

FAS ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
500	*	VERMILION	18	1

* (33,116 SPUR)RS-1
 CONTRACT NO. 70556
 D-95-077-06

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
PLANS FOR PROPOSED
HIGHWAY IMPROVEMENT

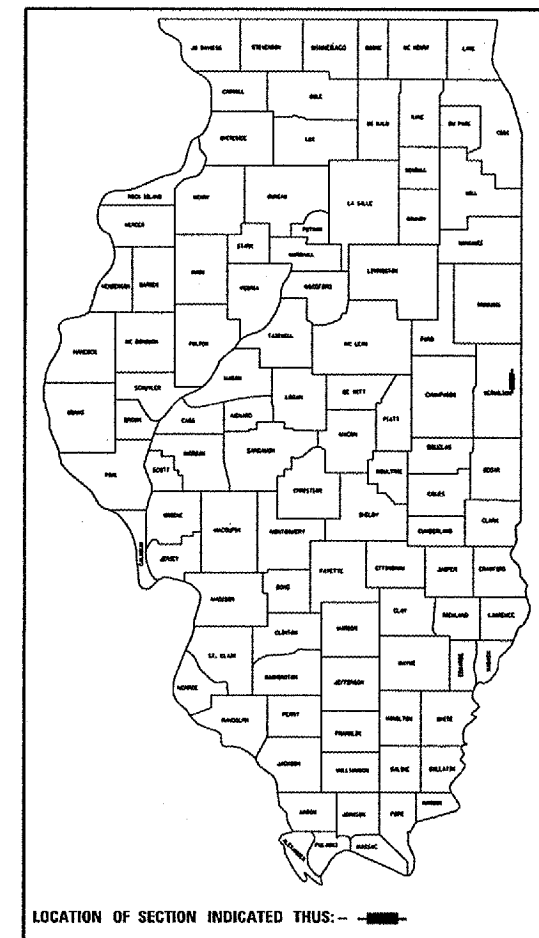
FOR INDEX OF SHEETS, SEE SHEET NO. 2
 FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 4

SCALES (PLAN N/A
 PROFILE HORIZ. N/A
 PROFILE VERT. N/A
 CROSS SECTIONS N/A)

F.A.U. ROUTE 7045 /F.A.S. ROUTE 500 (BOWMAN AVE.)
SECTION (33,116 SPUR)RS-1
VERMILION COUNTY

C-95-077-06

PAVING FROM IL 119 TO TR 181 (NEWELL RD)



(217)465-4181

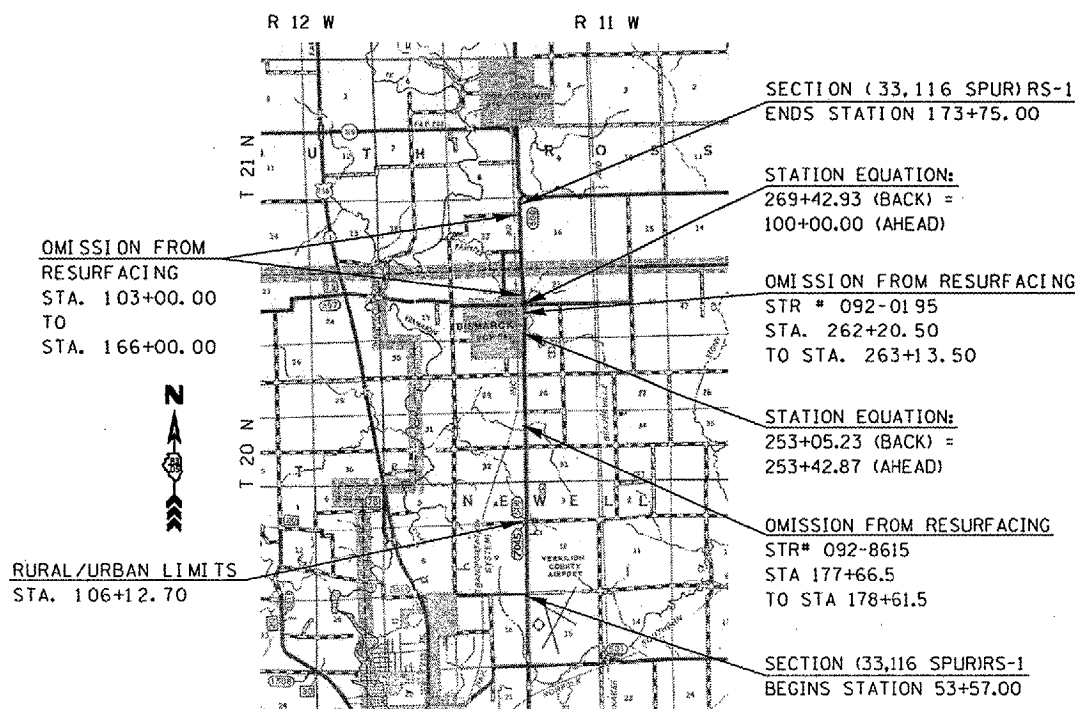
PROJECT ENGINEER: KENSIL GARNETT

SQUAD LEADER: CORY SHEEHY

DESIGNER: CORY SHEEHY

CURRENT ADT /DESIGN ADT
 CURRENT ADT 4,700 (2006)

DESIGN DESIGNATION
 RURAL MAJOR COLLECTOR



STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

SUBMITTED May 19, 2006
Joseph E. Conner
 DEPUTY DIRECTOR OF HIGHWAYS, REGIONAL FREE ENGINEER

June 30, 2006
Mike Hine
 ENGINEER OF DESIGN AND ENVIRONMENT

June 30, 2006
Milton R. Seep
 DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

FOR UNDERGROUND UTILITY LOCATIONS CALL
 TOLL FREE J.U.L.I.E. TELEPHONE NO.
 1-800-892-0123
 NEWELL OR S. ROSSVILLE TWP.

CONTRACT NO. 70556

TOTAL LENGTH OF SECTION & PROJECT = 28,948.29 FEET = 5.483 MILES
 NET LENGTH OF SECTION & PROJECT = 22,435.29 FEET = 4.249 MILES

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F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
500	.	VERMILION	18	2

• (33,116 SPURS-1
CONTRACT NO. 70556

INDEX OF SHEETS

<u>SHEET NO.</u>	<u>DESCRIPTION</u>
1	COVER SHEET
2	INDEX OF SHEETS / LIST OF STANDARDS
3	GENERAL NOTES
4	SUMMARY OF QUANTITIES
5-7	TYPICAL CROSS SECTIONS
8	SCHEDULE OF QUANTITIES
9	SIDEROAD, ENTRANCE, AND MAILBOX TURN-OUT SCHEDULE
10-11	ALIGNMENT TIES
12	SIDEROAD, ENTRANCE DETAILS
13	BUTT JOINT DETAIL
14	PERMANENT SURVEY MARKERS DETAILS
15-18	TYPICAL APPLICATIONS OF PAVEMENT MARKERS AND MARKINGS

LIST OF STANDARDS

<u>STANDARD NO.</u>	<u>NAME OF STANDARD</u>
001006	DECIMAL OF AN INCH AND OF A FOOT
701011-01	TRAFFIC CONTROL & PROTECTION OFF ROAD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701301-02	TRAFFIC CONTROL & PROTECTION LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701311-02	TRAFFIC CONTROL & PROTECTION LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
701306-01	TRAFFIC CONTROL & PROTECTION LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS DAY ONLY, FOR SPEEDS > 45 MPH
702001-06	TRAFFIC CONTROL DEVICES
780001-01	TYPICAL PAVEMENT MARKINGS
781001-02	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
500	*	VERMILION	18	3

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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. -406

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

G. N. -406H

MIXTURE REQUIREMENTS

THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT:

Location(s):	BOWMAN AVE.	BOWMAN AVE.
Mixture Use(s):	SURFACE	LVL BINDER
AC/PG:	PG 64-22	PG 64-22
RAP %: (Max)	15%	15%
Design Air Voids:	4.0% @Ndes=50	4.0% @Ndes=50
Mixture Composition: (Gradation Mixture)	IL 9.5	
Friction Aggregate:	MIX D	MIX C

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 SETTING 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. -1004.03

REVISE ARTICLE 1004.03 (c) NOTE 5/ OF THE STANDARD SPECIFICATIONS TO READ:

'5/ GRADATION CA-16 SHALL BE USED IN LIEU OF CA-13 WHEN THE SURFACE COURSE IS LESS THAN 1 3/4 INCHES IN THICKNESS. CA-13 OR CA-16 MAY BE USED WHEN THE SURFACE COURSE IS 1 3/4 INCHES OR MORE IN THICKNESS.'

NO COMMITMENTS

SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	TOTAL QUANTITY	LOCATION OF WORK:	
				FAU 7045 STA. 53+57.00 TO STA. 106+12.70 100% STATE	FAS 500 STA. 106+12.70 TO STA. 173+75.00 100% STATE
				CONSTRUCTION TYPE CODE:	
				1000	1000
				URBAN	RURAL
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	12,382.0	2,803.0	9,579.0
40600300	AGGREGATE (PRIME COAT)	TON	248.0	56.0	192.0
40600980	BITUMINOUS SURFACE REMOVAL - BUTT JOINT	SQ YD	617.0	66.7	550.3
40600990	TEMPORARY RAMP	SQ YD	103.0	11.1	91.9
48101200	AGGREGATE SHOULDERS, TYPE B	TON	1,579.0	184.9	1,394.1
66700110	PERMANENT SURVEY MARKERS TO BE ADJUSTED	EACH	2.0	0.0	2.0
67100100	MOBILIZATION	L SUM	1.0	0.2	0.8
70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	L SUM	1.0	0.2	0.8
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	4,488.0	525.6	3,962.4
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	1,496.0	175.2	1,320.8
• 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	50,479.0	5,255.7	45,223.3
• 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	280.0	66.0	214.0
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	280.0	66.0	214.0
X0301232	SURVEY MARKER VAULT	EACH	9.0	1.0	8.0
X4066424	BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIX "D", N50	TON	4,265.0	981.1	3,283.9
X4066765	LEVELING BINDER (MACHINE METHOD), SUPERPAVE N50	TON	2,551.0	588.6	1,962.4

