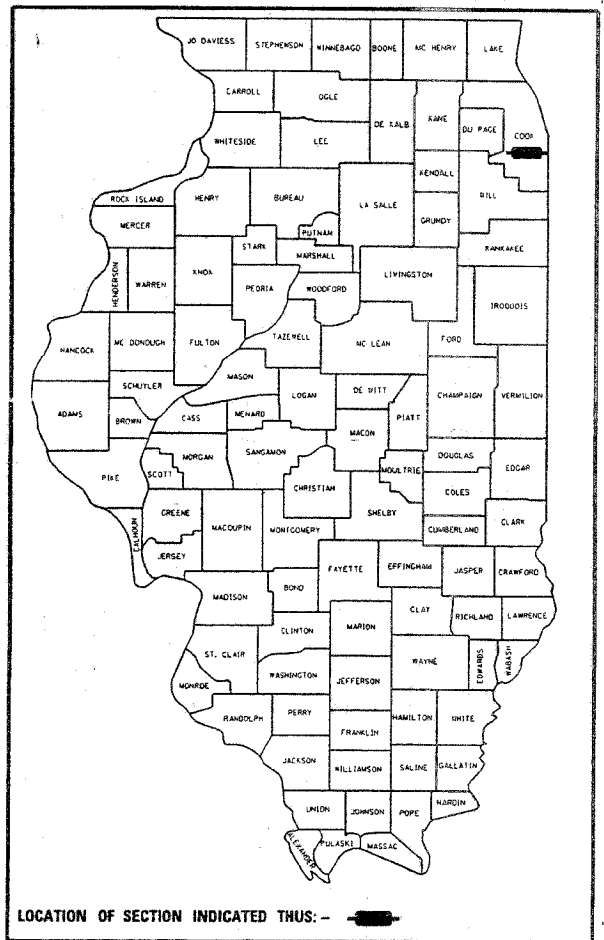


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	537 W-TS	COOK	14	1



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PLANS FOR PROPOSED
FEDERAL AID HIGHWAY**

DISTRICT 1

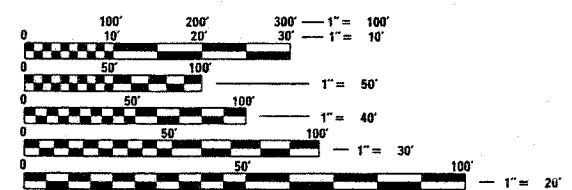
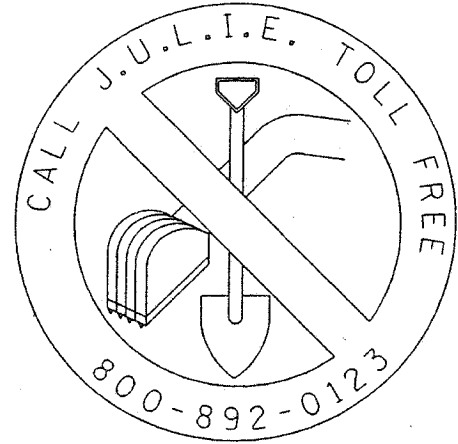
TRAFFIC SIGNAL MODERNIZATION
U.S. 6 AT RIDGELAND AVE.

ROUTE: F.A.P. 351
SECTION 537 W-TS
COOK COUNTY
C-91-134-07
PROJECT: HSIP-0351(016)

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- 3-6. DISTRICT 1 STANDARD TRAFFIC SIGNAL DETAILS
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TEMPORARY TRAFFIC SIGNAL PLAN
8. U.S. 6 AT RIDGELAND AV
TEMPORARY CABLE PLAN, EMERGENCY
VEHICLE PREEMPTION AND PHASE
DESIGNATION DIAGRAM
9. U.S. 6 AT RIDGELAND AV
PROPOSED TRAFFIC SIGNAL INSTALLATION PLAN
10. U.S. 6 AT RIDGELAND AV
PROPOSED CABLE PLAN, EMERGENCY
VEHICLE PREEMPTION AND PHASE
DESIGNATION DIAGRAM
11. MAST ARM MOUNTED STREET
NAME SIGNS SHEET
12. INTERCONNECT PLAN FOR OAK PARK AVE.
13. INTERCONNECT PLAN FOR RIDGELAND AVE.
14. INTERCONNECT SCHEMATIC PLAN
- 14A. DISTRICT ONE TYPICAL PAVEMENT MARKINGS
STANDARDS

701006-02 701011-01 701101-01 701301-02 814001-01
702001-06 424001-04 857001 880006 701801-03



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD
ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT
CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS
ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

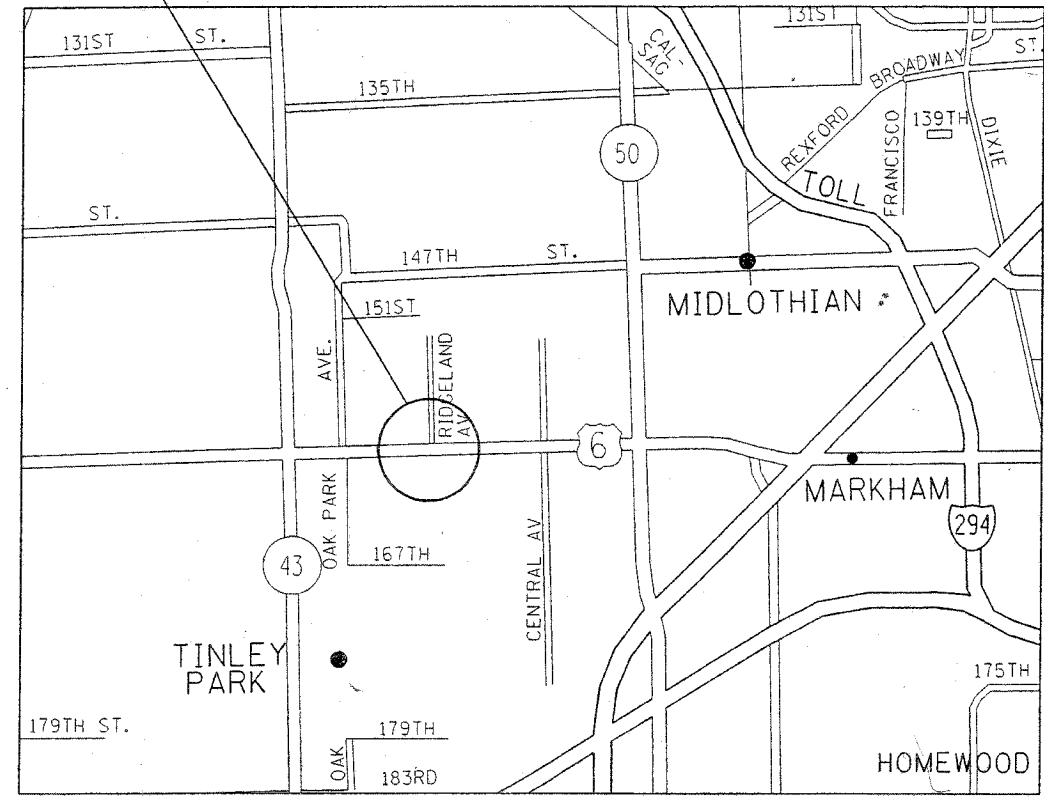
Prepared by Steve Travia Traffic Engineer Date 5/28/07

CONTRACT NO. 60C15

PROJECT LOCATION



IMPROVEMENT LOCATED IN
THE VILLAGE OF OAK FOREST



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED 3/28 20 07

Alvin W. O'Keefe
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

May 11, 20 07
Eric E. Haral
ENGINEER OF DESIGN AND ENVIRONMENT

May 11, 20 07
Milton R. Seay, P.E.
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

DISTRICT ONE - BUREAU OF TRAFFIC - STEVE TRAVIA / DARYLE DREW (847) 705-4420

SUMMARY OF QUANTITIES			URBAN 90% FED. 10% STATE TOTAL QUANTITIES	CONSTRUCTION TYPE CODE			
CODE NO	ITEM	UNIT		US 6 AT RIDGELAND YO31-1F	US 6 AT OAK PARK AV. YO31-1F	US 6 AT ARROYO DR. YO31-1F	US 6 INTERCONNECT YO31-1F
67100100	MOBILIZATION	L SUM	1				1
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	4	1	1	1	1
70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1	.25	.25	.25	.25
70102630	TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L SUM	1	.25	.25	.25	.25
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	.25	.25	.25	.25
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1	.25	.25	.25	.25
* 72000100	SIGN PANEL - TYPE 1	SO FT	36	36			
* 78000200	THERMOPLASTIC PAVEMENT MARKING-LINE 4"	FOOT	500	500			
* 78000400	THERMOPLASTIC PAVEMENT MARKING-LINE 6"	FOOT	215	215			
* 78000650	THERMOPLASTIC PAVEMENT MARKING-LINE 24"	FOOT	120	120			
81000600	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	518	518			
81018500	CONDUIT PUSHED 2" DIA., GALVANIZED STEEL	FOOT	90	90			
81000700	CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL	FOOT	137	137			
81018600	CONDUIT PUSHED, 2 1/2" DIA., GALVANIZED STEEL	FOOT	15	15			
81018900	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	194	194			
81400100	HANDHOLE	EACH	1	1			
81400200	HEAVY-DUTY HANDHOLE	EACH	1	1			
81400300	DOUBLE HANDHOLE	EACH	1	1			
81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	600	600			
85700205	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1	1			
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	2		1	1	
87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	322	322			
87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	902.5	902.5			
87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	955	955			
87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	596.5	596.5			
87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	990	990			
87301805	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	361	361			
X8730027	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	620	620			

SUMMARY OF QUANTITIES			URBAN 90% FED. 10% STATE TOTAL QUANTITIES	CONSTRUCTION TYPE CODE			
CODE NO	ITEM	UNIT		US 6 AT RIDGELAND YO31-1F	US 6 AT OAK PARK AV. YO31-1F	US 6 AT ARROYO DR. YO31-1F	US 6 INTERCONNECT YO31-1F
X8140074	GROUNDING EXISTING HANDHOLE FRAME AND COVER	EACH	2	2			
87502500	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	3	3			
87502520	TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.	EACH	1	1			
87700150	STEEL MAST ARM ASSEMBLY AND POLE, 22 FT.	EACH	1	1			
87700210	STEEL MAST ARM ASSEMBLY AND POLE, 34 FT.	EACH	1	1			
87800100	CONCRETE FOUNDATION, TYPE A	FOOT	16	16			
87800150	CONCRETE FOUNDATION, TYPE C	FOOT	4	4			
87800400	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	15	15			
87900200	DRILL EXISTING HANDHOLE	EACH	2	2			
88030020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	3	3			
88030050	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	3	3			
88030110	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	1	1			
88030100	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	2	2			
88030240	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	1	1			
88102710	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED	EACH	2	2			
88102740	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED	EACH	1	1			
88200210	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	4	4			
88500100	INDUCTIVE LOOP DETECTOR	EACH	6	6			
88600100	DETECTOR LOOP, TYPE I	FOOT	185	185			
88800100	PEDESTRIAN PUSH-BUTTON	EACH	3	3			
89000100	TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1	1			
89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	1886.5	1426.5			460
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1	1			
89502380	REMOVE EXISTING HANDHOLE	EACH	3	3			
89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	9	9			
X8050015	SERVICE INSTALLATION - POLE MOUNTED	EACH	1	1			
X8620020	UNINTERRUPTABLE POWER SUPPLY	EACH	1	1			
X8710020	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F	FOOT	1535.5	518.5			1017

*SPECIALTY ITEMS

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITIES
U.S. 6 AT RIDGELAND AV

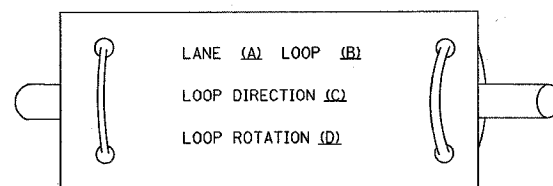
PLOT DATE: 3/28/2007

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	537 W-TS	COOK	14	3
STA.	TO STA.			
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

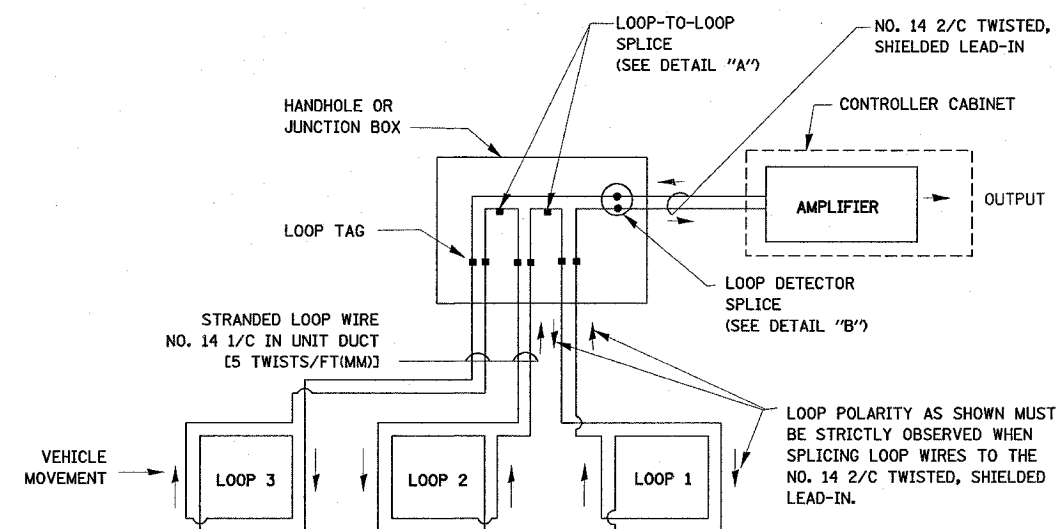
LOOP DETECTOR NOTES

- EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE UNIT DUCT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). UNIT DUCT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
- THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.
- EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF INK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.
- ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
- IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVEHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.
- LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.
- PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

LOOP LEAD-IN CABLE TAG

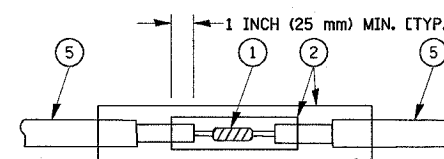


- LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

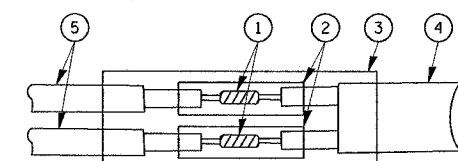


DETECTOR LOOP WIRING SCHEMATIC

- LOOPS SHALL BE SPLICED IN SERIES.
- SAW-CUTS SHALL BE A MINIMUM WIDTH OF 5/16" (8 mm).
- SAW-CUT DEPTHS SHALL BE 3" (75 mm). IF IN CONCRETE, THE SAW-CUT DEPTH SHALL BE TO THE TOP OF THE REINFORCEMENT.
- LOOP CORNERS SHALL BE DRILLED WITH A 2" (50 mm) DIAMETER CORE.



