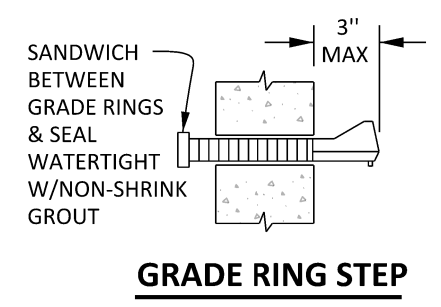
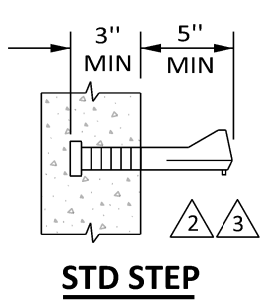
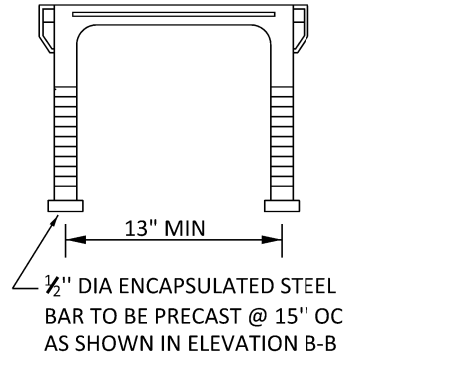
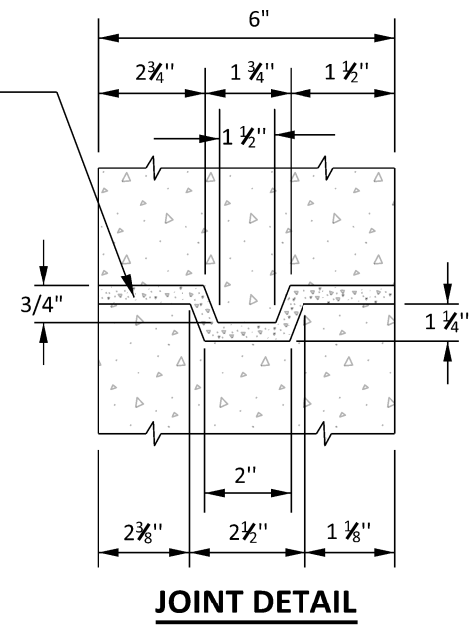
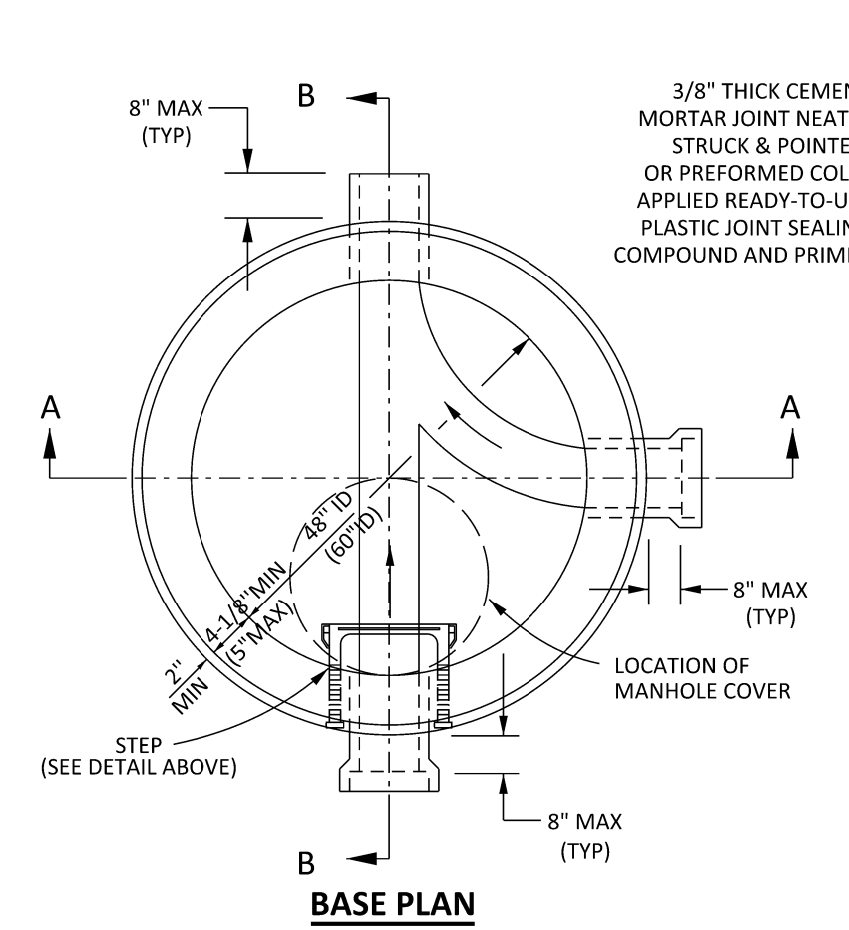


