

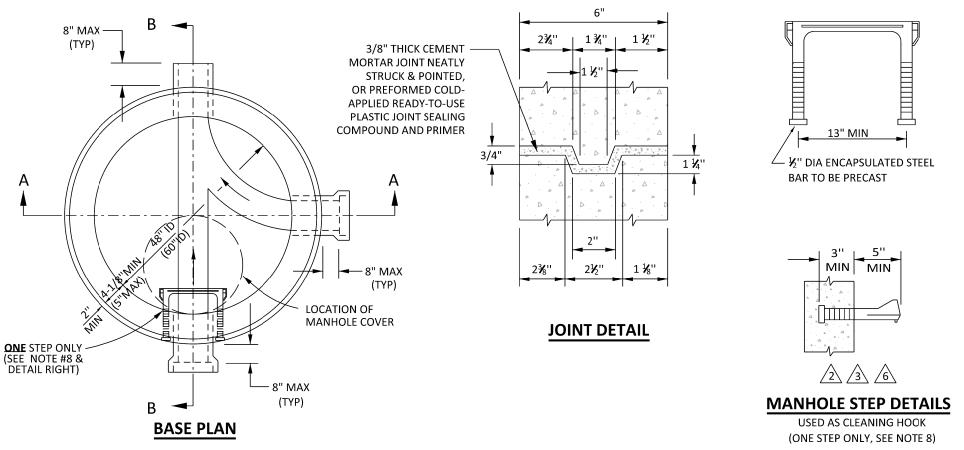
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## **NOTES**

**RECOMMENDED** 

- 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 FLOWOF 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.
- . MANHOLE STEP (ONE STEP ONLY) SHALL BE EITHER CAST IN PLACE OR M.A. INDUSTRIES STEEL REINFORCED COPOLYMER POLYPROPYLENE PLASTIC DRIVE-IN STEP. INSTALLATION TO BE BY MANHOLE MANUFACTURER. STEP ORIENTED 180° FROM MANHOLE OUTLET. 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.
- 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		INITIAL	DATE
<u></u>	7/7/21	GS	REVISED MANHOLE STEP NOTE AND DETAILS	AGA	7/7/21	DESIGN	McM	1/31/67
<u>/</u> 5\	7/2/19	GS	UPDATED TITLE BLOCK, FONT, LOGO AND PAGE LAYOUT	AGA	7/2/19	CONSTRUCTION		
4	1/9/03	CM	REVISED NOTE 8, M.A. IND. DRIVE-IN STEP	VJB	10/15/03	INSPECTION		
3	12/11/96	KER	REVISED STEP DETAIL AND NOTE 8	VJB	12/11/96	OPERATIONS		
2	11/13/96	KER	REVISED STEP DETAIL AND NOTE 8	VJB	11/14/96	SUBMITTED	LM	
RFFFRFNCFS: SUPERCEDES B-XXX				SCALE: N	ONE			

DRAWN BY: KER



DATE

DIRECTOR OF ENGINEERING

## STANDARD DRAWING

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

APPROVED Doyle J. Boen
ASSISTANT GENERAL MANAGER

SB-53

1/67