

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	AY-RS-2	LAKE	25	1
FED. ROAD DIST. NO. 1	ILLINOIS	CONTRACT NO.	60G71	

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**  
**DIVISION OF HIGHWAYS**

**PROPOSED**  
**HIGHWAY PLANS**

**F.A.U. 2706 (IL 43 /WAUKEGAN ROAD)**  
**SECTION AY-RS-2**  
**0.2 MILES SOUTH OF CENTRAL AVENUE TO NORTH AVENUE**  
**RESURFACING (3P)**

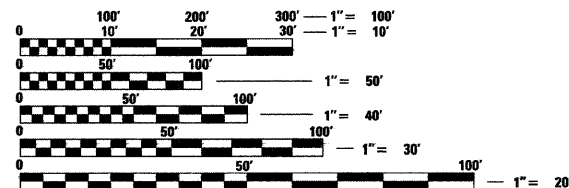
**LAKE COUNTY**  
**C-91-527-09**

FOR INDEX OF SHEETS, SEE SHEET NO. 2

THESE IMPROVEMENTS ARE LOCATED  
WITHIN THE VILLAGE OF DEERFIELD

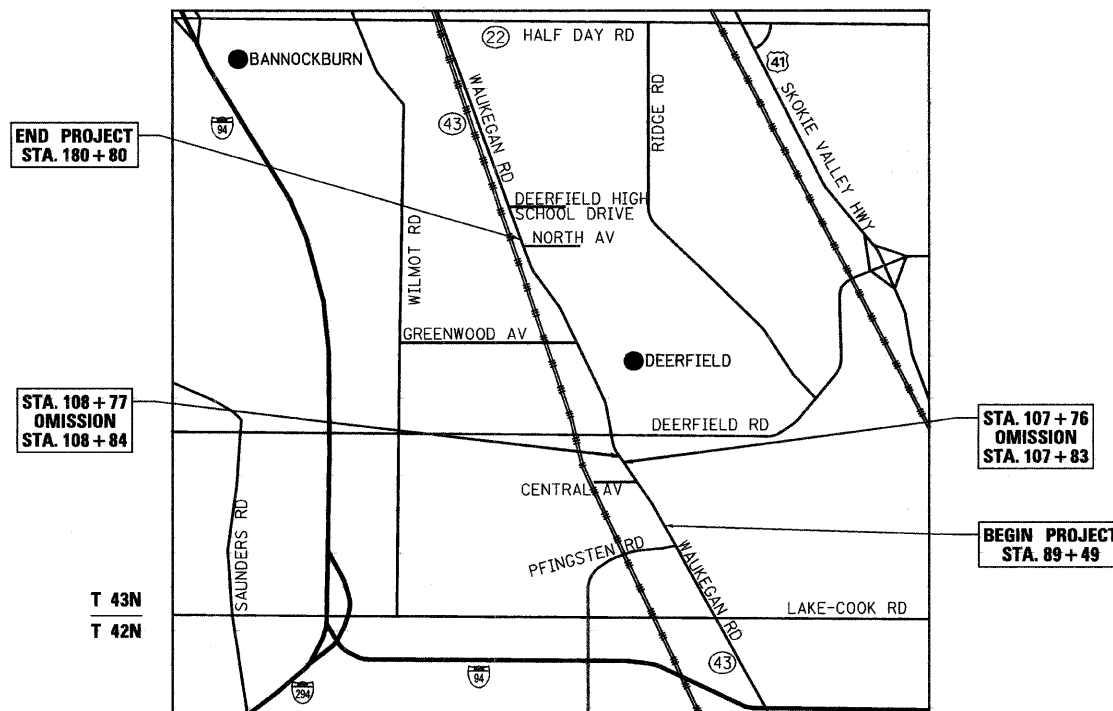
**TRAFFIC DATA**

2007 ADT - 25,000  
POSTED SPEED LIMIT - 35 MPH



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.

J.U.L.I.E.  
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION  
1-800-892-0123  
OR 811



R 11E | R 12E

DEERFIELD TOWNSHIP  
LOCATION MAP  
1" = 2,500'

GROSS LENGTH OF PROJECT = 9,131 FT = 1.73 MI.  
NET LENGTH OF PROJECT = 9,117 FT = 1.73 MI.



LOCATION OF SECTION INDICATED THUS: - [shaded box] -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**  
**DIVISION OF HIGHWAYS**

SUBMITTED APRIL 14, 2009

Diana M. O'Keefe  
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

May 1, 2009  
Charles S. Ingrassia  
ENGINEER OF DESIGN AND ENVIRONMENT

May 1, 2009  
Christine M. Reed  
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER



DATE: 4/13/2009  
SEAL EXPIRES: 11/30/2009

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DISTRICT 1 DESIGN PLAN PREPARATION ENGINEER: K. ENG (847)705-4247

**Ciorba Group, Inc.**

DESIGN FIRM  
REGISTRATION NUMBER  
184-001016

CONSULTING ENGINEERS  
SUITE 402, 5507 NORTH CUMBERLAND AVE  
CHICAGO, ILLINOIS 60656 (773) 775-4009

**CONTRACT NO. 60G71**

INDEX OF SHEETS

SHEET NO	DESCRIPTION
1	COVER SHEET
2	INDEX OF SHEETS, STATE STANDARDS AND GENERAL NOTES
3	SUMMARY OF QUANTITIES
4	TYPICAL SECTIONS
5-8	PROPOSED ROADWAY AND PAVEMENT MARKING PLAN
9-14	DETECTOR LOOP REPLACEMENT PLANS
15	DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING (BD-8)
16	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT (BD-22)
17	CURB AND GUTTER REMOVAL AND REPLACEMENT (BD-24)
18	BUTT JOINT AND HMA TAPER DETAILS (BD-32)
19	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS (TC-10)
20	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW PLOW RESISTANT) (TC-11)
21	DISTRICT ONE TYPICAL PAVEMENT MARKINGS (TC-13)
22	TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) (TC-14)
23	PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING (TC-16)
24	ARTERIAL ROAD INFORMATION SIGN (TC-22)
25	DISTRICT 1 DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING (TS-07)

STATE STANDARDS

000001-06	STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
442201-03	CLASS C AND D PATCHES
602401-02	MANHOLE, TYPE A
602601-02	PRECAST REINFORCED CONCRETE FLAT SLAB TOP
604001-03	FRAME AND LIDS, TYPE 1
606001-04	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
701301-03	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701602-04	URBAN LANE CLOSURE, MULTI-LANE, 2W WITH BIDIRECTIONAL LEFT TURN LANE
701606-06	URBAN LANE CLOSURE, MULTI-LANE, 2W WITH MOUNTABLE MEDIAN
701701-06	URBAN LANE CLOSURE, MULTI LANE INTERSECTION
701801-04	LANE CLOSURE MULTILANE 1W, 2W, CROSSWALK OR SIDEWALK CLOSURE
701901-01	TRAFFIC CONTROL DEVICES
780001-02	TYPICAL PAVEMENT MARKINGS
886001-01	DETECTOR LOOP INSTALLATIONS
886006-01	TYPICAL LAYOUTS FOR DETECTION LOOPS

GENERAL NOTES

- BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 800-892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, AND GAS FACILITIES. (48 HOUR NOTIFICATION IS REQUIRED)
- 10 FEET (3 METER) TRANSITIONS SHALL BE USED TO MATCH PROPOSED CURB AND GUTTER AND MEDIAN ITEMS OF WORK TO EXISTING CURB AND GUTTER AND MEDIANS IN THE FIELD UNLESS OTHERWISE SHOWN. THE TRANSITIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PROPOSED ITEMS OF WORK SPECIFIED.
- THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES.
- THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
- WHEN ARTIFICIAL LIGHTING IS USED IN NIGHT OPERATIONS THE CONTRACTOR SHALL EXERCISE THE UTMOST PRECAUTIONS IN PREVENTING ADVERSE VISIBILITY TO THE MOTORING PUBLIC AND ADJOINING RESIDENTIAL AREAS.
- THE FOLLOWING RATES OF APPLICATION HAVE BEEN ASSUMED IN CALCULATING PLAN QUANTITIES:  

BITUMINOUS MATERIALS (PRIME COAT)	0.0004 TONS/SQ YD
POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE	112 LBS/SQ YD/INCH
POLYMERIZED LEVELING BINDER (MACHINE METHOD)	105 LBS/SQ YD/INCH
- THE ENGINEER SHALL CONTACT THE TRAFFIC CONTROL SUPERVISORS AT (847) 705-4470 A MINIMUM OF 72 HOURS PRIOR TO THE START OF WORK.
- TWO WEEKS PRIOR TO PLACEMENT OF PERMANENT PAVEMENT MARKINGS THE ENGINEER SHALL CONTACT DEBBIE HANLON, AREA TRAFFIC FIELD ENGINEER, AT (847) 438-2300.
- WHEN MILLED PAVEMENT IS OPEN TO TRAFFIC THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED 1 1/2" (40 MM) WHERE THE SPEED LIMIT IS 45 MPH (80 KM/H) OR LESS AND 1" (25 MM) WHERE THE SPEED LIMIT IS GREATER THAN 45 MPH (80 KM/H). WITH WRITTEN APPROVAL FROM THE ENGINEER, A MAXIMUM GRADE DIFFERENTIAL OF 3" (75 MM) MAY BE ALLOWED IF THE EDGE OF THE MILLING IS SLOPED A MINIMUM 3:1 (H:V).
- BUTT JOINTS WILL BE INSTALLED AT THE END OF ALL RESURFACING (WHERE RESURFACING MEETS EXISTING PAVEMENT). IN ACCORDANCE WITH THE "BUTT JOINT AND HMA TAPER DETAILS" SHEET INCLUDED IN THE PLANS, UNLESS OTHERWISE SPECIFIED.
- FOR PAVEMENT MARKING, REFER TO DISTRICT ONE TYPICAL MARKINGS FOR DETAILS SHOWN.
- MATCH EXISTING PAVEMENT MARKINGS AT PROJECT LIMITS AND OMISSIONS.
- ALL PATCHES OPENED ON A PARTICULAR DAY MUST BE FILLED THAT DAY TO THE TOP OF THE MILLED PAVEMENT SURFACE.

- IDOT TRAFFIC SIGNAL AND SYSTEM DETECTION LOOPS ARE PRESENT AT OSTERMAN AVENUE / LONGFELLOW AVENUE, DEERFIELD SQUARE ENTRANCE, DEERFIELD ROAD, ELDER LANE / HAZEL AVENUE, GREENWOOD AVENUE AND NORTH AVENUE. THE CONTRACTOR MUST NOTIFY THE IDOT AREA TRAFFIC SIGNAL MAINTENANCE AND OPERATIONS ENGINEER AT (847) 705-4139 AND THE DEPARTMENT'S ELECTRICAL MAINTENANCE CONTRACTOR PRIOR TO BEGINNING WORK, AT WHICH TIME ARRANGEMENTS WILL BE MADE TO ADJUST THE TRAFFIC CONTROLLER TIMING TO COMPENSATE FOR THE ABSENCE OF DETECTION. REPLACEMENT OF LOOPS DOES NOT REQUIRE MAINTENANCE TRANSFER, BUT DOES REQUIRE NOTIFICATION OF WORK AND INSPECTION. COORDINATION WITH THE DISTRICT IS CONSIDERED INCIDENTAL TO THIS CONTRACT.

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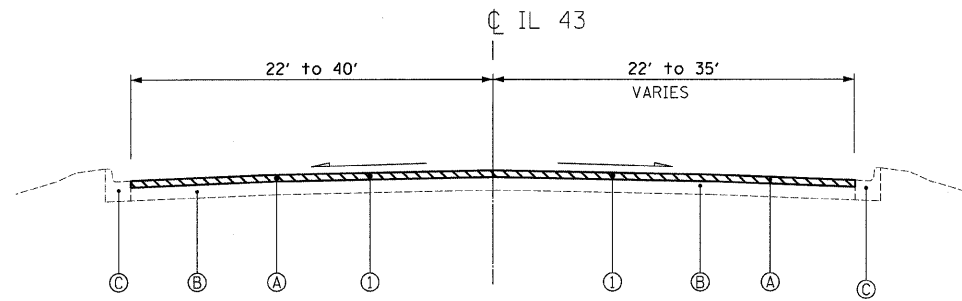
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**IL 43 / WAUKEGAN ROAD  
0.2 MILES SOUTH OF CENTRAL AVENUE TO NORTH AVENUE  
INDEX OF SHEETS, STATE STANDARDS & GENERAL NOTES**

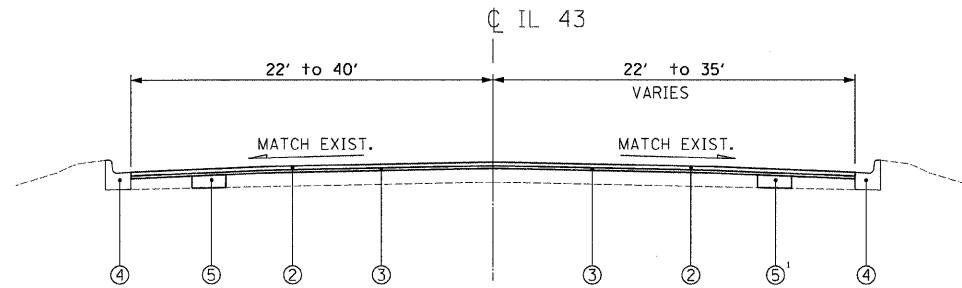
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	AY-RS-2	LAKE	25	2
CONTRACT NO. 60G71				
FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT				





EXISTING TYPICAL SECTION  
 STA. 89+49 TO STA. 107+76  
 STA. 107+83 TO STA. 108+77  
 STA. 108+84 TO STA. 180+80



PROPOSED TYPICAL SECTION  
 STA. 89+49 TO STA. 107+76  
 STA. 107+83 TO STA. 108+77  
 STA. 108+84 TO STA. 180+80

**EXISTING CONDITIONS:**

- Ⓐ HOT-MIX ASPHALT SURFACE AND BINDER COURSE, 4" AND VARIES
- Ⓑ PORTLAND CEMENT CONCRETE BASE COURSE, 10"
- Ⓒ COMBINATION CONCRETE CURB AND GUTTER

**PROPOSED IMPROVEMENTS:**

- ① HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/2"
- ② POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, 1 3/4"
- ③ POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 3/4"
- ④ COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT (AS DIRECTED BY ENGINEER)
- ⑤ CLASS D PATCHES, 10" (DETERMINED BY ENGINEER IN FIELD)

A QUANTITY FOR LEVELING BINDER (HAND METHOD) HAS BEEN PROVIDED FOR USE AT PRIVATE ENTRANCES, AROUND HAND HOLES, PRIVATE UTILITY STRUCTURE FRAMES, AND ANY OTHER STRUCTURE FRAMES THAT ARE NOT ABLE TO BE LOWERED UNDER THE ITEM "FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)" AFTER GRINDING OF EXISTING PAVEMENT.

<sup>1</sup> QUANTITIES FOR EARTH EXCAVATION AND AGGREGATE BASE REPAIR HAVE BEEN INCLUDED FOR SUBGRADE FAILURES BELOW THE CLASS D PATCHES

**HOT-MIX ASPHALT MIXTURE REQUIREMENTS CHART**

OPERATIONS	MIXTURE TYPE	AC TYPE	PERCENT AIR VOIDS
ROADWAY RESURFACING	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90 (IL-9.5MM)	SBS/SBR PG 70-22	4% @ 90 GYR
	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	SBS/SBR PG 76-28/-22	4% @ 50 GYR
MAINTENANCE OF TRAFFIC	LEVELING BINDER (HAND METHOD), N70 (IL-9.5MM)	PG 64-22 *	4% @ 70 GYR
PAVEMENT PATCHING	CLASS D PATCHES, 10" (HMA BINDER IL-19 MM)	PG 64-22 *	4% @ 70 GYR
	HOT-MIX ASPHALT REPLACEMENT OVER PATCHES (HMA BINDER IL-19 MM)	PG 64-22 *	4% @ 70 GYR
DRIVES BEHIND CURB	HOT-MIX ASPHALT SURFACE COURSE MIX "C", N50 (IL-9.5MM)	PG 64-22	4% @ 50 GYR
	HOT-MIX ASPHALT BASE COURSE, 8" (HMA BINDER IL-19 MM)	PG 64-22 *	4% @ 50 GYR

THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN.

\* WHEN RAP EXCEEDS 20%, THE NEW ASPHALT BINDER IN THE MIX SHALL BE PG 58-22.