DETAIL "A"
LOOP-TO-LOOP SPLICE



DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

LOOP DETECTOR SPLICE

- WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH.
- WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGTH 6" (150 mm), UNDERWATER GRADE.
- NO. 14 2/C TWISTED, SHIELDED CABLE.
- LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT ONE
STANDARD TRAFFIC SIGNAL
DESIGN DETAILS

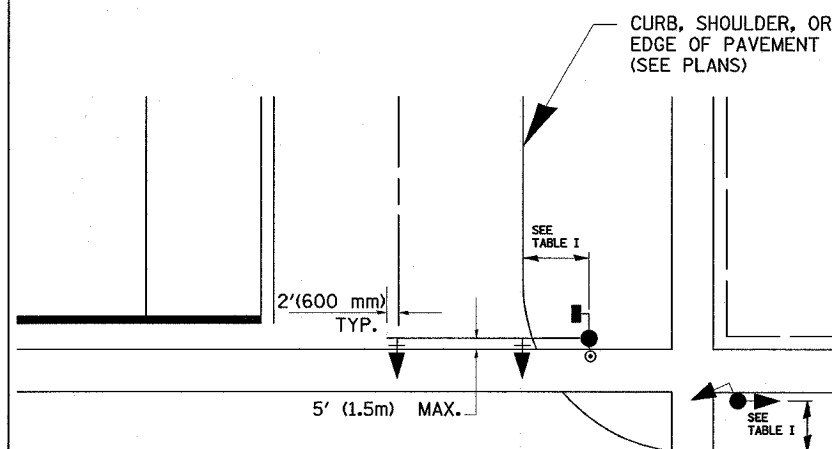
SCALE: VERT. NONE
HORIZ. NONE
DATE 1-01-02

DRAWN BY: RWP
DESIGNED BY: DAD
CHECKED BY: DAZ
SHEET 1 OF 4

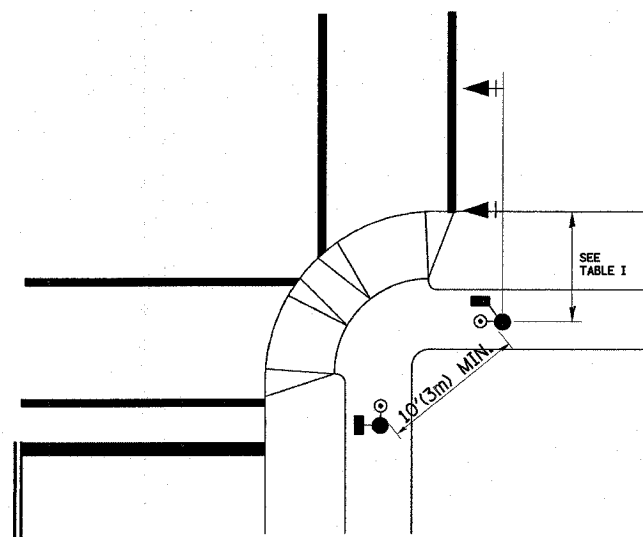
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	537 W-TS	COOK	14	4
STA.		TO STA.		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

TRAFFIC SIGNAL MAST ARM AND POST

MAST ARM MOUNTED SIGNAL IN PROPOSED & FUTURE SIDEWALK AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNAL AND PUSHBUTTON DETECTOR



PEDESTRIAN SIGNAL PUSHBUTTON



RECOMMENDED PUSHBUTTON LOCATIONS FOR ACCESSIBLE PEDESTRIAN SIGNALS SHALL BE IN ACCORDANCE WITH THE CURRENT MUTCD (SEE NOTE 1). TO MEET MUTCD REQUIREMENTS, PEDESTRIAN SIGNAL PUSHBUTTONS MAY HAVE TO BE MOUNTED ON A SEPARATE POST.

NOTES:

- AT ACCESSIBLE PEDESTRIAN SIGNAL LOCATIONS WITH PEDESTRIAN ACTUATION, EACH PUSHBUTTON SHALL ACTIVATE BOTH THE WALK INTERVAL AND THE ACCESSIBLE PEDESTRIAN SIGNALS.
 AT ACCESSIBLE PEDESTRIAN SIGNAL LOCATIONS, PUSHBUTTONS SHOULD CLEARLY INDICATE WHICH CROSSWALK SIGNAL IS ACTUATED BY EACH PUSHBUTTON. PUSHBUTTONS AND TACTILE ARROWS SHOULD HAVE HIGH VISUAL CONTRAST (SEE THE DEPARTMENT OF JUSTICE'S AMERICANS WITH DISABILITIES ACT STANDARDS FOR ACCESSIBLE DESIGN, 1991). TACTILE ARROWS SHOULD POINT IN THE SAME DIRECTION AS THE ASSOCIATED CROSSWALK. AT CORNERS OF SIGNALIZED LOCATIONS WITH ACCESSIBLE PEDESTRIAN SIGNALS WHERE PEDESTRIAN PUSHBUTTONS ARE PROVIDED, THE PUSHBUTTONS SHOULD BE SEPARATED BY THE DISTANCE OF AT LEAST 10 FT (3m). THIS ENABLES PEDESTRIANS WHO HAVE VISUAL DISABILITIES TO DISTINGUISH AND LOCATE THE APPROPRIATE PUSHBUTTON.
 PUSHBUTTONS FOR ACCESSIBLE PEDESTRIAN SIGNALS SHOULD BE LOCATED AS FOLLOWS:
 A: ADJACENT TO A LEVEL ALL-WEATHER SURFACE TO PROVIDE ACCESS FROM A WHEELCHAIR, AND WHERE THERE IS AN ALL WEATHER SURFACE, WHEELCHAIR ACCESSIBLE ROUTE TO THE RAMP.
 B: WITHIN 5 FT (1.5m) OF THE CROSSWALK EXTENDED.
 C: WITHIN 10 FT (3m) OF THE EDGE OF CURB, SHOULDER, OR PAVEMENT.
 D: PARALLEL TO THE CROSSWALK TO BE USED (SEE MUTCD FIGURE 4E-2).
 E: NORMAL PEDESTRIAN PUSHBUTTON MOUNTING HEIGHT SHOULD BE 3.5 FT (1.05m) ABOVE ADJACENT SIDEWALK
- PEDESTRIAN SIGNAL FACES SHALL BE MOUNTED WITH THE BOTTOM OF THE HOUSING NOT LESS THAN 8 FT (2.4m) NOR MORE THAN 10 FT (3.0m) ABOVE THE SIDEWALK LEVEL AND SO THERE IS A PEDESTRIAN INDICATION IN THE LINE OF PEDESTRIANS' VISION WHICH PERTAINS TO THE CROSSWALK BEING USED.
- THE BOTTOM OF THE HOUSING OF A VEHICLE SIGNAL FACE, NOT MOUNTED OVER A ROADWAY, SHALL BE AT LEAST 10 FT (3.0m) BUT NOT MORE THAN 15 FT (4.5m) ABOVE THE SIDEWALK OR, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE HIGHWAY IF NO SIDEWALKS EXIST.
- THE BOTTOM OF THE HOUSING OF A VEHICLE SIGNAL FACE, MOUNTED OVER A ROADWAY, SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001 AND 877006. (16 FT (5m) MIN., 18 FT (5.5m) MAX., FROM HIGHEST POINT OF PAVEMENT)

PEDESTRIAN SIGNAL POST

PEDESTRIAN SIGNAL HEAD AND PEDESTRIAN PUSHBUTTON DETECTOR LOCATION

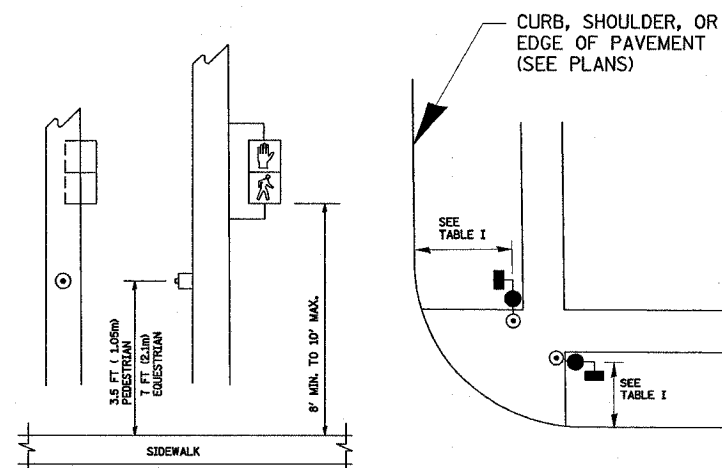
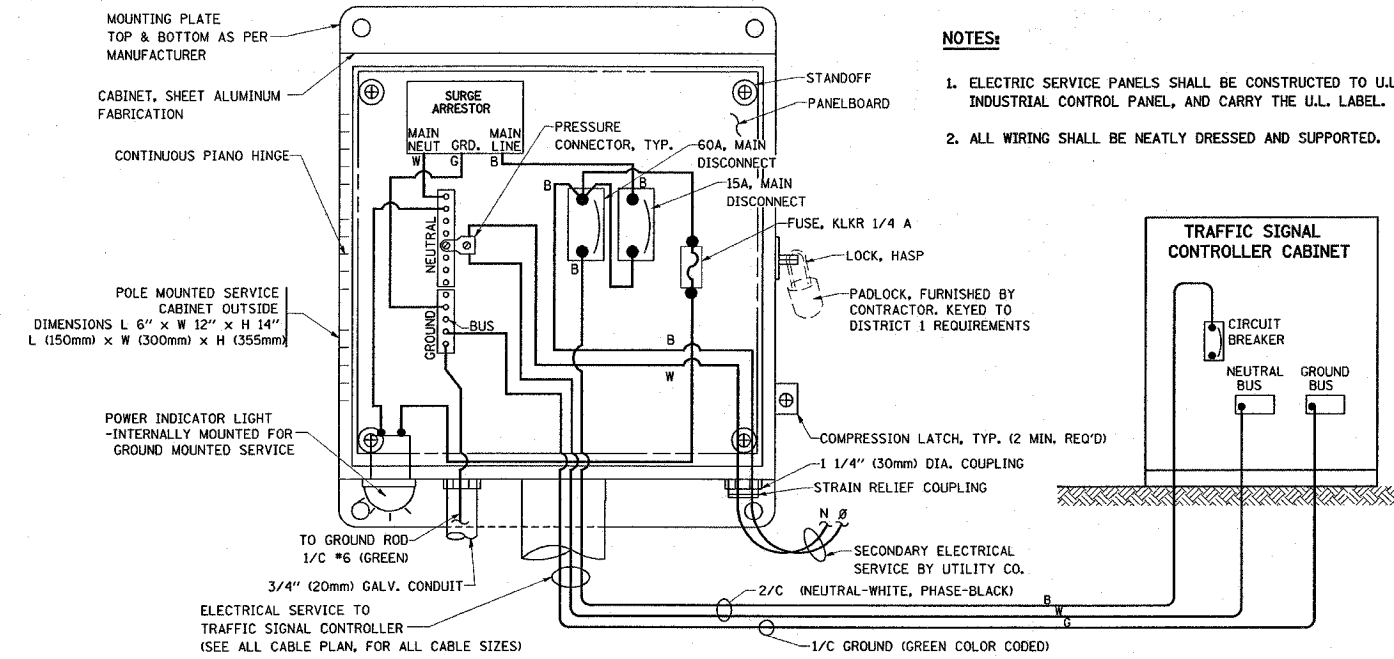


