

PROJECT NO.	SHEET NO.
AFE-6004	1
▲ CONTRACT ID.	M7TLOC
▲ CONTRACT ID.	
■ CONTRACT ID.	

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922-R8	(2 SHEETS) TRAFFIC CONTROL FOR ASPHALT SURFACING
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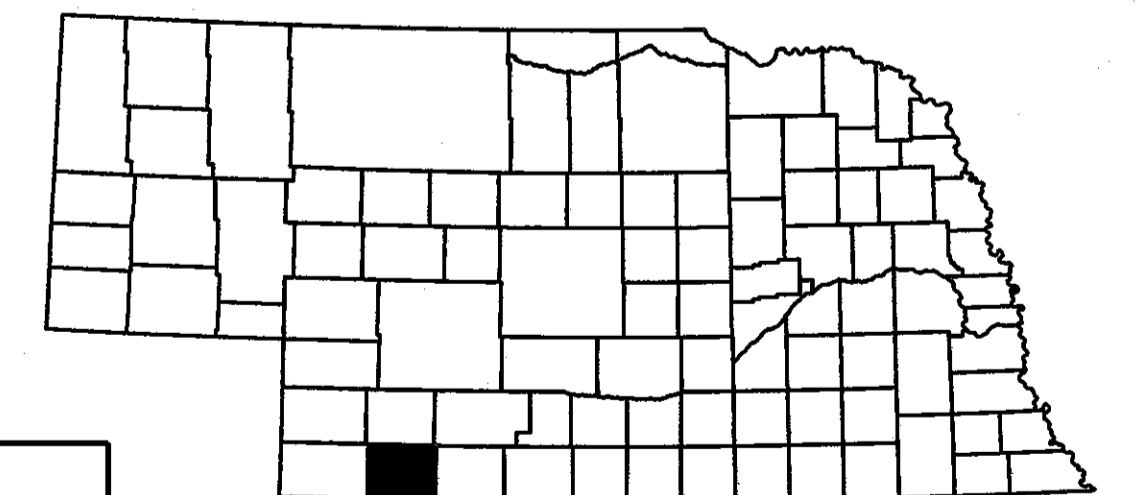
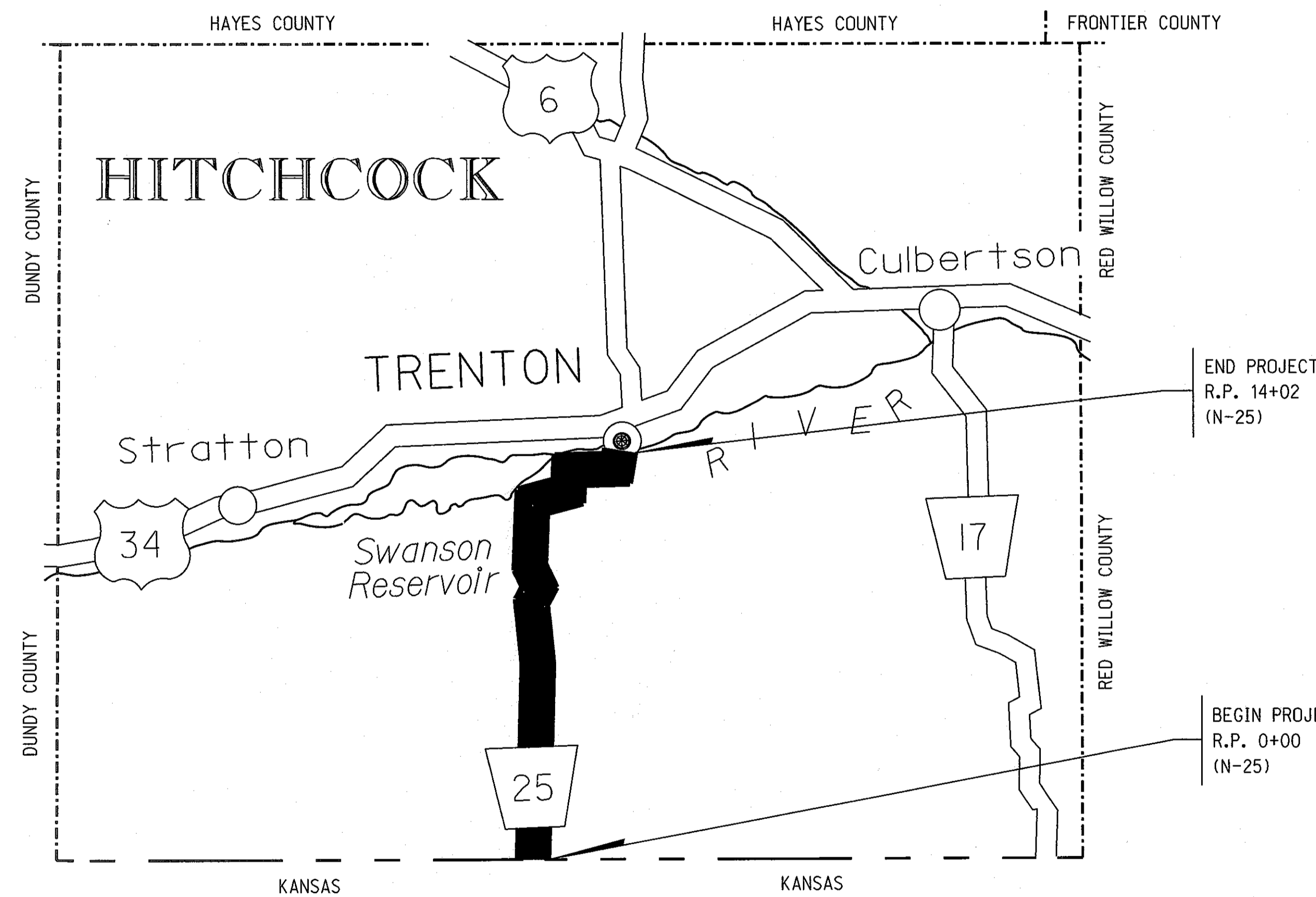
**STATE OF NEBRASKA  
DEPARTMENT OF ROADS  
PLANS FOR CONSTRUCTION  
HIGHWAY 25  
KANSAS LINE - TRENTON  
HITCHCOCK COUNTY**



THE 2007 EDITION OF THE NEBRASKA STANDARD SPECIFICATIONS AND THE SPECIAL PROVISIONS APPLY TO THIS PROJECT.

THE WORK ON THIS PROJECT CONSISTS OF GROUPS	
9-BITUMINOUS	
▲ GROUPS	9 ARE INCLUDED
IN THE LETTING OF FEBRUARY 6, 2014	
▲ GROUPS	ARE INCLUDED
IN THE LETTING OF	
■ GROUPS	ARE INCLUDED
IN THE LETTING OF	

DESIGN DESIGNATION
MAINTENANCE
TRAFFIC
YEAR: 2014
ADT: 740



**CONVENTIONAL SIGNS**

FENCE R.O.W. OR WIRE	
GUARDRAIL	
TRAVELED WAY	
DIKE	
CULVERT	
POWER POLE	
TELEPHONE POLE	
MAILBOX	
RAILROAD TRACKS	
MARSH	
TREE - CONIFEROUS	
TREE - DECIDUOUS	

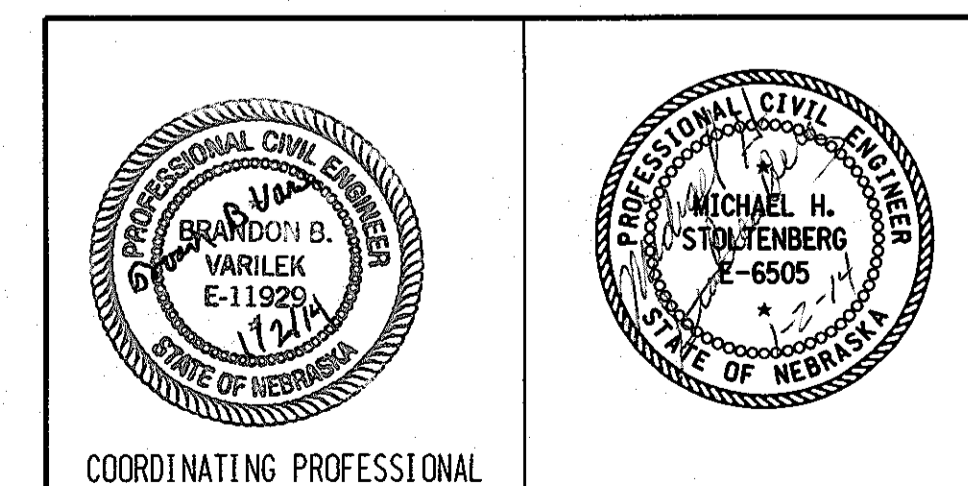
**R.O.W. LEGEND**

NEW CONTROLLED ACCESS	
PREVIOUS CONTROLLED ACCESS	
LIMITS OF CONSTRUCTION	
PREVIOUS R.O.W.	
NEW R.O.W.	
EXISTING PERMANENT EASEMENT	
TEMPORARY EASEMENT	
EXCESS TAKING	
PERMANENT EASEMENT	
EXISTING RAILROAD EASEMENT	
NEW RAILROAD PERMANENT EASEMENT	
NEW RAILROAD TEMPORARY EASEMENT	

REFERENCE POST NO. 0+00 TO REFERENCE POST NO. 14+02

EXCEPTIONS: FROM STA. TO STA.

TOTAL NET LENGTH OF PROJECT: 74,025.60 FEET 14.020 MILES



CONSTRUCTION DIVISION

Computer: DRCONSTRUCT10

User: dor17005

Date: 31-DEC-2013 14:31

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Scale: 1:100

PROJECT NO.	SHEET NO.
AFE-G004	2-5

CONTRACT ID. M7TLOC

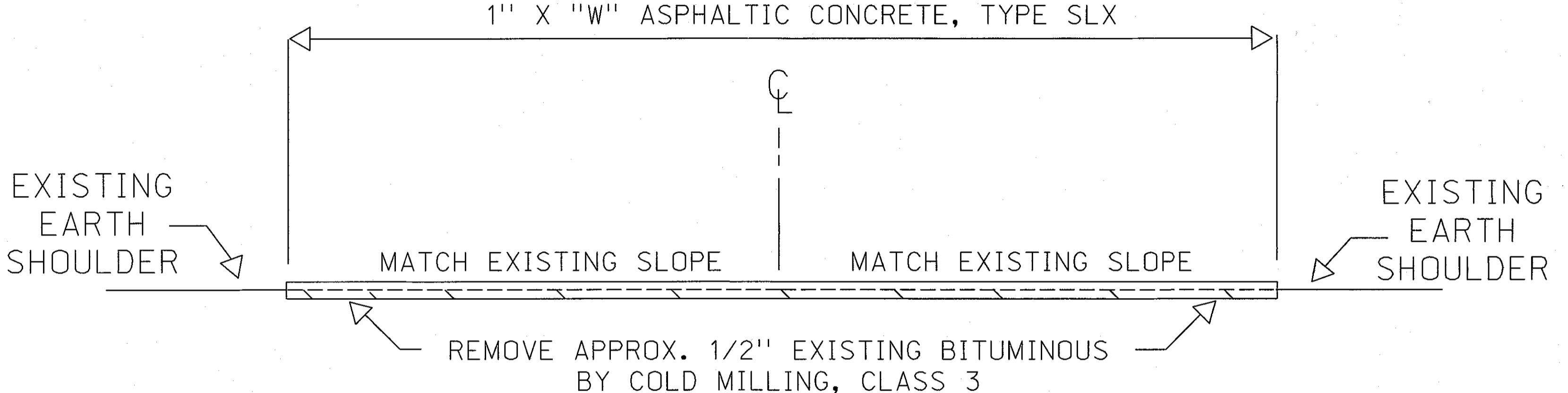
# SUMMARY OF QUANTITIES

## BITUMINOUS SURFACING ITEMS GROUP 9

ITEM	QUANTITY	UNITS
BARRICADE, TYPE II	3,300.000	BDAY
BARRICADE, TYPE III	136.000	BDAY
TEMPORARY SIGN DAY	210.000	EACH
SIGN DAY	3,665.000	EACH
OVERLAY BROKEN LINES	1,480.000	STA
OVERLAY SOLID LINES	2,960.000	STA
PERMANENT PAVEMENT MARKING, PAINT	185,064.000	LF
FLAGGING	30.000	DAY
FURNISHING AND OPERATING PILOT VEHICLE	15.000	DAY
MOBILIZATION	1.000	LS
STOP AHEAD SYMBOL	1.000	EACH
PREFORMED PAVEMENT MARKING		
HYDRATED LIME/WARM MIX ASPHALT	12,795.000	EACH
ASPHALTIC CONCRETE, TYPE SLX	12,295.000	TON
ASPHALTIC CONCRETE FOR PATCHING, TYPE SLX	500.000	TON
PERFORMANCE GRADED BINDER (64-34)	537.390	TON
TACK COAT	34,150.000	GAL
FOG SEAL	3,500.000	GAL
RENTAL OF LOADER, FULLY OPERATED	50.000	HOUR
RENTAL OF MOTOR GRADER, FULLY OPERATED	50.000	HOUR
RENTAL OF DUMP TRUCK, FULLY OPERATED	50.000	HOUR
RENTAL OF SKID LOADER, FULLY OPERATED	50.000	HOUR
COLD MILLING, CLASS 3	853.809	STA
RAP INCENTIVE PAYMENT	21,752.000	EACH
ASPHALT PAVEMENT SMOOTHNESS TESTING	1.000	LS

