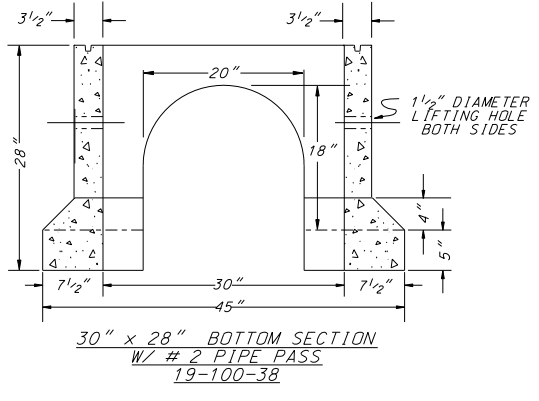
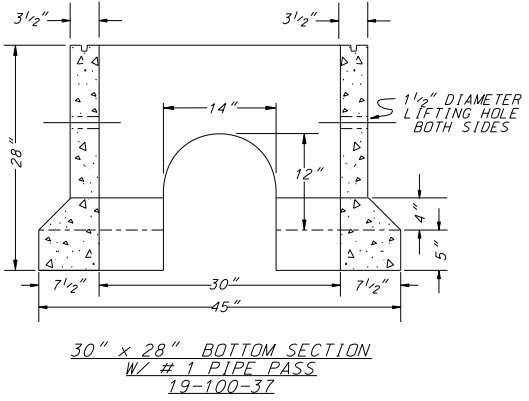
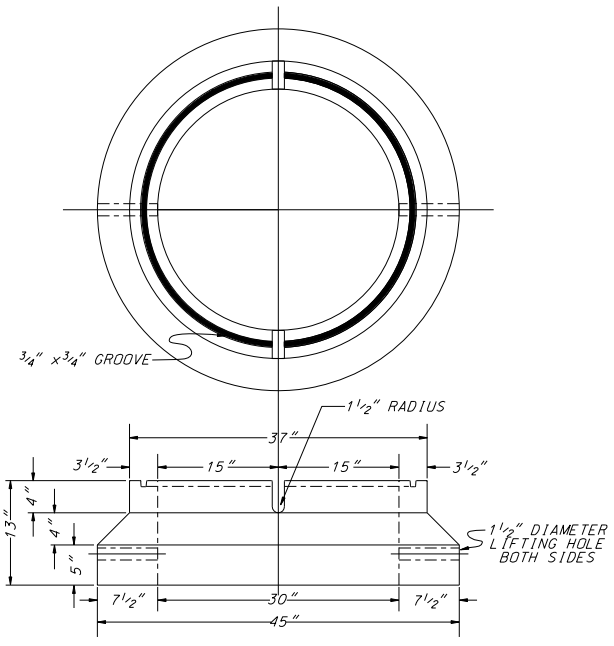
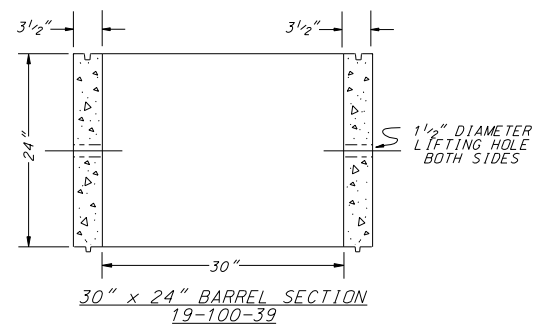
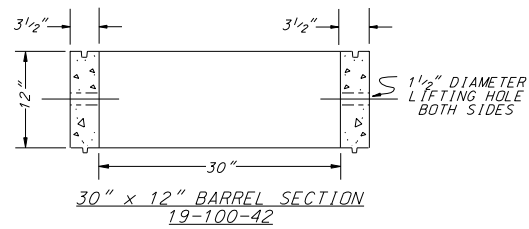
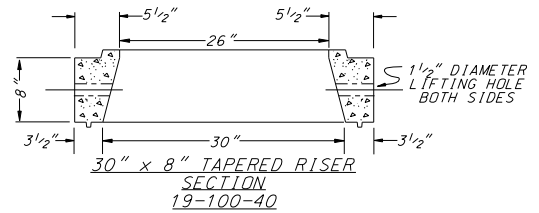
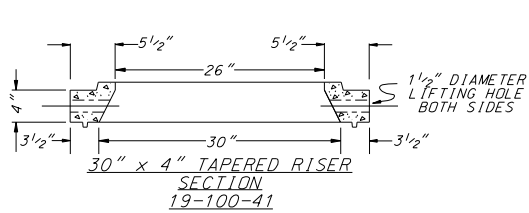
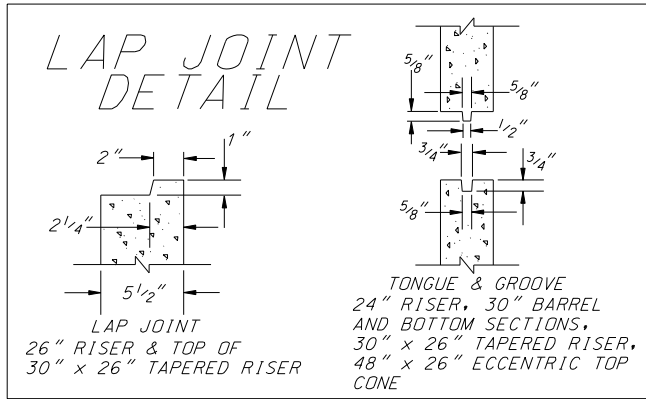