TABLE I

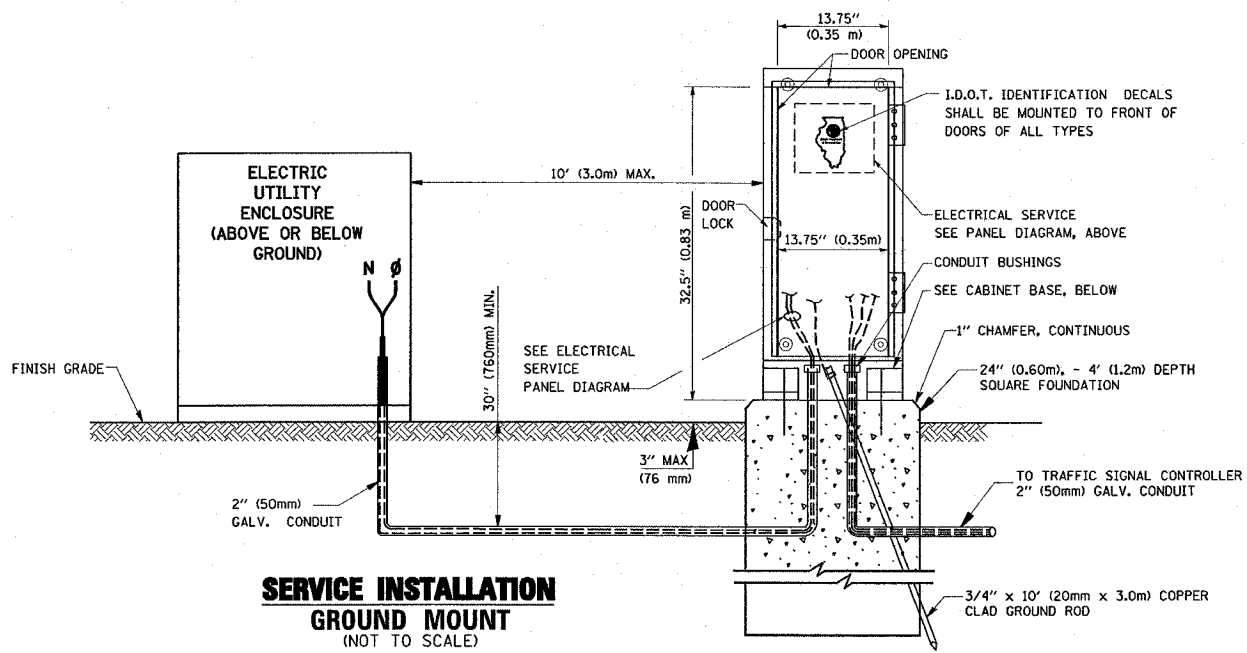
TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MIN. DIST. FROM BACK OF CURB)	SHOULDER/NON-CURBED AREA (MIN. DIST. FROM EDGE OF PAVEMENT)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
PEDESTRIAN PUSHBUTTON	SEE NOTE 1	SEE NOTE 1

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAILS
SCALE:	VERT. NONE	DRAWN BY: RWP DESIGNED BY: DAD CHECKED BY: DAZ SHEET 2 OF 4
DATE	1-01-02	

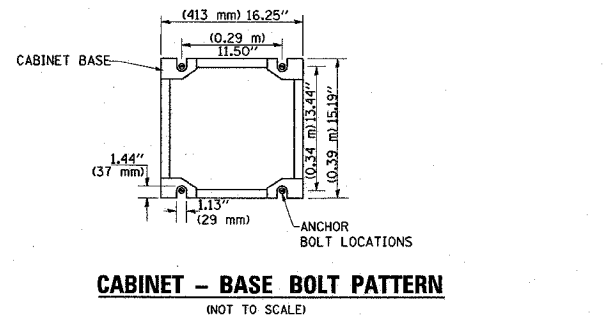
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	537 W-TS	COOK	14	5
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



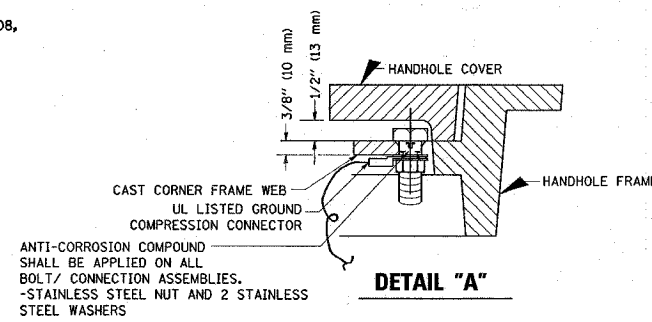
**ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)
SERVICE INSTALLATION POLE MOUNT (SHOWN)
(NOT TO SCALE)**



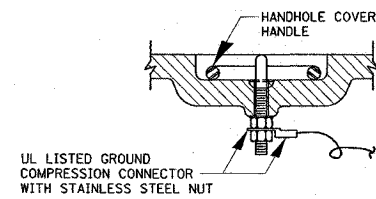
**SERVICE INSTALLATION GROUND MOUNT
(NOT TO SCALE)**



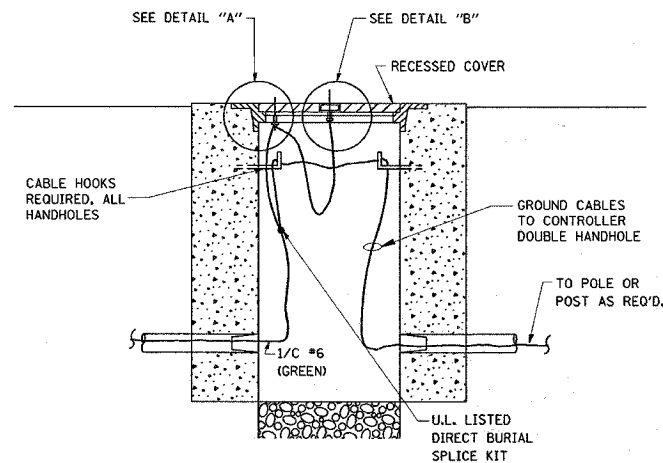
**CABINET - BASE BOLT PATTERN
(NOT TO SCALE)**



DETAIL "A"

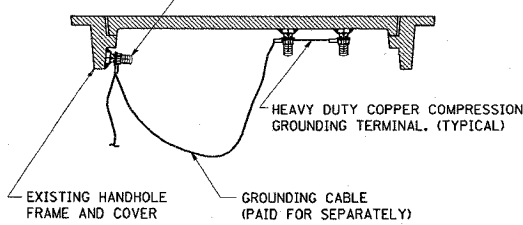


DETAIL "B"



**HANDHOLE COVER & FRAME - GROUNDING DETAIL
(NOT TO SCALE)**

(2) 1/2" x 1 1/4" STAINLESS STEEL BOLT WITH SPLIT LOCK WASHER AND NYLON INSERT LOCKOUT WELDED TO FRAME AND TO COVER. (TYPICAL)

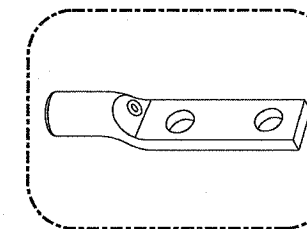


**EXISTING HANDHOLE COVER & FRAME - GROUNDING DETAIL
(NOT TO SCALE)**

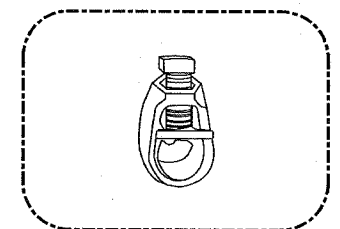
NOTES:

GROUNDING SYSTEM

- THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE (HANDHOLE, POST, MAST ARM, CONTROLLER, ETC.). GROUND ROD SHALL BE 3/4" DIA. x 10'-0" (20mm x 3.0m) LONG, COPPER CLAD. ONE GROUND ROD SHALL BE INSTALLED AT ALL POST FOUNDATIONS, POLE FOUNDATIONS, CONTROLLER CABINET FOUNDATION AND ELECTRICAL SERVICE INSTALLATION AS INDICATED ON THE CABLE PLAN. IF THERE ARE ANY SPECIAL CONDITIONS SUCH AS SUB-SURFACE CONDITIONS OR INSTALLATION PROBLEMS, THE RESIDENT ENGINEER SHALL BE NOTIFIED OR CONTACT THE BUREAU OF TRAFFIC, ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE AT (847) 705-4139.
- THE NEUTRAL CONDUCTOR AND THE GROUND CONDUCTOR SHALL BE CONNECTED IN THE SERVICE INSTALLATION. AT NO OTHER POINT IN THE TRAFFIC SIGNAL SYSTEM SHALL THE NEUTRAL AND GROUND CONDUCTORS BE CONNECTED.
- ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
- THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.



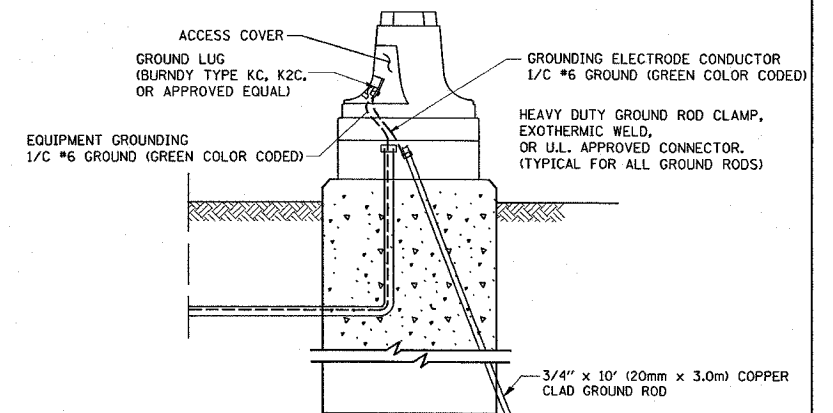
HEAVY-DUTY COMPRESSION TERMINAL (BURNDY TYPE YGHA OR APPROVED EQUAL)



3/4" (20mm) HEAVY-DUTY GROUND ROD CLAMP (BURNDY TYPE GRC OR APPROVED EQUAL)

NOTES:

- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
- GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES. 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES. 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.



**MAST ARM POLE / POST-GROUNDING DETAIL
(NOT TO SCALE)**

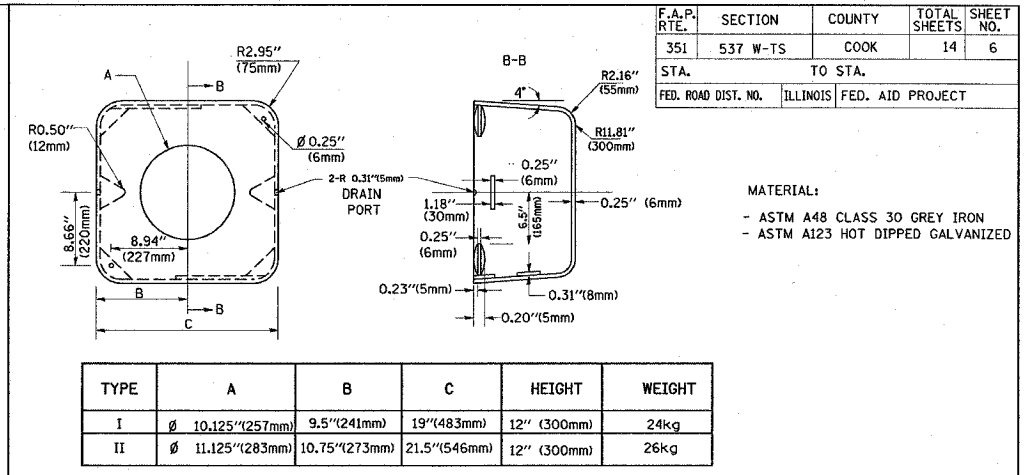
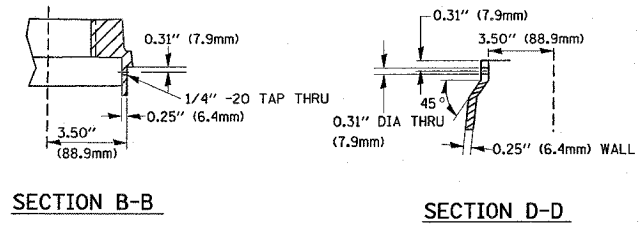
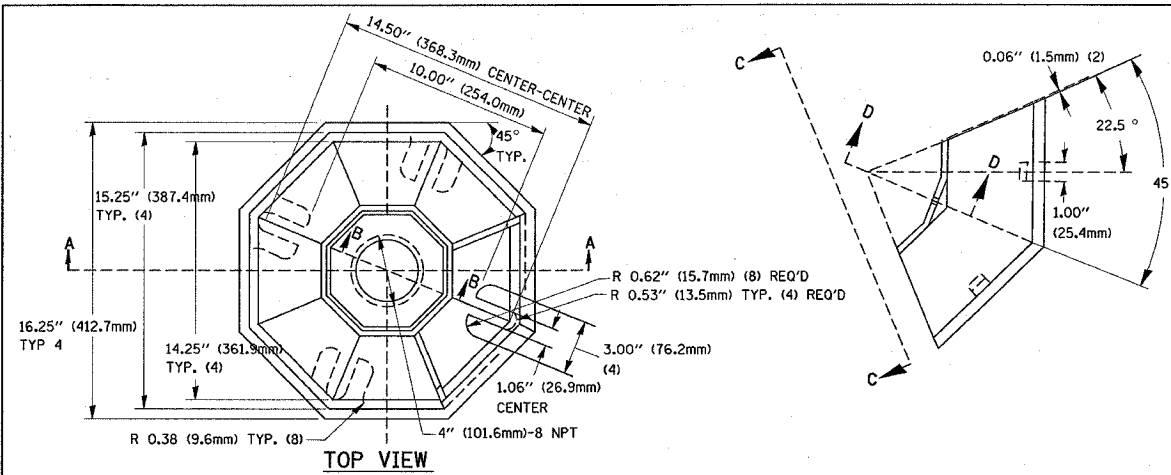
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT 1
STANDARD TRAFFIC SIGNAL
DESIGN DETAILS

