04-27-12 LETTING ITEM 096

FOR INDEX OF SHEETS, SEE SHEET NO. 2

021-8017

FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 4

STRUCTURE INFORMATION

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STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

**DIVISION OF HIGHWAYS** 

# **PROPOSED**

SECTION (144R)RS-2 & 145RS-3 RESURFACING INTERMITTENT **DOUGLAS COUNTY** HAYES BRANCH DITCH TO TR 122 E OF TUSCOLA

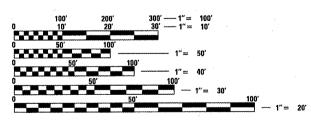
PROJECT NHF-0323 (030)

C-95-025-11

# HIGHWAY PLANS

**FAP ROUTE 323 (US 36)** 

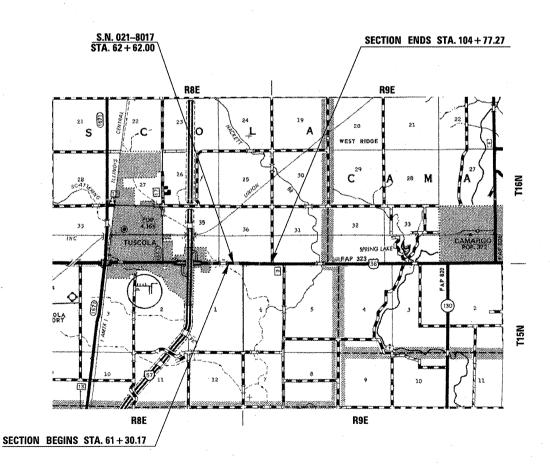
### **CURRENT ADT** OTHER PRINCIPAL ARTERIAL FAP 323 (US 36) = 5,300 (2011)SU = 4.9% MU = 4.7%



CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION 1-800-892-0123 **TOWNSHIPS** TUSCOLA OR 811

PROJECT ENGINEER: NANCY FASIG **SQUAD LEADER: STEVE COOMBES** (217) 465-4181 CONTRACT NO. 70902



GROSS LENGTH = 4,347.10 FT. = 0.823 MILE NET LENGTH = 4,347.10 FT. = 0.823 MILE

LOCATION OF SECTION INDICATED THUS: --

D-95-025-11

DOUGLAS

ILLINOIS CONTRACT NO. 70902

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER March 23 20 12 John D. Baranzelli, P.E. William R. Flen /80 chine Director of Highways, Chief Engineer

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

# **INDEX OF SHEETS**

SURVEY COVER ASSEMBLY

# LIST OF HIGHWAY STANDARDS

SHEET	DESCRIPTION	STANDARD	DESCRIPTION
1	COVER SHEET	000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
2	INDEX OF SHEETS & LIST OF HIGHWAY STANDARDS	001006	DECIMAL OF AN INCH AND OF A FOOT
3	GENERAL NOTES	406201-01	MAILBOX TURNOUT
4 - 5	SUMMARY OF QUANTITIES	701006-03	OFF-ROAD OPERATIONS, 2L, 2W, 4.5 M (15') TO 600 MM (24") FROM PAVEMENT EDGE
6-7	EXISTING & PROPOSED TYPICAL SECTIONS	701201-04	LANE CLOSURE, 2L,2W, DAY ONLY, FOR SPEEDS≥ 45 MPH
8 - 9	SCHEDULE OF QUANTITIES	701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
10	CENTERLINE TIE POINTS	701306-03	LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS DAY ONLY, FOR SPEEDS≥45 MPH
11	SURVEY MONUMENT TIE POINTS	701311-03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
12	WHITETOPPING CORING REPORT DETAILS	701901-02	TRAFFIC CONTROL DEVICES
13	BUTT JOINT DETAILS	780001-03	TYPICAL PAVEMENT MARKINGS
14	DETAIL OF PRIVATE AND COMMERCIAL ENTRANCES AND MAILBOX TURNOUTS	781001-03	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS
15 - 18	PAVEMENT MARKING AND MARKERS (RURAL & URBAN APPLICATIONS) DETAIL		
19	SURVEY MARKER VAULT (DETAIL)		
20	SURVEY MARKERS TYPE 1 & 2 (SPECIAL) DETAIL		

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ı	·	PLOT DATE = 1/26/2012	DATE ~	REVISED -	ĺ

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

1	NDEX	0F	SHEETS	&	HIGH	WAY	STANDARDS	
* * * **								-

 F.A.P. RTE.	SECTION	COUNTY	TOTAL	SHEET NO.
323	(144R)RS-2 & 145RS-3	DOUGLAS	21	2
		CONTRAC	T NO. 7	0902
	ILLINOIS FED. AI	D PROJECT		

# **GENERAL NOTES**

G.N.-100

ENGLISH UNITS OF MEASUREMENT SHALL GOVERN OVER AND SUPERSEDE ANY METRIC UNITS SHOWN IN THIS CONTRACT. WHERE INCLUDED, METRIC UNITS ARE FOR INFORMATION ONLY.

G.N.-100A

ELECTRONIC FILES AND/OR ELECTRONIC SURVEY INFORMATION INCLUDING CADD FILES WILL NOT BE AVAILABLE TO THE CONTRACTOR.

G.N.-105.09A

ALL ELEVATIONS SHOWN IN THE PLANS ARE BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988. (NAVD 88)

G.N.-406

THE QUANTITIES INCLUDED IN THE PLANS FOR HOT-MIX ASPHALT RESURFACING ARE INTENDED TO GIVE THE COVERAGE SHOWN ON THE TYPICAL CROSS SECTIONS. IT IS NOT INTENDED TO INCREASE THE THICKNESS OF THE HOT-MIX ASPHALT MIXTURE IN ORDER TO USE ALL OF THE QUANTITIES INCLUDED IN THE CONTRACT.

G.N.-406.05b

ALL LEVELING BINDER OR BINDER SHALL BE GIVEN A FOG COAT OF PRIME BEFORE THE SURFACE COURSE IS PLACED WHEN DIRECTED BY THE ENGINEER.

THE FOG COAT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER GALLON FOR BITUMINOUS MATERIAL (PRIME COAT) AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

G.N.-406H

### MIXTURE REQUIREMENTS

THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT:

Location(s):	US 36	US 36	US 36	
Mixture Use(s):	POLY FG BINDER	POLY SURFACE / HMA SHOULDERS	INCIDENTAL	
AC/PG:	SBS PG 70-22	SBS PG 70-22	PG 64-22	
RAP %: (Max)**	10%	10%	10%	
Design Air Voids:	4.0% @ Ndes = 90	4.0% @ Ndes = 90	4.0% @ Ndes = 90	
Mixture Composition: (Gradation Mixture)	IL 19.0 FG	IL 9.5	IL 9.5	
Friction Aggregate:	N.A.	MIX D	MIX C	

### G.N.-482

ALL MATERIAL PLACED AS HOT-MIX ASPHALT SHOULDERS SHALL BE COMPACTED TO 94.0 TO 98.4 PERCENT OF THE MAXIMUM THEORETICAL DENSITY. THIS REQUIREMENT SHALL APPLY TO IL 9.5L GRADATION SHOULDER MIXES AND OTHER MIXES (BOTTOM LIFT OF SHOULDERS). THIS MAXIMUM DENSITY SHALL BE DETERMINED FROM THE MOVING AVERAGE OF FOUR TESTS AS IN OTHER QC/QA TESTING. A NUCLEAR GAUGE DENSITY/CORE CORRELATION SHALL BE PERFORMED FOR THE IL 9.5L MIXES AND OTHER MIXES USING STANDARD CORRELATION PROCEDURES.

### G.N.-667

THE RESIDENT ENGINEER SHALL CONTACT THE PROGRAM DEVELOPMENT CHIEF OF SURVEYS PRIOR TO THE PRE-CONSTRUCTION CONFERENCE FOR INSTRUCTION AS TO SETTING OF TEMPORARY OR PERMANENT TIES FOR CENTERLINE ALIGNMENT CONTROL SURVEY MARKERS (PC'S, PT'S, AND PI'S). PROJECT IMPLEMENTATION PERSONNEL WILL BE RESPONSIBLE FOR LAYOUT OF THESE MARKERS.

### G.N.-703A

SHORT TERM PAVEMENT MARKING SHALL BE APPLIED TO THE PAVEMENT AFTER ANY OF THE FOLLOWING: COLD MILLING AND/OR PLACING BITUMINOUS MATERIALS (PRIME COAT), LEVELING BINDER (MACHINE METHOD), BINDER AND SURFACE COURSES. SHORT TERM PAVEMENT MARKING PLACED ON THE SURFACE, SHALL COINCIDE WITH THE FINAL PAVEMENT STRIPING. SHORT TERM PAVEMENT MARKING PLACED PRIOR TO THE SURFACE SHALL COINCIDE WITH THE EXISTING PAVEMENT MARKINGS. USE 4 FEET PER 40 FEET (OR 10% PER STATION).

### G.N.-781

RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE PLACED IN ACCORDANCE WITH STANDARD 781001, AND THE DETAILS SHOWN IN THE PLANS. IF THERE IS ANY DISCREPANCY BETWEEN THE STANDARD AND THE DETAILS IN THE PLANS, THE DETAILS IN THE PLANS SHALL GOVERN. THE FINAL PAVEMENT MARKINGS SHALL BE IN PLACE PRIOR TO PLACING THE RAISED REFLECTIVE PAVEMENT MARKERS AND THE RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE PLACED MIDWAY IN THE 30 FOOT (9 m) SPACE BETWEEN THE DASHED CENTERLINE STRIPES (WHEN APPLICABLE).

### G.N.-1004.01

COARSE AGGREGATE GRADATION CA-10 MAY BE USED WHENEVER COARSE AGGREGATE CA-6 IS SPECIFIED IN THE STANDARD SPECIFICATIONS.

# COMMITMENTS:

THERE ARE NO COMMITMENTS FOR THIS CONTRACT.

