

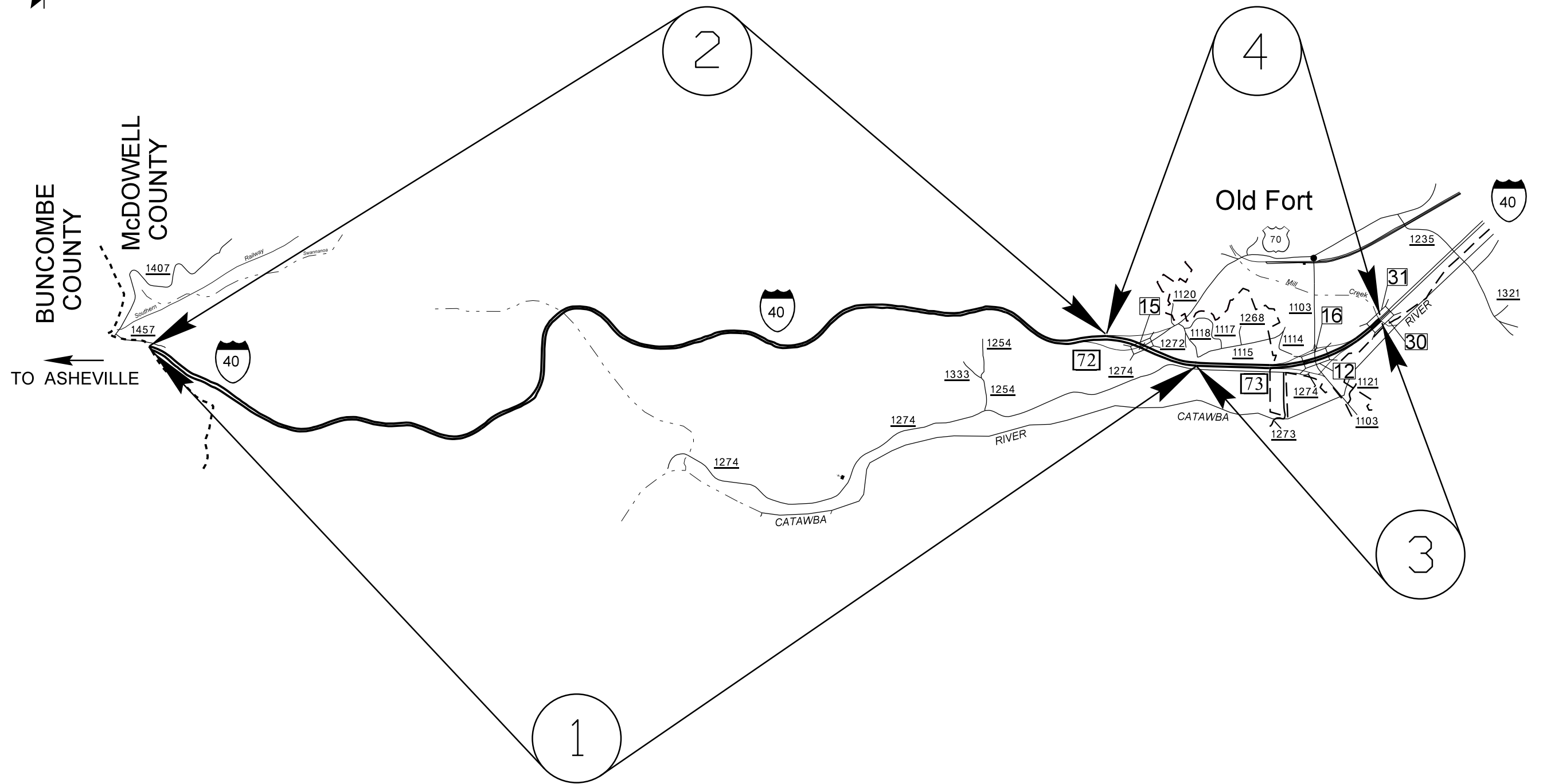
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STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-5833	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
53039.1.1	NHPP-0040(026)	PE	
53039.3.1	NHPP-0040(026)	CONST.	



McDOWELL COUNTY

10-OCT-2016 11:09 S:\DDC\rdy\interstate Maintenance Preservation Program\McDowell\I-5833\Revisions\I-5833 Location Maps.dgn \$\$\$USERNAME\$\$\$

