



|      |        |   |                              |             |              |
|------|--------|---|------------------------------|-------------|--------------|
| DIST | COUNTY | ROUTE                                       | KILOMETER POST TOTAL PROJECT | SHEET NO.   | TOTAL SHEETS |
| 07   | LA     | 5, 10, 50, 30, 101, 105, 134, 170, 405, 805 | Var                          | 322         | 1697         |
|      |        | REGISTERED CIVIL ENGINEER                   |                              | 5-15-03     |              |
|      |        | REGISTERED CIVIL ENGINEER                   |                              | 2-2-04      |              |
|      |        | PLANS APPROVAL DATE                         |                              | 61452       |              |
|      |        | No.   |                              | EXP 6-30-05 |              |
|      |        | REGISTERED PROFESSIONAL ENGINEER            |                              | CIVIL       |              |
|      |        | STATE OF CALIFORNIA                         |                              |             |              |

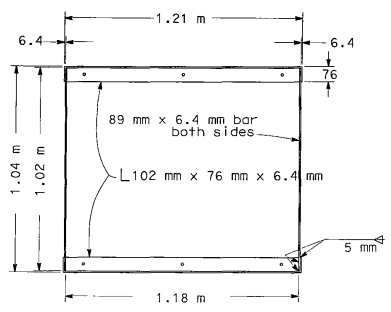
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Caltrans now has a web site! To get to the web site, go to: <http://www.dot.ca.gov>

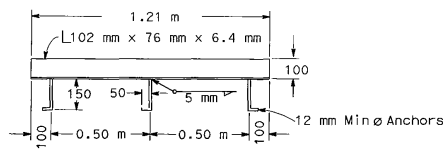
REVISOR  
 REVISION  
 DATE  
 REVISION  
 DATE  
 REVISION  
 DATE

PROJECT ENGINEER  
 WING-YAN LEE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**HYDRAULICS**

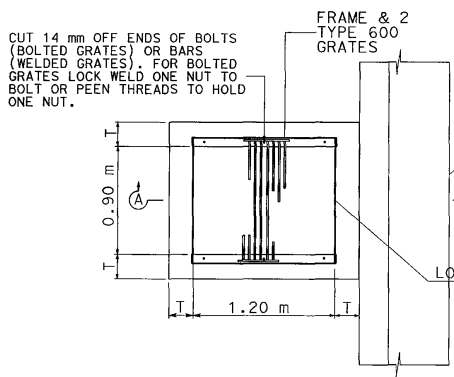


**GRATE FRAME DETAIL**

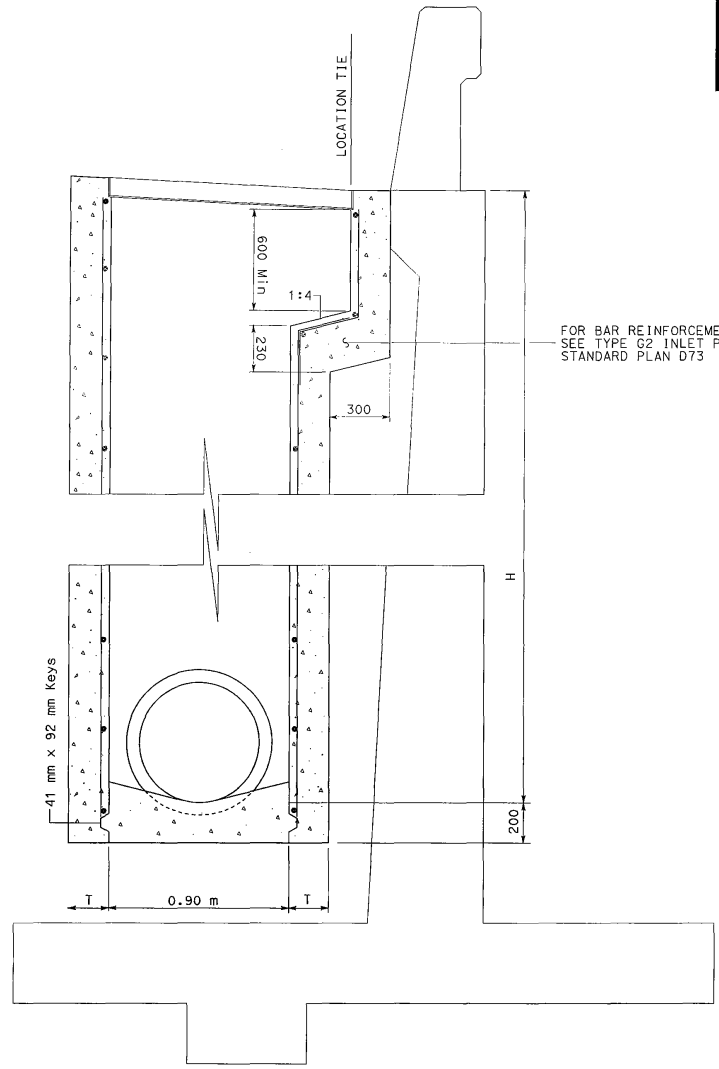


**ANCHOR PLACEMENT DETAIL**

For grate, frame and anchor placement details see Standard Plans D77A and D77B



**PLAN**



**SECTION A-A**

**GD-1 INLET (MODIFIED)**

FOR BAR REINFORCEMENT SEE TYPE G2 INLET PER STANDARD PLAN D73

**NOTES**

- 'H' is the difference in elevation between the outlet pipe flow line and the flow line of the grates.
- Steps - None required when 'H' is 1.07 m or less. Install one step 400 mm above floor when 'H' is more than 1.07 m and less than 1.52 m. Where 'H' is more than 1.52 m steps shall be evenly spaced @ 300 mm intervals from 400 mm above floor to within 300 mm of the top of the box. Place steps in wall without pipe openings. See Standard Plan D74C for step detail.
- Pipe(s) can be placed in any wall.
- Reinforcing steel not required in walls when H=1.8 m or less.
- Reinforcing steel in walls shall be #13 bars @ 450 mm centers placed 40 mm clear to inside of box.
- FOR ISOLATION JOINT DETAIL, SEE SHEET D-113.

**MISCELLANEOUS IRON & STEEL**

| Inlet Type | Grate Type | MASS(kg) |
|------------|------------|----------|
| GD-1       | 600 - 12   | 264      |

| H                | †      |
|------------------|--------|
| 2.50 m or less   | 150 mm |
| 2.51 m to 6.00 m | 200 mm |

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS SHOWN OTHERWISE  
**DRAINAGE DETAILS**  
 NO SCALE

**D-89**

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS

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CU 07312

FA 117811

LAST REVISION DATE PLOTTED 03-11-FEB-2004  
 00-00-00 TIME PLOTTED 05:18:11