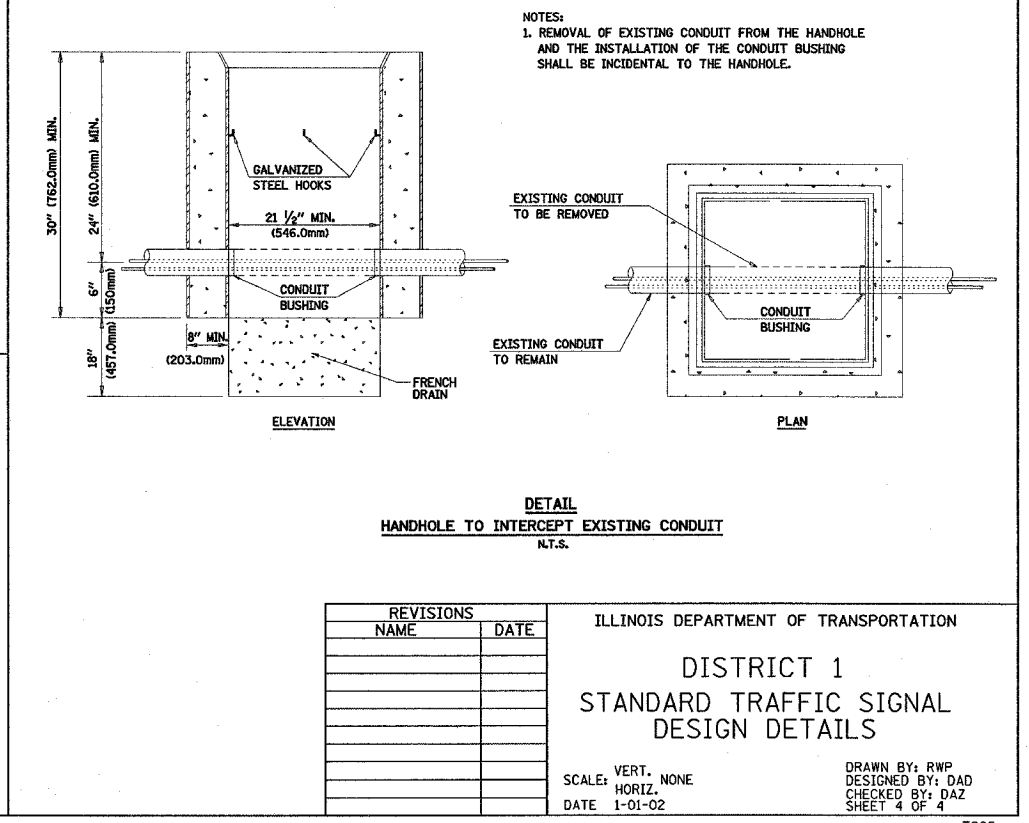
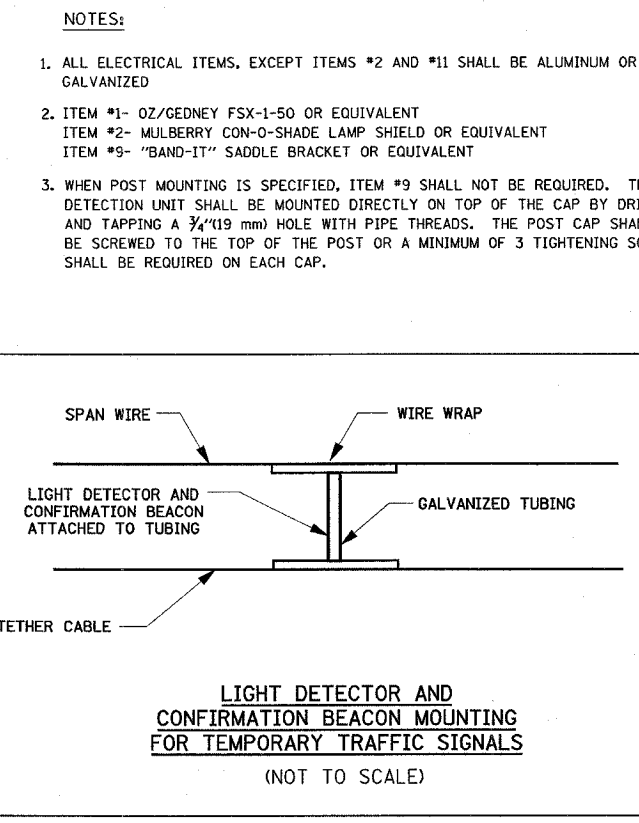
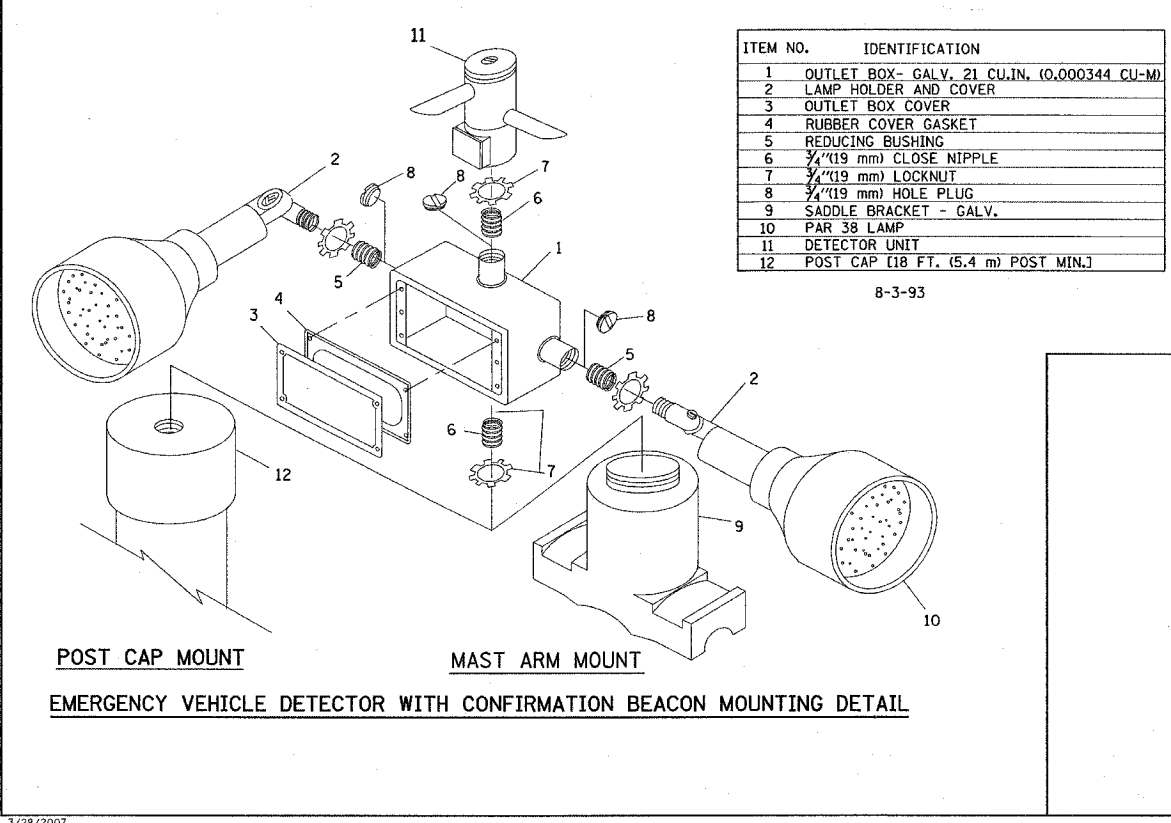
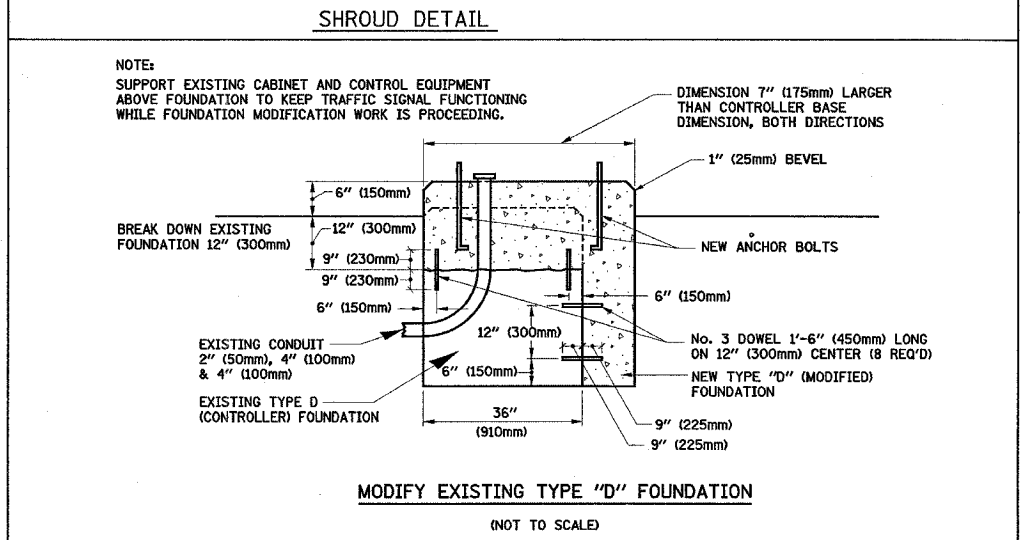
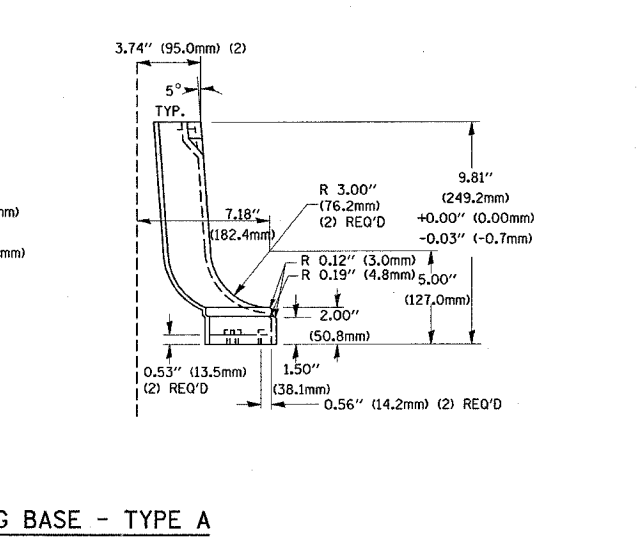
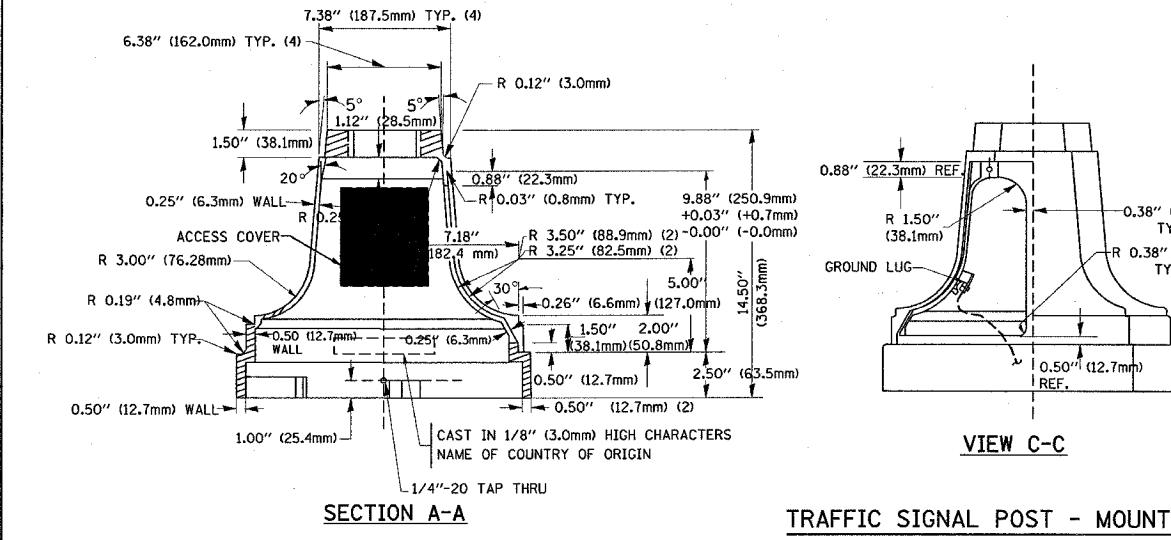
SCALE: VERT. NONE
HORIZ.
DATE 1-01-02

DRAWN BY: RWP
DESIGNED BY: DAD
CHECKED BY: DAZ
SHEET 3 OF 4

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	537 W-TS	COOK	14	6
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



TYPE	A	B	C	HEIGHT	WEIGHT
I	Ø 10.125\"(257mm)	9.5\"(241mm)	19\"(483mm)	12\"(300mm)	24kg
II	Ø 11.125\"(283mm)	10.75\"(273mm)	21.5\"(546mm)	12\"(300mm)	26kg



REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION	
NAME	DATE		
		DISTRICT 1	
		STANDARD TRAFFIC SIGNAL	
		DESIGN DETAILS	
		SCALE: VERT. NONE	DRAWN BY: RWP
		HORIZ. NONE	DESIGNED BY: DAD
		DATE 1-01-02	CHECKED BY: DAZ
			SHEET 4 OF 4

14:22:22 03/28/2007

3/28/2007
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	537 W-TS	COOK	14	7
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

TEMPORARY TRAFFIC SIGNAL AND REMOVAL LEGEND

	PROPOSED	EXISTING		PROPOSED	EXISTING
TEMPORARY CONTROLLER CABINET			G.S. CONDUIT IN TRENCH OR PUSHED		
TEMPORARY SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT			TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE		
TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED ORIGINAL LOCATION			COMMON TRENCH	CT	
TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED SECONDARY LOCATION			UNIT DUCT	UD	
TEMPORARY PEDESTRIAN SIGNAL HEAD, BRACKET MOUNTED			TEMPORARY PEDESTRIAN PUSHBUTTON DETECTOR		
TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM			DETECTOR LOOP, TYPE I		
EXISTING SIGNAL POST AND FOUNDATION TO BE REMOVED			PREFORMED DETECTOR LOOP		
STEEL MAST ARM ASSEMBLY AND POLE			MICROWAVE VEHICLE SENSOR		
ALUMINUM MAST ARM ASSEMBLY AND POLE			VIDEO DETECTOR		
COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE			CLOSED CIRCUIT TV		
EXISTING STREET LIGHT, FOUNDATION AND LUMINAIRE TO REMAIN			EMERGENCY VEHICLE SYSTEM DETECTOR		
HANDHOLE			CONFIRMATION BEACON		
HEAVY-DUTY HANDHOLE			REMOVAL		
			RELOCATE		