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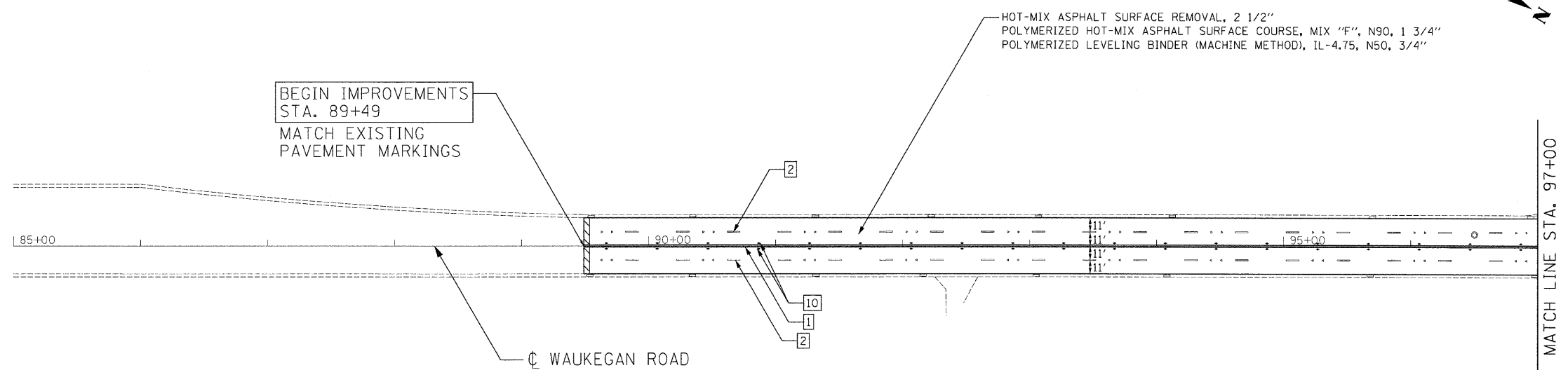
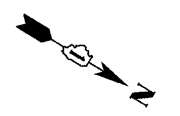
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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**IL 43 / WAUKEGAN ROAD**  
**0.2 MILES SOUTH OF CENTRAL AVENUE TO NORTH AVENUE**  
**TYPICAL SECTIONS**

SCALE: N.T.S. SHEET NO. 4 OF 25 SHEETS STA. TO STA.

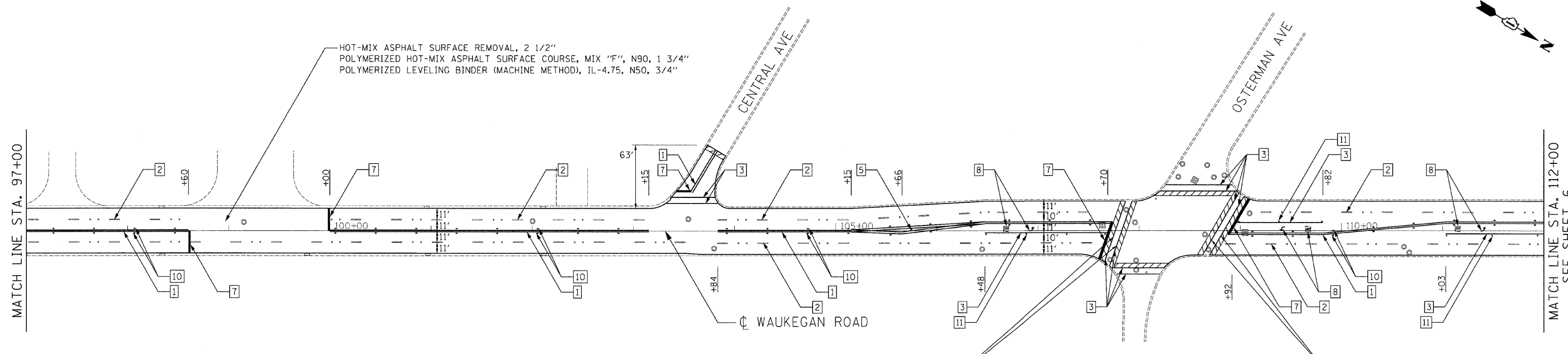
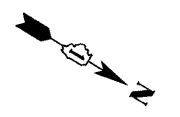
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	AY-RS-2	LAKE	25	4
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 60G71	



**LEGEND:**

- 1 THERMOPLASTIC PAVEMENT MARKING - LINE 4" (DOUBLE YELLOW SOLID LINE 11" C-C)
- 2 THERMOPLASTIC PAVEMENT MARKING - LINE 4" (WHITE LANE LINE - 10' DASH, 30' SKIP) WITH RAISED REFLECTIVE PAVEMENT MARKERS (2 ONE-WAY CRYSTAL MARKER) (80' C-C)
- 3 THERMOPLASTIC PAVEMENT MARKING - LINE 6" (WHITE SOLID LINE)
- 4 THERMOPLASTIC PAVEMENT MARKING - LINE 6" (WHITE LANE LINE - 2' DASH, 6' SKIP)
- 5 THERMOPLASTIC PAVEMENT MARKING - LINE 12" (YELLOW DIAGONAL LINE)
- 6 THERMOPLASTIC PAVEMENT MARKING - LINE 12" (WHITE LINE)
- 7 THERMOPLASTIC PAVEMENT MARKING - LINE 24" (WHITE STOP LINE)
- 8 THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS (TYP.)
- 9 RAISED REFLECTIVE PAVEMENT MARKERS (ONE-WAY AMBER MARKER) (40' C-C)
- 10 RAISED REFLECTIVE PAVEMENT MARKERS (TWO-WAY AMBER MARKER) (40' C-C)
- 11 RAISED REFLECTIVE PAVEMENT MARKERS (ONE-WAY CRYSTAL MARKER) (40' C-C)

HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT  
TEMPORARY RAMP



HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT  
TEMPORARY RAMP

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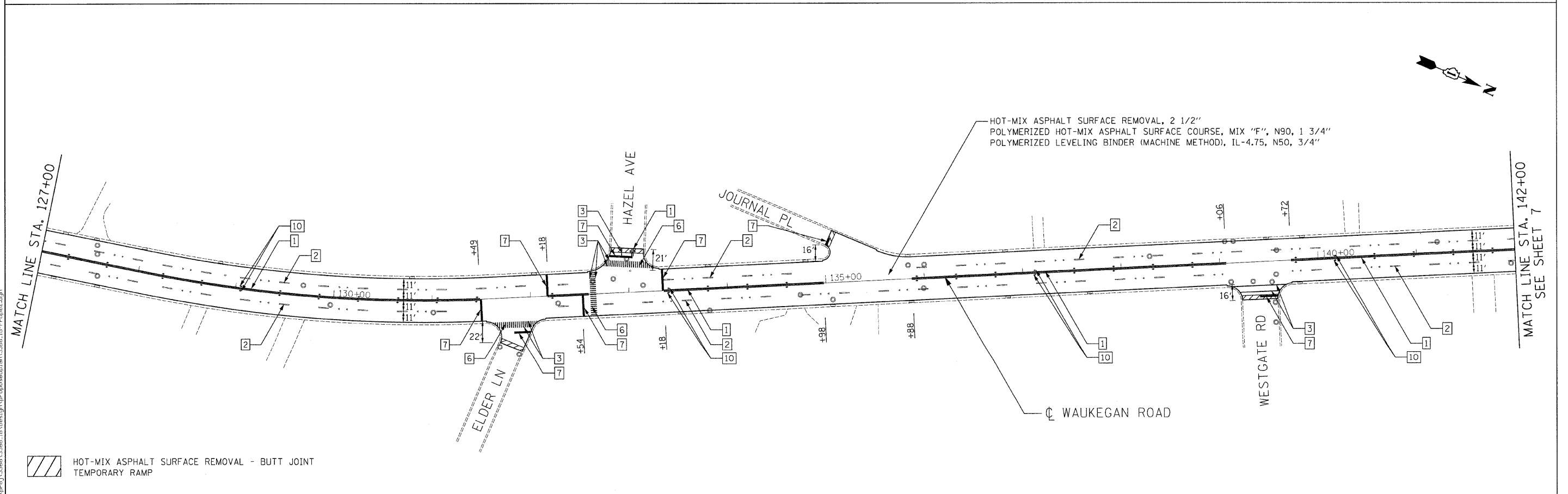
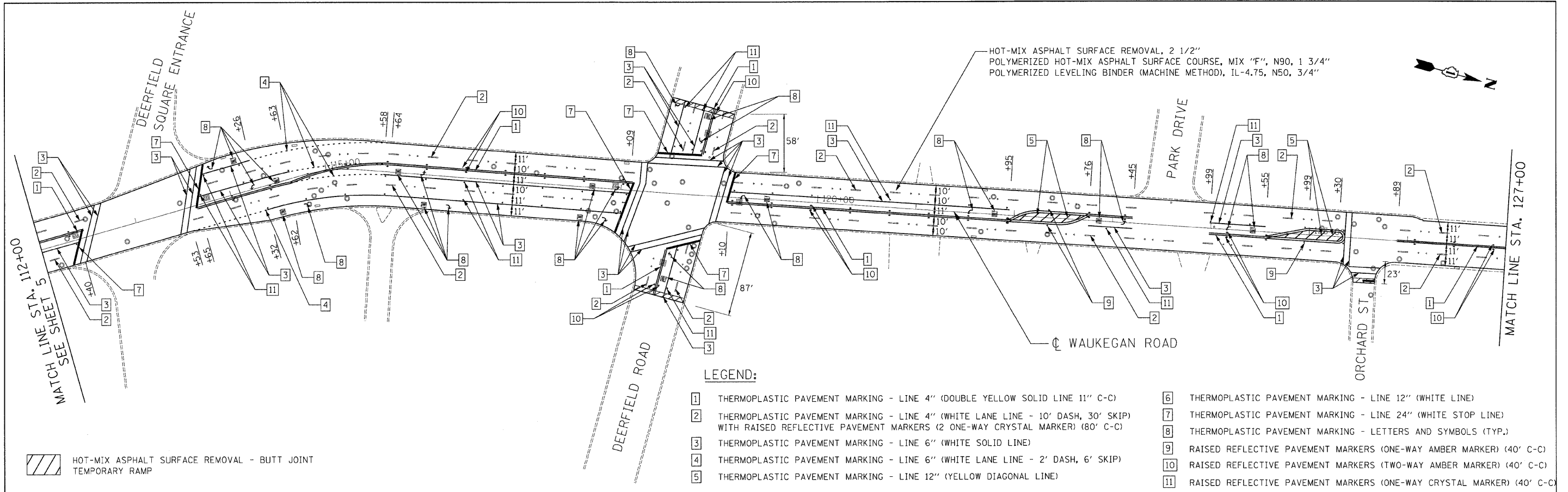
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	DATE - 4/22/2009	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**IL 43 /WAUKEGAN ROAD  
0.2 MILES SOUTH OF CENTRAL AVENUE TO NORTH AVENUE  
PROPOSED ROADWAY AND PAVEMENT MARKING PLAN**  
SCALE: 1"=50' SHEET NO. 5 OF 25 SHEETS STA. 85+00 TO STA. 112+00

F.A.U. RTE. 2706	SECTION AY-RS-2	COUNTY LAKE	TOTAL SHEETS 25	SHEET NO. 5
CONTRACT NO. 60671				
FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT				



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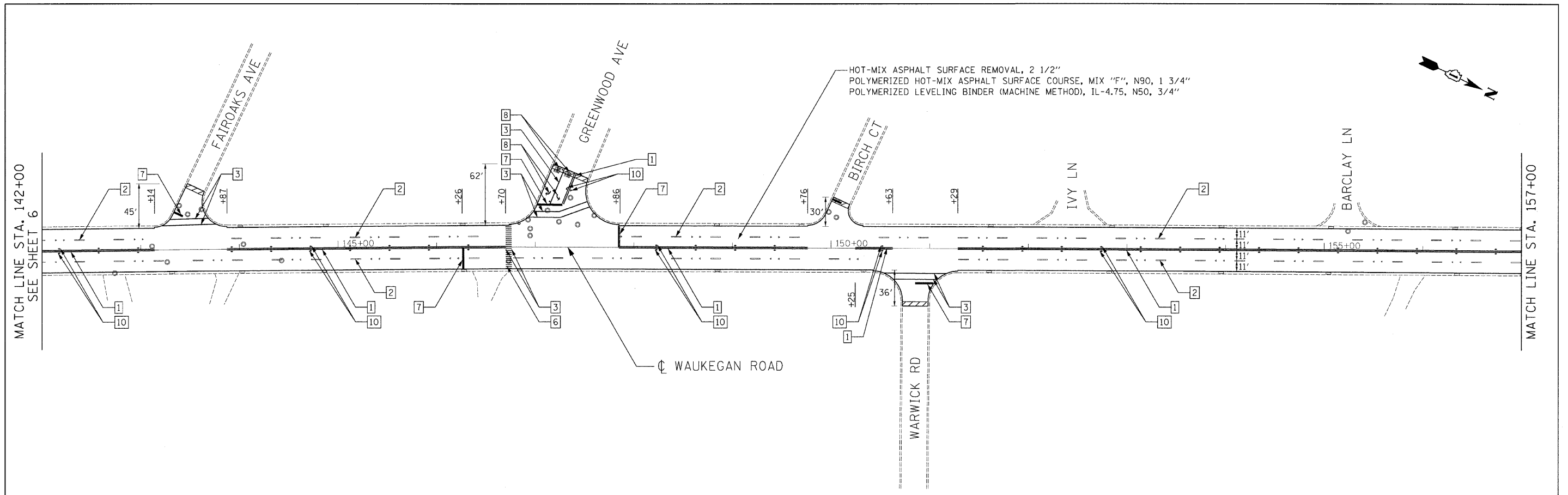
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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**IL 43 / WAUKEGAN ROAD  
 0.2 MILES SOUTH OF CENTRAL AVENUE TO NORTH AVENUE  
 PROPOSED ROADWAY AND PAVEMENT MARKING PLAN**

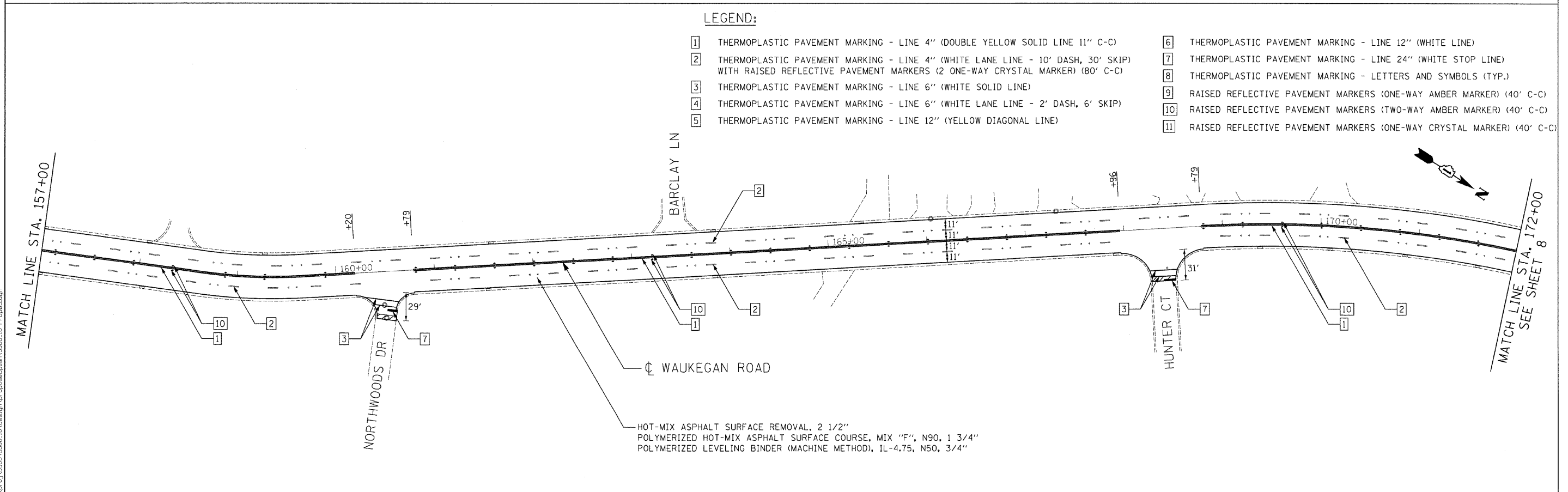
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F.A.U. R.F.E. 2706	SECTION AY-RS-2	COUNTY LAKE	TOTAL SHEETS 25	SHEET NO. 6
FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT			CONTRACT NO. 60G71	