- 1					
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		PLOT DATE : 1/13/2012	DATE -	REVISED -	

STATE	OF	ILLINOIS
DEPARTMENT	OF	TRANSPORTATION

CENEDAL NOTES									F.A.P. RTE.	SECTION	COUNTY	TOTAL	SHEET NO.
	GENERAL NOTES								323	(144R)RS-2 & 145RS-3	DOUGLAS	21	3
					·						CONTRAC	T NO. 7	0902
ALE:	SHEET	NO.	OF:	SHEETS	STA.	TO S	TA.			ILLINOIS FED. A	D PROJECT		

# **SUMMARY OF QUANTITIES**

LOCATION OF WORK:

DOUGLAS CO. FAP 323 (US 36)

RURAL TWO LANE

FUNDING BREAKOUT: CONSTRUCTION TYPE CODE: <u>UNIT</u> 80 % FED / 20 % STATE 0005 QUANTITY

GALLON

3,827.0

40600300 AGGREGATE (PRIME COAT)

40600100 BITUMINOUS MATERIALS (PRIME COAT)

CODE NO. DESCRIPTION

TON

77.0

40600982 HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT

SQYD

200.0

40600990 TEMPORARY RAMP

SQ YD

34.0

40603243 POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, IL 19.0 FG, N90

TON

4,220.0

40603545 POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N90

TON

988.0

29.0

40800010 BITUMINOUS MATERIALS (PRIME COAT)

TON

GALLON

1.0

40800050 INCIDENTAL HOT-MIX ASPHALT SURFACING

TON

24.0

48102100 AGGREGATE WEDGE SHOULDER, TYPE B

TON

103.0

280.0

67100100 MOBILIZATION

48203100 HOT-MIX ASPHALT SHOULDERS

40800030 AGGREGATE (PRIME COAT)

L SUM

1.0

70100460 TRAFFIC CONTROL AND PROTECTION, STANDARD 701306

LSUM

1.0

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DEPARTMENT	OF	TRANSPORTATION

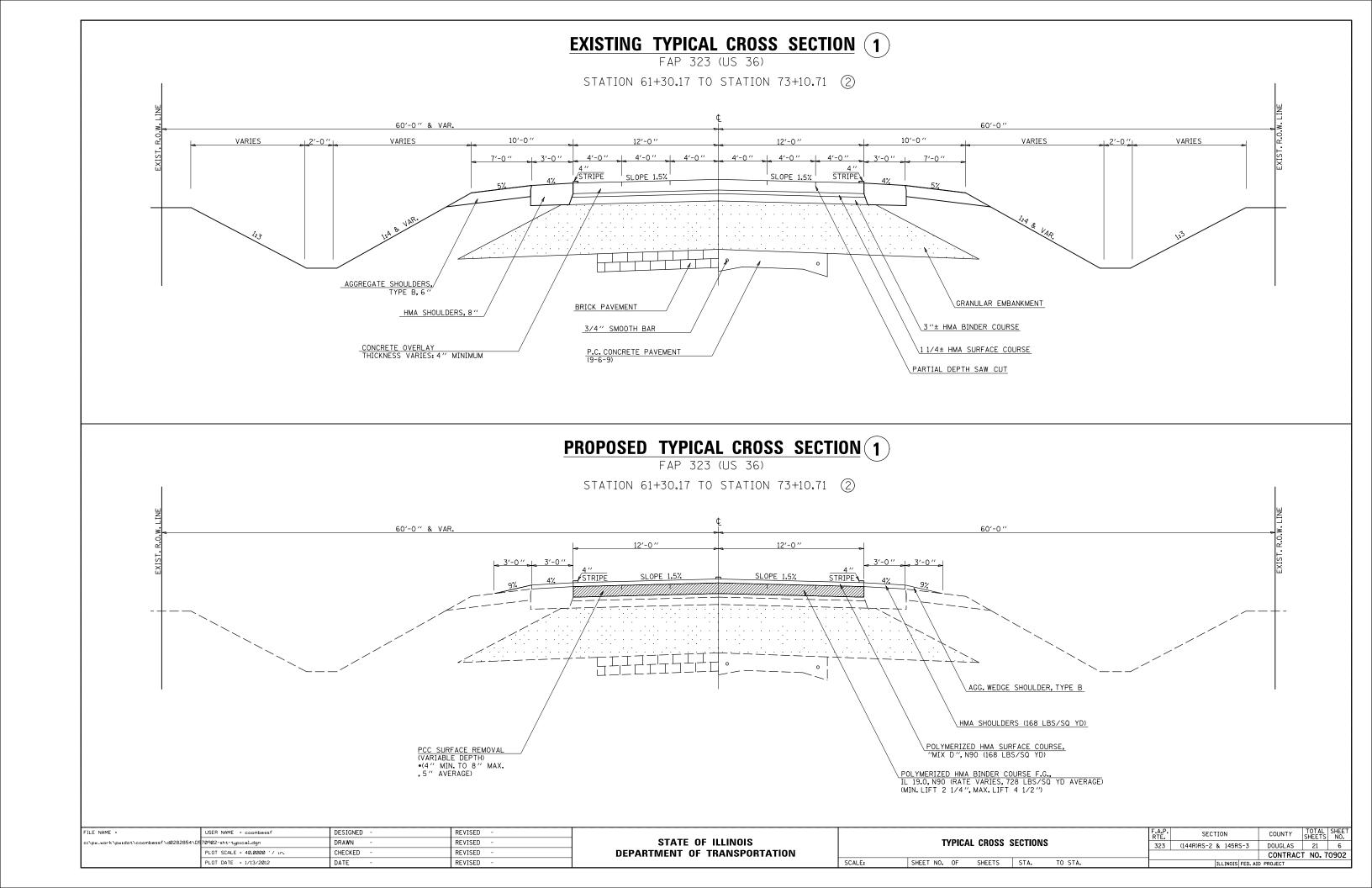
 CUMMADY OF QUANTITIES									SEC	CTION	COUNTY	TOTAL	SHEET NO.
SUMMARY OF QUANTITIES						323	(144R)RS	& 145RS-3	DOUGLAS	21	4		
 				·	***************************************	~~**					CONTRAC	T NO. 7	0902
SHEET	NO.	OF	SHEETS	STA.	TO	STA.				ILLINOIS FED.			

# **SUMMARY OF QUANTITIES**

	CODE NO. 70300100	DESCRIPTION SHORT-TERM PAVEMENT MARKING	FUNDING BREAKOUT: CONSTRUCTION TYPE CODE: <u>UNI</u> T FOOT	RURAL TWO LANE 80 % FED / 20 % STATE 0005 QUANTITY 914.0
	70300100	SHOKI-TEKWI AVENENI WAKKING	FOOT	914.0
	70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	9,916.0
	70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQFT	156.0
*	78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	9,916.0
*	78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	55.0
	78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	55.0
	X4400100	PORTLAND CEMENT CONCRETE SURFACE REMOVAL (VARIABLE DEPTH)	SQYD	11,593.0
	X4400196	HOT-MIX ASPHALT SURFACE REMOVAL, SPECIAL	SQYD	246.0
	X4404260	PAVED SHOULDER REMOVAL (SPECIAL)	SQYD	389.0
	XZ193400	SURVEY MARKER, TYPE 2 (SPECIAL)	EACH	3.0
	Z0070202	SURVEY MARKER VAULT	EACH	3.0

\*SPECIALTY ITEMS

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	PLOT DATE = 1/26/2012	DATE -	REVISED -		SCALE:	SHEET NO. OF	SHEETS	STA.	TO STA.	ļ	ILLINOIS FED. AIT	D PROJECT	1 110
									······································	<del></del>			



# EXISTING TYPICAL CROSS SECTION (2) (1) STATION 73+10.71 TO STATION 104+77.27 40'-0" & VAR. 12'-0 " 12'-0 '' \_10'-0'', 8'-0'' & VAR. VARIES VARIES 4" STRIPE AGGREGATE SHOULDERS, 9" P.C. CONCRETE WIDENING \_\_\_ 8'-0" TO E.P. \_ HMA SHOULDERS, 8 FULL DEPTH SAW CUT \_1′-6 ′′ \_\_\_\_. \3/4" SMOOTH BAR 9" P.C. CONCRETE WIDENING \P.C. CONCRETE PAVEMENT (9-6-9) BRICK PAVEMENT HMA SHOULDERS, 8" PARTIAL DEPTH SAW CUT 2"± HMA BINDER COURSE CONCRETE GUTTER, TYPE A (MODIFIED) CONCRETE OVERLAY THICKNESS VARIES: 4" MINIMUM 1"± HMA SURFACE COURSE CONCRETE GUTTER, TYPE A (MODIFIED) DETAIL LT. STATION 99+03.13 TO LT. STATION 102+31.21 RT. STATION 97+88.30 TO RT. STATION 101+59.03 PROPOSED TYPICAL CROSS SECTION 2 FAP 323 (US 36) (1) STATION 73+10.71 TO STATION 104+77.27 40'-0" & VAR. 40'-0" & VAR. 12'-0 " 12'-0 " 3'-0" 3'-0" SLOPE 1.5% SLOPE 1.5% <u>STRIPE</u> AGG. WEDGE SHOULDER, TYPE B HMA SHOULDERS (168 LBS/SQ YD) \HMA SHOULDERS (168 LBS/SQ YD) POLYMERIZED HMA SURFACE COURSE, "MIX D", N90 (168 LBS/SQ YD) PCC SURFACE REMOVAL (VARIABLE DEPTH) \*(4" MIN. TO 8" MAX. POLYMERIZED HMA BINDER COURSE F.G., IL 19.0, N90 (RATE VARIES, 728 LBS/SQ YD AVERAGE) ,5" AVERAGE) CONCRETE GUTTER, TYPE A (MODIFIED) DETAIL (MIN. LIFT 2 1/4", MAX. LIFT 4 1/2") LT. STATION 99+03.13 TO LT. STATION 102+31.21 RT. STATION 97+88.30 TO RT. STATION 101+59.03 FILE NAME : DESIGNED REVISED SECTION COUNTY SHEETS NO. DOUGLAS 21 7 STATE OF ILLINOIS TYPICAL CROSS SECTIONS 570902-sht-tupical.don DRAWN REVISED 323 (144R)RS-2 & 145RS-3 CHECKED REVISED **DEPARTMENT OF TRANSPORTATION** CONTRACT NO. 70902 SCALE: SHEET NO. OF SHEETS STA. PLOT DATE = 1/13/2012 DATE REVISED