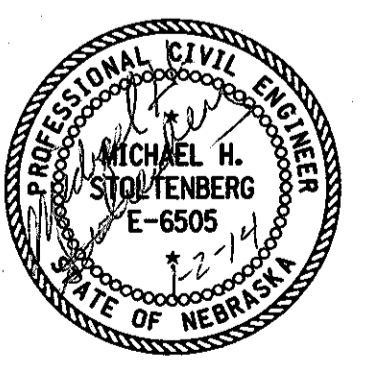
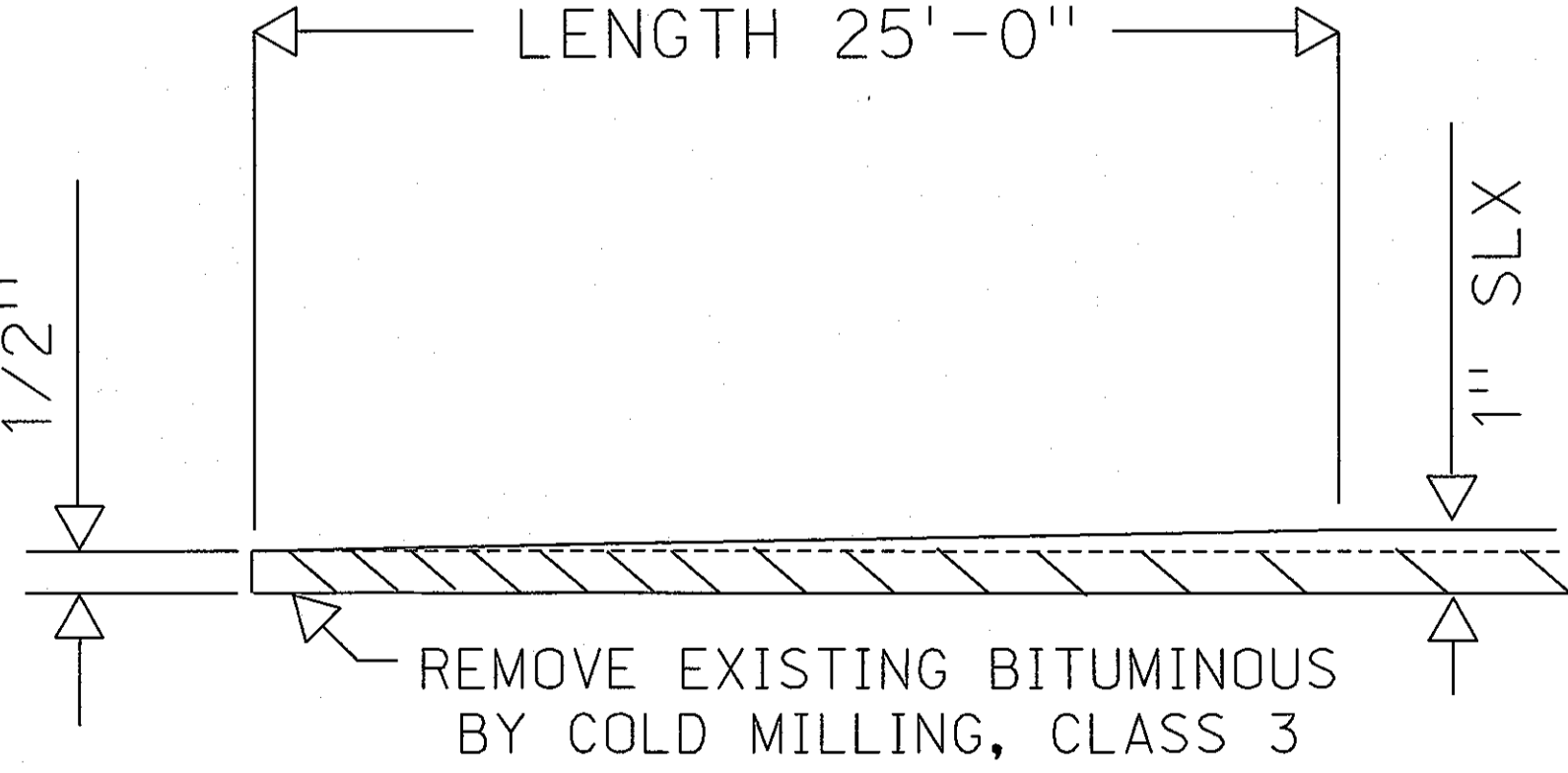
<b>TYPES OF ASPHALTIC OIL TO BE USED</b>
TACK COAT: SS-I, SS-II, CSS-I, OR CSS-II FOG SEAL: SS-III, CSS-III
<b>PERFORMANCE GRADED BINDER</b>
AASHTO DESIGNATION M320

# TYPICAL CROSS SECTIONS



REFERENCE POST	TO REFERENCE POST	"W"
0+00	- 10+22	24'-0"
10+22	- 14+02	28'-0"

## TRANSITION DETAIL FROM EXISTING PAVEMENT TO NEW ASPHALTIC CONCRETE, TYPE SLX



CONSTRUCTION DIVISION

Computer: DRCONSTRUCT10

User: dor17005

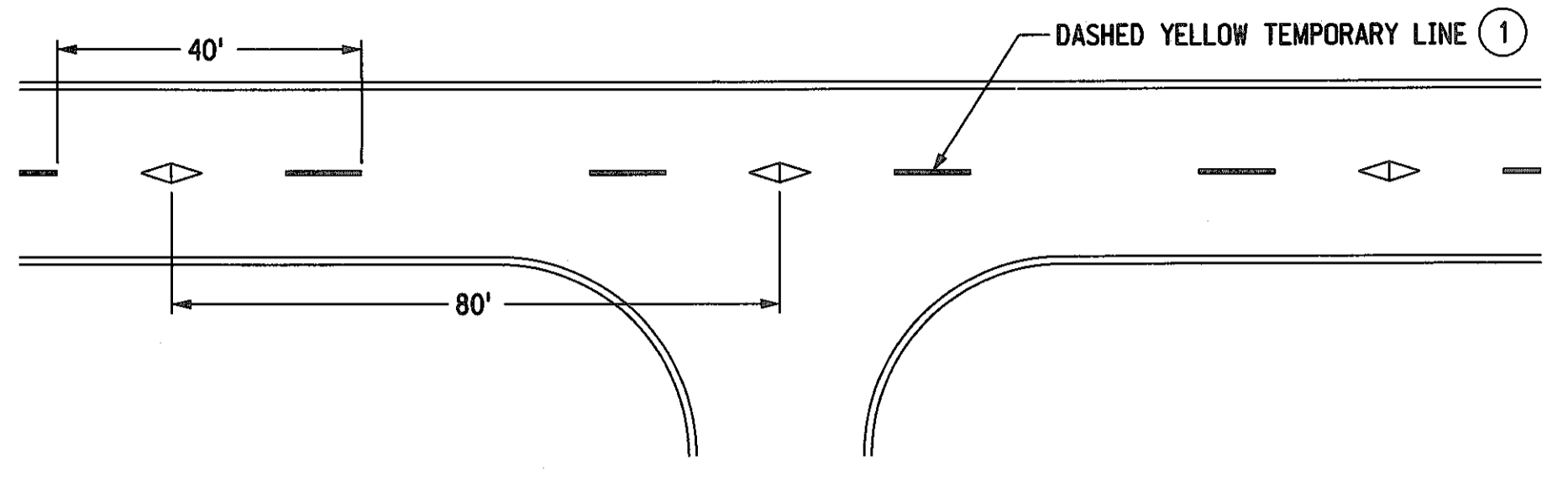
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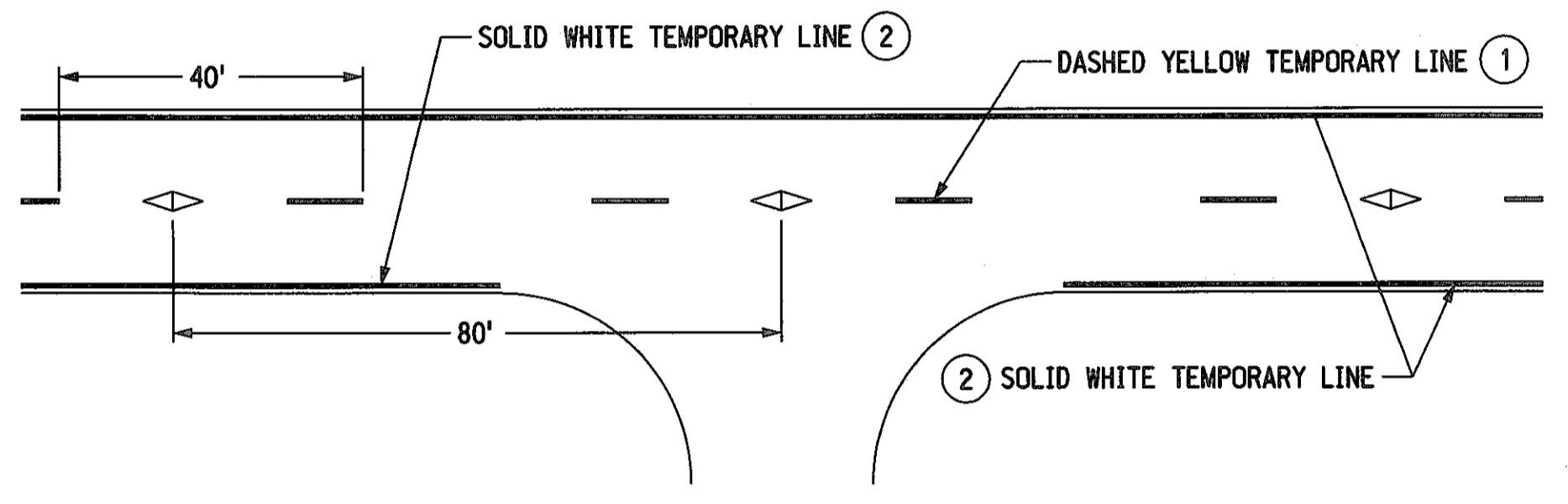
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### 2 LANE ROADWAYS

