

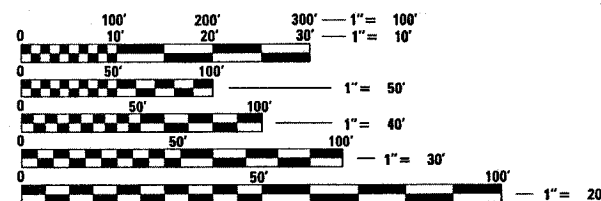
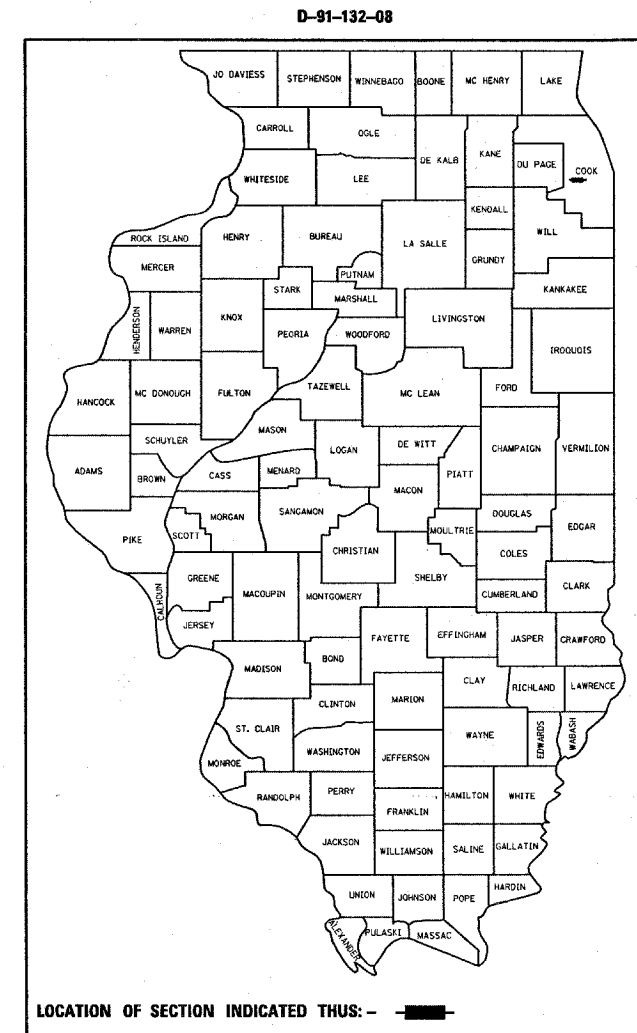
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
029	29R-RS-3	COOK	33	1
FED. ROAD DIST. NO. 1	ILLINOIS	CONTRACT NO. 60D94		

FOR INDEX OF SHEETS, SEE SHEET NO. 2

**PROPOSED  
HIGHWAY PLANS**  
F.A.P. 029 (US 12 /20 (95TH ST.))  
**US 45 (LA GRANGE RD.) TO I-294 (TRI-STATE TOLLWAY)**  
**RESURFACING (MAINTENANCE)**  
SECTION NO: 29R-RS-3  
PROJECT: ACNHF-0029(111)  
**COOK COUNTY**  
C-91-132-08

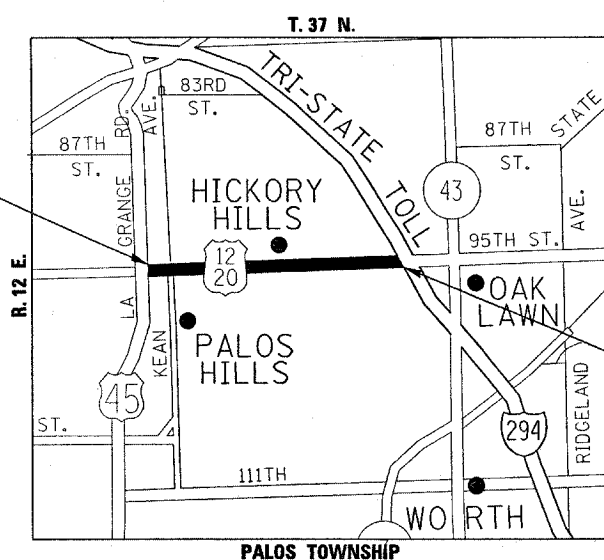
PROJECT LOCATED IN THE CITIES  
OF PALOS HILLS AND HICKORY HILLS



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

PROJECT BEGINS  
STA. 31 + 28



TRAFFIC DATA:  
2005 ADT - 15500 TO 33000  
SPEED LIMIT - 30 TO 40 MPH

PROJECT ENDS  
STA. 132 + 27

PROJECT ENGINEER: J. CHANG (847) 705-4432  
PROJECT MANAGER: KEN ENG (847) 705-4247

GROSS AND NET LENGTH OF PROJECT = 10099 LIN FT. - 1.91 MILES

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED April 2, 2008

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

May 9, 2008  
Eric E. Harn  
INTERIM ENGINEER OF DESIGN AND ENVIRONMENT

May 9, 2008  
Christina M. Reed  
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS

CONTRACT NO. 60D94

INDEX OF SHEETS

<u>SHEET NO.</u>	<u>DESCRIPTION</u>
1	COVER SHEET
2	INDEX OF SHEETS, STATE STANDARDS, AND GENERAL NOTES
3	SUMMARY OF QUANTITIES
4-9	EXISTING AND PROPOSED TYPICAL SECTIONS
10-14	ROADWAY AND PAVEMENT MARKING PLANS
15	DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING
16	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT
17	CURB OF CURB AND GUTTER REMOVAL AND REPLACEMENT
18	BUTT JOINT AND HMA TAPER DETAILS
19	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS
20	TYPICAL APPLICATIONS FOR RAISED REFLECTIVE PAVEMENT MARKERS (SNOW PLOW RESISTANT)
21	DISTRICT ONE TYPICAL PAVEMENT MARKING
22	TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)
23	TEMPORARY PAVEMENT MARKING--LETTERS AND SYMBOLS FOR TRAFFIC STAGING
24-27	STANDARD TRAFFIC SIGNAL DESIGN DETAILS
28	DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING
29-32	DETECTOR LOOP LOCATION DETAILS
33	ARTERIAL ROAD INFORMATION SIGNING

STATE STANDARDS

- 000001-05 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- 442201-03 CLASS C AND D PATCHES
- 604011-03 FRAME AND LIDS, TYPE 1
- 606001-03 CONCRETE CURB AND COMBINATION CONCRETE CURB AND GUTTER
- 701601-05 LANE CLOSURE, MULTILANE, 1-W OR 2-W, WITH NON TRANSVERSABLE MEDIAN
- 701602-03 URBAN LANE CLOSURE, MULTILANE 2W WITH BI-DIRECTIONAL LEFT TURN LANE
- 701606-05 URBAN LANE CLOSURE, MULTILANE 2-W WITH MOUNTABLE MEDIAN
- 701701-05 LANE CLOSURE, MULTILANE, INTERSECTION, FOR SPEEDS < 45 MPH
- 701801-03 LANE CLOSURE, MULTILANE, 1W OR 2W, CROSSWALK OR SIDEWALK CLOSURE
- 701901 TRAFFIC CONTROL DEVICES
- 780001-01 TYPICAL PAVEMENT MARKINGS
- 781001-02 TYPICAL APPLICATION RAISED REFLECTIVE PAVEMENT MARKERS
- 886001 DETECTOR LOOP INSTALLATIONS
- 886006 TYPICAL LAYOUT FOR DETECTION LOOPS

GENERAL NOTES

BEFORE STARTING ANY EXCAVATION THE CONTRACTOR SHALL CALL "JULIE" AT 800-892-0123 OR "CUAN" (CHICAGO UTILITY ALERT NETWORK) AT 312-744-7000 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS FACILITIES. (48 HOUR NOTIFICATION IS REQUIRED).

10 FEET (3 METERS) TRANSITIONS SHALL BE USED TO MATCH PROPOSED CURB AND GUTTER AND MEDIAN ITEMS OF WORK TO EXISTING CURBS AND GUTTERS AND MEDIANS IN THE FIELD, UNLESS OTHERWISE SHOWN. THE TRANSITION SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PROPOSED ITEMS OF WORK SPECIFIED.

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH THE UTILITY COMPANIES AND THE CITIES OF PALOS HILLS AND HICKORY HILLS.

THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.

THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR CORY JUCIUS AT (847) 705-4470 A MINIMUM OF 72 HOURS PRIOR TO START OF WORK.

WHEN MILLED PAVEMENT IS OPEN TO TRAFFIC THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED 1 1/2 INCHES (40 MM) WHERE THE SPEED LIMIT IS 45 MPH (80 KM/H). WITH WRITTEN APPROVAL FROM THE ENGINEER, A MAXIMUM GRADE DIFFERENTIAL OF 3 INCHES (75 MM) MAY BE ALLOWED IF THE EDGE OF THE MILLING IS SLOPED A MINIMUM 1:3 (V:H).

BUTT JOINTS WILL BE INSTALLED AT THE ENDS 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.

FILE NAME = c:\projects\dl13208\sh_rdw.dgn	USER NAME = steedpa	DESIGNED - DRAWN -	REVISED - REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>INDEX OF SHEETS, STATE STANDARDS, AND GENERAL NOTES</b> US 12/ 20 (95TH ST.)--US 45 (LA GRANGE RD.) TO I-294 (TRI-STATE TOLLWAY)	F.A.P. RTE. 029	SECTION 29R-RS-3	COUNTY COOK	TOTAL SHEETS 33	SHEET NO. 2	
PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED -	SCALE:			SHEET NO. OF SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT			
PLOT DATE = 4/1/2008	DATE -	REVISED -	CONTRACT NO. 60D94								

SUMMARY OF QUANTITIES			URBAN 80% FED. 20% STATE TOTAL		CONSTRUCTION TYPE CODE				
CODE NO	ITEM	UNIT	QUANTITIES	I000-2A					
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	26	26					
40600300	AGGREGATE (PRIME COAT)	TON	129	129					
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	20	20					
40600895	CONSTRUCTING TEST STRIP	EACH	1	1					
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SO YD	322	322					
40600990	TEMPORARY RAMP	SO YD	322	322					
40601005	HOT-MIX ASPHALT REPLACEMENT OVER PATCHES	TON	786	786					
40603595	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90	TON	6315	6315					
42001300	PROTECTIVE COAT	SO YD	282	282					
44000159	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/2"	SO YD	64433	64433					
44001700	COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	1447	1447					
44002224	HOT-MIX ASPHALT REMOVAL OVER PATCHES, 6"	SO YD	2338	2338					
44201753	CLASS D PATCHES, TYPE II, 9 INCH	SO YD	1006	1006					
44201757	CLASS D PATCHES, TYPE III, 9 INCH	SO YD	716	716					
44201759	CLASS D PATCHES, TYPE IV, 9 INCH	SO YD	521	521					
<input type="checkbox"/> 55039700	STORM SEWERS TO BE CLEANED	FOOT	1000	1000					
60300305	FRAMES AND LIDS TO BE ADJUSTED	EACH	8	8					
60300310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	23	23					
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	3	3					
67100100	MOBILIZATION	L SUM	1	1					
70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	1	1					
70102630	TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L SUM	1	1					
70102632	TRAFFIC CONTROL AND PROTECTION, STANDARD 701602	L SUM	1	1					
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1					
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1	1					

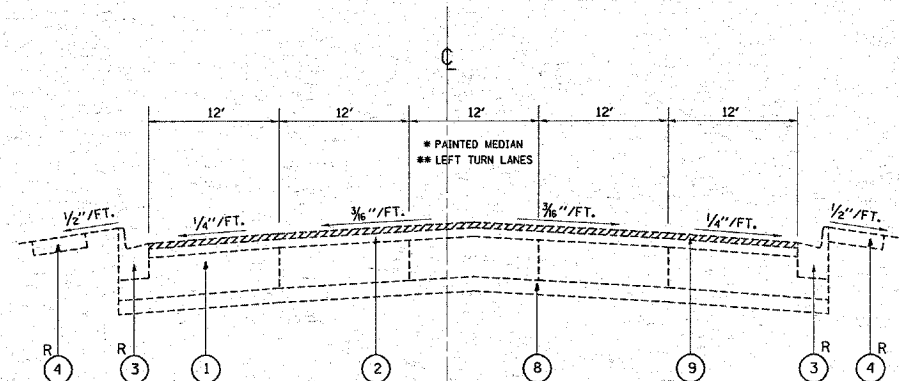
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CODE NO	ITEM	UNIT	QUANTITIES	I000-2A					
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	10671	10671					
70300210	TEMPORARY PAVEMENT MARKING - LETTERS AND SYMBOLS	SO FT	695	695					
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	27944	27944					
70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	1756	1756					
70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	FOOT	1576	1576					
70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	580	580					
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SO FT	14810	14810					
*78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SO FT	695	695					
*78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	27944	27944					
*78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	1756	1756					
*78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	1576	1576					
*78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	580	580					
*78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	956	956					
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	813	813					
*88600600	DETECTOR LOOP REPLACEMENT	FOOT	2304	2304					
X0322256	TEMPORARY INFORMATION SIGNING	SO FT	51.4	51.4					
X0656100	DRIVEWAY PAVEMENT REMOVAL AND REPLACEMENT	SO YD	4650	4650					
X4067107	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	TON	2537	2537					
<input type="checkbox"/> Z0018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	31	31					
<input checked="" type="checkbox"/> Z0076600	TRAINERS	HOUR	2000	2000					

\* SPECIALITY ITEMS  
 NON-PARTICIPATING ITEMS  
 Y080

REVISIONS	
NAME	DATE

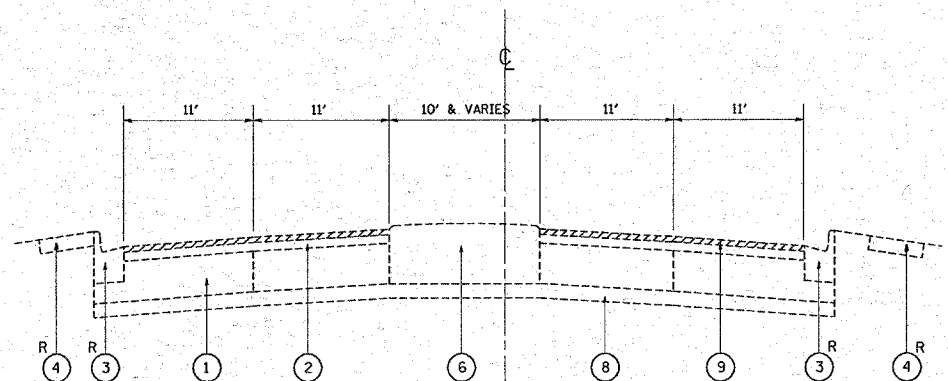
ILLINOIS DEPARTMENT OF TRANSPORTATION  
SUMMARY OF QUANTITIES  
F.A.P. 029 (US 12/20 (95TH ST.))  
US 45 (LA GRANGE RD.)  
TO I-294 (TRI-STATE TOLLWAY)

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EXISTING TYPICAL CROSS SECTION  
STA. 31+28 TO 52+89

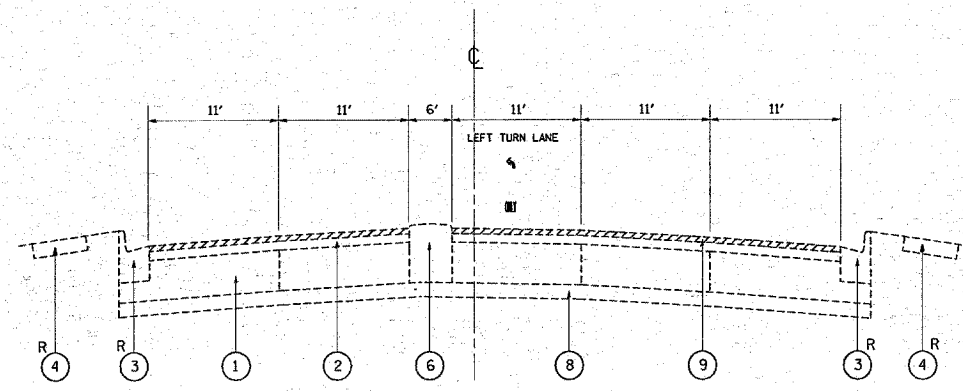
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 \* STA. 31+28 TO STA. 32+20  
 STA. 35+10 TO STA. 46+49  
 STA. 48+04 TO STA. 52+89  
 \*\*\* STA. 32+20 TO STA. 33+18  
 STA. 34+16 TO STA. 35+10  
 STA. 47+07 TO STA. 48+05



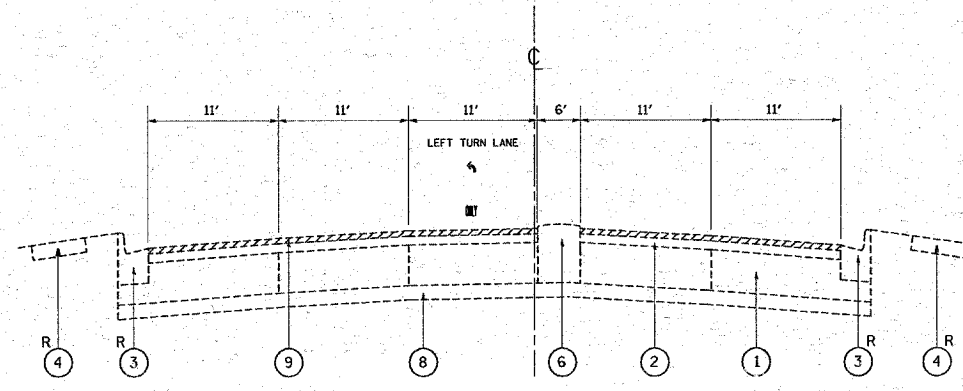
EXISTING TYPICAL CROSS SECTION  
STA. 52+89 TO 56+00

**LEGEND:**

- ① EXIST. P.C.C. PAVEMENT, ±9"
  - ② EXIST. HOT-MIX ASPHALT SURFACE, ±3"
  - ③ EXIST. COMB. CONC. CURB AND GUTTER, TYPE B-6.24
  - ④ EXIST. P.C.C. SIDEWALK
  - ⑤ EXIST. P.C.C. SHOULDER, 10'
  - ⑥ EXIST. CORRUGATED MEDIAN
  - ⑦ EXIST. BARRIER MEDIAN
  - ⑧ EXIST. STABILIZED SUB-BASE
  - ⑨ PROP. HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/2"
  - ⑩ PROP. POLYMERIZED LEVELING BINDER (MACHINE METHOD), SUPERPAVE, IL-4.75, N50, 3/4"
  - ⑪ PROP. POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, 1 3/4"
- R CURB AND GUTTER AND SIDEWALK REMOVAL AND REPLACEMENT  
(LOCATION AS DIRECTED BY THE ENGINEER)

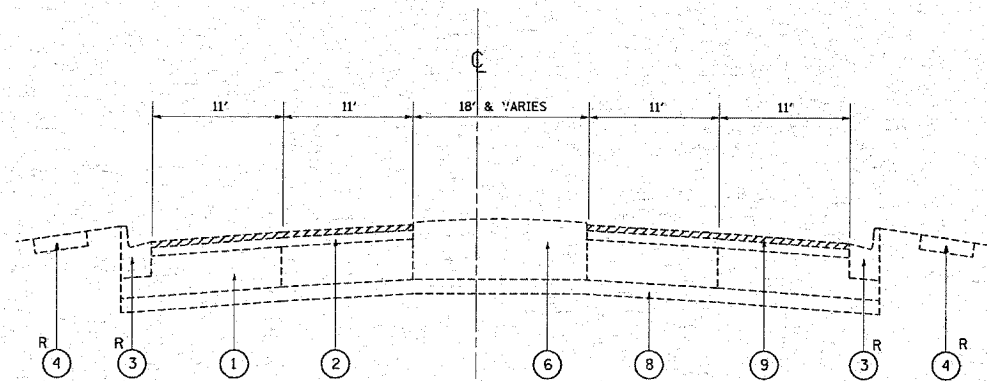


EXISTING TYPICAL CROSS SECTION  
STA. 56+00 TO 59+77

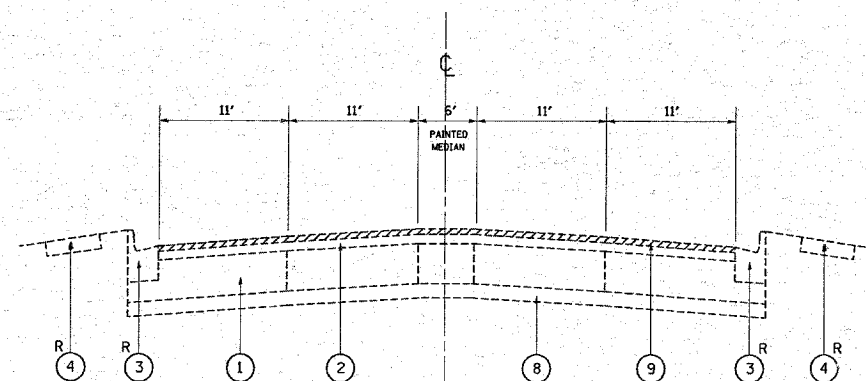


EXISTING TYPICAL CROSS SECTION  
STA. 59+77 TO 64+41

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	PLOT SCALE = 50.0000' / IN.	DRAWN -	REVISED -		US 12/ 20 (95TH ST.)--US 45 (LA GRANGE RD.) TO I-294 (TRI-STATE TOLLWAY)			029	29R-RS-3	COOK	33	4	
	PLOT DATE = 4/1/2008	CHECKED -	REVISED -		SCALE:	SHEET NO.	OF	SHEETS	STA.	TO	STA.	CONTRACT NO. 60D94	
		DATE -	REVISED -		FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT								



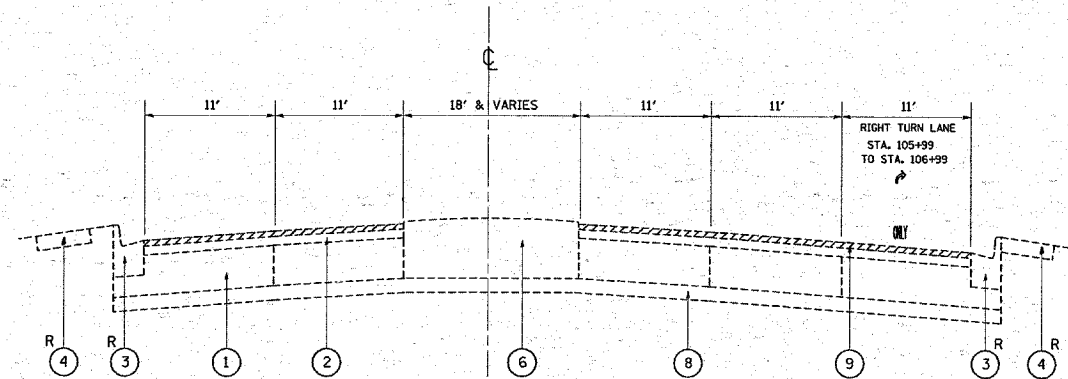
EXISTING TYPICAL CROSS SECTION  
STA. 64+41 TO 67+90



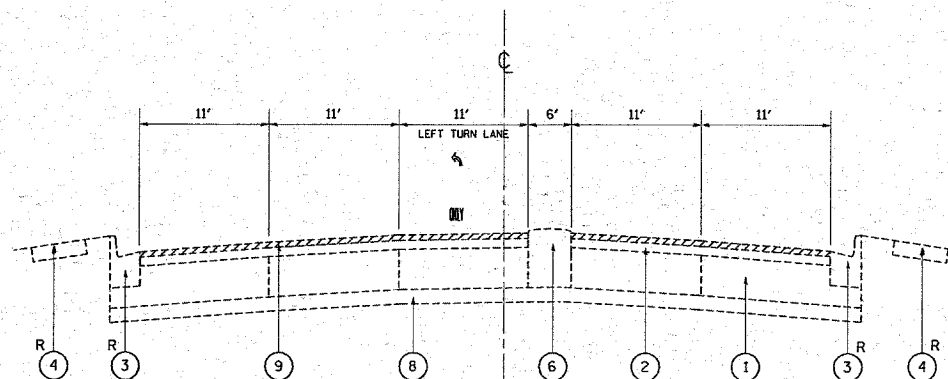
EXISTING TYPICAL CROSS SECTION  
STA. 67+90 TO 103+85

**LEGEND:**

- ① EXIST. P.C.C. PAVEMENT, ±9"
  - ② EXIST. HOT-MIX ASPHALT SURFACE, ±3"
  - ③ EXIST. COMB. CONC. CURB AND GUTTER, TYPE B-6.24
  - ④ EXIST. P.C.C. SIDEWALK
  - ⑤ EXIST. P.C.C. SHOULDER, 10'
  - ⑥ EXIST. CORRUGATED MEDIAN
  - ⑦ EXIST. BARRIER MEDIAN
  - ⑧ EXIST. STABILIZED SUB-BASE
  - ⑨ PROP. HOT-MIX ASPHALT SURFACE REMOVAL, 2½"
  - ⑩ PROP. POLYMERIZED LEVELING BINDER (MACHINE METHOD), SUPERPAVE, IL-4.75, N50, ¾"
  - ⑪ PROP. POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, 1¾"
- R. CURB AND GUTTER AND SIDEWALK REMOVAL AND REPLACEMENT  
(LOCATION AS DIRECTED BY THE ENGINEER)



EXISTING TYPICAL CROSS SECTION  
STA. 103+85 TO 107+27



EXISTING TYPICAL CROSS SECTION  
STA. 107+27 TO 110+23

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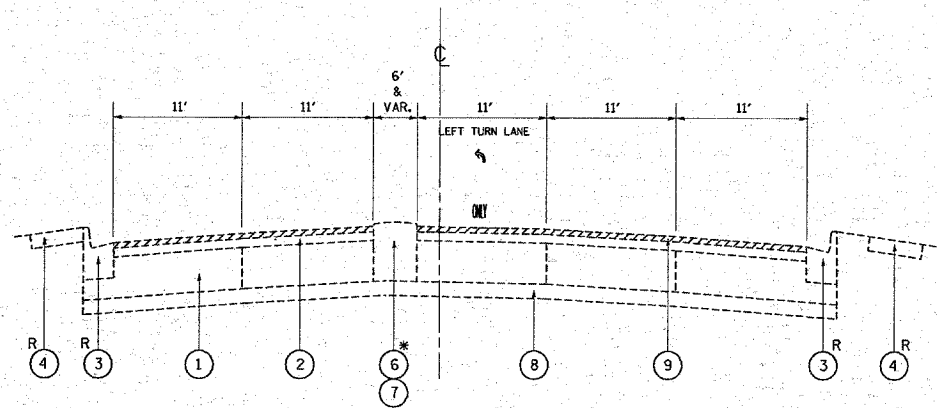
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

EXISTING TYPICAL CROSS SECTIONS  
US 12/ 20 (95TH ST.)--US 45 (LA GRANGE RD.) TO I-294 (TRI-STATE TOLLWAY)  
SCALE: SHEET NO. OF SHEETS STA. TO STA.