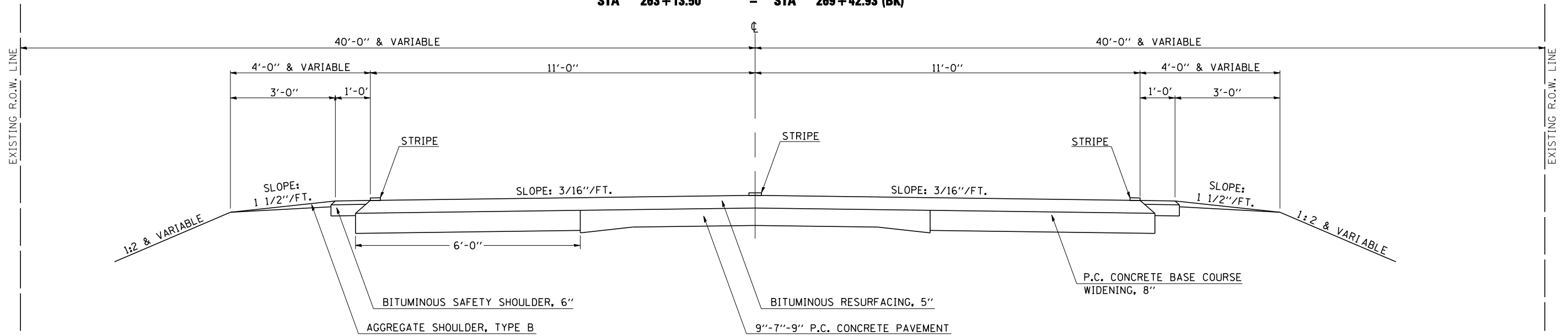
• DENOTES SPECIALITY ITEMS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
500	*	VERMILION	18	5

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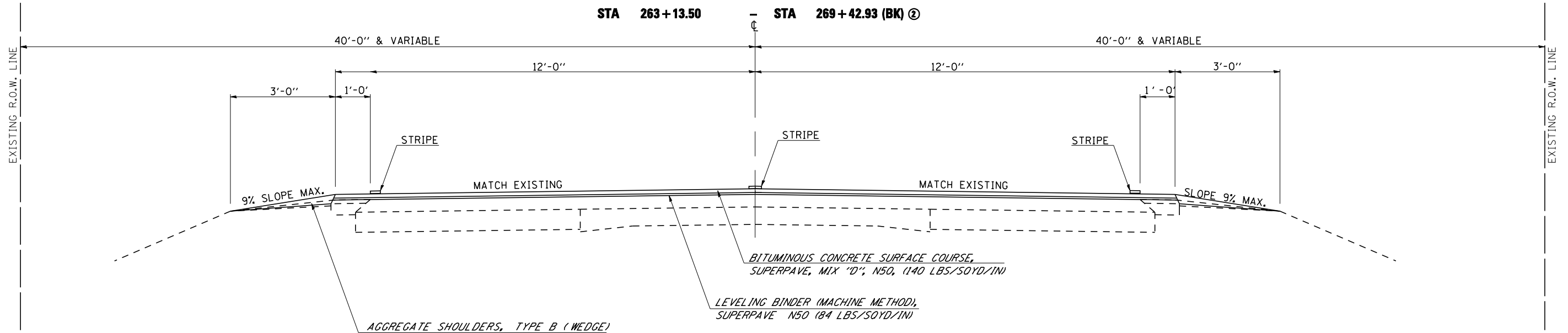
EXISTING TYPICAL CROSS SECTION

- STA 53 + 57.00 - STA 177 + 66.50
- STA 177 + 66.50 - STA 178 + 61.50 PAVING OMISSION
- STA 178 + 61.50 - STA 253 + 05.23 (BK)
- STA 253 + 42.87 (AH) - STA 262 + 20.50
- STA 262 + 20.50 - STA 263 + 13.50 PAVING OMISSION
- STA 263 + 13.50 - STA 269 + 42.93 (BK)



PROPOSED TYPICAL CROSS SECTION ①

- STA 53 + 57.00 - STA 177 + 66.50
- STA 177 + 66.50 - STA 178 + 61.50 PAVING OMISSION
- STA 178 + 61.50 - STA 253 + 05.23 (BK)
- STA 253 + 42.87 (AH) - STA 262 + 20.50
- STA 262 + 20.50 - STA 263 + 13.50 PAVING OMISSION
- STA 263 + 13.50 - STA 269 + 42.93 (BK) ②



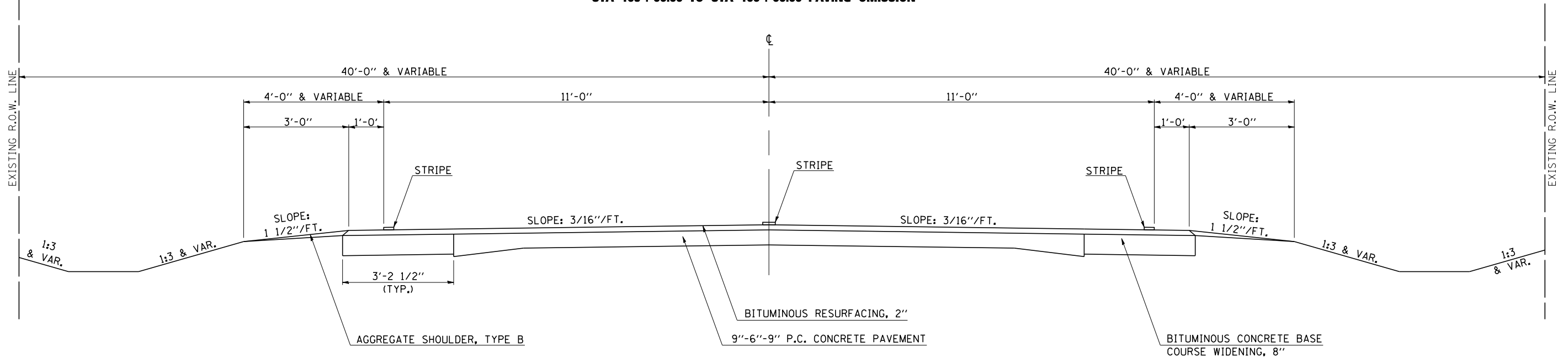
NOTE: ALL SIDEROADS, ENTRANCES, AND MAIL BOX TURN-OUTS SHALL BE CONSTRUCTED MONOLITHIC WITH THE SURFACE COURSE

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
500	*	VERMILION	18	6

(33,116 SPURRS-1
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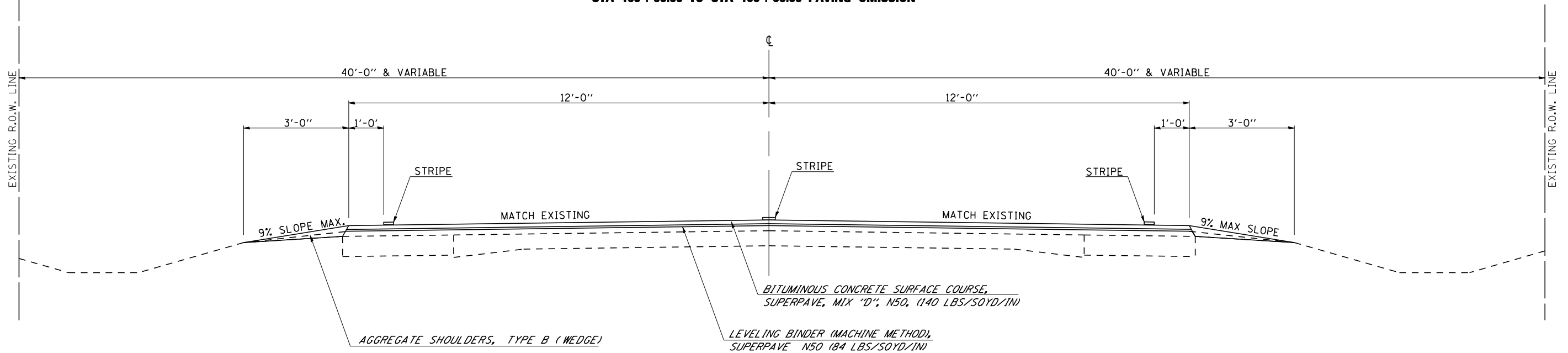
EXISTING TYPICAL CROSS SECTION

STA 100+00.00 (AH) TO STA 139+00.00
STA 103+00.00 TO STA 166+00.00 PAVING OMISSION



PROPOSED TYPICAL CROSS SECTION ②

① STA 100+00.00 (AH) TO STA 139+00.00 ③
STA 103+00.00 TO STA 166+00.00 PAVING OMISSION



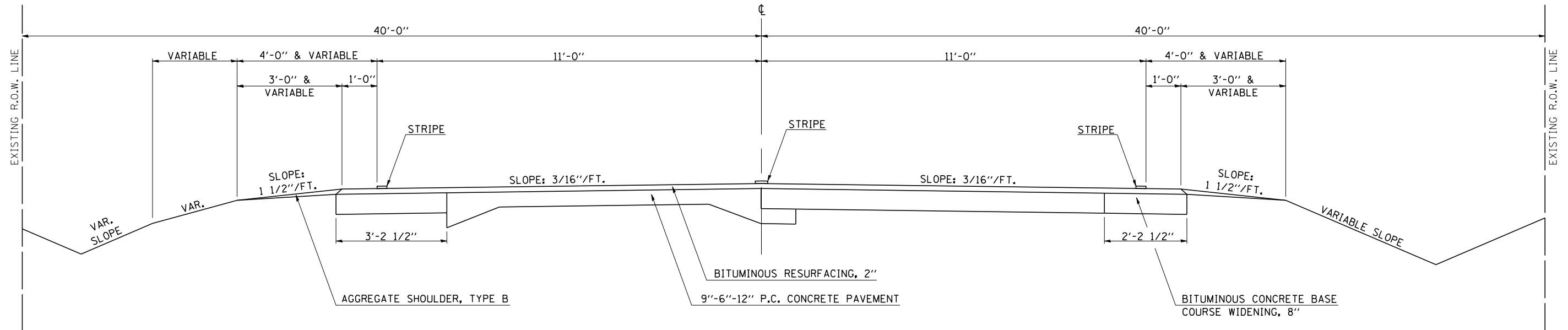
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F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
500	*	VERMILION	18	7

EXISTING TYPICAL CROSS SECTION

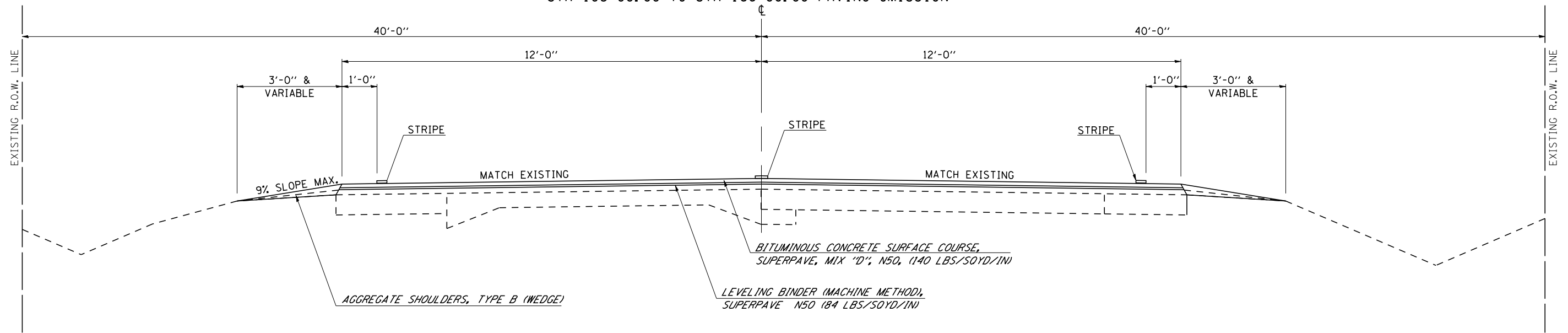
STA 139+00.00 TO STA 173+75.00
 STA 103+00.00 TO STA 166+00.00 PAVING OMISSION