# **SCHEDULE OF QUANTITIES**

				S	CHEDULE OF	MAINLINE RE	SURFACING	QUANTITIES			
					X4400100	X4404260	40600100	40600300	40603243	40603545	48203100
					PCC SURFACE	PAVED	BITUMINOUS	AGGREGATE	POLY HMA	POLY HMA	HOT-MIX
					REMOVAL	SHOULDER	MATERIALS	(PRIME	BINDER	SURFACE	ASPHALT
		LOCATION			(VARIABLE	REMOVAL	(PRIME	COAT)	COURSE	COURSE	SHOULDERS
					DEPTH)	(SPECIAL)	COAT)			1 1/2"	
					(SQ YD)	(SQ YD)	(GAL)	(TON)	(TON)	(TON)	(TON)
STA.	61+30.17	ТО	STA.	104+77.27	11,592.3						
STA.	61+00.17	TO	STA.	105+07.27			3,826.3	76.5	4,219.6	987.2	279.4
STA.(RT)	97+88.30	ТО	STA.(RT)	101+59.03		206.0					
STA.(LT)	99+03.13	TO	STA.(LT)	102+31.21		182.3					
		·		TOTAL =	11,592.3	388.3	3,826.3	76.5	4,219.6	987.2	279.4
				USE =	11,593.0	389.0	3,827.0	77.0	4,220.0	988.0	280.0

		SCHE	DULE OF IN	CIDENTAL R	ESURFACIN	G AT ENTRA	NCES		
						40800050	X4400196	40800010	40800030
						INCIDENTAL	HMA	BITUMINOUS	
			AVERAGE		AREA TO	HMA	SURF REM	MATERIALS	AGGREGATE
			WIDTH	DEPTH	RESURF.	SURFACE	SPECIAL	(PRIME COAT)	(PRIME COAT)
SIDE	STATION	TYPE	(FT)	(FT)	(SQ YD)	(TON)	(SQ YD)	(GAL)	(TON)
RT	74+65.50	CE	47.3	10.0	52.6	4.4	52.6	5.3	0.11
LT	74+65.50	МВТО	34.4	5.0	19.1	1.6		1.9	0.04
RT	77+54.20	CE	54.0	10.0	60.0	5.0	60.0	6.0	0.12
RT	80+59.30	CE	119.9	10.0	133.2	11.2	133.2	13.3	0.27
LT	98+21.10	МВТО	35.3	5.0	19.7	1.7		2.0	0.04
					TOTAL =	23.9	245.8	28.5	0.6
					USE=	24.0	246.0	29.0	1.0

	40600982	HMA SURFAC	E REMOVAL	-BUTT JOINT	
			LENGTH	WIDTH	AREA
STATION	ТО	STATION	(FOOT)	(FOOT)	(SQ YD)
61+00.17	ТО	61+30.17	30.0	30.0	100.0
104+77.27	ТО	105+07.27	30.0	30.0	100.0
				TOTAL =	200.0
				USE =	200.0

406	00990 TEMPO	RARY RAMP	
	WIDTH	LENGTH	AREA
STATION	(FOOT)	(FOOT)	(SQ YD)
61+00.17	30.0	5.0	16.7
105+07.27	30.0	5.0	16.7
		TOTAL =	33.3
		USE =	34.0

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

	2011				F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	SCHE	DULE OF QU	ANTITLES	S	323	(144R)RS-2 & 145RS-3	DOUGLAS	21	8
							CONTRAC	T NO. 7	0902
SCALE:	SHEET NO. OF	SHEETS	STA.	TO STA.		ILLINOIS FED. A	ID PROJECT		

# **SCHEDULE OF QUANTITIES**

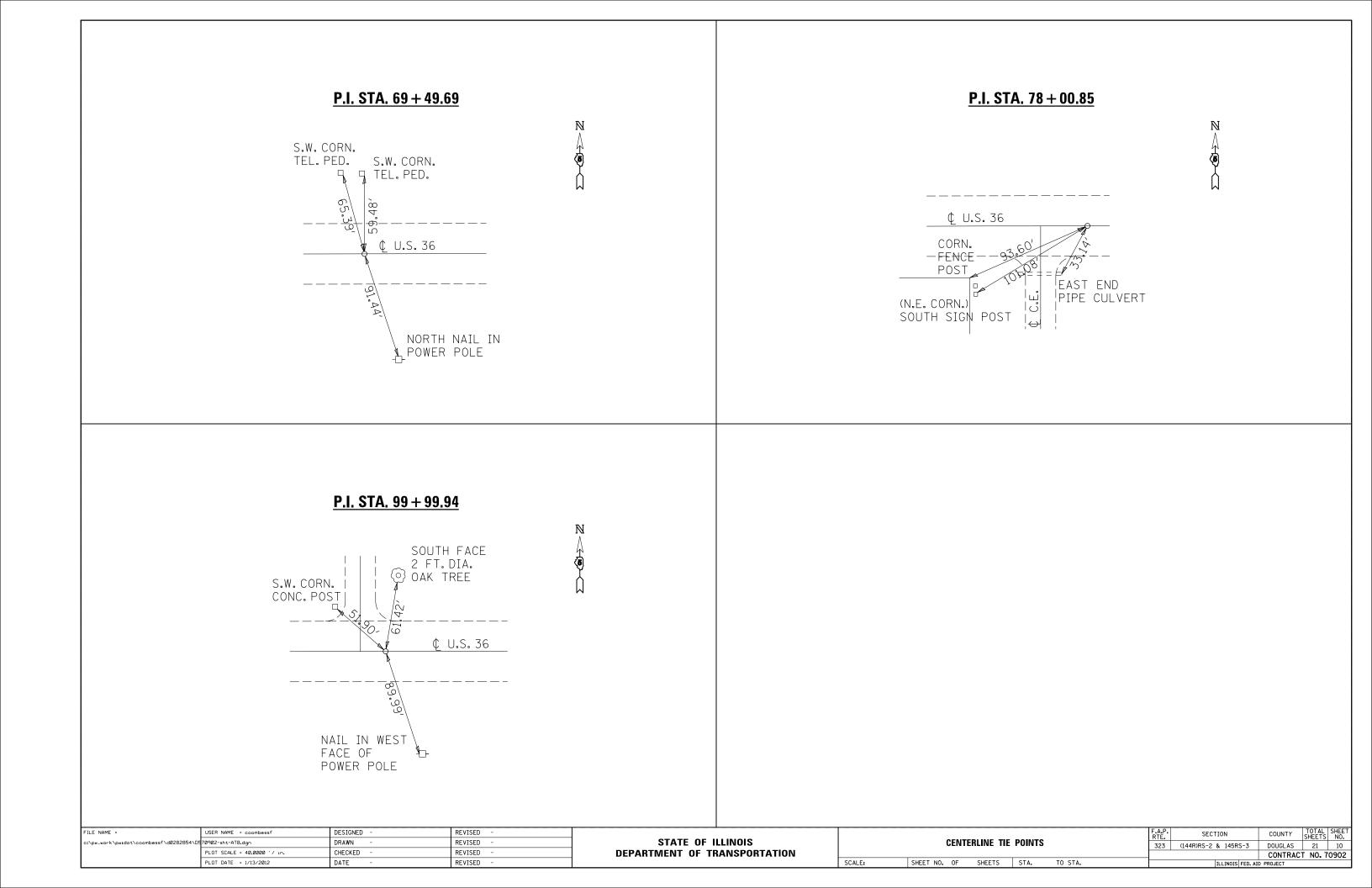
								PAVEMEN	IT MARK	ING SCHED	ULE							
			780011	10				70300220						70300100				
SIDE		PAIN	IT PAVEMENT MA	ARKING - LIN	IE 4"		SIDE		TEMPOF	RARY PAVEMEN	T MARKING -	LINE 4"			SHORT TE	ERM PAVEMENT MAI	RKING	
					(WHITE)	(YELLOW)						(WHITE)	(YELLOW)					LENGTH
	STATION	TO	STATION	(FEET)	(FOOT)	(FOOT)		STATION	TO	STATION	(FEET)	(FOOT)	(FOOT)	STATION	TO	STATION	APPS	(FOOT)
LT	61+00.17	TO	105+07.27	4,407.1	4,407.1	1,101.8	LT	61+00.17	TO	105+07.27	4,407.1	4,407.1	1,101.8	61+00.17	ТО	105+07.27	2.0	881.4
RT	61+00.17	TO	105+07.27	4,407.1	4,407.1		RT	61+00.17	TO	105+07.27	4,407.1	4,407.1		97+88.30 (RT)	ТО	101+59.03 (RT)		16.0
				TOTAL =	8814.2	1101.8					TOTAL =	8814.2	1101.8	99+03.13 (LT)	ТО	102+31.21(LT)		16.0
	-			USE =	8814.0	1102.0				-	USE =	8814.0	1102.0				TOTAL =	913.4
TOTAL LENGTH = 9916.0							TOTAL LENGTH = 9916.0						USE =	914.0				

					PAVEME	NT MAR	KING SCHE	EDULE (C	ONT'D)						
		70301000			78300200					78100100					
	WORK ZONE					RAISED REFLECTIVE					RAISED REFLECTIVE				
PAVEMENT MARKING REMOVAL					PAVEMENT MARKER REMOVAL					PAVEMENT MARKER					
				AREA				RATE	TOTAL				RATE	TOTAL	
STATION	то	STATION	(FOOT)	(SQ FT)	STATION	TO	STATION	(FEET)	(EACH)	STATION	TO	STATION	(FEET)	(EACH)	
61+00.17	ТО	105+07.27	472.7	156.0	61+00.17	TO	105+07.27	80.0	55.0	61+00.17	TO	105+07.27	80.0	55.0	
				156.0					55.0					55.0	
				156.0					55.0					55.0	

	XZ193400	Z0070202
	SURVEY	SURVEY
DESCRIPTION	MARKER	MARKER
	TY 2, (SPECIAL)	VAULT
	(EACH)	(EACH)
P.I. KINK	1.0	
NW COR. SEC.		1.0
6-15-9		1.0
P.I. KINK	1.0	
SW COR./SE 1/4		1.0
SEC 36-16-8		1.0
NE COR./NW 1/4		1.0
SEC 6-15-9		1.0
P.I. KINK	1.0	
TOTAL =	3.0	3.0
	P.I. KINK  NW COR. SEC. 6-15-9  P.I. KINK  SW COR./SE 1/4  SEC 36-16-8  NE COR./NW 1/4  SEC 6-15-9  P.I. KINK	SURVEY MARKER TY 2, (SPECIAL) (EACH)  P.I. KINK  1.0  NW COR. SEC. 6-15-9  P.I. KINK  1.0  SW COR./SE 1/4 SEC 36-16-8  NE COR./NW 1/4 SEC 6-15-9  P.I. KINK  1.0

