

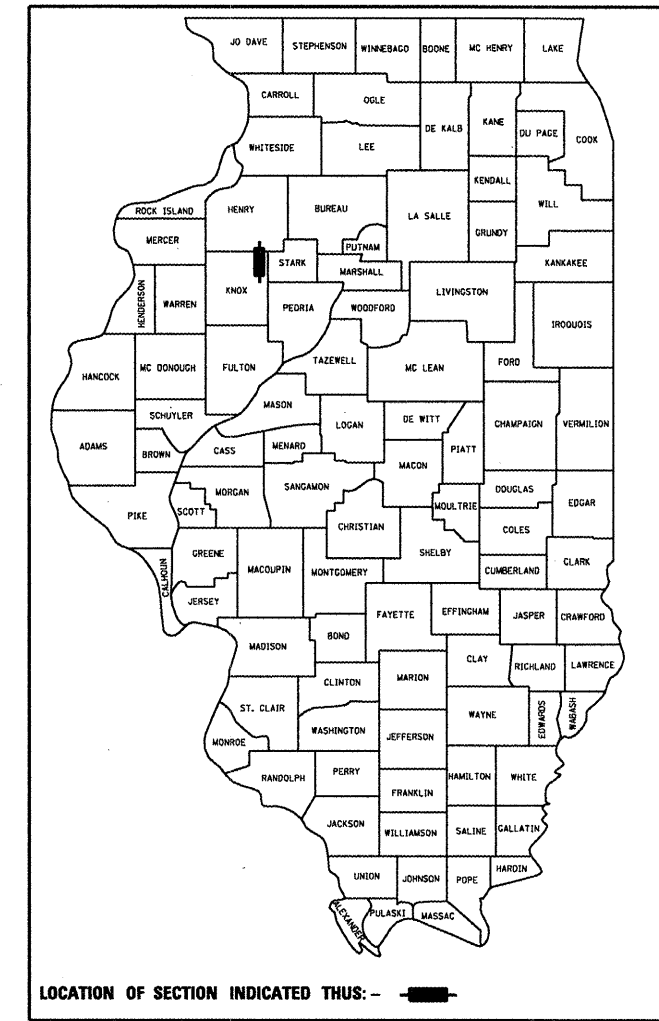
34+1=35

D-94-029-02

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

**PROPOSED  
HIGHWAY PLANS**

FAI ROUTE 74  
SECTION (37-24; 48-24, 25, 26) RS-3  
PROJECT IM-074-1(095)031  
HENRY & KNOX COUNTIES  
C-94-029-02



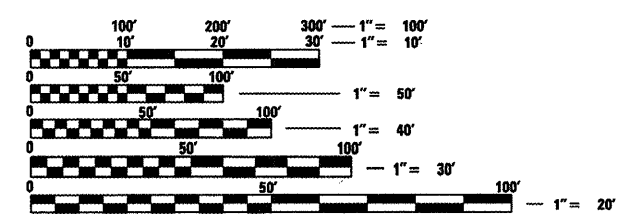
**INDEX OF SHEETS**

1	Cover Sheet
2-3	General Notes
4-6A	Summary of Quantities
7	Line Diagram
8-9	Typical Sections
10-15	Schedules of Quantities
16-18	Tabulation of Resurfacing Quantities
19-24	Details
	CADD Standards

**STANDARDS**

280001-04	631011-05	701411-05
420001-07	631031-07	701426-03
420701-02	642001-01	701456
442001-04	701400-03	701901-01
442101-07	701401-05	780001-02
630001-08	701406-05	781001-03

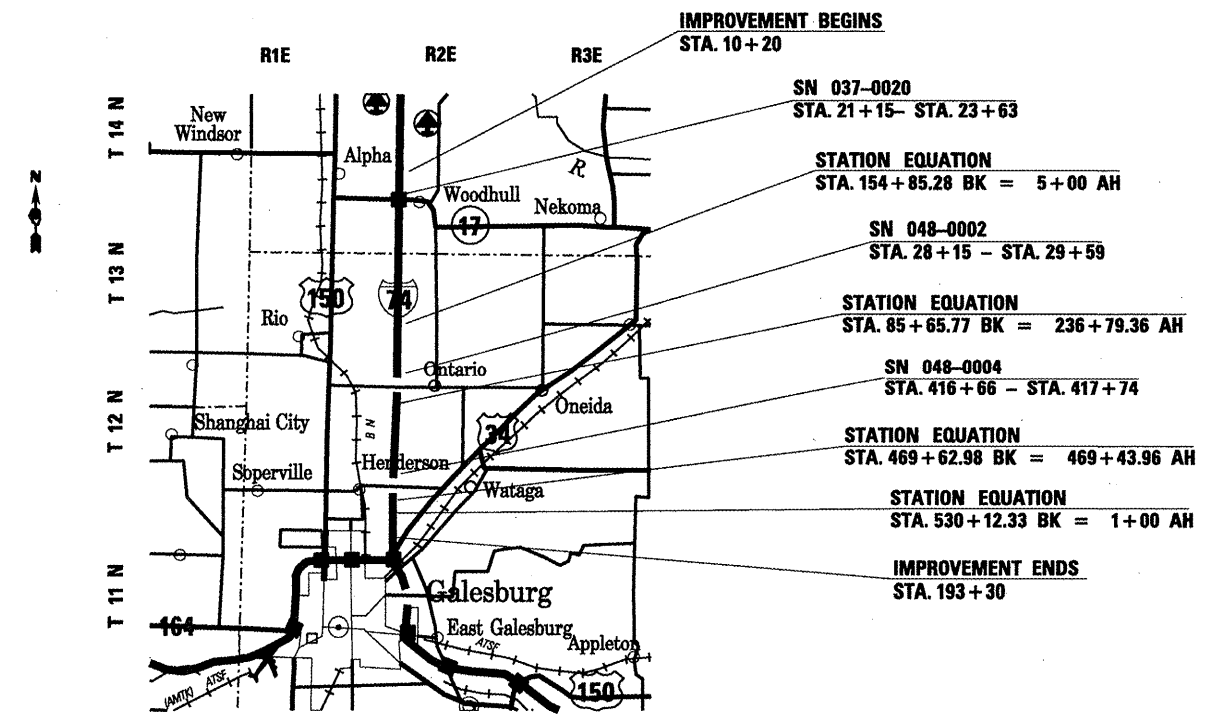
ADT = 17,700 (2007)  
MU = 24.6% (2007)  
SU = 5.3% (2007)



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 ENGINEER: Christopher Maushard 309671.3453  
PROJECT MANAGER: Raymond Samara 309671.3477  
CONTRACT NO. 68220  
CATALOG NO. 032498-00D



GROSS LENGTH = 71,122 FT. = 13.47 MILE  
NET LENGTH = 71,122 FT. = 13.47 MILE

This project consists of patching, cold milling, resurfacing, guardrail upgrades, pavement marking and other related work.

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED *Drc* *20 08*

DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER  
*January 30 2009*  
*Charles G. Engersoll*  
ENGINEER OF DESIGN AND ENVIRONMENT

*January 30 2009*  
*Christine M. Reed*  
DIRECTOR OF HIGHWAYS/ CHIEF ENGINEER

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

AVAILABILITY OF ELECTRONIC FILES

Micro Station and GEOPAK files of this project will be made available to the Contractor. If there is a conflict between the electronic files and the printed contract plans and documents, the printed contract plans and documents shall take precedence over the electronic files. The Contractor shall accept all risk associated with using the electronic files and shall hold the Department harmless for any errors or omissions in the electronic files and the data contained therein. Errors or delays resulting from the use of the electronic files by the Contractor shall not result in an extension of time for any interim or final completion date or shall not be considered cause for additional compensation. The Contractor shall not use, share, or distribute these electronic files except for the purpose of constructing this contract. Any claims by third parties due to use or errors shall be the responsibility of the Contractor. The Contractor shall include this disclaimer with the transfer of these electronic files to any other parties and shall include appropriate language binding them to similar responsibilities.

PLAN ELEVATIONS - U. S. G. S. MEAN SEA LEVEL DATUM

. All elevations shown refer to U. S. G. S. datum at mean sea level unless otherwise noted.

COMMITMENTS

No Commitments have been made for this project.

TREE REMOVAL

The District Four Tree Committee should be contacted and prior approval obtained for any tree removal beyond the limits/locations included in the plans.

ENVIRONMENTAL REVIEWS

Prior to the use of any proposed borrow areas, use areas (temporary access roads, detours, run-arounds, etc.) and/or waste areas, the Contractor shall file the required environmental resource request surveys according to Section 107.22 of the Standard Specifications. These surveys are required in order for the Department to conduct cultural and biological resource surveys for the proposed site.

Prior to any waste materials being removed from the construction site the required environmental resource surveys will need to be obtained and filed by the Contractor. Excess waste products removed from the construction site shall be disposed of as required in Section 202.03 of the Standard Specifications.

Any protruding metal bars shall be removed prior to the disposal of broken concrete at approved disposal sites.

The required environmental resource documentation shall include the following:

- BDE Form 2289 (Environmental Survey Request)
- A location map showing the size limits and location of the use area
- Signed property owner agreement form-D4 PI0100
- Color photographs depicting the use area
- Borrow Area Entry Agreement form-D4 PI0101

Please note that a minimum of two weeks shall be allowed for the District to obtain the required environmental clearances.

ORDERING LENGTH CONFIRMATION - DRAINAGE ITEMS

The Contractor shall consult with the Engineer in regard to the exact length of the box/pipe culverts, storm sewers, and/or pipe drains required prior to ordering these items.

HOT-MIX ASPHALT MIXTURE REQUIREMENTS

Mixture Use(s)	I-74 Surface	I-74 Binder
RAP % (Max)••:	0%	0%
AC/PC	SBR or SBS PG 76-22	SBR or SBS PG 76-22
Design Air Voids	4.0 @ N= 90	4.0 @ N= 90
Mixture Composition: (Gradation Mixture)	IL 9.5 or IL 12.5	IL 19.0
Friction Aggregate	Mixture E	NA

Mixture Use(s)	HMA Shldr Surface	HMA Shldr Binder
RAP % (Max)••:	15%	25%
AC/PC	PG 64-22	PG 64-22
Design Air Voids	3.0 @ N= 50	4.0 @ N= 50
Mixture Composition: (Gradation Mixture)	IL 9.5 or IL 12.5	IL 19.0
Friction Aggregate	Mixture D	NA

Mixture Use(s)	Ramps Surface	Ramps Binder
RAP % (Max)••:	0%	0%
AC/PC	SBR or SBS PG 76-22	SBR or SBS PG 76-22
Design Air Voids	4.0 @ N= 90	4.0 @ N= 90
Mixture Composition: (Gradation Mixture)	IL 9.5 or IL 12.5	IL 19.0
Friction Aggregate	Mixture E	NA

•• If the RAP option is selected, the asphalt cement grade may need to be adjusted; this will be determined by the Engineer.

FILE NAME =	USER NAME = lajnedm	DESIGNED - -	REVISED - -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>GENERAL NOTES</b>	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S:\GEN\DRFT\STD&PLNS\Squed\68220	hull to 34\cover sheet.dgn	DRAWN - -	REVISED - -			74	(37-24)48-24(25,26) RS-3	KNOX	2	CONTRACT NO. 68220
	PLOT SCALE = 4,0000 ' / IN.	CHECKED - -	REVISED - -			SCALE: _____ SHEET NO. ___ OF ___ SHEETS STA. _____ TO STA. _____				
	PLOT DATE = 9/30/2008	DATE - -	REVISED - -			FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT				

**PAVEMENT STATIONING NUMBERS & PLACEMENT**

The Contractor shall provide labor and materials required to imprint pavement station numbers in the finished surface of the pavement and/or overlay. The numbers shall be approximately 3/4 inch (20mm) wide, 5 inches (125 mm) high and 5/8 inch (15 mm) deep.

The pavement station numbers shall be installed as specified herein:

Interval - 200 feet (English stationing) or 100 meters (metric stationing)

Bottom of Numbers - 6 inches (150 mm) from the inside edge of the pavement marking

**Location:**

- 2, 3, & 5 Lane Pavements - right edge of pavement in direction of increasing stations
- Multi-Lane Divided Roadways - outside edge of pavement in both directions
- Ramps - along baseline edge of pavement

Position - stations shall be placed so they can be read from the adjacent shoulder

Format - English (Metric) pavement stations shall use this format "XXX (XX+X00)" where X represents the pavement station

This work will not be paid for separately, but will be considered included in the cost of the associated pavement and/or overlay pay items.

**MINIMUM VERTICAL CLEARANCE**

The Contractor shall verify the existing structure vertical clearance prior to placing bituminous overlay under any structure. A minimum 16' vertical clearance shall be maintained under all structures.

**BUTT JOINT CUTTING TIME RESTRICTION**

Butt joints shall not be milled more than three (3) days prior to placement of the bituminous surface course.

**PAVING SURFACE COURSE**

Continuous paving operations on the main roadway shall be maintained at all times during the construction of the hot-mix asphalt surface. No interruptions for side roads, entrances, turn lanes, etc. will be allowed.

**ENGINEERS FIELD OFFICE**

Add the following sentence to the end of paragraph 670.02 (i) and 670.04 (e):  
All of the telephone lines provided shall have unpublished numbers.

**JOB SPECIFIC NOTES**

Left and Right indicated in this project is determined by the direction of traffic in the west bound lanes.

FILE NAME = c:\pwork\pwork\DOT\LAYNEDM\dms81863\cover sheet.dgn	USER NAME = laynedm	DESIGNED - -	REVISED - -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>GENERAL NOTES</b>	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	PLOT SCALE = 2.0000' / IN.	CHECKED - -	REVISED - -			CONTRACT NO. 68220				
	PLOT DATE = 11/24/2008	DATE - -	REVISED - -			FED. ROAD DIST. NO. - [ILLINOIS] FED. AID PROJECT				
					SCALE: -----	SHEET NO. -- OF -- SHEETS		STA. ----- TO STA. -----		

# SUMMARY OF QUANTITIES

90% FEDERAL  
10% STATE

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	Henry County   Knox County	
				ROADWAY	ROADWAY
				I000 RURAL	I000 RURAL
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	16	16	
20400800	FURNISHED EXCAVATION	CU YD	4235	605	3630
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	12367	1766.7	10600.3
<input type="checkbox"/> 25000210	SEEDING, CLASS 2A	ACRE	2.6	0.37	2.23
<input type="checkbox"/> 25000400	NITROGEN FERTILIZER NUTRIENT	POUND	233	33.3	199.7
<input type="checkbox"/> 25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	233	33.3	199.7
<input type="checkbox"/> 25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	233	33.3	199.7
<input type="checkbox"/> 25100115	MULCH, METHOD 2	ACRE	2.6	0.37	2.23
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	259	37	222
28000500	INLET AND PIPE PROTECTION	EACH	5	1	4
28100225	STONE RIPRAP, CLASS B3	TON	24		24
28100227	STONE RIPRAP, CLASS B4	TON	39		39
28200200	FILTER FABRIC	SQ YD	58		58
40600215	POLYMERIZED BITUMINOUS MATERIALS (PRIME COAT)	TON	145.2	28.3	116.9
40600300	AGGREGATE (PRIME COAT)	TON	838	163.8	674.2
40600895	CONSTRUCTING TEST STRIP	EACH	2		2
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	2978	1374	1604
40600990	TEMPORARY RAMP	SQ YD	703	356	347
40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	9838	1846	7992
40603240	POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N90	TON	23653	4520	19133
40603335	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50	TON	10813	2102.6	8710.4
40603570	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "E", N90	TON	16553	3260	13293

SPECIALTY ITEM

FILE NAME =	USER NAME = loyredm	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SUMMARY OF QUANTITIES</b>	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
ci:\work\pwr\dot\loyredm\dms81063\cover	sheet.dgn	DRAWN -	REVISED -			74	(37-24;48-24;25,26) RS-3	Knox/Henry			4
	PLOT SCALE = 99.9998' / IN.	CHECKED -	REVISED -			SCALE: _____ SHEET NO. ____ OF ____ SHEETS STA. _____ TO STA. _____		FED. ROAD DIST. NO. - [ILLINOIS] FED. AID PROJECT			
	PLOT DATE = 11/26/2008	DATE -	REVISED -					CONTRACT NO. 68220			

# SUMMARY OF QUANTITIES

90% FEDERAL  
10% STATE

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	Henry County	Knox County
				ROADWAY	ROADWAY
				I000 RURAL	I000 RURAL
40800050	INCIDENTAL HOT-MIX ASPHALT SURFACING	TON	91	23	68
44000155	HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2"	SQ YD	276203	53059	223144
44000162	HOT-MIX ASPHALT SURFACE REMOVAL, 3 1/4"	SQ YD	159		159
44004000	PAVED DITCH REMOVAL	FOOT	229		229
44200553	CLASS A PATCHES, TYPE II, 10 INCH	SQ YD	998	224	774
44200557	CLASS A PATCHES, TYPE III, 10 INCH	SQ YD	176	48	128
44200559	CLASS A PATCHES, TYPE IV, 10 INCH	SQ YD	660	147	513
44200982	CLASS B PATCHES, TYPE II, 11 INCH	SQ YD	208	208	
44200986	CLASS B PATCHES, TYPE III, 11 INCH	SQ YD	60	60	
44213000	PATCHING REINFORCEMENT	SQ YD	1827	419	1408
44213100	PAVEMENT FABRIC	SQ YD	60	60	
44213200	SAW CUTS	FOOT	11264	3540	7724
48101200	AGGREGATE SHOULDERS, TYPE B	TON	4144	806	3338
54215550	METAL END SECTIONS 15"	EACH	12	2	10
59300100	CONTROLLED LOW-STRENGTH MATERIAL	CU YD	3		3
<input type="checkbox"/> 63000000	STEEL PLATE BEAM GUARD RAIL, TYPE A	FOOT	5340	2299	3041
<input type="checkbox"/> 63100045	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	6	2	4
<input type="checkbox"/> 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4	
<input type="checkbox"/> 63100089	TRAFFIC BARRIER TERMINAL, TYPE 6B	EACH	8	1	7
<input type="checkbox"/> 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	16	5	11
63200310	GUARDRAIL REMOVAL	FOOT	7383	2250	5133

SPECIALTY ITEMS

# SUMMARY OF QUANTITIES

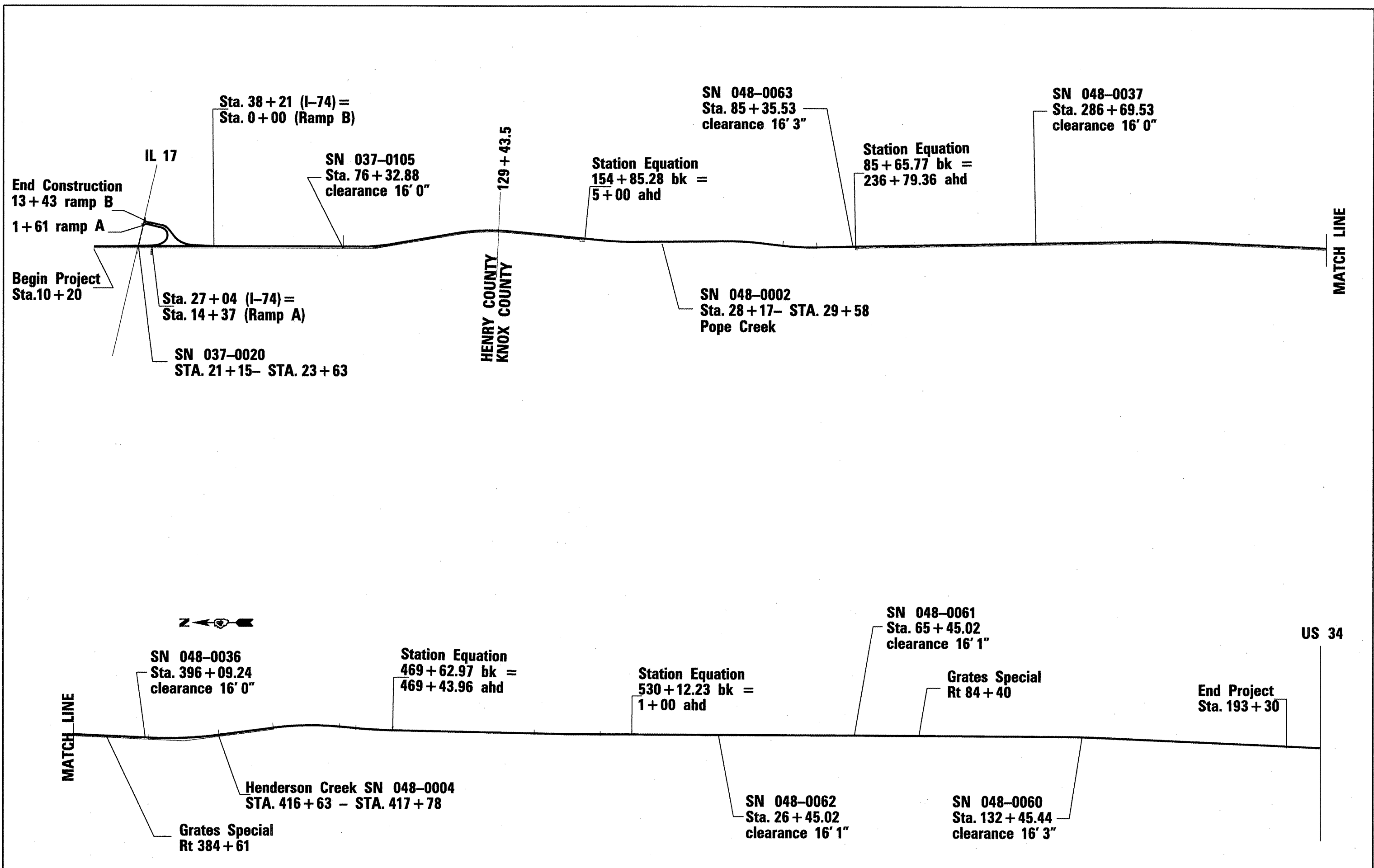
90% FEDERAL  
10% STATE

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	Henry County		Knox County	
				ROADWAY		ROADWAY	
				I000	RURAL	I000	RURAL
64200105	SHOULDER RUMBLE STRIP	FOOT	140978	23272		117706	
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	4			4	
67100100	MOBILIZATION	L SUM	1	0.2		0.8	
70100420	TRAFFIC CONTROL AND PROTECTION, STANDARD 701411	EACH	3	2		1	
70100700	TRAFFIC CONTROL AND PROTECTION, STANDARD 701406	L SUM	1	0.2		0.8	
70100800	TRAFFIC CONTROL AND PROTECTION, STANDARD 701401	L SUM	1	0.2		0.8	
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	10	2		8	
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	29868	5008		24860	
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	147464	29086		118378	
70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	17778	2981		14797	
70300250	TEMPORARY PAVEMENT MARKING - LINE 8"	FOOT	64	64			
70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	FOOT	68	68			
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	3319	557		2762	
<input type="checkbox"/>	78003110 PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - LINE 4"	FOOT	147464	29086		118378	
<input type="checkbox"/>	78003130 PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - LINE 6"	FOOT	17778	2981		14797	
<input type="checkbox"/>	78003140 PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - LINE 8"	FOOT	64	64			
<input type="checkbox"/>	78003150 PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - LINE 12"	FOOT	68	68			
<input type="checkbox"/>	78100100 RAISED REFLECTIVE PAVEMENT MARKER	EACH	912	172		740	
<input checked="" type="checkbox"/>	78200410 GUARDRAIL MARKERS, TYPE A	EACH	82	33		49	
<input type="checkbox"/>	78201000 TERMINAL MARKER - DIRECT APPLIED	EACH	16	5		11	
	78300200 RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	277	172		105	

