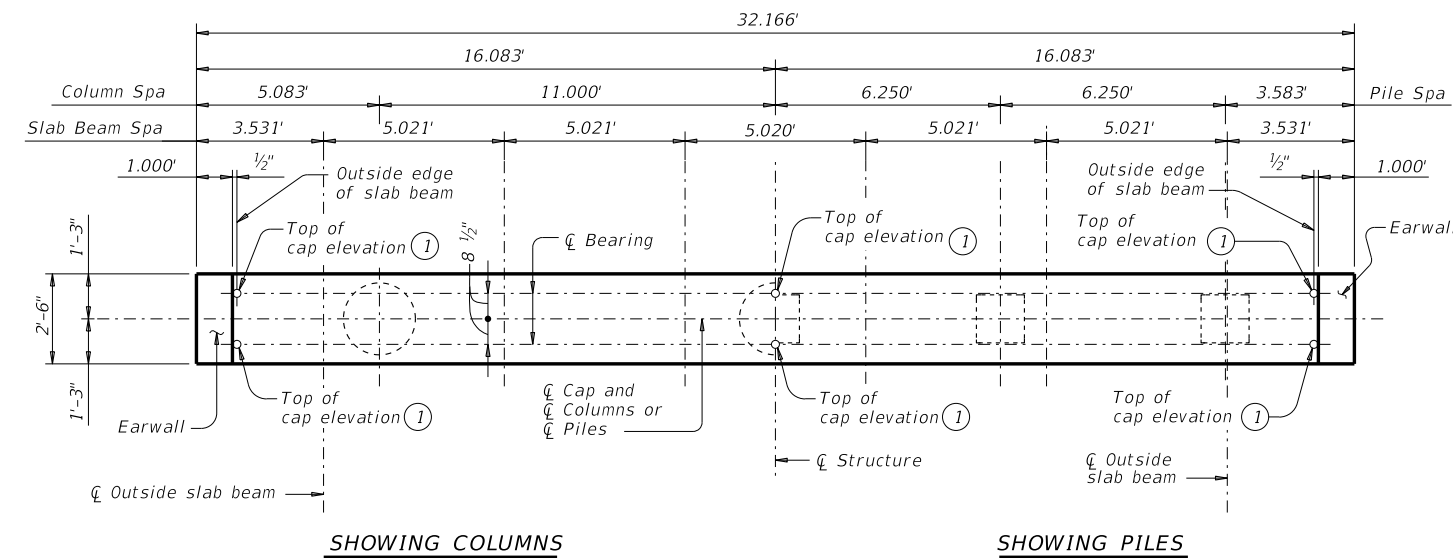


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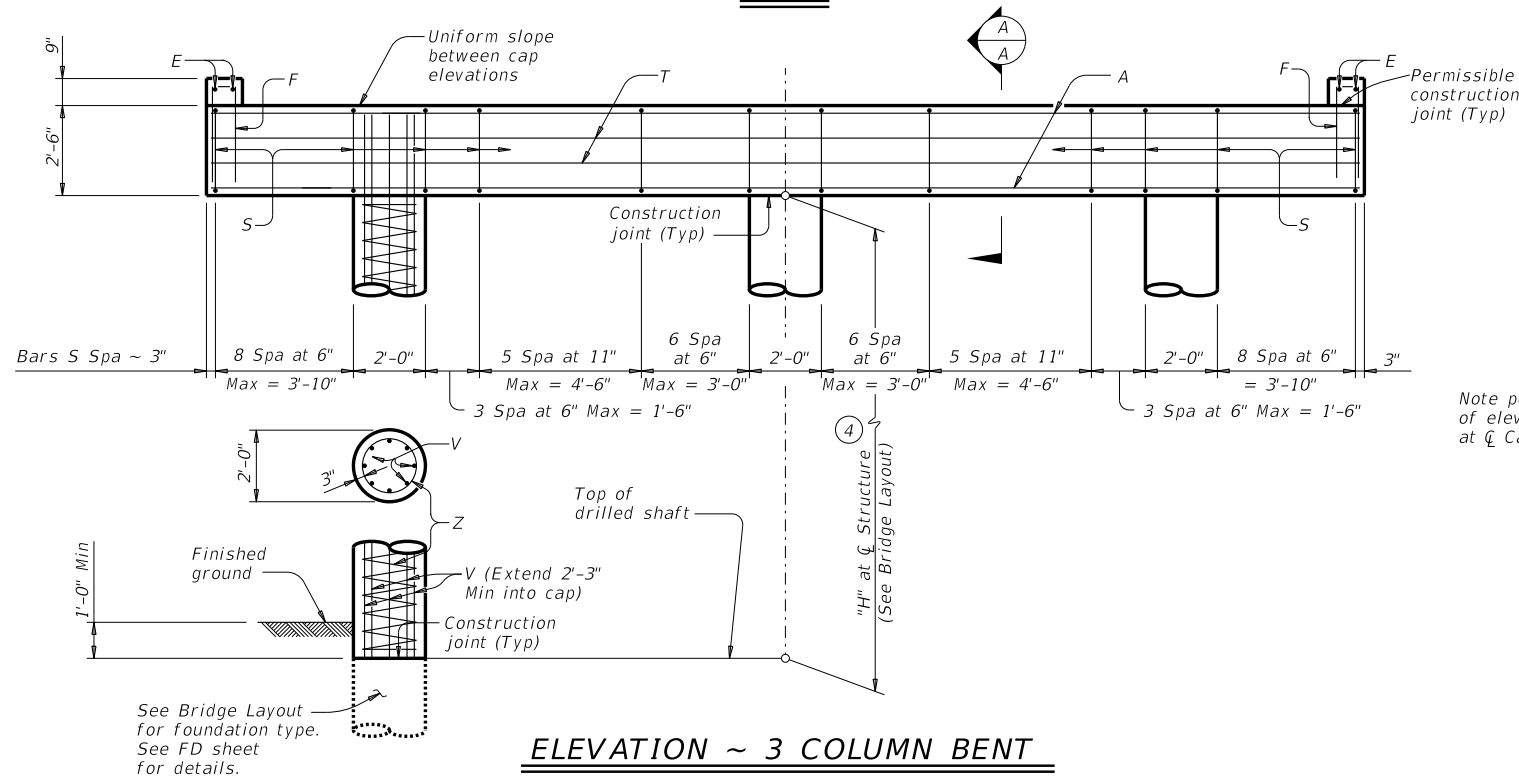
DATE: FILE:



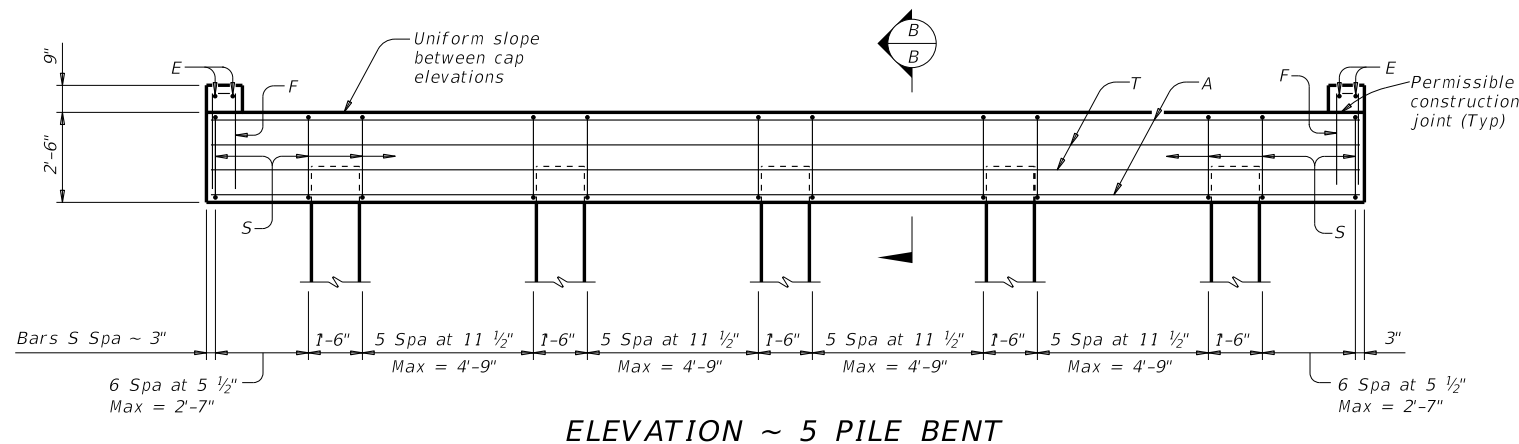
SHOWING COLUMNS

SHOWING PILES

PLAN



ELEVATION ~ 3 COLUMN BENT



ELEVATION ~ 5 PILE BENT

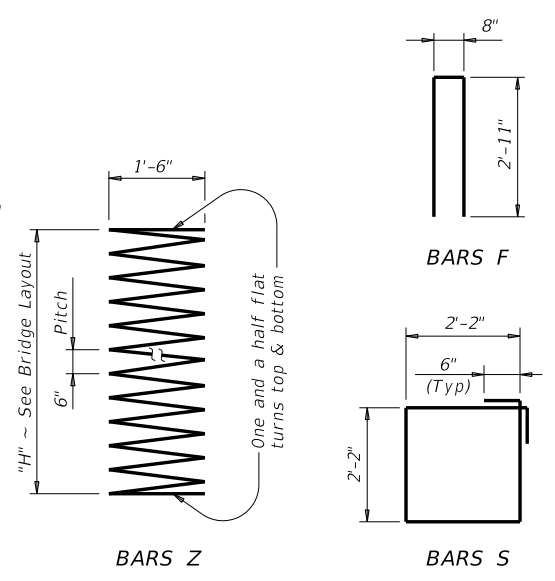
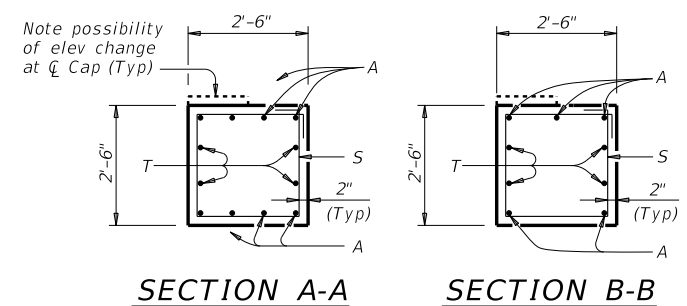
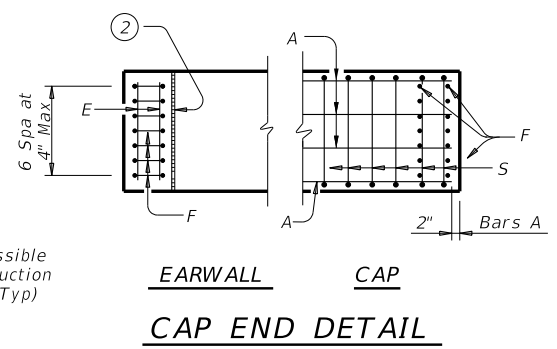
Note: For piles larger than 16", adjust Bars S spacing as required to avoid piles.

FOUNDATION LOADS				
Average Span Length	Drilled Shaft Loads (5)		Vertical Pile Loads	
	5SB12	5SB15	5SB12	5SB15
Ft				
25	62	67	37	40
30	72	78	43	47
35	80	87	48	52
40	88	96	53	57
45		104		63
50		113		68

TABLE OF ESTIMATED QUANTITIES (3)				
3 COLUMN BENT				
Bar	No.	Size	Length	Weight
A	8	#11	31'-10"	1,353
E	4	#4	2'-2"	6
F	14	#4	6'-6"	61
S	48	#5	9'-8"	484
T	4	#5	31'-10"	133
V	24	#7	26'-3"	1,288
Z	3	#3	242'-2"	273
Reinforcing Steel			Lb	3,598
Cl "C" Conc (Cap)			CY	7.6
Cl "C" Conc (Col)			CY	8.4

TABLE OF ESTIMATED QUANTITIES				
5 PILE BENT				
Bar	No.	Size	Length	Weight
A	5	#11	31'-10"	846
E	4	#4	2'-2"	6
F	14	#4	6'-6"	61
S	38	#5	9'-8"	383
T	4	#5	31'-10"	133
Reinforcing Steel			Lb	1,429
Cl "C" Conc (Cap)			CY	7.6

TABLE OF MAXIMUM ALLOWABLE EXPOSED PILE HEIGHTS AND PILE LOADS (4)			
Pile Type		Max Ht	Max Load
Concrete	Steel	Ft	Tons/Pile
16" Sq	HP14x73	16	75
18" Sq	HP14x117 (6)	20	90



- Top of cap elevations are based on section depths shown on Span Details.
- 1/2" preformed bituminous fiber material between slab beam and earwall. Bond to earwall with an approved adhesive. Cast inside face of earwall perpendicular to cap. (Typ)
- Quantities shown are based on an "H" value of 24 feet. For each linear foot variation in "H" value, make the following adjustments:  
 Bars V length, 1'-0"  
 Bars Z length, 9'-6"  