30" DIAMETER VAULTS

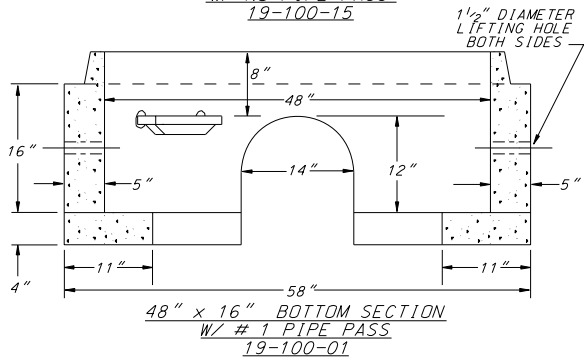
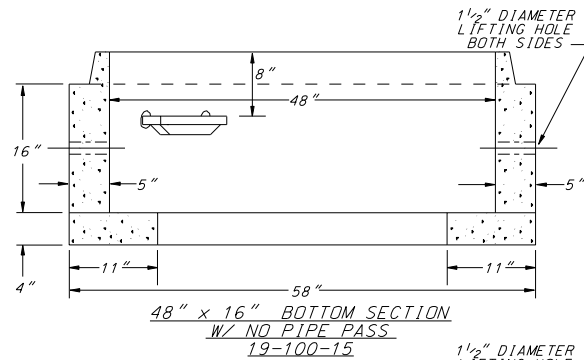
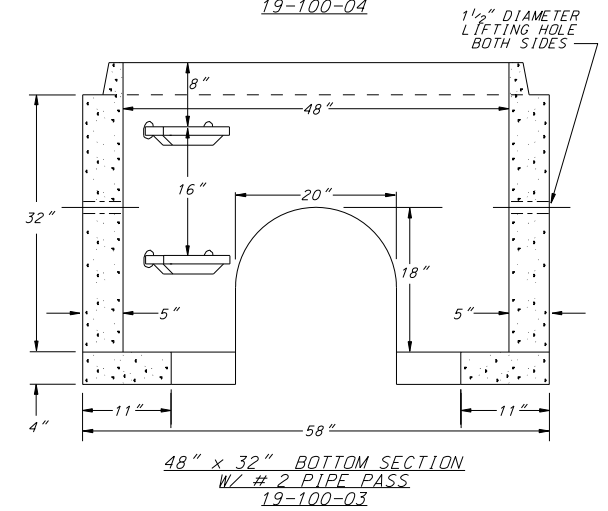
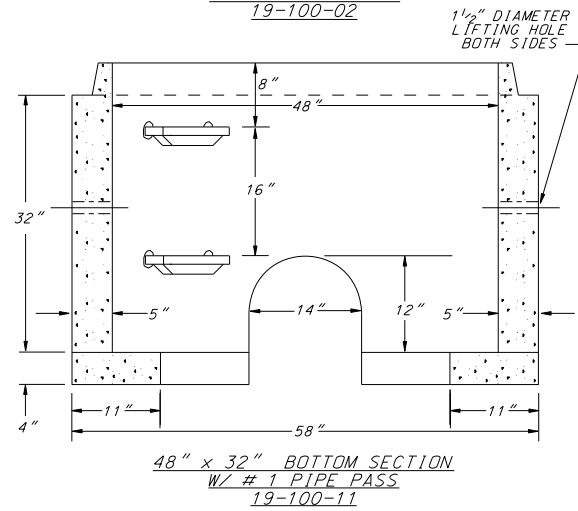
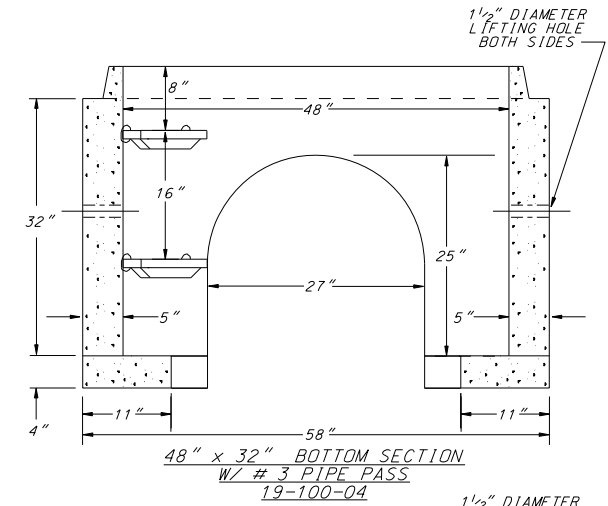
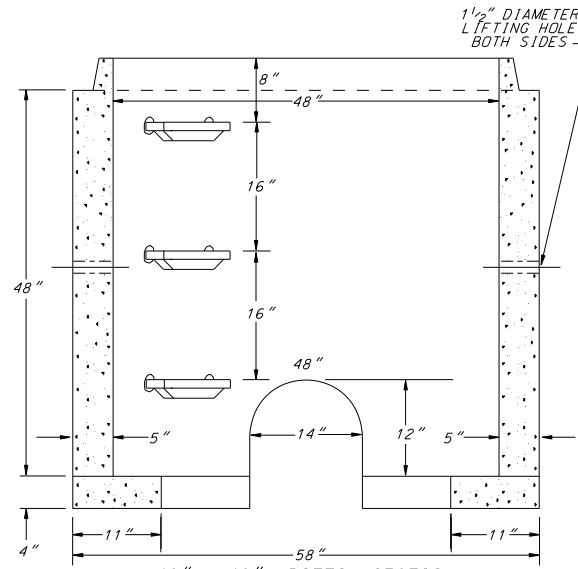
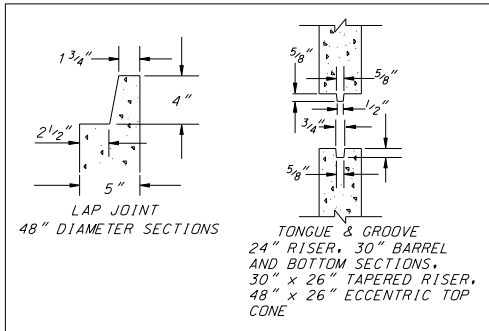


PIPE PASS for 30" MANHOLE			
OPENING NO.	HEIGHT	WIDTH	SIZE PIPE PASS REQ'D. FOR
NO. 1	12	14	4", 6" & 8" MAINS
NO. 2	18	20	10" & 12" "

METROPOLITAN UTILITY DISTRICT OMAHA, NEBRASKA		SCALE: NONE	
		DRAWN BY: W.R.T.	
30", 48", 54", 60" AND 72" PRECAST MANHOLE SECTIONS		PAGE	
		1 OF 11	
		DATE: 3-2001	
		ENG'R. CHK. BY:	
		REVISED DATE: 10-2009	
		REV. CHK. BY: MKM	
DRAWING 416235			

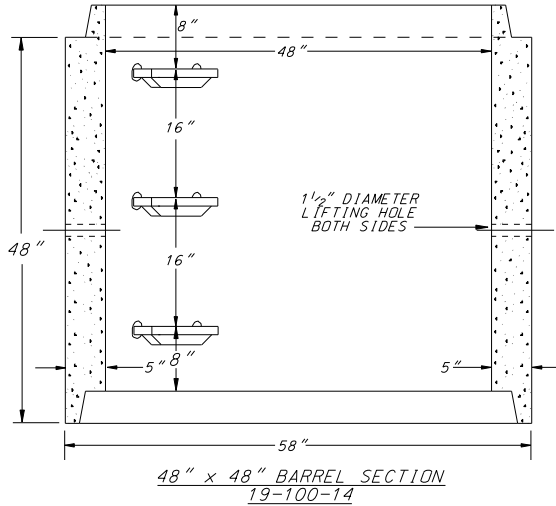
48" DIAMETER VAULTS

NOTE: ON ALL 48", 54", 60" AND 72" VAULT SECTIONS WITH PIPE PASSES, THE STEPS SHALL BE AT A 60° ANGLE FROM THE RUN OF THE PIPE PASSES.

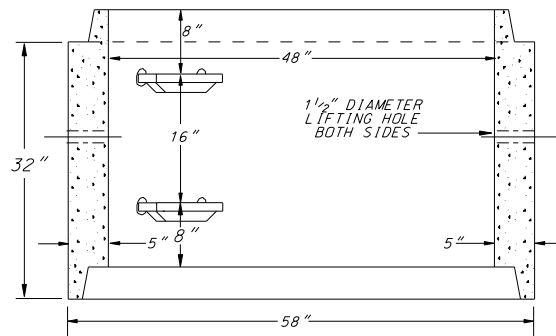


PIPE PASS for 48" MANHOLES			SIZE PIPE PASS REQ'D. FOR 4", 5" & 6" MAINS
OPENING NO.	HEIGHT	WIDTH	
NO. 1	12	14	10" & 12" "
NO. 2	18	20	14", 16", & 18" "
NO. 3	25	27	14", 16", & 18" "

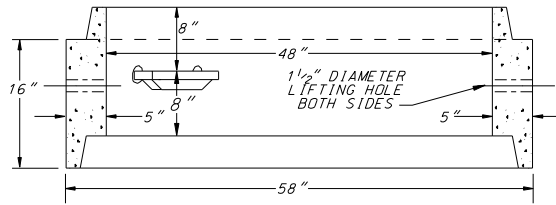
METROPOLITAN UTILITY DISTRICT OMAHA, NEBRASKA		SCALE: NONE
30", 48", 54", 60" AND 72" PRECAST MANHOLE SECTIONS		DRAWN BY: W.R.T.
DRAWING 416235	PAGE 2 OF 11	DATE: 3-2001
		ENG'R. CHK. BY:
		REVISED DATE: 10-2009
		REV. CHK. BY: MKM



48" x 48" BARREL SECTION
19-100-14

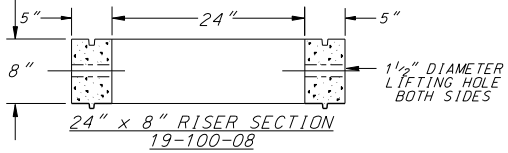


48" x 32" BARREL SECTION
19-100-06

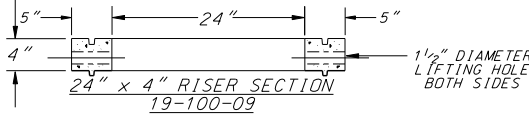


48" x 16" BARREL SECTION
19-100-05

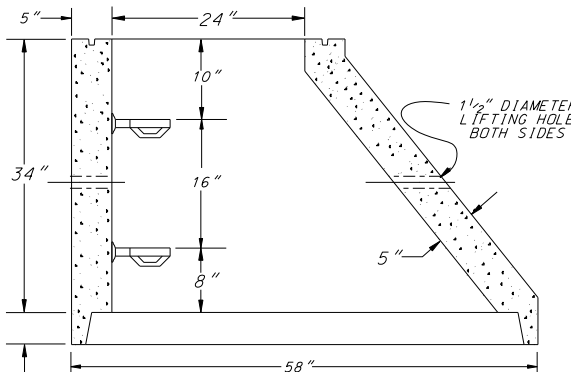
NOTE: ON ALL 48", 54", 60" AND 72" VAULT SECTIONS WITH PIPE PASSES, THE STEPS SHALL BE AT A 60° ANGLE FROM THE RUN OF THE PIPE PASSES.