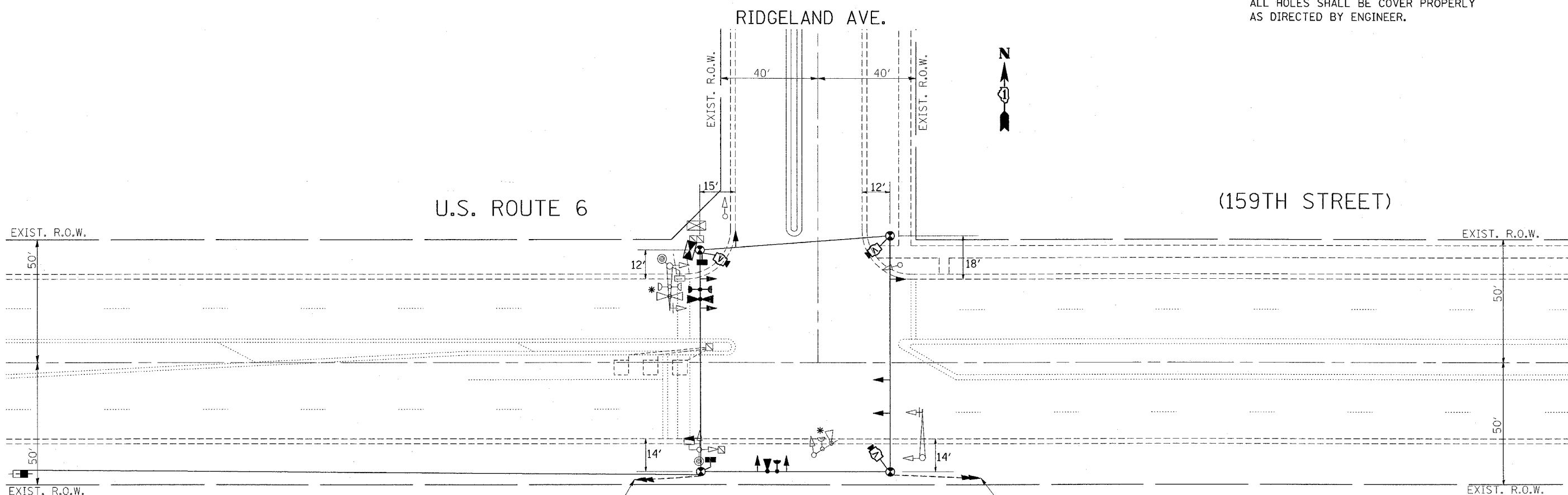
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE OF THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACTOR BID PRICE.

- 1 EACH CONTROLLER AND CABINET (COMPLETE)
- 1 EACH 3 SECTION, MAST ARM MOUNTED
- 1 EACH 5 SECTION, MAST ARM MOUNTED
- 3 EACH 3 SECTION BRACKET MOUNTED
- 2 EACH 5 SECTION BRACKET MOUNTED
- 1 EACH 2-FACE, 1-3 SECTION, 1-5 SECTION BRKT. MNTED.
- 2 EACH PEDESTRIAN SIGNAL HEAD
- 2 EACH PEDESTRIAN PUSH BUTTON
- 2 EACH MAST ARM AND ASSEMBLY
- 4 EACH TRAFFIC SIGNAL POST

* STORE EXISTING EMERGENCY VEHICLE PREEMPTIONS FOR PROPOSED LOCATION.

CONSTRUCTION NOTE:

ALL HOLES SHALL BE COVER PROPERLY AS DIRECTED BY ENGINEER.



PROPOSED INTERCONNECT TO OAK PARK AVE.

PROPOSED INTERCONNECT TO ARROYO DRIVE

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

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCLUDED IN THE RELATED PAY ITEMS SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC. 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. RESTORATION OF THE WORK AREA SHALL BE INCIDENTAL TO THE CONTRACT WITHOUT ANY EXTRA COMPENSATION ALLOWED TO THE CONTRACTOR.

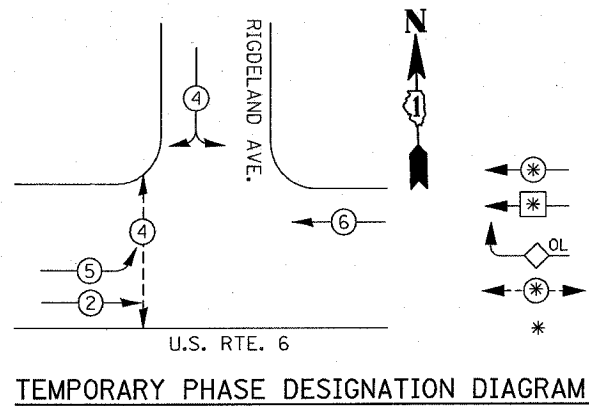
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
**TEMPORARY TRAFFIC SIGNAL
 INSTALLATION PLAN
 U.S. RTE. 6 AT RIDGELAND AVE.**

SCALE: VERT. 1:250
 HORIZ.
 DATE 3/28/2007

DRAWN BY BCK
 DESIGN BY BCK
 CHECKED BY DAD

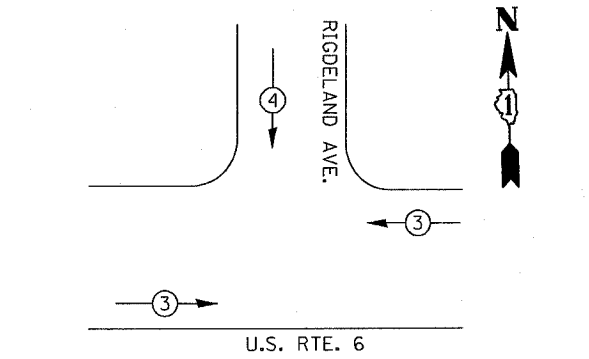
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	537 W-TS	COOK	14	8
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



LEGEND

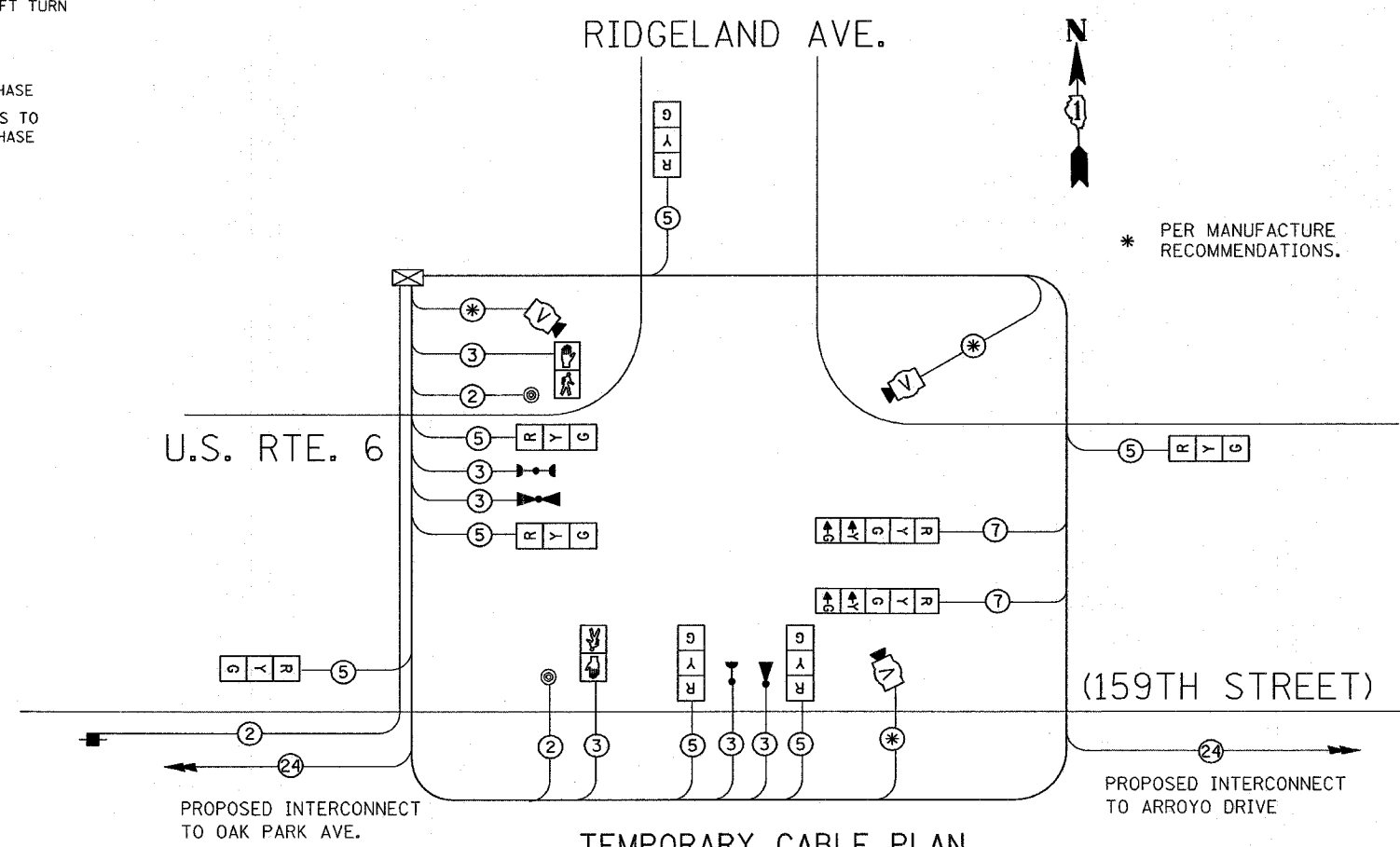
- * DUAL ENTRY PHASE
- * PROTECTED LEFT TURN PHASE
- OL OVERLAP
- * PEDESTRIAN PHASE
- * NUMBER REFERS TO ASSOCIATED PHASE

TEMPORARY PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	←	↔

TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE



TEMPORARY CABLE DIAGRAM LEGEND

- TEMPORARY CONTROLLER CABINET
- TEMPORARY SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT
- TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION, 12" (300 mm)
- 12" (300 MM) PEDESTRIAN SIGNAL SECTION
- INDICATES NUMBER OF CONDUCTORS IN CABLE. ALL CONDUCTORS TO BE NUMBER 14 AWG WIRE UNLESS OTHERWISE NOTED.
- PEDESTRIAN PUSHBUTTON DETECTOR
- VEHICLE DETECTOR, INDUCTION LOOP
- MICROWAVE VEHICLE SENSOR
- EMERGENCY VEHICLE SYSTEM DETECTOR
- CONFIRMATION BEACON

* PER MANUFACTURE RECOMMENDATIONS.

TEMPORARY CABLE PLAN

CONSTRUCTION NOTES:

ALL TRAFFIC SIGNAL SECTIONS SHALL BE 12 INCHES LED WITH EXPANDABLE VIEW TO MEET THE JUNE 2005 ITE REQUIREMENTS.

ALL HOLES SHALL BE COVER PROPERLY AS DIRECTED BY ENGINEER.

SCHEDULE OF QUANTITIES

DESCRIPTION	QTY.	UNIT
TEMPORARY TRAFFIC SIGNAL INSTALLATION	1	EACH

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	%OPERATION	
SIGNAL (RED)	9	135	17	0.50	75.50
(YELLOW)	11	135	25	0.25	68.75
(GREEN)	11	135	15	0.25	41.25
ARROW	4	135	12	0.10	4.8
PED. SIGNAL	2	90	25	1.00	50.00
CONTROLLER	1	100	100	1.00	100.00
ILLUM. SIGN		84		0.05	
FLASHER				0.50	
ENERGY COSTS TO:					TOTAL = 341.3

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 - M. ARM POLE		SIGNAL POST	2 (1.0)	BRACKET MOUNTED	13 (4.0)
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	PED. PUSHBUTTON	4 (1.2)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	ELECTRIC SERVICE	13.5 (4.1)
		ELECTRIC SERVICE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
		GROUND CABLE	1 (0.5)	POST MOUNTED	6 (1.8)

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

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION TEMPORARY CABLE PLAN, TEMPORARY EMERGENCY VEHICLE PREEMPTION AND TEMPORARY PHASE DESIGNATION DIAGRAM IL. RTE. 6 AT RIDGELAND AVE.
NAME	DATE	
		SCALE: NONE
		DATE 3/28/2007
		DRAWN BY BCK DESIGNED BY: BCK CHECKED BY DAD

PLOT DATE = 3/28/2007
 PLOT SCALE = 1"=50'
 PLOT NAME = I:\Projects\03-28-07\14171001\unb\rdgland.dgn
 USER NAME = kmshphubgbo

ILLINOIS DEPARTMENT OF TRANSPORTATION
 201 WEST CENTER COURT
 SCHAUMBURG, ILLINOIS 60196-1096
 ENERGY SUPPLY CONTACT: 847-816-5331
 PHONE: 847-816-5331
 COMPANY: COMMONWEALTH EDISON

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	537 W-TS	COOK	14	9
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING		PROPOSED	EXISTING
CONTROLLER CABINET			PEDESTRIAN PUSHBUTTON DETECTOR		
RAILROAD CONTROL CABINET			DETECTOR LOOP, TYPE I		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT			PERFORMED DETECTOR LOOP		
TELEPHONE CONNECTION			MICROWAVE VEHICLE SENSOR		
SIGNAL HEAD			VIDEO DETECTOR		
SIGNAL HEAD WITH BACKPLATE			CLOSED CIRCUIT TV		
SIGNAL HEAD OPTICALLY PROGRAMMED			EMERGENCY VEHICLE SYSTEM DETECTOR		
SIGNAL HEAD PEDESTRIAN			CONFIRMATION BEACON		
ILLUMINATED SIGN "NO LEFT TURN"			UNINTERRUPTIBLE POWER SUPPLY		
ILLUMINATED SIGN "NO RIGHT TURN"			JUNCTION BOX		
SIGNAL POST			HANDHOLE		
WOOD POLE			HEAVY DUTY HANDHOLE		
STEEL MAST ARM ASSEMBLY AND POLE			DOUBLE HANDHOLE		
ALUMINUM MAST ARM ASSEMBLY AND POLE			G.S. CONDUIT IN TRENCH OR PUSHED		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE			COMMON TRENCH		
			UNIT DUCT		

CONSTRUCTION NOTE:

PULL BACK EXISTING TRACER CABLE AND RE-USE IN FINAL CONDITION. THIS WORK SHALL BE INCLUDED IN FIBER OPTIC PAY ITEM.

