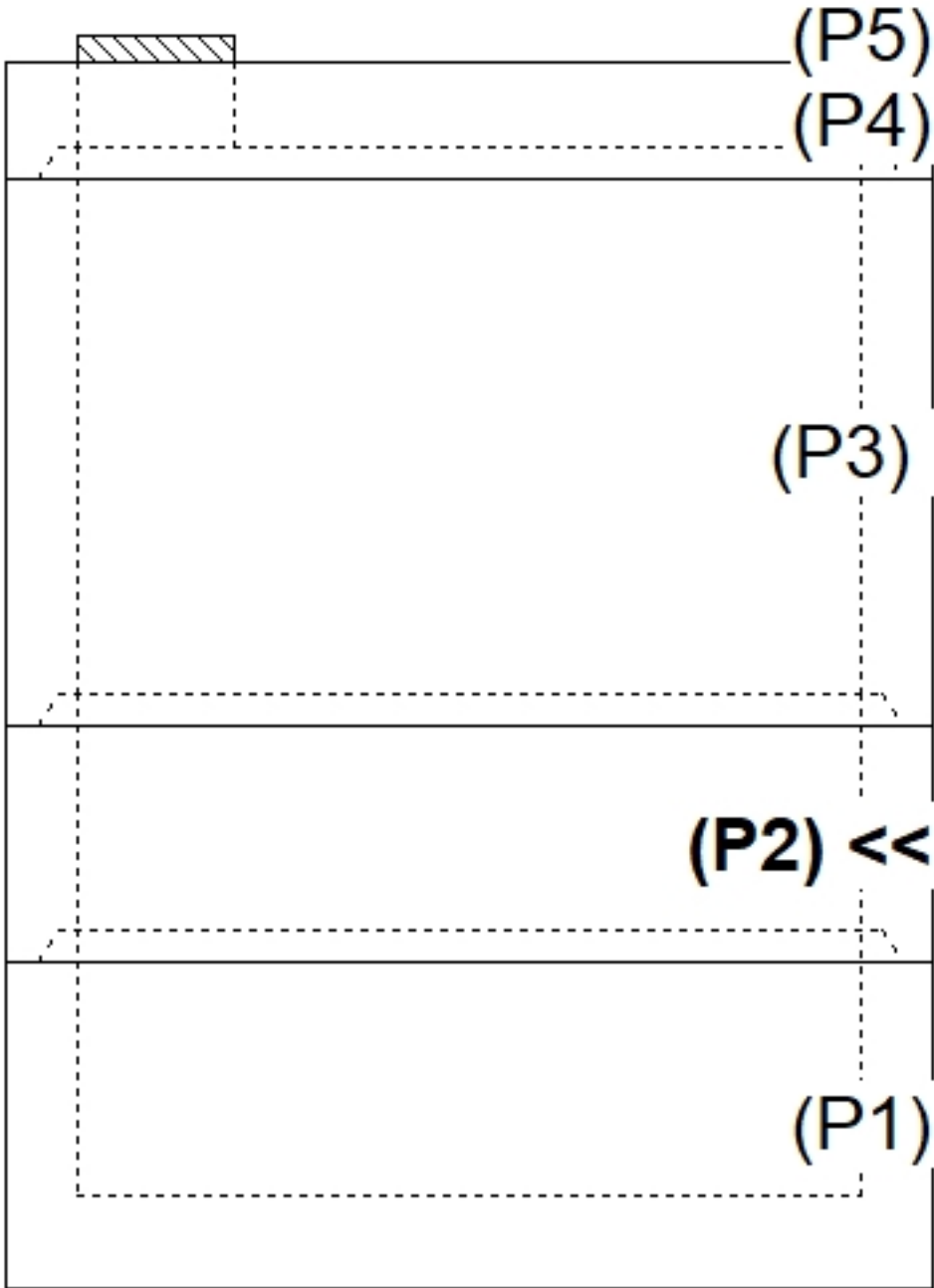
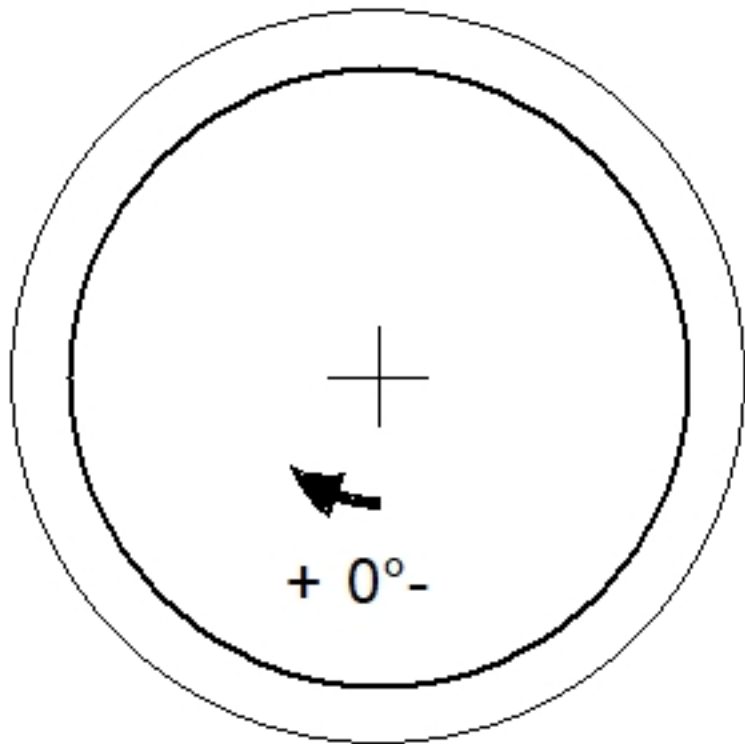
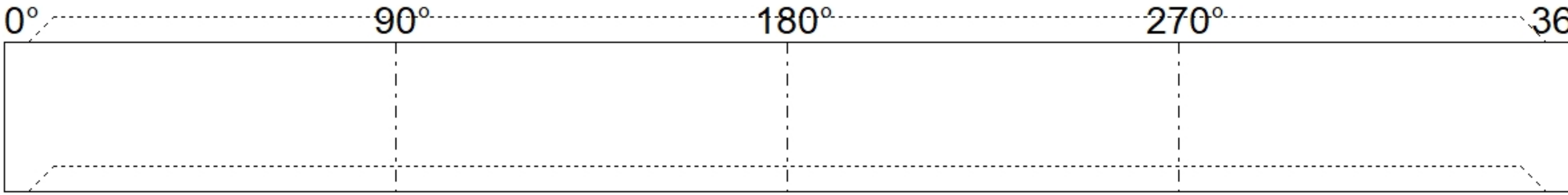
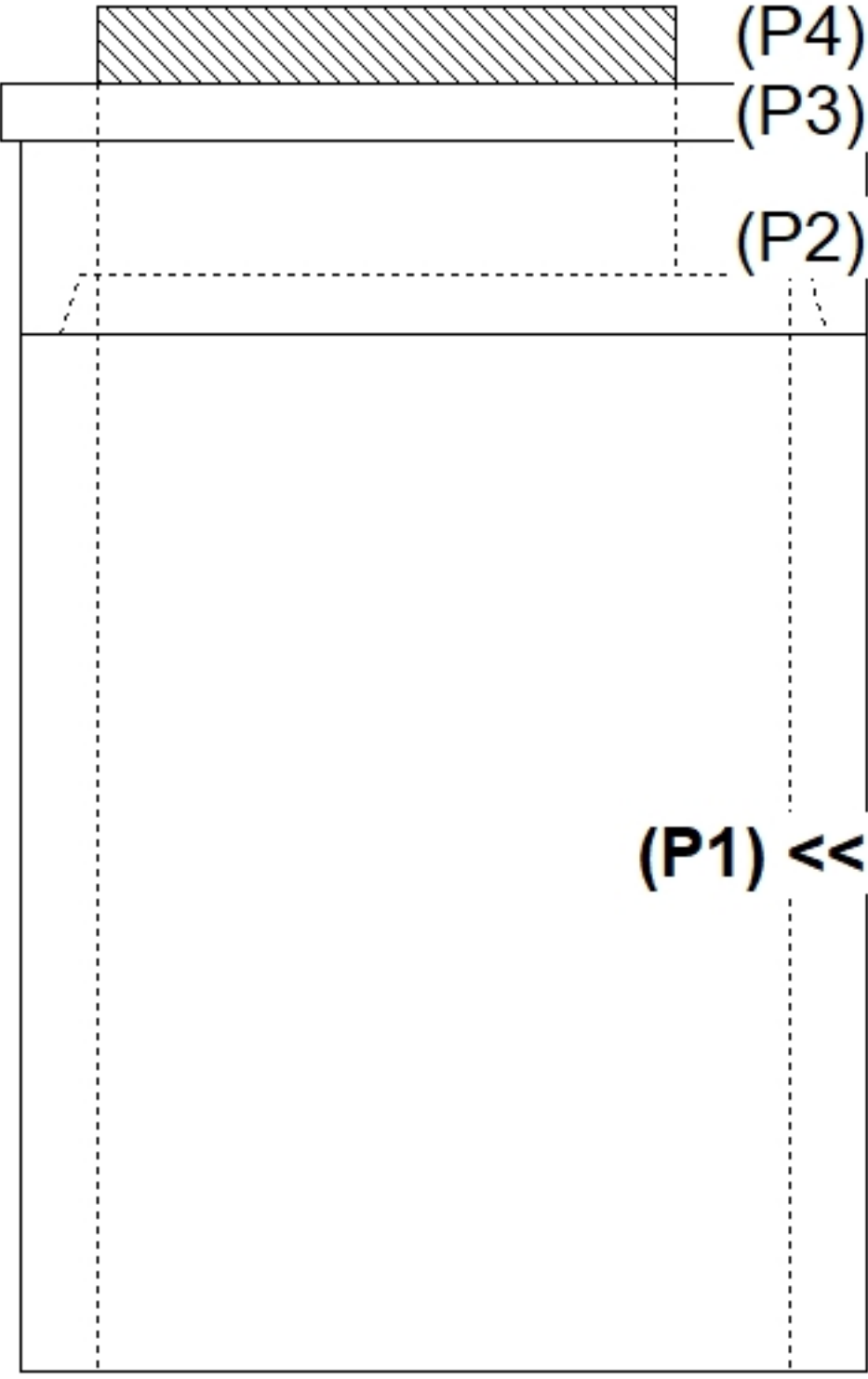
