

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	2004-121 TS	COOK	26	1

D-91-143-05

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STANDARDS

701006-02701011-01 701101-01 701301-02 814001-01

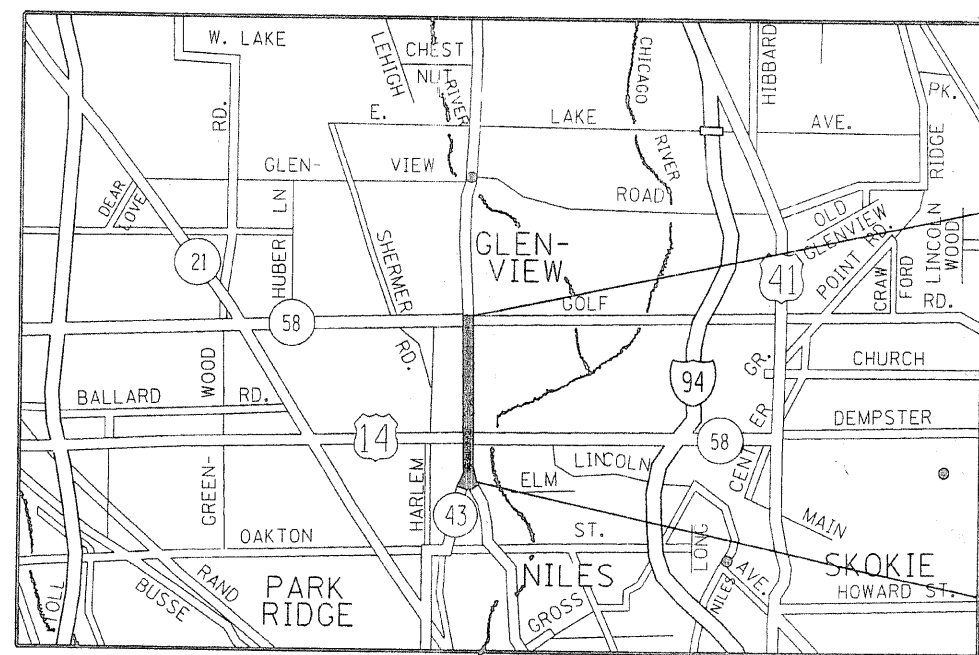
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IMPROVEMENT LOCATED IN THE VILLAGE OF MORTON GROVE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED FEDERAL AID HIGHWAY

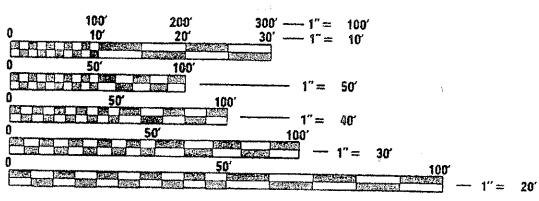
DISTRICT 1
CONGESTION MITIGATION AIR QUALITY
FIBER OPTIC COMMUNICATION NETWORK
FAP ROUTE 348 ILL. RTE 43 (WAUKEGAN RD.) FROM
ILL. RTE. 58 (GOLF RD.) TO U.S. 14 (CALDWELL AVE.)
SECTION 2005-007 TS
COOK COUNTY
C-91-143-05



MORTON GROVE TOWNSHIP
LOCATION MAP

PROJECT BEGIN

PROJECT ENDS



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 Aug 21, 2007



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED Aug 21 20 07

Denise M. Orsini
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

October 12, 2007

Eric E. Harshbarger
ENGINEER OF DESIGN AND ENVIRONMENT

October 12, 2007

Melvin R. Sear, P.E.
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	2005-007-TS	COOK	26	2
FED. ROAD DIST. NO. 1		ILLINOIS	HIGHWAY PROJECT	
CONTRACT NO. 62918				

SUMMARY OF QUANTITIES			URBAN 80% FED./20% STATE	CONSTRUCTION TYPE CODE								
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	Y031-IF U.S. 14/ CALDWELL AT IL. 43/ WAUKEGAN RD.	Y031-IF U.S. 14/ DEMPSTER ST. AT IL. 43/ WAUKEGAN RD.	Y031-IF U.S. 14/ DEMPSTER AT MORTON GROVE PARK ENTRANCE	Y031-IF U.S. 14/ DEMPSTER AT SHERMER RD.	Y031-IF U.S. 14/ DEMPSTER AT HARLEM AV.	Y031-IF IL. RTE. 43/ WAUKEGAN RD. AT BECKWITH RD.	Y031-IF IL. RTE. 43/ WAUKEGAN RD. AT EMERSON ST.	Y031-IF IL. RTE. 58 AT IL. RTE. 43	Y031-IF INTERCONNECT IL. 43 (WAUKEGAN) FROM IL. 58 TO CALDWELL AVE.
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	1	.11	.11	.11	.11	.11	.11	.11	.11	.12
67100100	MOBILIZATION	L SUM	1	.11	.11	.11	.11	.11	.11	.11	.11	.12
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	.11	.11	.11	.11	.11	.11	.11	.11	.12
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1	.11	.11	.11	.11	.11	.11	.11	.11	.12
81000600	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	754									754
81018500	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	3968									3968
81400100	HANDHOLE	EACH	7									7
81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	754									754
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	7	1	1	1	1	1	1		1	
85700205	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, (SPECIAL)	EACH	5	1	1	1	1	1				
86400100	TRANSCIVER - FIBER OPTIC	EACH	5	1	1	1	1	1				
87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	2458	1398		1060						
87301805	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	757	118	294	225	30	90				
87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL, NO. 14 5 C	FOOT	236				236					
87900200	DRILL EXISTING HANDHOLE	EACH	4									4
88030050	SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	11			4	6				1	
88030020	SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	1				1					
88030110	SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	2			2	1					
88030210	SIGNAL HEAD, L.E.D., 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2				2					
88030240	SIGNAL HEAD, L.E.D., 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	6			2	2					
88030100	SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	3			2	1					
88102710	PEDESTRIAN SIGNAL HEAD, L.E.D., 1-FACE, BRACKET MOUNTED	EACH	6			6						
88200210	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	4			2	2					
88500100	INDUCTIVE LOOP DETECTOR	EACH	52	8	16	11	3	14				
89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	630	94	270	195	6	65				
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	5	1	1	1	1	1				
X0322256	TEMPORARY INFORMATION SIGNING	SQ FT	23	3	4	4	4		4	2	2	
X0322925	ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	5612.5									5612.5
X8050015	SERVICE INSTALLATION - POLE MOUNTED	EACH	5	1	1	1	1	1				
X8710020	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F	FOOT	5612.5									5612.5
X8730027	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	757	118	294	225	30	90				
X8620020	UNINTERRUPTABLE POWER SYSTEM	EACH	5	1	1	1	1	1				
X0325705	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM -LEVEL 2	EACH	1									1

REVISIONS	
NAME	DATE

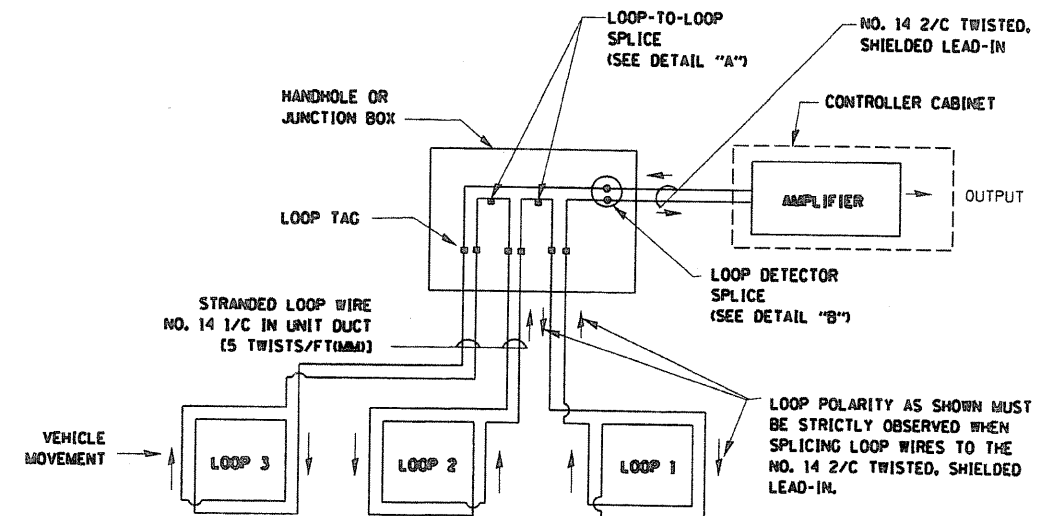
ILLINOIS DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITIES
U.S. 14 (WAUKEGAN RD.) FROM ILL. RTE 58
(GOLF RD.) TO U.S. 14 (CALDWELL AV.)

PLOT DATE: 8/21/2007

8/21/2007 10:22:29 08/21/2007

LOOP DETECTOR NOTES

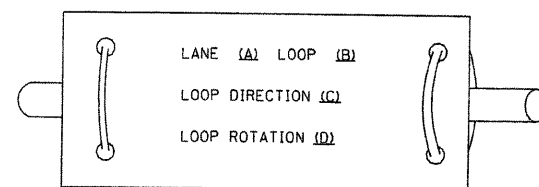
- EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE UNIT DUCT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). UNIT DUCT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
- THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED 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 DIVESHOLES 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.



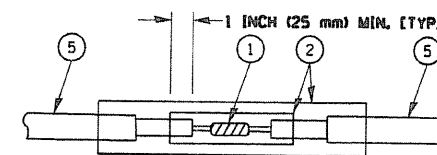
DETECTOR LOOP WIRING SCHEMATIC

- 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.

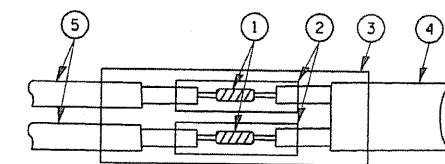
LOOP LEAD-IN CABLE TAG



- 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.



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.
- WCSM# 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

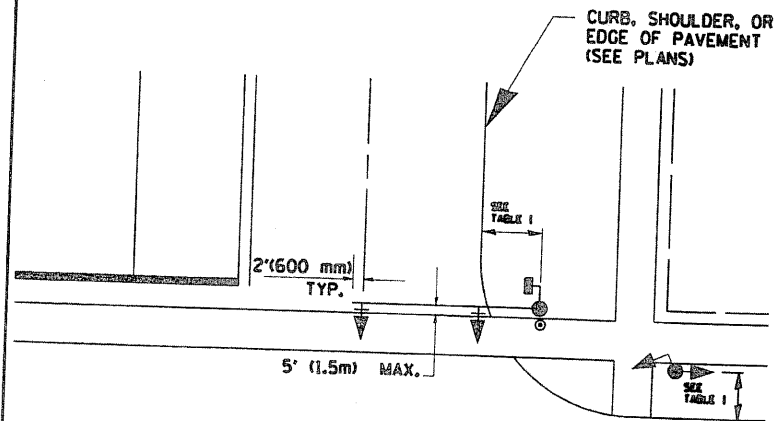
ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT ONE
STANDARD TRAFFIC SIGNAL
DESIGN DETAILS

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

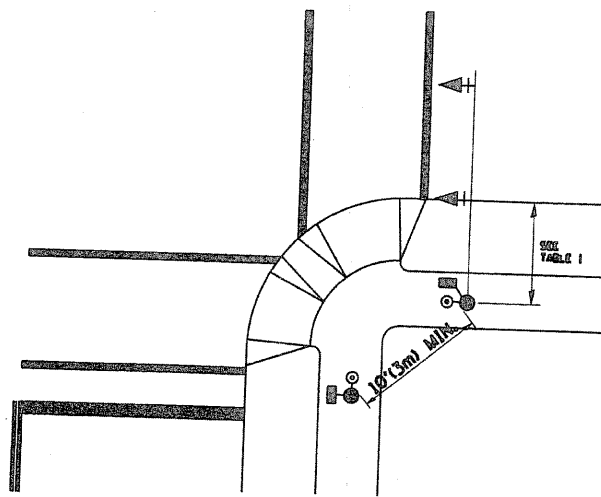
DRAWN BY: RWP
DESIGNED BY: DAZ
CHECKED BY: DAZ
SHEET 1 OF 4

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:

1. 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.

- 2. 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.
- 3. 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.
- 4. 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)

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	2005-007-TS	COOK	26	4
STA.	TO STA.			
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
CONTRACT NO. 62918				

PEDESTRIAN SIGNAL POST

PEDESTRIAN SIGNAL HEAD AND PEDESTRIAN PUSHBUTTON DETECTOR LOCATION

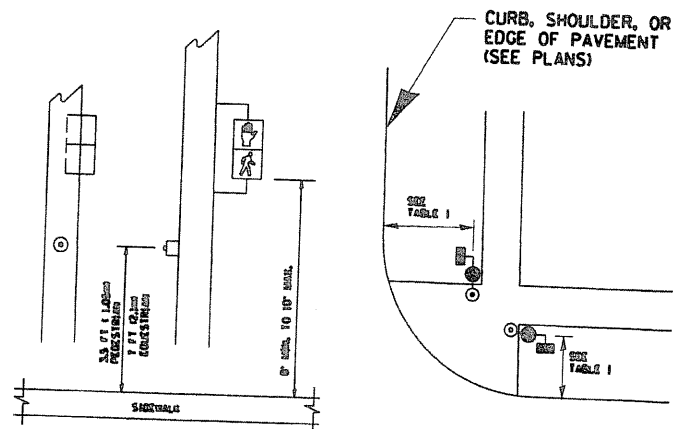


TABLE I

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

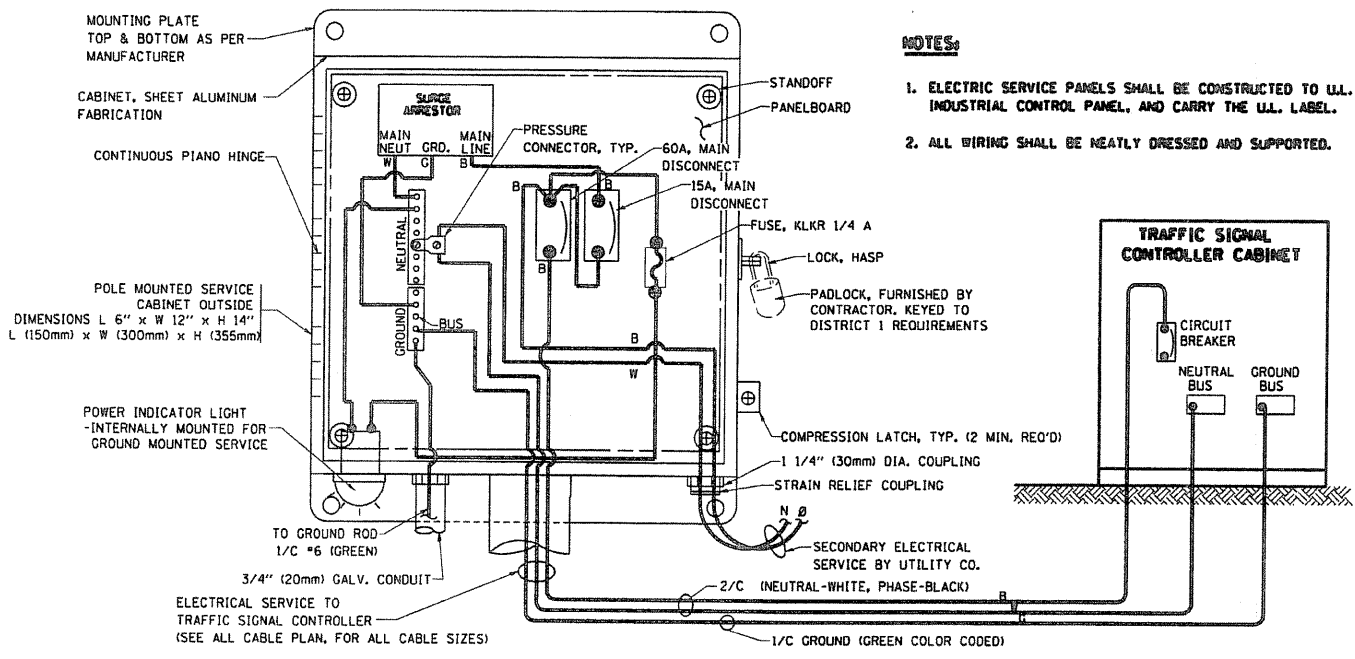
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HORIZ. NONE
DATE 1-01-02

DRAWN BY: RWP
DESIGNED BY: DAZ
CHECKED BY: DAZ
SHEET 2 OF 4

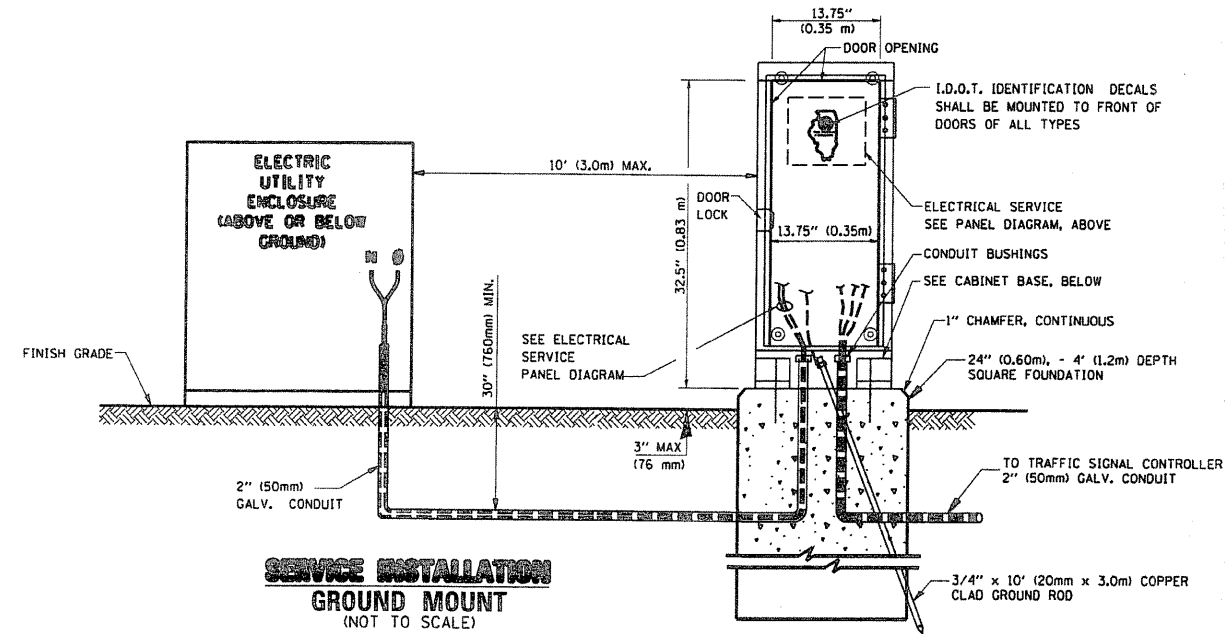
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8/15/2007
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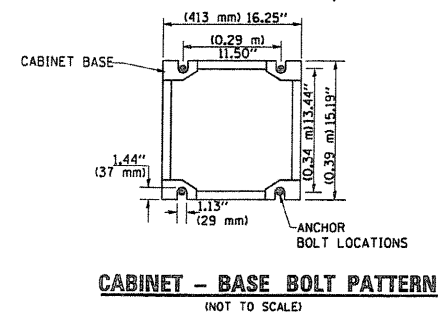
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	2005-007-TS	COOK	26	5
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
CONTRACT NO. 6291B				