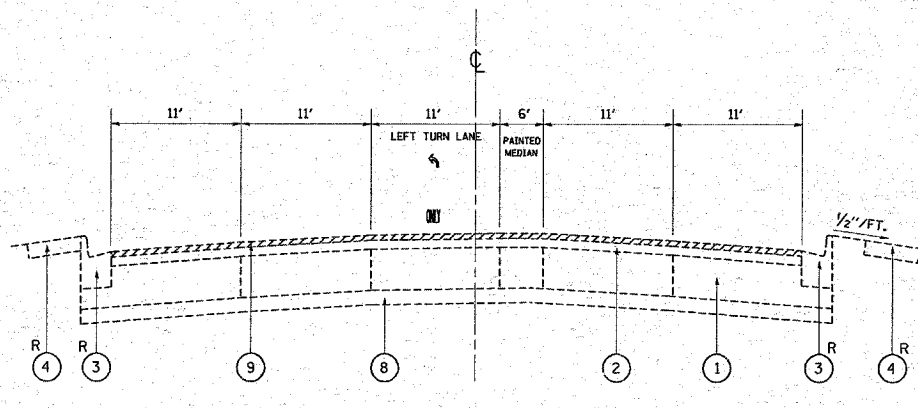
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029	29R-RS-3	COOK	33	5
CONTRACT NO. 60D94				
FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT				



EXISTING TYPICAL CROSS SECTION  
STA. 110+23 TO 112+46

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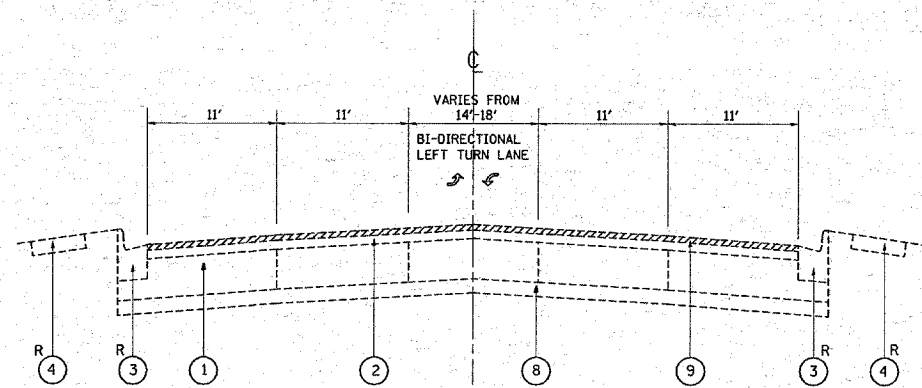
- \* CORRUGATED MEDIAN STA. 110+23 TO STA. 111+23
- CONC. BARRIER MEDIAN STA. 111+23 TO STA. 112+27



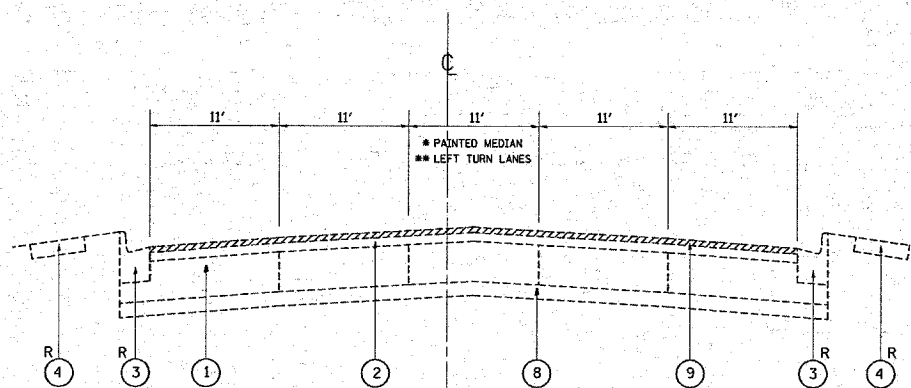
EXISTING TYPICAL CROSS SECTION  
STA. 112+46 TO 114+84

**LEGEND:**

- ① EXIST. P.C.C. PAVEMENT, ±9"
  - ② EXIST. HOT-MIX ASPHALT SURFACE, ±3"
  - ③ EXIST. COMB. CONC. CURB AND GUTTER, TYPE B-6.24
  - ④ EXIST. P.C.C. SIDEWALK
  - ⑤ EXIST. P.C.C. SHOULDER, 10'
  - ⑥ EXIST. CORRUGATED MEDIAN
  - ⑦ EXIST. BARRIER MEDIAN
  - ⑧ EXIST. STABILIZED SUB-BASE
  - ⑨ PROP. HOT-MIX ASPHALT SURFACE REMOVAL, 2½"
  - ⑩ PROP. POLYMERIZED LEVELING BINDER (MACHINE METHOD), SUPERPAVE, IL-4.75, N50, ¾"
  - ⑪ PROP. POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, 1¾"
- R CURB AND GUTTER AND SIDEWALK REMOVAL AND REPLACEMENT  
(LOCATION AS DIRECTED BY THE ENGINEER)

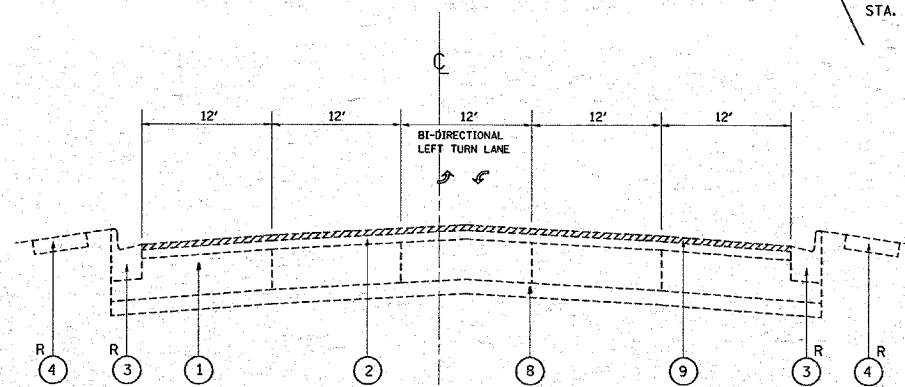


EXISTING TYPICAL CROSS SECTION  
STA. 114+84 TO 119+38



EXISTING TYPICAL CROSS SECTION  
STA. 119+38 TO 129+32

- LEGEND:**
- \* STA. 119+81 TO STA. 120+86
  - STA. 124+62 TO STA. 125+59
  - STA. 126+43 TO STA. 127+33
  - \*\* STA. 120+86 TO STA. 122+29
  - STA. 122+96 TO STA. 124+62
  - STA. 127+33 TO STA. 129+10



EXISTING TYPICAL CROSS SECTION  
STA. 129+32 TO 132+27

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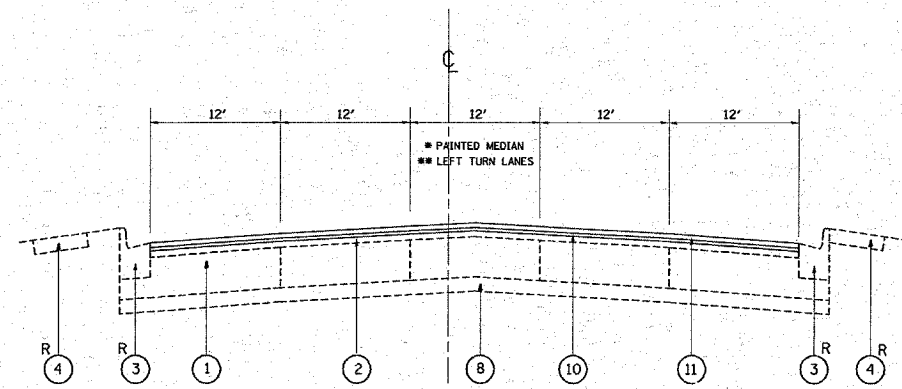
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PLOT SCALE = 50.0000' / IN.  
PLOT DATE = 4/1/2008

DESIGNED -	REVISED -
DRAWN -	REVISED -
CHECKED -	REVISED -
DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

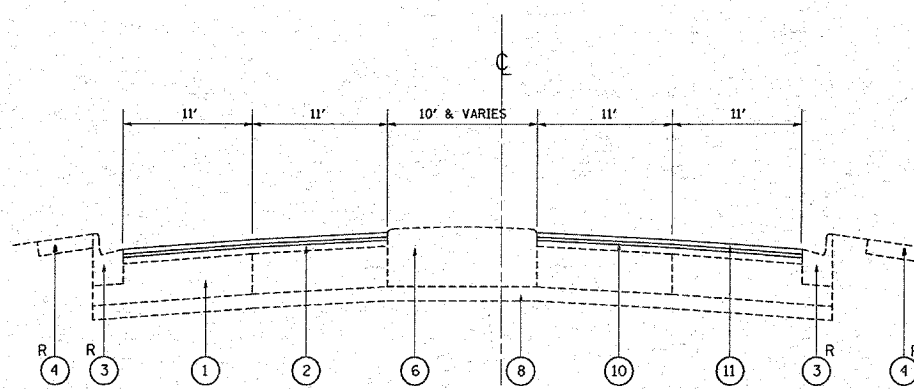
EXISTING TYPICAL CROSS SECTIONS  
US 12/ 20 (95TH ST.)--US 45 (LA GRANGE RD.) TO I-294 (TRI-STATE TOLLWAY)  
SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
029	29R-RS-3	COOK	33	6
CONTRACT NO. 60D94				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



PROPOSED TYPICAL CROSS SECTION  
STA. 31+28 TO 52+89

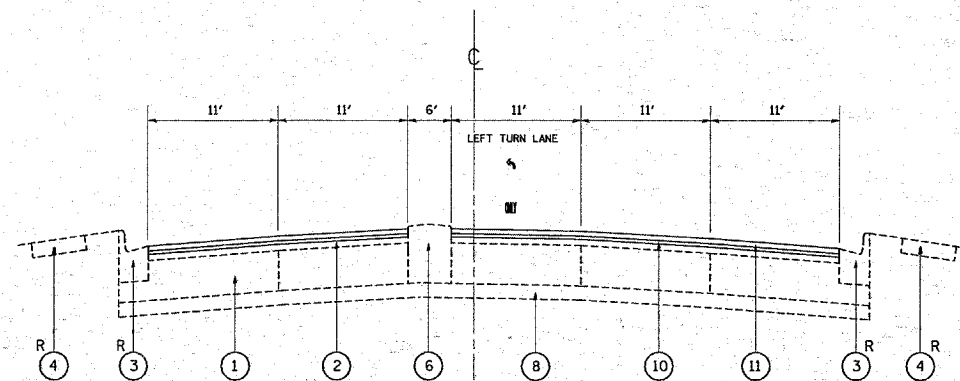
LEGEND:  
\* STA. 31+28 TO STA. 32+20  
STA. 35+10 TO STA. 46+49  
STA. 48+04 TO STA. 52+89  
\*\* STA. 32+20 TO STA. 33+18  
STA. 34+16 TO STA. 35+10  
STA. 47+07 TO STA. 48+05



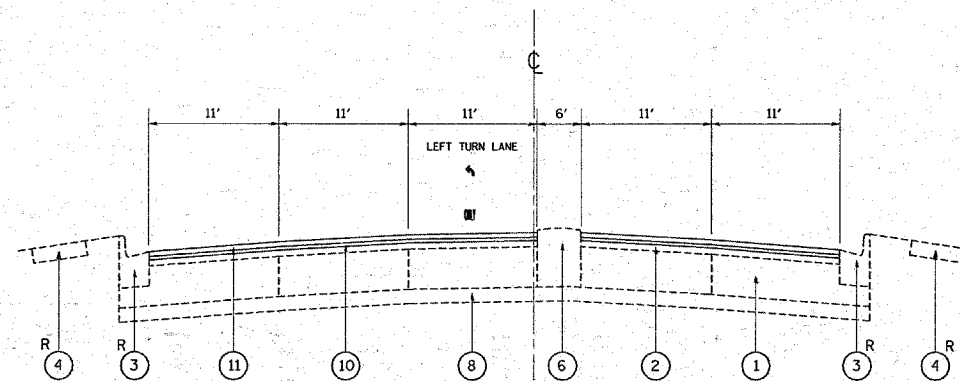
PROPOSED TYPICAL CROSS SECTION  
STA. 52+89 TO 56+00

**LEGEND:**

- ① EXIST. P.C.C. PAVEMENT, ±9"
  - ② EXIST. HOT-MIX ASPHALT SURFACE, ±3"
  - ③ EXIST. COMB. CONC. CURB AND GUTTER, TYPE B-6.24
  - ④ EXIST. P.C.C. SIDEWALK
  - ⑤ EXIST. P.C.C. SHOULDER, 10'
  - ⑥ EXIST. CORRUGATED MEDIAN
  - ⑦ EXIST. BARRIER MEDIAN
  - ⑧ EXIST. STABILIZED SUB-BASE
  - ⑨ PROP. HOT-MIX ASPHALT SURFACE REMOVAL, 2½"
  - ⑩ PROP. POLYMERIZED LEVELING BINDER (MACHINE METHOD), SUPERPAVE, IL-4.75, N50, ¾"
  - ⑪ PROP. POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, 1¾"
- R CURB AND GUTTER AND SIDEWALK REMOVAL AND REPLACEMENT  
(LOCATION AS DIRECTED BY THE ENGINEER)



PROPOSED TYPICAL CROSS SECTION  
STA. 56+00 TO 59+77



PROPOSED TYPICAL CROSS SECTION  
STA. 59+77 TO 64+41

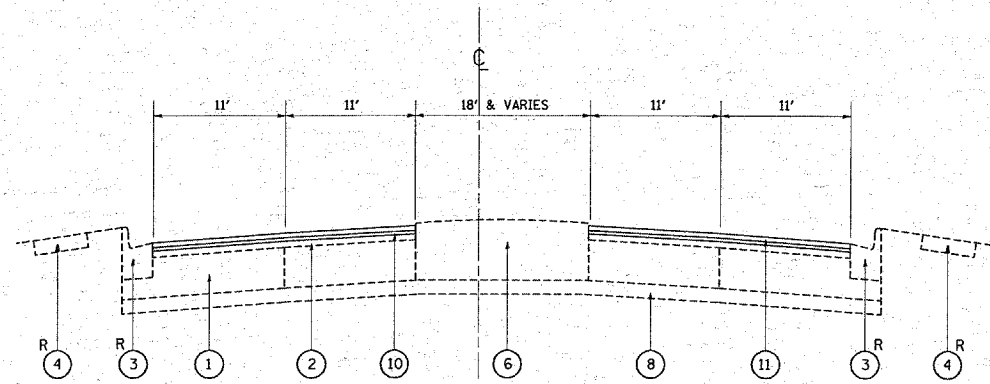
MIXTURE USE	AC/PG	DESIGN AIR VOIDS
CLASS "D" PATCHES, 9"	PG 64-22/58-22	4% @ 70
HMA BINDER COURSE, IL-19MM*	PG 64-22/58-22	4% @ 70
HOT-MIX ASPHALT REPLACEMENT OVER PATCHES, HMA BINDER COURSE, IL-19MM*	PG 64-22/58-22	4% @ 70
POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	SBS/SBR PG 76-28/22	4% @ 50
POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, IL-9.5MM	SBS/SBR PG 70-22	4% @ 90

**NOTE:**

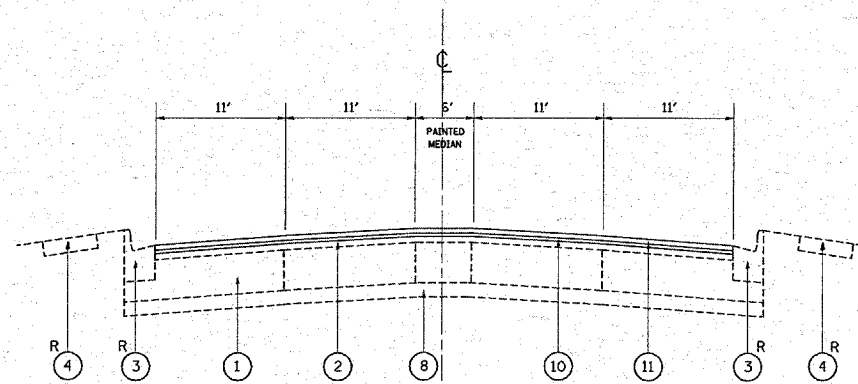
THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE COURSE QUANTITIES IS 112 LBS./SQ. YD./ IN.

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





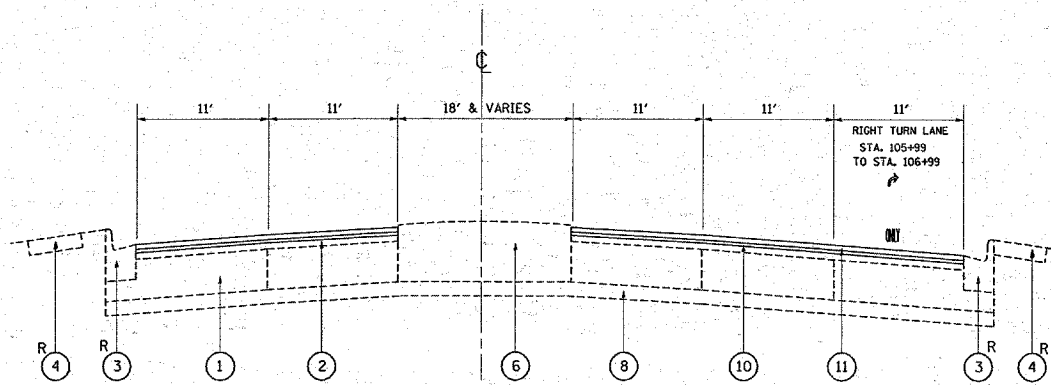
PROPOSED TYPICAL CROSS SECTION  
STA. 64+41 TO 67+90



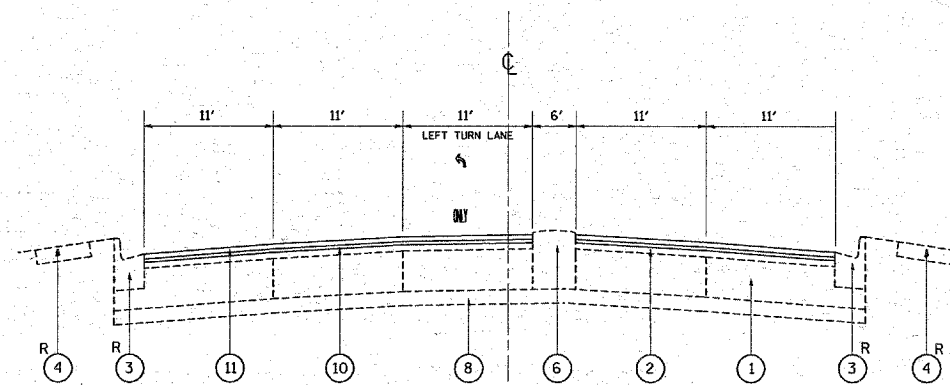
PROPOSED TYPICAL CROSS SECTION  
STA. 67+90 TO 103+85

**LEGEND:**

- ① EXIST. P.C.C. PAVEMENT, ±9"
  - ② EXIST. HOT-MIX ASPHALT SURFACE, ±3"
  - ③ EXIST. COMB. CONC. CURB AND GUTTER, TYPE B-6.24
  - ④ EXIST. P.C.C. SIDEWALK
  - ⑤ EXIST. P.C.C. SHOULDER, 10'
  - ⑥ EXIST. CORRUGATED MEDIAN
  - ⑦ EXIST. BARRIER MEDIAN
  - ⑧ EXIST. STABILIZED SUB-BASE
  - ⑨ PROP. HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/2"
  - ⑩ PROP. POLYMERIZED LEVELING BINDER (MACHINE METHOD), SUPERPAVE, IL-4.75, N50, 3/4"
  - ⑪ PROP. POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "E", N90, 1 3/4"
- R CURB AND GUTTER AND SIDEWALK REMOVAL AND REPLACEMENT  
(LOCATION AS DIRECTED BY THE ENGINEER)



PROPOSED TYPICAL CROSS SECTION  
STA. 103+85 TO 107+27



PROPOSED TYPICAL CROSS SECTION  
STA. 107+27 TO 110+23

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c:\projects\113208\sh\_rdw.dgn

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PLOT DATE = 4/1/2008

DESIGNED -  
DRAWN -  
CHECKED -  
DATE -

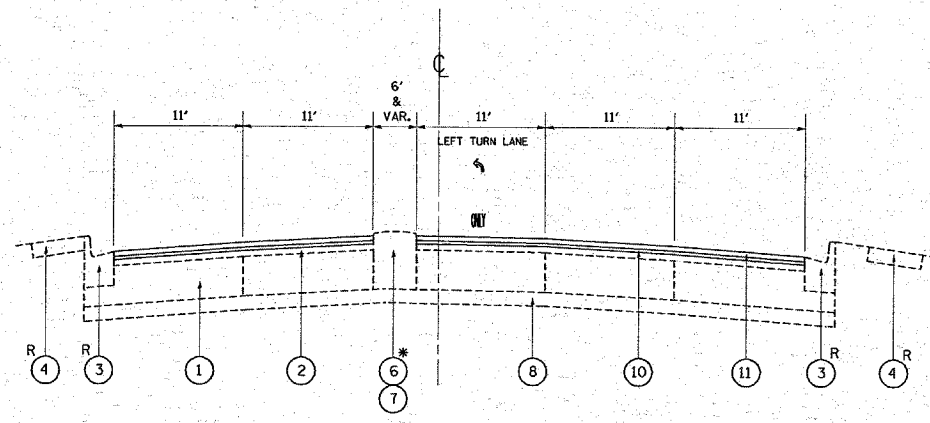
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

PROPOSED TYPICAL CROSS SECTIONS  
US 12/ 20 (95TH ST.)--US 45 (LA GRANGE RD.) TO I-294 (TRI-STATE TOLLWAY)  
SCALE: SHEET NO. OF SHEETS STA. TO STA.