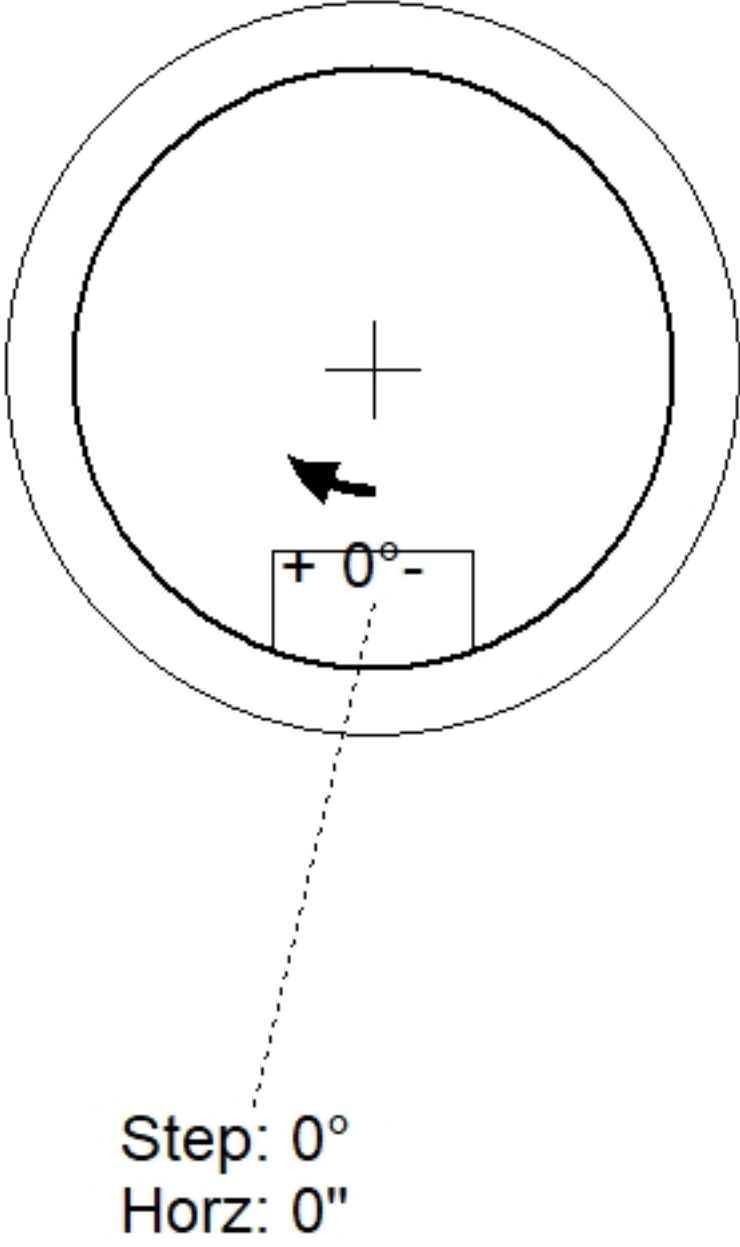
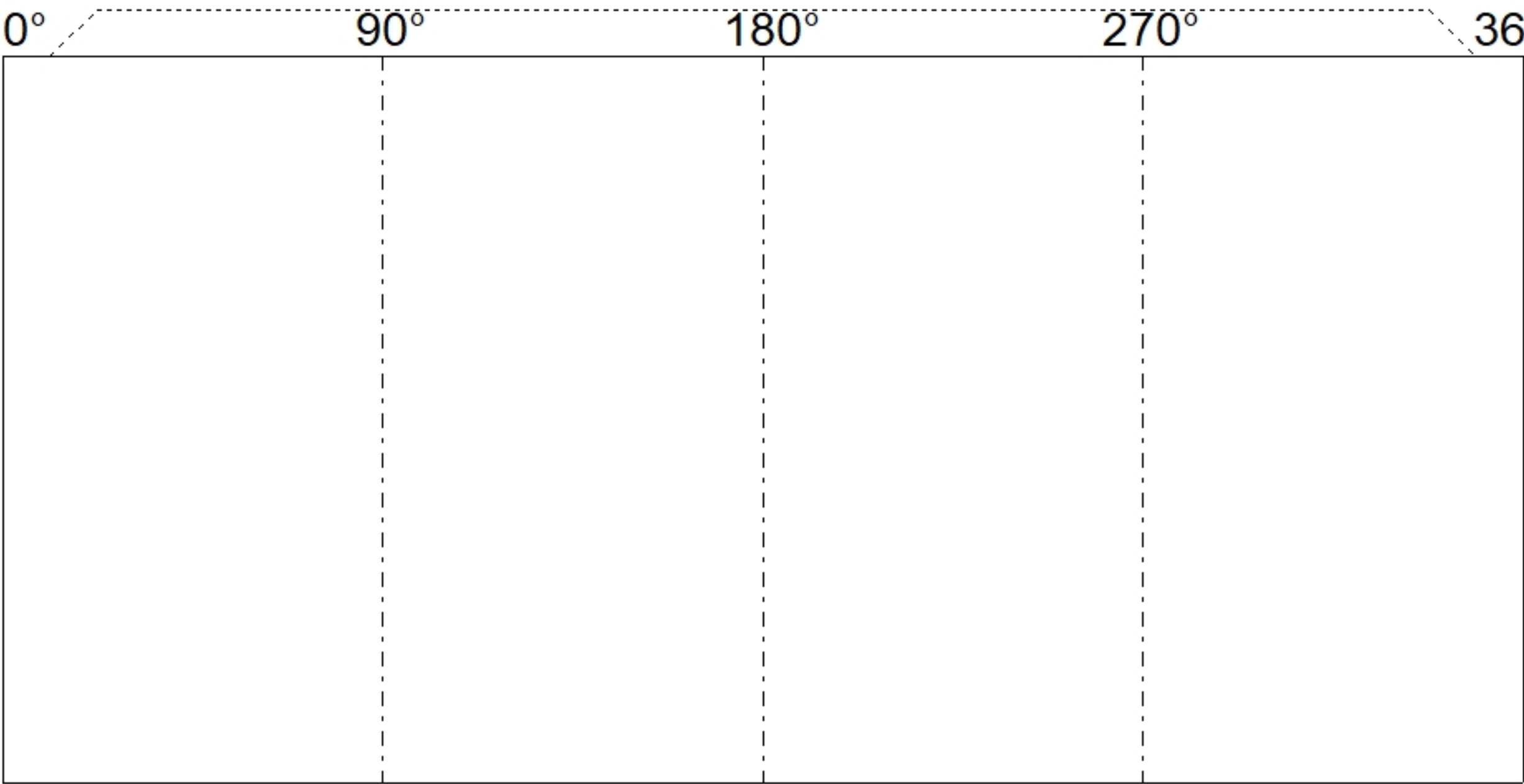
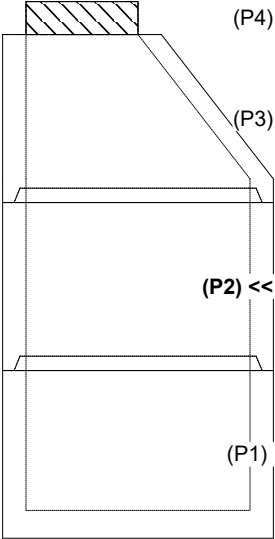
