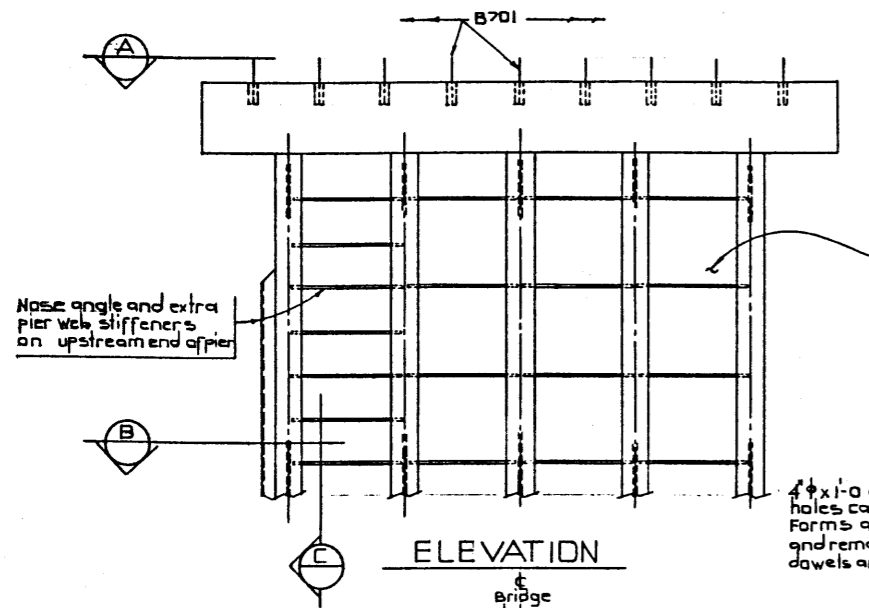


| BAR LIST - 1 Pier 0° Skew |      |    |      |       |       |                   |
|---------------------------|------|----|------|-------|-------|-------------------|
| MARK                      | SIZE | NO | TYPE | "X"   | "Y"   | WEIGHT            |
| B401                      | 4    | 30 | B    |       | 8'-4  | 167               |
| B402                      | 4    | 30 | C    |       | 3'-2  | 63                |
| B901                      | 9    | 12 | A    | 28'-8 | 31'-2 | 1272              |
| B701                      | 7    | 18 | Str. |       | 2'-4  | 86                |
| B501                      | 5    | 9  | D    | 1'-9  | 5'-0  | 54                |
| B403                      | 4    | 2  | Str. |       | 28'-8 | 38                |
|                           |      |    |      |       |       | Total lbs.: 1,680 |

| BAR LIST - 1 Pier 15° Skew |      |    |      |       |       |                   |
|----------------------------|------|----|------|-------|-------|-------------------|
| MARK                       | SIZE | NO | TYPE | "X"   | "Y"   | WEIGHT            |
| B401                       | 4    | 31 | B    |       | 8'-4  | 173               |
| B402                       | 4    | 31 | C    |       | 3'-2  | 66                |
| B901                       | 9    | 12 | A    | 29'-8 | 32'-2 | 1312              |
| B701                       | 7    | 18 | Str. |       | 2'-4  | 86                |
| B501                       | 5    | 9  | D    | 1'-9  | 5'-0  | 54                |
| B403                       | 4    | 2  | Str. |       | 29'-8 | 40                |
|                            |      |    |      |       |       | Total lbs.: 1,731 |

