

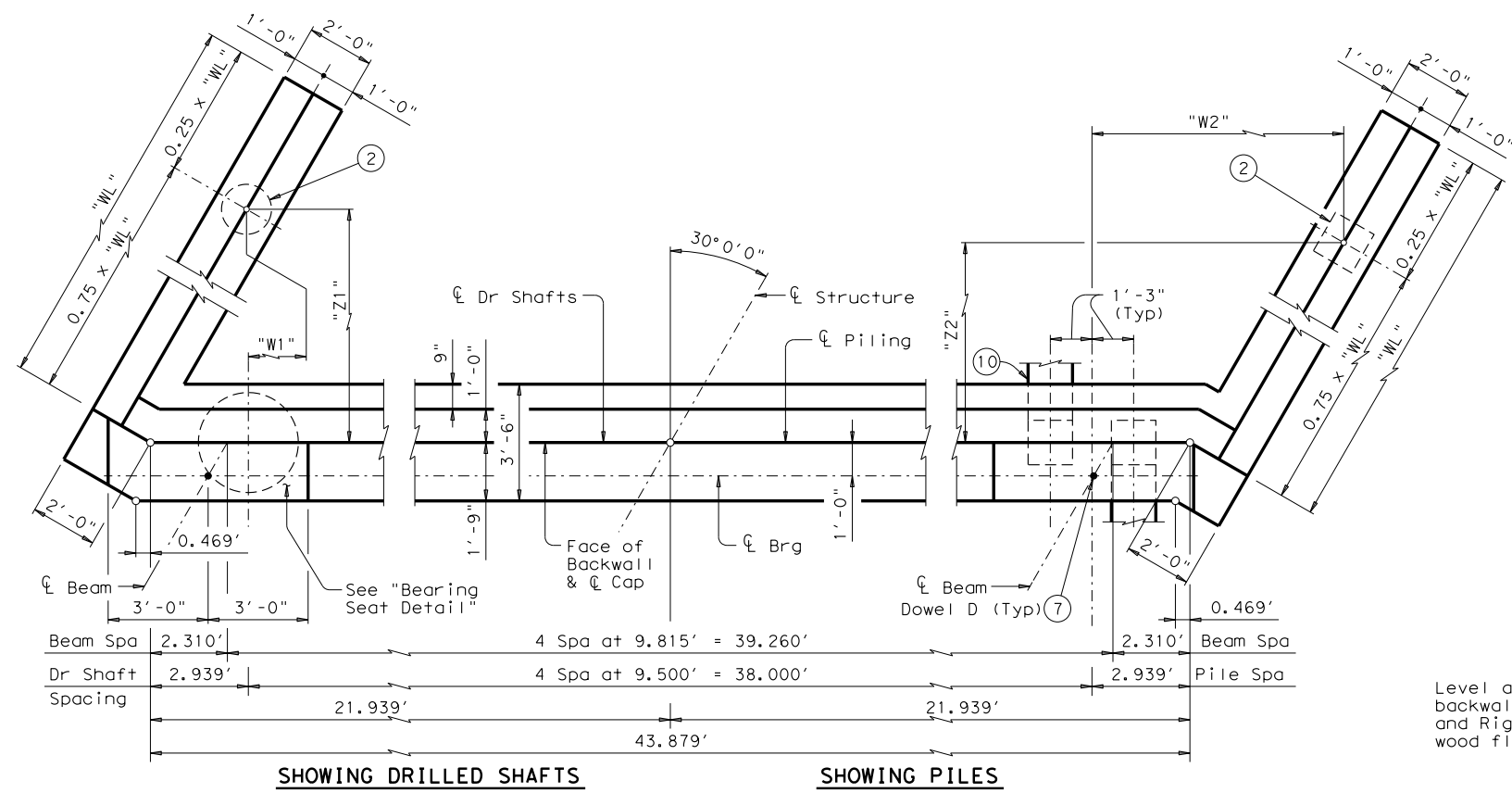
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**TABLE OF FOUNDATION LOADS**