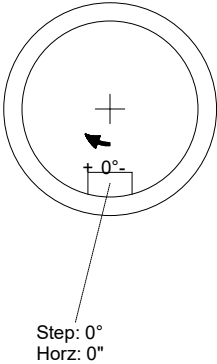
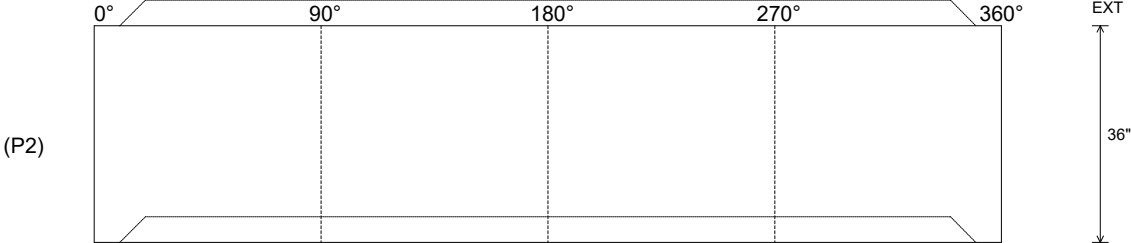
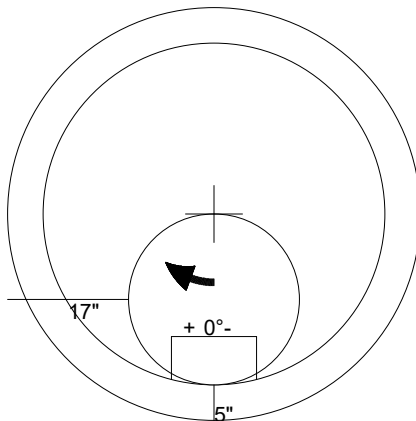
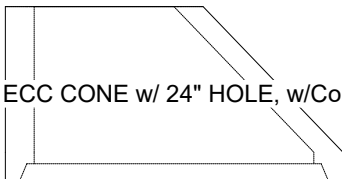


