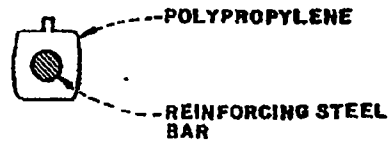
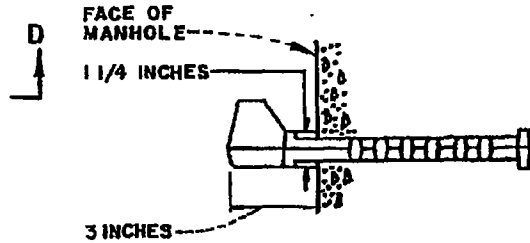


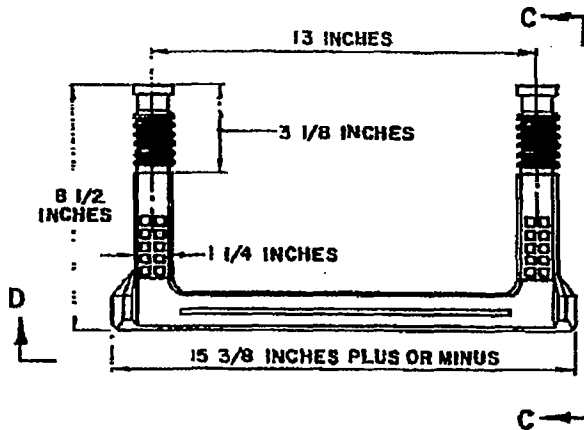
**PLAN  
STANDARD FIELD-USE  
SAFETY STEP**



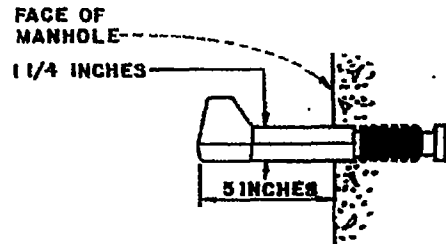
**TYPICAL  
SECTION A-A**



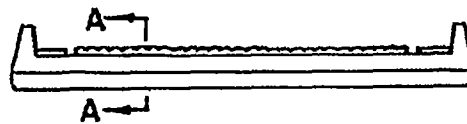
**ELEVATION B-B**



**PLAN  
STANDARD CAST-IN-PLACE  
SAFETY STEP**



**ELEVATION C-C**



**TYPICAL  
ELEVATION D-D**

**NOTES**

1. CAST-IN-PLACE STEP TO BE USED IN ALL PRECAST REINFORCED CONCRETE MANHOLE SHAFTS.
2. FIELD-USE STEP TO BE USED FOR PLACEMENT BETWEEN GRADE RINGS.
3. BOTH STEPS TO BE MADE OF POLYPROPYLENE ASTM TYPE II GRADE 43758 IN CONFORMANCE WITH ASTM C-478 PARAGRAPH 11.
4. REINFORCING STEEL BAR TO BE 1/2 INCH DIAMETER COLD DRAWN STEEL; MINIMUM TENSILE STRENGTH 80,000 POUNDS PER SQUARE INCH, PER ASTM A-82.

**LONG BEACH WATER DEPARTMENT**

**STEPS**

DESIGNED BY	RECOMMENDED
CHECKED BY JUNIER	<i>Stanley</i> BUREAU ENGINEER C.E. NO. 18113
DATE 5-25-89	APPROVED
SCALE NONE	<i>W. C. Williams, P.E.</i> GENERAL MANAGER C.E. NO. 10844
SUPERSEDES DWG. NO. S-SD-9	SHEET
DRAWN BY STANLEY	4 OF 4 <b>WDG-505</b>