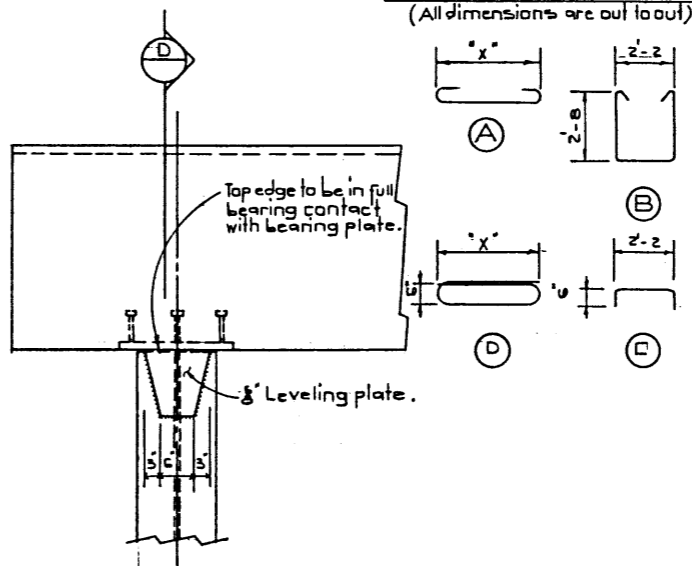
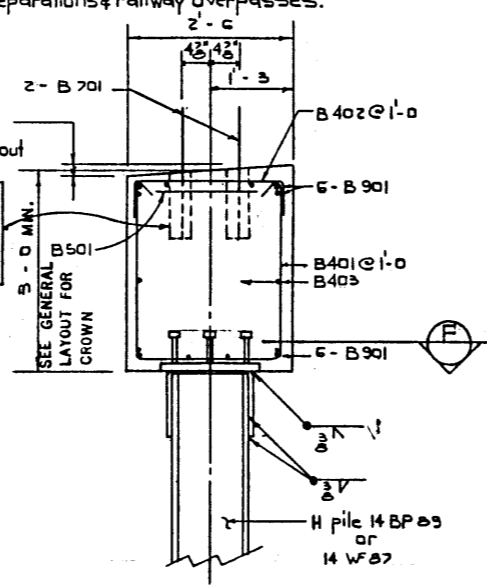
| BAR LIST - 1 Pier 30° Skew |      |    |      |       |       |                   |
|----------------------------|------|----|------|-------|-------|-------------------|
| MARK                       | SIZE | NO | TYPE | "X"   | "Y"   | WEIGHT            |
| B401                       | 4    | 34 | B    |       | 8'-4  | 189               |
| B402                       | 4    | 34 | C    |       | 3'-2  | 72                |
| B901                       | 9    | 12 | A    | 32'-8 | 35'-2 | 1435              |
| B701                       | 7    | 18 | Str. |       | 2'-4  | 86                |
| B501                       | 5    | 9  | D    | 1'-9  | 5'-9  | 54                |
| B403                       | 4    | 2  | Str. |       | 32'-8 | 44                |
|                            |      |    |      |       |       | Total lbs.: 1,880 |



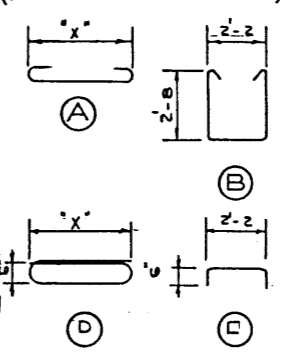
See General Layout for dimensions & elevations of steel webs. Not req'd for grade separations & railway overpasses.

for pier cap level see General Layout

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



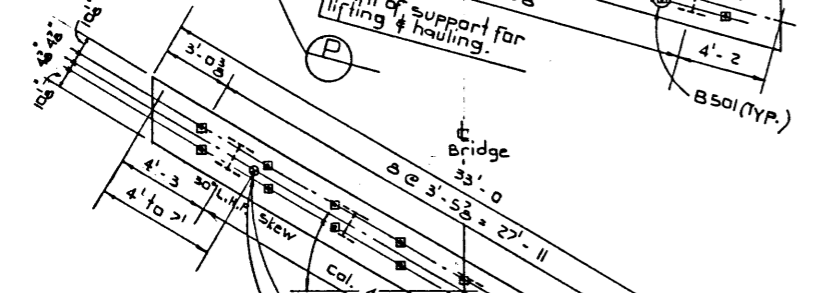
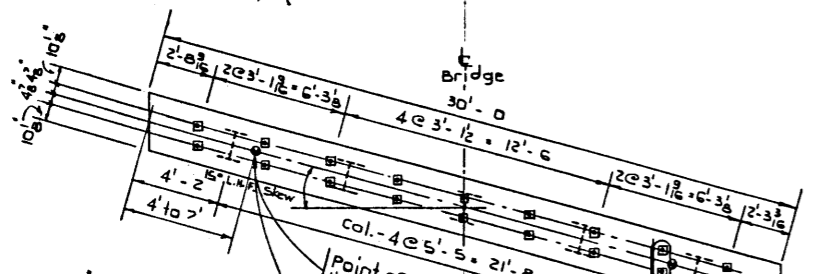
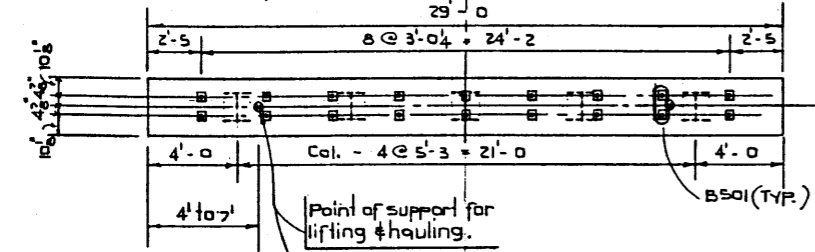
**BAR TYPES**  
(All dimensions are out to out)