Job Name: 26-2692 868541 Georgetown Commons Phase 2 Job Location: Georgetown, KY Contractor: Contech Engineering Solutions					Plant: Beaver Dam 6/16/2026 3:18:34 PM		Tech: S. Felletter PC: C. Goff						
Structure ID: 15-CS-10													
P2			MH120RS36			MH RISER T/G							
P5) 24" - CASTING HEIGHT - 4" P4) 120" - MH FLAT TOP SPEC. (2 - 24"Ø HOLES) F/G - 18" P3) 120" - MH RISER T/G - 84" P2) 120" - MH RISER T/G - 36" P1) 120" - MH MONOBASE 14F, Custom Ht T/n - 36" 1) CVSTENCILING 1) ASSEMBLY REQUIRED - BRACKETS ONLY 3) 120" - Conseal CS-102 1.00" 1) 24" - Conseal CS-102 1.00" 2) Hole - 32						0 lb 16223 lb 30345 lb 13675 lb 32280 lb 0 lb 0 lb 0 lb 0 lb 0 lb ----- 92523 lb		Structure Notes: . 4" CASTING BY OTHERS . LIFTING ANCHORS TO BE INSTALLED ON THE OUTSIDE OF THE STRUCTURE . ICAST TO INSTALL BRACKETS ONLY . CONTECH'S LOGO AS WELL AS THE INLET AND OUTLET MUST BE STENCILED ONTO THE STRUCTURE					
Rim: 872.5' Rim to Invert: 7.25' Slack: 1.076" Sump: 92.076" Step Position:													
Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up (┘)	Offset			
Invert 1													
Invert 2													
Invert 3													
Invert 4													
Invert 5													
Invert 6													
Invert 7													
Invert 8													
RIGHT-SIDE UP VIEW (int. dimensions)													
													