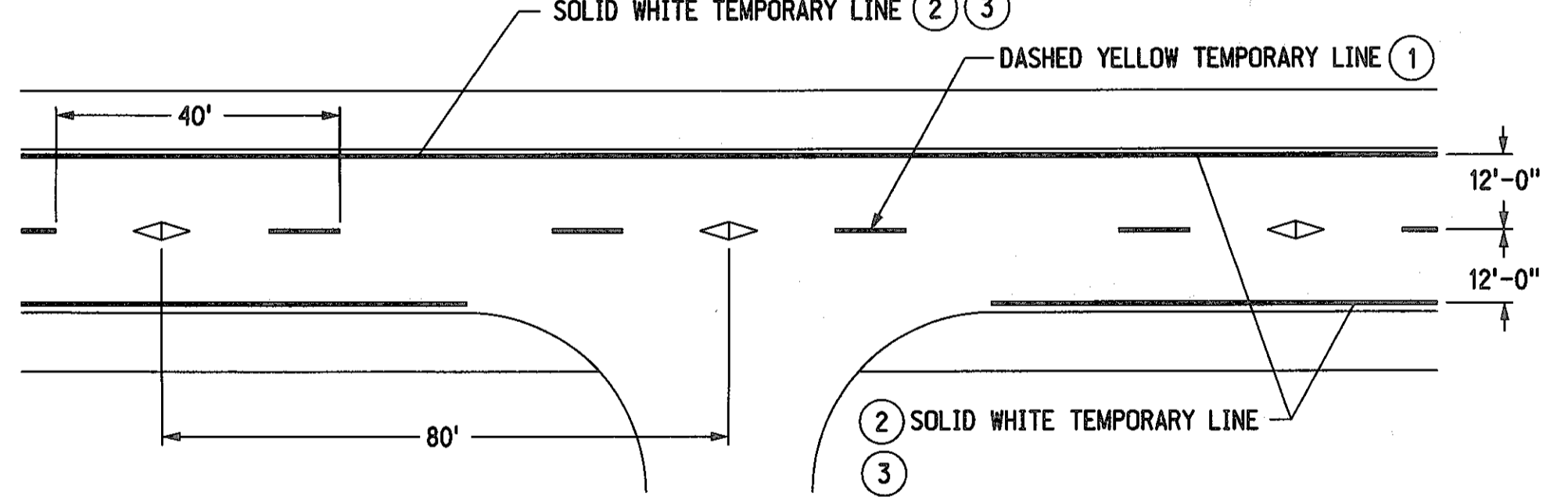
2 LANE WITH CURBS



### 2 LANE EARTH SHOULDERS

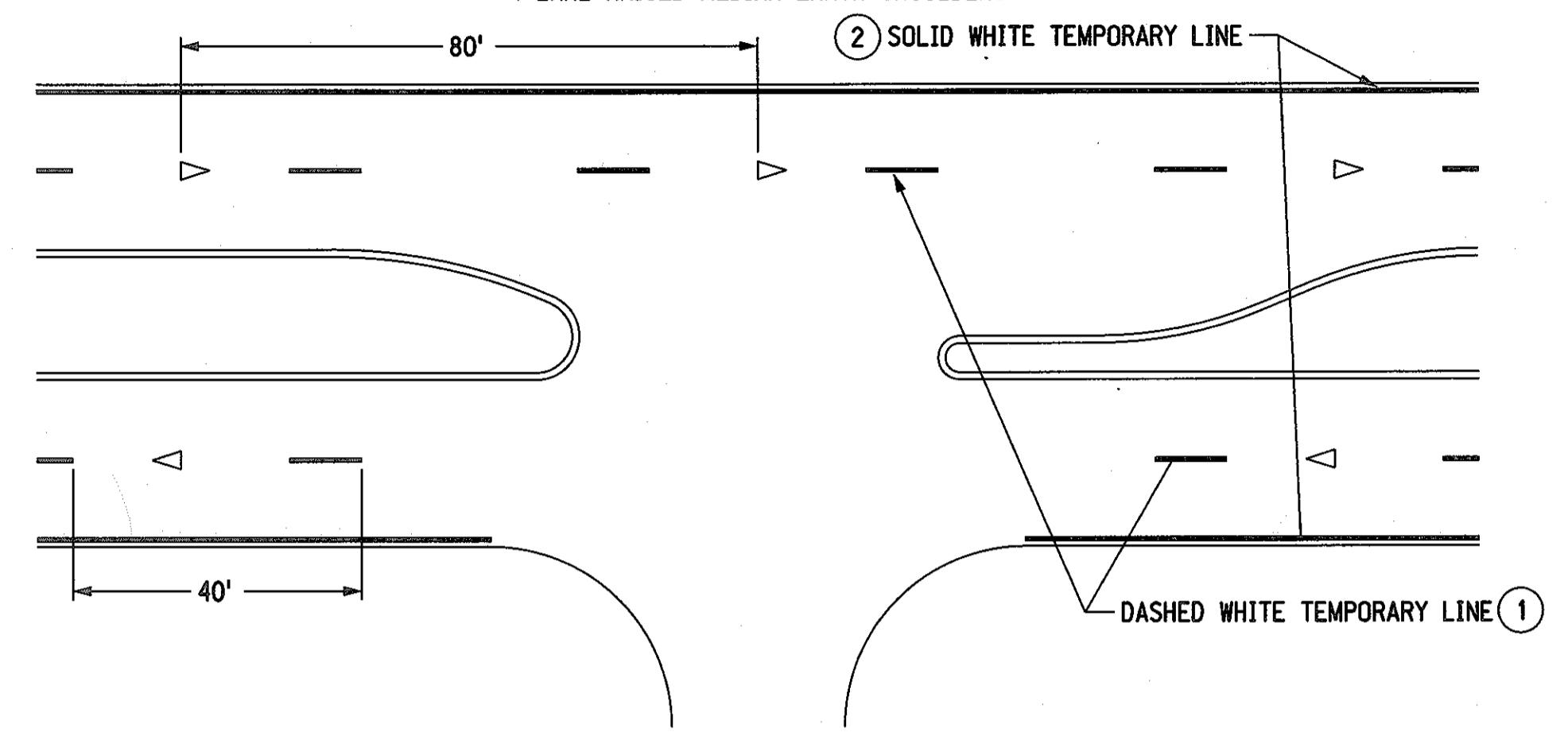


### 2 LANE SURFACED SHOULDERS

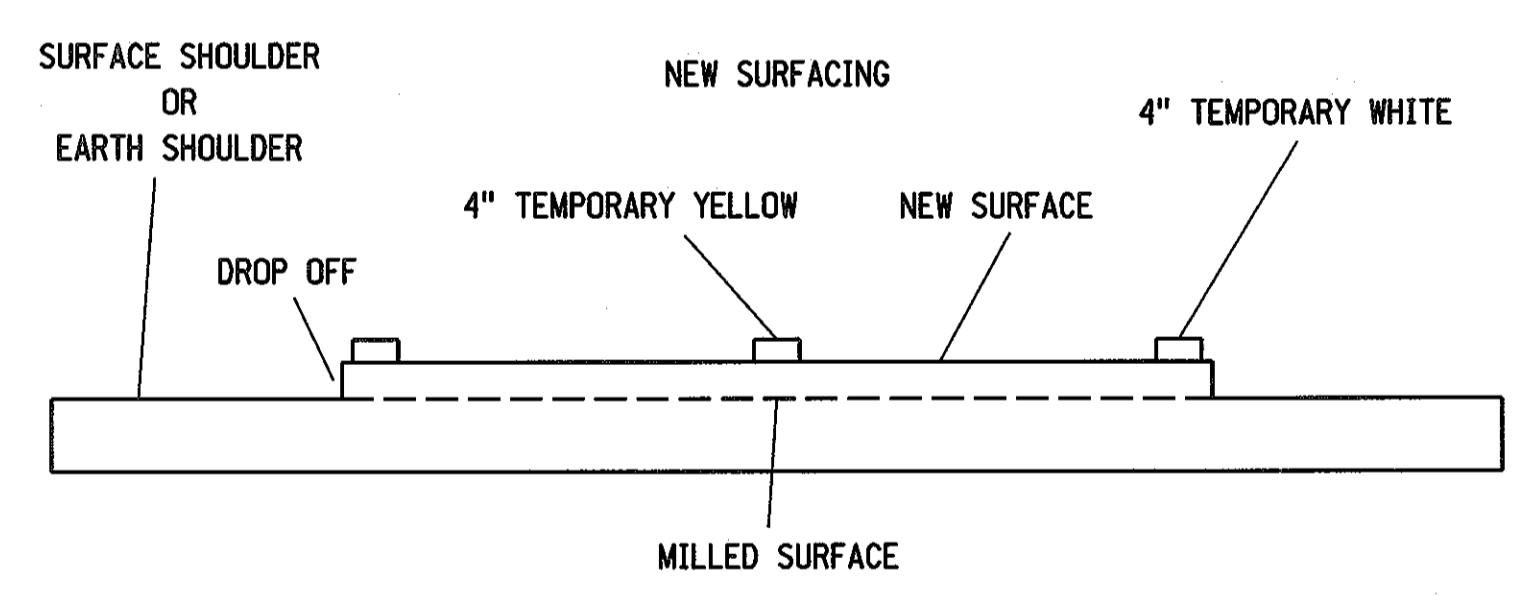
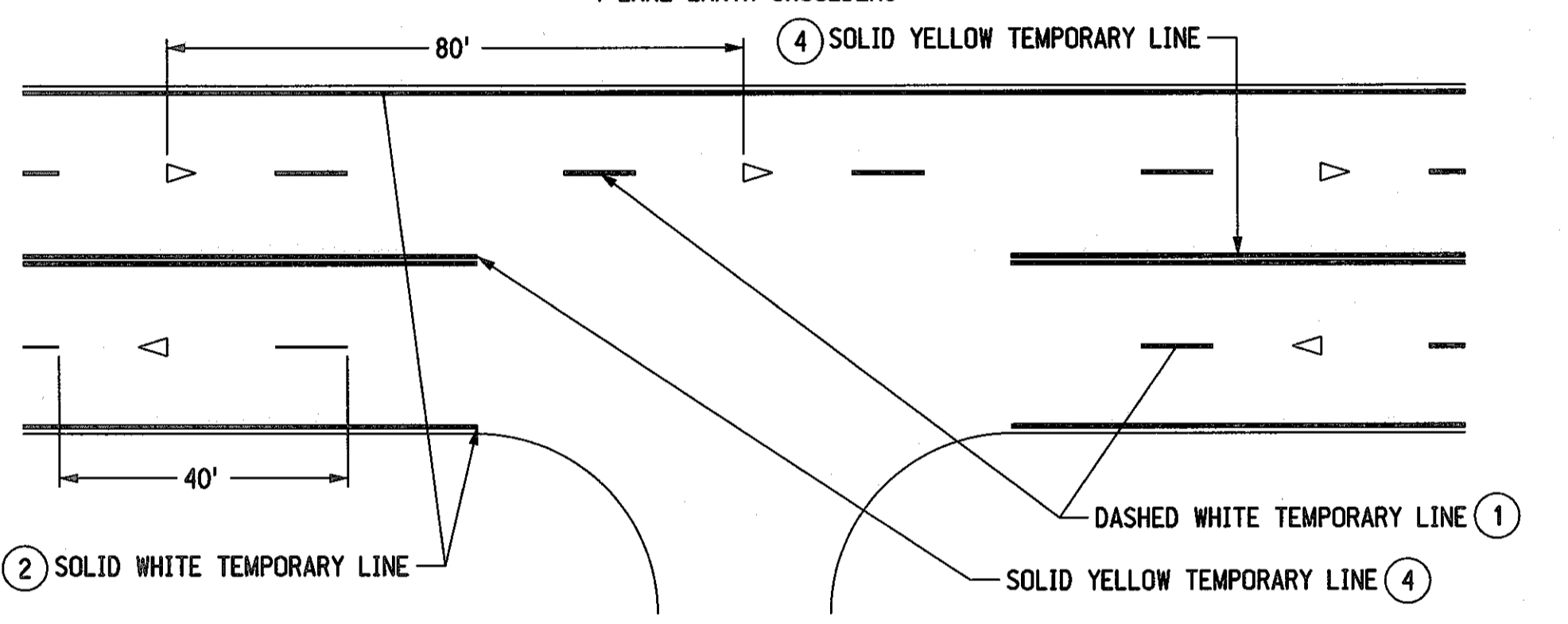


### 4 LANE ROADWAYS

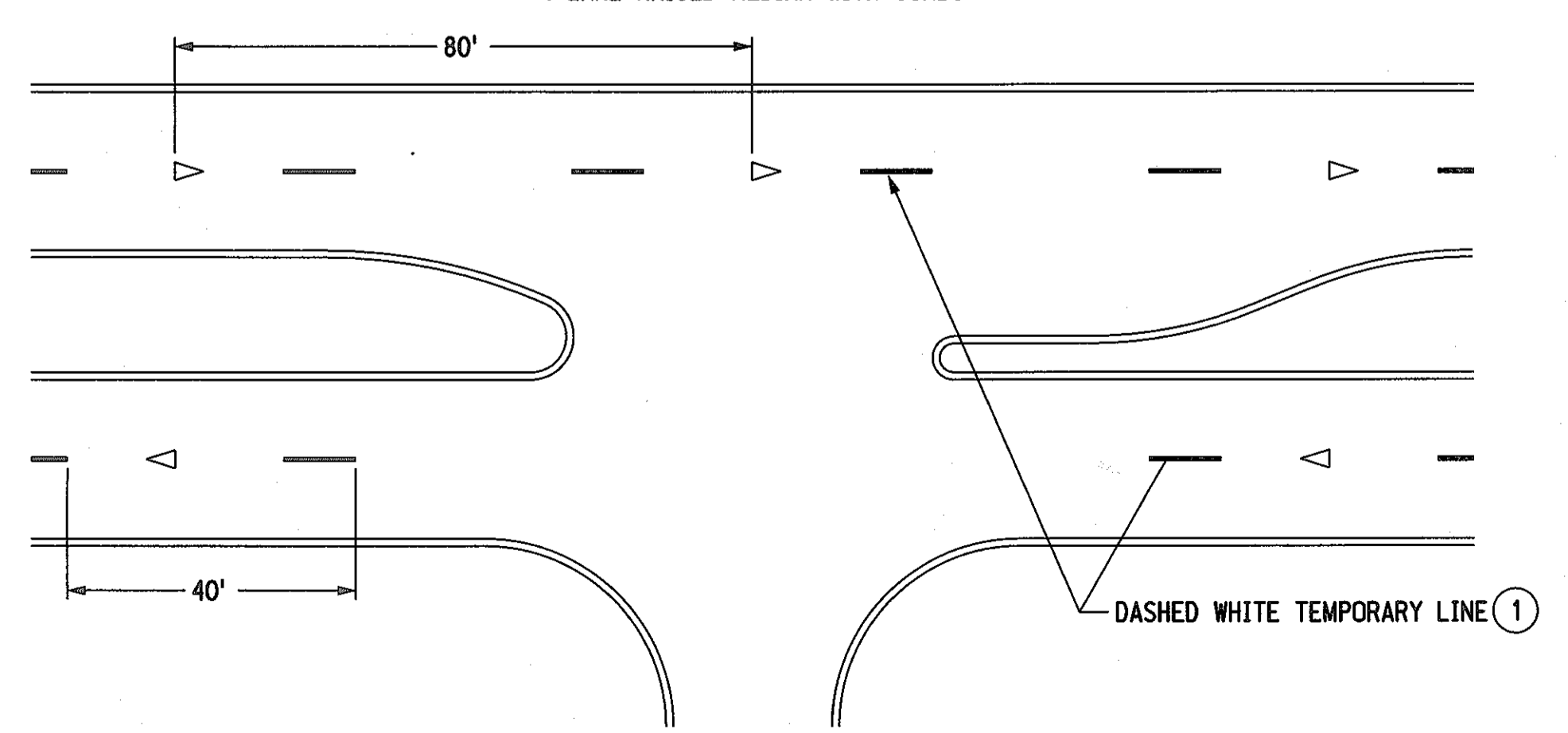
#### 4 LANE RAISED MEDIAN EARTH SHOULDERS



#### 4 LANE EARTH SHOULDERS

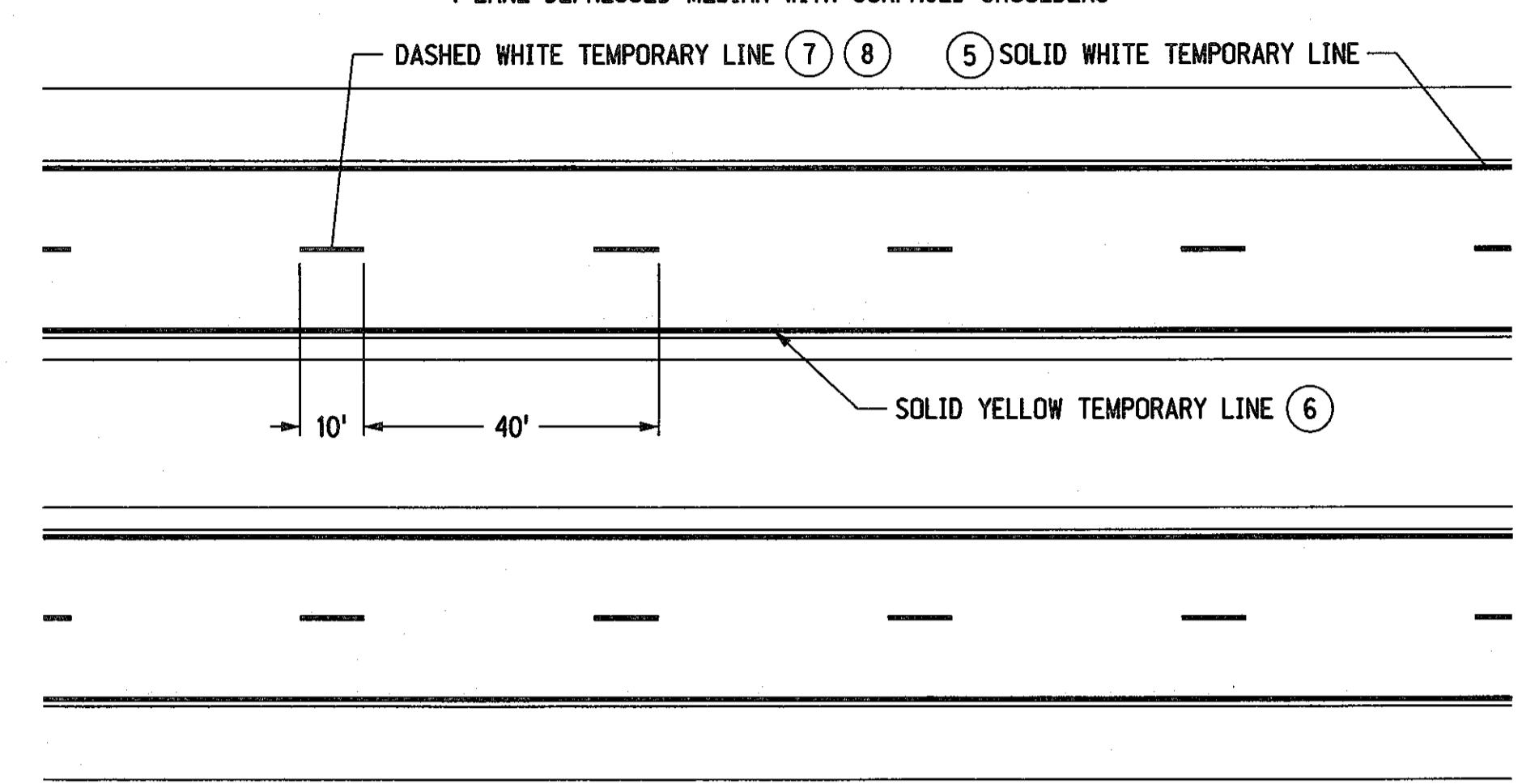


#### 4 LANE RAISED MEDIAN WITH CURBS



### FREEWAY/RURAL EXPRESSWAY

#### 4 LANE DEPRESSED MEDIAN WITH SURFACED SHOULDERS



### NOTES

- ① LOWER LAYERS: TEMPORARY DASHED LINE SHALL BE 4" X 10' PAINTED LINE AT 40' INTERVALS OR 4" X 4' TYPE I TAPE LINE AT 40' INTERVALS. TAPE OR PAINT WILL BE SUPPLEMENTED WITH AN OVERLAY MARKER EVERY 80 FEET.
  - OVERLAY MARKERS ARE NOT REQUIRED ON MILLED SURFACES, HYDRATED LIME SURFACES AND STABILIZED SURFACES.
- TOP LAYER:
  - BROKEN LINE MARKINGS
    - INSTALL 4" X 4' TAPE AT 40' INTERVALS SUPPLEMENTED WITH AN OVERLAY MARKER EVERY 80 FEET.
    - OR USE NO TAPE, BUT INSTALL 2 RAISED PAVEMENT MARKERS SPACED 5' APART AT 40' INTERVALS.
  - SOLID LINE MARKINGS
    - 4" WIDE PAINTED LINE OR PAVEMENT MARKING TAPE. RAISED PAVEMENT MARKERS MAY BE USED IN LIEU OF PAINT OR TAPE, INSTALLED AT 10' INTERVALS.
- ARMOR COATS  
FOG SEALS: 2 OVERLAY MARKERS 5' APART, PER 40 FOOT CYCLE (NO PAINT OR TAPE).
- ② TEMPORARY SOLID LINE SHALL BE 4" WIDE PAINTED LINE.
- ③ EDGE LINE SHALL BE PLACED SO THAT THE OUTSIDE EDGE OF PAINT IS THE REQUIRED DISTANCE FROM CENTERLINE ON THE TOP LIFT
- ④ TEMPORARY CENTERLINE SHALL BE TWO 4" PAINTED LINES SPACED 4" APART, CENTERED ABOUT THE JOINT LINE.
- ⑤ EDGELINE SHALL BE 4" PAINTED LINE. PLACED TO THE LEFT OF JOINT LINE.
- ⑥ ALL LAYERS: EDGELINE SHALL BE PLACED 12'-0" FROM THE CENTER JOINT LINE. (RIGHT OF SHOULDER JOINT LINE WHEN APPLICABLE)
- ⑦ MILLED SURFACE OR LOWER LIFTS: THE TEMPORARY WHITE DASH LINE SHALL BE 4" X 10' MINIMUM PAINTED LINE AT 40' INTERVALS, PLACED TO THE LEFT OF THE JOINT LINE.
- ⑧ TOP LIFT: THE TEMPORARY WHITE DASH LINE SHALL BE 4" IN WIDTH X MINIMUM 8' TO MAXIMUM 10' LENGTH, PLACED 2" TO THE LEFT OF THE JOINT LINE. THE INTERVAL (CYCLE) SHALL BE 40' ± 2" TO ALLOW FOR THE PERMANENT PAVEMENT MARKING.
- ⑨ ALL TEMPORARY PAVEMENT MARKING THAT WILL BE COVERED BY PERMANENT PAVEMENT MARKING SHALL COMPLY WITH THE ALIGNMENT AND LOCATION REQUIREMENTS OF THE FINAL PAVEMENT MARKING MATERIAL. TEMPORARY PAVEMENT MARKINGS THAT ARE NOT COVERED BY THE PERMANENT MARKINGS SHALL BE REMOVED AT THE CONTRACTOR'S EXPENSE.