TIP PROJECT: I-5833

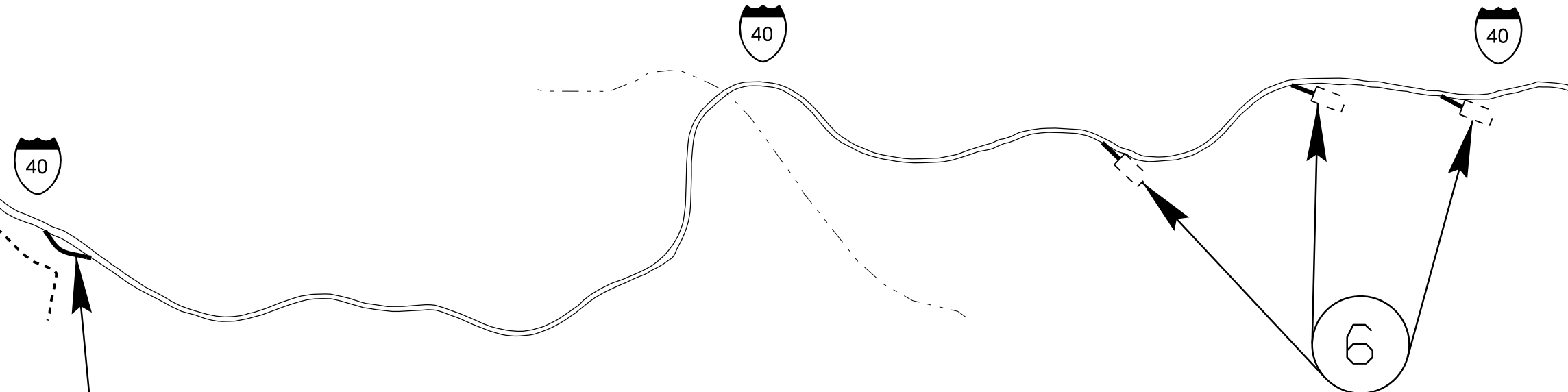
CONTRACT: C203871

09/08/99

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-5833	2	

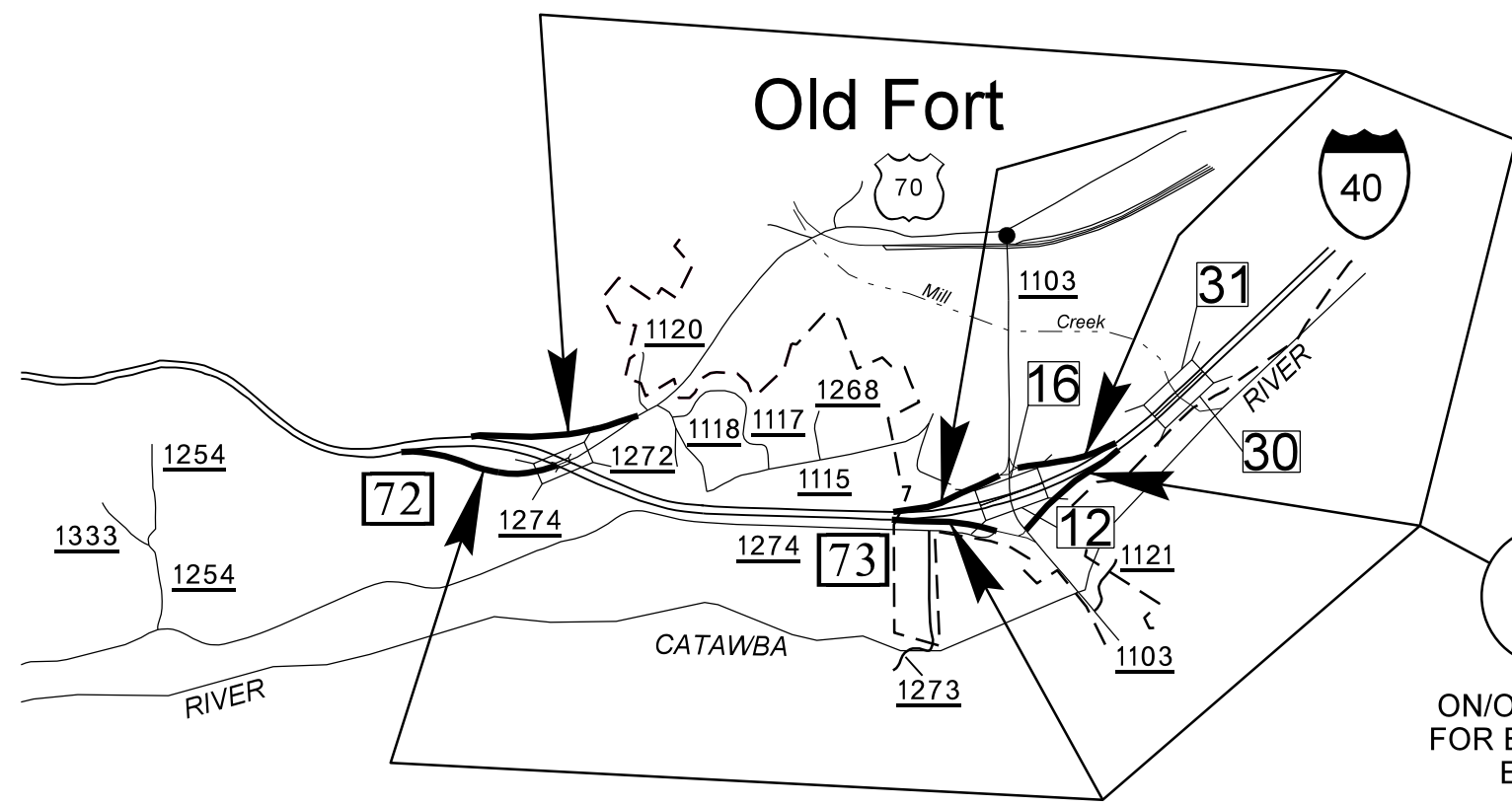


BUNCOMBE COUNTY
McDOWELL COUNTY
TO ASHEVILLE



5
TRUCK
WARNING STATION

6
RUNAWAY
TRUCK RAMPS



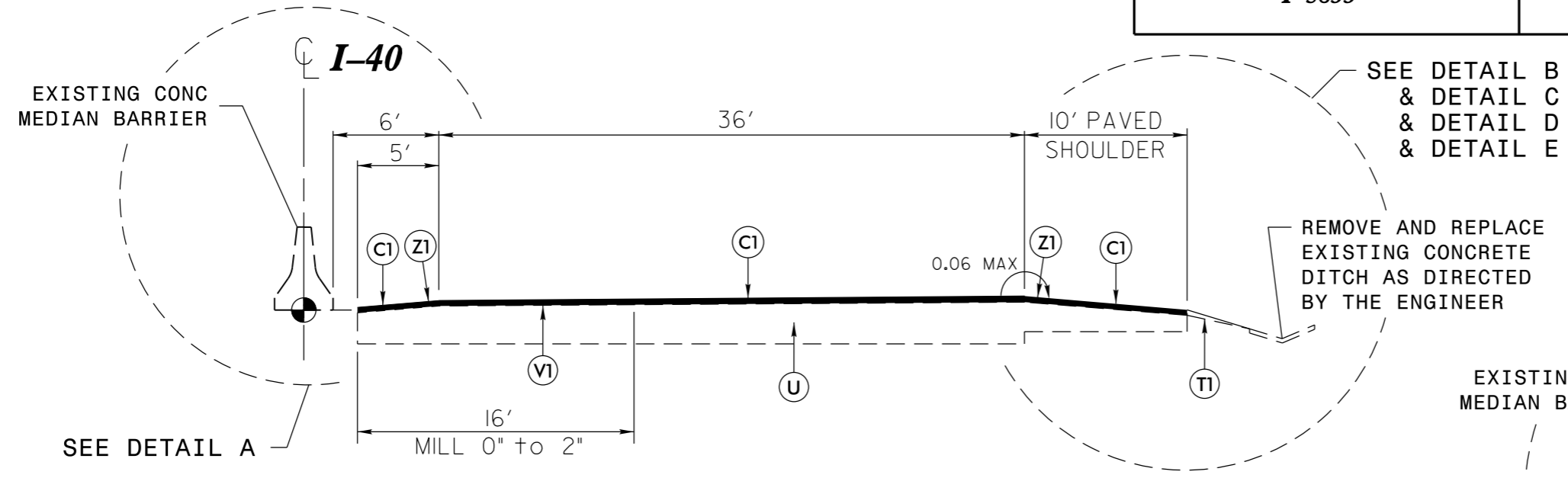
7
ON/OFF RAMPS
FOR EXIT 72 AND
EXIT 73

McDOWELL COUNTY

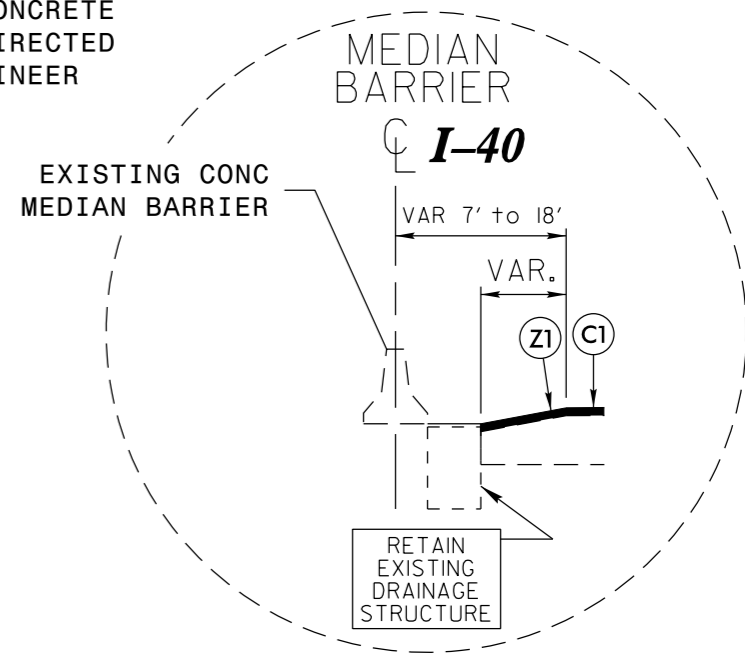
10-OCT-2016 11:11
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09/08/99

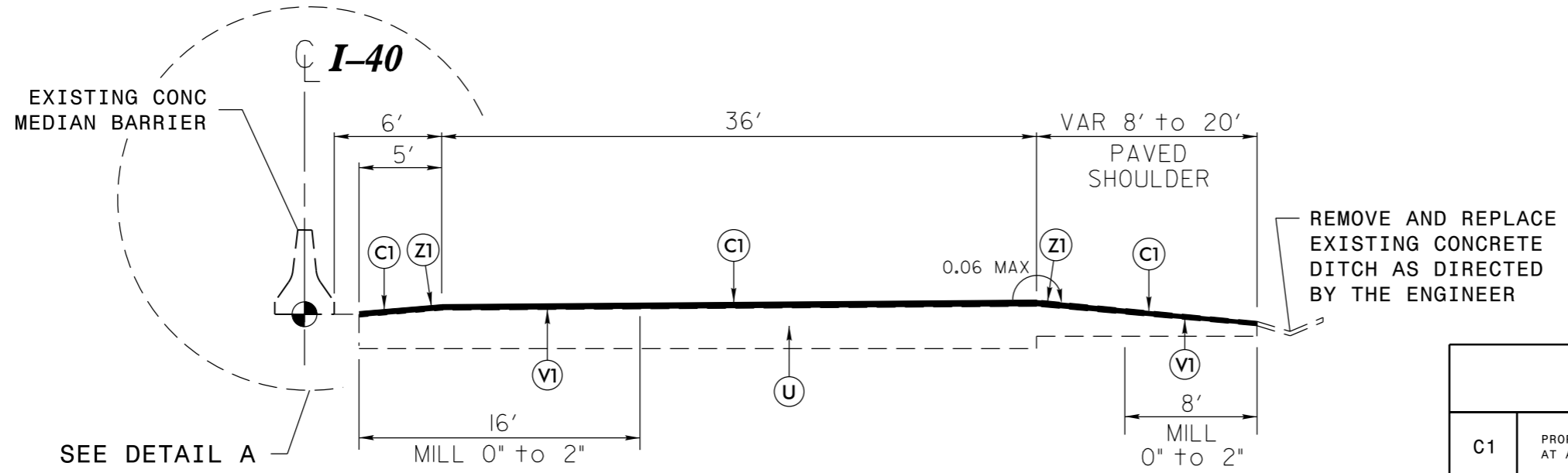
TIP NO.	SHEET NO.	TOTAL SHEETS
I-5833	3	



TYPICAL SECTION NO. 1



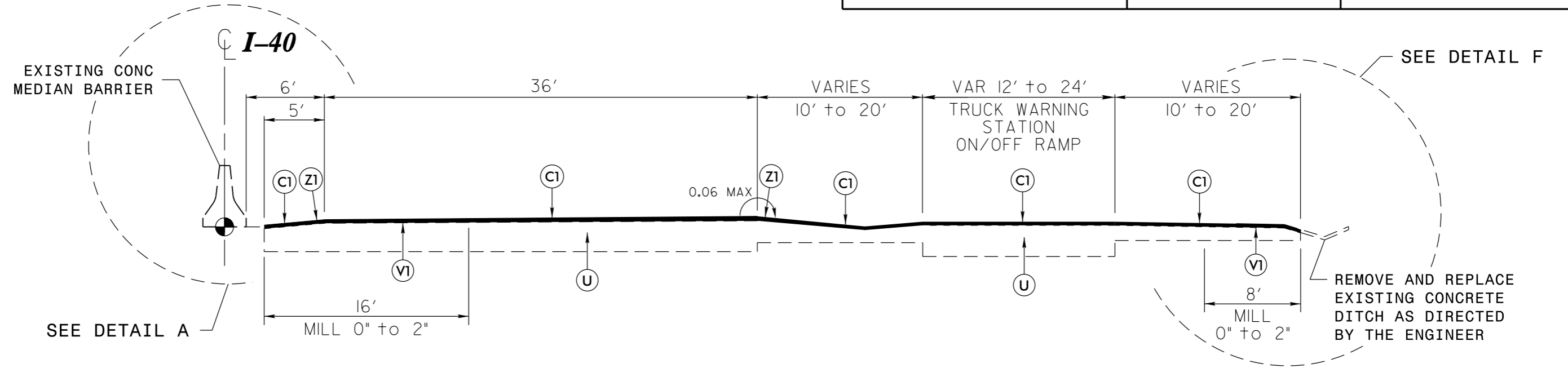
DETAIL A
VARIOUS LOCATIONS



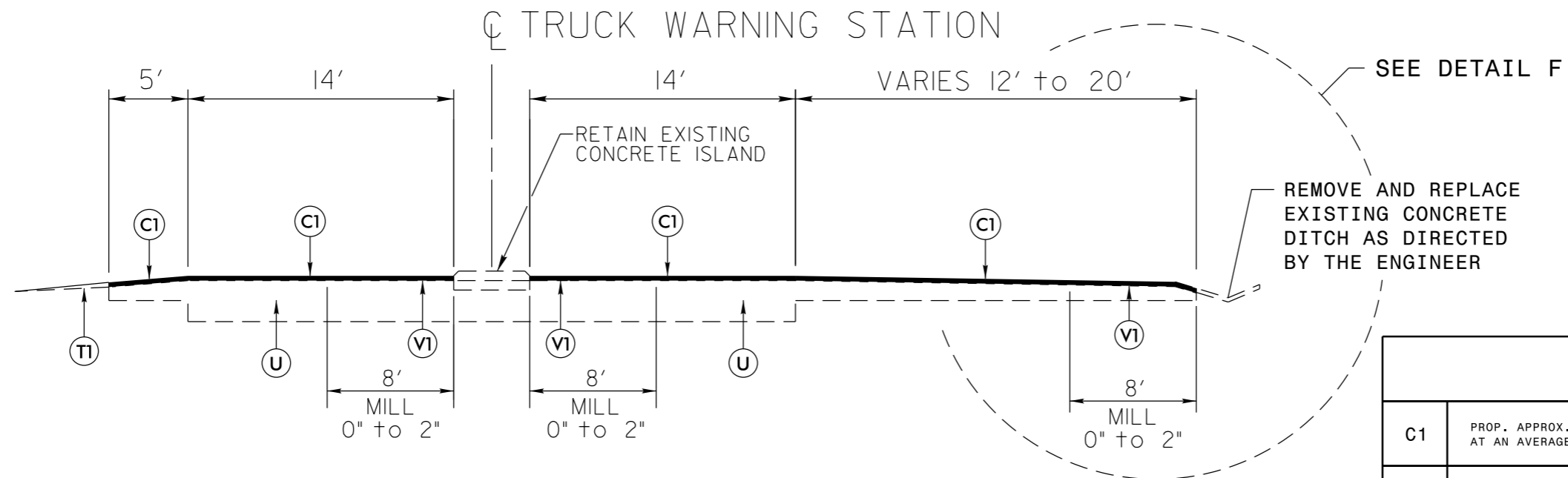
TYPICAL SECTION NO. 2

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5D, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
T1	SHOULDER RECONSTRUCTION
U	EXISTING PAVEMENT
V1	MILLING ASPHALT PAVEMENT, 0" - 2" DEPTH
Z1	MILLED RUMBLE STRIPS (ASPHALT CONCRETE)