SPECIALTY ITEMS

FILE NAME =	USER NAME = lajredm	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SUMMARY OF QUANTITIES</b>	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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PLOT DATE = 12/2/2008		DATE -	REVISED -			FED. ROAD DIST. NO. _____ ILLINOIS FED. AID PROJECT CONTRACT NO. 68220					





**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**LINE DIAGRAM**

FILE NAME =	USER NAME = laynedm	DESIGNED - Designed By	REVISED - Revised By1	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LINE DIAGRAM	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
ca:\pwwork\pwwork\laynedm\dms81063\coo\sheet.dgn		DRAWN - Drawn By	REVISED - Revised By2			74	(37-24;48-24;25,26)	RS-3	Knox/Henry	7	
PLOT SCALE = 2560.0000' / IN.		CHECKED - Checked By	REVISED - Revised By3			SCALE: _____ SHEET NO. ____ OF ____ SHEETS STA. _____ TO STA. _____		CONTRACT NO. 68220			
PLOT DATE = 11/19/2008		DATE - Checked Date	REVISED - Revised By4			FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT					



West Bound  
Super Elevated Locations

SA Sta. 86+84 to 88+94 (se .03)  
SR Sta. 97+29 to 99+39

SA Sta. 115+90 to 118+00 (se .03)  
SR Sta. 121+84 to 123+94

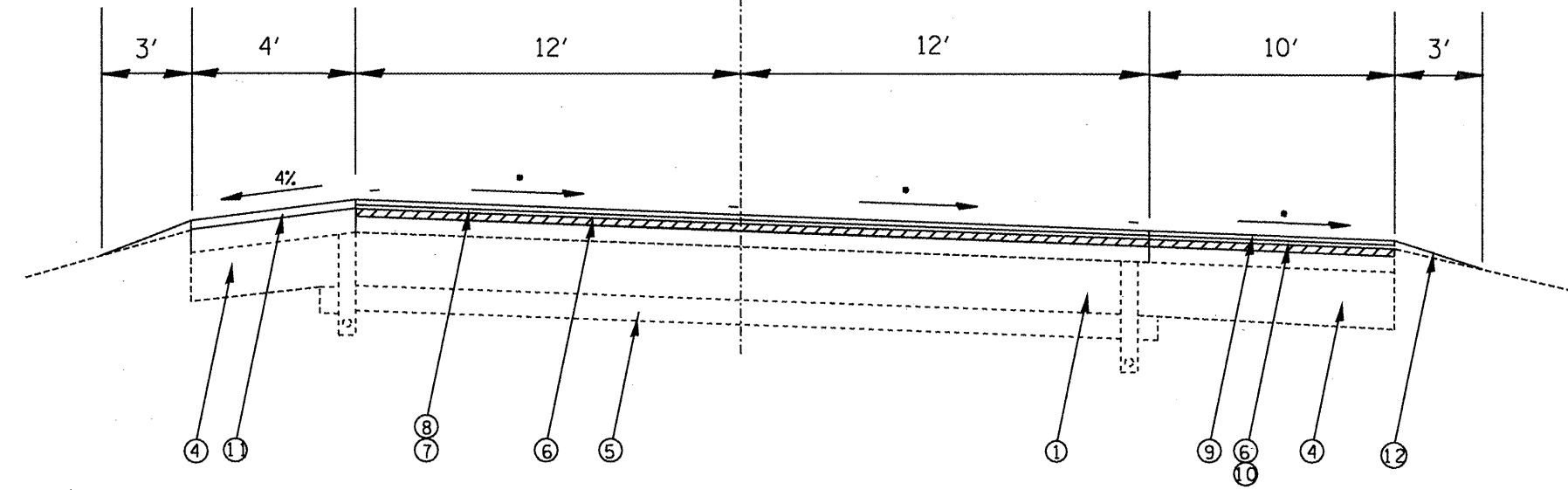
SA Sta. 9+91 to 11+91 (se .02)  
SR Sta. 20+78 to 22+78

SA Sta. 45+54 to 47+54 (se .02)  
SR Sta. 56+74 to 58+74

SA Sta. 62+85 to 64+85 (se .02)  
SR Sta. 73+61 to 75+61

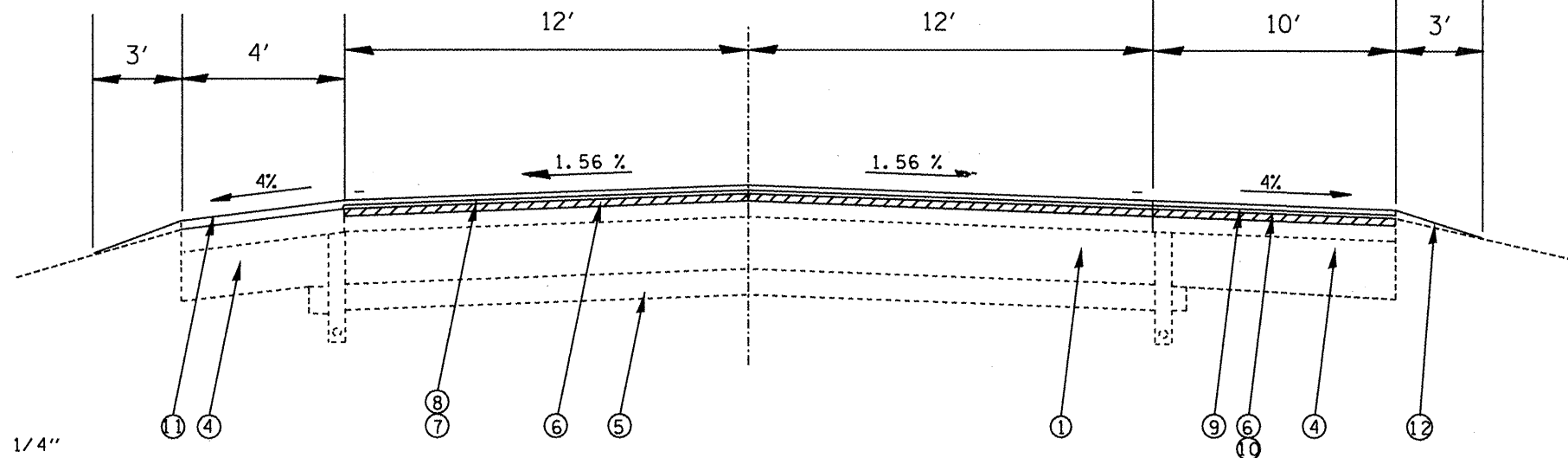
SA Sta. 433+17 to 435+17 (se .017)  
SR Sta. 453+26 to 455+26

West Bound  
I - 74  
C



•See Super Elevated Locations

West Bound  
I - 74



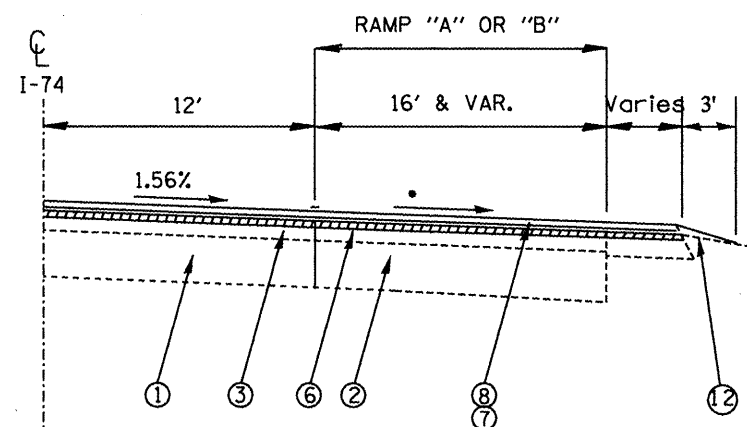
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Sta. 5+00 AHD = 85+65.77 BK  
Sta. 236+79.36 AHD = 469+62.98 BK  
Sta. 469+43.96 AHD = 530+12.33 BK  
Sta. 1+00 AHD = 193+30 BK

LEGEND

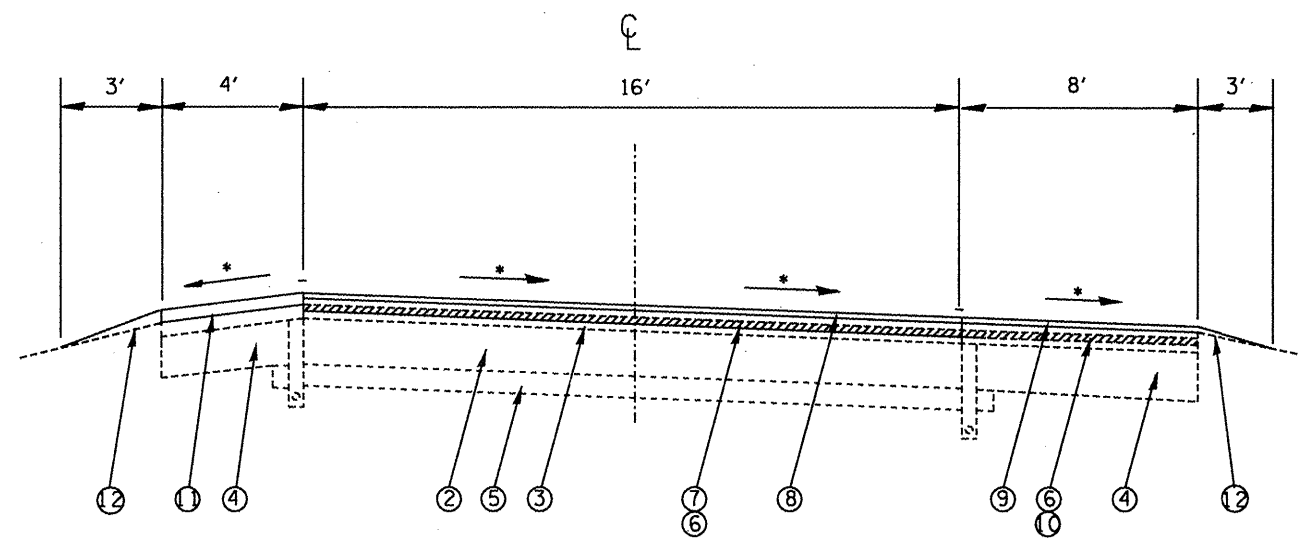
- ① EXISTING CRC PAVEMENT 7"
- ② EXISTING PCC PAVEMENT 8"
- ③ EXISTING HOT MIX ASPHALT OVERLAY 3 1/4"
- ④ EXISTING HOT MIX ASPHALT SHOULDER
- ⑤ EXISTING BAM SUBBASE
- ⑥ PROPOSED HOT MIX ASPHALT SURFACE REMOVAL 1 1/2"
- ⑦ PROPOSED POLYMERIZED HOT MIX ASPHALT BINDER COURSE 2 1/4"
- ⑧ PROPOSED POLYMERIZED HOT MIX ASPHALT SURFACE COURSE MIX "E" 1 1/2"
- ⑨ PROPOSED HOT MIX ASPHALT SURFACE COURSE MIX "D" 1 1/2"
- ⑩ PROPOSED HOT MIX ASPHALT BINDER COURSE IL 19.0 2 1/4"
- ⑪ PROPOSED HOT MIX ASPHALT SURFACE COURSE MIX "D" 2 1/4"
- ⑫ PROPOSED AGGREGATE SHOULDER, TYPE B

13 proposed

FILE NAME = S:\GEN\ORAF\STD&PLNS\Squad\68220 Woodhull to 34\coversheet.dgn	USER NAME = leynedm	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PROPOSED TYPICAL SECTIONS</b>	F.A. RTE. = 74	SECTION = (37-24+48-24+25,26) RS-3	COUNTY = Knox/Henry	TOTAL SHEETS = 8	SHEET NO. = 8	
PLOT SCALE = 4.0000 "/ IN.	CHECKED -	REVISED -	SCALE: _____			SHEET NO. _____ OF _____ SHEETS	STA. _____ TO STA. _____	FED. ROAD DIST. NO. = ILLINOIS FED. AID PROJECT	CONTRACT NO. 68220		
PLOT DATE = 9/30/2008	DATE -	REVISED -									



RAMP "A"  
RT STA. 17+54 TO 27+04 (I-74)  
RAMP "B"  
RT STA. 38+21 TO 45+04 (I-74)



RAMP "A"  
STA. 1+61 TO 14+37  
RAMP "B"  
STA. 0+00 TO 13+43

•Match Existing

**LEGEND**

- ① EXISTING CRC PAVEMENT 7"
- ② EXISTING PCC PAVEMENT 8"
- ③ EXISTING HOT MIX ASPHALT OVERLAY 3 1/4"
- ④ EXISTING HOT MIX ASPHALT SHOULDER
- ⑤ EXISTING BAM SUBBASE
- ⑥ PROPOSED HOT MIX ASPHALT SURFACE REMOVAL 1 1/2"
- ⑦ PROPOSED POLYMERIZED HOT MIX ASPHALT BINDER COURSE 2 1/4"
- ⑧ PROPOSED POLYMERIZED HOT MIX ASPHALT SURFACE COURSE MIX "E" 1 1/2"
- ⑨ PROPOSED HOT MIX ASPHALT SURFACE COURSE MIX "D" 1 1/2"
- ⑩ PROPOSED HOT MIX ASPHALT BINDER COURSE IL 19.0 2 1/4"
- ⑪ PROPOSED HOT MIX ASPHALT SURFACE COURSE MIX "D" 2 1/4"
- ⑫ PROPOSED AGGREGATE SHOULDER, TYPE B

FILE NAME =	USER NAME = jaynedm	DESIGNED - -	REVISED - -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TYPICAL SECTIONS</b>	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S:\GEN\DRIFT\STD&PLNS\Squad\68220 Woodhull to 34\coversheet.dgn	DRAWN - -	REVISED - -	74			(37-24+48-24+25.26) RS-3	Knox/Henry	9		
PLOT SCALE = 4.0000' / IN.	CHECKED - -	REVISED - -	CONTRACT NO. 68220							
PLOT DATE = 9/30/2008	DATE - -	REVISED - -	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT							

TEMPORARY RAMP		
Henry Co.	LENGTH	AREA
West Bound Lanes		sq yd
Sta 10+20	10 feet	26.7
Sta 19+10		33.3
Sta 19+76		33.3
Sta 21+05		35.6
Sta 21+15		35.6
Sta 23+53		38.9
Sta 23+63		38.9
Sta 24+50		38.9
Sta 24+66		38.9
Ramp A Sta 1+61		17.8
Ramp B Sta 13+13		17.8
Knox County		
West Bound Lanes		
Sta. 26+30		26.7
Sta. 26+96		26.7
Sta. 28+07		26.7
Sta. 28+17		26.7
Sta. 29+48		26.7
Sta. 29+58		26.7
Sta. 30+66		26.7
Sta. 30+82		26.7
Sta. 414+94		26.7
Sta. 415+60		26.7
Sta. 418+71		26.7
Sta. 418+87		26.7
Sta. 192+70		26.7
sub-total Henry Co.		355.7
sub-total Knox Co.		347.1
Total		703

INCIDENTAL HMA SURFACING 1 1/2"	
Cross Overs	ton
Henry Co.	
Sta 64+00	22.7
Knox County	
Sta. 279+00	22.7
Sta. 491+00	22.7
Sta. 174+00	22.7
sub-total Henry Co.	22.7
sub-total Knox Co.	68.1
Total	91

TREE REMOVAL	
Knox County	unit
Sta 55+51 46' It	16
RIP RAP CL B3	
Knox County	ton
Rt 148+40 to 194+40	14.8
Rt 234+80 to 236+40	9.5
Total	24
RIP RAP CL B4	
Knox County	ton
Rt 238+00 to 238+65	39

CONSTRUCTION LAYOUT	
Henry Co.	0.2
Knox County	0.8
Total	1.0

FILTER FABRIC FOR RIP RAP	
Knox County	sq yd
Rt 238+00 to 238+65	58

CONSTRUCT TEST STRIP	
Knox Co.	each
Binder Cse	1
Surface Cse	1
Total	2

PAVED DITCH REMOVAL		
Knox County	feet	*width
Rt 148+40 to 149+40	100	4
Rt 84+90 to 85+33	64	4
Rt 238+00 to 238+65	65	8
Total	229	

ENGINEERS FIELD OF OFFICE  
TYPE A  
4 Calendar Months

\* for information only

CONTROLLED LOW STRENGTH MATERIAL	
Knox County	cu yd
Rt 238+00	3

SHOULDER RUMBLE STRIP

Henry Co.	feet
Sta 10+20 TO 129+44	23272
Knox County	
Sta. 129+44 TO 193+30	117706
Total	140978

MOWING

Henry Co.	unit
Knox County	592
Total	711

MOBILIZATION

Henry Co.	lump sum
Knox Co.	0.8
Total	1.0

RAISED REFLECTIVE PAVEMENT MARKER REMOVAL

Henry Co.	each
Knox Co.	105
Total	277

RAISED REFLECTIVE PAVEMENT MARKER

Henry Co.	each
Knox Co.	740
Total	912

TRAFFIC CONTROL SURVEILLANCE

Henry Co.	cal day
Knox County	8
Total	10

TC&P STANDARD 701411

Henry Co.	each
Knox Co.	1
Total	3

TC&P STANDARD 701406

Henry Co.	lump sum
Knox Co.	0.8
Total	1.0

TC&P STANDARD 701401

Henry Co.	lump sum
Knox Co.	0.8
Total	1.0

SHORT TERM PAVEMENT MARKING  
SHORT TERM PAVEMENT MARKING REMOVAL

Henry Co.	feet	sq feet
Sta 10+20 TO 129+44	5008	557
Knox County		
Sta. 129+44 TO 193+30	24860	2762
Total	29868	3319

PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - LINE 4"  
TEMPORARY PAVEMENT MARKING LINE 4"

Henry Co.	feet
Sta 10+20 TO 129+44	23848
Ramp A	2552
Ramp B	2686
Knox County	
Sta. 129+44 TO 193+30	118378
Total Henry Co.	29086
Total Knox Co.	118378
Total	147464

PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - LINE 8"  
TEMPORARY PAVEMENT MARKING LINE 8"

Henry Co.	feet
Sta 42+49 to 45+04	64

PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - LINE 12"  
TEMPORARY PAVEMENT MARKING LINE 12"

Henry Co.	feet
Ramp B Gore	68

PREFORMED PLASTIC MARKING LINE TYPE B 6"  
TEMPORARY PAVEMENT MARKING LINE 6"

Henry Co.	feet
Sta 10+20 TO 129+44	2981
Knox County	
Sta. 129+44 TO 193+30	14797
Total	17778

FURNISH & PLACE TOPSOIL 4"

Henry Co.	sq yd
Sta 76+33	1766.7
Knox County	
Sta. 236+49	1766.7
289+70	1766.7
396+09	1766.7
26+45	1766.7
65+34	1766.7
132+45	1766.7
Total Henry Co.	1766.7
Total Knox Co.	10600.3
Total	12367

TEMPORARY EROSION CONTROL SEEDING

Henry Co.	lb
Sta 76+33	37
Knox County	
Sta. 236+49	37
289+70	37
396+09	37
26+45	37
65+34	37
132+45	37
Total Henry Co.	37
Total Knox Co.	222
Total	259

INLET & PIPE PROTECTION

Henry Co.	each
Sta 73+56	1
Knox County	
Sta. 238+00	1
Sta. 395+00	1
Sta. 22+46	1
Sta. 29+35	1
Total Henry Co.	1
Total Knox Co.	4
Total	5

SEEDING CLASS 2A  
MULCH METHOD 2

Henry Co.	acre
Sta 76+33	.37
Knox County	
Sta. 236+49	.37
289+70	.37
396+09	.37
26+45	.37
65+34	.37
132+45	.37
Total Henry Co.	.37
Total Knox Co.	2.23
Total	2.6

NITROGEN FERTILIZER NUTRIENT  
PHOSPHORUS FERTILIZER NUTRIENT  
POTASSIUM FERTILIZER NUTRIENT

Henry Co.	lb
Sta 76+33	33.3
Knox County	
Sta. 236+49	33.3
289+70	33.3
396+09	33.3
26+45	33.3
65+34	33.3
132+45	33.3
Total Henry Co.	33.3
Total Knox Co.	199.7
Total	233