(33,116 SPURRS-1
 CONTRACT NO. 70556



PROPOSED TYPICAL CROSS SECTION ③

② STA 139+00.00 TO STA 173+75.00
 STA 103+00.00 TO STA 166+00.00 PAVING OMISSION



NOTE: ALL SIDEROADS, ENTRANCES, AND MAIL BOX TURN-OUTS SHALL BE CONSTRUCTED MONOLITHIC WITH THE SURFACE COURSE

SCHEDULE OF QUANTITIES

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
500	•	VERMILION	18	8

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BITUMINOUS SURFACE REMOVAL (BUTT JOINT)					
STA.	TO STA	WIDTH FT	LENGTH FT	AREA SQ YD	
URBAN	53+57.00	53+82.00	24	25	66.67
RURAL	177+41.50	177+66.5	33	25	91.67
	178+61.50	178+86.5	33	25	91.67
	261+95.50	262+20.5	30	25	83.33
	263+13.50	263+38.5	30	25	83.33
	102+75.00	103+00.0	24	25	66.67
	166+00.00	166+25.0	24	25	66.67
	173+50.00	173+75.0	24	25	66.67
				TOTAL	616.7 SOYDS
				USE	617.0 SOYDS

PERMANENT SURVEY MARKERS TO BE ADJUSTED			
RURAL	STA	DESCRIPTION	EACH
	162+86.94	W 1/4 SEC. 33	1
	189+34.42	NW COR SEC. 33-21-11	1
			TOTAL
			2 EACH

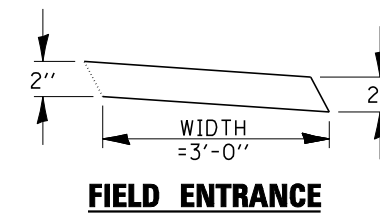
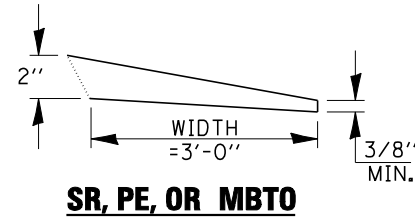
SURVEY MARKER VAULT				
URBAN	RURAL	STA	DESCRIPTION	EACH
		79+63.04	W 1/4 SEC. 10-20-11	1
		106+18.11	NW COR SEC. 10-20-11	1
		128+35.15	PC	1
		131+35.15	PI	1
		134+35.10	PT	1
		140+35.33	PI	1
		186+34.42	PC	1
		192+34.42	PI	1
		269+42.93	PI	1
			TOTAL	9 EACH

TEMPORARY RAMP						
URBAN	RURAL	STA.	TO STA	WIDTH FT	LENGTH FT	AREA SQ YD
		53+57.00	53+61.17	24	4.2	11.11
		177+62.33	177+66.50	33	4.2	15.28
		178+61.50	178+65.67	33	4.2	15.28
		262+16.33	262+20.50	30	4.2	13.89
		263+13.50	263+17.67	30	4.2	13.89
		102+95.83	103+00.00	24	4.2	11.11
		166+00.00	166+04.17	24	4.2	11.11
		173+70.83	173+75.00	24	4.2	11.11
					TOTAL	102.8
					USE	103.0

PAVMENT MARKINGS & MARKERS														
URBAN	RURAL	STA.	TO STA	LENGTH FT	PAINT PVMT MARK LINE, 4" LT. EDGE C. L. SKIP RT. EDGE LINE DASH LINE			SHORT TERM PVMT MARKINGS C. L. SKIP DASH 2 AP FT		WORK ZONE PVMT MARKER REMOVAL C. L. SKIP DASH 2 AP SOFT		RAISED REFL PVMNT MKRS EACH	RAISED REFL PVMNT MKRS REMOVAL EACH	URBAN
		53+57.00	106+12.70	5,255.70	5,255.70	1,313.93	5,255.70	525.57		175.19		66	66	URBAN
		106+12.70	175+28.00	6,915.30	6,915.30	1,728.83	6,915.30	691.53		230.51		86	86	RURAL
		175+28.00	177+66.50	238.50	238.50	59.63	238.50	23.85		7.95		3	3	
		178+61.50	180+98.00	236.50	236.50	59.13	236.50	23.65		7.88		3	3	
		180+98.00	253+05.23	7,207.23	7,207.23	1,801.81	7,207.23	720.72		240.24		90	90	
		253+42.87	258+97.00	554.13	554.13	138.53	554.13	55.41		18.47		7	7	
		258+97.00	262+20.50	323.50	323.50	80.88	323.50	32.35		10.78		4	4	
		263+13.50	266+33.00	319.50	319.50	79.88	319.50	31.95		10.65		4	4	
		266+33.00	269+42.93	309.93	309.93	77.48	309.93	30.99		10.33		4	4	
		100+00.00	103+00.00	300.00	300.00	75.00	300.00	30.00		10.00		4	4	
		166+00.00	173+75.00	775.00	775.00	193.75	775.00	77.50		25.83		10	10	
				TOTAL LENGTH	22,435.29	22,435.29	5,608.82	22,435.29	2,243.53		747.84	280	280	
					TOTAL	50,479.4 FEET	(X2 APPS) 4,487.06	(X2 APPS) 1,495.69	TOTAL	280 EACH	TOTAL	280 EACH		
					USE	50,479.0 FEET	TOTAL	4,488.0 FEET	TOTAL	1,496.0 SQFT				

SIDEROAD, PRIVATE AND COMMERCIAL ENTRANCE, AND MAIL BOX TURN-OUTS QUANTITIES

(TO BE PULLED WITH MAINLINE)



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O/S	STA	TYPE	AVE LENGTH (FT)	ORIG WIDTH	PROP. WIDTH	AREA (SQFT)	AREA (SQYD)	MIX (TON)	
LT	68+36.00	FE	38	3	3	114.00	12.67	0.12	
RT	77+40.00	FE	34	3	3	102.00	11.33	0.11	
RT	77+97.00	PE	29.5	10	3	351.05	39.01	0.22	
RT	79+62.00	PE	30	10	3	357.00	39.67	0.22	
LT	79+69.00	MBTO - PE	80	0	3	240.00	26.67	0.15	
RT	80+24.00	PE	37.5	10	3	446.25	49.58	0.27	
LT	88+65.00	MBTO	45	7	3	346.50	38.50	0.21	
RT	88+87.00	PE	31.5	10	3	374.85	41.65	0.23	
LT	90+72.00	MBTO	45	7	3	346.50	38.50	0.21	
RT	90+78.00	PE	30.5	10	3	362.95	40.33	0.22	
RT	93+49.00	PE	73		3	219.00	24.33	0.13	
LT	92+50.00	PE - MBTO	70		3	210.00	23.33	0.13	
LT	97+57.00	MBTO	49	7	3	377.30	41.92	0.23	
RT	97+64.00	PE	45	10	3	535.50	59.50	0.33	
LT	100+44.00	PE	30	10	3	357.00	39.67	0.22	
LT	101+54.00	PE - MBTO	64		3	192.00	21.33	0.12	
LT	102+88.00	PE	31.5	10	3	374.85	41.65	0.23	
LT	106+13.00	TR 169	78		3	234.00	26.00	0.14	
URBAN TOTAL								3.50	
RT	106+13.00	TR169	78		3	234.00	26.00	0.14	
LT	116+84.00	PE MBTO	66		3	198.00	22.00	0.12	
RT	117+94.00	FE	45.5	3	3	136.50	15.17	0.14	
RT	122+16.00	FE	41	3	3	123.00	13.67	0.13	
LT	123+49.00	PE	30	10	3	357.00	39.67	0.22	
LT	125+20.00	PE - MBTO	66		3	198.00	22.00	0.12	
LT	125+85.00	PE	32	10	3	380.80	42.31	0.23	
LT	128+63.00	PE	41.5	10	3	493.85	54.87	0.30	
RT	133+00.00	FE	42	3	3	126.00	14.00	0.13	
RT	136+35.00	PE	29.5	10	3	351.05	39.01	0.22	
LT	138+85.00	PE	29	10	3	345.10	38.34	0.21	
LT	139+35.00	PE	31	10	3	368.90	40.99	0.23	
RT	145+03.00	FE	42	3	3	126.00	14.00	0.13	
LT	151+34.00	PE -MBTO	72		3	216.00	24.00	0.13	
RT	153+66.00	FE	42	3	3	126.00	14.00	0.13	
LT	162+77.00	TR 155A	94		3	282.00	31.33	0.17	
RT	162+77.00	TR 155A	83		3	249.00	27.67	0.15	
						TOTALS	9851.95	1094.66	6.43

• DENOTES EXISTING PCC

O/S	STA	TYPE	AVE LENGTH (FT)	ORIG WIDTH	PROP. WIDTH	AREA (SQFT)	AREA (SQYD)	MIX (TON)	
RT	175+77.00	PE	51	10	3	606.90	67.43	0.37	
LT	176+14.00	PE - MBTO	55		3	165.00	18.33	0.10	
LT	189+26.00	FE	44	3	3	132.00	14.67	0.14	
RT	189+34.00	TR 147A	63		3	189.00	21.00	0.12	
LT	191+92.00	PE - MBTO	83		3	249.00	27.67	0.15	
LT	193+21.00	PE	36.5	10	3	434.35	48.26	0.27	
LT	193+96.00	PE - MBTO	100		3	300.00	33.33	0.18	
LT	195+50.00	PE - MBTO - PE	121		3	363.00	40.33	0.22	
LT	196+47.00	FE	35.5	3	3	106.50	11.83	0.11	
RT	202+56.00	FE	45.5	3	3	136.50	15.17	0.14	
LT	202+72.00	FE	44.5	3	3	133.50	14.83	0.14	
LT	216+00.00	TR 147	115		3	345.00	38.33	0.21	
RT	216+00.00	TR 147	115		3	345.00	38.33	0.21	
LT	242+49.00	FE	52.5	3	3	157.50	17.50	0.16	
RT	242+49.00	FE	52	3	3	156.00	17.33	0.16	
LT	256+50.00	CE	41	10	3	487.90	54.21	0.30	
LT	259+27.00	CE	42.5	7	3	327.25	36.36	0.20	
RT	261+55.00	FE	42	3	3	126.00	14.00	0.13	
LT	263+57.00	CE	48	7	3	369.60	41.07	0.23	
LT	264+24.00	CE	48	7	3	369.60	41.07	0.23	
LT	265+10.00	CE	46	7	3	354.20	39.36	0.22	
LT	265+90.00	CE	51	7	3	392.70	43.63	0.24	
LT	266+86.00	CE	53	10	3	630.70	70.08	0.39	
LT	267+96.00	CE	60	10	3	714.00	79.33	0.44	
LT	268+67.00	CE	50	10	3	595.00	66.11	0.37	
LT	100+00.00	BISMARCK RD.	130		3	390.00	43.33	0.24	
RT	10+00.00	BISMARCK RD.	95		3	285.00	31.67	0.18	
LT	100+59.00	GUTTER TRANS.	15		3	45.00	5.00	0.03	
LT	100+98.00	CE	51.5	10	3	612.85	68.09	0.38	
LT	101+62.00	CE	45.5	10	3	541.45	60.16	0.33	
RT	166+00.00	FE	43	3	3	129.00	14.33	0.13	
LT	166+14.00	TR 392	67		3	201.00	22.33	0.12	
RT	170+80.00	FE	42	3	3	126.00	14.00	0.13	
LT	171+35.00	MBTO	55	7	3	423.50	47.06	0.26	
LT	172+37.00	PE	33.5	10	3	398.65	44.29	0.25	
						TOTALS	9,562.40	1,062.49	7.49