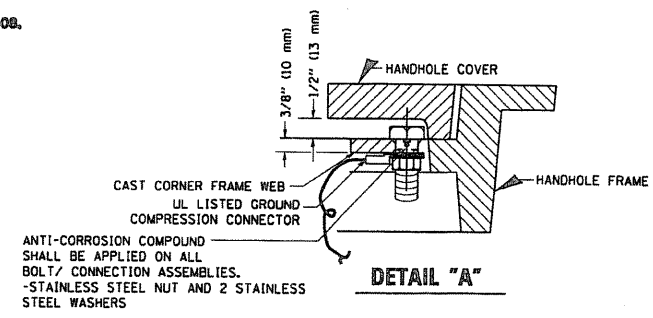
ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)
SERVICE INSTALLATION POLE MOUNT (SHOWN)
 (NOT TO SCALE)



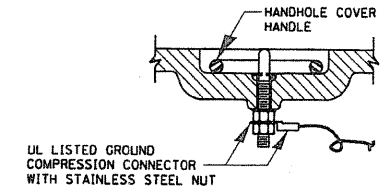
SERVICE INSTALLATION GROUND MOUNT
 (NOT TO SCALE)



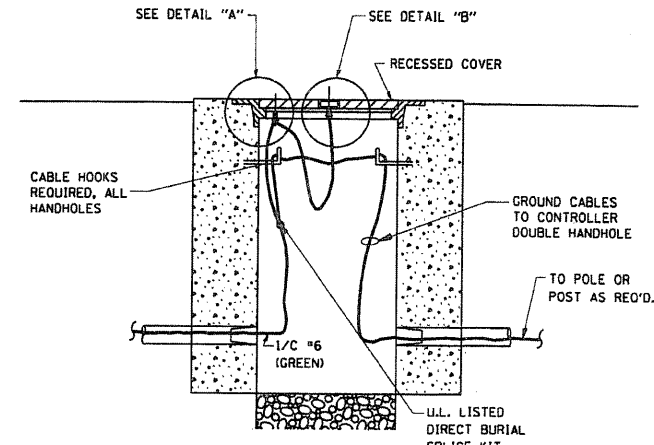
CABINET - BASE BOLT PATTERN
 (NOT TO SCALE)



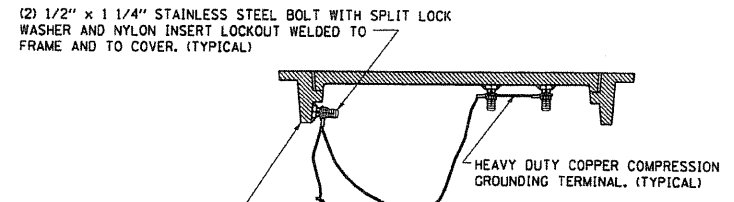
DETAIL "A"



DETAIL "B"



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

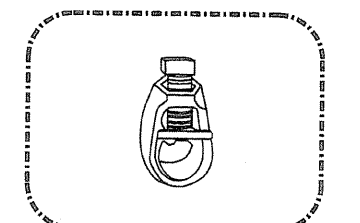
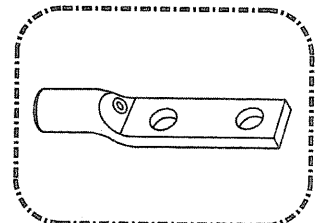


EXISTING HANDHOLE COVER & FRAME - GROUNDING DETAIL
 (NOT TO SCALE)

NOTES:

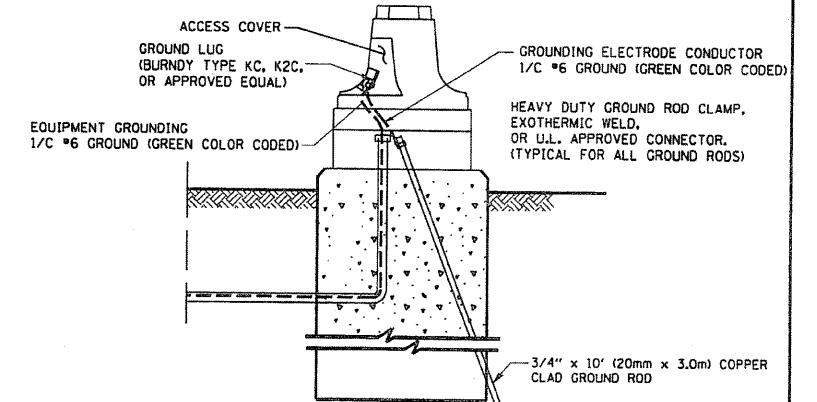
GROUNDING SYSTEM

- THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.D.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.



NOTES:

- ALL CLAMPS SHALL BE BRONZE OR COPPER, U.L. 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)

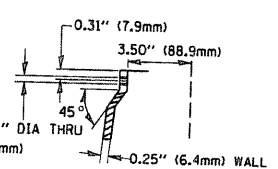
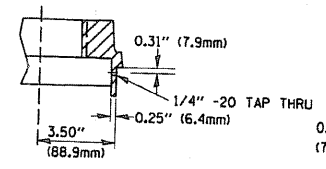
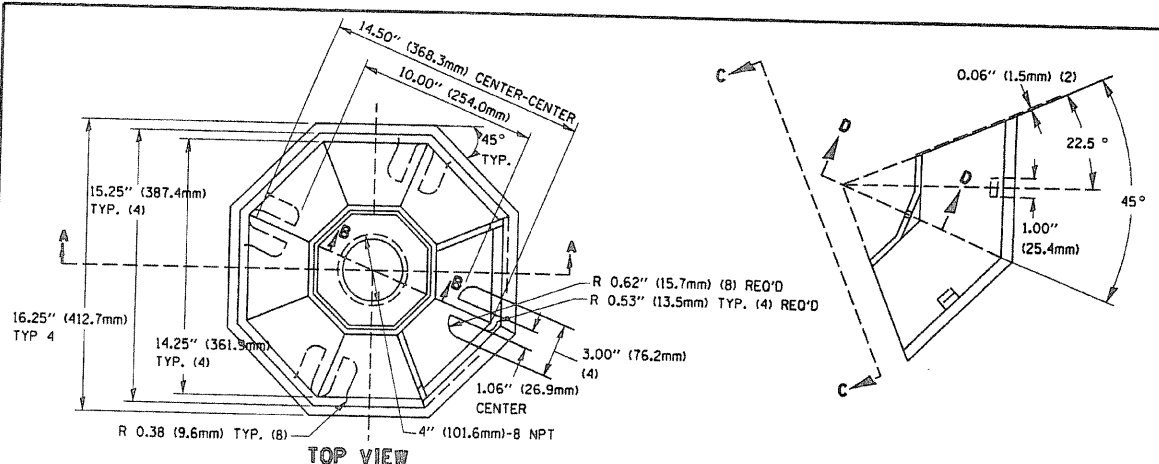
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT 1
STANDARD TRAFFIC SIGNAL
DESIGN DETAILS

SCALE: VERT. NONE
 HORIZ. 1-01-02
 DATE 1-01-02
 DRAWN BY: RWP
 DESIGNED BY: DAD
 CHECKED BY: DAZ
 SHEET 3 OF 4

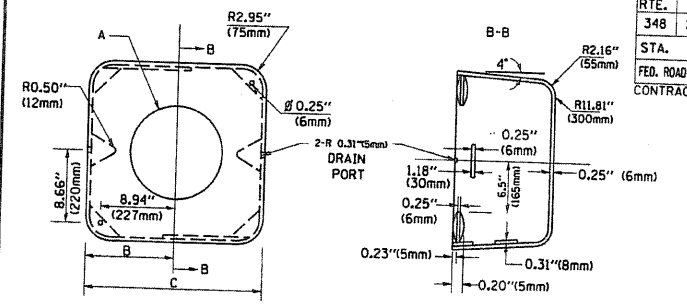
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	2005-007-TS	COOK	26	6
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
CONTRACT NO. 62918				



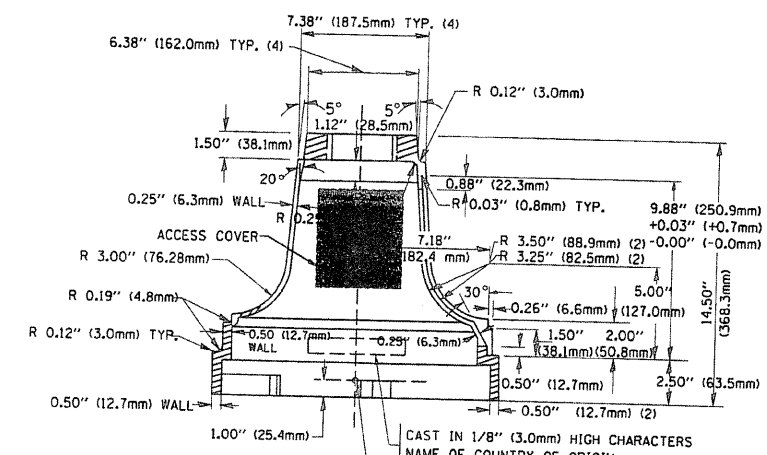
SECTION B-B

SECTION D-D

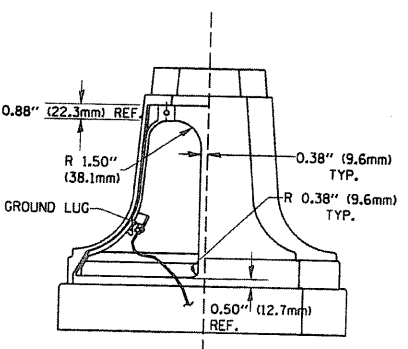


TYPE	A	B	C	HEIGHT	WEIGHT
I	Ø 10.125\"(257mm)	9.5\"(241mm)	19\"(483mm)	12\"(300mm)	24kg
II	Ø 11.125\"(283mm)	10.75\"(273mm)	21.5\"(546mm)	12\"(300mm)	26kg

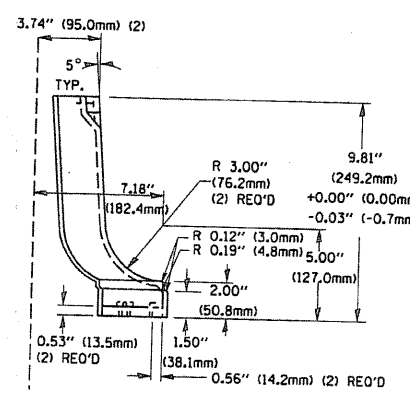
SHROUD DETAIL



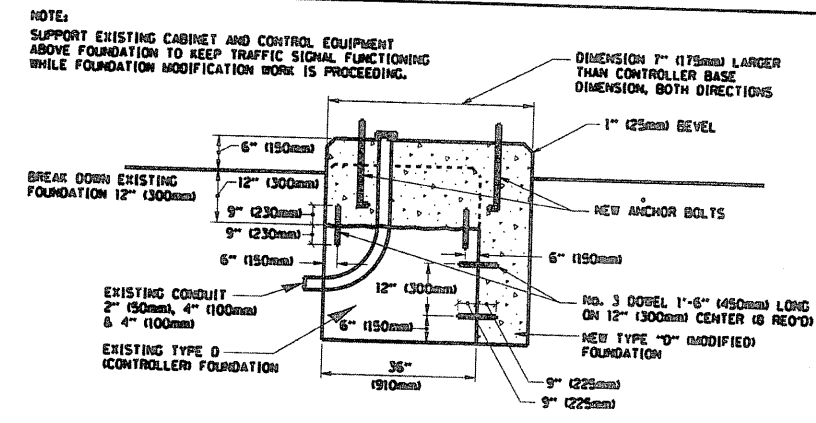
SECTION A-A



VIEW C-C

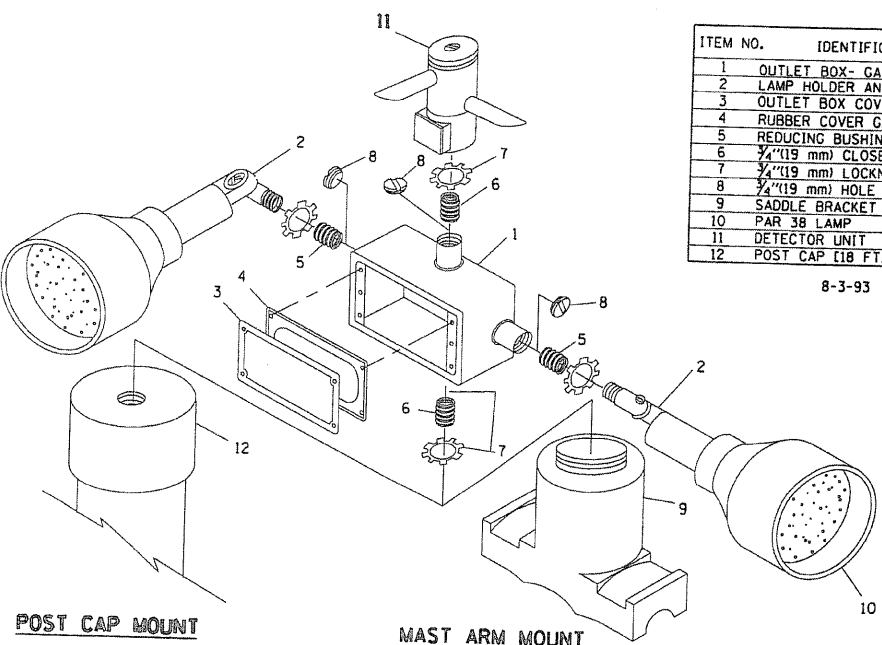


TRAFFIC SIGNAL POST - MOUNTING BASE - TYPE A



MODIFY EXISTING TYPE "D" FOUNDATION

NOT TO SCALE



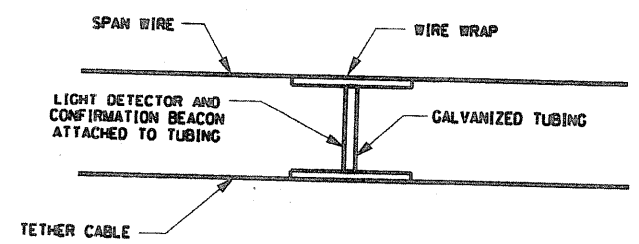
EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL

ITEM NO.	IDENTIFICATION
1	OUTLET BOX - GALV. 21 CU. IN. (0.000344 CU.M)
2	LAMP HOLDER AND COVER
3	OUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING
6	3/4\"(19 mm) CLOSE NIPPLE
7	3/4\"(19 mm) LOCKNUT
8	3/4\"(19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	PAR 38 LAMP
11	DETECTOR UNIT
12	POST CAP (18 FT. (5.4 m) POST MIN.)

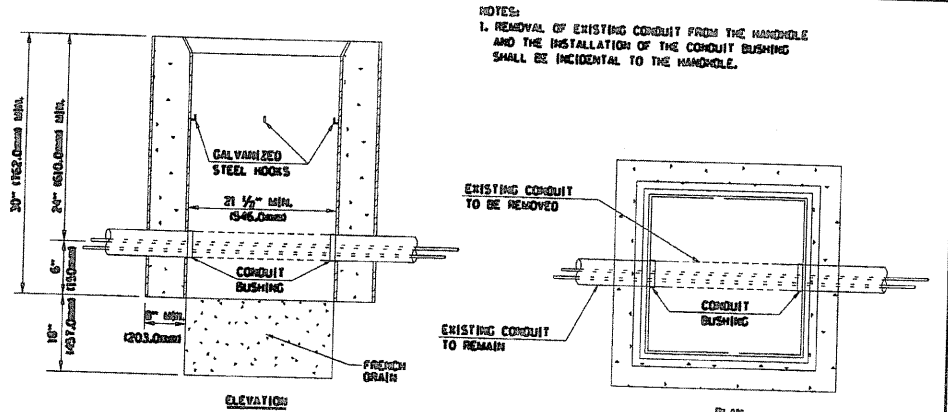
8-3-93

NOTES:

- ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
- ITEM #1- OZ/GEDNEY FSX-1-50 OR EQUIVALENT
ITEM #2- MULBERRY CON-O-SHADE LAMP SHIELD OR EQUIVALENT
ITEM #9- "BAND-IT" SADDLE BRACKET OR EQUIVALENT
- WHEN POST MOUNTING IS SPECIFIED, ITEM #9 SHALL NOT BE REQUIRED. THE DETECTION UNIT SHALL BE MOUNTED DIRECTLY ON TOP OF THE CAP BY DRILLING AND TAPPING A 3/4\"(19 mm) HOLE WITH PIPE THREADS. THE POST CAP SHALL EITHER BE SCREWED TO THE TOP OF THE POST OR A MINIMUM OF 3 TIGHTENING SCREWS SHALL BE REQUIRED ON EACH CAP.