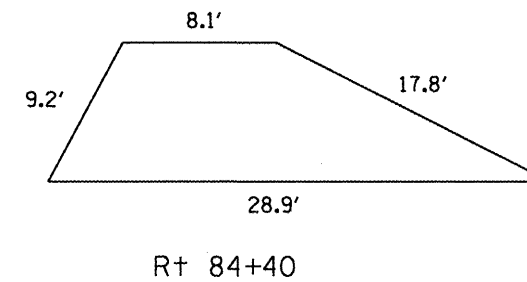
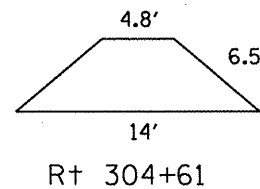
# TABULATION OF IMPACT ATTENUATOR QUANTITIES

LOCATION	IMPACT ATTENUATOR each	ATTENUATOR BASE sq yd	FURNISHED EXCAVATION cu yd	PIPE CULVERT TYPE 1 15'' foot	METAL END SECTIONS 15'' each
Henry Co. Sta 76+33	2	93.2	605	288	2
Knox County					
Sta. 236+49	2	93.2	605	288	2
Sta. 289+70	2	93.2	605	288	2
Sta. 396+09	2	93.2	605	288	2
Sta. 26+45	2	93.2	605	288	2
Sta. 65+34	2	93.2	605	288	2
Sta. 132+45	2	93.2	605	288	2
sub-total Henry Co.	2	93.2	605	288	2
sub-total Knox Co.	12	559.2	3630	1152	10
Total	14	653	4235	1440	12

Design Speed=70 mph

### GRATES SPECIAL

Knox County	sq ft
Rt 304+61	45
Rt 84+40	166
Total	211



Note: Dimensions given are approximate for information only and are not to be used to order grate materials

## CLASS A PATCHES TYPE (2,3,4) 10''

LOCATION	TYPE II		TYPE III		TYPE IV		SAW CUTS	REINFORCEMENT	TIE BARS 3/4''
	passing sq yd	driving sq yd	passing sq yd	driving sq yd	passing sq yd	driving sq yd			
Henry Co. West Bound Lanes							foot	sq yd	each
10+20 to 76+32	8	85.4	32	16		80	1148	221.4	120
76+32 to 129+43	24	106.7			33.3	33.3	1160	197.3	13
Knox Co. West Bound Lanes									
129+43 to 28+17	16	156.7		56		106.7	2026	335.4	280
28+17 to 286+69		130.7		16			1036	146.7	
286+69 to 416+63	24	215.9				33.3	1638	273.2	13
416+63 to 65+45		77.3		40		313.3	1580	430.6	335
65+45 to 193+30		56					420	56	
sub-total Henry Co.	32	192.1	32	16	33.3	113.3	2308	418.7	133
sub-total Knox Co.	46	636.6		112		453.3	6700	1241.9	628
Sub-Total	72	828.7	32	128	33.3	566.6			
Total	907		160		600		9008	1661	761
Total plus 10% winter breakup	998		176		660		9909	1827	837

## CLASS B PATCHES TYPE (2&3) 11''

Henry Co.	TYPE II	TYPE III	SAW CUTS	PAVEMENT FABRIC	DOWEL BARS
	sq yd	sq yd		foot	sq yd
Ramp A	103	18	616	18	280
Ramp B	86	36	616	36	280
Total	189	54	1232	54	560
Total plus 10% winter breakup	208	60	1355	60	616

# TABULATION OF STEEL PLATE BEAM GUARDRAIL QUANTITIES

LOCATION	SPBGR REMOVAL	TBT TYPE 1 SPL (TANGENT)	TBT TYPE 2	TBT TYPE 6	TBT TYPE 6B	SPBGR TYPE A	TERM MKR DIRECT APPLIED	GUARDRAIL MARKER TYPE A	GUARDRAIL AGGREGATE (EROS CONT)	EROSION CONTROL CURB
	ft	each	each	each	each	ft	each	each	ton	ft
Henry Co.										
West Bound Lanes										
Rt 13+50 to 21+20	770		1	1		712		7	146.5	751
Rt 23+60 to 12+10 (ramp A)	560	1		1		462	1	7	106	532
Lt 23+60 to 27+60	155	1		1		325	1	5	80	396
Rt 76+30 to 79+34	270	1			1	188	1	4	56.4	
Rt 126+00 to 129+46	340	1	1			287	1	5	66.5	
East Bound Lane										
Lt 16+97 to 20+97	155	1		1		325	1	5	80	395
Knox County										
West Bound Lanes										
Lt 33+93 to 34+43	25	1					1			
Lt 79+00 to 83+95	285	1	1			425	1	6	92.7	
Rt 81+25 to 84+63		1	1			275	1	4	64.2	
Rt 236+55 to 239+60	255	1			1	188	1	4	56.4	
Rt 289+67 to 292+71	260	1			1	188	1	4	56.4	
Rt 304+56 to 307+58	302									
Rt 387+85 to 396+02	819		1		1	588		8	125.4	
Rt 396+04 to 399+11	260	1			1	188	1	4	56.4	
Lt 421+63 to 422+13	25	1					1			
Lt 432+92 to 436+30	338									
Rt 432+92 to 436+15	323									
Rt 444+98 to 448+30	332									
Rt 26+36 to 32+92	389	1			1	550	1	7	125.2	
Rt 65+29 to 68+65	336	1			1	188	1	4	56.4	
Rt 84+32 to 86+92	260									
Rt 118+97 to 122+23	312	1	1			263	1	4	61.9	
Rt 132+37 to 135+72	335	1			1	188	1	4	56.4	
Rt 159+08 to 161+85	277									
sub-total Henry Co.										
	2250	5	2	4	1	2299	5	33	535.4	2074
sub-total Knox Co.										
	5133	11	4		7	3041	11	49	751.4	
Total										
	7383	16	6	4	8	5340	16	82	1287	2074

NOTE: Lt and Rt is related to the direction of traffic in the West Bound lanes.



# TABULATION OF RESURFACING QUANTITIES

LOCATION	LENGTH	HMA SURF REM	HMA SURF REM	HMA SURF REM	NOTES	POLY BIT	AGG	POLYMERIZED	HMA BC	POLY HMA	HMA	HMA	AGG	
		BUTT JOINT	1 1/2"	3/4"		PRIME CT	PRIME CT	IL 19.0 N 90 2 1/4 "	IL 19.0 N 50 2 1/4 "	SC MIX E N90 1 1/2 "	SC MIX D 2 1/4 "	SC MIX D 1 1/2 "	SHLDS TYPE B	
	ft	sq yd	sq yd	sq yd		ton	ton	ton	ton	ton	ton	ton	ton	ton
Henry Co. West Bound Lanes														LT RT
10+20 to 10+80	60	253.3				0.1	.76	10.1	4.2	13.46	3.4	5.6	1.7	1.7
10+80 to 19+10	830		3172.4			1.67	9.52	279.2	116.2	186.15	46.5	77.2	24.1	24.1
19+10 to 19+70	60	293.3				0.12	0.88	10.1	4.2	13.46	3.4	5.6	1.7	1.7
19+70 to 19+76	6				EXP JNT									
19+76 to 19+86	10	48.9				0.02	0.15			2.24		0.9		
19+86 to 21+05	119		410	159*		0.3	1.71	15.6		36.65		11.1		
21+05 to 21+15	10	51.1			BR JNT	0.02	0.15			2.24		0.9		
21+15 to 21+25 SN 037-0020	10	51.1			BR JNT	0.02	0.15			3.14				
21+25 to 23+53 SN 037-0020	228		1203.3		BRIDGE	0.48	3.61			102.1				
23+53 to 23+63 SN 037-0020	10	54.4			BR JNT	0.02	0.16			3.14				
23+63 to 23+73	10	54.4			BR JNT	0.02	0.16			2.24		0.9		
23+73 to 24+50	77		419.2			0.22	1.26			17.27		7.2		
24+50 to 24+60	10	54.4				0.02	0.16			2.24		0.9		
24+60 to 24+66					EXP JNT									
24+66 to 25+26	60	326.7				0.13	0.98	10.1	4.2	13.46	3.4	5.6	1.7	1.7
25+26 to 27+04	178		969.1			0.5	2.91	94.7	24.92	63.13	10	16.6	5.2	5.2
27+04 to 38+21	1117		4219.8			2.22	12.66	375.8	156.38	250.52	62.6	103.9	32.4	32.4
38+21 to 45+04	683		3809.6			1.97	11.43	382.5	95.62	254.99	38.3	63.5	19.8	19.8
45+04 to 74+68	2964		11197.3			5.9	33.59	997.2	414.96	664.77	166	275.7	85.9	85.9
74+68 to 77+98	330		1393.3		BR CLR	0.56	4.18	30.2	17.6	74.01	9	30.7	5.2	5.2
77+98 to 129+44	5146		19440.4			10.24	58.32	1731.2	720.44	1154.15	288.2	478.6	149.2	149.2
Ramp A														
1+61 to 1+91	30	93.3				0.04	0.28			4.48		2.8	0.9	0.9
1+91 to 14+37	1246		3322.7			1.79	9.97	279.1	139.6	186.07	69.8	115.9	36.1	36.1
Ramp B														
0+00 to 13+13	1313		3501.3			1.88	10.5	294.1	147.1	196.08	73.5	122.1	38.1	38.1
13+13 to 13+43	30	93.3				0.04	0.28			4.48		2.8	0.9	0.9
subtotal Henry Co.		1374.2	53058.4	159*		28.28	163.77	4519.9	1845.4	3260	774.1	1328.5	402.9	402.9
											2102.6		805.8	

PRIME COAT CONVERSION FACTORS		
SURFACE TYPE	BIT PR COAT gal/sq yd	AGG PR COAT lb/sq yd
GRANULAR BASE	0.5	-
COLD MILLED SURFACES	0.1	4
EXISTING PAVEMENT	0.05	4
NEW BITUMINOUS COURSES	0.03	2

\* DRIVING LANES ONLY

BITUMINOUS & AGGREGATE CONVERSION FACTORS	
SURFACE TYPE	RATE
BIT. SURF. COURSES	112 lb/sq yd/in
ALL OTHER BIT.	112 lb/sq yd/in
AGGREGATE SHOULDERS	2.05 ton/cu yd

# TABULATION OF RESURFACING QUANTITIES

LOCATION	LENGTH	HMA SURF REM	HMA SURF REM	HMA SURF REM	NOTES	POLY BIT	AGG	POLYMERIZED	HMA BC	POLY HMA	HMA	HMA	AGG	
		BUTT JOINT	1 1/2 "	3 1/4 "		PRIME CT	PRIME CT	IL 19.0 N 90 2 1/4 "	IL 19.0 N 50 2 1/4 "	SC MIX E N90 1 1/2 "	SC MIX D 2 1/4 "	SC MIX D 1 1/2 "	SHLDS TYPE B	
	ft	sq yd	sq yd	sq yd		ton	ton	ton	ton	ton	ton	ton	ton	ton
Knox Co. West Bound Lanes														LT RT
129+44 to 154+85 BK	2541		9599.3		STA EQU	5.05	28.8	854.84	355.7	569.9	142.3	236.3	73.7	73.7
5+00 AHD to 26+30	2130		8046.7			4.24	24.14	716.58	298.2	477.72	119.3	198.1	61.8	61.8
26+30 to 26+90	60	253.3				0.1	0.76	10.1	4.2	13.46	3.4	5.6	1.7	1.7
26+90 to 26+96	6				EXP JNT									
26+96 to 27+06	10	42.2				0.02	0.13			2.24		0.9		
27+06 to 28+07	101		381.6			0.2	1.15			22.65		13.2		
28+07 to 28+17	10	42.2			BR JNT	0.02	0.13			2.24		0.9		
28+17 to 28+27 SN 048-0002	10	42.2			BR JNT	0.02	0.13			3.14				
28+27 to 29+48 SN 048-0002	121		510.9		BRIDGE	0.2	1.53			42.9				
29+48 to 29+58 SN 048-0002	10	42.2			BR JNT	0.02	0.13			3.14				
29+58 to 29+68	10	42.2			BR JNT	0.02	0.13			2.24		0.9		
29+68 to 30+66	98		370.2			0.2	1.11			21.98		12.8		
30+66 to 30+76	10	42.2				0.02	0.13			2.24		0.9		
30+76 to 30+82	6				EXP JNT									
30+82 to 31+42	60	253.3				0.1	0.76	10.1	4.2	13.46	3.4	5.6	1.7	1.7
31+42 to 83+71	5229		19754			10.4	59.26	1759.1	732.1	1172.76	292.8	486.3	151.6	151.6
83+71 to 85+66 BK	195		823.3		BR CLR	0.33	2.47	15.12	8.8	43.74	4.5	18.1	2.6	2.6
236+79 AHD to 238+14	135		570		BR CLR	0.23	1.71	15.12	8.8	30.28	4.5	12.6	2.6	2.6
238+14 to 285+05	4691		17721.6			9.33	53.17	1578.1	656.7	1052.1	262.7	436.3	136	136
285+05 to 288+35	330		1393.3		BR CLR	0.56	4.18	30.24	17.6	74.01	9	30.7	5.2	5.2
288+35 to 394+44	10609		40078.4			21.1	120.24	3569.1	1485.3	2379.4	594.1	986.6	307.7	307.7
394+44 to 397+74	330		1393.3		BR CLR	0.56	4.18	30.24	17.6	74.01	9	30.7	5.2	5.2
397+74 to 414+94	1720		6497.8			3.42	19.49	578.64	240.8	385.76	96.3	159.9	49.9	49.9
414+94 to 415+54	60	253.3				0.1	0.76	10.1	4.2	13.46	3.4	5.6	1.7	1.7
415+54 to 415+60	6				EXP JNT									
415+60 to 415+70	10	42.2				0.02	0.13			2.24		0.9		
415+70 to 416+63	93		392.7			0.15	1.2			20.8		12.2		
416+63 to 417+78 SN 048-0004	115		485.6		BRIDGE	0.21	1.4			40.8				
417+78 to 418+71	93		392.7			0.15	1.2			20.8		12.2		
418+71 to 418+81	10	42.2				0.02	0.13			2.24		0.9		
418+81 to 418+87	6				EXP JNT									
418+87 to 419+47	60	253.3				0.1	0.76	10.1	4.2	13.46	3.4	5.6	1.7	1.7

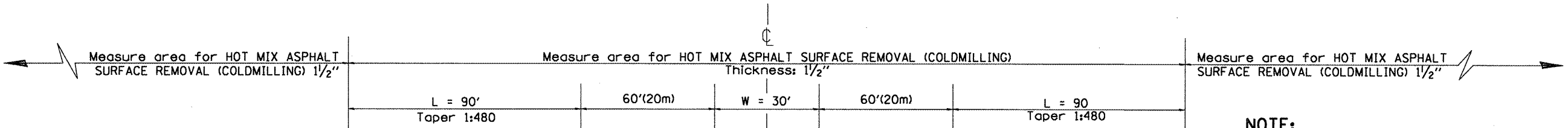
# TABULATION OF RESURFACING QUANTITIES

LOCATION	LENGTH	HMA SURF REM	HMA SURF REM	HMA SURF REM	NOTES	POLY BIT	AGG	POLYMERIZED	HMA BC	POLY HMA	HMA	HMA	AGG	
		BUTT JOINT	1 1/2"	3/4"		PRIME CT	PRIME CT	IL 19.0 N 90 2 1/4 "	IL 19.0 N 50 2 1/4"	SC MIX E N90 1 1/2 "	SC MIX D 2 1/4"	SC MIX D 1 1/2 "	SHLDS TYPE B	
	ft	sq yd	sq yd	sq yd		ton	ton	ton	ton	ton	ton	ton	ton	
Knox Co.														
West Bound Lanes													LT	RT
419+47 to 469+63 BK	5016		18949.3		STA EQU	9.98	56.85	1687.48	702.2	1124.99	280.9	466.5	145.5	145.5
469+44 AHD to 530+12 bk	6068		22923.6		STA EQU	12.07	68.77	2041.4	849.5	1360.93	339.8	564.3	175.9	175.9
1+00 to 24+80	2380		8991.1			4.73	26.97	800.68	333.2	533.79	133.3	221.3	69	69
24+80 to 28+10	330		1393.3		BR CLR	0.56	4.18	30.24	17.6	74.01	9	30.7	5.2	5.2
28+10 to 63+80	2570		13486.7			7.1	40.46	1201.2	499.8	800.68	199.9	332	103.5	103.5
63+80 to 67+10	330		1393.3		BR CLR	0.56	4.18	30.24	17.6	74.01	9	30.7	5.2	5.2
67+10 to 130+80	6370		24064.4			12.67	72.19	2143	891.8	1428.66	356.7	592.4	184.7	184.7
130+80 to 134+10	330		1393.3		BR CLR	0.56	4.18	30.24	17.6	74.01	9	30.7	5.2	5.2
134+10 to 192+70	5860		22137.8			11.66	66.41	1971.4	820.4	1314.28	328.2	545	169.9	169.9
192+70 to 193+30	60	253.3				0.1	0.76	10.1	4.2	13.46	3.4	5.6	1.7	1.7
											3217.3	5502.5	1668.9	1668.9
Subtotal Knox Co.		1604.1	223144.1			116.88	674.4	19133.3	7992.3	13292.5	8710.3		3337.8	
Subtotal Henry Co.		1374.2	53058.4	159		28.28	163.77	4519.9	1845.4	3260.0	2102.6		805.8	
Grand Total		2978	276203	159		145.2	838	* 23653	9838	* 16553	10813		4144	

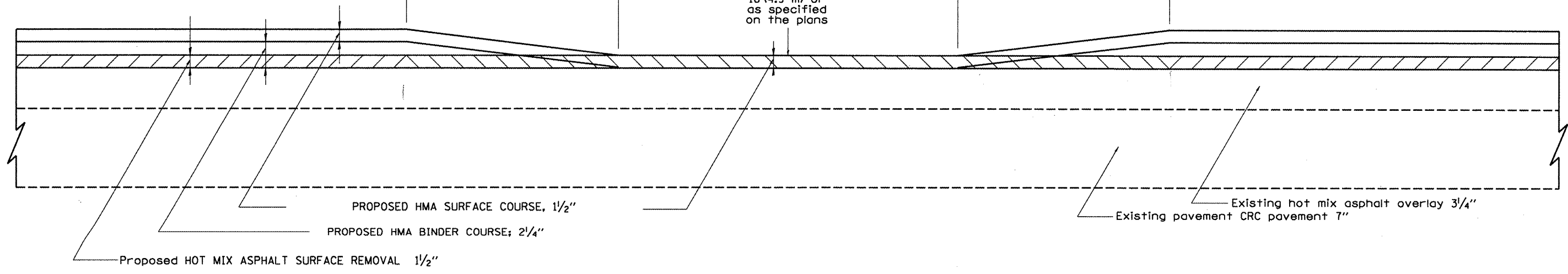
\* Placed with Material Transfer Device

PRIME COAT CONVERSION FACTORS		
SURFACE TYPE	BIT PR COAT gal/sq yd	AGG PR COAT lb/sq yd
GRANULAR BASE	0.5	-
COLD MILLED SURFACES	0.1	4
EXISTING PAVEMENT	0.05	4
NEW BITUMINOUS COURSES	0.03	2

BITUMINOUS & AGGREGATE CONVERSION FACTORS	
SURFACE TYPE	RATE
BIT. SURF. COURSES	112 lb/sq yd/in
ALL OTHER BIT.	112 lb/sq yd/in
AGGREGATE SHOULDERS	2.05 ton/cu yd



**NOTE:**  
Hot mix asphalt shoulders adjacent to the bridge taper shall be coldmilled 0 to 1/2" to allow a uniform overlay.



