

DESIGNED BY SHIK LEE DATE JUNE 19 70  
 CHECKED BY L. Kohlmann DATE JUNE 19 70  
 CHECKED BY J. J. Swanson DATE JAN. 15 1971

BAR LIST — 1 Pier 0° Skew

MARK	SIZE	NO	TYPE	"X"	"Y"	LENGTH	WEIGHT
B401	4	36	B			8'-4	200
B402	4	36	C			3'-2	76
B901	9	12	A	34'-8		37'-2	1516
B702	7	72	Str.			4'-0	589
B701	7	22	Str.			2'-4	105
B501	5	11	D	1'-9		5'-9	66
B403	4	2	str.			34'-8	46
B703	7	48	str.			3'-0	294
							Total lbs.: 2,892

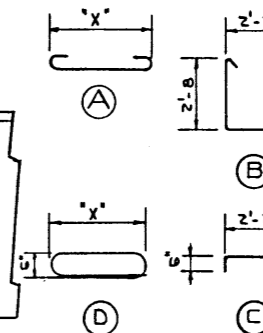
BAR LIST — 1 Pier 15° Skew

MARK	SIZE	NO	TYPE	"X"	"Y"	LENGTH	WEIGHT
B401	4	37	B			8'-4	206
B402	4	37	C			3'-2	78
B901	9	12	A	35'-8		38'-2	1557
B702	7	72	Str.			4'-0	589
B701	7	22	Str.			2'-4	105
B501	5	11	D	1'-9		5'-9	66
B403	4	2	str.			35'-8	48
B703	7	48	str.			3'-0	294
							Total lbs.: 2,943

BAR LIST — 1 Pier 30° Skew

MARK	SIZE	NO	TYPE	"X"	"Y"	LENGTH	WEIGHT
B401	4	41	B			8'-4	228
B402	4	41	C			3'-2	87
B901	9	12	A	39'-8		42'-2	1720
B702	7	72	Str.			4'-0	589
B701	7	22	Str.			2'-4	105
B501	5	11	D	1'-9		5'-9	66
B403	4	2	str.			39'-8	53
B703	7	48	str.			3'-0	294
							Total lbs.: 3,142

BAR TYPES:  
 (All dimensions are out to out)



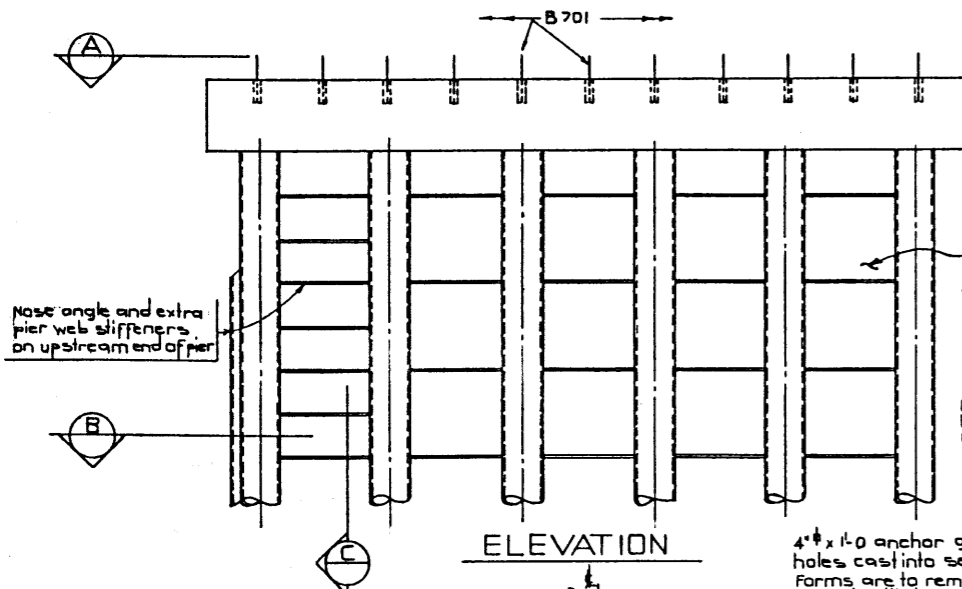
GENERAL NOTES:

- All requirements of the Bridge Branch Specification for the Supply of Structural Steel for Bridges. (Specification No. B187-64) shall be met, except that no shop paint shall be applied to pipe piles and 6" along edges of pier webs.
- All welding shall conform to A.W.S. Specification. When temperature is below 32°F preheat the base metal to at least 200°F for 3" both laterally and in advance of the welding. Welding shall not be done when the temperature is lower than 0°F unless protection is provided for the operator and the enclosure is heated to at least 70°F.
- Painting Specification: Pier webs shall receive one coat of primer in the shop and two finish coats in the field. Pipe piles and 6" along edges of pier webs shall receive one coat of primer and two finish coats all applied in the field. Primer shall conform to CGSB Spec 1-GP-166A Type III and shall have a dry thickness of 1.5 to 2.5 mils. Before painting, all steel shall be sandblasted in accordance with SSPC-SP-6-63 T of the Steel Structures Painting Council. Pipe piles shall be sandblasted after pier webs have been installed. Painting shall not commence until approval of the cleaning has been obtained from the Engineer.
- Steel for pier webs shall meet A.S.T.M. A36 or CSA G40.12.
- 20" diameter pipe piles shall be driven to elevations shown on General Layout or to the following bearing values when bearing capacity is determined by a bearing formula.
 

Span Length (ft.)	35	40	45	50	55	60
Bearing Capacity (tons)	50	55	60	60	65	70
- Concrete shall be of standard weight aggregate with a maximum size of 3/4". Minimum compressive strength shall be 4000 p.s.i. at 28 days. Air entrainment shall be not less than 5%. Units are to conform to the requirements of the Bridge Branch Specifications for Manufacture of Precast Concrete Units, B-191-64.
- Pier caps shall be supported on top or bottom surface at points indicated during hauling.
- All exposed corners to have 3/8" fillet or chamfer.
- All concrete surfaces except top of pier cap shall be given a class 5 finish. Top of pier cap to be class 1.
- All reinforcing steel shall have 2" clear cover unless otherwise noted.
- Pier cap shall be plant cast in a single unit.
- Neoprene bearing pads:
 

0° skew	18" x 3/8" x 35'-0, 60 Hardness
15° skew	18" x 3/8" x 36'-0, 60 Hardness
30° skew	18" x 3/8" x 40'-0, 60 Hardness
- Weight of precast pier caps:
 

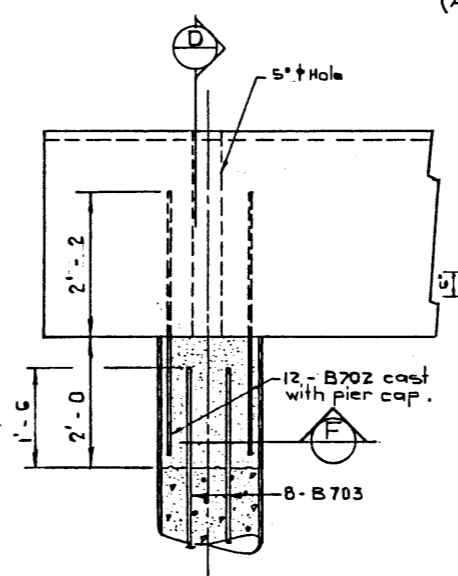
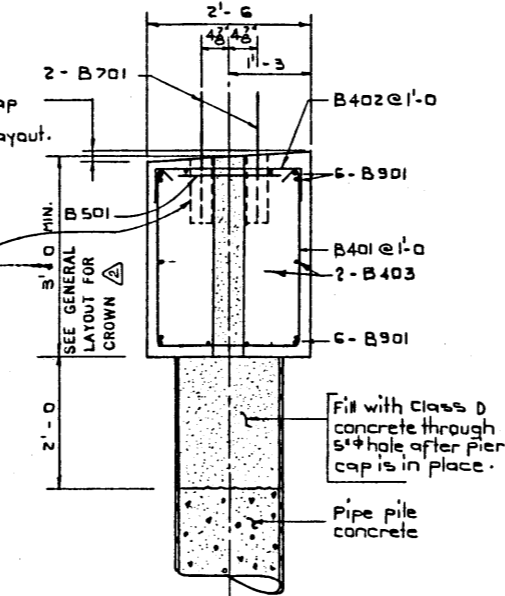
0° skew	39.4 kips
15° skew	40.5 kips
30° skew	45.0 kips



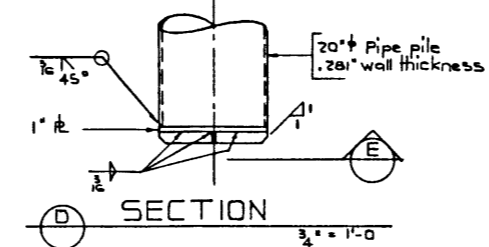
See General Layout for dimensions & elevations of steel webs. Not req'd for grade separations/railway overpasses.