TIP NO.	SHEET NO.	TOTAL SHEETS
I-5833	4	



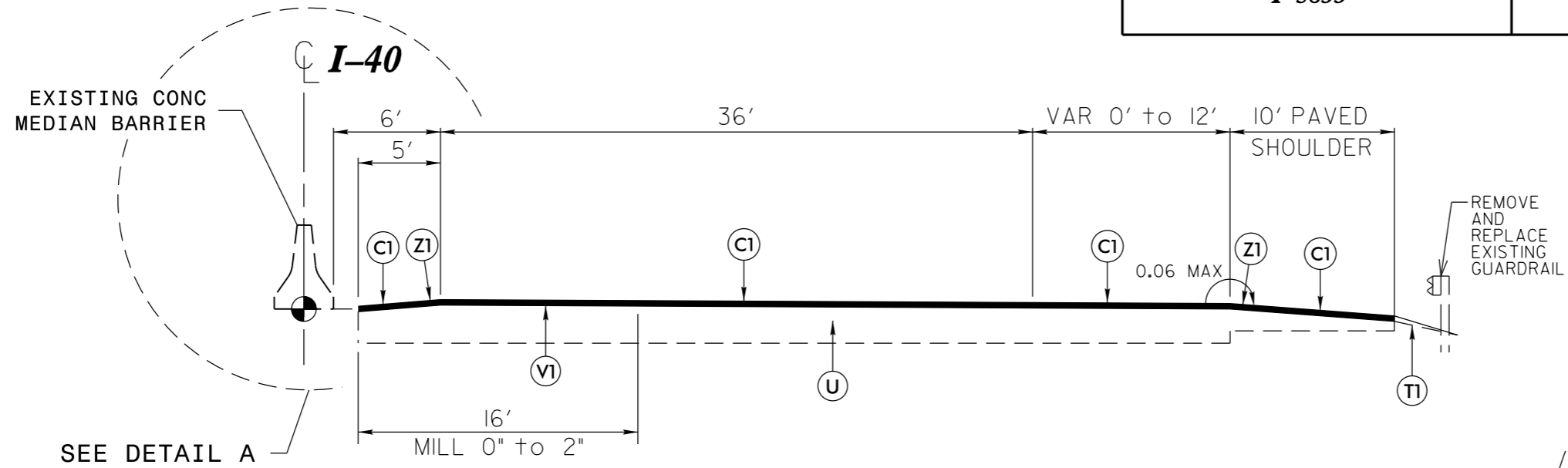
TYPICAL SECTION NO. 3



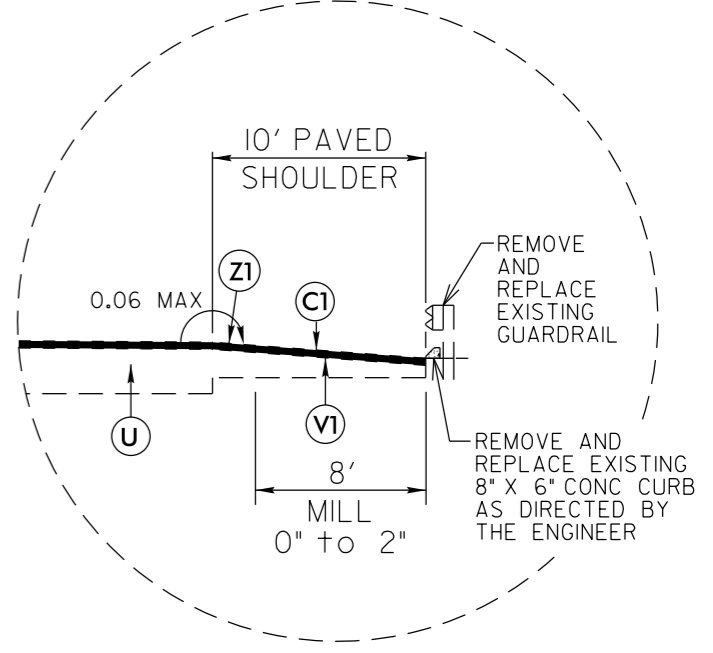
TYPICAL SECTION NO. 4

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5D, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
T1	SHOULDER RECONSTRUCTION
U	EXISTING PAVEMENT
V1	MILLING ASPHALT PAVEMENT, 0" - 2" DEPTH
Z1	MILLED RUMBLE STRIPS (ASPHALT CONCRETE)

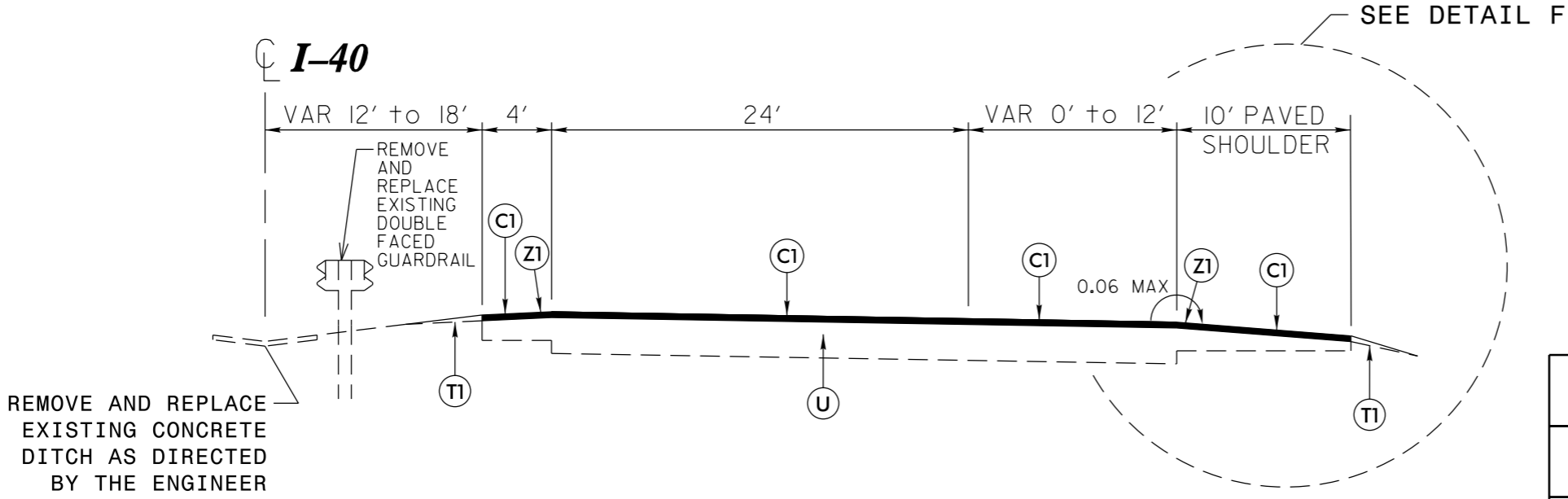
TIP NO.	SHEET NO.	TOTAL SHEETS
I-5833	5	



TYPICAL SECTION NO. 5



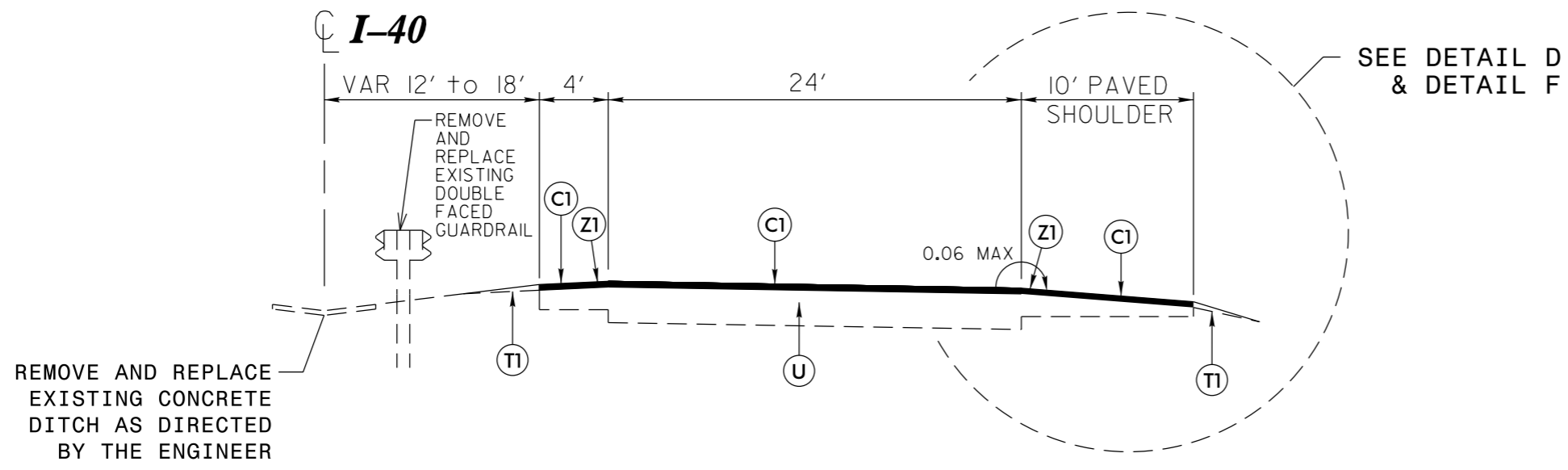
DETAIL B
VARIOUS LOCATIONS



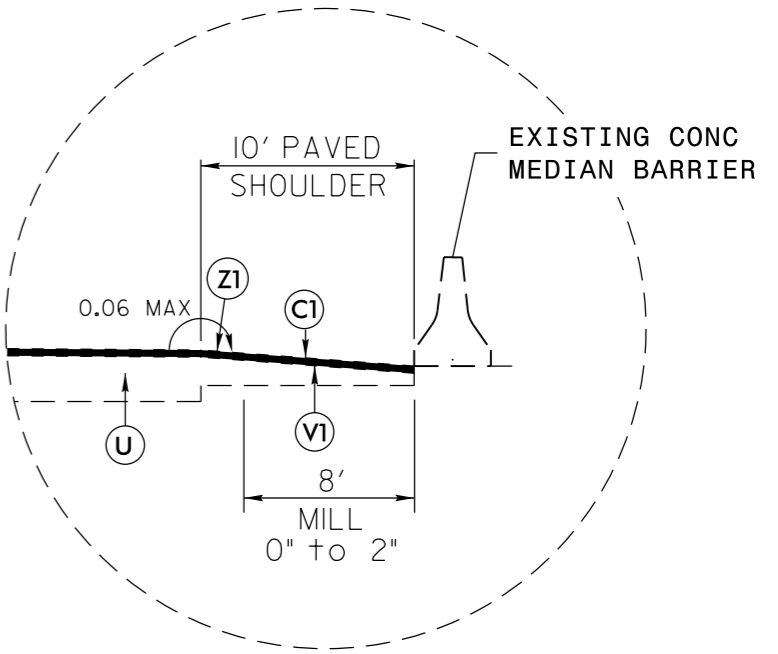
TYPICAL SECTION NO. 6

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5D, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
T1	SHOULDER RECONSTRUCTION
U	EXISTING PAVEMENT
V1	MILLING ASPHALT PAVEMENT, 0" - 2" DEPTH
Z1	MILLED RUMBLE STRIPS (ASPHALT CONCRETE)

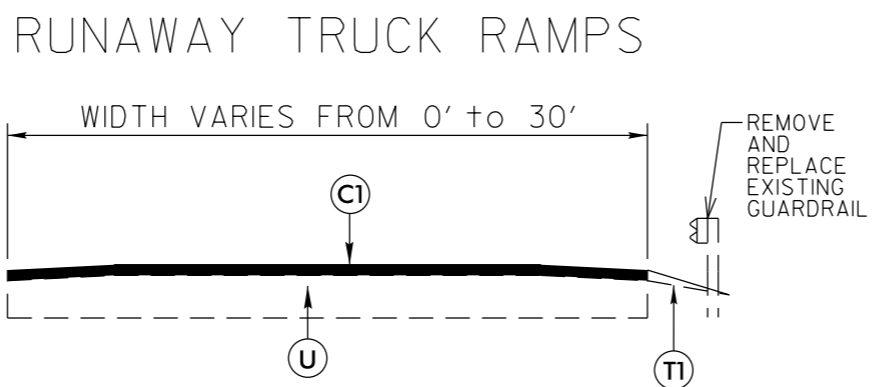
TIP NO.	SHEET NO.	TOTAL SHEETS
<i>I-5833</i>	6	