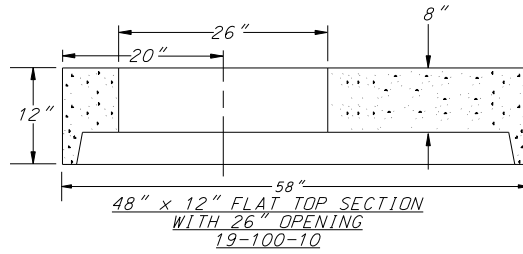
24" x 8" RISER SECTION
19-100-08



24" x 4" RISER SECTION
19-100-09

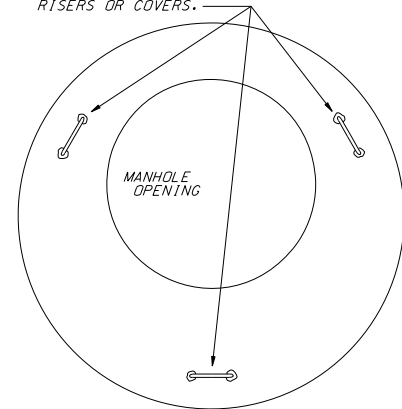


48" x 24" ECCENTRIC CONE SECTION
19-100-07

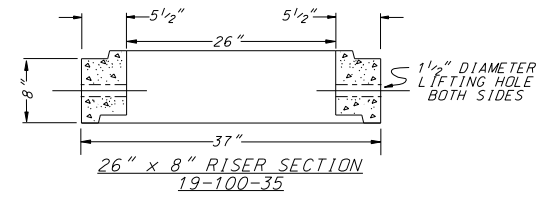


48" x 12" FLAT TOP SECTION
WITH 26" OPENING
19-100-10

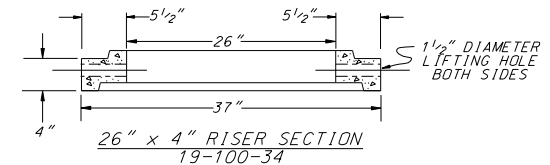
INSTALL 3 LIFTING CABLES ON ALL 48", 54", 60" AND 72" CONCRETE FLAT TOPS. THE LIFTING CABLES SHALL BE 3/8" MIN. AND SPACED AS EVENLY AROUND AS POSSIBLE. THEY SHALL NOT BE WITHIN 6" OF THE MANHOLE OPENING SO AS NOT TO INTERFERE WITH PLACEMENT OF MANHOLE RISERS OR COVERS.



TOP VIEW OF FLAT TOP SECTION



26" x 8" RISER SECTION
19-100-35

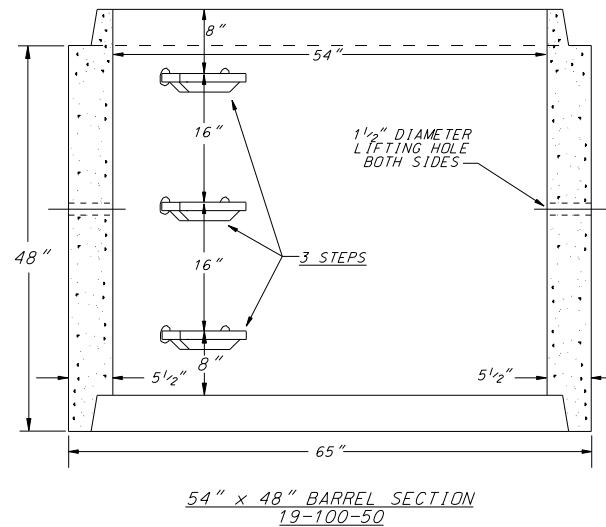
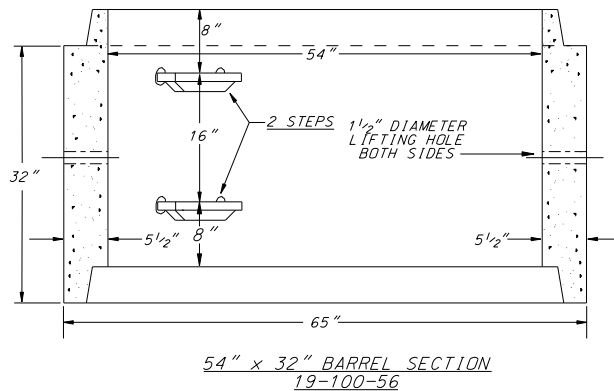
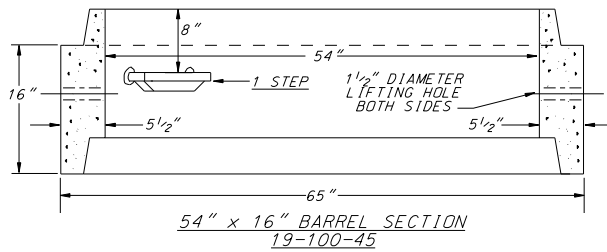
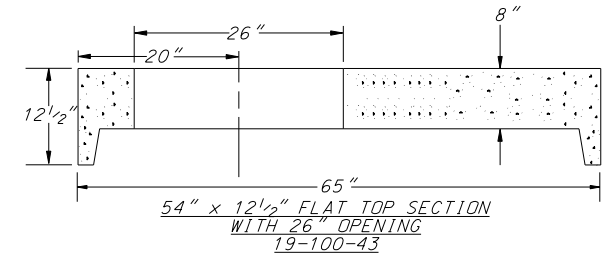
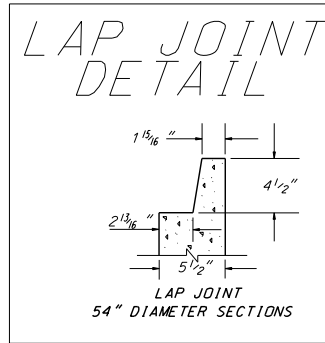


26" x 4" RISER SECTION
19-100-34

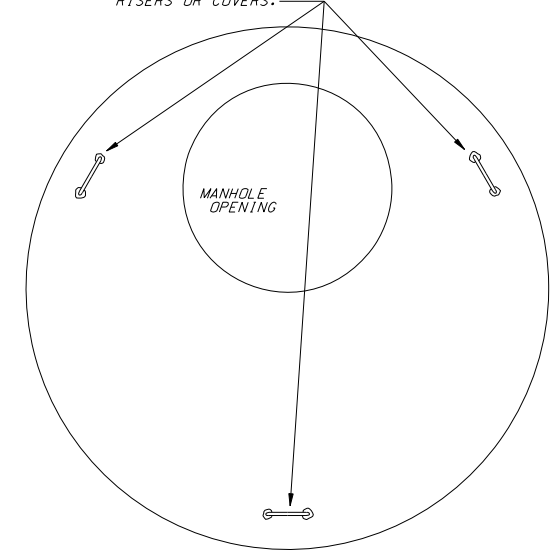
METROPOLITAN UTILITY DISTRICT OMAHA, NEBRASKA		SCALE: NONE
30", 48", 54", 60" AND 72" PRECAST MANHOLE SECTIONS		DRAWN BY: W.R.T.
DRAWING 416235		DATE: 3-2001
PAGE 3 OF 11		ENG'R. CHK. BY:
		REVISED DATE: 10-2009
		REV. CHK. BY: MKM

*54" DIAMETER VAULTS

NOTE: ON ALL 48", 54", 60" AND 72" VAULT SECTIONS WITH PIPE PASSES, THE STEPS SHALL BE AT A 60° ANGLE FROM THE RUN OF THE PIPE PASSES.



