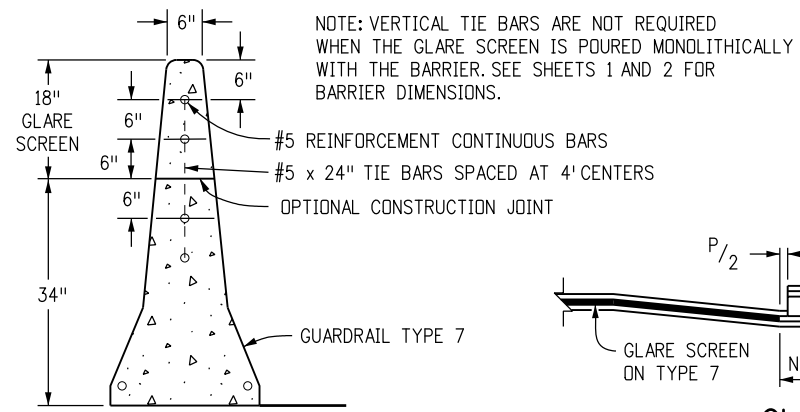
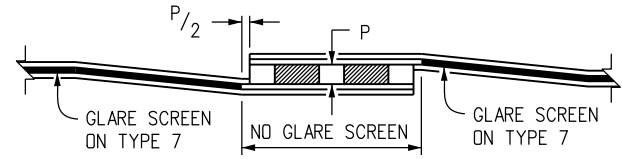


ELEVATION #5 REINFORCEMENT CONTINUOUS BARS

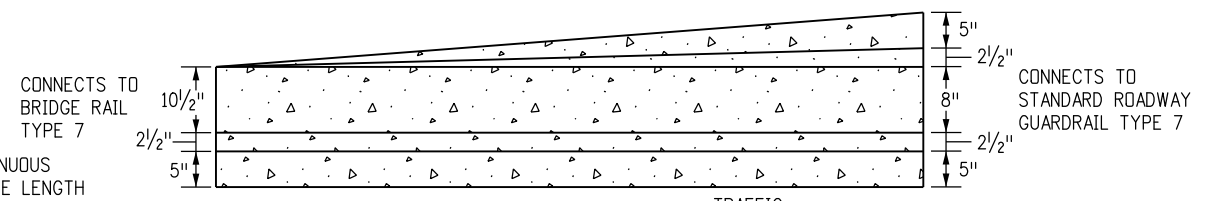
* 2 FT. IS TYPICAL FOR CAST-IN-PLACE BARRIERS.
1 FT. IS TYPICAL FOR PRECAST BARRIERS.
THE MINIMUM ACCEPTABLE DIMENSION IS 6 IN.