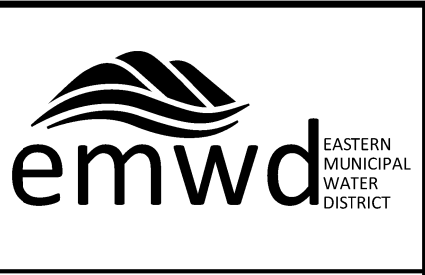
NOTES

1. PRECAST REINFORCED CONCRETE MANHOLES SHALL CONFORM TO THE 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 DRAWING 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" DIA UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
7. STANDARD 48" & 60" MANHOLES AS SHOWN HEREON TO BE INSTALLED WHEN DEPTH TO PIPE SHELF IS GREATER THAN 5' FROM FINISHED STREET GRADE.
8. MANHOLE STEPS SHALL BE EITHER CAST IN PLACE OR M.A. INDUSTRIES STEEL REINFORCED COPOLYMER POLYPROPYLENE PLASTIC DRIVE-IN STEP. INSTALLATION TO BE BY MANHOLE MANUFACTURER. ALL STEPS ORIENTED 180° FROM MANHOLE OUTLET. GRADE RING STEPS SHALL BE PLACED BETWEEN GRADE RINGS AND GROUTED IN PLACE. BOTTOM STEP SHALL BE CAST IN PLACE TO BE USED AS CLEANING HOOK AND SHALL BE PLACED 6" MIN AND 12" MAX FROM TOP OF SHELF.
9. DIMENSIONS PERTAINING TO 60" ID REINFORCED MANHOLES SHOWN IN PARENTHESES (X").
10. JOINT SHALL BE 3/8" THICK CEMENT MORTAR NEATLY STRUCK AND POINTED OR PREFORMED COLD-APPLIED READY-TO-USE PLASTIC JOINT SEALING COMPOUND AND PRIMER.
11. ALL MATERIALS TO BE PER EMWD APPROVED MATERIALS LIST.



REVISIONS				APPROVALS		
NO.	DATE	INITIAL	DESCRIPTION	APP'D	DATE	DATE
5	7/2/19	GS	UPDATED TITLE BLOCK, FONT, LOGO AND PAGE LAYOUT	ACA	7/2/19	1/31/67
4	1/9/03	CM	REVISED NOTE 8, M.A. IND. DRIVE-IN STEP	VJB	10/15/03	
3	12/11/96	KER	REVISED STEP DETAIL AND NOTE 8	VJB	12/11/96	
2	11/13/96	KER	REVISED STEP DETAIL AND NOTE 8	VJB	11/14/96	
1	8/6/96	KER	REDRAWN W/CADD ON MYLAR	VJB	8/7/96	

APPROVALS		
DESIGN	CONSTRUCTION	INSPECTION
M.M.		



EASTERN MUNICIPAL WATER DISTRICT
STANDARD DRAWING

**PRECAST REINFORCED CONCRETE STANDARD
48" & 60" I.D. MANHOLE**

REFERENCES: SUPERCEDES B-XXX
SCALE: NONE
DRAWN BY: KER

RECOMMENDED _____
DIRECTOR OF ENGINEERING _____ DATE _____

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

SB-53