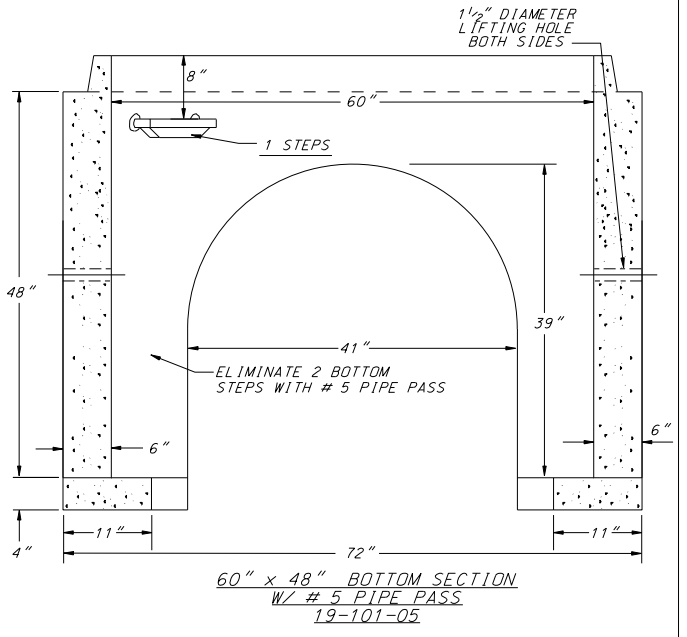
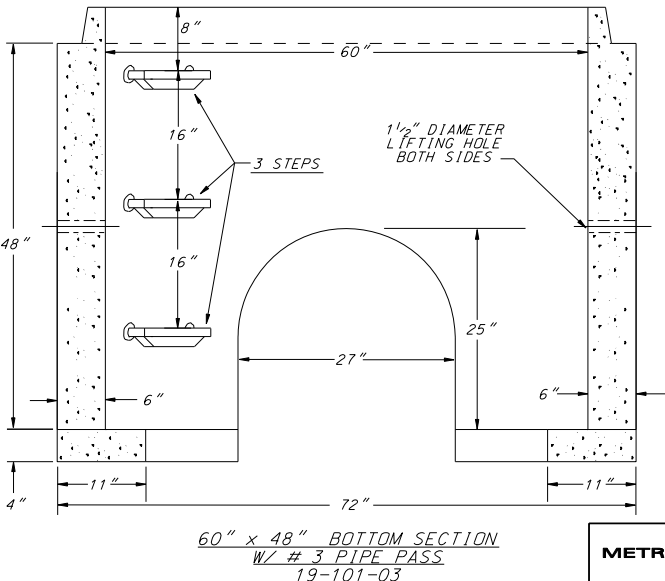
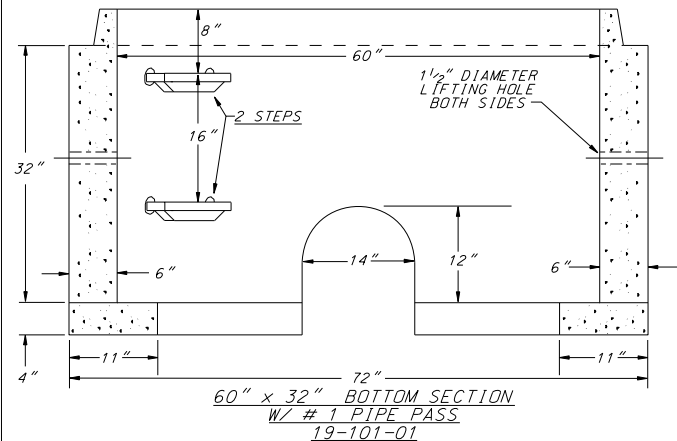
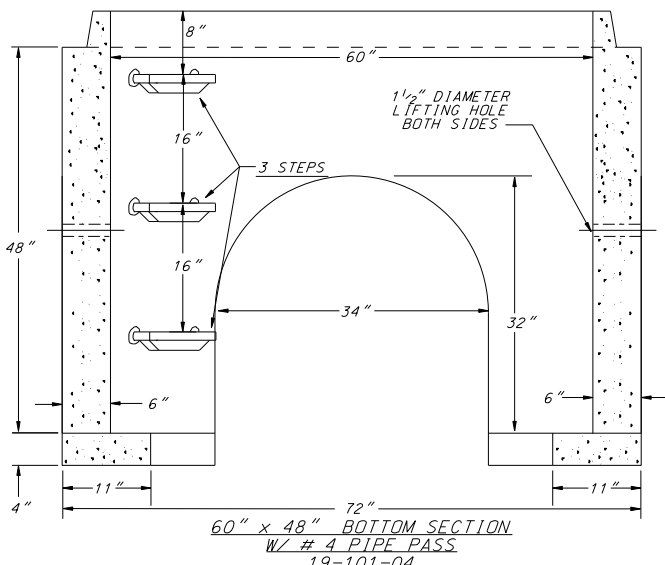
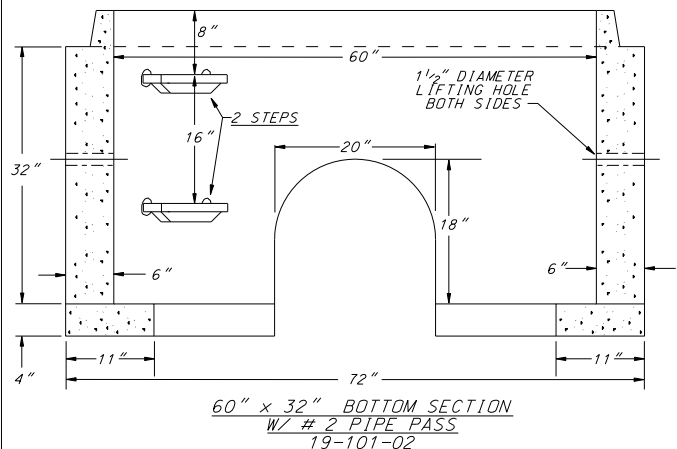
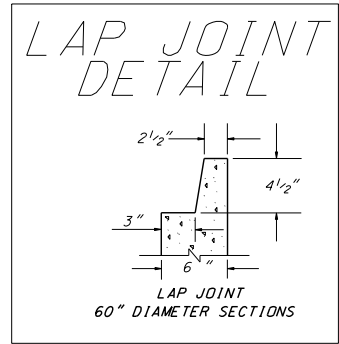
INSTALL 3 LIFTING CABLES ON ALL 48", 54", 60" AND 72" CONCRETE FLAT TOPS. THE LIFTING CABLES SHALL BE 3/8" MIN. AND SPACED AS EVENLY AROUND AS POSSIBLE. THEY SHALL NOT BE WITHIN 6" OF THE MANHOLE OPENING SO AS NOT TO INTERFERE WITH PLACEMENT OF MANHOLE RISERS OR COVERS.



METROPOLITAN UTILITY DISTRICT OMAHA, NEBRASKA		SCALE: NONE
30", 48", 54", 60" AND 72" PRECAST MANHOLE SECTIONS		DRAWN BY: W.R.T.
DRAWING 416235		DATE: 3-2001
PAGE 4 OF 11		ENG'R. CHK. BY:
		REVISED DATE: 10-2009
		REV. CHK. BY: MKM