**LEGEND:**

- |   |  |    |   |
|---|--|----|---|
| 1 | THERMOPLASTIC PAVEMENT MARKING - LINE 4" (DOUBLE YELLOW SOLID LINE 11" C-C)  | 6  | THERMOPLASTIC PAVEMENT MARKING - LINE 12" (WHITE LINE)                |
| 2 | THERMOPLASTIC PAVEMENT MARKING - LINE 4" (WHITE LANE LINE - 10' DASH, 30' SKIP) WITH RAISED REFLECTIVE PAVEMENT MARKERS (2 ONE-WAY CRYSTAL MARKER) (80' C-C) | 7  | THERMOPLASTIC PAVEMENT MARKING - LINE 24" (WHITE STOP LINE)           |
| 3 | THERMOPLASTIC PAVEMENT MARKING - LINE 6" (WHITE SOLID LINE)  | 8  | THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS (TYP.)           |
| 4 | THERMOPLASTIC PAVEMENT MARKING - LINE 6" (WHITE LANE LINE - 2' DASH, 6' SKIP)  | 9  | RAISED REFLECTIVE PAVEMENT MARKERS (ONE-WAY AMBER MARKER) (40' C-C)   |
| 5 | THERMOPLASTIC PAVEMENT MARKING - LINE 12" (YELLOW DIAGONAL LINE)   | 10 | RAISED REFLECTIVE PAVEMENT MARKERS (TWO-WAY AMBER MARKER) (40' C-C)   |
|   |  | 11 | RAISED REFLECTIVE PAVEMENT MARKERS (ONE-WAY CRYSTAL MARKER) (40' C-C) |



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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

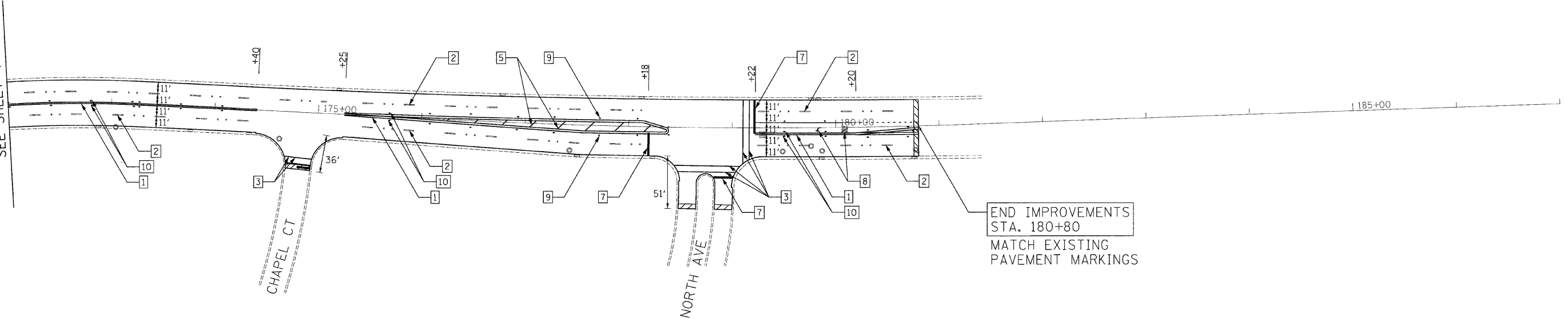
**IL 43 / WAUKEGAN ROAD  
 0.2 MILES SOUTH OF CENTRAL AVENUE TO NORTH AVENUE  
 PROPOSED ROADWAY AND PAVEMENT MARKING PLAN**

SCALE: 1"=50' SHEET NO. 7 OF 25 SHEETS STA. STA 142+00 TO STA. STA 172+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	AY-RS-2	LAKE	25	7
FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT			CONTRACT NO. 60671	



MATCH LINE STA. 172+00  
SEE SHEET 7



**LEGEND:**

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>1 THERMOPLASTIC PAVEMENT MARKING - LINE 4" (DOUBLE YELLOW SOLID LINE 11" C-C)</li> <li>2 THERMOPLASTIC PAVEMENT MARKING - LINE 4" (WHITE LANE LINE - 10' DASH, 30' SKIP) WITH RAISED REFLECTIVE PAVEMENT MARKERS (2 ONE-WAY CRYSTAL MARKER) (80' C-C)</li> <li>3 THERMOPLASTIC PAVEMENT MARKING - LINE 6" (WHITE SOLID LINE)</li> <li>4 THERMOPLASTIC PAVEMENT MARKING - LINE 6" (WHITE LANE LINE - 2' DASH, 6' SKIP)</li> <li>5 THERMOPLASTIC PAVEMENT MARKING - LINE 12" (YELLOW DIAGONAL LINE)</li> </ul> | <ul style="list-style-type: none"> <li>6 THERMOPLASTIC PAVEMENT MARKING - LINE 12" (WHITE LINE)</li> <li>7 THERMOPLASTIC PAVEMENT MARKING - LINE 24" (WHITE STOP LINE)</li> <li>8 THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS (TYP.)</li> <li>9 RAISED REFLECTIVE PAVEMENT MARKERS (ONE-WAY AMBER MARKER) (40' C-C)</li> <li>10 RAISED REFLECTIVE PAVEMENT MARKERS (TWO-WAY AMBER MARKER) (40' C-C)</li> <li>11 RAISED REFLECTIVE PAVEMENT MARKERS (ONE-WAY CRYSTAL MARKER) (40' C-C)</li> </ul> |
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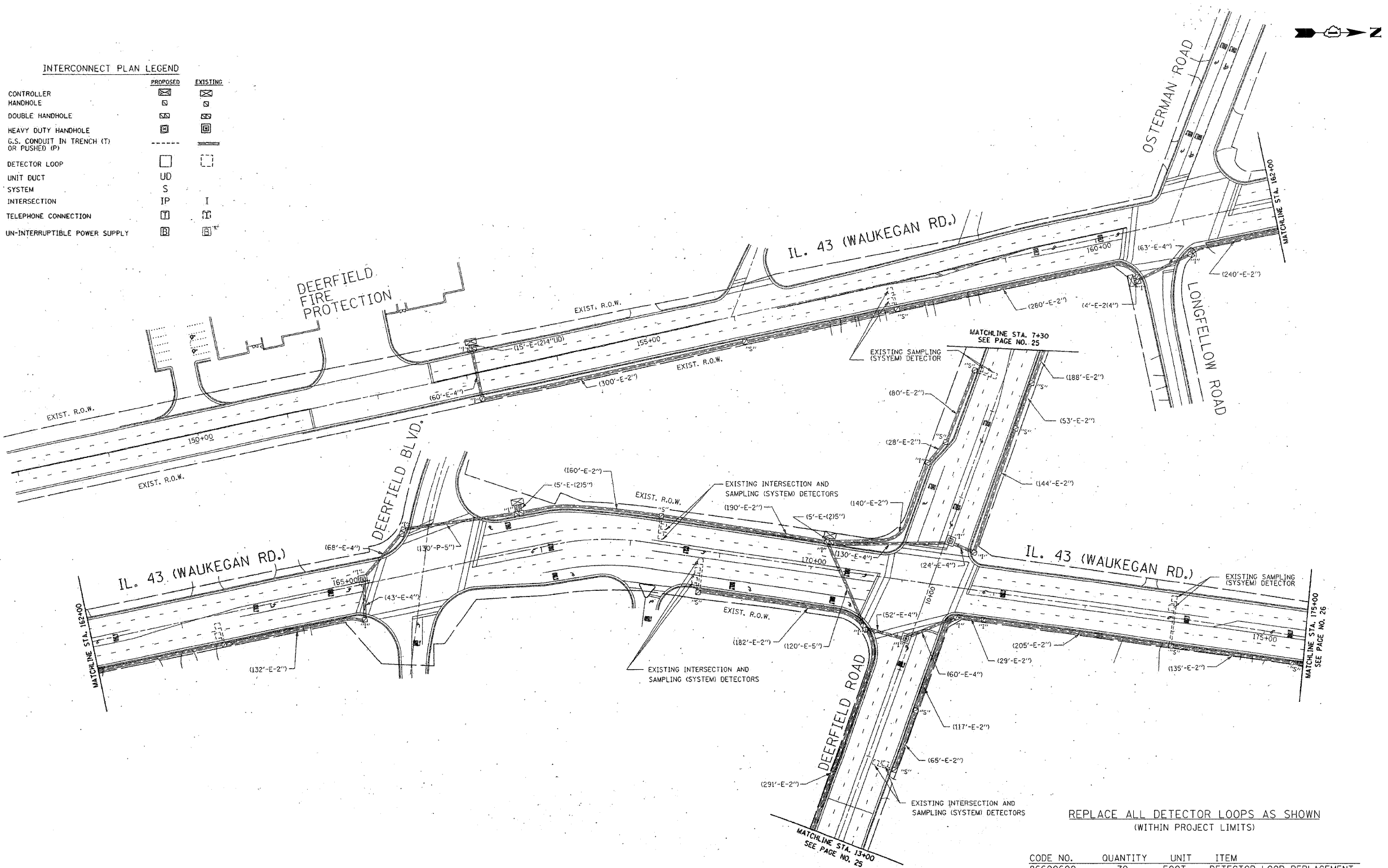
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**IL 43 / WAUKEGAN ROAD  
0.2 MILES SOUTH OF CENTRAL AVENUE TO NORTH AVENUE  
PROPOSED ROADWAY AND PAVEMENT MARKING PLAN**

SCALE: 1"=50' SHEET NO. 8 OF 25 SHEETS STA. STA 172+00 TO STA. STA 187+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	AY-RS-2	LAKE	25	8
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 60G71	





**INTERCONNECT PLAN LEGEND**

	PROPOSED	EXISTING
CONTROLLER		
HANDHOLE		
DOUBLE HANDHOLE		
HEAVY DUTY HANDHOLE		
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)		
DETECTOR LOOP		
UNIT DUCT	UD	
SYSTEM	S	
INTERSECTION	IP	I
TELEPHONE CONNECTION		
UN-INTERRUPTIBLE POWER SUPPLY		

REPLACE ALL DETECTOR LOOPS AS SHOWN  
(WITHIN PROJECT LIMITS)

CODE NO.	QUANTITY	UNIT	ITEM
86600600	70	FOOT	DETECTOR LOOP REPLACEMENT (SOUTH OF OSTERMAN ROAD)

FILE NAME: m:\proj\3366\3366.dwg

**Ciorba Group, Inc.**  
CONSULTING ENGINEERS  
5507 North Cumberland Avenue, Suite 402  
Chicago, Illinois 60656  
Tel: 773.775.4009 Fax: 773.775.4014

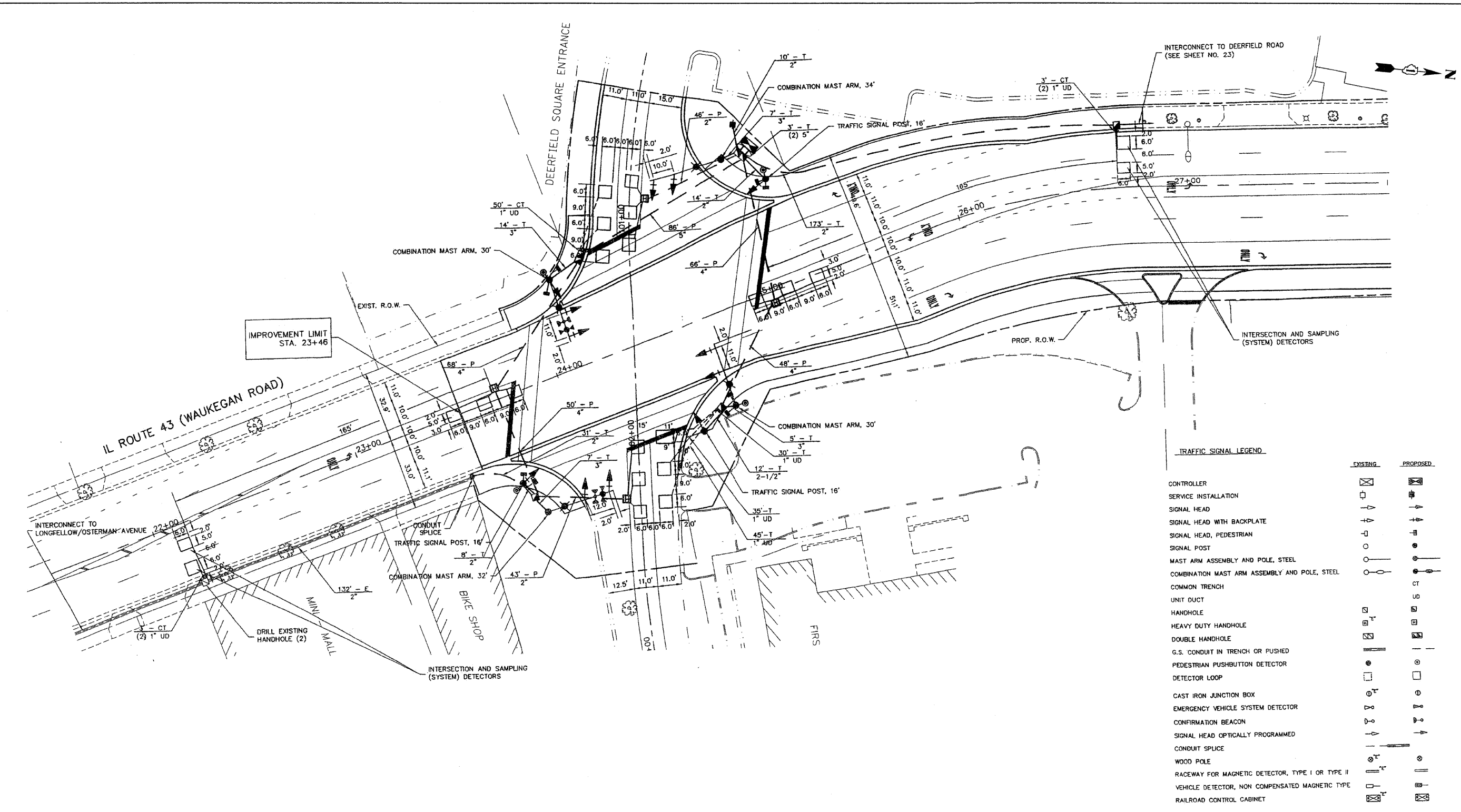
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**IL 43 / WAUKEGAN ROAD  
0.2 MILES SOUTH OF CENTRAL AVENUE TO NORTH AVENUE  
DETECTOR LOOP REPLACEMENT PLAN**

SCALE: N.T.S. SHEET NO. 9 OF 25 SHEETS STA. TO STA.