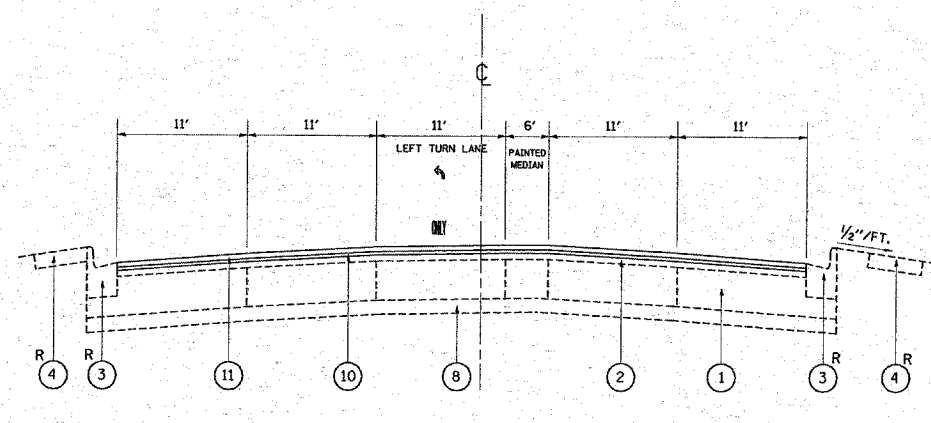
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
029	29R-RS-3	COOK	33	8
CONTRACT NO. 60D94				
FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT				





PROPOSED TYPICAL CROSS SECTION  
STA. 110+23 TO 112+46

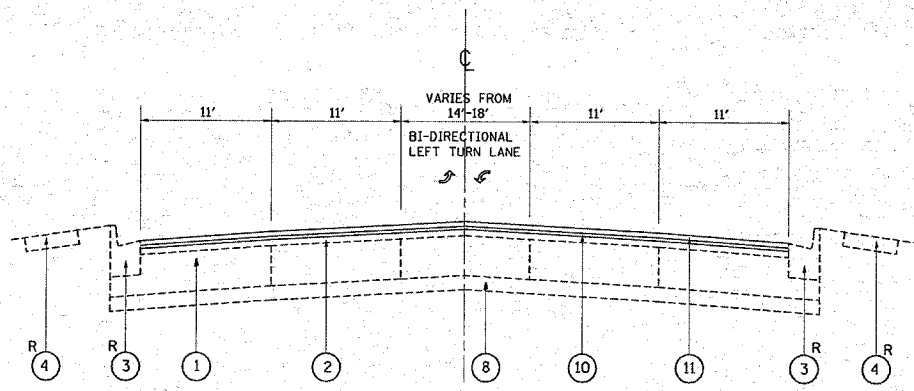
LEGEND:  
\* CORRUGATED MEDIAN STA. 110+23 TO STA. 111+23  
CONC. BARRIER MEDIAN STA. 111+23 TO STA. 112+27



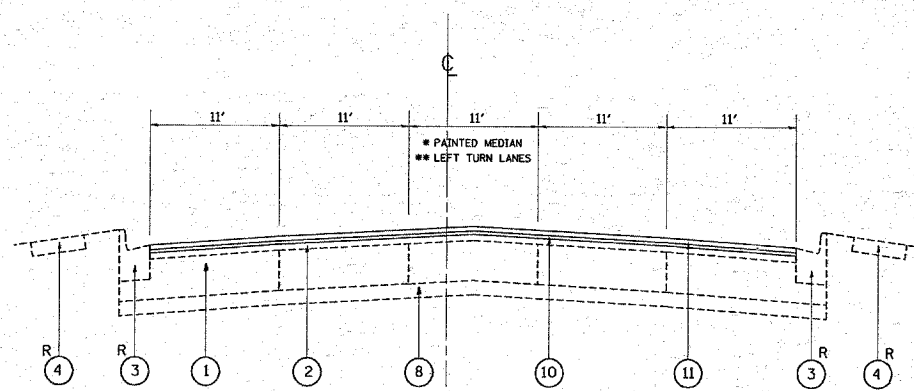
PROPOSED TYPICAL CROSS SECTION  
STA. 112+46 TO 114+84

LEGEND:

- ① EXIST. P.C.C. PAVEMENT, ±9"
  - ② EXIST. HOT-MIX ASPHALT SURFACE, ±3"
  - ③ EXIST. COMB. CONC. CURB AND GUTTER, TYPE B-6.24
  - ④ EXIST. P.C.C. SIDEWALK
  - ⑤ EXIST. P.C.C. SHOULDER, 10'
  - ⑥ EXIST. CORRUGATED MEDIAN
  - ⑦ EXIST. BARRIER MEDIAN
  - ⑧ EXIST. STABILIZED SUB-BASE
  - ⑨ PROP. HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/2"
  - ⑩ PROP. POLYMERIZED LEVELING BINDER (MACHINE METHOD), SUPERPAVE, IL-4.75, N50, 3/4"
  - ⑪ PROP. POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, 1 3/4"
- R CURB AND GUTTER AND SIDEWALK REMOVAL AND REPLACEMENT  
(LOCATION AS DIRECTED BY THE ENGINEER)

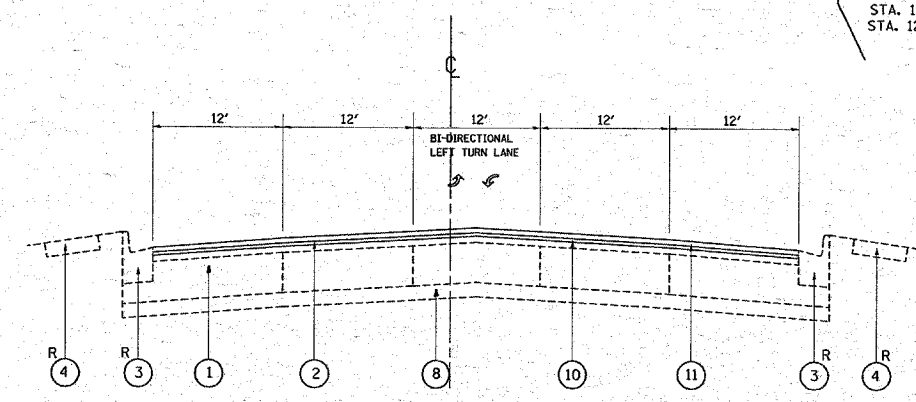


PROPOSED TYPICAL CROSS SECTION  
STA. 114+84 TO 119+38



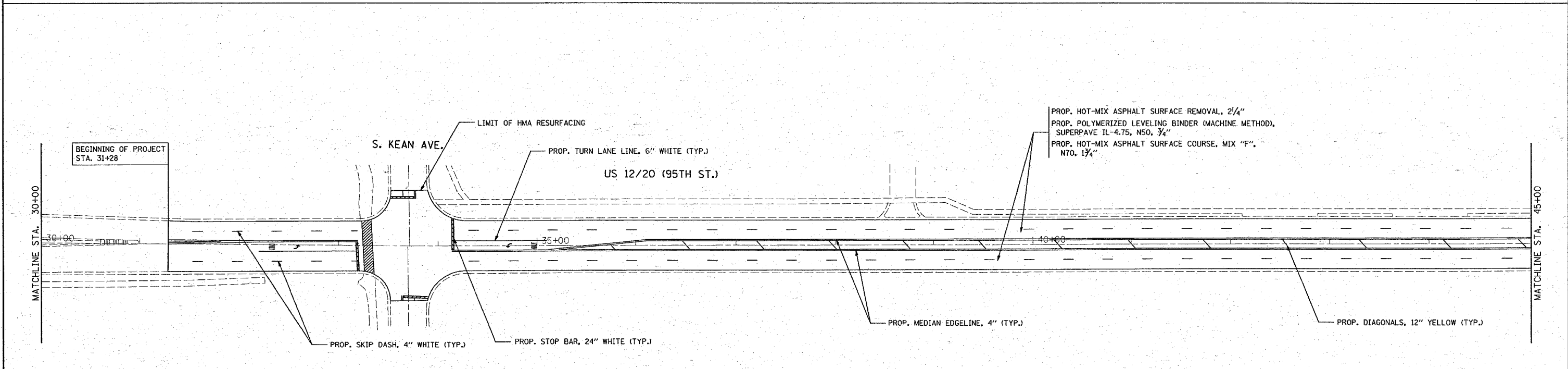
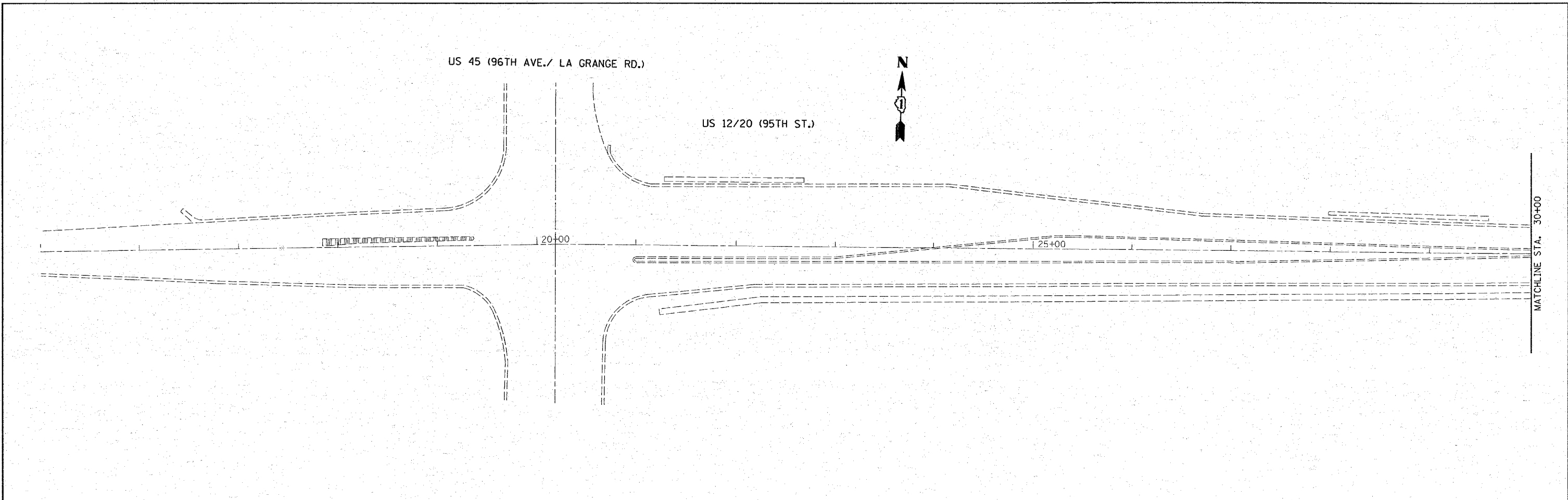
PROPOSED TYPICAL CROSS SECTION  
STA. 119+38 TO 129+32

LEGEND:  
\* STA. 119+81 TO STA. 120+86  
STA. 124+62 TO STA. 125+59  
STA. 126+43 TO STA. 127+33  
\*\* STA. 120+86 TO STA. 122+29  
STA. 122+96 TO STA. 124+62  
STA. 127+33 TO STA. 129+10



PROPOSED TYPICAL CROSS SECTION  
STA. 129+32 TO 132+27

FILE NAME = c:\projects\113208\sh_rdw.dgn	USER NAME = steedpa	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	PROPOSED TYPICAL CROSS SECTIONS			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 50,000/1" IN.	DRAWN -	REVISED -		US 12/ 20 (95TH ST.)--US 45 (LA GRANGE RD.) TO I-294 (TRI-STATE TOLLWAY)	029	29R-RS-3	COOK	33	9		
	PLOT DATE = 4/1/2008	CHECKED -	REVISED -		SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.	CONTRACT NO. 60D94	
		DATE	REVISED -								FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT	



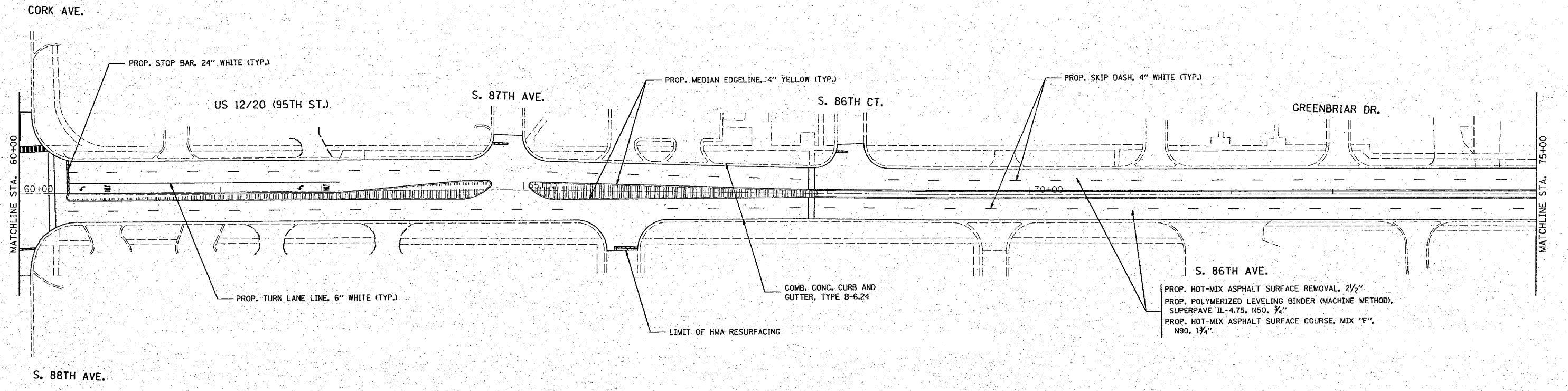
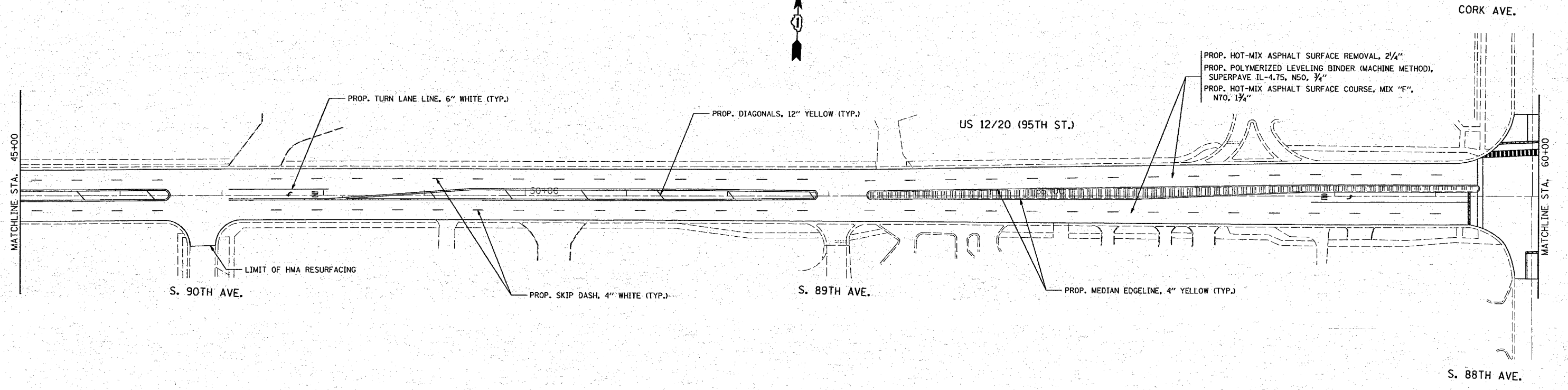
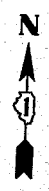
**NOTES:**

PERMANENT PAVEMENT MARKINGS SHALL BE THERMOPLASTIC (OF THE EXTRUDED TYPE) AND SHOULD BE PLACED IN ACCORDANCE WITH "DISTRICT ONE TYPICAL PAVEMENT MARKINGS" DETAIL, (TC-13)

RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE IN ACCORDANCE WITH THE DISTRICT ONE "TYPICAL APPLICATION RAISED REFLECTIVE PAVEMENT MARKERS DETAIL."

THE RESIDENT ENGINEER SHOULD CONTACT MS. PATRICE HARRIS, AREA TRAFFIC ENGINEER, AT (708) 597-9800 PRIOR TO PLACING ANY PAVEMENT MARKINGS.

FILE NAME c:\projects\dl13208\sh_rdw.dgn	USER NAME = sseedpa	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>ROADWAY AND PAVEMENT MARKING PLAN</b>				F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 50,000' / IN.	DRAWN -	REVISED -		US 12/ 20 (95TH ST.)--US 45 (LA GRANGE RD.) TO I-294 (TRI-STATE TOLLWAY)				029	29R-RS-3	COOK	33	10
PLOT DATE = 4/1/2008	CHECKED -	REVISED -	SCALE: 1"=50'    SHEET NO.    OF    SHEETS    STA. 31+28    TO STA. 45+00				CONTRACT NO. 60D94						
	DATE -	REVISED -	FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT										

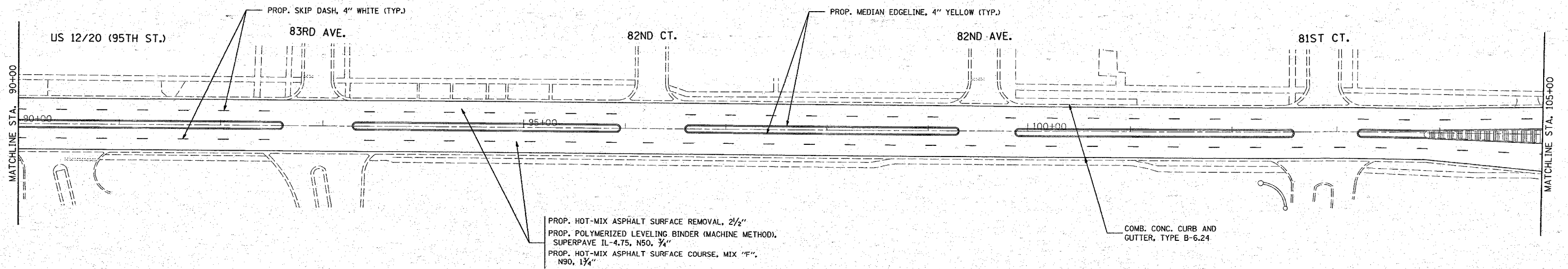
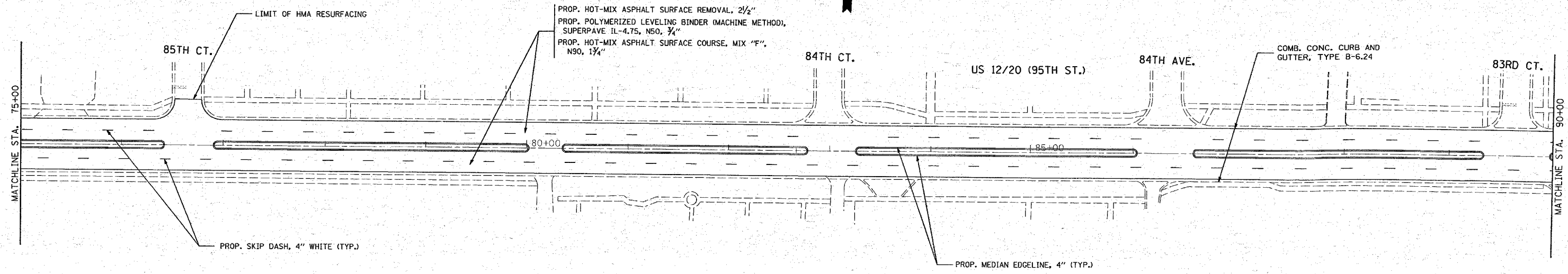


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		DATE -	REVISED -

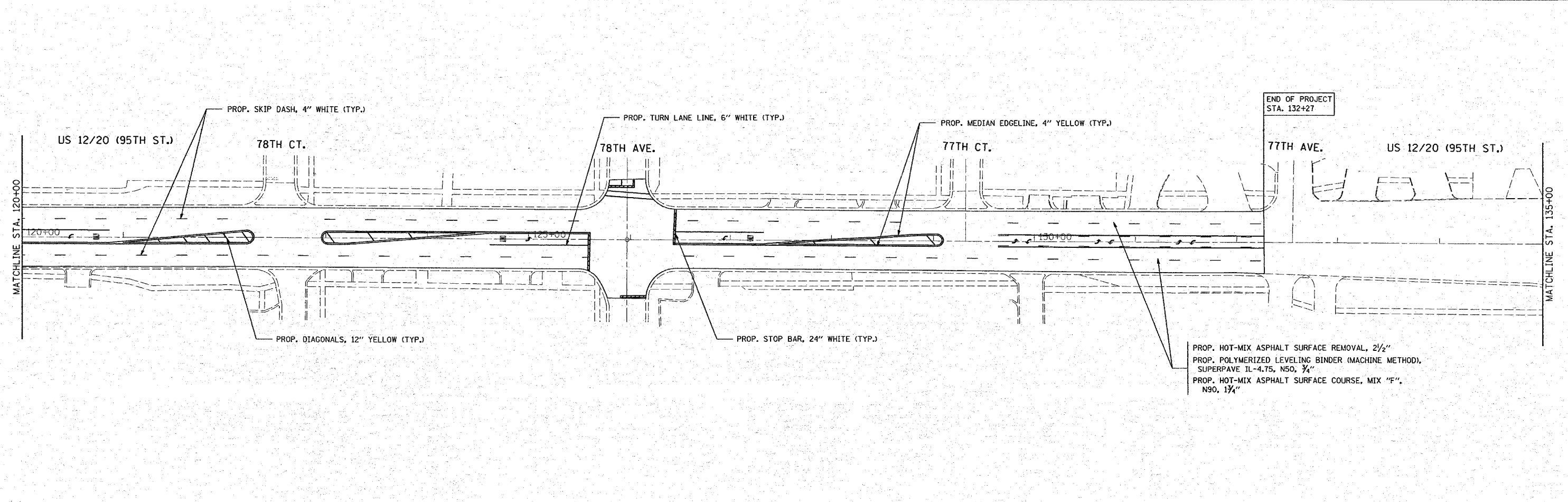
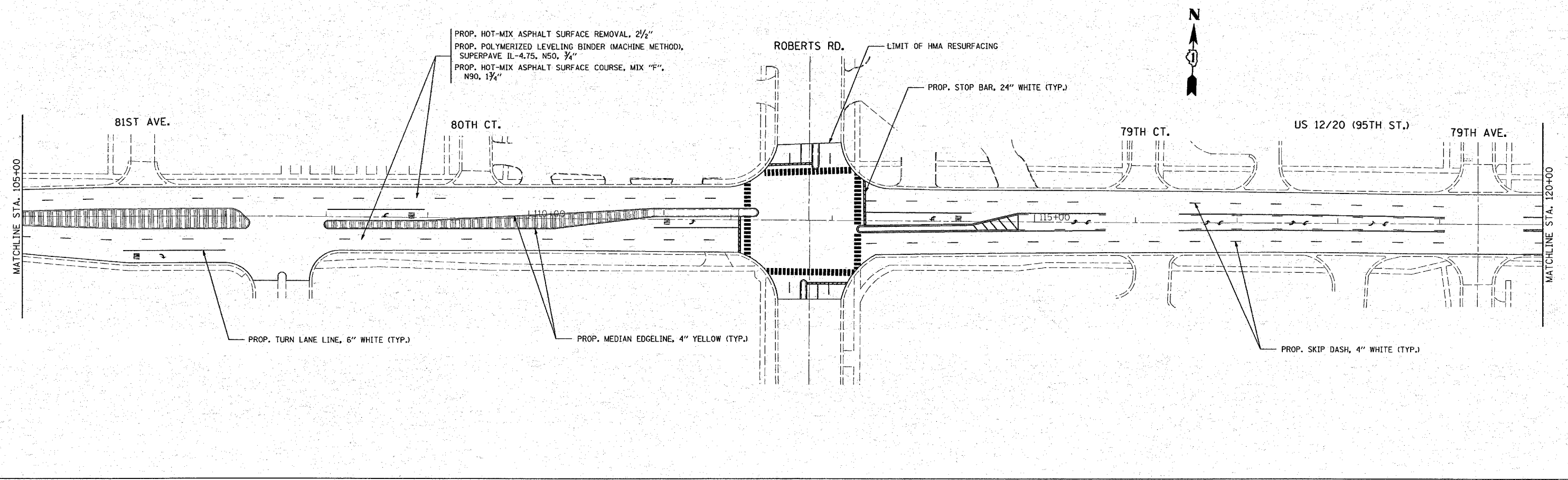
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

ROADWAY AND PAVEMENT MARKING PLAN			
US 12/ 20 (95TH ST.)--US 45 (LA GRANGE RD.) TO I-294 (TRI-STATE TOLLWAY)			
SCALE: 1"=50'	SHEET NO.	OF SHEETS	STA. 45+00 TO STA. 75+00

F.A.P. RTE. 029	SECTION 29R-RS-3	COUNTY COOK	TOTAL SHEETS 33	SHEET NO. 11
FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT				
CONTRACT NO. 60D94				



FILE NAME c:\projects\dl13208\sh_rdw.dgn	USER NAME = steedpa	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	ROADWAY AND PAVEMENT MARKING PLAN US 12/ 20 (95TH ST.)--US 45 (LA GRANGE RD.) TO I-294 (TRI-STATE TOLLWAY)			F.A.P. RTE. 029	SECTION 29R-RS-3	COUNTY COOK	TOTAL SHEETS 33	SHEET NO. 12
	PLOT SCALE = 50.0004' / IN.	CHECKED -	REVISED -		SCALE: 1"=50'    SHEET NO.    OF    SHEETS    STA. 75+00    TO STA. 105+00			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
	PLOT DATE = 4/1/2008	DATE -	REVISED -		CONTRACT NO. 60D94							



FILE NAME c:\projects\113208\sh_rdw.dgn	USER NAME = staedpa	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	ROADWAY AND PAVEMENT MARKING PLAN				F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	PLDT SCALE = 50,000 / IN.	DRAWN -	REVISED -		US 12/ 20 (95TH ST.)--US 45 (LA GRANGE RD.) TO I-294 (TRI-STATE TOLLWAY)				029	29R-RS-3	COOK	33	13	
	PLDT DATE = 4/1/2008	CHECKED -	REVISED -		SCALE: 1"=50'				SHEET NO. OF	SHEETS	STA. 105+00	TO STA. 135+00	CONTRACT NO. 60D94	
		DATE -	REVISED -						FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT					

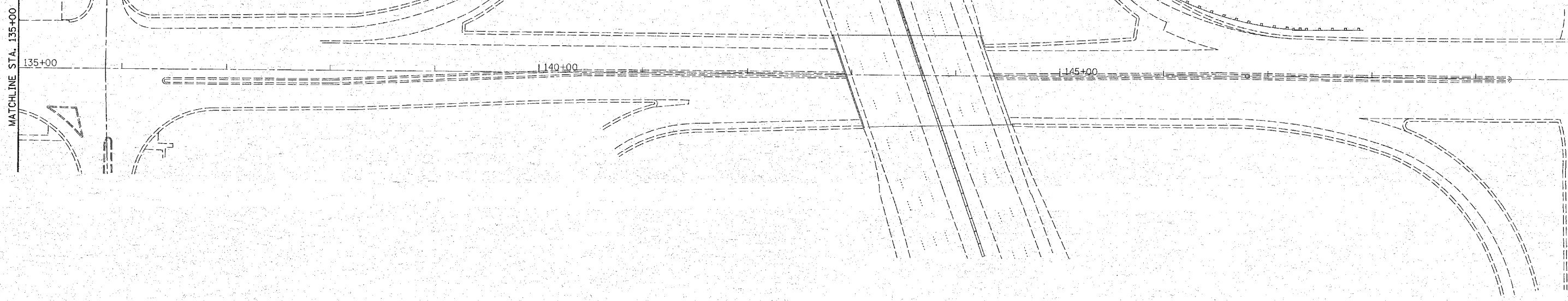


I-294 (TRI-STATE TOLLWAY)



76TH CT.