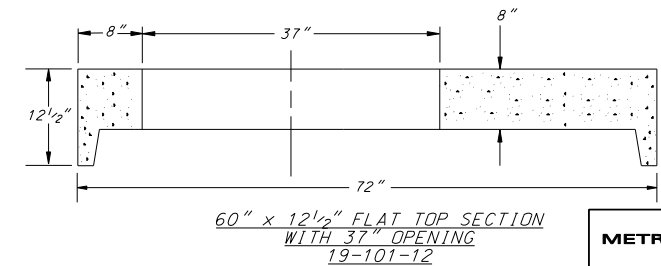
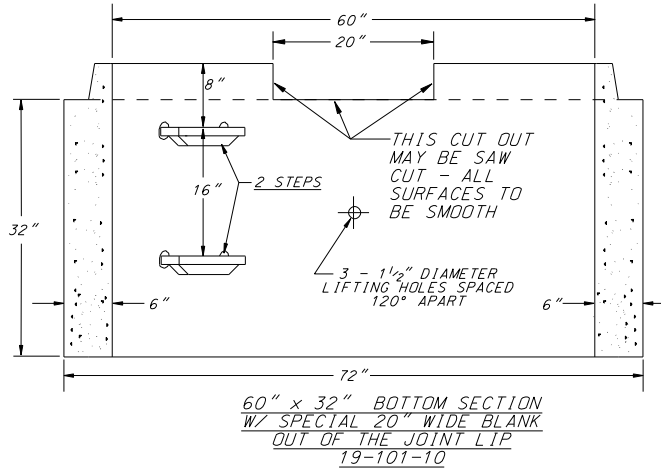
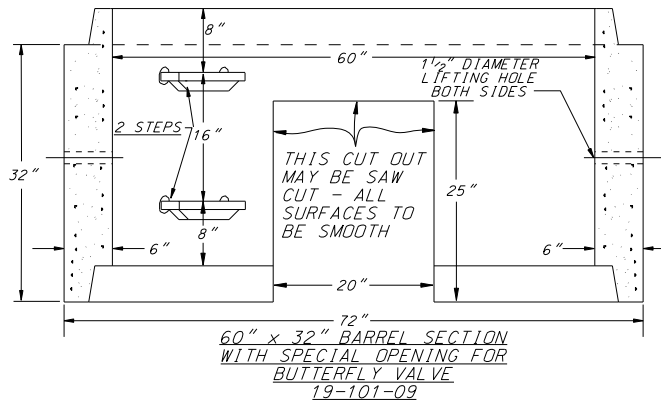
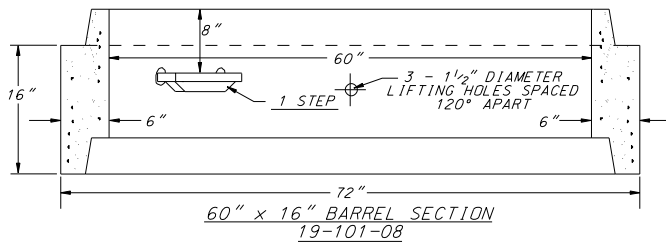
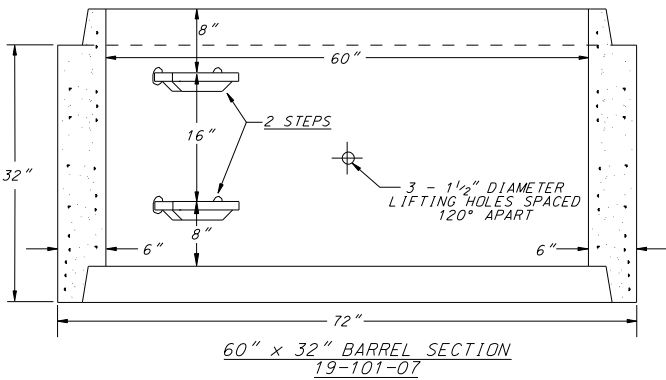
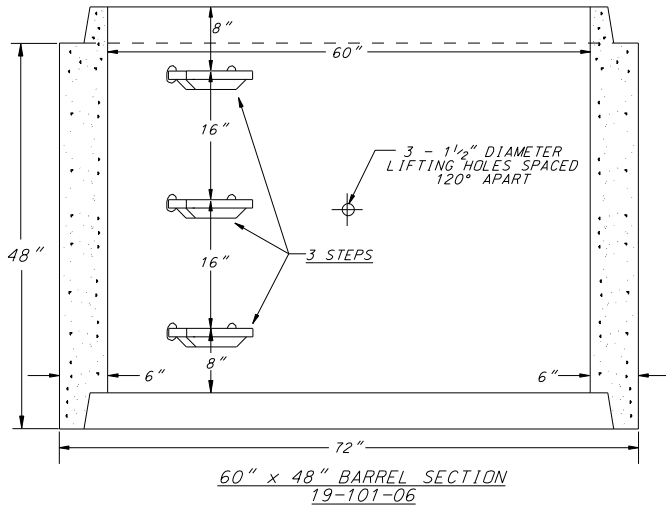
NOTE: ON ALL 48", 54", 60" AND 72" VAULT SECTIONS WITH PIPE PASSES, THE STEPS SHALL BE AT A 60° ANGLE FROM THE RUN OF THE PIPE PASSES.

*60" DIAMETER VAULTS

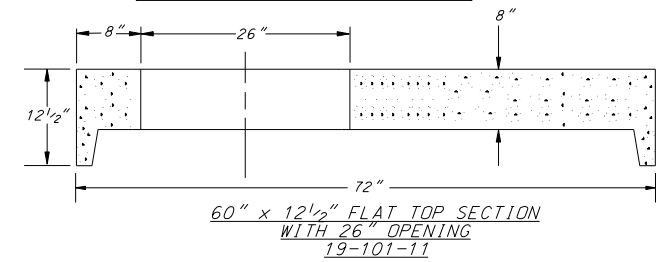


PIPE PASS for 60" MANHOLES			SIZE PIPE PASS
OPENING NO.	HEIGHT	WIDTH	REQ'D. FOR
NO. 1	12	14	4" 6" & 8" MAINS
NO. 2	18	20	10" & 12" "
NO. 3	25	27	14", 16", & 18" "
NO. 4	32	34	20" & 24" "
NO. 5	39	41	30" "

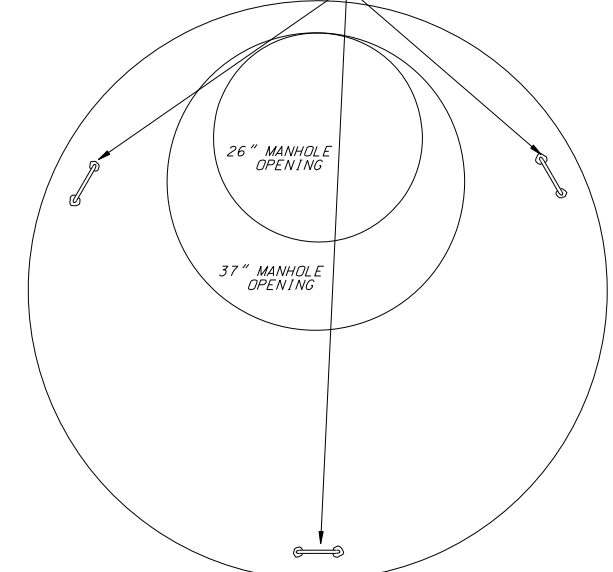
METROPOLITAN UTILITY DISTRICT OMAHA, NEBRASKA		SCALE: NONE
30", 48", 54", 60" AND 72" PRECAST MANHOLE SECTIONS		DRAWN BY: JAZ
DRAWING 416235		DATE: 10-2005
PAGE 5 OF 11		ENG'R. CHK. BY:
		REVISED DATE: 10-2009
		REV. CHK. BY: MKM



NOTE: ON ALL 48", 54", 60" AND 72" VAULT SECTIONS WITH PIPE PASSES, THE STEPS SHALL BE AT A 60° ANGLE FROM THE RUN OF THE PIPE PASSES.



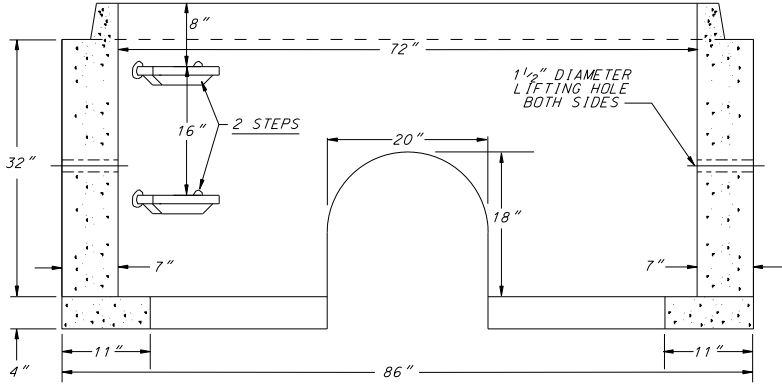
INSTALL 3 LIFTING CABLES ON ALL 48", 54", 60" AND 72" CONCRETE FLAT TOPS. THE LIFTING CABLES SHALL BE 3/8" MIN. AND SPACED AS EVENLY AROUND AS POSSIBLE. THEY SHALL NOT BE WITHIN 6" OF THE MANHOLE OPENING SO AS NOT TO INTERFERE WITH PLACEMENT OF MANHOLE RISERS OR COVERS.



