

INDEX OF SHEETS

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1	TITLE PAGE
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3	TYPICAL TRAFFIC CONTROL PLAN--TYPICAL LANE CLOSURE (FREEWAY-INTERSTATE)
4 - 5	SPECIAL PLAN 1C MILLED RUMBLE STRIPS
6	SPECIAL PLAN 2C TEMPORARY PAVEMENT MARKING PLAN

**STATE OF NEBRASKA
DEPARTMENT OF ROADS**

PLANS FOR CONSTRUCTION

**DISTRICT 4 - DISTRICTWIDE
ADAMS & HALL COUNTIES**

PROJECT NO.	SHEET NO.
HSIP-D4(104)	1
▲ CONTROL NO.	42757
▲ CONTROL NO.	
■ CONTROL NO.	

STANDARD PLANS

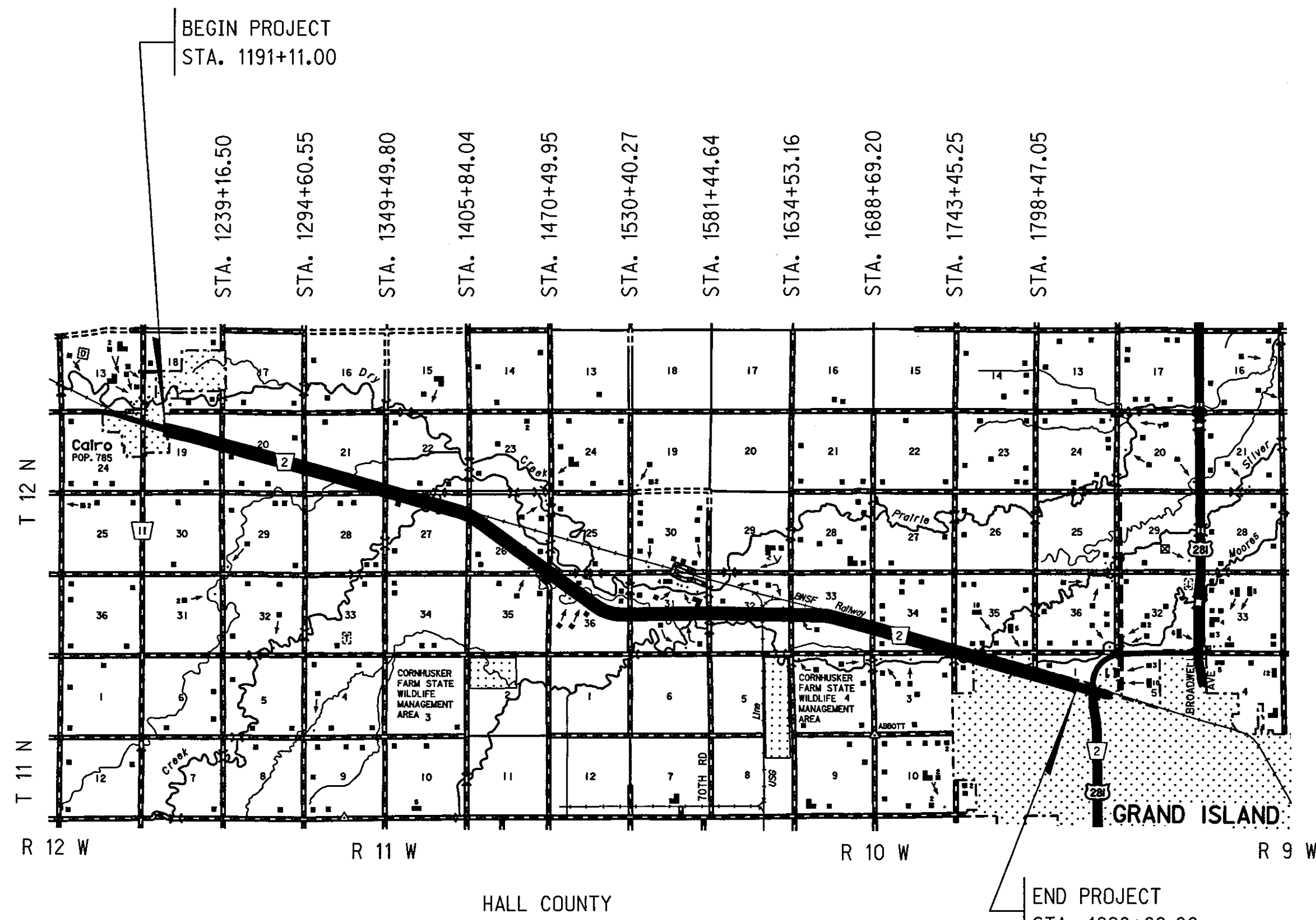
920-R5	(2 SHEETS) TRAFFIC CONTROL, CONSTRUCTION AND MAINTENANCE
921-R5	(2 SHEETS) TRAFFIC CONTROL, CONSTRUCTION AND MAINTENANCE
922-R8	(2 SHEETS) TRAFFIC CONTROL FOR ASPHALT SURFACING

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

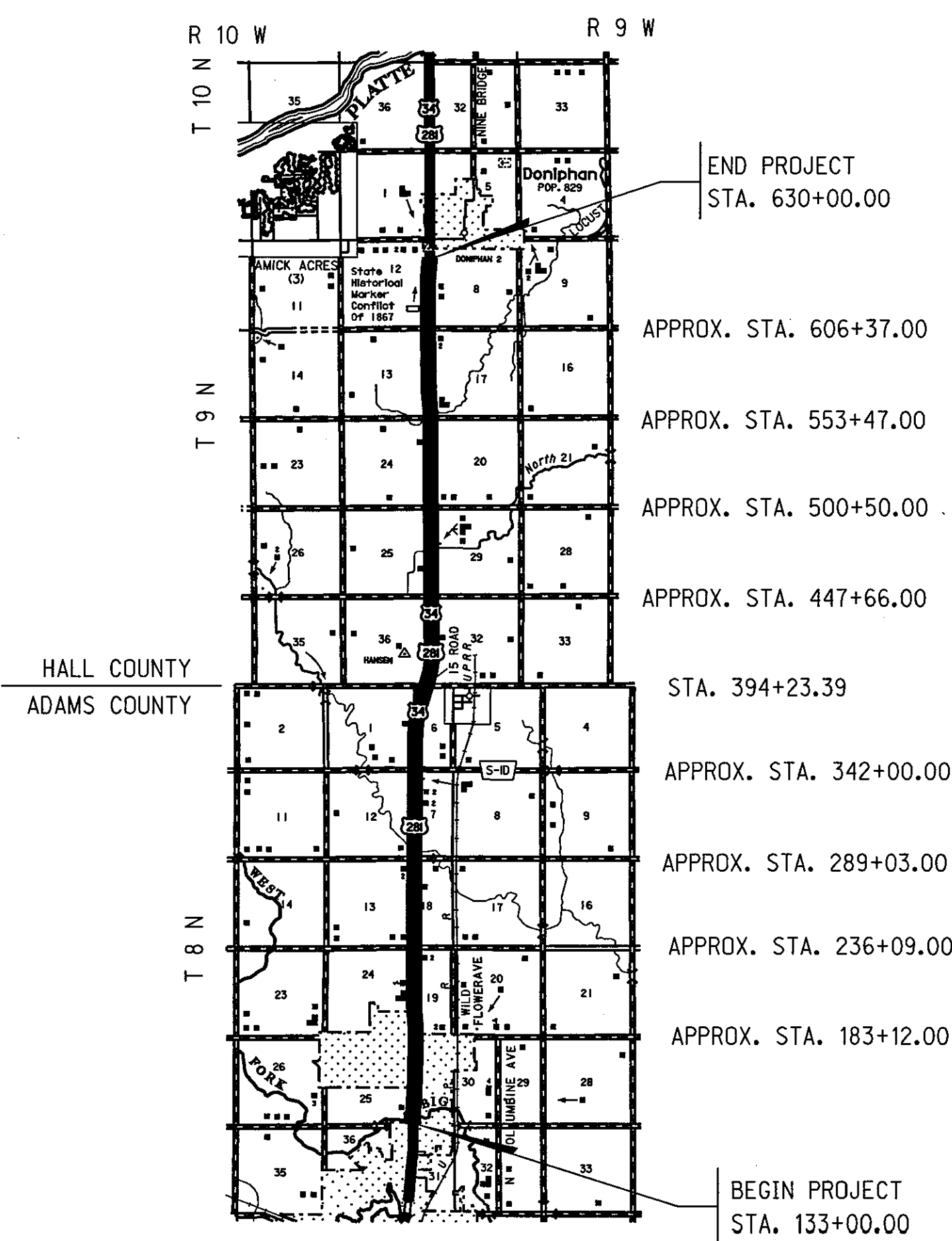
THE WORK ON THIS PROJECT CONSISTS OF GROUPS

9-BITUMINOUS	
▲ GROUPS 9 ARE INCLUDED	IN THE LETTING OF OCTOBER 24, 2013
▲ GROUPS ARE INCLUDED	IN THE LETTING OF
■ GROUPS ARE INCLUDED	IN THE LETTING OF

DESIGN DESIGNATION	
MAINTENANCE TRAFFIC	
2013 ADT	
N-2	3,832
US-34	6,504



EQUATION FOR N-2
STA. 1617+10.00 BK = STA. 1617+00.00 AH



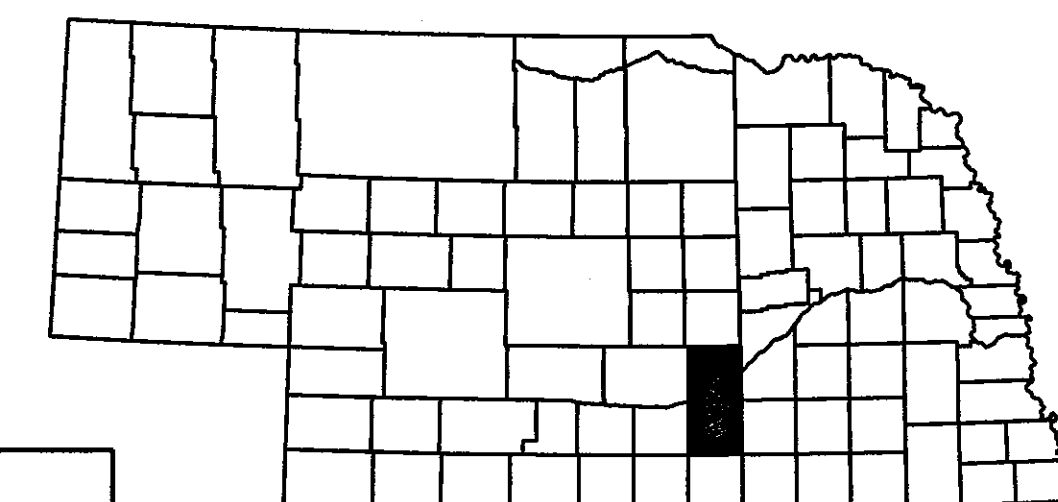
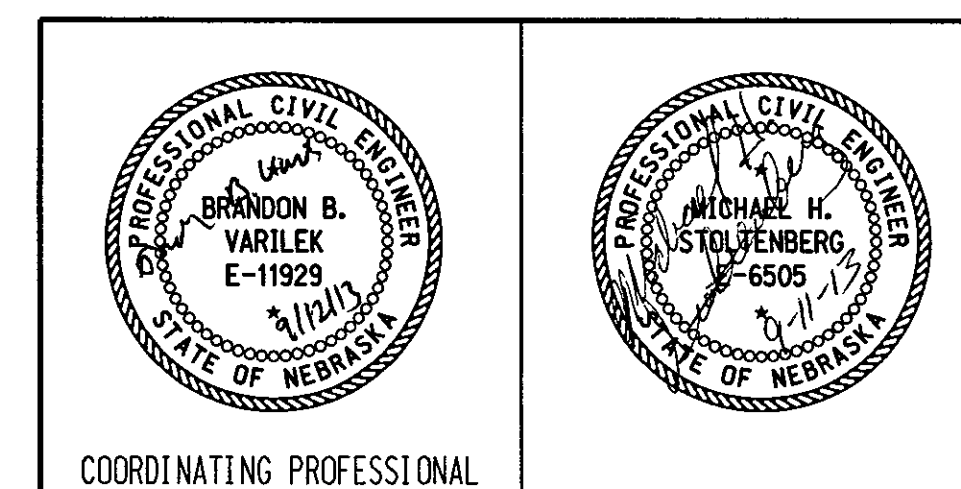
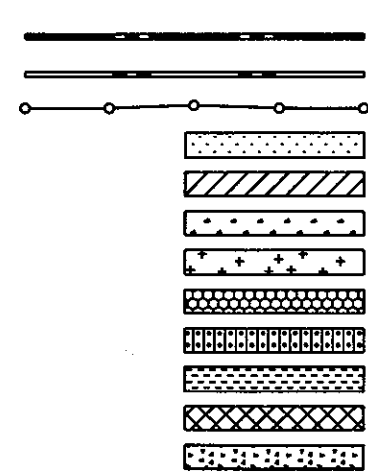
REFERENCE POST NO. 343+98 TO REFERENCE POST NO. 355+81 (N-2)
 REFERENCE POST NO. 212+95 TO REFERENCE POST NO. 222+40 (US-34)
 BRIDGE EXCEPTIONS: FROM STA. 1386+14.90 TO STA. 1388+23.86 (N-2)
 FROM STA. 1755+58.58 TO STA. 1757+27.42 (N-2)
 RAILROAD EXCEPTION: FROM STA. 1616+32.00 TO STA. 1616+52.00 (N-2)
 TOTAL NET LENGTH OF PROJECT: 63,383.20 FEET 12.004 MILES (N-2)
 TOTAL NET LENGTH OF PROJECT: 49,700.00 FEET 9.413 MILES (US-34)

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



CONSTRUCTION DIVISION

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PROJECT NO.	SHEET NO.
HSIP-D4(104)	2-S