Span Length	Beam Types 5XB20 Thru 5XB40	
	Ft	Tons/Shaft
40	55	44
45	59	46
50	63	48
55	67	50
60	70	51
65	74	53
70	77	55
75	81	57
80	84	59
85	88	61
90	91	62
95	95	64
100	98	66
105	102	68

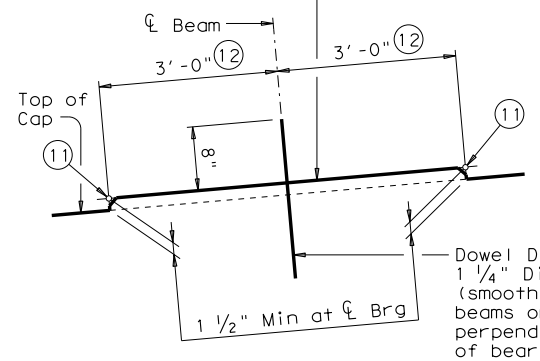
- ① See Table A for variable dimensions based on header slope and beam type.
- ② See Table A to determine if wingwall foundations are required.
- ③ For Piling larger than 16" adjust Bars S spacing as required to avoid Piling.
- ④ Increase as required to maintain 3 3/4" from Finished Grade.
- ⑤ See Span details for "Y" value.
- ⑥ See Bridge Layout to determine if Approach Slab is present.
- ⑦ Omit Dowels D at end of unit. Deduct 14 lbs from reinforcing steel total.
- ⑧ With pile foundations, move Bars A shown to clear piles.
- ⑨ Spacing based on beam type:  
XB20 ~ 2 Equal Spaces  
XB28 ~ 3 Equal Spaces  
XB34 ~ 3 Equal Spaces  
XB40 ~ 3 Equal Spaces
- ⑩ See Detail A on FD standard.
- ⑪ Right and left elevations and locations are provided elsewhere.
- ⑫ Measured along  $\bar{C}$  of Bearing.



SHOWING DRILLED SHAFTS      SHOWING PILES

**PLAN ①**

Level along a line perpendicular to backwall. Uniform slope between Left and Right Bearing Seat Elevations with wood float finish.

