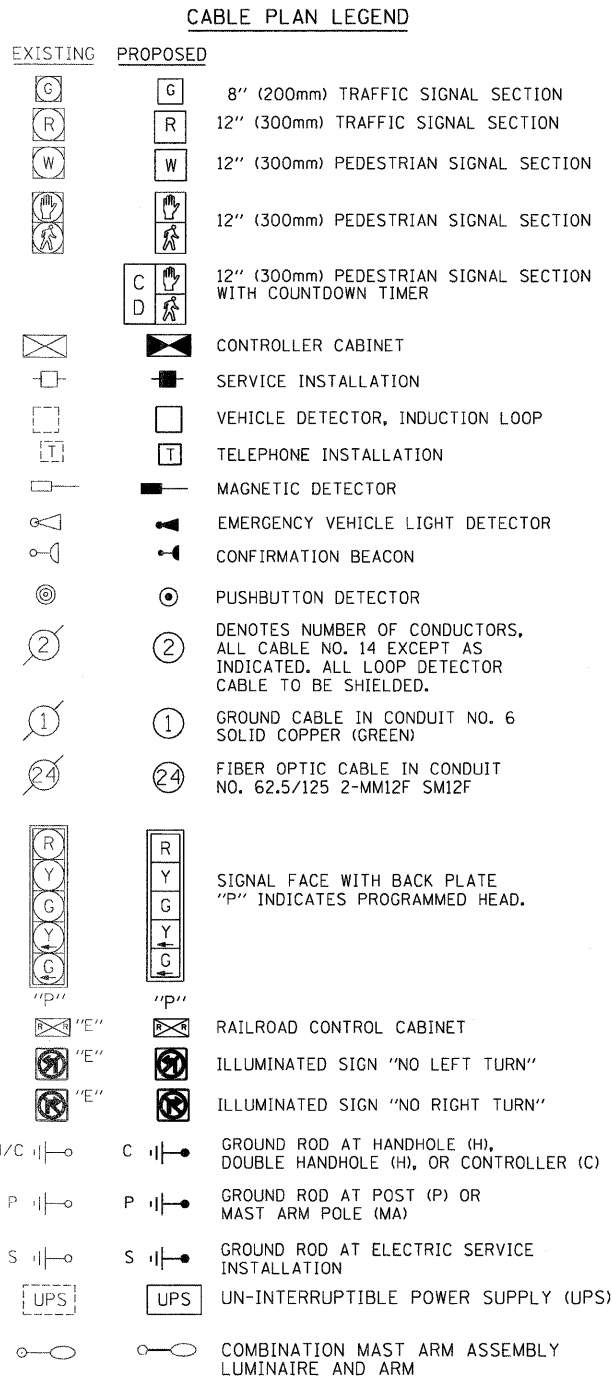
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DATE/TIME: 3/31/2011 12:00:10 PM

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE LED	% OPERATION		
SIGNAL (RED)	15	17	0.50		127.5
(YELLOW)	15	25	0.25		93.75
(GREEN)	15	15	0.25		56.25
ARROW	20	12	0.10		24.0
CONTROLLER	1	100	1.00		100.0
LIGHTING (HPS)	4	250	0.48		480.0
FLASHER	2	25	0.50		25.0
TOTAL =					806.5
ENERGY COST TO: Illinois Department of Transportation Division of Highways / District 3 700 E. Norris Dr. Ottawa, IL 61350					
ENERGY SUPPLY: CONTACT: Mr. Thomas Perkins PHONE: 630 723-2127 COMPANY: ComEd					
FILE NAME =	USER NAME = .USER.		DESIGNED - RS	REVISED -	
#FILE#			DRAWN - RS	REVISED -	
	PLOT SCALE = 20,000' / IN.		CHECKED - RS	REVISED -	
	PLOT DATE = 3/31/2011		DATE - 03/31/2011	REVISED -	

FOUNDATION (DEPTH)	(FT.) (m)	CABLE SLACK	(FT.) (m)	CABLE SLACK	(FT.) (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
C - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'-H-2' = (6m-H-0.6m) =
E - M. ARM POLE	2 (0.6)	SIGNAL POST	2 (0.6)	BRACKET MOUNTED	13 (4.0)
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.3)	PED. PUSH-BUTTON	4 (1.2)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	ELECTRIC SERVICE	13.5 (4.1)
36" (910mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.3)	SERVICE TO GROUND	13.5 (4.1)
		GROUND CABLE	1 (0.3)	POST MOUNTED	6 (1.8)

CABLE PLAN

NOTE: EQUIPMENT GROUND CONDUCTOR (GREEN COLOR CODED) SPICE TO FRAME AND COVER IS REQUIRED FOR ALL HANDHOLES AND DOUBLE HANDHOLES THAT CARRY SIGNAL CABLES AND SERVICE CABLES.



