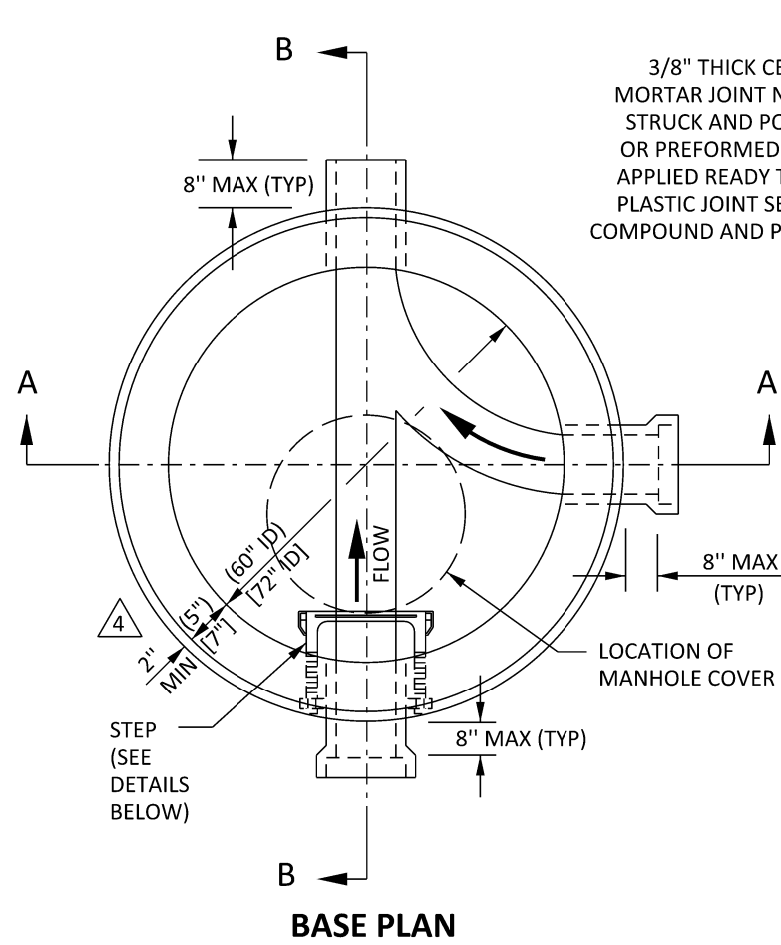
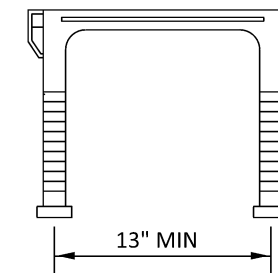
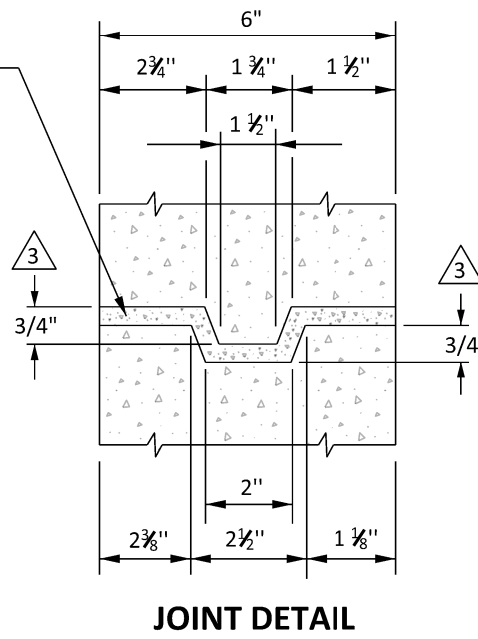