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

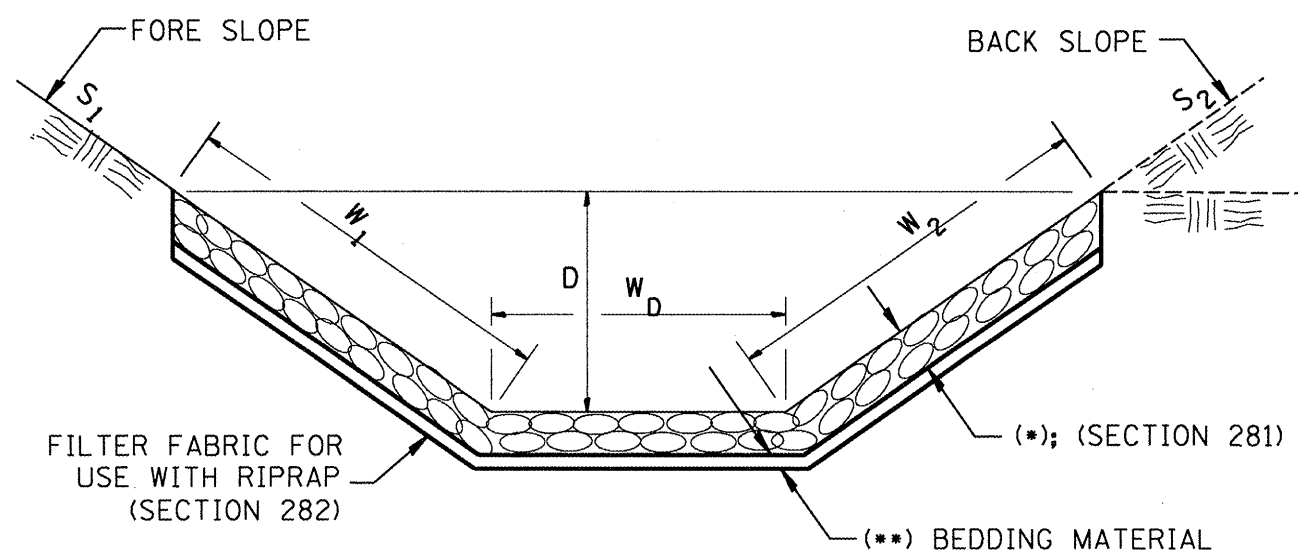
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S:\GEN\DRIFT\STD&PLNS\Squad\68220 Woodhull to 34\cover\sheet.dgn		DRAWN - -	REVISED - -
		CHECKED - -	REVISED - -
		DATE - -	REVISED - -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PAVEMENT OVERLAY UNDER STRUCTURES**

NOT TO SCALE

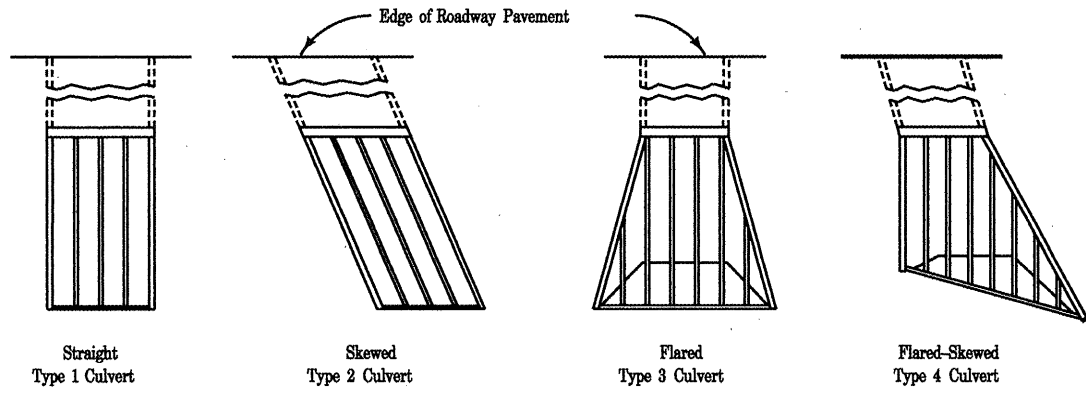
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(37-24,48-24,25,26) RS-3	KNOX		19
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 68220	



(*)				
LOCATION	WIDTH (1)	LENGTH	RIPRAP	FABRIC
STA TO STA	lin ft (m)	lin ft (m)	tons (m tons)	sq yds (m <sup>2</sup> )
148+40 to 149+40	4	100	15	
234+80 to 236+40	4	64	10	
238+00 to 238+65	8	65	39	58
TOTAL				

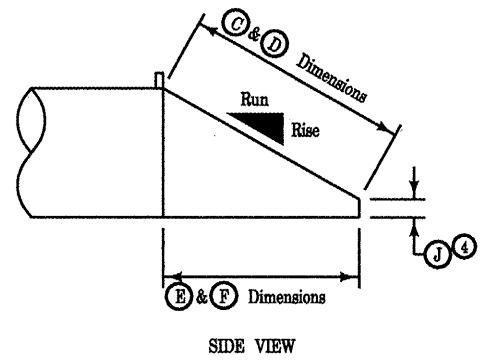
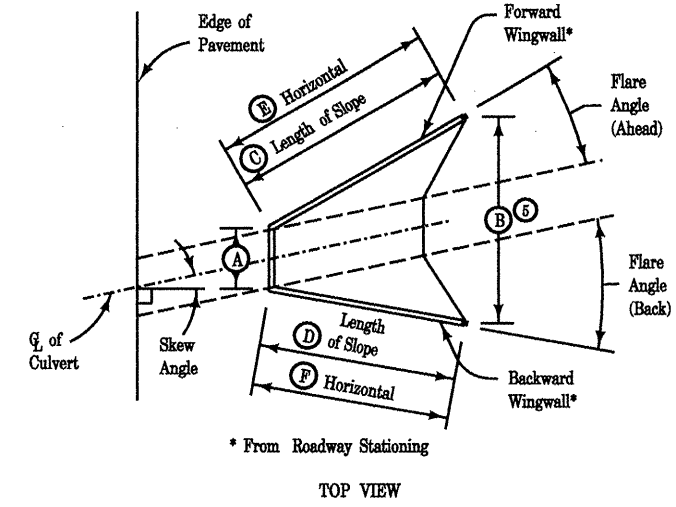
(1) WIDTH =  $W_1 + W_2 + W_D$

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).  
 All dimensions are in inches (millimeters) unless otherwise noted.

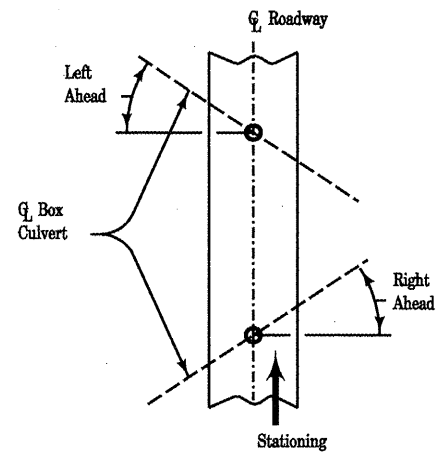


**INSTALLATION TYPES**

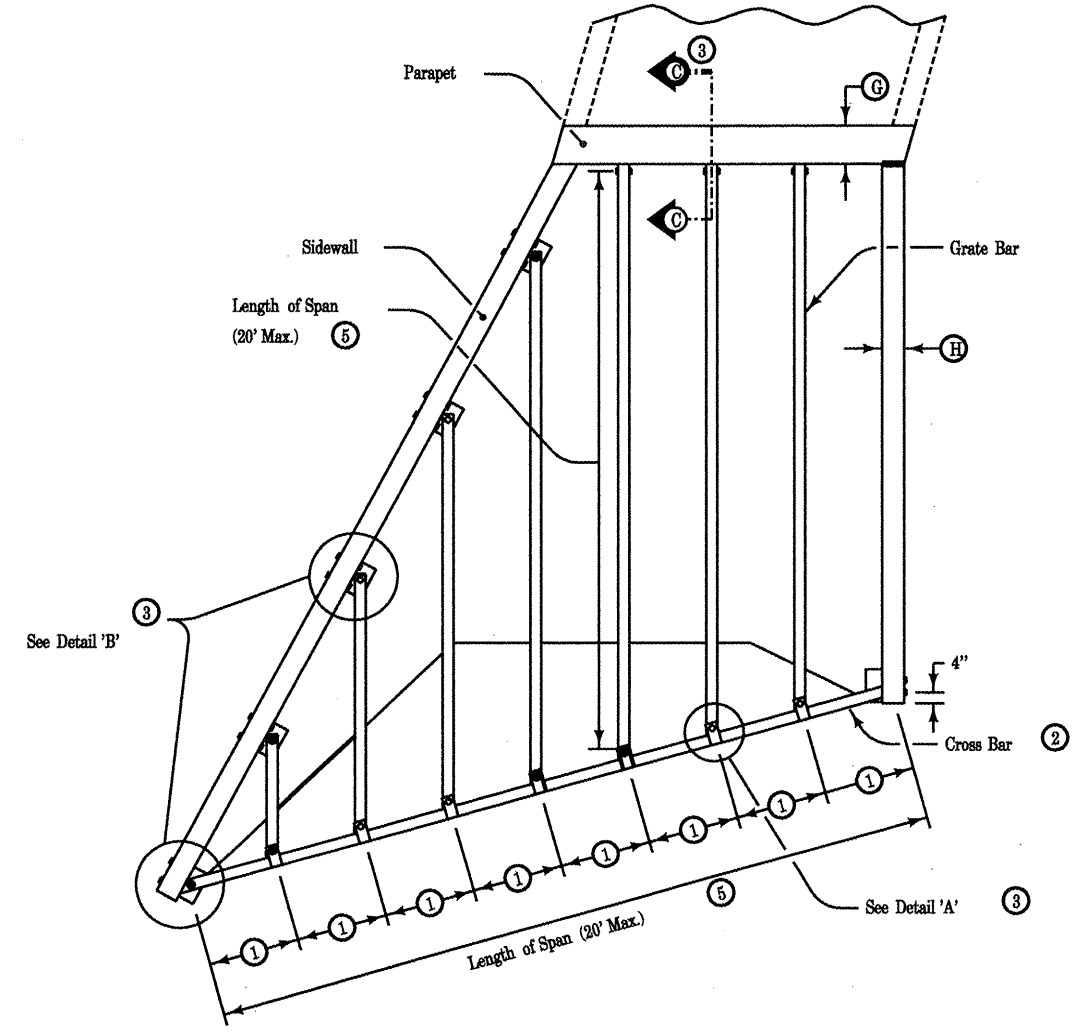
Grate bars to be perpendicular to direction of traffic flow.



**DETAILS OF DIMENSIONS**



**SKEW ANGLE DETERMINATION**



**TYPICAL INSTALLATION PLAN**

GRATE & CROSS BAR SIZE REQUIREMENTS		
Length of Span	Nominal Pipe Size <sup>(2)</sup>	O.D. Size
0'-12'	3.0"	3.5"
12'-16'	3.5"	4.0"
16'-20'	4.0"	4.5"

See Detail Sheets 3 & 4 when midspan support is required.

For additional information, see Detail Sheet 2 for Safety Grate Treatment and Fabrication.

**GENERAL NOTES:**

The dimensions shown shall be verified at the site by the Contractor before fabrication of the components. The Contractor is responsible for using the correct pipe diameter, correct dimensions, and proper fit of the safety grate into the headwall opening.

Bolts, lock nuts, washers, and plates shall be installed at all locations as shown.

The bolts, nuts, and washers shall conform to the requirements of Articles 1006.09 and 1006.27(f) of the Standard Specifications. All fabrications shall be complete and ready for assembly prior to galvanizing.

Structural Steel Shapes and Plates shall be in accordance with Article 1006.04 Standard Specifications. Galvanized Steel Pipe shall be in accordance with Article 1006.27(b) of the Standard Specifications.

Gas Metal-Arc and Flux-Cored Arc welding may be used for welding incidental items as indicated on this sheet, provided that the fabricator furnishes certifications for the gas, uses approved filler metal and qualified welders.

Pipe furnished shall meet the requirements of ASTM A-53, Schedule 40, Grade B, including galvanizing.

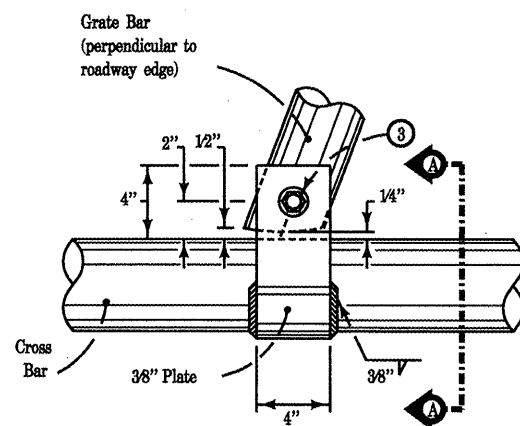
The Contractor may encounter reinforcing steel when drilling holes through the existing structure walls

Holes drilled in the Concrete End Section shall be cored to the diameter noted. If cone-out on the other end of the hole occurs, the hole shall be filled with grout to correct the diameter of the hole.

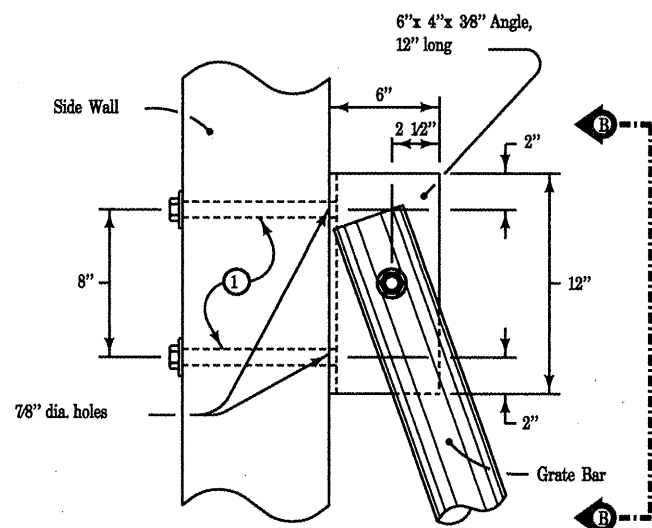
Price bid for GRATING SPECIAL shall be considered full compensation for furnishing all materials and work necessary to fabricate and install the grate system as required for each headwall opening.

Anchor bolts shall be installed in accordance with Article 509.06 of the Standard Specifications.

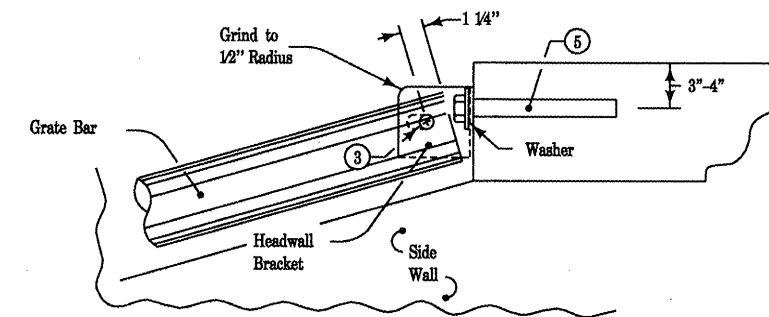
- ① Equal spaces 24" minimum, 30" maximum edge of sidewall to center of bracket or center to center of bracket.
- ② Cross Bar diameter equal to or greater than Grate Bar diameter.
- ③ See Detail Sheet 2.
- ④ 2' maximum.
- ⑤ If more than 20', a midspan support is required. See Detail Sheets 3 and 4.



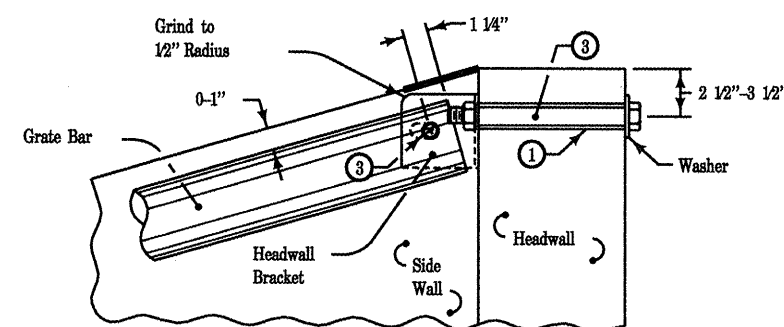
DETAIL 'A'  
TOP VIEW



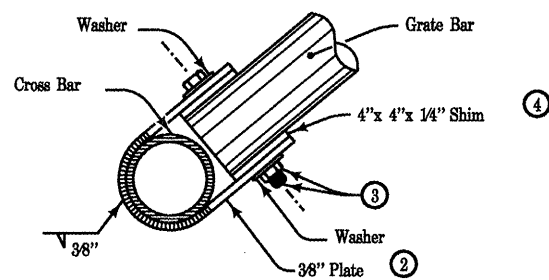
DETAIL 'B'  
TOP VIEW



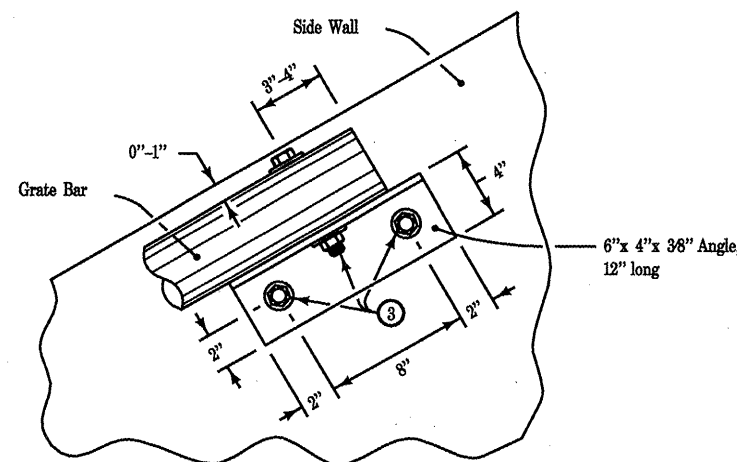
FOR PRECAST END SECTION  
SECTION C-C  
(From Detail Sheet 1 Typical Plan)



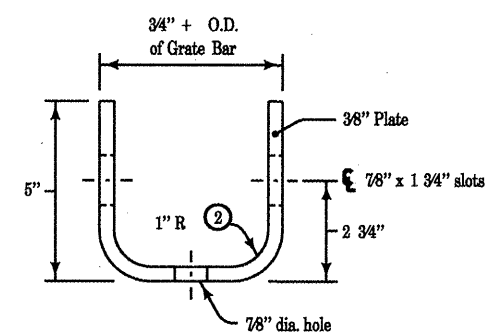
FOR CIP END SECTION  
SECTION C-C  
(From Detail Sheet 1 Typical Plan)



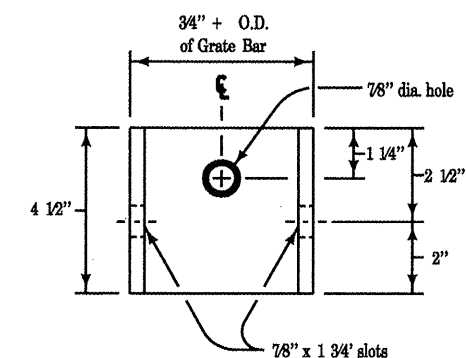
SECTION A-A



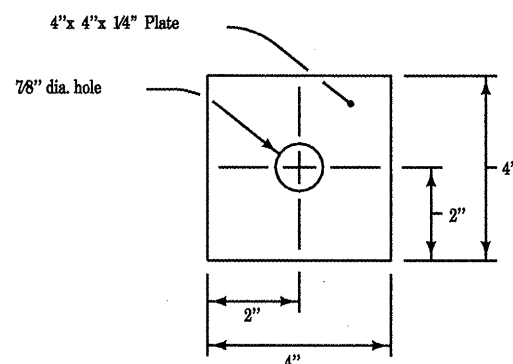
SECTION B-B



HEADWALL BRACKET  
TOP VIEW



HEADWALL BRACKET  
FRONT VIEW

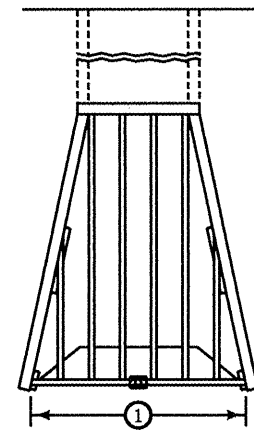


SHIM DETAIL

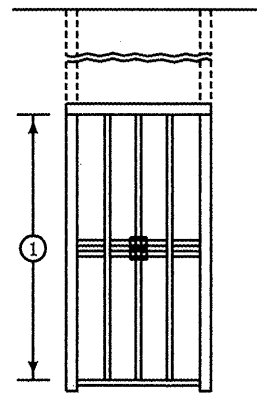
For additional information,  
see Detail Sheet 1  
Safety Grate Treatment.

- ① Holes are to be made with equipment designed to cut through concrete and reinforcing steel. All holes shall be 7/8 inch diameter.
- ② All bending of plates or strips shall be accomplished without cracking material.
- ③ 3/4 inch bolt, lock nut and washers. All holes shall be 7/8 inch diameter.
- ④ Shim thickness equal to difference in diameters of Grate Bar and Cross Bar.
- ⑤ 3/4 X 5 inch anchor bolt with lock washers.