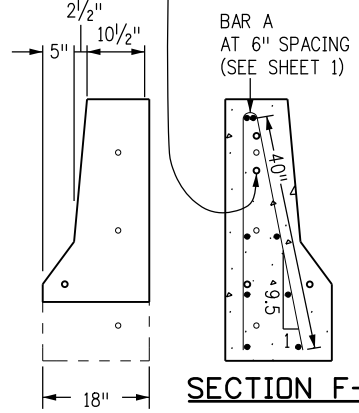
CONCRETE GLARE SCREEN



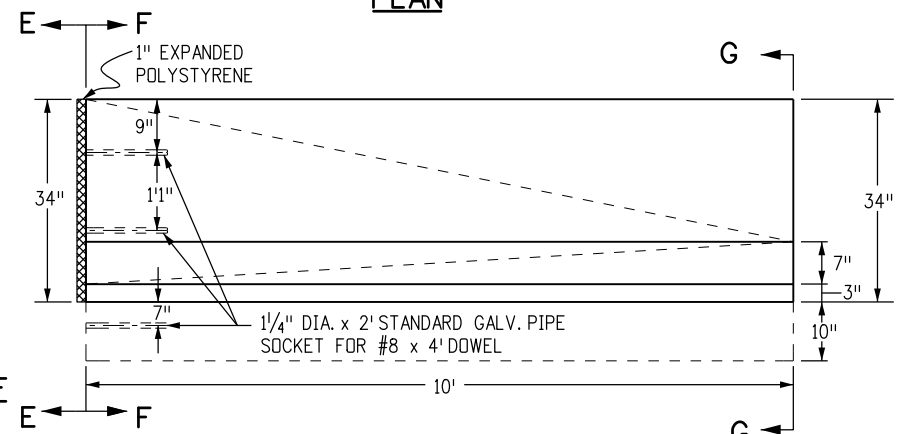
GLARE SCREEN AT MEDIAN OBSTRUCTIONS



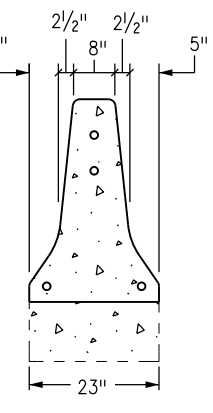
PLAN



SECTION E-E



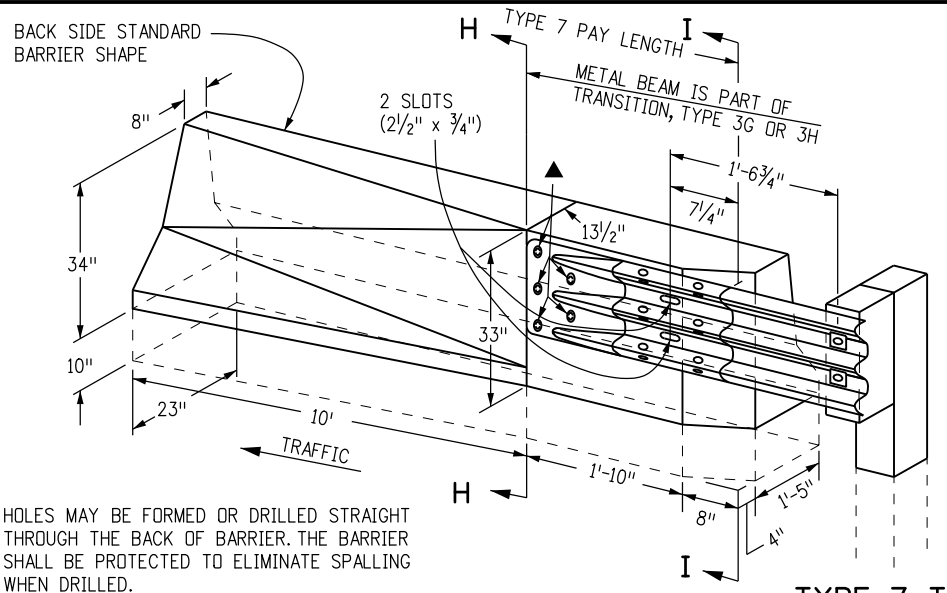
ELEVATION



SECTION G-G

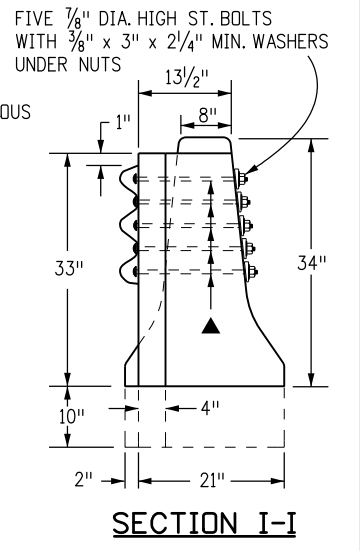
THIS SECTION PROVIDES A TRANSITION FOR THE SHAPE OF THE BRIDGE RAIL TYPE 7 TO THE ROADWAY GUARDRAIL TYPE 7. MEASURED AND PAID FOR AS GUARDRAIL TYPE 7.
(SEE ANCHORAGE DETAIL ON SHEET 1 FOR REINFORCEMENT INFORMATION)

