

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1238	(O, 144 & 144x) RS-4	LAKE	25	1
		ILLINOIS	CONTRACT NO. 62661	

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

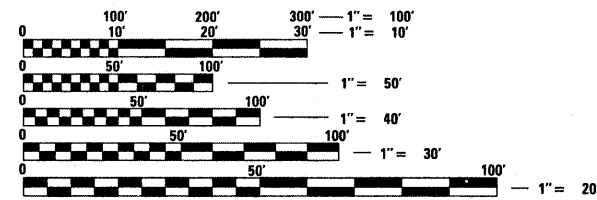
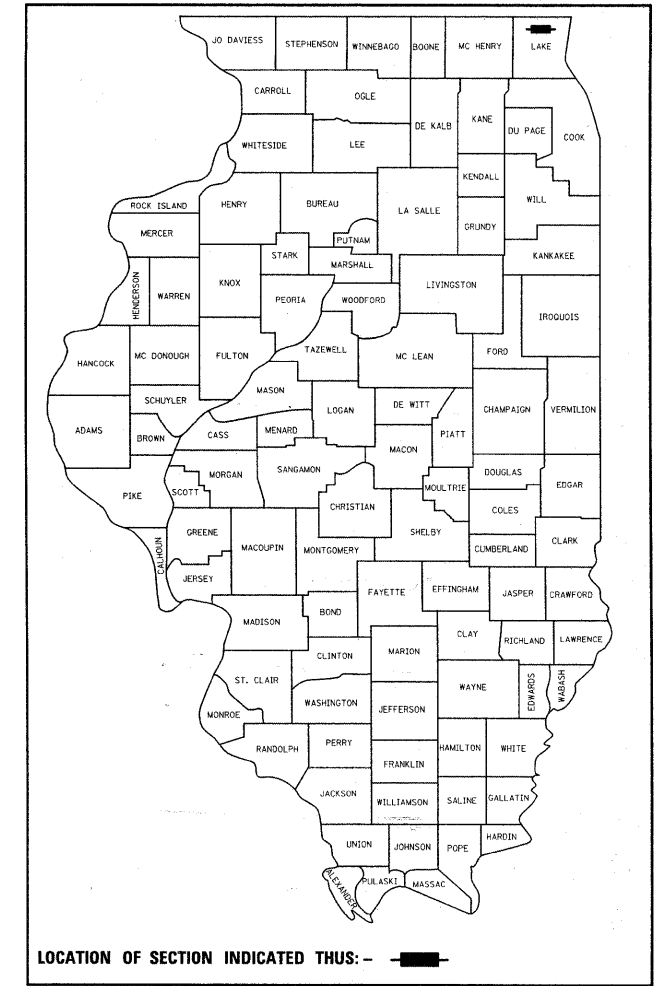
D-91-202-01

FOR INDEX OF SHEETS, SEE SHEET NO. 2

**PROPOSED  
HIGHWAY PLANS**

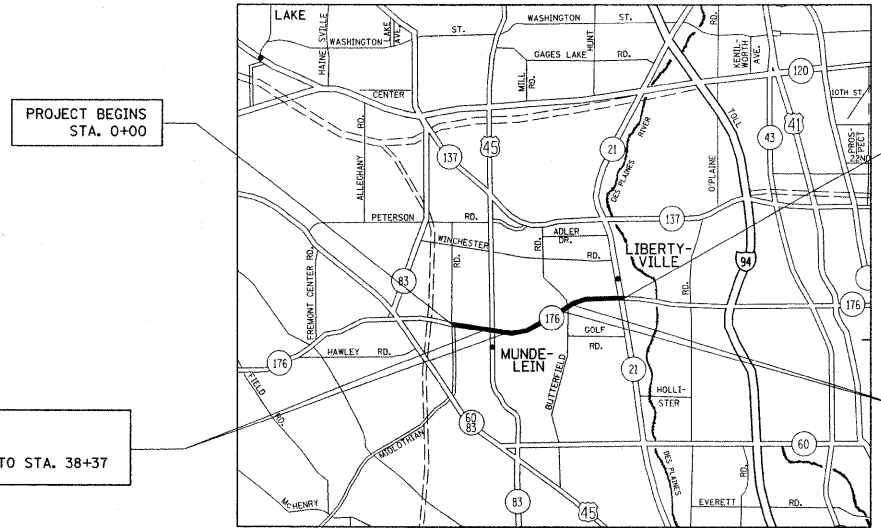
F.A.U. ROUTE 1238 (IL. RTE. 176)  
MIDLOTHIAN ROAD TO ILLINOIS ROUTE 21  
SECTION (O, 144 & 144x) RS-4  
RESURFACING (3P)  
PROJECT: *ESP-1238(009)*  
LAKE COUNTY  
C-91-022-04

PROJECT LOCATED IN THE VILLAGE OF LIBERTYVILLE  
AND THE VILLAGE OF MUNDELEIN



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. 0+00

PROJECT ENDS  
STA. 166+51.74

OMISSION:  
STA. 30+95.12 TO STA. 38+37

OMISSION:  
STA. 119+10.59 TO STA. 128+87.36

TRAFFIC DATA  
2007 ADT = 18,800  
SPEED LIMIT = 30 MPH/40 MPH

FREMONT, LIBERTYVILLE TOWNSHIP

**LOCATION MAP**

GROSS LENGTH = 16,651.74 FT. = 3.15 MILE  
NET LENGTH = 14,933.09 FT. = 2.83 MILE

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED JUNE 29, 20 09  
*Diana M. O'Keefe*  
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

August 14, 20 09  
*Charles J. Ingersoll*  
ENGINEER OF DESIGN AND ENVIRONMENT

August 14, 20 09  
*Christine M. Reed*  
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

**PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS**

PROJECT ENGINEER DAN WILGREEN 847-705-4240  
PROJECT MANAGER KEN ENG

CONTRACT NO. 62661

DISTRICT 1 DESIGN PLAN PREPARATION ENGINEER: KEN ENG / DANIEL WILGREEN (847) 705-4250

**INDEX OF SHEETS**

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	INDEX OF SHEETS, LIST OF STATE STANDARDS, AND PLAN NOTES
3	SUMMARY OF QUANTITIES
4, 5	TYPICAL CROSS SECTIONS
6-11	EXISTING AND PROPOSED ROADWAY AND PAVEMENT MARKING PLANS
12-14	DETECTOR LOOP REPLACEMENT PLANS
15	DETAILS FOR FRAMES & LIDS ADJUSTMENT WITH MILLING
16	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT
17	CURB & GUTTER REMOVAL & REPLACEMENT
18	BUTT JOINT AND HMA TAPER DETAIL
19	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS
20	TYPICAL APPLICATION RAISED REFLECTIVE PAVEMENT MARKERS (SNOW PLOW RESISTANT)
21	DISTRICT ONE TYPICAL PAVEMENT MARKINGS
22	TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)
23	PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING
24	ARTERIAL ROAD INFORMATION SIGN
25	DISTRICT ONE DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING

**STANDARDS**

STD. NO.	DESCRIPTION
000001-05	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
442201-03	CLASS C & D PATCHES
606001-04	CONCRETE CURB AND COMBINATION CONCRETE CURB AND GUTTER
701011-02	OFF ROAD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701201-03	LANE CLOSURE, 2L, 2W, DAY ONLY FOR SPEED 45 MPH
701301-03	LANE CLOSURE, 2L, 2W, NSHORT TERM OPERATION
701306-02	LANE CLOSURE, 2L, 2W, SLOW MOVING, OPERATIONS DAYTIME ONLY FOR SPEED 45 MPH
701311-03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS, DAY ONLY
701336-05	LANE CLOSURE, 2L, 2W, WORK AREAS IN SERIES FOR SPEED ≥45 MPH
701901-01	TRAFFIC CONTROL DEVICES
886001-01	DETECTOR LOOP INSTALLATIONS

**PLAN NOTES**

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 1-800-892-0123 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, AND GAS FACILITIES. (48 HOUR NOTIFICATION IS REQUIRED)

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, THE VILLAGES OF LIBERTYVILLE AND MUNDELEIN.

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

WHEN MILLED PAVEMENT IS OPEN TO TRAFFIC THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED 1 1/2 INCHES WHERE THE SPEED LIMIT IS 45 MPH OR LESS AND 1 INCH WHERE THE SPEED LIMIT IS GREATER THAN 45 MPH. WITH WRITTEN APPROVAL FROM THE ENGINEER, A MAXIMUM GRADE DIFFERENTIAL OF 3 INCHES MAY BE ALLOWED IF THE EDGE OF THE MILLING 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.

UNLESS OTHER CONDITIONS WARRANT EXTENDED LANE CLOSURE AS DETERMINED AND APPROVED IN WRITING BY THE ENGINEER OR AS PROVIDED FOR IN THE CONTRACT SPECIFICATIONS, OVERNIGHT CLOSURES SHALL NOT BE ALLOWED FOR REHABILITATION PROJECTS INVOLVING DAYTIME MILLING AND RESURFACING OPERATIONS AND CLASS D PATCHING.

THE RESIDENT ENGINEER SHALL CONTACT MS. DEBBIE HANLON, AREA TRAFFIC FIELD ENGINEER AT (847) 438-2300 A MINIMUM OF TWO WEEKS PRIOR TO PLACEMENT OF PERMANENT PAVEMENT MARKINGS.

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

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL OVERHEAD, SURFACE, AND UNDERGROUND UTILITIES WITHIN THE PROJECT LIMITS WHETHER OR NOT THE UTILITES ARE SHOWN ON THE PLANS. ANY UTILITY THAT IS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT HIS OWN EXPENSE.

ALL PROPOSED DRIVEWAYS SHALL BE HOT-MIX ASPHALT UNLESS OTEHRWISE SPECIFIED AS PORTLAND CEMENT CONCRETE ON THE PLAN SHEETS.

THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM OF 72 HOURS PRIOR TO THE PLACEMENT OF ANY TRAFFIC CONTROL DEVICES.

FILE NAME =	USER NAME = bauerdl	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>IL. RTE. 176 MIDLOTHIAN RD. TO IL. RTE. 21</b>	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pwork\pwork\BAUERDL\0143145\0102284-sht\plan.dgn	DRAWN -	REVISED -	1238			(0, 144 & 144x) RS-4	LAKE	25	2	
PLOT SCALE = 50,0000' / IN.	CHECKED -	REVISED -	CONTRACT NO. 62661							
PLOT DATE = 6/26/2009	DATE -	REVISED -	SCALE: 1"=50'			SHEET NO. OF SHEETS	STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	

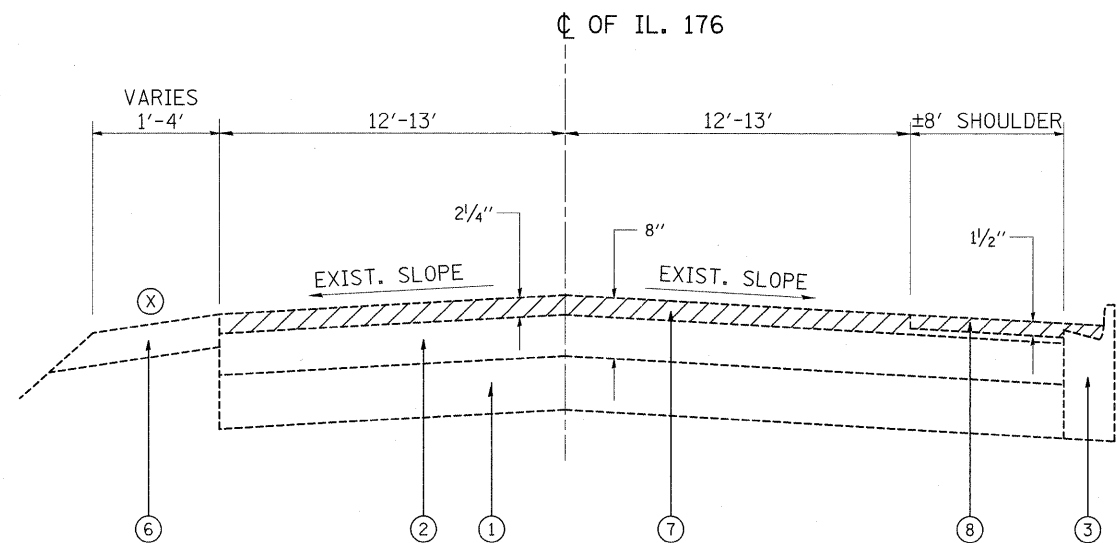
SUMMARY OF QUANTITIES			CONSTRUCTION TYPE CODE						SUMMARY OF QUANTITIES			CONSTRUCTION TYPE CODE									
CODE NO	ITEM	UNIT	URBAN 100% FED.								TOTAL QUANTITIES										
			TOTAL QUANTITIES	I-000								I-000									
20200100	EARTH EXCAVATION	CU YD	21	21							70100600	TRAFFIC CONTROL AND PROTECTION, STANDARD 701336	L SUM	1	1						
20201006	GRADING AND SHAPING SHOULDERS	UNIT	176	176							70300100	SHORT-TERM PAVEMENT MARKING	FOOT	3912	3912						
35501300	HOT-MIX ASPHALT BASE COURSE, 6"	SQ YD	44	44							70300210	TEMPORARY PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	462	462						
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	22	22							70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	46246	46246						
40600300	AGGREGATE (PRIME COAT)	TON	10	10							70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	1553	1553						
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGWAYS	TON	6	6							70300250	TEMPORARY PAVEMENT MARKING - LINE 8"	FOOT	205	205						
40600895	CONSTRUCTING TEST STRIP	EACH	2	2							70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	FOOT	1056	1056						
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	349	349							70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	357	357						
<del>40601005</del>	<del>HOT-MIX ASPHALT REPLACEMENT OVER PATCHES</del>	<del>TON</del>	<del>3027</del>	<del>3027</del>							70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	1304	1304						
40403310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	5	5							78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	462	462						
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	4770	4770							* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	46246	46246						
42001300	PROTECTIVE COAT	SQ YD	132	132							* 78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	1553	1553						
42300400	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 8 INCH	SQ YD	34	34							* 78000500	THERMOPLASTIC PAVEMENT MARKING - LINE 8"	FOOT	205	205						
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	109	109							* 78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	1056	1056						
44000155	HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2"	SQ YD	1956	1956							* 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	357	357						
44000158	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/4"	SQ YD	54828	54828							* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	868	868						
44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	44	44							78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	276	276						
44000600	SIDEWALK REMOVAL	SQ FT	109	109							* 88600600	DETECTOR LOOP REPLACEMENT	FOOT	342	342						
44001700	COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	384	384							X0322256	TEMPORARY INFORMATION SIGNING	SQ FT	52	52						
<del>44002232</del>	<del>HOT-MIX ASPHALT REMOVAL OVER PATCHES, 8"</del>	<del>SQ YD</del>	<del>6755</del>	<del>6755</del>							X4067107	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	TON	2159	2159						
44201815	CLASS D PATCHES, TYPE II, 14 INCH	SQ YD	1000	1000							XX006806	HOT-MIX ASPHALT DRIVEWAY PAVEMENT	SQ YD	10	10						
44201819	CLASS D PATCHES, TYPE III, 14 INCH	SQ YD	700	700							NP Z0018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	25	25						
44201821	CLASS D PATCHES, TYPE IV, 14 INCH	SQ YD	500	500							Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1	1						
48102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	610	610																	
48203021	HOT-MIX ASPHALT SHOULDERS, 6"	SQ YD	123	123																	
NP 55039700	STORM SEWERS TO BE CLEANED	FOOT	500	500																	
60300105	FRAMES AND GRATES TO BE ADJUSTED	EACH	16	16																	
* 63000001	STEEL PLATE BEAM GUARD RAIL, TYPE A, 6 FOOT POSTS	FOOT	400	400																	
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	8	8																	
63200310	GUARDRAIL REMOVAL	FOOT	500	500																	
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	3	3																	
67100100	MOBILIZATION	L SUM	1	1																	
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1																	
70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	L SUM	1	1																	