	48102100 AG	SREGATI	WEDGE SHOU	JLDER, TYPE	ЕВ
				LENGTH	SHLDRS
SIDE	STATION	TO	STATION	(FOOT)	(TON)
LT	61+00.17	ТО	99+03.13	3,803.0	48.2
LT	102+31.21	ТО	105+07.27	276.1	3.5
RT	61+00.17	ТО	97+88.30	3,688.1	46.7
RT	101+59.03	TO	105+07.27	348.2	4.4
				TOTAL =	102.8
	103.0				

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c:\pw_work\pwidot\coombessf\d0282854\D	0902-sht-schedule.dgn	DRAWN -	REVISED -	STATE OF ILLINOIS	SCHEDULE OF QUANTITIES			323	(144R)RS-2 & 145RS-3	DOUGLAS	21	-	
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION	(						CONTRACT	T NO. 7	ō:
	PLOT DATE = 1/13/2012	DATE -	REVISED -		SCALE:	SHEET NO. OF SHEETS	STA. TO	O STA.		ILLINOIS FED. A	ID PROJECT		



# NW COR. SEC. 6–15–9 SW COR./SE 1/4 SEC. 36-16-8 STA. 77 + 31.65, 5.20' LT. STA. 79 + 42.86, 4.67' LT. I.P. W/CAP S.W.COR. ROW MKR. I.P. W/ IDOH CAP I.P. W/ IDOH CAP 5.20' NORTH ¢ 4.67′ NORTH ¢ ¢ U.S. 36 ¢ U.S. 36 ¹ N.W. COR. TEL. PED. R.O.W. PIN ♦ N. FACE NAIL & BC \* FENCE POST E. FACE P.P. NAIL & SHINER N. FACE OF P.P. NE COR./NW 1/4 SEC. 6-15-9 STA. 90 + 66.38, 1.30' LT. I.P.W/ CAP I.P. W/Q I.P. W/ IDOH CAP 1.30' NORTH ¢ ¢ U.S. 36 I.P. W/ CAP F.A.P. RTE. SECTION COUNTY TOTAL SHEETS NO. 323 (144R)RS-2 & 145RS-3 DOUGLAS 21 11 CONTRACT NO. 70902

STATE OF ILLINOIS

**DEPARTMENT OF TRANSPORTATION** 

**SURVEY MONUMENT TIE POINTS** 

SHEET NO. OF SHEETS STA.

SCALE:

DESIGNED -

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DATE

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70902-sht-ATB.dan

PLOT DATE = 1/13/2012

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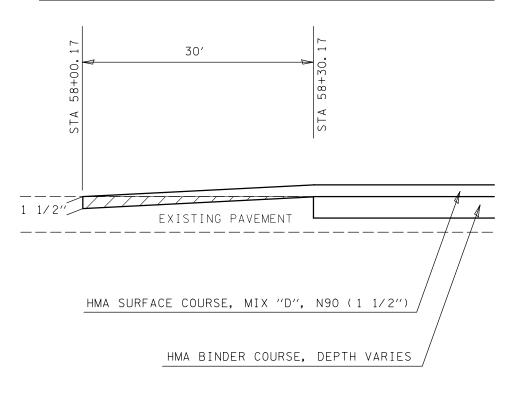
# \*FOR INFORMATION ONLY\*

CORE	STATION	LANE	O/S FROM CL	WHITETOPPING (INCHES)	HMA (INCHES)	PCC (INCHES)	BRICK (INCHES)	BRICK BASE (INCHES)
1	66+75	EBL	7.0' RT	5 3/8	3 1/2	_	<u>-</u>	_
2	71+11	EBL	5.5' RT	4 1/4	7	6 1/4	-	-
3	82+86	EBL	7.0' RT	4 1/2	7 1/2	7 1/2	-	-
4A	92+87	EBL	7.5' RT	4 3/8	6	6 3/4	<u>-</u>	-
4B*	92+87	EBL	11.0' RT	4 1/4		_	<del>-</del>	-
5A	97+56	EBL	6.5' RT	4 1/4	7	7	<u>-</u>	-
5B*	97+56	EBL	2.0' RT	4 7/8	-	_	<u>-</u>	-
5C*	97+56	EBL	11.0' RT	4 1/8	-	-	-	-
6A	102+81	EBL	10.5' RT	3 3/4	3 5/8	9 3/4	-	-
6B*	102+81	EBL	6.5' RT	3 7/8	-	-	-	-
6C*	102+81	EBL	1.5' RT	4 1/8	-	_		
7A	98+70	WBL	9.0' LT	5 1/2	6 3/4	_	4	2 1/2
7B*	98+70	WBL	2.5' LT	5 3/4	-	-	-	-
8A	94+27	WBL	6.5' LT	8	6	9	-	-
8B*	94+27	WBL	2.0' LT	8 1/8	-	-	-	-
9	90.43	WBL	6.5' LT	4 3/4	6 1/2	Broken into Pieces	-	-
10	86+46	WBL	9.0' LT	4 3/4	7	-	4	3 1/2
11A	75+24	WBL	7.0' LT	4 7/8	5 1/2	9 1/2	-	-
11B*	75+24	WBL	2.0' LT	5 1/8	-	-	-	-
11C*	75+24	WBL	11.0' LT	4 3/4	-	_	-	_
12A	69+50	WBL	7.0' LT	4 5/8	4	_	-	_
12B*	69+50	WBL	1.0' LT	4 7/8	-	-	-	-
12C*	69+50	WBL	11.0' LT	4 3/8	_	_	<u>-</u>	_

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c:\pw_work\pwidot\coombessf\d0282854\D5	70902-sht-details.dgn	DRAWN -	REVISED -	STATE OF ILLINOIS		WHITETOPPING CORING REPORT DETAILS	323	(144)RS-2 & 145RS-3	DOUGLAS	21	12
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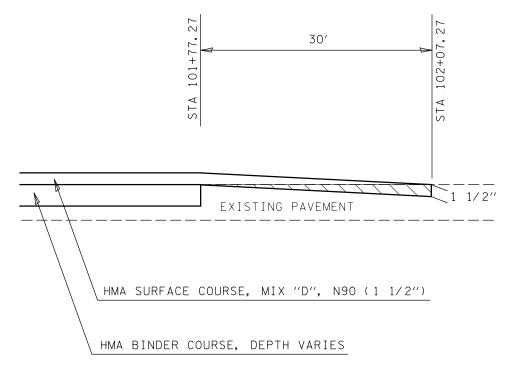
# **BUTT JOINT DETAILS**

# **BUTT JOINT AT BEGINNING OF PROJECT**



HMA SURFACE REMOVAL, BUTT JOINT

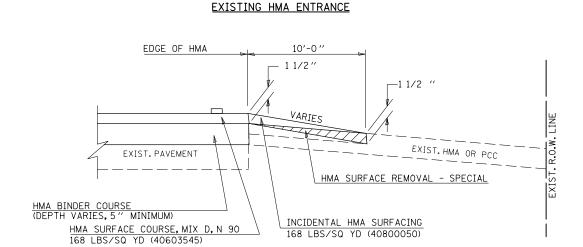
# **BUTT JOINT AT END OF PROJECT**

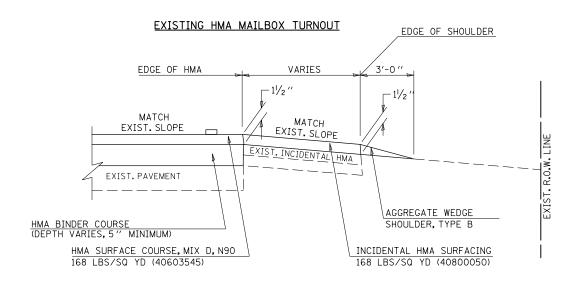


HMA SURFACE REMOVAL, BUTT JOINT



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c:\pw_work\pwidot\coombessf\d0282854\D	570902-sht-details.dgn	DRAWN -	REVISED -	STATE OF ILLINOIS		BUTT JOINT DETAILS		323	(144)RS-2 & 145RS-3	DOUGLAS	21	13
	PLOT SCALE = 40.0000 '/ in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION						CONTRAC	T NO. 709	02
	PLOT DATE = 1/13/2012	DATE -	REVISED -		SCALE:	SHEET NO. OF SHEETS STA. TO	STA.		ILLINOIS FED. AID	PROJECT		





				RURAL E	NTRANCE	DESIGN S	TANDARD	S (PPM 40-	09)					
		NEW	CONSTRU	ICTION & 3	R with REC	ONSTRUC	CTION		3F	R w/out RE	CONSTRUC	CTION, 3P,	SMART & 0	СМ
		NOI	NCOMMER	CIAL					NON	NCOMMER	CIAL			
	PR	<u> VATE&amp;FI</u>	ĘLD		N/ FARM MENTS	С	OMMERCI	ĄL	PR	<u> VATE&amp;FI</u>	ĘLD	С	OMMERCI	AL
DESIGN ELEMENT	min.	des.	max.	min.	max.	min.	des.	max.	min.	des.	max.	min.	des.	max.
						1	LANE, 1 W	/AY				1	LANE, 1 W	'AY
SURFACE WIDTH (FT)	12	16	24	24	30	14	16	24						
						2	LANE, 2 W	/AY				2	LANE, 2 W	'AY
						24	30	35						
RADIUS (FT)	15	25	40	30		20	30	50						
SHOULDER WIDTH (FT)	2	2		2		1	3		resurfac	e evistina a	onfiguration	n; existing h	ma or nee e	entrances
SHOULDER SLOPE (%)	2	4	6	4		2	4	6		J	Ü	ted; existin	•	
ENTRANCE GRADE (%)	0	2 to 5	10 or 12	2 to 5	10 or 12	0	2 to 5	8 or 10		•		nuation of a	0 00 0	
SIDE SLOPE (FT)	1:10	1:6	1:4	1:6	1:4	1:10	1:6	1:4				ehind them		
SURFACE TYPE														
INCIDENTAL HMA		2		2		3 or 4			taper from hma resurfacing thickness (2 1/2", 2 1/4" or 1 1/2") to 1					1 1/2") to 1