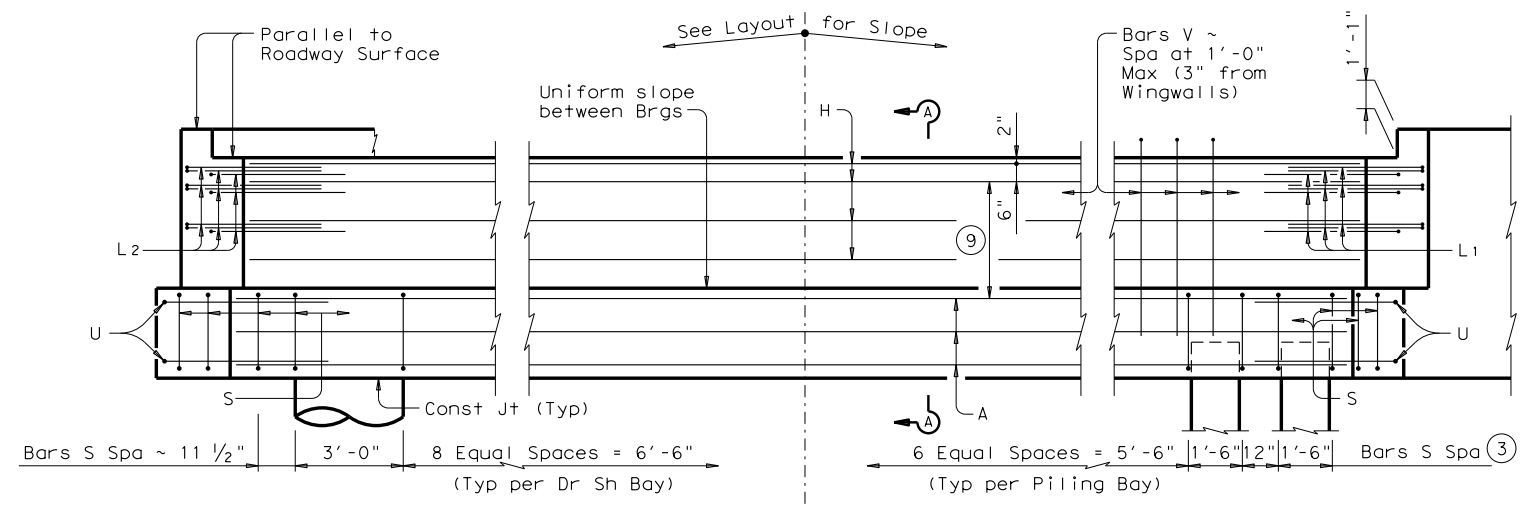


**BEARING SEAT DETAIL**

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

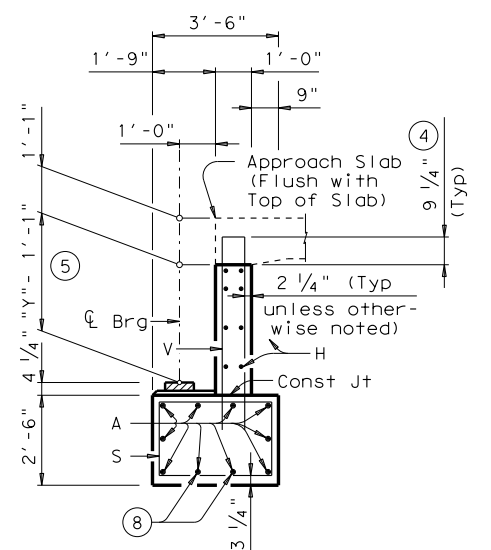
**GENERAL NOTES:**

- Designed according to AASHTO LRFD Specifications.
- Concrete strength  $f'c = 3,600$  psi.
- All cap and wall reinforcing must be Grade 60.
- Galvanize dowel bars D.
- See Bridge Layout for header slope and foundation type, size and length.
- See Foundation Detail Standard Sheet, FD, for all foundation details and notes.
- See Concrete Riprap Standard Sheet, CRR, for riprap attachment details, if applicable.
- See applicable rail details for rail anchorage in wingwalls.
- Details are drawn showing right forward skew. See Bridge Layout for actual skew direction.
- These abutment details may be used with Standard SXB-40-30 only.



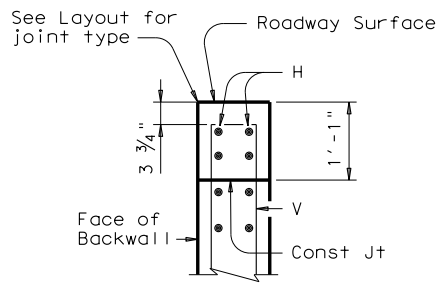
SHOWING DRILLED SHAFTS      SHOWING PILES