NP= NON-PARTICIPATING  
\*Specialty Items

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

IL 176 (IL 21 TO ST. MARY'S ROAD)  
SUMMARY OF QUANTITIES

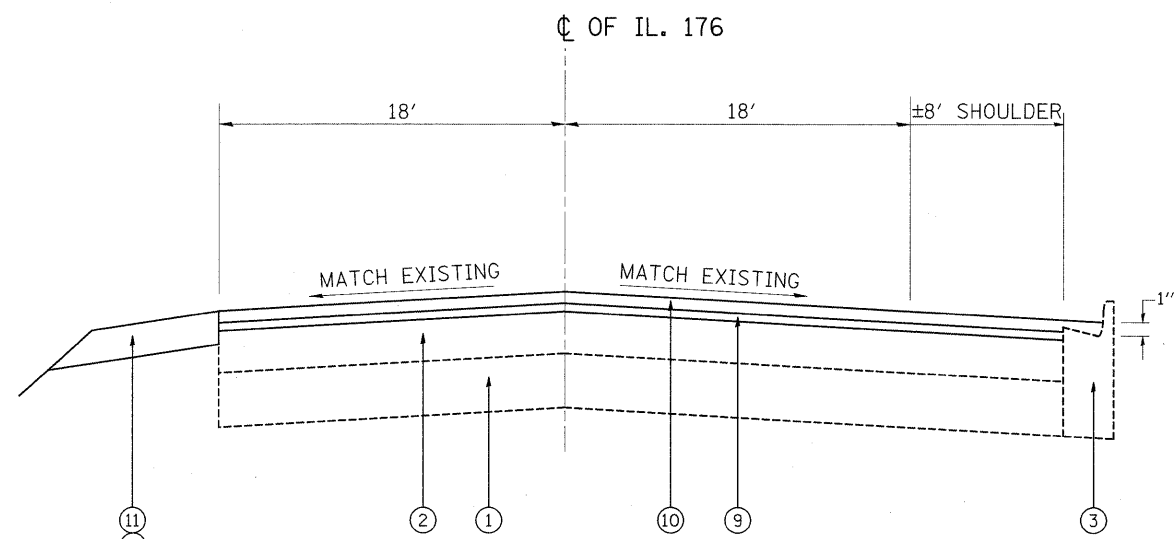
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DRAWN -				CHECKED -		DATE -				CONTRACT NO. 62661				
PLOT SCALE = 50,000' / 1/4"				PLOT DATE = 6/29/2009						FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



**EXISTING TYPICAL CROSS SECTION**

STA. 0+00 TO STA. 24+05

(X) EXISTING PAVED SHOULDER LOCATIONS TO BE RESURFACED, SAME AS PER SOUTH SIDE PAVED SHOULDER.



**PROPOSED TYPICAL CROSS SECTION**

STA. 0+00 TO STA. 24+05

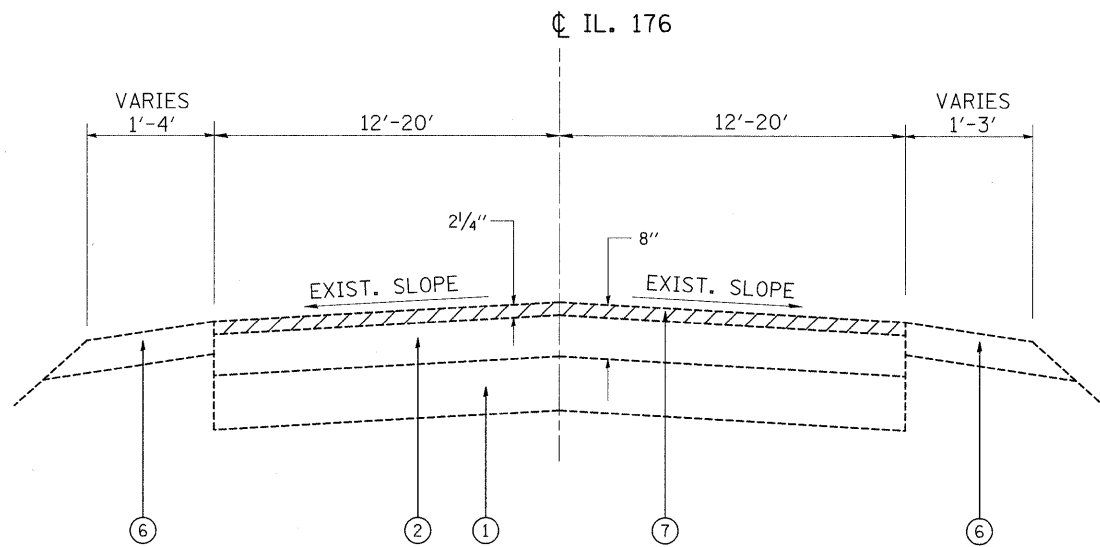
**LEGEND**

- ① EXISTING PORTLAND CEMENT CONCRETE PAVEMENT 8"
- ② EXISTING HMA PAVEMENT ±8"
- ③ EXISTING COMBINATION CURB AND GUTTER (B-6.12 UNLESS OTHERWISE NOTED ON PLAN)
- ④ EXISTING STABILIZED SUBBASE 6"
- ⑤ EXISTING HMA WIDENING 9"
- ⑥ EXISTING AGGREGATE SHOULDER
- ⑦ PROPOSED HMA SURFACE REMOVAL (2 1/4")
- (X) ⑧ PROPOSED HMA SURFACE REMOVAL (PAVED SHOULDER ONLY)
- ⑨ PROP. POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50 (3/4")
- ⑩ PROPOSED HMA SURFACE COURSE, MIX D, N70 (1 1/2")
- ⑪ PROPOSED GRADING & SHAPING AGGREGATE SHOULDER
- ⑫ PROPOSED AGGREGATE WEDGE SHOULDER, TYPE B

MIXTURE USE	AC/PG:	DESIGN AIR VOIDS
HOT MIX ASPHALT SURFACE COURSE, MIX "D", N70, 1 1/2" IL-95 MM	PG 64-22	4% @ 70 GYR.
POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL 4.75, N50, 3/4"	SBS/SBR PGP 64-22 76-28/-22	4% @ 70 GYR.
HMA REPLACEMENT OVER PATHES, 8" BINDER IL-19 MM	PG 64-22*	4% @ 70 GYR.
CLASS D PATCHES BINDER IL-19-MM	PG 64-22*	4% @ 70 GYR.

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

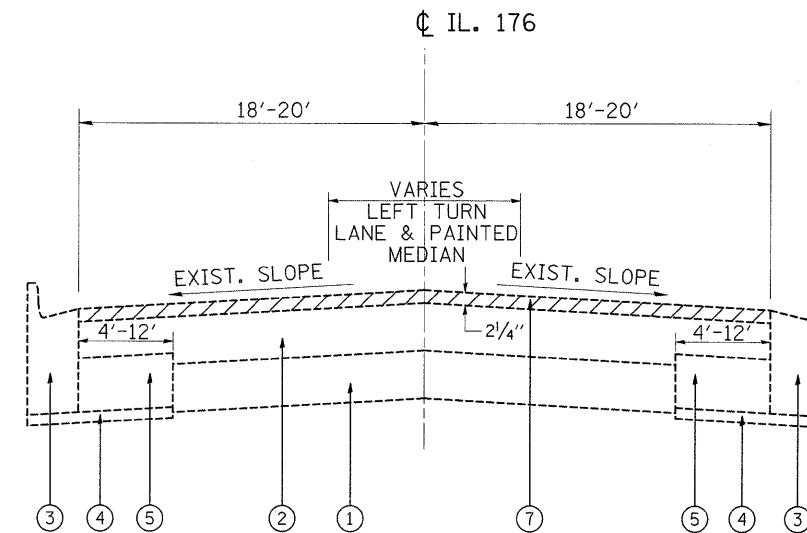
WHEN RAP EXCEEDS 20% THEN NEW ASPHALT BINDER IN THE MIX SHALL BE PG58-22"



**EXISTING TYPICAL CROSS SECTION**

STA. 24+05 TO STA. 30+95.12  
 STA. 38+37 TO STA. 119+10.59

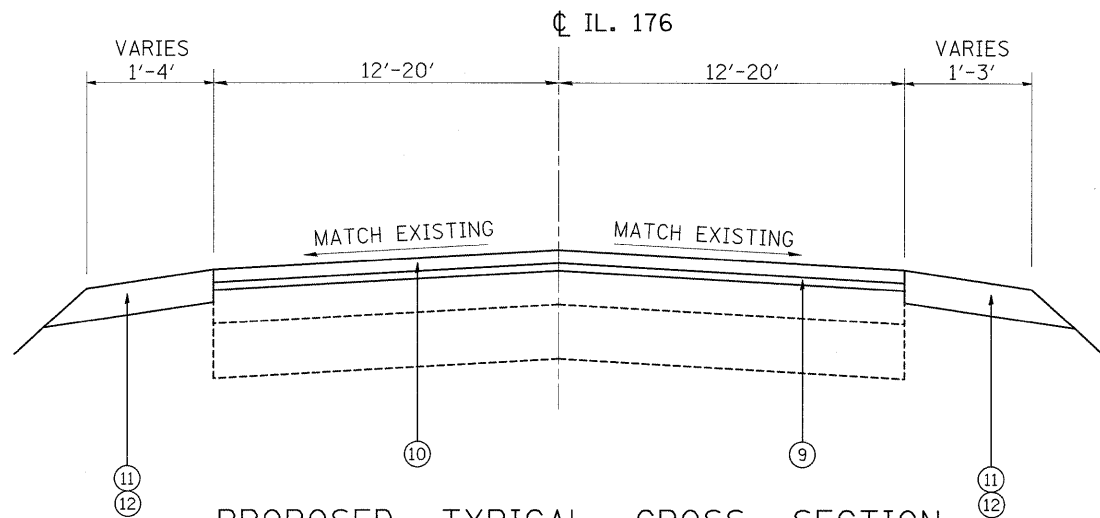
\* STA. 30+95.12 TO STA. 38+37 (OMISSION DUE TO GOOD PAVEMENT CONDITION)



**EXISTING TYPICAL CROSS SECTION**

STA. 128+87.36 TO STA. 166+51.74

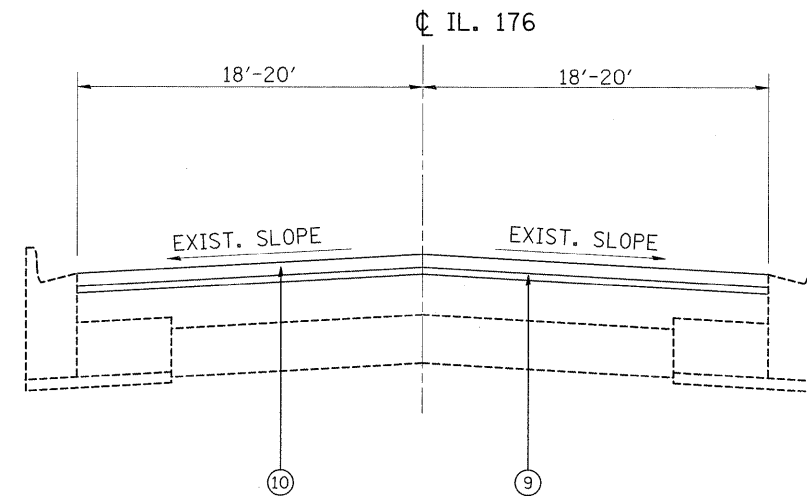
\* STA. 119+10.59 TO STA. 128+87.36 (OMISSION DUE TO GOOD PAVEMENT CONDITION)



**PROPOSED TYPICAL CROSS SECTION**

STA. 24+05 TO STA. 30+95.12  
 STA. 38+37 TO STA. 119+10.59

\*\*EXACT LOCATIONS OF CURB & GUTTER, SIDEWALK AND DRIVEWAY REMOVAL & REPLACEMENT WILL BE DETERMINED BY R.E. IN THE FIELD.



**PROPOSED TYPICAL CROSS SECTION**

STA. 128+87.36 TO STA. 166+51.74

**LEGEND**

- ① EXISTING PORTLAND CEMENT CONCRETE PAVEMENT 8"
- ② EXISTING HMA PAVEMENT ±8"
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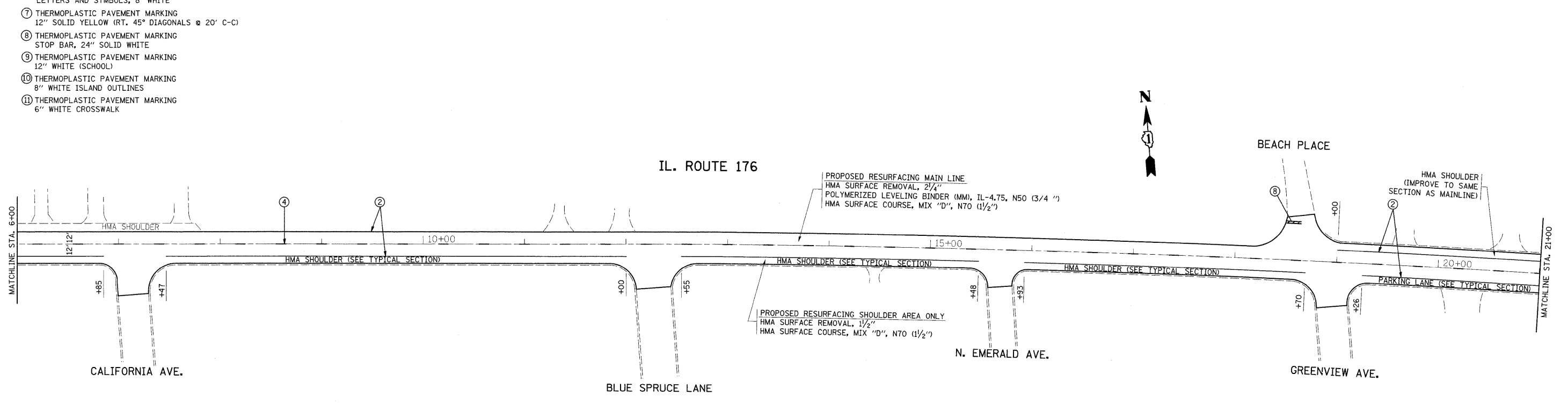
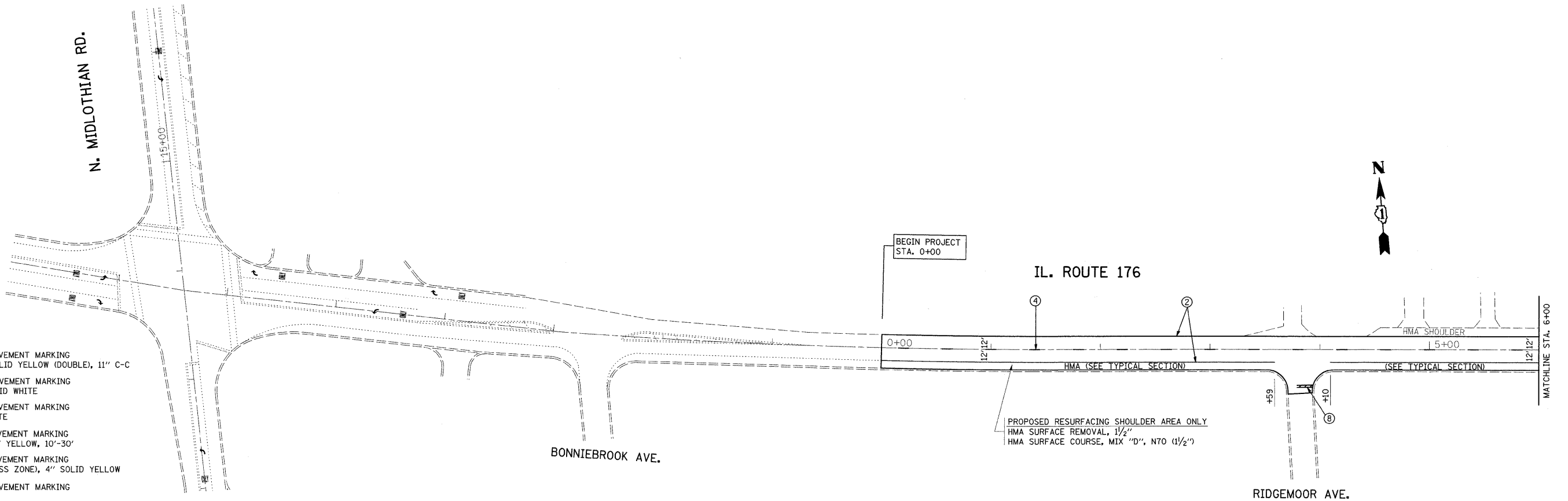
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		DATE -	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