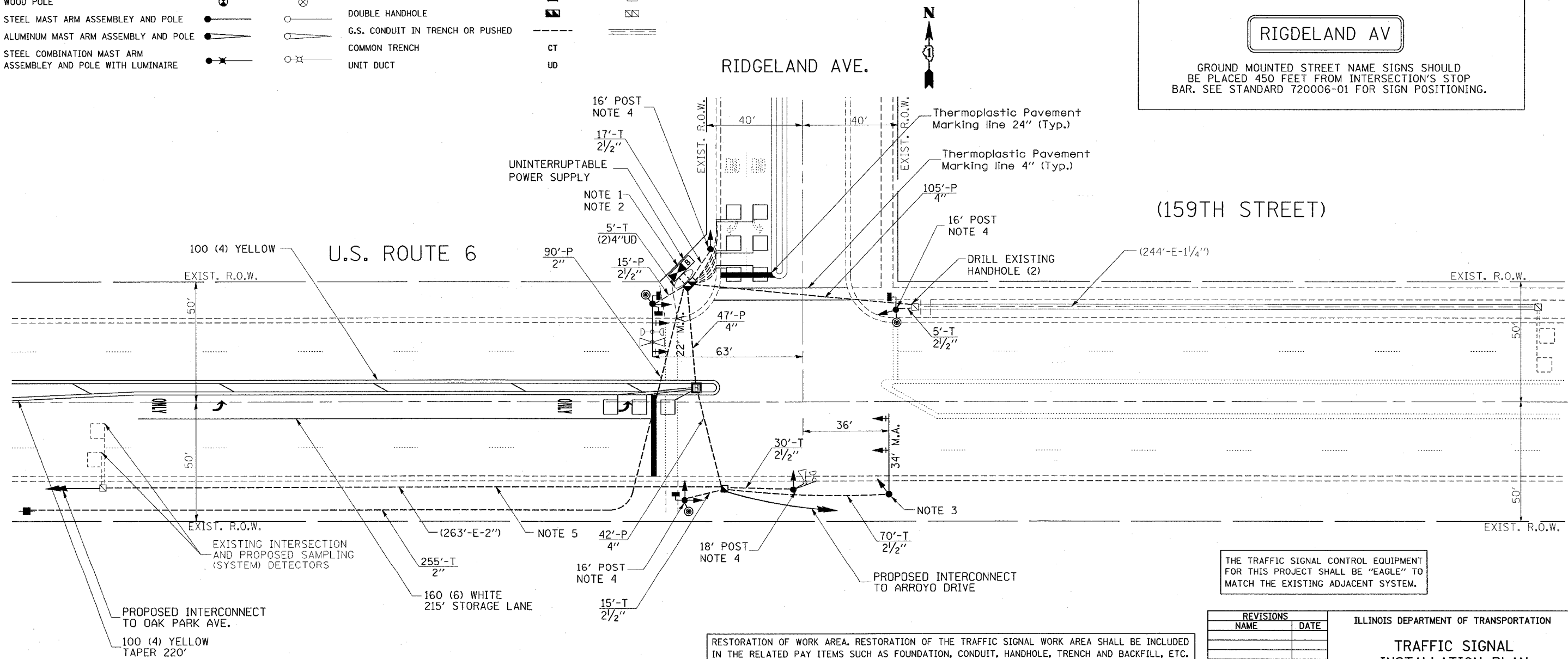
ALL HOLES SHALL BE COVER PROPERLY AS DIRECTED BY ENGINEER.

CONSTRUCTION NOTES:

- NOTE 1 REMOVE EXISTING CONTROLLER AND CABINET. INSTALL NEW CONTROLLER AND TYPE IV CABINET. RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM PHASING UNIT TO NEW CONTROLLER CABINET INCLUDED IN COST OF THE NEW CONTROLLER AND CABINET.
- NOTE 2 NEW CONTROLLER CABINET TYPE IV WITH UNINTERRUPTIBLE POWER SUPPLY ATTACHED ON TYPE C FOUNDATION.
- NOTE 3 PROPOSED MAST ARM WITH NEW FOUNDATION
- NOTE 4 NEW SIGNAL POST WITH NEW FOUNDATION.
- NOTE 5 RE-USE EXISTING CONDUIT

RIGDELAND AV

GROUND MOUNTED STREET NAME SIGNS SHOULD BE PLACED 450 FEET FROM INTERSECTION'S STOP BAR. SEE STANDARD 720006-01 FOR SIGN POSITIONING.



RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCLUDED IN THE RELATED PAY ITEMS SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC. 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. RESTORATION OF THE WORK AREA SHALL BE INCIDENTAL TO THE CONTRACT WITHOUT ANY EXTRA COMPENSATION ALLOWED TO THE CONTRACTOR.

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

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL INSTALLATION PLAN

U.S. RTE. 6 AT RIDGELAND AVE.

SCALE: VERT. 1:250
HORIZ.
DATE 3/28/2007

DRAWN BY BCK
DESIGN BY BCK
CHECKED BY DAD

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	537 W-TS	COOK	14	10
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

CABLE PLAN LEGEND

EXISTING	PROPOSED	EXISTING	PROPOSED	DESCRIPTION
(G)	(G)	(2)	(2)	8" (200mm) TRAFFIC SIGNAL SECTION
(R)	(R)	(24)	(24)	12" (300mm) TRAFFIC SIGNAL SECTION
(W)	(W)	(R)	(R)	12" (300mm) PEDESTRIAN SIGNAL SECTION
(P)	(P)	(Y)	(Y)	12" (300mm) PEDESTRIAN SIGNAL SECTION
(C)	(C)	(G)	(G)	CONTROLLER CABINET
(S)	(S)	(Y)	(Y)	SERVICE INSTALLATION
(T)	(T)	(G)	(G)	TELEPHONE CONNECTION
(V)	(V)	(P)	(P)	VEHICLE DETECTOR, INDUCTION LOOP
(M)	(M)	(H)	(H)	MAGNETIC DETECTOR
(E)	(E)	(C)	(C)	EMERGENCY VEHICLE LIGHT DETECTOR
(B)	(B)	(P)	(P)	CONFIRMATION BEACON
(D)	(D)	(S)	(S)	PUSHBUTTON DETECTOR
(1)	(1)	(B)	(B)	GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
				UNINTERRUPTIBLE POWER SUPPLY

DENOTES NUMBER OF CONDUCTORS, ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.

FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 MM12F SM12F

SIGNAL FACE WITH BACKPLATE, "P" INDICATES PROGRAMMED HEAD

RAILROAD CONTROL CABINET

GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C).

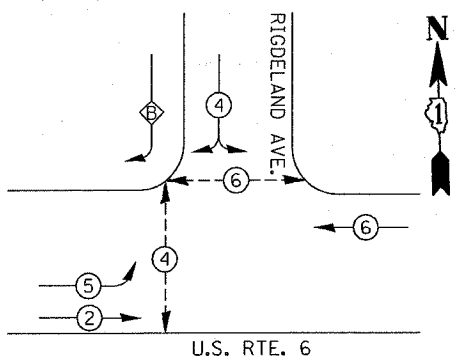
GROUND ROD AT POST (P), OR MAST ARM POLE (MA).

GROUND ROD AT ELECTRIC SERVICE INSTALLATION

UNINTERRUPTIBLE POWER SUPPLY

LEGEND

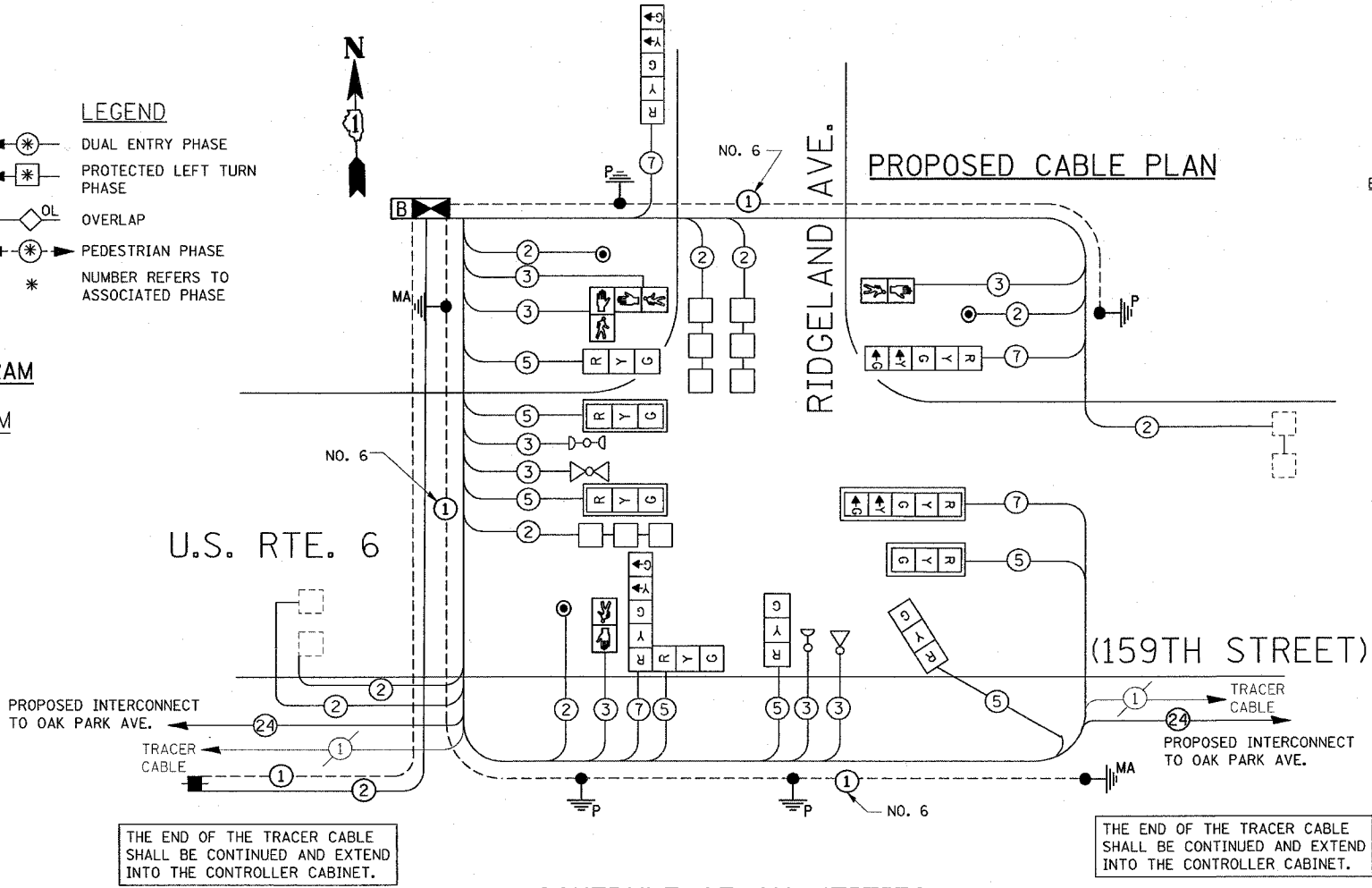
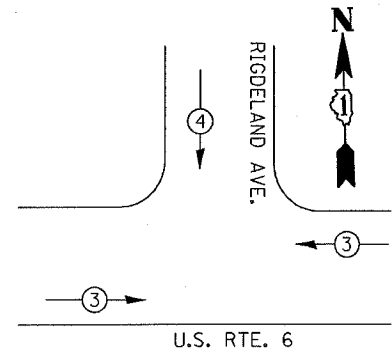
- (*) DUAL ENTRY PHASE
- (*) PROTECTED LEFT TURN PHASE
- OL OVERLAP
- (*) PEDESTRIAN PHASE
- * NUMBER REFERS TO ASSOCIATED PHASE