BRIDGE RAIL TYPE 7 TO ROADWAY SHOULDER TYPE 7 TRANSITION AND ANCHORAGE



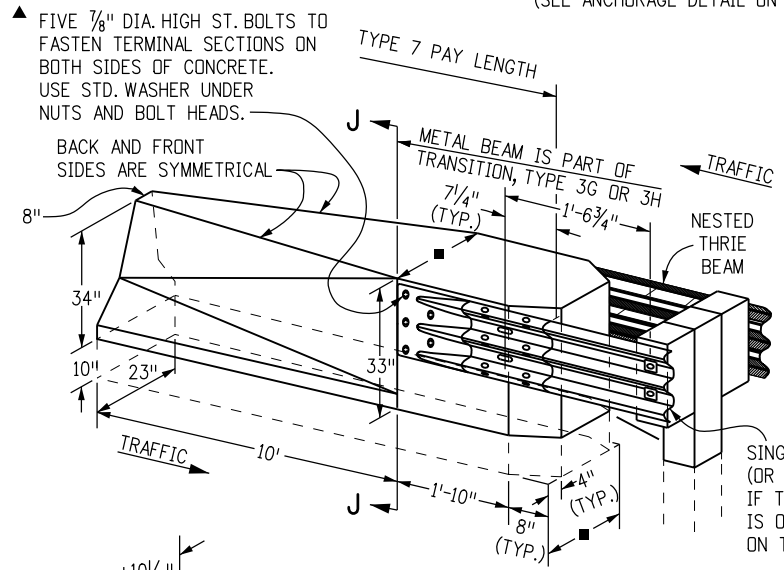
▲ HOLES MAY BE FORMED OR DRILLED STRAIGHT THROUGH THE BACK OF BARRIER. THE BARRIER SHALL BE PROTECTED TO ELIMINATE SPALLING WHEN DRILLED.

SECTION H-H

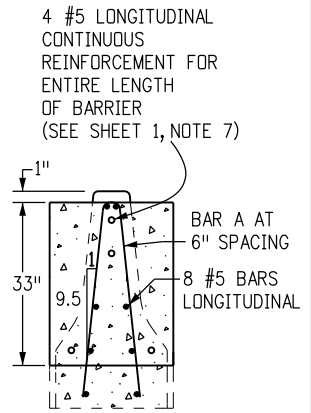
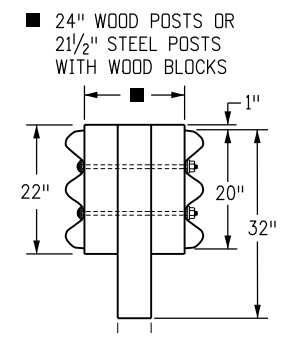


SECTION I-I

TYPE 7 TO SINGLE TYPE 3G TRANSITION AND ANCHORAGE
(SEE ANCHORAGE DETAIL ON SHEET 1 FOR REINFORCEMENT INFORMATION)



TYPE 7 TO DOUBLE TYPE 3G TRANSITION AND ANCHORAGE
(SEE ANCHORAGE DETAIL ON SHEET 1 FOR REINFORCEMENT INFORMATION)



SECTION J-J

Computer File Information	
Creation Date:	07/31/19
Designer Initials:	JBK
Last Modification Date:	07/31/19
Detailer Initials:	LTA
CAD Ver.:	MicroStation V8
Scale:	Not to Scale
Units:	English

Sheet Revisions	
Date:	Comments
(R-X)	
(R-X)	
(R-X)	
(R-X)	

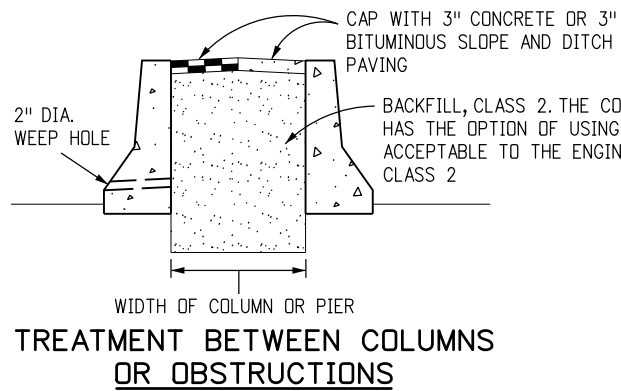
Colorado Department of Transportation
2829 West Howard Place
CDDT HQ, 3rd Floor
Denver, CO 80204
Phone: 303-757-9021 FAX: 303-757-9868