C.N. 42757

SUMMARY OF QUANTITIES

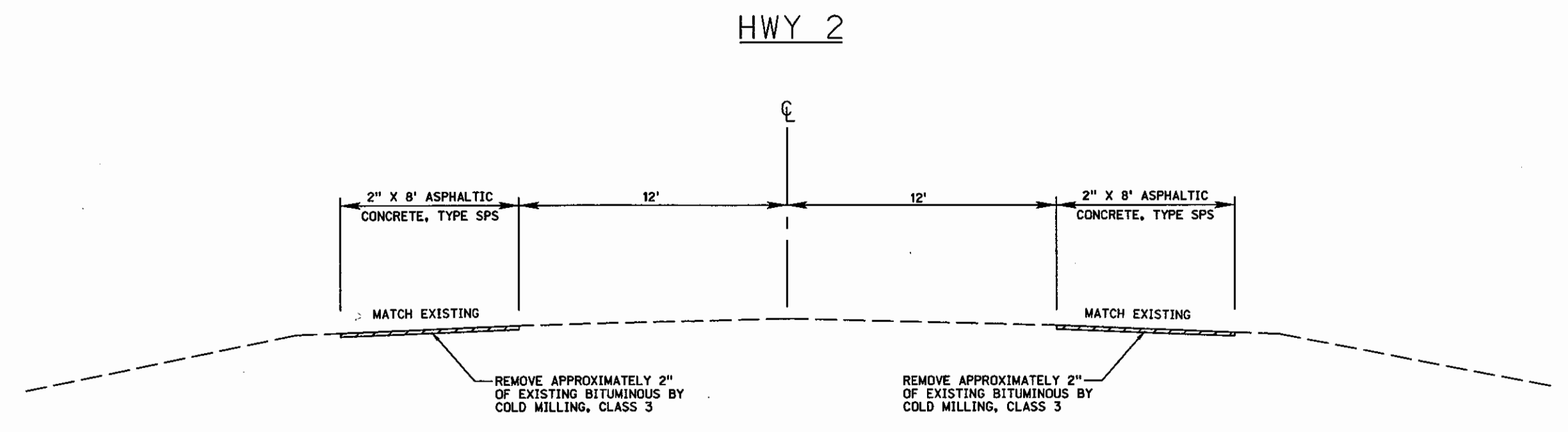
BITUMINOUS SURFACING ITEMS GROUP 9

ITEM	QUANTITY	UNITS
BARRICADE, TYPE II	11,495.000	BDAY
BARRICADE, TYPE III	209.000	BDAY
TEMPORARY SIGN DAY	378.000	EACH
SIGN DAY	5,614.000	EACH
FLASHING ARROW PANEL	14.000	DAY
FLAGGING	42.000	DAY
FURNISHING AND OPERATING PILOT VEHICLE	21.000	DAY
MOBILIZATION	1.000	LS
ASPHALTIC CONCRETE, TYPE SPS	19,620.000	TON
ASPHALTIC CONCRETE FOR PATCHING, TYPE SPS	700.000	TON
PERFORMANCE GRADED BINDER (S2-34)	650.240	TON
TACK COAT	26,690.000	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	1,753.244	STA
COLD MILLING, CLASS 3	497.000	STA
TYPE A		
RUMBLE STRIPS, ASPHALT	2,250.240	STA
RAP INCENTIVE PAYMENT	34,544.000	EACH
OVERLAY SOLID LINES	2,250.000	STA

TYPES OF ASPHALTIC OIL TO BE USED	
TACK COAT:	SS-1, SS-1H, CSS-1, OR CSS-1H
PERFORMANCE GRADED BINDER	
AASHTO DESIGNATION	M320

BUILD RUMBLE STRIPS					
STATION	TO STATION	CENTERLINE (STA.)	SHOULDER (STA.)	SIDE	EDGE LINE (STA.)
1191+11	- 1828+82	*	1256.24	LT/RT	*
133+00	- 630+00 (SB)	*	994.00	LT/RT	*
*	*	*	*	*	*
*	*	*	*	*	*
TOTAL		*	2250.24		*

TYPICAL CROSS SECTIONS

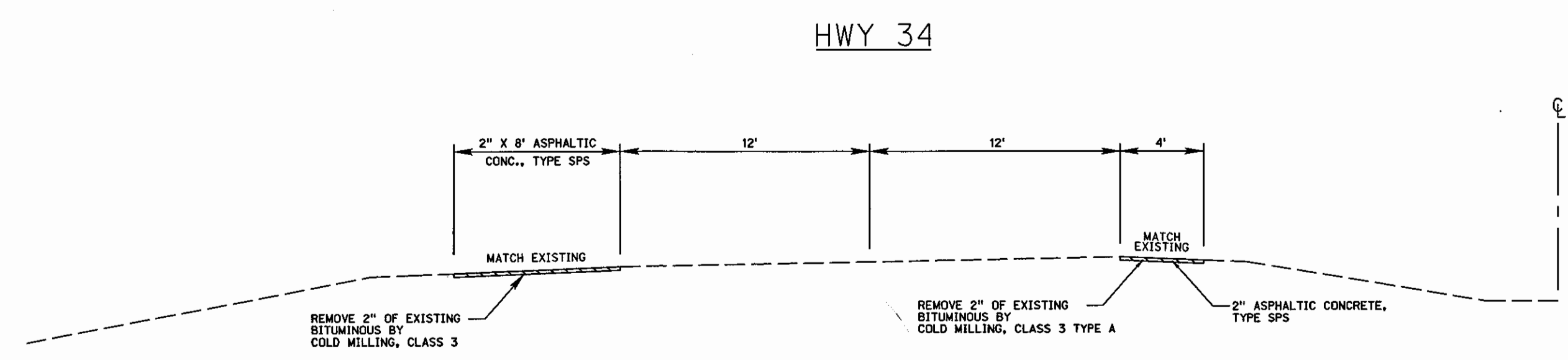


STATION	TO	STATION	
1191+11	-	1202+33	LT. ONLY
1202+33	-	1828+82	

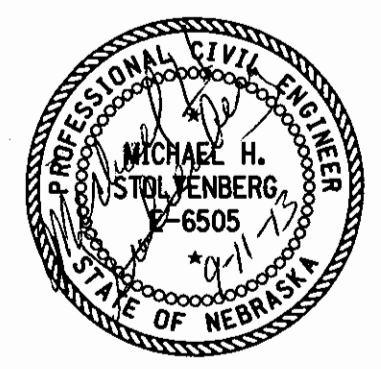
BRIDGE EXCEPTION: 1386+14.90 TO 1388+23.86
1755+58.58 TO 1757+27.42

RAILROAD EXCEPTION: 1616+32 TO 1616+52

EQUATION: 1617+10 BK = 1617+00 AH



STATION	TO	STATION	
133+00 (SB)	-	630+00 (SB)	



CONSTRUCTION DIVISION

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User: dor17005

Date: 11-SEP-2013 08:58

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NOTES

1. FLAGGERS SHALL BE PROVIDED WHENEVER THE CONTRACTORS OPERATION ENCROACHES ON THE OPEN LANE.
2. REVERSE PROCEDURE FOR LEFT LANE CLOSURE.
3. WORK ZONE SPEED LIMITS SHALL NOT BE INSTALLED W/O A SPEED ZONE AUTHORIZATION COMPLETED BY THE DEPARTMENT. REDUCED SPEED ZONING SHOULD BE KEPT TO A MINIMUM AS MUCH AS PRACTICABLE. WHEN USED THE SPEED SHALL NOT BE REDUCED MORE THAN 10 MPH FROM THE PRE-CONSTRUCTION SPEED LIMIT, UNLESS APPROVED BY THE TRAFFIC ENGINEER.
4. SPEED LIMIT SIGNS R2-1 AND R2-5A SHALL BE 48" X 60" WHEN USED ON INTERSTATES OR FREEWAYS. 24" X 30" SIGNS MAY BE USED ON ALL OTHER ROADWAYS. SPEED LIMIT SIGNS (IF REQ'D FOR WORK) SHALL BE INSTALLED EVERY MILE THRU THE WORK AREA, WHEN THE SPEED LIMIT IS REDUCED.
5. THE FLASHING ARROW PANELS FOR TAPERS SHOULD BE VISIBLE FOR AT LEAST 1/2 MILE AND, IF NECESSARY, SHOULD BE RELOCATED TO PROVIDE THE MAXIMUM VISIBILITY.
6. WORK ZONE SPEED LIMITS SHOWN ARE TYPICAL APPLICATIONS ONLY, AND ARE NOT TO BE ASSUMED AS THE SPEED LIMITS REQ'D FOR THE WORK.
7. FOR FOG SEALS, SLURRY SEALS, ARMOR COATS, CRACK AND JOINT SEALING WHERE ALL LANES OF TRAFFIC WILL BE REOPENED BEFORE NIGHT, THE CONTRACTOR MAY USE 36" OR 42" CONES IN PLACE OF PLASTIC DRUMS ALONG THE WORK AREA. WHEN USED 36" CONES SHALL BE CONSIDERED SUBSIDIARY TO THE WORK.
8. PLASTIC DRUMS SHALL BE REQUIRED TO BE PLACED IN FRONT OF LANE EXCAVATIONS IN PAVEMENT AND SLAB REPAIR, AND OTHER WORK ACTIVITIES AS DIRECTED BY THE ENGINEER. PLASTIC DRUMS SHALL BE REQUIRED FOR ALL TAPERS AND LANE SHIFTS.
9. ALL CONFLICTING PAVEMENT MARKINGS ARE REQ'D TO BE REMOVED IF THE LANE CLOSURE IS TO REMAIN IN PLACE LONGER THAN 72 HOURS.
10. BRIDGE WORK OR OTHER APPROPRIATE ADVANCE SIGN MAY BE USED IN PLACE OF ROAD WORK.
11. PLACE A PLASTIC DRUM OR TYPE III BARRICADE AS DIRECTED BY THE ENGINEER IN THE CENTER OF THE CLOSED LANE(S) APPROXIMATELY EVERY 1/4 MILE.
12. THE SPEED LIMIT SIGN SHOWN FOLLOWING THE "FINES FOR SPEEDING DOUBLED IN WORK ZONES WHEN WORKERS PRESENT" SIGN IS NOT REQUIRED IF A "REDUCED SPEED AHEAD" OR OTHER SPEED LIMIT SIGN IS LOCATED WITHIN 1/2 MILE.
13. SIGNS W20-5E, W20-5RF AND W20-1G MAY BE REDUCED TO 1500 FT, 1/2 MILE AND 1 MILE SPACING RESPECTIVELY IN LOW VOLUME AREA AT THE DIRECTION OF THE ENGINEER.

LEGEND

- ⏏ FLASHING ARROW PANEL
- TYPE III BARRICADE
- REFLECTORIZED PLASTIC DRUM
- △ SIGN
- REFLECTORIZED PLASTIC DRUM OR 42" CONE

TAPER FORMULA

$L = S \times W$ FOR SPEEDS OF 45 MPH OR MORE.
 $L = \frac{WS^2}{60}$ FOR SPEEDS OF 40 MPH OR LESS.

WHERE:
 L = MINIMUM LENGTH OF TAPER.
 S = NUMERICAL VALUE OF POSTED SPEED LIMIT PRIOR TO WORK.
 W = WIDTH OF OFFSET (LANE WIDTH).

