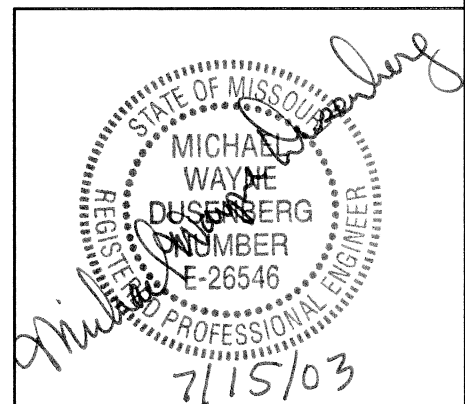


LOCATION SKETCH
BOONE COUNTY
ROUTE 163



ROUTE	163
JOB NO.	J5S0818
CONTRACT ID	
PROJECT NO.	
COUNTY	BOONE

LENGTH OF PROJECT ROUTE 163 FROM RTE.63 TO RTE.K

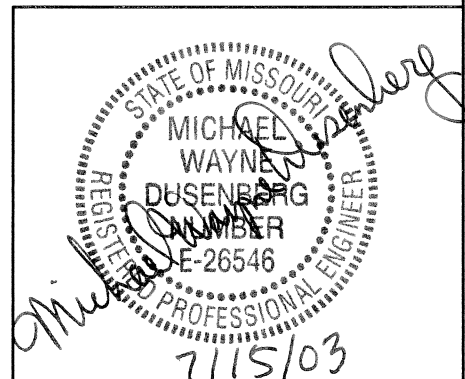
BEGIN AT LOG MILE	0.010
END AT LOG MILE	6.160
APPARENT LENGTH	6.1500 MI.

EXCEPTIONS:

BR. NO. A1803 OVER GANS CREEK	
FROM LOG MILE 4.644 TO LOG MILE 4.670	-0.026 MI.

BR. NO. A5794 OVER CLEAR CREEK	
FROM LOG MILE 4.834 TO LOG MILE 4.940	-0.106 MI.

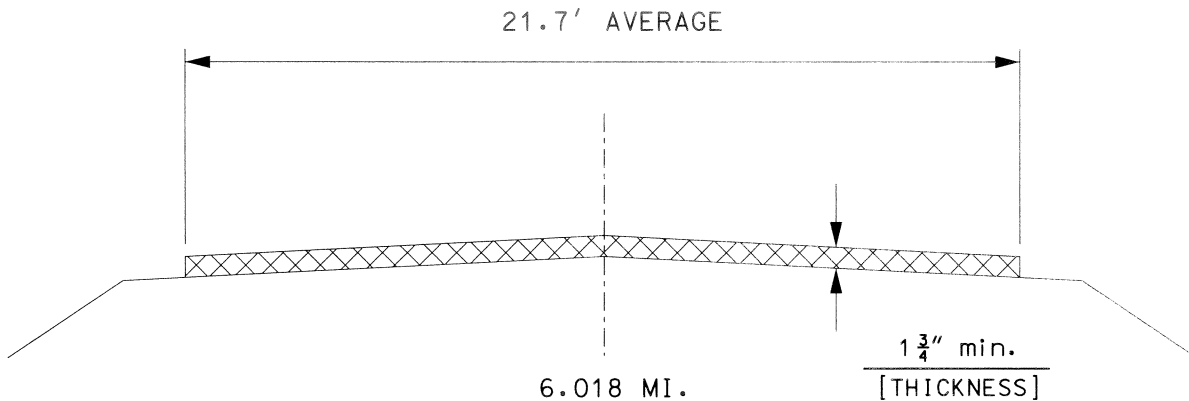
NET LENGTH	6.018 MI.
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ROUTE	163
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COUNTY	BOONE

2

TYPICAL SECTION



LEVELING COURSE PLANNED ACTIVITIES

LOG MILE	LOG MILE	NET LENGTH (MILES)	SURFACE WIDTH (FEET)	PLANNED QUANTITIES (TONS)	ASPHALTIC BINDER (TONS)	MINERAL AGGREGATE (TONS)	TACK (GALLONS)
0.010	4.644	4.634	21.7	5698.24	292.51	5405.73	2950
4.670	4.834	0.164	21.7	201.66	10.35	191.31	105
4.940	6.094	1.154	21.7	1419.03	72.84	1346.19	735
6.094	6.160	0.066	VARIES	132.90	6.82	126.08	69
APPROACHES (11,420 SQ. FT.)				122.56	6.29	116.27	64
ENTRANCES & IRREGULARITIES (15%)				1136.16	58.32	1077.84	
TOTALS				8710.55	447.13	8263.42	3923
USE					447.1	8263	3930

WEDGE NO STEEPER THAN 1 INCH PER FOOT AT ALL
APPROACHES (NO DIRECT PAYMENT)