Project Development Branch **JBK**

GUARDRAIL TYPE 7
F-SHAPE BARRIER

Issued by the Project Development Branch: July 31, 2019

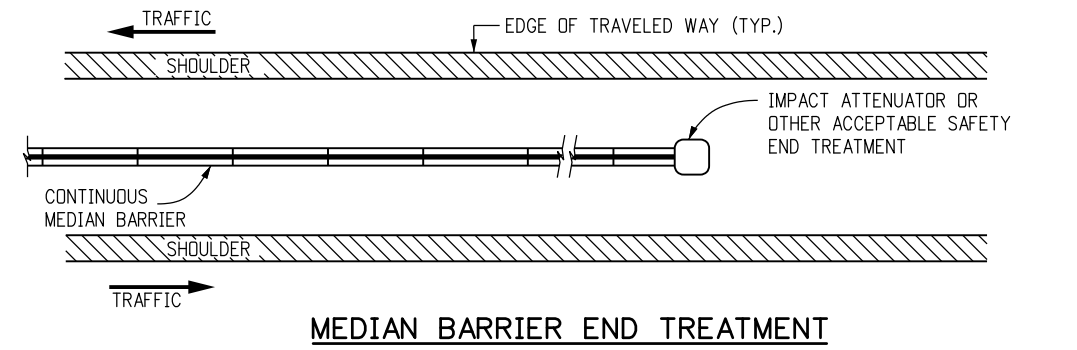
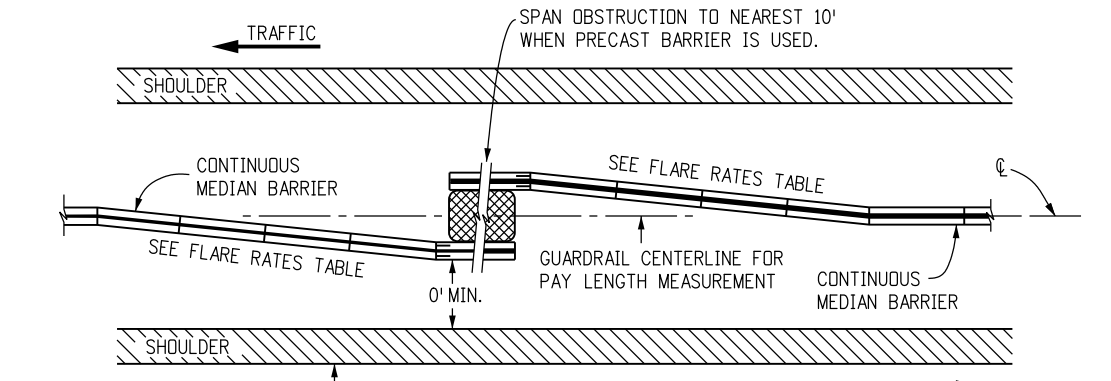
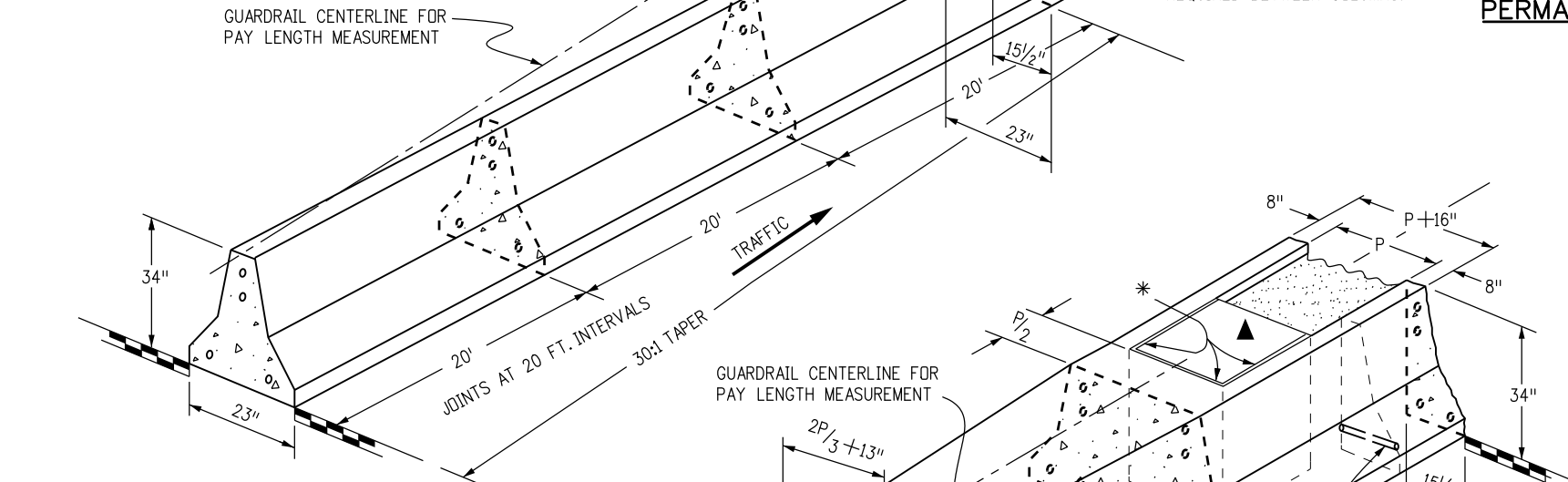
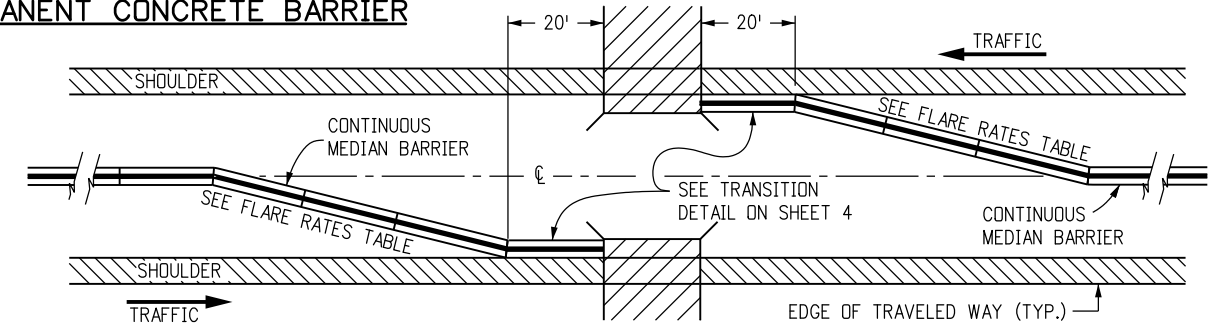
STANDARD PLAN NO.
M-606-13
Standard Sheet No. 2 of 4
Project Sheet Number:



DESIGN SPEED (MPH)	SHY LINE OFFSET (FT.)*	FLARE RATE FOR BARRIER INSIDE SHY LINE	FLARE RATE FOR BARRIER OUTSIDE SHY LINE
80	12	30:1	20:1
75	10	30:1	20:1
70	9	30:1	20:1
60	8	26:1	18:1
55	7	24:1	16:1
50	6.5	21:1	14:1
45	6	18:1	12:1
40	5	16:1	10:1
30	4	13:1	8:1

- NOTES**
1. THE MEDIAN IN THESE APPLICATIONS SHALL BE PAVED ON A SLOPE CONTINUED FROM THE ADJACENT PAVED SHOULDER OR A 10:1 OR FLATTER SLOPE.
 2. THE PAY LENGTH FOR BARRIER ON BOTH SIDES OF AN OBSTRUCTION WILL BE DETERMINED BY ONE LINEAR MEASUREMENT ALONG THE GUARDRAIL CENTERLINE. THE BACKFILL AND CAP BETWEEN COLUMNS OR OBSTRUCTIONS WILL NOT BE MEASURED AND PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE WORK.
 3. GUARDRAIL BETWEEN COLUMNS OR OBSTRUCTIONS MAY BE STYLES CD OR CA AS SHOWN ON THE PLANS.