INSIDE WALL DIMENSIONS													
(P2)										EXT 36"			
Coating (Int): Coating (Ext):			Seam Up: Tongue Seam Dn: Groove		Wall Thickness: 11" Floor Height: 0"		Height (Int): 36" Height (Ext): 36"		Weight (Net): 13675 lb Volume (Net): 3.49cu.yd				

Job Name: 26-3046 903454 2026 Street Reconstruction					Plant: Beaver Dam		Tech: S. Felletter				
Job Location: Elk River, MN					7/17/2026 1:18:37 PM		PC: C. Goff				
Contractor: Contech Engineering Solutions											
Structure ID: Riser Set 3											
P1		MH036RS54		MH RISER T/F							
P4) 30" - CASTING HEIGHT - 4" P3) 30" - GRADE RING F/F - 3" P2) 36" - MH FLAT LID w/30in ECC Hole F/G - 10" P1) 36" - MH RISER T/F - 54" 1) CVSTENCILING 1) 36" - Conseal CS-102 1.00" 5) MH Step ML-10-TDS-NCR - 10"					0 lb 138 lb 683 lb 2278 lb 0 lb 0 lb 0 lb ----- Structure Total: 3099 lb		Structure Notes: . 1. PER ASTM C478 SPECIFICATIONS. 2. CONCRETE = 4,000 PSI AT 28 DAYS. 3. 4" CASTING PROVIDED BY OTHERS. 4. CONTECH'S LOGO TO BE STENCILED ONTO THE OUTSIDE OF THE STRUCTURE. . REINFORCING PER ASTM A615 (GRADE 60). - TOP SLAB (As .62) #5 BARS AT 6" C.C.E.W. - RISER/WALLS (As .12)				
Rim: 5.917' Rim to Invert: 0' Slack: 0" Sump: 0" Step Position: 0°											
Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up (┘)	Offset	
Invert 1											
Invert 2											
Invert 3											
Invert 4											
Invert 5											
Invert 6											
Invert 7											
Invert 8											
RIGHT-SIDE UP VIEW (int. dimensions)											
											