ASPHALT BINDER ESTIMATED AT 0.102 TON/CY
MINERAL AGGREGATE ESTIMATED AT 1.885 TON/CY

DEPTH TRANSITION RATIO 1" : 100'

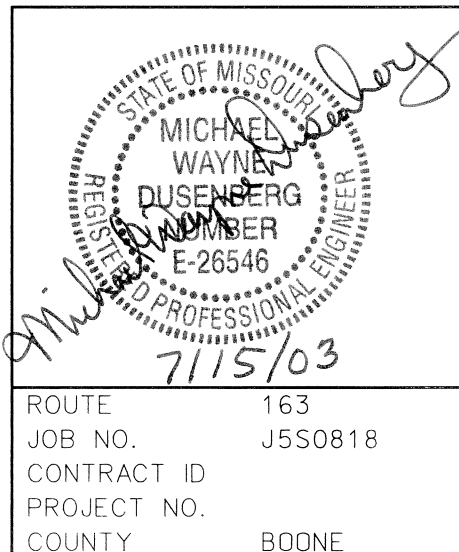
TACK COAT BASED ON 0.05 GALLONS/SQUARE YARD

20 FEET MINIMUM WIDTH LEVELING COURSE WILL BE WIDENED
AS REQUIRED TO MATCH EXISTING SURFACE

PLACEMENT BY ONE PASS PER LANE

NO S.E. CORRECTION

3



ROUTE 163
JOB NO. J5S0818
CONTRACT ID
PROJECT NO.
COUNTY BOONE


2B SHEET 1 OF 2

COLDMILLING BITUMINOUS PAVEMENT

LOG MILE TO LOG MILE	LENGTH (FEET)	COLDMILLING BIT. PAVEMENT SQ. YD.	MODIFIED COLDMILLING DEPTH TRANSITION SQ. YD.	REMARKS
0.922 TO 0.955	175		421.9	0" TO 1 $\frac{3}{4}$ "
0.955 TO 1.010	290.4	700.2		1 $\frac{3}{4}$ " WITHIN LIMITS OF GUARDRAIL
1.010 TO 1.043	175		421.9	1 $\frac{3}{4}$ " TO 0"
4.611 TO 4.644	175		421.9	0" TO 1 $\frac{3}{4}$ "
4.670 TO 4.703	175		421.9	1 $\frac{3}{4}$ " TO 0"
4.801 TO 4.834	175		421.9	0" TO 1 $\frac{3}{4}$ "
4.940 TO 4.973	175		421.9	1 $\frac{3}{4}$ " TO 0"
6.127 TO 6.160	175		823.7	0" TO 1 $\frac{3}{4}$ ", WIDTH VARIES
TOTALS		700.2	3355.1	
USE		700	3355	

INSTALLING
NO CENTER STRIPE
SIGNS
(EACH)

24

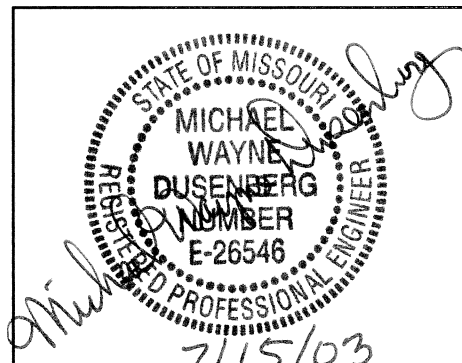
	
ROUTE	163
JOB NO.	J5S0818
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PROJECT NO.	
COUNTY	BOONE

