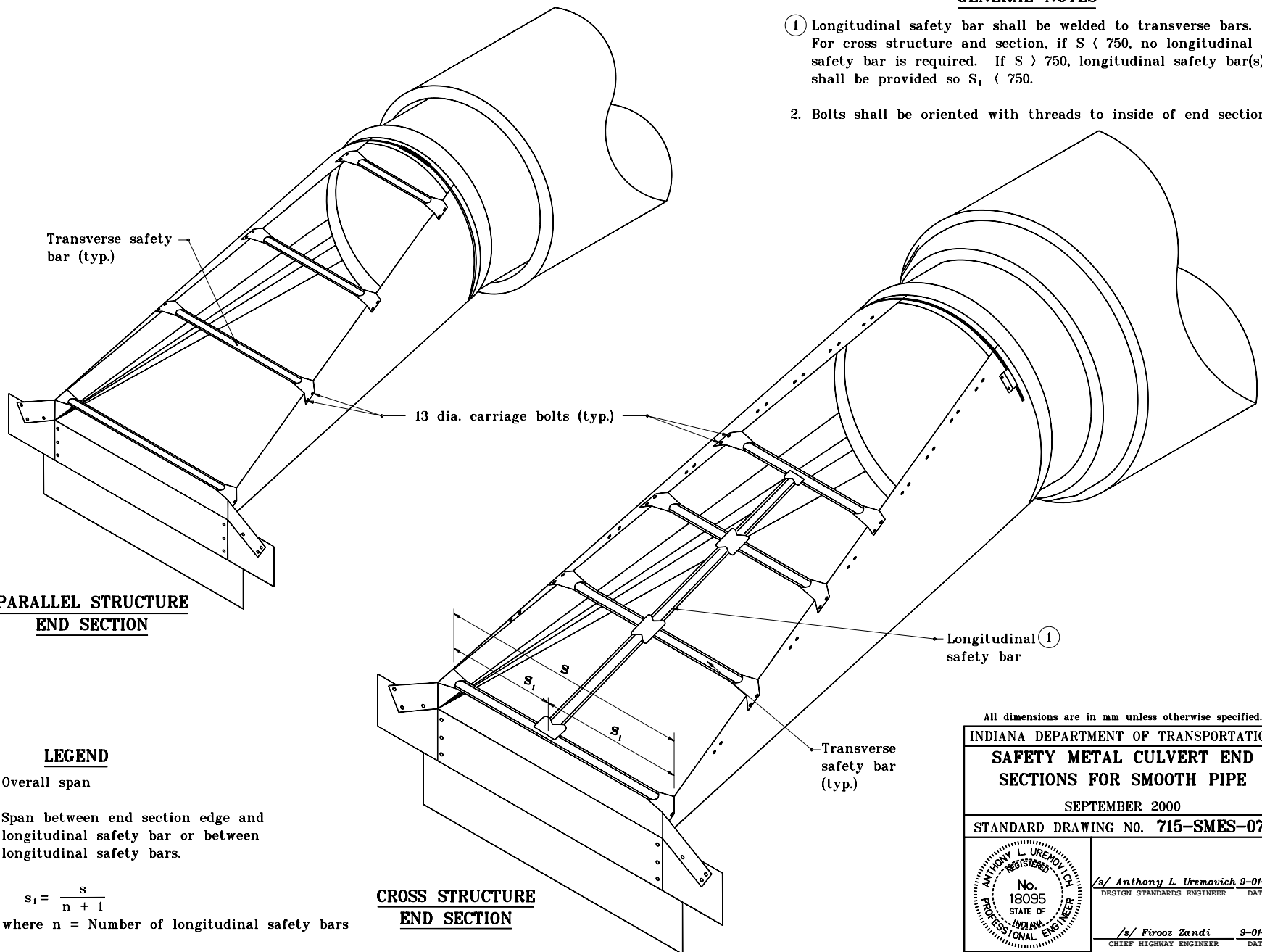


## GENERAL NOTES

- ① Longitudinal safety bar shall be welded to transverse bars. For cross structure and section, if  $S < 750$ , no longitudinal safety bar is required. If  $S > 750$ , longitudinal safety bar(s) shall be provided so  $S_1 < 750$ .
2. Bolts shall be oriented with threads to inside of end section.



### PARALLEL STRUCTURE END SECTION

### LEGEND

s - Overall span

$s_1$  - Span between end section edge and longitudinal safety bar or between longitudinal safety bars.

$$s_1 = \frac{s}{n + 1}$$

where n = Number of longitudinal safety bars

### CROSS STRUCTURE END SECTION

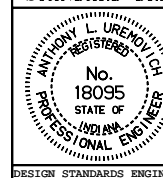
All dimensions are in mm unless otherwise specified.

INDIANA DEPARTMENT OF TRANSPORTATION

### SAFETY METAL CULVERT END SECTIONS FOR SMOOTH PIPE

SEPTEMBER 2000

STANDARD DRAWING NO. 715-SMES-07



/s/ Anthony L. Uremovich 9-01-00  
DESIGN STANDARDS ENGINEER DATE

/s/ Firooz Zandi 9-01-00  
CHIEF HIGHWAY ENGINEER DATE

DESIGN STANDARDS ENGINEER