INSIDE WALL DIMENSIONS											
									EXT		
									54"		
Coating (Int):			Seam Up: Tongue		Wall Thickness: 4"		Height (Int): 54"		Weight (Net): 2278 lb		
Coating (Ext):			Seam Dn: Flat		Floor Height: 0"		Height (Ext): 54"		Volume (Net): 0.58cu.yd		

Job Name: 26-1355 Sinking Creek Rd Sanitary Sewer Ext. Ph. 2 Job Location: London, KY Contractor: Endesol, Inc.					Plant: Beaver Dam 6/2/2026 2:59:08 PM		Tech: S. Felletter PC: E. Bradley						
Structure ID: B-7-4 SS-MH													
P2 MH048RS36CDARED			MH RISER w/ConBlock-CDA Red T/G										
P4) 24" - CASTING HEIGHT - 7" P3) 48" - ECC CONE w/ 24" HOLE, w/ConBlock-CDA Red F/G - 36" P2) 48" - MH RISER w/ConBlock-CDA Red T/G - 36" P1) 48" - MH BASE w/ConBlock-CDA Red T/n - 30" 1) JOINT WRAP - 0.065"x6"x50' CONSEAL CS212 1) JOINT WRAP PRIMER - CONSEAL CS-75 (1 gal.) 1) 48" - MH INVERT CHANNEL - FULL HEIGHT 1) 48" - MH INVERT CHANNEL w/XYPEX - FULL HEIGHT 1) CASTING - HOE MC-350 F/C Sanitary 2) 48" - Conseal CS-102 1.00" (Double) 1) 24" - Conseal CS-102 1.00" (Double) 3) PSX - 12-08 NYLO 8) MH Step ML-10-TDS-NCR - 10"						0 lb 2251 lb 2515 lb 3282 lb 0 lb 0 lb 1440 lb 1440 lb 305 lb 0 lb 0 lb 24 lb 0 lb		Structure Notes: . 1. PER ASTM C478 SPECIFICATIONS. 2. CONCRETE = 4,000 PSI AT 28 DAYS. 3. ADMIXTURE = CONBLOCK CDA RED. 4. CASTING BY ICAST (HOE MC-350 F/C "SANITARY"). REINFORCING PER ASTM A615 (GRADE 60). - CONE (As .12) - RISER/WALLS (As .12) - FLOOR (As .31) #5 BARS AT 12" C.C.E.W.					
Rim: 1241' Rim to Invert: 9' Slack: 1" Sump: 2" Step Position: 0°						Structure Total: 11257 lb							
Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up (_)	Offset			
Invert 1													
Invert 2													
Invert 3													
Invert 4													
Invert 5													
Invert 6													
Invert 7													
Invert 8													
RIGHT-SIDE UP VIEW (int. dimensions)													
													
INSIDE WALL DIMENSIONS													
													
Coating (Int): Coating (Ext):			Seam Up: Tongue Seam Dn: Groove		Wall Thickness: 5" Floor Height: 0"		Height (Int): 36" Height (Ext): 36"		Weight (Net): 2515 lb Volume (Net): 0.64cu.yd				