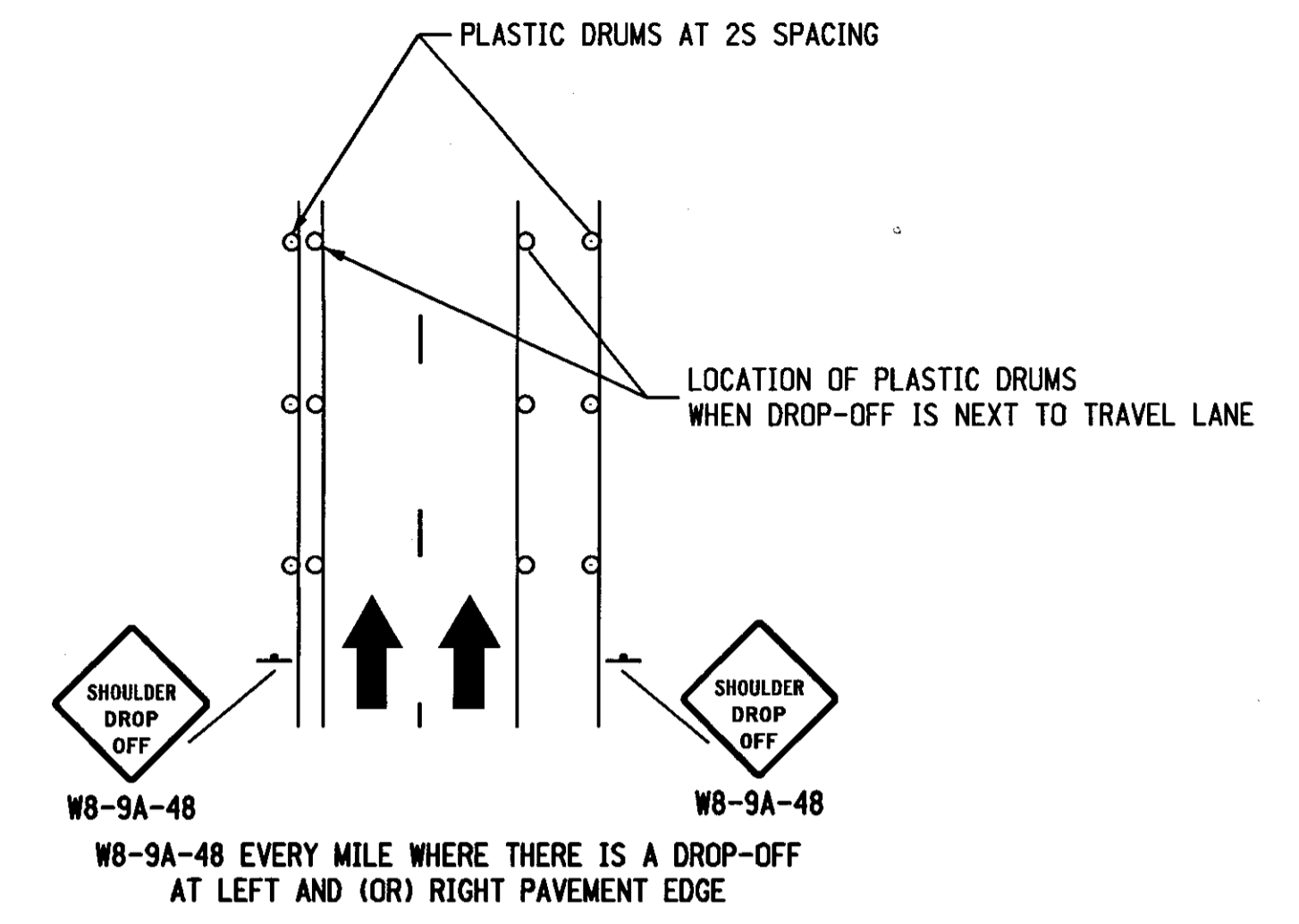
NEBRASKA DEPARTMENT OF ROADS
 TRAFFIC ENGINEERING DIVISION

TYPICAL TRAFFIC CONTROL PLAN

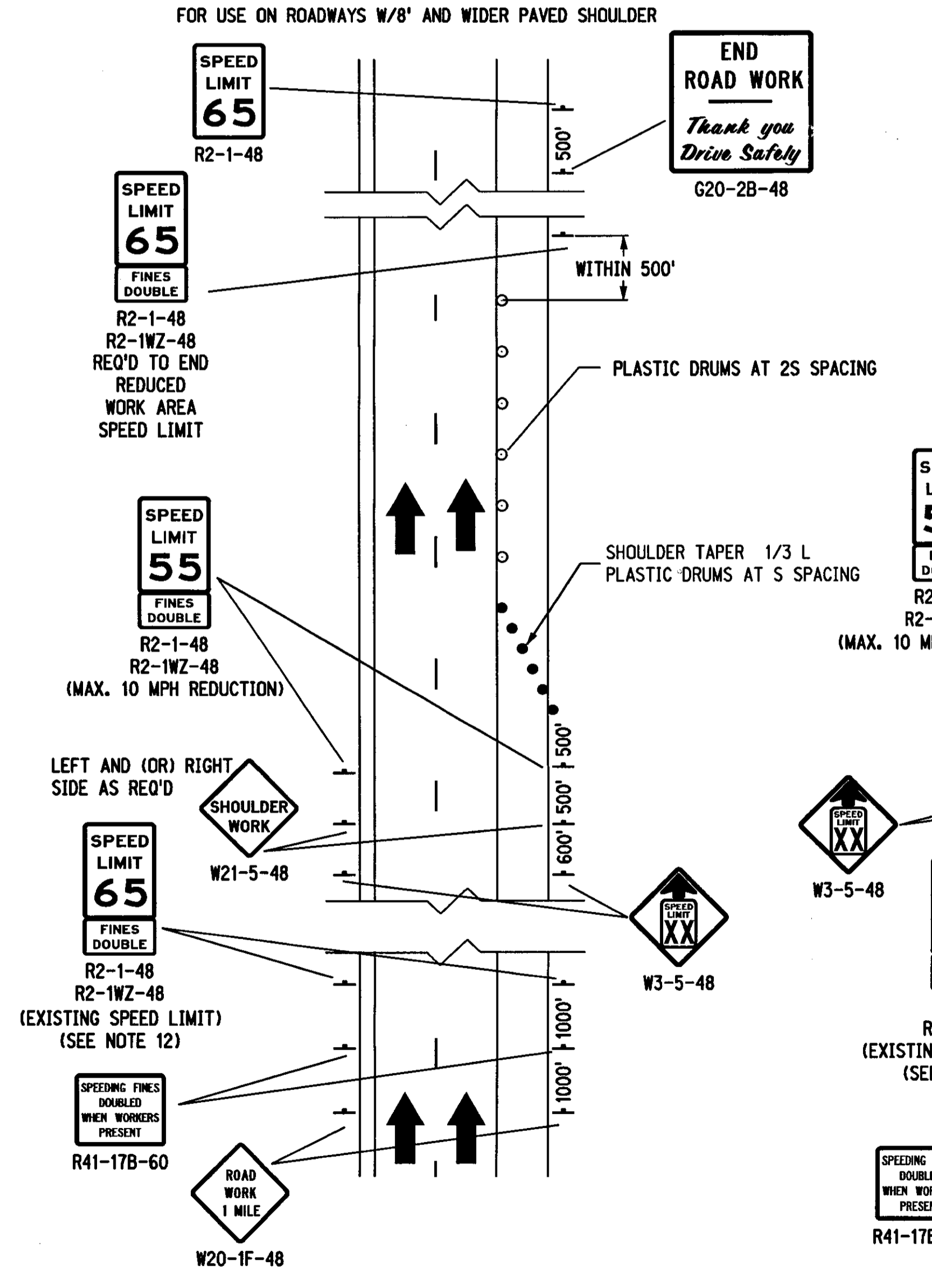
DESIGNED	VL	TYPICAL LANE CLOSURE	(FREEWAY - INTERSTATE)
REVIEWED			
DATE DRAWN	TRAFFIC ENGINEER		DATE
1/10			

PROFESSIONAL CIVIL ENGINEER
 KEVIN L. WRAY
 E-11027
 7/27/12
 STATE OF NEBRASKA

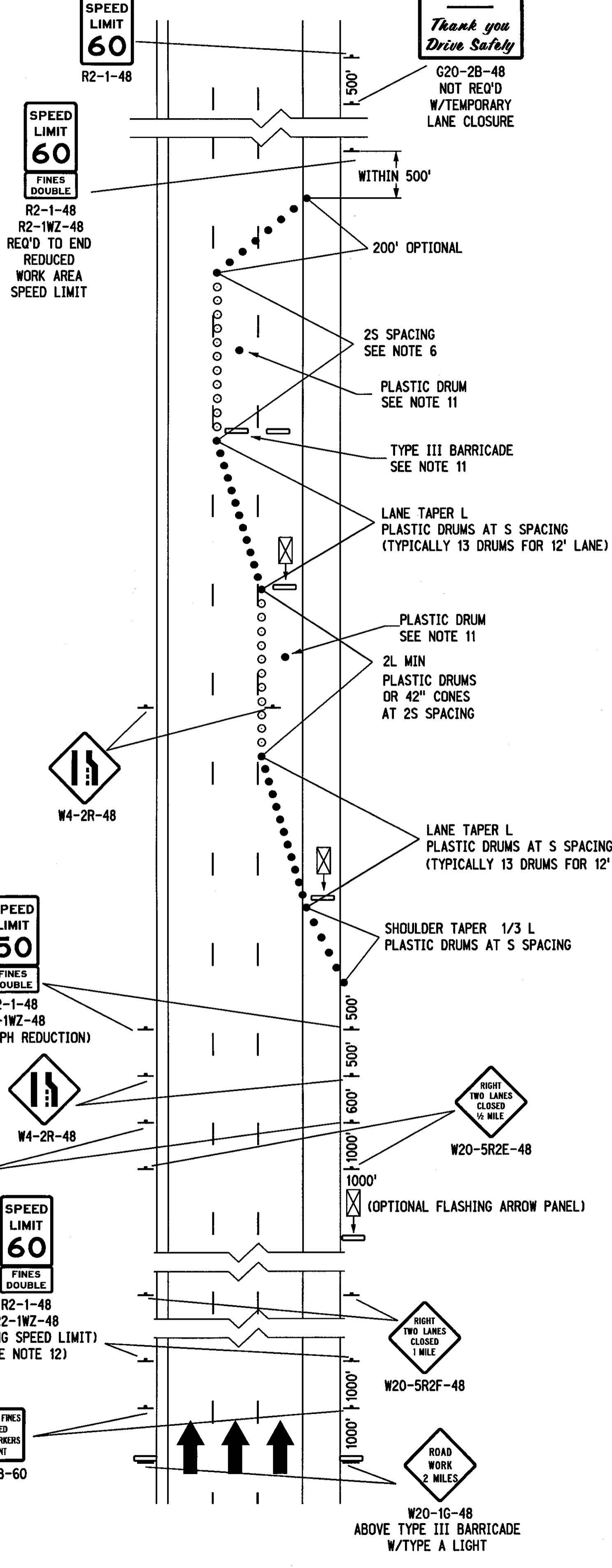
SHOULDER DROP-OFF



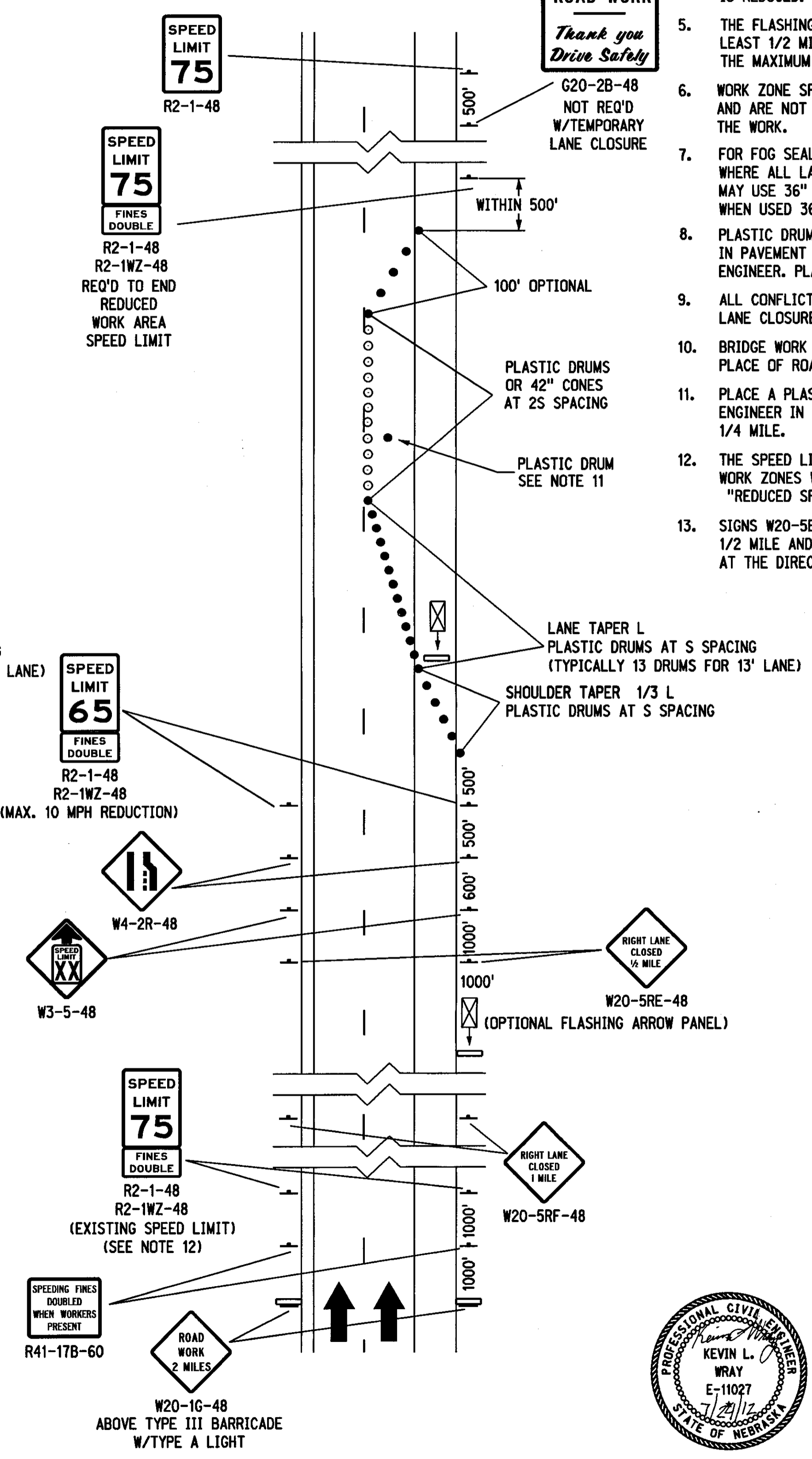
SHOULDER CLOSURE



TWO LANE CLOSURE



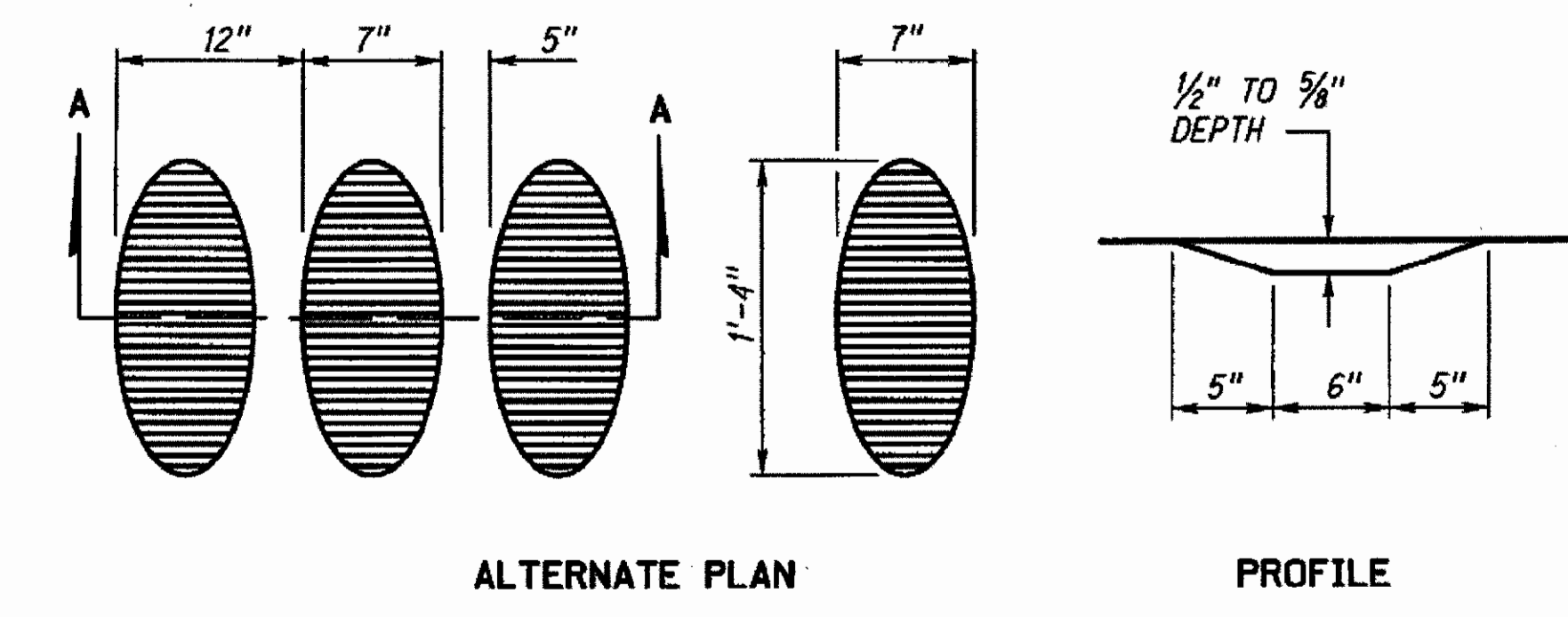
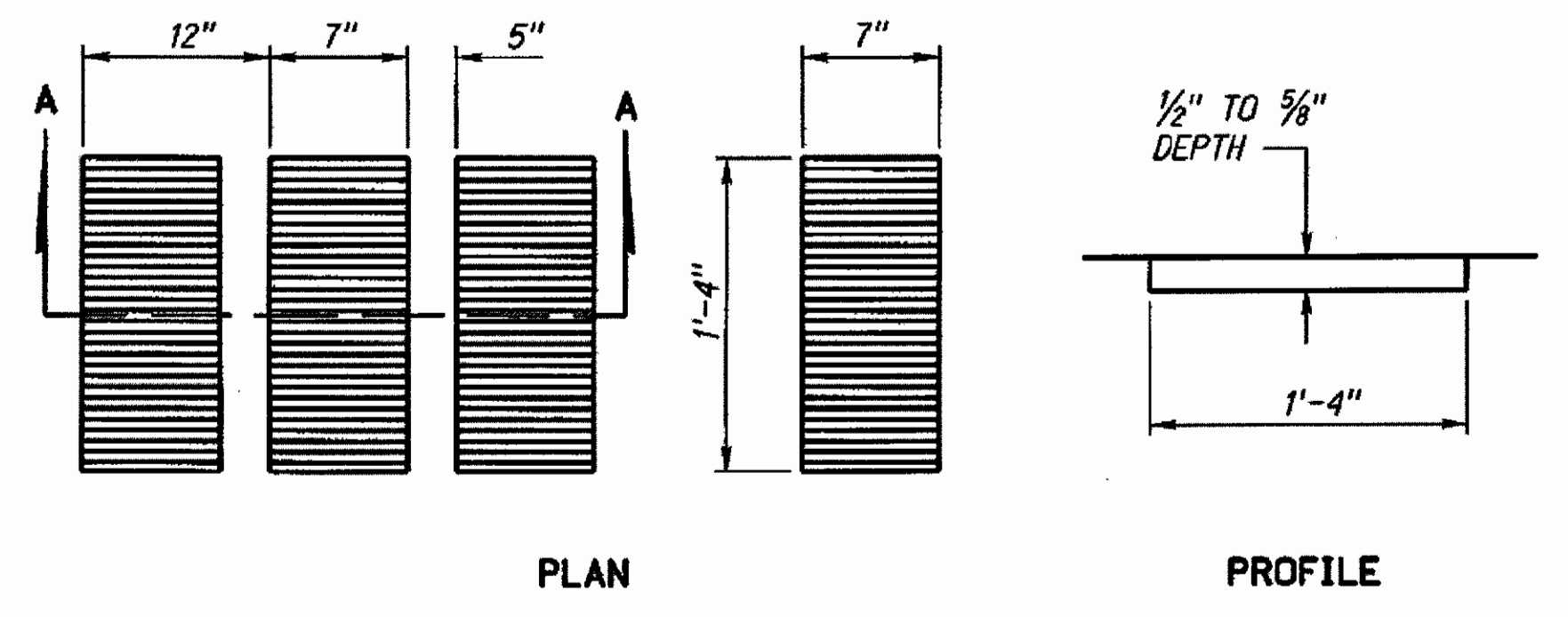
SINGLE LANE CLOSURE