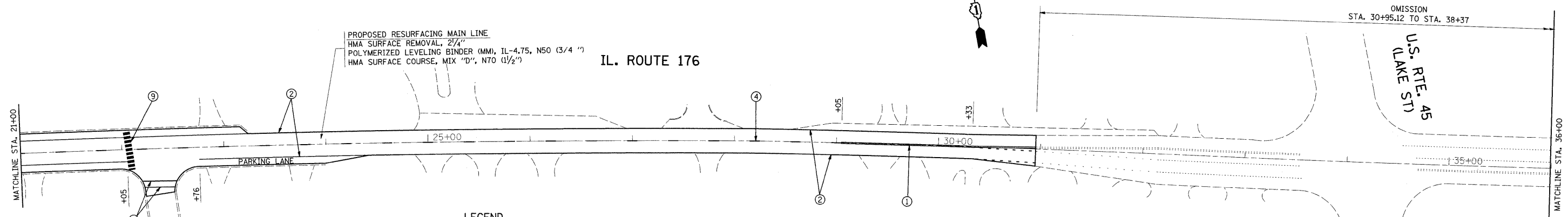
**EXISTING AND PROPOSED TYPICAL CROSS SECTIONS  
 IL. ROUTE 176 (MIDLOTHIAN RD TO IL. RTE. 21)**

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

F.A.U. RTE. 1238	SECTION (0, 144 & 144x) RS-4	COUNTY LAKE	TOTAL SHEETS 25	SHEET NO. 5
CONTRACT NO. 62661				ILLINOIS FED. AID PROJECT

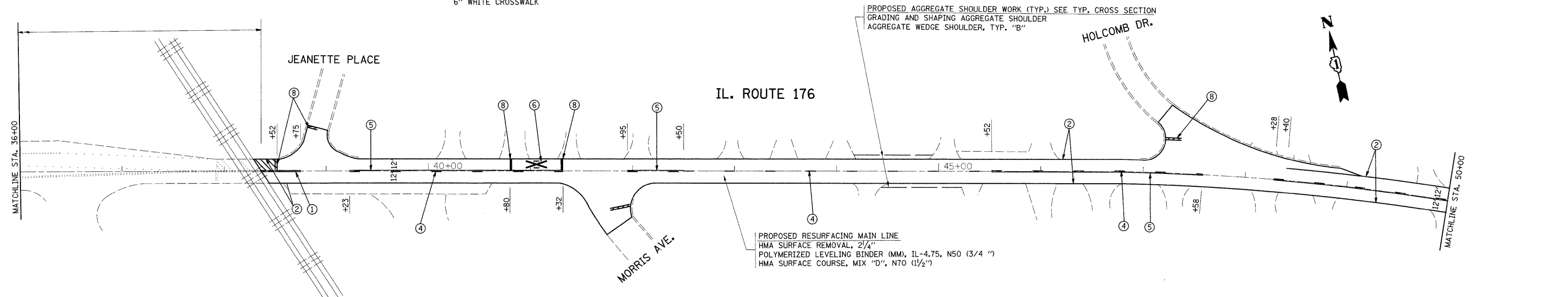


FILE NAME =	USER NAME = bauerdl	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>ROADWAY AND PAVEMENT MARKING PLAN IL. ROUTE 176 (MIDLOTHIAN RD TO IL. RTE. 21)</b>	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
et:\pwork\PWIDOT\BAUERDL\d0143145\102	204-sht-plan.dgn	DRAWN -	REVISED -			1238	(0, 144 & 144x) RS-4	LAKE	25	6	
	PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED -			SCALE: 1"=50'		SHEET NO. OF SHEETS		STA. 0+00 TO STA. 21+00	
	PLOT DATE = 6/29/2009	DATE -	REVISED -			CONTRACT NO. 62661		ILLINOIS FED. AID PROJECT			

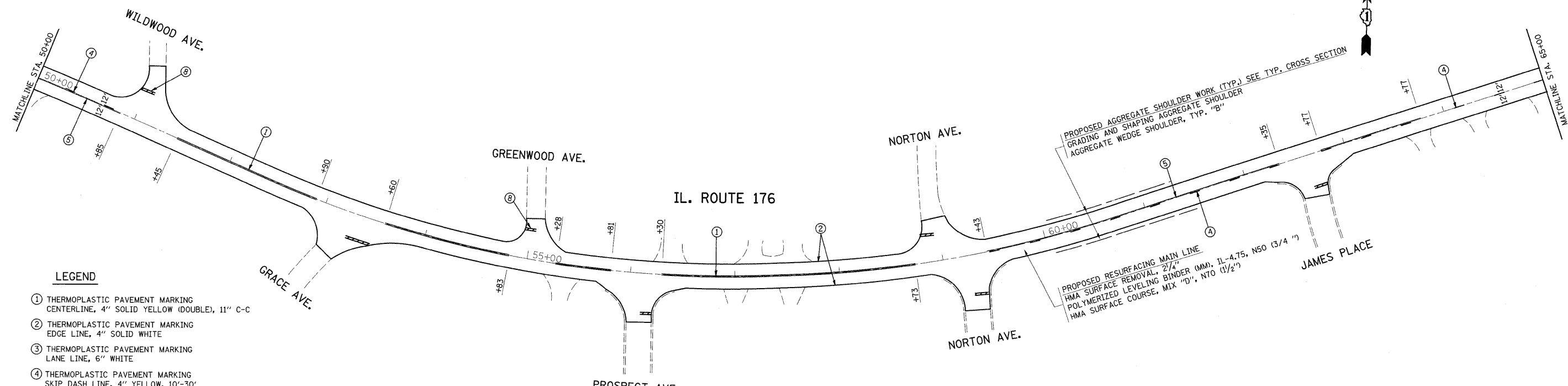


**LEGEND**

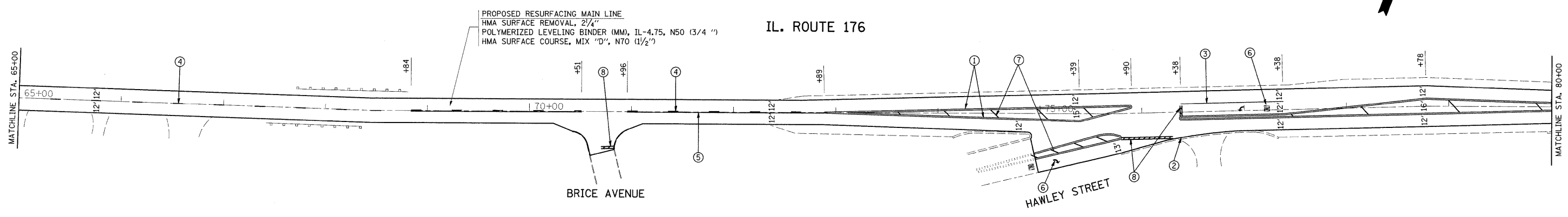
- ① THERMOPLASTIC PAVEMENT MARKING CENTERLINE, 4" SOLID YELLOW (DOUBLE), 11" C-C
- ② THERMOPLASTIC PAVEMENT MARKING EDGE LINE, 4" SOLID WHITE
- ③ THERMOPLASTIC PAVEMENT MARKING LANE LINE, 6" WHITE
- ④ THERMOPLASTIC PAVEMENT MARKING SKIP DASH LINE, 4" YELLOW, 10'-30'
- ⑤ THERMOPLASTIC PAVEMENT MARKING CENTERLINE (NO PASS ZONE), 4" SOLID YELLOW
- ⑥ THERMOPLASTIC PAVEMENT MARKING LEFT TURN ONLY LETTERS AND SYMBOLS, 8' WHITE
- ⑦ THERMOPLASTIC PAVEMENT MARKING 12" SOLID YELLOW (RT. 45° DIAGONALS @ 20' C-C)
- ⑧ THERMOPLASTIC PAVEMENT MARKING STOP BAR, 24" SOLID WHITE
- ⑨ THERMOPLASTIC PAVEMENT MARKING 12" WHITE (SCHOOL)
- ⑩ THERMOPLASTIC PAVEMENT MARKING 8" WHITE ISLAND OUTLINES
- ⑪ THERMOPLASTIC PAVEMENT MARKING 6" WHITE CROSSWALK



FILE NAME =	USER NAME = bauerd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>ROADWAY AND PAVEMENT MARKING PLAN IL. ROUTE 176 (MIDLOTHIAN RD TO IL. RTE. 21)</b>	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
es:\pwwork\pwwd01\BAUERDL\d0143145\102204-ah-1-plan.dgn	PLOT SCALE = 50.0000' / IN.	DRAWN -	REVISED -			1238	(0, 144 & 144x) RS-4	LAKE	25	7	
PLOT DATE = 6/26/2009	DATE -	CHECKED -	REVISED -			SCALE: 1"=50'		SHEET NO. OF SHEETS STA. 21+00 TO STA. 50+00		CONTRACT NO. 62661	
						ILLINOIS FED. AID PROJECT					



- LEGEND**
- ① THERMOPLASTIC PAVEMENT MARKING CENTERLINE, 4" SOLID YELLOW (DOUBLE), 11" C-C
  - ② THERMOPLASTIC PAVEMENT MARKING EDGE LINE, 4" SOLID WHITE
  - ③ THERMOPLASTIC PAVEMENT MARKING LANE LINE, 6" WHITE
  - ④ THERMOPLASTIC PAVEMENT MARKING SKIP DASH LINE, 4" YELLOW, 10'-30'
  - ⑤ THERMOPLASTIC PAVEMENT MARKING CENTERLINE (NO PASS ZONE), 4" SOLID YELLOW
  - ⑥ THERMOPLASTIC PAVEMENT MARKING LEFT TURN ONLY LETTERS AND SYMBOLS, 8' WHITE
  - ⑦ THERMOPLASTIC PAVEMENT MARKING 12" SOLID YELLOW (RT. 45° DIAGONALS @ 20' C-C)
  - ⑧ THERMOPLASTIC PAVEMENT MARKING STOP BAR, 24" SOLID WHITE
  - ⑨ THERMOPLASTIC PAVEMENT MARKING 12" WHITE (SCHOOL)
  - ⑩ THERMOPLASTIC PAVEMENT MARKING 8" WHITE ISLAND OUTLINES
  - ⑪ THERMOPLASTIC PAVEMENT MARKING 6" WHITE CROSSWALK



FILE NAME =	USER NAME = bauer.d	DESIGNED -	REVISED -
es\pwwork\pwwid\T\BAUERDL\d0143145\010224-sht-plan.dgn		DRAWN -	REVISED -
	PLOT SCALE = 50,0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 6/26/2009	DATE -	REVISED -

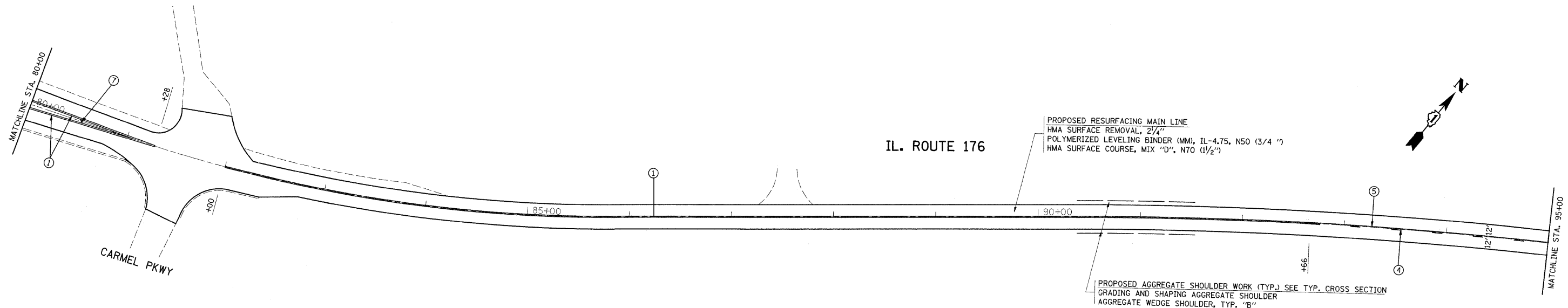
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ROADWAY AND PAVEMENT MARKING PLAN  
IL. ROUTE 176 (MIDLOTHIAN RD TO IL. RTE. 21)**

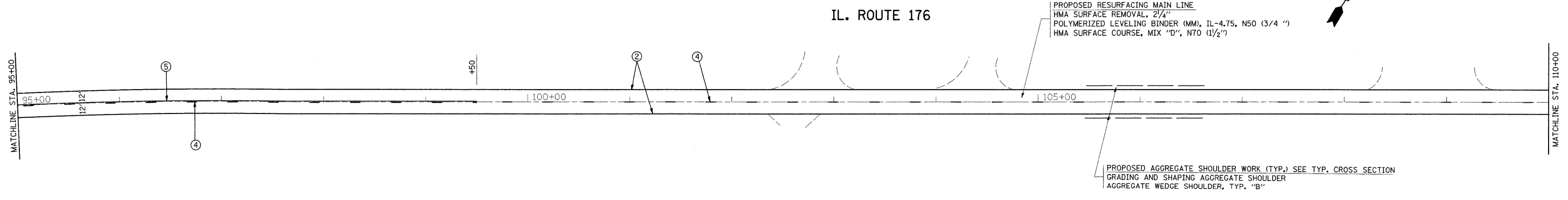
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1238	(0, 144 & 144x) RS-4	LAKE	25	8
CONTRACT NO. 62661				
ILLINOIS FED. AID PROJECT				