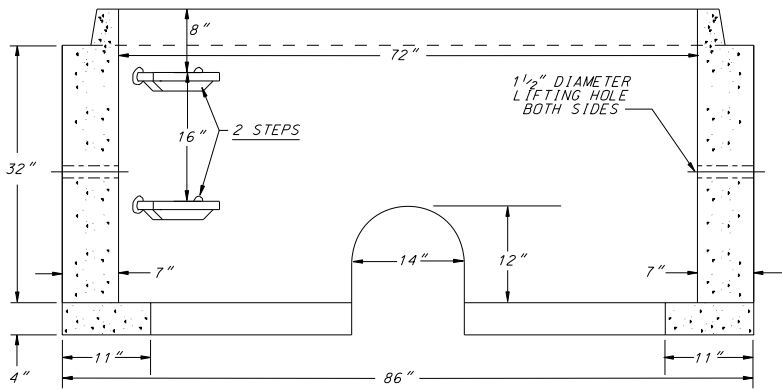
TOP VIEW OF FLAT TOP SECTION

METROPOLITAN UTILITY DISTRICT OMAHA, NEBRASKA		SCALE: NONE
30", 48", 54", 60" AND 72" PRECAST MANHOLE SECTIONS		DRAWN BY: JAZ
DRAWING 416235		DATE: 10-2005
PAGE 6 OF 11	ENG'R. CHK. BY:	
		REVISED DATE: 10-2009
		REV. CHK. BY: MKM

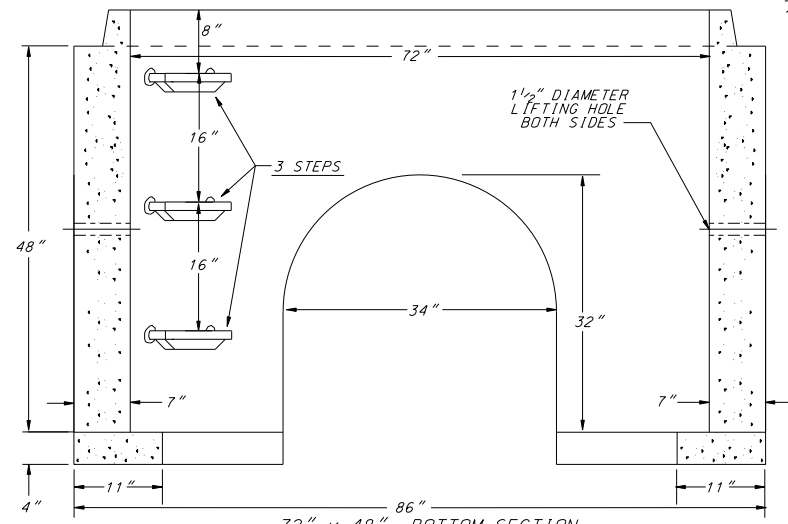
NOTE: ON ALL 48", 54", 60" AND 72" VAULT SECTIONS WITH PIPE PASSES, THE STEPS SHALL BE AT A 60° ANGLE FROM THE RUN OF THE PIPE PASSES.



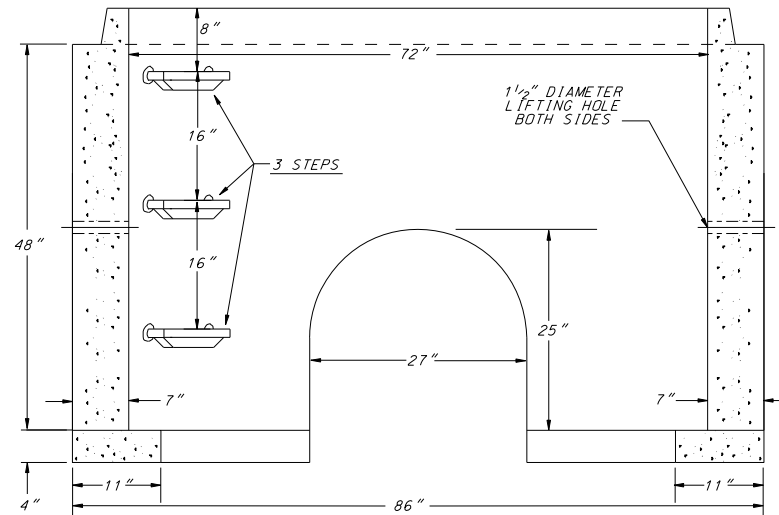
72" x 32" BOTTOM SECTION
W/ # 2 PIPE PASS
19-100-78



72" x 32" BOTTOM SECTION
W/ # 1 PIPE PASS
19-100-77



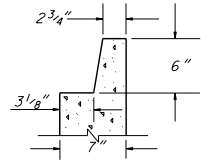
72" x 48" 86" BOTTOM SECTION
W/ # 4 PIPE PASS
19-100-79



72" x 48" BOTTOM SECTION
W/ # 3 PIPE PASS
19-100-75

*72" DIAMETER VAULTS

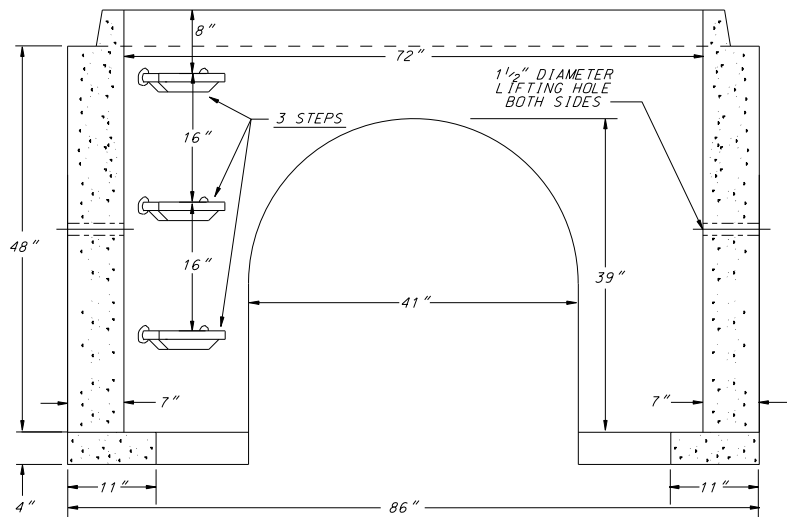
LAP JOINT DETAIL



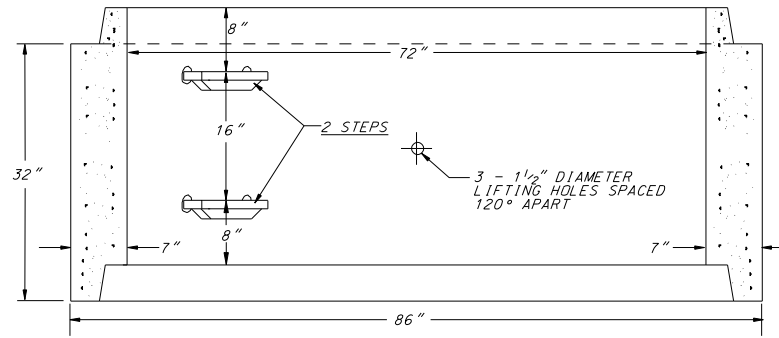
LAP JOINT
72" DIAMETER SECTIONS

PIPE PASS for 72" MANHOLES			SIZE PIPE PASS REQ'D. FOR
OPENING NO.	HEIGHT	WIDTH	
NO. 1	12	14	4", 6" & 8" MAINS
NO. 2	18	20	10" & 12" "
NO. 3	25	27	14", 16" & 18" "
NO. 4	32	34	20" & 24" "
NO. 5	39	41	30" "