6 or 8

SURFACING (INCH)

PCC DRIVEWAY

PAVEMENT (INCH)

AGGREGATE SURFACE

COURSE, TYPE B (INCH)

6

# GENERAL NOTES

- THE EXISTING SURFACE SHALL BE PREPARED IN ACCORDANCE WITH SECTION 408 OF THE STANDARD SPECIFICATIONS.
- 2. ANY NECESSARY WORK BEHIND THE HMA SHOULDER OR THE INCIDENTAL HMA SURFACING SHALL BE AS SHOWN IN THE PLANS AND/OR AS DIRECTED BY THE ENGINEER.
- 3. EARTH EXCAVATION REQUIRED FOR THE CONSTRUCTION OF THE AGGREGATE SURFACE COURSE SHALL BE INCLUDED IN THE COST OF AGGREGATE SURFACE COURSE.
- 4. AGGREGATE BASE COURSE, TYPE B, 6" (150 mm)
  MIN. SHALL BE USED WHERE IN THE OPINION OF
  THE ENGINEER THERE IS NOT SUFFICIENT BASE
  MATERIAL FOR THE PROPOSED ENTRANCES. THIS
  MATERIAL SHALL GENERALLY BE USED TO WIDEN
  ANY EXISTING RETURN OR TO CONSTRUCT NEW
  ENTRANCES WHERE NONE NOW EXISTS.
- 5. THE AGGREGATE BASE COURSE SHALL BE CONSTRUCTED 12" (300 mm) WIDER THAN THE SURFACE DIMENSIONS AS SHOWN ABOVE.
- 6. EXISTING FIELD ENTRANCES OF AGGREGATE OR EARTH WITH NO HMA APRON SHALL NOT RECEIVE A NEW HMA APRON WITHOUT PROPER APPROVAL THROUGH THE BUREAU OF OPERATIONS "POLICY ON PERMITS FOR ACCESS DRIVEWAYS TO STATE HIGHWAYS".
- 7. TO ASSURE APPROPRIATE ACCESS POLICIES ARE FOLLOWED ALL NEW ACCESS SHALL BE APPLIED FOR THROUGH THE BUREAU OF OPERATIONS PERMIT APPLICATION PROCESS. PLAN PREPARATION MEMORANDUMS 40-09 AND 40-11 ALONG WITH DISTRICT CONSTRUCTION MEMORANDUM 03/14 DISCUSS THIS PROCEDURE.

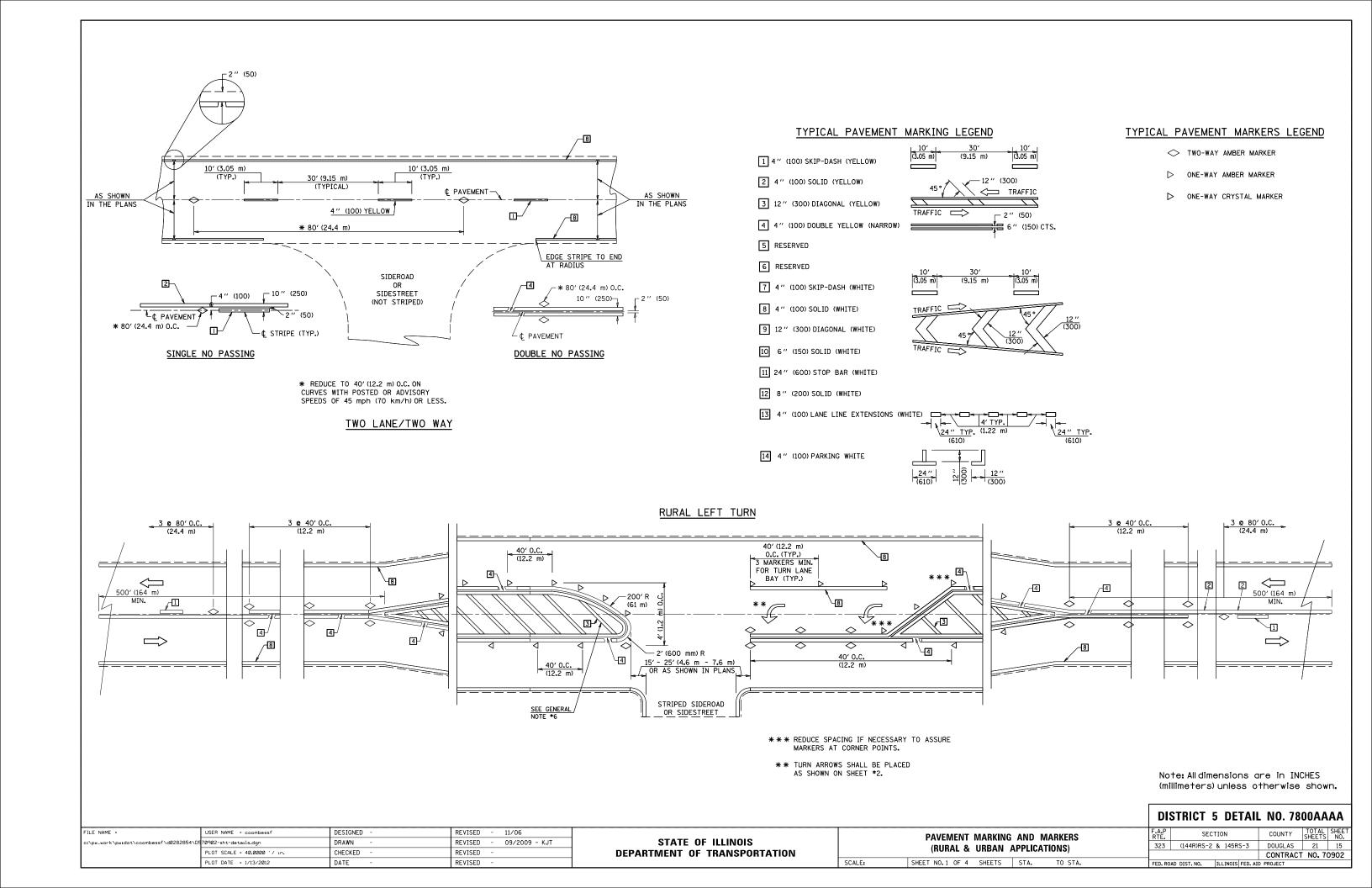
Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

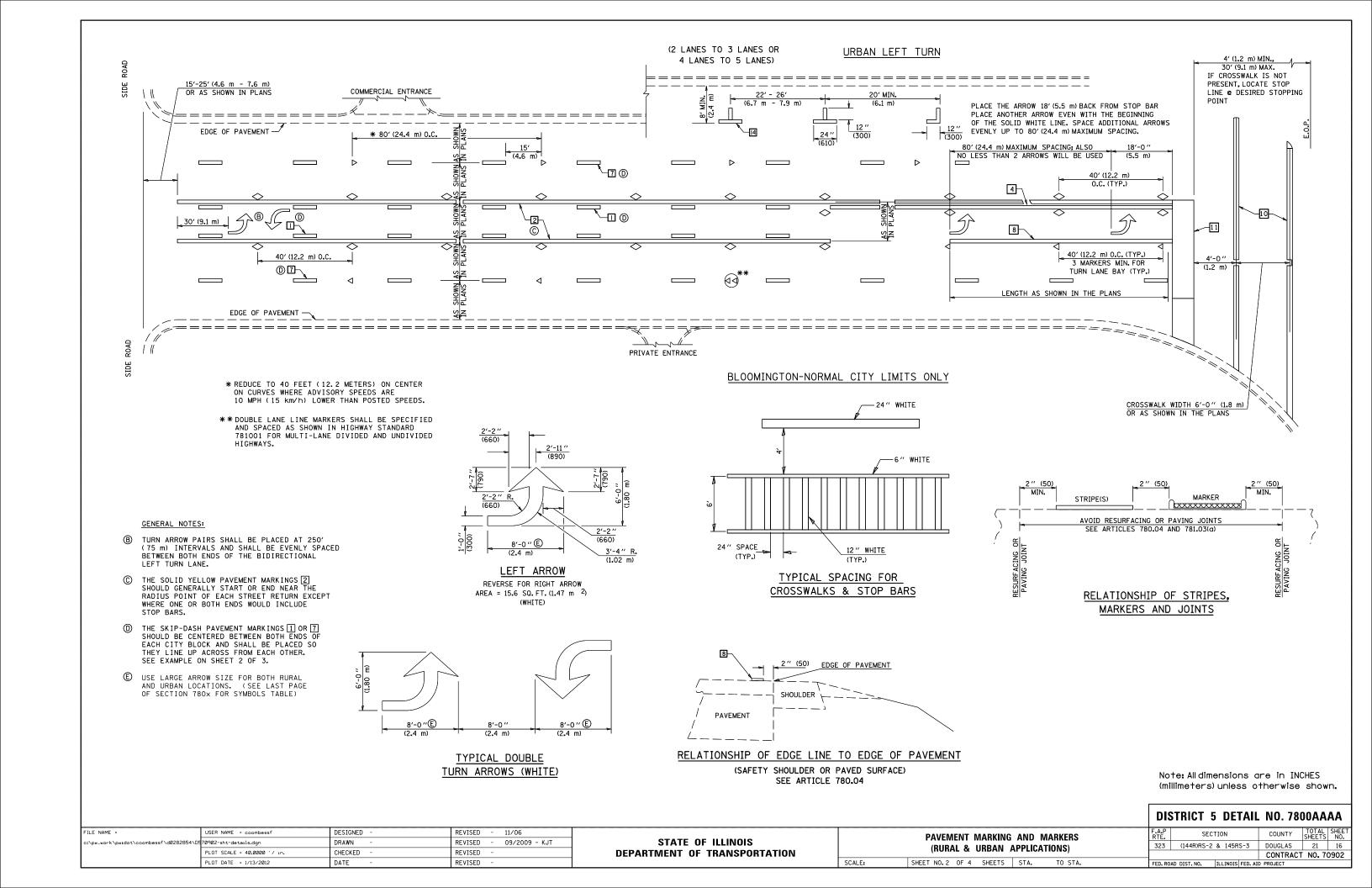
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	PLOT SCALE = 40.0000 '/ in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION		AND MAILBOX TURN	0018			CONTRAC	T NO. 70902
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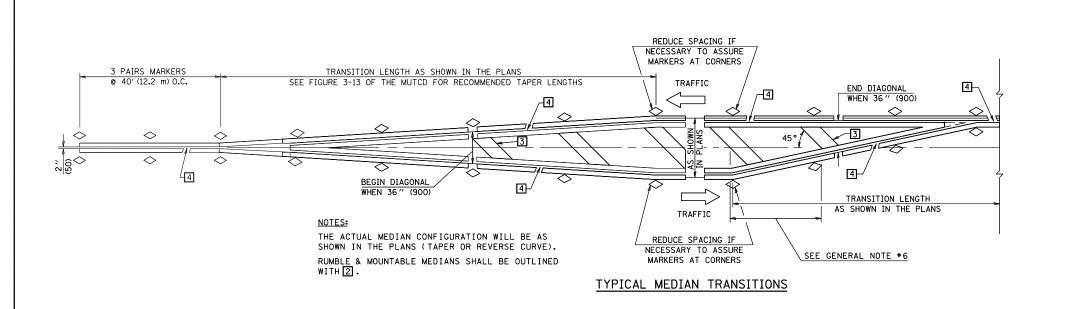
1/2" for "butt joints" and to minimize aggregate shoulder