F.A.U. RTE. 2706	SECTION AY-RS-2	COUNTY LAKE	TOTAL SHEETS 25	SHEET NO. 9
CONTRACT NO. 60G71				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



**TRAFFIC SIGNAL LEGEND**

	EXISTING	PROPOSED
CONTROLLER		
SERVICE INSTALLATION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD, PEDESTRIAN		
SIGNAL POST		
MAST ARM ASSEMBLY AND POLE, STEEL		
COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL		
COMMON TRENCH		
UNIT DUCT		
HANDHOLE		
HEAVY DUTY HANDHOLE		
DOUBLE HANDHOLE		
G.S. CONDUIT IN TRENCH OR PUSHED		
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP		
CAST IRON JUNCTION BOX		
EMERGENCY VEHICLE SYSTEM DETECTOR		
CONFIRMATION BEACON		
SIGNAL HEAD OPTICALLY PROGRAMMED		
CONDUIT SPLICE		
WOOD POLE		
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		
RAILROAD CONTROL CABINET		

REPLACE ALL DETECTOR LOOPS AS SHOWN  
(WITHIN PROJECT LIMITS)

CODE NO.	QUANTITY	UNIT	ITEM
86600600	320	FOOT	DETECTOR LOOP REPLACEMENT

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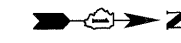
**Ciorba Group, Inc.**  
CONSULTING ENGINEERS  
5507 North Cumberland Avenue, Suite 402  
Chicago, Illinois 60656  
Tel. 773.775.4009 Fax 773.775.4014

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

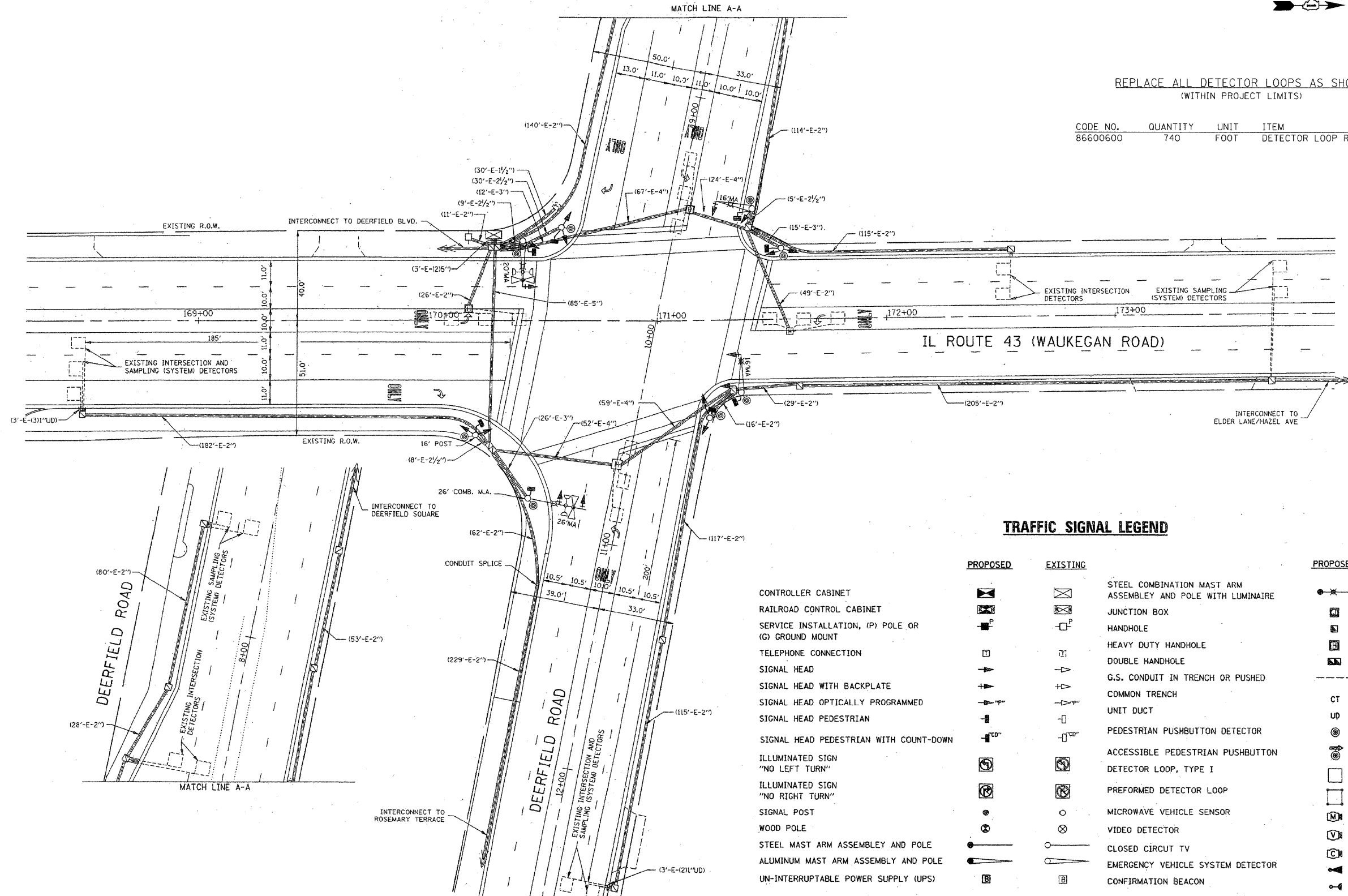
**IL 43 /WAUKEGAN ROAD  
0.2 MILES SOUTH OF CENTRAL AVENUE TO NORTH AVENUE  
DETECTOR LOOP REPLACEMENT PLAN**

F.A.U. RTE. 2706	SECTION AY-RS-2	COUNTY LAKE	TOTAL SHEETS 25	SHEET NO. 10
SCALE: N.T.S. SHEET NO. 10 OF 25 SHEETS STA. TO STA.			CONTRACT NO. 60G71	
FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT				



REPLACE ALL DETECTOR LOOPS AS SHOWN  
(WITHIN PROJECT LIMITS)

CODE NO.	QUANTITY	UNIT	ITEM
86600600	740	FOOT	DETECTOR LOOP REPLACEMENT



**TRAFFIC SIGNAL LEGEND**

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

FILE NAME = n:\p\proj\33665\33665\_18\design\Signal\33665\_18-LoopA2.dgn

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CONSULTING ENGINEERS  
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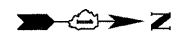
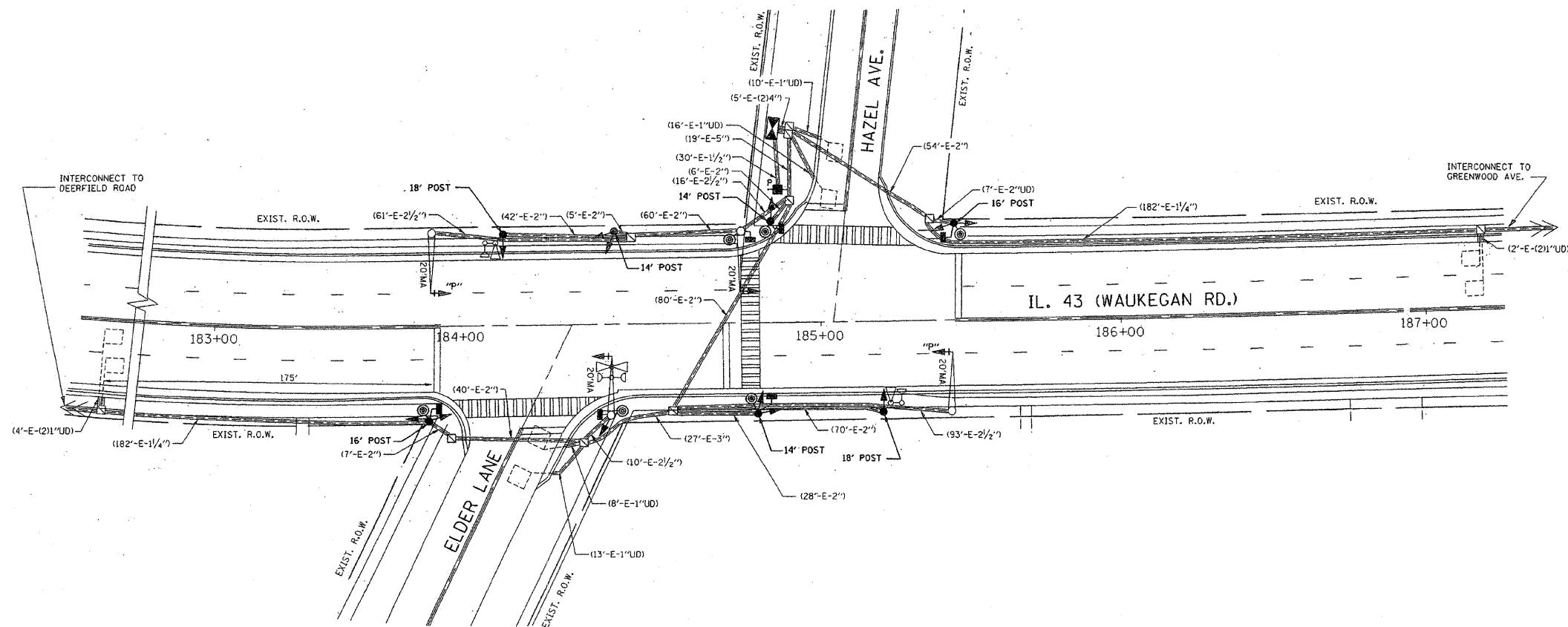
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	DATE - 4/22/2009	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**IL 43 / WAUKEGAN ROAD  
0.2 MILES SOUTH OF CENTRAL AVENUE TO NORTH AVENUE  
DETECTOR LOOP REPLACEMENT PLAN**

SCALE: N.T.S. SHEET NO. 11 OF 25 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	AY-RS-2	LAKE	25	11
FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT			CONTRACT NO. 60G71	



**TRAFFIC SIGNAL LEGEND**

	PROPOSED	EXISTING
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 HEAD PEDESTRIAN WITH COUNT-DOWN		
ILLUMINATED SIGN "NO LEFT TURN"		
ILLUMINATED SIGN "NO RIGHT TURN"		
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		

**TRAFFIC SIGNAL LEGEND**

	PROPOSED	EXISTING
JUNCTION BOX		
HANDHOLE		
HEAVY DUTY HANDHOLE		
DOUBLE HANDHOLE		
G.S. CONDUIT IN TRENCH OR PUSHED		
COMMON TRENCH		
UNIT DUCT	CT	
PEDESTRIAN PUSHBUTTON DETECTOR		
ACCESSIBLE PEDESTRIAN PUSHBUTTON		
DETECTOR LOOP, TYPE I		
PREFORMED DETECTOR LOOP		
MICROWAVE VEHICLE SENSOR		
VIDEO DETECTOR		
CLOSED CIRCUIT TV		
EMERGENCY VEHICLE SYSTEM DETECTOR		
CONFIRMATION BEACON		
UN-INTERRUPTABLE POWER SUPPLY (UPS)		

REPLACE ALL DETECTOR LOOPS AS SHOWN  
(WITHIN PROJECT LIMITS)

CODE NO.	QUANTITY	UNIT	ITEM
86600600	270	FOOT	DETECTOR LOOP REPLACEMENT

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**Ciorba Group, Inc.**  
CONSULTING ENGINEERS  
5507 North Cumberland Avenue, Suite 402  
Chicago, Illinois 60656  
Tel. 773.775.4009 Fax 773.775.4014

USER NAME = alou	DESIGNED - AL	REVISED -
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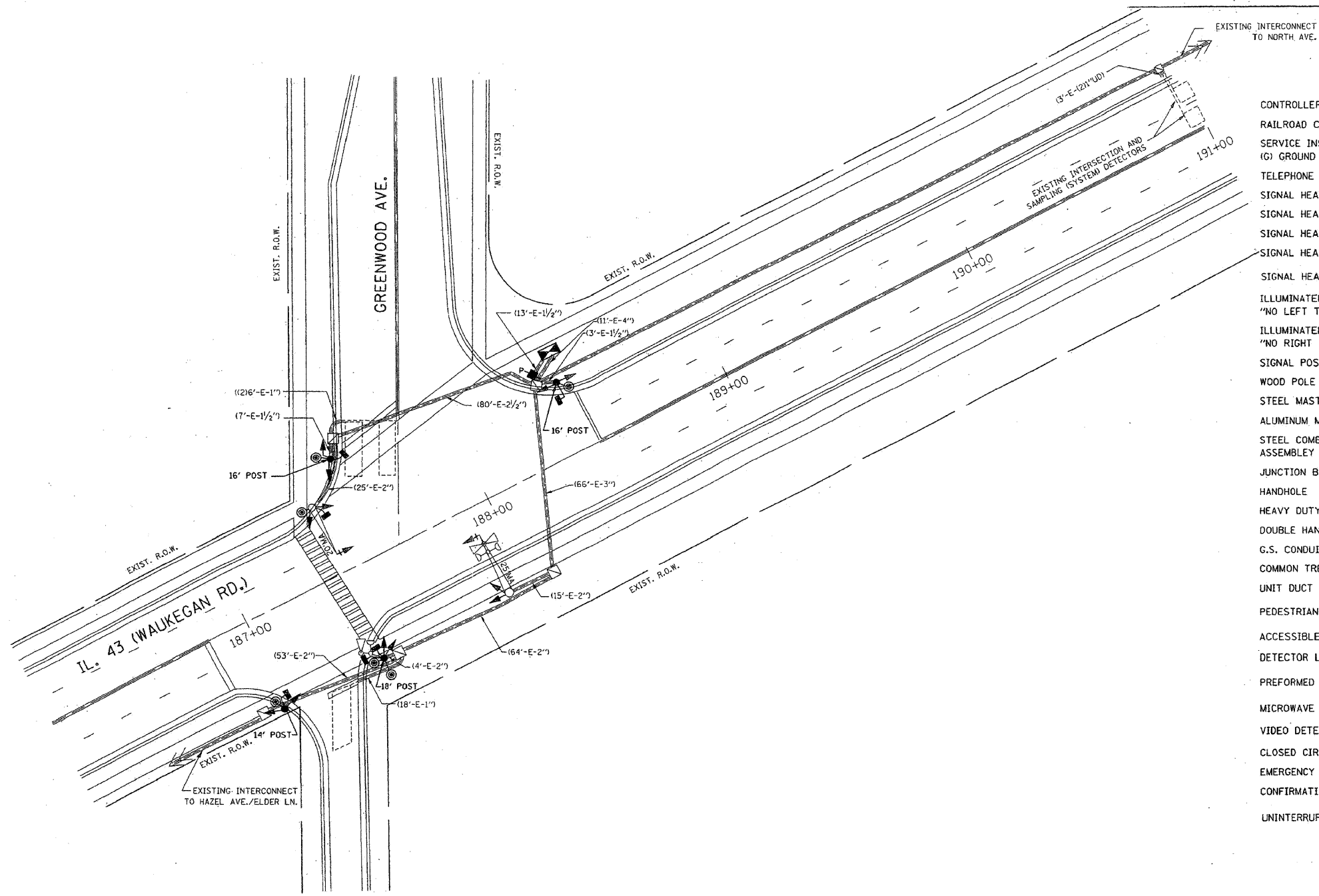
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

**IL 43 / WAUKEGAN ROAD**  
**0.2 MILES SOUTH OF CENTRAL AVENUE TO NORTH AVENUE**  
**DETECTOR LOOP REPLACEMENT PLAN**

SCALE: N.T.S. SHEET NO. 12 OF 25 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	AY-RS-2	LAKE	25	12

CONTRACT NO. 60G71  
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT



**TRAFFIC SIGNAL LEGEND**

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

REPLACE ALL DETECTOR LOOPS AS SHOWN  
(WITHIN PROJECT LIMITS)

CODE NO.	QUANTITY	UNIT	ITEM
86600600	200	FOOT	DETECTOR LOOP REPLACEMENT

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**Ciorba Group, Inc.**  
CONSULTING ENGINEERS  
5507 North Cumberland Avenue, Suite 402  
Chicago, Illinois 60656  
Tel. 773.775.4009 Fax 773.775.4014

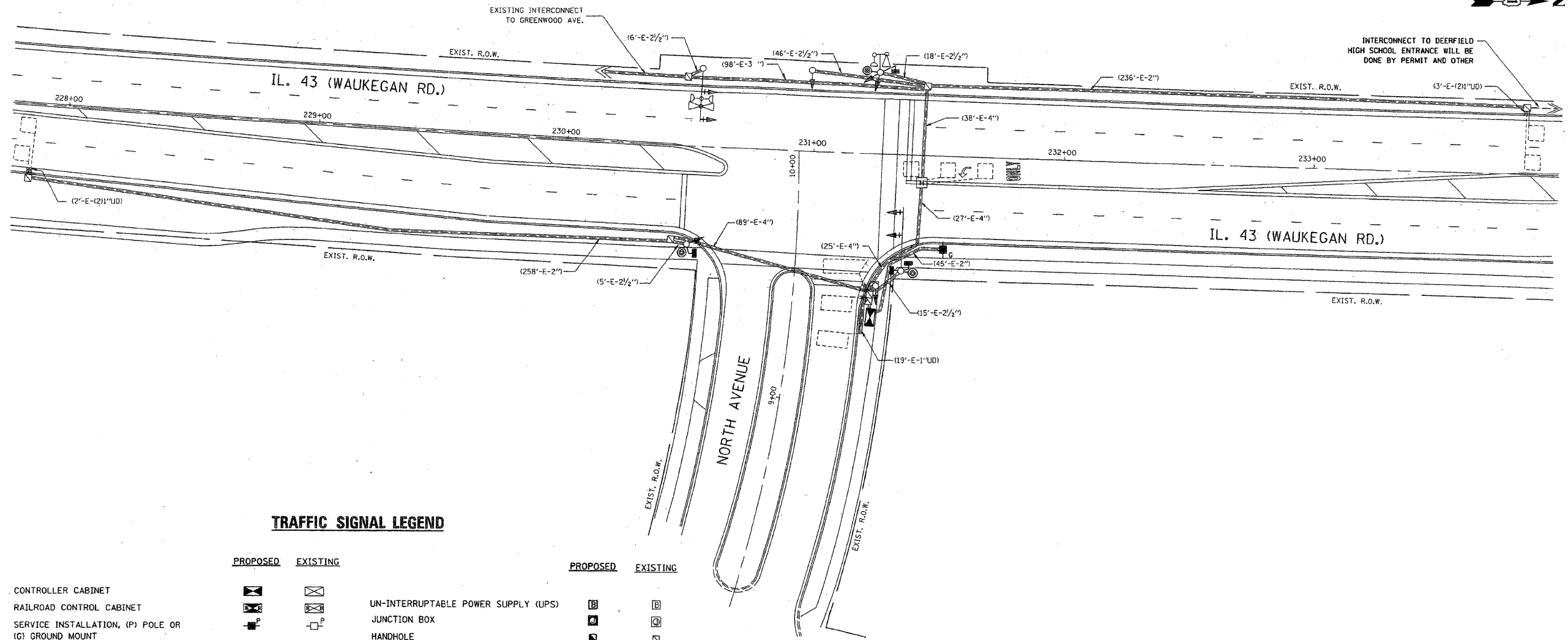
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**IL 43 / WAUKEGAN ROAD  
0.2 MILES SOUTH OF CENTRAL AVENUE TO NORTH AVENUE  
DETECTOR LOOP REPLACEMENT PLAN**

