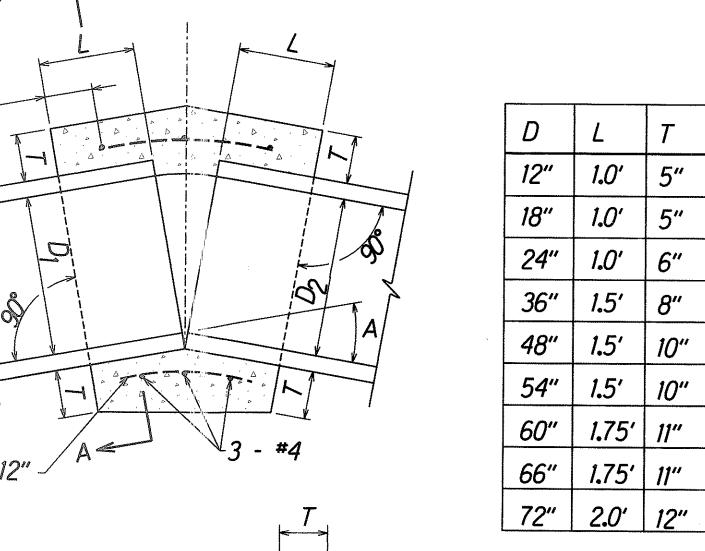
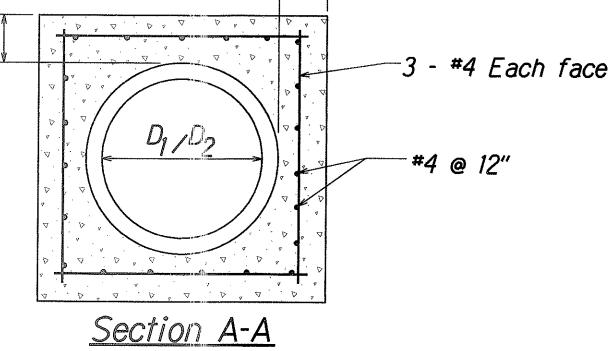


BITUMINOUS GUTTER DETAIL

FISCAL YEAR SHEET TOTAL SHEETS HAW. 378A-01-00MR 2001





<u>Notes</u>

- 1. Where pipes of different diameters are joined with a concrete collar, L and T shall be those of the larger pipe D=D1 or D2 whichever is greater.
- 2. For pipe sizes not listed use next larger size.
- 3. Omit reinforcing on pipes 24" and less in diameter and on all pipes where angle A is less than 10°.
- 4. Join pipes at inverts.
- 5. Reinforcement shall be placed 1½" clear from outside diameter of pipe.
- 6. All concrete collar work shall be considered incidental to the various storm drain items.

CONCRETE COLLAR DETAIL



This work was prepared by 162 or under my supervision and construction of this project will be under my observation.