LIGHT DETECTOR AND CONFIRMATION BEACON MOUNTING FOR TEMPORARY TRAFFIC SIGNALS (NOT TO SCALE)



DETAIL HANDHOLE TO INTERCEPT EXISTING CONDUIT N.T.S.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT 1
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

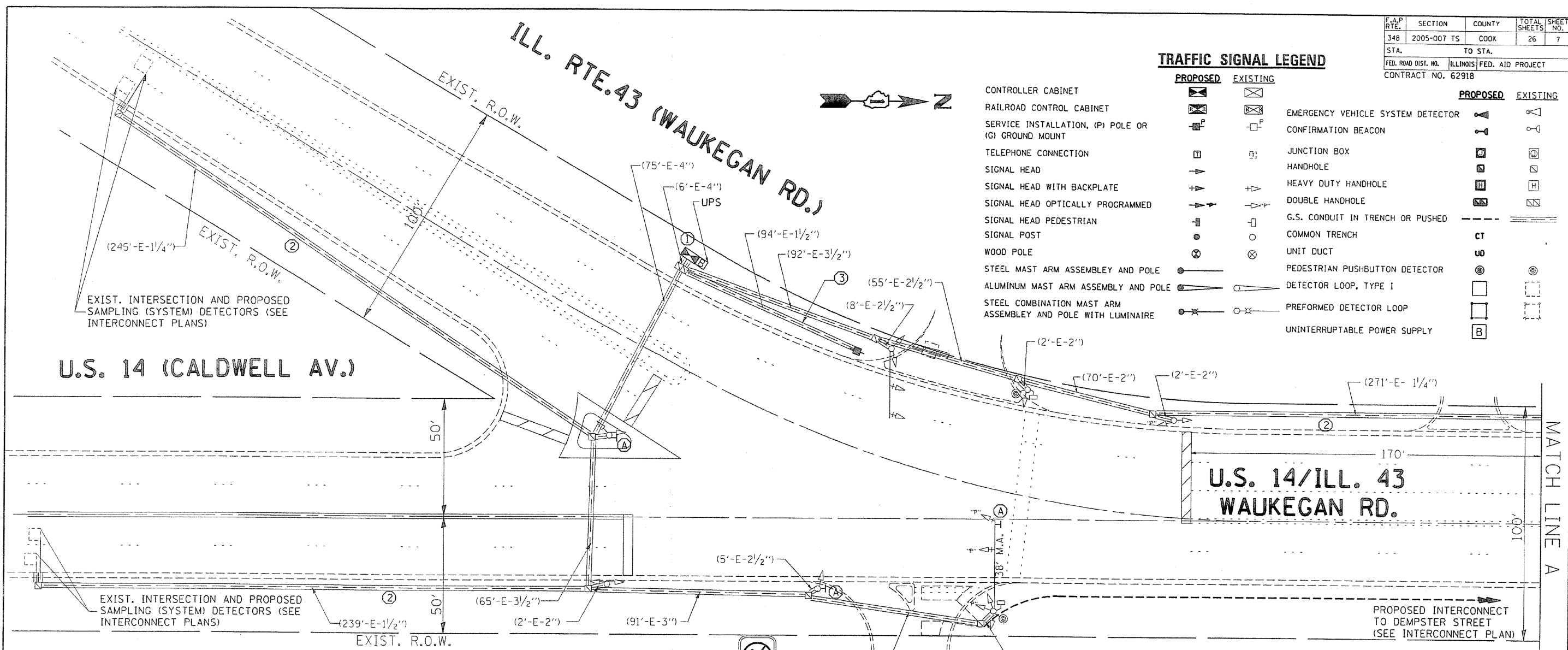
SCALE: VERT. NONE
HORIZ. 1-01-02
DRAWN BY: RWP
DESIGNED BY: DAD
CHECKED BY: DAZ
SHEET 4 OF 4

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	2005-007 TS	COOK	26	7
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 62918				

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING		PROPOSED	EXISTING
CONTROLLER CABINET			EMERGENCY VEHICLE SYSTEM DETECTOR		
RAILROAD CONTROL CABINET			CONFIRMATION BEACON		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT			JUNCTION BOX		
TELEPHONE CONNECTION			HANDHOLE		
SIGNAL HEAD			HEAVY DUTY HANDHOLE		
SIGNAL HEAD WITH BACKPLATE			DOUBLE HANDHOLE		
SIGNAL HEAD OPTICALLY PROGRAMMED			G.S. CONDUIT IN TRENCH OR PUSHED		
SIGNAL HEAD PEDESTRIAN			COMMON TRENCH		
SIGNAL POST			UNIT DUCT		
WOOD POLE			PEDESTRIAN PUSHBUTTON DETECTOR		
STEEL MAST ARM ASSEMBLY AND POLE			DETECTOR LOOP, TYPE I		
ALUMINUM MAST ARM ASSEMBLY AND POLE			PREFORMED DETECTOR LOOP		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE			UNINTERRUPTIBLE POWER SUPPLY		



THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE STATE AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE STATE'S TRAFFIC SIGNAL MAINTENANCE CONTRACTOR'S MAIN FACILITY AS PER THE TRAFFIC SIGNAL SPECIFICATION.

- 1 EACH CONTROLLER AND CABINET, COMPLETE

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 SERVICE INSTALLATION

CONSTRUCTION NOTES:

- ① REMOVE EXISTING CONTROLLER AND CABINET. INSTALL A NEW CONTROLLER TYPE IV CABINET USING EXISTING FOUNDATION.
- ② INSTALL NEW ELECTRIC CABLE IN CONDUIT, LEAD-IN NO. 14 1 PAIR.
- ③ INSTALL NEW ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C AND ELECTRIC CABLE IN CONDUIT, GROUNDING NO. 6 1C.

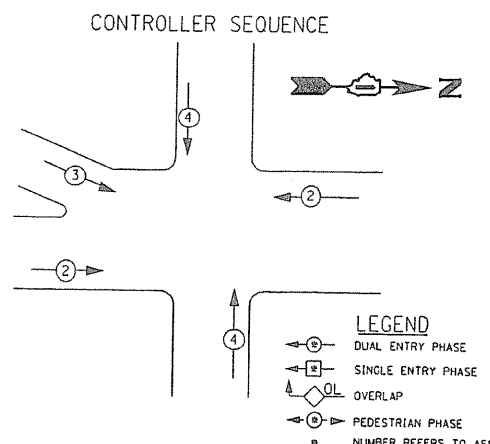
RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCLUDED IN THE RELATED PAY ITEMS SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS 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.

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

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
TRAFFIC SIGNAL MODERNIZATION PLAN
ILL. RTE. 43 (WAUKEGAN RD.) AT
US. RTE. 14 (CALDWELL AV.)
SCALE: VERT. 1"=20'
HORIZ. 1"=20'
DATE 8/17/2007
DRAWN BY BCK
DESIGNED BY BCK
CHECKED BY DAD

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
34B	2005-007 TS	COOK	26	8
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 62887				



EXISTING PHASE DESIGNATION DIAGRAM

- CONSTRUCTION NOTES:**
- REMOVE EXISTING CONTROLLER AND CABINET. INSTALL A NEW CONTROLLER TYPE IV CABINET AND UPS. RE-USE EXISTING FOUNDATION.
 - REMOVE EXISTING SERVICE CABLE AND SERVICE. INSTALL NEW SERVICE, SERVICE CABLES, AND GROUND CABLES.
 - INSTALL NEW ELECTRIC CABLE IN CONDUIT, LEAD-IN NO. 14 1 PAIR.

CABLE PLAN LEGEND

- | | | | |
|--|--|--|--|
| | G 8" (200mm) TRAFFIC SIGNAL SECTION | | R 12" (300mm) TRAFFIC SIGNAL SECTION |
| | R 12" (300mm) TRAFFIC SIGNAL SECTION | | W 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| | W 12" (300mm) PEDESTRIAN SIGNAL SECTION | | A 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| | C CONTROLLER CABINET | | E RAILROAD CONTROL CABINET |
| | S SERVICE INSTALLATION | | IL ILLUMINATED SIGN "NO LEFT TURN" |
| | T TELEPHONE CONNECTION | | IR ILLUMINATED SIGN "NO RIGHT TURN" |
| | M MAGNETIC DETECTOR | | C GROUND ROD AT HANDHOLE(H), DOUBLE HANDHOLE(H), OR CONTROLLER(C) |
| | EVL EMERGENCY VEHICLE LIGHT DETECTOR | | P GROUND ROD AT POST (P) OR MAST ARM POLE (MA) |
| | CB CONFIRMATION BEACON | | S GROUND ROD AT ELECTRIC SERVICE INSTALLATION |
| | PD PUSHBUTTON DETECTOR | | 1 GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN) |
| | VD VEHICLE DETECTOR, INDUCTION LOOP | | 24 FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F |
| | 2 DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED. | | B UNINTERRUPTIBLE POWER SUPPLY |

ILL. RTE.43 (WAUKEGAN RD.)

U.S. 14 (CALDWELL AV.)

PRIVATE ENTRANCE

GROVE STREET

CABLE PLAN

(WAUKEGAN RD.)
ILL. 43

SCHEDULE OF QUANTITIES

- ITEM**
- TRAFFIC CONTROL AND PROTECTION, STANDARD 701701
 - TRAFFIC CONTROL AND PROTECTION, STANDARD 701801
 - MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
 - FULL-ACTUATED CONTROLLER AND TYPE IV CABINET (SPECIAL)
 - TRANSCEIVER-FIBER OPTIC
 - ELECTRIC CABLE IN CONDUIT, LEAD-IN NO. 14 1 PAIR
 - ELECTRIC CABLE IN CONDUIT, SERVICE NO. 6 2 C
 - ELECTRIC CABLE IN CONDUIT, GROUNDING NO. 6 1 C
 - INDUCTIVE LOOP DETECTOR
 - REMOVE ELECTRIC CABLE FROM CONDUIT
 - REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
 - SERVICE INSTALLATION, POLE MOUNT
 - UNINTERRUPTIBLE POWER SUPPLY (UPS)

UNIT	QUANTITY
L SUM	0.11
L SUM	0.11
EACH	1
EACH	1
EACH	1
FOOT	1398
FOOT	118
FOOT	118
EACH	8
FOOT	94
EACH	1
EACH	1
EACH	1

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

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE (INCAND.)	LED	% OPERATION	
SIGNAL (RED)	17	135	17	0.50	144.50
(YELLOW)	17	135	25	0.25	106.25
(GREEN)	17	135	15	0.25	63.75
ARROW		135	12	0.10	
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	
TOTAL =					464.50

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' HL-2=
E - M. ARM POLE		SIGNAL POST	2 (1.0)		(6m HL-0.6m)=
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)
36" (900mm)	15 (4.6)	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

ILLINOIS DEPARTMENT OF TRANSPORTATION
CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND SCHEDULE OF QUANTITIES
ILL. RTE. 43 (WAUKEGAN RD.) AT
U.S. RTE. 14 (CALDWELL AVE.)

SCALE: 1"=20'
DATE: 8/17/2007
DRAWN BY: BCK
DESIGN BY: BCK
CHECKED BY: DAD

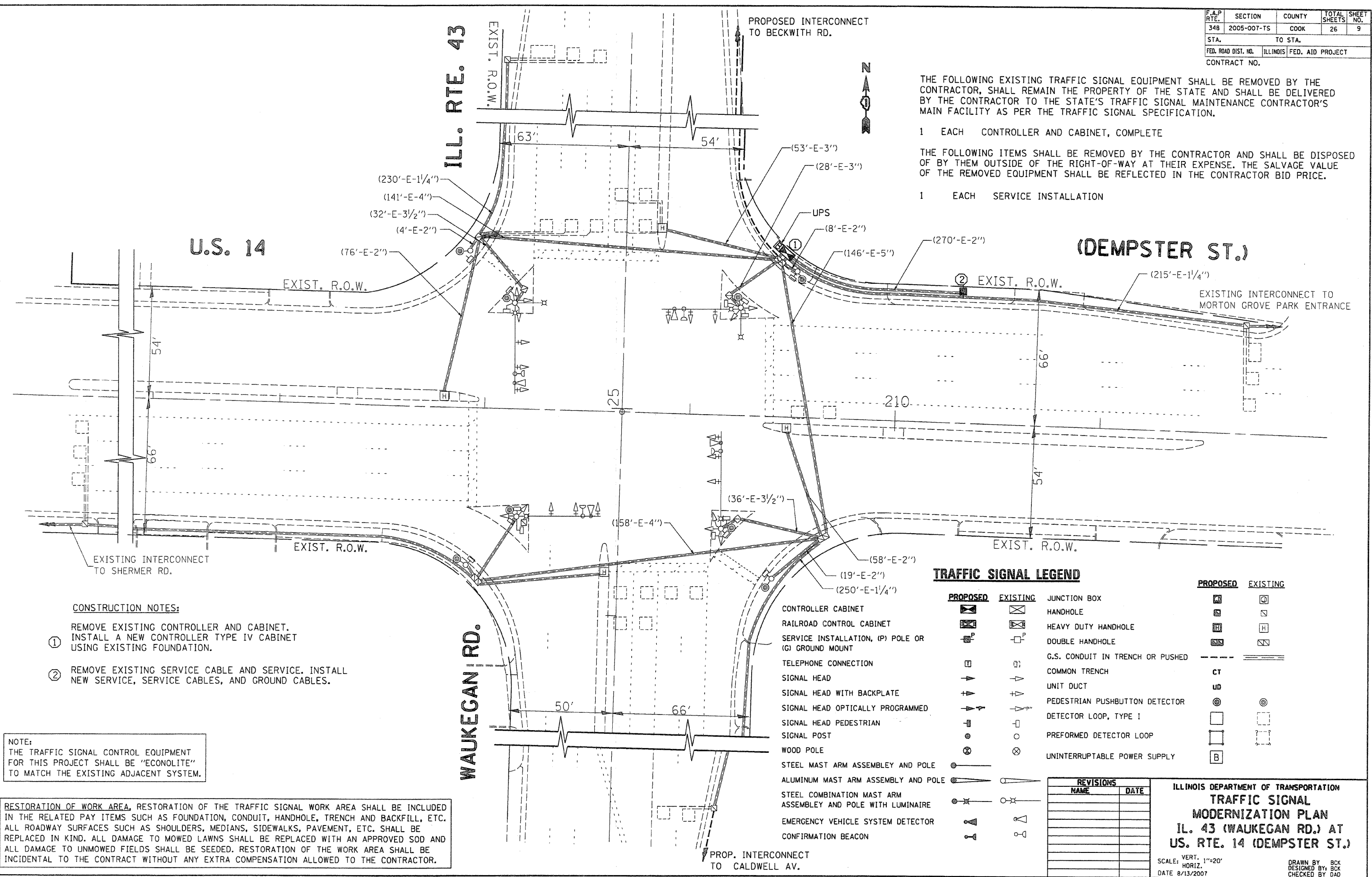
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	2005-007-TS	COOK	26	9
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	CONTRACT NO.	

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE STATE AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE STATE'S TRAFFIC SIGNAL MAINTENANCE CONTRACTOR'S MAIN FACILITY AS PER THE TRAFFIC SIGNAL SPECIFICATION.

1 EACH CONTROLLER AND CABINET, COMPLETE

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 SERVICE INSTALLATION



- CONSTRUCTION NOTES:**
- ① REMOVE EXISTING CONTROLLER AND CABINET. INSTALL A NEW CONTROLLER TYPE IV CABINET USING EXISTING FOUNDATION.
 - ② REMOVE EXISTING SERVICE CABLE AND SERVICE. INSTALL NEW SERVICE, SERVICE CABLES, AND GROUND CABLES.

NOTE:
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" 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.

TRAFFIC SIGNAL LEGEND

PROPOSED	EXISTING		PROPOSED	EXISTING
		JUNCTION BOX		
		HANDHOLE		
		HEAVY DUTY HANDHOLE		
		DOUBLE HANDHOLE		
		G.S. CONDUIT IN TRENCH OR PUSHED		
		COMMON TRENCH	CT	
		UNIT DUCT	UD	
		PEDESTRIAN PUSHBUTTON DETECTOR		
		DETECTOR LOOP, TYPE 1		
		PREFORMED DETECTOR LOOP		
		UNINTERRUPTABLE POWER SUPPLY	B	

- CONTROLLER CABINET
- RAILROAD CONTROL CABINET
- SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT
- TELEPHONE CONNECTION
- SIGNAL HEAD
- SIGNAL HEAD WITH BACKPLATE
- SIGNAL HEAD OPTICALLY PROGRAMMED
- SIGNAL HEAD PEDESTRIAN
- SIGNAL POST
- WOOD POLE
- STEEL MAST ARM ASSEMBLY AND POLE
- ALUMINUM MAST ARM ASSEMBLY AND POLE
- STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE
- EMERGENCY VEHICLE SYSTEM DETECTOR
- CONFIRMATION BEACON

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
TRAFFIC SIGNAL MODERNIZATION PLAN
IL. 43 (WAUKEGAN RD.) AT U.S. RTE. 14 (DEMPSTER ST.)
 VERT. 1"=20'
 HORIZ. 1"=20'
 DATE 8/13/2007
 DRAWN BY: BCK
 DESIGNED BY: BCK
 CHECKED BY: DAD

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	2005-007 TS	COOK	26	10
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 62918				

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	LSUM	0.11
TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	LSUM	0.11
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET (SPECIAL)	EACH	1
TRANSCIVER-FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, GROUNDING NO. 6 1 C	FOOT	294
ELECTRIC CABLE IN CONDUIT, SERVICE NO. 6 2 C	FOOT	294
INDUCTIVE LOOP DETECTOR	EACH	16
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	270
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
SERVICE INSTALLATION, POLE MOUNT	EACH	1
UNINTERRUPTABLE POWER SUPPLY (UPS)	EACH	1

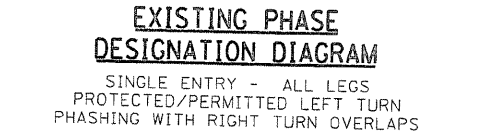
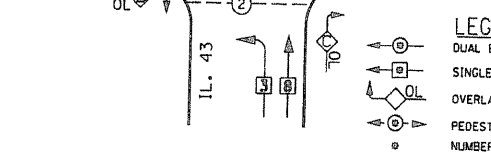
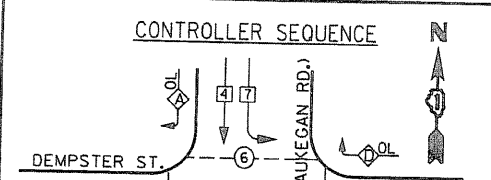
PUSHBUTTON NOTES:

- PUSHBUTTONS 'A' SHALL PLACE A CALL IN PHASES 2 AND 8.
- PUSHBUTTONS 'B' SHALL PLACE A CALL IN PHASES 6 AND 8.
- PUSHBUTTONS 'C' SHALL PLACE A CALL IN PHASES 4 AND 6.
- PUSHBUTTONS 'D' SHALL PLACE A CALL IN PHASES 2 AND 4.