4

2B SHEET 2 OF 2

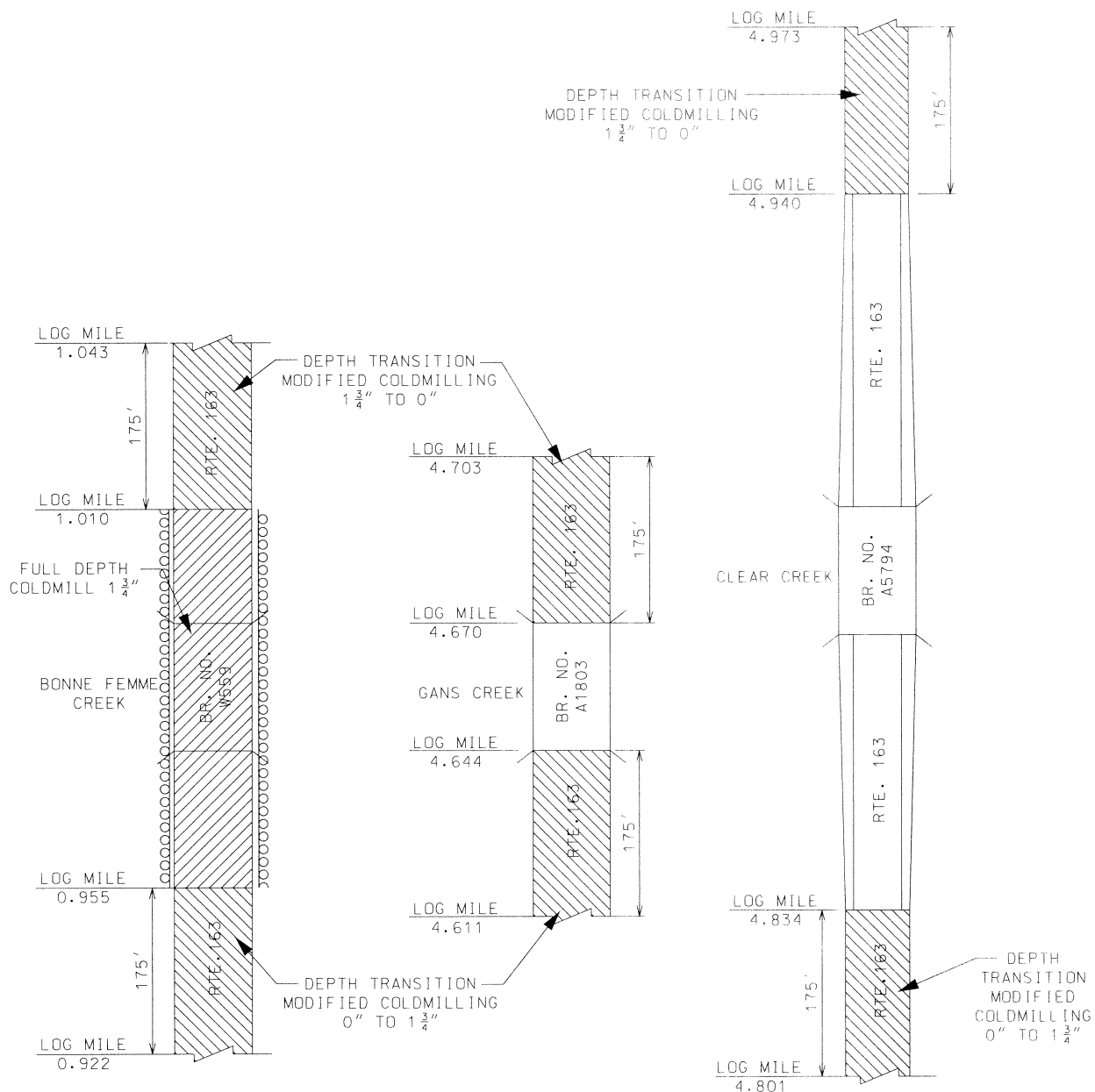
WATERBORNE PAVEMENT MARKING PAINT

LOG MILE TO LOG MILE	4" SOLID WHITE LIN. FT.	4" SOLID YELLOW LIN. FT.	4" INT. YELLOW LIN. FT.	LEFT TURN ARROW EACH	REMARKS
0.005 TO 0.020		158.4			☒ DOUBLE YELLOW
0.010 TO 0.955	9979.2				EDGE LINE LT. AND RT.
0.020 TO 0.220		1056	264		☒ NO PASSING RT.
0.220 TO 0.375		818.4	204.6		☒ NO PASSING LT.
0.375 TO 0.412			48.9		CENTERLINE
0.412 TO 0.580		887	221.8		☒ NO PASSING RT.
0.580 TO 0.823		2566			☒ DOUBLE YELLOW
0.823 TO 0.937		602	150.5		☒ NO PASSING LT.
0.937 TO 1.111			229.7		CENTERLINE
1.010 TO 3.518	26484.5				EDGE LINE LT. AND RT.
1.111 TO 1.220		575.5	143.9		☒ NO PASSING RT.
1.220 TO 1.451		2439.4			☒ DOUBLE YELLOW
1.451 TO 1.575		654.7	163.7		☒ NO PASSING LT.
1.575 TO 1.714		733.9	183.5		☒ NO PASSING RT.
1.714 TO 2.160		4709.8			☒ DOUBLE YELLOW
2.160 TO 2.305		765.6	191.4		☒ NO PASSING LT.
2.305 TO 2.480		924	231		☒ NO PASSING RT.
2.480 TO 2.775		3115.2			☒ DOUBLE YELLOW
2.775 TO 2.877		538.6	134.7		☒ NO PASSING LT.
2.877 TO 2.926			64.7		CENTERLINE
2.926 TO 3.104		939.8	235		☒ NO PASSING RT.
3.104 TO 3.518		4371.8			☒ DOUBLE YELLOW
3.530 TO 6.160	27772.8				EDGE LINE LT. AND RT.
3.530 TO 4.450		9715.2			☒ DOUBLE YELLOW
4.450 TO 4.588		728.6	182.2		☒ NO PASSING LT.
4.588 TO 4.703		1214.4			☒ DOUBLE YELLOW
4.703 TO 4.885		961	240.3		☒ NO PASSING LT.
4.885 TO 5.050		871.2	217.8		☒ NO PASSING RT.
5.050 TO 6.160		11721.6			☒ DOUBLE YELLOW
6.141 TO 6.160	101				RT. EDGELINE OF LT. TURN LANE
6.141				1	LT. TURN LANE
TOTALS	64337.5	51068.1	3107.7	1	
USE	64338	51069	3108	1	