ROADWAY WIDTH	SHOULDER TYPE	DISTANCE FROM C OF ROADWAY TO OUTSIDE EDGE OF PAVEMENT
LESS THAN 24'	SURFACED	EDGE OF LANE
LESS THAN 24'	EARTH	PAVEMENT EDGE
24'	EARTH	PAVEMENT EDGE
24'	SURFACED	12'-0" *
24' TO 28'	EARTH	12'-0" *

\* SEE NOTE 3

CENTERLINE MARKING SHALL BE PLACED ON THE "SOUTH" SIDE OF THE CENTER JOINT ON EAST-WEST ROADS AND ON THE "EAST" SIDE OF THE CENTER JOINT ON NORTH-SOUTH ROADS

### LEGEND

- ◁ OVERLAY MARKER
- ◁ BIDIRECTIONAL OVERLAY MARKER

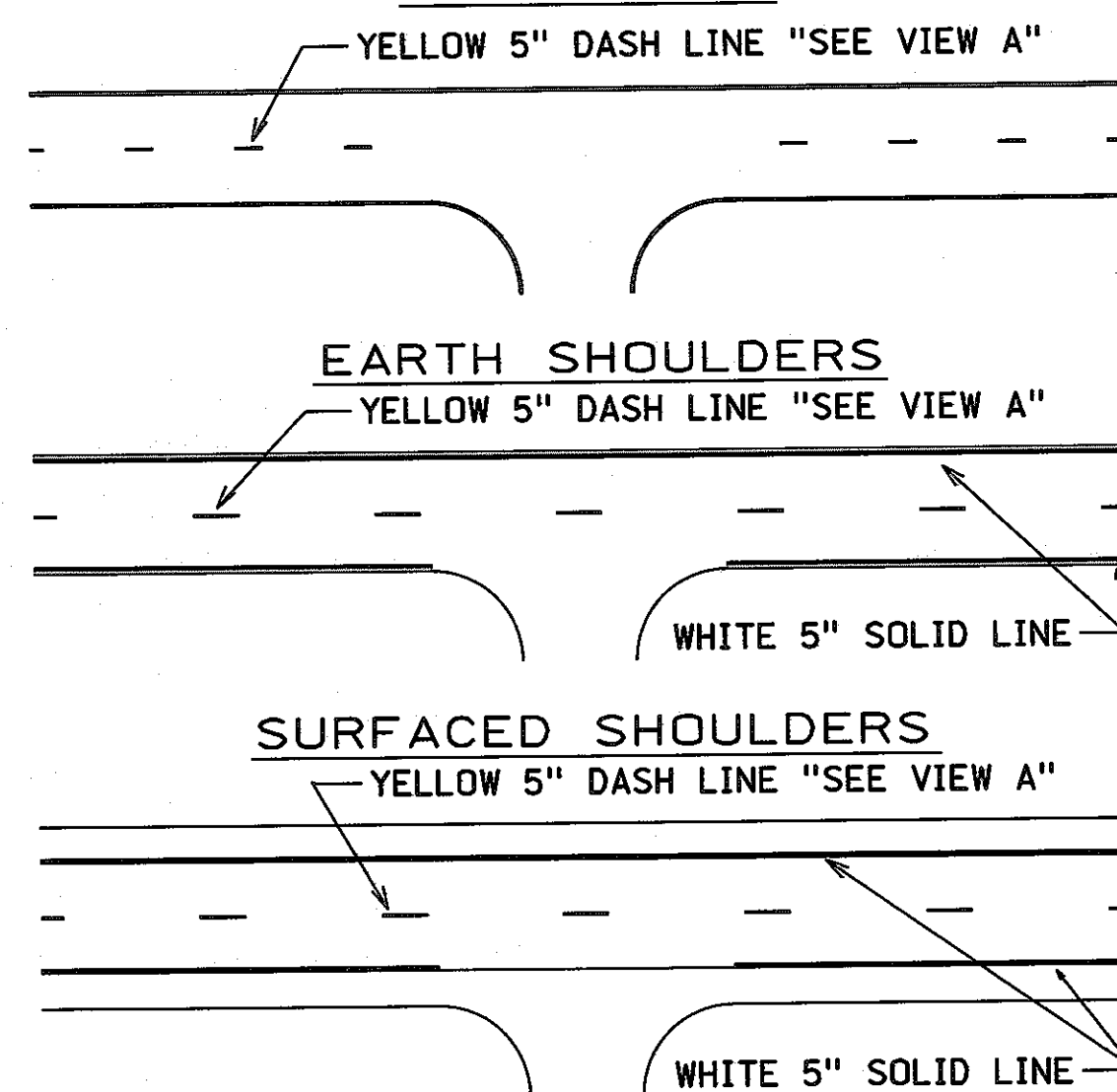


### NEBRASKA DEPARTMENT OF ROADS TRAFFIC ENGINEERING DIVISION

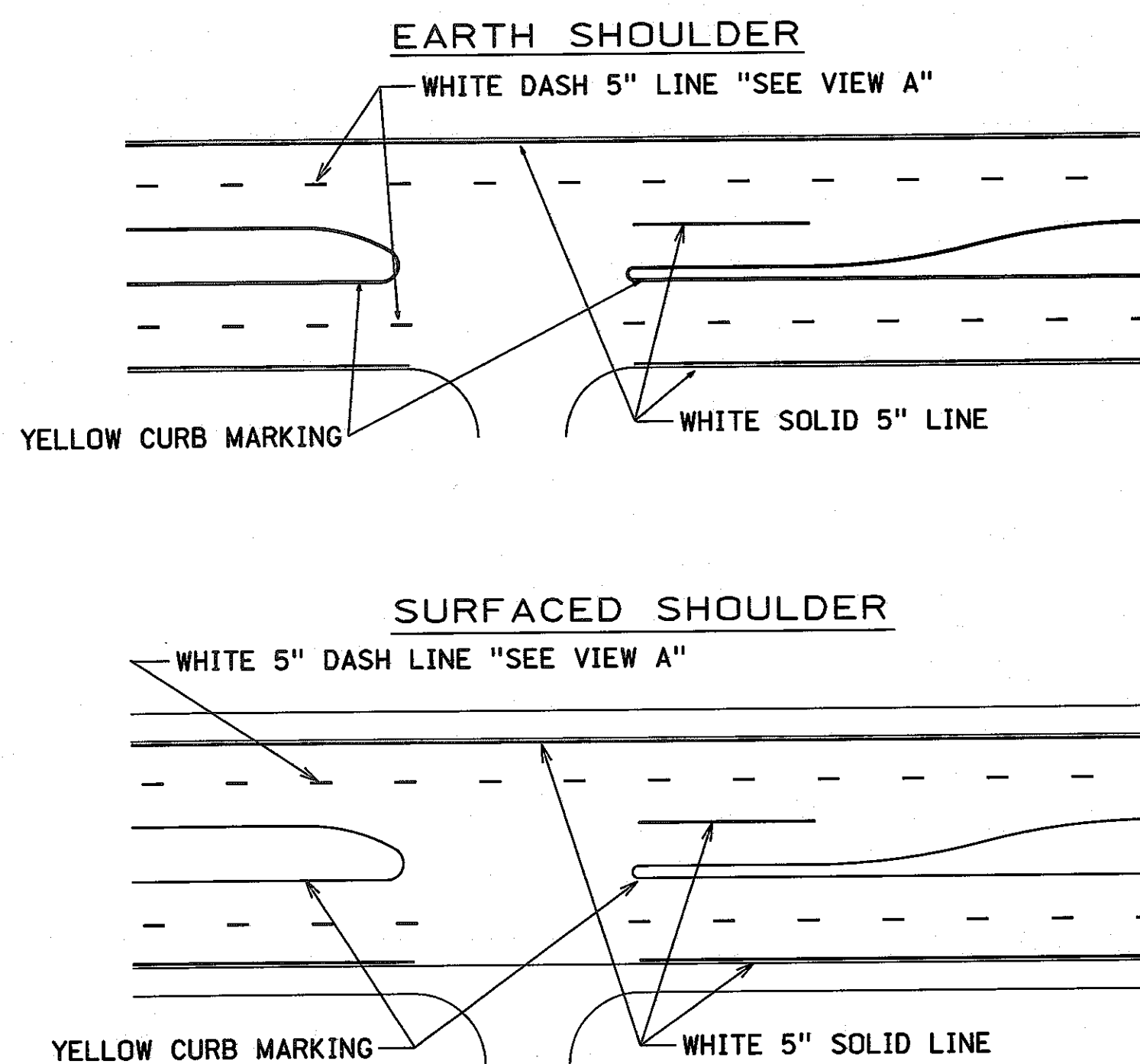
#### TYPICAL PAVEMENT MARKING

DESIGNED: DV	TEMPORARY PAVEMENT MARKING PLAN	1/1
REVIEWED: MAN	TRAFFIC ENGINEER	DATE
DATE DRAWN: 8/06		

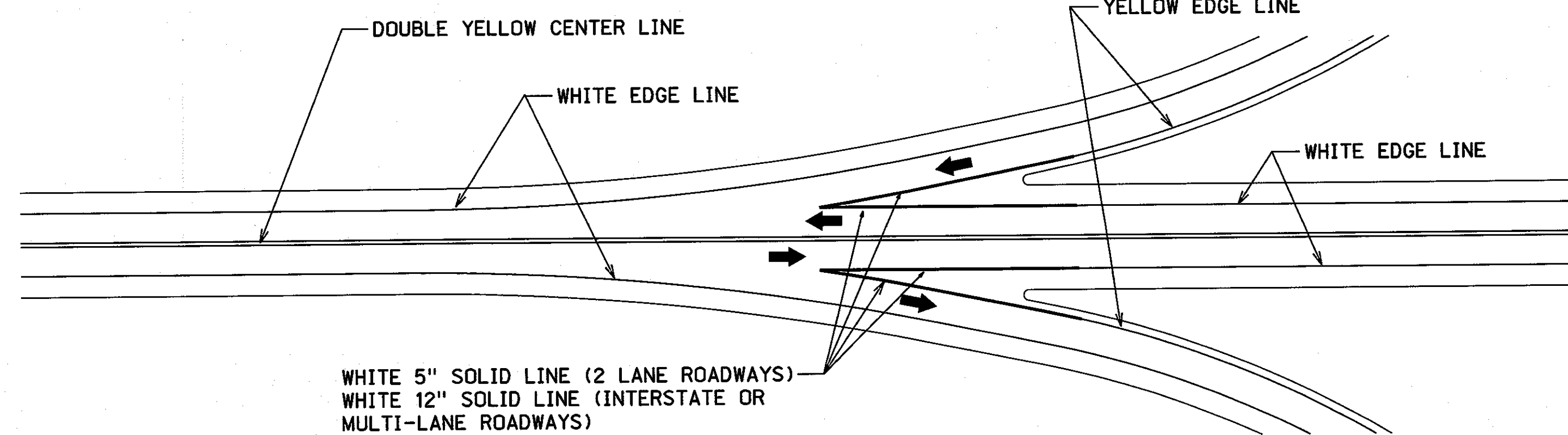
### 2 LANE ROADWAYS WITH CURBS



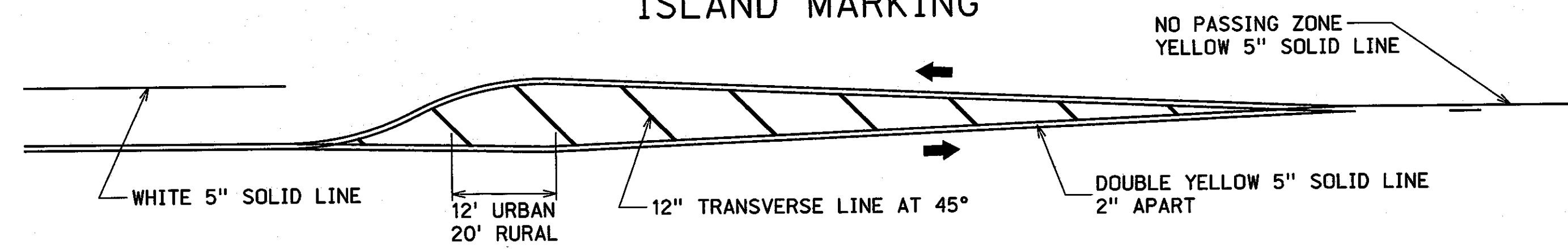
### 4 LANE DIVIDED ROADWAY



### GORE MARKINGS (NON-FREEWAY)



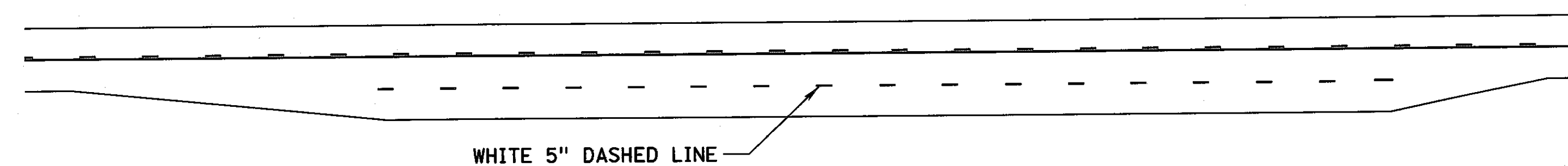
### ISLAND MARKING



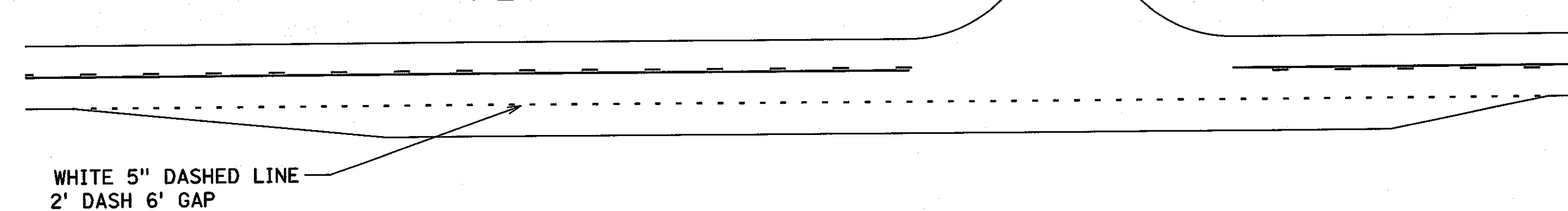
2-LANE ROADWAY REQUIRED LOCATION FOR EDGE LINES		
ROADWAY WIDTH	SHOULDER TYPE	DISTANCE FROM CENTERLINE OF ROADWAY TO OUTSIDE EDGE OF PAVEMENT EDGELINE
LESS THAN 24 FT	SURFACED	12 FT 0 IN
LESS THAN 24 FT	EARTH	PAVEMENT EDGE
24 FT	EARTH	PAVEMENT EDGE
24 FT	SURFACED	12 FT 0 IN
GREATER THAN 24 FT	EARTH	12 FT 0 IN

CENTERLINE MARKING SHALL BE PLACED ON THE "SOUTH" SIDE OF THE CENTER JOINT ON EAST-WEST ROADS AND ON THE "EAST" SIDE OF THE CENTER JOINT ON NORTH-SOUTH ROADS