if applicable use items: Preparation of Base & Aggregate Base

Repair, see PPM 30-02

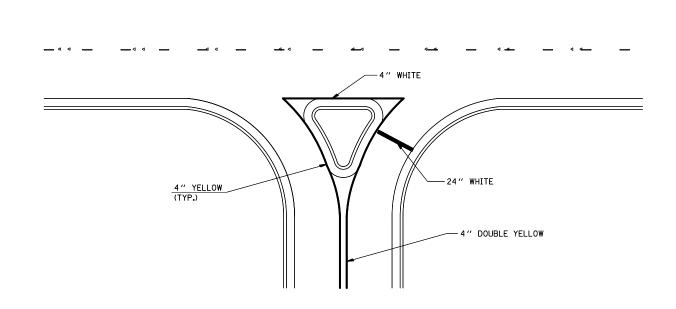




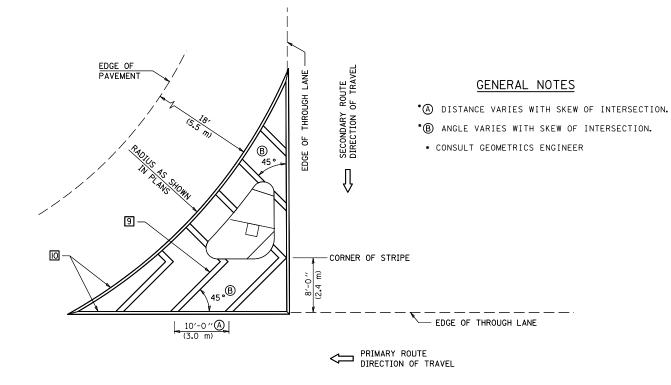


# GENERAL NOTES

- 1. WHEN MEDIANS ARE PRESENT, PAVEMENT MARKINGS ARE TO BE PLACED ADJACENT TO MEDIANS.
- SOME OF THE INFORMATION INCLUDED WITH THIS DETAIL MAY NOT BE APPLICABLE TO THIS IMPROVEMENT.
- PAVEMENT MARKINGS ARE TO BE EXTENDED THROUGH OMISSIONS WHEN APPLICABLE.
- 4. A STRIPING KEY IS AVAILABLE ELSEWHERE AND SHALL BE SHOWN WHERE THE QUANTITIES ARE LISTED.
- 5. FINAL PAVEMENT MARKINGS SHALL BE IN PLACE PRIOR TO PLACING ANY RAISED REFLECTIVE PAVEMENT MARKERS.
- 6. THE FOLLOWING CRITERIA SHALL BE USED FOR SELECTING THE DIAGONAL PAVEMENT MARKING SPACING, <30 MPH USE 15' (<50 km/h USE 4.5 m) 30-45 MPH USE 20' (50-75 km/h USE 6.0 m) >45 MPH USE 30' (>75 km/h USE 9.0 m)



RIGHT IN - RIGHT OUT ACCESS



<u>ISLAND</u>

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

							DISTRICT 5 DETAIL	L NO. 7800AAAA
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c:\pw_work\pwidot\coombessf\d0282854\D5	70902-sht-details.dgn	DRAWN -	REVISED - 09/2009 - KJT	STATE OF ILLINOIS		(RURAL & URBAN APPLICATIONS)	323 (144R)RS-2 & 145RS-3	DOUGLAS 21 17
	PLOT SCALE = 40.0000 '/ in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION		(RURAL & URBAN APPLICATIONS)		CONTRACT NO. 70902
	PLOT DATE = 1/13/2012	DATE -	REVISED -		SCALE:	SHEET NO. 3 OF 4 SHEETS STA. TO STA.	FED. ROAD DIST. NO.   ILLINOIS FED. A	AID PROJECT

# APPROXIMATELY 15' (4.5 m) OR 8' (2.4 m) BACK FROM AND PARALLEL TO GATE, IF PRESENT. 11 USE TABLE 2C-4 FROM THE MUTCD MANUAL FOR THIS DISTANCE 10' (3.05 m) NOTES \* Minimum Distance 400' for 55 MPH 250' for 45 MPH 100' for 35 MPH or Less THE TRAVERSE SPREAD OF THE "X" MAY VARY ACCORDING TO LANE WIDTH.

ON MULTI-LANE ROADS, THE STOP LINES SHALL EXTEND ACROSS ALL APPROACH

WHEN THE PAVEMENT MARKING SYMBOL

TO THE ADVANCE WARNING SIGN (W10-1) AS PLACED BY TABLE II-1, CONDITION B

IS USED, A PORTION OF THE SYMBOL SHOULD BE LOCATED DIRECTLY ADJACENT

EACH LANE.

OF THE MUTCD.

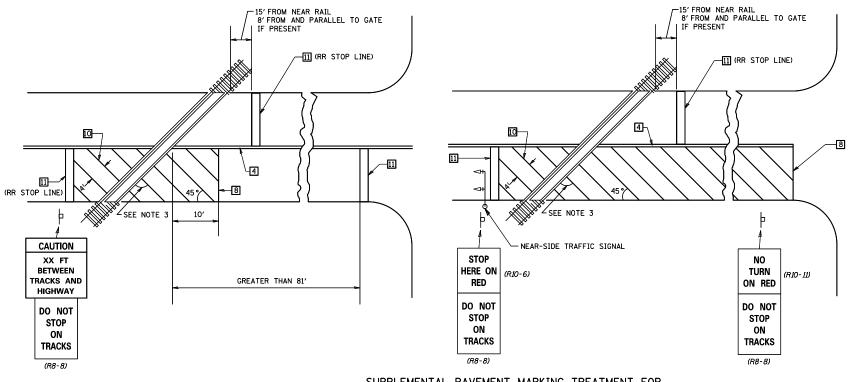
LANES AND SEPARATE RXR SYMBOLS SHALL BE PLACED ADJACENT TO EACH OTHER IN

# PAVEMENT MARKINGS AT RAILROAD-HIGHWAY GRADE CROSSING

50' (15.2 m)

# RAILROAD CROSSING WITH INTERCONNECT ONLY

### RAILROAD CROSSING WITH INTERCONNECT AND PRE-SIGNALS



# SUPPLEMENTAL PAVEMENT MARKING TREATMENT FOR RAILROAD-HIGHWAY GRADE CROSSING

# 8' (2.4 m) OR AS DIRECTED BY THE ENGINEER. 4 STD. R └ LANE ¢

# GENERAL NOTES

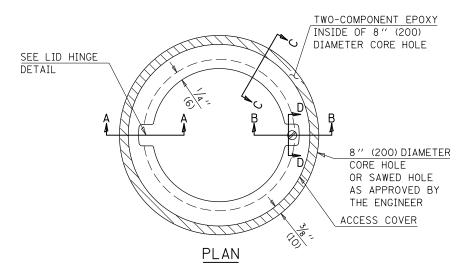
- SUPPLEMENTAL PAVEMENT MARKINGS TO BE INSTALLED ONLY ON APPROACHES TO INTERSECTIONS CONTROLLED BY TRAFFIC SIGNALS WHICH ARE INTERCONNECTED WITH THE RAILROAD WARNING SIGNALS.
- EXTEND PAVEMENT MARKINGS TO THE INTERSECTION ONLY WHERE NEAR-SIDE TRAFFIC SIGNALS ARE USED.
- WHERE THE ANGLE BETWEEN THE DIAGONAL PAVEMENT MARKINGS AND THE TRACK WOULD BE LESS THAN 20°, THE PAVEMENT MARKINGS SHOULD BE PLACED IN THE OPPOSITE DIRECTION FROM THAT SHOWN.

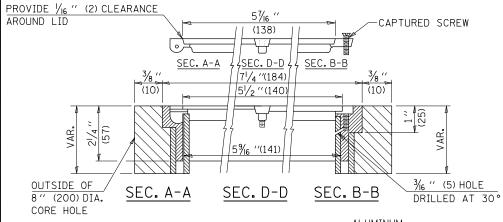
Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

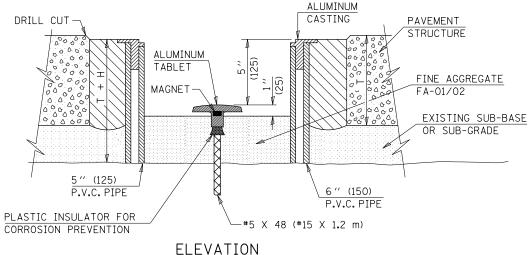
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	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION		(RURAL & URBAN APPLICATIONS)			CONTRAC	T NO. 70	902
	PLOT DATE = 1/13/2012	DATE -	REVISED -		SCALE:	SHEET NO. 4 OF 4 SHEETS STA. TO STA.	FED. RO	DAD DIST. NO.   ILLINOIS FED. A	ID PROJECT		

TO BE INSTALLED IN RIGID OR COMPOSITE PAVEMENT FOR PRESERVING LAND SURVEY MONUMENTS (SECTION OR SUBSECTION CORNERS)