• DENOTES EXISTING PCC

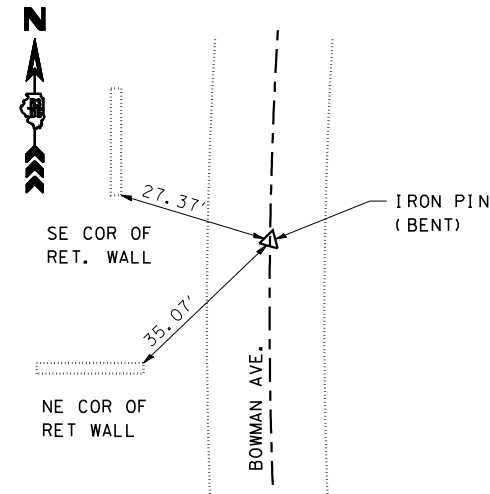
GRAND TOTAL	URBAN	RURAL	TOTAL	AREA (SQFT)	AREA (SQYD)	MIX (TONS)
				5,540.8	615.6	3.5
				15,649.9	1,738.9	9.5
				21,190.6	2,354.5	13.0

SECTION CORNER AND ALIGNMENT TIES

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
500	*	VERMILION	18	10

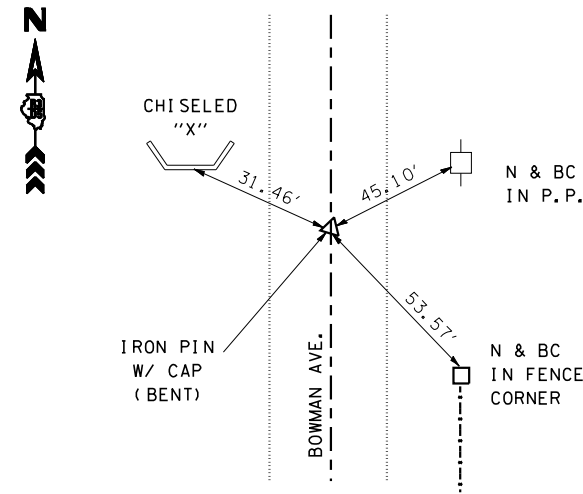
(33,116 SPURRS-1
CONTRACT NO. 70556

TIES TO P.I. STA. 79+63.04
W 1/4 COR SEC. 10-20N-11W



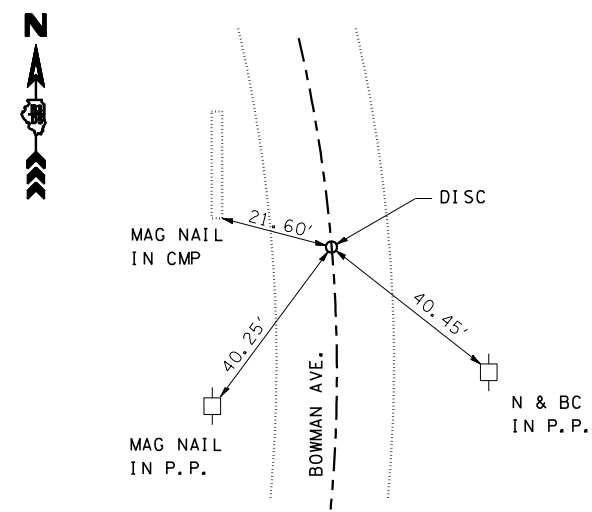
SURVEY MARKER VAULT - 1 EACH

TIES TO P.I. STA. 106+18.11
N.W. COR SEC. 10-20N-11W



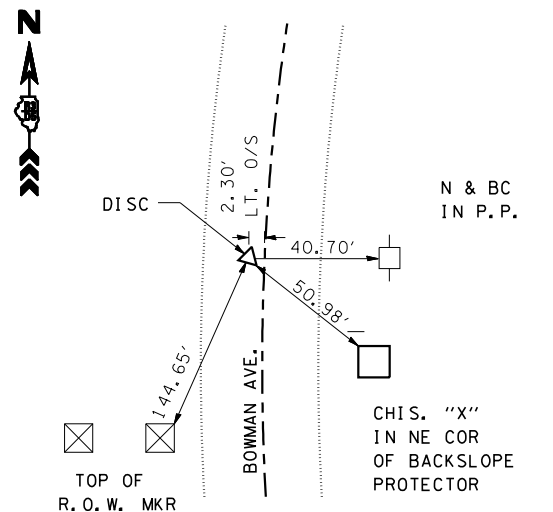
SURVEY MARKER VAULT - 1 EACH

TIES TO P.C. STA. 128+35.15



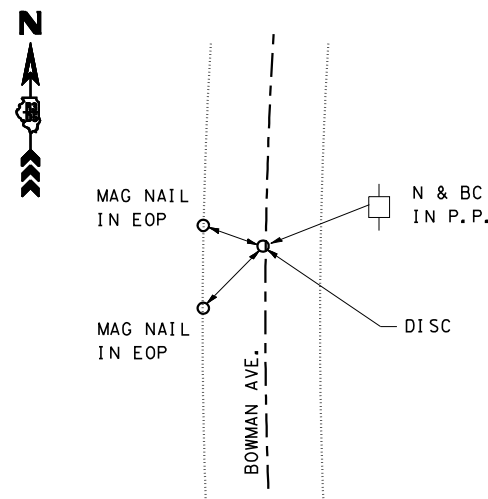
SURVEY MARKER VAULT - 1 EACH

TIES TO P.I. STA 131+35.15



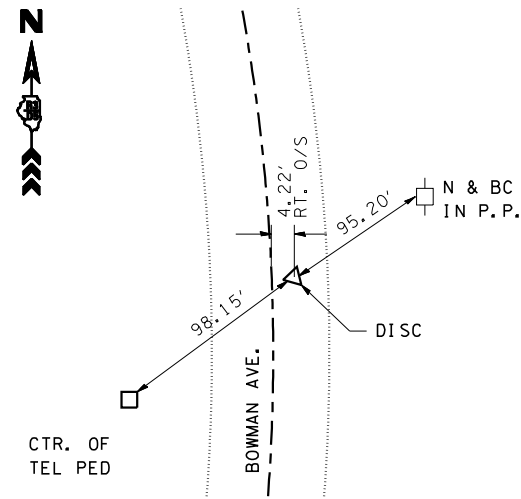
SURVEY MARKER VAULT - 1 EACH

TIES TO P.T. STA. 134+35.10



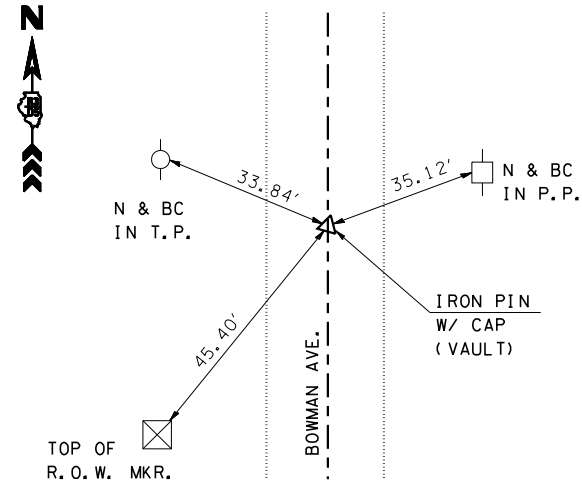
SURVEY MARKER VAULT - 1 EACH

TIES TO P.T. STA. 140+35.33



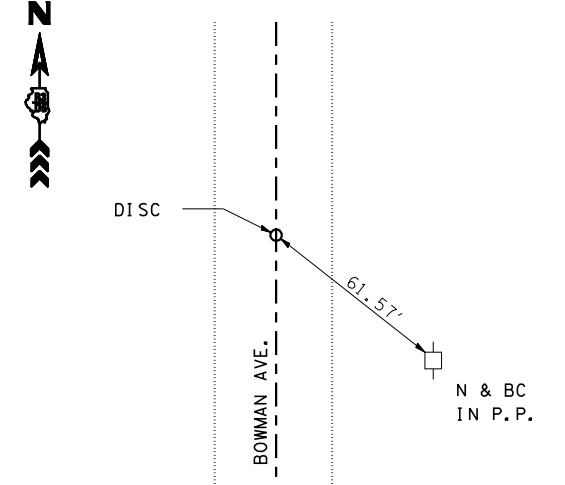
SURVEY MARKER VAULT - 1 EACH

TIES TO P.I. STA. 162+86.94
W 1/4 COR SEC. 33-21N-11W



PERMANENT SURVEY MARKERS
TO BE ADJUSTED - 1 EACH

TIES TO P.C. STA. 186+34.42



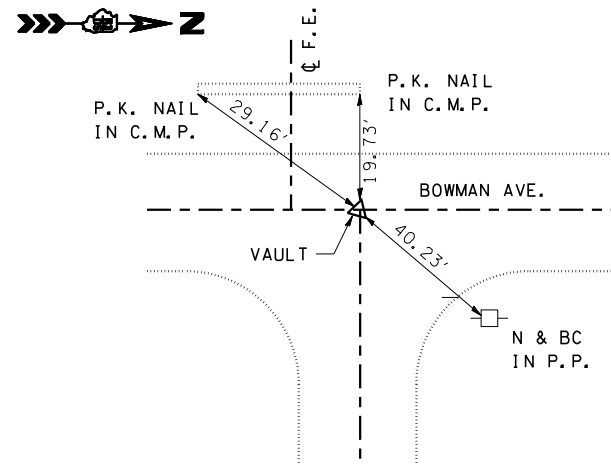
SURVEY MARKER VAULT - 1 EACH

SECTION CORNER AND ALIGNMENT TIES

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
500	*	VERMILION	18	11

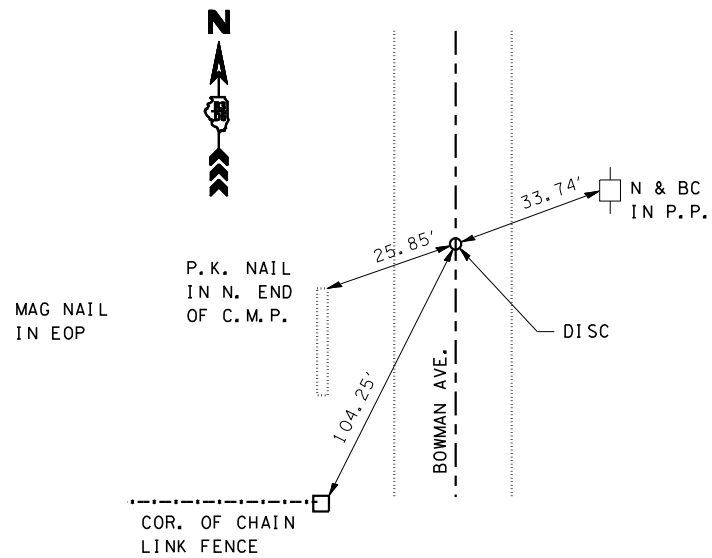
• (33,116 SPURRS-1
CONTRACT NO. 70556

TIES TO P.T. STA. 189+34.42
NW COR. SEC. 33-21N-11W



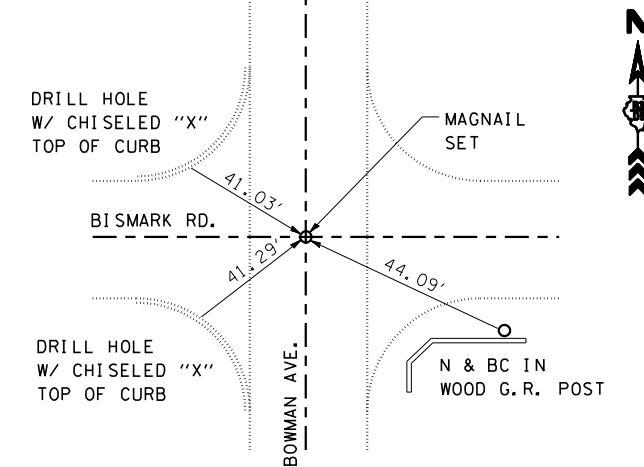
PERMANENT SURVEY MARKERS
TO BE ADJUSTED - 1 EACH

TIES TO P.T. STA. 192+34.42



SURVEY MARKER VAULT - 1 EACH

TIES TO P.I.
(FAS 500 & BISMARCK RD.)
STA. 269+42.93 (BOWMAN)