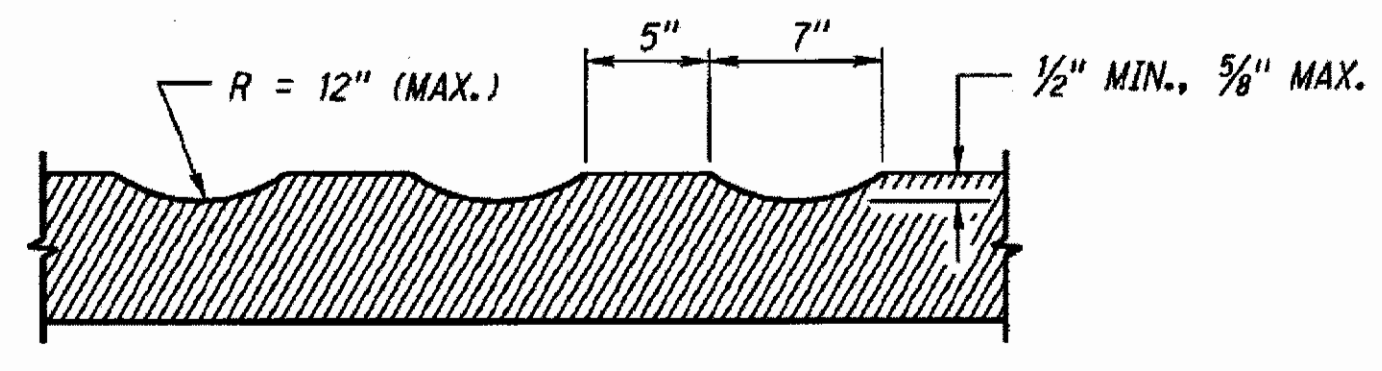
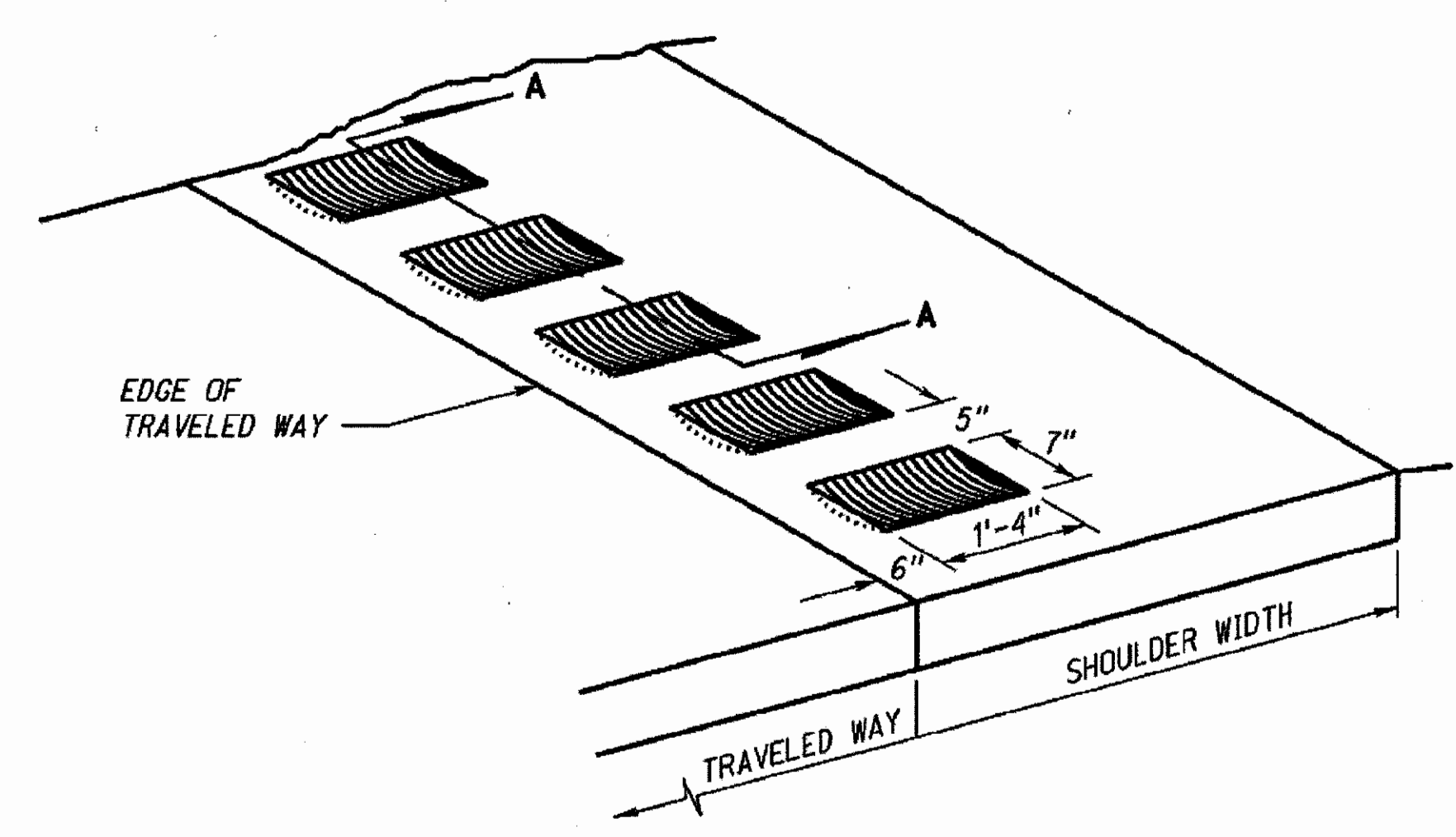
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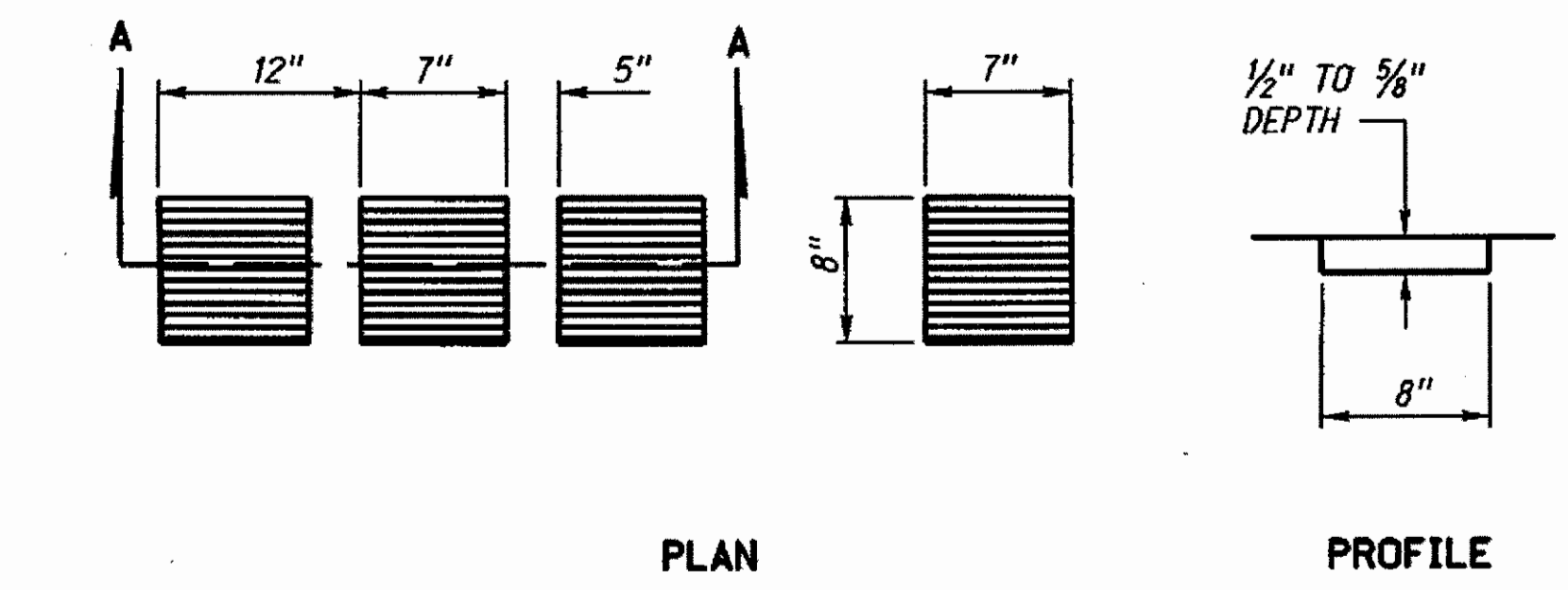
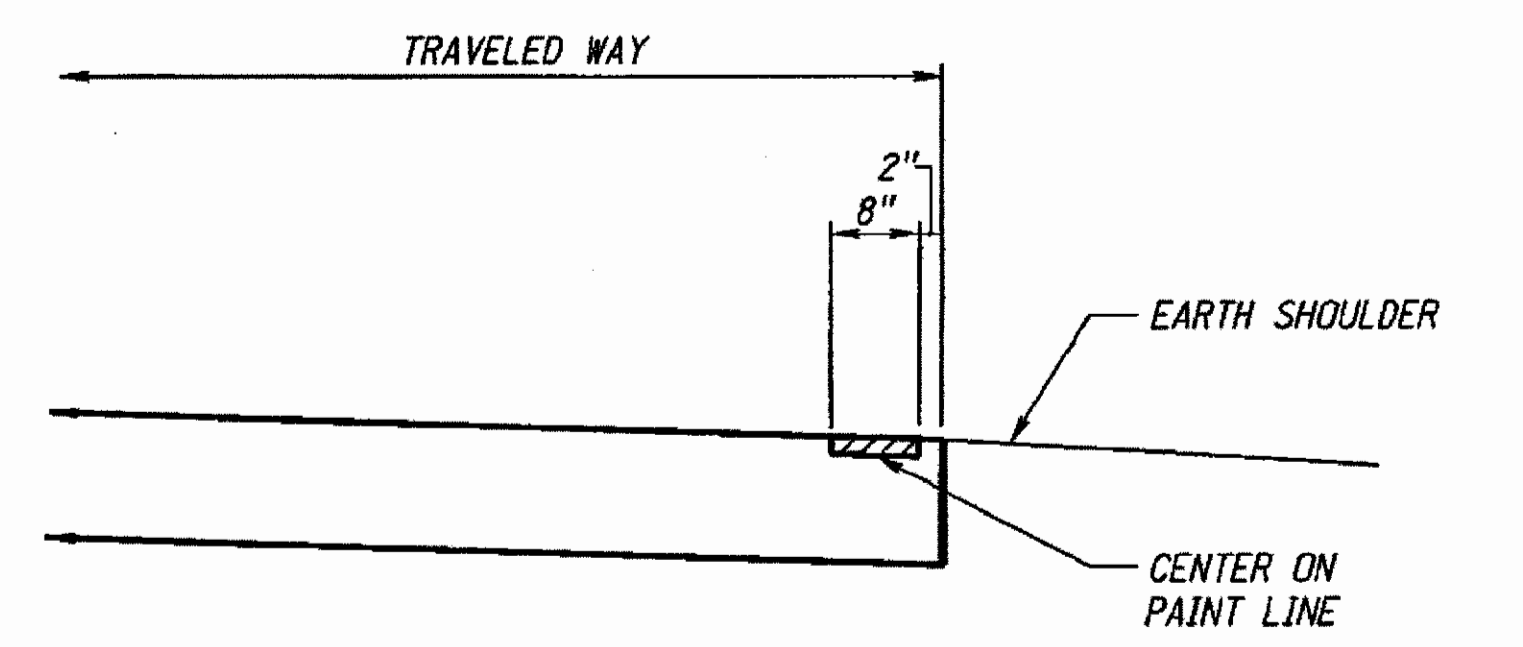
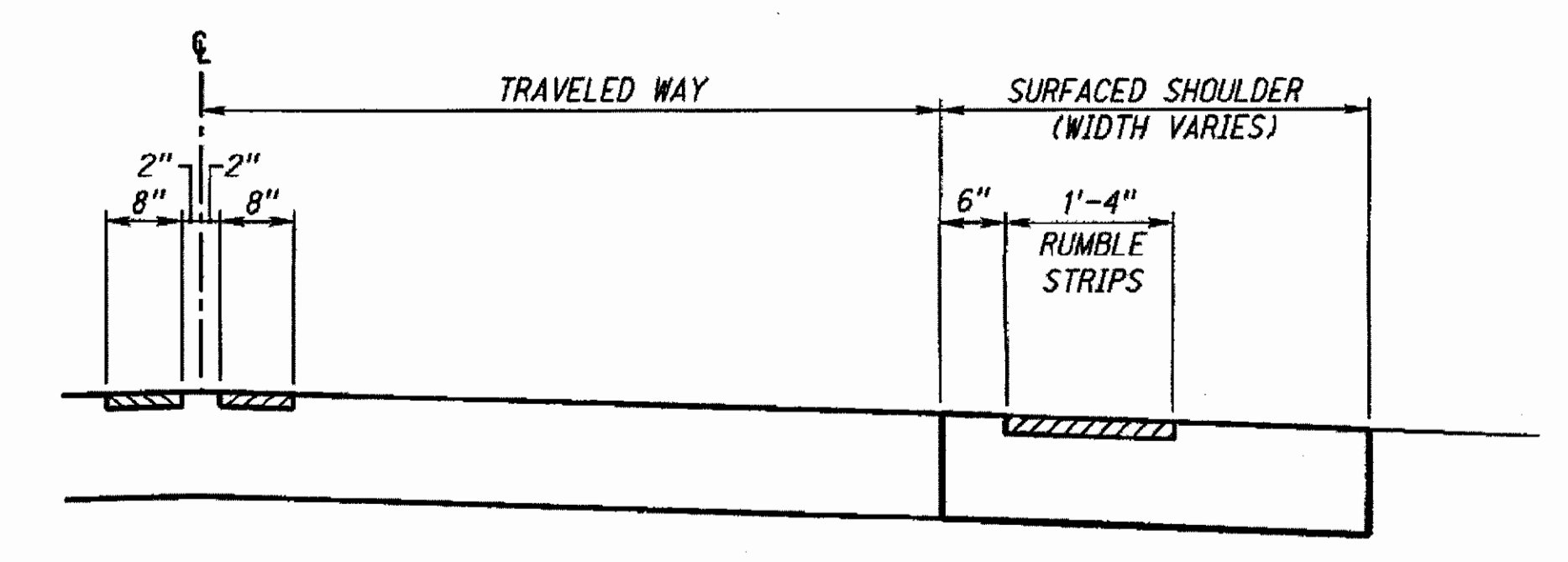
ROADWAY DESIGN DIVISION
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SHEET 1 OF 2 2:100 3200.1 e 00