US 12/20 (95TH ST.)

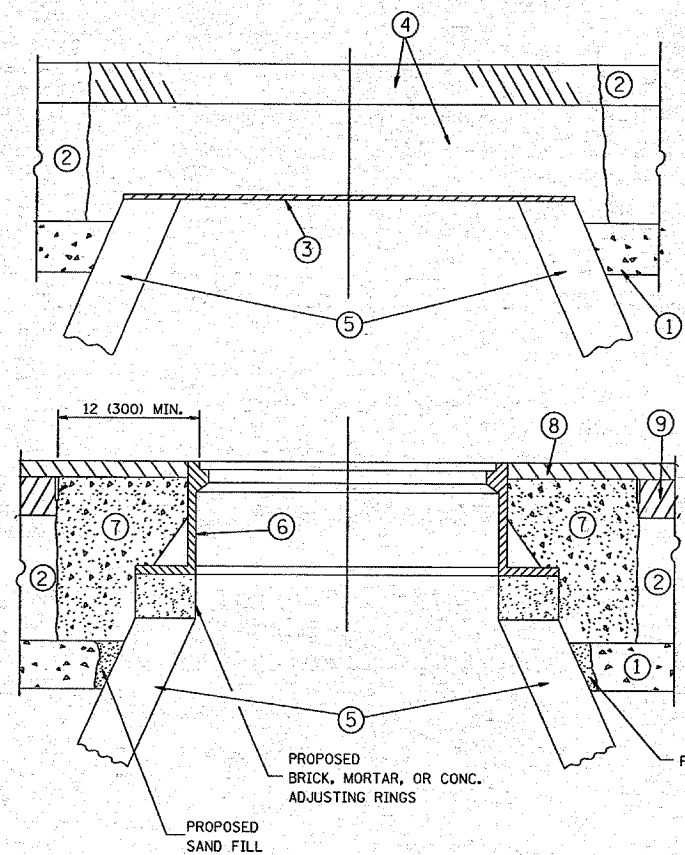


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	PLOT DATE = 4/1/2008	CHECKED -	REVISED -
		DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

ROADWAY AND PAVEMENT MARKING PLAN			
US 12/ 20 (95TH ST.)--US 45 (LA GRANGE RD.) TO I-294 (TRI-STATE TOLLWAY)			
SCALE: 1"=50'	SHEET NO.	OF	SHEETS
	STA. 135+00	TO	STA. 138+90

F.A.P. RTE. 029	SECTION 29R-RS-3	COUNTY COOK	TOTAL SHEETS 33	SHEET NO. 14
CONTRACT NO. 60D94				
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 1/2 (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.

**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.

- 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

**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**

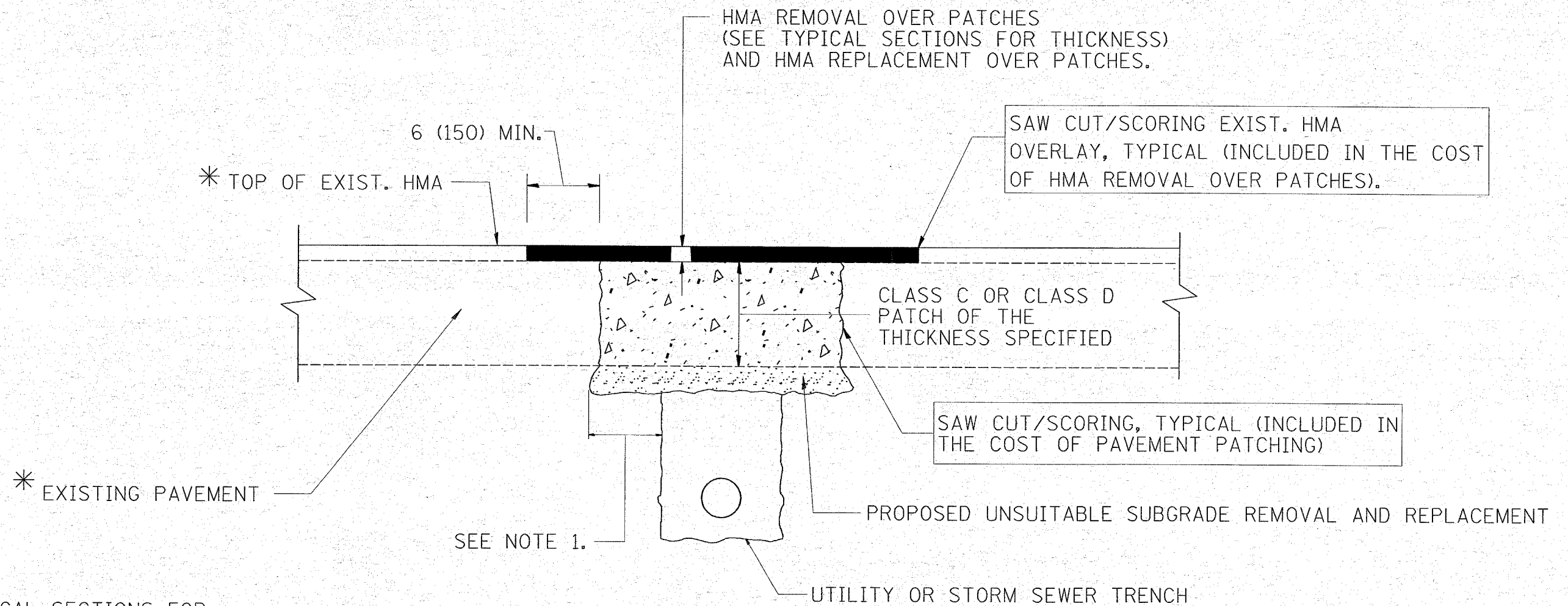
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

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		DRAWN -	REVISED - A. ABBAS 03-21-97
		CHECKED -	REVISED - R. WIEDEMAN 05-14-04
		DATE - 10-25-94	REVISED - R. BORO 01-01-07

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING</b>		F.A.P. RTE. SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	311 29R-RS-3	COOK	33	15
		<b>BD600-03 (BD-8)</b>	CONTRACT NO. 60D94		
		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**

1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
2. REMOVE AND REPLACE FULL DEPTH PATCHES
3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

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

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		DRAWN -	REVISED - A. ABBAS 04-27-98
		PLLOT SCALE = 50.0004' / IN.	REVISED - R. BORO 01-01-07
		PLLOT DATE = 3/26/2008	REVISED - R. BORO 09-04-07

**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.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	29R-RS-3	COOK	33	16
BD400-04 (BD-22)			CONTRACT NO. 60D94	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

VARIABLE - TO MEET EXISTING DIMENSIONS AND FIELD CONDITIONS (SEE NOTE ②)

PROP. CONC. CURB OR CURB AND GUTTER REPLACEMENT IN ACCORDANCE WITH STATE STANDARD 606001. (SEE NOTE ②)

SAW CUT FULL DEPTH - INCLUDED IN THE COST OF SIDEWALK, DRIVEWAY OR MEDIAN SURFACE REMOVAL PAY ITEM.

SEE STATE STANDARD 606001  
EXISTING OR PROPOSED HMA SURFACE (IF APPLICABLE)

18" (450) MAX.

1/4" (5) \*\*

EXISTING SIDEWALK, DRIVEWAY, MEDIAN SURFACE OR GROUND.

PROPOSED SIDEWALK, DRIVEWAY PAVEMENT, MEDIAN SURFACE OR SALT TOLERANT SOD AND TOP SOIL, 4" (100) SOD RESTORATION (SEE NOTE ①).

EXISTING CONCRETE PAVEMENT, CONCRETE BASE COURSE OR FLEXIBLE PAVEMENT

3" (75) MIN.

SUITABLE BACKFILL MATERIAL (INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT)

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.)

\* 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.

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 USABLE AS DETERMINED BY THE ENGINEER. (SEE NOTE ③).

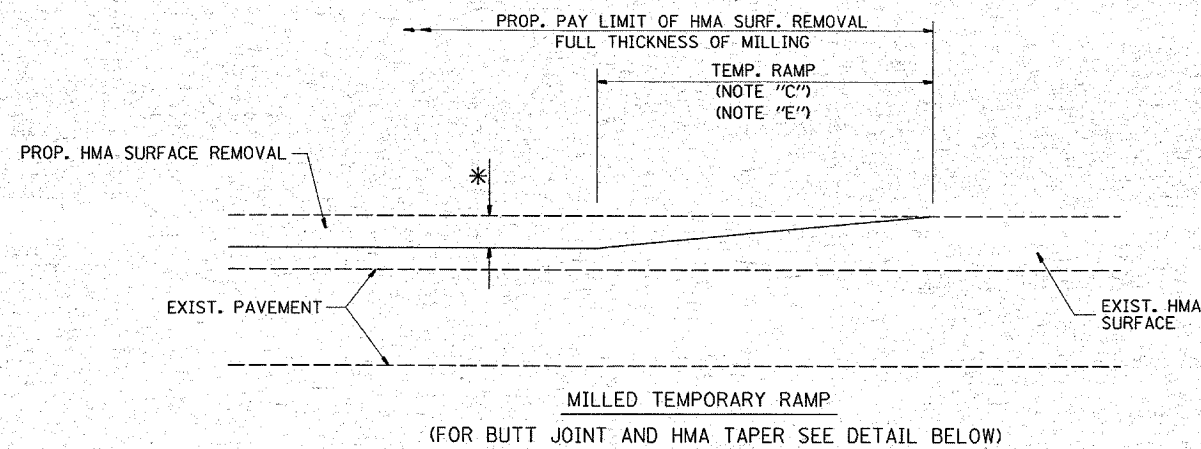
**BASIS OF PAYMENT:**

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".

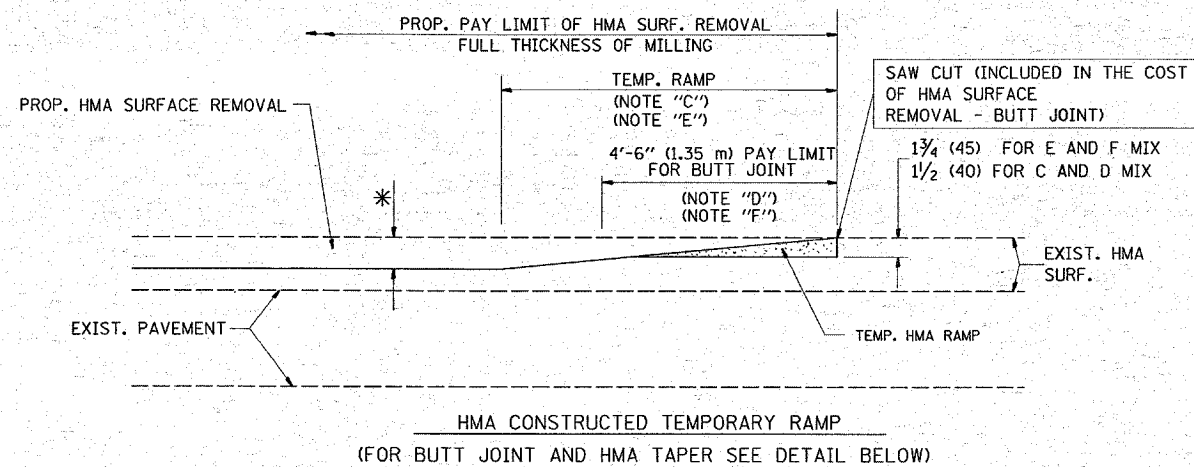
# CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

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

FILE NAME = c:\projects\dl13208\sh_rdv.dgn	USER NAME = steedpa	DESIGNED - A. HOUSEH	REVISED - R. SHAH 10-03-96	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT</b>			F.A.P. RTE. 311	SECTION 29R-RS-3	COUNTY COOK	TOTAL SHEETS 33	SHEET NO. 17
	PLOT SCALE = 50,000' / IN.	CHECKED -	REVISED - A. ABBAS 03-21-97		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	<b>BD600-06 (BD-24)</b>		CONTRACT NO. 60D94	
	PLOT DATE 3/26/2008	DATE - 03-11-94	REVISED - M. GOMEZ 01-22-01		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT							
			REVISED - R. BORO 01-01-07									

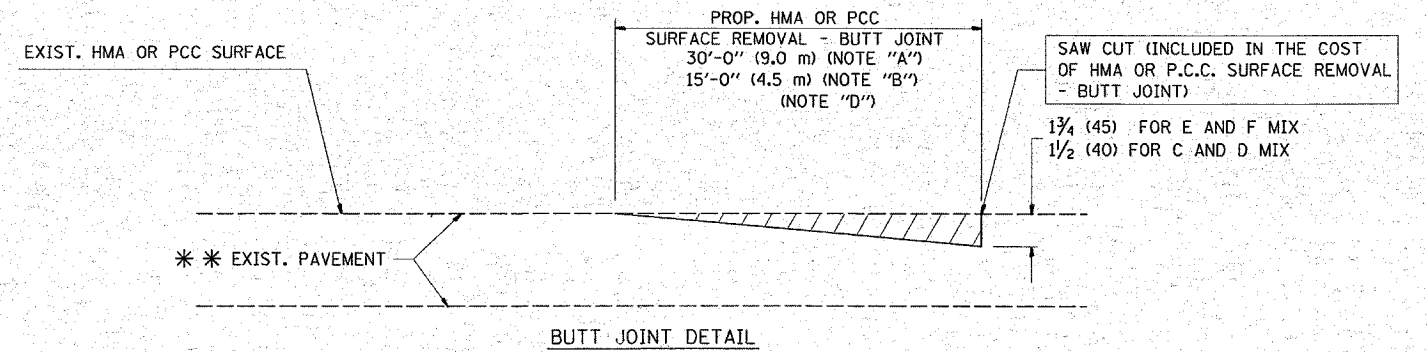


**OPTION 1**

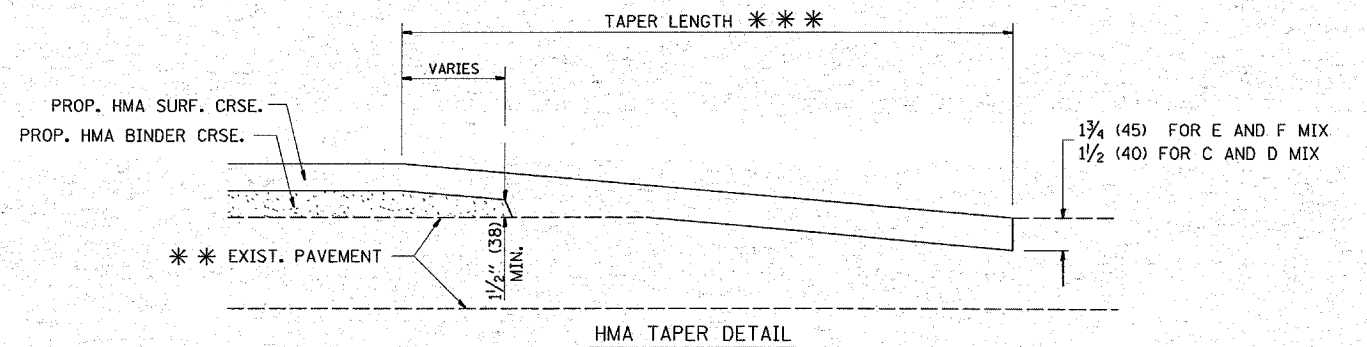


**OPTION 2**

**TYPICAL TEMPORARY RAMP**



**BUTT JOINT DETAIL**



**HMA TAPER DETAIL**

**TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY**

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

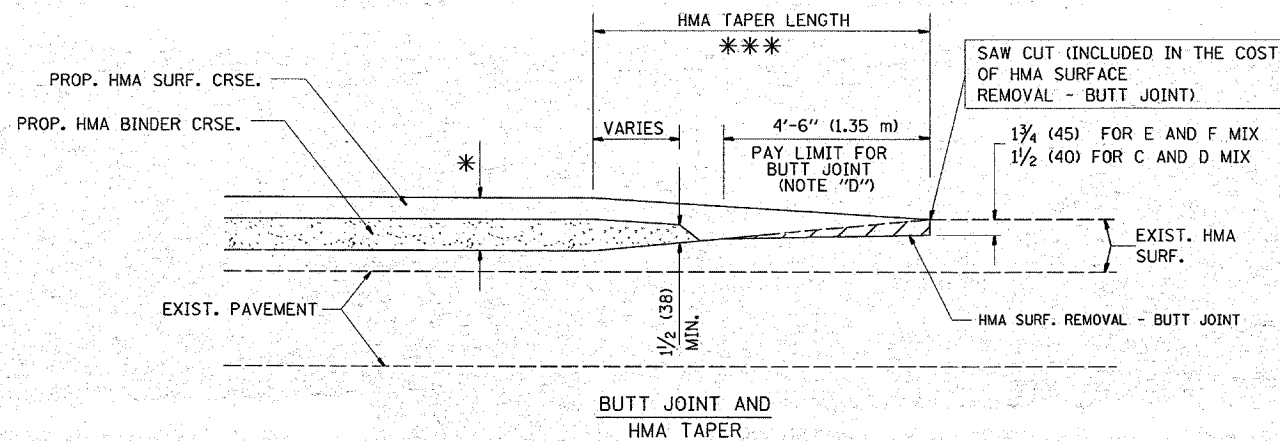
**NOTES**

- 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".

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



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

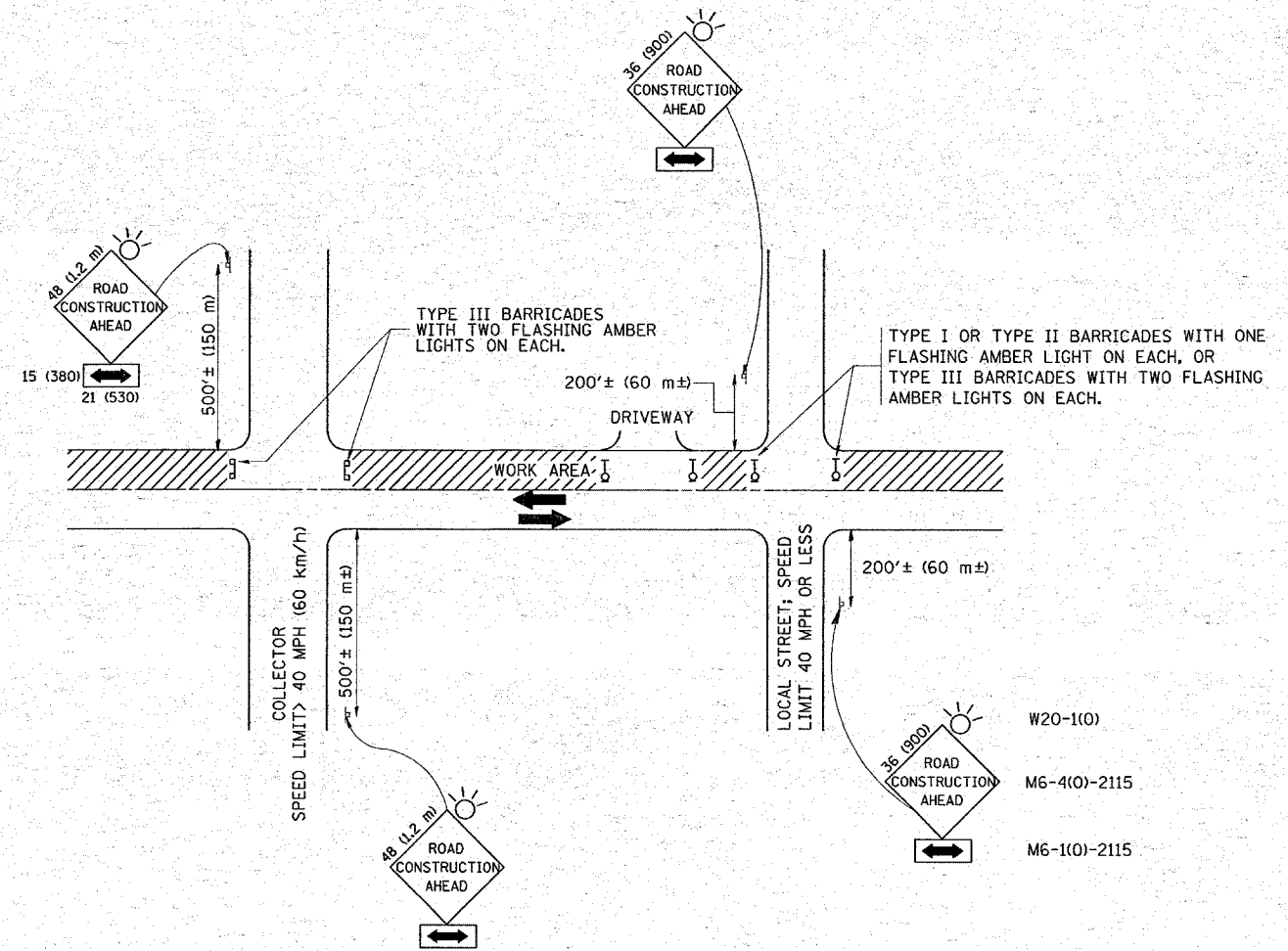
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	PLOT SCALE = 50.0004' / IN.	CHECKED -	REVISED - M. GOMEZ 04-06-01
	PLOT DATE = 3/25/2008	DATE - 06-13-90	REVISED - R. BORO 01-01-07

**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.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	29R-RS-3	COOK	33	18
BD400-05 BD32			CONTRACT NO. 60D94	
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

1. 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:

a) 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.

b) 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.

2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:

a) 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.

b) 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.