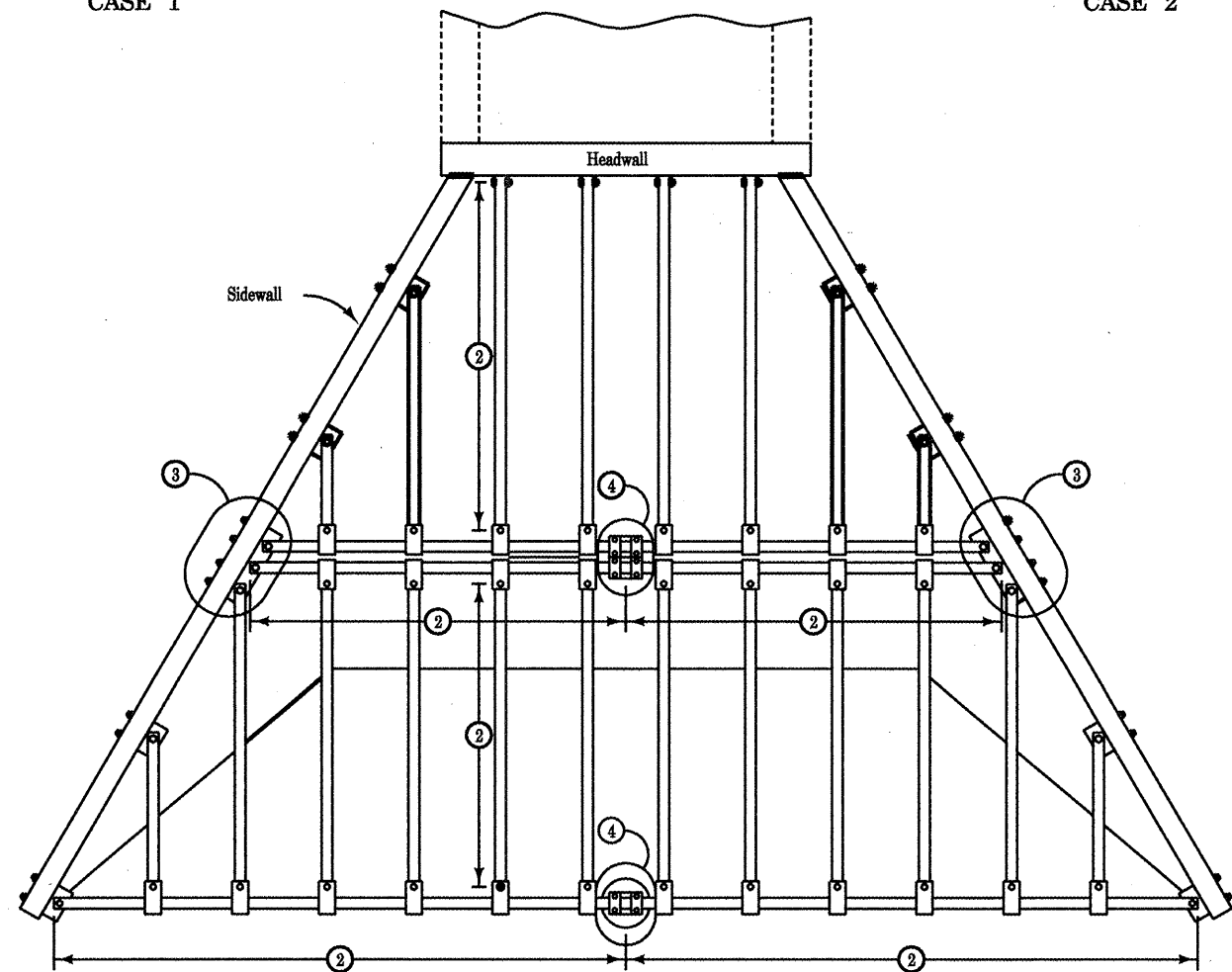
FILE NAME =	USER NAME = lagnedm	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>GRATING SPECIAL</b>	FAI	SECTION	COUNTY	TOTAL	SHEET
SYNGEN\DRIFT\STD&PLNS\Squedi\sq 1 deto	SI Safety Grate\grate std.dgn	DRAWN -	REVISED -			RTE.	(37-24; 48-24; 25,26) RS-3	HENRY/KNOX	SHEETS	NO.
	PLOT SCALE = 2100.0000 / IN.	CHECKED -	REVISED -			SCALE: _____ SHEET NO. _____ OF _____ SHEETS STA. _____ TO STA. _____		CONTRACT NO. 68220		22
	PLOT DATE = 11/19/2008	DATE -	REVISED -			FED. ROAD DIST. NO. _____ ILLINOIS FED. AID PROJECT				



CASE 1



CASE 2



TYPICAL INSTALLATION PLAN  
WITH MIDSPAN SUPPORT

GENERAL NOTES:

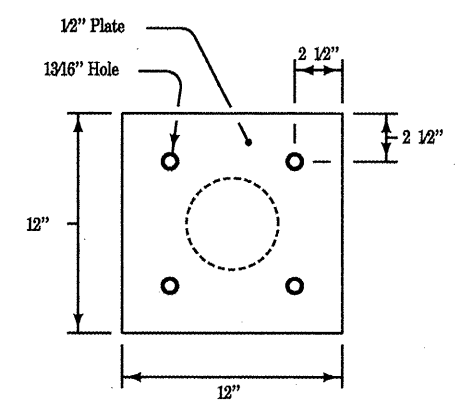
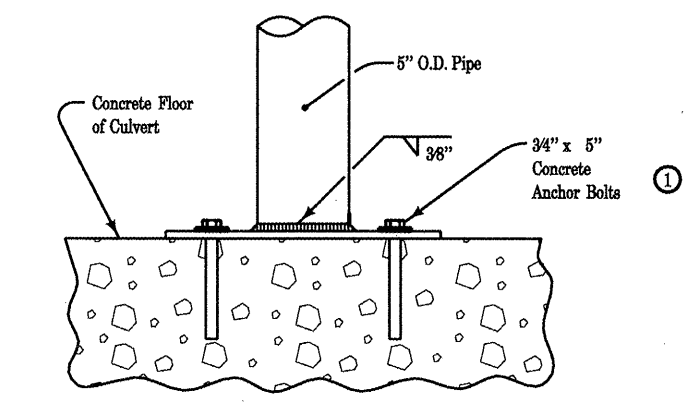
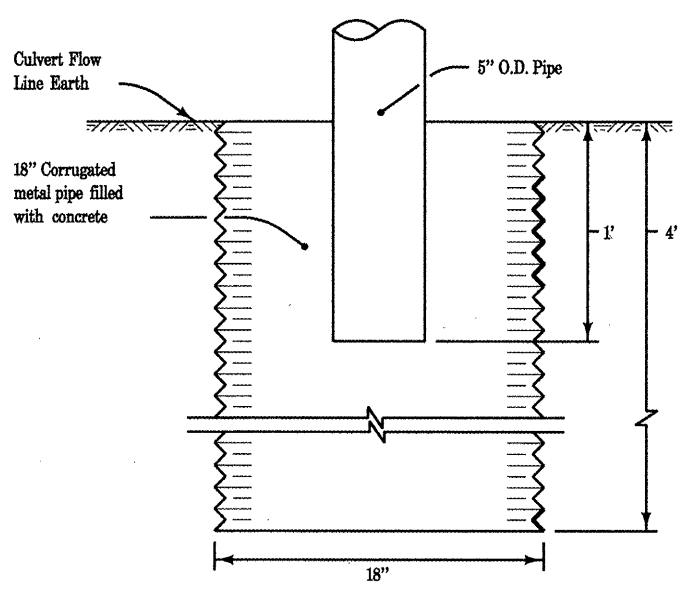
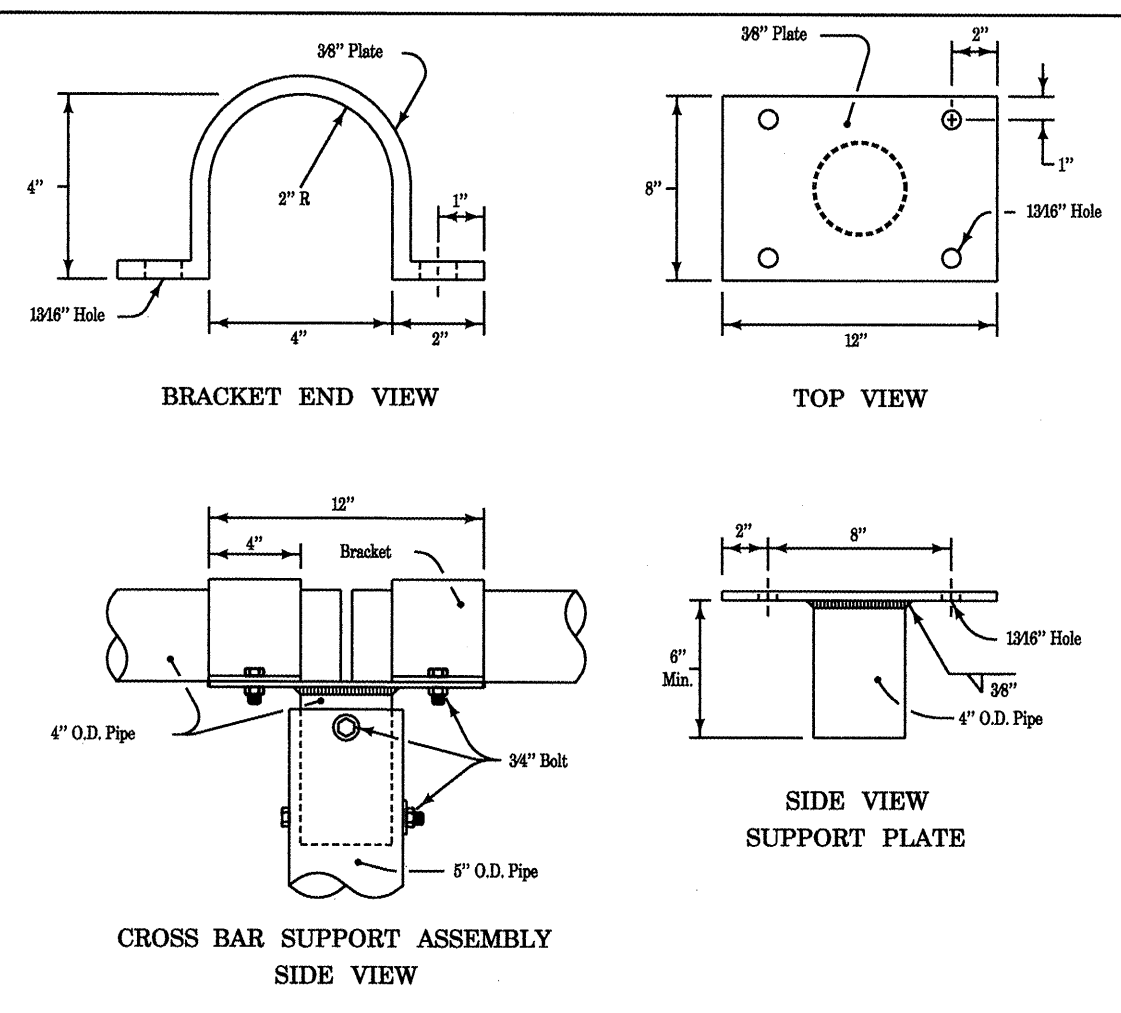
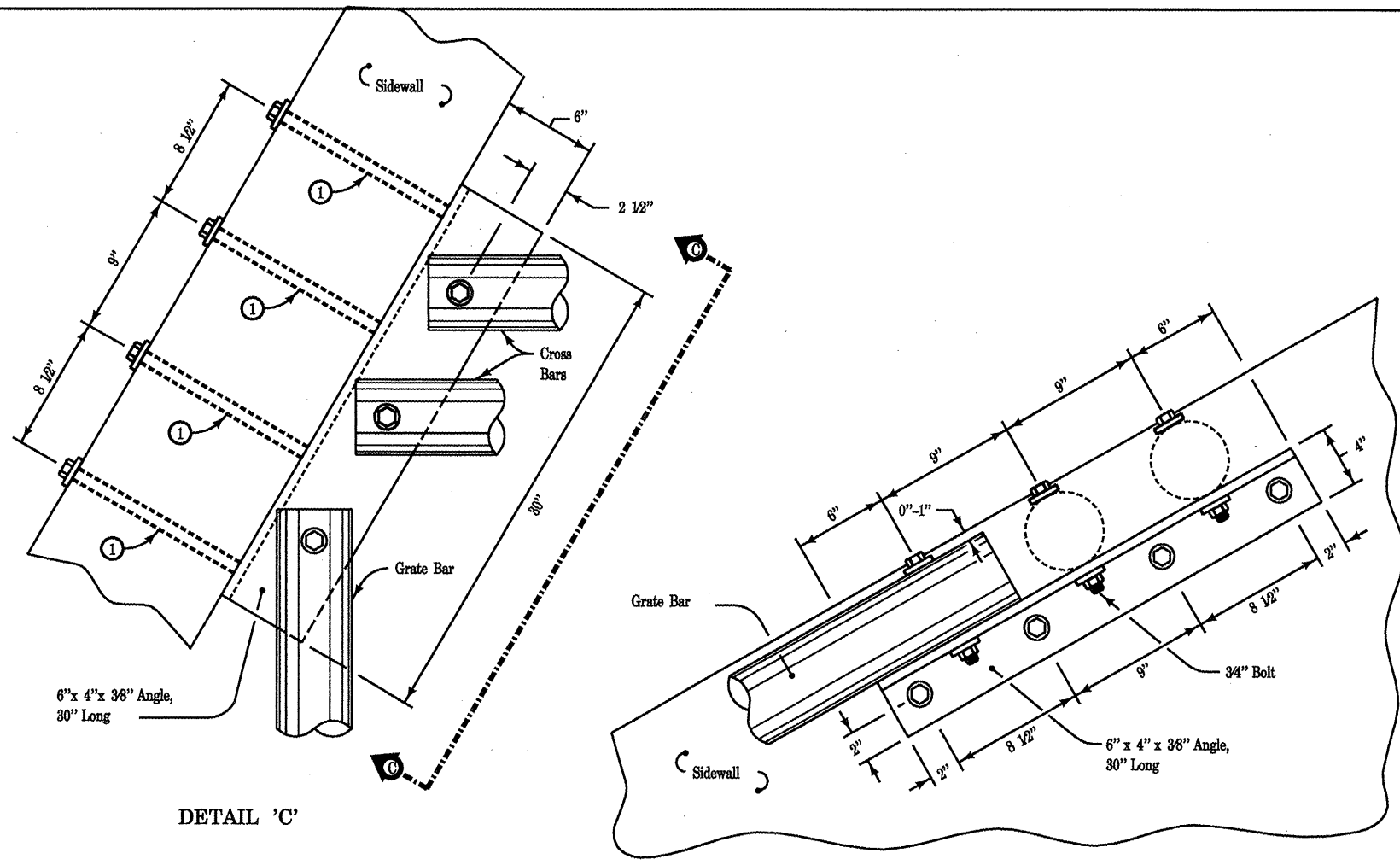
This Detail Sheet illustrates fabrication and installation of various types of safety grate installations requiring a midspan support.

See Detail Sheet 1 for information concerning pipe sizes, skew angle determination, installation types, and general notes which apply to this sheet.

- ① Midspan support required when this dimension becomes more than 20 feet.
- ② Length of span (20 feet maximum).
- ③ See Detail 'C' on Detail Sheet 4.
- ④ See Detail 'D' on Detail Sheet 4.

FILE NAME = S:\GEN\DRAW\STD&PLNS\Squad\1 det	USER NAME = lsgnedm	DESIGNED - ---	REVISED - ---	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>GRATING SPECIAL</b>	FAI RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	\\N1 Safety Grate\grate std.dgn	DRAWN - ---	REVISED - ---			74	(37-24; 48-24; 25,26) RS-3	HENRY/KNOX		23	
	PLOT SCALE = 2100.0000' / IN.	CHECKED - ---	REVISED - ---			CONTRACT NO. 68220					
	PLOT DATE = 11/19/2008	DATE - ---	REVISED - ---			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					
SCALE: _____ SHEET NO. ___ OF ___ SHEETS STA. _____ TO STA. _____											

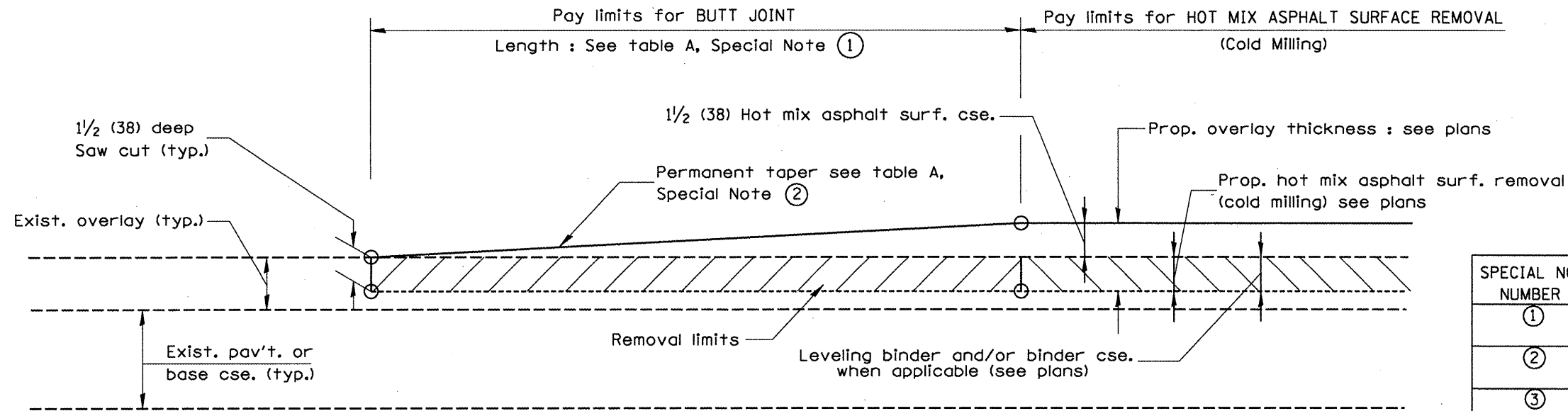




For additional information, see Detail Sheets 1, 2, and 3, Safety Grate Treatment and Fabrication.

① Anchor bolts shall be installed in accordance with Article 509.06 of the Standard Specifications.

FILE NAME = S:\GEN\DRAW\STD\PLNS\Squad\1 deto	USER NAME = loynedm	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>GRATING SPECIAL</b>	FAI RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLT SCALE = 2100.0000 / IN.	DRAWN -	REVISED -	74			(37-24; 48-24; 25,26) RS-3	HENRY/KNOX	24		
PLT DATE = 11/19/2008	CHECKED -	REVISED -	CONTRACT NO. 68220							
DATE -	REVISED -	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT								



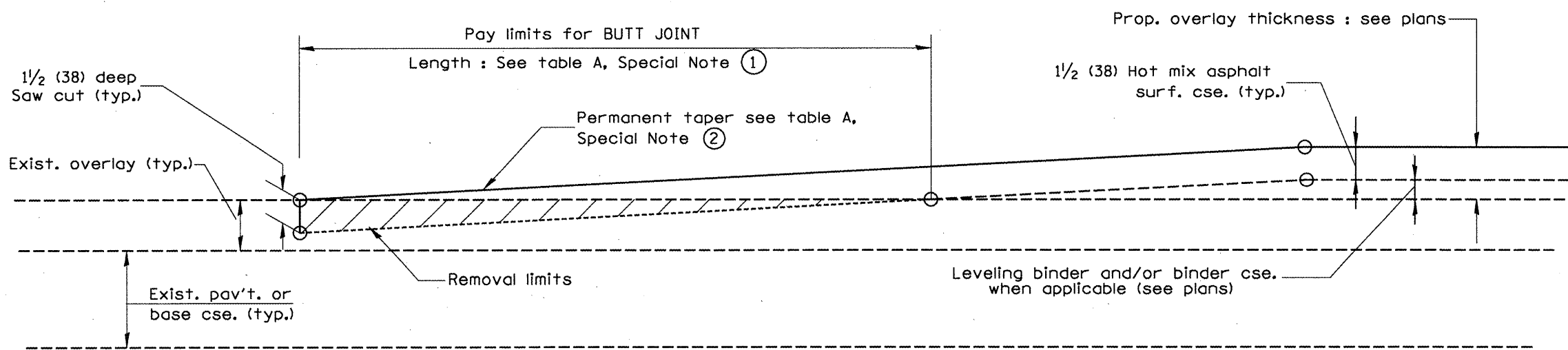
**CASE 1 : WITH HOT MIX ASPHALT SURFACE REMOVAL (COLD MILLING)**

**TABLE A**  
(LENGTHS AND TAPER RATES)

SPECIAL NOTE NUMBER	ELEMENT	MAINLINE INTERSTATES & 4-LANE EXPRESSWAYS	ALL OTHERS
①	LENGTH OF BUTT JOINT	60'(18.0 m)	30'(9.0 m)
②	PERMANENT TAPER RATE	1:480	1:240
③	TEMPORARY RAMP TAPER RATE	1:80	1:40
④	TEMPORARY RAMP LENGTH	10'(3.0 m)	5'(1.5 m)
⑤	LENGTH OF BUTT JOINT	10'(3.0 m)	10'(3.0 m)

**GENERAL NOTES**

1. The work shall be done in accordance with Article 406.08 and the Special Provision for Butt Joints.
2. The pavement surface to be removed may be either bituminous or P.C. concrete. The work shall be performed in accordance with Article 440.04 and the Special Provisions for Butt Joints.
3. The saw cut joints shall be primed just prior to the placing of bituminous material. The work will be in accordance with the applicable portions of Article 406.05.



**CASE 2 : NO HOT MIX ASPHALT SURFACE REMOVAL (COLD MILLING)**

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

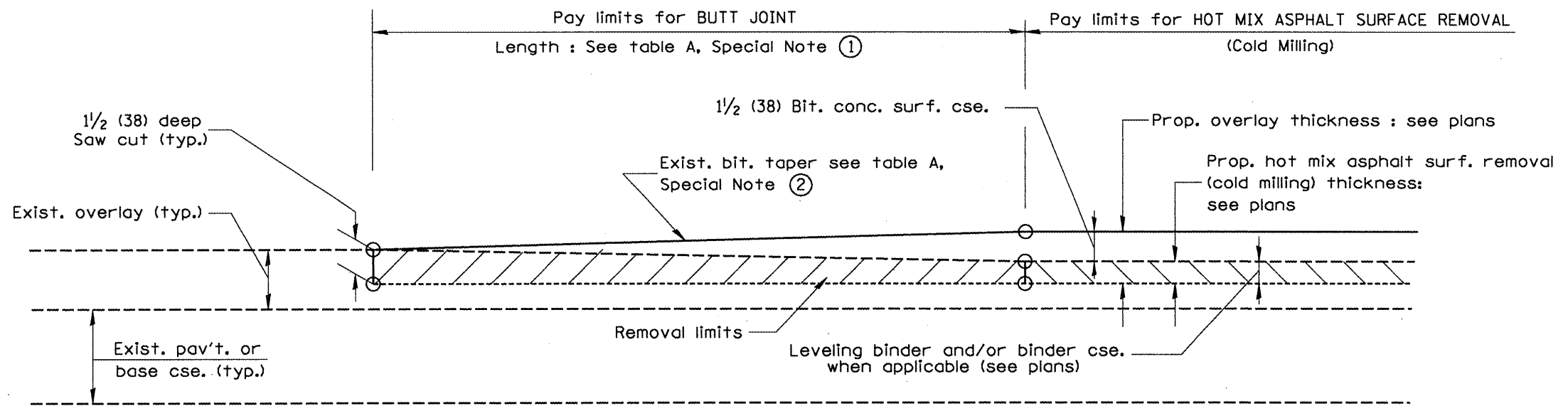
01-01-97	REVISION C-23.01. NEW REVISION BOX	J.P.
04-01-97	CORRECTION TO DEPTH	J.A.
09-15-09	REVISED DESIGNER NOTE	M.M.A.
10-16-06	REVISED TO 2007 SPEC.	M.S.