**NOTES:**

1. PRECAST REINFORCED CONCRETE MANHOLES SHALL CONFORM TO APPLICABLE REQUIREMENTS OF ASTM C-478 AND:
  - A. SHALL BE DESIGNED FOR AASHO H-20 LOADING.
  - B. CONCRETE SHALL BE COMPACTLY VIBRATED, CENTRIFUGALLY SPUN, OR MECHANICALLY TAMPED.
2. SEWER MAINS ARE TO BE LAID THRU THE MANHOLE WHERE POSSIBLE AND USED AS A FORM FOR THE INVERT. THE TOP 1/2 DIAMETER OF THE PIPE IS TO BE BROKEN OUT TO A NEAT LINE. BROKEN EDGES SHALL BE PLASTERED SMOOTH WITH CEMENT MORTAR.
3. CONCRETE BASE SHALL BE OF CLASS "A" CONCRETE AND PLACED IN ONE OPERATION. CONCRETE INVERTS SHALL BE TO GRADE AND ALIGNMENT AND FINISHED WITH A SMOOTH SURFACE. SPECIAL CARE SHALL BE USED IN FORMING ALL CHANNELS TO FACILITATE THE FLOW OF SEWAGE.
4. ALL MANHOLE TOPS SHALL BE INSTALLED WITH THE MANHOLE COVER OVER THE UPSTREAM INLET, EXCEPT AS OTHERWISE SPECIFIED.
5. SEE DWG SB-61 FOR DETAILS AND INSTALLATION OF MANHOLE COVER AND FRAME.
6. CONTRACTOR TO USE MANHOLES WITH A 24" CLEAR OPENING FOR SEWERS 24" DIA AND SMALLER AND 36" CLEAR OPENING FOR SEWERS LARGER THAN 24" UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
7. MANHOLE STEPS SHALL BE CAST IN PLACE AND ORIENTED 180° FROM MANHOLE OUTLET. GRADE RING STEPS SHALL BE PLACED BETWEEN GRADE RINGS AND GROUTED IN PLACE. BOTTOM STEP TO BE USED AS CLEANING HOOK AND SHALL BE PLACED 6" MIN AND 12" MAX FROM TOP OF SHELF.
8. DIMENSIONS PERTAINING TO 60" ID REINFORCED MANHOLES SHOWN IN PARENTHESES (""). DIMENSIONS PERTAINING TO 72" ID REINFORCED MANHOLES SHOWN IN BRACKETS [X"].

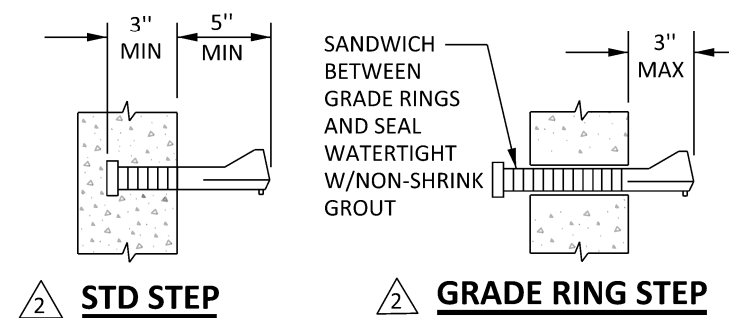


3/8" THICK CEMENT MORTAR JOINT NEATLY STRUCK AND POINTED OR PREFORMED COLD-APPLIED READY TO USE PLASTIC JOINT SEALING COMPOUND AND PRIMER



1/2" DIA ENCAPSULATED STEEL BAR TO BE PRECAST @ 15" OC AS SHOWN IN ELEVATION B-B

**MANHOLE STEPS DETAILS**



REVISIONS				APPROVALS			
NO.	DATE	INITIAL	DESCRIPTION	APP'D	DATE	INITIAL	DATE
5	6/28/19	GS	UPDATED TITLE BLOCK, FONT, LOGO AND PAGE LAYOUT	AGA	6/28/19	DESIGN	1/30/67
4	2/2/07	RE	REVISED NOTE 7 AND SECTIONAL ELEVATIONS	JM	2/2/06	CONSTRUCTION	
3	9/22/06	RE	REVISED NOTE 3 AND JOINT DETAIL DIMENSIONS	JM	9/25/06	INSPECTION	
2	12/11/96	KER	REVISED STEP DETAIL AND NOTE 8	VJB	12/11/96	OPERATIONS	
1	11/14/96	KER	REDRAWN W/CADD ON MYLAR	VJB	11/14/96	SUBMITTED	

REFERENCES:	SCALE: NONE
FILE I.D.: \kawaii\eng\std dwgs\SB-54.dgn	DRAWN BY: KER

RECOMMENDED	
DIRECTOR OF ENGINEERING	DATE



EASTERN MUNICIPAL WATER DISTRICT  
**STANDARD DRAWING**  
**PRECAST REINFORCED CONCRETE 60" & 72" ID FLAT TOP MANHOLE**

APPROVED Doyle F. Boen 1/67  
 ASSISTANT GENERAL MANAGER DATE

**SB-54**

