

REINFORCING STEEL TABLE				
MARK	LOCATION	BAR SIZE	NUMBER OF BARS	SKETCH
H-1	HORIZONTAL BAR. TIED INSIDE V-1 BARS.	NO. 4	8	11'-10"
V-1	VERTICAL BAR.	NO. 4	10	 7' TOTAL BAR LENGTH
V-2	VERTICAL BAR AROUND SLOTS.	NO. 4	6	 4' TOTAL BAR LENGTH

REVISIONS								
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
1	02-20	RDL						
2	03-21	PBH						

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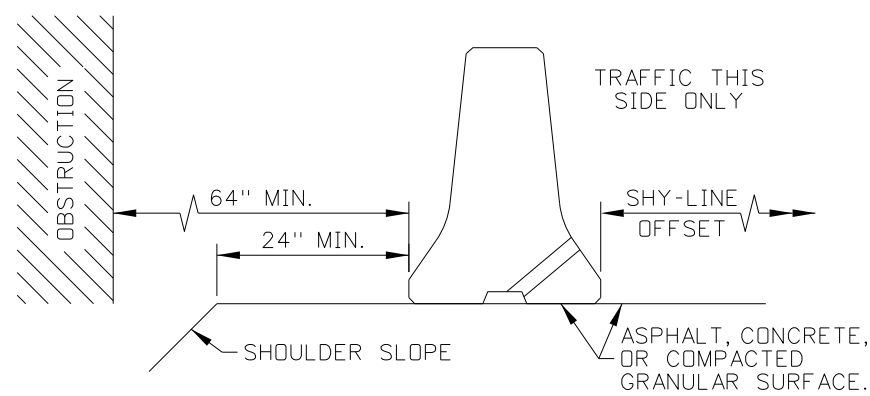
ORIGINAL SIGNED BY: KEVIN SABLAN
 DESIGN/TRAFFIC SERVICES ENGINEER

STANDARD DRAWING
PRECAST CONCRETE BARRIER

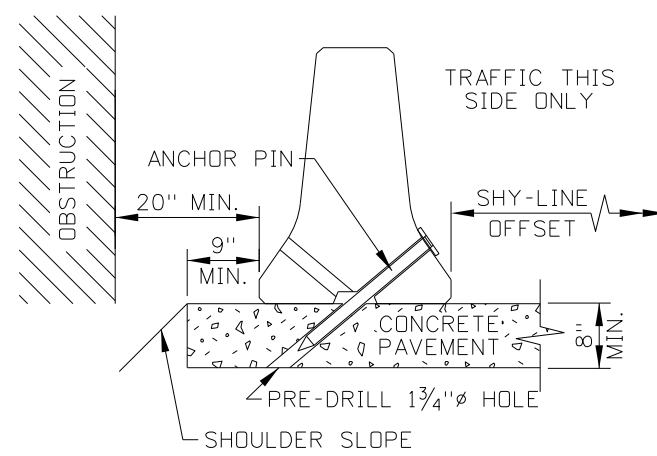
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 SHEET 1 OF 3

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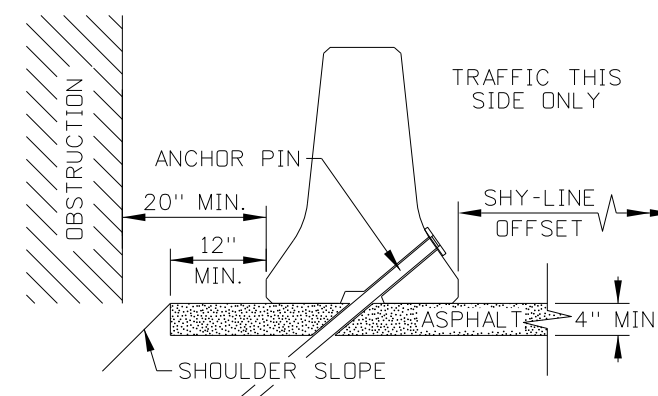