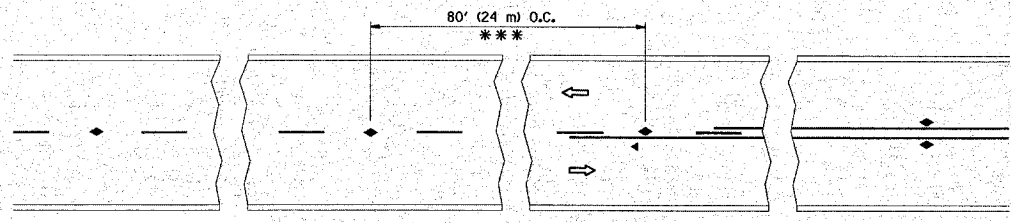
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		DRAWN -	REVISED - A. HOUSEH 03-06-96
		CHECKED -	REVISED - A. HOUSEH 10-15-96
		DATE - 06-89	REVISED - T. RAMMACHER 01-06-00

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

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

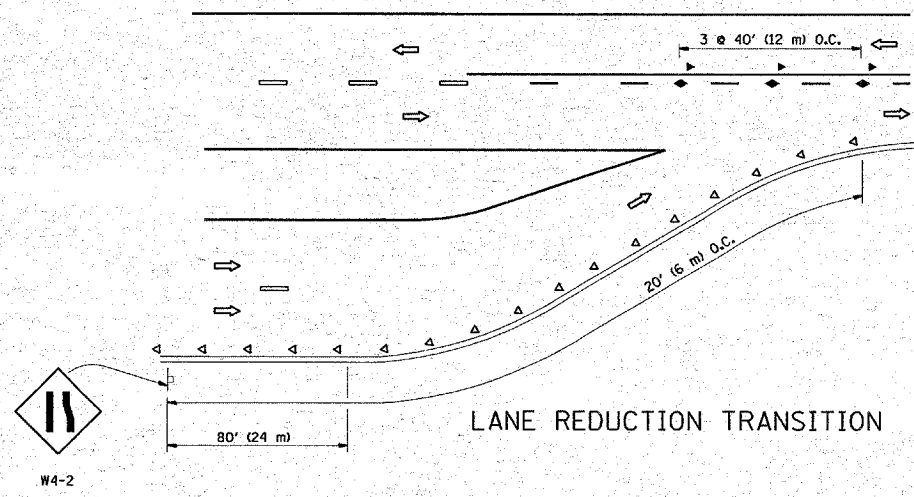
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	29R-RS-3	COOK	33	19
TC-10		CONTRACT NO. 60D94		
FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT				



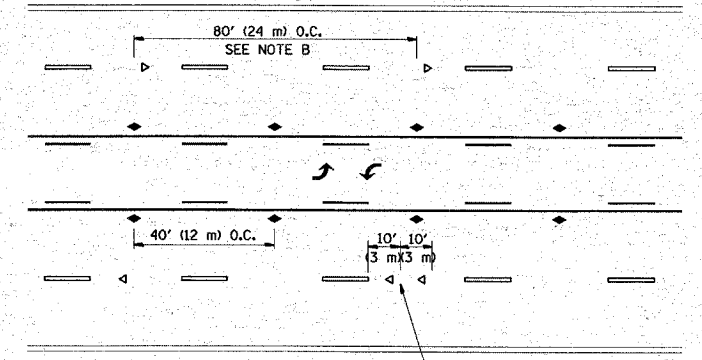


\*\*\* REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

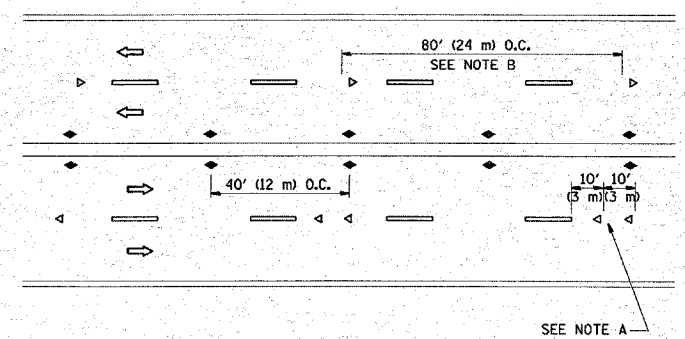
TWO-LANE/TWO-WAY



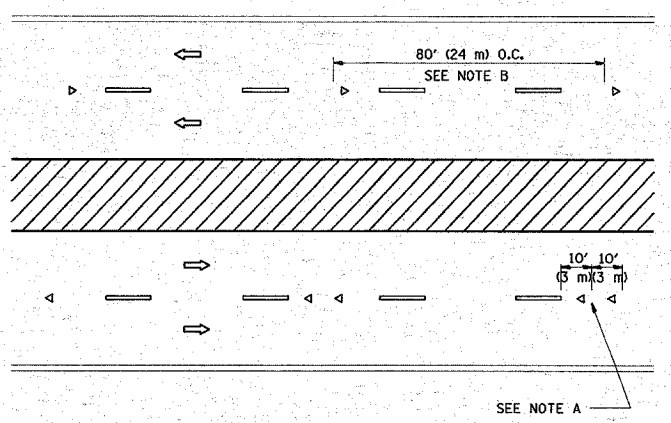
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
3. MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE SPACINGS.

SYMBOLS

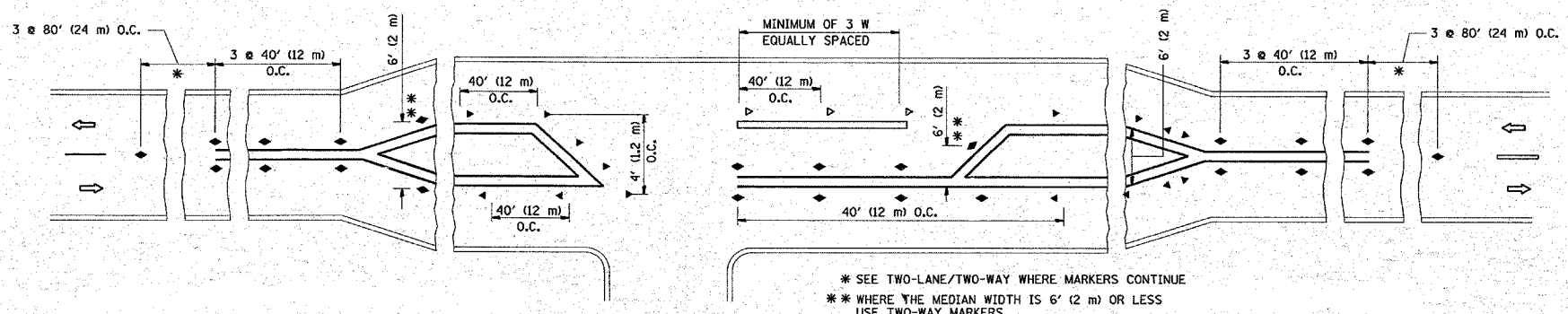
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◄ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

LANE MARKER NOTES

- B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H. (20 km/h) LOWER THAN POSTED SPEEDS.
- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.

DESIGN NOTES

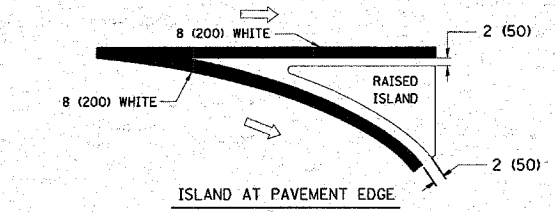
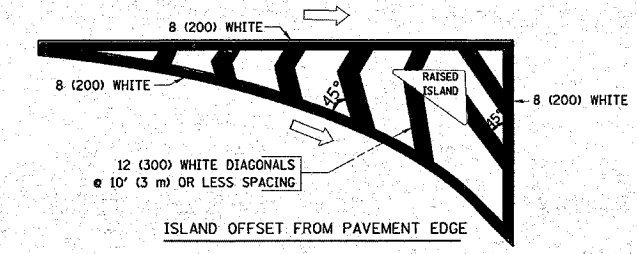
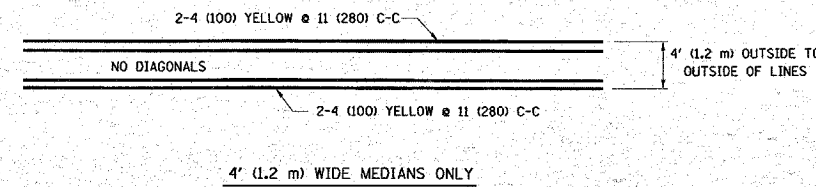
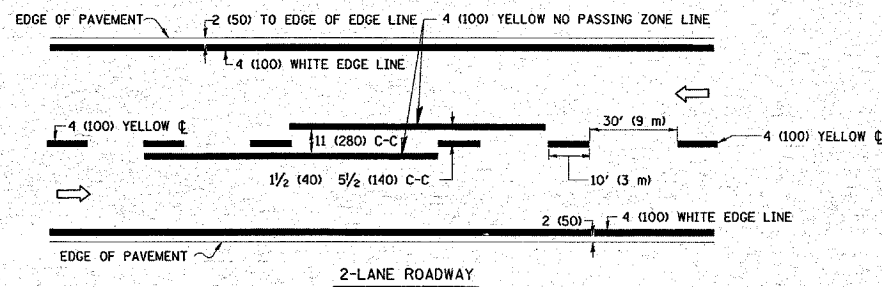
1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHOULD BE INCLUDED IN THE PLANS.
4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.



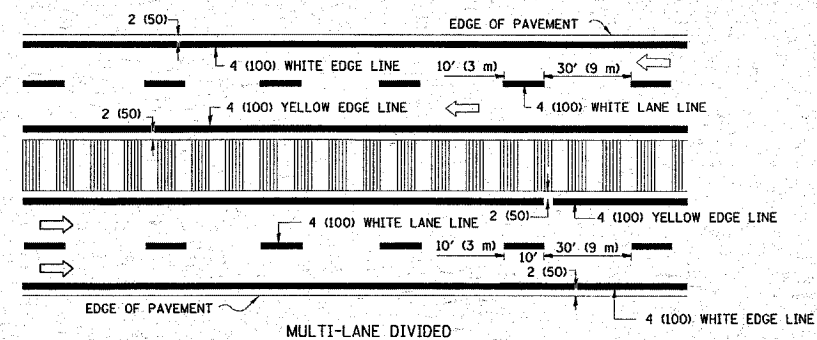
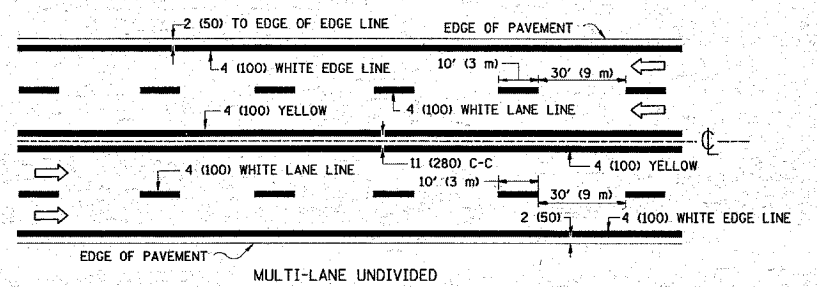
LEFT TURN

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

FILE NAME = c:\projects\dl13208\sh_rdwj.dgn	USER NAME = steedpe	DESIGNED - DRAWN -	REVISED - T. RAMMACHER 09-19-94 REVISED - T. RAMMACHER 03-12-99 REVISED - T. RAMMACHER 01-06-00 REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TYPICAL APPLICATIONS</b>			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
					<b>RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)</b>	311	29R-RS-3	COOK	33	20		
PLOT SCALE = 50.8004' / IN. PLOT DATE = 3/26/2008				DATE -	SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	<b>TC-11</b> CONTRACT NO. 60D94 FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			

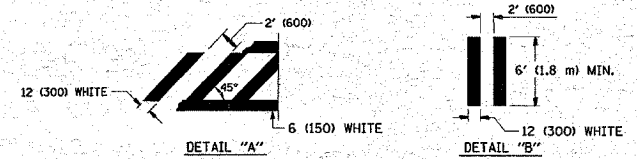
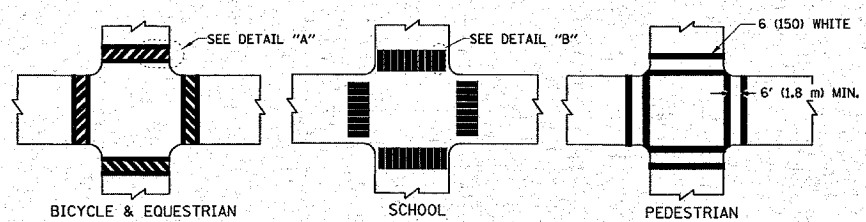


TYPICAL ISLAND MARKING

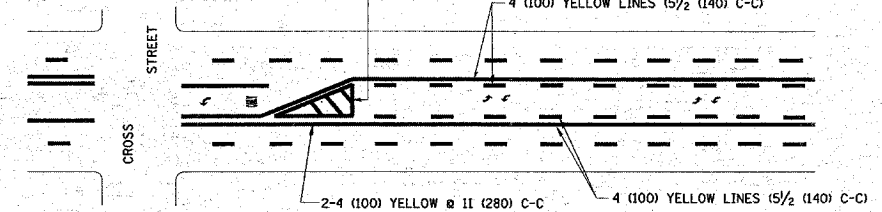
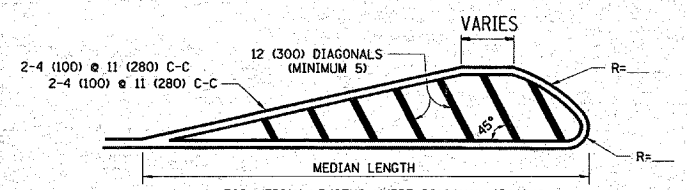


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

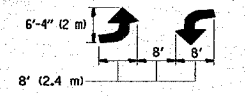
TYPICAL LANE AND EDGE LINE MARKING



TYPICAL CROSSWALK MARKING

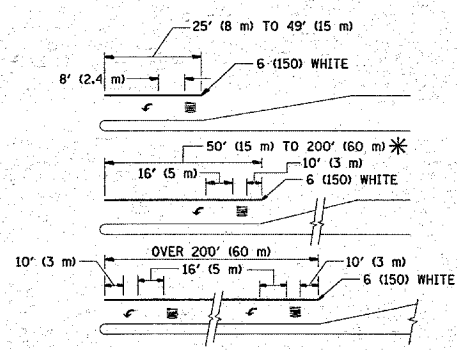


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING



FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.  
AREA = 15.6 SQ. FT. (1.5 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 LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE 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	4 (100)	SOLID	YELLOW	5/2 (140) C-C FROM SKIP-DASH CENTERLINE
NO PASSING ZONE LINES: FOR BOTH DIRECTIONS	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION	SKIP-DASH AND SOLID	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE
	8' (2.4m) LEFT ARROW	IN PAIRS	WHITE	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	2' (600) APART
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT, PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW; TWO WAY TRAFFIC WHITE; ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 8' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 78001 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 78001.

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

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PLOT DATE = 3/26/2008

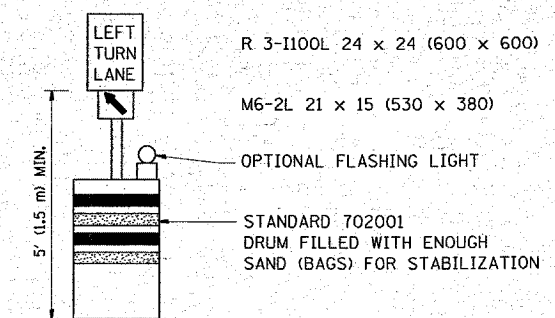
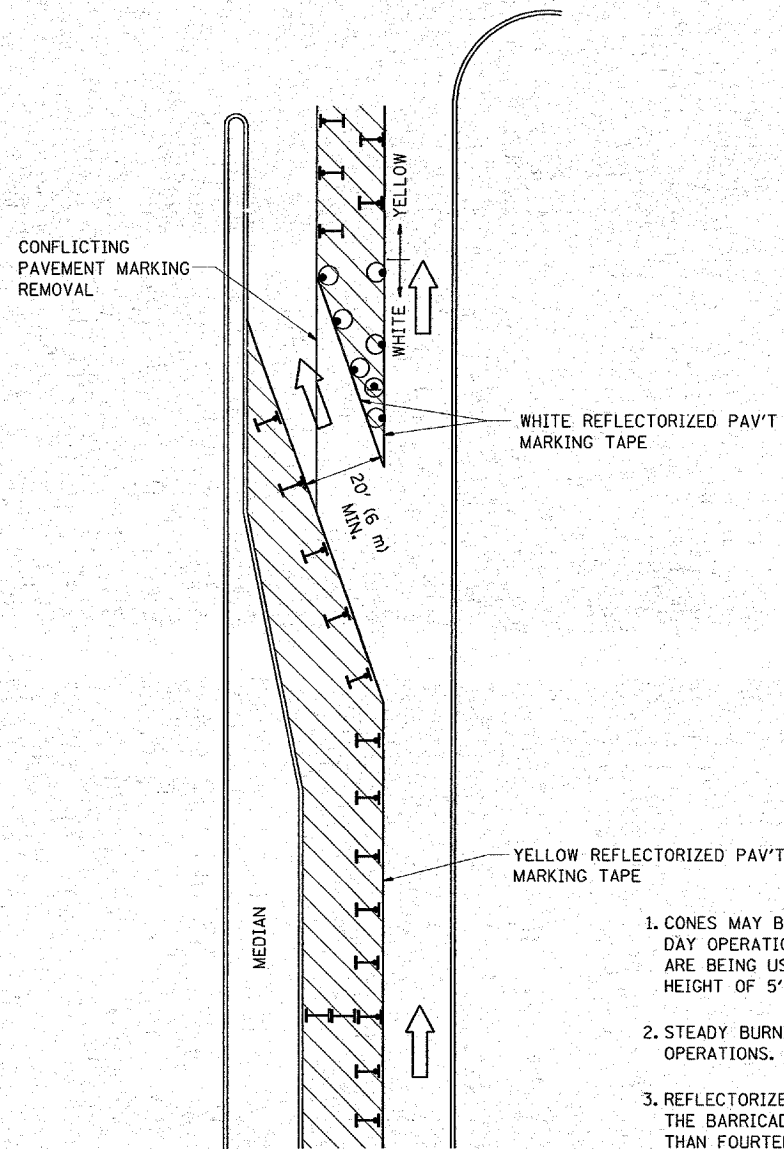
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DRAWN  
CHECKED -  
DATE - 03-19-90

REVISED -T. RAMMACHER 10-27-94  
REVISED -A. HOUSEH 10-09-96  
REVISED -A. HOUSEH 10-17-96  
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.P. RTE. 311 SECTION 29R-RS-3 COUNTY COOK TOTAL SHEETS 33 SHEET NO. 21  
TC-13 CONTRACT NO. 60D94  
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

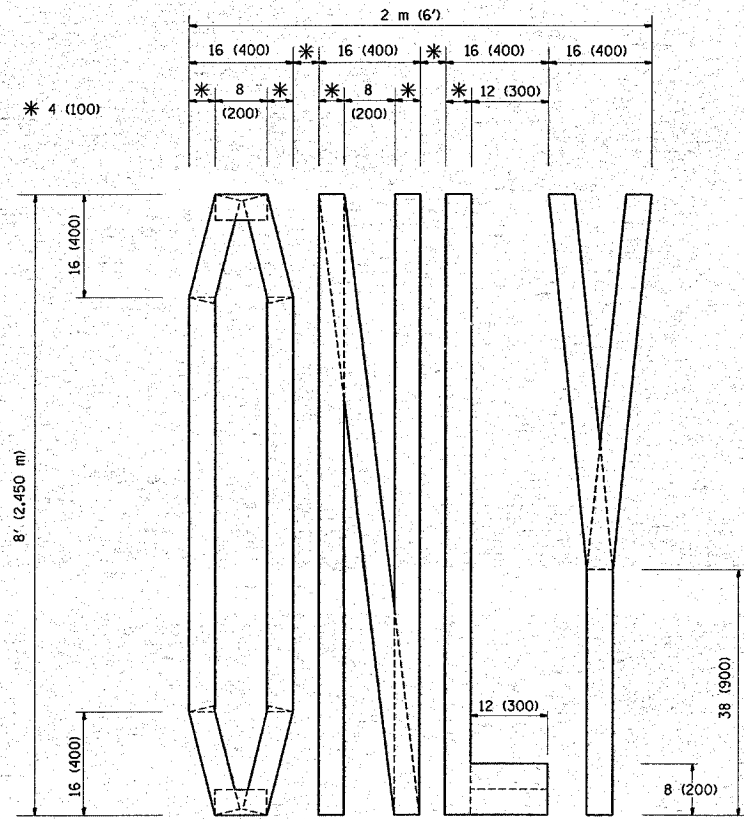
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		DRAWN =	REVISED =
		- A. HOUSEH 11-07-95	- A. HOUSEH 11-07-95
		CHECKED =	REVISED =
		- A. HOUSEH 10-12-96	- A. HOUSEH 10-12-96
		DATE =	REVISED =
		-	- T. RAMMACHER 01-06-00

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

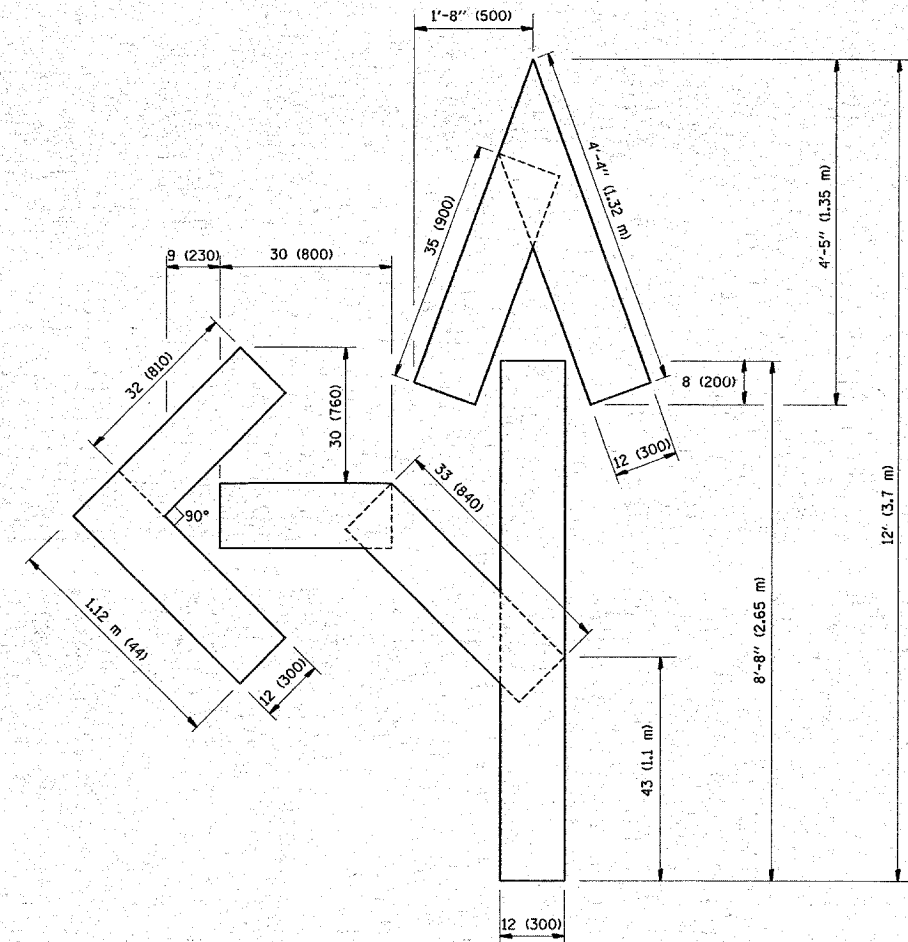
<b>TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)</b>			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	29R-RS-3	COOK	33	22
<b>TC-14</b>		CONTRACT NO. 60D94		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

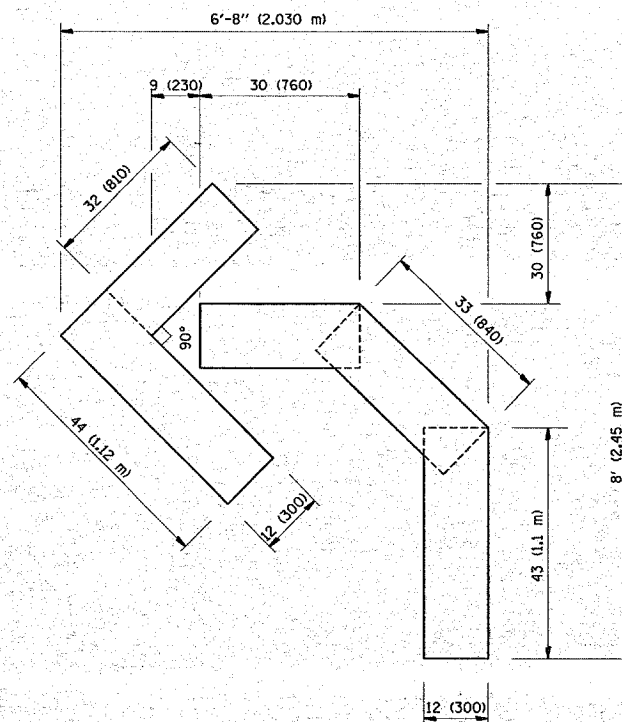




QUANTITY  
 4 (100) LINE = 64.1 ft. (19.7 m)  
 21.1 sq. ft. (1.97 sq. m)



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.