TABLE OF FLARE RATES FOR PERMANENT CONCRETE BARRIER



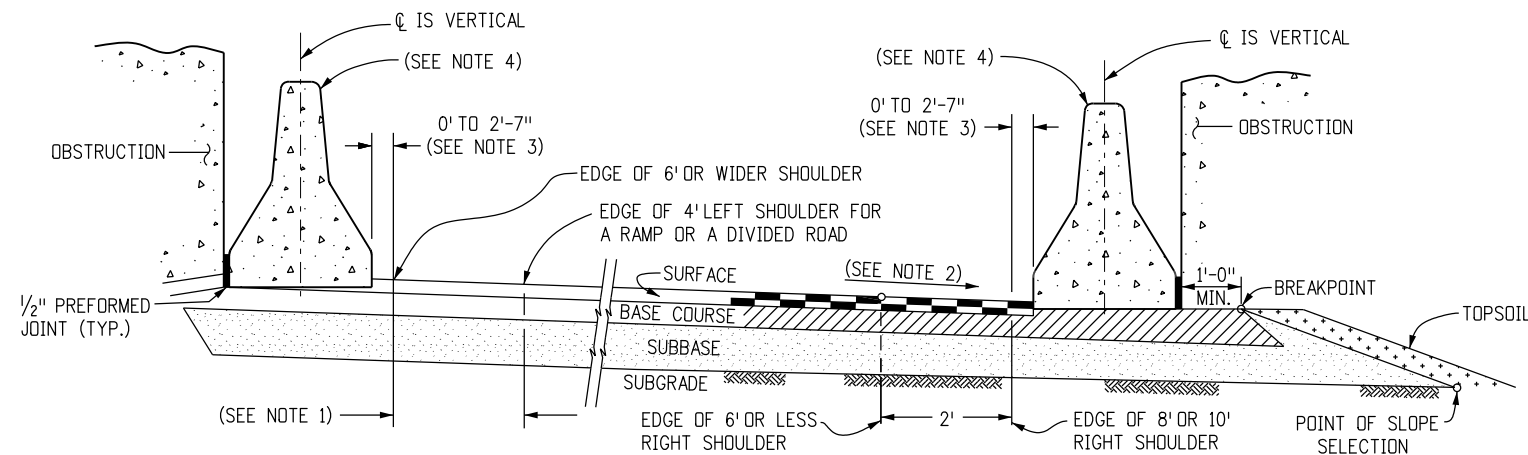
OBSTRUCTION WIDER THAN 3 FT.

- * 1/2" PREFORMED JOINT MATERIAL
- ▲ PIER COLUMN, SIGN SUPPORT FOOTING, CONCRETE WALL, OR SIMILAR OBSTRUCTIONS.