SCALE: N.T.S. SHEET NO. 13 OF 25 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	AY-RS-2	LAKE	25	13
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 60G71	



**TRAFFIC SIGNAL LEGEND**

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

REPLACE ALL DETECTOR LOOPS AS SHOWN  
(WITHIN PROJECT LIMITS)

CODE NO.	QUANTITY	UNIT	ITEM
86600600	300	FOOT	DETECTOR LOOP REPLACEMENT

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**Ciorba Group, Inc.**  
CONSULTING ENGINEERS  
5607 North Cumberland Avenue, Suite 402  
Chicago, Illinois 60656  
Tel. 773.775.4009 Fax 773.775.4014

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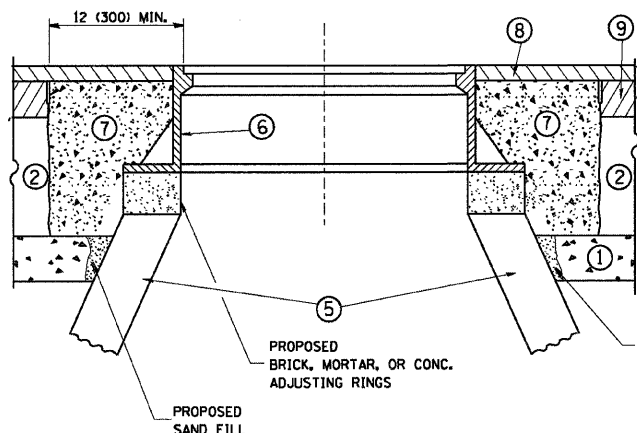
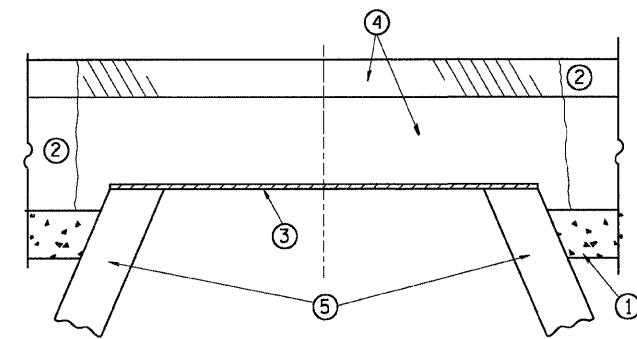
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**IL 43 / WAUKEGAN ROAD  
0.2 MILES SOUTH OF CENTRAL AVENUE TO NORTH AVENUE  
DETECTOR LOOP REPLACEMENT PLAN**

SCALE: N.T.S. SHEET NO. 14 OF 25 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	AY-RS-2	LAKE	25	14

CONTRACT NO. 60G71  
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT



**CONSTRUCTION PROCEDURES**

**STAGE 1 (BEFORE PAVEMENT MILLING)**

- A) REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM AROUND THE STRUCTURE.
- B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.
- C) COVER THE STRUCTURE OPENING WITH A 36 (900) DIAMETER METAL PLATE.
- D) BACKFILL WITH CRUSHED STONE AND A MINIMUM 1 1/2 (40) THICK HMA SURFACE MIX APPROVED BY THE ENGINEER.

**STAGE 2 (AFTER PAVEMENT MILLING)**

- A) REMOVE THE HMA SURFACE MIX AND CRUSHED STONE.
- B) INSTALL THE FRAME AND LID; ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION.
- C) THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS SI CONCRETE, OR HMA SURFACE COURSE OR HMA BINDER COURSE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.

THE PROCEDURE EXPLAINED ABOVE SHALL CONFORM TO THE APPLICABLE PORTIONS OF SECTIONS 353, 406, 602, AND 603 OF THE STANDARD SPECIFICATIONS.

**LEGEND**

- ① SUB-BASE GRANULAR MATERIAL
- ② EXISTING PAVEMENT
- ③ 36 (900) DIAMETER METAL PLATE
- ④ PROPOSED CRUSHED STONE AND HMA SURFACE MIX
- ⑤ EXISTING STRUCTURE
- ⑥ FRAME AND LID (SEE NOTES)
- ⑦ CLASS SI CONCRETE, HMA SURFACE COURSE OR HMA BINDER COURSE
- ⑧ PROPOSED HMA SURFACE COURSE
- ⑨ PROPOSED HMA BINDER COURSE

**NOTES:**

EXISTING BROKEN FRAMES AND LIDS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SHALL BE REPLACED AS DIRECTED BY THE ENGINEER. REPLACEMENT FRAMES AND LIDS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS UNLESS A SEPARATE PAY ITEM HAS BEEN PROVIDED.

IF THE EXISTING LIDS ARE OPEN, THE FRAME WILL BE ADJUSTED TO THE ELEVATION OF THE MILLED PAVEMENT SURFACE PRIOR TO THE MILLING OPERATION. THE FRAME WILL NOT BE REMOVED AND COVERED BY THE METAL PLATE.

CITY OF CHICAGO CASTINGS ARE THE PROPERTY OF THE CITY AND THE CONTRACTOR SHALL NOTIFY THE CITY FOR REMOVAL AND DISPOSITION OF THE CASTINGS.

THE METAL PLATE USED TO COVER THE STRUCTURE SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.

WHEN STRUCTURES ARE TO BE ADJUSTED OR RECONSTRUCTED, THE LOWERING AND RAISING OF THE FRAMES AND LIDS WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF THE CORRESPONDING PAY ITEM.

**LOCATION OF STRUCTURES:**

THE CONTRACTOR WILL BE REQUIRED TO KEEP A RECORD OF THE LOCATIONS OF THE BURIED STRUCTURES ACCORDING TO THE STATION AND DISTANCE LEFT OR RIGHT OF THE CENTERLINE OF PAVEMENT. UPON COMPLETION OF THE WORK, THE CONTRACTOR WILL DELIVER THE RECORD TO THE ENGINEER.

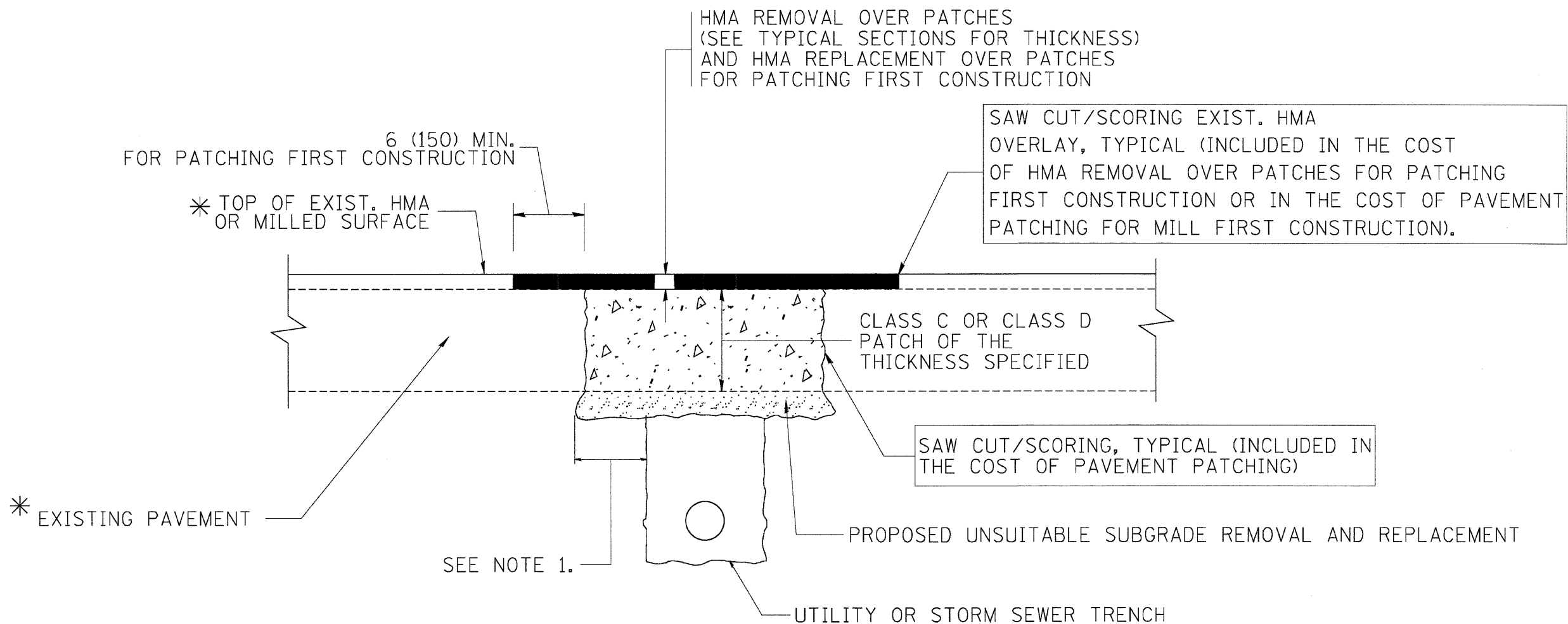
**BASIS OF PAYMENT:** THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR "FRAMES AND LIDS TO BE ADJUSTED, SPECIAL"

NEW FRAMES AND LIDS, WHEN SPECIFIED, WILL BE PAID FOR SEPARATELY.

**DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING**

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

FILE NAME = W:\distatd\22x34\bd08.dgn	USER NAME = gegl1enobt	DESIGNED - R. SHAH	REVISED - R. SHAH 03-10-95	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING</b>		F.A.L. RTE.:	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 50.0000' / IN.	DRAWN -	REVISED - A. ABBAS 03-21-97		2706	AY-RS-2	LAKE	25	15		
	PLOT DATE = 1/4/2008	CHECKED -	REVISED - R. WIEDEMAN 05-14-04		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.		BD600-03 (BD-8)		CONTRACT NO. 60G71		
		DATE - 10-25-94	REVISED - R. BORO 01-01-07		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT						



\* SEE TYPICAL SECTIONS FOR THICKNESS AND MATERIALS

**NOTES:**

1. THE WIDTH OF THE FULL DEPTH PATCH OVER A TRENCH SHALL BE 12 (300) WIDER ON EACH SIDE OF THE TRENCH.
2. FOR METHOD OF MEASUREMENT AND BASIS OF PAYMENT, SEE RECURRING SPECIAL PROVISION "PATCHING WITH HOT-MIX ASPHALT OVERLAY REMOVAL".

SEQUENCE OF CONSTRUCTION (PATCHING FIRST)

1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

SEQUENCE OF CONSTRUCTION (MILLING FIRST)

1. MILL HMA FIRST IF THERE IS AT LEAST 4 1/2 INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

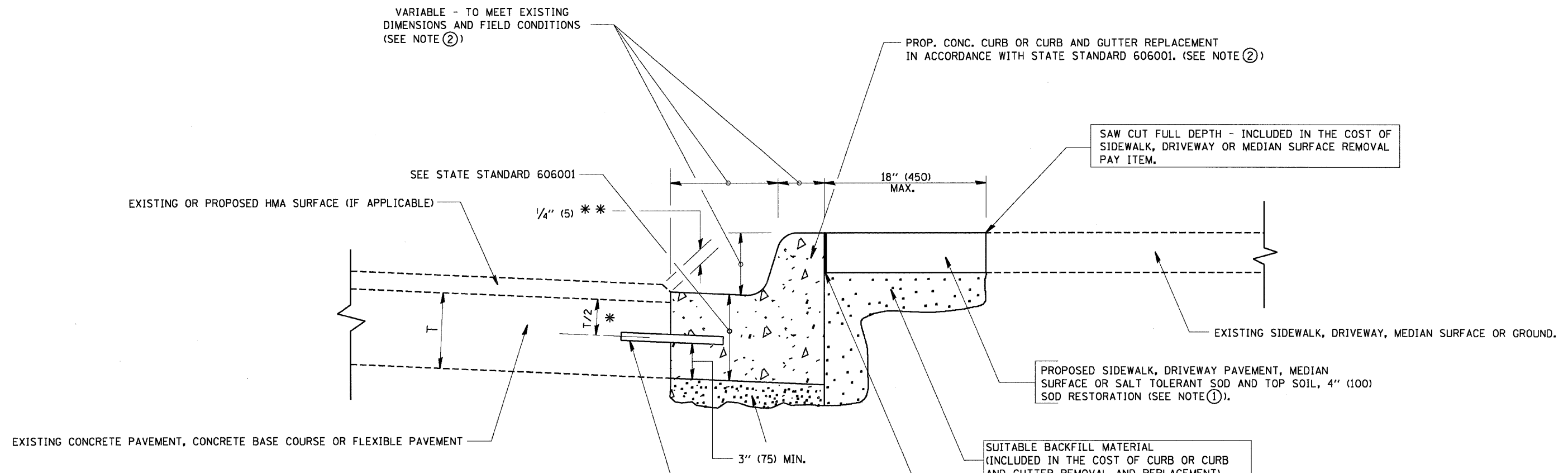
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		DRAWN -	REVISED - R. BORO 01-01-07
	PLOT SCALE = 50,000' / IN.	CHECKED -	REVISED - R. BORO 09-04-07
	PLOT DATE = 10/27/2008	DATE - 10-25-94	REVISED - K. ENG 10-27-08

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	AY-RS-2	LAKE	25	16
BD400-04 (BD-22)			CONTRACT NO. 60G71	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				





\* 3" (75) MINIMUM FROM TOP AND BOTTOM OF THE CONCRETE PAVEMENT OR BASE COURSE.

\*\* IF THE FINAL SURFACE OF THE PAVEMENT IS CONCRETE, THE GUTTER IS TO BE FLUSH WITH THE PAVEMENT.

NOTE: ① SIDEWALK, DRIVEWAY PAVEMENT OR MEDIAN SURFACE SHALL BE SIMILAR TO THE MATERIAL BEING REMOVED AND WILL BE PAID FOR SEPARATELY.

SALT TOLERANT SOD AND TOP SOIL, 4" (100) RESTORATION WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

② CURB OR CURB AND GUTTER REPLACEMENT SHALL MATCH THE SHAPE OF THE EXISTING CURB OR CURB AND GUTTER UNLESS OTHERWISE SPECIFIED.

③ FOR CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT ADJACENT TO FLEXIBLE PAVEMENT DELETE EPOXY COATED TIE BARS.

④ LONGITUDINAL BARS, IF ENCOUNTERED IN THE EXISTING CURB OR CURB AND GUTTER, ARE NOT TO BE REPLACED. CUTTING AND REMOVING LONGITUDINAL BARS SHALL BE INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

⑤ THE COST OF HMA SURFACE REMOVAL IN THE EXISTING GUTTER FLAG SHALL BE INCLUDED IN THE COST OF THE CURB AND GUTTER REMOVAL AND REPLACEMENT.

⑥ THE REMOVAL AND REPLACEMENT OF THE EXISTING CURB OR CURB AND GUTTER SHALL BE DONE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF SECTION 440 AND 606 OF THE STANDARD SPECIFICATIONS.

⑦ THE LOCATIONS OF REMOVAL AND REPLACEMENT OF EXISTING CURB OR CURB AND GUTTER SHALL BE DETERMINED BY THE RESIDENT ENGINEER AT THE TIME OF CONSTRUCTION.

PROPOSED 3/4" (20) PREFORMED EXPANSION JOINT AT CONCRETE SIDEWALKS, DRIVEWAYS, AND MEDIANS. (INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.)

UNSUITABLE SUB-BASE MATERIAL TO BE REMOVED, IF DIRECTED BY THE ENGINEER, SHALL BE REPLACED WITH EITHER SUB-BASE GRANULAR MATERIAL, TYPE B OR ADDITIONAL THICKNESS OF CONCRETE.