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

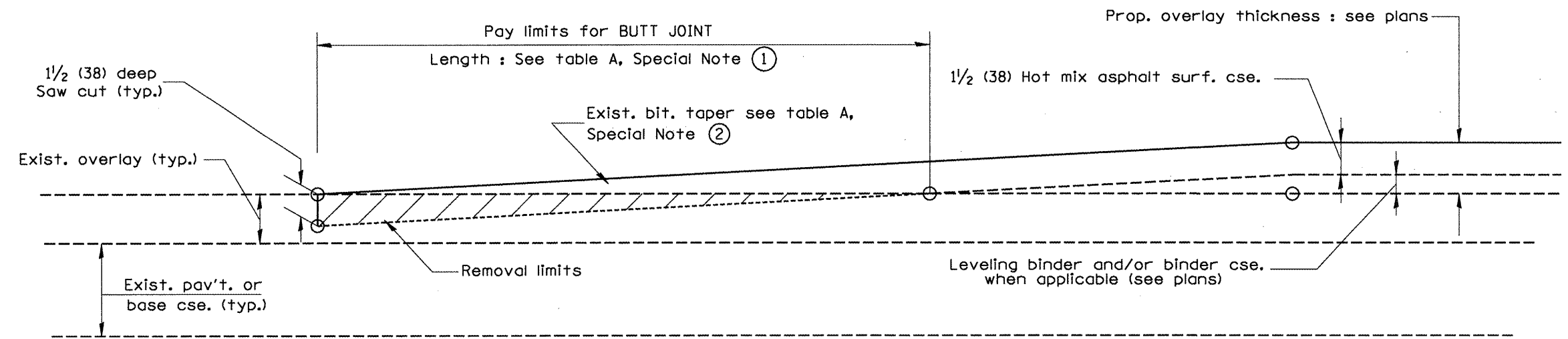
BUTT JOINTS

NOT TO SCALE

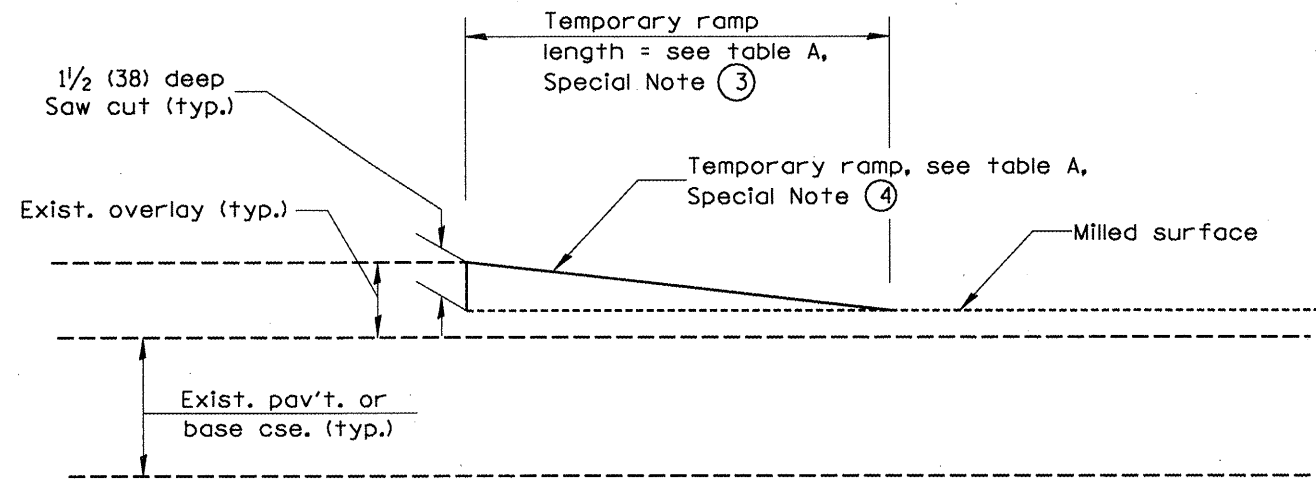
F.A.L. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(37-24)48-24(25,26) RS-3	KNOX/HENRY	25	25
CONTRACT NO. 68220			SHI. 1 OF 3	
FED. ROAD DIST. NO. - [ILLINOIS] FED. AID PROJECT				



**CASE 3 : WITH HOT MIX ASPHALT SURFACE REMOVAL (COLD MILLING)  
TIE-IN TO EXISTING BITUMINOUS TAPER**



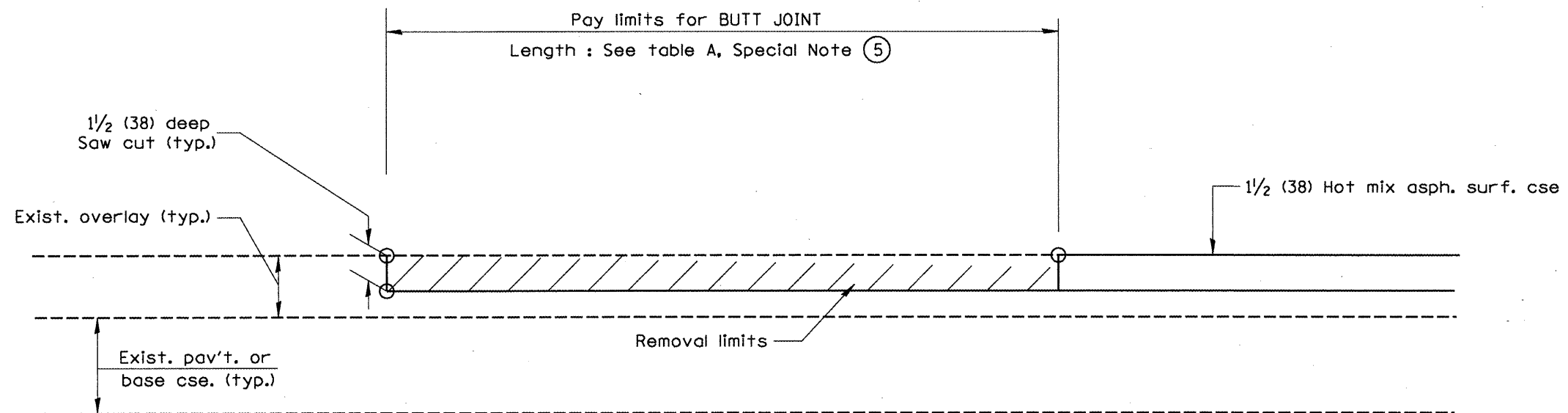
**CASE 4 : NO HOT MIX ASPHALT SURFACE REMOVAL (COLD MILLING)  
TIE-IN TO EXISTING BITUMINOUS TAPER**



**DETAIL TEMPORARY RAMP**

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

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		BUTT JOINTS		F.A.I. RTE. SECTION COUNTY TOTAL SHEETS SHEET NO.	
NOT TO SCALE		SHI. 2 OF 3 CA00_SIQ. 406101-04		74 (37-2448-2425,26) RS-3 KNOX/HENRY 26	
				CONTRACT NO. 68220	
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT					

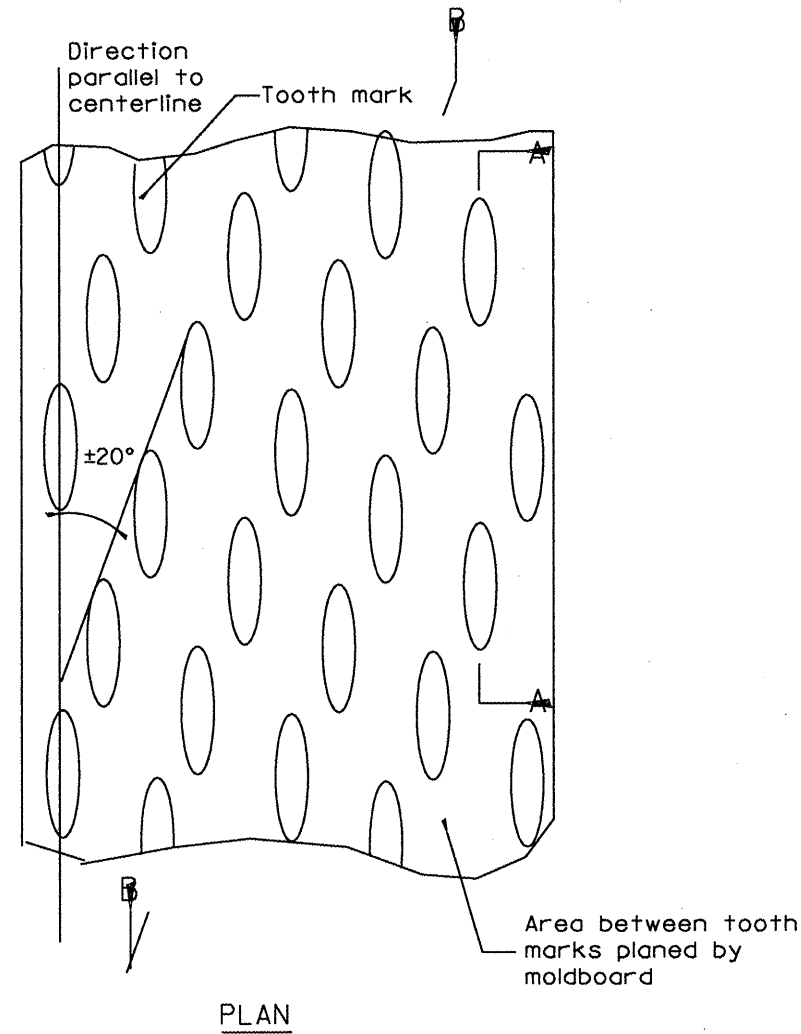


**CASE 5 : WITH HOT MIX ASPHALT SURFACE REMOVAL (COLD MILLING)  
TIE-IN TO EXISTING BITUMINOUS TAPER**

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

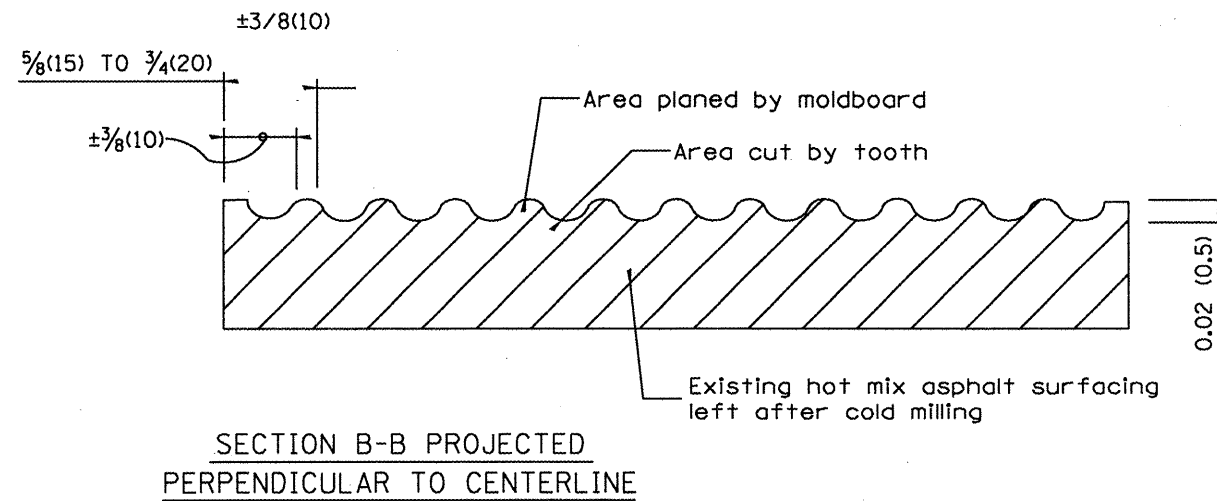
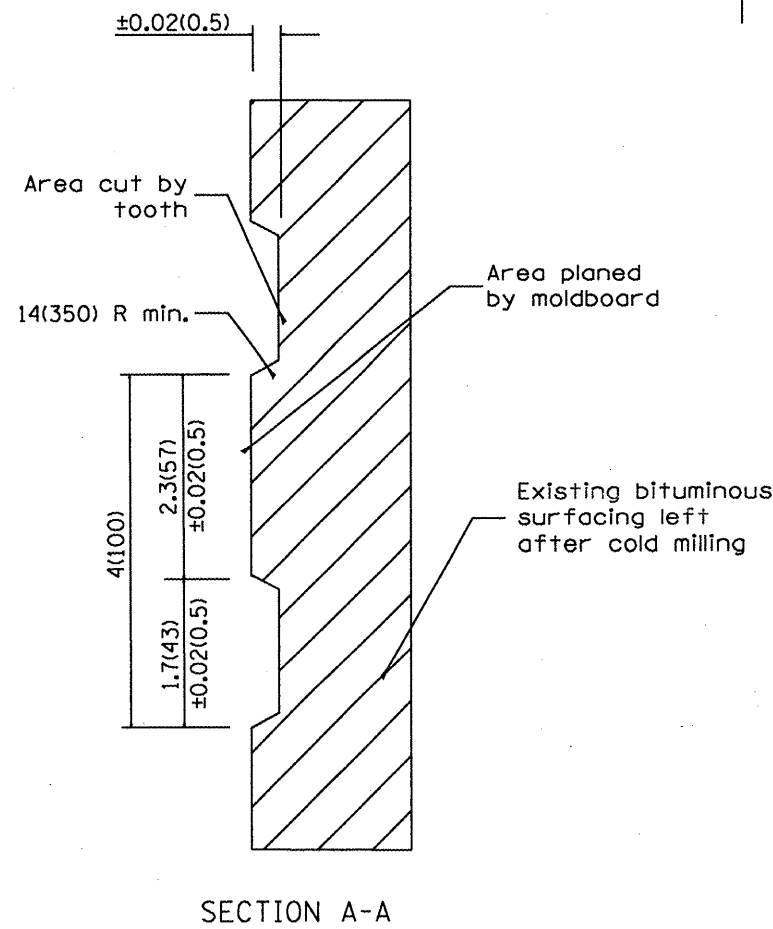
		<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>		<b>BUTT JOINTS</b>		F.A.I. RTE. 74 SECTION (37-24,48-24,25,26) RS-3 COUNTY KNOX/HENRY		TOTAL SHEETS 27	SHEET NO. 17
				NOT TO SCALE		SHI 3 OF 3 CADD SID. 406101-04		CONTRACT NO. 68220 FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT	

DESIGNER NOTES:  
1. INCLUDE DISTRICT SPECIAL PROVISION, IF APPLICABLE.



General notes:

1. Coldmilling shall consist of two processes: Cutting with carbide teeth mounted on a rotating drum, and planing with a moldboard mounted immediately behind the cutting drum.
2. Other similar patterns will be acceptable if they consist of a smooth, flat, planed surface interspersed with a pattern of discontinuous longitudinal striations.



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

01-01-97	RENUM. C-104.01. NEW REVISION BOX	I.P.
04-20-98	REMOVED MILLING DETAIL FROM STANDARD	J.A.
09-08-98	CORRECT NOTE LEADER PLACEMENT	B.W.
10-16-06	REVISED TO 2007 SPEC.	M.A.

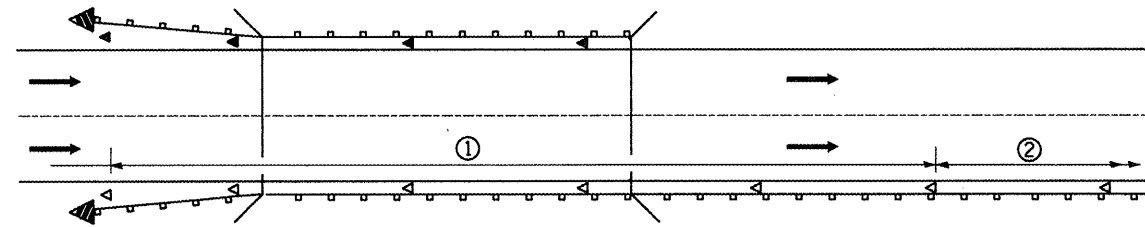
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

HOT MIX ASPHALT SURFACE REMOVAL (COLD MILLING)

NOT TO SCALE

---C400\_S10\_440001-04

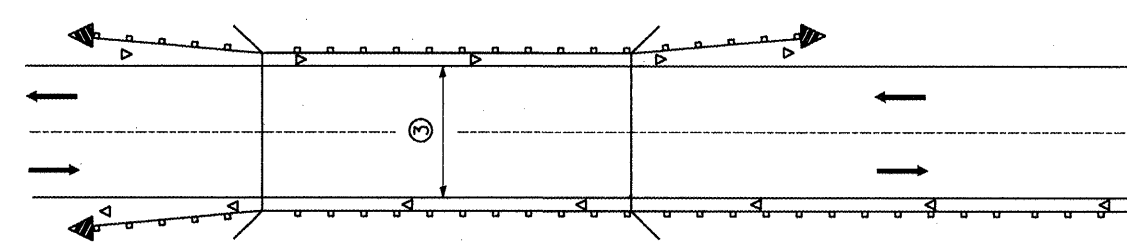
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(37-24)48-24(25,26) RS-3	KNOX/HENRY		28
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT			CONTRACT NO. 68220	



① Spacing 80 ft. (24 m) max. for first 400 ft. (122 m) or curve spacing shown in Standard 635001, whichever is less (min. 4 reflectors regardless of length).

② After 400 ft. (122 m), transition to normal delineator spacing shown in Standard 635001, and continue as required.

**ONE-WAY TRAFFIC**



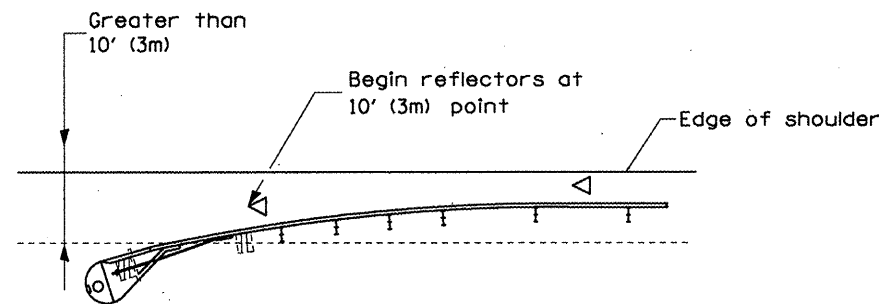
③ Bidirectional silver/silver should be used in lieu of monodirectional silver on both sides of two-lane bridges where the bridge pavement is less than 24 (610) wider than the pavement approaching the bridge.

**TWO-WAY TRAFFIC**

**GUARDRAIL / BARRIER WALL / BRIDGE RAIL REFLECTORS**

**LEGEND**

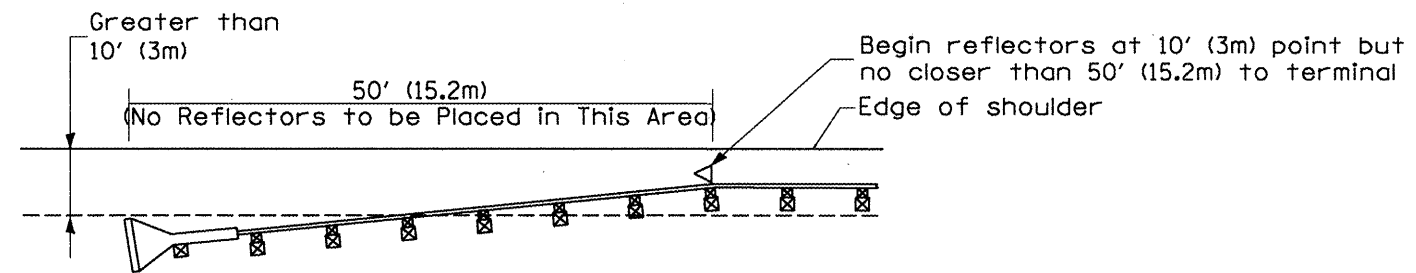
- ◁ Monodirectional silver
- ◄ Monodirectional amber
- ◄ Terminal Marker - Black/Yellow  
Left or Right as appropriate



NOTE: Omit terminal marker when terminal over 10' (3m) from edge of paved shoulder or break point of unpaved shoulder, or when terminal buried in backslope.

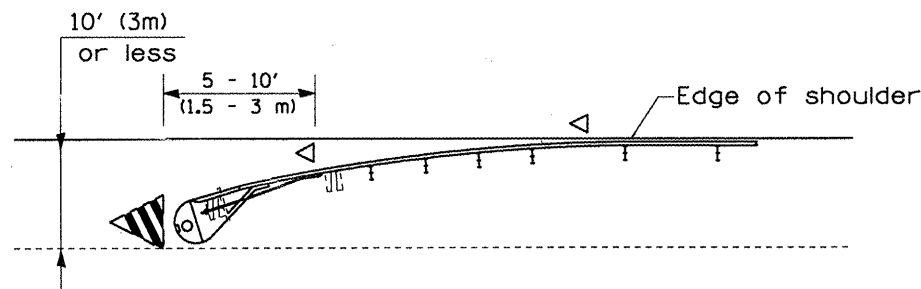
**Traffic Barrier Terminal Type(\*) and/or Turned-Down Terminal**

[Terminal over 10' (3m) from edge of shoulder]  
•See Plans for Type

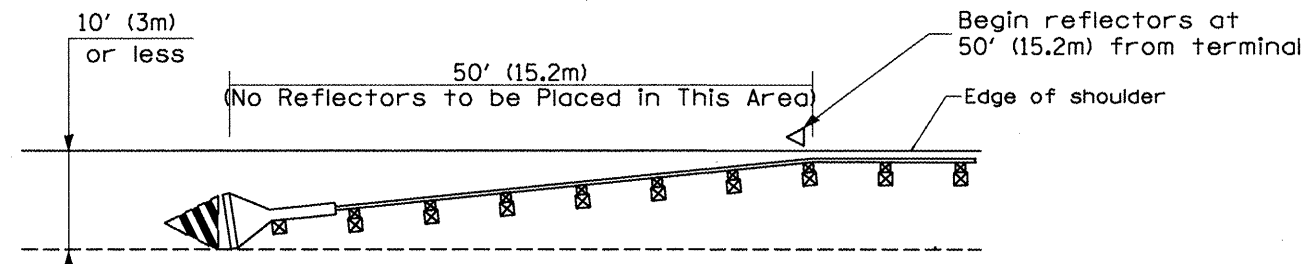


NOTE: Omit terminal marker when terminal over 10' (3m) from edge of paved shoulder or break point of unpaved shoulder.