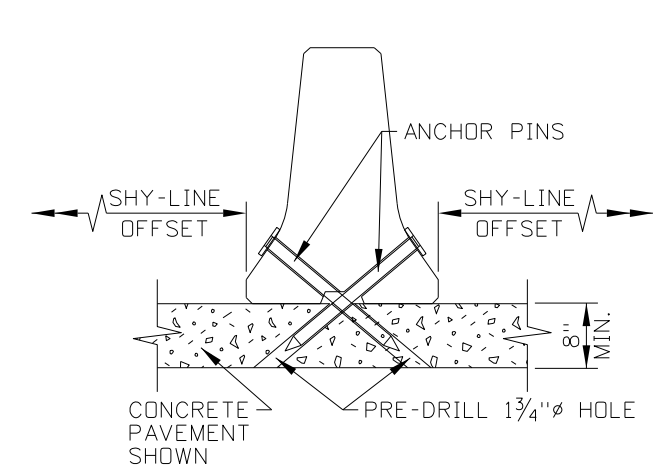
FREE-STANDING BARRIER



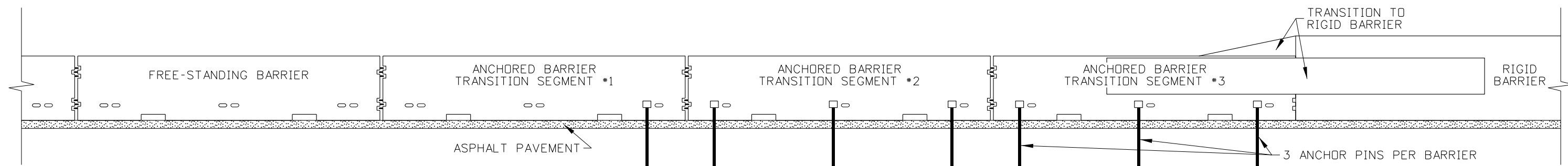
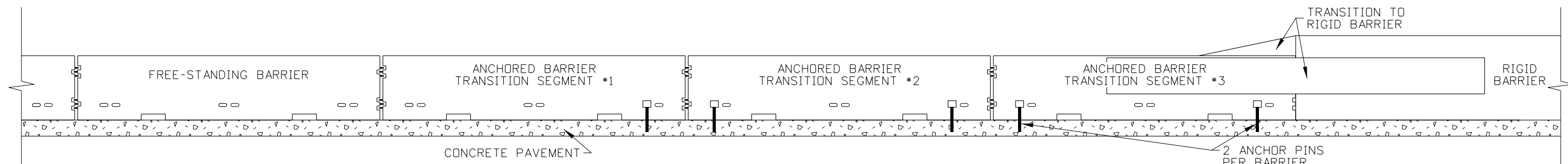
BARRIER ANCHOR PINNED TO CONCRETE PAVEMENT



BARRIER ANCHOR PINNED TO ASPHALT PAVEMENT



MEDIAN BARRIER ANCHOR PINNED



TRANSITION FROM FREE-STANDING TO ANCHOR PINNED AND FROM ANCHOR PINNED TO RIGID BARRIER
(SEE NOTE NOS. 5 THROUGH 8)

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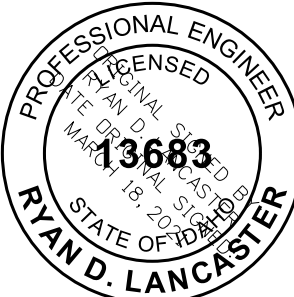
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PRECAST CONCRETE BARRIER

