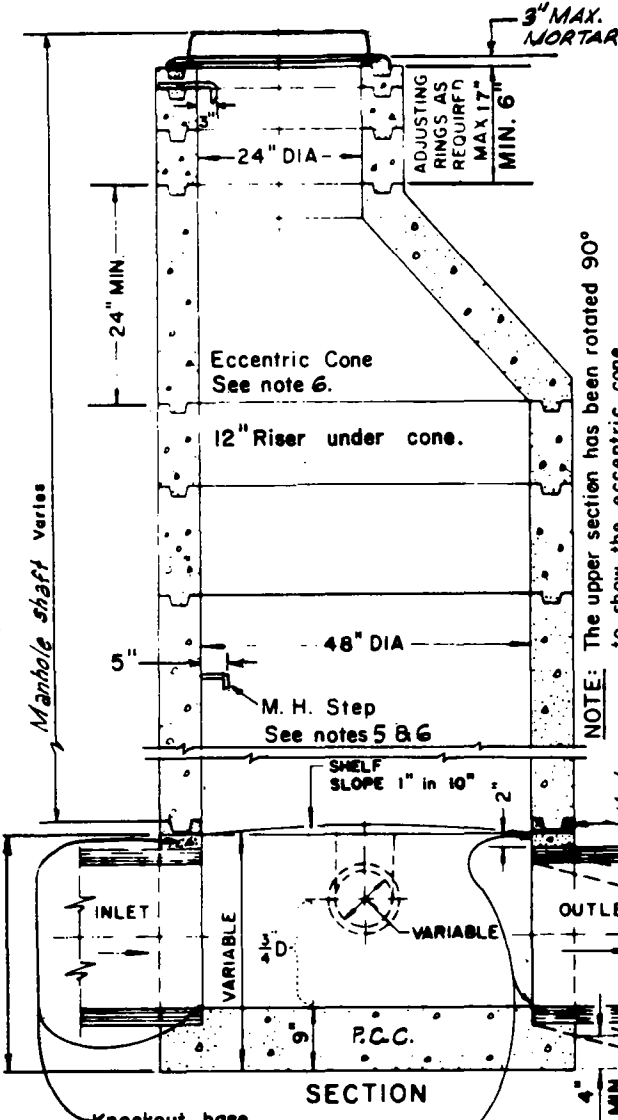
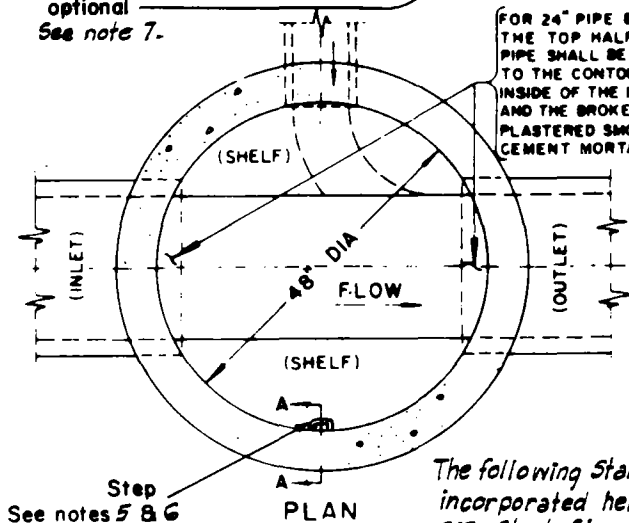


Varies. Manhole base cast in place - See note 7



Knockout base optional
See note 7.



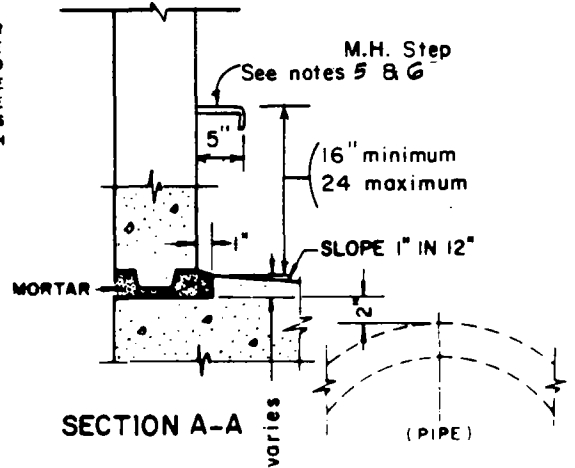
Step
See notes 5 & 6

FOR 24\"/>

The following Standard Plans are incorporated herein:
615 Steel Step.
616 Manhole Frame & Cover.

NOTES:

1. Except as noted hereon, precast units shall be manufactured and tested in accordance with A.S.T.M. C-478. The curing of the precast units shall conform to Section 207-2.7 of the Standard Specifications.
2. Riser sections and eccentric cones may be reinforced or nonreinforced. Reinforced sections shall be reinforced in accordance with A.S.T.M. C-478 and shall have a minimum wall thickness of 4". Minimum wall thickness for nonreinforced sections shall be 6".
3. Joints shall be tongue and groove and shall conform to A.S.T.M. C-478 Section 14.
4. Precast units shall be assembled using Class "C" mortar conforming with Section 201-5.1 of the Standard Specifications.
5. Manhole steps shall conform to Std. Plan 615. The manhole steps shall be uniformly spaced at a maximum of 16". Where the distance from the top step in the shaft is greater than 12" below finish grade, a step shall be installed below the manhole frame. The lowest step shall be placed not less than 16" nor more than 24" above the shelf. The top step and those in the 24" diameter section project 3" inside the manhole and all others 5". Steps shall be factory cast into manhole shafts.
6. The eccentric cone shall be positioned so that the steps will be vertical and centered over the vacant shelf.
7. A knock out shaft section may be substituted for cast in place base, as shown, in which case the precast unit shall conform to A.S.T.M. C-478.



SECTION A-A

REVISIONS		CITY OF LONG BEACH, CALIFORNIA DEPARTMENT OF PUBLIC WORKS	STANDARD PLAN NO.
NO.	DATE		
1		MANHOLE TYPE D 27" PIPE OR SMALLER	619
2			
3			
4			
APPROVED BY: <i>Edward J. Kelly</i>		DATE: 6-26-89	SHEET
CITY ENGINEER R.E. No. 24233		EX. DATE 12-31-89	1 OF 1