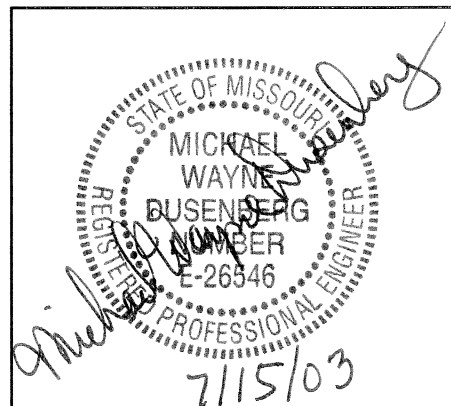
7/15/03

ROUTE 163
 JOB NO. J5S0818
 CONTRACT ID
 PROJECT NO.
 COUNTY BOONE



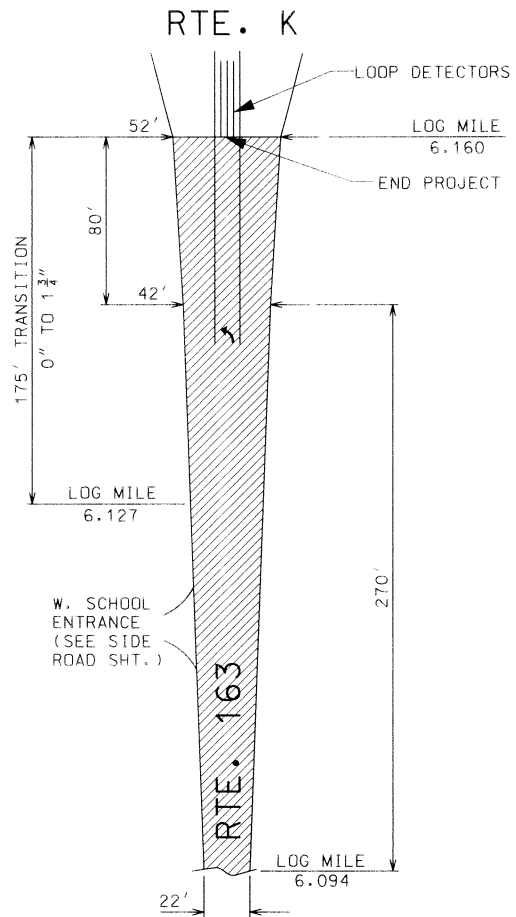
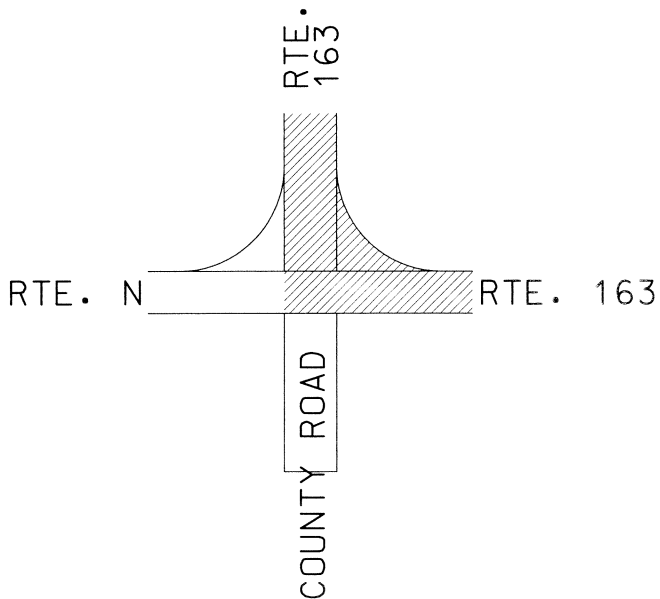
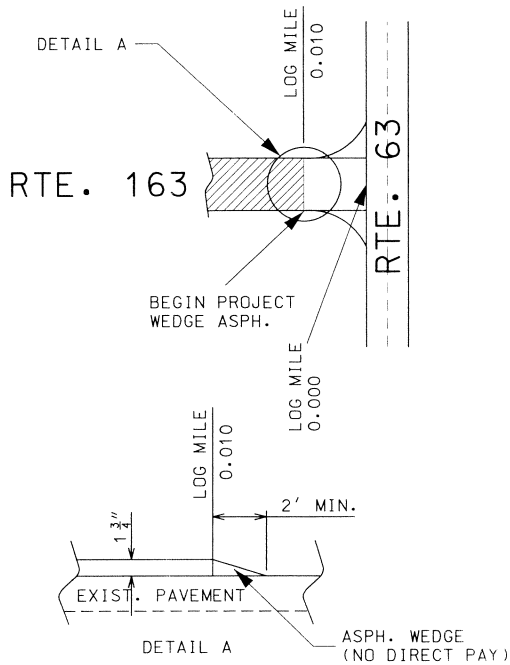
EXCEPTIONS BRIDGES