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION

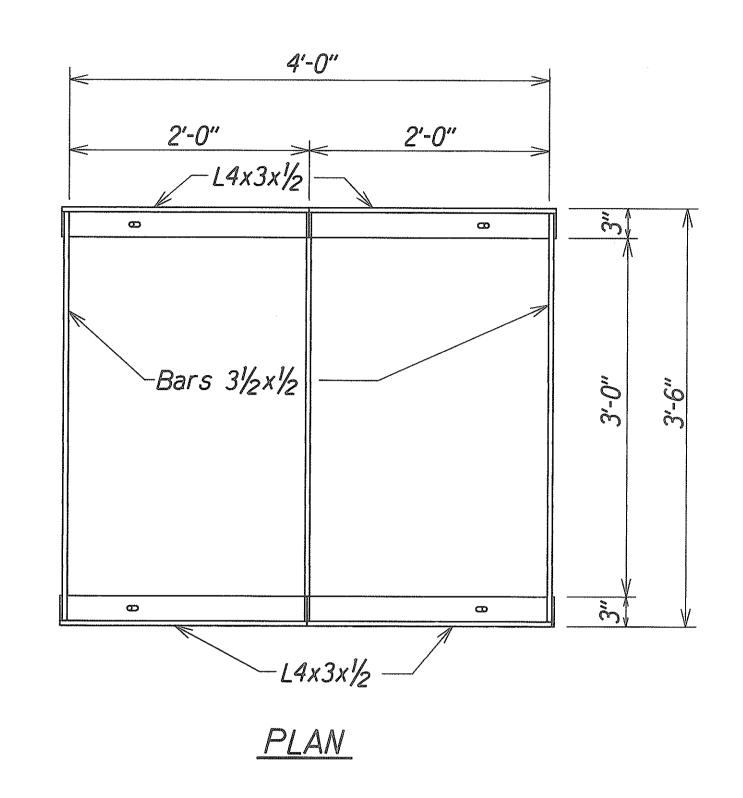
MISCELLANEOUS DETAILS

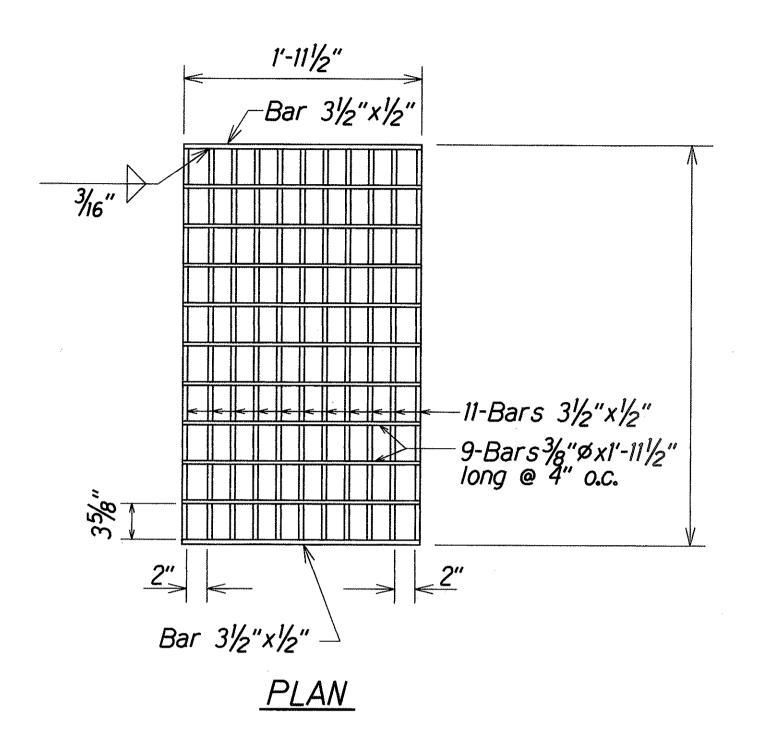
HALEAKALA CRATER ROAD REPAIRS AND MAINTENANCE PROJECT NO. 378A-01-00MR

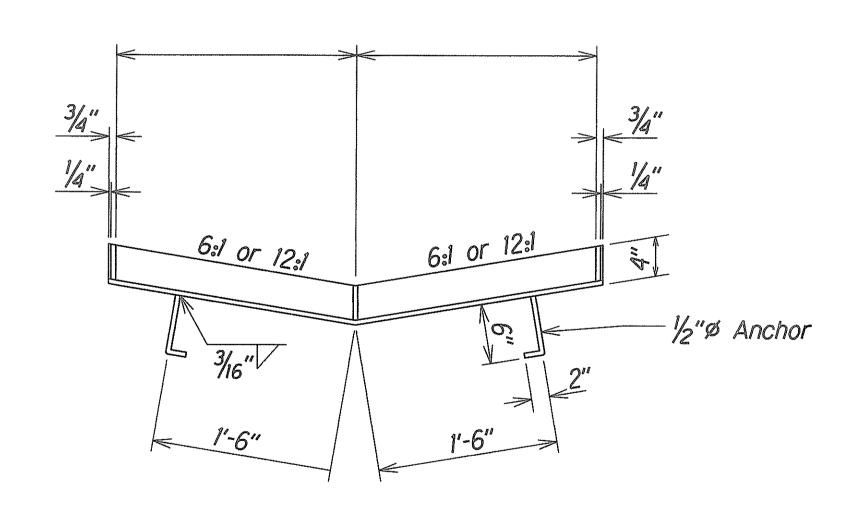
Scale: NTS Date: January, 2001

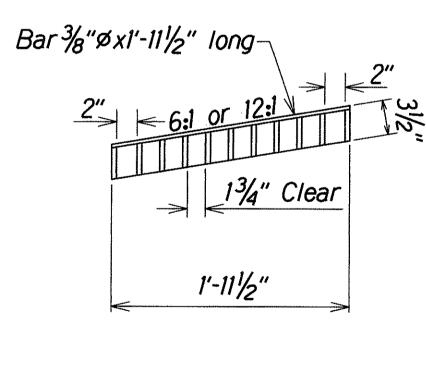
SHEET No. 1 OF 2 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	<i>378A-01-00M</i> R	2001	18	73









SECTION

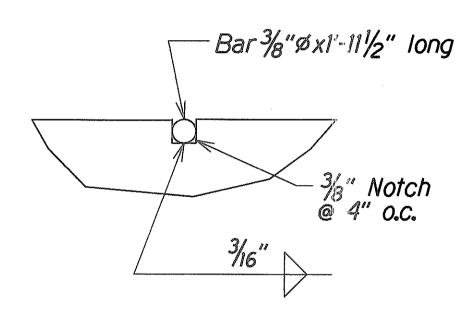
SECTION

<u>FRAME</u>

<u>GRATE</u>

NOTE: All welds¾" unless otherwise noted.

TYPICAL DETAILS OF TYPE 61614P OR 1211214P STEEL FRAME AND GRATES



NOTCH DETAIL



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

DATE: 5/3/0/

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION

MISCELLANEOUS DETAILS

HALEAKALA CRATER ROAD
REPAIRS AND MAINTENANCE
PROJECT NO. 378A-01-00MR

e: NTS Date: January, 2001
SHEET No. 2 OF 2 SHEETS

40

18

