ALLOW FOR TIGHTENING FACE OF GIRDER WEB (TYP.)

**BRACKET**

**BOTTOM OF GIRDER**

**PLAN**

**SECTION A1**

**DRAIN CASTING DETAIL**

**SECTION A2**

**BRACKET DETAIL**

**FLOOR DRAIN TYPE 'GC'**

**NOTES**

ALL MATERIAL FOR FLOOR DRAINS SHOWN ON THIS SHEET SHALL BE INCLUDED IN THE BID ITEM "FLOOR DRAIN TYPE GC".

ALL MATERIAL FOR DOWNSPOUTS AND BRACKETS AS SHOWN ON THIS SHEET SHALL BE INCLUDED IN THE BID ITEM "DOWNSPOUT 6-INCH".

LOCATION OF HOLES FOR BRACKET ANCHORAGE ON THE PREVIOUS SHEET SHALL BEINCLUDED IN THE BID ITEM "DOWNSPOUT 6-INCH".

BRACKET DETAIL NOT TO BE USED OVER RAILROADS BECAUSE IT VIOLATES CLEARANCE REQUIREMENTS. CONTACT RAILROAD AND MARINERS AREAS SECTION FOR GUIDANCE.
**FACE OF GIRDER WEB**

1. **TIGHTENING**
   - Allow for G.F.
   - Ensure bolts are tight.

2. **HOLD DOWN BOLT**
   - CL.
   - Bend line.
   - Seal weld inside of drain.
   - Use low hydrogen electrodes.

3. **BRACKET DETAIL**
   - Fabricator may use a 3/8" stainless steel bar (4 per SQ. NUT, 1" long). Weld nut down bolt with hex head and 3/8" dia. stainless steel hold down bolt (min.) as shown.
   - Alternate brackets are not allowed.

4. **SECTION AT HOLD DOWN BOLT**
   - Position trans. bar trans. bar.
   - Keep 3" top of slab from top of slab.
   - Weld all bars at hold down bolt.

5. **GRATE DETAIL**
   - Attach grate to frame for shipment.
   - Grate detail not to be used over guardrails because it relates to clearance requirements. Contact designer and fabricator for further guidance.

6. **PART PLAN**
   - Place top edge of deck to frame.
   - Cross bars spaced 5/8", min. area.
   - Weld every 4th bar where possible.

7. **SECTION A1**
   - Locate holes to avoid shaped strands.
   - Location of holes for bracket anchorage on the prestressed girder sheet, shown on this sheet shall be included in the bid item “DOWNSPOUT 6-INCH.”

8. **SECTION A2**
   - Standard pipe conforming to ASTM A53.
   - Thermo-setting resin pipe (RTRP) or galvanized flanged 6" dia. downsputs shall be reinforced prior to galvanizing. A No. 6 blast cleaning is required.
   - Seal weld inside of drain.

9. **DESIGNER NOTES**
   - All materials for floor drains as shown on this sheet shall be included in the bid item "FLOOR DRAIN TYPE 'H".
   - All material for guardrails and brackets as shown on this sheet shall be included in the bid item "FLOOR DRAIN TYPE 'H".
   - On the prestressed girder sheet, sheet location of holes for bracket anchorage from top/bottom and end of girder.

10. **STANDARD PIPE CONFORMING TO ASTM A53.**
    - THERMOSETTING RESIN PIPE (RTRP) OR GALVANIZED FLANGED 6" DIA. DOWNSPUTS SHALL BE REINFORCED PRIOR TO GALVANIZING. A NO. 6 BLAST CLEANING IS REQUIRED.
    - WELD EVERY 4TH BAR WHERE POSSIBLE.

11. **ALL STEEL SHALL BE GALVANIZED. WELDS SHALL BE SEAMLESS AND WELDED INSIDE OF DRAIN.**
    - MADE WITH LOW HYDROGEN ELECTRODES.

12. **ALL MATERIAL FOR FLOOR DRAINS AS SHOWN ON THIS SHEET SHALL BE INCLUDED IN THE BID ITEM "FLOOR DRAIN TYPE 'H".**
    - ALTERNATE BRACKETS ARE NOT ALLOWED.

13. **MATERIAL FOR BRACKETS SHALL CONFORM TO ASTM A36.**
    - ALL DRAIN MATERIAL INCLUDING GRATE, EXCLUDING PIPE & STRANDS TO AVOID DRAPED LOCATE HOLES BOTTOM OF GIRDER FLANGE OF EXTERIOR GIRDER (1'-0" MAXIMUM).

14. **EXTEND DOWNSPOUT 6" MINIMUM PAST BOTTOM FROM TOP/BOTTOM AND END OF GIRDER.**

15. **LOCATION OF HOLES FOR BRACKET ANCHORAGE ON THE PRESTRESSED GIRDER SHEET, SHOWED ON THIS SHEET SHALL BE INCLUDED IN THE BID ITEM "DOWNSPOUT 6-INCH."**

16. **SHOWN ON THIS SHEET SHALL BE INCLUDED IN THE BID ITEM "FLOOR DRAIN TYPE 'H".**

17. **FLOOR DRAIN TYPE 'H".**
    - Standard pipe conforming to ASTM A53.
    - Thermo-setting resin pipe (RTRP) or galvanized flanged 6" dia. downsputs shall be reinforced prior to galvanizing. A No. 6 blast cleaning is required.
    - Seal weld inside of drain.