REMOVAL AND REPLACEMENT 4" (100) OR LESS IS INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

REMOVAL AND REPLACEMENT IN EXCESS OF 4" (100) WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.

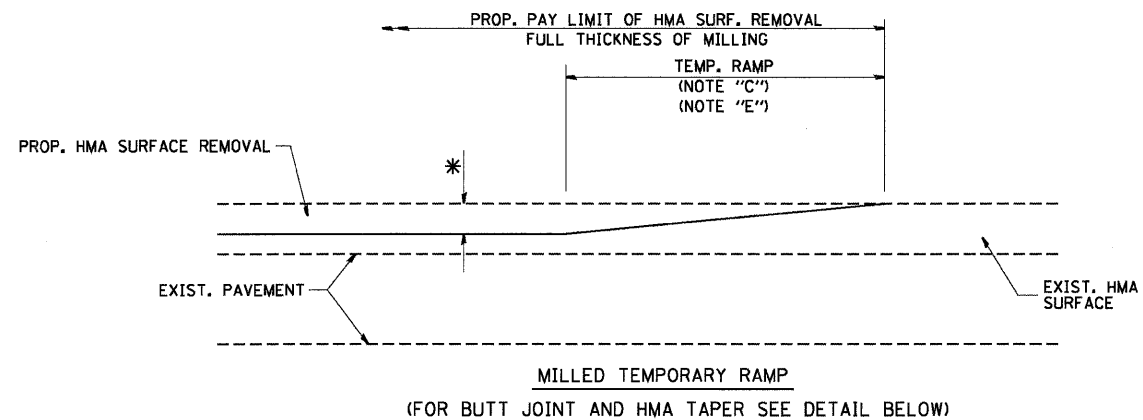
PROPOSED #6 (20) EPOXY COATED TIE BARS 24" (600) LONG AT 24" (600) CENTERS WILL NOT BE PAID FOR SEPARATELY. DELETE EPOXY COATED TIE BARS IF EXISTING TIE BARS ARE USUABLE AS DETERMINED BY THE ENGINEER. (SEE NOTE ③).

**BASIS OF PAYMENT:**  
THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT (METER) FOR "CURB REMOVAL AND REPLACEMENT" OR "COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT".

# CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

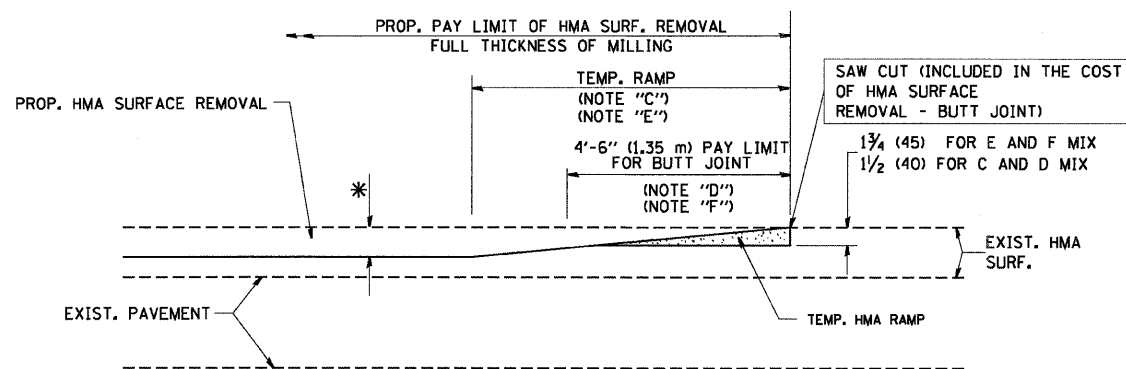
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

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	PLOT SCALE = 5/8" @ 1" IN.	DRAWN -	REVISED - A. ABBAS 03-21-97		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	BD600-06 (BD-24)		CONTRACT NO. 60671		
	PLOT DATE = 1/4/2008	CHECKED -	REVISED - M. GOMEZ 01-22-01									
		DATE - 03-11-94	REVISED - R. BORO 01-01-07		FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT							



MILLED TEMPORARY RAMP  
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

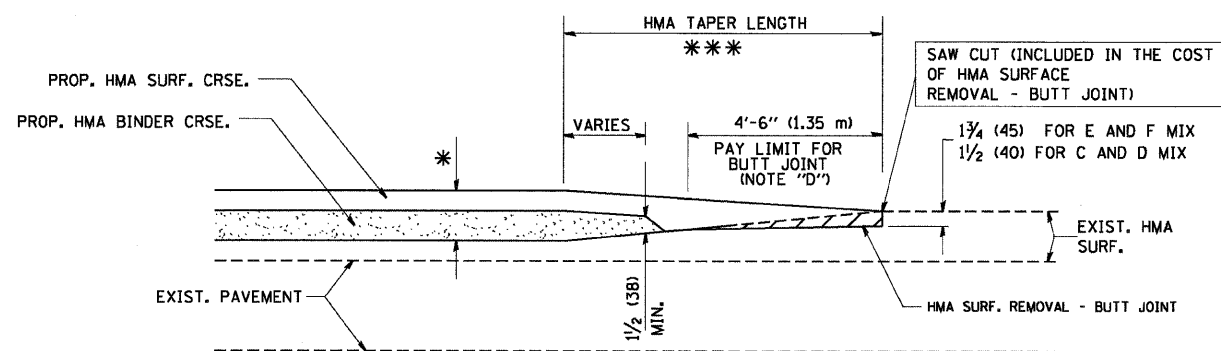
OPTION 1



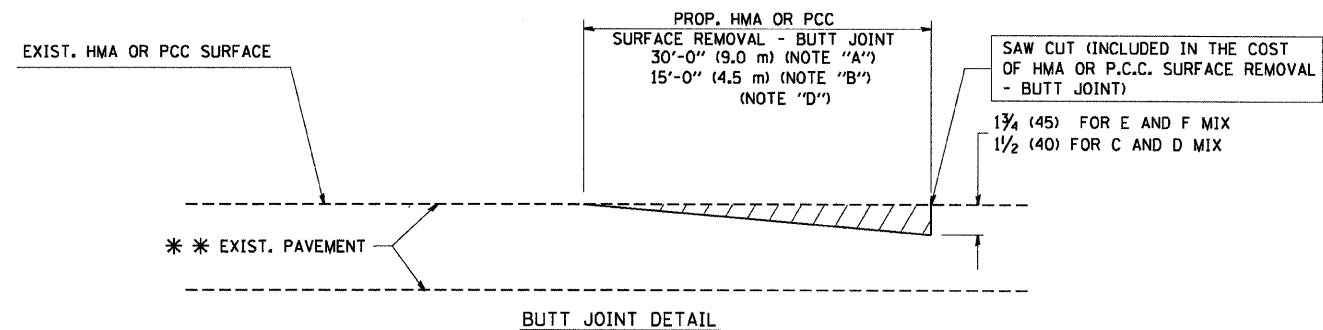
HMA CONSTRUCTED TEMPORARY RAMP  
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

OPTION 2

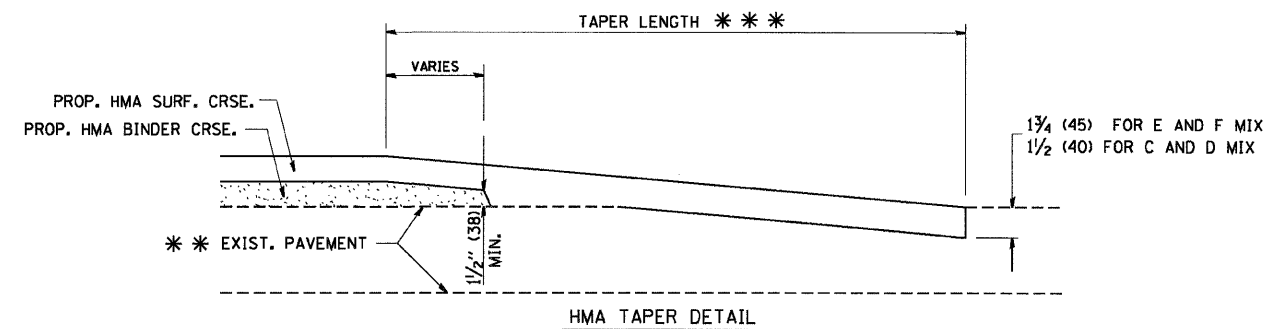
TYPICAL TEMPORARY RAMP



BUTT JOINT AND HMA TAPER  
TYPICAL BUTT JOINT AND HMA TAPER  
FOR MILLING AND RESURFACING



BUTT JOINT DETAIL



HMA TAPER DETAIL

TYPICAL BUTT JOINT AND HMA TAPER  
FOR RESURFACING ONLY

\*\*\* PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

NOTES

- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
- B: MINOR SIDE ROADS.
- C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
- D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
- E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.
- F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT
- G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".
- \* SEE TYPICAL SECTIONS FOR MILLING THICKNESS.
- \*\*\* 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")  
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

BASIS OF PAYMENT:

THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT".

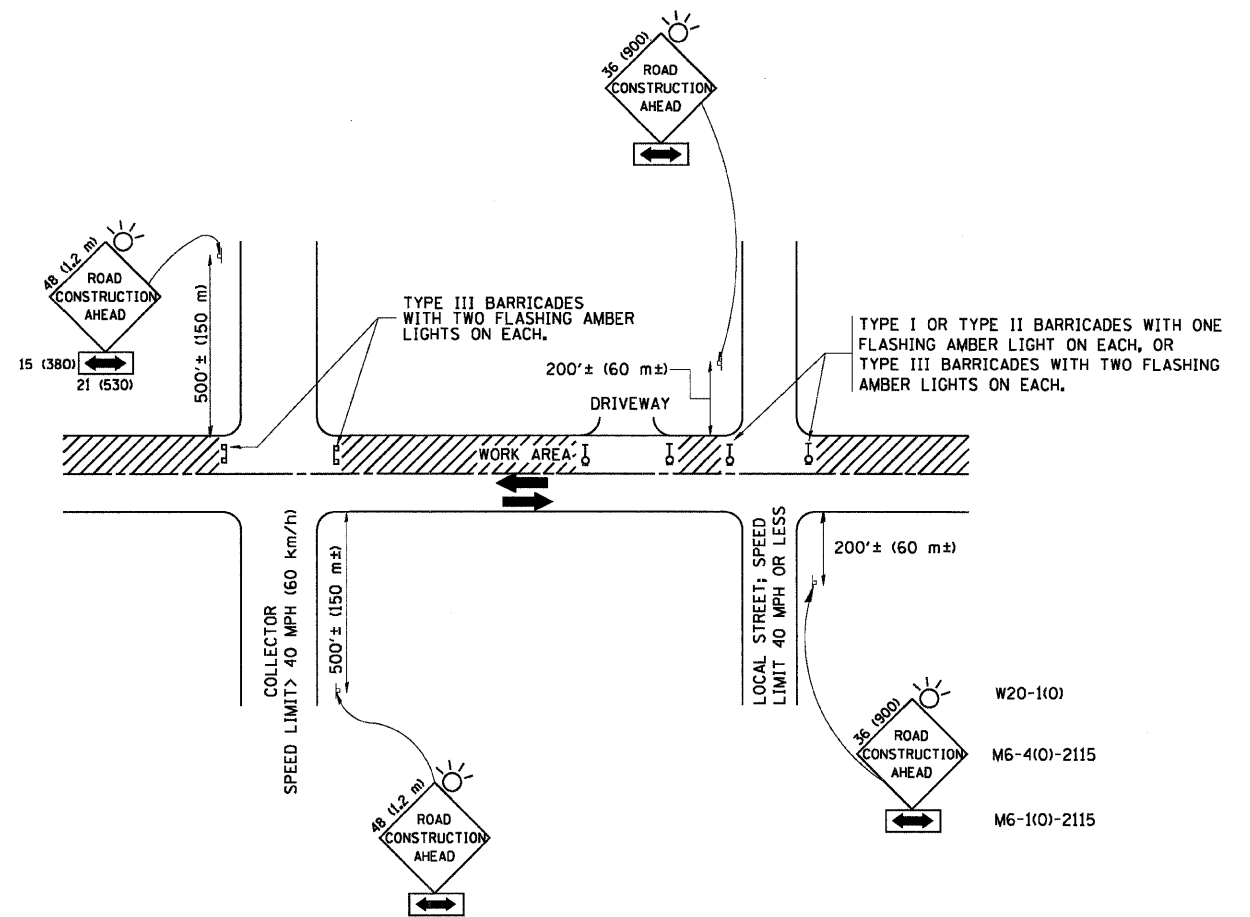
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		DRAWN -	REVISED - A. ABBAS 03-21-97
	PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED - M. GOMEZ 04-06-01
	PLOT DATE = 1/4/2008	DATE - 06-13-90	REVISED - R. BORO 01-01-07

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BUTT JOINT AND HMA TAPER DETAILS			
SCALE: NONE	SHEET NO. 1	OF 1 SHEETS	STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	AY-RS-2	LAKE	25	18
BD400-05 BD32			CONTRACT NO. 60G71	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



**TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS**

**NOTES:**

- A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS**
- SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
    - ONE ROAD CONSTRUCTION AHEAD SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
    - THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
  - SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
    - ONE ROAD CONSTRUCTION AHEAD SIGN 48 x 48 (1,2 m x 1,2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
    - THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
- 3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).**
- B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:**
- USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.
- C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.**
- D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.**

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

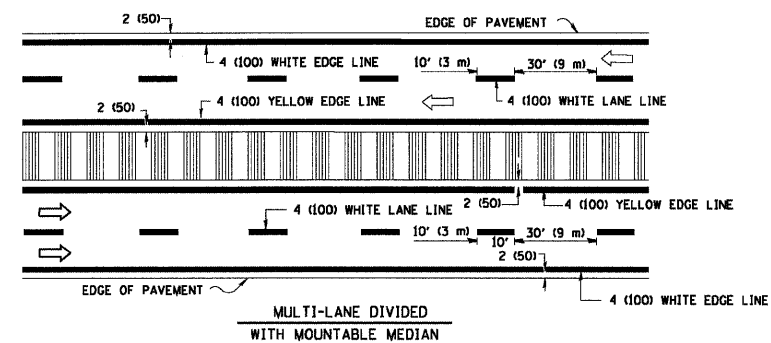
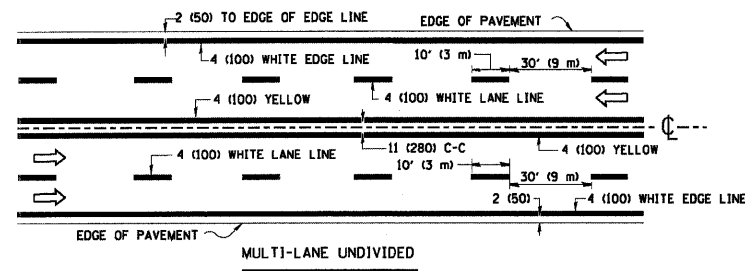
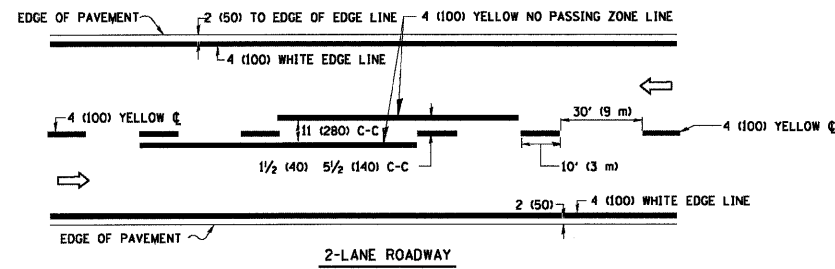
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		DRAWN -	REVISED - A. HOUSEH 03-06-96
	PLOT SCALE = 50,000' / IN.	CHECKED -	REVISED - A. HOUSEH 10-15-96
	PLOT DATE = 1/4/2008	DATE - 06-89	REVISED - T. RAMMACHER 01-06-00

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS</b>			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