= STA. 142+32.65 (BISMARCK RD.)



SURVEY MARKER VAULT - 1 EACH

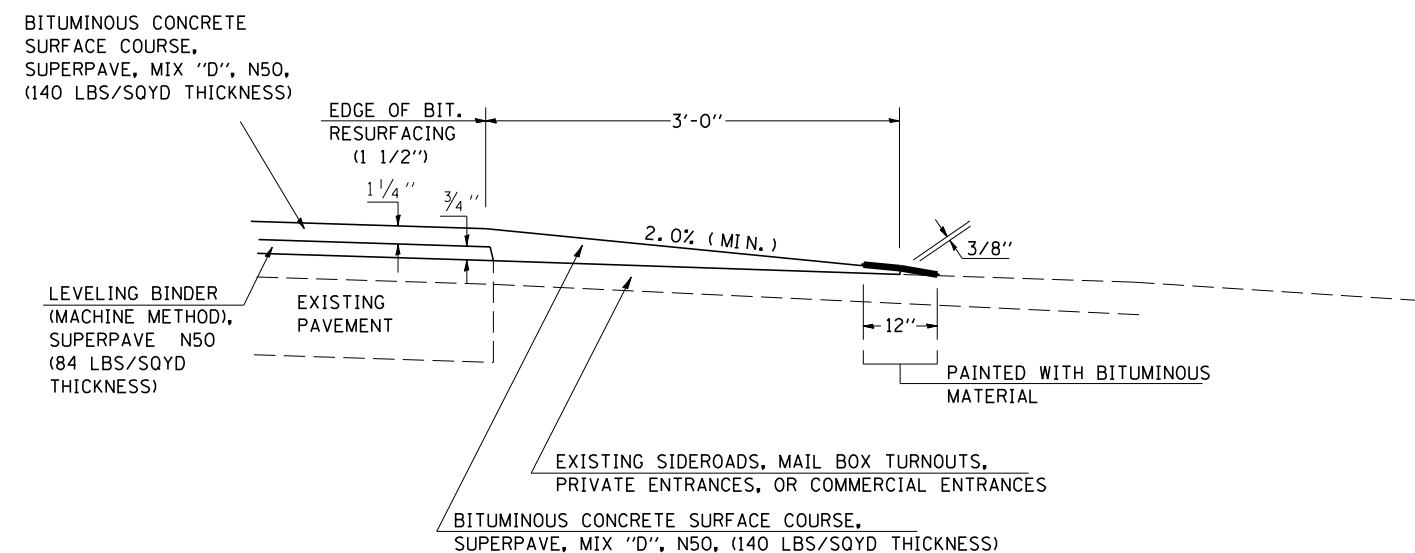
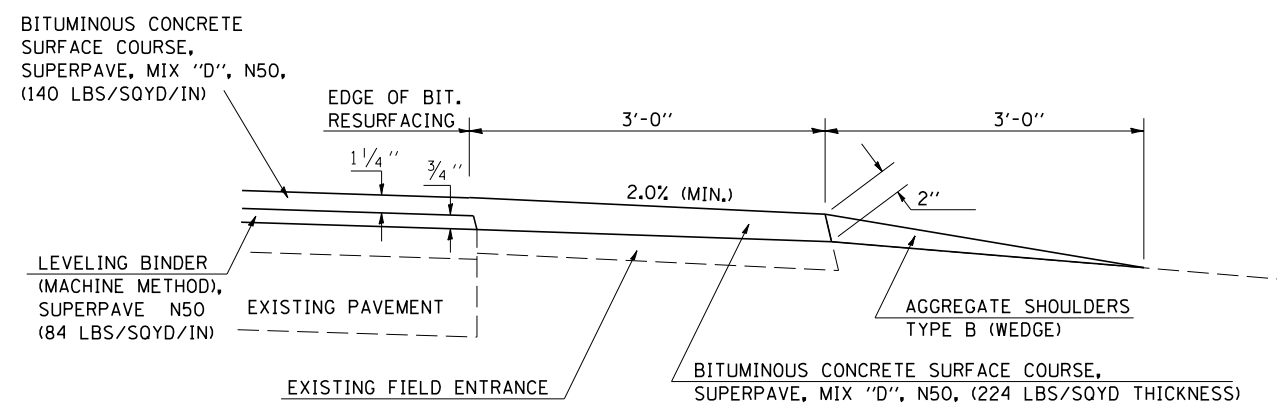
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
500	*	VERMILION	18	12

• (33,116 SPURRS-1
CONTRACT NO. 70556

FIELD ENTRANCES (BITUMINOUS)

SIDEROADS, MAILBOX TURN-OUTS, PRIVATE OR COMMERCIAL ENTRANCES

(BIT. OR PCC)



NOTES:

THE BITUMINOUS SURFACING IS INTENDED TO RESURFACE THE EXISTING ENTRANCES IN THEIR ENTIRETY.

ALL BITUMINOUS MATERIALS PRIME COAT SHALL BE PAID FOR ACCORDING TO SECTION 406 OF THE STANDARDS SPECIFICATIONS. THIS WORK SHALL BE COMPLETED CONCURRENTLY WITH MAINLINE PAVING OPERATION. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

RESURFACING OF ENTRANCES WILL BE PAID FOR BY TON OF BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIX "D", N50. NO INCIDENTAL BITUMINOUS SURFACE PAY ITEM WILL BE REQUIRED

SEE SCHEDULE FOR LOCATIONS.

NOTES:

THE END OF THE FEATHEREDGE SHALL BE PAINTED WITH A UNIFORM COATING OF AC OR HFE BITUMINOUS MATERIAL APPROVED BY THE ENGINEER AFTER THE RUNDOWN IS COMPLETED. THE BITUMINOUS MATERIAL SHALL BE PAINTED ACROSS THE END OF THE RUNDOWN APPROXIMATELY 12 INCHES WIDE, 6 INCHES ON THE RUNDOWN AND 6 INCHES ON THE PAVEMENT. THE PAINTED STRIP SHALL BE COVERED WITH SAND.

ALL BITUMINOUS MATERIALS PRIME COAT SHALL BE PAID FOR ACCORDING TO SECTION 406 OF THE STANDARDS SPECIFICATIONS. THIS WORK SHALL BE COMPLETED CONCURRENTLY WITH MAINLINE PAVING OPERATION. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

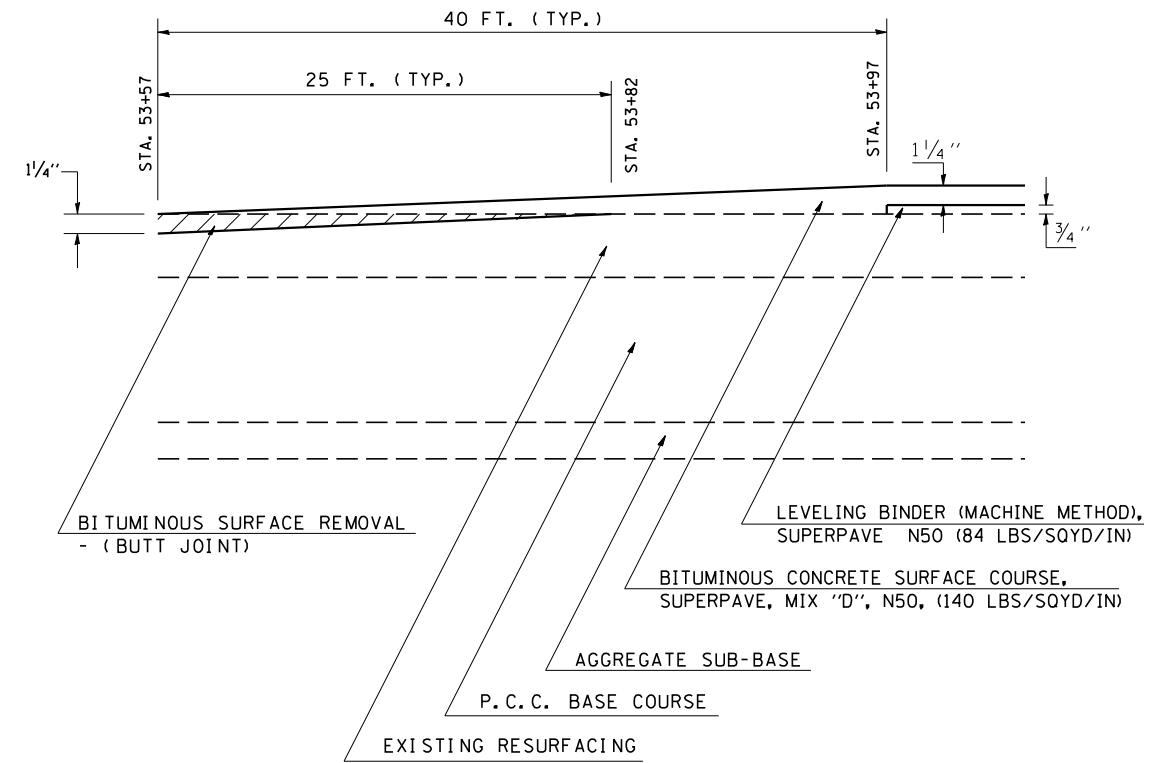
RESURFACING OF ENTRANCES WILL BE PAID FOR BY TON OF BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIX "D", N50. NO INCIDENTAL BITUMINOUS SURFACE PAY ITEM WILL BE REQUIRED