CABLE PLAN LEGEND

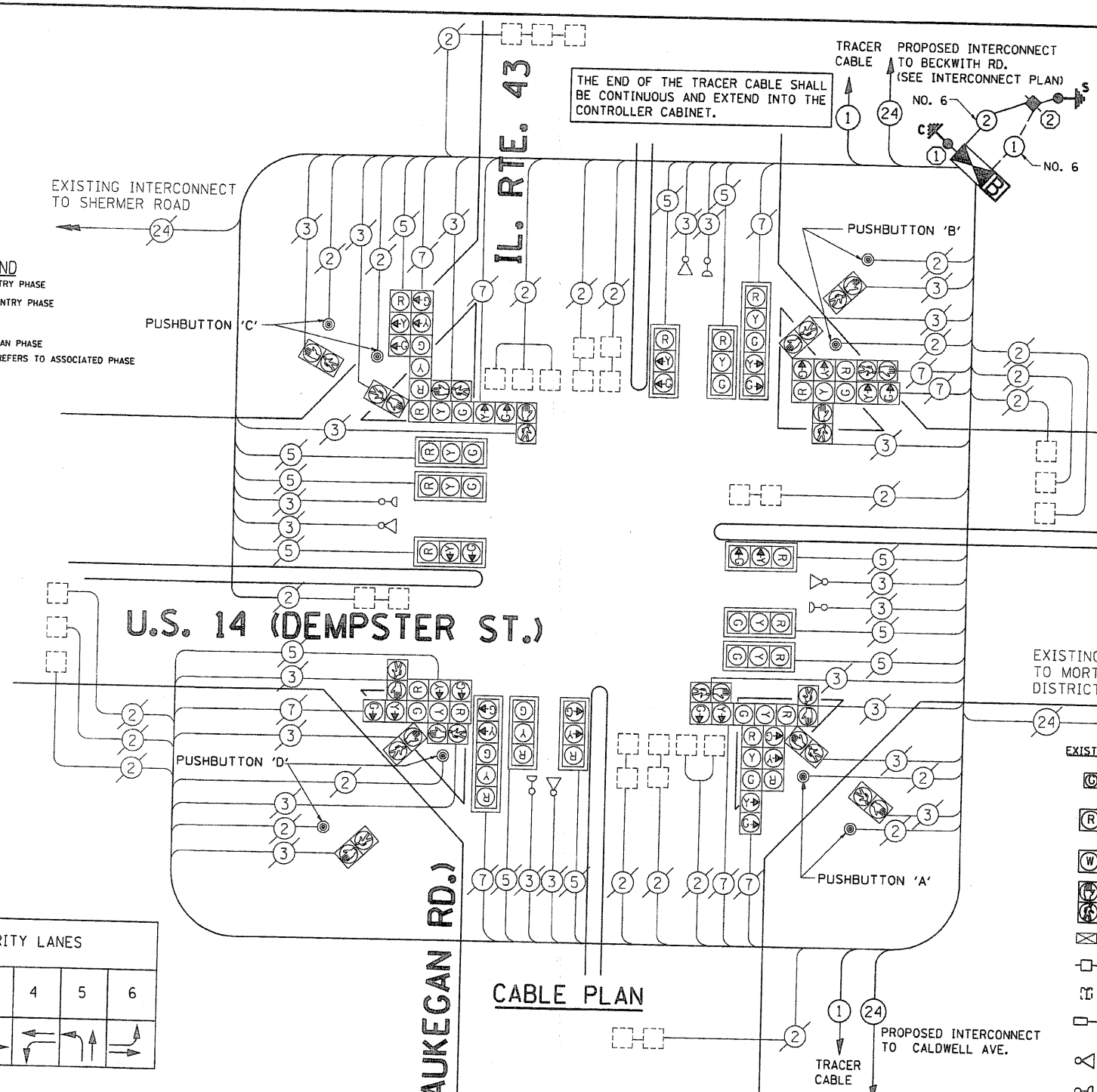
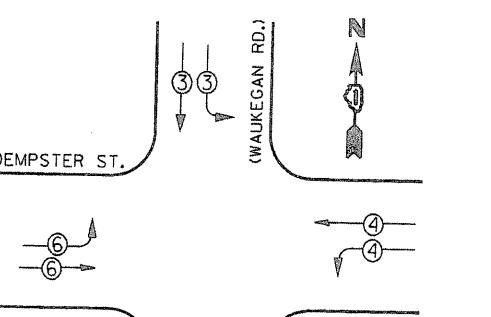
EXISTING PROPOSED

	8" (200mm) TRAFFIC SIGNAL SECTION
	12" (300mm) TRAFFIC SIGNAL SECTION
	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
	GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F
	UNINTERRUPTIBLE POWER SUPPLY



RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A =	4 +	5
B =	2 +	3
C =	8 +	1
D =	6 +	7



- #### CONSTRUCTION NOTES:
- REMOVE EXISTING CONTROLLER AND CABINET. INSTALL A NEW CONTROLLER TYPE IV CABINET AND UPS. RE-USE EXISTING FOUNDATION.
 - REMOVE EXISTING SERVICE CABLE AND SERVICE. INSTALL NEW SERVICE, SERVICE CABLES, AND GROUND CABLES.

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'	H-2-
E - M. ARM POLE			SIGNAL POST	2	(1.0)			
	24"	(600mm)	CONTROLLER CAB.	1	(0.5)	BRACKET MOUNTED	13	(4.0)
	30"	(750mm)	FIBER OPTIC	13	(4.0)	PED. PUSHBUTTON	4	(1.2)
	36"	(900mm)	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)

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

REVISIONS	
NAME	DATE

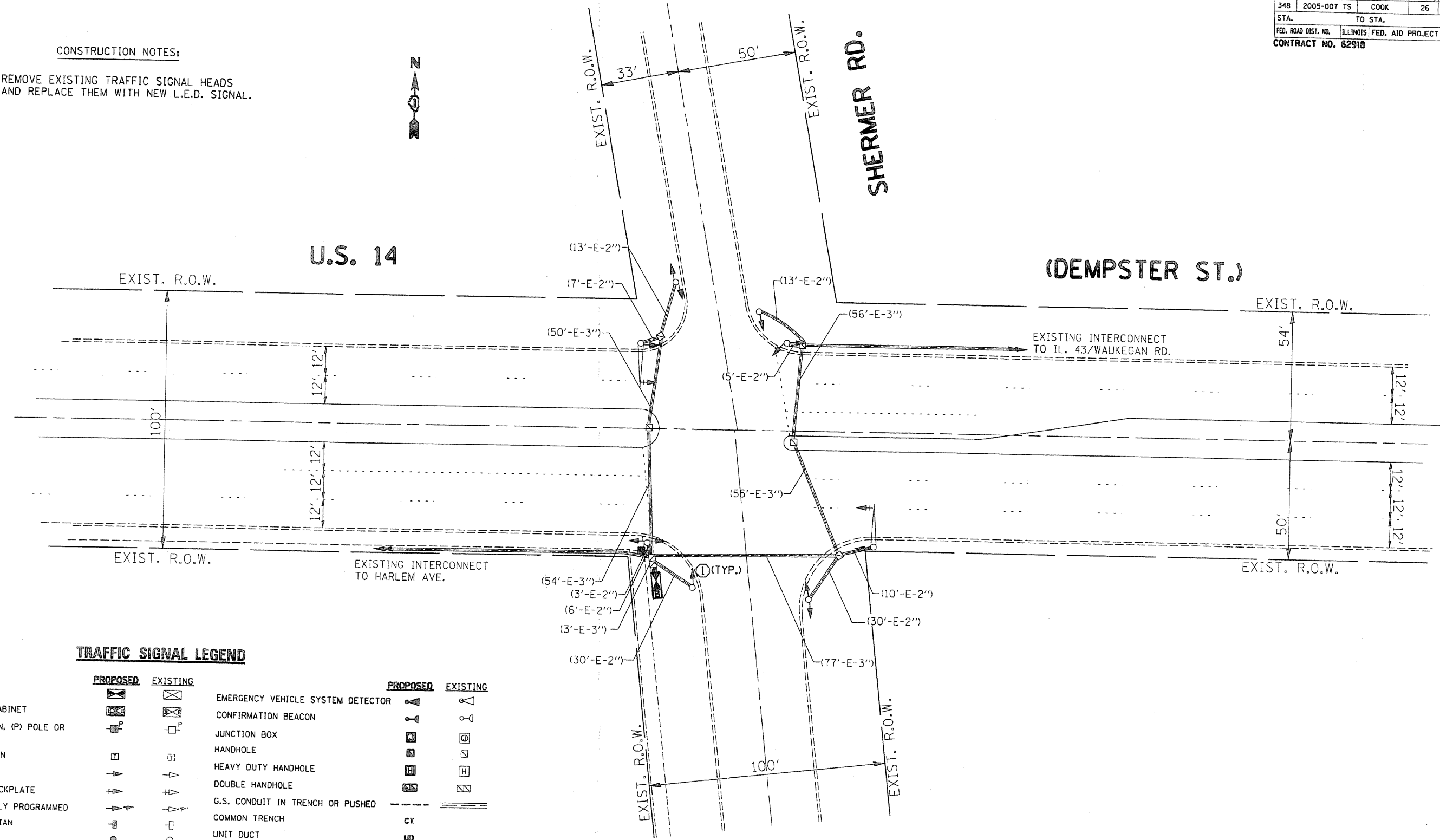
ILLINOIS DEPARTMENT OF TRANSPORTATION
**CABLE PLAN, PHASE DESIGNATION DIAGRAM,
 EMERGENCY VEHICLE PREEMPTION SEQUENCE,
 AND SCHEDULE OF QUANTITIES
 IL. 43 (WAUKEGAN RD.) AT
 US 14 (DEMPSTER ST.)**

SCALE: VERT. 1"=20'
 HORIZ. 1"=20'
 DATE 8/13/2007
 DRAWN BY BCK
 DESIGN BY BCK
 CHECKED BY DAD

PLOT DATE = 8/13/2007
 PLOT SCALE = 1"=20'
 REFERENCE = 08175

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	2005-007 TS	COOK	26	13
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 62918				

CONSTRUCTION NOTES:
 ① REMOVE EXISTING TRAFFIC SIGNAL HEADS AND REPLACE THEM WITH NEW L.E.D. SIGNAL.



TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING		PROPOSED	EXISTING
CONTROLLER CABINET			EMERGENCY VEHICLE SYSTEM DETECTOR		
RAILROAD CONTROL CABINET			CONFIRMATION BEACON		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT			JUNCTION BOX		
TELEPHONE CONNECTION			HANDHOLE		
SIGNAL HEAD			HEAVY DUTY HANDHOLE		
SIGNAL HEAD WITH BACKPLATE			DOUBLE HANDHOLE		
SIGNAL HEAD OPTICALLY PROGRAMMED			G.S. CONDUIT IN TRENCH OR PUSHED		
SIGNAL HEAD PEDESTRIAN			COMMON TRENCH		
SIGNAL POST			UNIT DUCT		
WOOD POLE			PEDESTRIAN PUSHBUTTON DETECTOR		
STEEL MAST ARM ASSEMBLY AND POLE			DETECTOR LOOP, TYPE I		
ALUMINUM MAST ARM ASSEMBLY AND POLE			PREFORMED DETECTOR LOOP		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE			UNINTERRUPTABLE POWER SUPPLY		

REVISIONS		DATE
NAME		

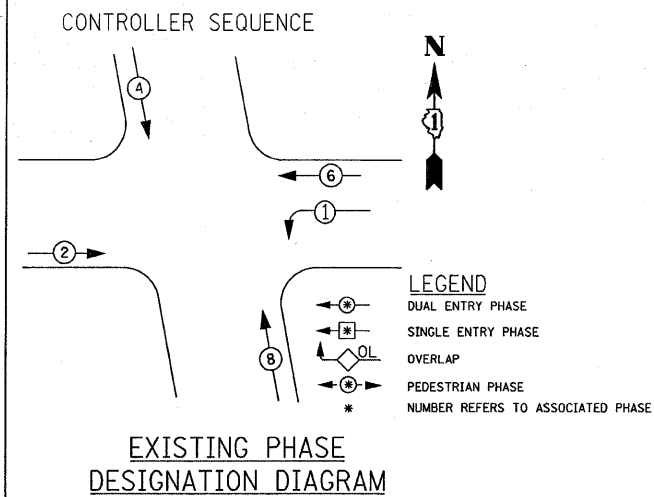
ILLINOIS DEPARTMENT OF TRANSPORTATION

PROPOSED MODERNIZATION PLAN FOR U.S. 14 (DEMPSTER ST) AT SHERMER RD.

SCALE: VERT. DATE: HORIZ. DATE: DRAWN BY: CHECKED BY:

REFERENCE: 8-19-07

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	2005-007 TS	COOK	26	14
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 62918				



THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE STATE AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE STATE'S TRAFFIC SIGNAL MAINTENANCE CONTRACTOR'S MAIN FACILITY AS PER THE TRAFFIC SIGNAL SPECIFICATION.

- 1 EACH CONTROLLER AND CABINET, COMPLETE

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.

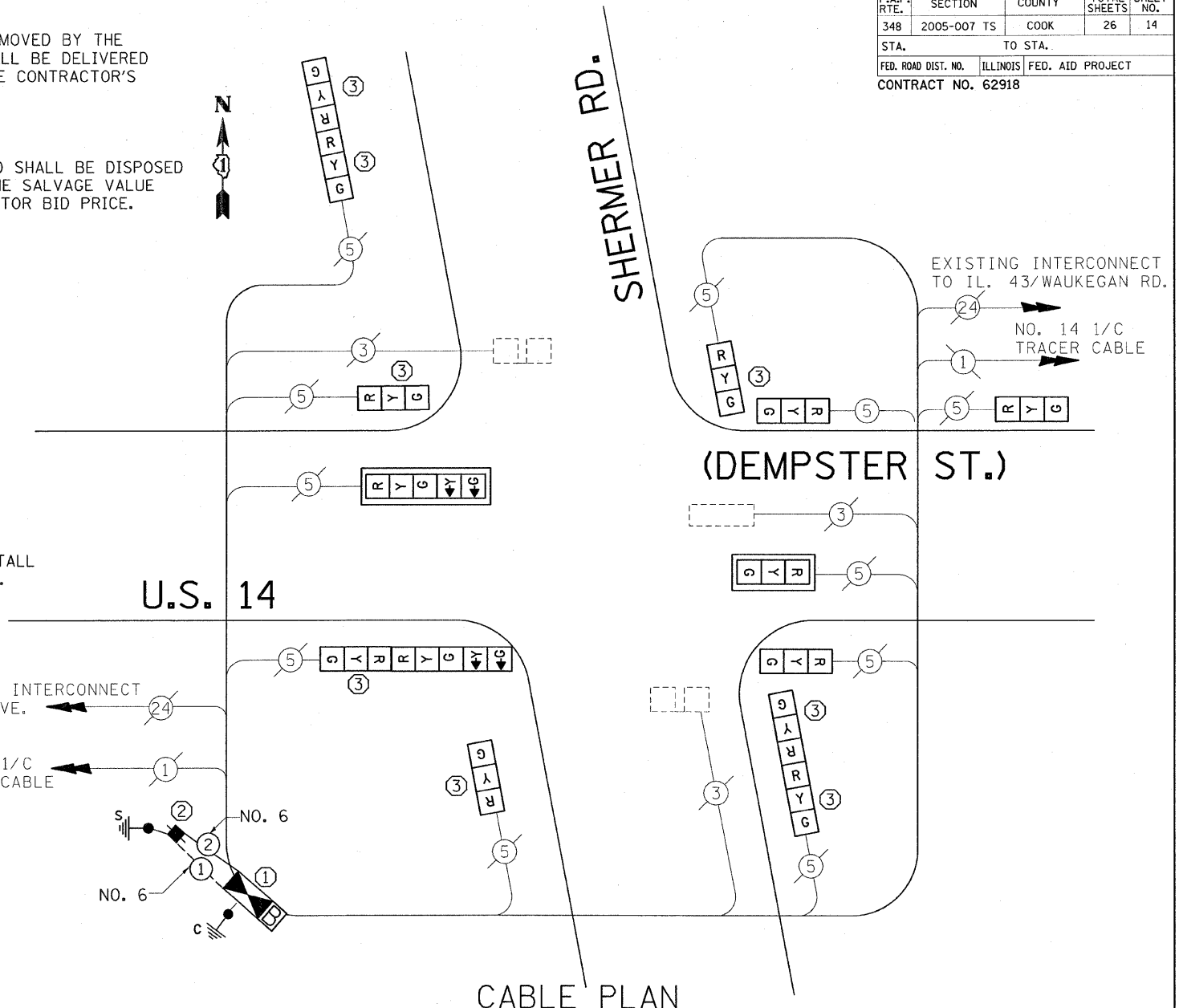
- 6 EACH SIGNAL HEADS, 3-SECTION
- 2 EACH 2-FACE, 3-SECTION
- 1 EACH 2-FACE, 1-3SECT., 1-5-SECTION
- 1 EACH 1-FACE, 5-SECTION MAST MNTD.
- 1 EACH 1-FACE, 3-SECTION MAST MNTD.
- 1 EACH SERVICE INSTALLATION
- 2 EACH BACKPLATE

CABLE PLAN LEGEND

EXISTING	PROPOSED	DESCRIPTION
⊗	G	8" (200mm) TRAFFIC SIGNAL SECTION
⊗	R	12" (300mm) TRAFFIC SIGNAL SECTION
⊗	W	12" (300mm) PEDESTRIAN SIGNAL SECTION
⊗	W	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.
⊗	⊗	SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD
⊗	⊗	RAILROAD CONTROL CABINET
⊗	⊗	ILLUMINATED SIGN "NO LEFT TURN"
⊗	⊗	ILLUMINATED SIGN "NO RIGHT TURN"
C	C	GROUND ROD AT HANDHOLE(H), DOUBLE HANDHOLE(H), OR CONTROLLER(C)
P	P	GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
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, MM12F SM12F
⊗	⊗	UNINTERRUPTABLE POWER SUPPLY

CONSTRUCTION NOTES:

- ① REMOVE EXISTING CONTROLLER AND CABINET. INSTALL A NEW CONTROLLER TYPE IV CABINET. RE-USE EXISTING FOUNDATION.
- ② REMOVE EXISTING SERVICE CABLE AND SERVICE. INSTALL NEW SERVICE, SERVICE CABLES, AND GROUND CABLES.
- ③ REMOVE EXISTING 8" TRAFFIC SIGNAL HEAD AND REPLACE IT WITH NEW 12" L.E.D. SIGNAL.



SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	LSUM	0.11
TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	LSUM	0.11
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET (SPECIAL)	EACH	1
TRANSCEIVER-FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, GROUNDING NO. 6 1 C	FOOT	30
ELECTRIC CABLE IN CONDUIT, SERVICE NO. 6 2 C	FOOT	30
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5 C	FOOT	236
INDUCTIVE LOOP DETECTOR	EACH	3
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	6
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, MAST ARM MTD.	EACH	1
SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, MAST ARM MTD.	EACH	1
SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, BRACKET MOUNTED.	EACH	6
SIGNAL HEAD, L.E.D., 2-FACE, 1-3 SECTION, 1-5 SECTION BRACKET MOUNTED.	EACH	1
SIGNAL HEAD, L.E.D., 2-FACE, 3 SECTION, BRACKET MOUNTED.	EACH	2
SIGNAL HEAD, L.E.D., 1-FACE, 5 SECTION, BRACKET MOUNTED.	EACH	1
SERVICE INSTALLATION, POLE MOUNT	EACH	1
TRAFFIC SIGNAL BACKPLATE	EACH	2
UNINTERRUPTABLE POWER SUPPLY (UPS)	EACH	1

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

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND SCHEDULE OF QUANTITIES
 U.S. 14 (DEMPSTER ST) AT SHERMER RD.
 SCALE: 1"=20'
 DATE 8/21/2007
 DRAWN BY BCK
 DESIGN BY BCK
 CHECKED BY DAD

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE (INCAND.)	WATTAGE (LED)	% OPERATION	
SIGNAL (RED)	13	135	17	0.50	110.50
(YELLOW)	13	135	25	0.25	81.25
(GREEN)	13	135	15	0.25	48.75
ARROW	4	135	12	0.10	4.80
PED. SIGNAL		90	25	1.00	
CONTROLLER	1	100	100	1.00	100.00
ILLUM. SIGN		84		0.05	
TOTAL =					345.30

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'-H-2-
E - M. ARM POLE		SIGNAL POST	2 (1.0)		(6m+L-0.6m)=
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)
36" (900mm)	15 (4.6)	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)

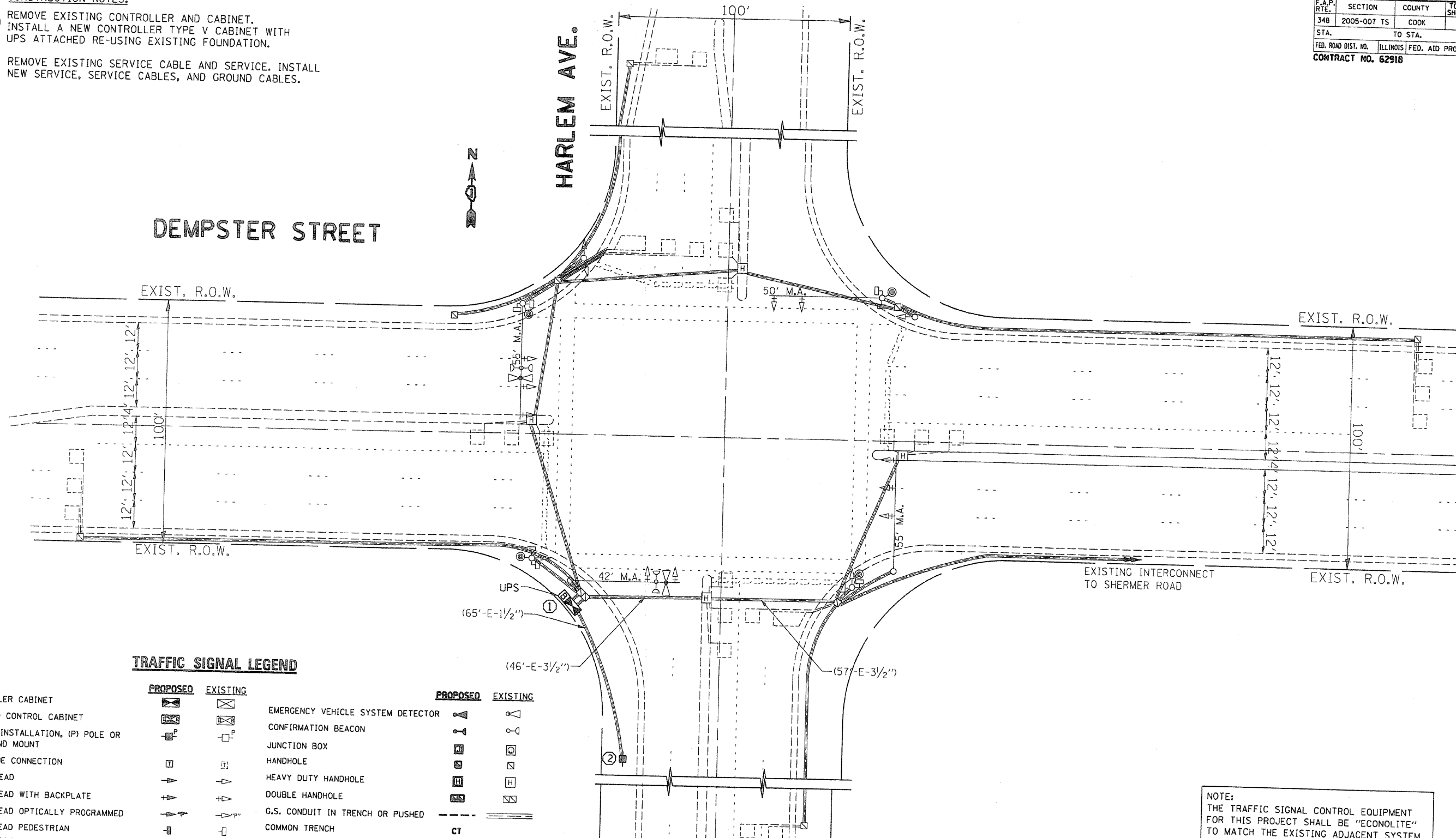
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 USER NAME = kemthphxjgbo

0:24:46 08/21/2007

CONSTRUCTION NOTES:

- ① REMOVE EXISTING CONTROLLER AND CABINET. INSTALL A NEW CONTROLLER TYPE V CABINET WITH UPS ATTACHED RE-USING EXISTING FOUNDATION.
- ② REMOVE EXISTING SERVICE CABLE AND SERVICE. INSTALL NEW SERVICE, SERVICE CABLES, AND GROUND CABLES.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	2005-007 TS	COOK	26	15
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
CONTRACT NO. 62918				



TRAFFIC SIGNAL LEGEND

CONTROLLER CABINET			EMERGENCY VEHICLE SYSTEM DETECTOR		
RAILROAD CONTROL CABINET			CONFIRMATION BEACON		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT			JUNCTION BOX		
TELEPHONE CONNECTION			HANDHOLE		
SIGNAL HEAD			HEAVY DUTY HANDHOLE		
SIGNAL HEAD WITH BACKPLATE			DOUBLE HANDHOLE		
SIGNAL HEAD OPTICALLY PROGRAMMED			G.S. CONDUIT IN TRENCH OR PUSHED		
SIGNAL HEAD PEDESTRIAN			COMMON TRENCH		
SIGNAL POST			UNIT DUCT		
WOOD POLE			PEDESTRIAN PUSHBUTTON DETECTOR		
STEEL MAST ARM ASSEMBLY AND POLE			DETECTOR LOOP, TYPE I		
ALUMINUM MAST ARM ASSEMBLY AND POLE			PREFORMED DETECTOR LOOP		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE			UNINTERRUPTIBLE POWER SUPPLY		

NOTE:
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" 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.

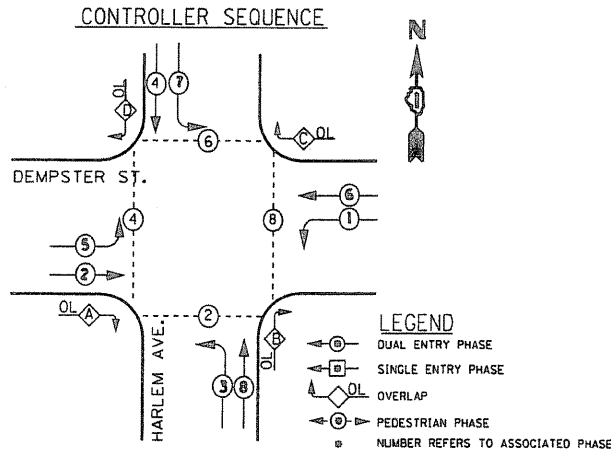
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
TRAFFIC SIGNAL MODERNIZATION
PLAN U.S. 14 (DEMPSTER ST)
AT HARLEM AVE.

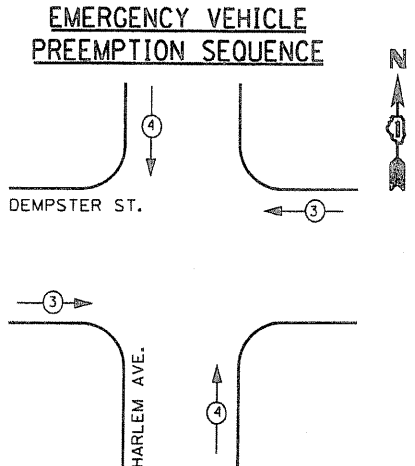
SCALE: VERT. 1"=20'
HORIZ. 1"=20'
DATE 8/13/2007

DRAWN BY BCK
DESIGNED BY BCK
CHECKED BY DAD

NOTE:
NO OTHER MODIFICATIONS WERE NEEDED TO TRAFFIC SIGNALS THEREFORE NO TRAFFIC PLAN SHEET AVAILABLE FOR THIS INTERSECTION.



EXISTING PHASE DESIGNATION DIAGRAM



EXISTING PRIORITY LANES		
PRIORITY LANE INTERVAL	3	4
MOVEMENT	← →	↑ ↓

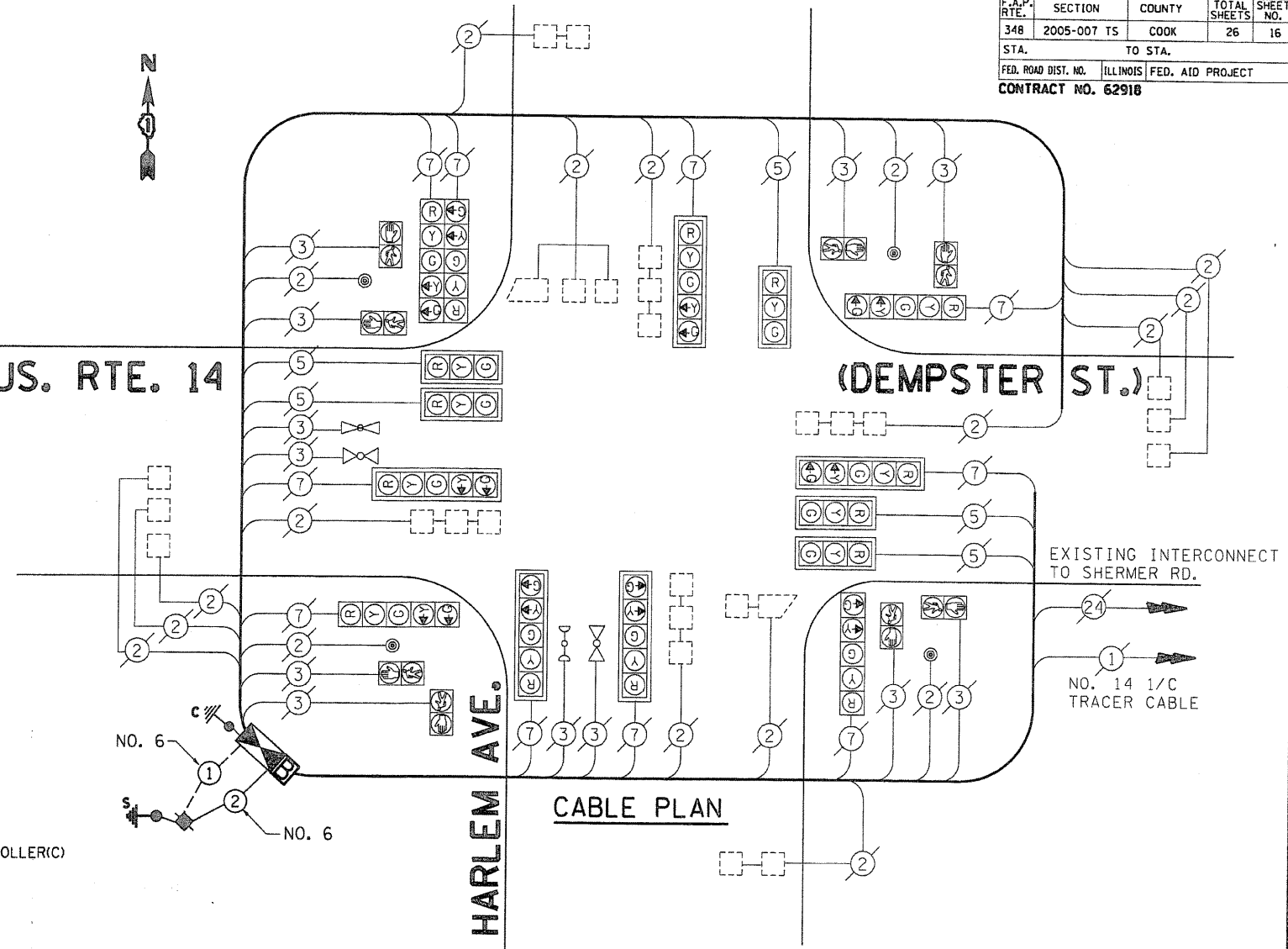
CABLE PLAN LEGEND

- | | | | |
|--|--|--|--|
| | 8" (200mm) TRAFFIC SIGNAL SECTION | | SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD |
| | 12" (300mm) TRAFFIC SIGNAL SECTION | | RAILROAD CONTROL CABINET |
| | 12" (300mm) PEDESTRIAN SIGNAL SECTION | | ILLUMINATED SIGN "NO LEFT TURN" |
| | 12" (300mm) PEDESTRIAN SIGNAL SECTION | | ILLUMINATED SIGN "NO RIGHT TURN" |
| | CONTROLLER CABINET | | GROUND ROD AT HANDHOLE(H), DOUBLE HANDHOLE(H), OR CONTROLLER(C) |
| | SERVICE INSTALLATION | | GROUND ROD AT POST (P) OR MAST ARM POLE (MA) |
| | TELEPHONE CONNECTION | | GROUND ROD AT ELECTRIC SERVICE INSTALLATION |
| | MAGNETIC DETECTOR | | GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN) |
| | EMERGENCY VEHICLE LIGHT DETECTOR | | FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F |
| | CONFIRMATION BEACON | | UNINTERRUPTIBLE POWER SUPPLY |
| | PUSHBUTTON DETECTOR | | |
| | VEHICLE DETECTOR, INDUCTION LOOP | | |
| | DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED. | | |

US. RTE. 14

HARLEM AVE.

(DEMPSTER ST.)



CABLE PLAN

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	LSUM	0.11
TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	LSUM	0.11
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET (SPECIAL)	EACH	1
TRANSCEIVER-FIBER OPTIC	EACH	1
INDUCTIVE LOOP DETECTOR	EACH	14
ELECTRIC CABLE IN CONDUIT, GROUNDING NO. 6 1 C	FOOT	90
ELECTRIC CABLE IN CONDUIT, SERVICE NO. 6 2 C	FOOT	90
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	65
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
SERVICE INSTALLATION, POLE MOUNT	EACH	1
UNINTERRUPTIBLE POWER SUPPLY (UPS)	EACH	1

NOTE:
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONO LITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE (INCANDE.)	LED	COOPERATION	
SIGNAL (RED)	15	135	1	0.50	127.50
(YELLOW)	15	135	25	0.25	93.75
(GREEN)	15	135	15	0.25	56.25
ARROW	18	135	12	0.10	21.60
PED. SIGNAL	8	90	25	1.00	200.00
CONTROLLER	1	100	100	1.00	100.00
ILLUM. SIGN		84		0.05	
FLASHER				0.50	
ENERGY COSTS TO:					TOTAL = 599.10

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" H-2"	
E - M. ARM POLE			SIGNAL POST	2	(0.6)	(6m H-0.6m)±		
	24"	(600mm)	CONTROLLER CAB.	1	(0.5)	BRACKET MOUNTED	13	(4.0)
	30"	(750mm)	FIBER OPTIC	13	(4.0)	PED. PUSHBUTTON	4	(1.2)
	36"	(900mm)	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

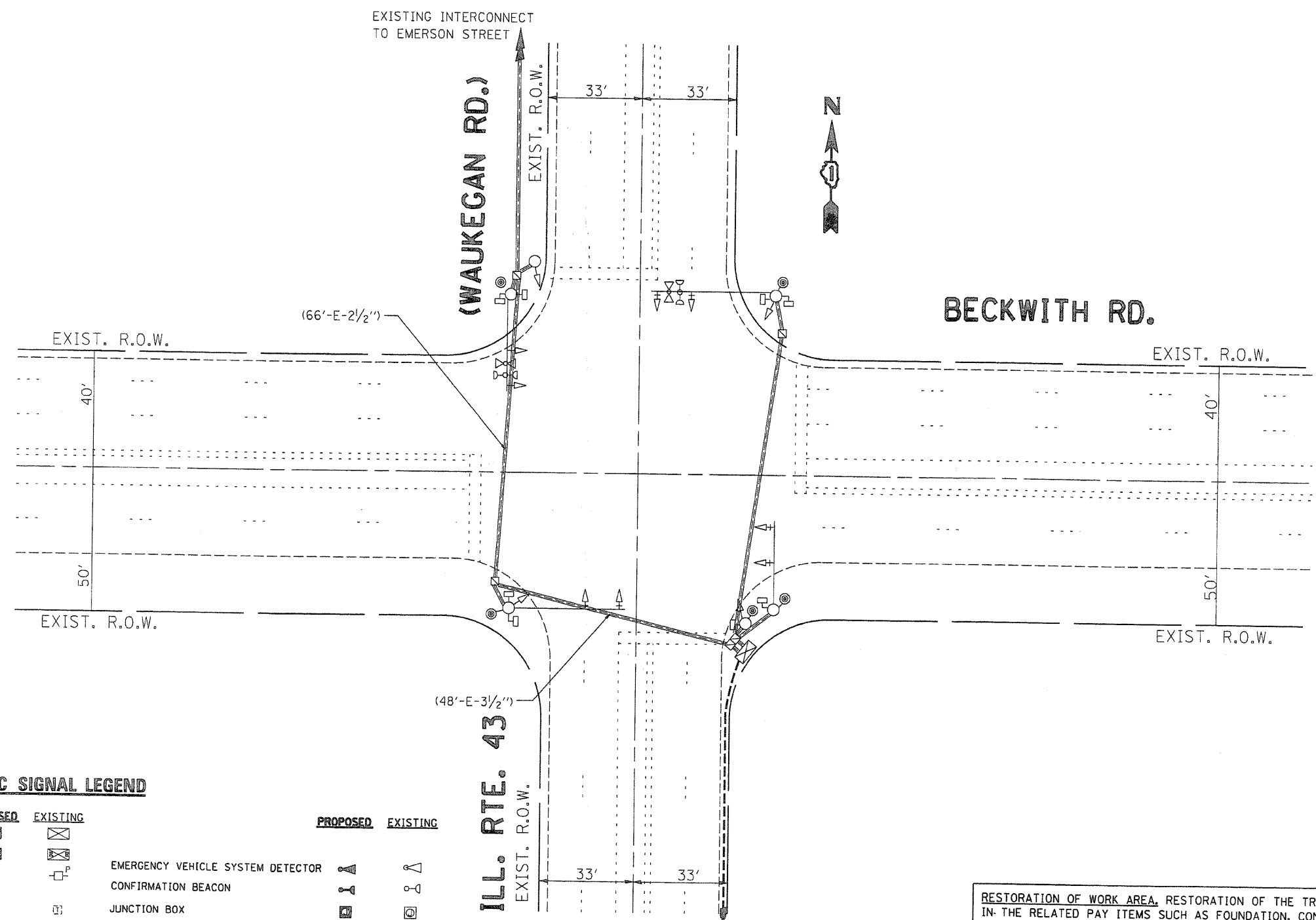
ILLINOIS DEPARTMENT OF TRANSPORTATION
CABLE PLAN, PHASE DESIGNATION DIAGRAM,
EMERGENCY VEHICLE PREEMPTION SEQUENCE,
AND SCHEDULE OF QUANTITIES
U.S. 14 (DEMPSTER ST.)
AT HARLEM AVE.