Job Name: 26-1355 Sinking Creek Rd Sanitary Sewer Ext. Ph. 2		Plant: Beaver Dam	Tech: S. Felletter	
Job Location: London, KY Contractor: Endesol, Inc.		6/2/2026 2:58:21 PM	PC: E. Bradley	
Structure ID: B-8-3 SS-MH				
P3 MH048CN30CDARED		ECC CONE w/ 24" HOLE, w/ConBlock-CDA Red F/G		
P5) 24" - CASTING HEIGHT - 7" P4) 24" - GRADE RING w/ConBlock-CDA Red F/F - 3" P3) 48" - ECC CONE w/ 24" HOLE, w/ConBlock-CDA Red F/G - 30" P2) 48" - MH RISER w/ConBlock-CDA Red T/G - 24" P1) 48" - MH BASE w/ConBlock-CDA Red T/n - 30" 1) JOINT WRAP - 0.065"x6"x50' CONSEAL CS212 1) JOINT WRAP PRIMER - CONSEAL CS-75 (1 gal.) 1) SPECIAL EXTERNAL COATING - GRADE RING 1) 48" - MH INVERT CHANNEL w/XYPEX - FULL HEIGHT 1) CASTING - HOE MC-350 F/C Sanitary 2) 48" - Conseal CS-102 1.00" (Double) 2) 24" - Conseal CS-102 1.00" (Double) 2) PSX - 12-08 NYLO 7) MH Step ML-10-TDS-NCR - 10"		0 lb 202 lb 1961 lb 1677 lb 3330 lb 0 lb 0 lb 0 lb 1440 lb 305 lb 0 lb 0 lb 16 lb 0 lb ----- Structure Total: 8932 lb	Structure Notes: 1. PER ASTM C478 SPECIFICATIONS. 2. CONCRETE = 4,000 PSI AT 28 DAYS. 3. ADMIXTURE = CONBLOCK CDA RED. 4. CASTING BY ICAST (HOE MC-350 F/C "SANITARY"). 5. EXTERNAL BITUMINOUS COATING REQUIRED FOR GRADE RING. REINFORCING PER ASTM A615 (GRADE 60). - CONE (As .12) - RISER/WALLS (As .12) - FLOOR (As .31) #5 BARS AT 12" C.C.E.W.	
				
				
48" - ECC CONE w/ 24" HOLE, w/ConBlock-CDA Red F/G - 30" - (P3)				
Coating (Int): Coating (Ext):	Seam Up: Flat Seam Dn: Groove	Wall Thickness: 5"	Height (Ext): 30"	Weight (Net): 1961 lb Volume (Net): 0.5cu.yd

Job Name: 25-3579 - Lebanon Rd Clarks Run Trunk Sewer Ph 2

Job Location: Danville, KY

Contractor: Hubert Excavating & Contracting

Plant: 100

7/24/2026 7:35:40 AM

Tech: J. Horsley

PC: C. Goff



Structure ID: MH A10 Riser

P1 MH048RSVF

MH RISER Custom Ht

P1) 48" - MH RISER Custom Ht - 14"

1) SPECIAL EXTERNAL COATING - Carboline 300M

2) JOINT WRAP - 12" WD x 048" MAC WRAP

1) 48" - Conseal CS-102 1.00" (Double)

1) MH Step ML-10-TDS-NCR - 10"

17.72 SqFt) Carboline Bitumastic 300M [EXT]

978 lb

0 lb

0 lb

0 lb

0 lb

0 lb

Structure Total: 978 lb

Structure Notes: 1. PER ASTM C478 SPECIFICATIONS.

2. CONCRETE = 4,000 PSI AT 28 DAYS.

3. REINFORCING PER ASTM A615 (GRADE 60).

- RISER/WALLS (As .12)

4. CARBOLINE 300M EXTERIOR COATING REQUIRED

Rim: 902.76'

Rim to Invert: 0'

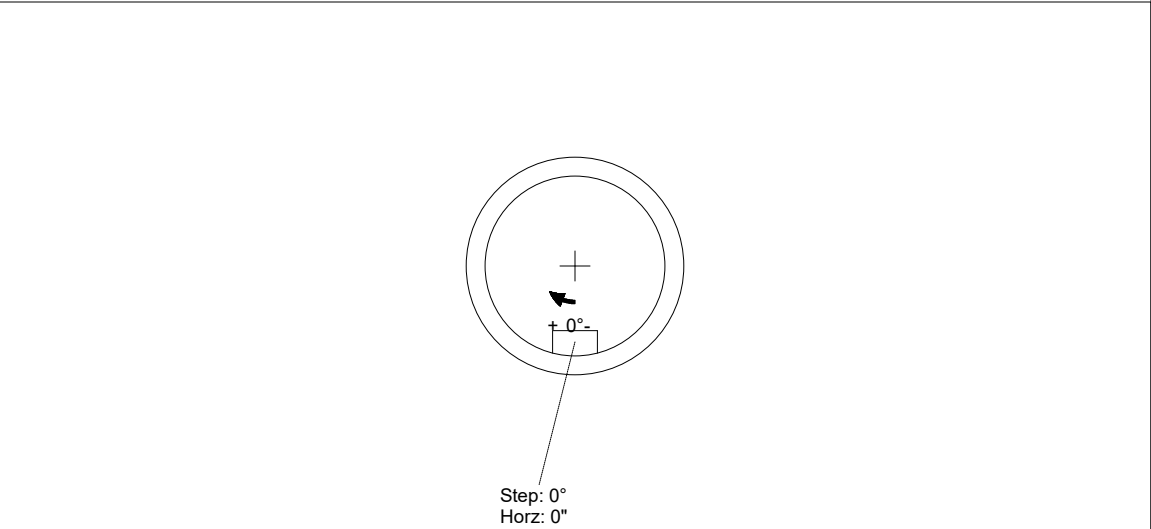
Slack: 0"