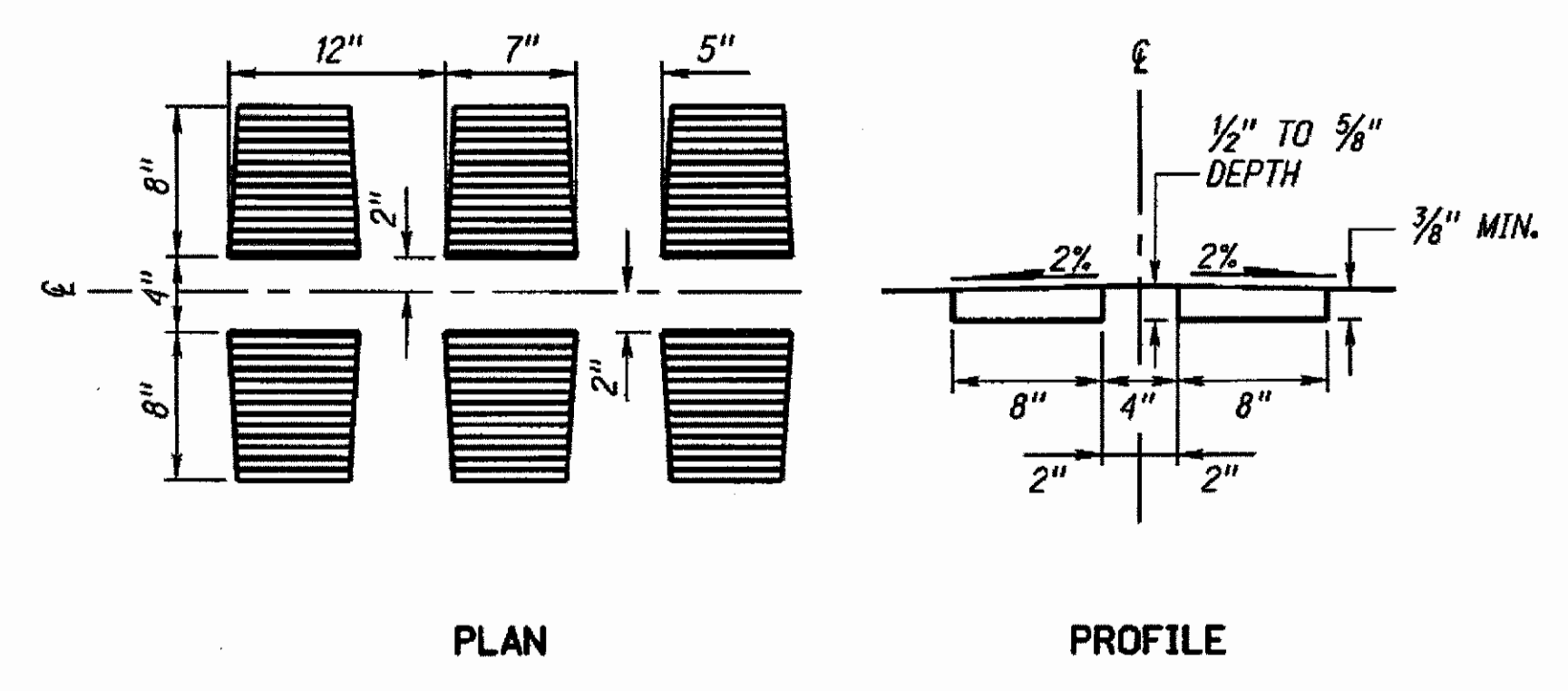
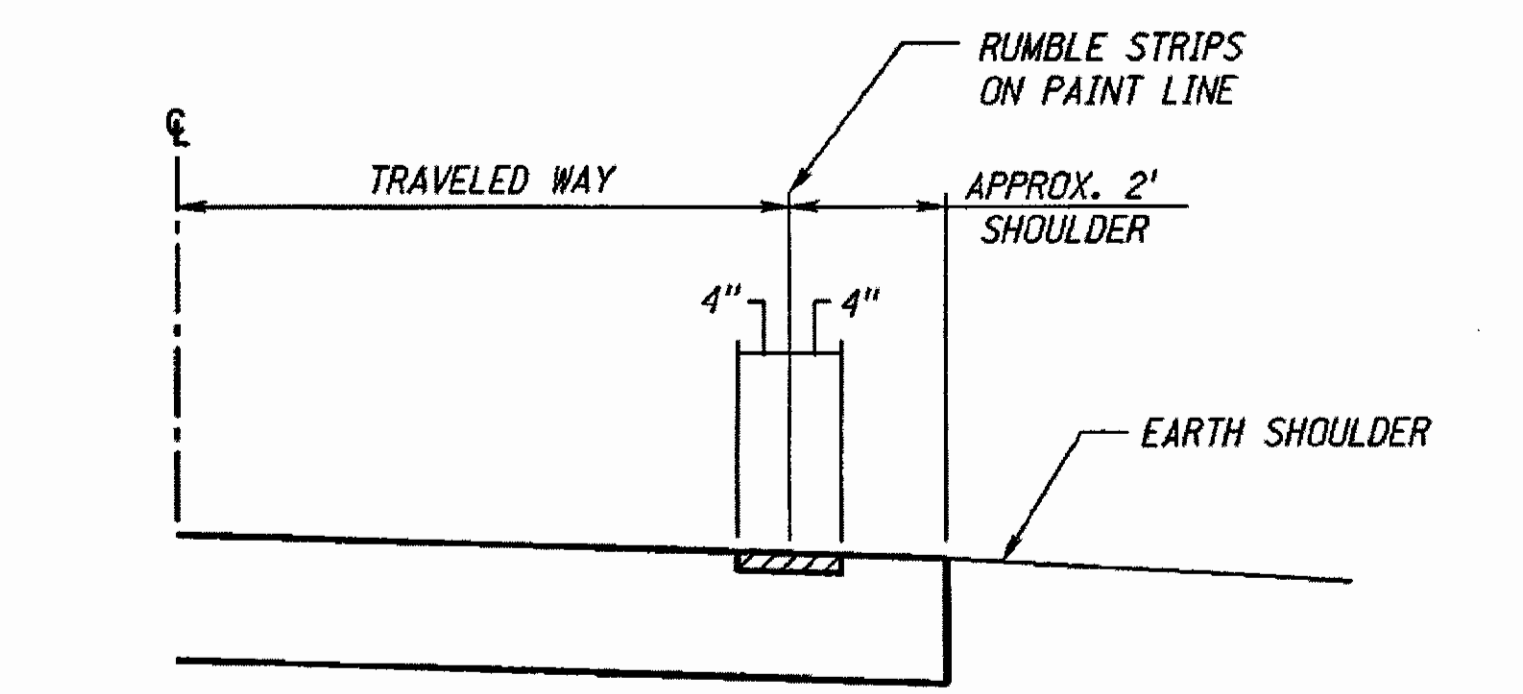
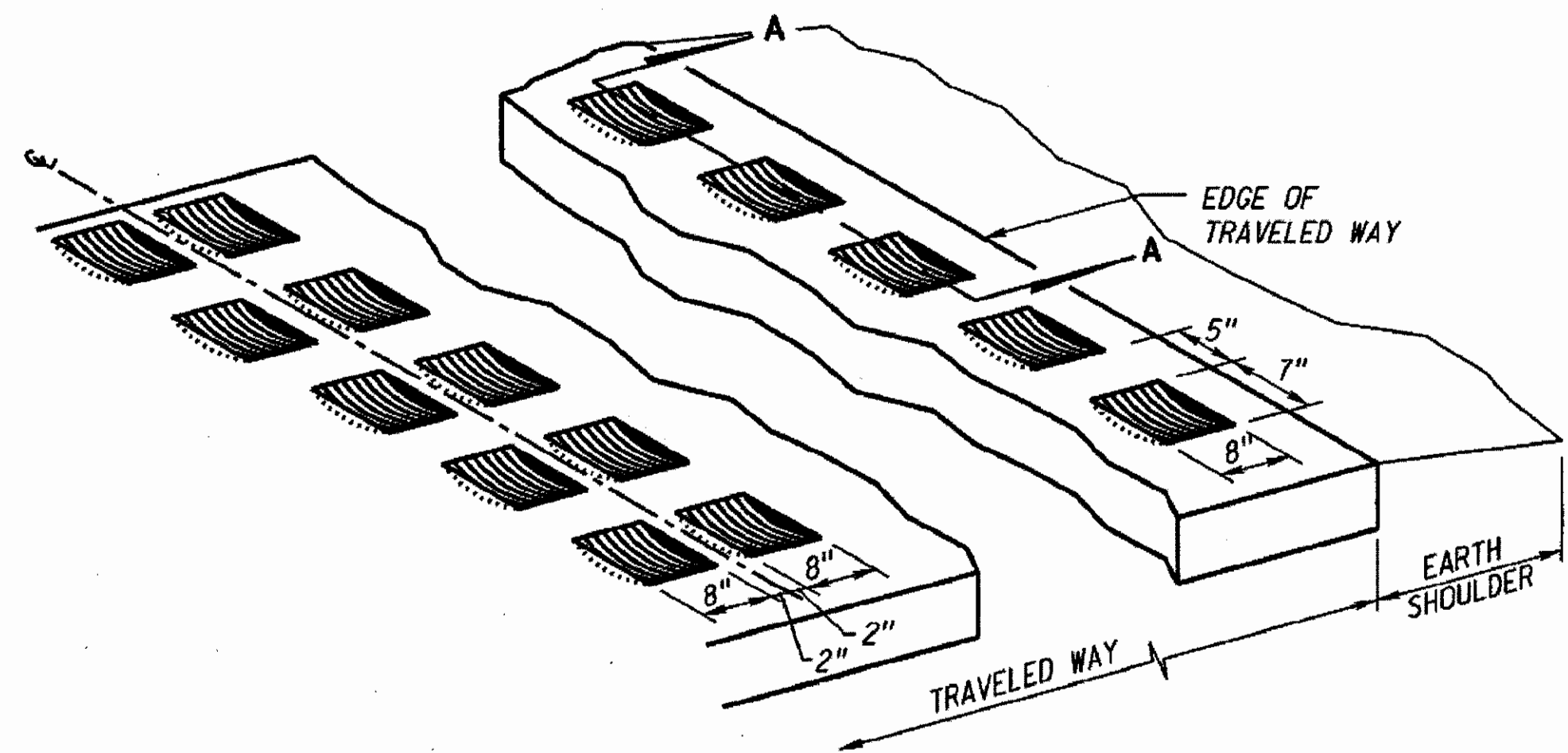
SHOULDER RUMBLE STRIPS SHAPE



SECTION A-A
(TYPICAL FOR ALL SHAPES)

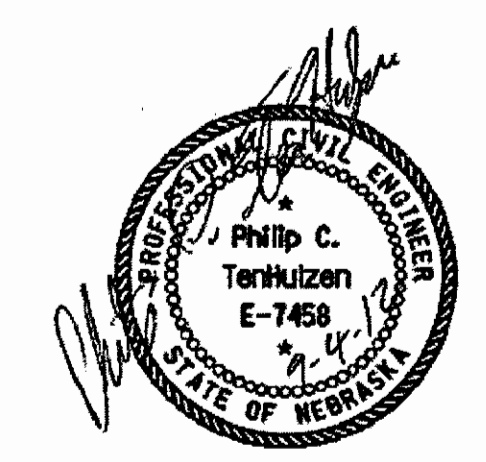


CENTERLINE AND EDGELINE RUMBLE STRIPS SHAPE



ALTERNATE CENTERLINE RUMBLE STRIPS SHAPE

NOTES:
RUMBLE STRIPS SHALL BE PLACED ON ALL SHOULDERS AS INDICATED IN THIS PLAN AND IN ACCORDANCE WITH THE PROJECT PLANS. RUMBLE STRIPS ARE NOT NORMALLY REQUIRED ON CITY STREETS AND OTHER URBAN SHOULDERS ADJACENT TO CURB AND GUTTER UNLESS SPECIFICALLY NOTED IN THE PLANS.
RUMBLE STRIPS MAY BE CONTINUOUS THROUGH ALL DRIVEWAYS AND SHALL BE OMITTED ACROSS INTERSECTING ROADWAYS AND BRIDGES.