SCALE: N.T.S.
DATE 8/13/2007

DRAWN BY: BCK
DESIGN BY: BCK
CHECKED BY: DAD

PLT: NAME: ...
PLOT SCALE: 1/4" = 1'-0"
USER NAME: mohavej

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	2005-007-TS	COOK	26	17
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 62918				



TRAFFIC SIGNAL LEGEND

CONTROLLER CABINET			EMERGENCY VEHICLE SYSTEM DETECTOR		
RAILROAD CONTROL CABINET			CONFIRMATION BEACON		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT			JUNCTION BOX		
TELEPHONE CONNECTION			HANDHOLE		
SIGNAL HEAD			HEAVY DUTY HANDHOLE		
SIGNAL HEAD WITH BACKPLATE			DOUBLE HANDHOLE		
SIGNAL HEAD OPTICALLY PROGRAMMED			G.S. CONDUIT IN TRENCH OR PUSHED		
SIGNAL HEAD PEDESTRIAN			COMMON TRENCH		
SIGNAL POST			UNIT DUCT		
WOOD POLE			PEDESTRIAN PUSHBUTTON DETECTOR		
STEEL MAST ARM ASSEMBLY AND POLE			DETECTOR LOOP, TYPE I		
ALUMINUM MAST ARM ASSEMBLY AND POLE			PERFORMED DETECTOR LOOP		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE					

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

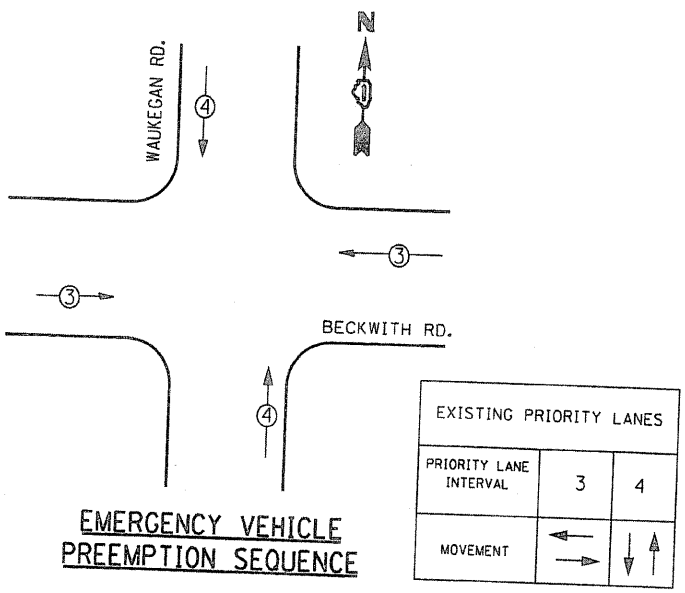
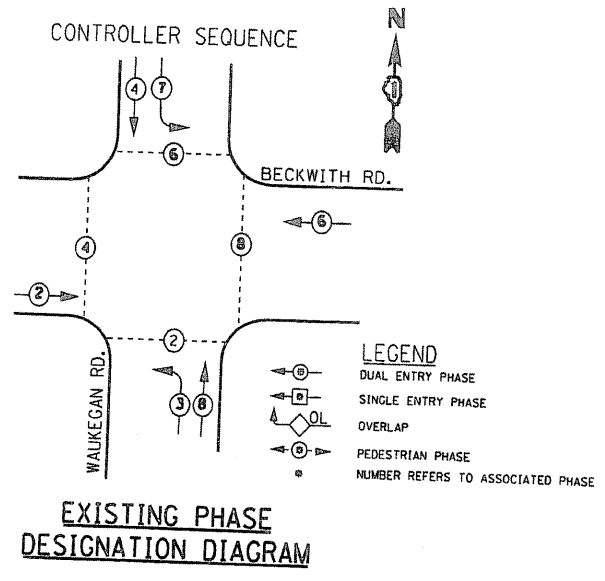
ILLINOIS DEPARTMENT OF TRANSPORTATION
**TRAFFIC SIGNAL
MODERNIZATION PLAN**
**IL. RTE. 43 (WAUKEGAN RD.)
AT BECKWITH RD.**

SCALE: VERT. 1"=20'
HORIZ. 1"=40'
DATE 8/13/2007
DRAWN BY BCK
DESIGNED BY BCK
CHECKED BY DAD

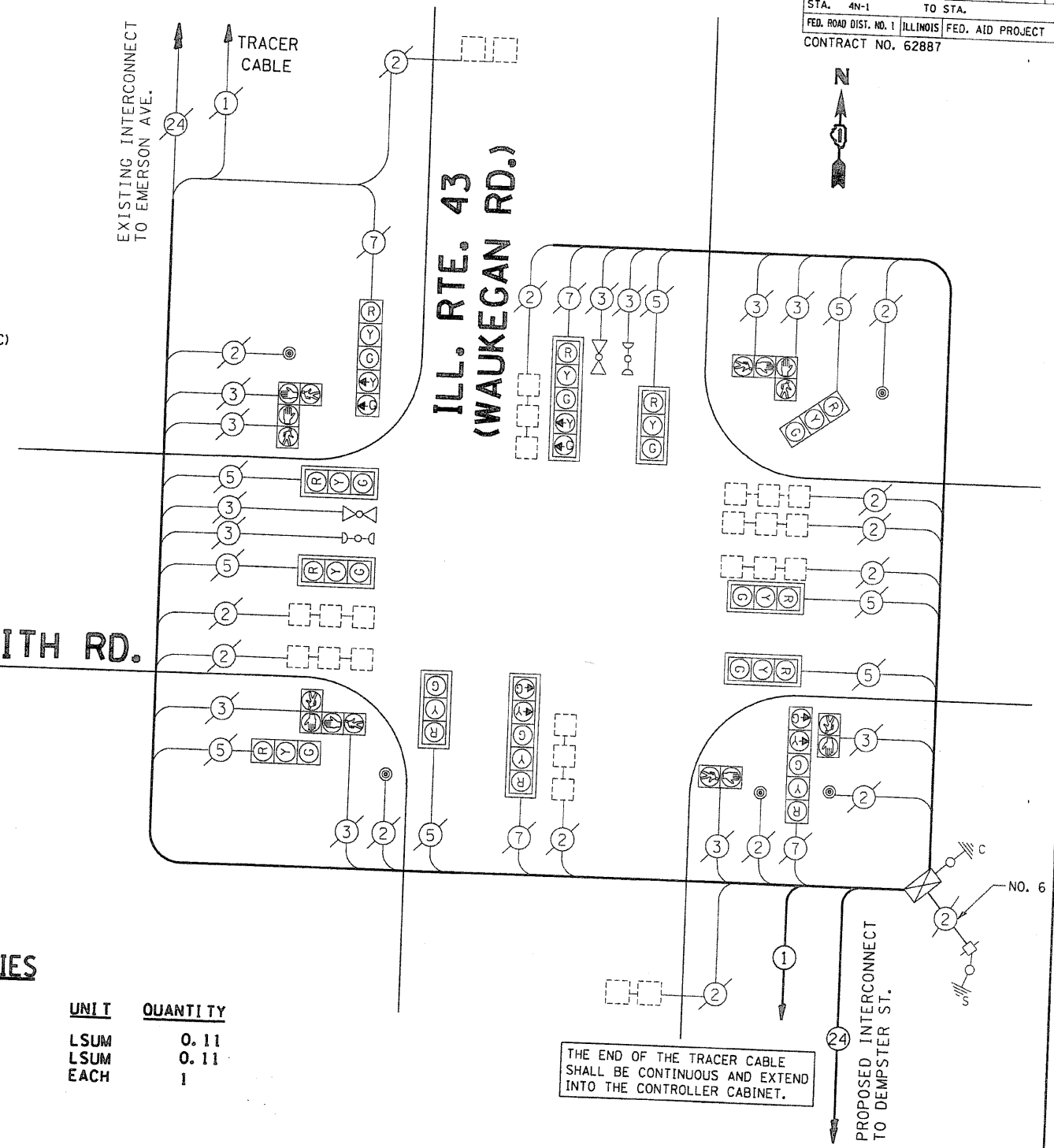
PLOT SCALE = 41.6445" / IN.
REFERENCE = 0REF0

CABLE PLAN LEGEND

- EXISTING PROPOSED**
- 8" (200mm) TRAFFIC SIGNAL SECTION
 - 12" (300mm) TRAFFIC SIGNAL SECTION
 - 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
 - ① GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
 - ②④ FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F
- EXISTING PROPOSED**
- RAILROAD CONTROL CABINET
 - ILLUMINATED SIGN "NO LEFT TURN"
 - ILLUMINATED SIGN "NO RIGHT TURN"
 - 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



BECKWITH RD.



SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	LSUM	0.11
TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	LSUM	0.11
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE (INCAN.)	LED	% OPERATION	
SIGNAL (RED)	12	135	17	0.50	102.00
(YELLOW)	12	135	25	0.25	75.00
(GREEN)	12	135	15	0.25	45.00
ARROW	8	135	12	0.10	9.60
PED. SIGNAL	8	90	25	1.00	200.00
CONTROLLER	1	100	100	1.00	100.00
ILLUM. SIGN		84		0.05	
FLASHER				0.50	
ENERGY COSTS TO:					TOTAL = 531.60
ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHALMUR, ILLINOIS 60196-1096 CONTACT: LARRY D. SHANK PHONE: (847) 291-3214 COMPANY: COM. EDISON					

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'
E - M. ARM POLE		SIGNAL POST	2 (0.6)	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)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
		GROUND CABLE	1 (0.5)	POST MOUNTED	6 (1.8)

REVISIONS	
NAME	DATE

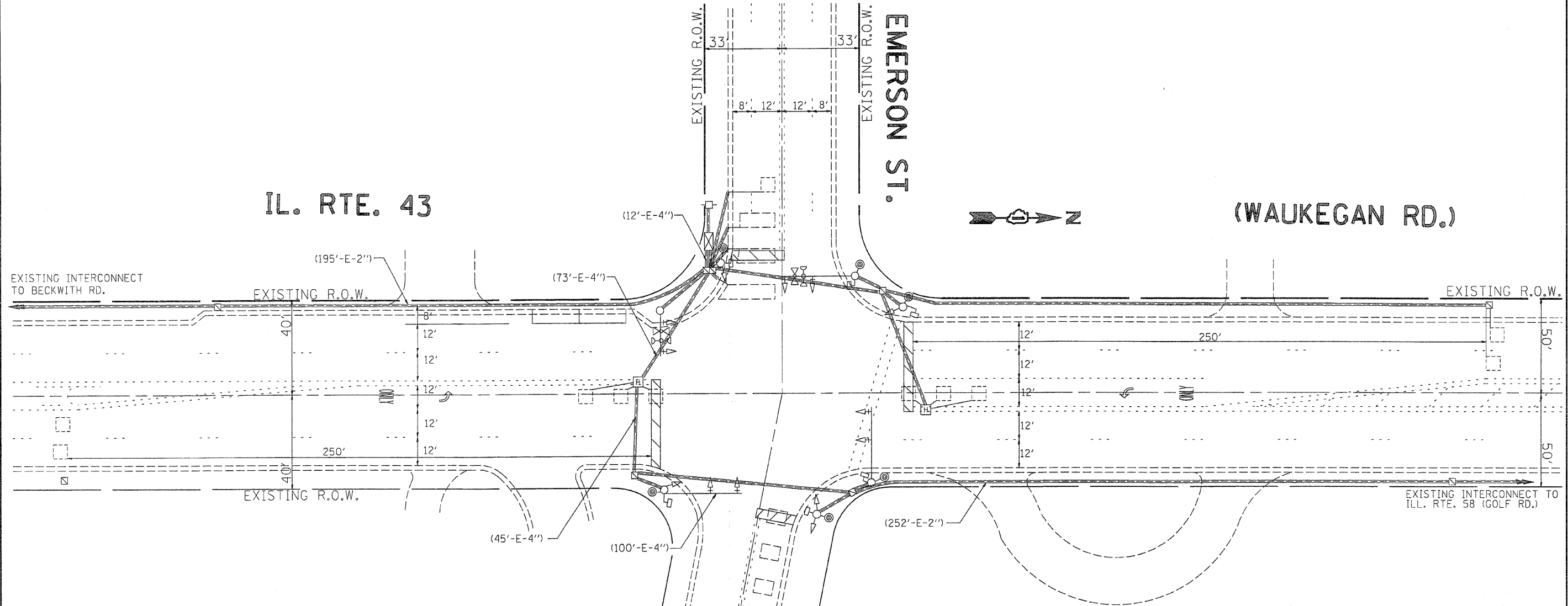
ILLINOIS DEPARTMENT OF TRANSPORTATION
CABLE PLAN, PHASE DESIGNATION DIAGRAM,
EMERGENCY VEHICLE PREEMPTION SEQUENCE,
AND SCHEDULE OF QUANTITIES
ILL. RTE. 43 (WAUKEGAN RD.)
AT BECKWITH RD.

SCALE: 1"=20'
DATE 8/13/2007

DRAWN BY BCK
DESIGN BY BCK
CHECKED BY DAD

8/13/2007
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	2005-007 TS	COOK	26	19
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 62918				



TRAFFIC SIGNAL LEGEND

PROPOSED		EXISTING		PROPOSED		EXISTING	
CONTROLLER CABINET			EMERGENCY VEHICLE SYSTEM DETECTOR				
RAILROAD CONTROL CABINET			CONFIRMATION BEACON				
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT			JUNCTION BOX				
TELEPHONE CONNECTION			HANDHOLE				
SIGNAL HEAD			HEAVY DUTY HANDHOLE				
SIGNAL HEAD WITH BACKPLATE			DOUBLE HANDHOLE				
SIGNAL HEAD OPTICALLY PROGRAMMED			G.S. CONDUIT IN TRENCH OR PUSHED				
SIGNAL HEAD PEDESTRIAN			COMMON TRENCH				
SIGNAL POST			UNIT DUCT				
WOOD POLE			PEDESTRIAN PUSHBUTTON DETECTOR				
STEEL MAST ARM ASSEMBLY AND POLE			DETECTOR LOOP, TYPE I				
ALUMINUM MAST ARM ASSEMBLY AND POLE			PREFORMED DETECTOR LOOP				
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE							

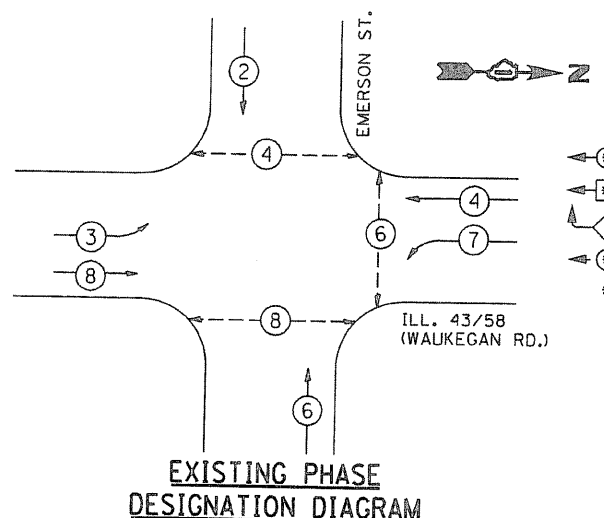
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
**TRAFFIC SIGNAL
MODERNIZATION PLAN**
**IL. RTE. 43 (WAUKEGAN RD.)
AT EMERSON ST.**

SCALE: VERT. 1"=20'
HORIZ. 1"=20'
DATE 8/13/2007

DRAWN BY: BCK
DESIGNED BY: BCK
CHECKED BY: BAK

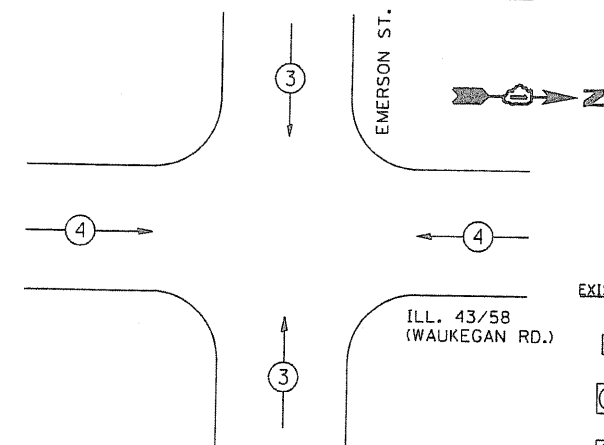
CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM

- LEGEND**
- ⊕ DUAL ENTRY PHASE
 - ⊖ SINGLE ENTRY PHASE
 - OL OVERLAP
 - ⊕ PEDESTRIAN PHASE
 - * NUMBER REFERS TO ASSOCIATED PHASE

EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	
MOVEMENT	↑	←	→

CABLE PLAN LEGEND

- | | | | | |
|--|-----------------|--|-----------------|---|
| | EXISTING | | PROPOSED | 8" (200mm) TRAFFIC SIGNAL SECTION |
| | EXISTING | | PROPOSED | 12" (300mm) TRAFFIC SIGNAL SECTION |
| | EXISTING | | PROPOSED | 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| | EXISTING | | PROPOSED | 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| | EXISTING | | PROPOSED | CONTROLLER CABINET |
| | EXISTING | | PROPOSED | SERVICE INSTALLATION |
| | EXISTING | | PROPOSED | TELEPHONE CONNECTION |
| | EXISTING | | PROPOSED | MAGNETIC DETECTOR |
| | EXISTING | | PROPOSED | EMERGENCY VEHICLE LIGHT DETECTOR |
| | EXISTING | | PROPOSED | CONFIRMATION BEACON |
| | EXISTING | | PROPOSED | PUSHBUTTON DETECTOR |
| | EXISTING | | PROPOSED | VEHICLE DETECTOR, INDUCTION LOOP |
| | EXISTING | | PROPOSED | GROUND ROD AT HANDHOLE(H), DOUBLE HANDHOLE(H), OR CONTROLLER(C) |
| | EXISTING | | PROPOSED | GROUND ROD AT POST (P) OR MAST ARM POLE (MA) |
| | EXISTING | | PROPOSED | GROUND ROD AT ELECTRIC SERVICE INSTALLATION |
| | EXISTING | | PROPOSED | GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN) |
| | EXISTING | | PROPOSED | FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F |

EXISTING INTERCONNECT BECKWITH RD.