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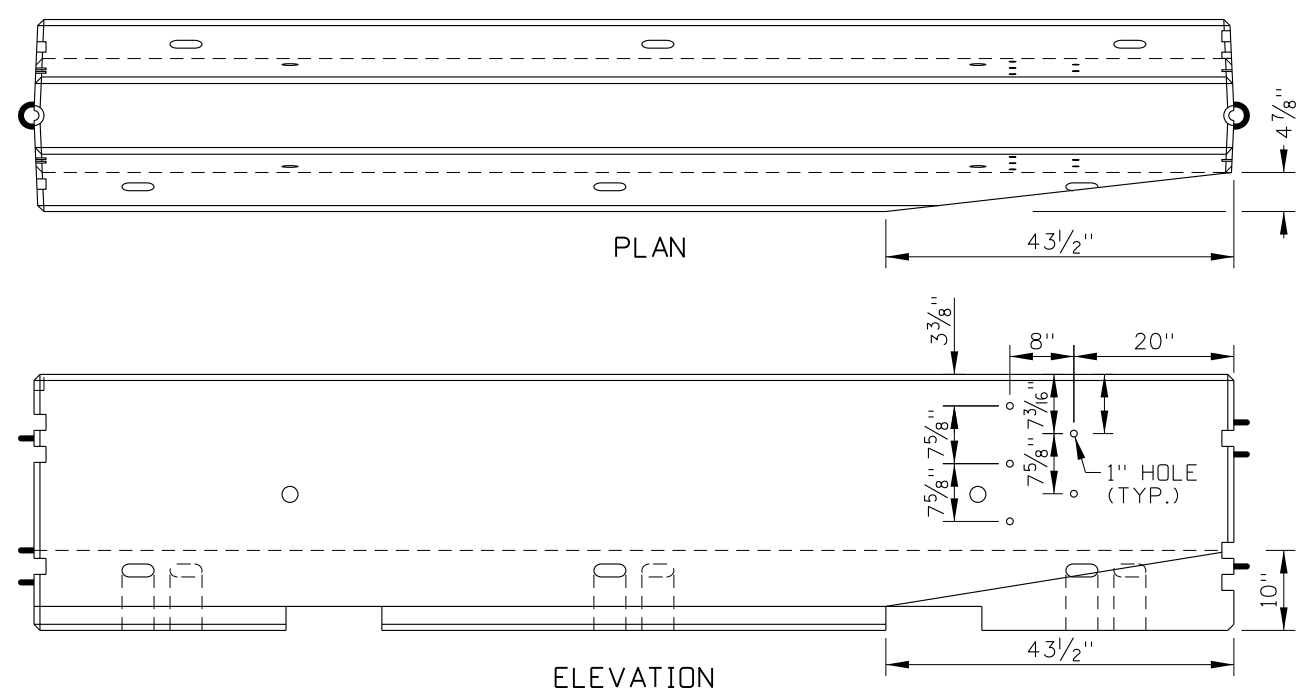
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SHEET 2 OF 3



CONCRETE BARRIER SHY-LINE OFFSET AND FLARE RATE TABLE				
DESIGN SPEED (MPH)	SHY-LINE OFFSET (FT)	BARRIER FLARE RATE		
		INSIDE SHY LINE	AT OR BEYOND SHY LINE NOT STAKED	STAKED
70	9	30:1	15:1	20:1
60	8	26:1	14:1	18:1
55	7	24:1	12:1	16:1
50	6.5	21:1	11:1	14:1
45	6	18:1	10:1	12:1
40	5	16:1	8:1	10:1
30	4	13:1	7:1	8:1



CHAMFERED BARRIER FOR GUARDRAIL TRANSITIONS
(SEE NOTE NO. 8)