TYPICAL SECTION NO. 7



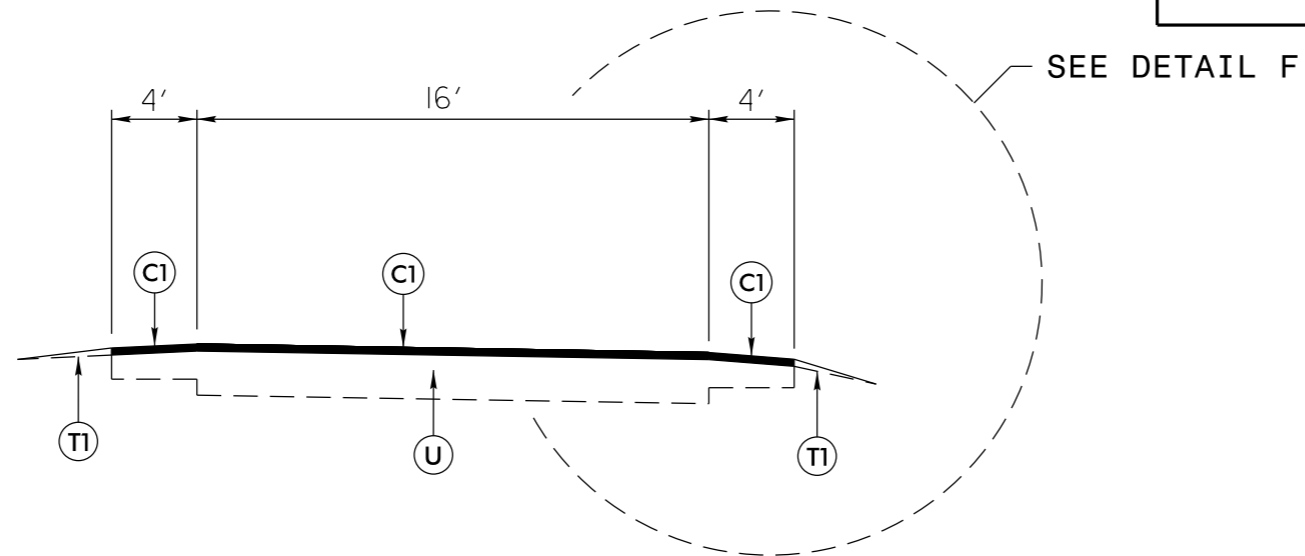
DETAIL C
VARIOUS LOCATIONS



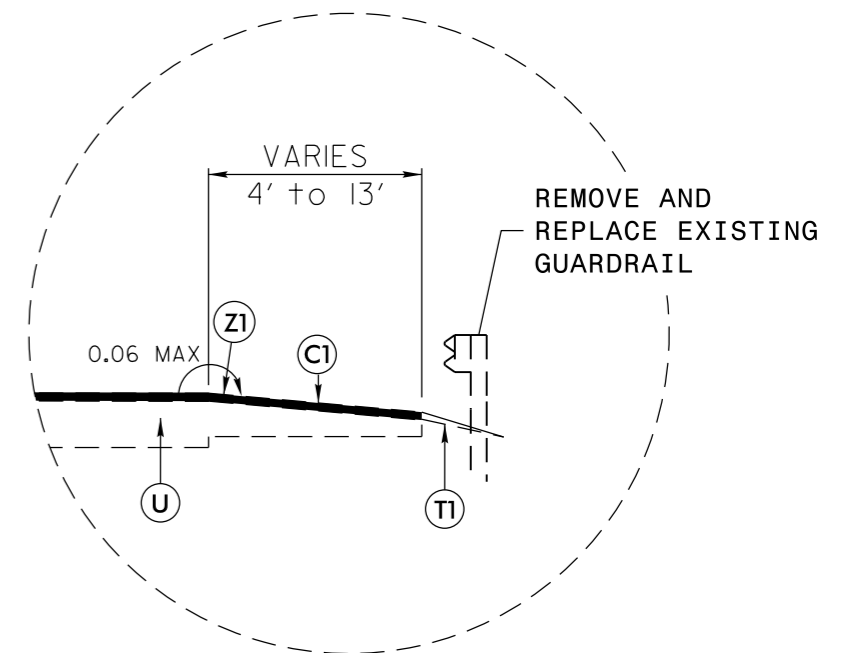
TYPICAL SECTION NO. 8

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5D, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
T1	SHOULDER RECONSTRUCTION
U	EXISTING PAVEMENT
V1	MILLING ASPHALT PAVEMENT, 0" - 2" DEPTH
Z1	MILLED RUMBLE STRIPS (ASPHALT CONCRETE)

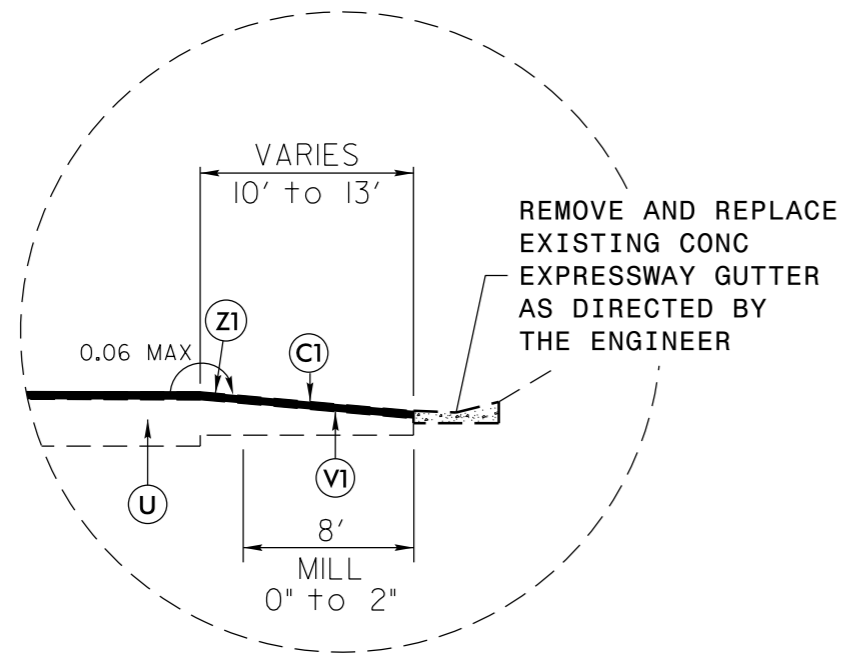
TIP NO.	SHEET NO.	TOTAL SHEETS
I-5833	7	



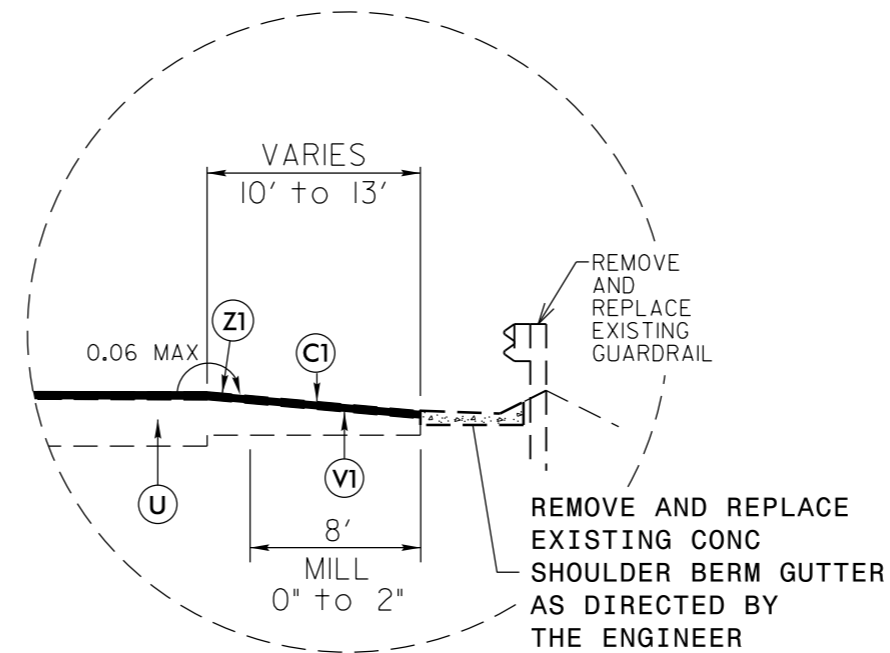
TYPICAL SECTION NO. 9



**DETAIL F
VARIOUS LOCATIONS**



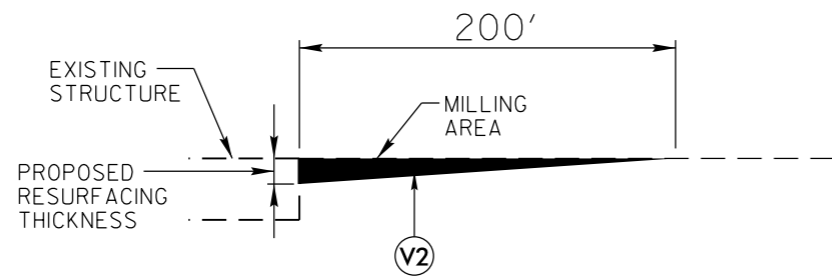
**DETAIL D
VARIOUS LOCATIONS**



**DETAIL E
VARIOUS LOCATIONS**

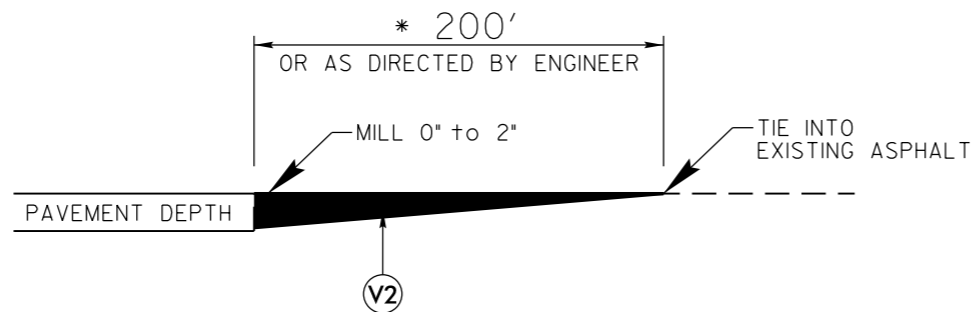
PAVEMENT SCHEDULE	
C1	PROP. APPROX. 2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5D, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
T1	SHOULDER RECONSTRUCTION
U	EXISTING PAVEMENT
V1	MILLING ASPHALT PAVEMENT, 0" - 2" DEPTH
Z1	MILLED RUMBLE STRIPS (ASPHALT CONCRETE)

<i>TIP NO.</i>	<i>SHEET NO.</i>	<i>TOTAL SHEETS</i>
I-5833	8	



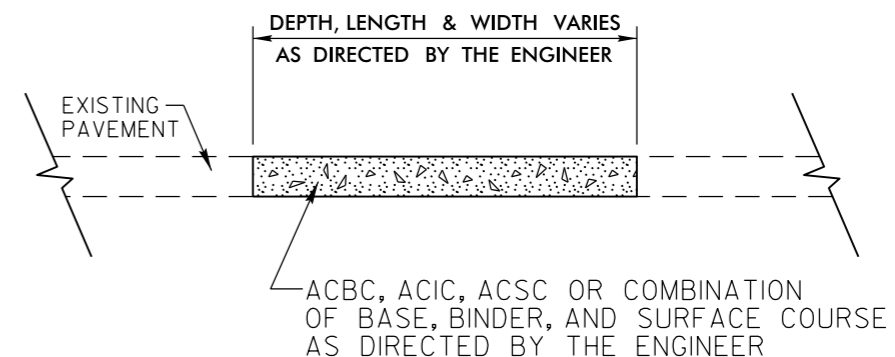
MILLING DETAIL AT BRIDGE APPROACHES

**WHERE BRIDGES WILL NOT BE RESURFACED.
THIS WILL BE PAID FOR AS INCIDENTAL MILLING.
USE AT BRIDGE NUMBERS 12, 15, 16, 30, and 31.**