NO. 14 1/C TRACER CABLE

IL. RTE. 43

CABLE PLAN

(WAUKEGAN RD.)

EXISTING INTERCONNECT TO ILL. RTE. 58 (GOLF RD.)

NO. 14 1/C TRACER CABLE

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	LSUM	0.11
TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	LSUM	0.11

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE (INCAN.)	OPERATION LED	
SIGNAL (RED)	12	135	17	0.50
(YELLOW)	12	135	25	0.25
(GREEN)	12	135	15	0.25
ARROW	8	135	12	0.10
PED. SIGNAL	6	90	25	1.00
CONTROLLER	1	100	100	1.00
ILLUM. SIGN		84		0.05
FLASHER				0.50
TOTAL =				481.60

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'-H-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)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE 1 (0.5)	SERVICE TO GROUND 13.5 (4.1)
		GROUND CABLE 1 (0.5)	POST MOUNTED 6 (1.8)

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
**CABLE PLAN, PHASE DESIGNATION DIAGRAM,
 EMERGENCY VEHICLE PREEMPTION SEQUENCE,
 AND SCHEDULE OF QUANTITIES**
 IL. RTE. 43(WAUKEGAN RD.)
 AT EMERSON STREET

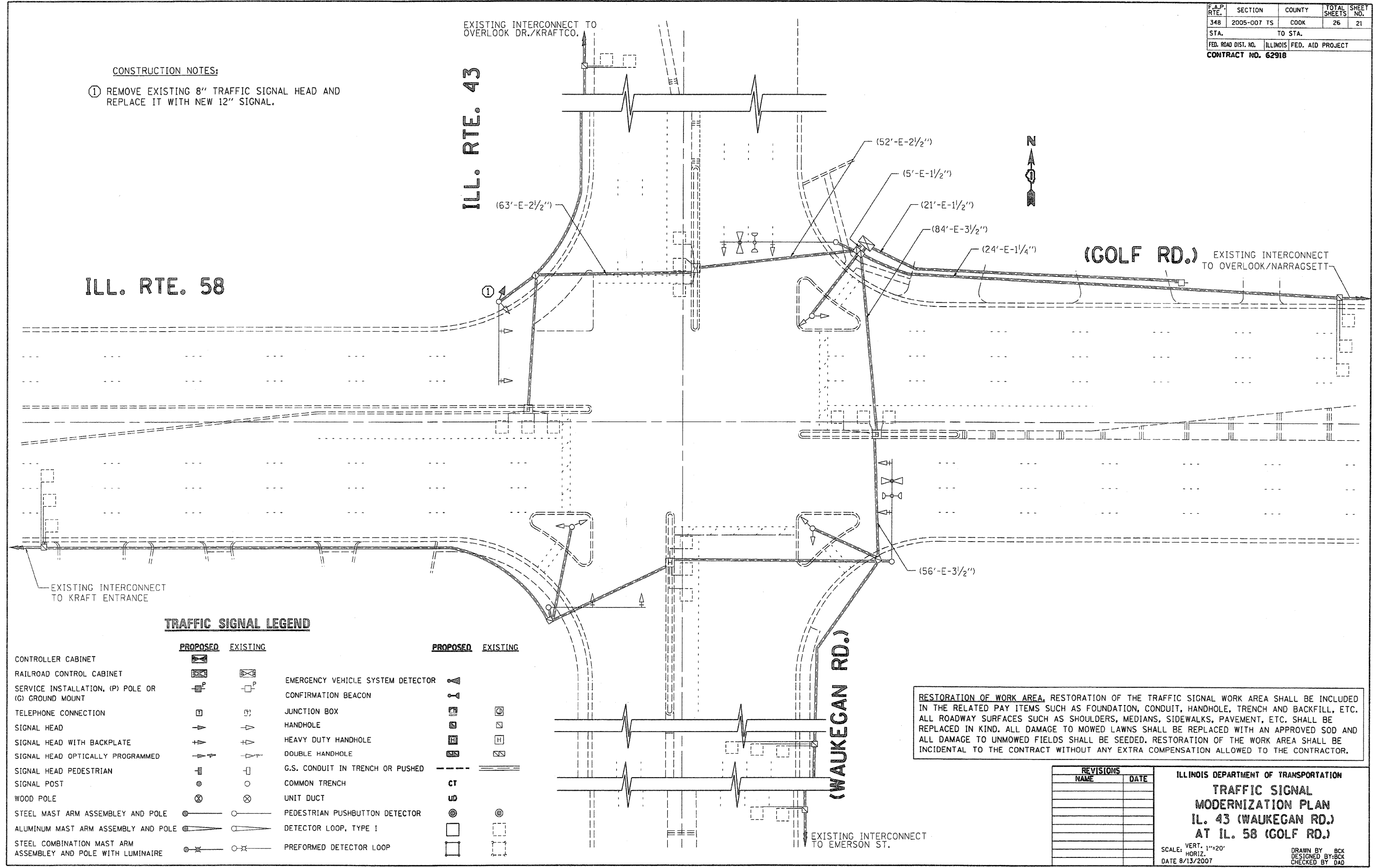
SCALE: VERT. N.T.S.
 HORIZ. DATE 8/13/2007

DRAWN BY BCK
 DESIGN BY BCK
 CHECKED BY DAD

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	2005-007 TS	COOK	26	21
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 62918				

CONSTRUCTION NOTES:

- ① REMOVE EXISTING 8" TRAFFIC SIGNAL HEAD AND REPLACE IT WITH NEW 12" SIGNAL.



TRAFFIC SIGNAL LEGEND

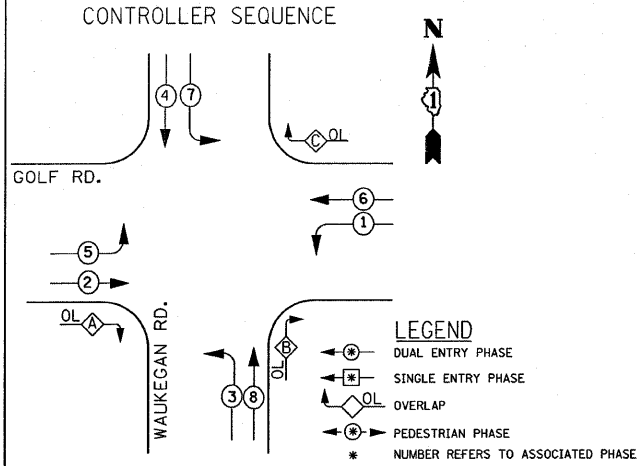
	PROPOSED	EXISTING		PROPOSED	EXISTING
CONTROLLER CABINET			EMERGENCY VEHICLE SYSTEM DETECTOR		
RAILROAD CONTROL CABINET			CONFIRMATION BEACON		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT			JUNCTION BOX		
TELEPHONE CONNECTION			HANDHOLE		
SIGNAL HEAD			HEAVY DUTY HANDHOLE		
SIGNAL HEAD WITH BACKPLATE			DOUBLE HANDHOLE		
SIGNAL HEAD OPTICALLY PROGRAMMED			G.S. CONDUIT IN TRENCH OR PUSHED		
SIGNAL HEAD PEDESTRIAN			COMMON TRENCH		
SIGNAL POST			UNIT DUCT		
WOOD POLE			PEDESTRIAN PUSHBUTTON DETECTOR		
STEEL MAST ARM ASSEMBLY AND POLE			DETECTOR LOOP, TYPE I		
ALUMINUM MAST ARM ASSEMBLY AND POLE			PREFORMED DETECTOR LOOP		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE					

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

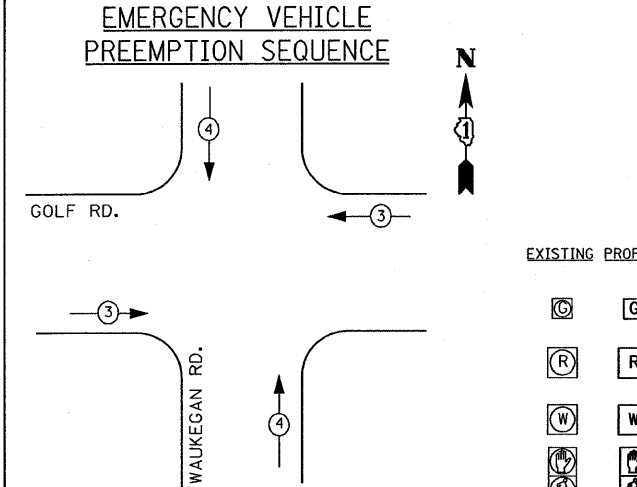
ILLINOIS DEPARTMENT OF TRANSPORTATION
TRAFFIC SIGNAL MODERNIZATION PLAN
IL. 43 (WAUKEGAN RD.)
AT IL. 58 (GOLF RD.)
 SCALE: VERT. 1"=20'
 HORIZ. DATE 8/13/2007
 DRAWN BY: BCK
 DESIGNED BY: BCK
 CHECKED BY: DAD

REFERENCE: 08REF0



CONSTRUCTION NOTES:

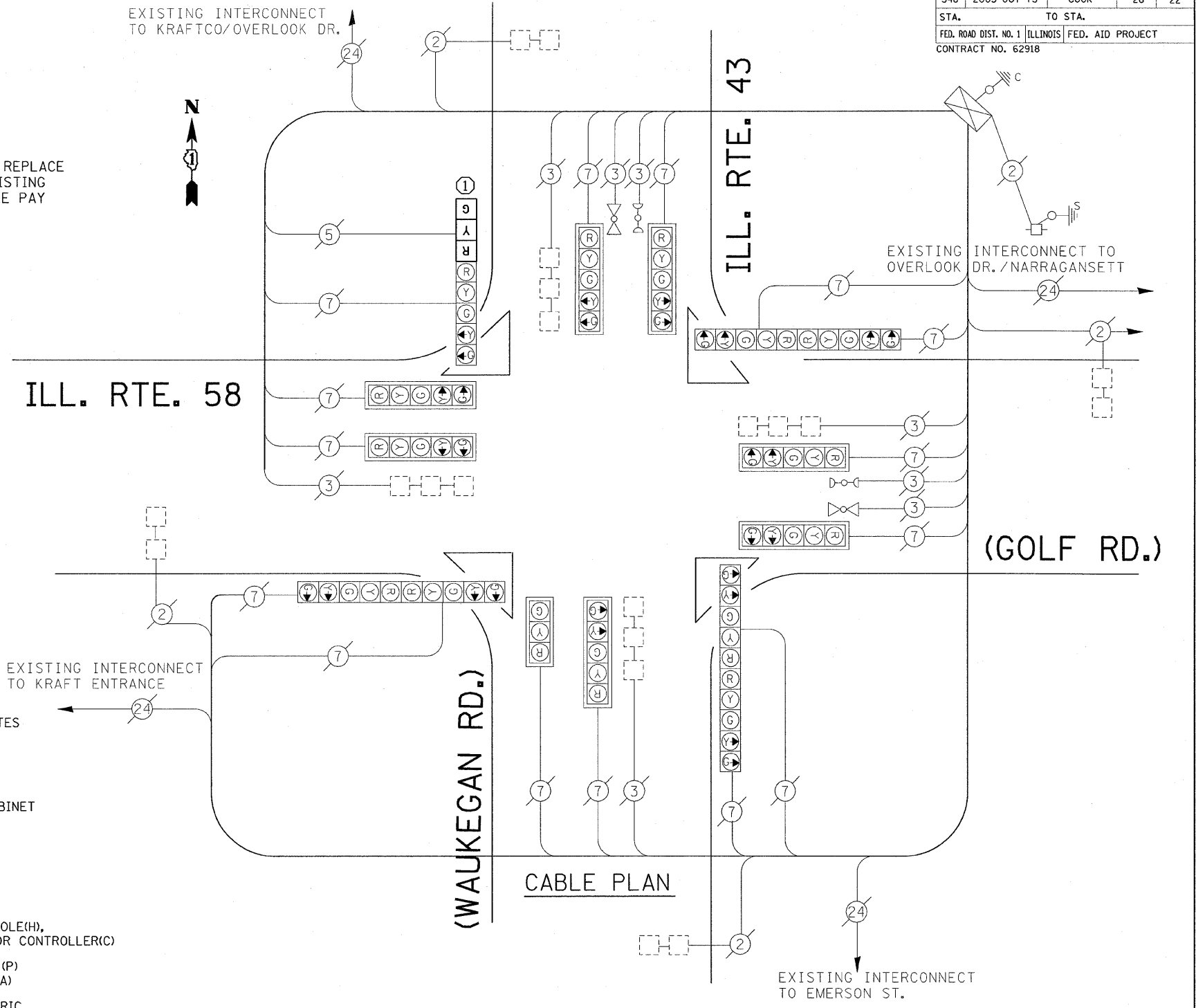
① REMOVE EXISTING 8" TRAFFIC SIGNAL HEAD AND REPLACE IT WITH NEW 12" L.E.D. SIGNAL. REMOVAL OF EXISTING TRAFFIC SIGNAL HEAD SHALL BE INCLUDED IN THE PAY ITEM FOR NEW L.E.D. HEAD.



PRIORITY LANE INTERVAL	3	4
MOVEMENT	← →	↑ ↓

CABLE PLAN LEGEND

- | | | | | |
|--|-----------------|--|-----------------|---|
| | EXISTING | | PROPOSED | 8" (200mm) TRAFFIC SIGNAL SECTION |
| | EXISTING | | PROPOSED | 12" (300mm) TRAFFIC SIGNAL SECTION |
| | EXISTING | | PROPOSED | 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| | EXISTING | | PROPOSED | 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| | EXISTING | | PROPOSED | CONTROLLER CABINET |
| | EXISTING | | PROPOSED | SERVICE INSTALLATION |
| | EXISTING | | PROPOSED | TELEPHONE CONNECTION |
| | EXISTING | | PROPOSED | MAGNETIC DETECTOR |
| | EXISTING | | PROPOSED | EMERGENCY VEHICLE LIGHT DETECTOR |
| | EXISTING | | PROPOSED | CONFIRMATION BEACON |
| | EXISTING | | PROPOSED | PUSHBUTTON DETECTOR |
| | EXISTING | | PROPOSED | VEHICLE DETECTOR, INDUCTION LOOP |
| | EXISTING | | PROPOSED | GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN) |
| | EXISTING | | PROPOSED | FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F |



TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	15	135	17	0.50	127.5
(YELLOW)	15	135	25	0.25	93.75
(GREEN)	15	135	15	0.25	56.25
ARROW	28	135	12	0.10	33.60
PED. SIGNAL		90	25	1.00	
CONTROLLER	1	100	100	1.00	100.00
ILLUM. SIGN		84		0.05	
TOTAL =					411.10

ENERGY COSTS TO: TOTAL = 411.10

ILLINOIS DEPARTMENT OF TRANSPORTATION
201 WEST CENTER COURT
SCHAUMBURG, ILLINOIS 60196-1096
CONTACT: LARRY D. SHANK
PHONE: (847) 291-3214
COMPANY: COM. EDISON

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'-H-2" (6m+L-0.6m)
E - M. ARM POLE		SIGNAL POST	2 (1.0)	BRACKET MOUNTED	13 (4.0)
	24" (600mm)	CONTROLLER CAB.	1 (0.5)	PED. PUSHBUTTON	4 (1.2)
	30" (750mm)	FIBER OPTIC	13 (4.0)	ELECTRIC SERVICE	13.5 (4.1)
	36" (900mm)	ELECTRIC SERVICE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
		GROUND CABLE	1 (0.5)	POST MOUNTED	6 (1.8)

SCHEDULE OF QUANTITIES

TRAFFIC CONTROL AND PROTECTION, STANDARD 701701
TRAFFIC CONTROL AND PROTECTION, STANDARD 701801
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
SIGNAL HEAD, L.E.D. 1-FACE, 3-SECTION, BRACKET MOUNTED.