**Traffic Barrier Terminal Type 1 (Special)**  
[Terminal over 10' (3m) from edge of shoulder]



**Traffic Barrier Terminal Type(\*) and/or Turned-Down Terminal**  
[Terminal over 10' (3m) or less from edge of shoulder]  
•See Plans for Type



**Traffic Barrier Terminal Type 1 (Special)**  
[Terminal 10' (3m) or less from edge of shoulder]

**TERMINAL MARKER PLACEMENT**

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

Q1-01-97	BENUM. E-10.02. NEW REVISION BOX	I.P.
Q3-01-97	CORRECT. STD. SPEC.	J.A.
10-16-06	REVISED TO 2007 SPEC.	M.A.

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

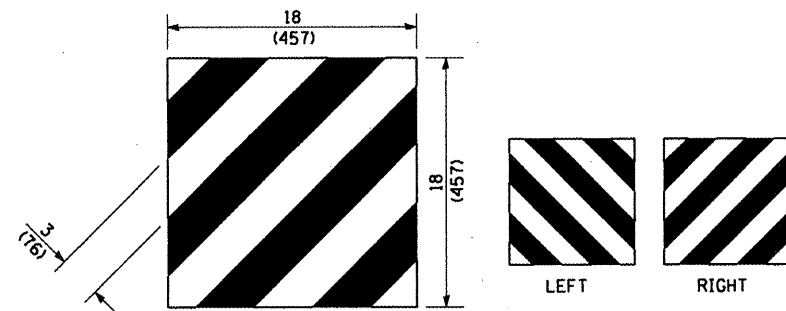
**GUARDRAIL AND BARRIER WALL DELINEATION**

NOT TO SCALE

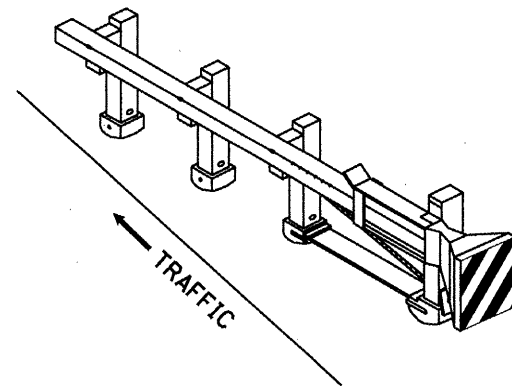
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(37-24+48-24+25,26) RS-3	KNOX/HENRY	29	29
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT			CONTRACT NO. 68220	

SHI. 1 OF 3

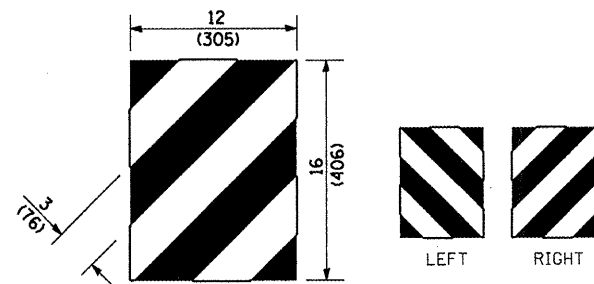
CA00\_S10\_635101-04



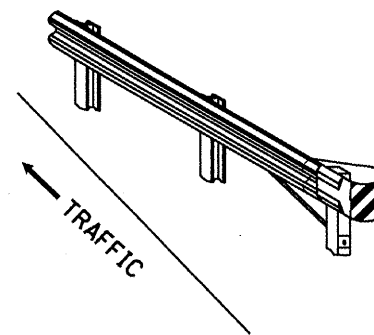
For Traffic Barrier Terminal Type 1 (Special)



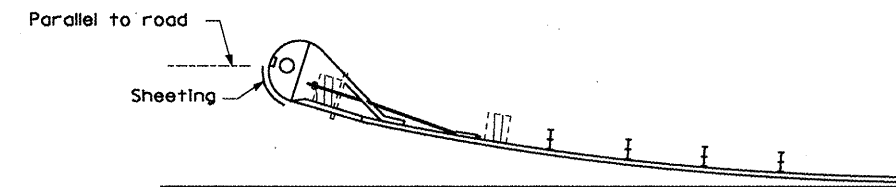
Standard Treatment - Direct Applied Sheeting  
Traffic Barrier Terminal Type 1 (Special)



For Traffic Barrier Terminal Type (\*)  
and Post Mount  
• See Plans for Type



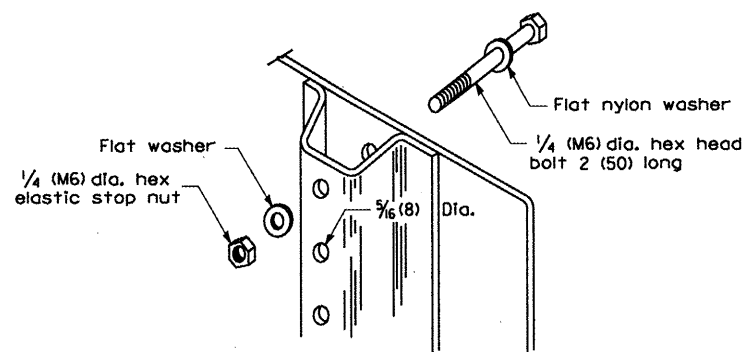
Standard Treatment - Direct Applied Sheeting  
Traffic Barrier Terminal Type (\*)  
• See Plans for Type



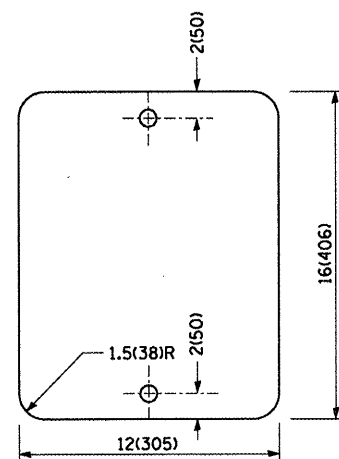
Sheeting Position for  
Traffic Barrier Terminal Type (\*)  
• See Plans for Type

**TERMINAL MARKER DETAILS**

- Color: Black / Yellow reflectorized
- OM - 1100 (L or R) Direct applied reflective sheeting
- OM - 1200 (L or R) Post mounted

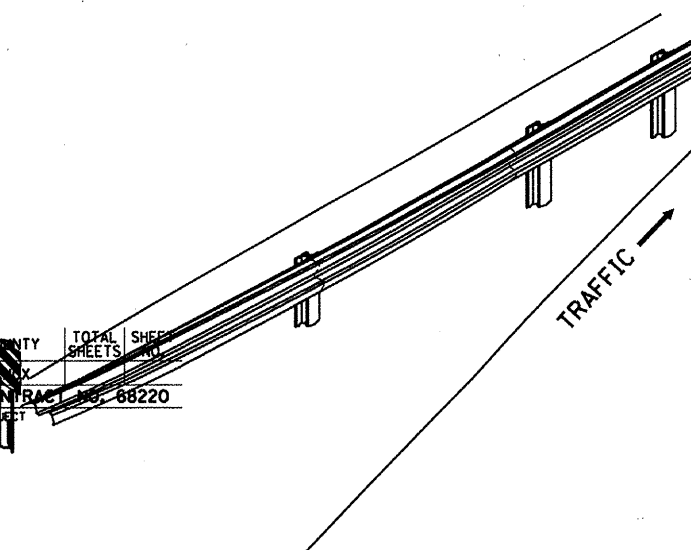


DETAIL OF MOUNTING TERMINAL MARKER TO POST



STANDARD TERMINAL MARKER

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(37-24;48-24;25,26) RS-3	KNOX	162	30
CONTRACT NO. 68220				
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT				



ALTERNATE TREATMENT - POST MOUNTED  
(For turned-down terminal where sheeting cannot be direct applied)

**TERMINAL MARKER TREATMENTS**

**GENERAL NOTES**

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

**POST MOUNTED TERMINAL MARKER ASSEMBLY**

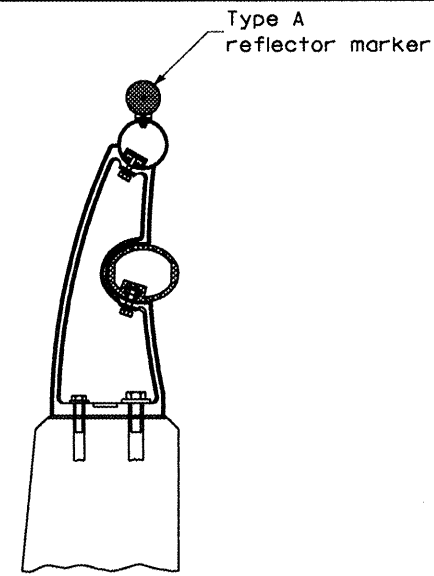
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

GUARDRAIL AND BARRIER WALL DELINEATION

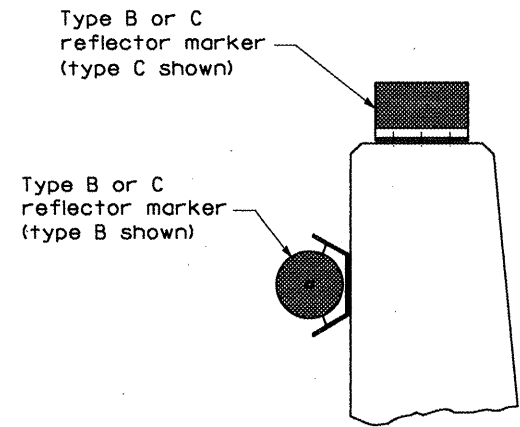
NOT TO SCALE

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(37-24;48-24;25,26) RS-3	KNOX/HENRY	162	30
CONTRACT NO. 68220				
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT				

SHI\_2 OF 3  
CADD\_SIO\_6351Q1-04

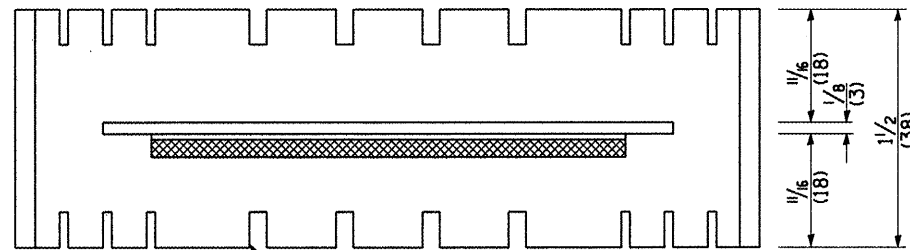


TYPICAL MOUNTING DETAIL FOR BRIDGE RAIL REFLECTOR

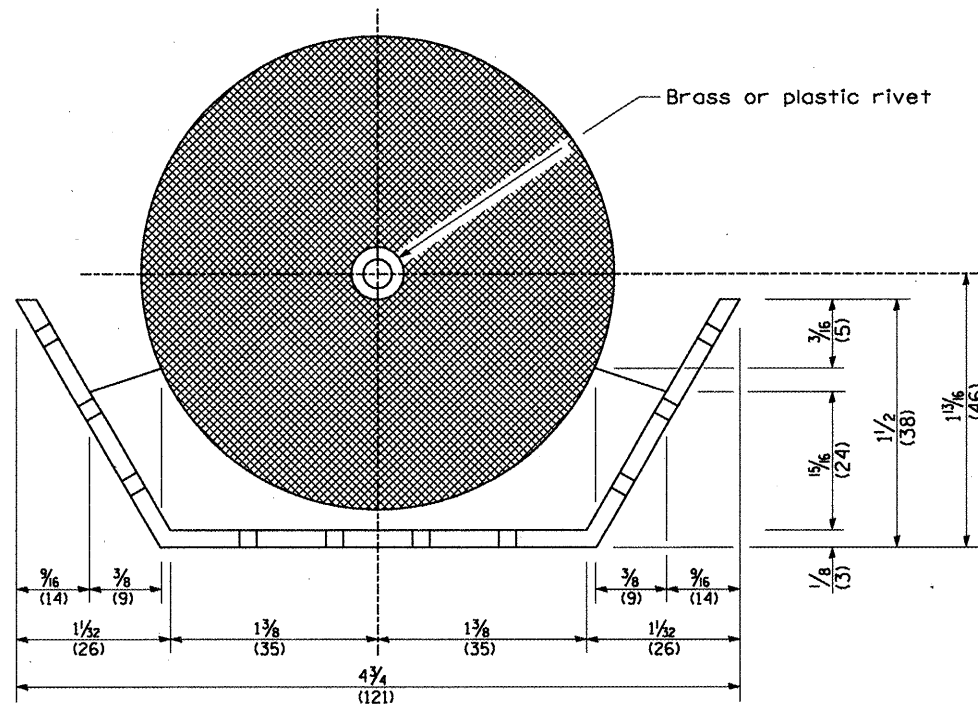


TYPICAL MOUNTING DETAIL FOR BARRIER WALL REFLECTOR

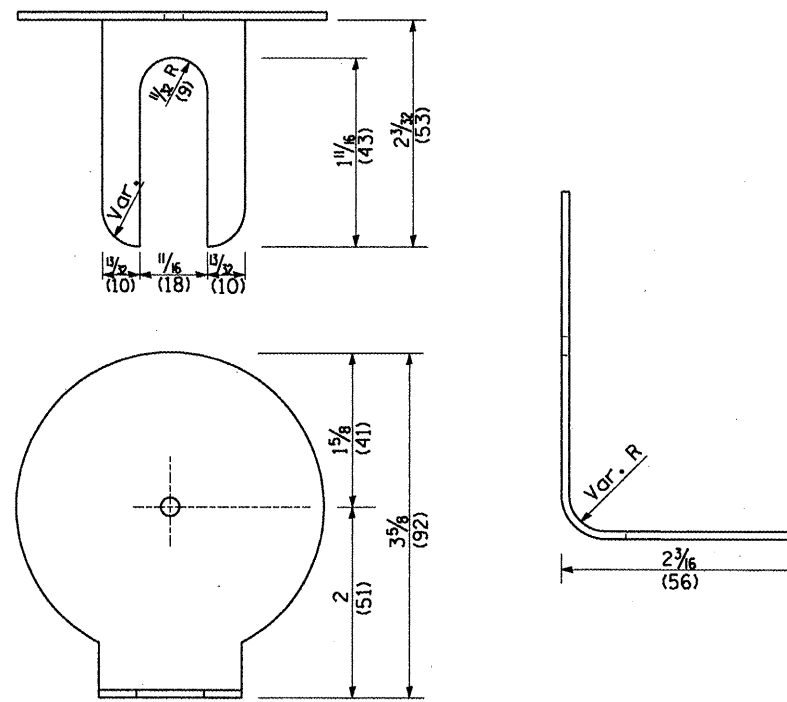
REFLECTOR MOUNTING



Adhesive weep slots or holes equally spaced on both sides

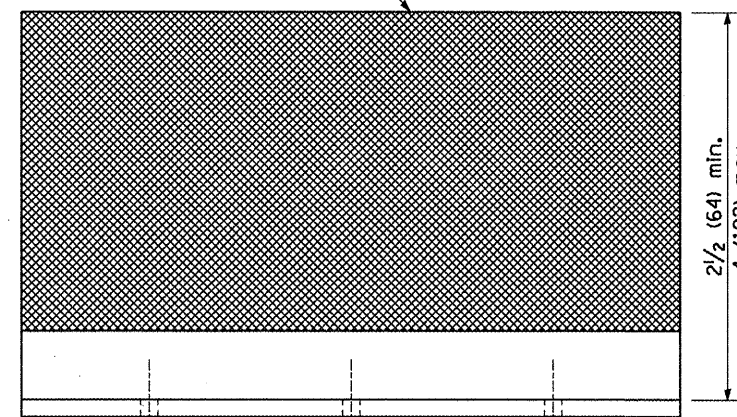


REFLECTOR MARKER TYPE B



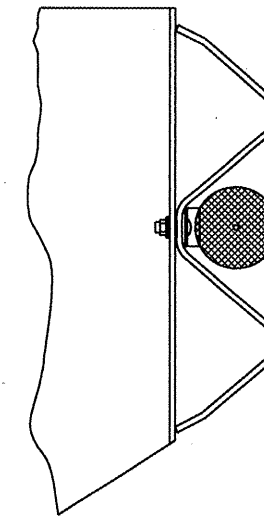
REFLECTOR MARKER TYPE A

Min. reflective area 6 1/2 sq. in. (4,194 mm<sup>2</sup>) each side. May be rectangular or slight trapezoid.

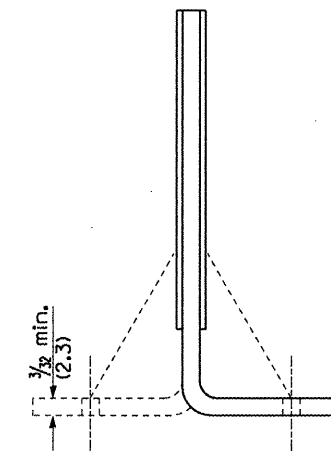


REFLECTOR MARKER TYPE C

3 min. adhesive weep holes or slots each side, variable spacing.



TYPICAL GUARDRAIL MOUNTING WITH REFLECTOR MARKER TYPE A



Cross section may be "T" or "L" shaped and may have side supports at ends.

REFLECTORS

Minimum total area of base 7.0 Sq. in. (4,516 mm<sup>2</sup>)

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

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

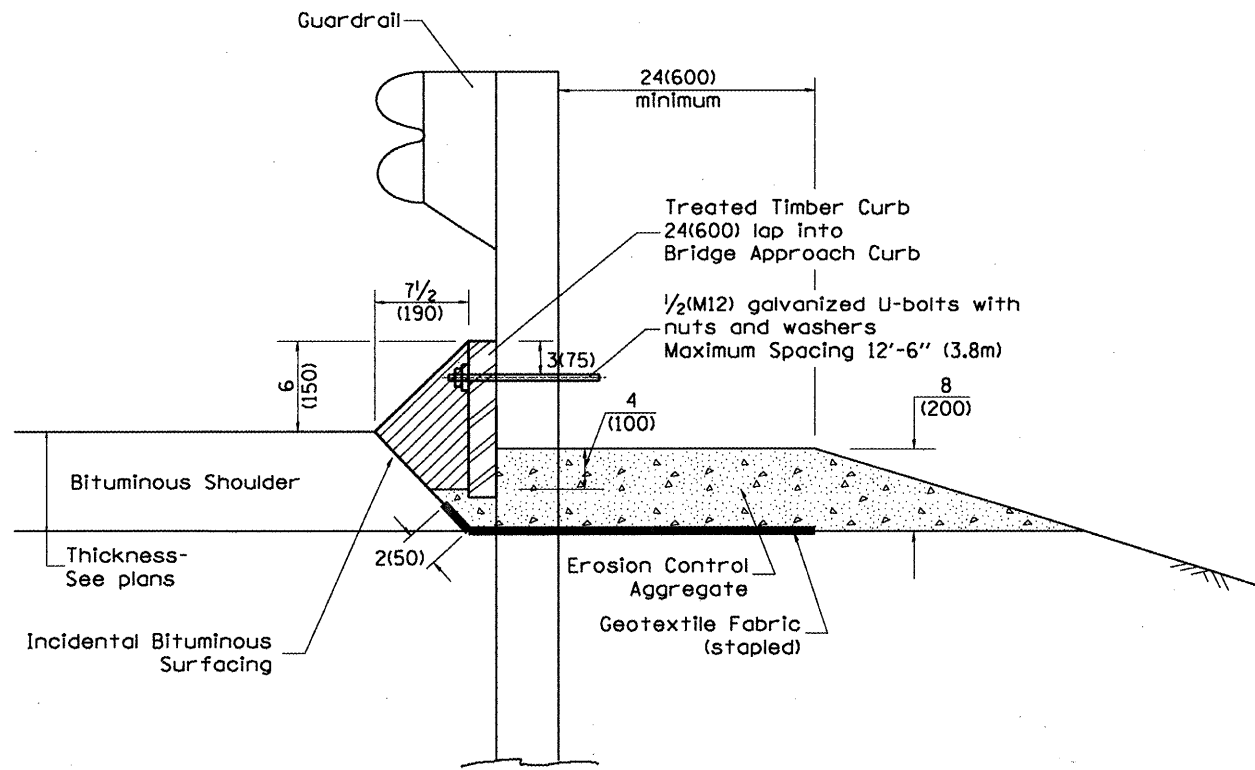
GUARDRAIL AND BARRIER WALL DELINEATION

NOT TO SCALE

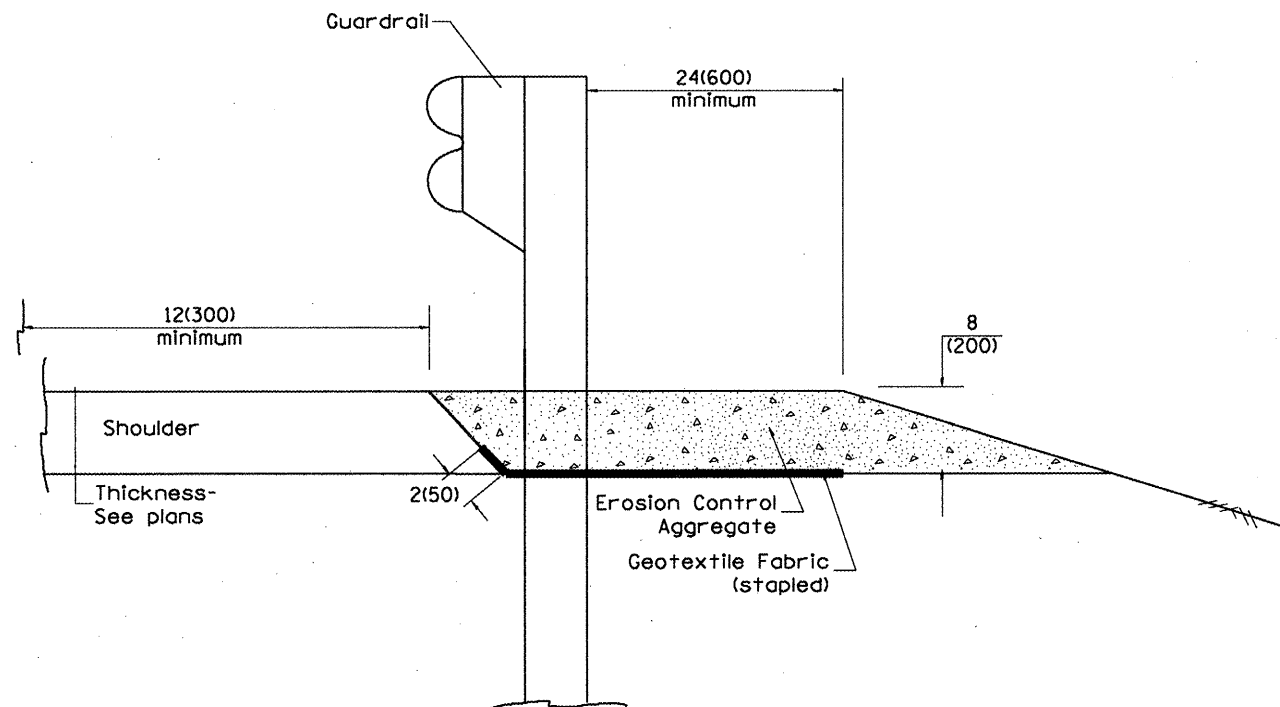
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(37-24;48-24;25,26) RS-3	KNOX/HENRY	31	31
CONTRACT NO. 68220				
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT				