SEE SCHEDULE FOR LOCATIONS.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
500	*	VERMILION	18	13

• (33,116 SPURRS-1
CONTRACT NO. 70556

BUTT JOINT DETAIL

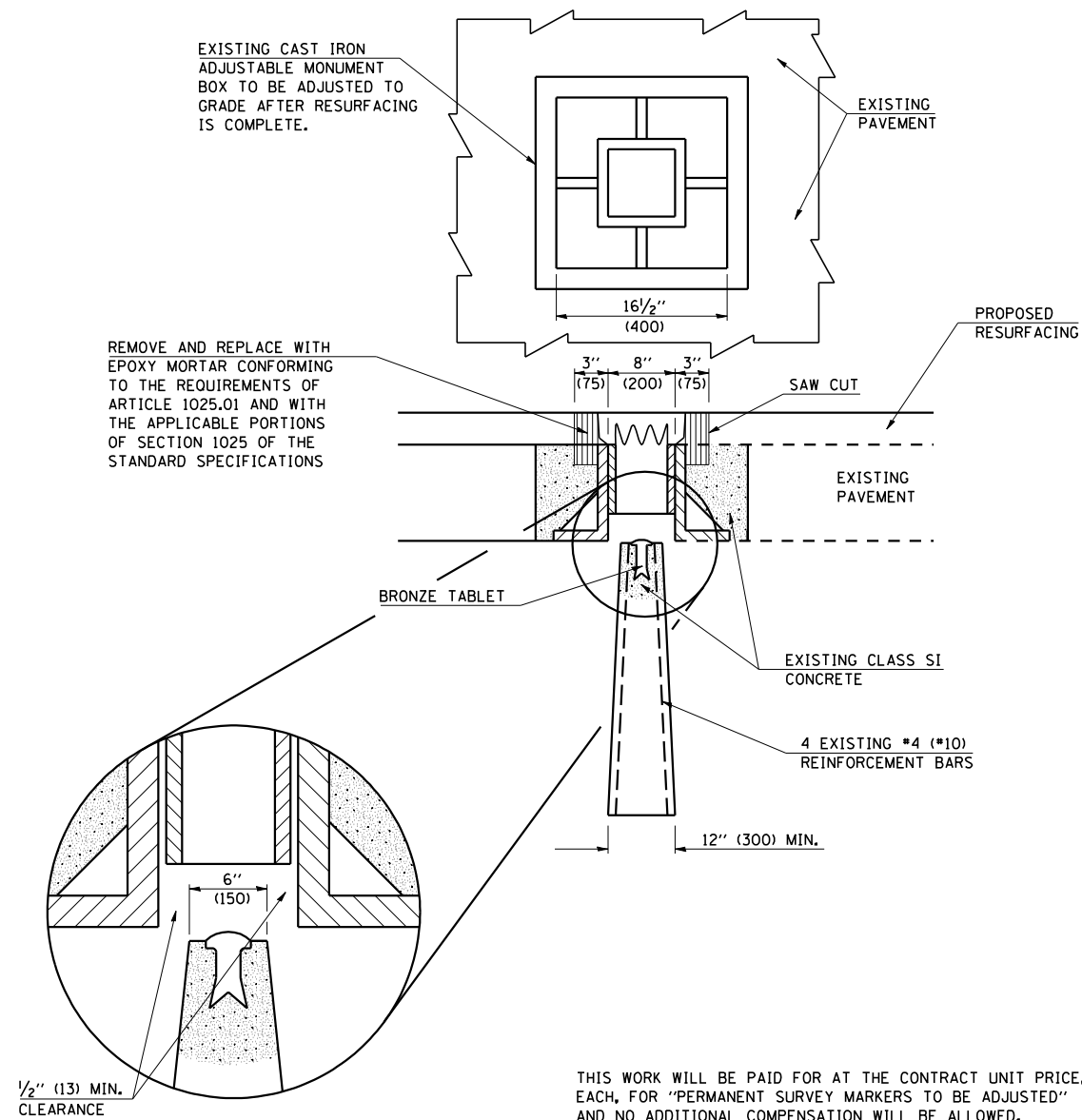


BITUMINOUS SURFACE REMOVAL (BUTT JOINT)			WIDTH	LENGTH	AREA
STA.	TO STA.		FT	FT	SO YD
URBAN 53+57.00	53+82.00		24	25	66.67
RURAL 177+41.50	177+66.5		33	25	91.67
	178+61.50		33	25	91.67
	261+95.50		30	25	83.33
	263+13.50		30	25	83.33
	102+75.00		24	25	66.67
	166+00.00		24	25	66.67
	173+50.00		24	25	66.67

TOTAL 616.7 SOYDS
USE 617.0 SOYDS

66700110 – PERMANENT SURVEY MARKERS TO BE ADJUSTED

TO BE INSTALLED FOR PRESERVING EXISTING CAST IRON PERMANENT SURVEY MARKERS, TYPE III



	NAME	DATE	REVISIONS	
DESIGNED	Pr.A.T.	1994	NAME	DATE
CHECKED	D.L.P.	12-95	D.L.P.	12-95
CADD NO.	D-1.06		K.A.G.	08-04

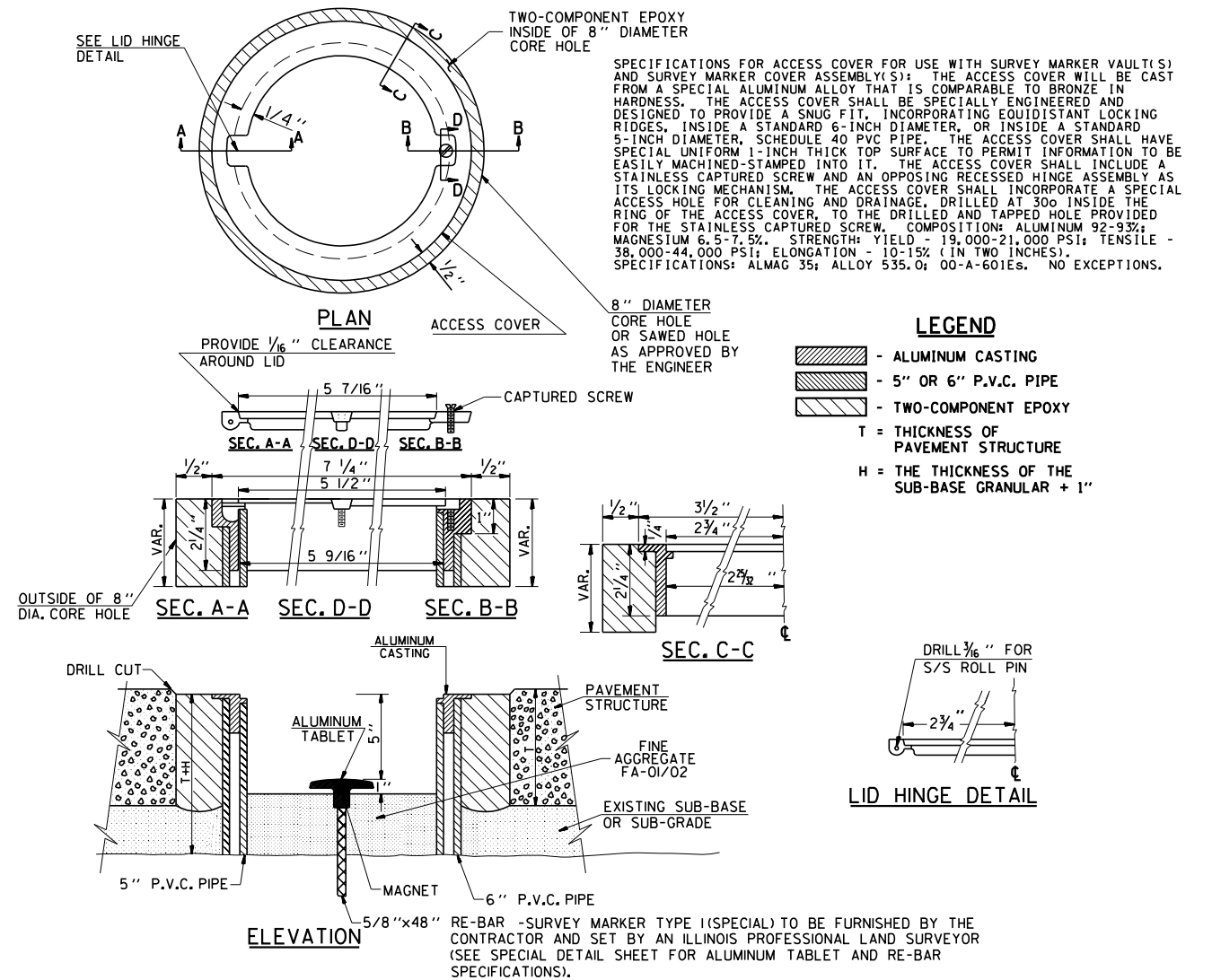
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
500	.	VERMILION	18	14

• (33,116 SPUR)RS-1
CONTRACT NO. 70556

DETAIL OF PERMANENT SURVEY MARKER VAULT

FOR RESET LAND SURVEY MONUMENTS IN RIGID AND COMPOSITE PAVEMENTS



GENERAL NOTES

- ALUMINUM CASTING SHALL BE EITHER PLACED OVER A 5" P.V.C. PIPE OR INSIDE OF A 6" P.V.C. PIPE.
- BACKFILL WITH SELECT MATERIAL AS DIRECTED BY THE ENGINEER.
- TO PREVENT DAMAGE TO THE TOP OF THE 5/8" Ø RE-BAR, AN APPROVED RE-BAR DRIVER SHALL BE USED.
- WORK SHALL NOT START ON THIS ITEM UNTIL THE FINAL LIFT OF CLASS I HAS BEEN COMPLETED.
- SEE SPECIAL PROVISION "PRESERVATION OF LAND SURVEY MONUMENTS".
- 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 DRILLING, EPOXY AND BACKFILL AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- THE 8" DIAMETER CASTING SHALL BE ANCHORED IN THE CORE HOLE WITH TWO-COMPONENT EPOXY CONFORMING TO APPLICABLE PORTIONS OF ARTICLE 718.08 OF THE STANDARD SPECIFICATIONS.
- ALL PERMANENT SURVEY MARKERS (SPECIAL) SHALL BE PLACED 1/4" (±) BELOW THE FINAL SURFACE.
- THE 8" DIAMETER CORE HOLE SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.

