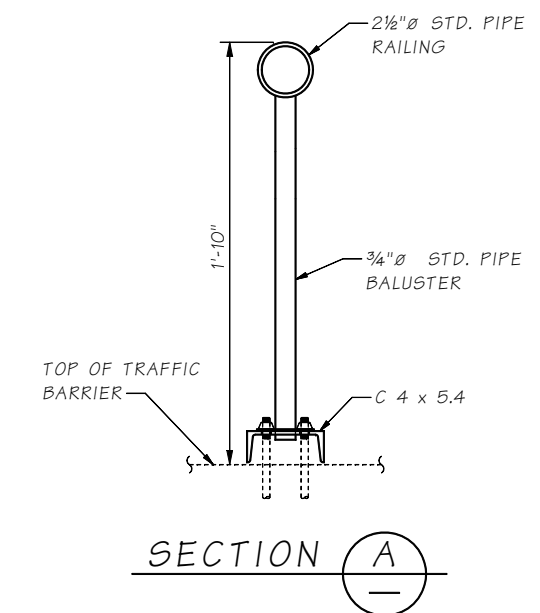
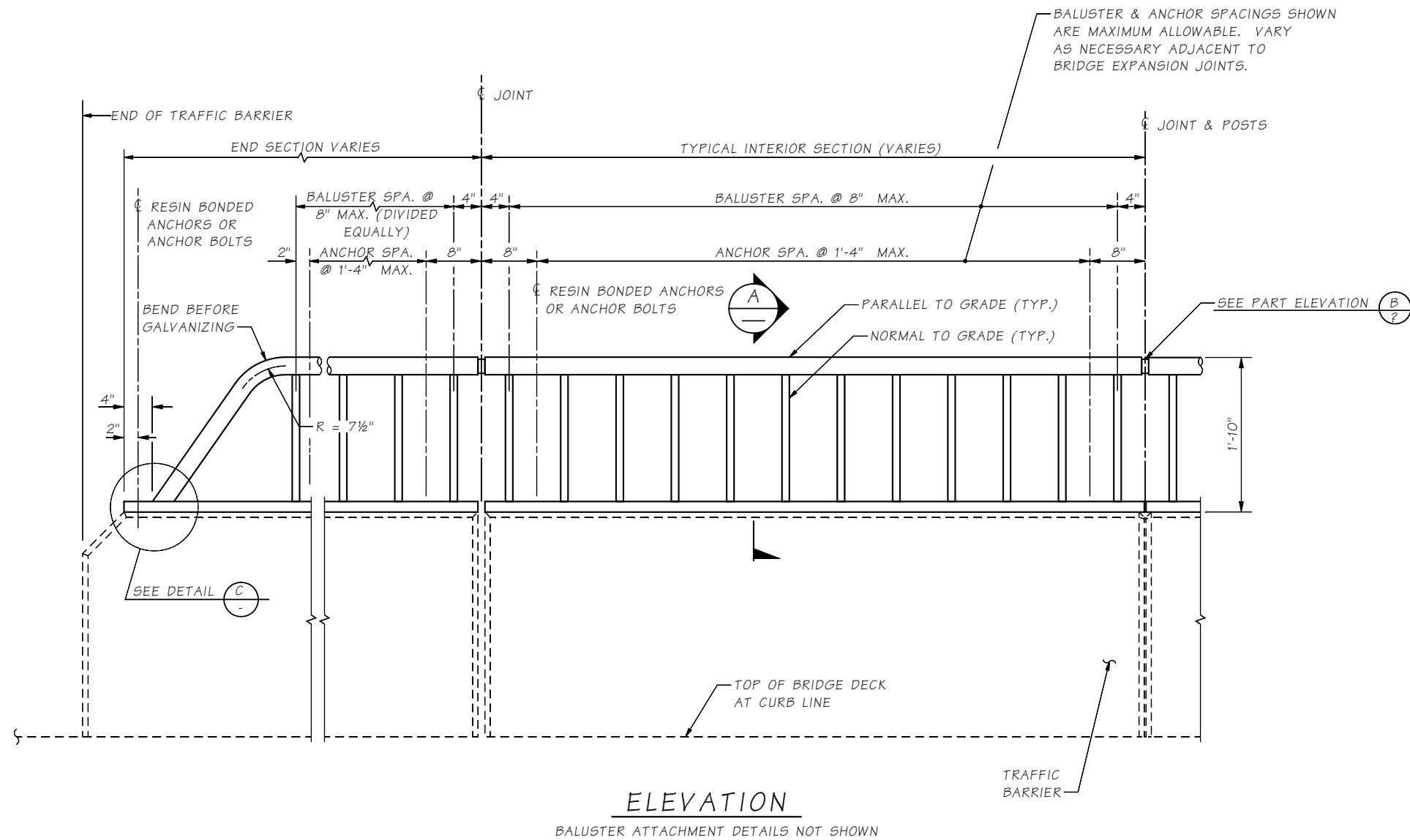


MAT'L	PART	MATERIAL SPECIFICATION
STEEL	PIPES	ASTM A53 GRADE B SCHEDULE 40 (STD. PIPE), GALVANIZED IN ACCORDANCE WITH AASHTO M 111.
	WASHERS	ASTM A193 GRADE B7 GALVANIZED IN ACCORDANCE WITH AASHTO M 232.
	PLATES/BAR CHANNELS	ASTM A36 GALVANIZED IN ACCORDANCE WITH AASHTO M 111
	DRIVE PINS	ASTM A276 OR A240 TYPE 302 STAINLESS STEEL
	ANCHOR BOLTS	ASTM F593 TYPE 302 STAINLESS STEEL
	NUTS	TAMPER-PROOF TYPE ZINC ALLOY SEE SPECIAL PROVISIONS SECTION 6-06.2

### NOTES

- PIPE RAILING AND PIPE RAILING SPLICES SHALL BE BENT TO THE HORIZONTAL CURVE WHERE THE RADIUS OF CURVATURE IS LESS THAN 200'.
- SHOP DRAWINGS OF RAILING SHALL BE SUBMITTED FOR APPROVAL SHOWING COMPLETE DIMENSIONS AND DETAILS OF FABRICATION AND INCLUDING AN ERECTION DIAGRAM. MATERIAL SPECIFICATIONS SHALL BE PROVIDED IN THE SHOP DRAWINGS FOR ALL COMPONENTS.
- CUTTING SHALL BE DONE BY SAWING OR MILLING AND ALL CUTS SHALL BE TRUE AND SMOOTH. FLAME CUTTING WILL NOT BE PERMITTED.
- WELDING OF STEEL SHALL CONFORM TO THE LATEST EDITION OF AWS D1.1.
- PIPE RAILING, PIPE BALUSTERS AND PIPE RAILING SPLICES SHALL BE ADEQUATELY WRAPPED TO INSURE SURFACE PROTECTION DURING HANDLING AND TRANSPORTATION TO THE JOB SITE.



**ELEVATION**  
BALUSTER ATTACHMENT DETAILS NOT SHOWN

Last revised on: 5/01/2019

10.5-A3-1  
SR JOB NO.  
1 SHEET

Bridge Design Engr.	M:\STANDARDS\BP Rail\STEEL RAILING BP-1.man						
Supervisor			REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Designed By			10	WASH.			
Checked By			JOB NUMBER				
Detailed By							
Bridge Projects Engr.							
Prelim. Plan By							
Architect/Specialist	DATE	REVISION	BY	APP'D			

**BRIDGE AND STRUCTURES OFFICE**



**STANDARD RAILINGS**  
BRIDGE RAILING TYPE S-BP-22  
DETAILS 1 OF 2