ITEM	UNIT	QUANTITY
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	LSUM	0.11
TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	LSUM	0.11
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
SIGNAL HEAD, L.E.D. 1-FACE, 3-SECTION, BRACKET MOUNTED.	EACH	1

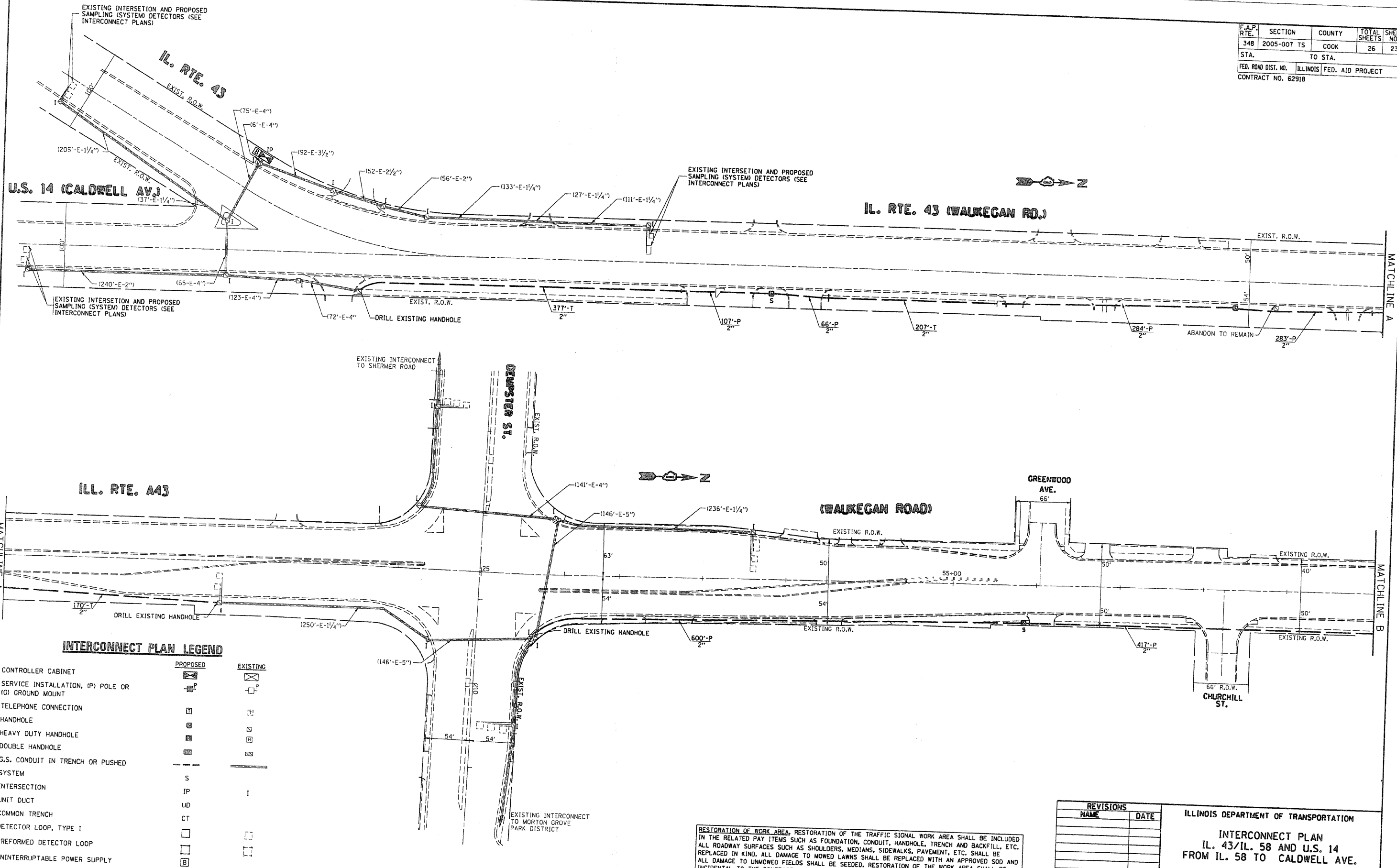
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
CABLE PLAN, PHASE DESIGNATION DIAGRAM,
EMERGENCY VEHICLE PREEMPTION SEQUENCE,
AND SCHEDULE OF QUANTITIES
IL. 58 (GOLF RD.)
AT IL. 43 (WAUKEGANRD.)

SCALE: 1"=20'
DATE 8/21/2007

DRAWN BY BCK
DESIGN BY BCK
CHECKED BY DAD

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	2005-007 TS	COOK	26	23
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 62918				



INTERCONNECT PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER CABINET		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT		
TELEPHONE CONNECTION		
HANDHOLE		
HEAVY DUTY HANDHOLE		
DOUBLE HANDHOLE		
G.S. CONDUIT IN TRENCH OR PUSHED		
SYSTEM	S	
INTERSECTION	IP	I
UNIT DUCT	UD	
COMMON TRENCH	CT	
DETECTOR LOOP, TYPE I		
PERFORMED DETECTOR LOOP		
UNINTERRUPTIBLE POWER SUPPLY		

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.

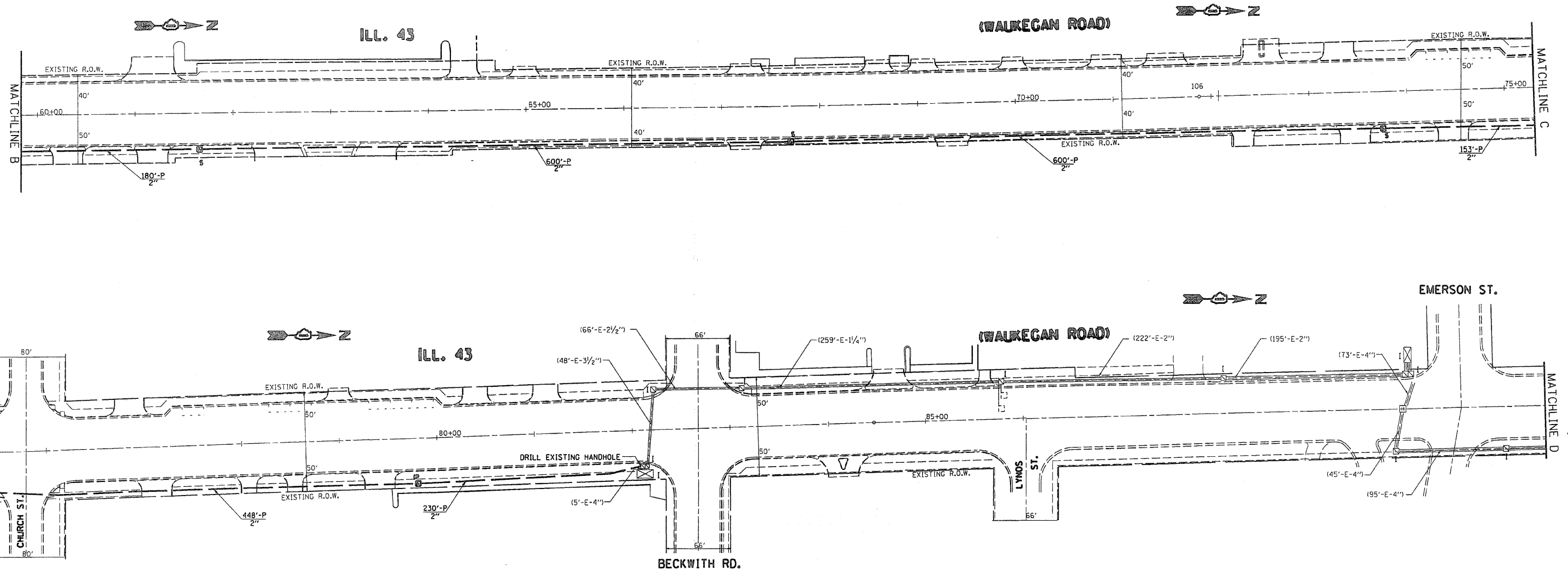
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
INTERCONNECT PLAN
 IL. 43/IL. 58 AND U.S. 14
 FROM IL. 58 TO CALDWELL AVE.

SCALE: VERT. 1"=50"
 HORIZ. 1"=50"
 DATE 8/13/2007
 DRAWN BY BCK
 DESIGNED BY BCK
 CHECKED BY DAD

FILE NAME: c:\projects\11-07\11-07-08\11-07-08\11-07-08.dwg
 PLOT DATE: 8/13/2007 9:15:09 AM
 USER: malavj

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	2005-007 TS	COOK	26	24
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 62918				



INTERCONNECT PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER CABINET		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT		
TELEPHONE CONNECTION		
HANDHOLE		
HEAVY DUTY HANDHOLE		
DOUBLE HANDHOLE		
G.S. CONDUIT IN TRENCH OR PUSHED		
SYSTEM	S	
INTERSECTION	IP	I
UNIT DUCT	UD	
COMMON TRENCH	CT	
DETECTOR LOOP, TYPE I		
PREFORMED DETECTOR LOOP		

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.

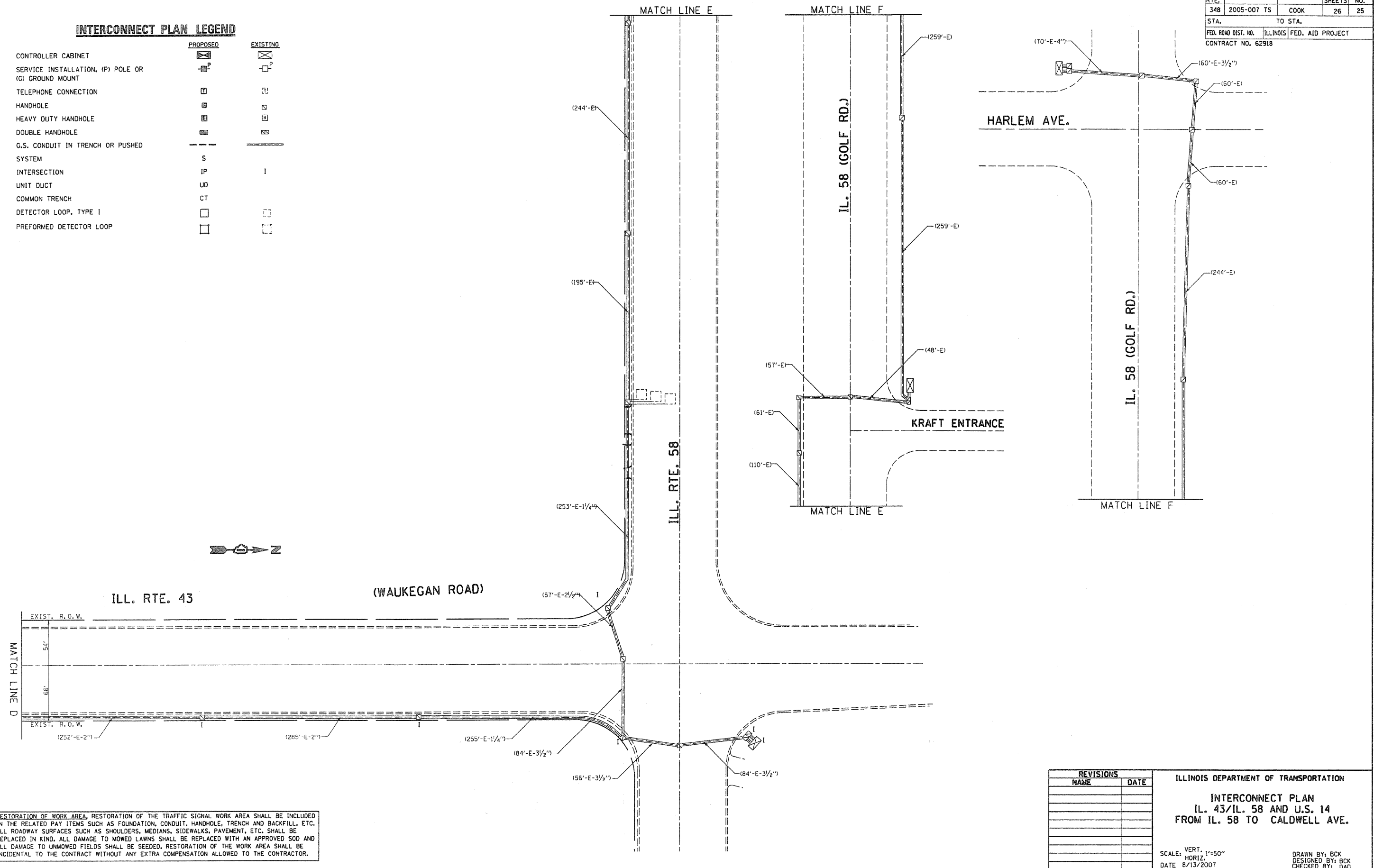
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
INTERCONNECT PLAN
 IL. 43/IL. 58 AND U.S. 14
 FROM IL. 58 TO CALDWELL AVE.
 SCALE: VERT. 1"=50"
 HORIZ. 1"=50"
 DATE 8/13/2007
 DRAWN BY BCK
 DESIGNED BY BCK
 CHECKED BY DAD

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	2005-007 TS	COOK	26	25
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 62918				

INTERCONNECT PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER CABINET		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT		
TELEPHONE CONNECTION		
HANDHOLE		
HEAVY DUTY HANDHOLE		
DOUBLE HANDHOLE		
G.S. CONDUIT IN TRENCH OR PUSHED SYSTEM		
INTERSECTION	IP	I
UNIT DUCT	UD	
COMMON TRENCH	CT	
DETECTOR LOOP, TYPE I		
PREFORMED DETECTOR LOOP		

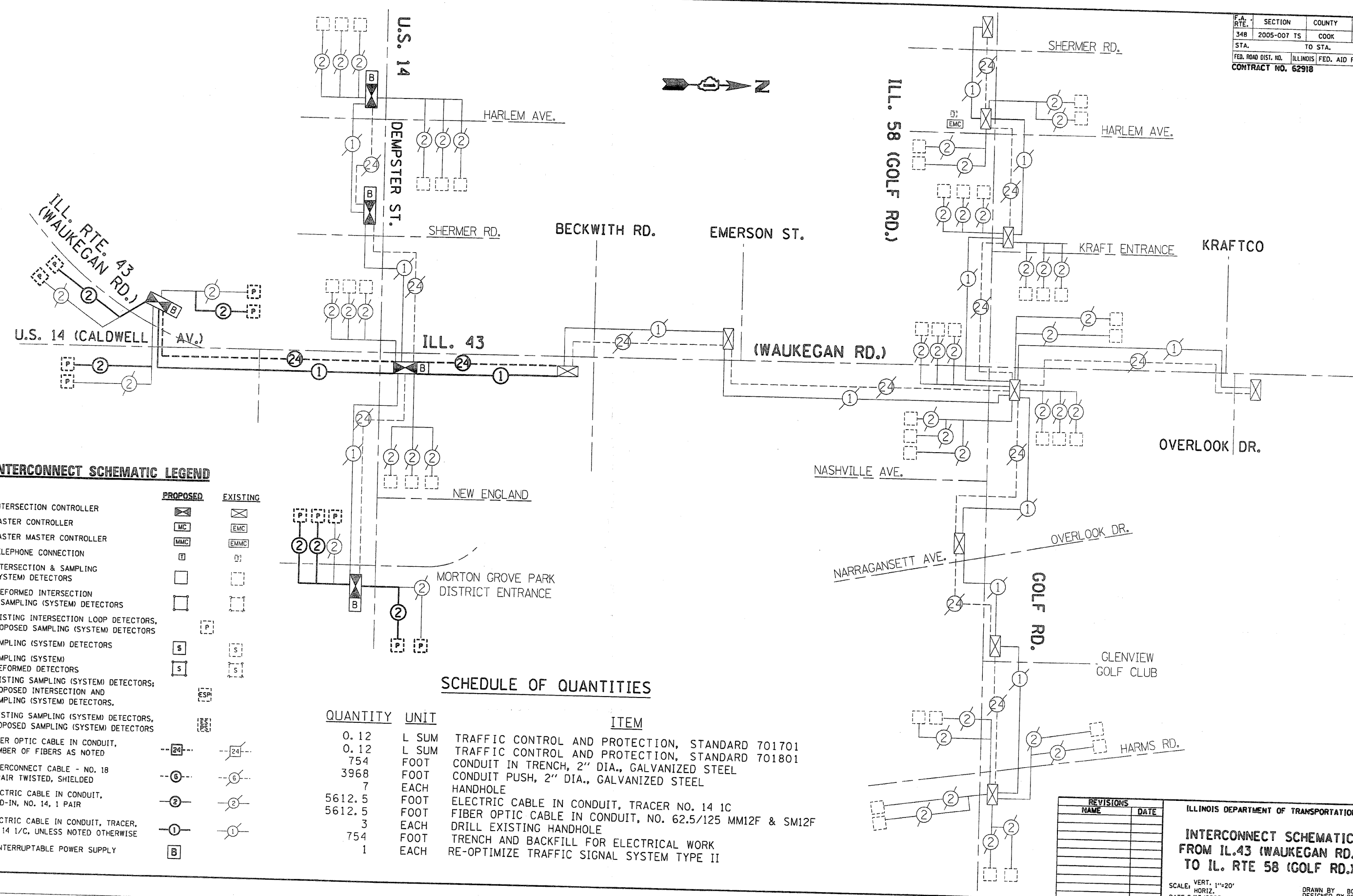


RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCLUDED IN THE RELATED PAY ITEMS SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS 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
INTERCONNECT PLAN
 IL. 43/IL. 58 AND U.S. 14
 FROM IL. 58 TO CALDWELL AVE.

SCALE: VERT. 1"=50"
 HORIZ. 1"=50"
 DATE 8/13/2007
 DRAWN BY: BCK
 DESIGNED BY: BCK
 CHECKED BY: DAO



INTERCONNECT SCHEMATIC LEGEND

	PROPOSED	EXISTING
INTERSECTION CONTROLLER		
MASTER CONTROLLER		
MASTER MASTER CONTROLLER		
TELEPHONE CONNECTION		
INTERSECTION & SAMPLING (SYSTEM) DETECTORS		
PERFORMED INTERSECTION & SAMPLING (SYSTEM) DETECTORS		
EXISTING INTERSECTION LOOP DETECTORS, PROPOSED SAMPLING (SYSTEM) DETECTORS		
SAMPLING (SYSTEM) DETECTORS		
SAMPLING (SYSTEM) PERFORMED DETECTORS		
EXISTING SAMPLING (SYSTEM) DETECTORS; PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTORS.		
EXISTING SAMPLING (SYSTEM) DETECTORS, PROPOSED SAMPLING (SYSTEM) DETECTORS		
FIBER OPTIC CABLE IN CONDUIT, NUMBER OF FIBERS AS NOTED		
INTERCONNECT CABLE - NO. 18 3 PAIR TWISTED, SHIELDED		
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14, 1 PAIR		
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1/C, UNLESS NOTED OTHERWISE		
UNINTERRUPTABLE POWER SUPPLY		

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
0.12	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701
0.12	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801
754	FOOT	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL
3968	FOOT	CONDUIT PUSH, 2" DIA., GALVANIZED STEEL
7	EACH	HANDHOLE
5612.5	FOOT	ELECTRIC CABLE IN CONDUIT, TRACER NO. 14 1C
5612.5	FOOT	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125 MM12F & SM12F
3	EACH	DRILL EXISTING HANDHOLE
754	FOOT	TRENCH AND BACKFILL FOR ELECTRICAL WORK
1	EACH	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM TYPE II

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
INTERCONNECT SCHEMATIC FROM IL.43 (WAUKEGAN RD.) TO IL. RTE 58 (GOLF RD.)
 SCALE: VERT. 1"=20'
 HORIZ. DATE 8/13/2007
 DRAWN BY: BCK
 DESIGNED BY: BCK
 CHECKED BY: DAD

PLOT DATE: 8/13/2007
 FILE NAME: c:\p\projects\1143\1143.dwg
 PLOT SCALE: 42.8653 / IN.
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