6



ROUTE 163
JOB NO. J5S0818
CONTRACT ID
PROJECT NO.
COUNTY BOONE

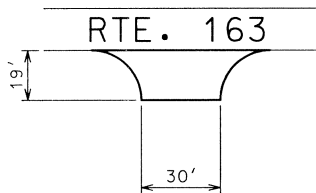
ROUTE 163 INTERSECTIONS



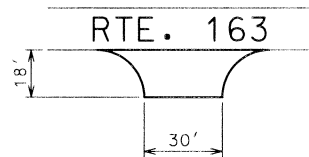
ROUTE	163
JOB NO.	J5S0818
CONTRACT ID	
PROJECT NO.	
COUNTY	BOONE

ROUTE 163 SIDE ROADS

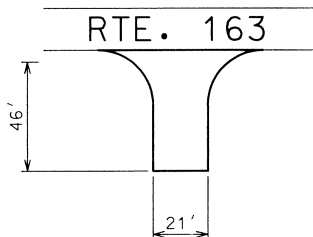
W. ROCK BRIDGE ELEM. ENTRANCE,
E. ROCK BRIDGE ELEM. ENTRANCE,
ROCK QUARRY RD., BENNETT DRIVE



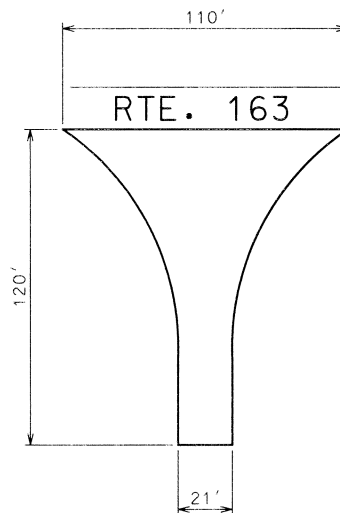
W. ROCK BRIDGE
ELEMENTARY SCHOOL
ENTRANCE
(LEFT SIDE)



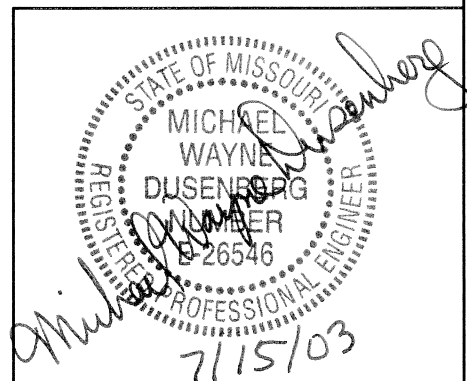
E. ROCK BRIDGE
ELEMENTARY SCHOOL
ENTRANCE
(LEFT SIDE)



ROCK QUARRY RD.
(RIGHT SIDE)



BENNETT DRIVE
(LEFT SIDE)



ROUTE	163
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CONTRACT ID	
PROJECT NO.	
COUNTY	BOONE

SUMMARY OF QUANTITIES

SIGN NO.	SIGN	SIZE (in.)	AREA (ft. ²)	QTY.	TOTAL AREA (ft. ²)	MOUNTING	DESCRIPTION
(2)	W021-4	48 x 48	16.00	6	** 96.00	TEMPORARY	ROAD WORK AHEAD
(7)	W020-4	48 x 48	16.00	3	48.00	TEMPORARY	ONE LANE ROAD AHEAD
(8)	W020-7a	48 x 48	16.00	3	48.00	TEMPORARY	FLAGGER (SYMBOL)
(4) & (25)	R2-1	36 x 48	12.00	6	72.00	TEMPORARY	SPEED LIMIT XX
(54)	G023-1	36 x 12	3.00	6	18.00	TEMPORARY	WORK ZONE PLAQUE
(3)	R2-5a	36 x 48	12.00	3	36.00	TEMPORARY	REDUCED SPEED AHEAD
(1)	G020-1	60 x 24	10.00	2	* 20.00	POST MOUNTED	ROAD WORK NEXT XX MILES
(26)	G020-2a	48 x 24	8.00	2	16.00	POST MOUNTED	END ROAD WORK
616-10.05 CONSTRUCTION SIGNS TOTAL					354.0 ft. ² * **		

* QUANTITY SHALL BE 334 SQUARE FEET WHEN PROJECT IS LESS THAN TWO (2) MILES. IF LESS THAN TWO (2) MILES, DELETE SIGN NO. 1.