FILE NAME = c:\projects\vd13228\sh_rdky.dgn	USER NAME = steedpe	DESIGNED - DRAWN -	REVISED - REVISED -
		REVISOR - REVISOR -	REVISOR - REVISOR -
		DATE - DATE -	DATE - DATE -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING LETTERS AND SYMBOLS  
 FOR TRAFFIC STAGING

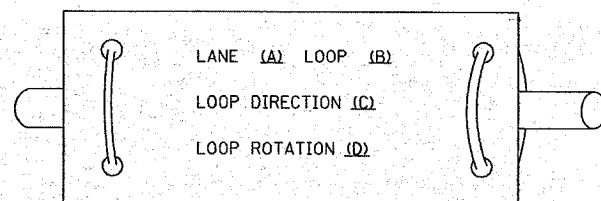
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F.A.P. RTE. 311	SECTION 29R-RS-3	COUNTY COOK	TOTAL SHEETS 33	SHEET NO. 23
TC-16		CONTRACT NO. 60D94		
FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT				

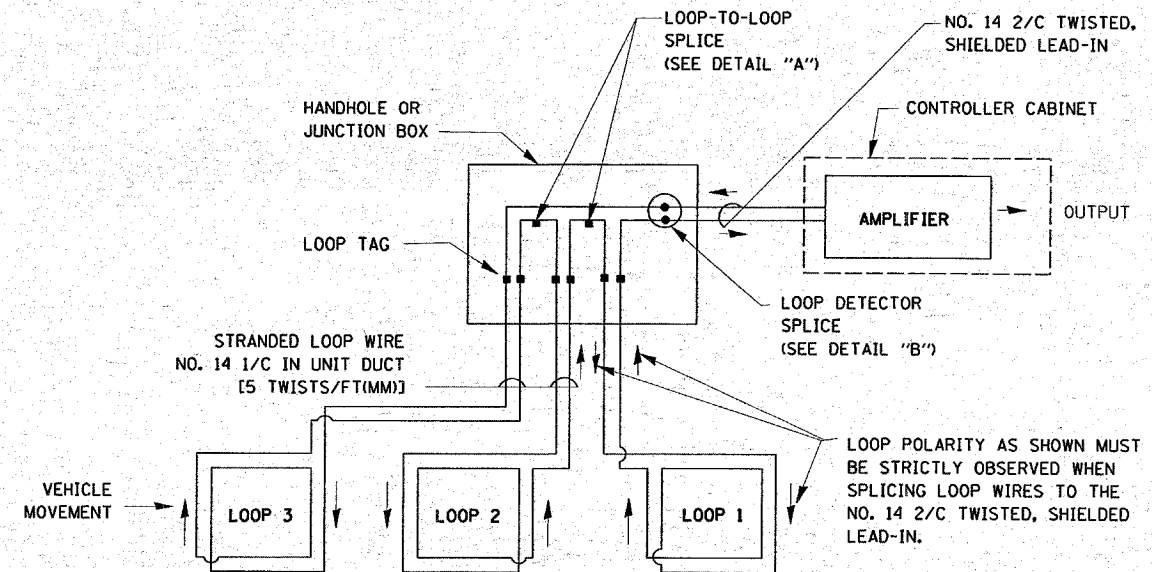
## LOOP DETECTOR NOTES

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

### LOOP LEAD-IN CABLE TAG

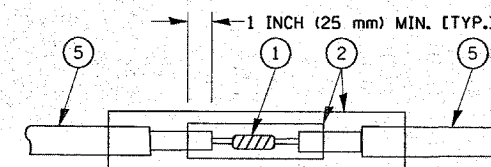


- LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

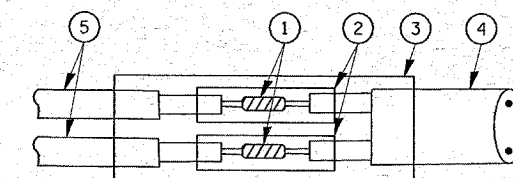


### DETECTOR LOOP WIRING SCHEMATIC

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



DETAIL "A"  
LOOP-TO-LOOP SPLICE



DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

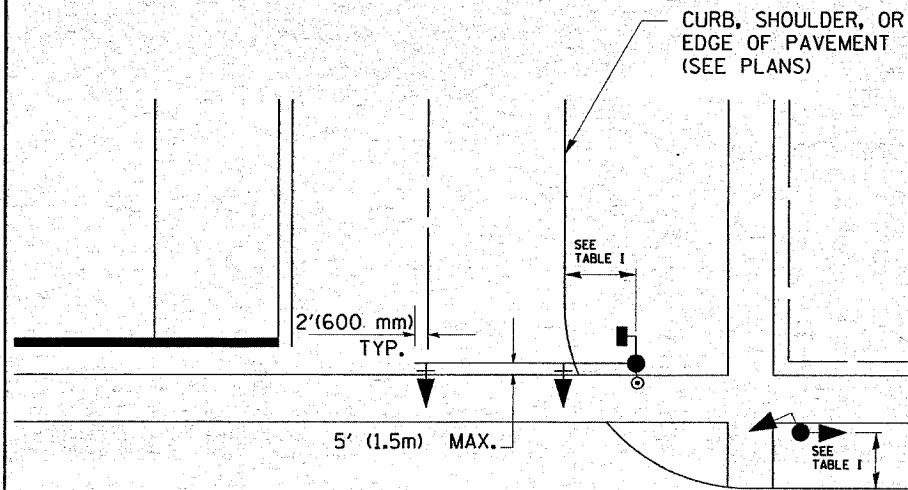
### LOOP DETECTOR SPLICE

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

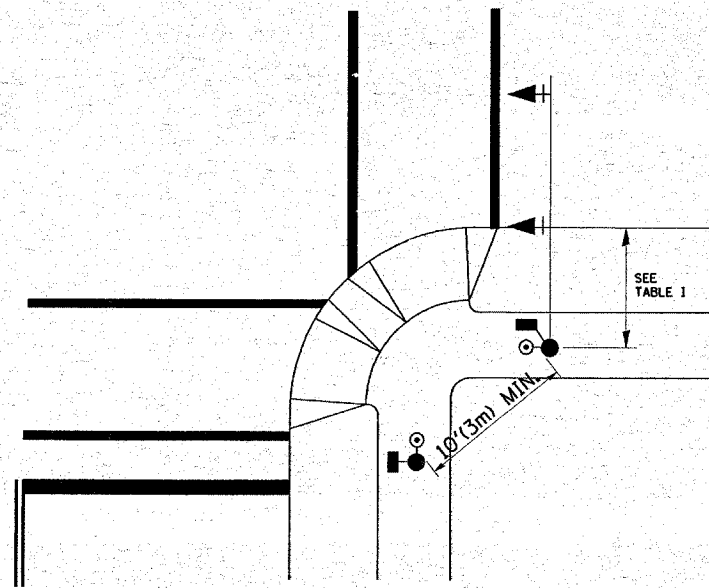
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PLOT SCALE = 5/8" = 1' / IN.	CHECKED - D.A.Z.	REVISOR - BUR. TRAFFIC 01-01-02	DATE - 05-30-00			SCALE: NONE	SHEET NO. 1 OF 4 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT			
PLOT DATE = 3/26/2008	DATE - 05-30-00	REVISED -	REVISED -			CONTRACT NO. 60D94						
TS-05												

**TRAFFIC SIGNAL MAST ARM AND POST**

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



**PEDESTRIAN SIGNAL PUSHBUTTON**



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

**NOTES:**

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

**PEDESTRIAN SIGNAL POST**

PEDESTRIAN SIGNAL HEAD AND PEDESTRIAN PUSHBUTTON DETECTOR LOCATION

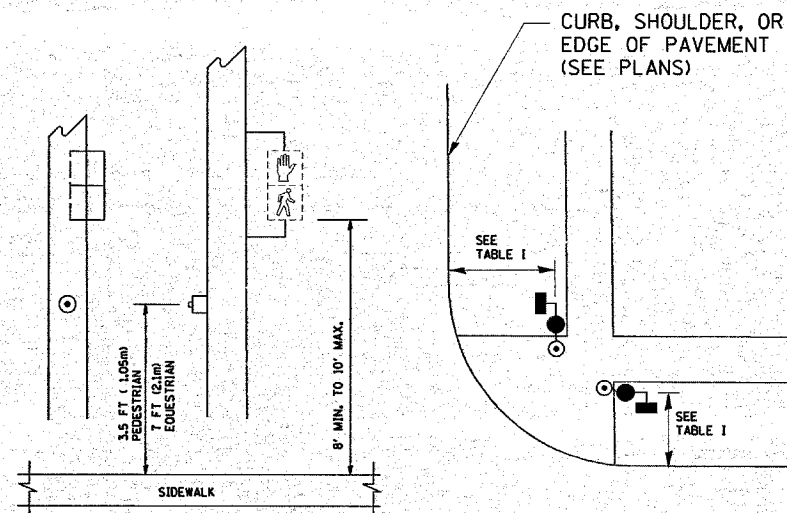


TABLE I

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

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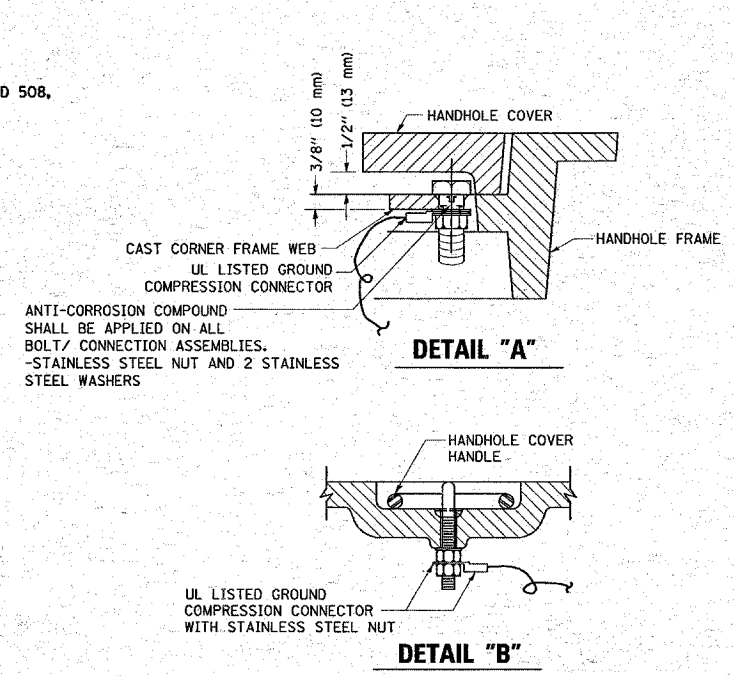
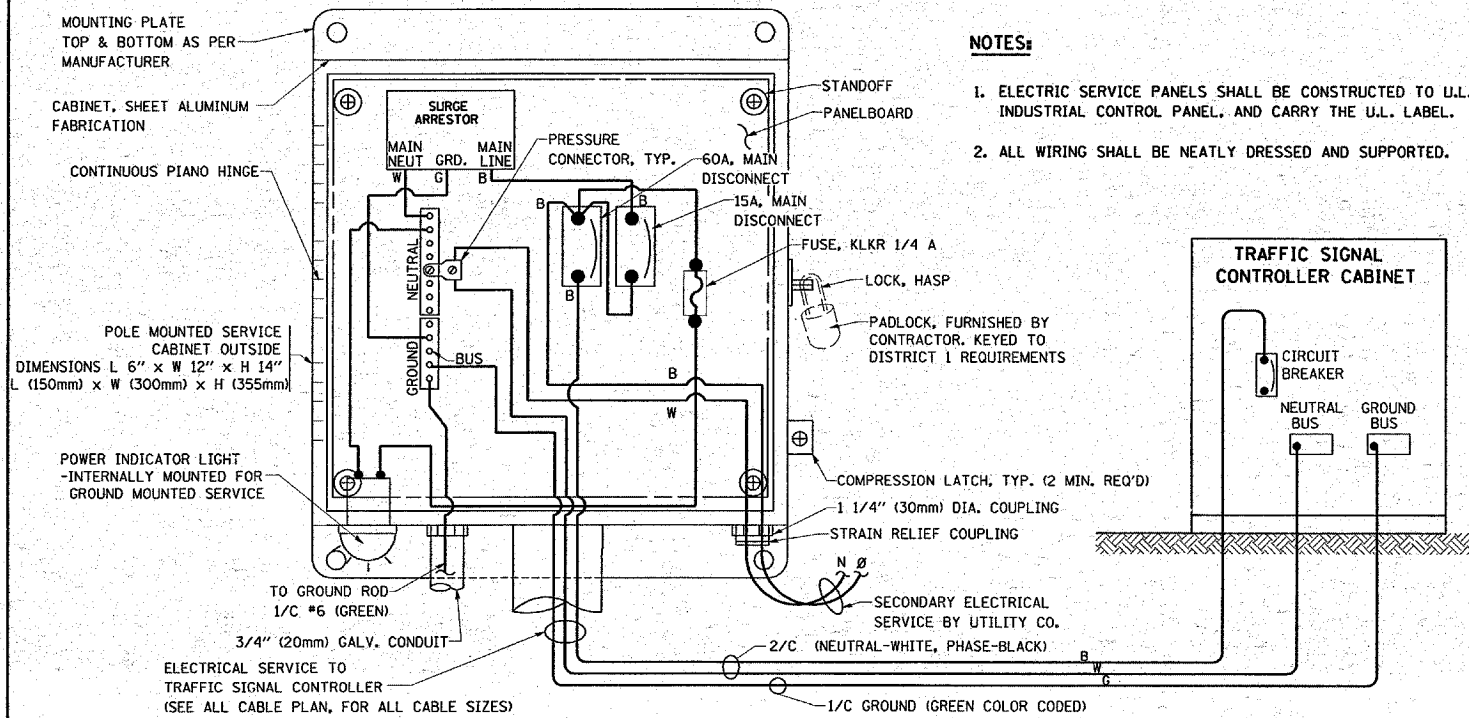
DESIGNED - D.A.D.  
 DRAWN - R.W.P.  
 CHECKED - D.A.Z.  
 DATE -

REVISED - BUR. TRAFFIC 01-01-02  
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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

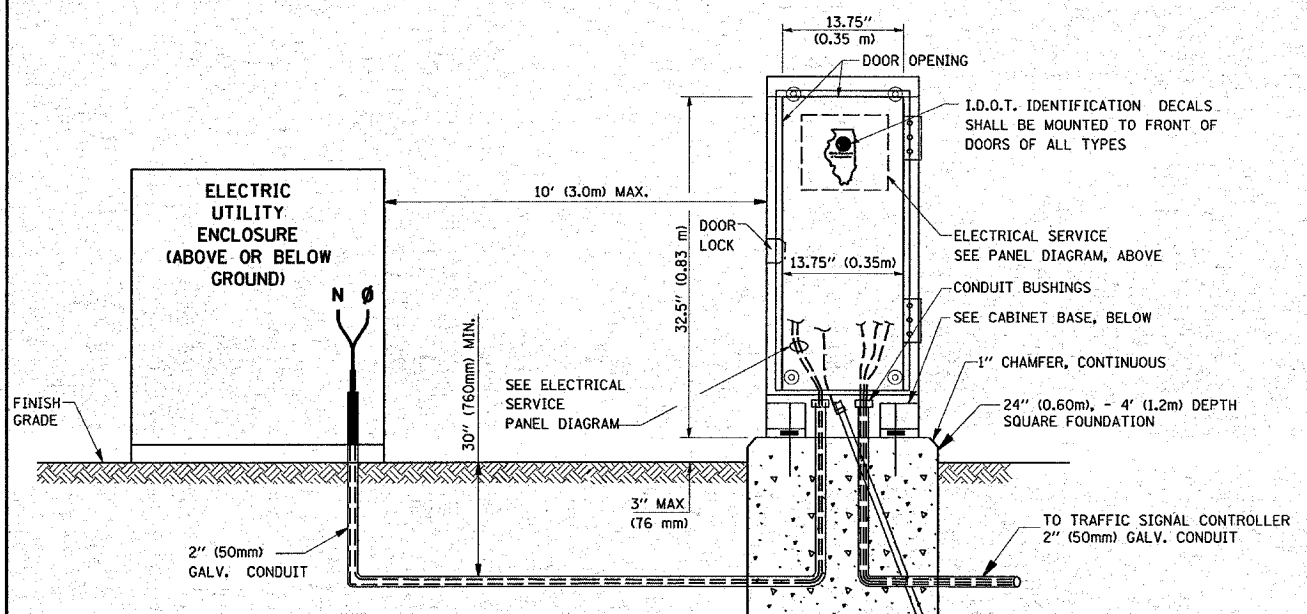
DISTRICT ONE  
 STANDARD TRAFFIC SIGNAL DESIGN DETAILS  
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F.A.P. RTE. 311	SECTION 29R-RS-3	COUNTY COOK	TOTAL SHEETS 33	SHEET NO. 25
TS-05			CONTRACT NO. 60D94	
FED. ROAD DIST. NO. 1 (ILLINOIS) FED. AID PROJECT				

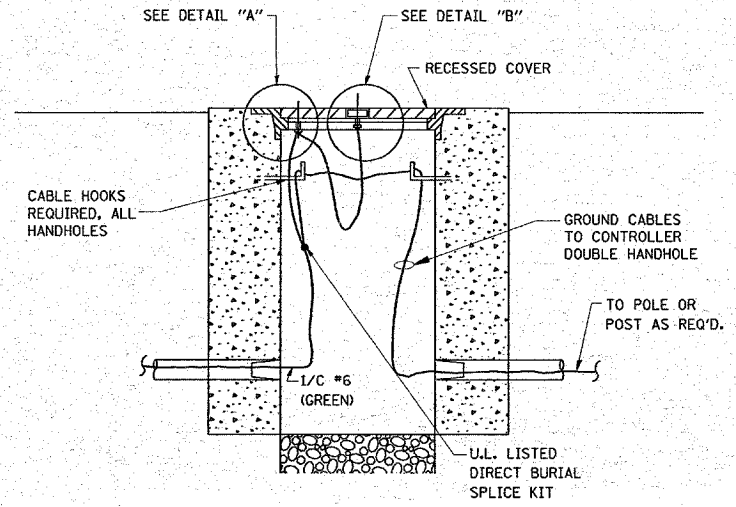
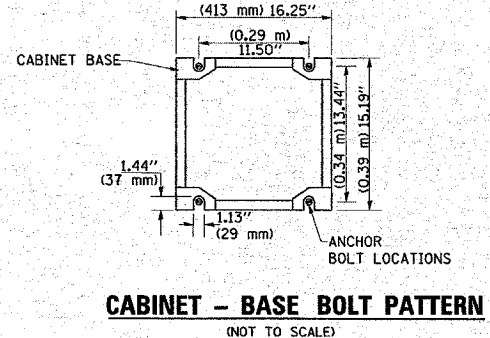


- NOTES:**
- GROUNDING SYSTEM**
1. THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE (HANDHOLE, POST, MAST ARM, CONTROLLER, ETC.). GROUND ROD SHALL BE 3/4" DIA. x 10'-0" (20mm x 3.0m) LONG, COPPER CLAD. ONE GROUND ROD SHALL BE INSTALLED AT ALL POST FOUNDATIONS, POLE FOUNDATIONS, CONTROLLER CABINET FOUNDATION AND ELECTRICAL SERVICE INSTALLATION AS INDICATED ON THE CABLE PLAN. IF THERE ARE ANY SPECIAL CONDITIONS SUCH AS SUB-SURFACE CONDITIONS OR INSTALLATION PROBLEMS, THE RESIDENT ENGINEER SHALL BE NOTIFIED OR CONTACT THE BUREAU OF TRAFFIC, ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE AT (847) 705-4139.
  2. 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.
  3. ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
  4. THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.

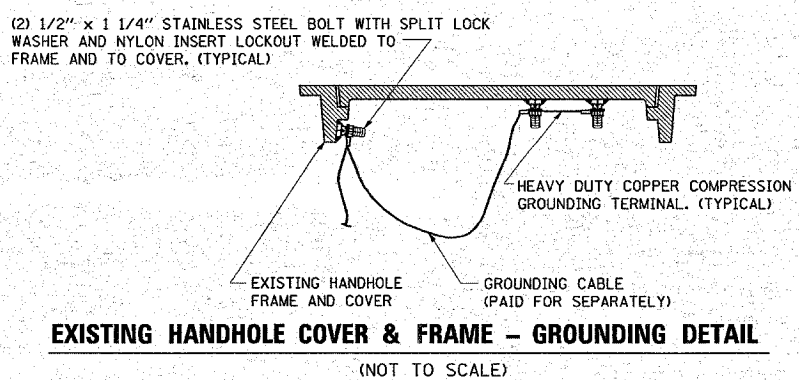
**ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)**  
**SERVICE INSTALLATION POLE MOUNT (SHOWN)**  
 (NOT TO SCALE)



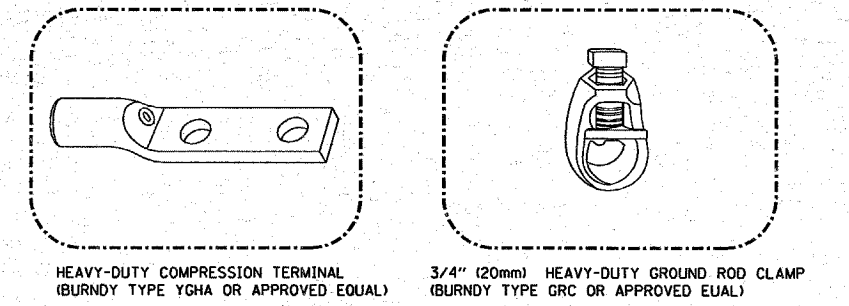
**SERVICE INSTALLATION GROUND MOUNT**  
 (NOT TO SCALE)



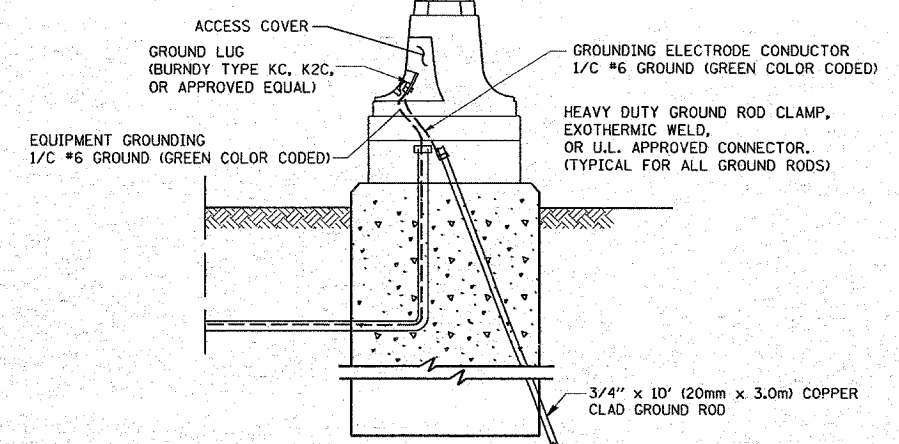
**HANDHOLE COVER & FRAME - GROUNDING DETAIL**  
 (NOT TO SCALE)



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



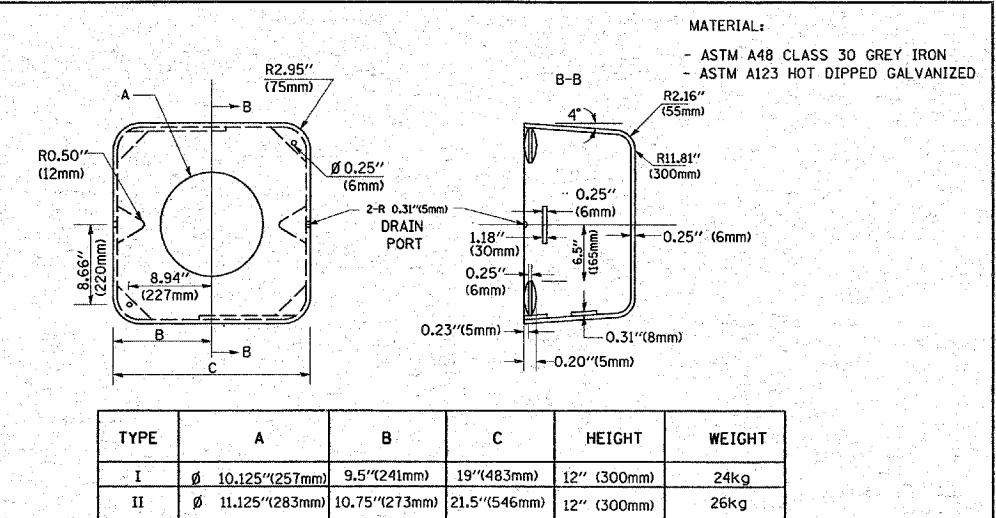
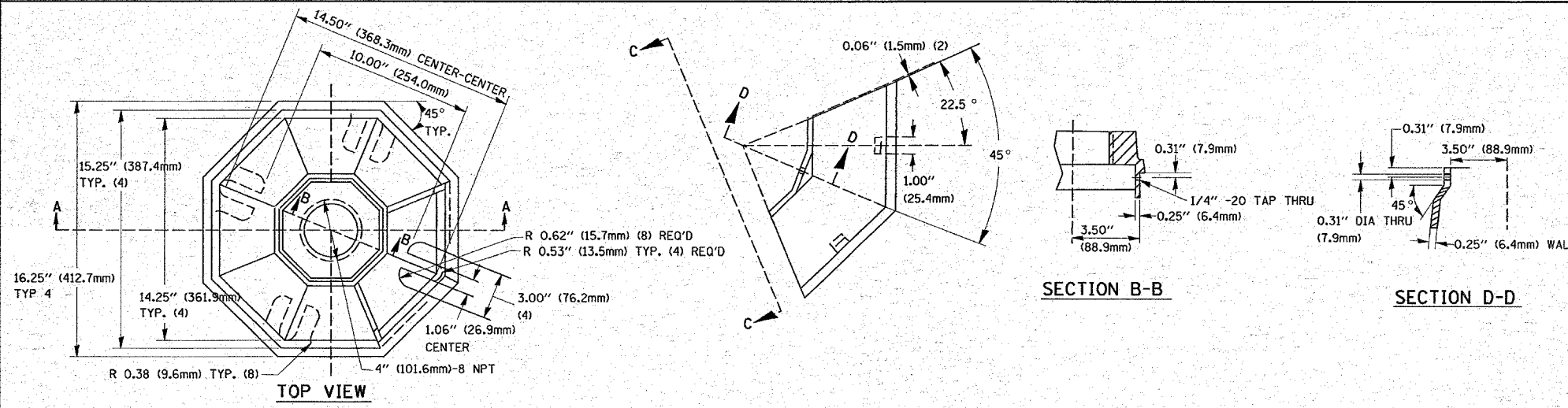
- NOTES:**
- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
  - GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.