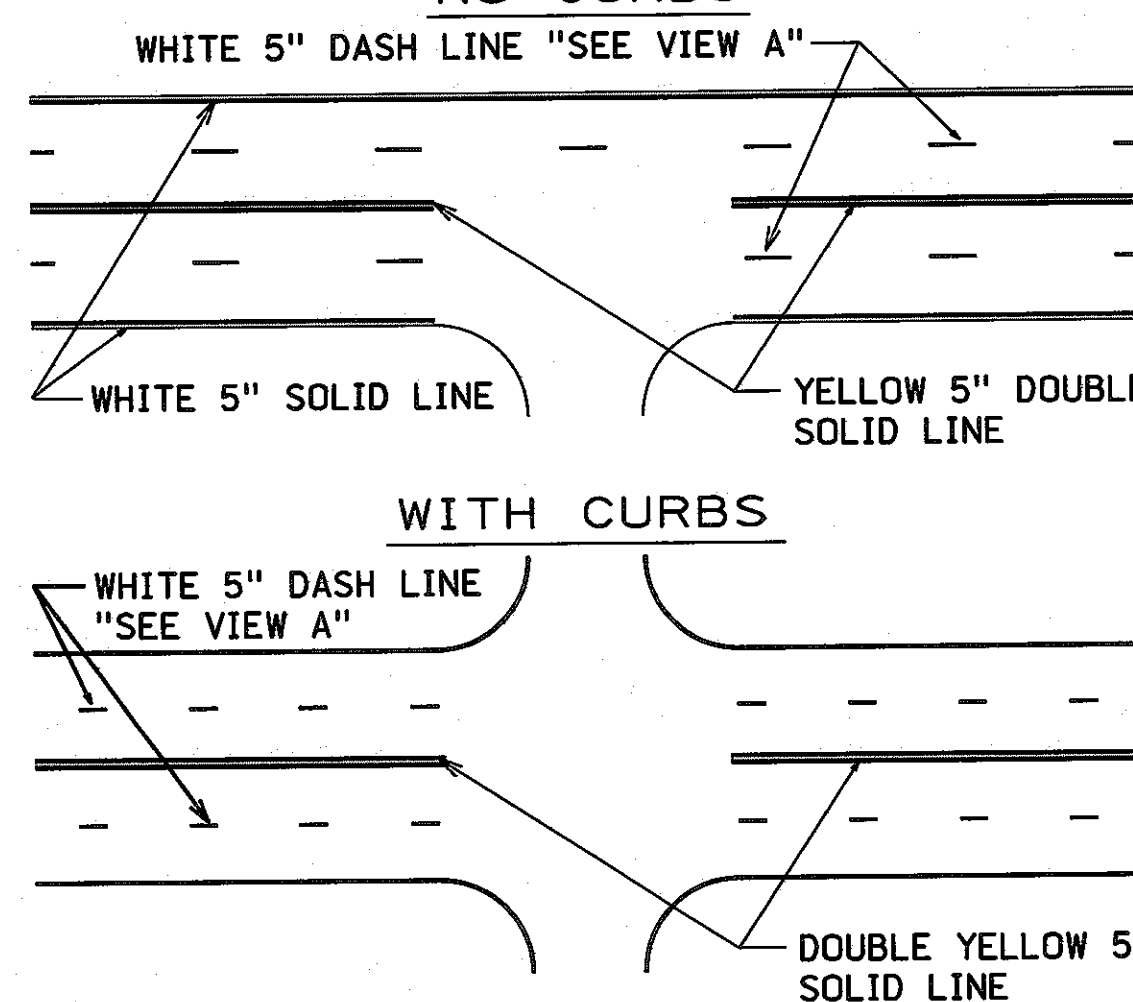
### PASSING LANE MARKING



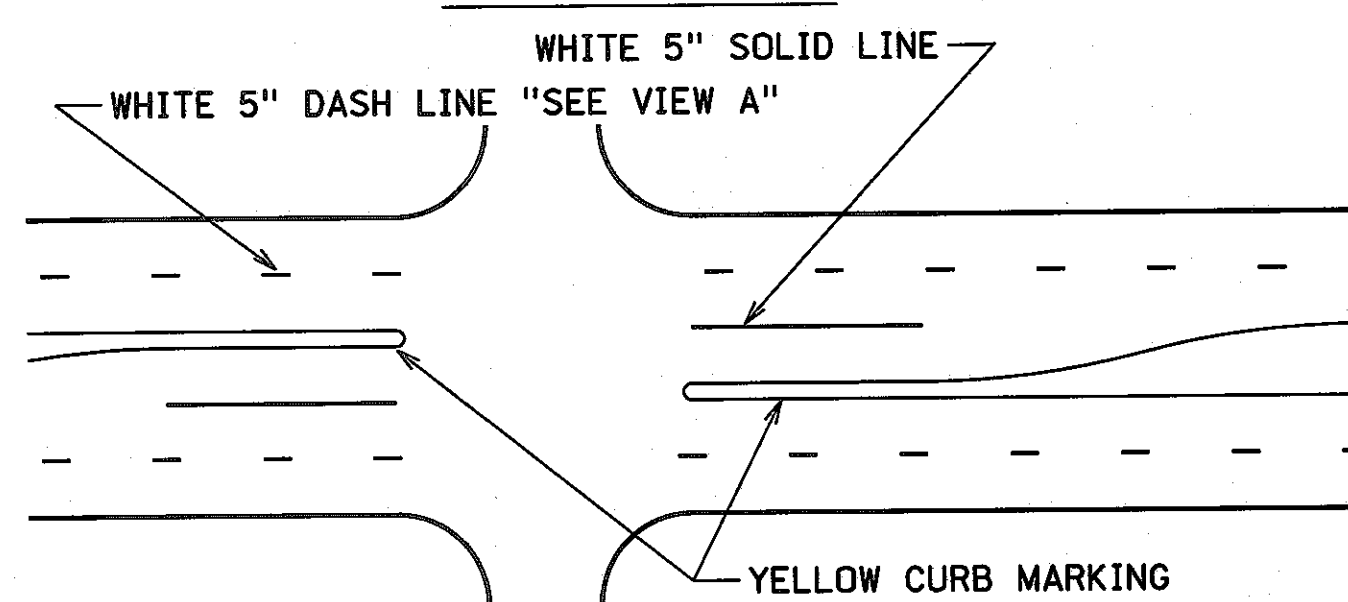
### FLY-BY LANE MARKING



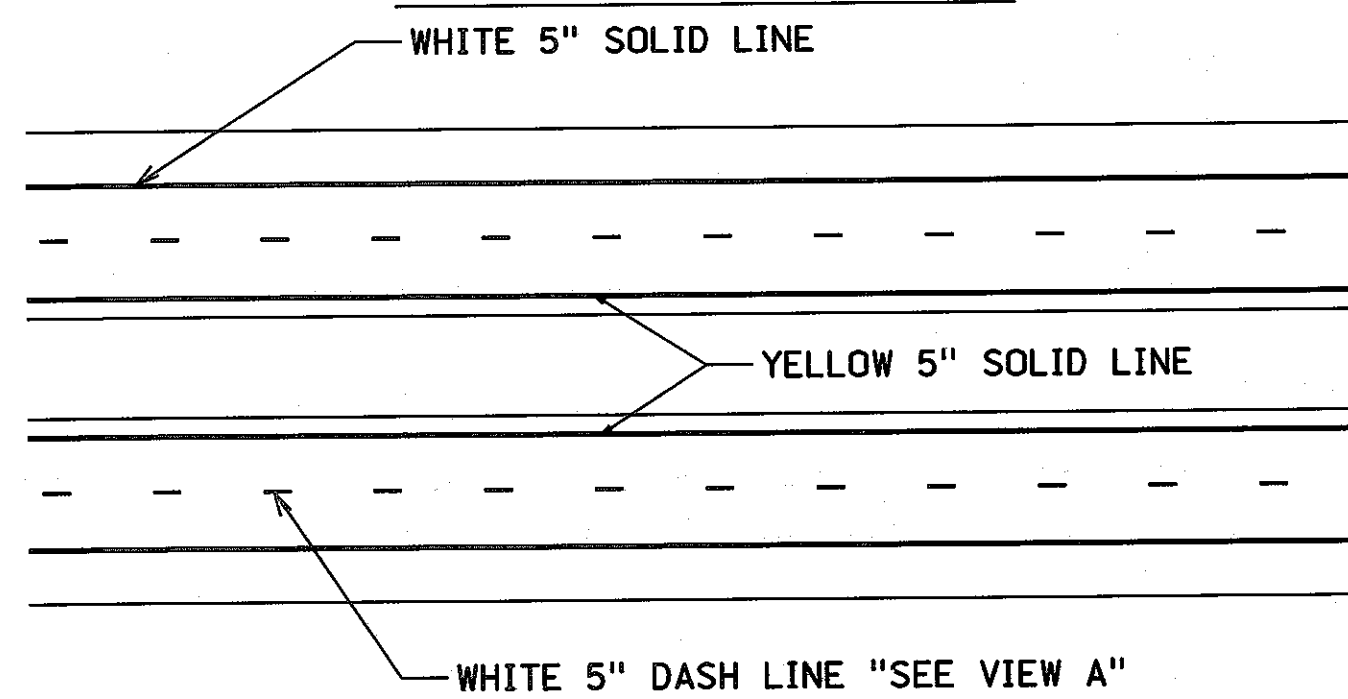
### 4 LANE ROADWAYS NO CURBS



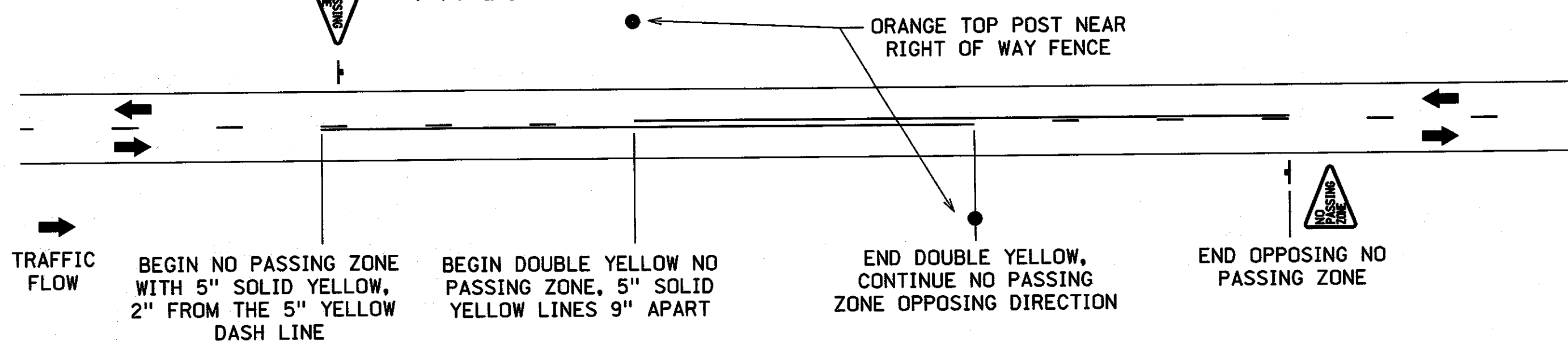
### WITH CURBS



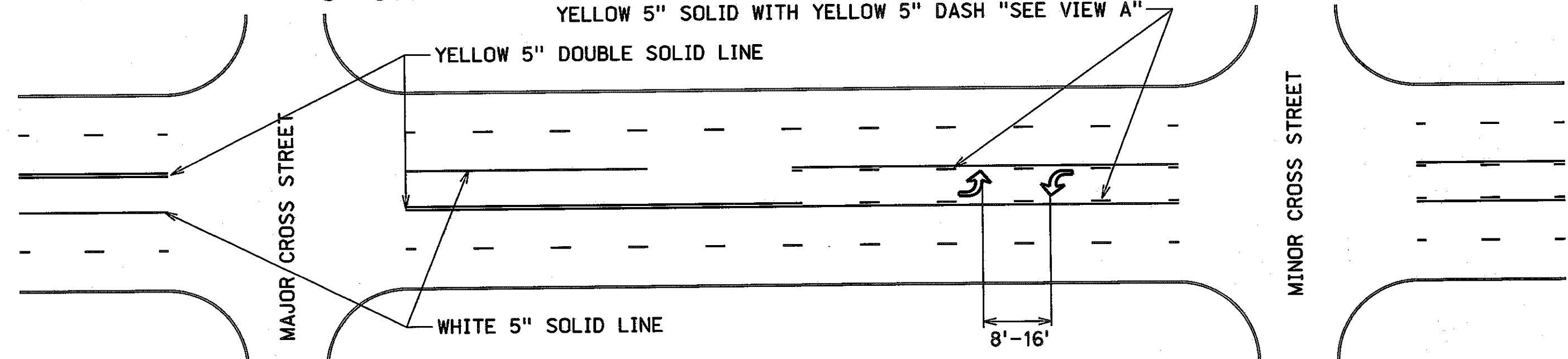
### DEPRESSED MEDIAN



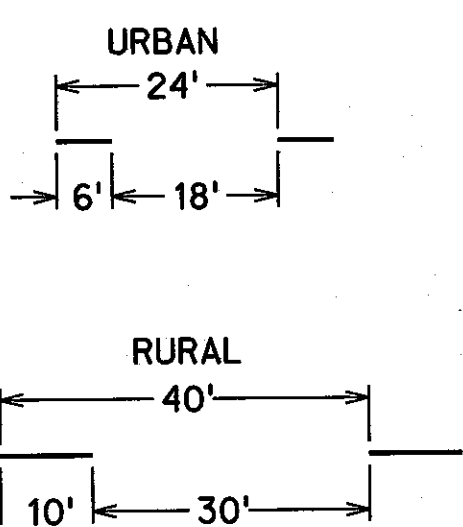
### TYPICAL NO PASSING ZONE MARKINGS



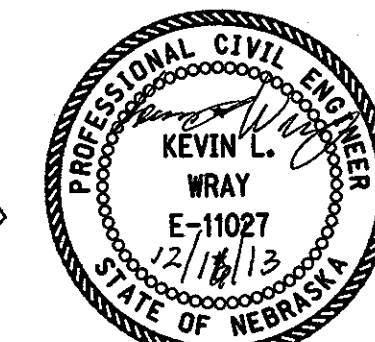
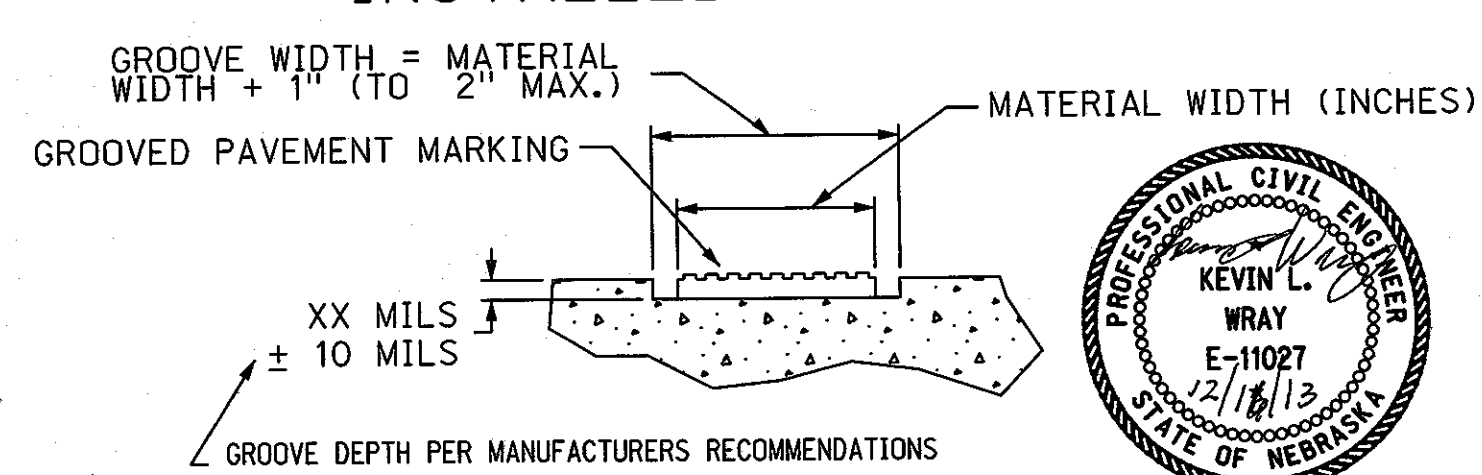
### 3 OR 5 LANE WITH COMMON LEFT TURN LANE