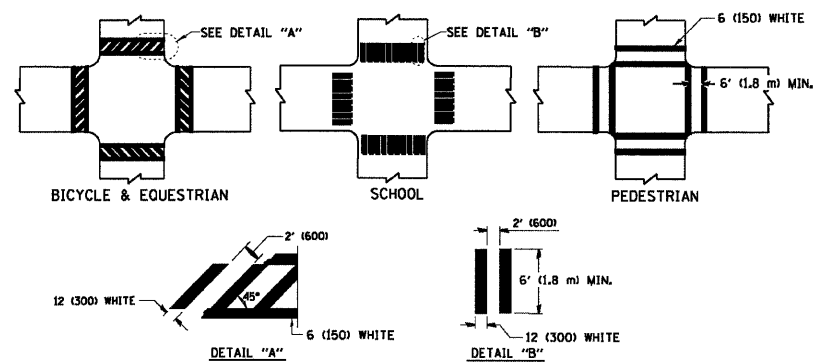
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	AY-RS-2	LAKE	25	19
<b>TC-10</b>			<b>CONTRACT NO. 60671</b>	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



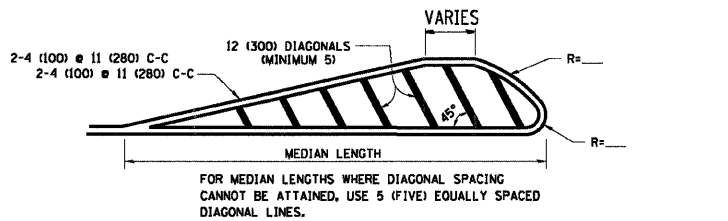
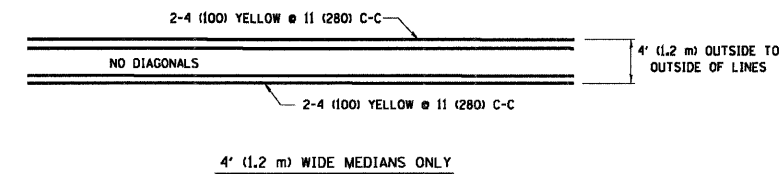


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

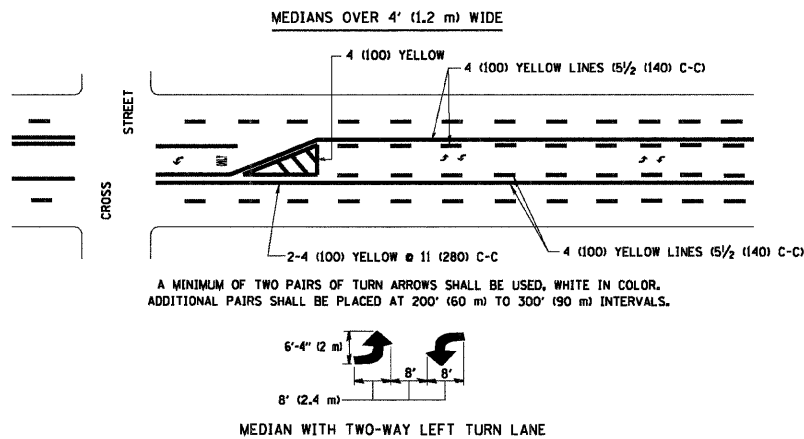
**TYPICAL LANE AND EDGE LINE MARKING**



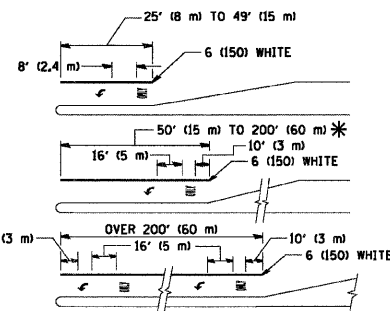
**TYPICAL CROSSWALK MARKING**



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))

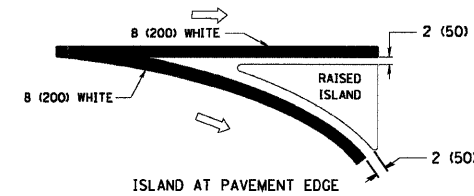
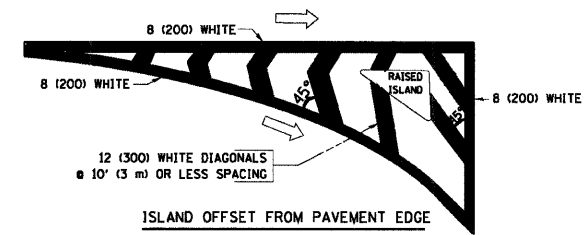


**TYPICAL PAINTED MEDIAN MARKING**



FULL SIZE LETTERS 8" (2.4 m) AND ARROWS SHALL BE USED.  
AREA = 15.6 SQ. FT. (1.5 m<sup>2</sup>) ONLY AREA = 20.8 SQ. FT. (1.9 m<sup>2</sup>)  
\* 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 TURN LANE MARKING**



**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 1/2 (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' (2.4 m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4 m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5 1/2 (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.
CORE 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" 15 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 <sup>2</sup> ) EACH "X"=54.0 SQ. FT. (5.0 m <sup>2</sup> )
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.

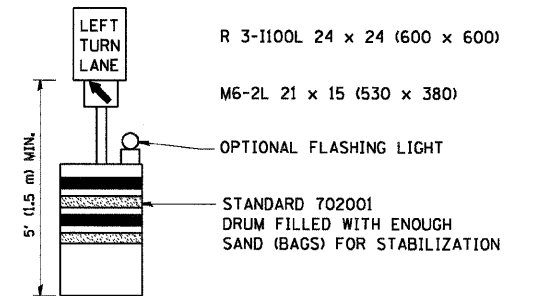
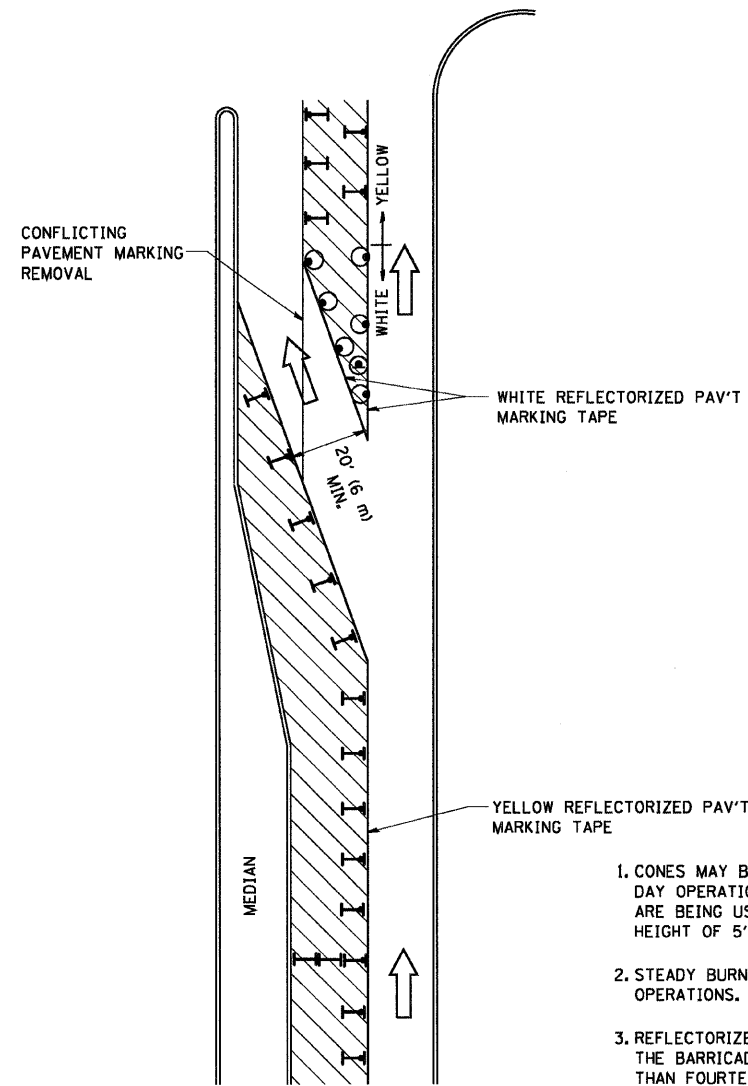
All dimensions are in inches (millimeters) unless otherwise shown.

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	PLOT DATE = 1/4/2008	CHECKED -	REVISED - A. HOUSEH 10-17-96
		DATE - 03-19-90	REVISED - T. RAMMACHER 01-06-00

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

DISTRICT ONE			
TYPICAL PAVEMENT MARKINGS			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A.U. RTE. 2706	SECTION AY-RS-2	COUNTY LAKE	TOTAL SHEETS 25	SHEET NO. 21
TC-13		CONTRACT NO. 60G71		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				









**GENERAL NOTES**

1. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT. WHEN CONES ARE BEING USED, THE "LEFT TURN LANE" SIGN MAY BE SKID MOUNTED AT A MINIMUM HEIGHT OF 5' (1.5 m).
2. STEADY BURNING LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.
3. REFLECTORIZED TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE BARRICADED AREA OF EACH TURN BAY WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS.
4. THIS APPLICATION ALSO APPLIES WHEN WORK IS BEING PERFORMED IN THE RIGHT LANE(S) AND THE RIGHT TURN BAY IS TO REMAIN OPEN. UNDER THIS CONDITION, "RIGHT TURN LANE" R3-100 24 x 24 (600 x 600) AND M6-2R 21 x 15 (530 x 380) SHALL BE USED.
5. THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.
6. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS.
7. FORM BT 725 IS REQUIRED.
8. TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

**LEGEND**

-  WORK AREA
-  LANE OPEN TO TRAFFIC
-  TYPE I OR II BARRICADE WITH STEADY BURN LIGHT
-  DRUM WITH STEADY BURN LIGHT
-  DRUM WITH SIGN (WITH OPTIONAL FLASHING LIGHT) SEE DETAIL
-  TYPE I OR II CHECK BARRICADE WITH FLASHING LIGHT

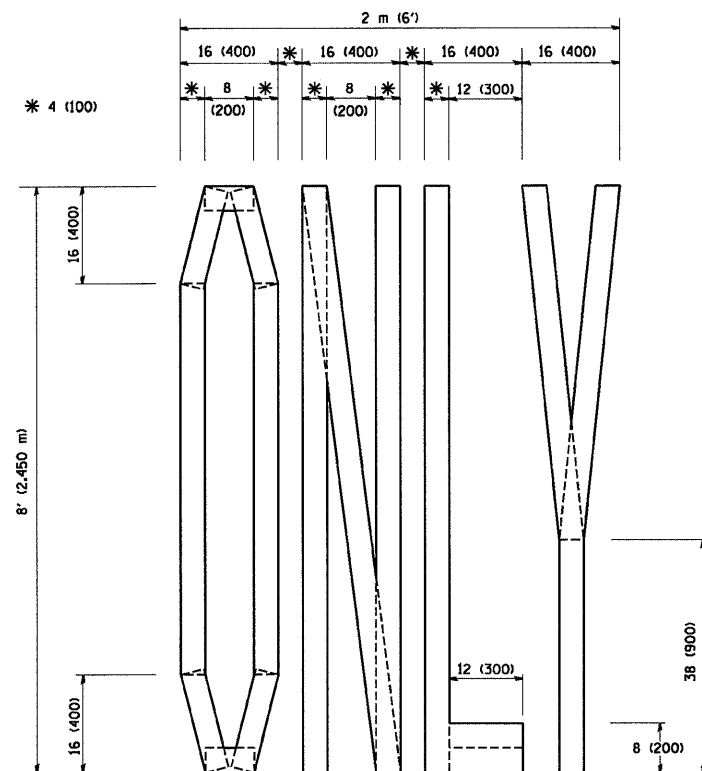
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		DESIGNED - A. HOUSEH 10-12-96	REVISOR - T. RAMMACHER 01-06-00
		CHECKED -	DATE -
		DATE -	

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

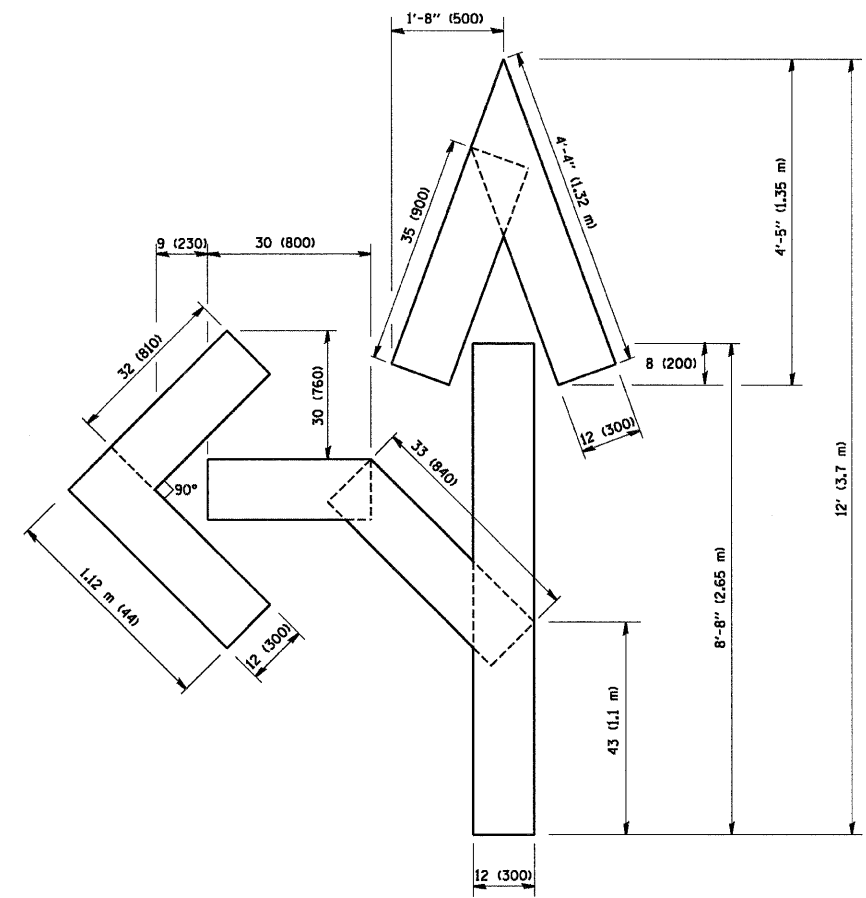
**TRAFFIC CONTROL AND PROTECTION AT TURN BAYS  
(TO REMAIN OPEN TO TRAFFIC)**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

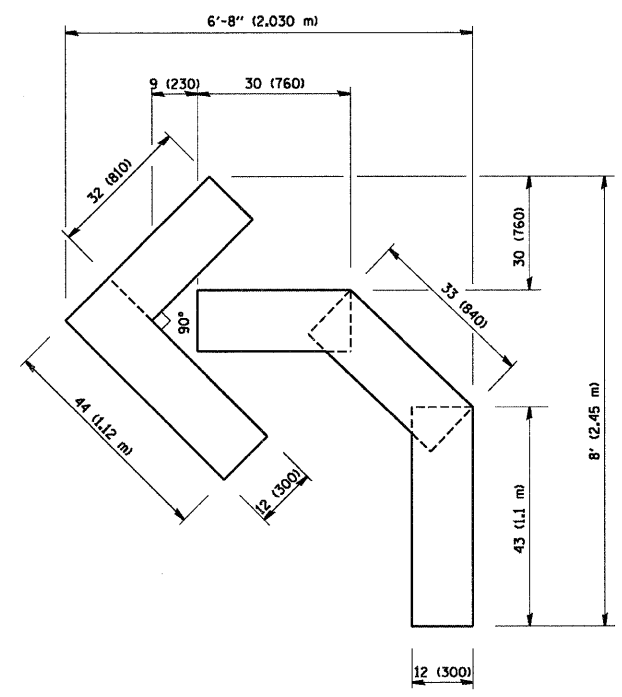
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TC-14			CONTRACT NO. 60G71	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



QUANTITY  
4 (100) LINE = 64.1 ft. (19.7 m)  
21.1 sq. ft. (1.97 sq. m)



QUANTITY  
4 (100) LINE = 82.5 ft. (25.3 m)  
27.5 sq. ft. (2.53 sq. m)



QUANTITY  
4 (100) LINE = 45.5 ft. (13.9 m)  
15.2 sq. ft. (1.39 sq. m)