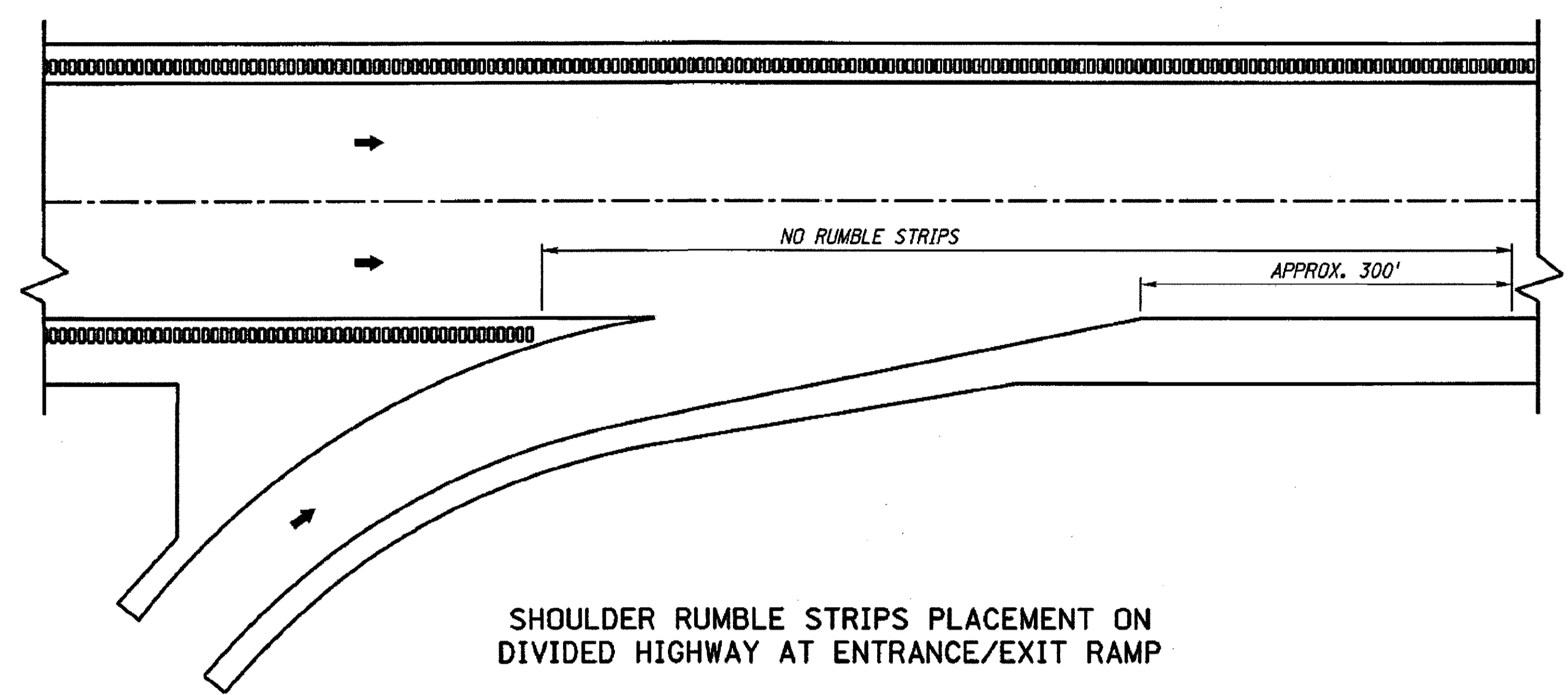
ROADWAY DESIGN DIVISION

Computer: DRDESIGN65

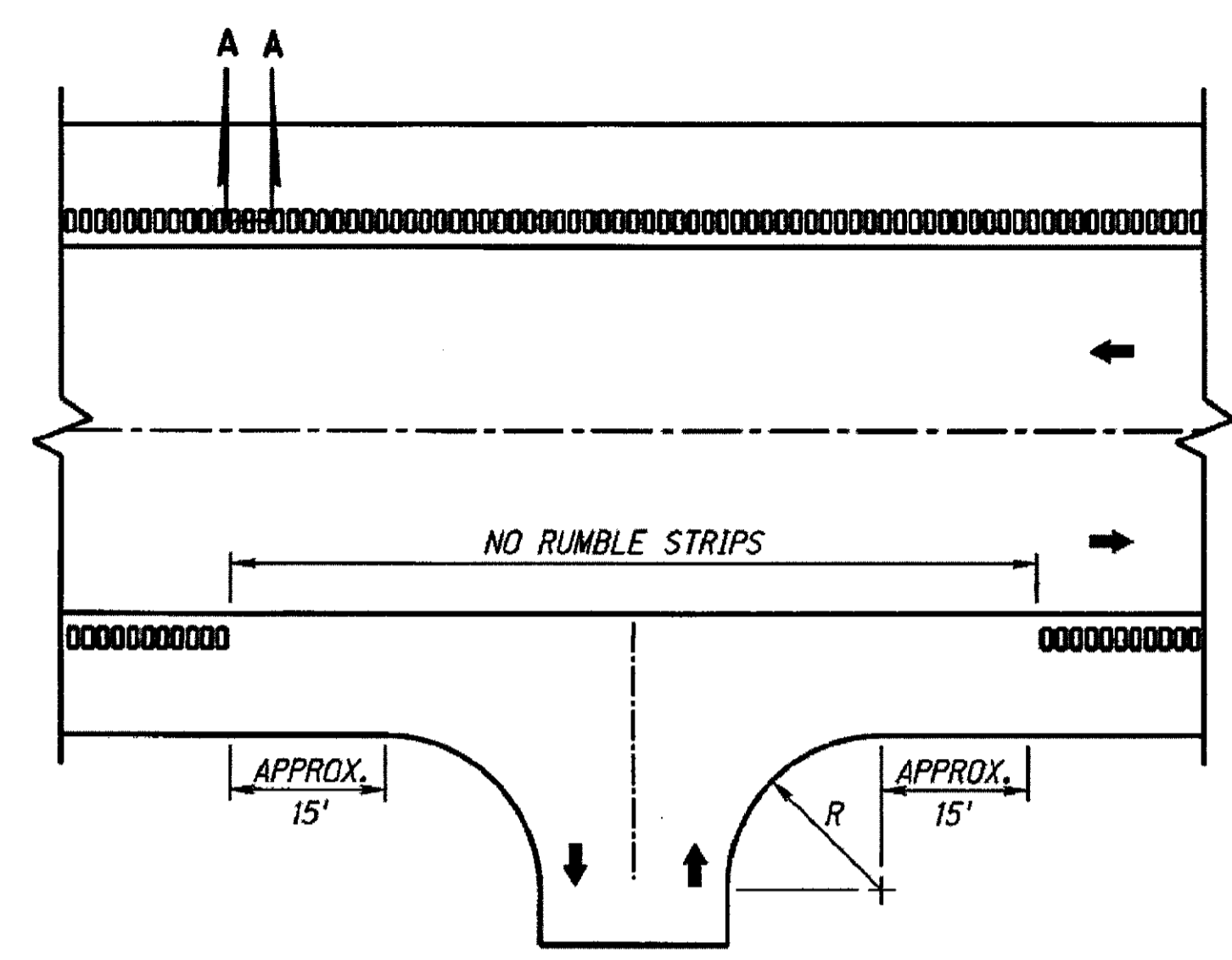
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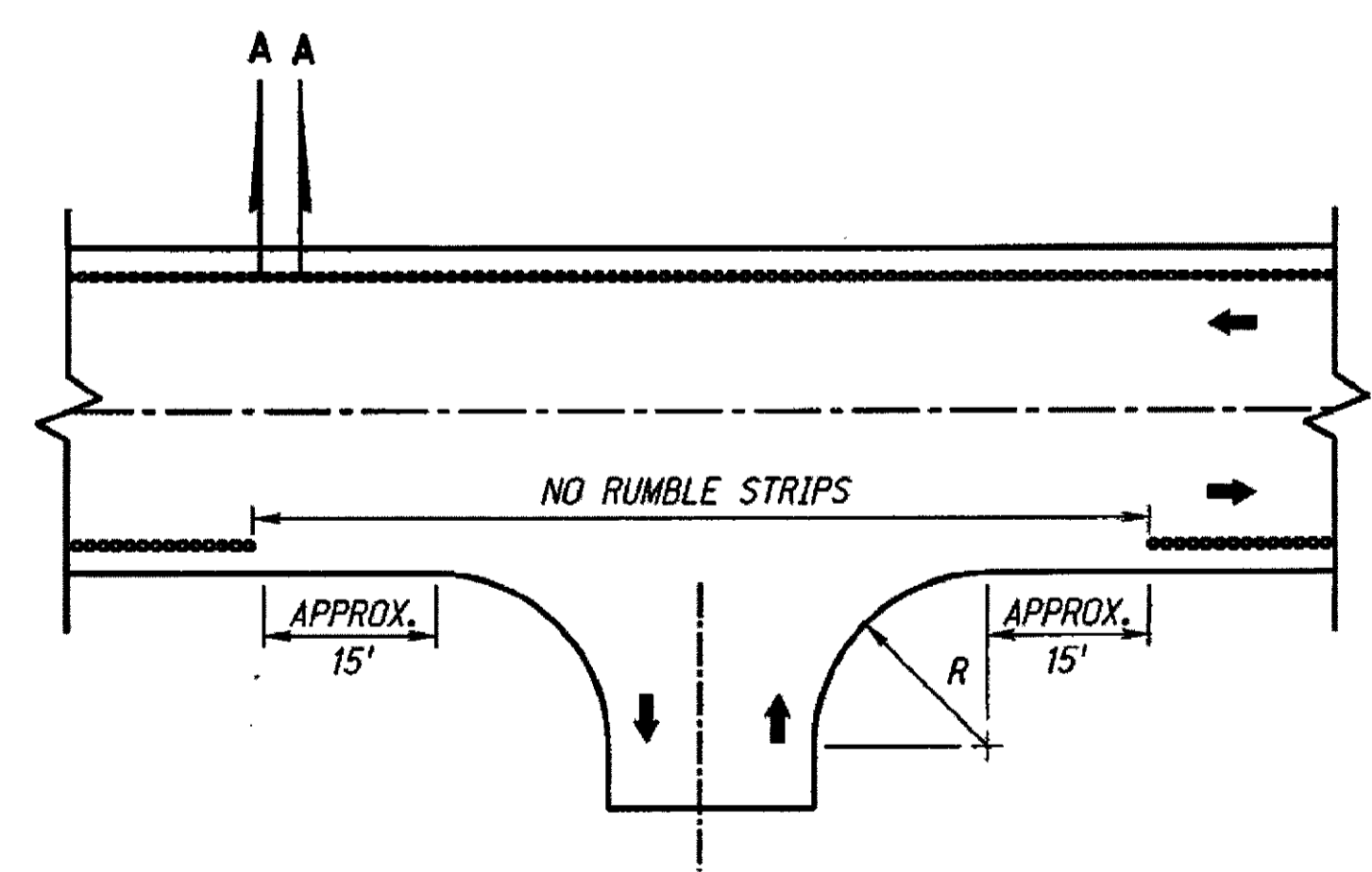
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SHEET 2 OF 2