### VIEW A



### PERMANENT PAVEMENT MARKINGS INSTALLED IN GROOVES



### NEBRASKA DEPARTMENT OF ROADS TRAFFIC ENGINEERING DIVISION

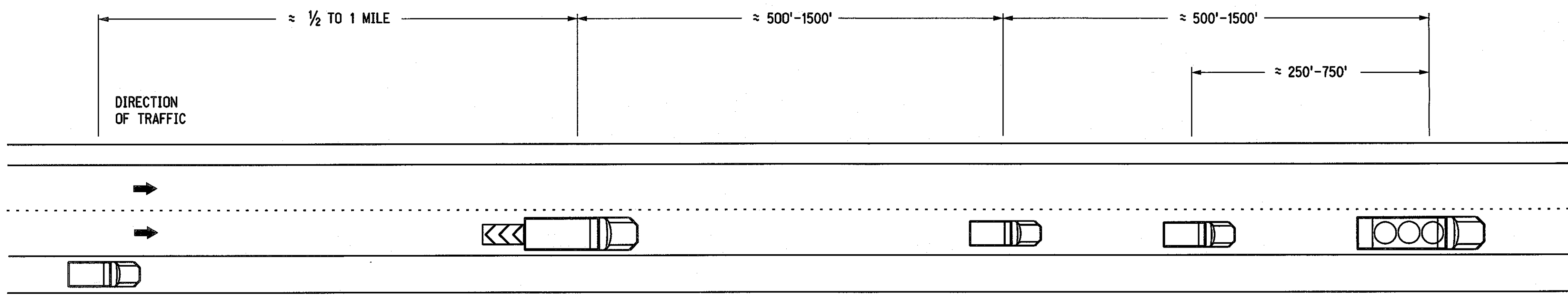
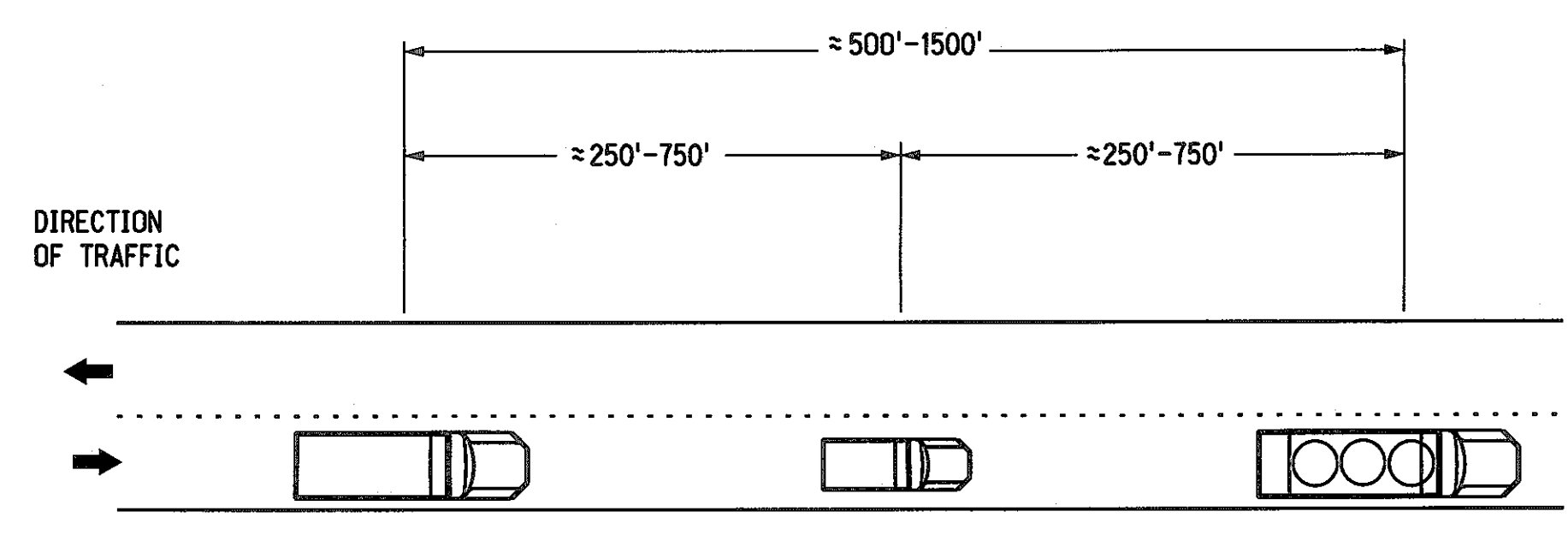
TYPICAL PAVEMENT MARKING PLAN			
DESIGNED	TJF	5" PAVEMENT MARKING	
REVIEWED			
APPROVED	DATE DRAWN 12/12	TRAFFIC ENGINEER	DATE



# SIGNING PLAN

## STRIPING ON RURAL TWO-LANE TWO-WAY ROADS

## STRIPING ON RURAL MULTI-LANE ROADWAY



REAR VEHICLE WITH 2 HIGH INTENSITY FLASHING LIGHTS MOUNTED ON THE REAR AND 2-360° BEACONS OR APPROVED MINI-BAR LIGHT (TMA OPTIONAL)

OPTIONAL VEHICLE WITH 2-360° BEACONS OR APPROVED MINI-BAR LIGHT

STRIPING VEHICLE WITH 4 HIGH INTENSITY FLASHING LIGHTS MOUNTED ON REAR AND 2-360° BEACONS OR APPROVED MINI-BAR LIGHT

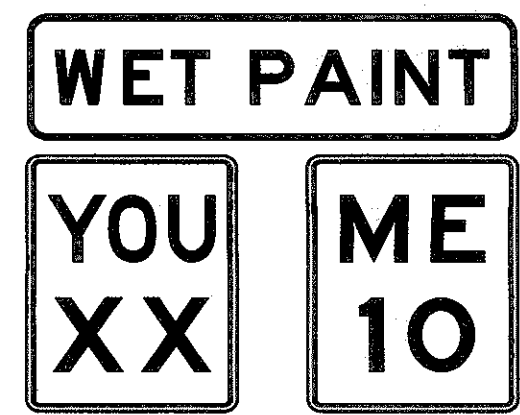
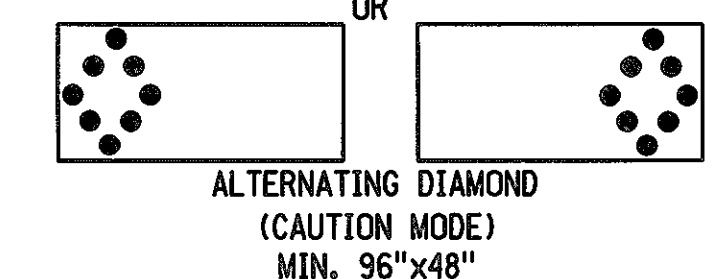
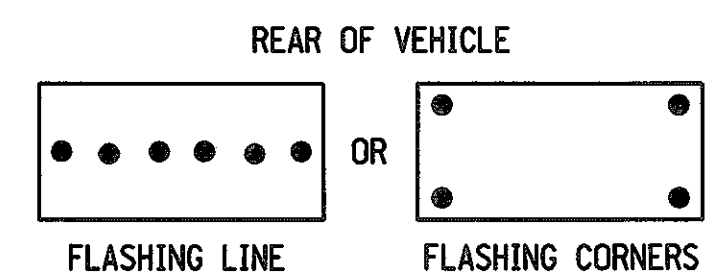
WARNING VEHICLE WITH 2 HIGH INTENSITY FLASHING LIGHTS MOUNTED ON REAR AND 2-360° BEACONS OR APPROVED MINI-BAR LIGHT

REAR VEHICLE W/TMA WITH 2 HIGH INTENSITY FLASHING LIGHTS MOUNTED ON THE REAR AND 2-360° BEACONS OR APPROVED MINI-BAR LIGHT

TRAILING VEHICLE WITH 2-360° BEACONS OR APPROVED MINI-BAR LIGHT AND OPTIONAL DRONE RADAR OR CB ALERT WARNING RADIO

OPTIONAL VEHICLE WITH 2-360° BEACONS OR APPROVED MINI-BAR LIGHT

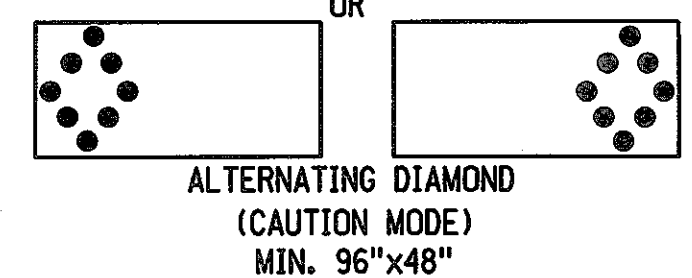
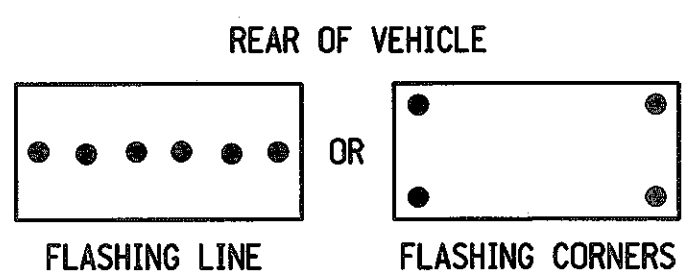
STRIPING VEHICLE WITH 4 HIGH INTENSITY FLASHING LIGHTS MOUNTED ON REAR AND 2-360° BEACONS OR APPROVED MINI-BAR LIGHT



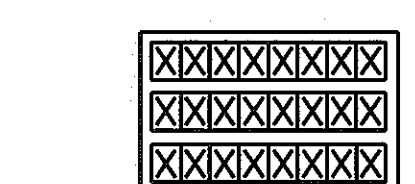
OPTIONAL SPEED DISPLAY UNITS



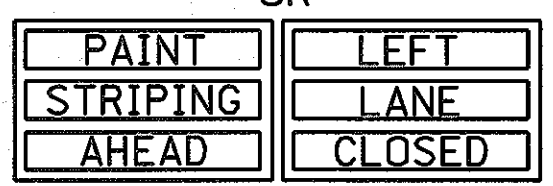
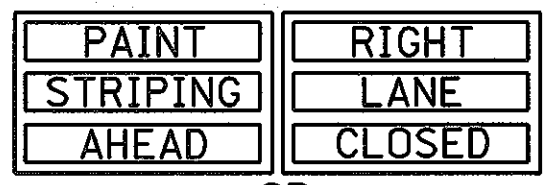
SINGLE STROBE LIGHT ON FRONT OF STRIPER REAR OF STRIPER ARROW PANEL



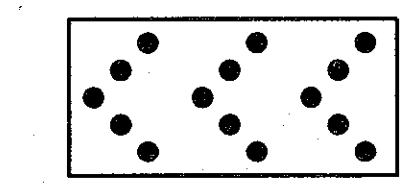
SIZE OF SIGN TO BE DETERMINED BY CONSTRAINTS OF STRIPER



PORTABLE DYNAMIC MESSAGE SIGNS



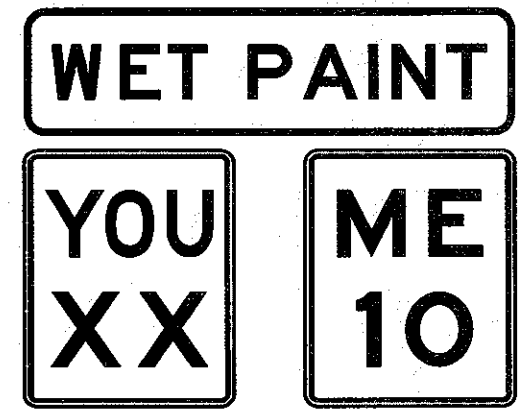
TWO MESSAGES (1.6 - 2.0 SECONDS PER MESSAGE)



FLASHING ARROW PANEL ON REAR



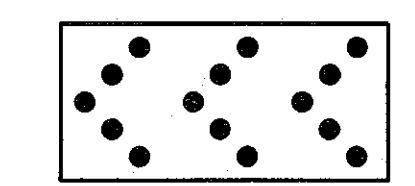
54" X 34"



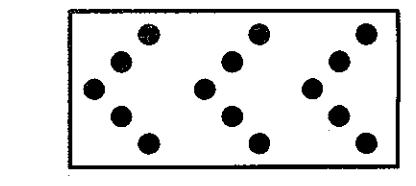
OPTIONAL SPEED DISPLAY UNITS



54" X 34"



OPTIONAL FLASHING ARROW PANEL



FLASHING ARROW PANEL ON REAR



SIZE OF SIGN TO BE DETERMINED BY CONSTRAINTS OF STRIPER

### TRUCK MOUNTED ATTENUATOR SYSTEM:

1. THE CONTRACTOR SHALL FURNISH A FEDERALLY APPROVED TRUCK MOUNTED ATTENUATOR SYSTEM, MOUNTED ON A MINIMUM 16,000 POUND TRUCK. THE TRUCK SHALL BE EQUIPPED WITH 60" X 30" FLASHING ARROW PANEL, SECURELY MOUNTED ON THE TRUCK. THE TMA SYSTEM SHALL BE LOCATED IN THE FIELD AS REQUIRED BY THE MANUFACTURER. A COMPLETE SET OF REPLACEMENT MODULES SHALL BE AVAILABLE NEAR THE PROJECT SITE IN THE EVENT OF DAMAGE TO THE INSTALLED TMA. DAMAGED TMA'S SHALL BE REMOVED FROM THE ROADWAY AND PROJECT WORK STOPPED UNTIL REPAIRS TO THE UNIT HAVE BEEN COMPLETED.
2. THE TRUCK MOUNTED ATTENUATOR SHALL BE AN NCHRP 350 OR MASH TEST LEVEL 3 APPROVED TMA FOR 100 km PER HOUR (60 MPH).
3. THE TRUCK SHALL BE A 16,000 TO 35,000 POUND (GVW) VEHICLE AS REQUIRED BY THE TMA MANUFACTURER.
4. THE FLASHING ARROW PANEL SHALL BE SECURELY MOUNTED AS HIGH AS PRACTICABLE ON THE VEHICLE. THE ARROW PANEL SHALL NOT COME LOOSE UPON IMPACT TO THE TMA.

### RURAL MULTI-LANE NOTES:

1. WHEN WORKING ON INSIDE (LEFT) LANES VEHICLES SHALL MOVE TO SIMILAR POSITIONS IN THAT LANE.
2. WARNING VEHICLE WILL REMAIN ON RIGHT SHOULDER WHEN AN 8' OR WIDER PAVED INSIDE (LEFT) SHOULDER DOES NOT EXIST.
3. REAR VEHICLE WITH TMA SHALL NOT BE SUPPLY VEHICLE UNLESS PAINT IS UNLOADED.

### GENERAL NOTES:

- REAR VEHICLE SHALL BE PLACED IN ADVANCE OF HORIZONTAL OR VERTICAL CURVES TO PROVIDE ADVANCE WARNING FOR WORK OPERATIONS HIDDEN BY CURVES.
- VEHICLE SPACING MAY VARY DEPENDING ON RATE OF APPLICATION, SPEED, AND DRYING TIME.
- WHEN OPTIONAL CB ALERT WARNING RADIOS ARE USED THE TRANSMITTER MUST REMAIN WITH ONE OF THE VEHICLES IN THE STRIPING TRAIN.