DETAIL TO TIE INTO EXIST PAVEMENT

**THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE FACT THAT HE WILL BE REQUIRED TO MILL THE EXISTING ASPHALT PAVEMENT TO ENSURE A PROPER TIE-IN WITH THE EXISTING SURFACE AT THE BEGINNING, END, AND Y LINES OF EACH MAP TO BE RESURFACED WITH ASPHALT CONC SURFACE COURSE, TYPE S9.5D. THIS WILL BE PAID FOR AS INCIDENTAL MILLING.
* USE 100 FT FOR ON/OFF RAMPS**

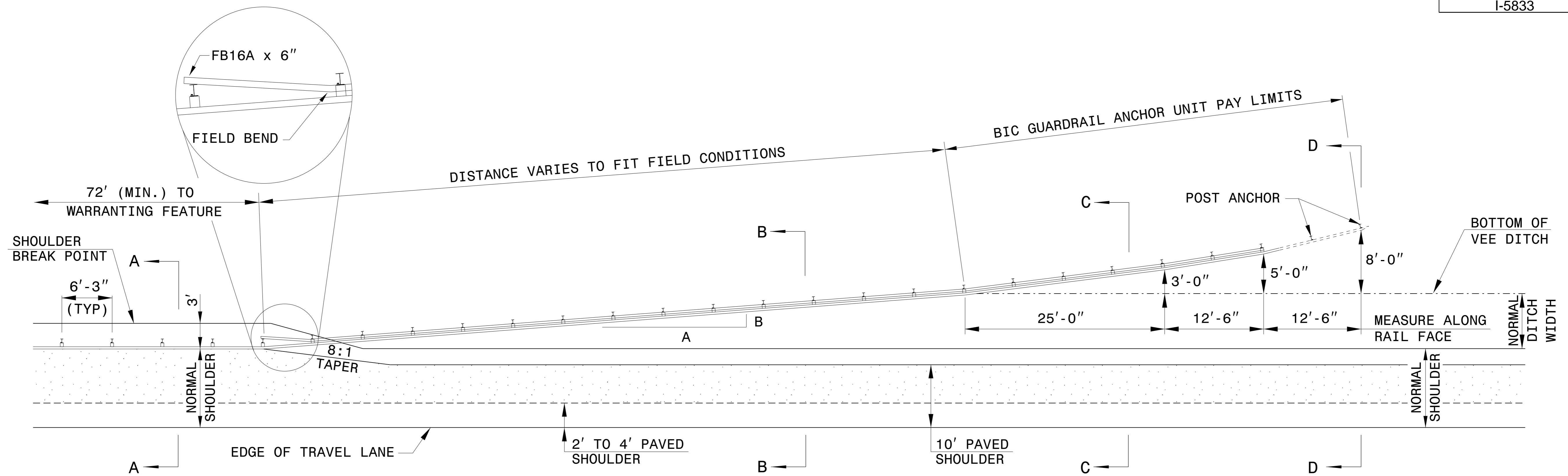


DETAIL FOR PATCHING EXISTING PAVEMENT

McDOWELL COUNTY

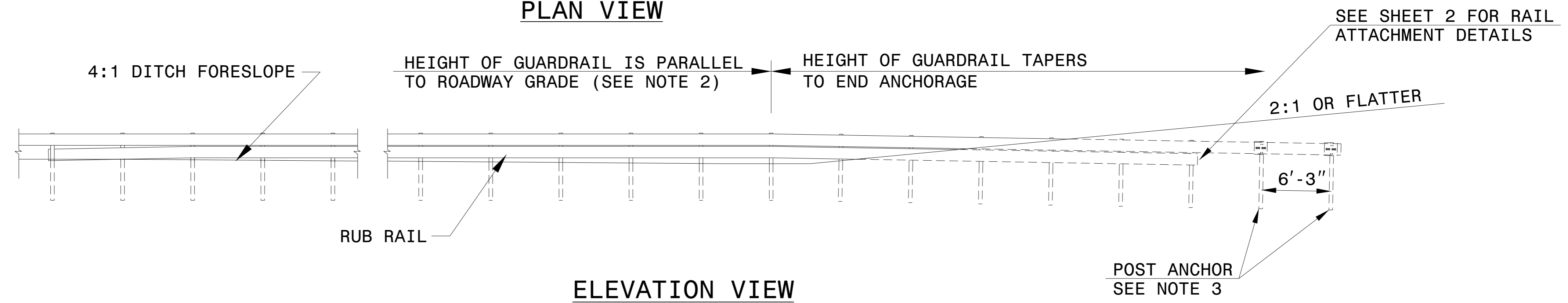
PAVEMENT SCHEDULE	
V2	INCIDENTAL MILLING

5/14/99

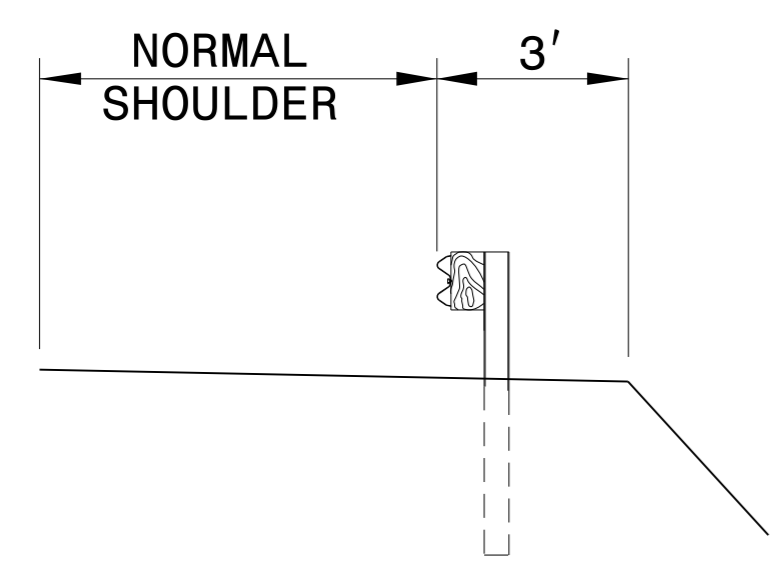


PLAN VIEW

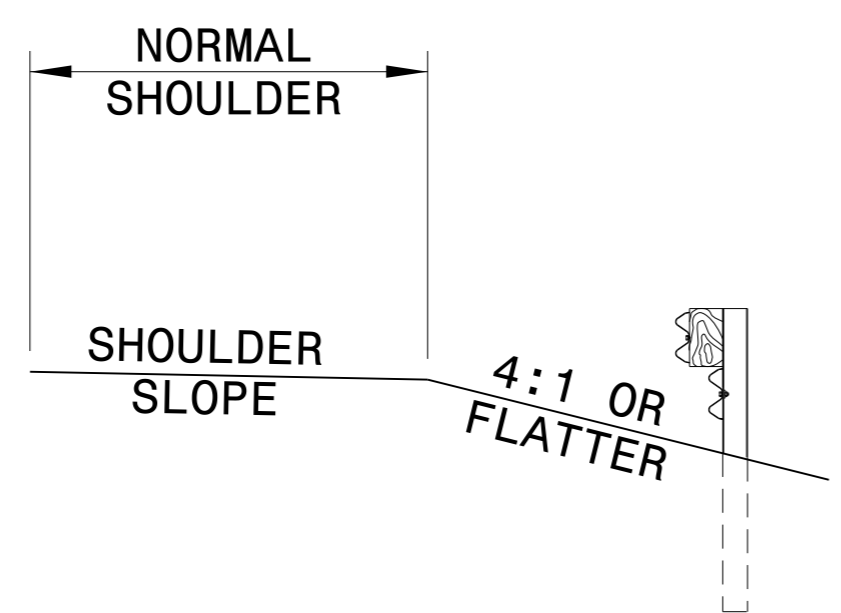
DESIGN SPEED mph	A:B
≥ 60	13:1
55	12:1
50	11:1
45	10:1
40	9:1
30 or less	7:1