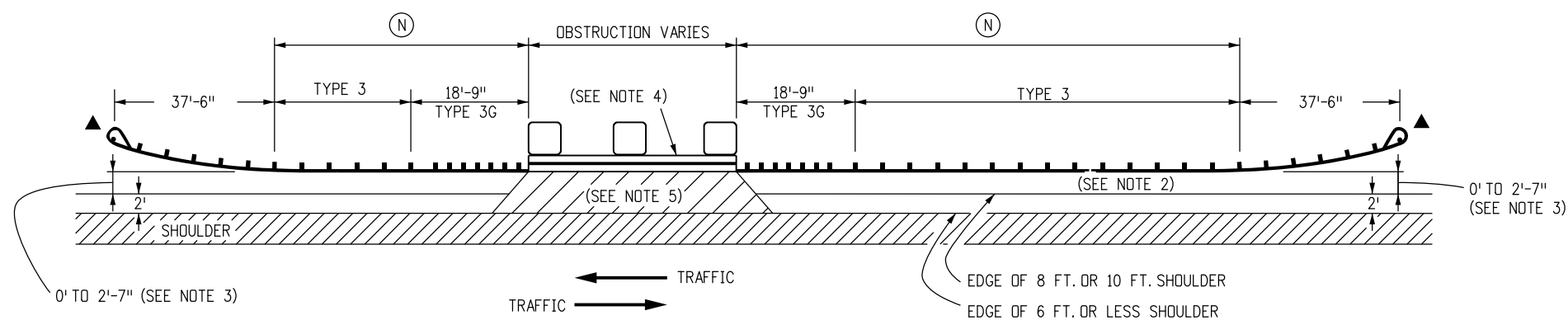
OBSTRUCTION 3 FT. WIDE OR LESS

HAZARDS IN NARROW MEDIANS

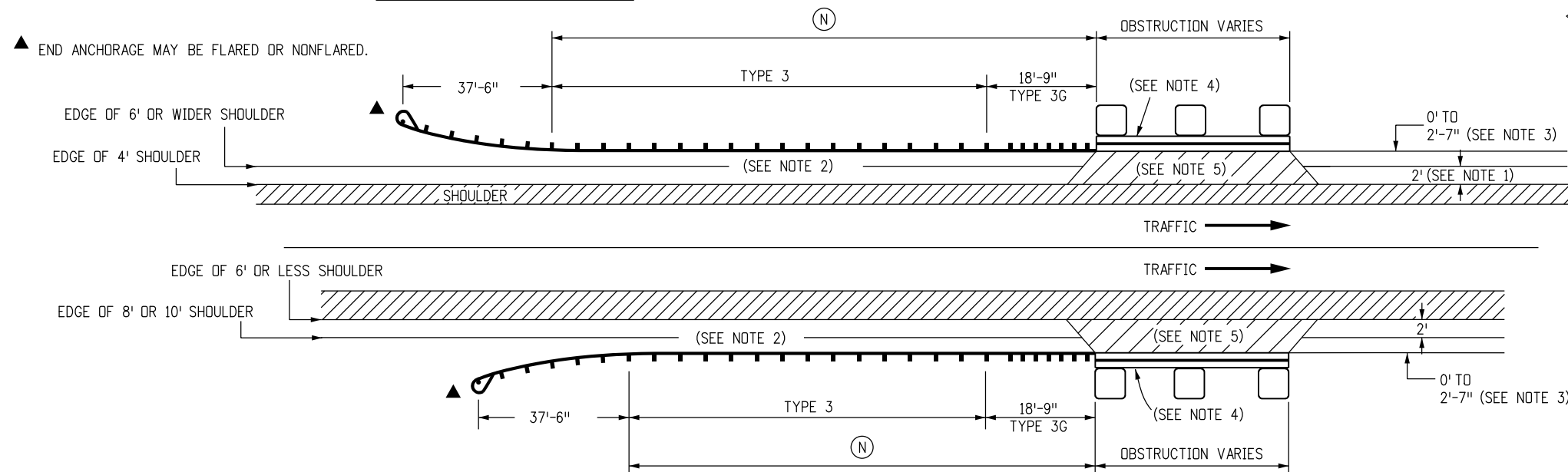
Computer File Information		Sheet Revisions		Colorado Department of Transportation 2829 West Howard Place CDDT HQ, 3rd Floor Denver, CO 80204 Phone: 303-757-9021 FAX: 303-757-9868 Project Development Branch	GUARDRAIL TYPE 7 F-SHAPE BARRIER	STANDARD PLAN NO.	
Creation Date: 07/31/19		Date:	Comments:			M-606-13	
Designer Initials: JBK		(R-X)				Standard Sheet No. 3 of 4	
Last Modification Date: 07/31/19		(R-X)				Project Sheet Number:	
Detailer Initials: LTA		(R-X)					
CAD Ver.: MicroStation V8 Scale: Not to Scale Units: English		(R-X)		Issued by the Project Development Branch: July 31, 2019			