SCALE: 1"=50' SHEET NO. OF SHEETS STA. 50+00 TO STA. 80+00

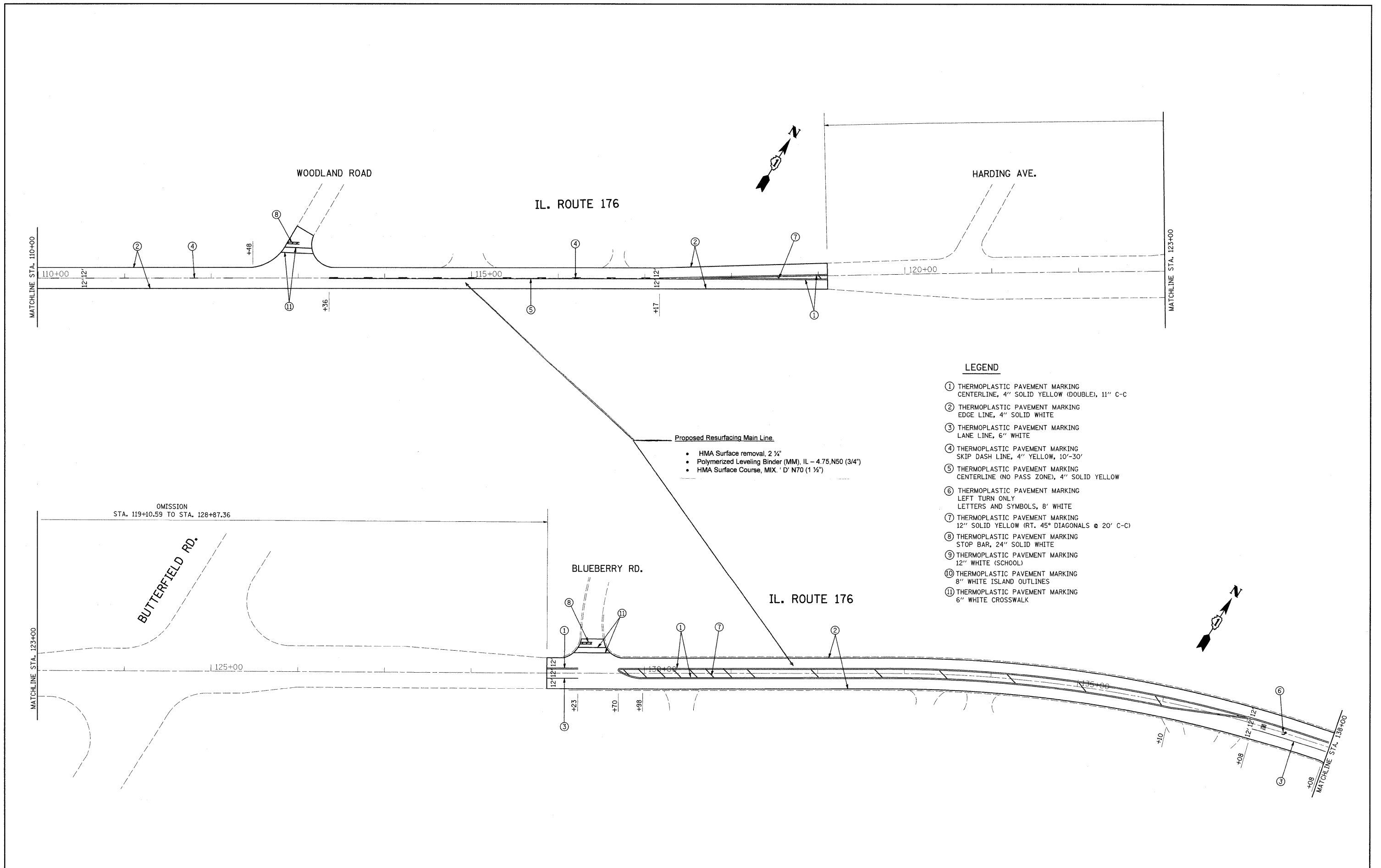




- LEGEND**
- ① THERMOPLASTIC PAVEMENT MARKING CENTERLINE, 4" SOLID YELLOW (DOUBLE), 11" C-C
  - ② THERMOPLASTIC PAVEMENT MARKING EDGE LINE, 4" SOLID WHITE
  - ③ THERMOPLASTIC PAVEMENT MARKING LANE LINE, 6" WHITE
  - ④ THERMOPLASTIC PAVEMENT MARKING SKIP DASH LINE, 4" YELLOW, 10'-30'
  - ⑤ THERMOPLASTIC PAVEMENT MARKING CENTERLINE (NO PASS ZONE), 4" SOLID YELLOW
  - ⑥ THERMOPLASTIC PAVEMENT MARKING LEFT TURN ONLY LETTERS AND SYMBOLS, 8" WHITE
  - ⑦ THERMOPLASTIC PAVEMENT MARKING 12" SOLID YELLOW (RT. 45° DIAGONALS @ 20' C-C)
  - ⑧ THERMOPLASTIC PAVEMENT MARKING STOP BAR, 24" SOLID WHITE
  - ⑨ THERMOPLASTIC PAVEMENT MARKING 12" WHITE (SCHOOL)
  - ⑩ THERMOPLASTIC PAVEMENT MARKING 8" WHITE ISLAND OUTLINES
  - ⑪ THERMOPLASTIC PAVEMENT MARKING 6" WHITE CROSSWALK



FILE NAME =	USER NAME = bauerdl	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>ROADWAY AND PAVEMENT MARKING PLAN IL. ROUTE 176 (MIDLOTHIAN RD TO IL. RTE. 21)</b>	F.A.J.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
es:\pw_work\VPWIDOT\BAUERDL\d0143145\0102	04-sht-plan.dgn	DRAWN -	REVISED -			1238	(0, 144 & 144x) RS-4	LAKE	25	9	
	PLOT SCALE = 50,0000' / IN.	CHECKED -	REVISED -			SCALE: 1"=50'		SHEET NO. OF SHEETS		STA. 80+00 TO STA. 110+00	CONTRACT NO. 62661
	PLOT DATE = 6/29/2009	DATE -	REVISED -			ILLINOIS FED. AID PROJECT					



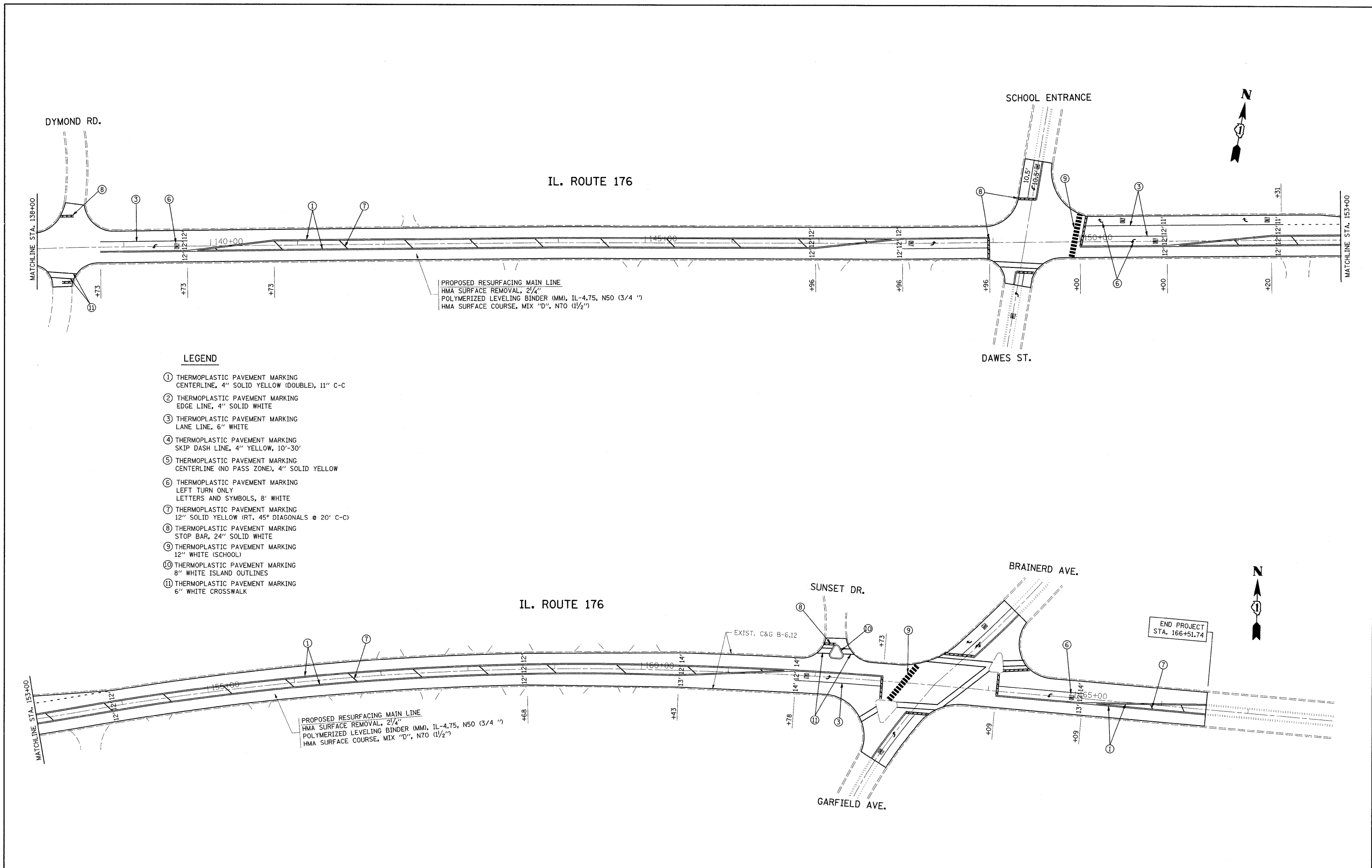
**LEGEND**

- ① THERMOPLASTIC PAVEMENT MARKING CENTERLINE, 4" SOLID YELLOW (DOUBLE), 11" C-C
- ② THERMOPLASTIC PAVEMENT MARKING EDGE LINE, 4" SOLID WHITE
- ③ THERMOPLASTIC PAVEMENT MARKING LANE LINE, 6" WHITE
- ④ THERMOPLASTIC PAVEMENT MARKING SKIP DASH LINE, 4" YELLOW, 10'-30'
- ⑤ THERMOPLASTIC PAVEMENT MARKING CENTERLINE (NO PASS ZONE), 4" SOLID YELLOW
- ⑥ THERMOPLASTIC PAVEMENT MARKING LEFT TURN ONLY LETTERS AND SYMBOLS, 8" WHITE
- ⑦ THERMOPLASTIC PAVEMENT MARKING 12" SOLID YELLOW (RT. 45° DIAGONALS @ 20' C-C)
- ⑧ THERMOPLASTIC PAVEMENT MARKING STOP BAR, 24" SOLID WHITE
- ⑨ THERMOPLASTIC PAVEMENT MARKING 12" WHITE (SCHOOL)
- ⑩ THERMOPLASTIC PAVEMENT MARKING 8" WHITE ISLAND OUTLINES
- ⑪ THERMOPLASTIC PAVEMENT MARKING 6" WHITE CROSSWALK

- Proposed Resurfacing Main Line.**
- HMA Surface removal, 2 1/2"
  - Polymerized Leveling Binder (MM), IL - 4.75, N50 (3/4")
  - HMA Surface Course, MIX. 'D' N70 (1 1/2")

OMISSION  
STA. 119+10.59 TO STA. 128+87.36

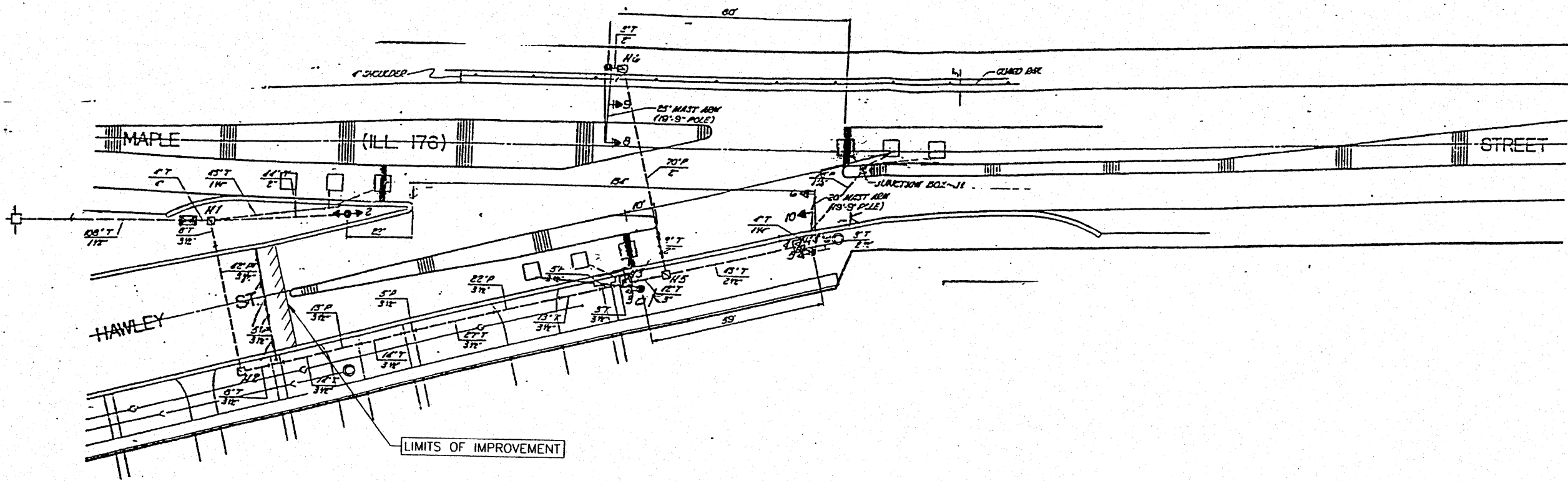
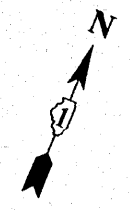
FILE NAME =	USER NAME = bauerdl	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>ROADWAY AND PAVEMENT MARKING PLAN IL. ROUTE 176 (MIDLOTHIAN RD TO IL. RTE. 21)</b>			F.A.U. RTE. 1238	SECTION (0, 144 & 144x) RS-4	COUNTY LAKE	TOTAL SHEETS 25	SHEET NO. 10
ci:\pwwork\pwwadot\bauerdl\0143145\01022294-sht-pln.dgn		DRAWN -	REVISED -		SCALE: 1"=50'	SHEET NO.	OF	SHEETS	STA. 110+00	TO STA. 138+00	ILLINOIS FED. AID PROJECT	
		CHECKED -	REVISED -								CONTRACT NO. 62661	
		DATE -	REVISED -									



**LEGEND**

- ① THERMOPLASTIC PAVEMENT MARKING CENTERLINE, 4" SOLID YELLOW (DOUBLE), 11" C-C
- ② THERMOPLASTIC PAVEMENT MARKING EDGE LINE, 4" SOLID WHITE
- ③ THERMOPLASTIC PAVEMENT MARKING LANE LINE, 6" WHITE
- ④ THERMOPLASTIC PAVEMENT MARKING SKIP DASH LINE, 4" YELLOW, 10'-30'
- ⑤ THERMOPLASTIC PAVEMENT MARKING CENTERLINE (NO PASS ZONE), 4" SOLID YELLOW
- ⑥ THERMOPLASTIC PAVEMENT MARKING LEFT TURN ONLY LETTERS AND SYMBOLS, 8" WHITE
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- ⑩ THERMOPLASTIC PAVEMENT MARKING 8" WHITE ISLAND OUTLINES
- ⑪ THERMOPLASTIC PAVEMENT MARKING 6" WHITE CROSSWALK

FILE NAME = c:\pwwork\pwwid\BAUERDL\d0143145\0102	USER NAME = bauerdl	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>ROADWAY AND PAVEMENT MARKING PLAN IL. ROUTE 176 (MIDLOTHIAN RD TO IL. RTE. 21)</b>	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	204-shit-plen.dgn	DRAWN -	REVISED -			1238	(0, 144 & 144x) RS-4	LAKE	25	//	
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	PLOT DATE = 6/29/2009	DATE -	REVISED -			ILLINOIS FED. AID PROJECT					