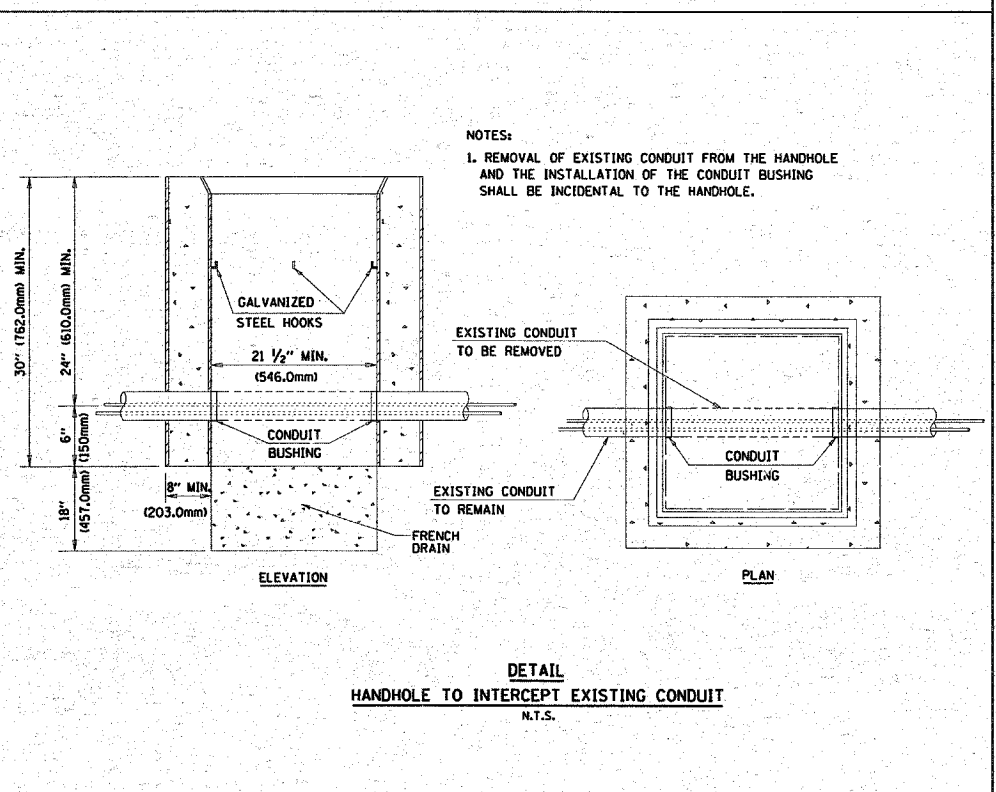
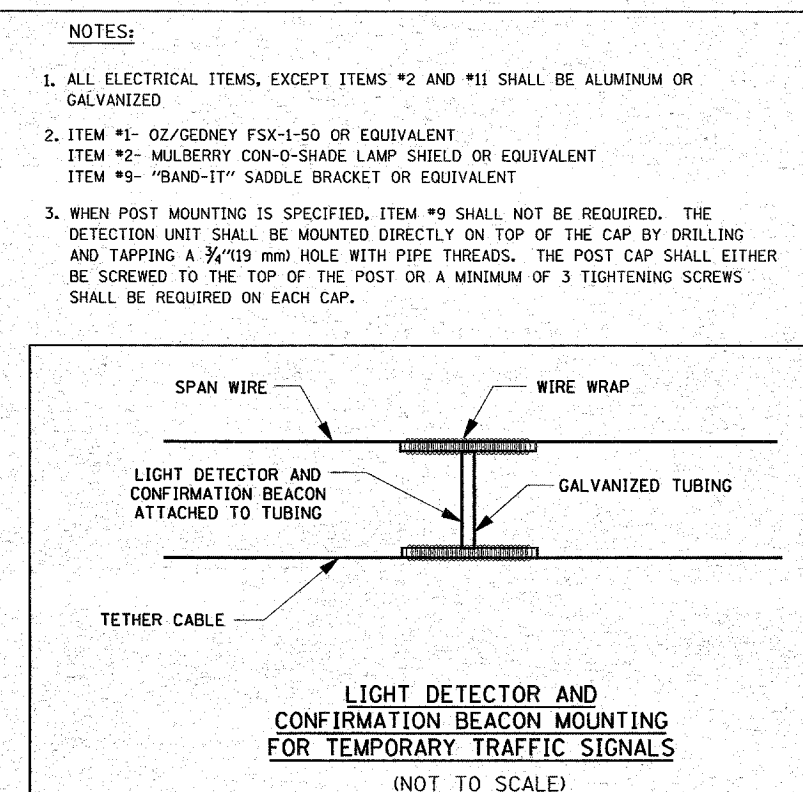
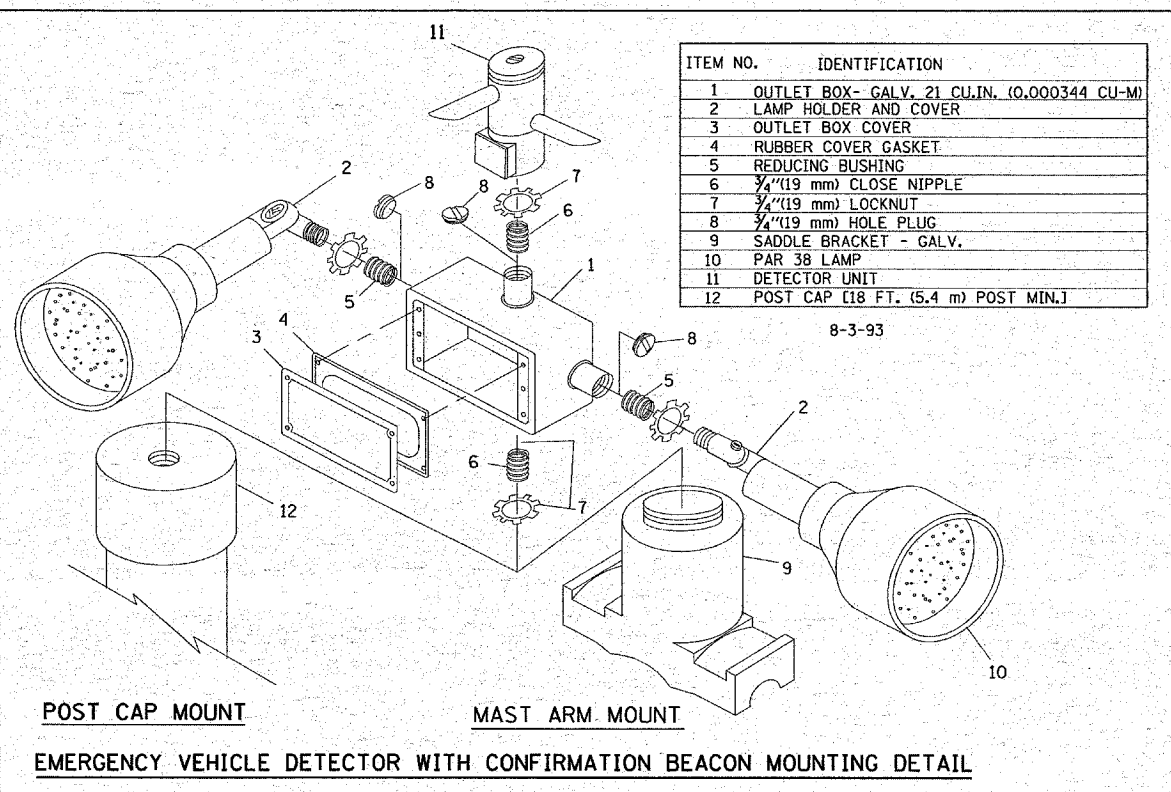
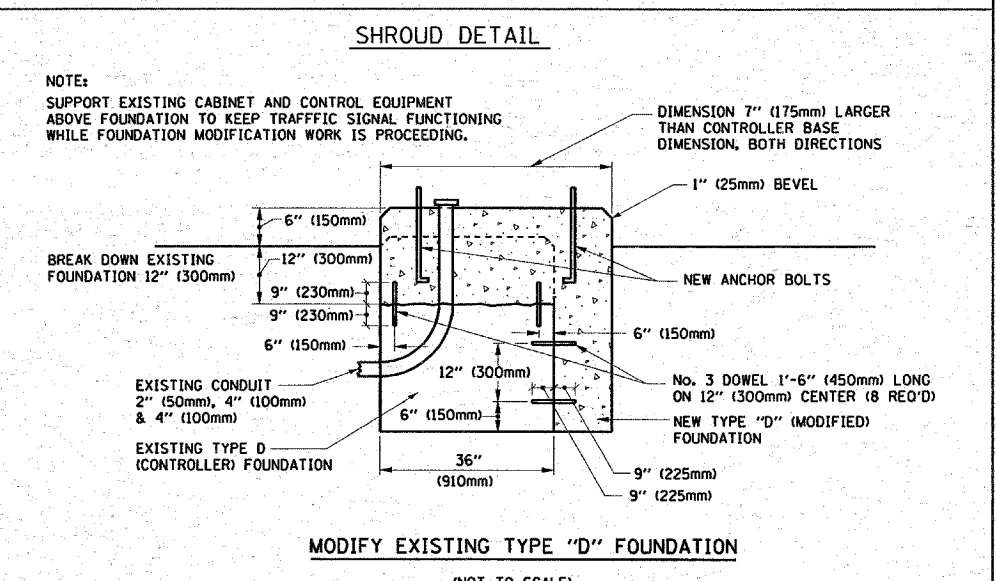
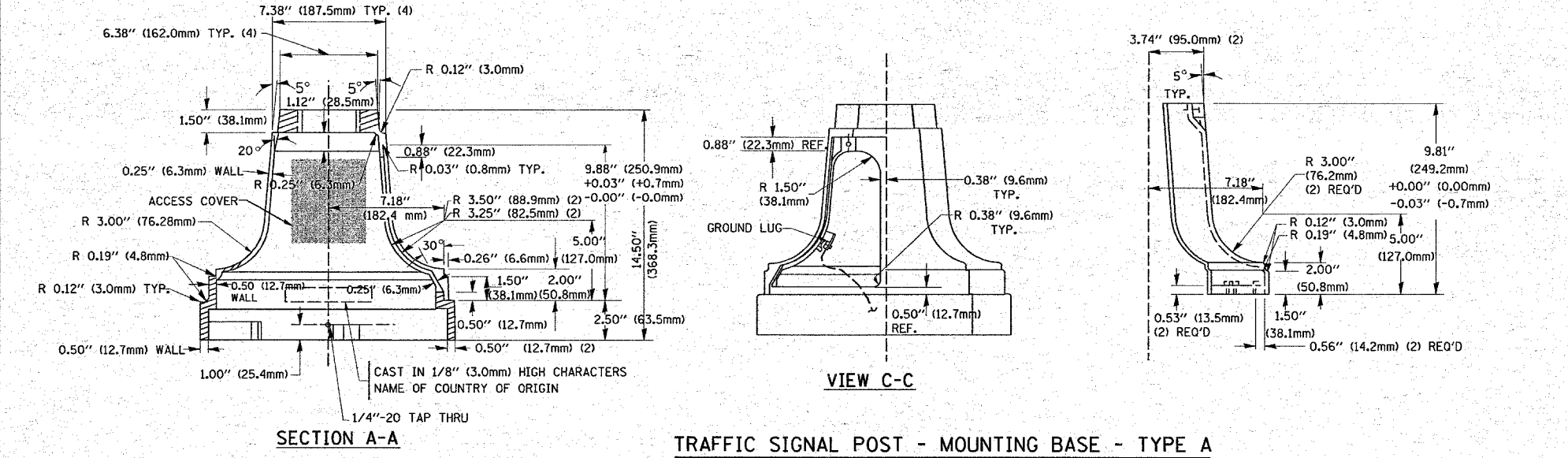
**MAST ARM POLE / POST-GROUNDING DETAIL**  
 (NOT TO SCALE)

FILE NAME =	USER NAME = steedpa	DESIGNED - D.A.D.	REVISED - 03-15-01	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\projects\dl13228\sh_rdwjy.dgn	PLOT SCALE = 5/8" = 1' / IN.	DRAWN - R.W.P.	REVISED - BUR, TRAFFIC 01-01-02			311	29R-RS-3	COOK	33	26
PLOT DATE = 3/26/2009	DATE - 05-30-00	CHECKED - D.A.Z.	REVISED -			TS-05		CONTRACT NO. 60D94		
		DATE - 05-30-00	REVISED -			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
					SCALE: NONE	SHEET NO. 3 OF 4 SHEETS STA.		TO STA.		



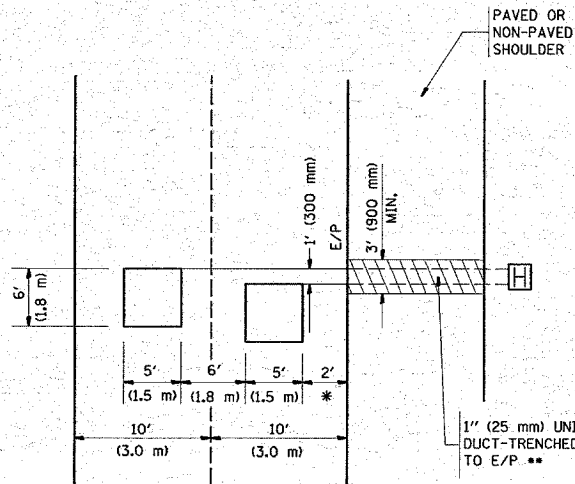


TYPE	A	B	C	HEIGHT	WEIGHT
I	Ø 10.125\"(257mm)	9.5\"(241mm)	19\"(483mm)	12\"(300mm)	24kg
II	Ø 11.125\"(283mm)	10.75\"(273mm)	21.5\"(546mm)	12\"(300mm)	26kg



**LOOPS NEXT TO SHOULDERS**

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

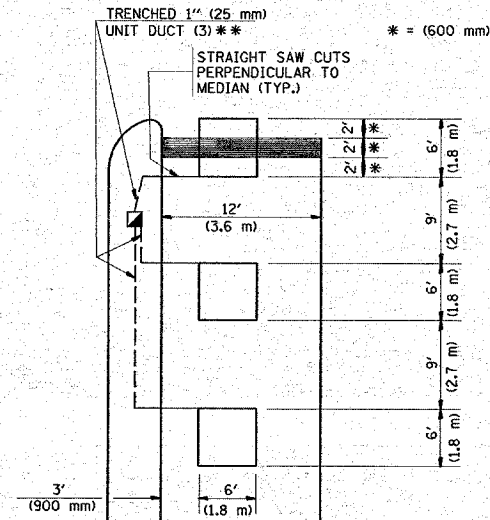


\* = (600 mm)

\*\* 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)**

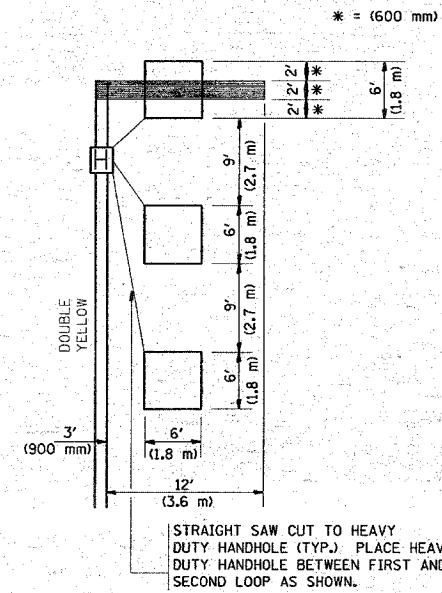
HANDHOLE LOCATION MAY VARY DEPENDING ON GEOMETRICS AND DESIGN OF TRAFFIC SIGNALS. HEAVY-DUTY HANDHOLES TO BE USED WHEN THE MEDIAN IS MOUNTABLE. REFER TO STANDARD 814001 TO ENSURE THAT HANDHOLE FITS IN MEDIAN.



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

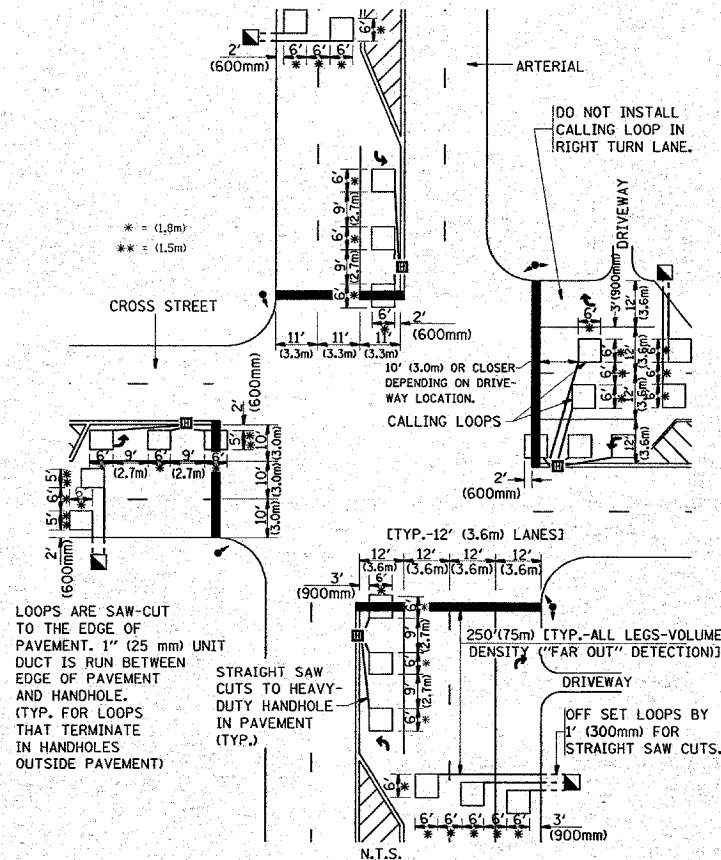
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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



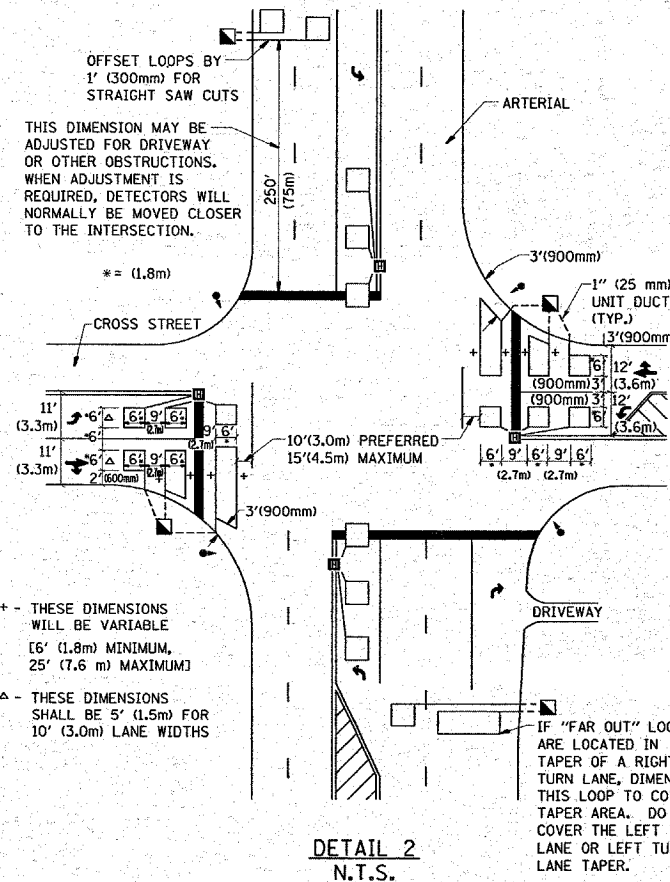
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

**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 = c:\projects\dl13208\ah...rdw.dgn

USER NAME = steedoo  
PLOT SCALE = 50.0004' / IN.  
PLOT DATE = 3/26/2008

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

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DISTRICT 1 - DETECTOR LOOP INSTALLATION  
DETAILS FOR ROADWAY RESURFACING**

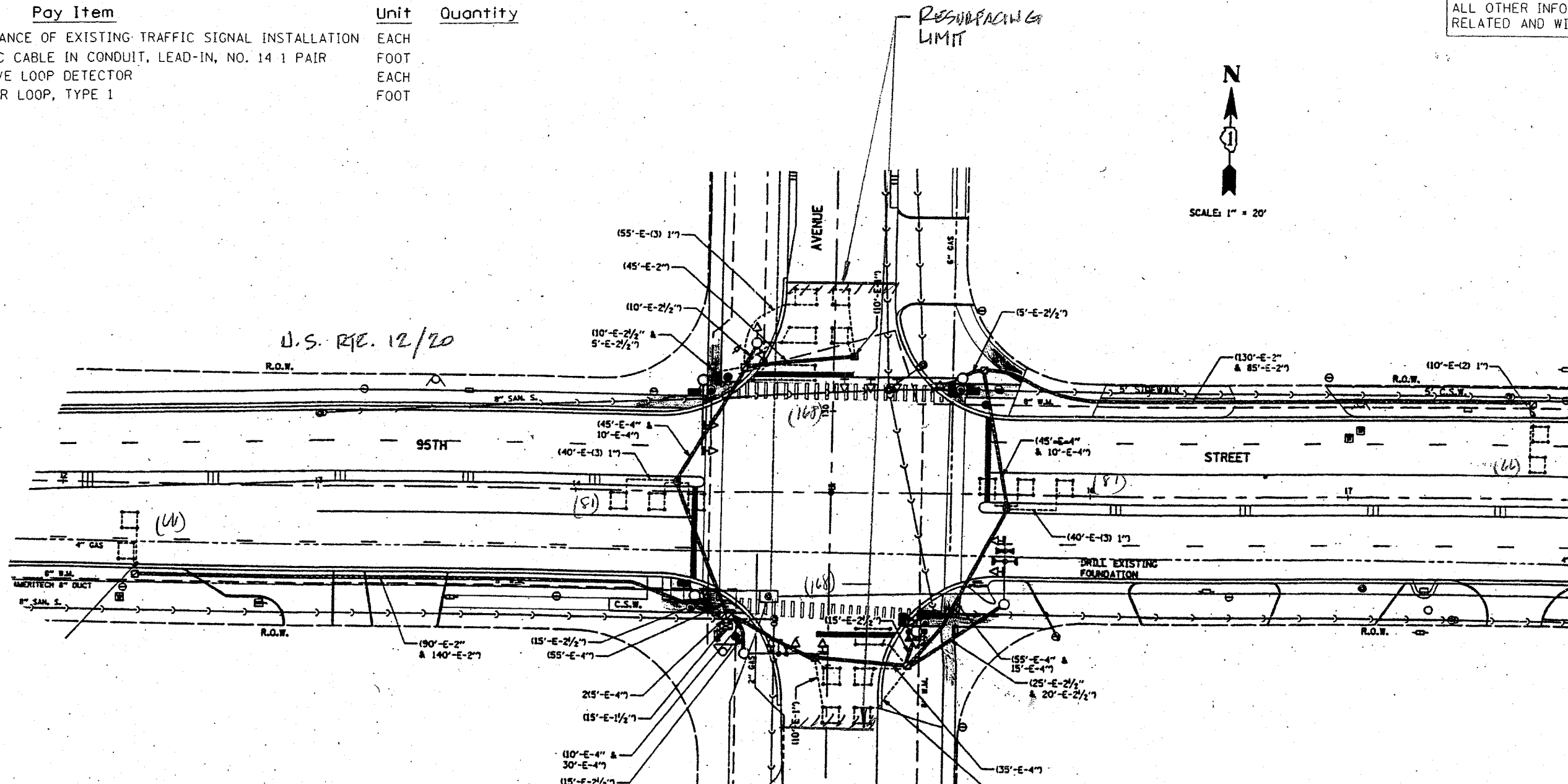
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	29R-RS-3	COOK	33	28
TS-07			CONTRACT NO. 60D94	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

The "Pay Items" below are paid separately as per the attached "Specification" for MAGNETIC DETECTOR REMOVAL AND DETECTOR LOOP INSTALLATION.