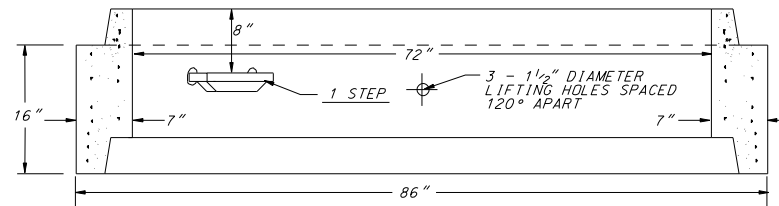
METROPOLITAN UTILITY DISTRICT OMAHA, NEBRASKA		SCALE: NONE
30", 48", 54", 60" AND 72" PRECAST MANHOLE SECTIONS		DRAWN BY: JAZ
DRAWING 416235		DATE: 10-2005
PAGE	7 OF 11	ENG'R. CHK. BY:
		REVISED DATE: 10-2009
		REV. CHK. BY: MKM



72" x 48" BOTTOM SECTION
W/ # 5 PIPE PASS
19-101-80

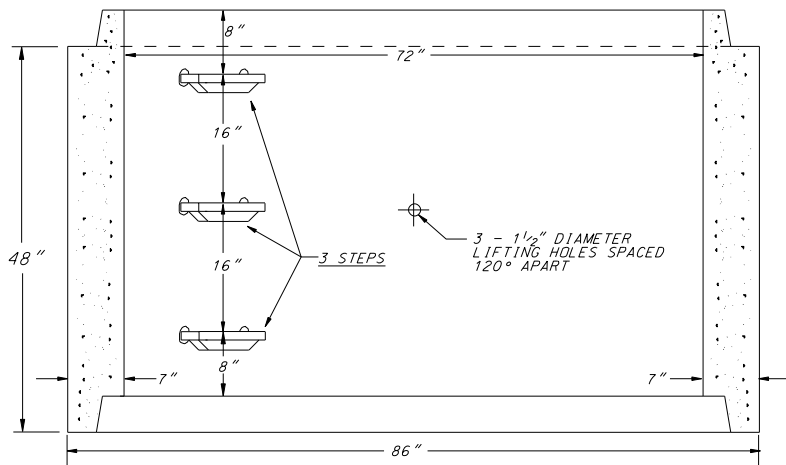


72" x 32" BARREL SECTION
19-100-71



72" x 16" BARREL SECTION
19-100-72

NOTE: ON ALL 48", 54", 60" AND 72" VAULT SECTIONS WITH PIPE PASSES, THE STEPS SHALL BE AT A 60° ANGLE FROM THE RUN OF THE PIPE PASSES.



72" x 48" BARREL SECTION
19-100-76

PIPE PASS for 72" MANHOLES			SIZE PIPE PASS
OPENING NO.	HEIGHT	WIDTH	REQ'D. FOR
NO. 1	12	14	4", 6" & 8" MAINS
NO. 2	18	20	10" & 12" "
NO. 3	25	27	14", 16", & 18" "
NO. 4	32	34	20" & 24" "
NO. 5	39	41	30" "

METROPOLITAN UTILITY DISTRICT
OMAHA, NEBRASKA

SCALE: NONE

DRAWN BY: JAZ

30", 48", 54", 60" AND
72" PRECAST
MANHOLE SECTIONS

PAGE

DATE: 10-2005

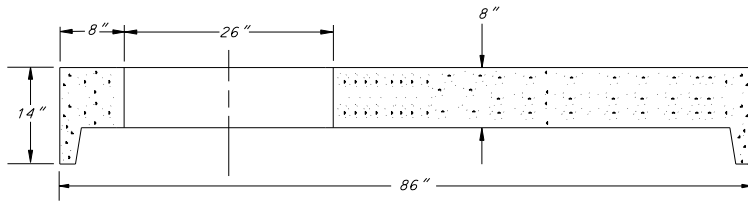
ENG'R. CHK. BY:

DRAWING 416235

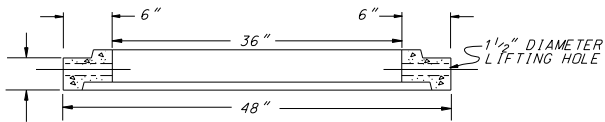
8 OF 11

REVISED DATE: 10-2009

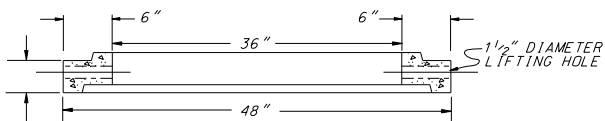
REV. CHK. BY: MKM



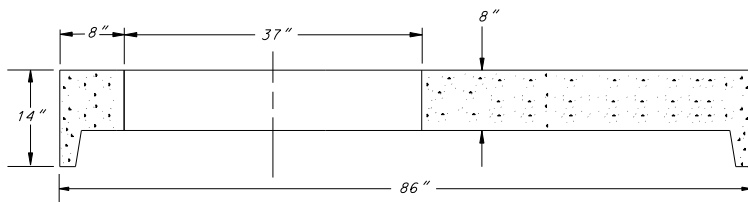
72" x 14" FLAT TOP SECTION
WITH 26" OPENING
19-100-73



36" x 4" RISER SECTION
19-100-33



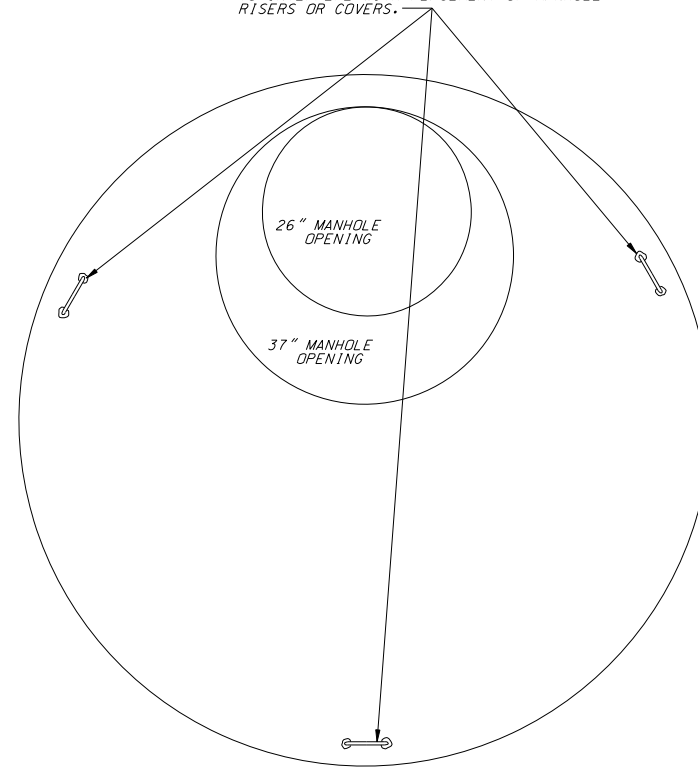
* 36" x 6" RISER SECTION
19-100-32



72" x 14" FLAT TOP SECTION
WITH 37" OPENING
19-101-81

NOTE: ON ALL 48", 54", 60" AND 72" VAULT SECTIONS WITH PIPE PASSES, THE STEPS SHALL BE AT A 60° ANGLE FROM THE RUN OF THE PIPE PASSES.

INSTALL 3 LIFTING CABLES ON ALL 48", 54", 60" AND 72" CONCRETE FLAT TOPS. THE LIFTING CABLES SHALL BE 3/8" MIN. AND SPACED AS EVENLY AROUND AS POSSIBLE. THEY SHALL NOT BE WITHIN 6" OF THE MANHOLE OPENING SO AS NOT TO INTERFERE WITH PLACEMENT OF MANHOLE RISERS OR COVERS.