DETECTOR LOOPS AS SHOWN IN RESURFACING LIMITS)		
QUANTITY	UNIT	ITEM
342	FOOT	DETECTOR LOOP REPLACEMENT

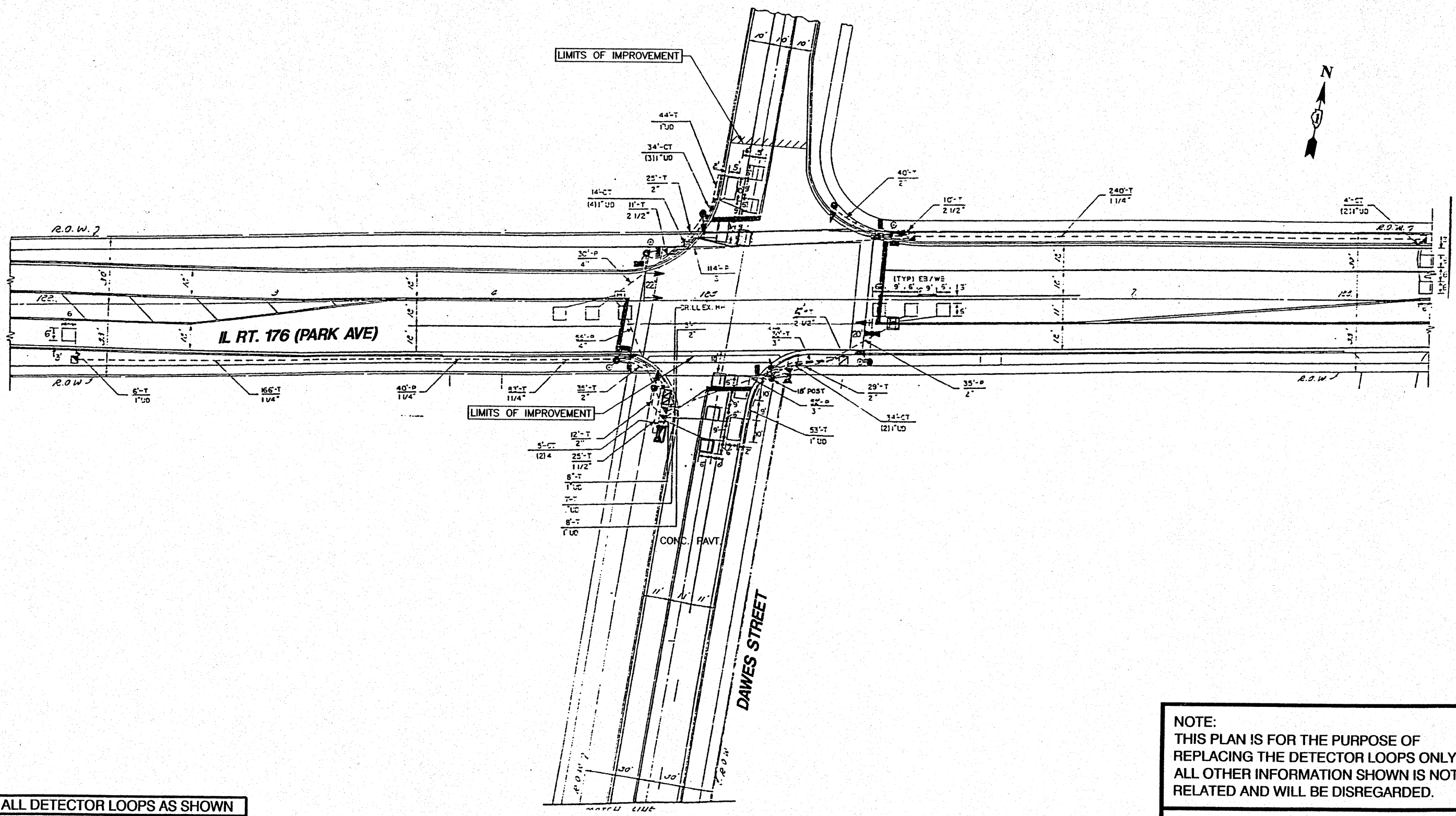
NOTE:  
 THIS PLAN IS FOR THE PURPOSE OF REPLACING THE DETECTOR LOOPS ONLY. ALL OTHER INFORMATION SHOWN IS NOT RELATED AND WILL BE DISREGARDED.

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 DETECTOR LOOP REPLACEMENT  
 IL RTE 176 AND HAWLEY STREET

P. A. U. REC.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1238 (0,144&144x)	RS-4	LAKE	25	13
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ALLOTE	FED. AID PROJECT		

CONTRACT NO. 62661

**LIBERTYVILLE HIGH SCHOOL ENTRANCE**



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

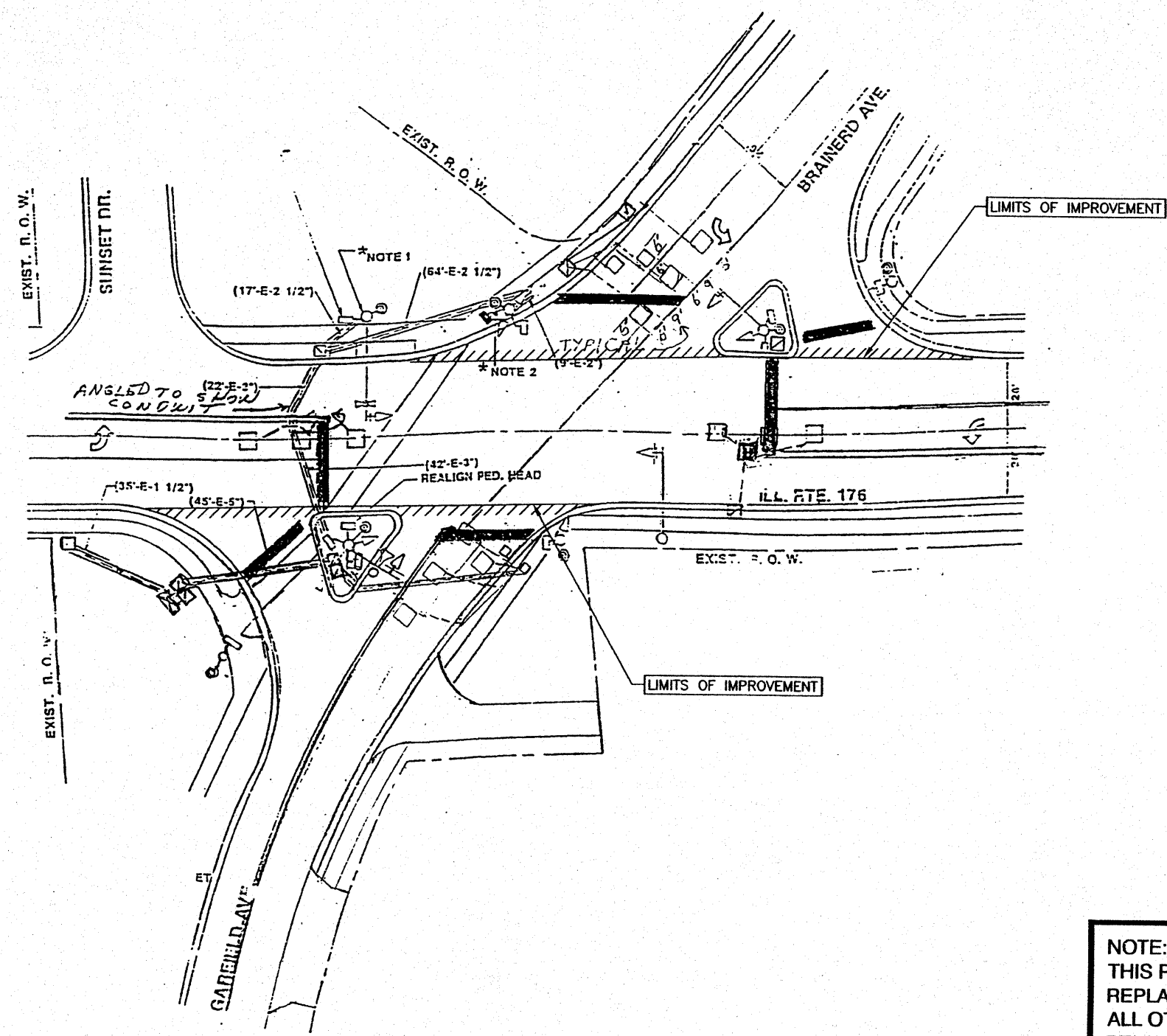
CODE NO.	QUANTITY	UNIT	ITEM
88600800	527	FOOT	DETECTOR LOOP REPLACEMENT

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

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 DETECTOR LOOP REPLACEMENT  
 IL RTE 176 (PARK AVE) AND DAWES STREET-  
 LIBERTYVILLE HIGH SCHOOL

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1236 (0.144&144) RS-4	LAKE	25	14
STA.	TO STA.		
FED. ROAD DIST. NO. 1	ALLOCA.	FED. RD. PROJECT	

CONTRACT NO. 62661

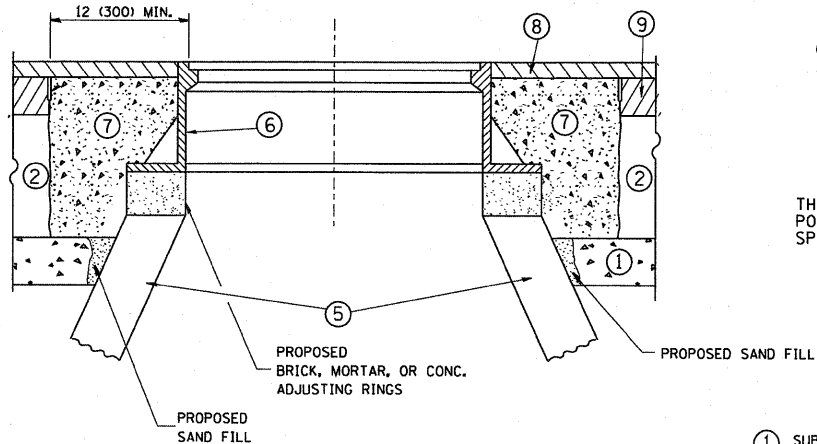
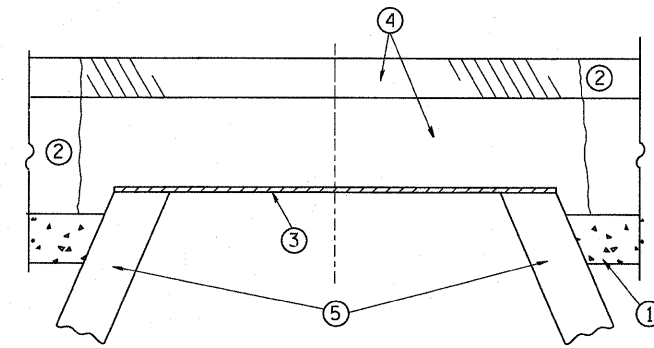


REPLACE ALL DETECTOR LOOPS AS SHOWN  
(WITHIN RESURFACING LIMITS)

CODE NO.	QUANTITY	UNIT	ITEM
88600600	204	FOOT	DETECTOR LOOP REPLACEMENT

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

ILLINOIS DEPARTMENT OF TRANSPORTATION  
DETECTOR LOOP REPLACEMENT  
IL RTE 176 @ BRAINERD AVE./GARFIELD AVE.



**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 S1 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 S1 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**

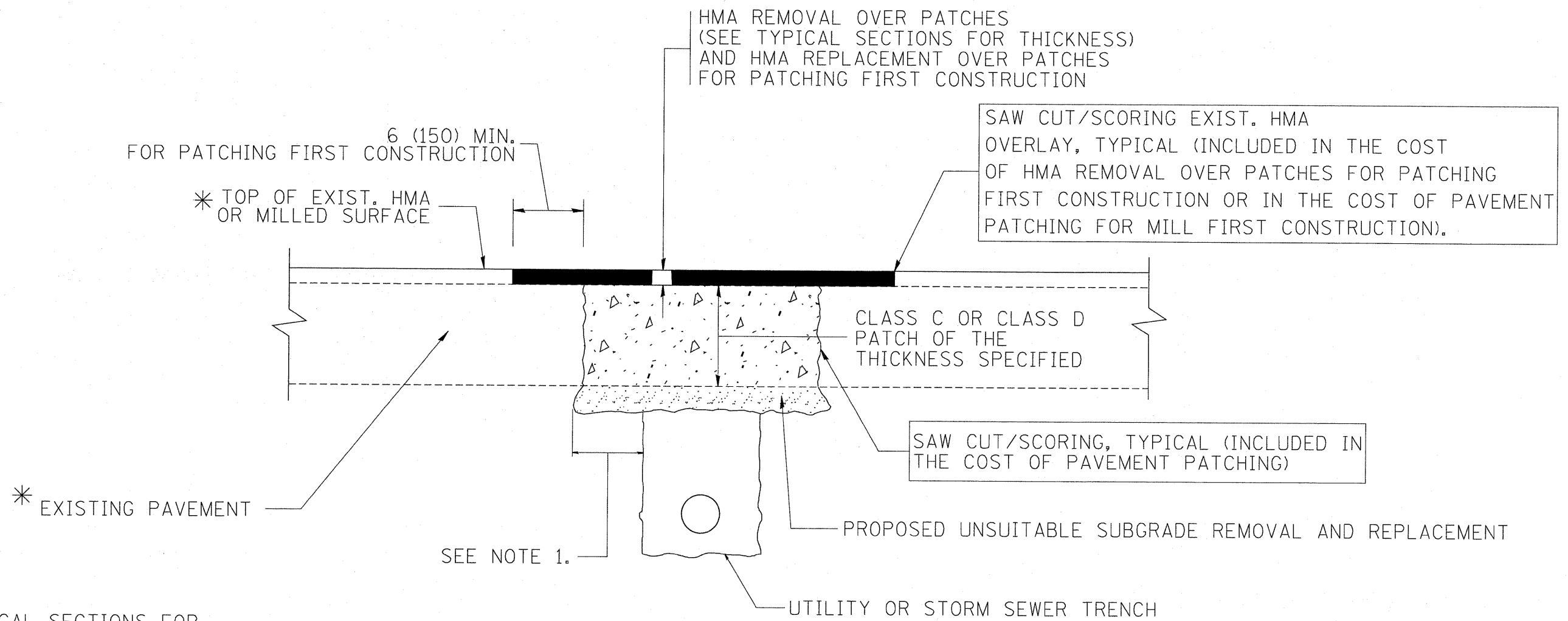
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

FILE NAME = W:\distetd\22x34\bd08.dgn	USER NAME = geglianobt	DESIGNED - R. SHAH	REVISED - R. SHAH 03-10-95
		DRAWN -	REVISED - A. ABBAS 03-21-97
	PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED - R. WIEDEMAN 05-14-04
	PLOT DATE = 1/4/2008	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>	
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS
STA. TO STA.	

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1238	(2,144x144x) RS-4	LAKE	25	18
BD600-03 (BD-8)		CONTRACT NO. 62661		
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.

FILE NAME = c:\projects\diststd22x34\bd22.dgn	USER NAME = bauerdl	DESIGNED - R. SHAH	REVISED - A. ABBAS 04-27-98	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT</b>			F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		DRAWN -	REVISED - R. BORO 01-01-07		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	1238 (Q.144x144X)RS-4	LAKE	25	16	
		CHECKED -	REVISED - R. BORO 09-04-07						BD400-04 (BD-22)				
		DATE - 10-25-94	REVISED - K. ENG 10-27-08						FED. ROAD DIST. NO. 1	ILLINOIS FED. AID PROJECT			CONTRACT NO. 62661



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

18" (450) MAX.

