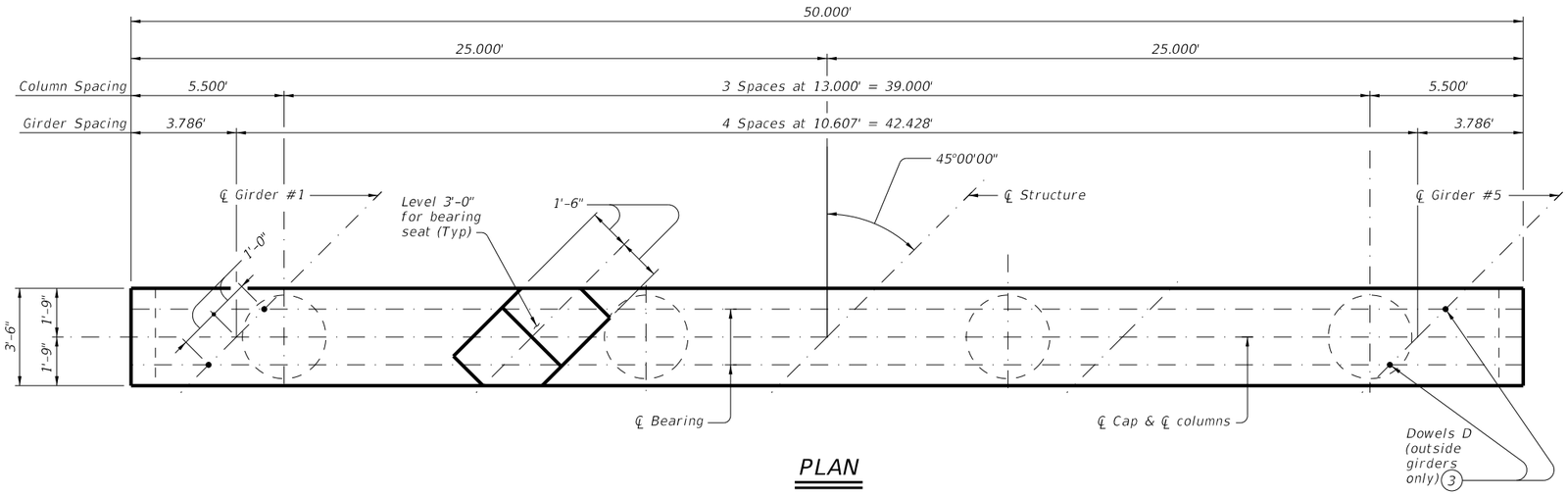
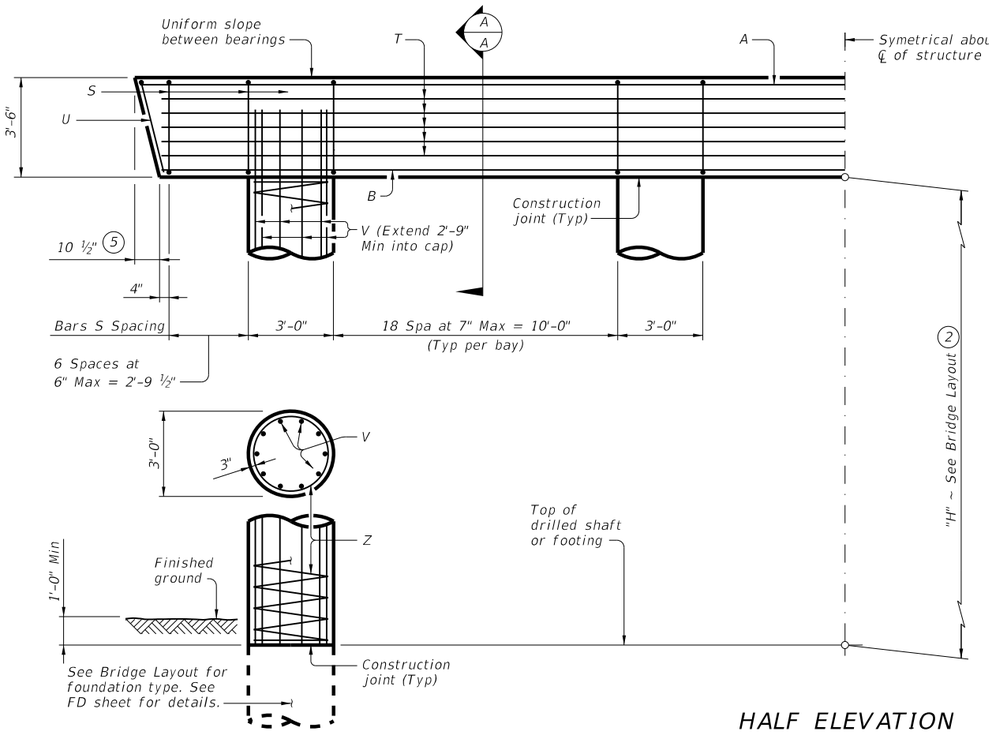
DISCLAIMER:
The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.