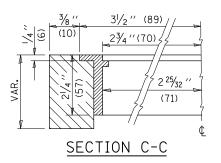


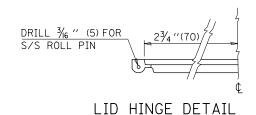


# LEGEND



- ALUMINUM CASTING
- 5" (125) OR 6" (150) P.V.C. PIPE
- TWO-COMPONENT EPOXY
- T = THICKNESS OF PAVEMENT STRUCTURE
- H = THE THICKNESS OF THE SUB-BASE GRANULAR + 1" (25)





SPECIFICATIONS FOR ACCESS COVER FOR USE WITH SURVEY MARKER VAULT(S) AND SURVEY MARKER COVER ASSEMBLY(S): THE ACCESS COVER WILL BE CAST FROM A SPECIAL ALUMINUM ALLOY THAT IS COMPARABLE TO BRONZE IN HARDNESS. THE ACCESS COVER SHALL BE SPECIALLY ENGINEERED AND DESIGNED TO PROVIDE A SNUG FIT, INCORPORATING EQUIDISTANT LOCKING RIDGES, INSIDE A STANDARD 6" (150 mm) DIAMETER, OR OUTSIDE A STANDARD 5" (125 mm) DIAMETER, SCHEDULE 40 PVC PIPE, THE ACCESS COVER SHALL HAVE SPECIAL UNIFORM 1" (25 mm) THICK TOP SURFACE TO PERMIT INFORMATION TO BE EASILY MACHINE-STAMPED INTO IT, THE ACCESS COVER SHALL INCLUDE A STAINLESS CAPTURED SCREW AND AN OPPOSING RECESSED HINGE ASSEMBLY AS ITS LOCKING MECHANISM. THE ACCESS COVER SHALL INCORPORATE A SPECIAL ACCESS HOLE FOR CLEANING AND DRAINAGE, DRILLED AT 30° INSIDE THE RING OF THE ACCESS COVER, TO THE DRILLED AND TAPPED HOLE PROVIDED FOR THE STAINLESS CAPTURED SCREW, COMPOSITION: ALUMINUM 92-93%; MAGNESIUM 6.5-7.5%. STRENGTH: YIELD - 19,000-21,000 PSI (131-145 MPa); TENSILE - 38,000-44,000 PSI (262-303 MPa); ELONGATION - 10-15% IN 2" (50 mm). SPECIFICATIONS: ALLOY 535.0; QQ-A-601Es. NO EXCEPTIONS.

RE-BAR-SURVEY MARKER, TYPE I, (SPECIAL) TO BE FURNISHED BY THE CONTRACTOR AND SET BY AN ILLINOIS PROFESSIONAL LAND SURVEYOR (SEE SPECIAL DETAIL SHEET FOR ALUMINUM TABLET AND RE-BAR SPECIFICATIONS).

### BILL OF MATERIAL

ALUMINUM CASTING OF THE DIMENSIONS AND SPECIFICATIONS SHOWN OR OTHER SUBJECT TO ENGINEER'S APPROVAL OF SHOP DRAWINGS, 5" OR 6" (125 mm OR 150 mm) DIAMETER P.V.C. PIPE, SCHEDULE 40, ALUMINUM TABLET, STAMPED IN ACCORDANCE WITH STANDARD 667101. 5%" X 48" (#15 X 1.2 m ) RE-BAR, EPOXY AND FA-01/02 AGGREGATE.

# GENERAL NOTES

- 1. ALUMINUM CASTING SHALL BE EITHER PLACED OVER A 5" (125 mm) P.V.C. PIPE OR INSIDE OF A 6" (150 mm) P.V.C. PIPE.
- 2. BACKFILL WITH FINE AGGREGATE FA-01/02.
- 3. WORK SHALL NOT START ON THIS ITEM UNTIL THE FINAL LIFT OF SURFACE HAS BEEN COMPLETED.
- 4. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR SURVEY MARKER VAULT WHICH PRICE SHALL INCLUDE ALL LABOR AND MATERIAL AS SPECIFIED INCLUDING CORING, EPOXY AND FA-01/02 AGGREGATE AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- 5. THE CASTING SHALL BE ANCHORED IN THE 8" (200 mm) DIAMETER CORE HOLE WITH TWO-COMPONENT EPOXY CONFORMING TO APPLICABLE PORTIONS OF ARTICLE 1025.01 OF THE STANDARD SPECIFICATIONS.
- 6. ALL SURVEY MARKER (VAULTS) SHALL BE PLACED  $1/4^{\prime\prime}$  (6 mm)  $\pm$  BELOW THE FINAL SURFACE.
- 7. THE 8" (200 mm) DIAMETER CORE HOLE SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.

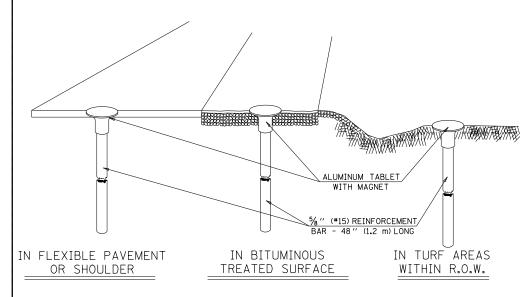
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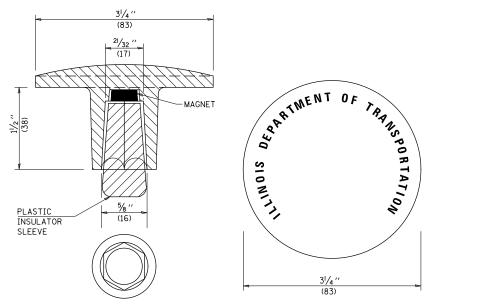
### DISTRICT 5 DETAIL NO. X0301232

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	PLOT SCALE = 40.0000 '/ in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION		F		C	ONTRACT NO	0. 70902	
	PLOT DATE = 1/13/2012	DATE -	REVISED -		SCALE: SHEET NO. OF SHEETS STA.	. TO STA.	FED. ROAD DIST, NO.	ILLINOIS FED. AI			

# XZ193300 - SURVEY MARKER, TYPE 1 (SPECIAL)

TO BE INSTALLED IN FLEXIBLE PAVEMENT OR SHOULDER, BITUMINOUS TREATED SURFACE AND TURF AREAS WITHIN THE RIGHT-OF-WAY FOR PRESERVING PERMANENT SURVEY MARKERS (PI'S, PT'S, PC'S, POC'S, & POT'S)





THE DIMENSIONS SHOWN SHALL BE EXACT, OTHERS MAY VARY, BUT SHALL BE SHOWN ON SHOP DRAWINGS.

### GENERAL NOTES

- THE CONTRACT UNIT PRICE, EACH, FOR SURVEY MARKER, TYPE 1 (SPECIAL) SHALL BE PAYMENT IN FULL FOR FURNISHING THE REINFORCEMENT BAR AND ALUMINUM TABLET AND FOR ALL LABOR AND MATERIAL REQUIRED TO SET THE MARKER IN PLACE.
- 2. ALL SURVEY MARKERS, TYPE 1 (SPECIAL) SHALL BE PLACED ± 1/4" (6 mm) BELOW THE FINAL SURFACE.
- 3. WHEN THE TABLET AND REBAR ARE PLACED AS PART OF A SURVEY MARKER VAULT, THEY SHALL BE CONSIDERED AS INCLUDED IN THAT PAY ITEM AND THERE WILL BE NO PAYMENT FOR THE SURVEY MARKER, TYPE 1 (SPECIAL).

DATE

REVISED

PLOT DATE = 1/13/2012

FILE NAME

# ( PI'S,

### SPECIFICATIONS FOR ALUMINUM TABLET

SURVEY CAP FOR REBAR. 31/4" (83 mm) CONVEX SURVEY CAP FOR 58" (15 mm) REBAR WITH ILLINOIS DEPARTMENT OF TRANSPORTATION LOGO. THIS LOGO SHALL PROVIDE LETTERS RECESSED INTO THE SURFACE A MINIMUM OF 1/32 " (0.8 mm) FOR EASY AND LONG-TERM LEGIBLITY.
THE ALUMINUM CAP FOR REBAR SHALL BE PRODUCED BY THE PROCESS OF ORBITAL FORGING TO PRODUCE A HIGH-STRENGTH AND DURABLE MARKER CAP WHICH WILL NOT CHIP OR BREAK AND PROVIDE A SMOOTH FINISH FOR STAMPING OF DATA IN THE FIELD.
THE ALUMINUM CAP FOR REBAR SHALL BE TAPERED FOR A PERFECT COMPRESSION FIT. A SPECIAL PLASTIC INSULATOR SHALL BE INSTALLED TO PREVENT DISSIMILAR METAL CONTACT AND CORROSION. THE PLASTIC INSULATOR SHALL FORM READILY TO THE OUTER SHAPE OF THE REBAR AND TO THE INNER SHAPE OF THE ALUMINUM CAP SOCKET. THE PLASTIC INSULATOR SHALL BE LOW DENSITY POLYETHYLENE, A MINIMUM 1/2" (38 mm) LONG AND CONFORM TO FEDERAL SPECIFICATION L-P 390.

COMPOSITION: ALUMINUM 98.3-98.7%; OTHER 1.3-1.7%; STRENGTH: YIELD 28 KSI (193 MPa), ULTIMATE 32 KSI (221 MPa). ELONGATION 15% IIN 2" (50 mm)]. SPECIFICATIONS: ALUMINUM ALLOY 6101-0; ASTM B317-83 (EXCEPT TEMPER) AS FORGED. NO EXCEPTIONS.

# SPECIFICATIONS FOR REBAR

REBAR FOR ALUMINUM TABLET. REINFORCEMENT BAR SHALL BE  $\frac{5}{8}$  " (#15) X 48" (1.2 m) (DEFORMED).

INSPECTION OF REINFORCEMENT BAR 5% " (\*15) SHALL BE DONE BY DISTRICT PERSONNEL OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION, DIVISION OF HIGHWAYS.