NOTES

1. THE PRECAST CONCRETE BARRIER SHOWN IS A MASH TEST LEVEL 3 LONGITUDINAL BARRIER SYSTEM. THE BARRIER USES THE F-SHAPE CROSS SECTION.
2. PRECAST USING CLASS 50AF CONCRETE. CHAMFER TOP, BOTTOM, AND ENDS 3/4". PROVIDE 2" MINIMUM CONCRETE COVER OVER REINFORCING STEEL. A 2" WHITE PVC SLEEVE MAY BE USED TO FORM THE LIFTING HOLE. IF USED, LEAVE THE PVC SLEEVE IN PLACE.
3. PIN CONNECT BARRIER UNITS. PRECAST CONCRETE BARRIERS MAY BE ANGLED APPROXIMATELY 7° AT CONNECTIONS.
4. PROVIDE THE CALCULATED LENGTH OF NEED UPSTREAM FROM HAZARDS AND PROVIDE AT LEAST THREE PRECAST CONCRETE BARRIER SEGMENTS DOWNSTREAM OF HAZARDS. DO NOT INSTALL FEWER THAN SIX BARRIER SEGMENTS.
5. THE PRECAST CONCRETE BARRIER CAN BE INSTALLED FREE-STANDING OR ANCHOR PINNED TO PAVEMENT.
 - A. IF FREE-STANDING, ANCHOR THE TWO BARRIER SEGMENTS NEAREST THE END (NOT COUNTING A CONCRETE BARRIER TERMINAL) WITH ANCHOR PINS AS DESCRIBED IN NOTE 5B.
 - B. IF ANCHOR PINNED, USE TWO PINS IN EACH BARRIER SEGMENT INSTALLED ON CONCRETE PAVEMENT AND USE THREE PINS IN EACH BARRIER SEGMENT INSTALLED ON ASPHALT PAVEMENT. IF ANCHOR PINNED IN A MEDIAN, INSTALL ANCHOR PINS ON BOTH SIDES OF THE BARRIER (4 TOTAL ON CONCRETE PAVEMENT, 6 TOTAL ON ASPHALT PAVEMENT). PRE-DRILL ANCHOR PIN HOLES IN CONCRETE PAVEMENT USING THE SLOT AS A GUIDE.
6. WHEN TRANSITIONING FROM FREE-STANDING TO ANCHOR PINNED BARRIER, INSTALL ONE ANCHOR PIN IN THE SLOT OF THE LAST FREE-STANDING SEGMENT CLOSEST TO THE FIRST ANCHOR PINNED SEGMENT.
7. WHEN TRANSITIONING FROM FREE-STANDING BARRIER TO RIGID BARRIER (SUCH AS CAST-IN-PLACE CONCRETE BARRIER OR BRIDGE RAIL/PARAPET), TRANSITION FIRST TO ANCHOR PINNED PRECAST BARRIER (MINIMUM THREE SEGMENTS), THEN TO THE RIGID BARRIER. CUT OFF THE END LOOPS OF THE LAST SEGMENT OF PRECAST BARRIER IN THE F-SHAPE TO SINGLE SLOPE TRANSITION.
8. WHEN TRANSITIONING FROM FREE-STANDING BARRIER TO W-BEAM GUARDRAIL, ANCHOR PIN THE LAST THREE PRECAST CONCRETE BARRIER SEGMENTS AND CONNECT TO A GUARDRAIL TRANSITION. CHAMFER THE LAST 43 1/2 INCHES OF THE BARRIER AND DRILL FIVE 1" DIAMETER HOLES AS SHOWN.
9. FLARE THE UPSTREAM END OF THE BARRIER IN ACCORDANCE WITH THE CONCRETE BARRIER SHY-LINE OFFSET AND FLARE RATE TABLE.
10. TERMINATE THE BARRIER WITH A CRASHWORTHY END TREATMENT OR TRANSITION TO ANOTHER BARRIER SYSTEM. ACCEPTABLE END TREATMENTS INCLUDE TAPERING THE BARRIER OUTSIDE OF THE CLEAR ZONE, TRANSITIONING TO W-BEAM GUARDRAIL, A CRASH CUSHION, A PRECAST CONCRETE BARRIER TERMINAL, OR TRANSITION TO A BRIDGE RAIL OR PARAPET. WHEN CONNECTING THE F-SHAPE PRECAST CONCRETE BARRIER TO A NEW JERSEY SHAPE PRECAST CONCRETE BARRIER, USE THE F-SHAPE TO NEW JERSEY SHAPE TRANSITION.
11. DRAWINGS NOT TO SCALE.

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SHEET 3 OF 3