EXISTING OR PROPOSED HMA SURFACE (IF APPLICABLE)

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

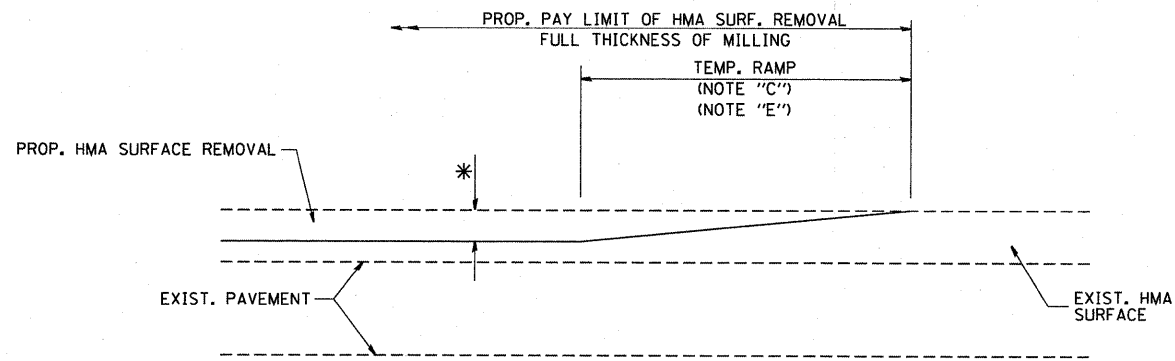
**BASIS OF PAYMENT:**

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

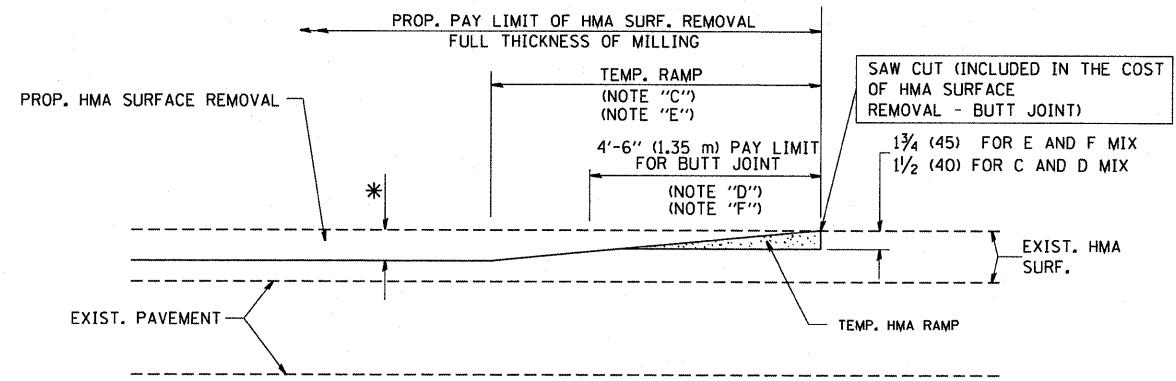
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME = W:\diststd\22x34\bd24.dgn	USER NAME = geglienob	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.U. RTE. 1238	SECTION (Q.144-F144X)RS-4	COUNTY LAKE	TOTAL SHEETS 25	SHEET NO. 17		
	PLOT SCALE = 50,000' / IN.	DRAWN -	REVISED - A. ABBAS 03-21-97			SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT		
	PLOT DATE = 1/4/2008	CHECKED -	REVISED - M. GOMEZ 01-22-01						BD600-06 (BD-24) CONTRACT NO.			
		DATE - 03-11-94	REVISED - R. BORO 01-01-07									



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

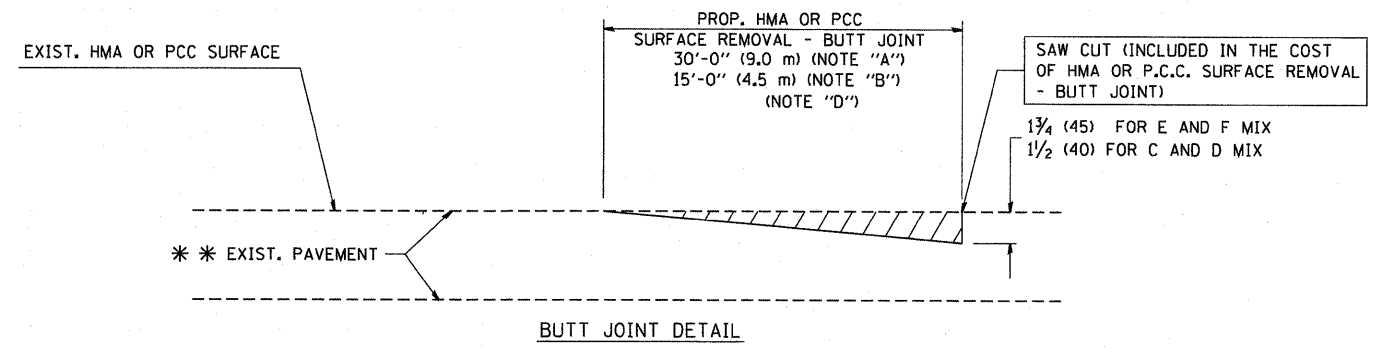
**OPTION 1**



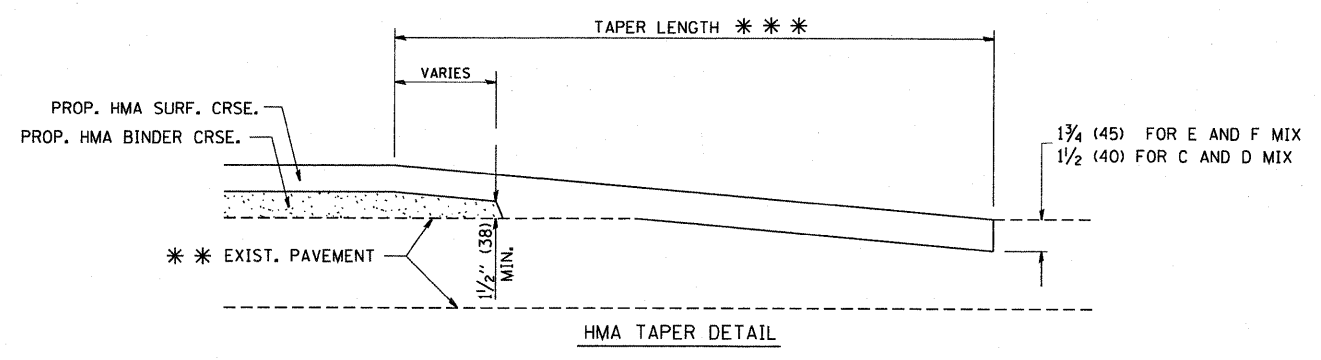
HMA CONSTRUCTED TEMPORARY RAMP  
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

**OPTION 2**

**TYPICAL TEMPORARY RAMP**



BUTT JOINT DETAIL



HMA TAPER DETAIL

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

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

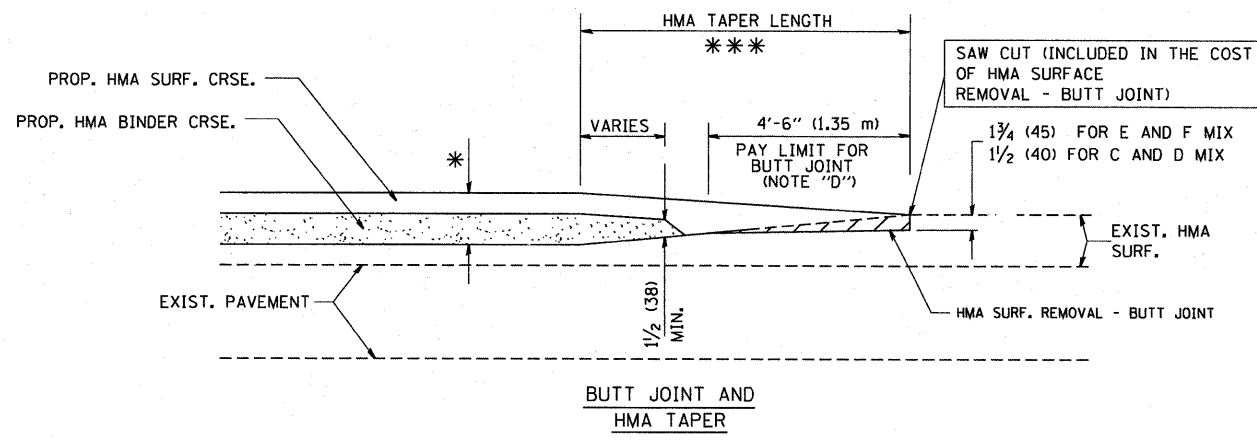
**NOTES**

- 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".

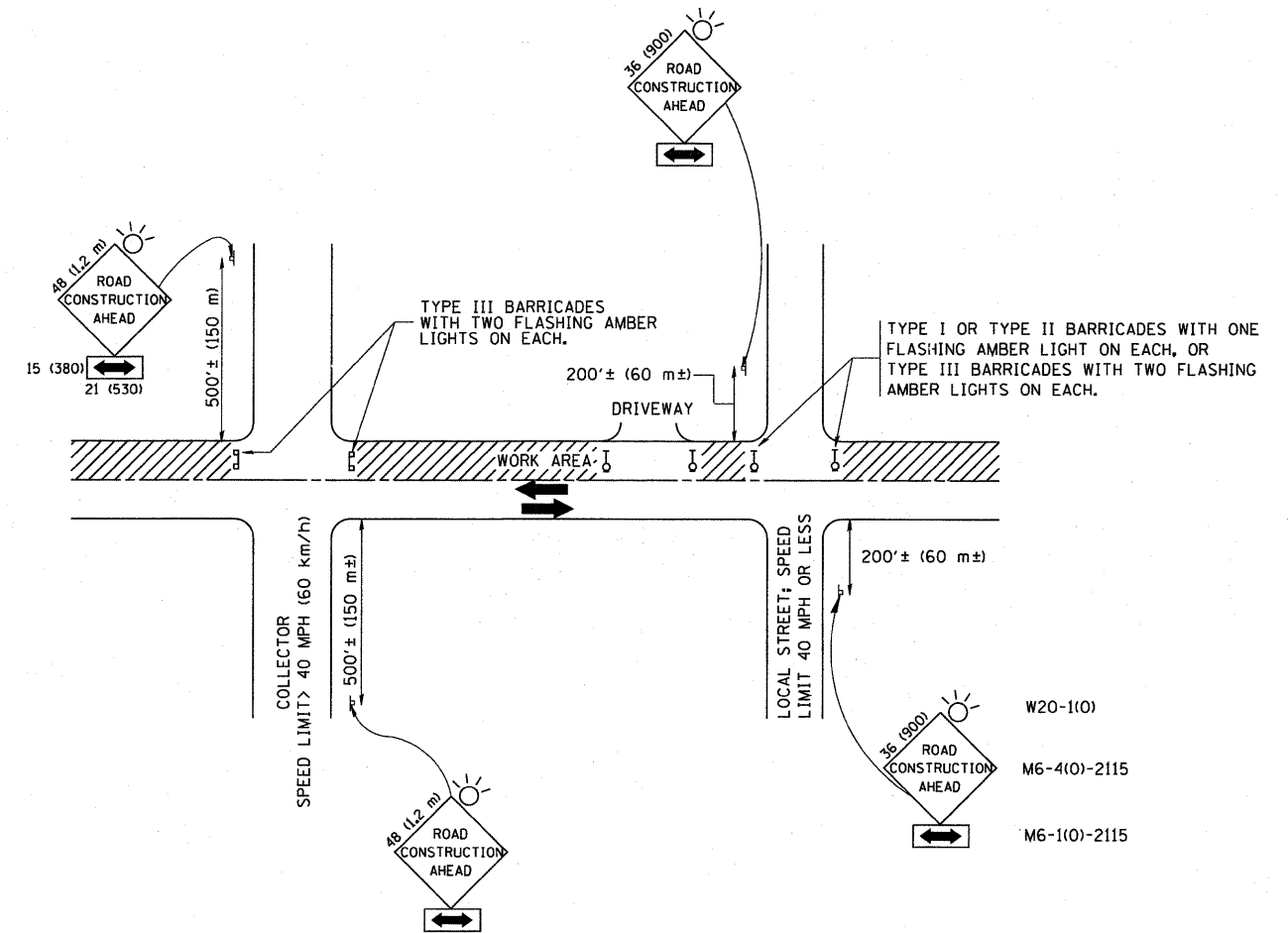
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.



BUTT JOINT AND HMA TAPER

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

FILE NAME = W:\diststd\22x34\bd32.dgn	USER NAME = gaglienobt	DESIGNED - M. DE YONG	REVISED - R. SHAH 10-25-94	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>BUTT JOINT AND HMA TAPER DETAILS</b>			F.A.J. RTE. 1238	SECTION (Q,144#144)RS-4	COUNTY LAKE	TOTAL SHEETS 25	SHEET NO. 18
	PLOT SCALE = 50,0000 ' / IN.	DRAWN -	REVISED - A. ABBAS 03-21-97		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	BD400-05 BD32 CONTRACT NO.			
	PLOT DATE = 1/4/2008	CHECKED -	REVISED - M. GOMEZ 04-06-01		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT							
		DATE - 06-13-90	REVISED - R. BORO 01-01-07									



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.
- 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.

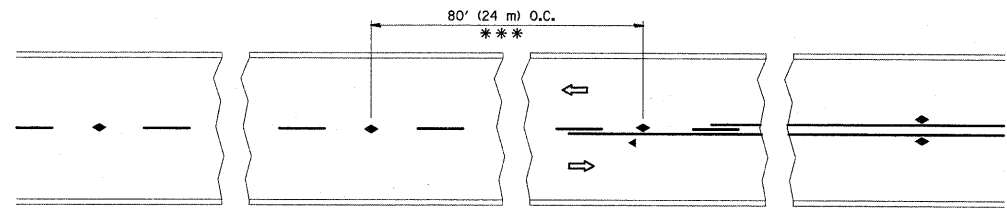
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		DRAWN -	REVISED - A. HOUSEH 03-06-96
	PLOT SCALE = 50,000' / IN.	CHECKED -	REVISED - A. HOUSEH 10-15-96
	PLOT DATE = 1/4/2008	DATE - 06-89	REVISED - T. RAMMACHER 01-06-00

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

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

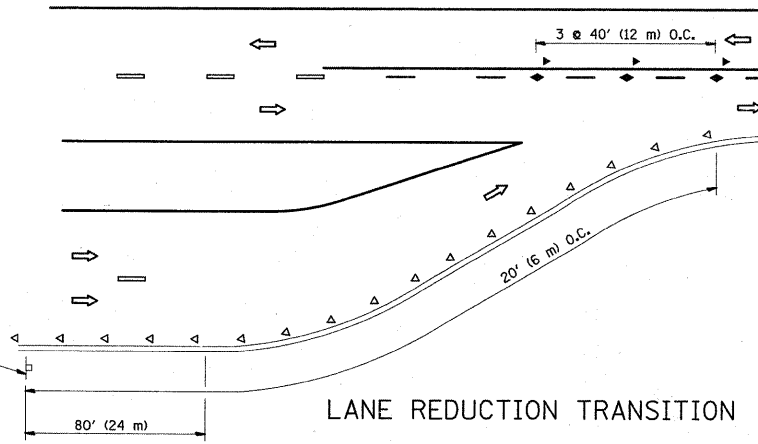
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1238	(Q, 144 & 144X) RS-4	LAKE	25	19
TC-10		CONTRACT NO. 62661		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

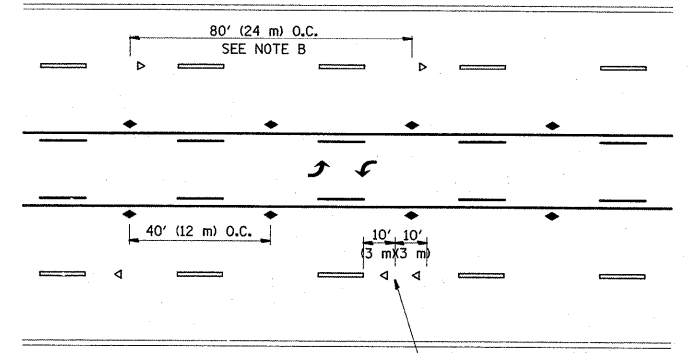


\*\*\* REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

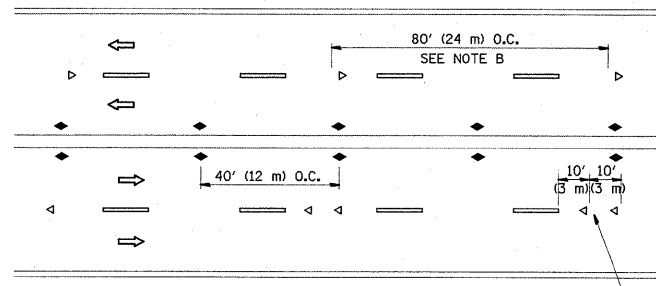
TWO-LANE/TWO-WAY



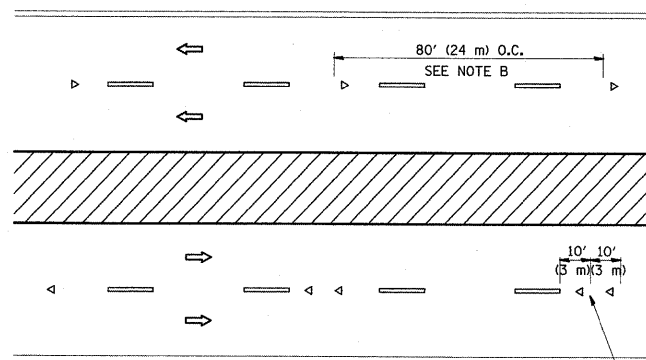
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

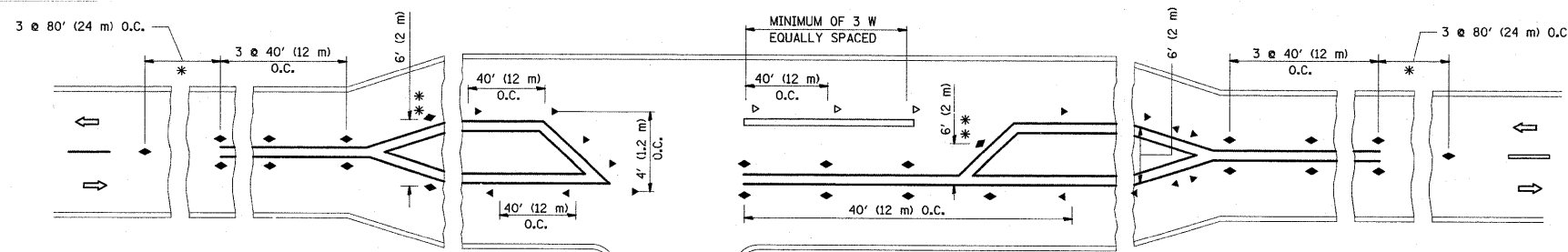
1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
3. MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE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



\* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE  
 \*\* WHERE THE MEDIAN WIDTH IS 6' (2 m) OR LESS USE TWO-WAY MARKERS.