For pier cap level see General Layout.

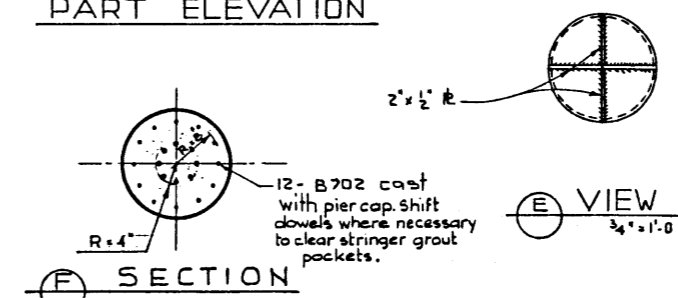
4" x 1'-0 anchor grout holes cast into seat. Forms are to remain sealed until dowels are to be grouted.



PART ELEVATION

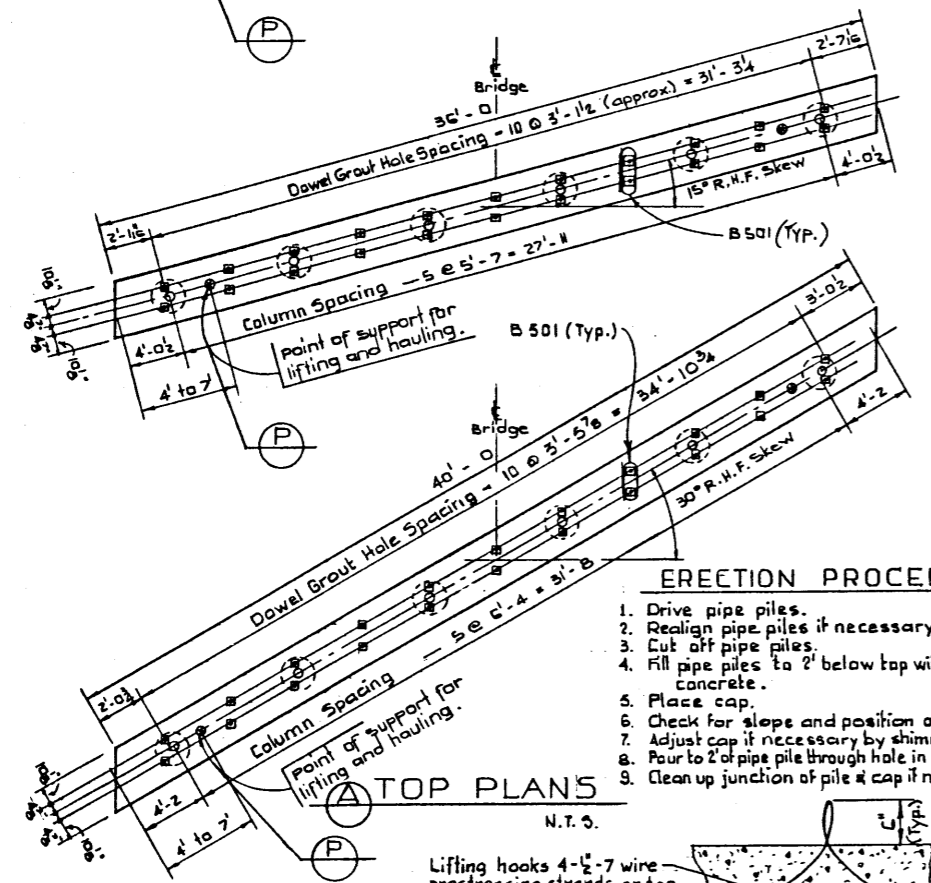
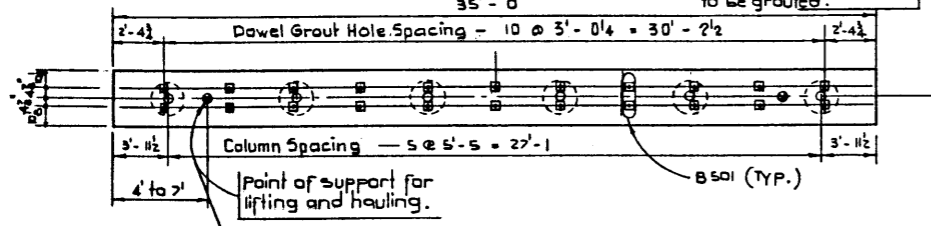