** ADDITIONAL SIGN NO. 2 USED AS SHOWN ON SPECIAL SHEET 2 OF 4 AND AS DIRECTED BY ENGINEER.

NOTES:

SIGN (26) MAY BE USED ON PROJECTS LESS THAN TWO (2) MILES. REFER TO STANDARD PLAN 616.10 AND 903 FOR SIGN AND SIGN MOUNTING REQUIREMENTS.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION



TRAFFIC CONTROL PLAN LEVELING COURSE SUMMARY OF QUANTITIES

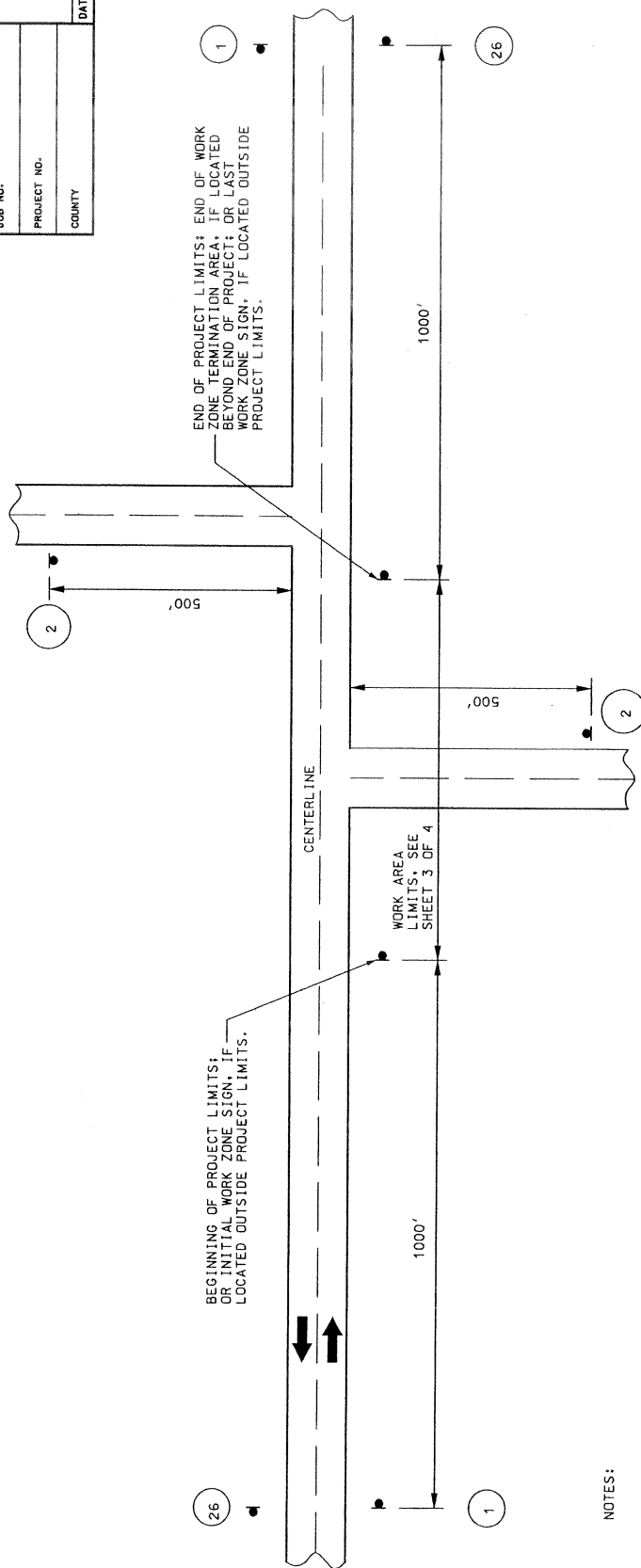
DATE: 05/22/03 EFFECTIVE: 10-01-2003

SPECIAL SHEET

1/4

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ROUTE	STATE	DISTRICT	SHEET NO.
	MO		
JOB NO.			
PROJECT NO.			
COUNTY			
DATE			



NOTES:

SIGN 1 IS ONLY USED ON PROJECT LENGTHS 2 MILES OR GREATER.

SIGN 26 MAY BE USED ON PROJECTS LESS THAN 2 MILES.