PROPOSED PHASE DESIGNATION DIAGRAM

RIGHT TURN OVERLAP PHASE DIAGRAM

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
B	= 4	+ 5



SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY	ITEM	UNIT	QUANTITY
TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	.25	STEEL MAST ARM ASSEMBLY AND POLE, 34 FT.	EACH	1
TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L SUM	.25	CONCRETE FOUNDATION, TYPE A	FOOT	16
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	.25	CONCRETE FOUNDATION, TYPE C	FOOT	4
TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	.25	CONCRETE FOUNDATION, TYPE E 30-INCH DIA.	FOOT	15
SIGN PANEL - TYPE 1	SO. FT.	36	THERMOPLASTIC PAVEMENT MARKING-LINE 4"	FOOT	500
CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	518	THERMOPLASTIC PAVEMENT MARKING-LINE 6"	FOOT	215
CONDUIT IN PUSH, 2" DIA., GALVANIZED STEEL	FOOT	90	THERMOPLASTIC PAVEMENT MARKING-LINE 24"	FOOT	120
CONDUIT IN PUSH, 2 1/2" DIA., GALVANIZED STEEL	FOOT	15	SIGNAL HEAD, L.E.D. 1-FACE, 3 SECTION, MAST ARM MNTD.	EACH	3
CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL	FOOT	137	SIGNAL HEAD, L.E.D. 1-FACE, 5 SECTION, MAST ARM MNTD.	EACH	1
CONDUIT IN PUSH, 4" DIA., GALVANIZED STEEL	FOOT	194	SIGNAL HEAD, L.E.D. 1-FACE, 3 SECTION, BRACKET MNTD.	EACH	3
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	600	SIGNAL HEAD, L.E.D. 1-FACE, 5 SECTION, BRACKET MNTD.	EACH	2
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET (SPECIAL)	EACH	1	SIGNAL HEAD, L.E.D. 2-FACE, 1-3 SECTION 1-5 SECTION BRACKET MNTD.	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	322	PEDESTRIAN PUSH-BUTTON	EACH	3
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	902.5	PEDESTRIAN SIGNAL HEAD, L.E.D., 1-FACE, BRKT. MNTD.	EACH	2
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	955	PEDESTRIAN SIGNAL HEAD, L.E.D., 2-FACE, BRKT. MNTD.	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	596.5	INDUCTIVE LOOP DETECTOR	EACH	6
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	990	DETECTOR LOOP TYPE I	FOOT	185
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	361	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	4
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	620	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
GROUNDING EXISTING HANDHOLE FAME AND COVER	EACH	1	REMOVE EXISTING CONCRETE FOUNDATION	EACH	9
HANDHOLE	EACH	1	REMOVE EXISTING HANDHOLE	EACH	3
HEAVY-DUTY HANDHOLE	EACH	1	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	1426.5
DOUBLE HANDHOLE	EACH	1	UNINTERRUPTIBLE POWER SUPPLY	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16FT.	EACH	3	DRILL EXISTING HANDHOLE	EACH	2
TRAFFIC SIGNAL POST, GALVANIZED STEEL 18FT.	EACH	1	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	2
STEEL MAST ARM ASSEMBLY AND POLE, 22 FT.	EACH	1			

CONSTRUCTION NOTE:
ALL HOLES SHALL BE COVER PROPERLY AS DIRECTED BY ENGINEER.

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

PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	←	↔

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

TYPE	NO. LAMPS	WATTAGE (INCAND.)	LED	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	11	135	17	0.50	93.50
(YELLOW)	15	135	25	0.25	93.75
(GREEN)	15	135	15	0.25	56.25
ARROW	8	135	12	0.10	9.60
PED. SIGNAL	4	90	25	1.00	100.00
CONTROLLER	1	100	100	1.00	100.00
ILLUM. SIGN		84		0.05	
FLASHER				0.50	
TOTAL =					453.1

ENERGY COSTS TO:
ILLINOIS DEPARTMENT OF TRANSPORTATION
201 WEST CENTER COURT
SCHAUMBURG, ILLINOIS 60196-1096

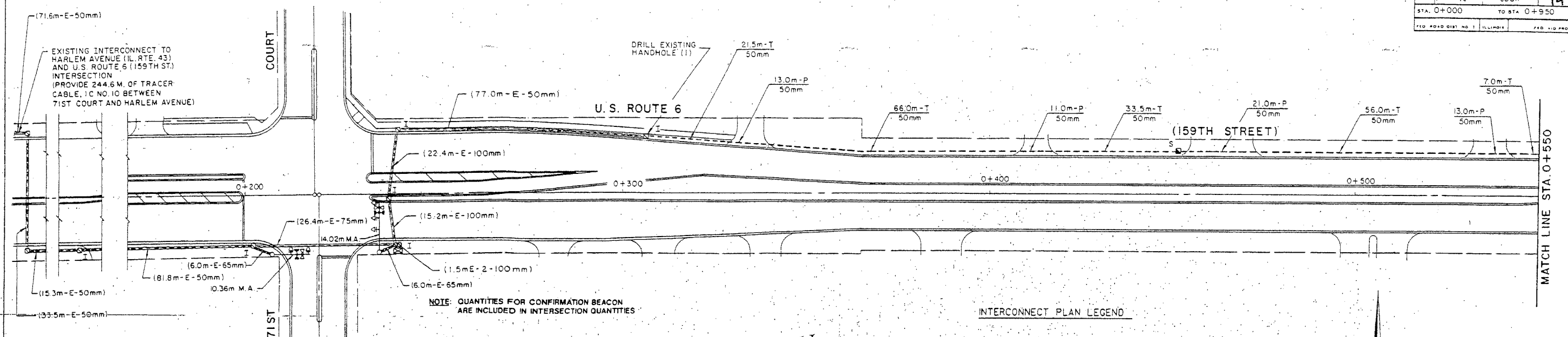
ENERGY SUPPLY CONTACT:
PHONE: 847-816-5331
COMPANY: COMMONWEALTH EDISON

REVISIONS

NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
PROPOSED CABLE PLAN AND PROPOSED PHASE DESIGNATION DIAGRAM
IL. RTE. 6 AT RIDGELAND AVE.

SCALE: NONE
DATE 3/28/2007
DRAWN BY BCK
DESIGNED BY BCK
CHECKED BY DAD



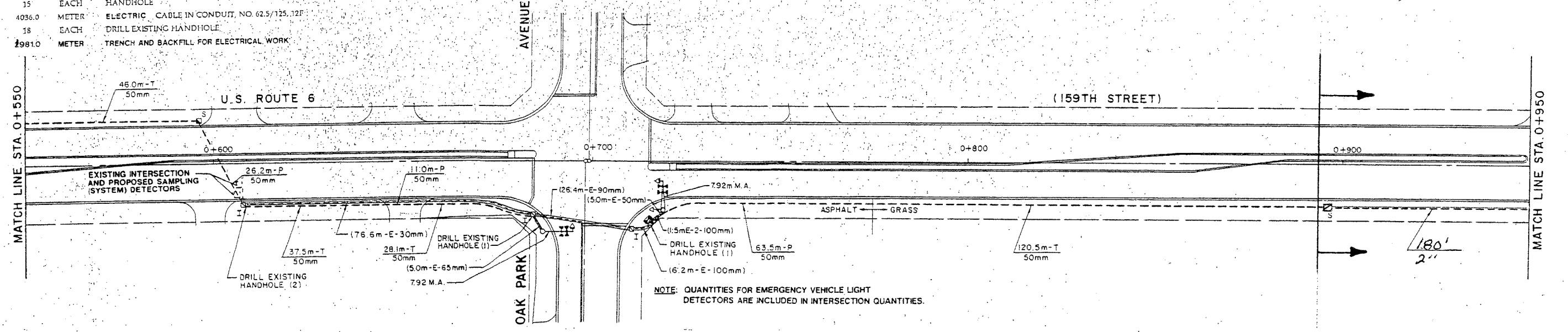
SCHEDULE OF INTERCONNECT QUANTITIES

QUANTITY	UNIT	ITEM
4282.1	METER	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 10 1/C
0.15	L.SUM.	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501
0.15	L.SUM.	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701
0.15	L.SUM.	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801
2981.0	METER	CONDUIT IN TRENCH, 50MM DIA., GALVANIZED STEEL
369.2	METER	CONDUIT PUSHED, 50MM DIA., GALVANIZED STEEL
15	EACH	HANDHOLE
4036.0	METER	ELECTRIC CABLE IN CONDUIT, NO. 62.5/125, 12F
18	EACH	DRILL EXISTING HANDHOLE
2981.0	METER	TRENCH AND BACKFILL FOR ELECTRICAL WORK

FOR INFORMATION ONLY.

INTERCONNECT PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER HANDHOLE	[Symbol]	[Symbol]
HEAVY DUTY HANDHOLE	[Symbol]	[Symbol]
DOUBLE HANDHOLE	[Symbol]	[Symbol]
GALVANIZED STEEL CONDUIT IN TRENCH OR PUSHED	[Symbol]	[Symbol]
DETECTOR LOOP	[Symbol]	[Symbol]
COMMON TRENCH	[Symbol]	[Symbol]
UNIT DUCT	[Symbol]	[Symbol]
SYSTEM	[Symbol]	[Symbol]
INTERSECTION	[Symbol]	[Symbol]
SIDEWALK REMOVAL (5.0SQ. M) AND REPLACE P.C.C. SIDEWALK (25mm (5.0SQ. M))	[Symbol]	[Symbol]



CONSTRUCTION NOTE:

PULL BACK EXISTING TRACER CABLE AND RE-USE IN FINAL CONDITION. THIS WORK SHALL BE INCLUDED IN FIBER OPTIC PAY ITEM.

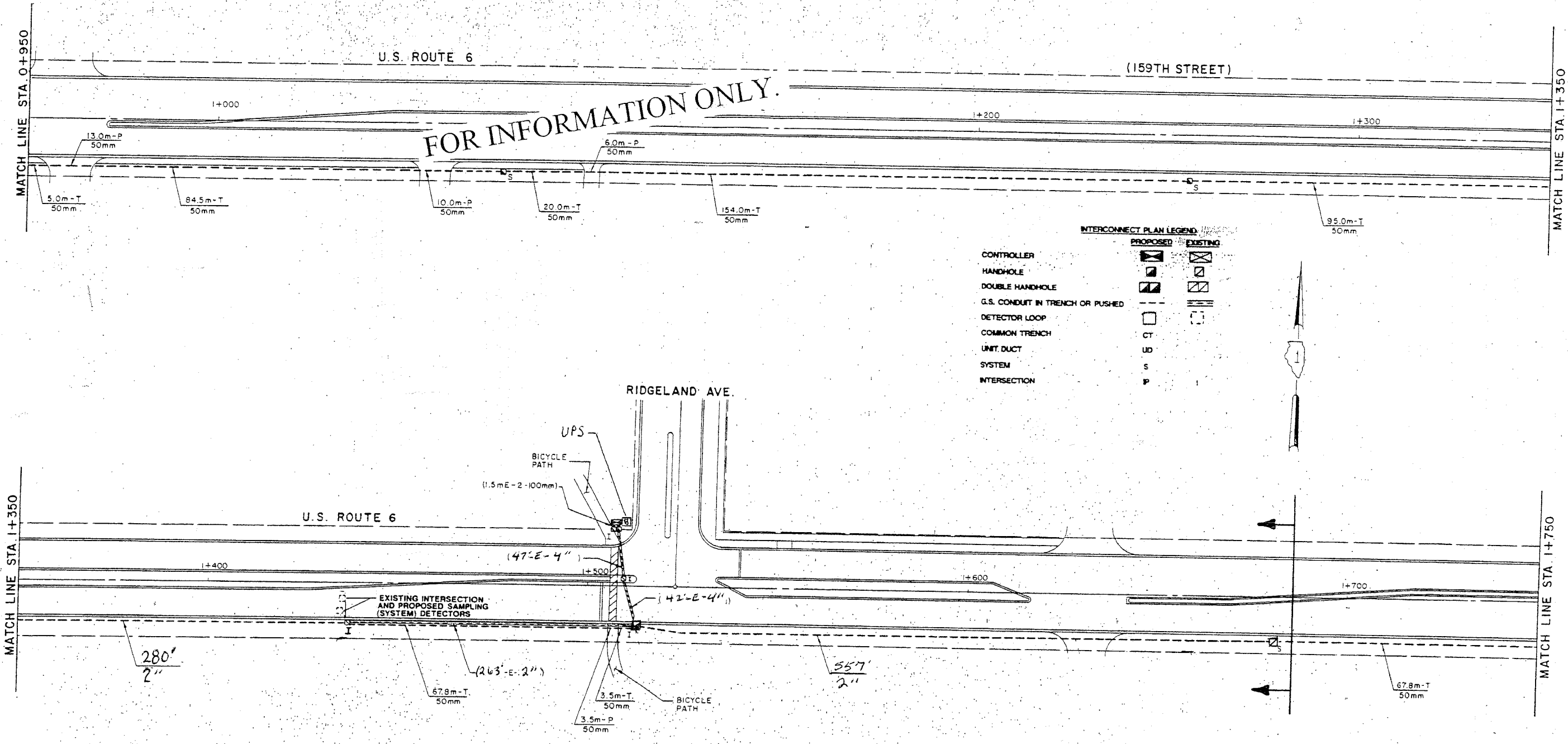
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

INTERCONNECT PLAN
U.S. ROUTE 6 (159TH STREET)
71ST COURT TO LARAMIE AVENUE
STA. 0+000 TO STA. 0+950
SHEET 1 OF 5

SCALE: 1:500
DATE: 5-8-97

DESIGNED BY: J.H.E.
DRAWN BY: J.H.E.
CHECKED BY: P.K.G.



INTERCONNECT PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER		
HANDHOLE		
DOUBLE HANDHOLE		
G.S. CONDUIT IN TRENCH OR PUSHED		
DETECTOR LOOP		
COMMON TRENCH	CT	
UNIT DUCT	UD	
SYSTEM	S	
INTERSECTION	P	

CONSTRUCTION NOTE:
 PULL BACK EXISTING TRACER CABLE AND RE-USE IN FINAL CONDITION. THIS WORK SHALL BE INCLUDED IN FIBER OPTIC PAY ITEM.