SECTION



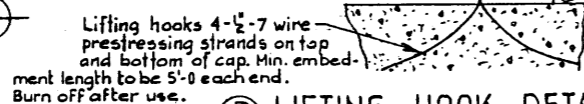
SECTION

VIEW

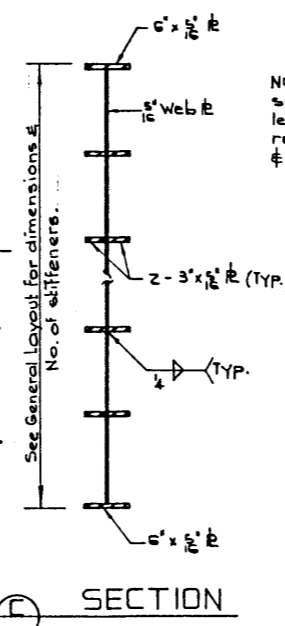


ERECTION PROCEDURE

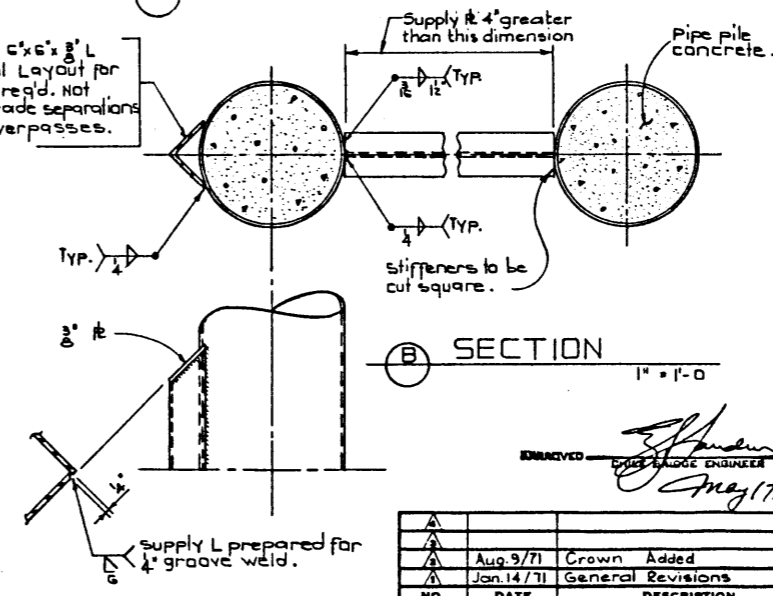
1. Drive pipe piles.
2. Realign pipe piles if necessary.
3. Cut off pipe piles.
4. Fill pipe piles to 2' below top with pipe pile concrete.
5. Place cap.
6. Check for slope and position of cap.
7. Adjust cap if necessary by shimming.
8. Pour to 2' of pipe pile through hole in cap.
9. Clean up junction of pile & cap if necessary.



LIFTING HOOK DETAIL



SECTION



SECTION

STANDARD TYPE M BRIDGE  
 30' ROADWAY, R.H.F. SKEW  
 PIER

GOVERNMENT OF THE PROVINCE OF ALBERTA  
 DEPARTMENT OF HIGHWAYS AND TRANSPORT  
 BRIDGE BRANCH, EDMONTON

NO.	DATE	DESCRIPTION	BY
1	Aug. 9/71	Crown Added	
2	Jan. 14/71	General Revisions	R.G.Q.

FILE NO. \_\_\_\_\_ HWY. NO. \_\_\_\_\_ DWG. NO. \_\_\_\_\_  
 LOCATION \_\_\_\_\_ SCALE \_\_\_\_\_ SHEET \_\_\_\_\_ OF \_\_\_\_\_