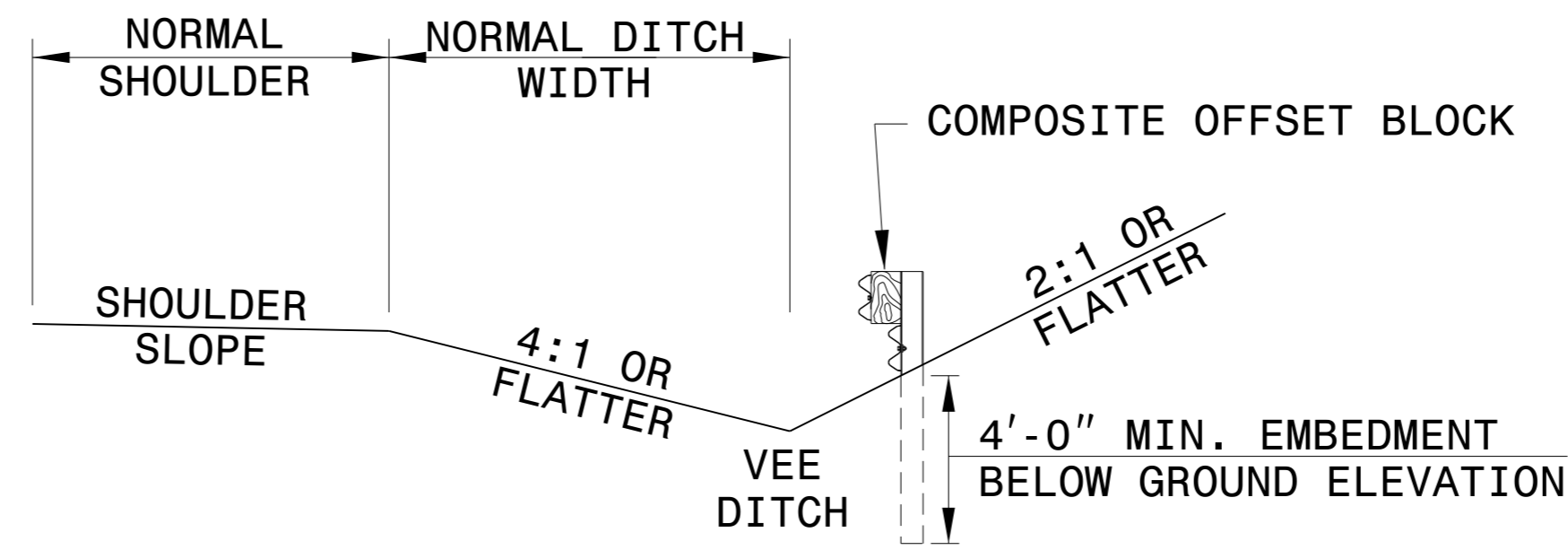
ELEVATION VIEW



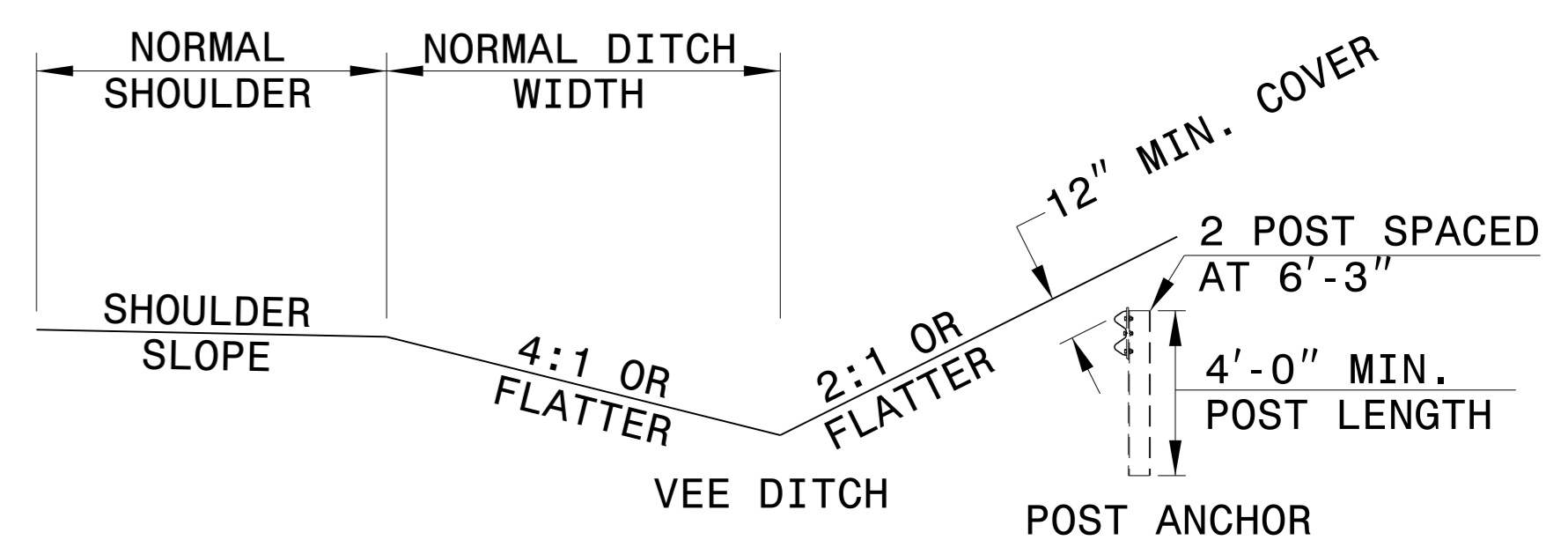
SECTION A-A



**SECTION B-B
(WITH RUBRAIL)**



**SECTION C-C
(WITH RUBRAIL)**

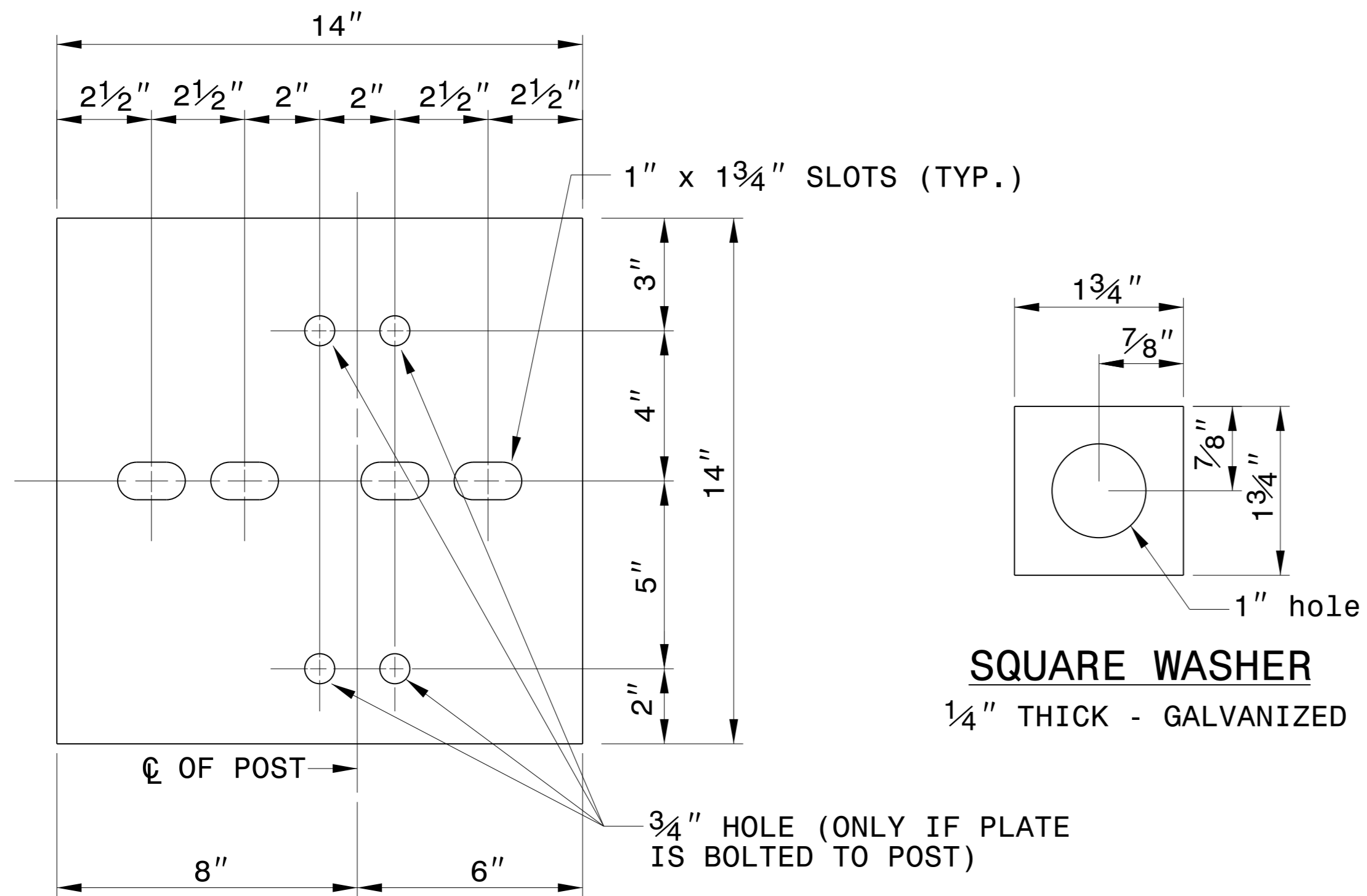


SECTION D-D

- NOTES:**
- VARIABLE DITCH OFFSETS MAY BE USED TO FIT FIELD CONDITIONS.
 - HEIGHT OF GUARDRAIL MAY BE TAPERED DOWN IN ELEVATION TO MAINTAIN 3'-9" MAXIMUM HEIGHT.
 - ALL POSTS ARE 8'-0" IN LENGTH FROM WHERE THE GUARDRAIL FLARES AWAY FROM THE SHOULDER BACK TO THE DITCH FLOW LINE. GUARDRAIL POSTS BEYOND THE DITCH FLOW LINE MAY BE SHORTENED AS LONG AS A MINIMUM OF 4 FT. EMBEDMENT REMAINS BELOW THE EXISTING GROUND LINE. POST FOR POST ANCHOR MAY BE REDUCED TO 4 FT., ALL OF WHICH WILL BE BELOW GROUND.
 - REFER TO NCDOT STANDARD DRAWINGS 862.02 FOR GUARDRAIL INSTALLATION NOT COVERED IN THIS DETAIL AND INSTALL IN ACCORDANCE WITH SECTION 862 OF THE STANDARDS SPECIFICATIONS.
 - PAYMENT FOR ANY RUBRAIL INSTALLATION BEYOND BIC GUARDRAIL ANCHOR UNIT PAY LIMITS WILL BE INCIDENTAL TO PAYMENT FOR BIC ANCHOR UNIT.

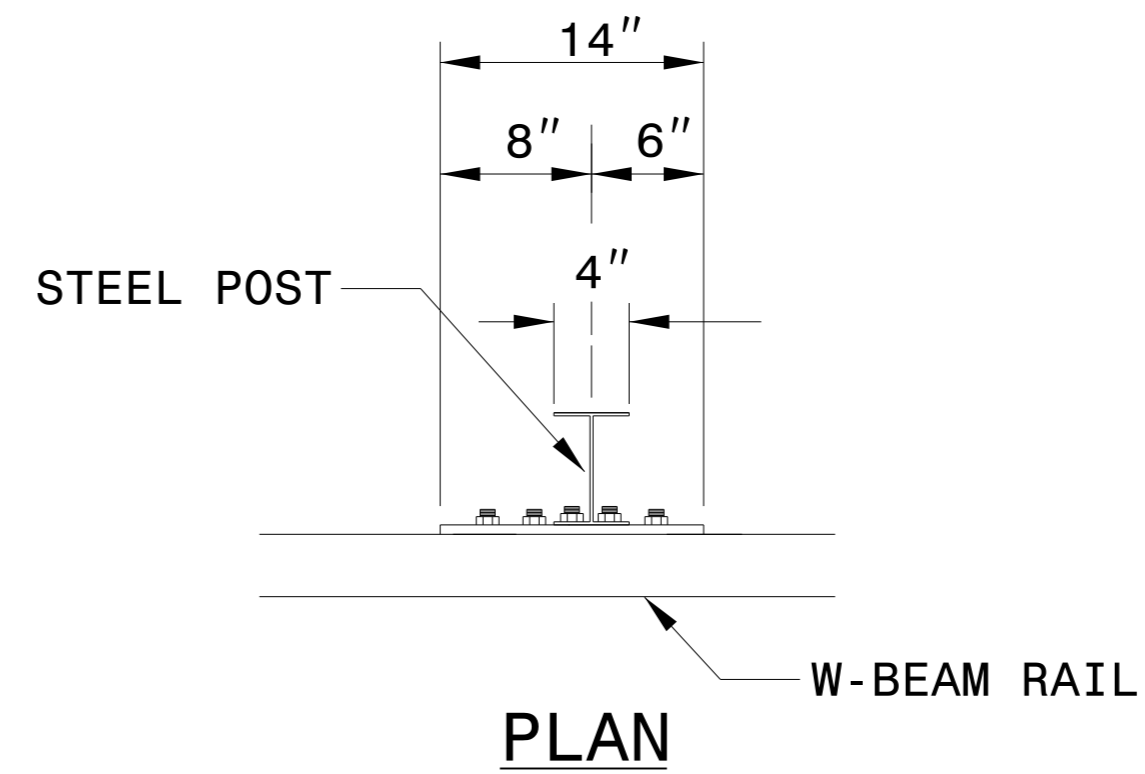
CONTRACT STANDARDS AND DEVELOPMENT UNIT	
Office 919-707-6950	FAX 919-250-4119
DETAIL OF GUARDRAIL BURIED IN CUT (BIC)	
ORIGINAL BY: FHWA-G4	SYSTEM DATE: 8-13-98
MODIFIED BY: E.E. WARD	DATE: 12-7-01
CHECKED BY:	DATE:
FILE SPEC.: ericward/misc. guardrail/BIC.dgn	