BILL OF MATERIAL

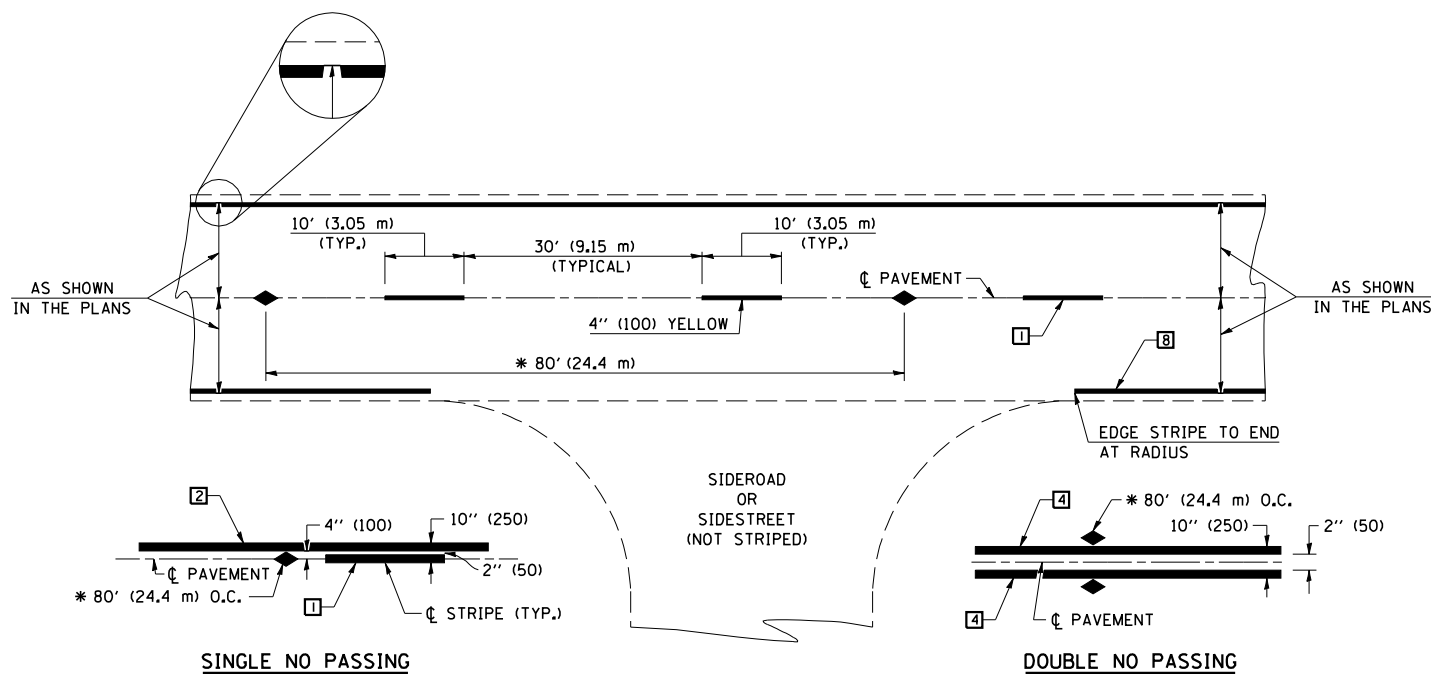
ALUMINUM CASTING OF THE DIMENSIONS SHOWN OR OTHER SUBJECT TO ENGINEER'S APPROVAL OF SHOP DRAWINGS, 5" OR 6" Ø P.V.C. PIPE, SCHEDULE 40, ALUMINUM TABLET, STAMPED IN ACCORDANCE WITH STANDARD 2135, 5/8" Ø x 48" RE-BAR, EPOXY, BACKFILL.

	NAME	DATE	REVISIONS	
DESIGNED	A.W.H.	2-28-91	NAME	DATE
CHECKED	J.H.M.	2-28-91		
CADD NO.	D-103			

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
500	.	VERMILION	18	15

(33,116 SPUR)RS-1
CONTRACT NO. 70556

TYPICAL APPLICATIONS OF PAVEMENT MARKINGS AND MARKERS



* REDUCE TO 40' (12.2 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEEDS OF 45 mph (70 km/h) OR LESS.

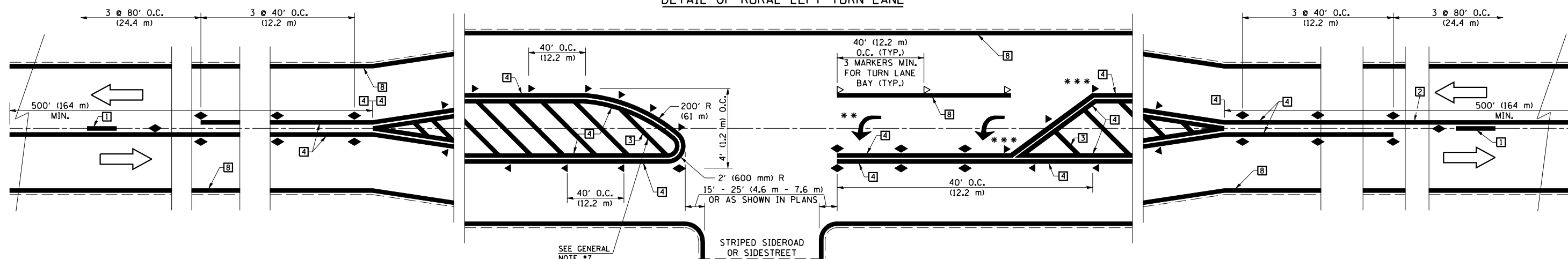
TYPICAL PAVEMENT MARKING LEGEND

- 1 4" (100) SKIP-DASH (YELLOW)
- 2 4" (100) SOLID (YELLOW)
- 3 12" (300) DIAGONAL (YELLOW)
- 4 4" (100) DOUBLE YELLOW (NARROW)
- 5 RESERVED
- 6 RESERVED
- 7 4" (100) SKIP-DASH (WHITE)
- 8 4" (100) SOLID (WHITE)
- 9 12" (300) DIAGONAL (WHITE)
- 10 6" (150) CROSS WALK (WHITE)
- 11 24" (600) STOP BAR (WHITE)
- 12 8" (200) SOLID (WHITE)
- 13 4" (100) LANE LINE EXTENSIONS (WHITE)
- 14 4" (100) PARKING WHITE

TYPICAL PAVEMENT MARKERS LEGEND

- ◆ TWO-WAY AMBER MARKER
- ▶ ONE-WAY AMBER MARKER
- ▷ ONE-WAY CRYSTAL MARKER

DETAIL OF RURAL LEFT TURN LANE



*** REDUCE SPACING IF NECESSARY TO ASSURE MARKERS AT CORNER POINTS.

** TURN ARROWS SHALL BE PLACED AS SHOWN ON SHEET #2.

SHEET 1 OF 4

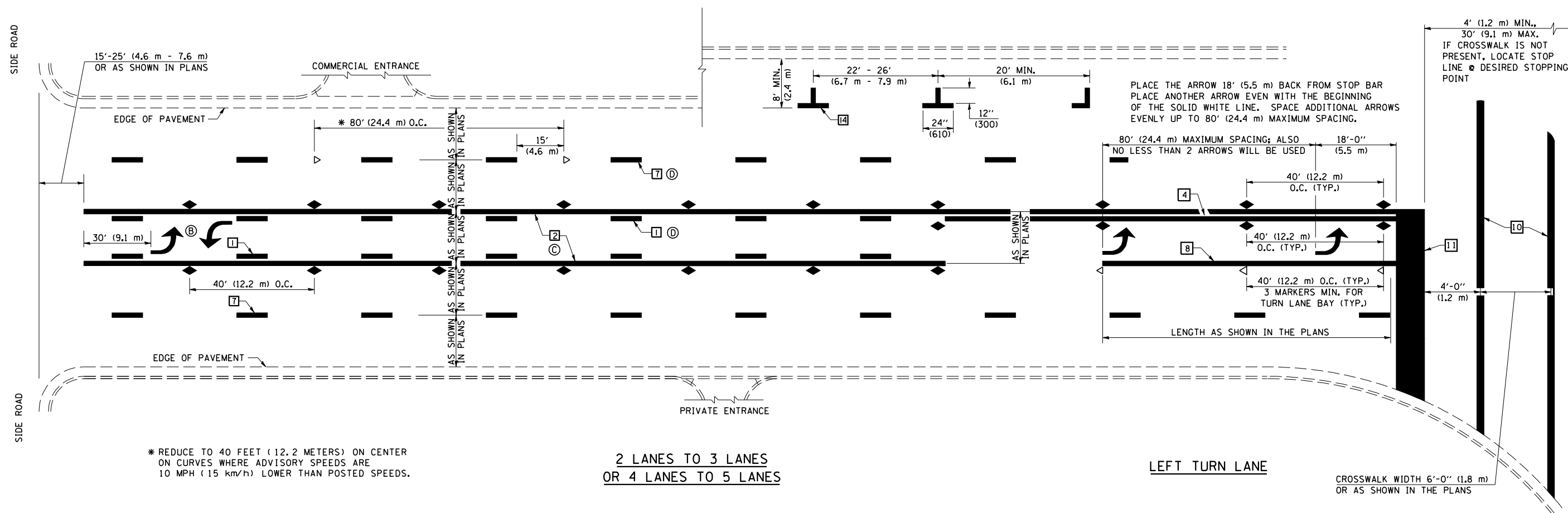
DESIGNED	NAME	DATE	REVISIONS	NAME	DATE
J.M.H.	J.M.H.	5/85			
6/88					
CHECKED	FMS	6/85		GEOMETRICS/K.A.G.	07/02
	CTD	6/88			
CADD NO.	F-5,25			K.A.G.	09/05

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

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
500		VERMILION	18	16

(33,116 SPUR)RS-1
CONTRACT NO. 70556

TYPICAL APPLICATIONS OF PAVEMENT MARKINGS AND MARKERS



SHEET 2 OF 4

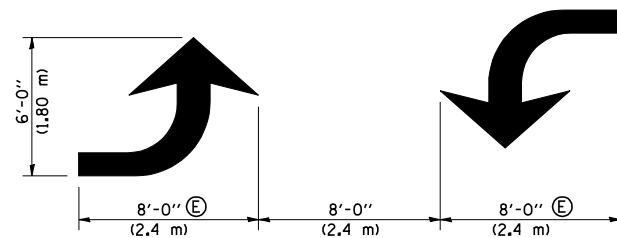
	NAME	DATE	REVISIONS
DESIGNED	J.M.H.	5/85	NAME
CHECKED	FMS	6/88	DATE
	CTD	6/85	GEOMETRICS/K.A.G.
CADD NO.	F-5,25	6/88	K.A.G.
			09/05