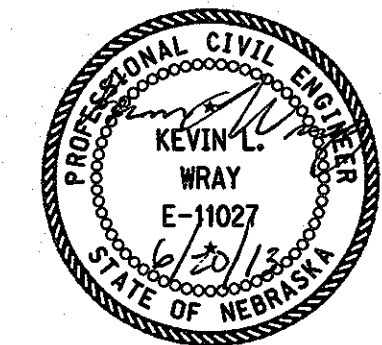
### RURAL TWO-LANE NOTES:

1. CAUTION MODE ON STRIPING UNIT AND REAR VEHICLE SHALL BE ALTERNATING DIAMOND OR THE FLASHING 4 CORNER LIGHTS IF THE DIAMOND MODE IS NOT AVAILABLE.

### NEBRASKA DEPARTMENT OF ROADS TRAFFIC ENGINEERING DIVISION

#### TRAFFIC CONTROL PLAN

DESIGNED	TJF	VEHICLE SIGNING FOR PAINT STRIPING		1/1
REVIEWED		DATE DRAWN	12/12	
APPROVED		TRAFFIC ENGINEER		DATE

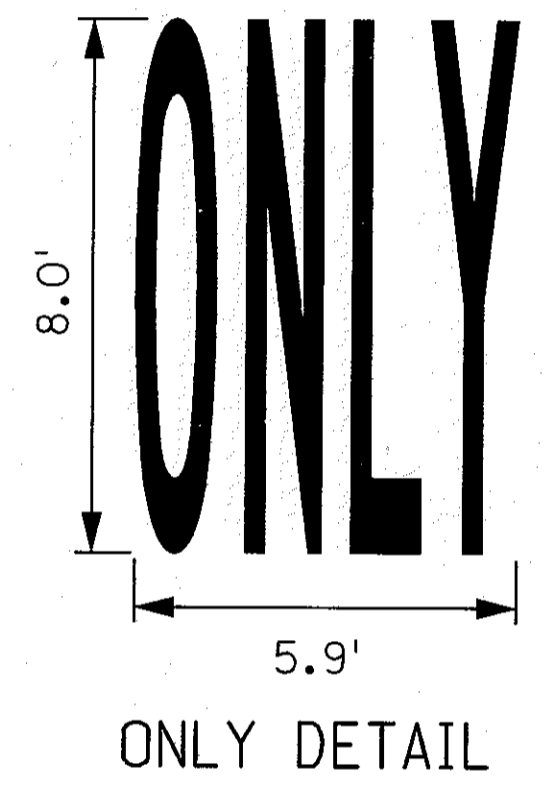
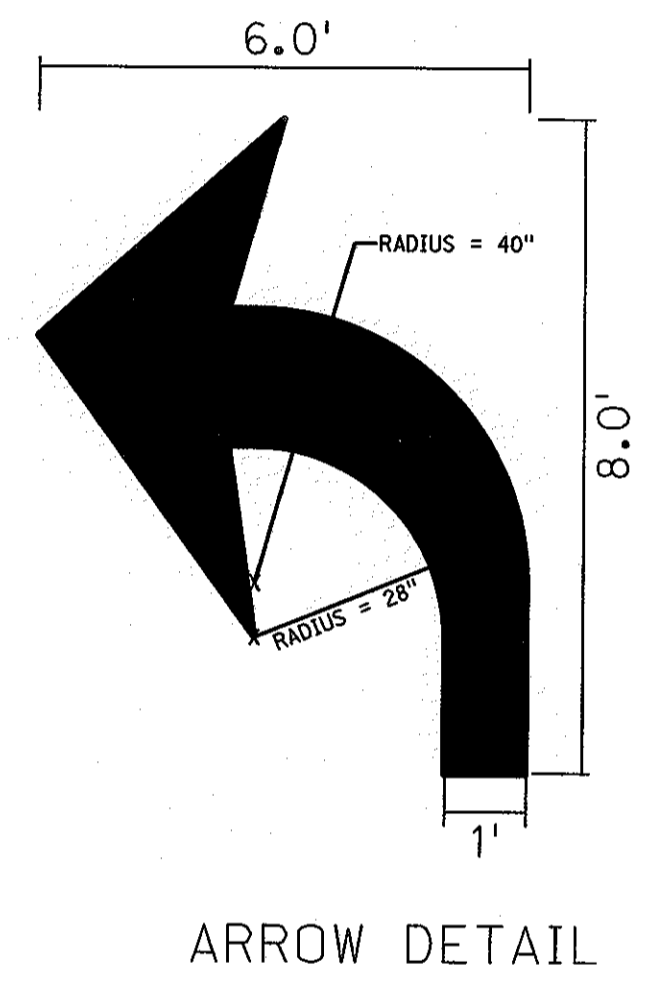
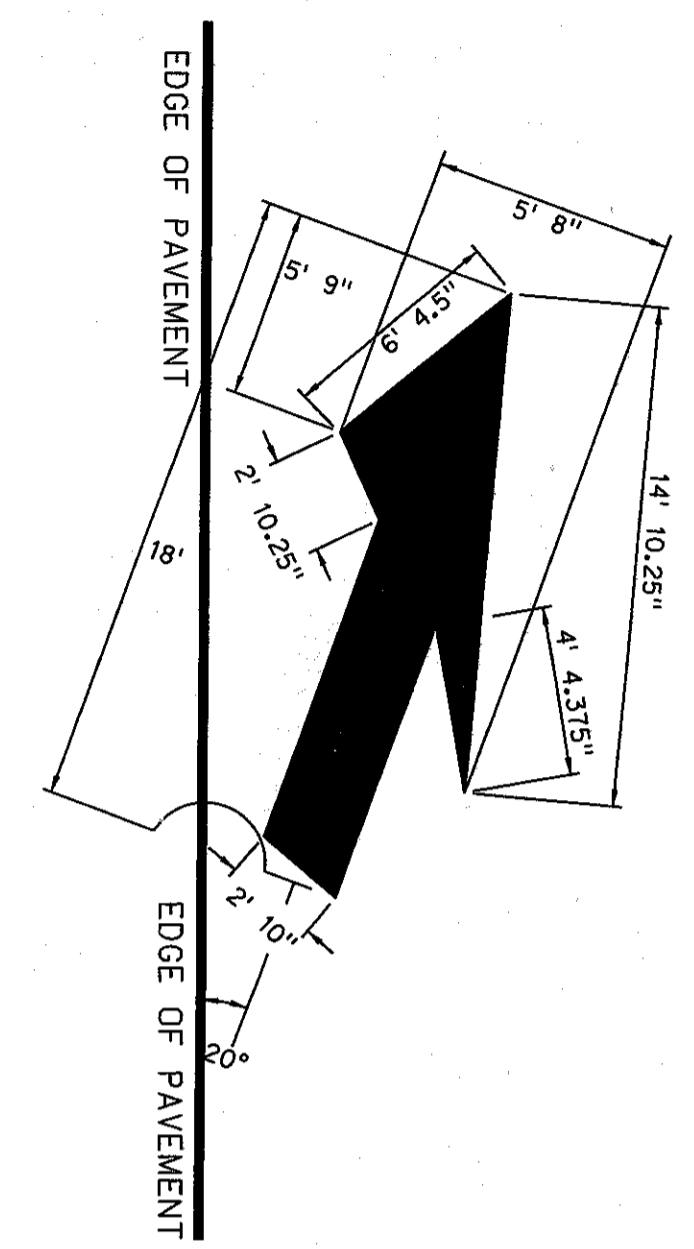
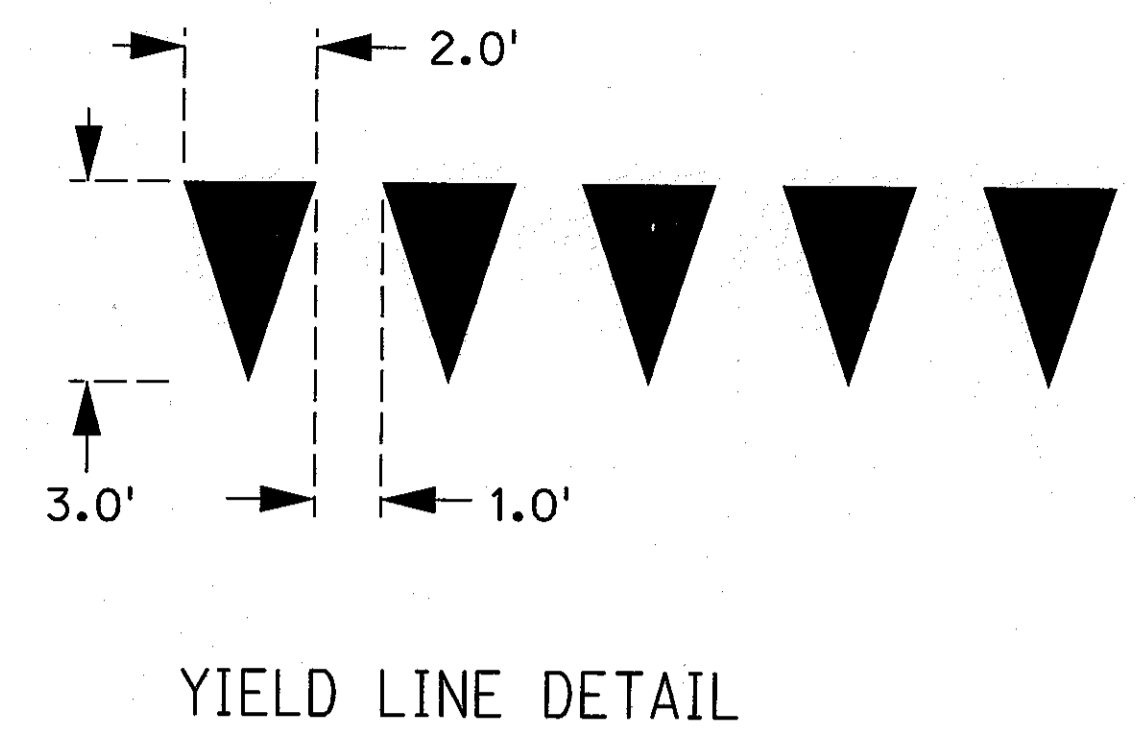
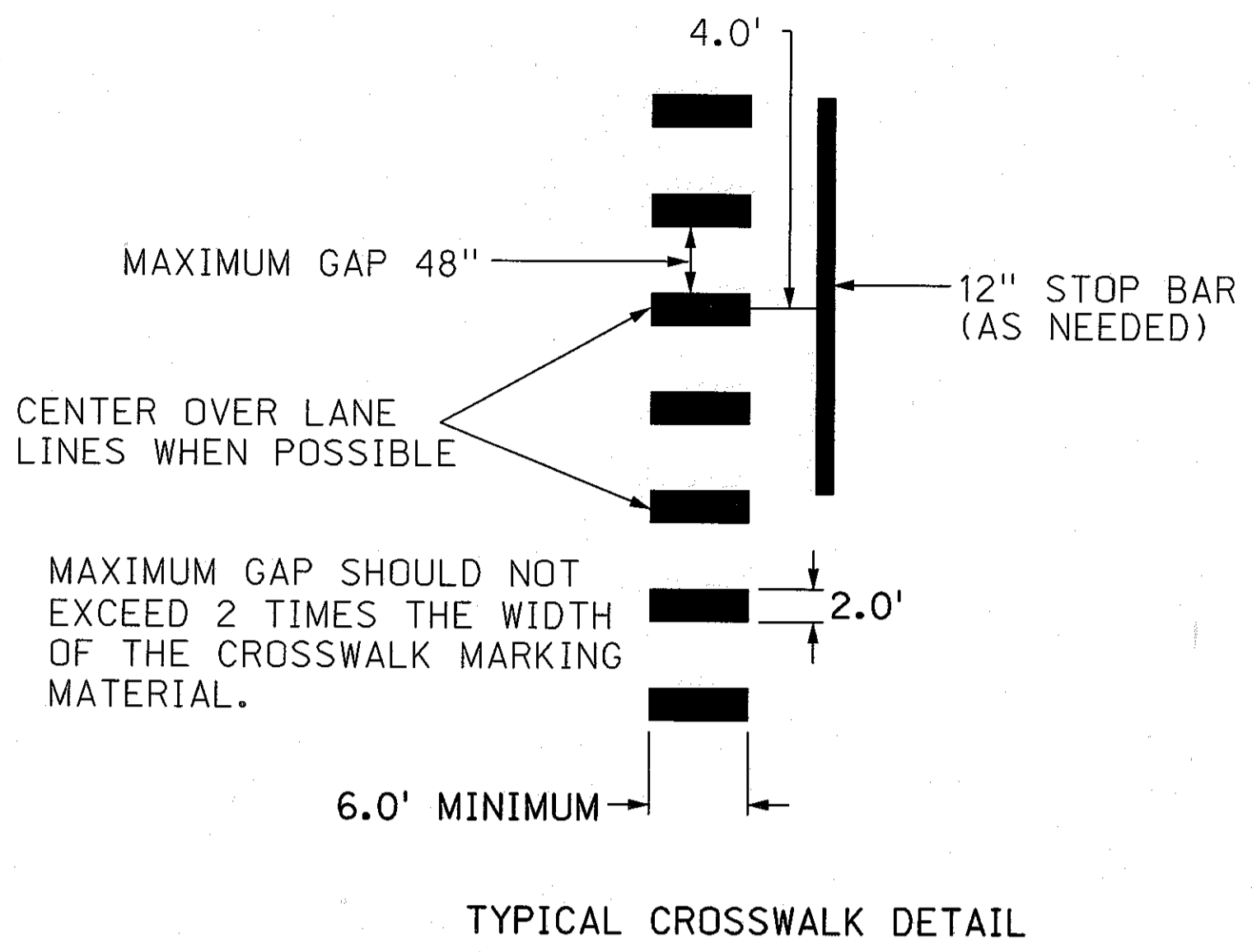
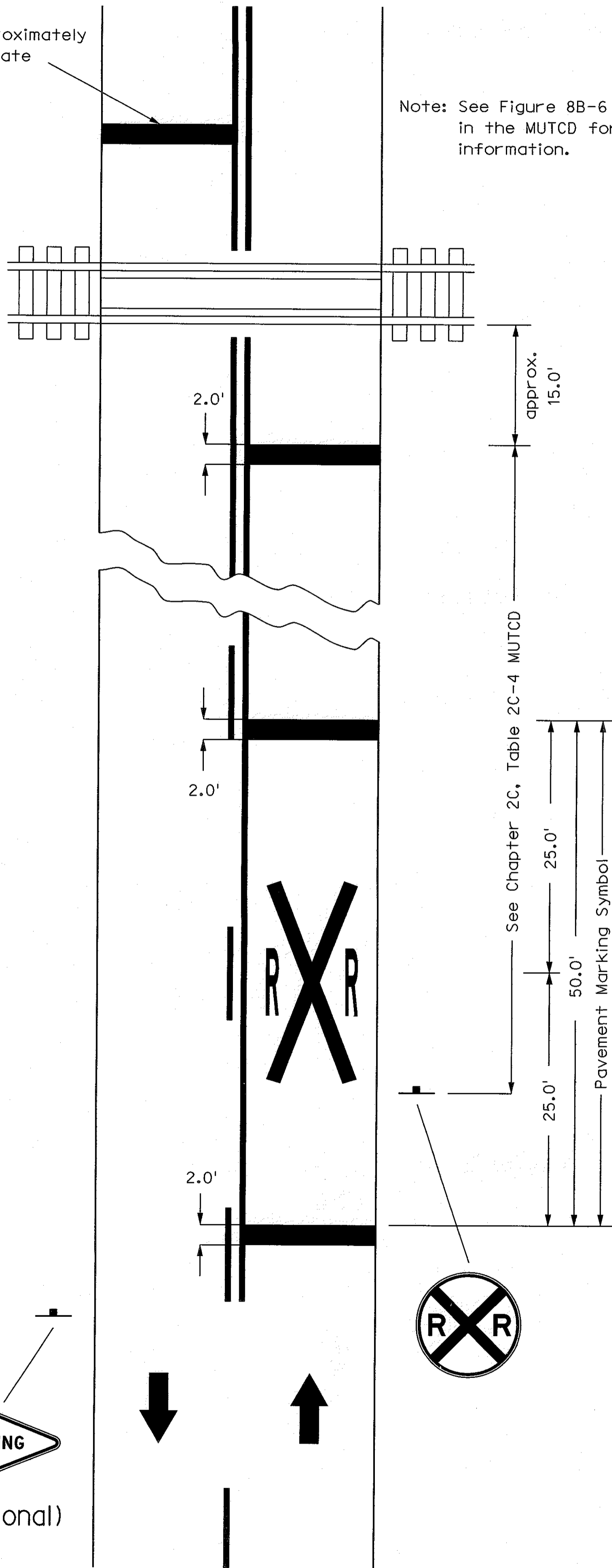