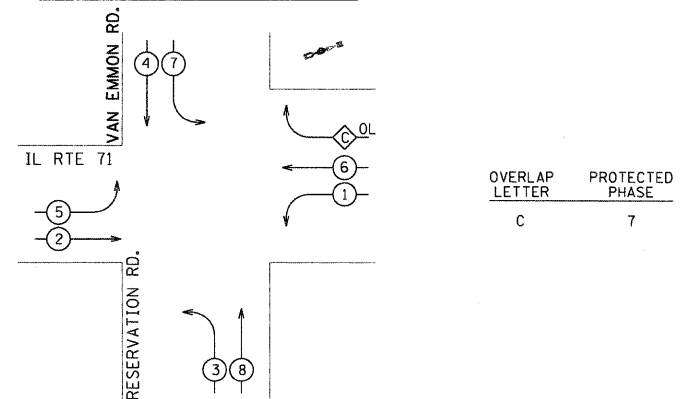
SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
SAFETY - TRAFFIC SIGNALS AND LIGHTING		
SIGN PANEL - TYPE 1	SQ. FT.	15
SIGN PANEL - TYPE 2	SQ. FT.	60
ELECTRIC SERVICE INSTALLATION	EACH	1
SERVICE INSTALLATION, TYPE B	EACH	1
CONDUIT IN TRENCH, 1 1/2" DIA., PVC	FOOT	20
CONDUIT IN TRENCH, 2" DIA., PVC	FOOT	1108
CONDUIT IN TRENCH, 2 1/2" DIA., PVC	FOOT	66
CONDUIT IN TRENCH, 3" DIA., PVC	FOOT	88
CONDUIT IN TRENCH, 4" DIA., PVC	FOOT	105
CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	52
CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	278
HANDHOLE, PORTLAND CEMENT CONCRETE	EACH	4
DOUBLE HANDHOLE, PORTLAND CEMENT CONCRETE	EACH	2
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 3-1/C NO. 10	FOOT	597
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	1387
LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT	EACH	4
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
UNINTERRUPTIBLE POWER SUPPLY, EXTENDED	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1435
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	931
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1001
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	3204
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	108
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	1656
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	4
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 30 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 38 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 48 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 50 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	16
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	58
FLASHING BEACON INSTALLATION	EACH	2
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	5
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	5
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	15
INDUCTIVE LOOP DETECTOR	EACH	17
DETECTOR LOOP, TYPE I	FOOT	1763

DETECTOR LOOP INDUCTANCE CHART

LOOP	LABEL	NO. OF TURNS	J-PIN STATUS
A	06 SB STBR RL	4	OFF
B	06 SB STBR LL	4	OFF
C	06 SB FAR	5	ON
D	01 SB LT	4	ON
E	08 WB STBR	4	ON
F	08 WB STBR	4	ON
G	03 WB LT	4	ON
H	08 WB FAR	4	ON
I	03 WB LT FAR	4	ON
J	02 NB FAR	5	ON
K	02 NB STBR	4	OFF
L	05 NB LT	4	ON
M	04 EB STBR	4	ON
N	04 EB STBR	4	ON
O	07 EB LT	4	ON
P	04 EB FAR	4	ON
Q	07 EB LT FAR	4	ON

PHASE DESIGNATION DIAGRAM



REFER TO HIGHWAY STANDARD 857001 FOR ADDITIONAL INFORMATION

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAP 311 (IL 71) AT VAN EMMON / RESERVATION ROADS
CABLE PLAN

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	(1-1)N TS	KENDALL	92	62
CONTRACT NO. 66955				
ILLINOIS FED. AID PROJECT				

SHEET NO. OF SHEETS STA. TO STA.