**ELEVATION**



**SECTION A-A**

(With Approach Slab) ⑥



**BACKWALL DETAIL**

(Without Approach Slab) ⑥

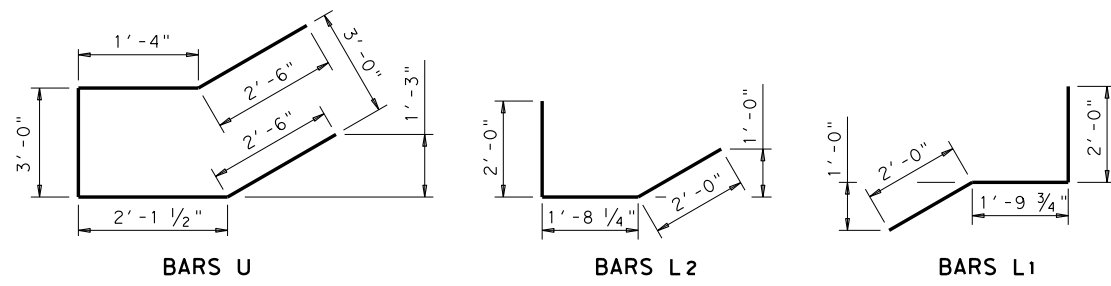
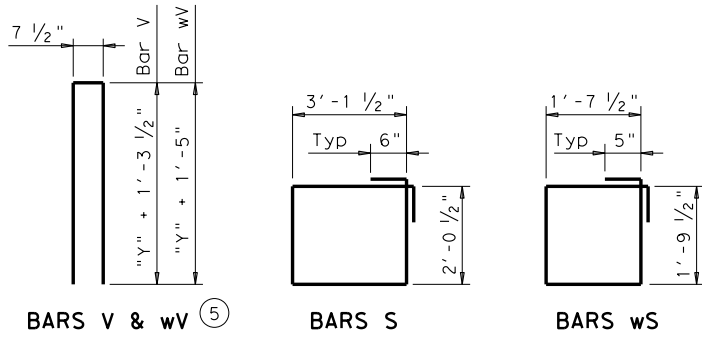
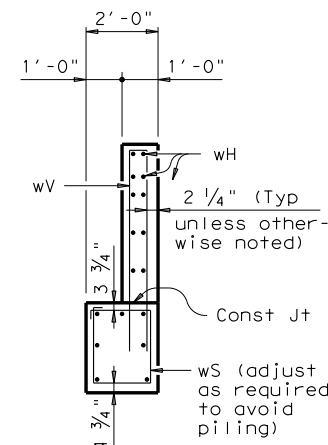
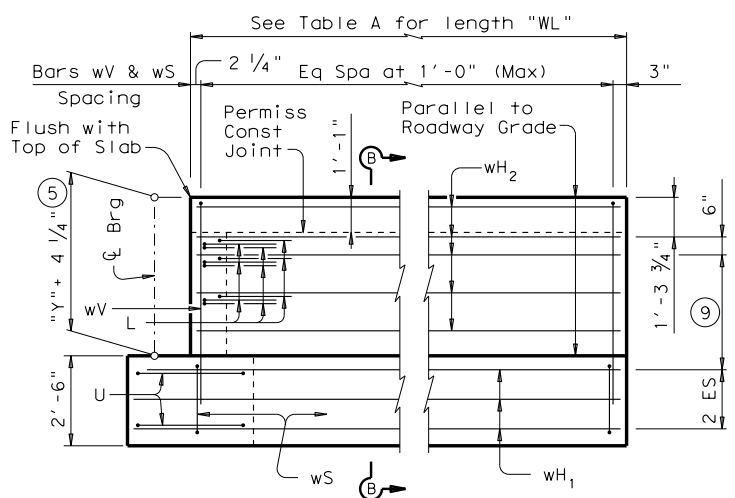
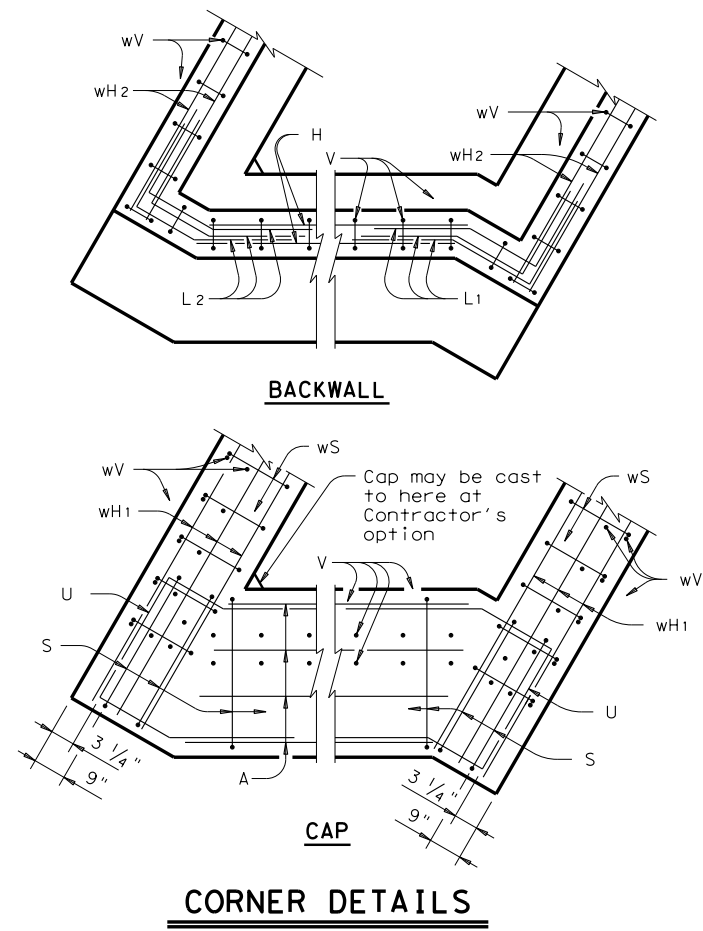
TABLE A											
Header Slope	Beam Type	Wingwall Type	Wingwall Lgth "WL"	"W1"	"Z1"	"W2"	"Z2"				
2:1	XB20	Cantilevered	9.000'	Not Applicable							
	XB28	Cantilevered	10.000'								
	XB34	Cantilevered	11.000'								
	XB40	Cantilevered	12.000'								
3:1	XB20	Cantilevered	12.000'	Not Applicable							
	XB28	Founded	14.000'					1.445'	9.593'	9.055'	8.593'
	XB34	Founded	16.000'					2.195'	10.892'	9.805'	9.892'
	XB40	Founded	18.000'					2.945'	12.191'	10.555'	11.191'