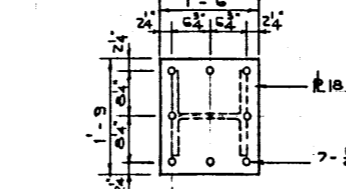
**GENERAL NOTES**

- 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 H 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. H 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. H 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.
- Steel H pipe pile shall be driven to elevations shown on General Layout or to the following bearing values when bearing capacity is determined by a bearing formula.
 

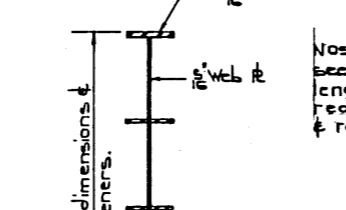
|                         |    |    |    |    |    |    |
|-------------------------|----|----|----|----|----|----|
| Span Length (ft.)       | 35 | 40 | 45 | 50 | 55 | 60 |
| Bearing Capacity (tons) | 60 | 60 | 65 | 70 | 70 | 75 |
- Concrete shall be of standard weight aggregate with a maximum size 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 3/4" 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 29'-0, 60 Hardness
  - 15° skew - 18" x 3/8" x 30'-0, 60 Hardness
  - 30° skew - 18" x 3/8" x 33'-0, 60 Hardness
- Weight of precast pier caps:
  - 0° skew - 32.6 kips
  - 15° skew - 33.8 kips
  - 30° skew - 37.1 kips



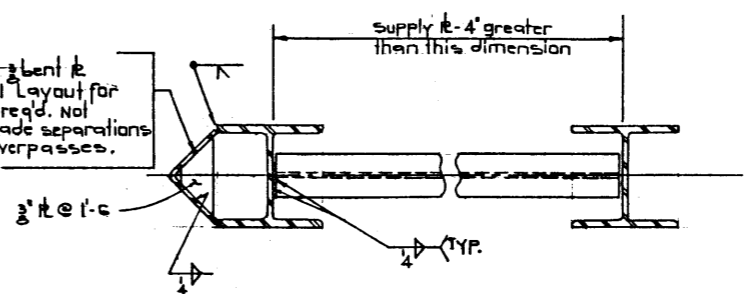
**SECTION D-D**



**SECTION E-E**



**PART ELEVATION**

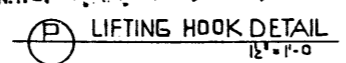


**SECTION B-B**

**ERECTION PROCEDURE**

1. Drive H piles.
2. Realign H piles if necessary.
3. Cut off H piles.
4. Install pier web and stiffeners.
5. Place cap.
6. Check for slope and position of cap.
7. Adjust cap if necessary by shimming.
8. Weld leveling plates.

**TOP PLANS**



**SECTION C-C**



|                       |             |                                                                              |          |
|-----------------------|-------------|------------------------------------------------------------------------------|----------|
| APPROVED              |             | PROVINCE OF ALBERTA<br>DEPARTMENT OF HIGHWAYS AND TRANSPORT<br>BRIDGE BRANCH |          |
| CHIEF BRIDGE ENGINEER |             | STANDARD TYPE M BRIDGE<br>24' ROADWAY, L.H.F. SKEW<br>PIER (H Piles)         |          |
| DESIGNED              | DRAWN BY    | DATE                                                                         | DWG. NO. |
| T. Belke              | L. Kohlmann | June 1971                                                                    | S-1037   |