TYPE 7 ON LEFT AND RIGHT SHOULDERS AT OBSTRUCTIONS



2-LANE 2-WAY ROADS



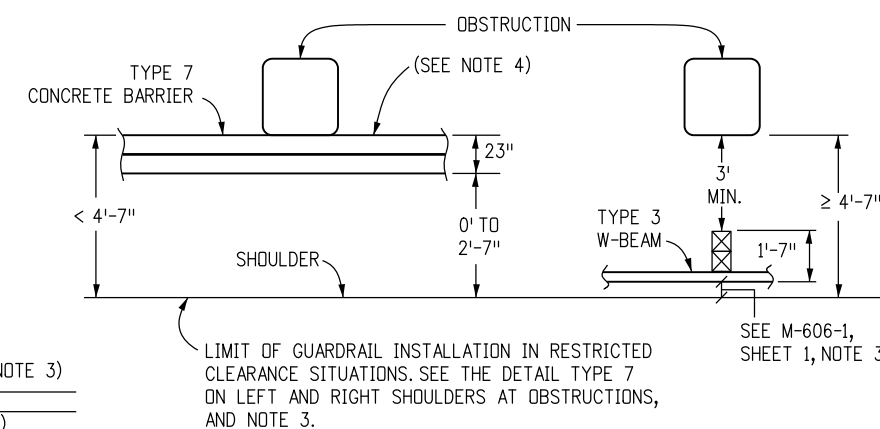
DIRECTIONAL ROADWAYS AND RAMPS

HAZARDS ON ROADSIDES

NOTES

1. TWO FT. IS DESIRABLE FOR THIS DIMENSION WITH A 4 FT. LEFT SHOULDER. THE MINIMUM IS 0 FT., WHICH IS ACCEPTABLE FOR 6 FT. OR WIDER SHOULDERS.
2. RATE OF SLOPE DEPENDS ON GUARDRAIL LOCATION:
 - A. FOR GUARDRAIL FACE 2 FT. OR LESS FROM THE NORMAL EDGE OF PAVED SHOULDER, CONTINUE THE RATE OF SLOPE OF THE NORMAL PAVED SHOULDER TO THE BREAKPOINT.
 - B. FOR GUARDRAIL FACE MORE THAN 2 FT. FROM THE NORMAL EDGE OF THE PAVED SHOULDER, THE SLOPE SHALL BE 10:1 OR FLATTER.
3. IF THE DISTANCE FROM THE EDGE OF SHOULDER TO THE OBSTRUCTION EXCEEDS 4 FT.-7 IN., TYPE 3-W BEAM GUARDRAIL MAY BE SPECIFIED ON THE PLANS INSTEAD OF TYPE 7 (SEE PLANS, AND DETAIL BELOW).
4. STYLE CA BARRIERS ARE SHOWN. STYLE CD MAY BE USED AS APPROPRIATE. SEE SHEET 2 FOR TYPE 7 TO SINGLE TYPE 3G TRANSITION.
5. THE AREA BETWEEN SHOULDER AND THE TYPE 7 SHALL BE PAVED. PAYMENT FOR THE PAVED SURFACE WILL BE MADE UNDER A PAVEMENT PAY ITEM, HMA OR CONCRETE, WITH QUANTITIES SHOWN ON THE PLANS.

(N) THE GUARDRAIL LENGTH DIMENSION "N" IS THE LENGTH AS DETERMINED BY THE LENGTH OF NEED COMPUTATION AND AS SHOWN ON THE PLANS. MINIMUM SHALL BE 12 FT.-6 IN. WHERE SITE CONDITIONS ALLOW.



Computer File Information		Sheet Revisions		Colorado Department of Transportation		GUARDRAIL TYPE 7 F-SHAPE BARRIER		STANDARD PLAN NO. M-606-13	
Creation Date: 07/31/19		Date:	Comments:	2829 West Howard Place		Issued by the Project Development Branch: July 31, 2019		Standard Sheet No. 4 of 4	
Designer Initials: JBK		(R-X)		CDDT HQ, 3rd Floor					
Last Modification Date: 07/31/19		(R-X)		Denver, CO 80204		Project Sheet Number:			
Detailer Initials: LTA		(R-X)		Phone: 303-757-9021 FAX: 303-757-9868					
CAD Ver.: MicroStation V8 Scale: Not to Scale Units: English		(R-X)		Project Development Branch		JBK			