**ABUTMENTS**  
TYPE 5XB20 THRU 5XB40  
PRESTR CONC X-BEAMS  
40' ROADWAY 30° SKEW  
AXB-40-30

FILE: xbstde63.dgn	DN: JMH	CK: AM	DW: JTR	CK: JMH
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	DIST	COUNTY		SHEET NO.

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TABLES OF ESTIMATED QUANTITIES WITH 2:1 HEADER SLOPE <sup>(13)</sup>

TYPE 5XB20 BEAMS					TYPE 5XB28 BEAMS					TYPE 5XB34 BEAMS					TYPE 5XB40 BEAMS								
Bar	No.	Size	Length	Weight	Bar	No.	Size	Length	Weight	Bar	No.	Size	Length	Weight	Bar	No.	Size	Length	Weight				
A	10	#11	43'-11"	2,333	A	10	#11	43'-11"	2,333	A	10	#11	43'-11"	2,333	A	10	#11	43'-11"	2,333				
D (7)	2	1 1/4"D	1'-8"	14	D (7)	2	1 1/4"D	1'-8"	14	D (7)	2	1 1/4"D	1'-8"	14	D (7)	2	1 1/4"D	1'-8"	14				
H	6	#6	43'-11"	396	H	8	#6	43'-11"	528	H	8	#6	43'-11"	528	H	8	#6	43'-11"	528				
L1	9	#6	5'-10"	79	L1	9	#6	5'-10"	79	L1	9	#6	5'-10"	79	L1	9	#6	5'-10"	79				
L2	9	#6	5'-8"	77	L2	9	#6	5'-8"	77	L2	9	#6	5'-8"	77	L2	9	#6	5'-8"	77				
S	44	#5	11'-4"	520	S	44	#5	11'-4"	520	S	44	#5	11'-4"	520	S	44	#5	11'-4"	520				
U	4	#6	11'-6"	69	U	4	#6	11'-6"	69	U	4	#6	11'-6"	69	U	4	#6	11'-6"	69				
V	47	#5	8'-5"	413	V	47	#5	9'-9"	478	V	47	#5	10'-9"	527	V	47	#5	11'-9"	576				
wH1	14	#6	10'-5"	219	wH1	14	#6	11'-5"	240	wH1	14	#6	12'-5"	261	wH1	14	#6	13'-5"	282				
wH2	16	#6	8'-8"	208	wH2	20	#6	9'-8"	290	wH2	20	#6	10'-8"	320	wH2	20	#6	11'-8"	350				
wS	20	#4	7'-8"	102	wS	22	#4	7'-8"	113	wS	24	#4	7'-8"	123	wS	26	#4	7'-8"	133				
wV	20	#5	8'-8"	181	wV	22	#5	10'-0"	229	wV	24	#5	11'-0"	275	wV	26	#5	12'-0"	325				
Reinforcing Steel				Lb	4,611	Reinforcing Steel				Lb	4,970	Reinforcing Steel				Lb	5,126	Reinforcing Steel				Lb	5,286
Class "C" Concrete				CY	23.6	Class "C" Concrete				CY	25.8	Class "C" Concrete				CY	27.7	Class "C" Concrete				CY	29.6