LEFT TURN

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

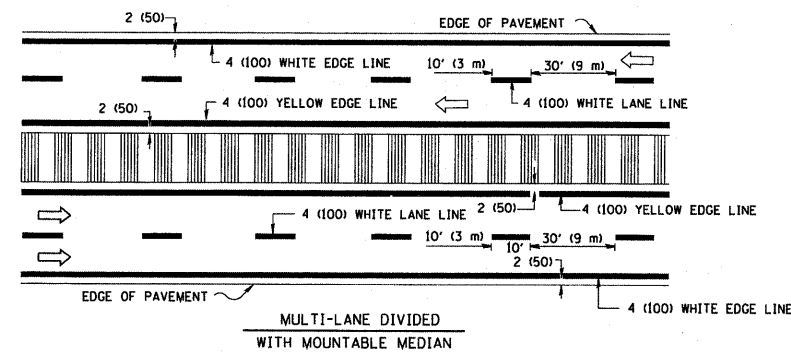
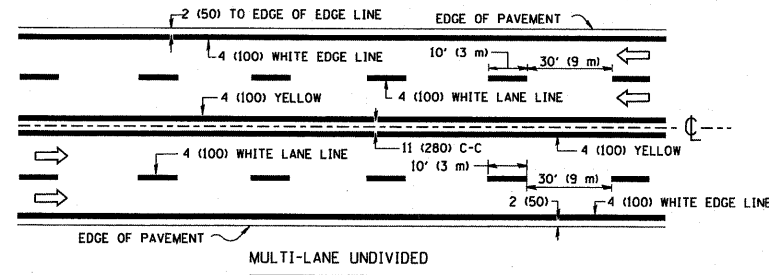
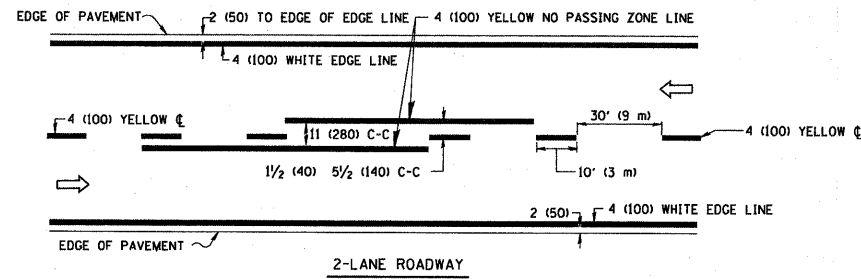
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	PLOT SCALE = 50,0000' / IN.	CHECKED -	REVISED - T. RAMMACHER 01-06-00
	PLOT DATE = 6/11/2009	DATE -	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

TYPICAL APPLICATIONS  
 RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)

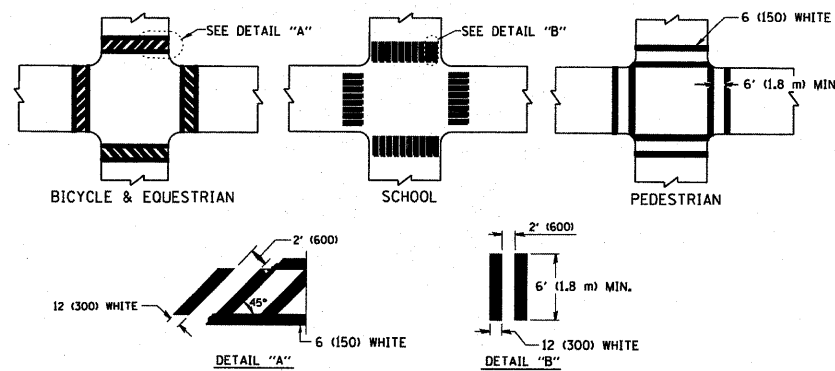
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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TC-11		CONTRACT NO.		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

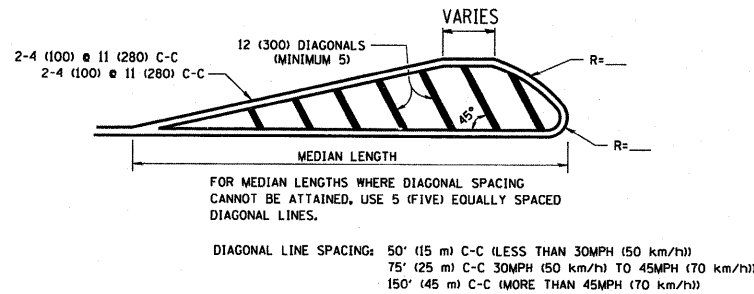
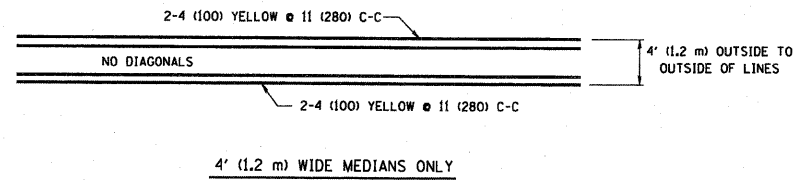


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

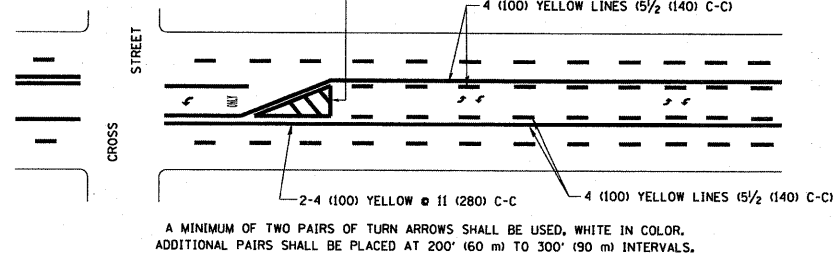
### TYPICAL LANE AND EDGE LINE MARKING



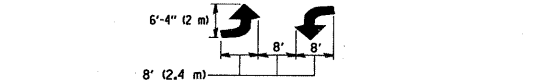
### TYPICAL CROSSWALK MARKING



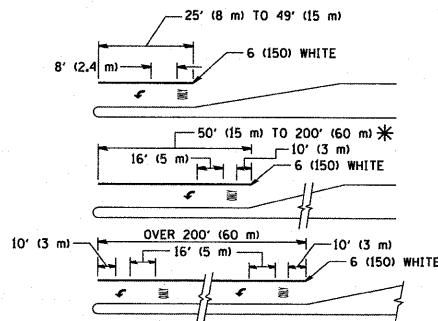
### MEDIANS OVER 4' (1.2 m) WIDE



### TYPICAL PAINTED MEDIAN MARKING

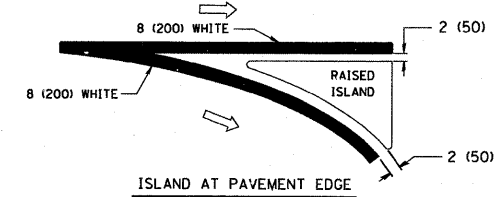
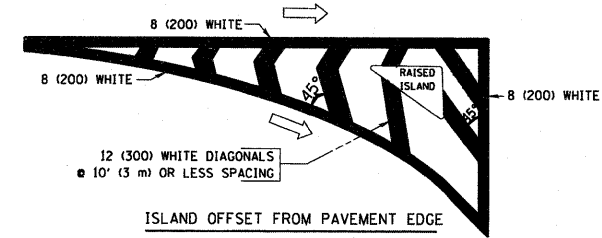


### TYPICAL LEFT (OR RIGHT) TURN LANE MARKING



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

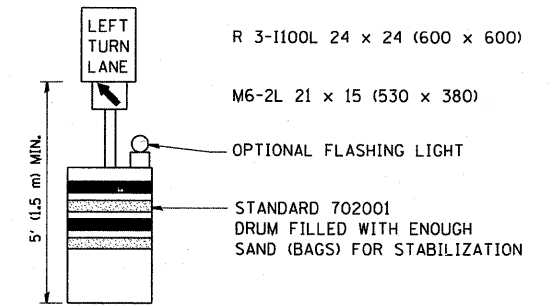
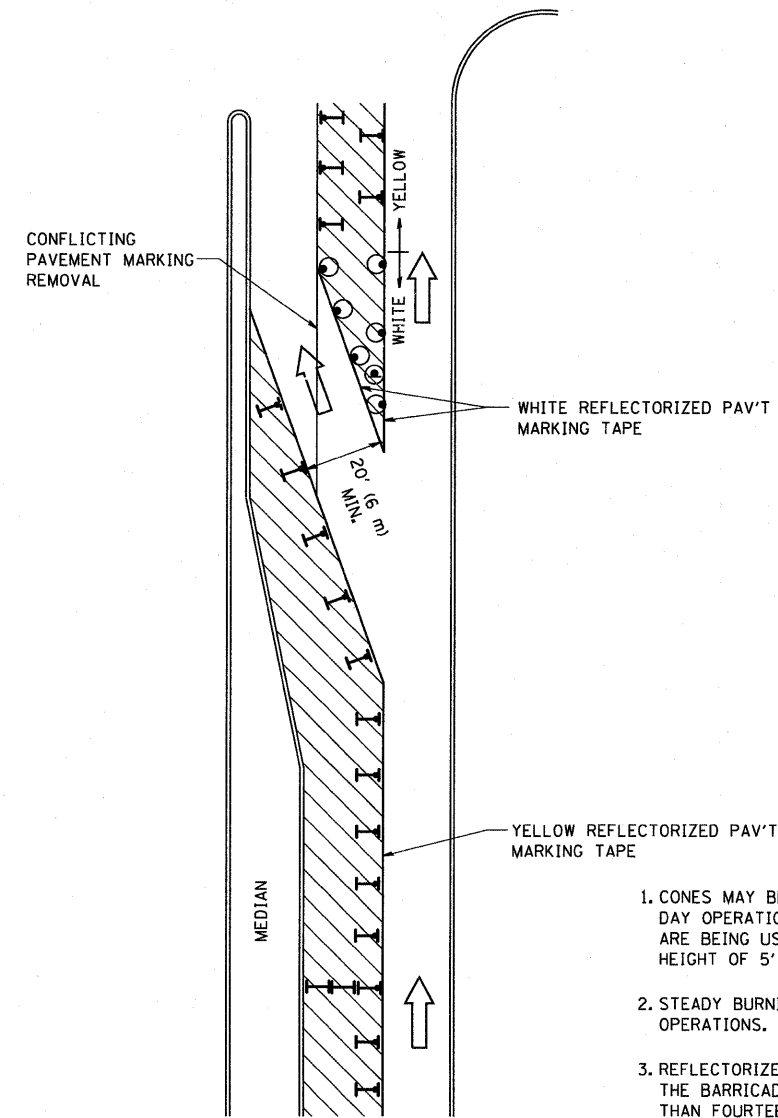
FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

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

FILE NAME = W:\diststd\22x34\ts13.dgn	USER NAME = geglienobt	DESIGNED - EVERS	REVISED - T. RAMMACHER 10-27-94
		DRAWN -	REVISED - A. HOUSEH 10-09-96
	PLOT SCALE = 50,000' / IN.	CHECKED -	REVISED - A. HOUSEH 10-17-96
	PLOT DATE = 1/4/2008	DATE - 03-19-90	REVISED - T. RAMMACHER 01-06-00

## STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT ONE		F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TYPICAL PAVEMENT MARKINGS		12-38	(Q.144#144X)RS-4	LARE	25	21
SCALE: NONE		SHEET NO. 1 OF 1 SHEETS		STA. TO STA.	CONTRACT NO. 62661	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT						

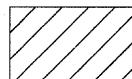







**GENERAL NOTES**

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.