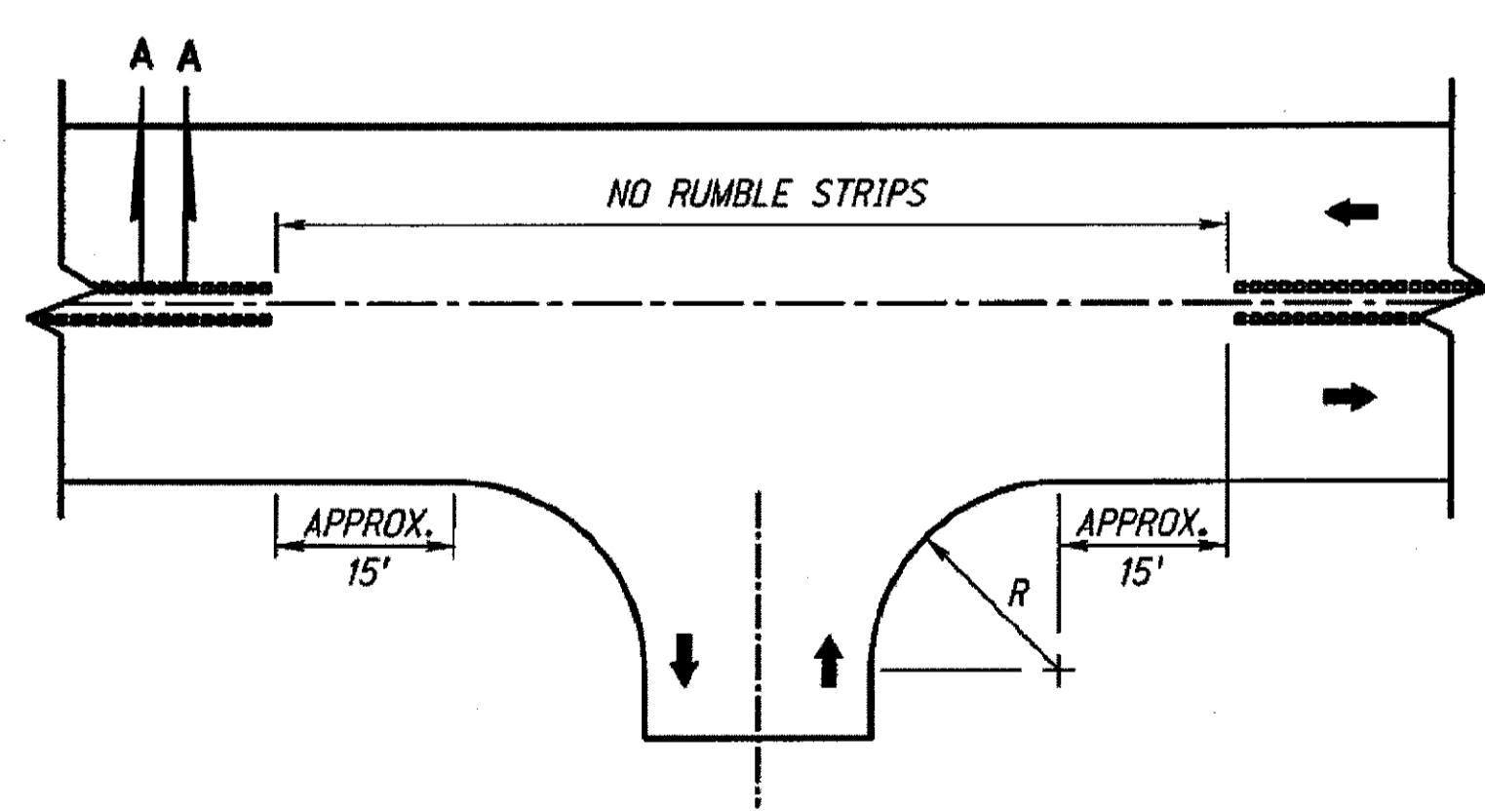
SHOULDER RUMBLE STRIPS PLACEMENT ON DIVIDED HIGHWAY AT ENTRANCE/EXIT RAMP



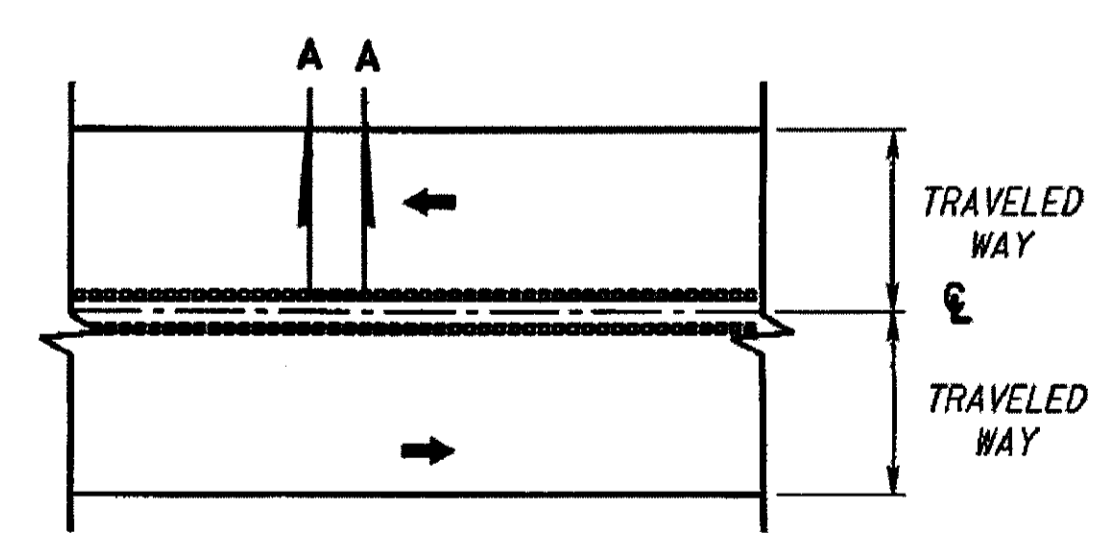
SHOULDER RUMBLE STRIPS PLACEMENT ON 2-LANE HIGHWAY AT INTERSECTION



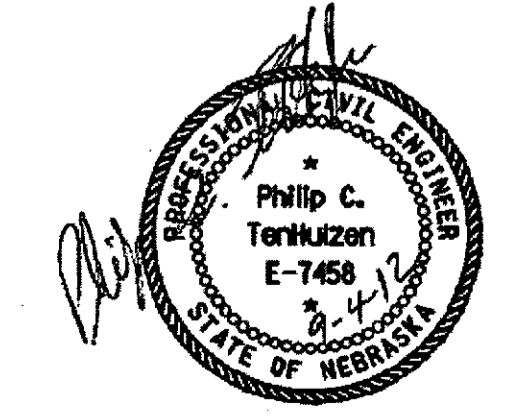
EDGE LINE RUMBLE STRIPS PLACEMENT AT INTERSECTION