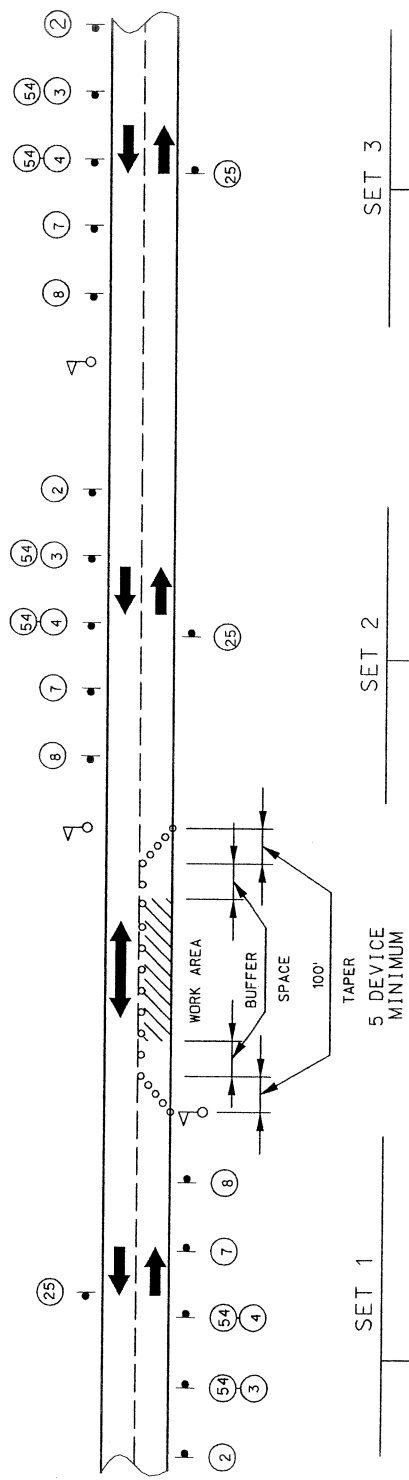
PROVIDE SIGNS IN EACH DIRECTION ON TWO-WAY HIGHWAY.

DISTANCE MAY BE ADJUSTED ACCORDING TO FIELD CONDITIONS.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	
TRAFFIC CONTROL PLAN LEVELING COURSE BEGINNING AND END OF PROJECT	
DATE: 05/26/03	EFFECTIVE: 10-01-2003
SPECIAL SHEET 2	
4	

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ROUTE	STATE	DISTRICT	SHEET NO.
	MO		
JOB NO.			
PROJECT NO.			
COUNTY			
DATE			



SIGN SPACING FOR ADVANCE SIGN SERIES (2) (3)		
SPEED (1) MPH	NON-DIVIDED HIGHWAYS	DIVIDED HIGHWAYS
≤40	350	---
45-55	500	850
≥60	850	1000

NOTES:

- DIMENSIONS IN FEET UNLESS OTHERWISE NOTED.
- (1) POSTED SPEED LIMIT PRIOR TO ROAD WORK.
 - (2) SPACING BETWEEN SIGNS, BETWEEN LAST SIGN AND FLAGGER, BEGINNING OF TAPER OR SIGNED CONDITION.
 - (3) SPACINGS MAY BE ADJUSTED AS NECESSARY TO MEET FIELD CONDITIONS. A MINIMUM SPACING OF 200' MAY BE USED ON NON-DIVIDED HIGHWAYS IN URBAN AREAS, ON RAMP OR OTHER AREAS WHERE CONDITIONS DICTATE.

THIS SET OF SIGNS IS PLACED WITH SIGN LEGEND TURNED AWAY FROM BOTH DIRECTIONS OF TRAFFIC UNTIL RESURFACING OPERATIONS APPROACH THE LOCATION OF SIGN SET 2, THEN THE SIGNS ARE POSITIONED TO FACE ONCOMING TRAFFIC.

AFTER SET 3 SIGNS ARE ERECTED, THE SET 2 SIGNS ARE MOVED TO THE OPPOSITE SIDE OF THE ROAD. WHEN THE RESURFACING OPERATION HAS CLEARED THE SET 2 LOCATION THE REQUIRED SIGN SPACING DISTANCES, THE SET 2 SIGNS BECOME SET 1 SIGNS.

WHEN RELOCATED SET 2 SIGNS ARE PLACED IN OPERATION, SET 1 SIGNS ARE MOVED AHEAD OF THE RESURFACING AND BECOME SET 3 SIGNS.

○ - CONES OR CHANNELIZERS. NO DIRECT PAYMENT WILL BE MADE FOR CONES OR CHANNELIZERS, OR FOR THE RELOCATION OF CONES OR CHANNELIZERS AS SHOWN ON THE PLANS.