# XZ193400 - SURVEY MARKER, TYPE 2 (SPECIAL)

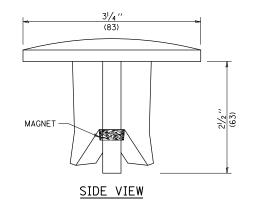
TO BE INSTALLED IN RIGID OR COMPOSITE PAVEMENT FOR PRESERVING PERMANENT SURVEY MARKERS (PI'S, PT'S, PC'S, POC'S, & POT'S)

# P.C. CONCRETE OR COMPOSITE PAVEMENT

### SPECIFICATIONS FOR ALUMINUM TABLET (FORKED)

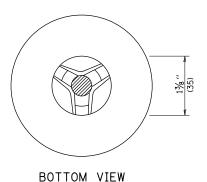
ALUMINUM TABLET (FORKED) FOR USE WITH "SURVEY MARKER, TYPE 2, (SPECIAL)" SHALL BE AS SHOWN ON THE DETAIL FOR THE 31/4" (83 mm) CONVEX SURVEY TABLET WITH ILLINOIS DEPARTMENT OF TRANSPORTATION LOGO. THIS LOGO SHALL PROVIDE FOR LETTERS RECESSED INTO THE SURFACE A MINIMUM OF 1/32" (0.8 mm) FOR EASY AND LONG-TERM LEGIBILITY. THE ALUMINUM TABLET SHALL BE PRODUCED BY THE PROCESS OF ORBITAL FORGING TO PRODUCE A HIGH-STRENGTH AND DURABLE MARKER CAP WHICH WILL NOT CHIP OR BREAK AND PROVIDE A SMOOTH FINISH FOR STAMPING OF DATA IN THE FIELD. THE ALUMINUM TABLET SHALL BE DESIGNED NOT TO TURN OR ROTATE. THREE PRONGS ON A 21/2" (63 mm) STEM SHALL BE SUCH THAT THE ALUMINUM TABLET CANNOT BE EASILY REMOVED.

COMPOSITION: ALUMINUM 92-93%; MAGNESIUM 6.5-7.5%. STRENGTH: YIELD 19,000-21,000 PSI (131-145 MPa); TENSILE 38,000-44,000 PSI (262-303 MPa); ELONGATION 10-15% IN 2" (50 mm)]. SPECIFICATIONS: ALLOY 535.0; QQ-A-601ES. NO EXCEPTIONS.



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THE DIMENSIONS SHOWN SHALL BE EXACT, OTHERS MAY VARY, BUT SHALL BE SHOWN ON SHOP DRAWINGS.

# GENERAL NOTES

- WORK ON THIS ITEM SHALL NOT START UNTIL THE FINAL SURFACE IS COMPLETED.
- THE ALUMINUM TABLET (FORKED) SHALL REST UPON THE BOTTOM OF THE 4" (100 mm) CORE HOLE. IF THE HOLE IS TOO DEEP, EPOXY GROUT MUST BE USED TO DECREASE THE DEPTH AND ALLOWED TO HARDEN BEFORE PROCEEDING.
- 3. THE ALUMINUM TABLET SHALL BE ANCHORED IN THE 4" (100 mm) DIAMETER HOLE IN THE NEW PAVEMENT WITH TWO-COMPONENT EPOXY CONFORMING TO APPLICABLE PORTIONS OF ARTICLE 1025.01 OF THE STANDARD SPECIFICATIONS.

SCALE:

- 4. THE 4" (100 mm) CORE HOLE SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.
- 5. THE CONTRACT PRICE, EACH, FOR SURVEY MARKER, TYPE 2 (SPECIAL) SHALL BE PAYMENT IN FULL FOR FURNISHING THE ALUMINUM TABLET AND FOR ALL LABOR AND MATERIAL REQUIRED TO SET THE MARKER IN PLACE, AS SPECIFIED, INCLUDING CORING THE NEW PAYEMENT.
- 6. ALL SURVEY MARKERS, TYPE 2 (SPECIAL) SHALL BE PLACED ± 1/4" (6 mm) BELOW THE FINAL SURFACE.

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

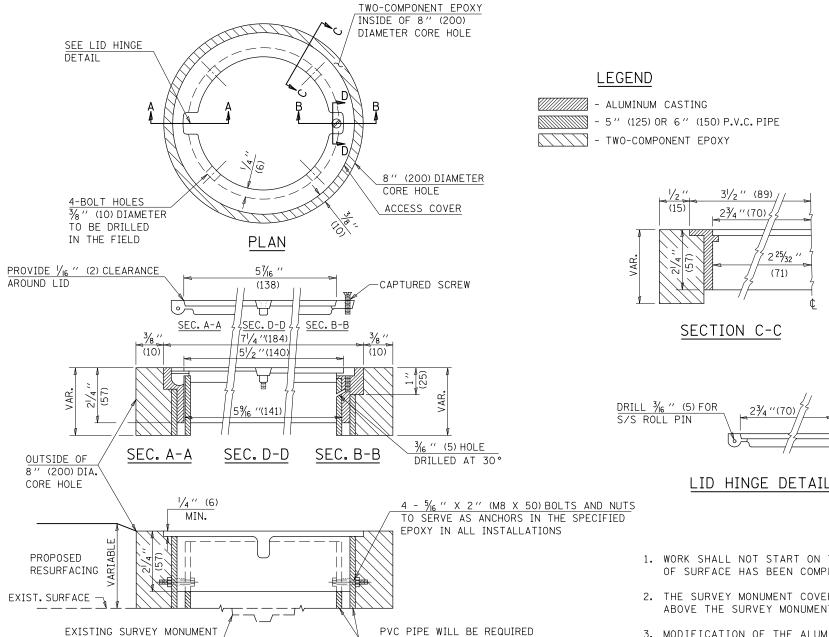
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

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ork\pwidot\coombessf\d0282854\D5	70902-sht-details.dgn	DRAWN -	REVISED - 11/10	STATE OF ILLINOIS	SURVEY M	<b>MARKERS TYPE 1</b>	& 2 (SPECIAL)	323	(144R)RS-2 & 145RS-3	DOUGLAS	21	20
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TO BE INSTALLED IN ALL PAVEMENT TYPES FOR PRESERVING PERMANENT SURVEY MARKERS (PI'S, PT'S, PC'S, POC'S, & POT'S) AND LAND SURVEY MONUMENTS (SECTION OR SUBSECTION CORNERS)

TO BE PROTECTED

ELEVATION



WHEN ASPHALT DEPTH IS

GREATER THAN  $2\frac{1}{2}$ " (65)

SPECIFICATIONS FOR ACCESS COVER FOR USE WITH SURVEY MARKER VAULT(S) AND SURVEY MARKER COVER ASSEMBLY(S): THE ACCESS COVER WILL BE CAST FROM A SPECIAL ALUMINUM ALLOY THAT IS COMPARABLE TO BRONZE IN HARDNESS. THE ACCESS COVER SHALL BE SPECIALLY ENGINEERED AND DESIGNED TO PROVIDE A SNUG FIT, INCORPORATING EQUIDISTANT LOCKING RIDGES, INSIDE A STANDARD 6" (150 mm) DIAMETER, OR OUTSIDE A STANDARD 5" (125 mm) DIAMETER, SCHEDULE 40 PVC PIPE, THE ACCESS COVER SHALL HAVE SPECIAL UNIFORM 1" (25 mm) THICK TOP SURFACE TO PERMIT INFORMATION TO BE EASILY MACHINE-STAMPED INTO IT. THE ACCESS COVER SHALL INCLUDE A STAINLESS CAPTURED SCREW AND AN OPPOSING RECESSED HINGE ASSEMBLY AS ITS LOCKING MECHANISM. THE ACCESS COVER SHALL INCORPORATE A SPECIAL ACCESS HOLE FOR CLEANING AND DRAINAGE, DRILLED AT 30° INSIDE THE RING OF THE ACCESS COVER, TO THE DRILLED AND TAPPED HOLE PROVIDED FOR THE STAINLESS CAPTURED SCREW, COMPOSITION: ALUMINUM 92-93%; MAGNESIUM 6.5-7.5%. STRENGTH: YIELD - 19,000-21,000 PSI (131-145 MPa); TENSILE - 38,000-44,000 PSI (262-303 MPa); ELONGATION - 10-15% IN 2" (50 mm). SPECIFICATIONS: ALLOY 535.0; QQ-A-601Es. NO EXCEPTIONS.

### BILL OF MATERIAL

ALUMINUM CASTING OF THE DIMENSIONS AND SPECIFICATIONS SHOWN OR OTHER SUBJECT TO ENGINEER'S APPROVAL OF SHOP DRAWINGS, 4 EACH -  $\frac{1}{16}$  " X 2" (M8 X 50) BOLTS WITH NUTS, EPOXY, 5" OR 6" (125 mm OR 150 mm) DIAMETER P.V.C. PIPE, SCHEDULE 40 (WHEN REQUIRED).

# GENERAL NOTES

- 1. WORK SHALL NOT START ON THIS ITEM UNTIL THE FINAL LIFT OF SURFACE HAS BEEN COMPLETED.
- 2. THE SURVEY MONUMENT COVER ASSEMBLY SHALL BE CENTERED ABOVE THE SURVEY MONUMENT TO BE PROTECTED.
- 3. MODIFICATION OF THE ALUMINUM CASTING SHALL BE DONE BY GRINDING OR SAWING WHEN HEIGHT REDUCTION IS REQUIRED.
- 4. ALL SURVEY MONUMENT COVER ASSEMBLIES SHALL BE PLACED 1/4" (6 mm) ± BELOW THE FINAL SURFACE.
- 5. ALUMINUM CASTING SHALL BE PLACED OVER A 5" (125 mm) P.V.C. PIPE OR INSIDE OF A 6" (150 mm) P.V.C. PIPE WHEN AN INCREASE IN HEIGHT IS REQUIRED.

- 6. THE CASTING SHALL BE ANCHORED IN THE 8" (200 mm) DIAMETER CORE HOLE WITH TWO-COMPONENT EPOXY CONFORMING TO APPLICABLE PORTIONS OF ARTICLE 1025.01 OF THE STANDARD SPECIFICATIONS.
- 7. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR SURVEY MONUMENT COVER ASSEMBLY WHICH PRICE SHALL INCLUDE ALL LABOR AND MATERIAL AS SPECIFIED INCLUDING CORING THE NEW PAVEMENT SURFACE AND EPOXY. NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- 8. THE 8" (200 mm) DIAMETER CORE HOLE SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

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c:\pw_work\pwidot\coombessf\d0282854\D	570902-sht-details.dgn	DRAWN -	REVISED -	STATE OF ILLINOIS	SURVEY MONUMENT COVER ASSEMBLY		323	(144R)RS-2 & 145RS-3	DOUGLAS	21	21
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