C:\TIME\SS\CON\SS\USER\NAME



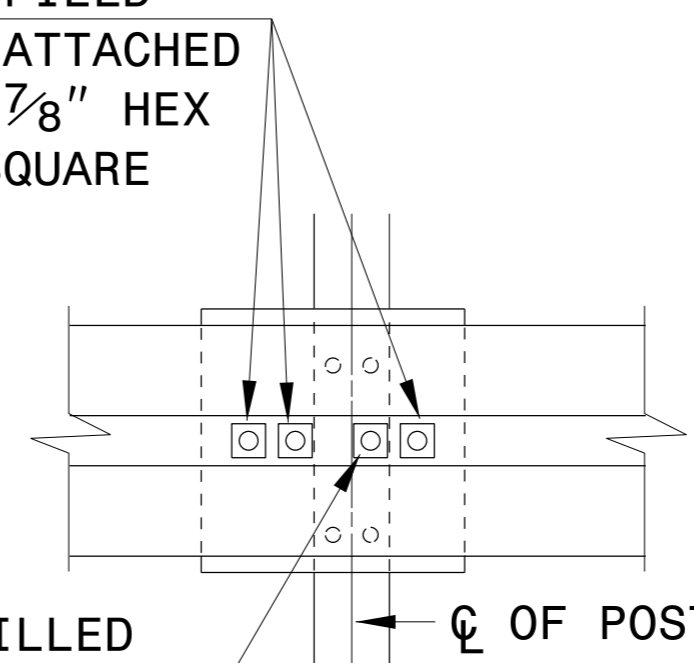
SQUARE WASHER
 1/4" THICK - GALVANIZED

STEEL PLATE - 1/2"
 GALVANIZED
 WELDED OR BOLTED TO POST

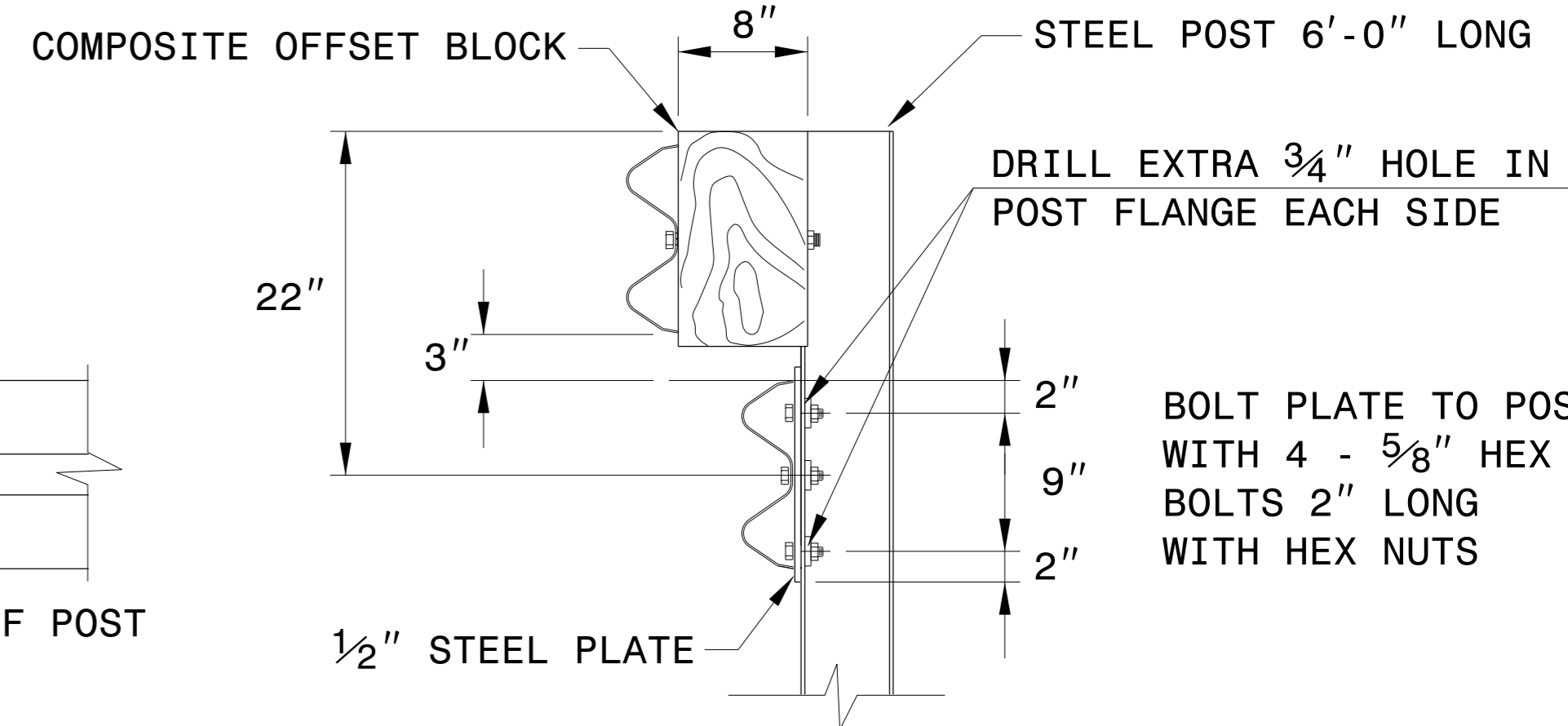


PLAN

3 - 7/8" HOLES TO BE FIELD DRILLED IN RAIL AND ATTACHED TO STEEL PLATE WITH 7/8" HEX BOLTS 2" LONG WITH SQUARE WASHER

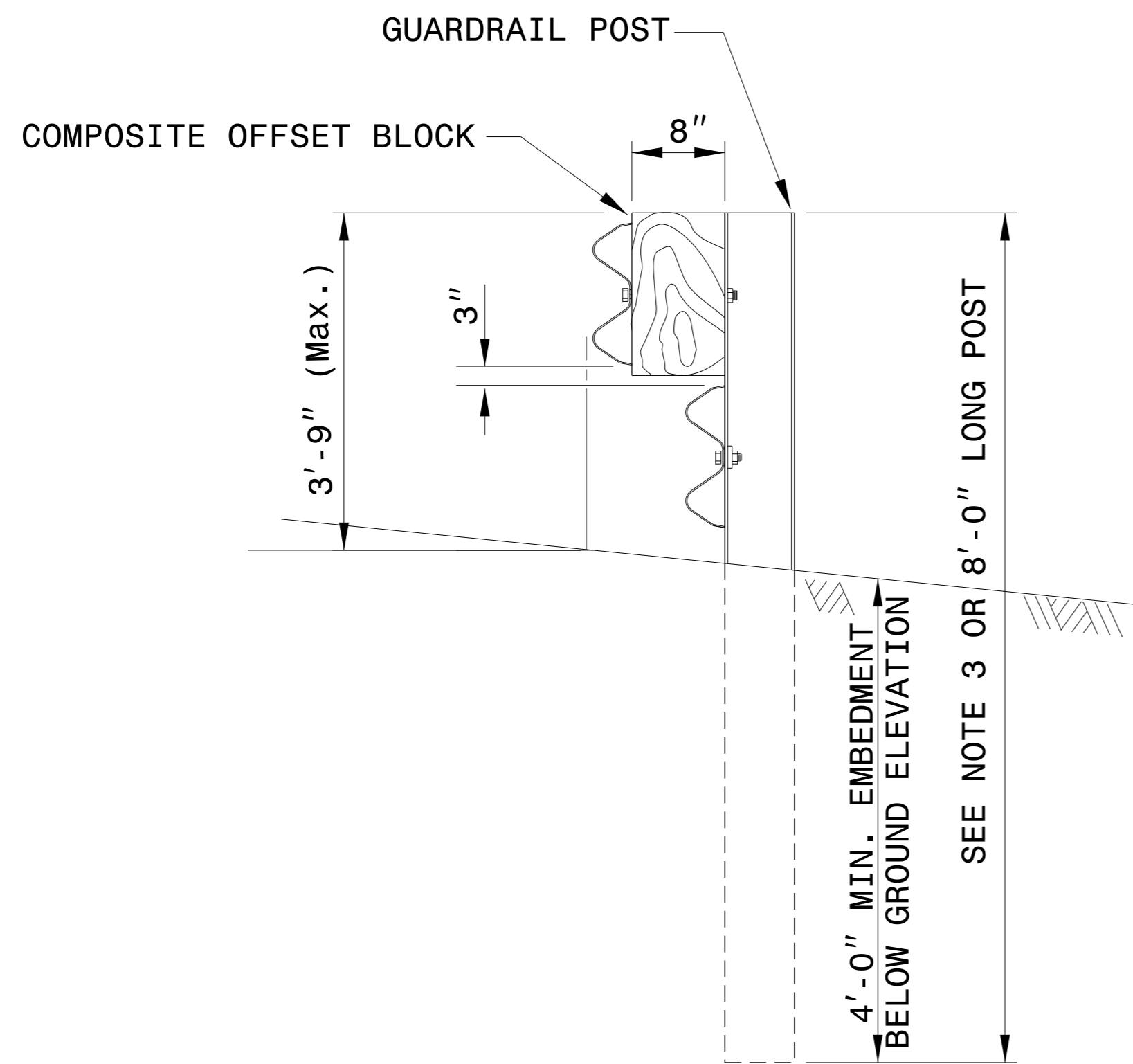


FRONT VIEW



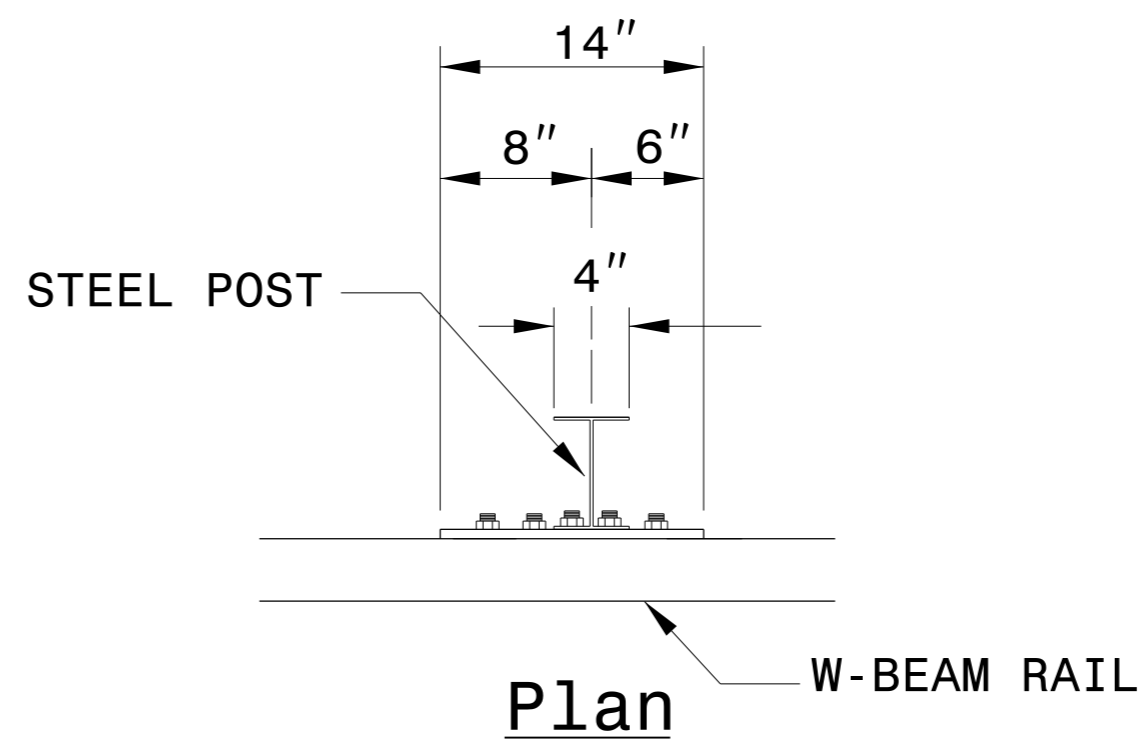
ELEVATION

RUBRAIL ANCHOR DETAILS



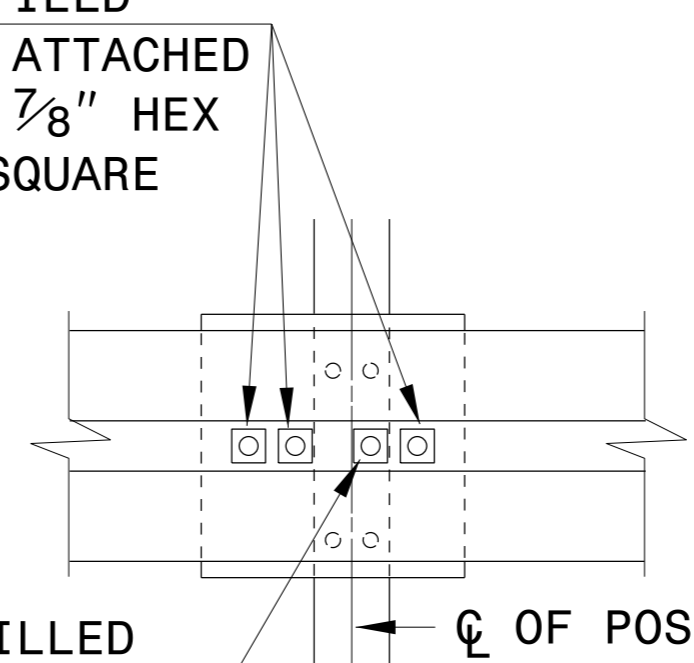
ELEVATION

RAIL ATTACHMENT DETAIL



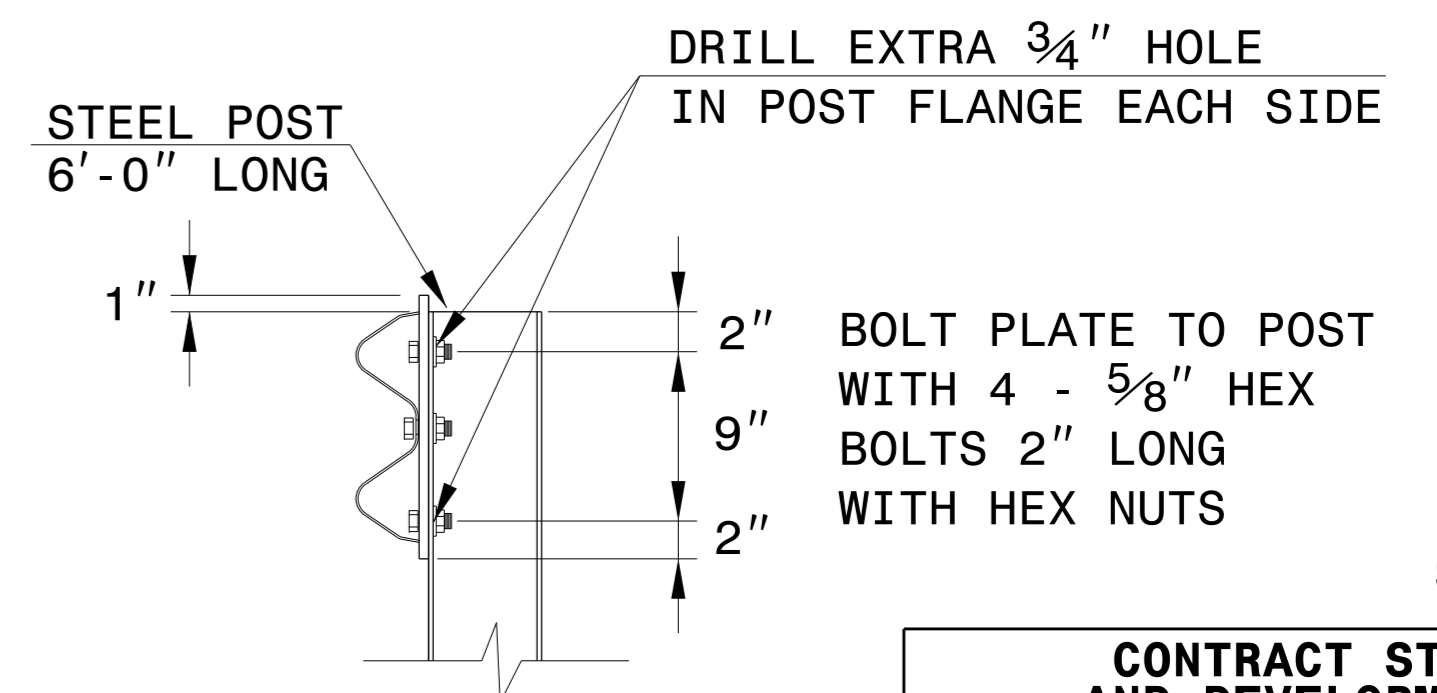
Plan

3 - 1" HOLES TO BE FIELD DRILLED IN RAIL AND ATTACHED TO STEEL PLATE WITH 7/8" HEX BOLTS 2" LONG WITH SQUARE WASHER



FRONT VIEW

POST ANCHOR DETAILS



ELEVATION

SHEET 2 OF 2

CONTRACT STANDARDS AND DEVELOPMENT UNIT	
Office 919-707-6950	FAX 919-250-4119
DETAIL OF GUARDRAIL BURIED IN CUT (BIC)	
ORIGINAL BY: FHWA-G4	SYSTEM DATE: 8-13-98
MODIFIED BY: E.E. WARD	DATE: 12-7-01
CHECKED BY:	DATE:
FILE SPEC.: ericward/misc.	guardrail/BIC.dgn

5/14/99

\$\$\$\$\$TIME\$\$\$\$\$
 \$\$\$SYTIME\$\$\$\$\$
 \$\$\$DATE\$\$\$\$\$
 \$\$\$USER\$\$\$\$\$

TIP NO.	SHEET NO.	TOTAL NO.
I-5833	11	

SUMMARY OF QUANTITIES

TIP NO.	COUNTY	MAP NO.	ROUTE	DESCRIPTION	TYP	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH MI	WIDTH FT	SHOULDER RECONSTRUCTION SMI	MILLING ASPHALT PAVEMENT, 0" TO 2" DEPTH SY	INCIDENTAL MILLING SY	ASPHALT CONC SURFACE COURSE, TYPE S9.5D TON	POLYMER MODIFIED ASPHALT BINDER FOR PLANT MIX TON	PATCHING EXISTING PAVEMENT TON	MILLED RUMBLE STRIPS (ASPHALT CONCRETE) LF	REMOVE AND REPLACE 8"X 6" CONCRETE CURB LF	REMOVE AND REPLACE SHOULDER BERM GUTTER LF	REMOVE AND REPLACE CONCRETE EXPRESSWAY GUTTER LF	REMOVE AND REPLACE 4" CONCRETE PAVED DITCH SY	ADJUSTMENT OF DROP INLET EA	IMPACT ATTENUATOR UNIT, TYPE 350 EA	ADDITIONAL GUARDRAIL POSTS EA	GUARDRAIL ANCHOR UNIT, TYPE BURIED IN CUT EA	GUARDRAIL ANCHOR UNITS, TYPE CAT-1 EA	GUARDRAIL ANCHOR UNITS, TYPE 350 EA	GUARDRAIL ANCHOR UNITS, TYPE B-77 EA	GUARDRAIL ANCHOR UNITS, TYPE B-83 EA	REMOVE AND REPLACE EXISTING GUARDRAIL LF	PORTABLE LIGHTING LS	INDUCTIVE LOOP SAWCUT LF		
I-5833	MCDowell	1	I-40 EBL	BUNCOMBE/MCDOWELL CO. LINE TO END OF TRUCK LANE	1,2,5	3	MD	NO	NO	5.27	51	4.34	53,500	1,140	18,098	1,032	1,347	55,652	3,000			800			50	5	11	6	7	4	16,475				