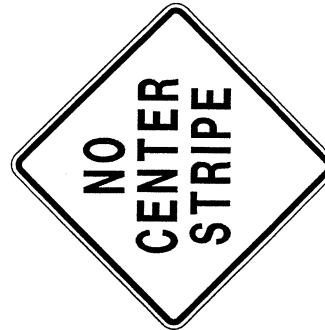
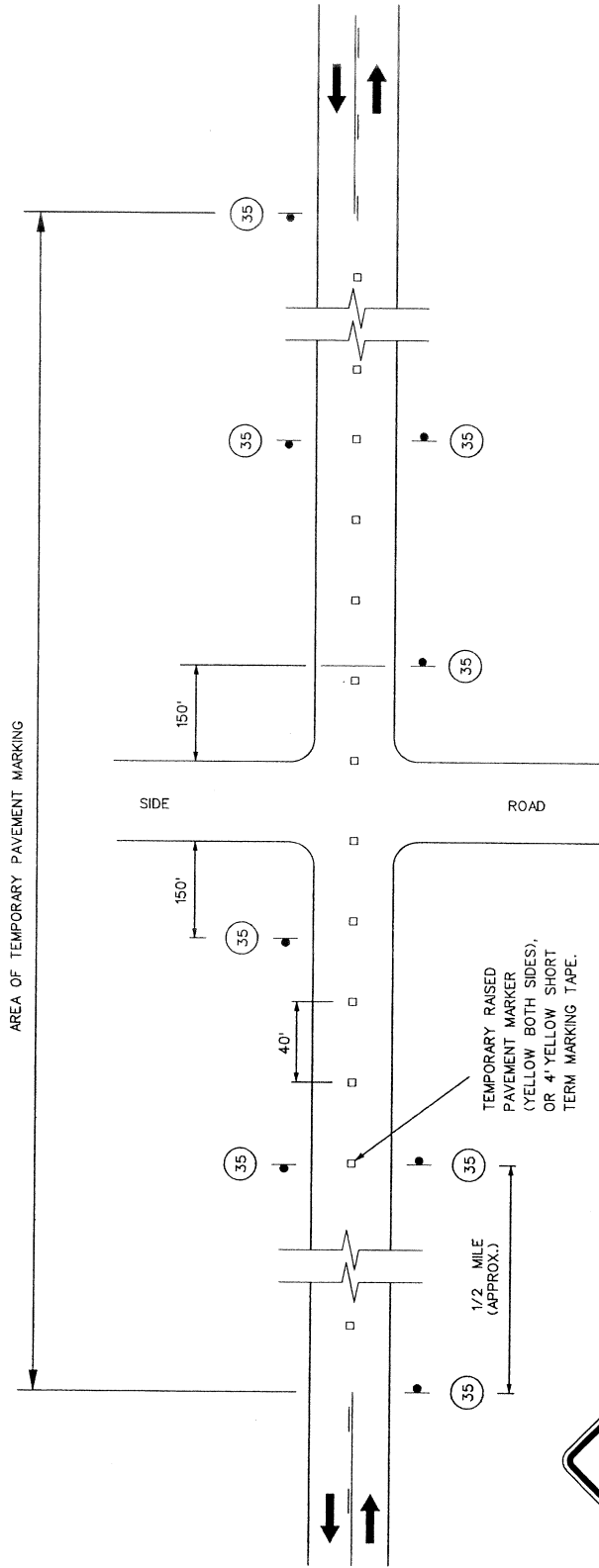
NOTES:

DAYLIGHT FLAGGING OPERATIONS ONLY.

CHANNELIZING DEVICES LOCATED DOWNSTREAM OF THE ONE-LANE, TWO-WAY TAPER ARE OPTIONAL. THESE DEVICES SHOULD BE ELIMINATED WHEN THEIR USE WILL REDUCE THE USABLE LANE WIDTH, INCLUDING ANY ACCEPTABLE SHOULDERS, TO LESS THAN 10' OR WILL SIGNIFICANTLY AFFECT THE RESURFACING OPERATION.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	
TRAFFIC CONTROL PLAN LEVELING COURSE FLAGGER CONTROL TWO WAY SINGLE LANE RESURFACING OPERATION DAYLIGHT OPERATION	
DATE: 10-01-2003	SPECIAL SHEET 3

"NO CENTER STRIPE" SIGNS



W08-12

35

36" X 36"

NOTES:

SIGN (35) AND TEMPORARY PAVEMENT MARKING INSTALLED WHERE CENTER STRIPING HAS BEEN COVERED OR REMOVED. SIGNS ARE TO REMAIN IN PLACE UNTIL THE PERMANENT CENTER PAVEMENT MARKINGS ARE IN PLACE. SIGNS SHALL BE COVERED OR REMOVED WHEN PERMANENT CENTER PAVEMENT MARKING HAS BEEN INSTALLED.

SIGN (35) IS PLACED AT APPROXIMATELY ONE-HALF MILE INTERVALS AND AT SIDE ROADS. WHEN SIGN (35) IS INSTALLED AT A SIDE ROAD, ANY OTHER SIGN (35) LOCATED WITHIN ONE-EIGHTH OF A MILE FROM THE SIDE ROAD MAY BE DELETED.

SIGN (35) SHALL BE POST MOUNTED IN ACCORDANCE WITH STANDARD PLANS 616.10 AND 903.03.

TEMPORARY RAISED PAVEMENT MARKERS SHALL BE INSTALLED BY THE END OF EACH DAY AT NO DIRECT PAY.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION



TRAFFIC CONTROL PLAN
LEVELING COURSE
BEGINNING AND END OF PROJECT

DATE: 05/24/03 EFFECTIVE: 10-01-2003

SPECIAL SHEET

4

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