Code No.	Pay Item	Unit	Quantity
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	
87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	
88500100	INDUCTIVE LOOP DETECTOR	EACH	
88600100	DETECTOR LOOP, TYPE 1	FOOT	

**NOTE:**  
THIS PLAN IS FOR THE PURPOSE OF REPLACING THE DETECTOR LOOPS ONLY. ALL OTHER INFORMATION SHOWN IS NOT RELATED AND WILL BE DISREGARDED.



EXISTING		PROPOSED		TRAFFIC SIGNAL LEGEND	

**REPLACE ALL DETECTOR LOOPS AS SHOWN**  
(WITHIN THE RESURFACING LIMITS)

CODE NO.	QUANTITY	UNIT	ITEM
86600600	630	FOOT	DETECTOR LOOP REPLACEMENT

FILE NAME =	USER NAME = konthophkybc	DESIGNED -	REVISED -
c:\projects\traffic\870027\us12.20.45.dgn		DRAWN -	REVISED -
PLOT SCALE = 40.0000 "/>		CHECKED -	REVISED -
PLOT DATE = 2/29/2008		DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DETECTOR LOOP REPLACEMENT  
U.S. RTE. 12/20 @ 88TH AVE.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS
029	29R-RS-3	LOUISIANA	33
			CONTRACT NO. 60L

SCALE: SHEET NO. OF SHEETS | STA. TO STA.



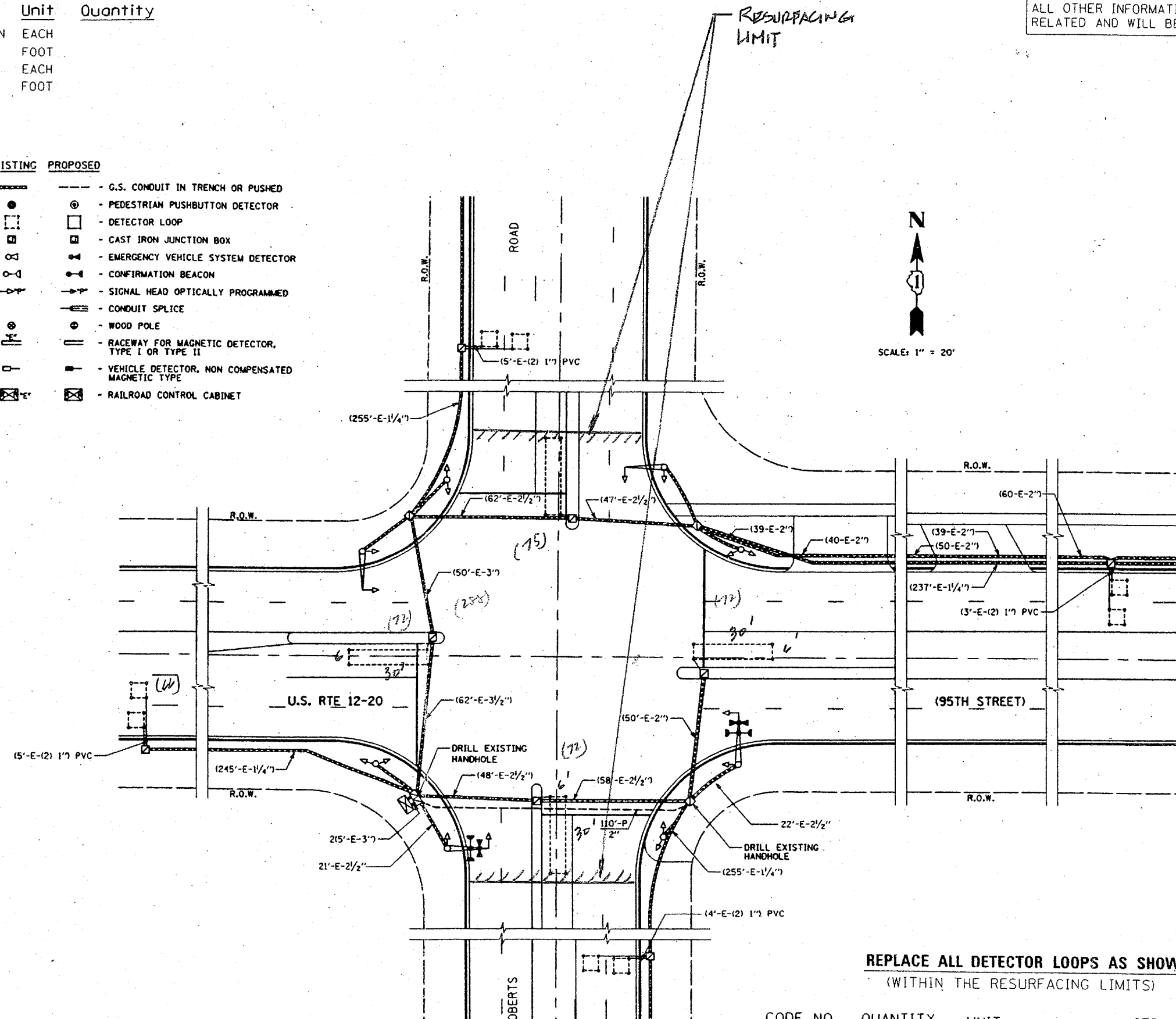
The "Pay Items" below are paid separately as per the attached "Specification" for MAGNETIC DETECTOR REMOVAL AND DETECTOR LOOP INSTALLATION.

Code No.	Pay Item	Unit	Quantity
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	
87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	
88500100	INDUCTIVE LOOP DETECTOR	EACH	
88600100	DETECTOR LOOP, TYPE 1	FOOT	

**NOTE:**  
THIS PLAN IS FOR THE PURPOSE OF REPLACING THE DETECTOR LOOPS ONLY. ALL OTHER INFORMATION SHOWN IS NOT RELATED AND WILL BE DISREGARDED.

**TRAFFIC SIGNAL LEGEND**

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



**REPLACE ALL DETECTOR LOOPS AS SHOWN**  
(WITHIN THE RESURFACING LIMITS)

CODE NO.	QUANTITY	UNIT	ITEM
86600600	420	FOOT	DETECTOR LOOP REPLACEMENT

FILE NAME: en:\projects\tr\of\1070027\us12_20_45.dwg	USER NAME: kenthaphwaybc	DESIGNED: -	REVISED: -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DETECTOR LOOP REPLACEMENT U.S. RTE. 12/20 @ ROBERTS RD.	F.A. RTE. 029	SECTION 29R-RS-3	COUNTY COOK	TOTAL SHEETS 33	SHEET NO. 33	CONTRACT NO. 60D
PLOT SCALE: 40.0000 / IN.	CHECKED: -	REVISED: -	TO STA.								
PLOT DATE: 2/29/2008	DATE: -	REVISED: -									

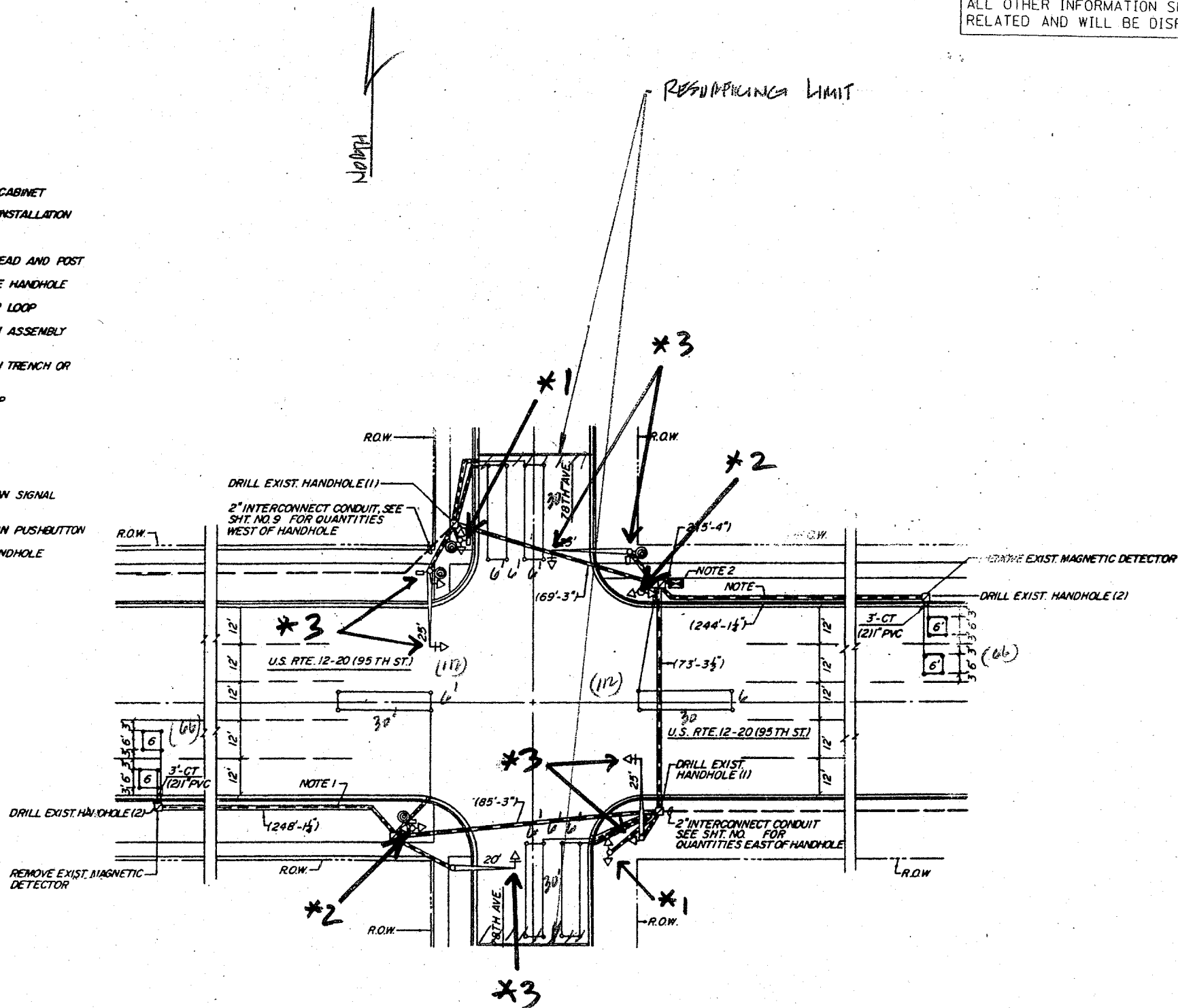
RESURFACING - TRAFFIC SIGNAL SIGNAL SCHEDULE OF QUANTITIES

The "Pay Items" below are paid separately as per the attached "Specification" for MAGNETIC DETECTOR REMOVAL AND DETECTOR LOOP INSTALLATION.

Code No.	Pay Item	Unit	Quantity
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	
87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	
88500100	INDUCTIVE LOOP DETECTOR	EACH	
88600100	DETECTOR LOOP, TYPE 1	FOOT	

**LEGEND**

- NEW CONTROLLER CABINET
- EXISTING SERVICE INSTALLATION
- EXISTING CONDUIT
- EXISTING SIGNAL HEAD AND POST
- EXISTING CONCRETE HANDHOLE
- EXISTING DETECTOR LOOP
- EXISTING MAST ARM ASSEMBLY AND POLE
- NEW G.S. CONDUIT IN TRENCH OR PUSHED
- NEW DETECTOR LOOP
- PVC POLYVINYLCHLORIDE
- CT COMMON TRENCH
- NTS NOT TO SCALE
- EXISTING PEDESTRIAN SIGNAL HEAD
- EXISTING PEDESTRIAN PUSHBUTTON
- NEW CONCRETE HANDHOLE



**NOTE:**  
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**REPLACE ALL DETECTOR LOOPS AS SHOWN**  
(WITHIN THE RESURFACING LIMITS)

CODE NO.	QUANTITY	UNIT	ITEM
86600600	680	FOOT	DETECTOR LOOP REPLACEMENT

FILE NAME: c:\projects\traffic\1079027\us12_20_45.dwg	USER NAME: kenthaphixaybc	DESIGNED: -	REVISED: -
PLOT SCALE: 1/4" = 1'-0"	CHECKED: -	DRAWN: -	REVISED: -
PLOT DATE: 2/29/2008	DATE: -		REVISED: -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DETECTOR LOOP REPLACEMENT  
U.S. 12/20 @ 78TH AVENUE

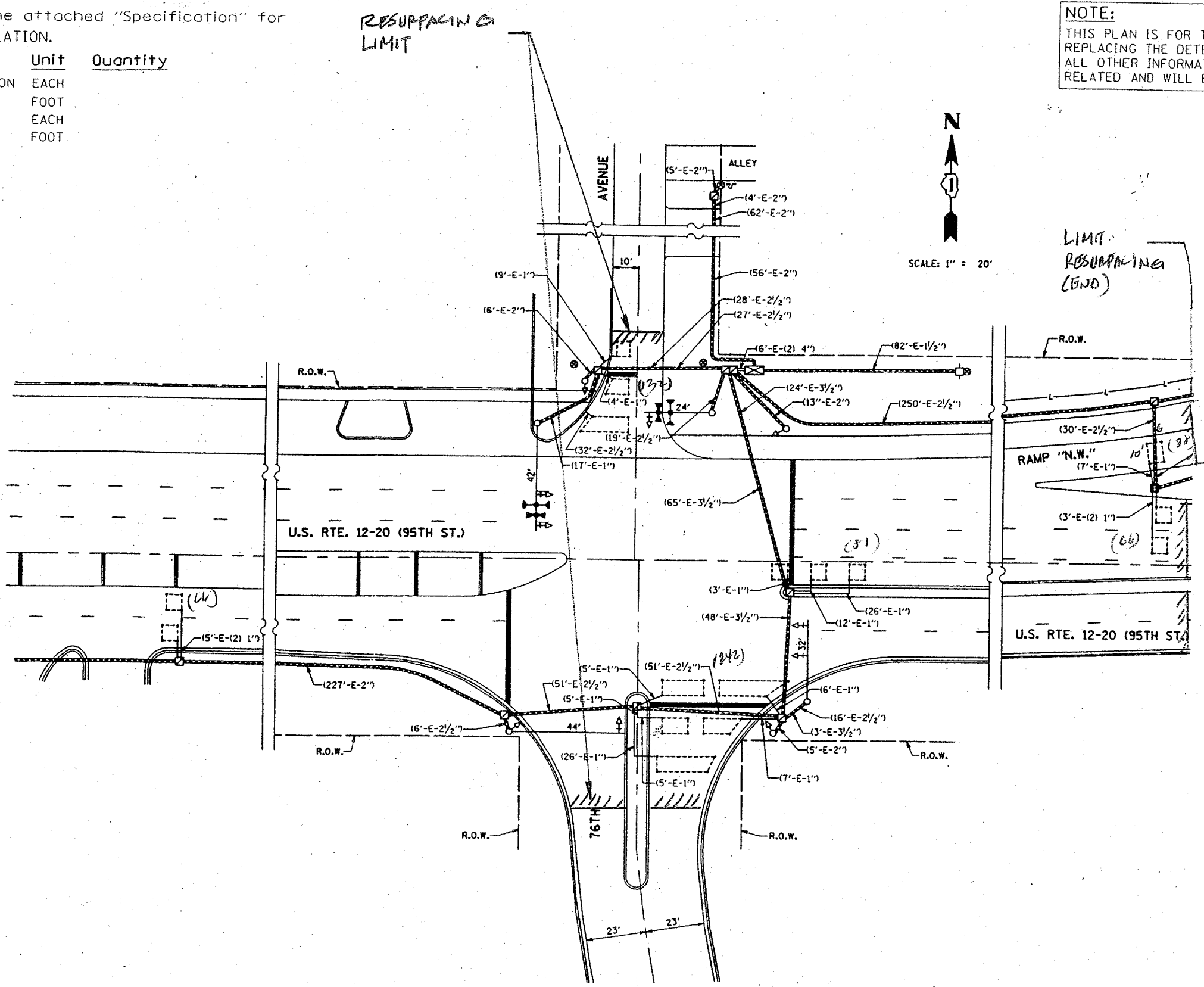
F.A.V. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
029	29R-RS-3	COOK	33	3

SCALE: SHEET NO. OF SHEETS STA. TO STA.

The "Pay Items" below are paid separately as per the attached "Specification" for MAGNETIC DETECTOR REMOVAL AND DETECTOR LOOP INSTALLATION.

Code No.	Pay Item	Unit	Quantity
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	
87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	
88500100	INDUCTIVE LOOP DETECTOR	EACH	
88600100	DETECTOR LOOP, TYPE 1	FOOT	

**NOTE:**  
THIS PLAN IS FOR THE PURPOSE OF REPLACING THE DETECTOR LOOPS ONLY. ALL OTHER INFORMATION SHOWN IS NOT RELATED AND WILL BE DISREGARDED.



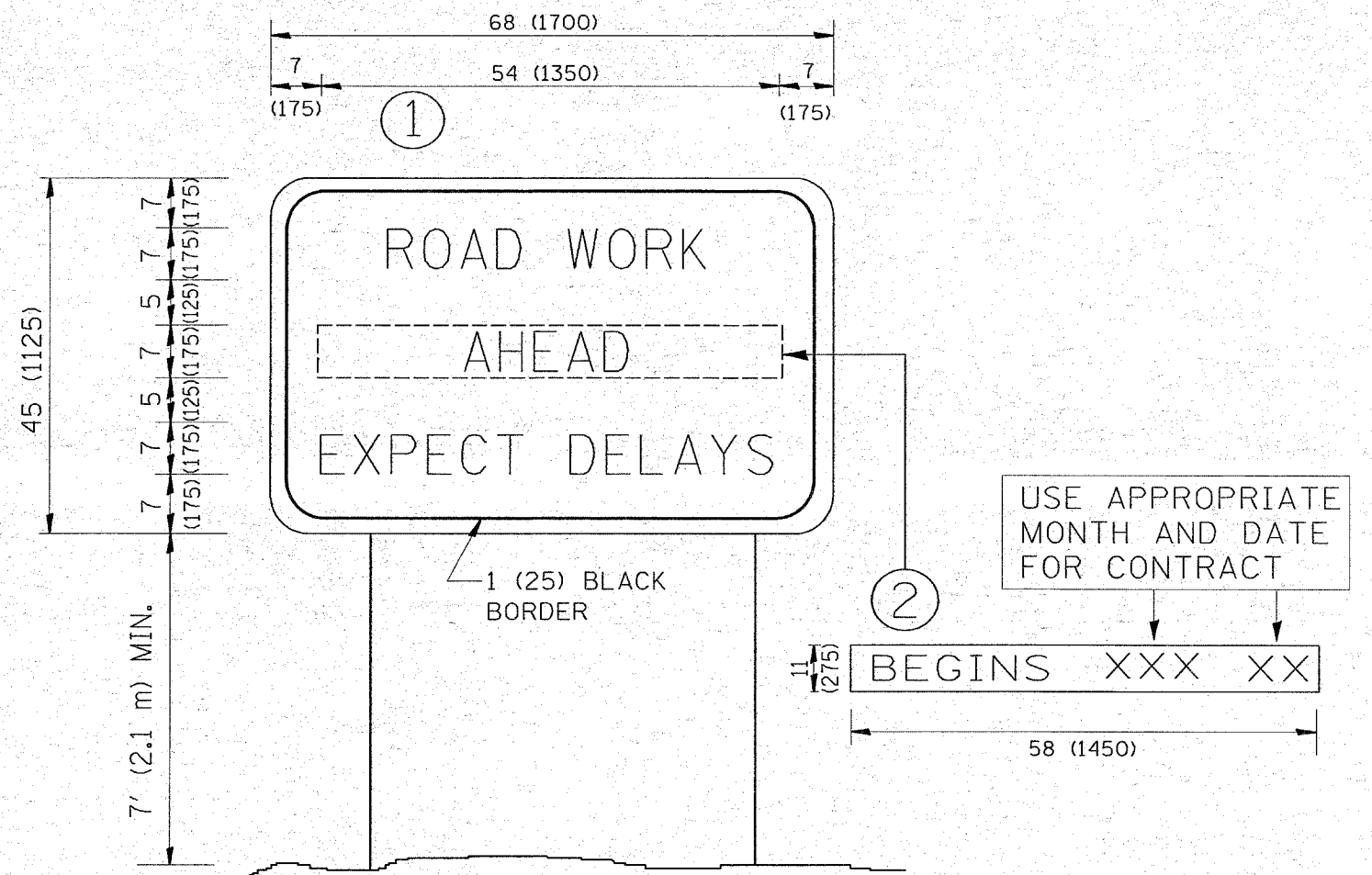
**TRAFFIC SIGNAL LEGEND**

EXISTING	PROPOSED	
		- CONTROLLER
		- SERVICE INSTALLATION
		- SIGNAL HEAD
		- SIGNAL HEAD WITH BACKPLATE
		- SIGNAL HEAD, PEDESTRIAN
		- SIGNAL POST
		- MAST ARM ASSEMBLY AND POLE, STEEL
		- MAST ARM ASSEMBLY AND POLE, ALUMINUM
		- COMMON TRENCH
		- UNIT DUCT
		- HANDHOLE
		- HEAVY DUTY HANDHOLE
		- DOUBLE HANDHOLE
		- G.S. CONDUIT IN TRENCH OR PUSHED
		- PEDESTRIAN PUSHBUTTON DETECTOR
		- DETECTOR LOOP

**REPLACE ALL DETECTOR LOOPS AS SHOWN**  
(WITHIN THE RESURFACING LIMITS)

CODE NO.	QUANTITY	UNIT	ITEM
86600600	625	FOOT	DETECTOR LOOP REPLACEMENT

FILE NAME =	USER NAME = konthaphixybc	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DETECTOR LOOP REPLACEMENT U.S. RTE. 12/20 @ 76TH AVENUE	F.A. RTE. =	SECTION	COUNTY	TOTAL SHEETS	SHE NO.	
PROJECT PATH =	DESIGNED BY =	DRAWN -	REVISED -			029	29R-RS-3	Cook	33	33	
PLOT SCALE = 40.0000 "/td> <td>DATE = 2/29/2008</td> <td>CHECKED -</td> <td>REVISED -</td> <td colspan="2">SCALE: SHEET NO. OF SHEETS STA. TO STA.</td> <td colspan="4">CONTRACT NO. 60DS</td>	DATE = 2/29/2008	CHECKED -	REVISED -			SCALE: SHEET NO. OF SHEETS STA. TO STA.		CONTRACT NO. 60DS			
PLOT DATE = 2/29/2008	DATE =	DATE =	DATE =								



**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 = c:\projects\0113208\sh_rdvj.dgn	USER NAME = steadpa	DESIGNED -	REVISED - R. MIRS 09-15-97
		DRAWN -	REVISED - R. MIRS 12-11-97
		CHECKED -	REVISED - T. RAMMACHER 02-02-99
		DATE -	REVISED - C. JUCIUS 01-31-07

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ARTERIAL ROAD  
INFORMATION SIGN**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	29R-RS-3	COOK	33	33
TC-22			CONTRACT NO. 60D94	
FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT				

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