User: DOR23027 Date: 20-JUN-2013 10:26

File: wetpaint r1.dgn Scale: 1:100

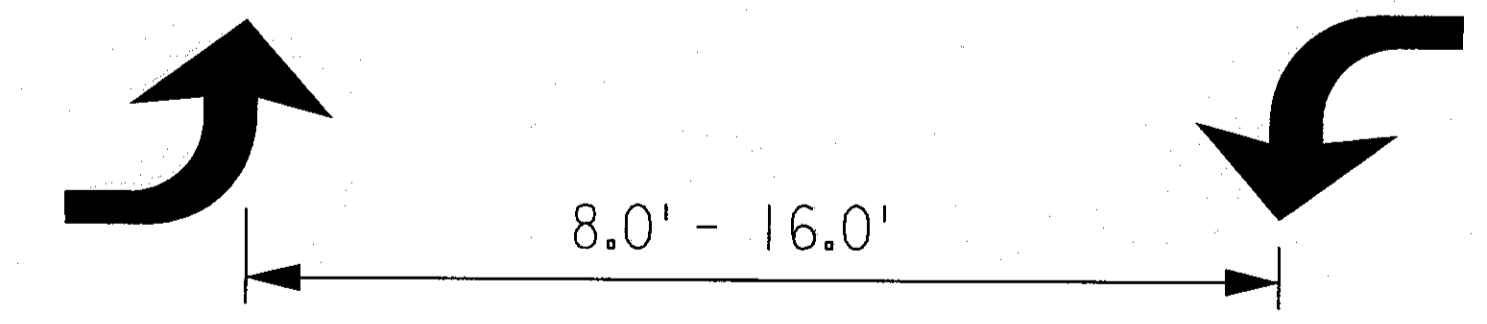
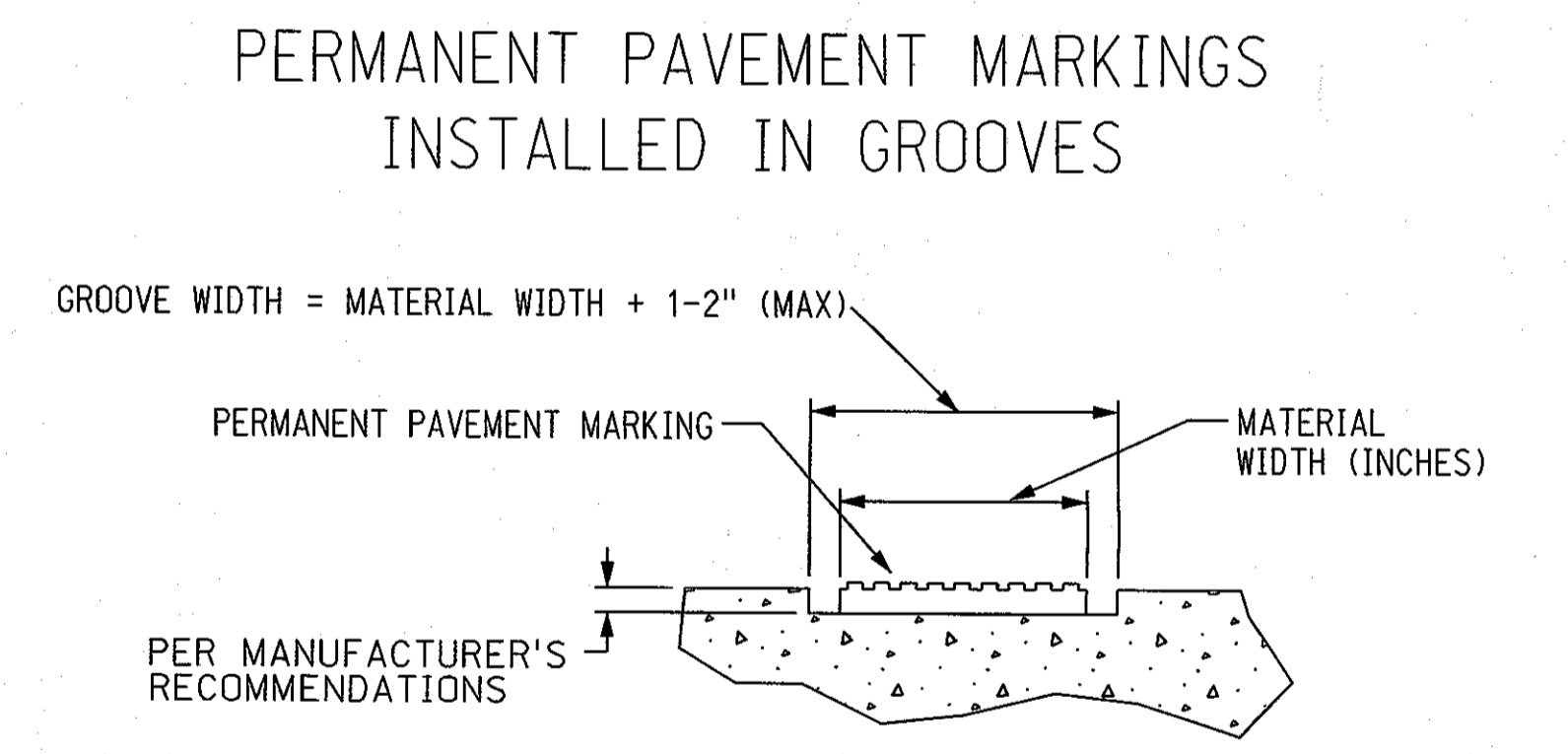
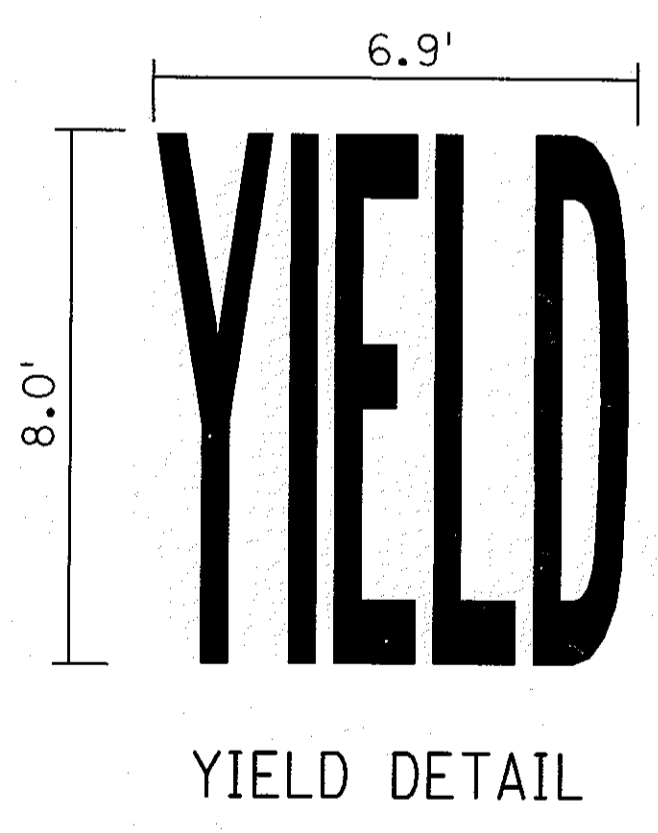
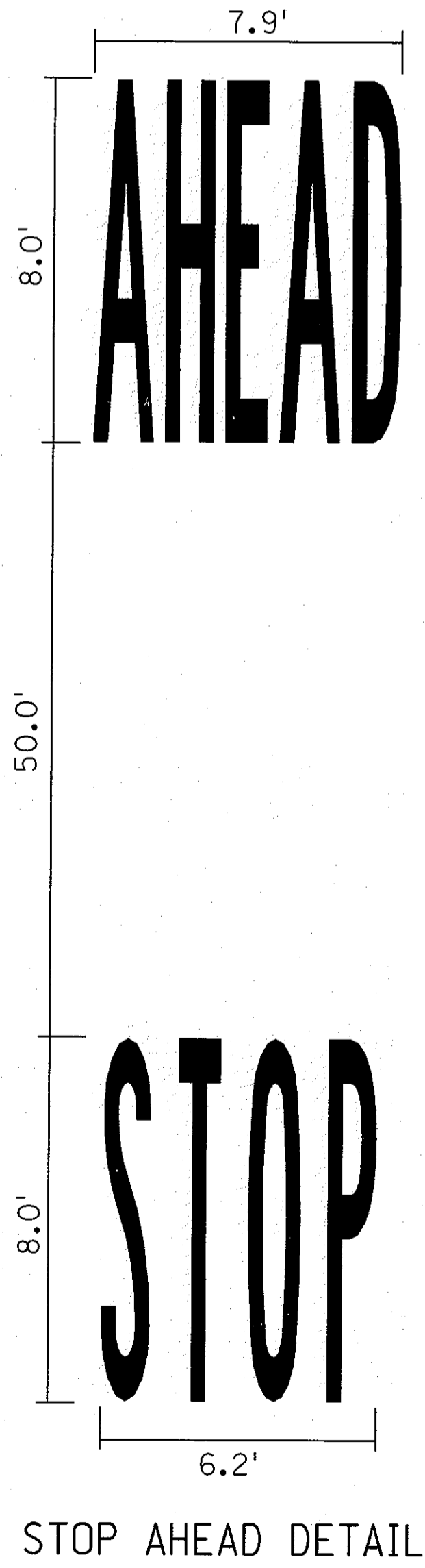
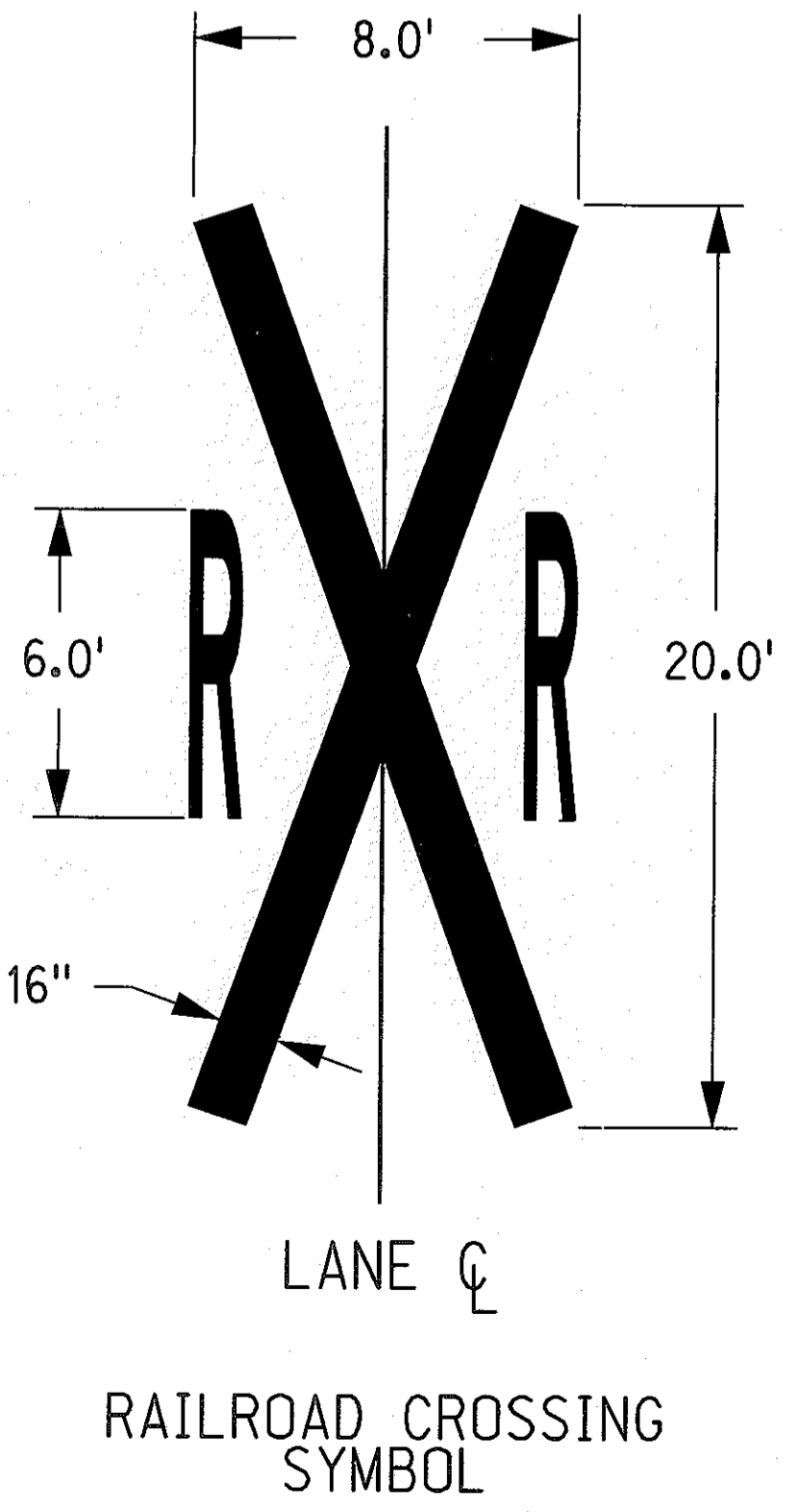
Stop line approximately 8.0 ft from gate (if present)

Note: See Figure 8B-6 and 8B-7 in the MUTCD for more information.

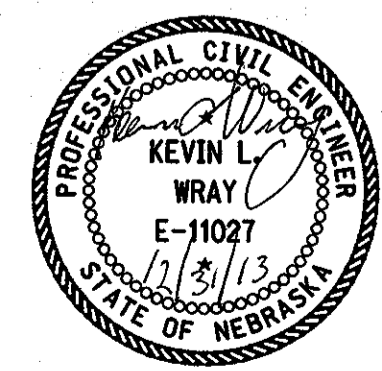


LANE REDUCTION ARROW DETAIL

See Chapter 2C, Table 2C-4 MUTCD  
 approx. 15.0'  
 2.0'  
 25.0'  
 50.0'  
 Pavement Marking Symbol



NO PASSING ZONE  
 (Optional)



NEBRASKA DEPARTMENT OF ROADS TRAFFIC ENGINEERING DIVISION			
PAVEMENT MARKING PLAN			
DESIGNED	KSF	PAVEMENT MARKING DETAILS	
REVIEWED			1/1
APPROVED	DATE DRAWN	TRAFFIC ENGINEER	DATE
	12/13		