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

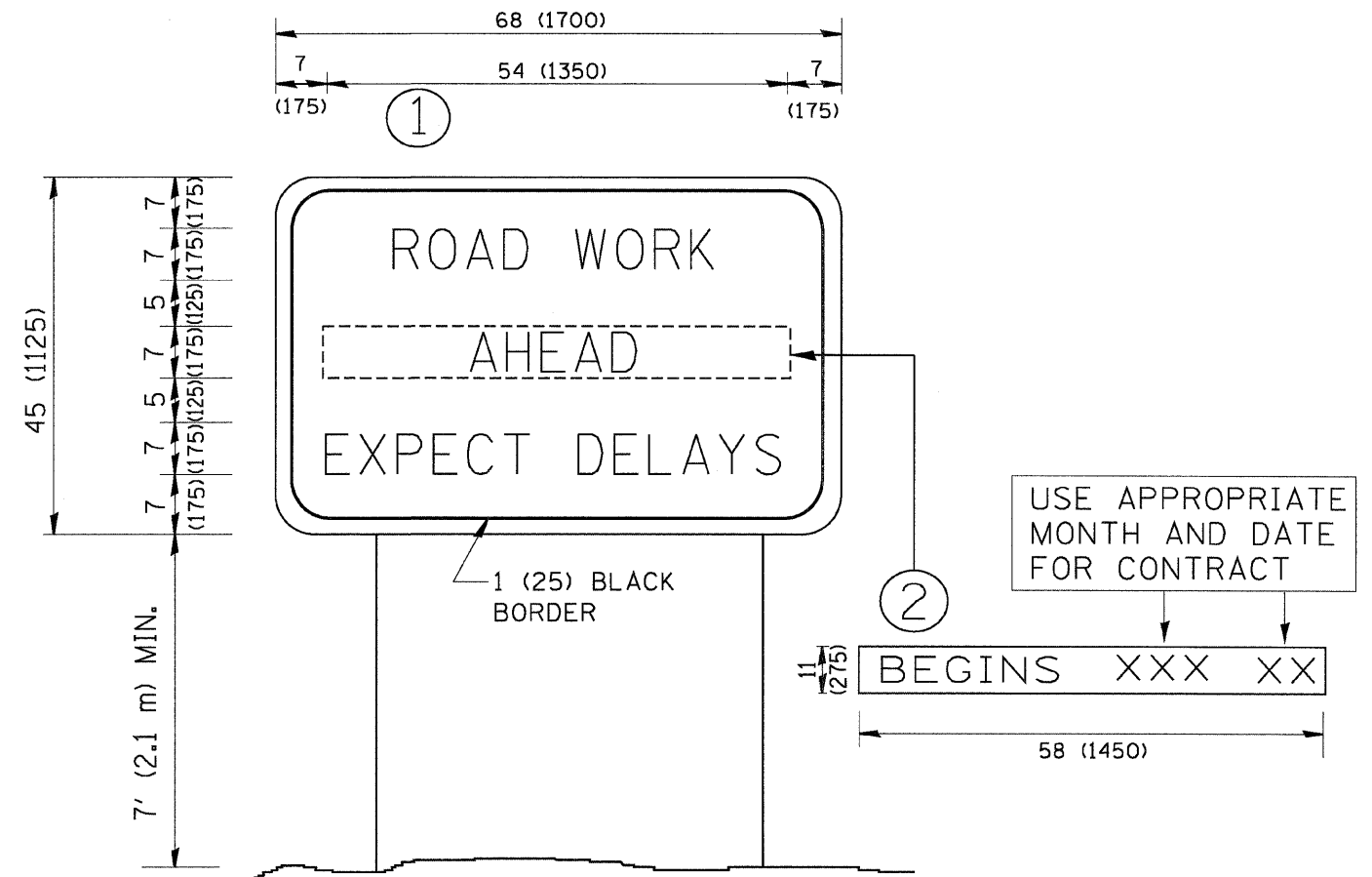
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	PLOT DATE = 1/4/2008	DATE - 09-18-94	REVISED - E. GOMEZ 08-28-00

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING LETTERS AND SYMBOLS  
FOR TRAFFIC STAGING

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	AY-RS-2	LAKE	25	23
TC-16			CONTRACT NO. 60671	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



**NOTES:**

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN ① WITH INSTALLED PANEL ② ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL ② SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

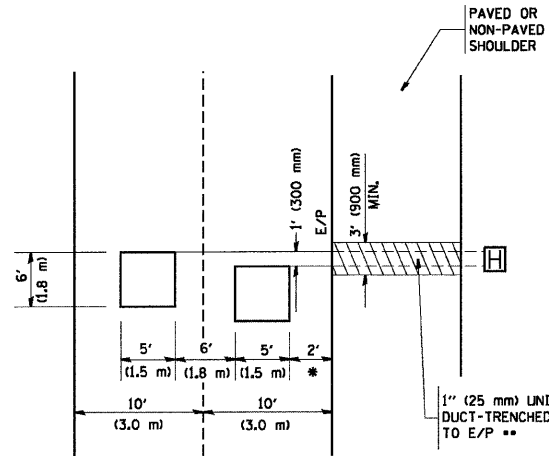
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME = W:\diststd\22x34\to22.dgn	USER NAME = goglianobt	DESIGNED -	REVISED - R. MIRS 09-15-97	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>ARTERIAL ROAD INFORMATION SIGN</b>			F.A.U. RTE. 2706	SECTION AY-RS-2	COUNTY LAKE	TOTAL SHEETS 25	SHEET NO. 24
	PLOT SCALE = 58.000 "/ IN.	DRAWN -	REVISED - R. MIRS 12-11-97		SCALE: NONE	SHEET NO. 1	OF 1	SHEETS	STA.	TO STA.	TC-22 FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT	
	PLOT DATE = 1/4/2008	CHECKED -	REVISED - T. RAMMACHER 02-02-99									
		DATE -	REVISED - C. JUCIUS 01-31-07									
CONTRACT NO. 60671												



**LOOPS NEXT TO SHOULDERS**

PROVIDE A PAVEMENT REPLACEMENT NOTE WHICH SHOULD EQUAL 3' (900 mm) X WIDTH OF PAVED SHOULDER.

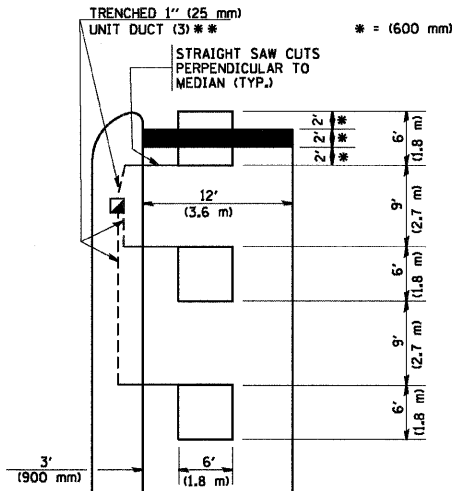


\* = (600 mm)

\*\* UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

**LEFT TURN LANES WITH MEDIANS  
VOLUME DENSITY ("FAR OUT" DETECTION)  
ON SAME APPROACH  
(PROTECTED / PERMITTED LEFT TURN PHASING)**

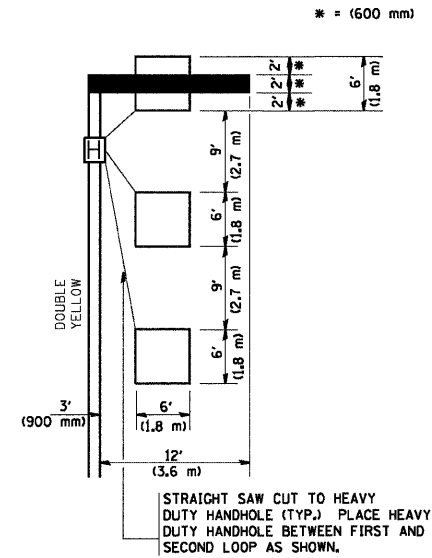
HANDHOLE LOCATION MAY VARY DEPENDING ON GEOMETRICS AND DESIGN OF TRAFFIC SIGNALS. HEAVY-DUTY HANDHOLES TO BE USED WHEN THE MEDIAN IS MOUNTABLE. REFER TO STANDARD 814001 TO ENSURE THAT HANDHOLE FITS IN MEDIAN.



\*\* UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

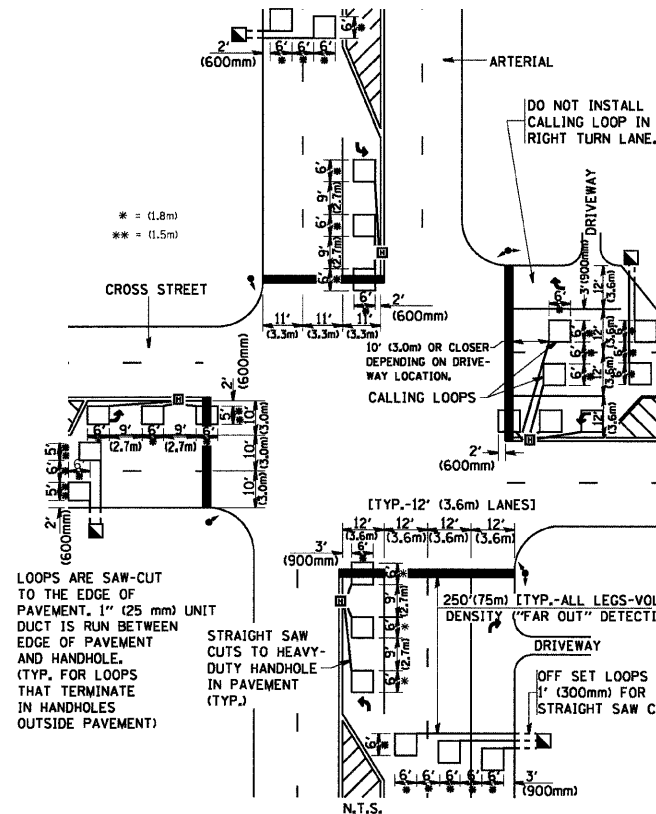
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

**LEFT TURN LANES WITHOUT MEDIANS  
VOLUME DENSITY ("FAR OUT" DETECTION)  
ON SAME APPROACH  
(PROTECTED / PERMITTED LEFT TURN PHASING)**



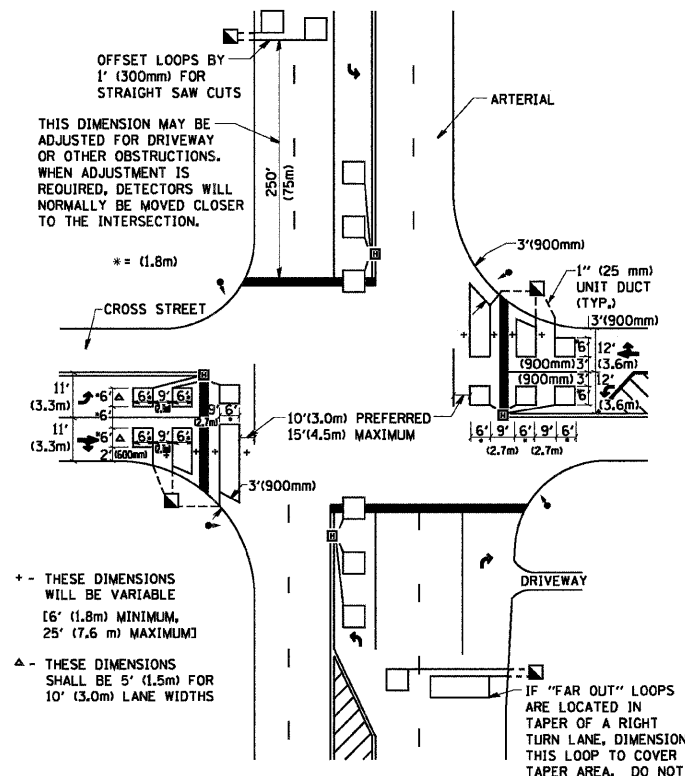
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

**ARTERIAL-VOLUME DENSITY ("FAR OUT" DETECTION)  
CROSS STREET-VOLUME DENSITY ("FAR OUT" DETECTION)**



**DETAIL 1  
N.T.S.**

**ARTERIAL-VOLUME DENSITY ("FAR OUT" DETECTION)  
CROSS STREET-NON VOLUME DENSITY ("UPTIGHT" PRESENCE DETECTION)**



**DETAIL 2  
N.T.S.**

**NOTES:**

**VEHICLES LOOP DETECTORS**

- \* ALL LEAD IN CABLE SHALL BE TWO CONDUCTOR NO. 14 TWISTED, SHIELDED.
- \* EACH DETECTOR LOOP SHALL HAVE ITS OWN SAW CUT FROM THE LOOP TO THE EDGE OF PAVEMENT OR TO A HANDHOLE IN THE PAVEMENT.
- \* EACH DETECTOR LOOP SHALL HAVE ITS OWN ONE INCH (25 mm) UNIT DUCT BETWEEN THE EDGE OF PAVEMENT AND THE FIRST HANDHOLE OR JUNCTION BOX. EACH UNIT DUCT RUN SHALL BE SHOWN ON THE PLANS BY THE DESIGNER, BUT SHALL NOT BE PAID FOR SEPARATELY. THIS ITEM IS INCIDENTAL TO THE PAY ITEM FOR DETECTOR LOOPS.
- \* ONE DIMENSION OF ALL DETECTOR LOOPS SHALL BE SIX FEET (1.8 m)
- \* EACH LANE OF NON-LOCKING, PRESENCE DETECTION AND EACH LANE OF A DOUBLE LEFT TURN LANE REQUIRES A SEPARATE INDUCTIVE LOOP DETECTOR AND LEAD IN CABLE.
- \* WHEN NON-LOCKING, PRESENCE DETECTION IS USED, MORE THAN ONE LOOP PER LANE IS REQUIRED BEHIND THE STOP BAR (i.e. 1-1/2, 1-3/4, 2).
- \* WHEN SYSTEM LOOPS ARE REQUIRED ON AN APPROACH OF AN INTERSECTION, THE LOOPS USED FOR VOLUME DENSITY AND INTERSECTION TIMING SHALL ALSO BE USED AS SYSTEM DETECTORS. EACH ONE OF THESE TYPE OF LOOPS REQUIRES A SEPARATE TWO CONDUCTOR NO. 14 TWISTED SHIELDED CABLE AND A SEPARATE INDUCTIVE LOOP DETECTOR WHEN NEW CONTROLLERS ARE UTILIZED. THE DESIGNER SHALL LABEL THESE TYPES OF LOOPS AS "INTERSECTION AND SAMPLING (SYSTEM) DETECTORS" ON THE SIGNAL LAYOUT, THE INTERCONNECT PLAN AND THE SYSTEM CABLE PLAN. WHEN AN EXISTING CONTROLLER IS UTILIZED FOR THIS TYPE OF DETECTION, THE PAY ITEM "INDUCTIVE LOOP DETECTOR WITH SYSTEM OUTPUT" SHOULD BE USED.

**PLACEMENT OF DETECTORS**

THE FOLLOWING FIGURES REPRESENT THE MOST COMMON DETECTOR LOOP LOCATIONS AND SIZES. ADJUSTMENTS WILL BE NECESSARY FOR SPECIFIC GEOMETRIC CONSIDERATIONS.

LOCATIONS AND DEMENSIONS OF DETECTOR LOOPS ARE REQUIRED ON ALL SIGNAL LAYOUT PLAN SHEETS.

"FAR OUT" DETECTION REFERS TO LOCKING, PRESENCE TYPE DETECTION LOCATED IN THRU LANES, RIGHT TURN LANES, AND RIGHT TURN LANE TAPER AREAS (IF APPLICABLE), USUALLY 250' (75 m) IN ADVANCE OF STOP BARS. "UPTIGHT" DETECTION REFERS TO NON-LOCKING PRESENCE TYPE DETECTION LOCATED IN ALL LANES AND 10'-15' (3.0 m-4.5 m) BEHIND THE CROSSING STREET'S EDGE OF PAVEMENT EXTENDED.

**NOTE:**

ALL DETAILS AND NOTES SHOWN ARE FROM THE I.D.O.T. DISTRICT 1 TRAFFIC SIGNAL DESIGN GUIDELINES DATED JANUARY 1995

THIS DRAWING HAS BEEN PREPARED TO ASSIST THE RESIDENT ENGINEER FOR ALL ROADWAY RESURFACING OR S.M.A.R.T. PROJECTS WHERE THE DIMENSIONS ARE NOT SHOWN ON THE PLANS AND THE FINAL LOCATIONS FOR CROSSWALKS OR STOP BARS ARE NOT DETERMINED.

FILE NAME =	USER NAME = gaglianobt
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PLOT SCALE = 50.0000" / IN.	
PLOT DATE = 1/4/2008	

DESIGNED -	REVISED -
DRAWN -	REVISED -
CHECKED - R.K.F.	REVISED -
DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>DISTRICT 1 - DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING</b>			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	

F.A.U. RTE. 2706	SECTION AY-RS-2	COUNTY LAKE	TOTAL SHEETS 25	SHEET NO. 25
<b>TS-07</b>			<b>CONTRACT NO. 60G71</b>	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				