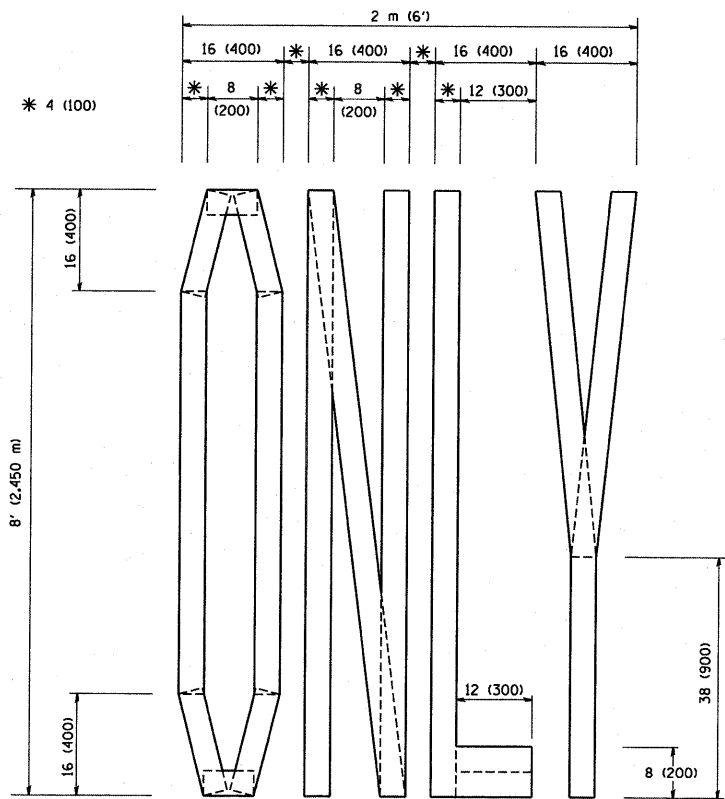
**LEGEND**

-  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

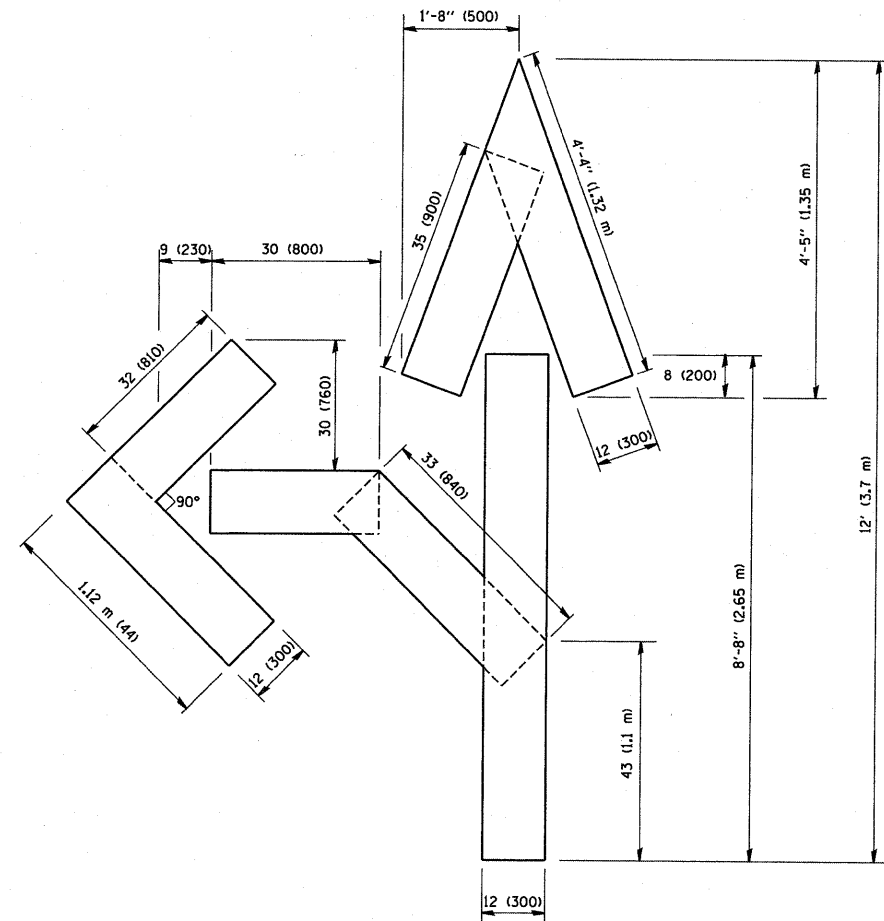
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		DRAWN -	REVISED - A. HOUSEH 11-07-95
	PLOT SCALE = 60,0000 ' / IN.	CHECKED -	REVISED - A. HOUSEH 10-12-96
	PLOT DATE = 1/4/2008	DATE -	REVISED -T. RAMMACHER 01-06-00

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

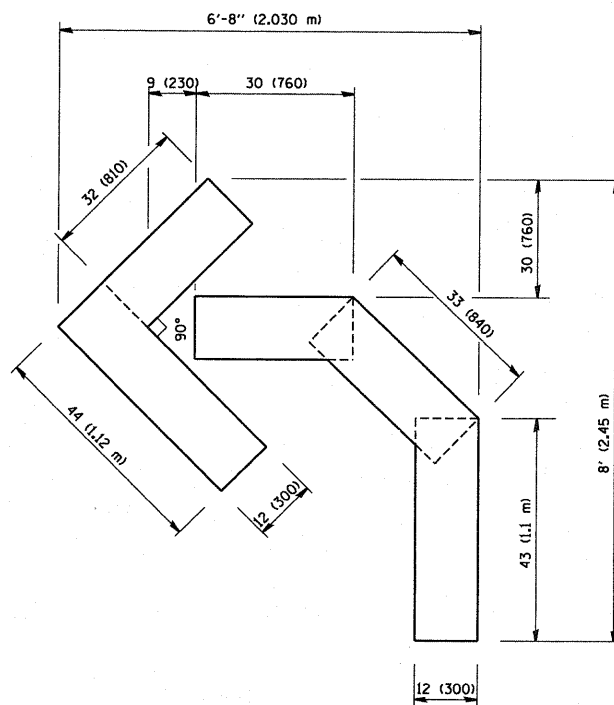
<b>TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)</b>		F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	1238	(2,144 x 144 x) RS-4	LAKE	25	22
STA. TO STA.		TC-14		CONTRACT NO. 62661		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT						



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)

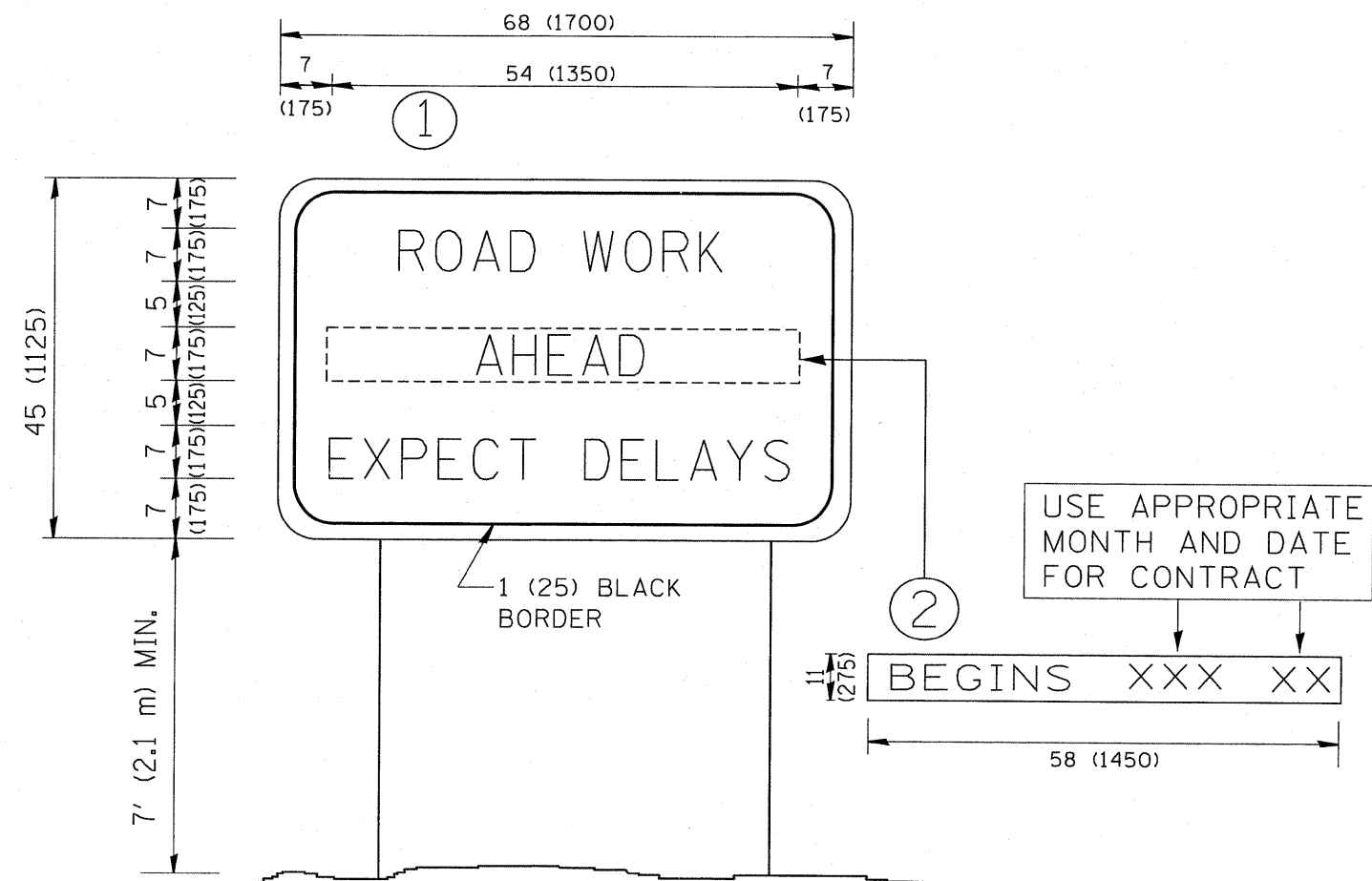
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		CHECKED -	REVISOR -
		DATE - 09-18-94	REVISOR -

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.J. RTE. 1238 (Q.144E/144X)	SECTION RS-4	COUNTY LAKE	TOTAL SHEETS 25	SHEET NO. 23
TC-16		CONTRACT NO. 62661		
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 = geglienobt	DESIGNED - DRAWN -	REVISED - R. MIRS 09-15-97
	PLOT SCALE = 50.000 / IN.	CHECKED -	REVISED - R. MIRS 12-11-97
	PLOT DATE = 1/4/2008	DATE -	REVISED - T. RAMMACHER 02-02-99
			REVISED - C. JUCIUS 01-31-07

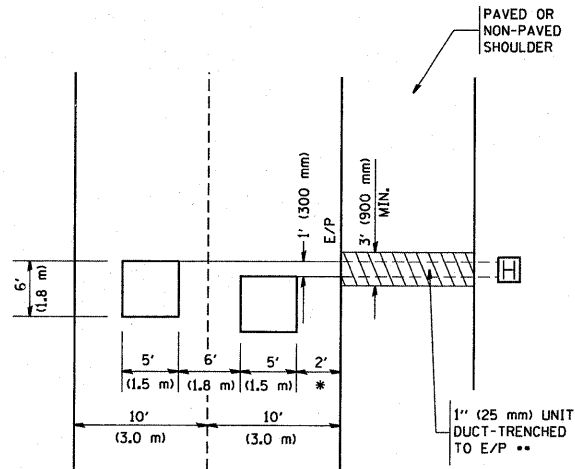
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>ARTERIAL ROAD INFORMATION SIGN</b>		F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	238 (144 & 144 X) RS-4	LAKE	25 24
				TC-22	CONTRACT NO. 62661	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT						



**LOOPS NEXT TO SHOULDERS**

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

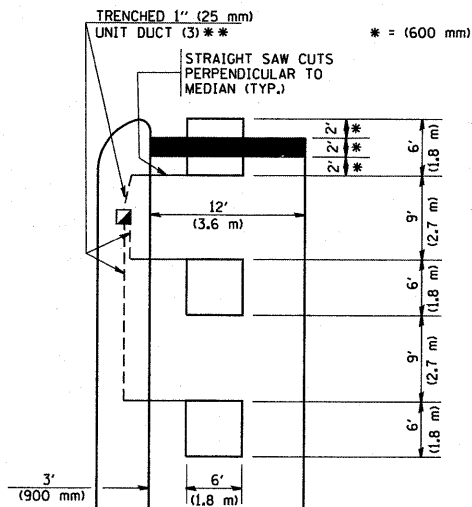


\* = (600 mm)

\*\* 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 B14001 TO ENSURE THAT HANDHOLE FITS IN MEDIAN.

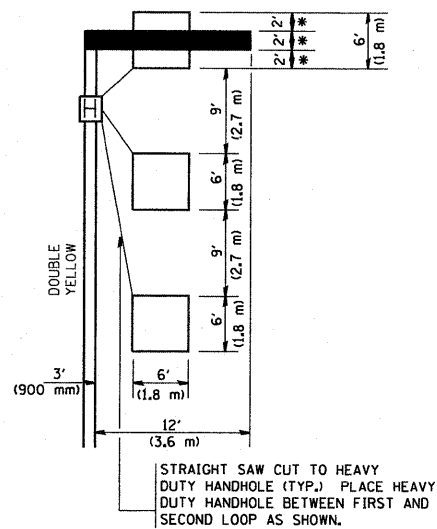


\*\* UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

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

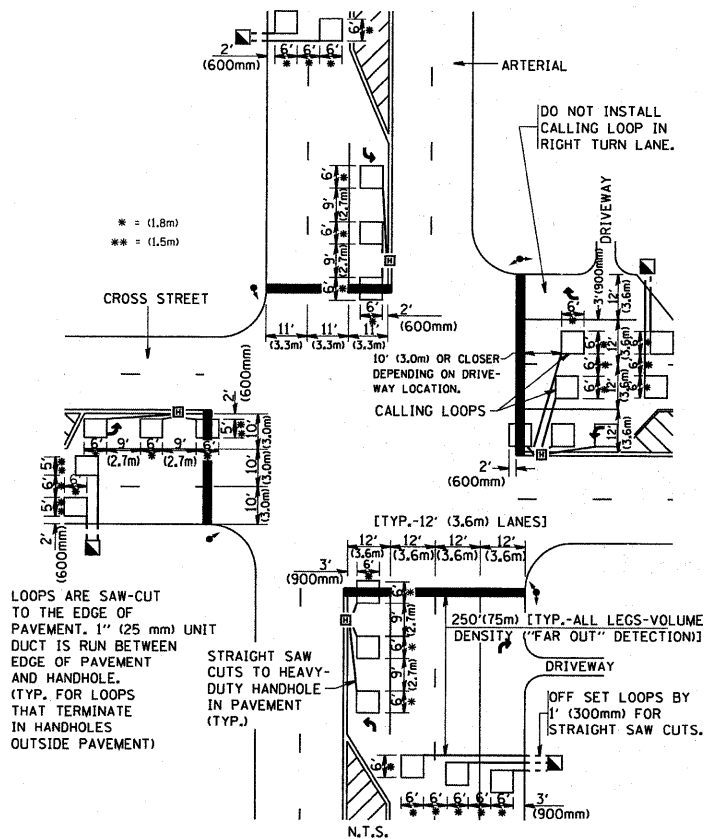
**LEFT TURN LANES WITHOUT MEDIANS  
VOLUME DENSITY ("FAR OUT" DETECTION)  
ON SAME APPROACH  
(PROTECTED / PERMITTED LEFT TURN PHASING)**

\* = (600 mm)



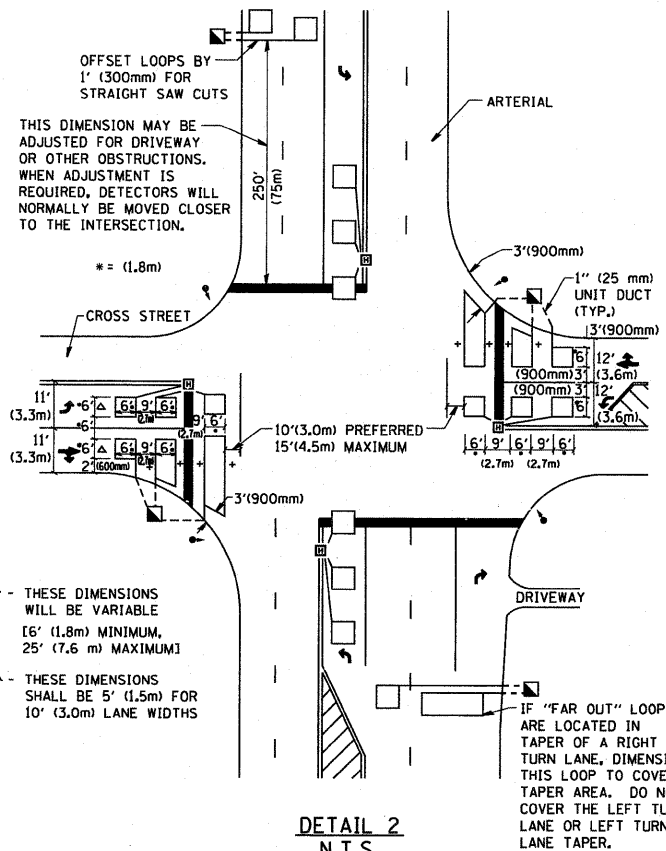
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

**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.

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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**

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

SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	F.A.U. RTE. 1238 (Q144 & 144X) RS-4	SECTION	COUNTY LAKE	TOTAL SHEETS 25	SHEET NO. 25
			TS-07		CONTRACT NO. 62661		
FED. ROAD DIST. NO. 1 (ILLINOIS) FED. AID PROJECT							