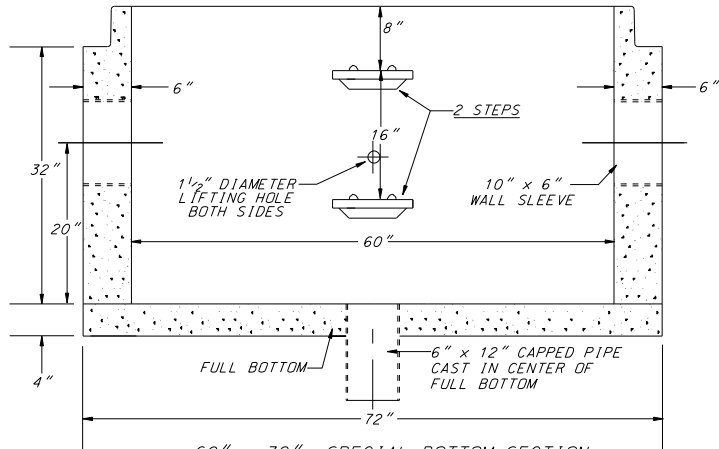
TOP VIEW OF FLAT TOP SECTION

* DENOTES CHANGE

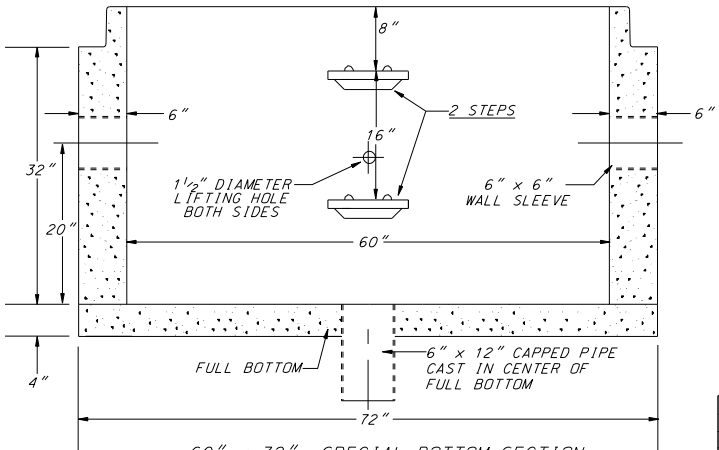
METROPOLITAN UTILITY DISTRICT OMAHA, NEBRASKA		SCALE: NONE
30", 48", 54", 60" AND 72" PRECAST MANHOLE SECTIONS		DRAWN BY: JAZMKM
DRAWING 416235		DATE: 10-2005/10-2009
PAGE 9 OF 11	ENG'R. CHK. BY:	
		REVISED DATE: 10-2009
		REV. CHK. BY: MKM

*60" REGULATOR VAULTS

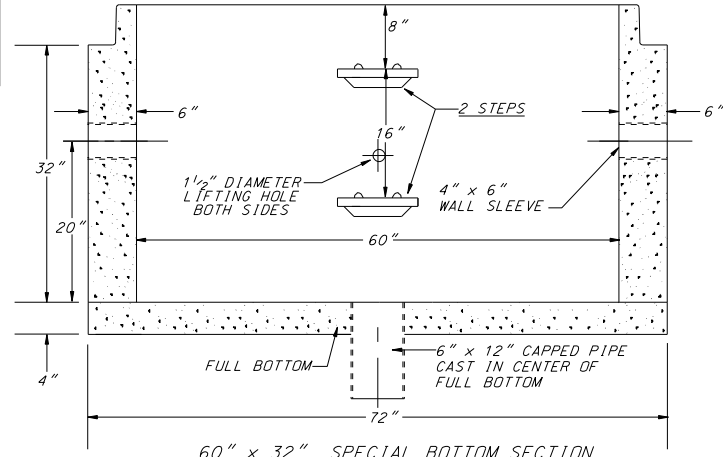
NOTE: ON ALL REGULATOR VAULT SECTIONS WITH WALL SLEEVES, THE STEPS SHOULD BE AT A 90° ANGLE FROM THE RUN OF THE PIPE SLEEVES.



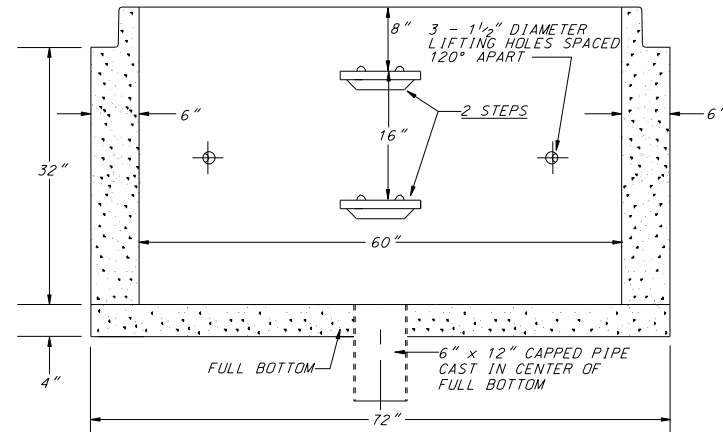
60" x 32" SPECIAL BOTTOM SECTION
FOR REG. VAULT W/ # 3 WALL
SLEEVES (10" x 6")
19-101-23



60" x 32" SPECIAL BOTTOM SECTION
FOR REG. VAULT W/ # 2 WALL
SLEEVES (6" x 6")
19-101-22



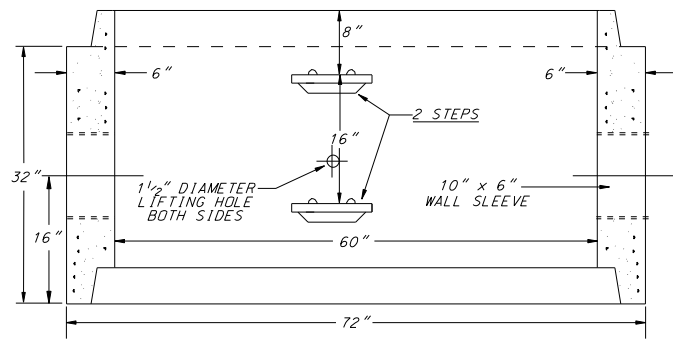
60" x 32" SPECIAL BOTTOM SECTION
FOR REG. VAULT W/ # 1 WALL
SLEEVES (4" x 6")
19-101-21



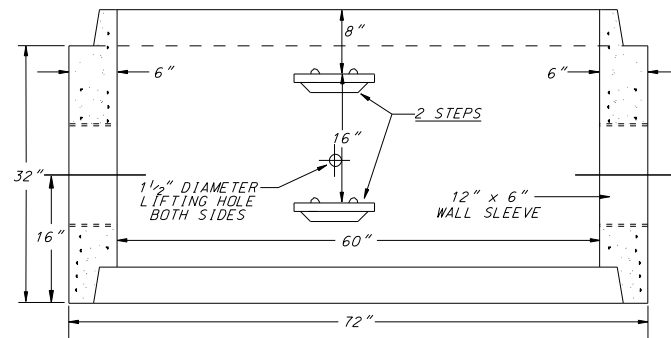
60" x 32" BOTTOM SECTION
WITHOUT WALL SLEEVES
19-101-20

WALL SLEEVE FOR 60" REGULATOR VAULTS		
SCHEDULE NO.	OUTLET INCHES	INLET INCHES
NO. 1	4"	4"
NO. 2	6"	6"
NO. 3	10"	10"
NO. 4	12"	12"

METROPOLITAN UTILITY DISTRICT OMAHA, NEBRASKA		SCALE: NONE
30", 48", 54", 60" AND 72" PRECAST MANHOLE SECTIONS		DRAWN BY: JAZ
DRAWING 416235		DATE: 10-2005
PAGE 10 OF 11		ENG'R. CHK. BY:
		REVISED DATE: 10-2009
		REV. CHK. BY: MKM



60" x 32" SPECIAL BARREL SECTION
FOR REG. VAULT W/ #3 WALL
SLEEVES (10" x 6")
19-101-13



60" x 32" SPECIAL BARREL SECTION
FOR REG. VAULT W/ #4 WALL
SLEEVES (12" x 6")
19-101-14

NOTE: ON ALL REGULATOR
VAULT SECTIONS WITH WALL
SLEEVES, THE STEPS SHOULD
BE AT A 90° ANGLE FROM THE
RUN OF THE PIPE SLEEVES.

WALL SLEEVE FOR 60" REGULATOR VAULTS		
SCHEDULE NO.	OUTLET INCHES	INLET INCHES
NO. 1	4"	4"
NO. 2	6"	6"
NO. 3	10"	10"
NO. 4	12"	12"

METROPOLITAN UTILITY DISTRICT OMAHA, NEBRASKA		SCALE: NONE
30", 48", 54", 60" AND 72" PRECAST MANHOLE SECTIONS		DRAWN BY: JAZ
DRAWING 416235		DATE: 10-2005
PAGE 11 OF 11		ENG'R. CHK. BY:
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