CENTERLINE RUMBLE STRIPS PLACEMENT AT INTERSECTIONS

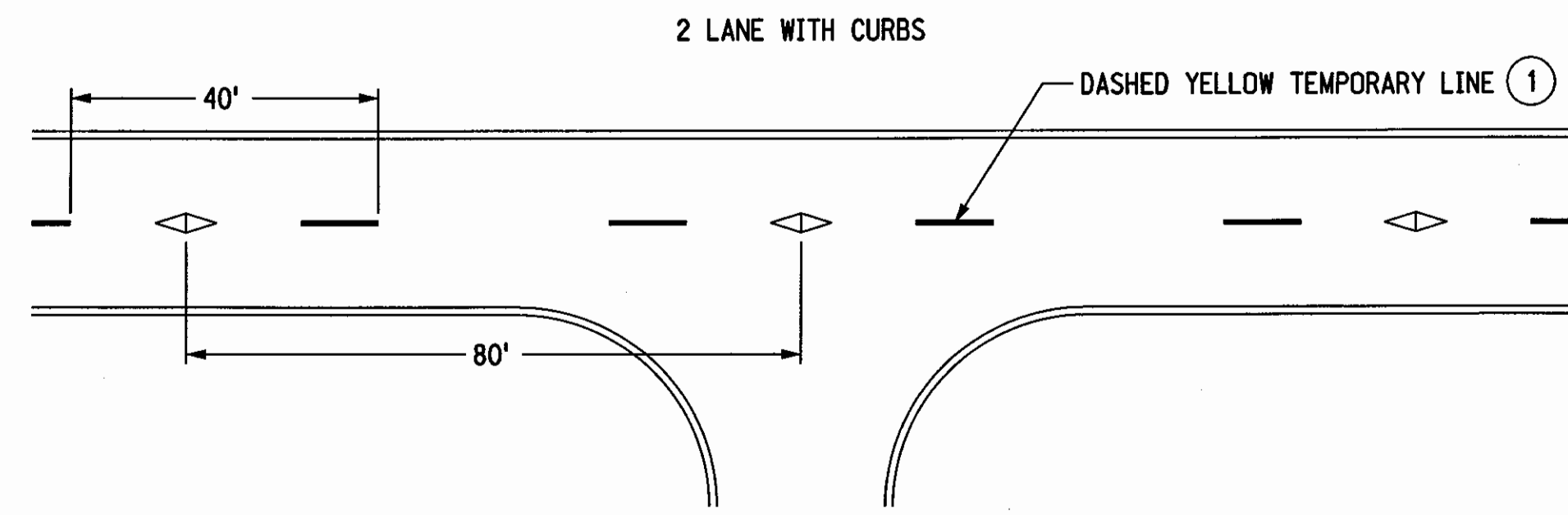


CENTERLINE LAYOUT

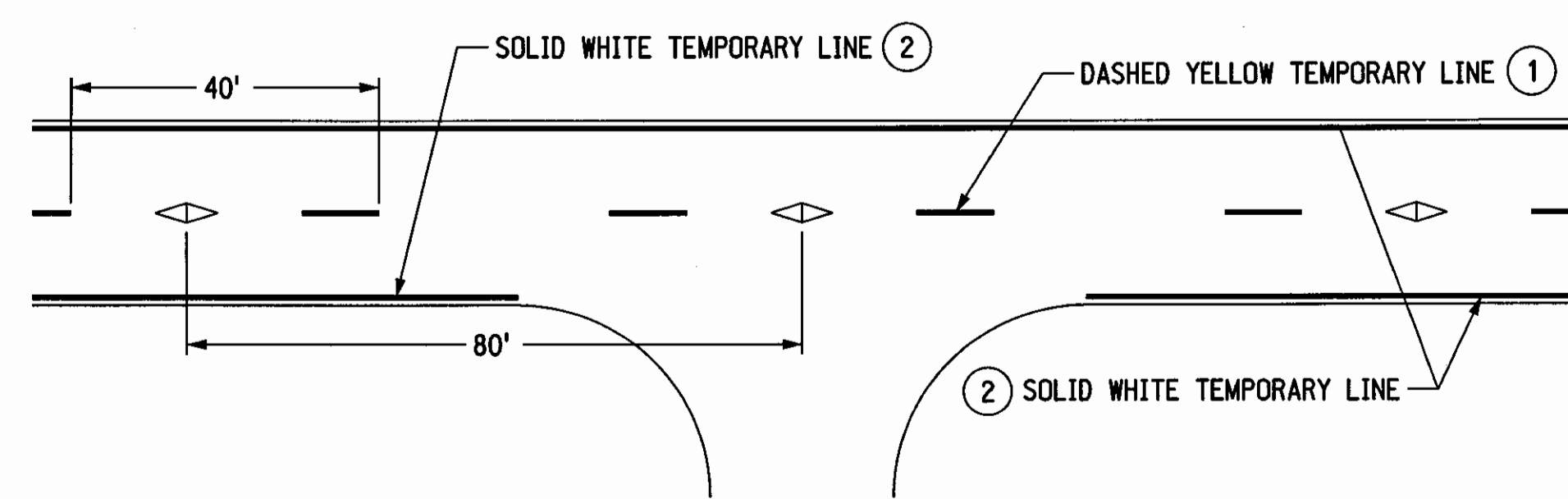


MILLED RUMBLE STRIPS
SHEET 2 OF 2
SPECIAL PLAN 1C

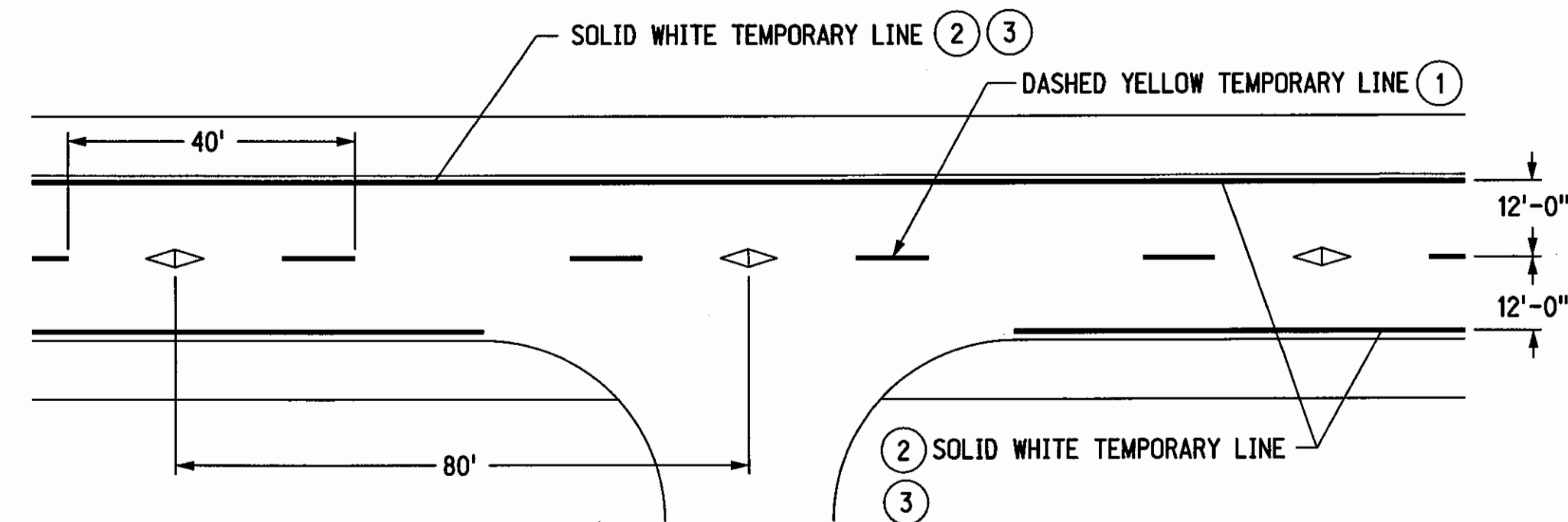
2 LANE ROADWAYS



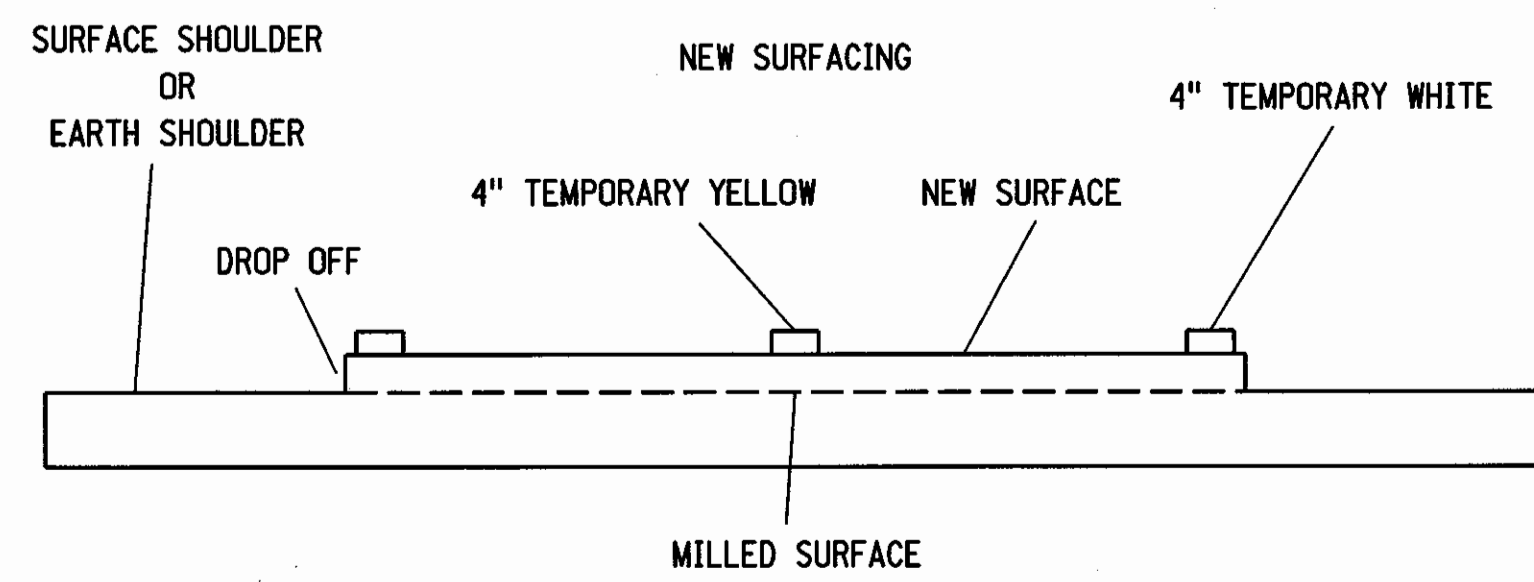
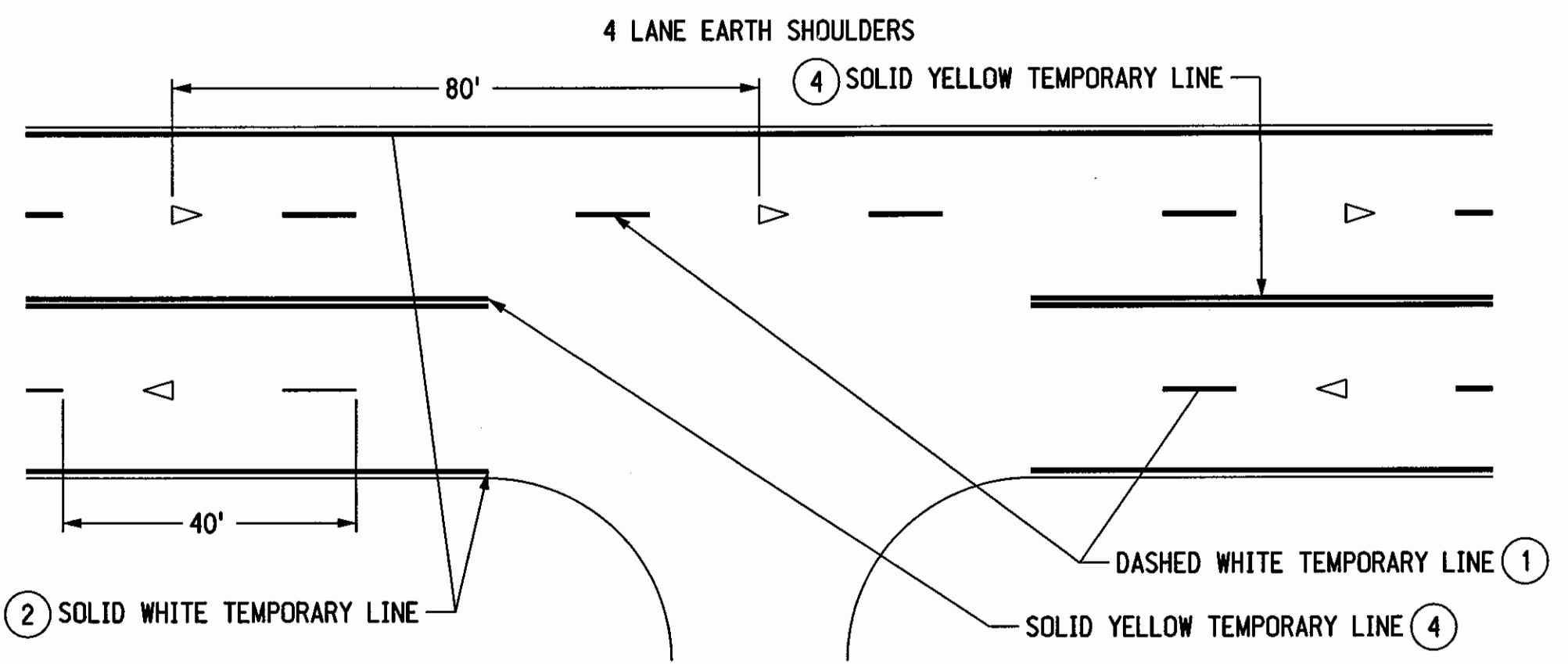
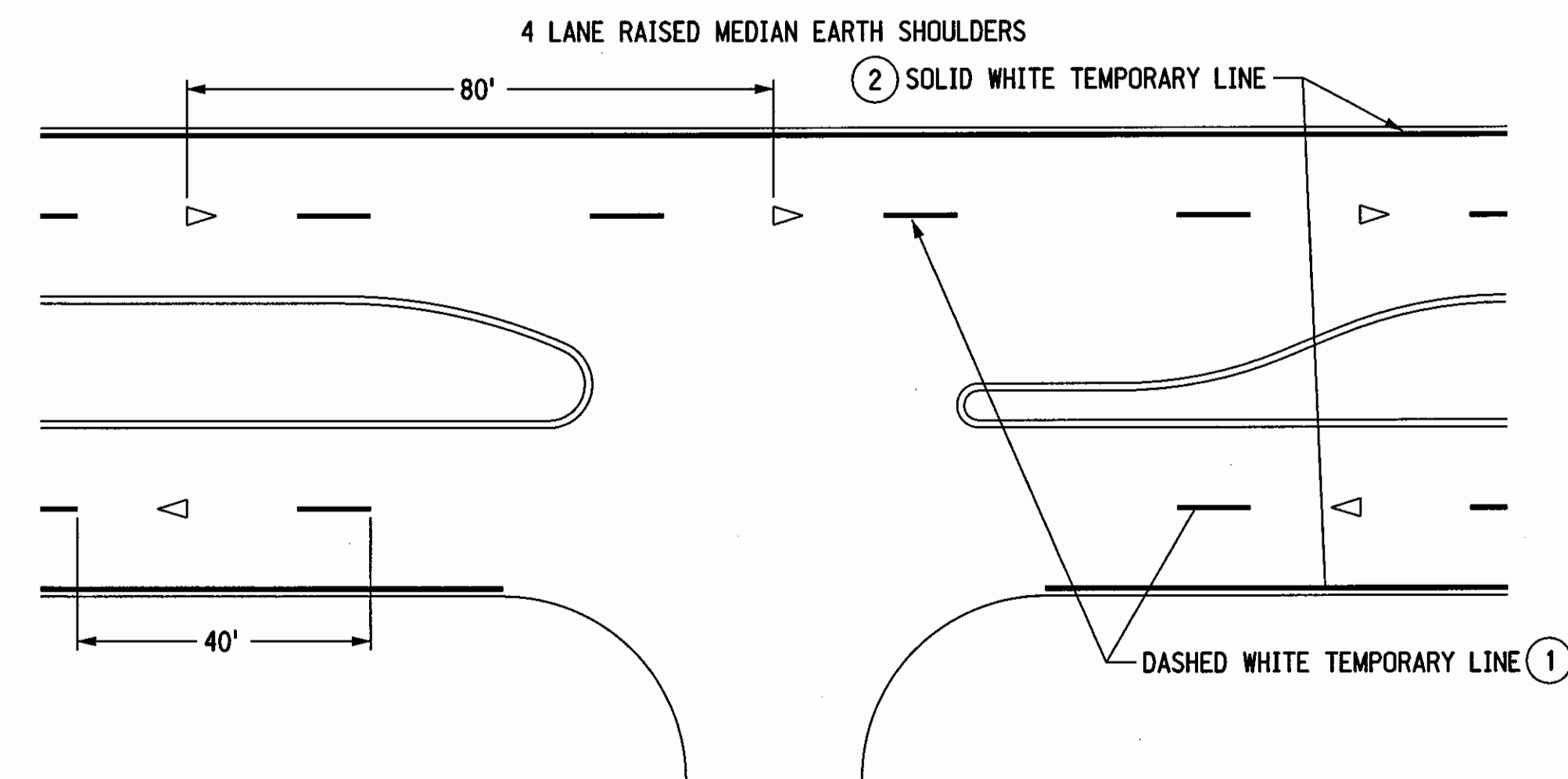
2 LANE EARTH SHOULDERS



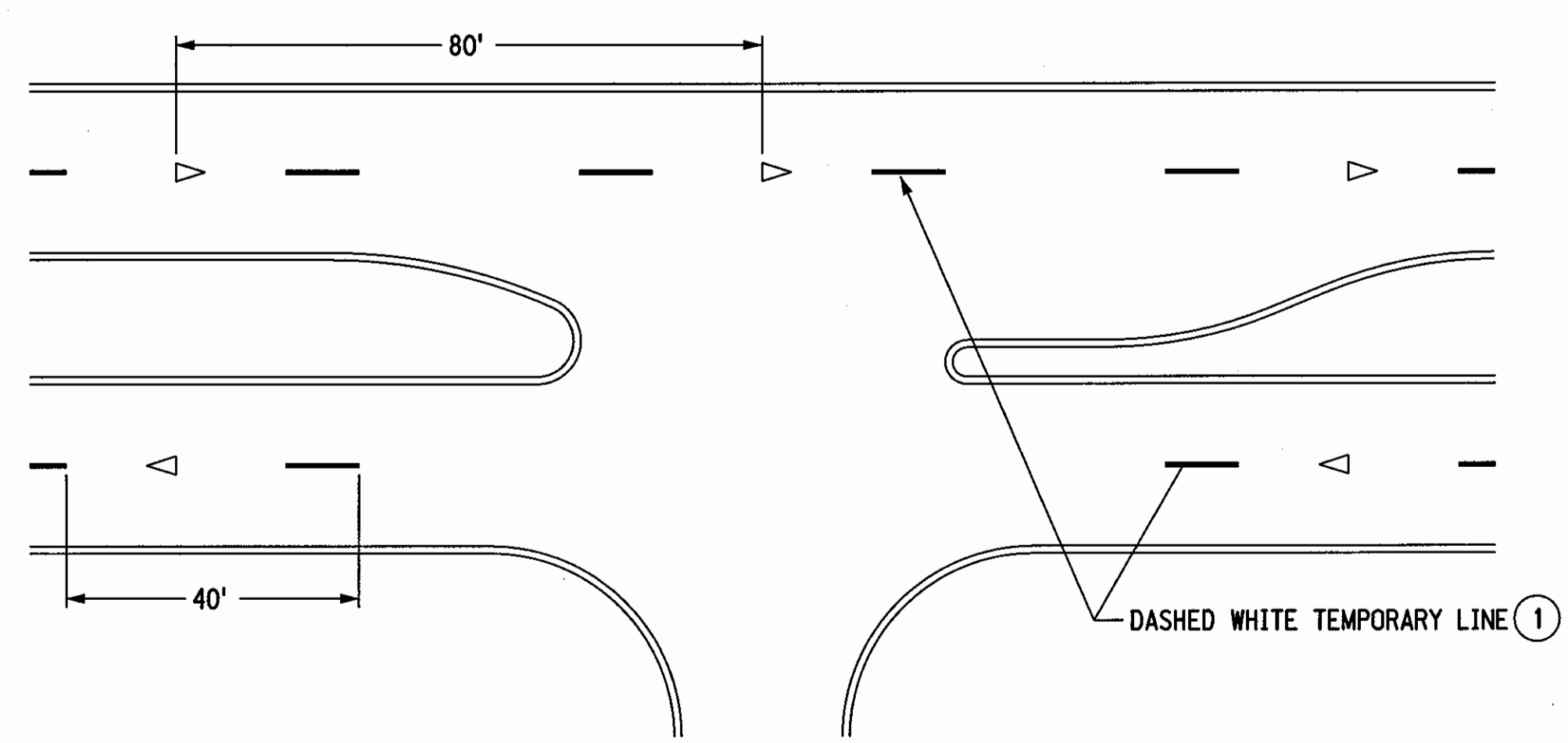
2 LANE SURFACED SHOULDERS



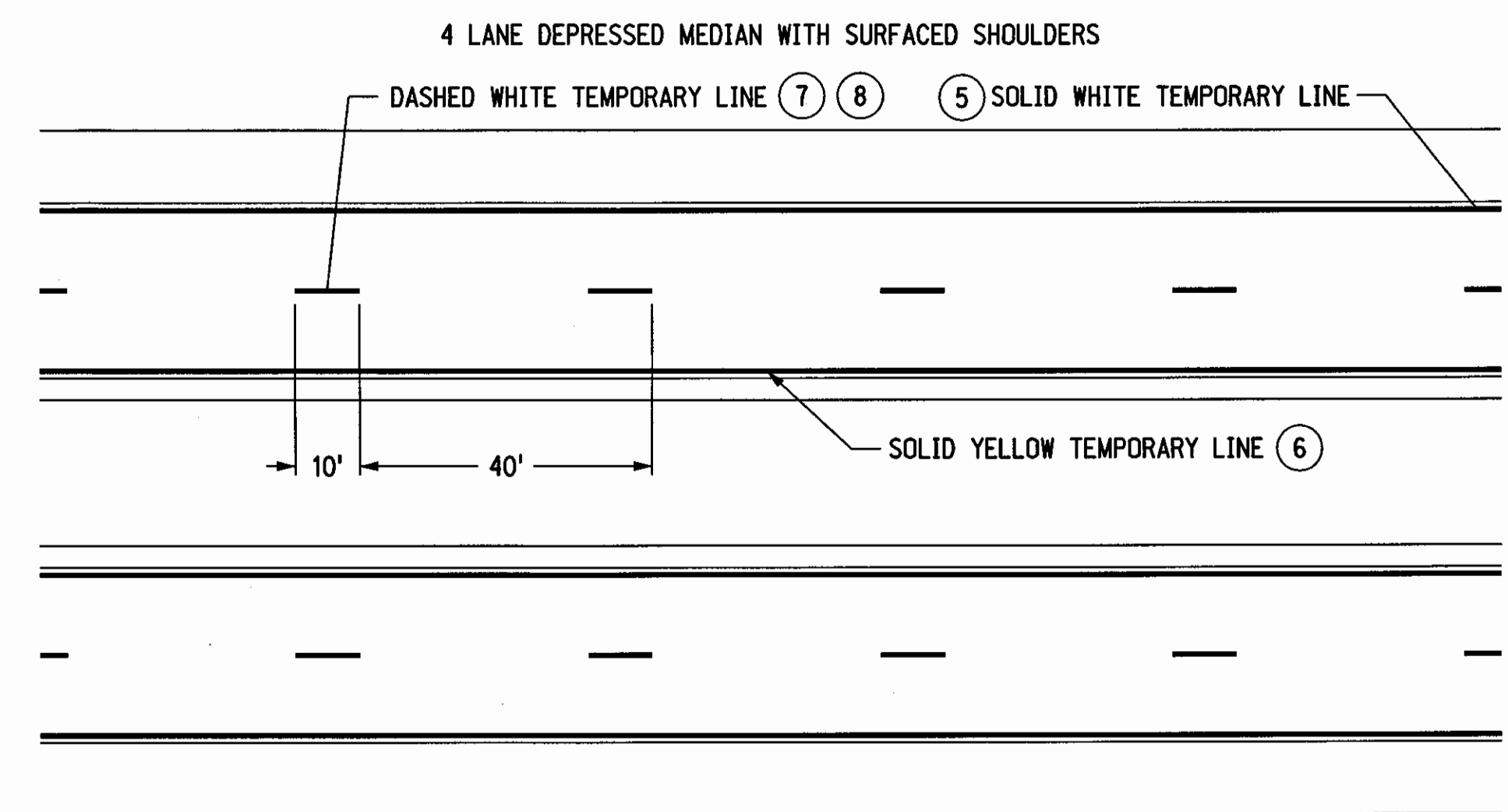
4 LANE ROADWAYS



4 LANE RAISED MEDIAN WITH CURBS



FREEWAY/RURAL EXPRESSWAY



NOTES

- ① LOWER LAYERS: TEMPORARY DASHED LINE SHALL BE 4" X 10' PAINTED LINE AT 40' INTERVALS OR 4" X 4' TYPE 1 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.

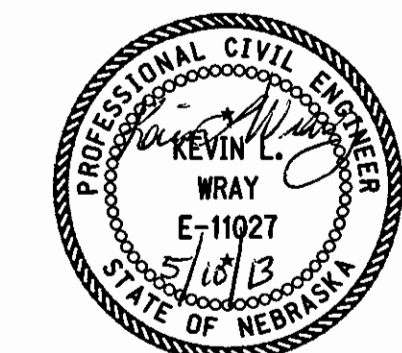
2 LANE ROADWAY REQUIRED LOCATION FOR PAINTED LINES, IF USED ON THE TOP LAYER		
ROADWAY WIDTH	SHOULDER TYPE	DISTANCE FROM C OF ROADWAY TO OUTSIDE EDGE OF PAVEMENT
LESS THAN 24'	SURFACED	EDGE OF LANE
LESS THAN 24'	EARTH	PAVEMENT EDGE
24'	EARTH	PAVEMENT EDGE
24'	SURFACED	12'-0" *
24' TO 28'	EARTH	12'-0" *

* 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



SPECIAL PLAN 2C

NEBRASKA DEPARTMENT OF ROADS
TRAFFIC ENGINEERING DIVISION

TYPICAL PAVEMENT MARKING

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