TABLES OF ESTIMATED QUANTITIES WITH 3:1 HEADER SLOPE <sup>(13)</sup>

TYPE 5XB20 BEAMS					TYPE 5XB28 BEAMS					TYPE 5XB34 BEAMS					TYPE 5XB40 BEAMS								
Bar	No.	Size	Length	Weight	Bar	No.	Size	Length	Weight	Bar	No.	Size	Length	Weight	Bar	No.	Size	Length	Weight				
A	10	#11	43'-11"	2,333	A	10	#11	43'-11"	2,333	A	10	#11	43'-11"	2,333	A	10	#11	43'-11"	2,333				
D (7)	2	1 1/4"D	1'-8"	14	D (7)	2	1 1/4"D	1'-8"	14	D (7)	2	1 1/4"D	1'-8"	14	D (7)	2	1 1/4"D	1'-8"	14				
H	6	#6	43'-11"	396	H	8	#6	43'-11"	528	H	8	#6	43'-11"	528	H	8	#6	43'-11"	528				
L1	9	#6	5'-10"	79	L1	9	#6	5'-10"	79	L1	9	#6	5'-10"	79	L1	9	#6	5'-10"	79				
L2	9	#6	5'-8"	77	L2	9	#6	5'-8"	77	L2	9	#6	5'-8"	77	L2	9	#6	5'-8"	77				
S	44	#5	11'-4"	520	S	44	#5	11'-4"	520	S	44	#5	11'-4"	520	S	44	#5	11'-4"	520				
U	4	#6	11'-6"	69	U	4	#6	11'-6"	69	U	4	#6	11'-6"	69	U	4	#6	11'-6"	69				
V	47	#5	8'-5"	413	V	47	#5	9'-9"	478	V	47	#5	10'-9"	527	V	47	#5	11'-9"	576				
wH1	14	#6	13'-5"	282	wH1	14	#6	15'-5"	324	wH1	14	#6	17'-5"	366	wH1	14	#6	19'-5"	408				
wH2	16	#6	11'-8"	280	wH2	20	#6	13'-8"	411	wH2	20	#6	15'-8"	471	wH2	20	#6	17'-8"	531				
wS	26	#4	7'-8"	133	wS	30	#4	7'-8"	154	wS	34	#4	7'-8"	174	wS	38	#4	7'-8"	195				
wV	26	#5	8'-8"	235	wV	30	#5	10'-0"	313	wV	34	#5	11'-0"	390	wV	38	#5	12'-0"	476				
Reinforcing Steel				Lb	4,831	Reinforcing Steel				Lb	5,300	Reinforcing Steel				Lb	5,548	Reinforcing Steel				Lb	5,806
Class "C" Concrete				CY	25.3	Class "C" Concrete				CY	28.3	Class "C" Concrete				CY	31.0	Class "C" Concrete				CY	33.9

- (5) See Span details for "Y" value.
- (7) Omit Dowels D at end of unit. Deduct 14 lbs from reinforcing steel total.
- (9) Spacing based on beam type:  
 XB20 ~ 2 Equal Spaces  
 XB28 ~ 3 Equal Spaces  
 XB34 ~ 3 Equal Spaces  
 XB40 ~ 3 Equal Spaces
- (13) Quantities shown are for one Abutment only (with Approach Slab). With no Approach Slab, add 1.8 CY Class "C" Concrete and 264 Lbs Reinforcing Steel for 4 additional H bars.

**ABUTMENTS**  
 TYPE 5XB20 THRU 5XB40  
 PRESTR CONC X-BEAMS  
 40' ROADWAY 30° SKEW  
**AXB-40-30**

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