 Reinforcing Steel, 60 Lb  
 Class "C" conc (column), 0.35 CY
- This standard may not be used for "H" heights exceeding 24 feet or exposed pile heights exceeding the values shown in the table. In areas of very soft soil or where scour is anticipated, allowable "H" heights or exposed pile heights must be evaluated by the Engineer prior to the use of this standard.
- Foundation Loads based on "H" = 24 feet.
- When HP14x117 steel piling is specified in the plans, the Contractor has the option of furnishing either HP14x117 or HP16x101 steel piling.

**GENERAL NOTES:**  
 Designed according to AASHTO LRFD Bridge Design Specifications.  
 Bent selected must be based on the average span length rounded up to the next 5-foot increment.  
 For pile bents supporting unequal spans, the shorter span cannot be less than 80 percent of the longer span.  
 See Bridge Layout for foundation type, size, and length.  
 See Common Foundation Details (FD) standard sheet for all foundation details and notes.  
 These bent details do not support the use of multi-pile footings shown on the FD standard.  
 These bent details may be used with standard SPSB-28 only.

Cover dimensions are clear dimensions, unless noted otherwise.  
 Reinforcing bar dimensions shown are out-to-out of bar.

**MATERIAL NOTES:**  
 Provide Class C concrete (f'c = 3,600 psi).  
 Provide Class C (HPC) concrete if shown elsewhere in the plans.  
 Provide Grade 60 reinforcing steel.

HL93 LOADING

Texas Department of Transportation  
 Bridge Division Standard

**INTERIOR BENTS  
 PRESTR CONC SLAB BEAM  
 28' ROADWAY**

**BPSB-28**

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REVISIONS				
	DIST	COUNTY		SHEET NO.