SHT. 3 OF 3  
CADD\_S10\_635101-04





**TYPICAL SECTION WITH EROSION CONTROL CURB**



**TYPICAL SECTION WITHOUT EROSION CONTROL CURB**

**GENERAL NOTES: EROSION CONTROL CURB**

1. This work shall consist of grading as needed, installing hardware and treated timber boards, furnishing and placing mastic material and incidental bituminous surfacing in front of Steel Plate Beam Guardrail in accordance with Plan Details.
2. Timber shall be treated in accordance with Article 1007.12. All preservatives specified in the article will be allowed. Waterborne preservatives "asa" and "cca" shall have a minimum retention of 0.40 lbs./cu. ft. (6.4 kg/m<sup>3</sup>)

**GENERAL NOTES: GUARDRAIL AGGREGATE EROSION CONTROL**

1. This work shall consist of grading as needed, furnishing and installing geotextile fabric and staples, and furnishing, placing and shaping crushed aggregate around and behind Steel Plate Beam Guardrail posts in accordance with Plan Details.
2. Before placing the aggregate and the Geotextile Fabric, weeds and grass shall be removed from the area to be covered.
3. After the area has been prepared, and in a dry condition, the Geotextile fabric shall be placed with a 12(300) minimum overlap. A knife cut for guardrail post installation is necessary.
4. The aggregate shall be deposited, compacted and shaped by either mechanical or hand methods, in a manner reasonably true to line and grade.
5. The Contractor shall have the option of placing the guardrail before or after the Geotextile Fabric and Aggregate are in place. If the guardrail is placed after the Geotextile Fabric and Aggregate, then any voids must be filled and the aggregate returned to line and grade.
6. Materials shall meet the following requirements:
  - A. The crushed aggregate shall be CA1 gradation in accordance with Article 1004.01(c) of the Standard Specifications.
  - B. The Geotextile Fabric shall be nonwoven fabric in accordance with Article 1080.02 of the Standard Specifications.

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

01-01-97	BENJAM. C-22.01. NEW REVISION BOX	J.P.
03-01-97	CORRECT STD. NUMBERS IN NOTES PG. 2	J.A.
11-03-00	CORRECTION TO NOTES	M.A.
10-16-06	REVISED TO 2007 SPEC.	M.A.

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

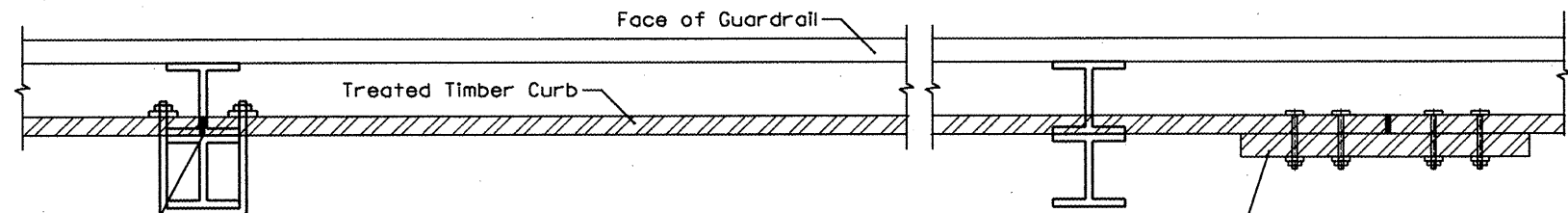
**GUARDRAIL EROSION CONTROL TREATMENTS**

NOT TO SCALE

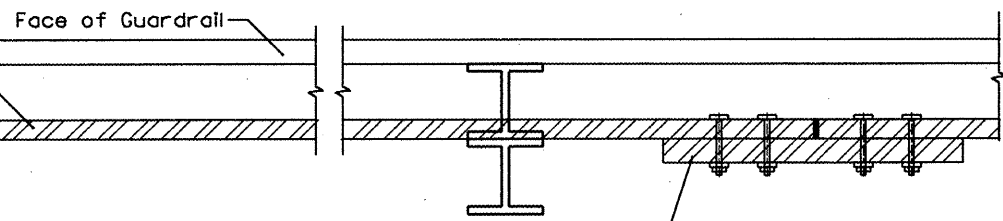
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(37-24)4B-24(25.26) RS-3	KNOX/HENRY		32
CONTRACT NO. 68220				

SHT. 1 OF 2  
CAD STG. 630101-04

FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

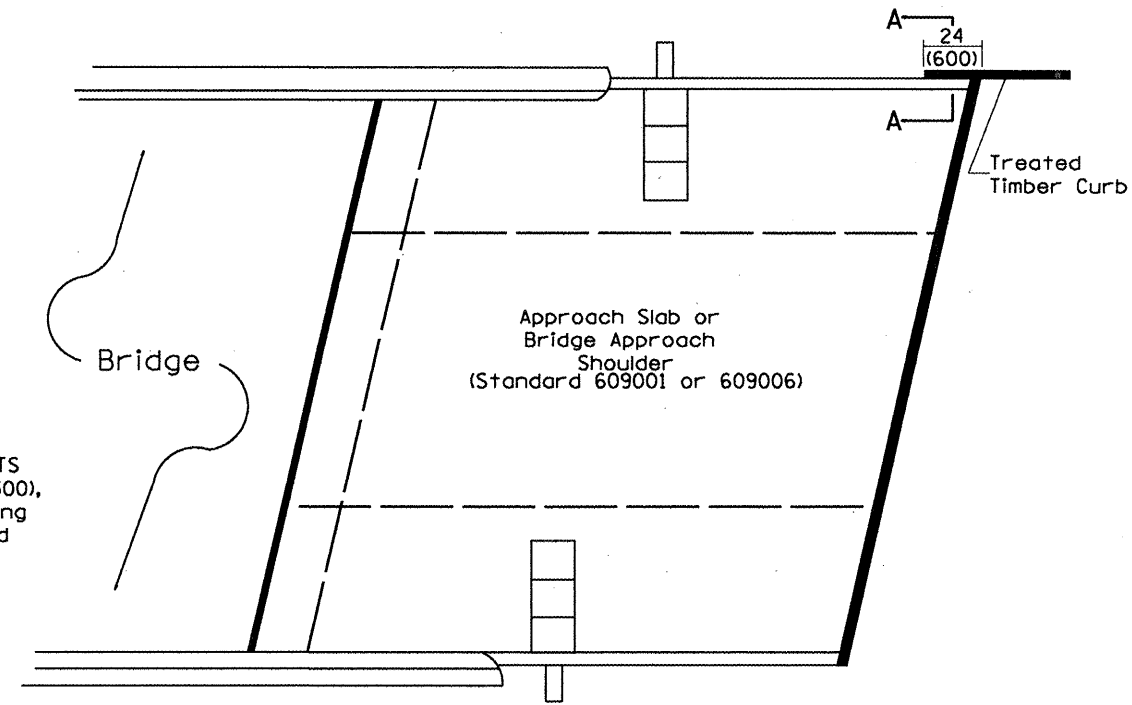


SPLICE LOCATED AT GUARDRAIL POST  
 1/2(M12) galvanized U-bolt with  
 nut & washer

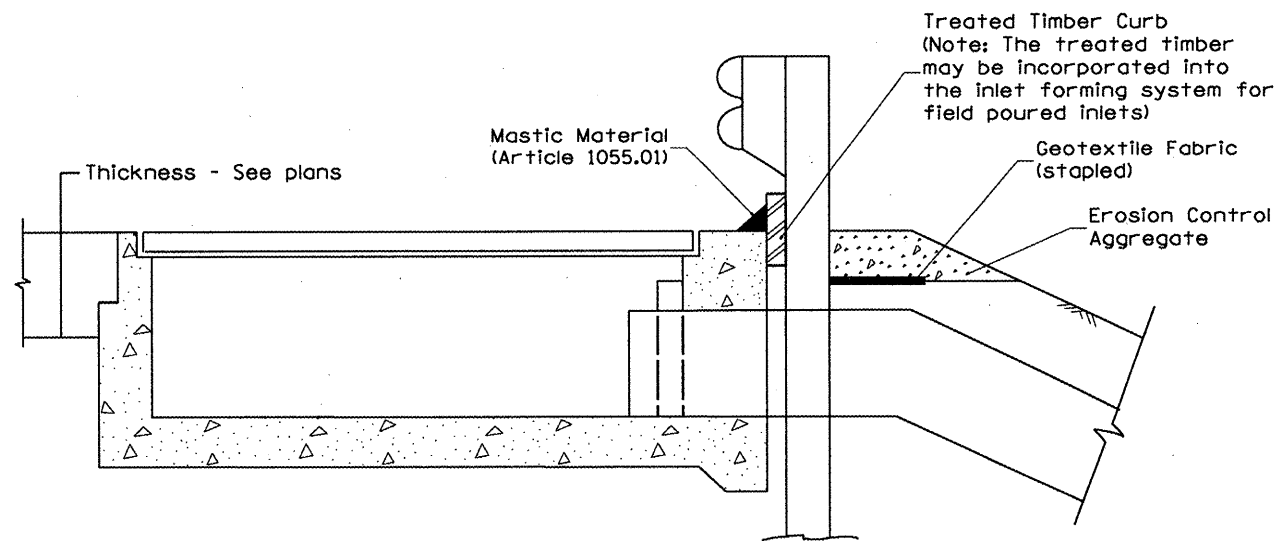


SPLICE LOCATED BETWEEN GUARDRAIL POSTS  
 treated timber splice plate 2x12 (50x300),  
 actual size 1 1/2x1 1/2 (40x290), 24(600) long  
 with 8 evenly spaced 1/2(M12) galvanized  
 bolts with nuts & washers.

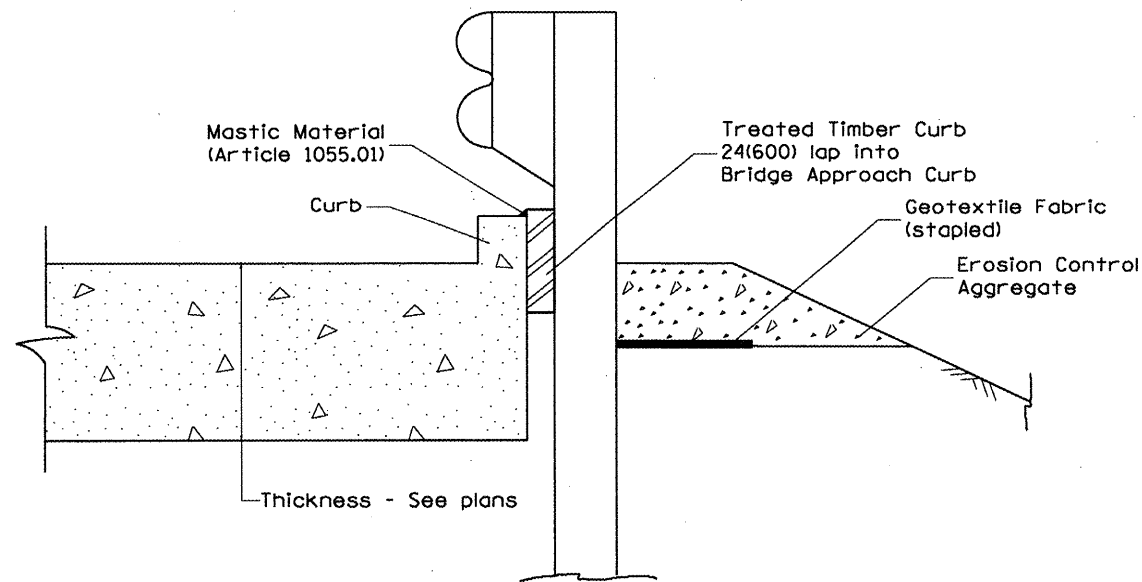
**DETAIL A**  
 (Typical Treated Timber Splices)



**PLAN VIEW**  
**APPROACH SLAB OR BRIDGE APPROACH SHOULDER**  
 (STANDARD 609001 or 609006)



**TYPICAL SECTION WITH EROSION CONTROL CURB**  
**AT INLETS TYPE E & F (STANDARD 610001)**



**SECTION A-A**  
**TYPICAL SECTION WITH EROSION CONTROL CURB**  
**AT BRIDGE APPROACH CURB**  
 (STANDARD 609001 OR 609006)

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

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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

NOT TO SCALE

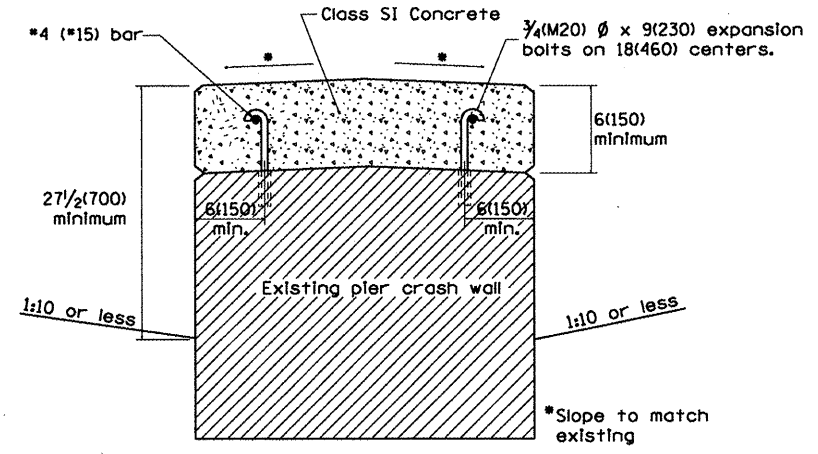
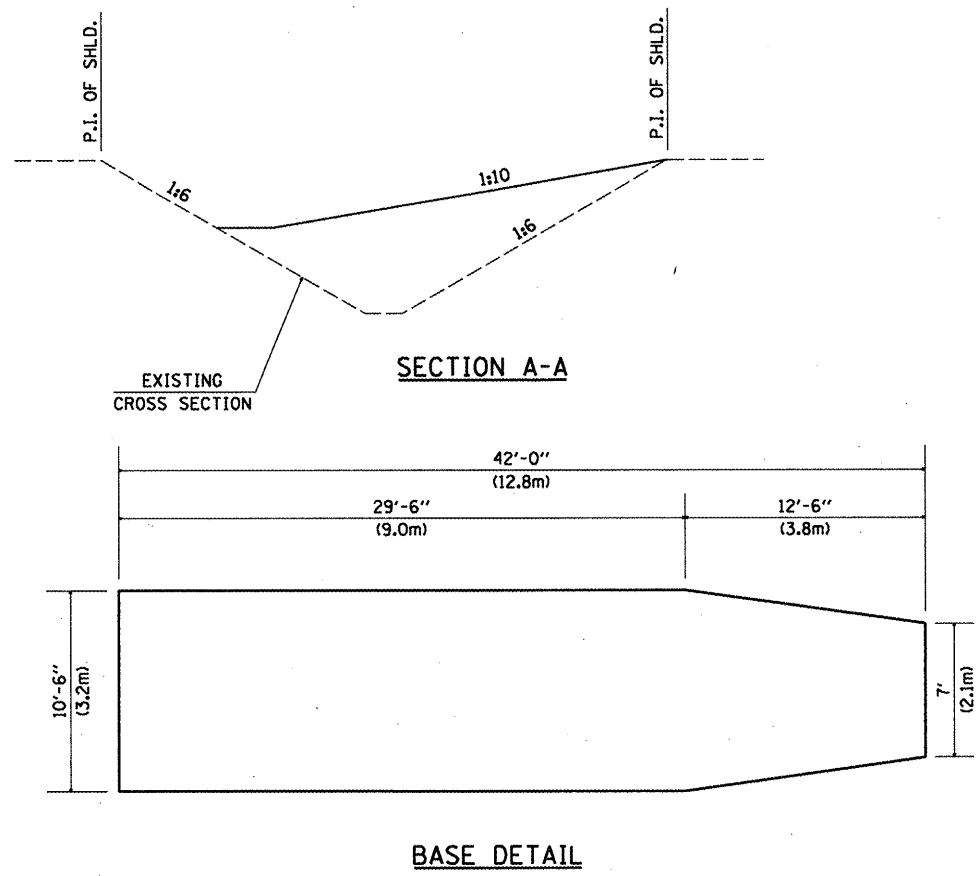
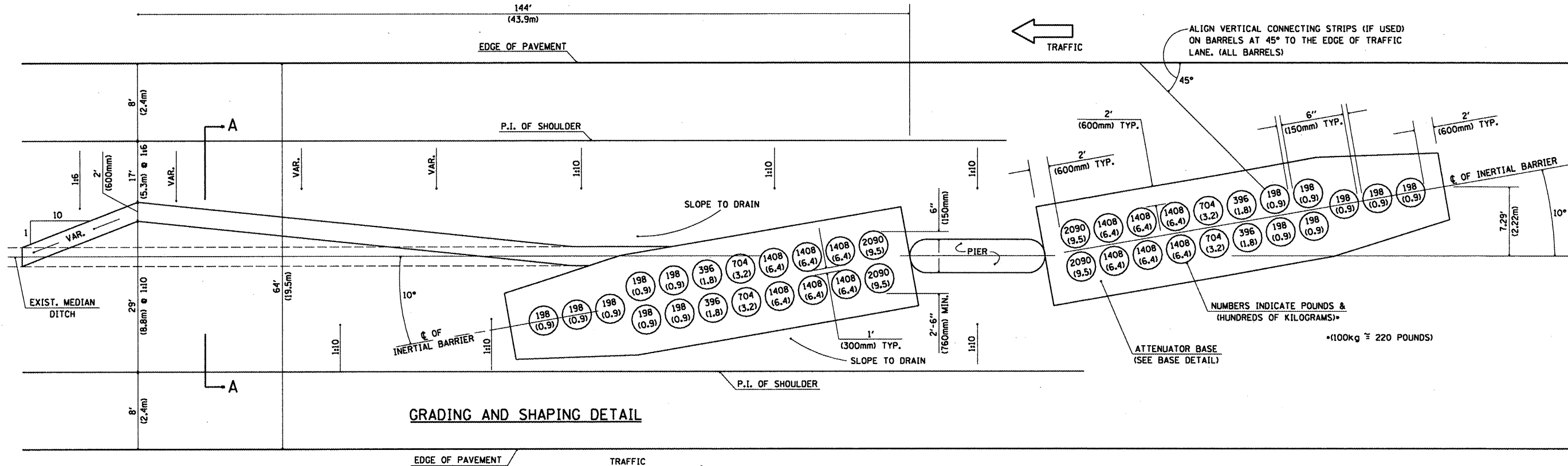
GUARDRAIL EROSION CONTROL TREATMENTS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(37-24,48-24,25,26) RS-3	KNOX/HENRY	33	33
CONTRACT NO. 68220				

SHI, 2 OF 2  
 CADD, SIQ, 630101-04

FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

# DETAIL OF INERTIAL BARRIERS (70 MPH (110km/h) DESIGN - 64' (19.5m) MEDIAN)



### GENERAL NOTES

1. ALL 1:10 SLOPES SHOWN ON THIS DETAIL SHALL BE CONSTRUCTED 1:10 OR FLATTER.
2. THE SLOPES AS SHOWN ON THIS DETAIL SHALL APPLY TO BOTH ENDS OF THE BRIDGE PIERS.
3. THE LENGTH X WIDTH OF MODULE IS 38.0' x 6.5' (11.58m x 1.98m)  
19 MODULES - MASS 17,600 LBS. (7990kg)
4. IN AREAS OF 1:10 SLOPES PRECEDING THE ATTENUATOR IN THE MEDIAN INSTALLATION, FOUR OR MORE WOOD POSTS SHALL BE PLACED AT 5' (1.5m) INTERVALS IN THE MEDIAN. SEE SPECIAL PROVISIONS AND SCHEDULES.

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H)

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

Q1-01-97	BENUM_E-3.020_NEW_REVISION_BOX_REVISD	I.P.			
08-02	TITLE_BOX_REVISD_NOTES				
10-16-06	REVISD_IQ_2007_SPEC	M.A.			

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

**MEDIAN SAND MODULE IMPACT ATTENUATOR**  
**70 MPH DESIGN - 64' MEDIAN**

NOT TO SCALE

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(37-24,48-24,25,26) RS-3	KNOX/HENRY		34
CONTRACT NO. 68220				