GA GANDHI AND ASSOCIATES, INC.
 ENGINEERS AND PLANNERS
 6033 N. NORTHWEST HIGHWAY
 SUITE 304
 CHICAGO, ILLINOIS 60631 TEL: (773) 774-5900

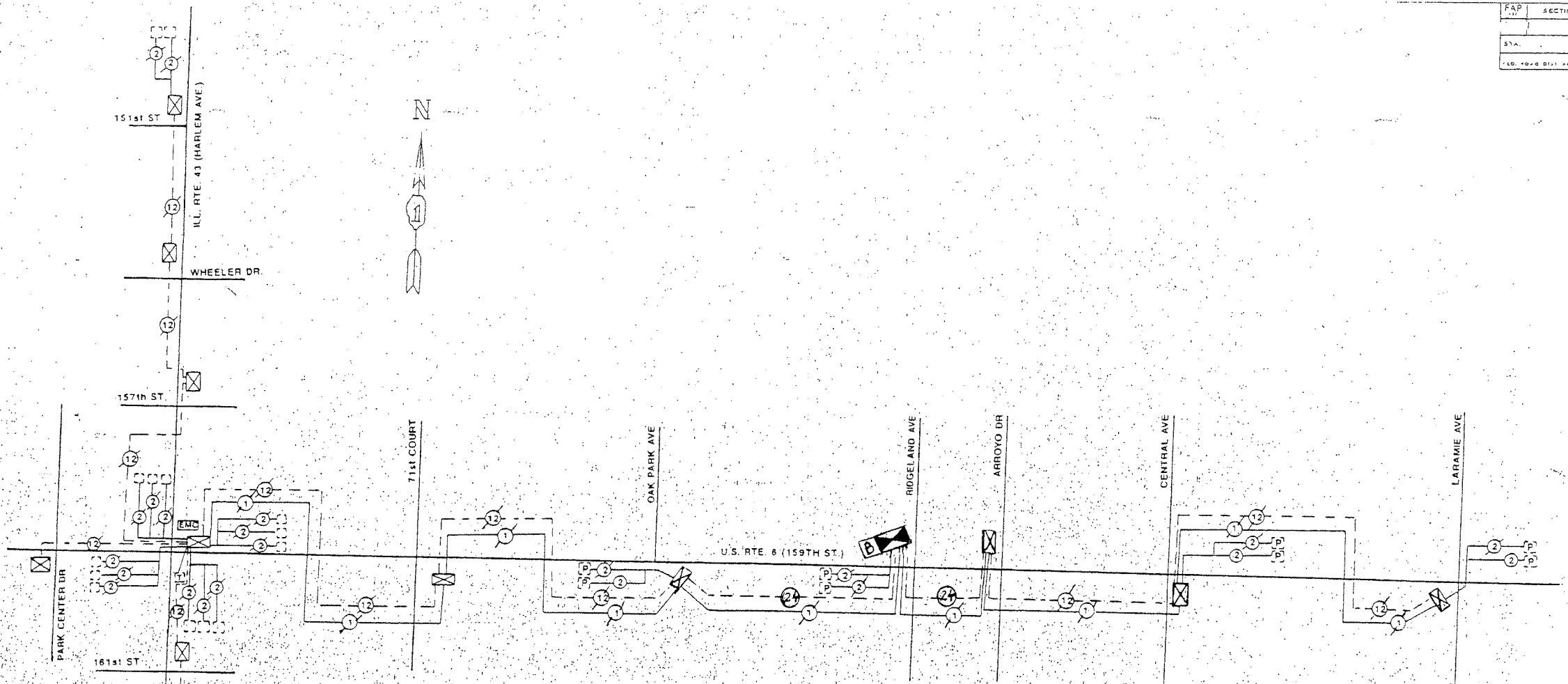
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

INTERCONNECT PLAN
 U.S. ROUTE 6 (159TH STREET)
 71ST COURT TO LARAMIE AVENUE
 STA. 0+950 TO STA. 1+750
 SHEET 2 OF 5

SCALE: 1"=50'
 DATE 5-8-97

DRAWN BY: J.H.E.
 DESIGNED BY: J.H.E.
 CHECKED BY: P.K.G.



INTERCONNECT SCHEMATIC LEGEND

- INTERSECTION CONTROLLER
- EXISTING INTERSECTION CONTROLLER
- MASTER CONTROLLER
- EXISTING MASTER CONTROLLER
- MASTER MASTER CONTROLLER
- PROPOSED INTERSECTION & SAMPLING (SYSTEM) DETECTORS
- EXISTING INTERSECTION & SAMPLING (SYSTEM) DETECTORS
- INTERCONNECT CABLE - NO. 62.5/125 12F FIBER OPTIC CABLE
- INTERCONNECT CABLE - NO. 18 3 PAIR TWISTED, SHIELDED
- LOOP DETECTOR CABLE - 2/C TWISTED, SHIELDED
- EXISTING INTERCONNECT CABLE - NO. 62.5/125 12F FIBER OPTIC CABLE
- EXISTING INTERCONNECT CABLE - NO. 18 3 PAIR TWISTED, SHIELDED
- EXISTING LOOP DETECTOR CABLE - 2/C TWISTED, SHIELDED
- TELEPHONE CONNECTION
- PROPOSED TRACER CABLE NO. 10 1C
- EXISTING INTERSECTION LOOP DETECTORS AND PROPOSED SAMPLING (SYSTEM) DETECTORS
- EXISTING TELEPHONE CONNECTION
- EXISTING TRACER CABLE 1/C (AS SPECIFIED)
- EXISTING SAMPLING (SYSTEM) DETECTORS
- PROPOSED SAMPLING (SYSTEM) DETECTORS
- UNINTERRUPTABLE POWER SUPPLY (UPS)

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
1017	FOOT	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125 MM12F & SM12F

CONSTRUCTION NOTE:

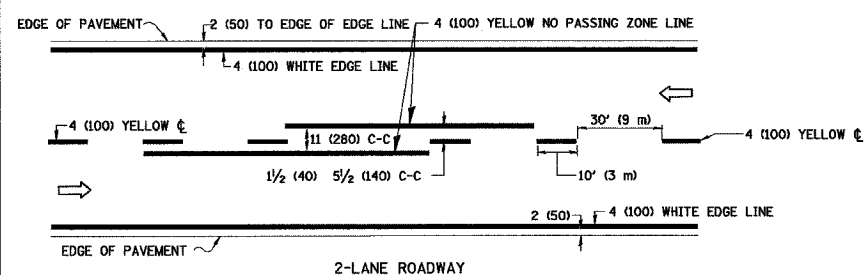
PULL BACK EXISTING TRACER CABLE AND RE-USE IN FINAL CONDITION. THIS WORK SHALL BE INCLUDED IN FIBER OPTIC PAY ITEM.

REVISIONS	
NAME	DATE

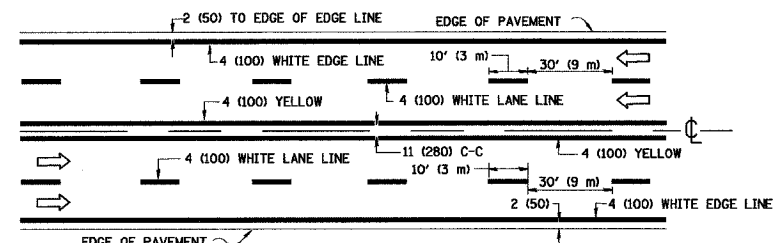
ILLINOIS DEPARTMENT OF TRANSPORTATION
 INTERCONNECT SCHEMATIC
 U.S. RTE. 6 (159TH ST)
 FROM PARK CENTER DR TO LARAMIE AVE
 ILL. RTE. 43 (HARLEM AVE)
 FROM 151ST ST TO 175TH ST

SCALE: VERT. NONE
 HORIZ. 1"=40'
 DATE 1-24-98
 DRAWN BY APZ
 DESIGNED BY RKF
 CHECKED BY RKF

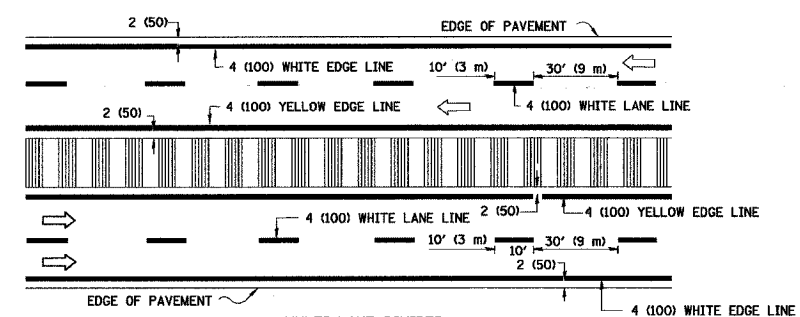
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	537 W-75	COOK	14	14A.
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



2-LANE ROADWAY



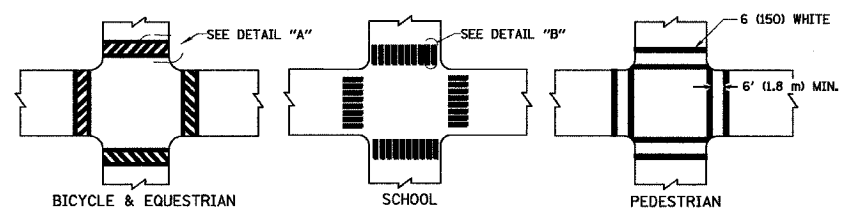
MULTI-LANE UNDIVIDED



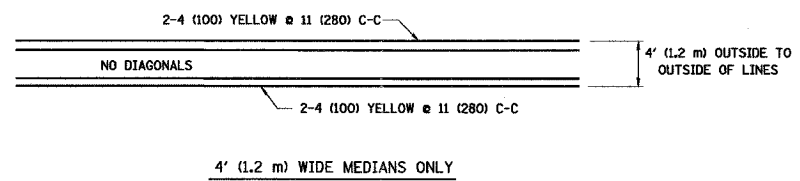
MULTI-LANE DIVIDED WITH MOUNTABLE MEDIAN

NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

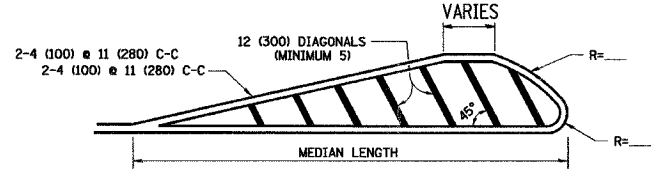
TYPICAL LANE AND EDGE LINE MARKING



TYPICAL CROSSWALK MARKING

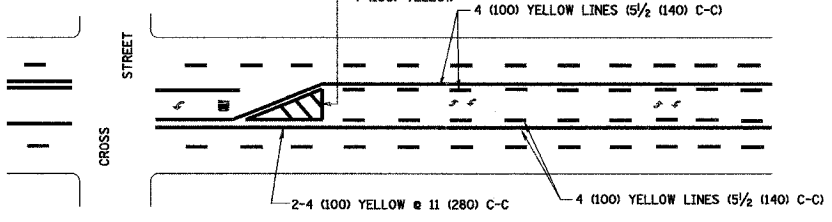


4' (1.2 m) WIDE MEDIANS ONLY



FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.
 DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
 75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)
 150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

MEDIANS OVER 4' (1.2 m) WIDE

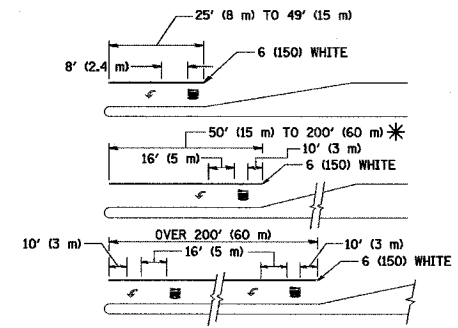


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

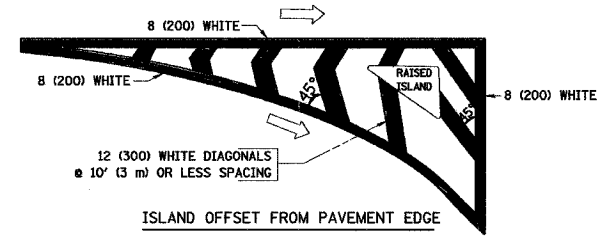
TYPICAL PAINTED MEDIAN MARKING



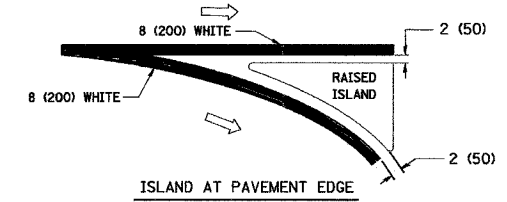
FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
 AREA = 15.6 SQ. FT. (1.5 m²) AREA = 20.8 SQ. FT. (1.9 m²)
 * TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



ISLAND OFFSET FROM PAVEMENT EDGE



ISLAND AT PAVEMENT EDGE

TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5/2 (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW. EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT, PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE.
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW; TWO WAY TRAFFIC WHITE; ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m ²) EACH "X"=54.0 SQ. FT. (5.0 m ²)
SHOULDER DIAGONALS	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

All dimensions are in inches (millimeters) unless otherwise shown.

REVISIONS	
NAME	DATE
EVERS	03-19-90
T. RAMMACHER	10-27-94
ALEX HOUSEH	10-09-96
ALEX HOUSEH	10-17-96
T. RAMMACHER	01-06-00

ILLINOIS DEPARTMENT OF TRANSPORTATION
 DISTRICT ONE
 TYPICAL PAVEMENT MARKINGS

SCALE: NONE

DRAWN BY CAD
 CHECKED BY

PLOT DATE = 3/6/2007
 FILE NAME = K:\data\std\std13.dgn
 PLOT SCALE = 0.0000 / 1 IN.
 USER NAME = baird