		2	I-40 WBL	BEGINNING OF TRUCK LANE TO BUNCOMBE/MCDOWELL CO. LINE	1,2,5	3	MD	NO	NO	4.7	51	1.70	57,495	1,140	16,400	935	980	49,632		750	1,150	567	8	6	20	9	9		3	4	5,200	*			
		3	I-40 EBL	END OF TRUCK LANE TO BRIDGE NO. 30	6,7	2	MD	NO	NO	0.67	38 - 50	1.34		2,670	1,680	96			7,076													4,150			
		4	I-40 WBL	BRIDGE NO. 31 TO BEGINNING OF TRUCK LANE	6,7	2	MD	NO	NO	1.22	38 - 50	2.44		1,030	2,670	3,110	177		12,884													3,075	*		
		5	I-40 EBL	TRUCK PULL-OFF	3,4	2	MD	NO	NO	0.21	49 - 57			450		678	39																		100
		6	I-40 EBL	RUNAWAY TRUCK RAMPS	8	1	MD	NO	NO	0.2	30					500	29																		
		7	I-40 EXIT RAMP	ON/OFF RAMPS AT EXIT 72 AND EXIT 73	9	1	MD	NO	NO	1.34	24 - 28	2.68			1,870	2,210	125										2	3	2	2		2,990			
TOTAL FOR TIP NO. I-5833										13.61		12.50	112,475	9,490	42,676	2,433	2,327	125,244	3,000	750	1,150	1,367	8	6	70	16	23	8	12	8	31,890	1	100		
GRAND TOTAL										13.61		12.50	112,475	9,490	42,676	2,433	2,327	125,244	3,000	750	1,150	1,367	8	6	70	16	23	8	12	8	31,890	1	100		

THERMOPLASTIC AND PAINT QUANTITIES

TIP NO.	COUNTY	MAP NO.	ROUTE	DESCRIPTION	TYP	LANES	LANE TYPE	LENGTH	WIDTH	4710000000-E	4725000000-E	4847100000-E		4847120000-E	4905000000-N	
										THERMOPLASTIC PAVEMENT MARKING LINES (24", 120 MILS) WHITE LF	THERMOPLASTIC PAVEMENT MARKING SYMBOL (90 MILS) MERGE ARROW EA	POLYUREA PAVEMENT MARKING LINES (6") YELLOW (HIGHLY REFLECTIVE ELEMENTS) LF	POLYUREA PAVEMENT MARKING LINES (6") WHITE (HIGHLY REFLECTIVE ELEMENTS) LF	POLYUREA PAVEMENT MARKING LINES (12") WHITE (HIGHLY REFLECTIVE ELEMENTS) LF	SNOWPLOWABLE PAVEMENT MARKERS EA	
I-5833	MCDowell	1	I-40 EBL	BUNCOMBE/MCDOWELL CO. LINE TO END OF TRUCK LANE	1,2,5	3	MD	5.27	51		6	27,826	41,962	1,600	4,214	
		2	I-40 WBL	BEGINNING OF TRUCK LANE TO BUNCOMBE/MCDOWELL CO. LINE	1,2,5	3	MD	4.7	51		4	24,816	37,224		3,722	
		3	I-40 EBL	END OF TRUCK LANE TO BRIDGE NO. 30	6,7	2	MD	0.67	38 - 50			3,538	4,663	1,264	474	
		4	I-40 WBL	BRIDGE NO. 31 TO BEGINNING OF TRUCK LANE	6,7	2	MD	1.22	38 - 50			6,442	8,296	1,852	655	
		5	I-40 EBL	TRUCK PULL-OFF	3,4	2	MD	0.21	49 - 57	28		400	1,120			
		6	I-40 EBL	RUNAWAY TRUCK RAMPS	8	1	MD	0.2	30					600		
		7	I-40 EXIT RAMP	ON/OFF RAMPS AT EXIT 72 AND EXIT 73	9	1	MD	1.34	24 - 28		6	4,100	8,010			
TOTAL FOR TIP NO. I-5833										13.61	28	16	67,122	101,275	5,316	9,065
GRAND TOTAL										13.61	28	16	67,122	101,275	5,316	9,065