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

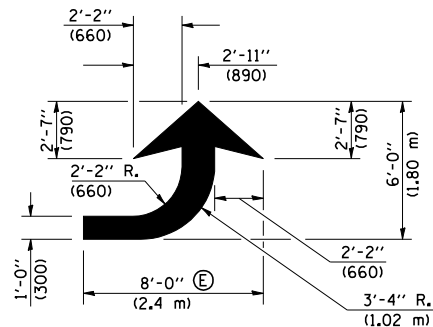
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
500		VERMILION	18	17

(33,116 SPURRS-1
CONTRACT NO. 70556

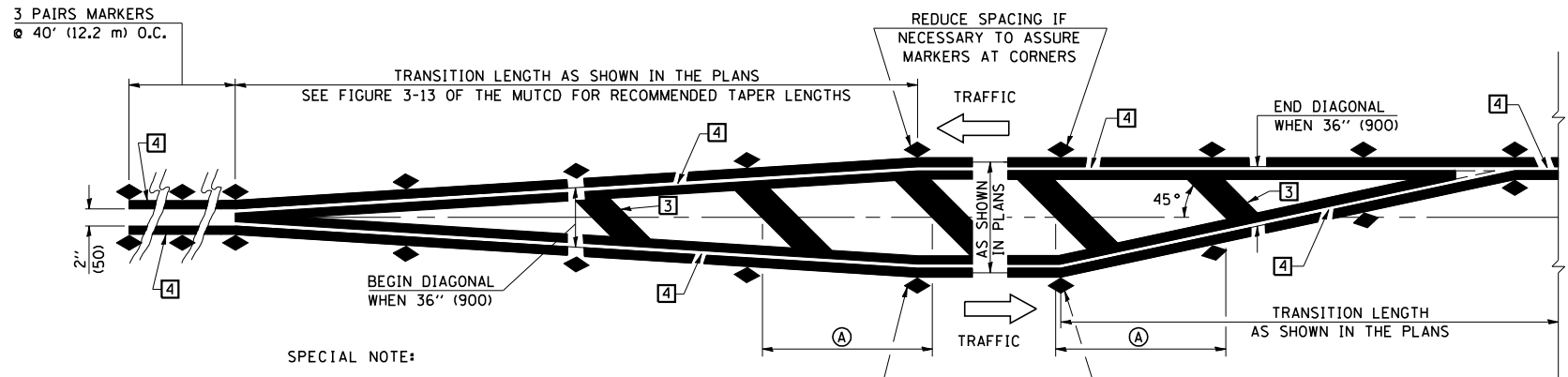
TYPICAL APPLICATIONS OF PAVEMENT MARKINGS AND MARKERS



TYPICAL DOUBLE TURN ARROWS (WHITE)

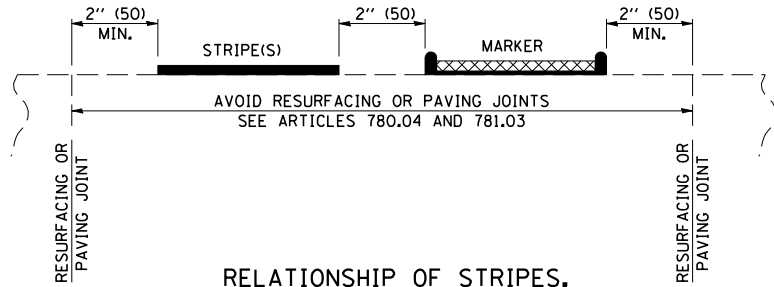


LEFT ARROW
REVERSE FOR RIGHT ARROW
AREA = 15.6 SQ. FT. (1.47 m²)
(WHITE)

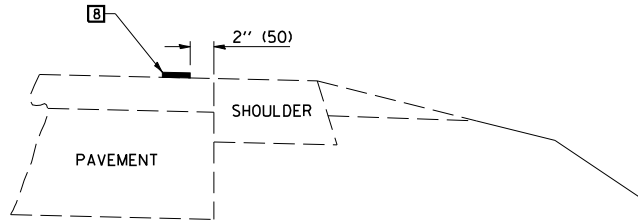


SPECIAL NOTE:
THE ACTUAL MEDIAN CONFIGURATION WILL BE AS SHOWN IN THE PLANS (TAPER OR REVERSE CURVE).
RUMBLE & MOUNTABLE MEDIANS SHALL BE OUTLINED WITH [2].

TYPICAL MEDIAN TRANSITIONS



RELATIONSHIP OF STRIPES, MARKERS AND JOINTS



RELATIONSHIP OF EDGE STRIPE TO SAFETY SHOULDER OR PAVED SURFACE

- SPECIAL NOTES:
- (B) TURN ARROW PAIRS SHALL BE PLACED AT 250' (75 m) INTERVALS AND SHALL BE EVENLY SPACED BETWEEN BOTH ENDS OF THE BIDIRECTIONAL LEFT TURN LANE.
 - (C) THE SOLID YELLOW PAVEMENT MARKINGS [2] SHOULD GENERALLY START OR END NEAR THE RADIUS POINT OF EACH STREET RETURN EXCEPT WHERE ONE OR BOTH ENDS WOULD INCLUDE STOP BARS.
 - (D) THE SKIP-DASH PAVEMENT MARKINGS [1] OR [7] SHOULD BE CENTERED BETWEEN BOTH ENDS OF EACH CITY BLOCK AND SHALL BE PLACED SO THEY LINE UP ACROSS FROM EACH OTHER. SEE EXAMPLE ON SHEET 2 OF 3.
 - (E) TURN ARROW SIZE DEPENDS ON THE LOCATION.
RURAL LOCATION - LARGE ARROW SIZE
URBAN LOCATION - SMALL ARROW SIZE

GENERAL NOTES

1. WHEN MEDIANS ARE PRESENT, PAVEMENT MARKINGS ARE TO BE PLACED ADJACENT TO MEDIANS.
2. SCALE: NONE
3. SOME OF THE INFORMATION INCLUDED WITH THIS DETAIL MAY NOT BE APPLICABLE TO THIS IMPROVEMENT.
4. PAVEMENT MARKINGS ARE TO BE EXTENDED THROUGH OMISSIONS WHEN APPLICABLE.
5. A STRIPING KEY IS AVAILABLE ELSEWHERE AND SHALL BE SHOWN WHERE THE QUANTITIES ARE LISTED.
6. FINAL PAVEMENT MARKINGS SHALL BE IN PLACE PRIOR TO PLACING ANY RAISED REFLECTIVE PAVEMENT MARKERS.
7. 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)

SHEET 3 OF 4

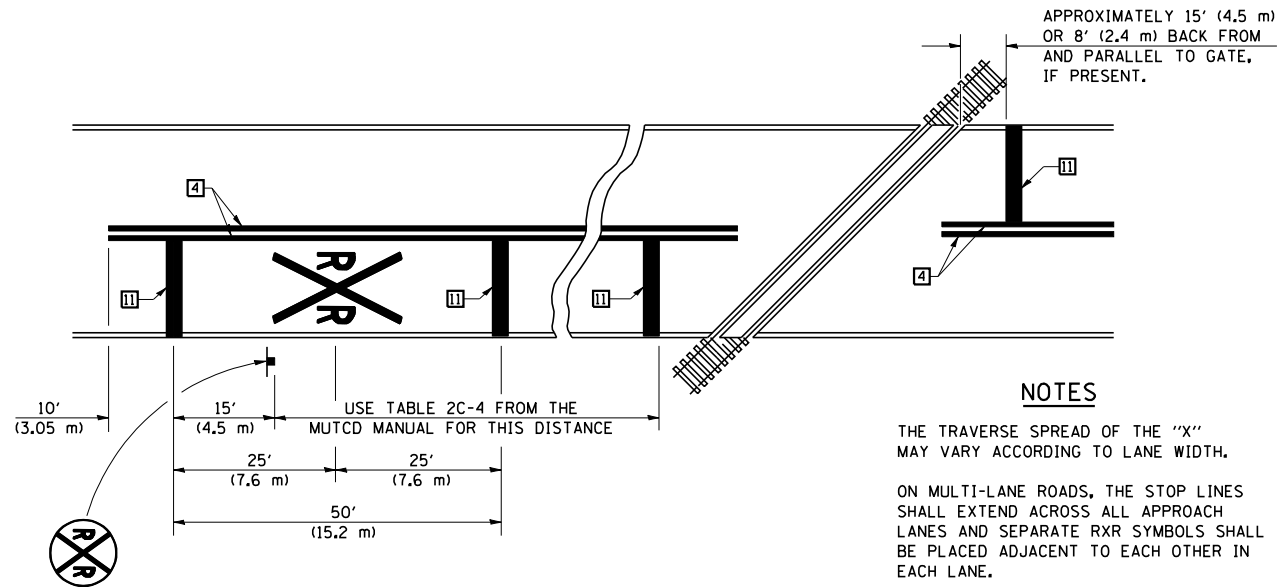
DESIGNED	NAME	DATE	REVISIONS	DATE
J.M.H.		5/85		
6/88				
CHECKED	FMS	6/85	GEOMETRICS/K.A.G.	07/02
	CTD	6/88		
CADD NO.	F-5,25		K.A.G.	09/05

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

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
500	*	VERMILION	18	18

• (33,116 SPURRS-1
CONTRACT NO. 70556

TYPICAL APPLICATIONS OF PAVEMENT MARKINGS AND MARKERS

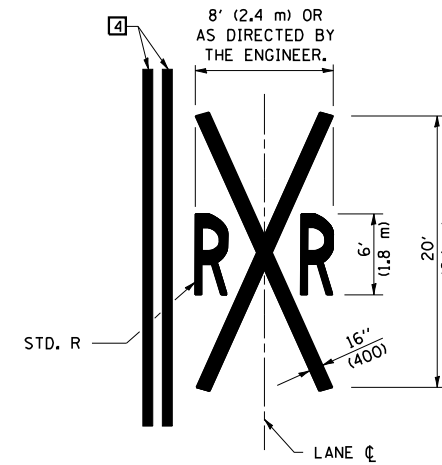


NOTES

THE TRAVERSE SPREAD OF THE "X" MAY VARY ACCORDING TO LANE WIDTH.

ON MULTI-LANE ROADS, THE STOP LINES SHALL EXTEND ACROSS ALL APPROACH LANES AND SEPARATE RXR SYMBOLS SHALL BE PLACED ADJACENT TO EACH OTHER IN EACH LANE.

WHEN THE PAVEMENT MARKING SYMBOL IS USED, A PORTION OF THE SYMBOL SHOULD BE LOCATED DIRECTLY ADJACENT TO THE ADVANCE WARNING SIGN (W10-1) AS PLACED BY TABLE II-1, CONDITION B OF THE MUTCD.



PAVEMENT MARKINGS AT RAILROAD-HIGHWAY GRADE CROSSING

SHEET 4 OF 4

	NAME	DATE	REVISIONS
DESIGNED	J.M.H.	5/85	NAME
CHECKED	FMS	6/88	DATE
	CTD	6/85	GEOMETRICS/K.A.G.
CADD NO.	F-5,25	6/88	K.A.G.
			09/05

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