DATE:
FILE:

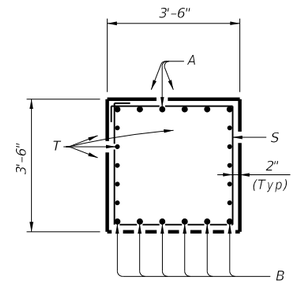


PLAN

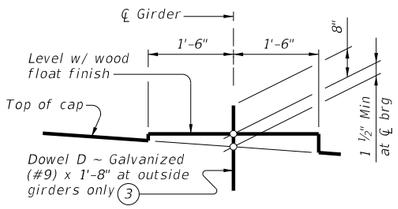


HALF ELEVATION

1. Quantities shown are based on an "H" value of 36'. For each linear foot variation in "H" value, make the following adjustments:
   - Bars V length, 1'-0"
   - Bars Z length, 31'-5"
   - Reinforcing steel, 220 Lb
   - Class "C" conc (col), 1.05 CY
2. This standard may not be used for "H" heights exceeding 36'. In areas of very soft soil or where scour is anticipated, allowable "H" heights must be evaluated by the Engineer prior to the use of this standard.
3. Omit Dowels D at end of multi-span units. Adjust reinforcing steel total accordingly.
4. Foundation Loads based on "H" = 36'.
5. Measured parallel to top of cap cross-slope.



SECTION A-A



BEARING SEAT DETAIL

(Bearing surface must be clean and free of all loose material before placing bearing pad.)

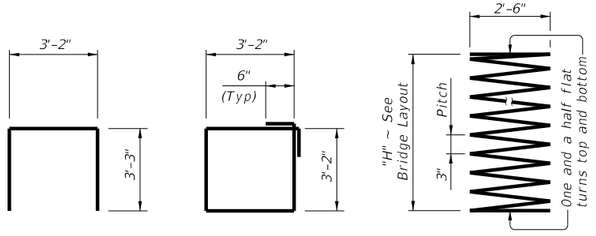


TABLE OF ESTIMATED QUANTITIES 1

Bar	No.	Size	Length	Weight
A	6	#11	49'-6"	1,578
B	6	#11	48'-0"	1,530
D 3	4	#9	1'-8"	23
S	71	#5	13'-8"	1,012
T	10	#5	48'-0"	501
U	2	#5	9'-8"	20
V	40	#9	38'-9"	5,270
Z	4	#4	1154'-7"	3,085
Reinforcing Steel			Lb	13,019
Class "C" Concrete (Cap)			CY	22.5
Class "C" Concrete (Col)			CY	37.7

FOUNDATION LOADS 4

Span Average	Drilled Shaft Loads	Pile Load (Tons/Pile)		
		3 Pile Ftg	4 Pile Ftg	5 Pile Ftg
Ft	Tons/Shaft			
40	99	36	28	23
45	107	39	30	25
50	114	41	32	26
55	121	44	33	27
60	128	46	35	29
65	135	48	37	30
70	142	51	39	32
75	149	53	40	33
80	156	55	42	34
85	163	58	44	36
90	169	60	45	37
95	176	62	47	38
100	183	64	49	40
105	190	67	51	41
110	197	69	52	43
115	204	71	54	44
120	211	74	56	45
125	218	76	58	47

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.
Galvanize dowel bars D.

GENERAL NOTES:

Designed according to AASHTO LRFD Bridge Design Specifications.
See Bridge Layout for foundation type, size and length.
See Common Foundation Details (FD) standard sheet for all foundation details and notes.
See Shear Key (IGSK) standard sheet for all shear key details and notes, if applicable.
Bent selected must be based on the average span length rounded up to the next 5 ft increment.
Details are drawn showing right forward skew. See Bridge Layout for actual skew direction.
These bent details may be used with standard SIG-34-45 only.

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

HL93 LOADING

Texas Department of Transportation

Bridge Division Standard

INTERIOR BENTS
TYPE TX28 THRU TX54
PRESTR CONC I-GIRDERS
34' ROADWAY 45° SKEW

BIG-34-45

FILE: IG-BIG3445-24.dgn	DN: TAR	CK: VC	DW: SFS	CK: TAR
©TxDOT January 2023	CONT	SECT	JOB	HIGHWAY
REVISIONS				
05/2024: Updated FDN loads.	DIST	COUNTY		SHEET NO.