Sump: 0"

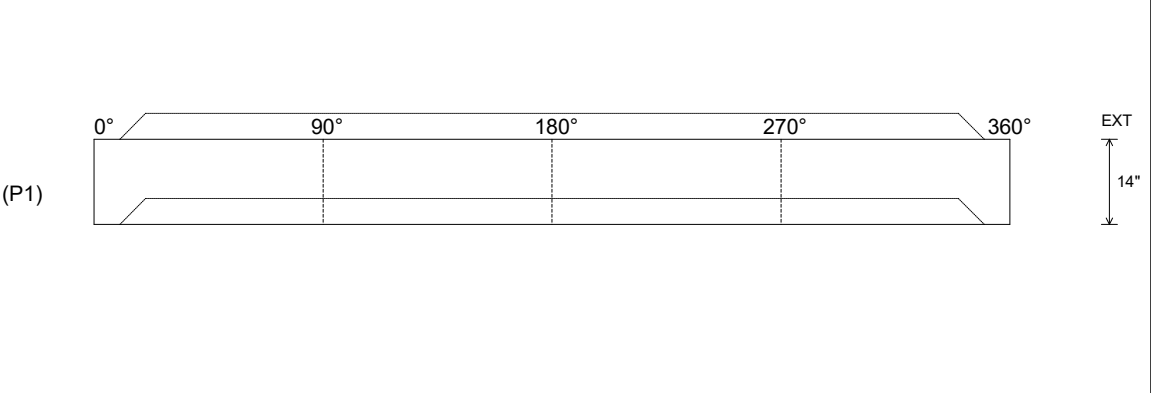
Step Position: 0°

Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up (_)	Offset
Invert 1										
Invert 2										
Invert 3										
Invert 4										
Invert 5										
Invert 6										
Invert 7										
Invert 8										

RIGHT-SIDE UP VIEW (int. dimensions)



INSIDE WALL DIMENSIONS



Coating (Int): Coating (Ext): Carboline Bitumastic 300M	Seam Up: Tongue Seam Dn: Groove	Wall Thickness: 5" Floor Height: 0"	Height (Int): 14" Height (Ext): 14"	Weight (Net): 978 lb Volume (Net): 0.25cu.yd
--	------------------------------------	--	--	---

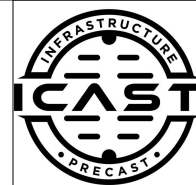
Job Name: 26-1655 Sanitary Sewer Improvements Project
Job Location: Newburgh, IN
Contractor: S.A.M.M Trucking & Excavating, Inc

Plant: Beaver Dam

7/24/2026 11:46:36 AM

Tech: S. Felletter

PC: M. Sullivan



Structure ID: 2 SS-MH

P1 MH048BA36CDARED

MH BASE w/ConBlock-CDA Red T/n

- P5) 24" - CASTING HEIGHT - 7"
P4) 24" - GRADE RING w/ConBlock-CDA Red F/F - 3"
P3) 48" - ECC CONE w/ 24" HOLE NO STEPS, w/ConBlock-CDA Red F/G - 36"
P2) 48" - MH RISER w/ConBlock-CDA Red NO STEPS T/G - 60"
P1) 48" - MH BASE w/ConBlock-CDA Red T/n - 36"
1) JOINT WRAP - 0.065"x6"x50' CONSEAL CS212
1) JOINT WRAP PRIMER - CONSEAL CS-75 (1 gal.)
1) 48" - MH INVERT CHANNEL w/ConBlockMIC - FULL HEIGHT
1) CASTING - HOE MC-315 Self Seal F/C Sanitary
2) 48" - Conseal CS-102 1.00" (Double)
2) 24" - Conseal CS-102 1.00" (Double)
2) Kor-N-Seal2 - S206-18L

- 0 lb
202 lb
2251 lb
4192 lb
3627 lb
0 lb
0 lb
1440 lb
258 lb
0 lb
0 lb
12 lb

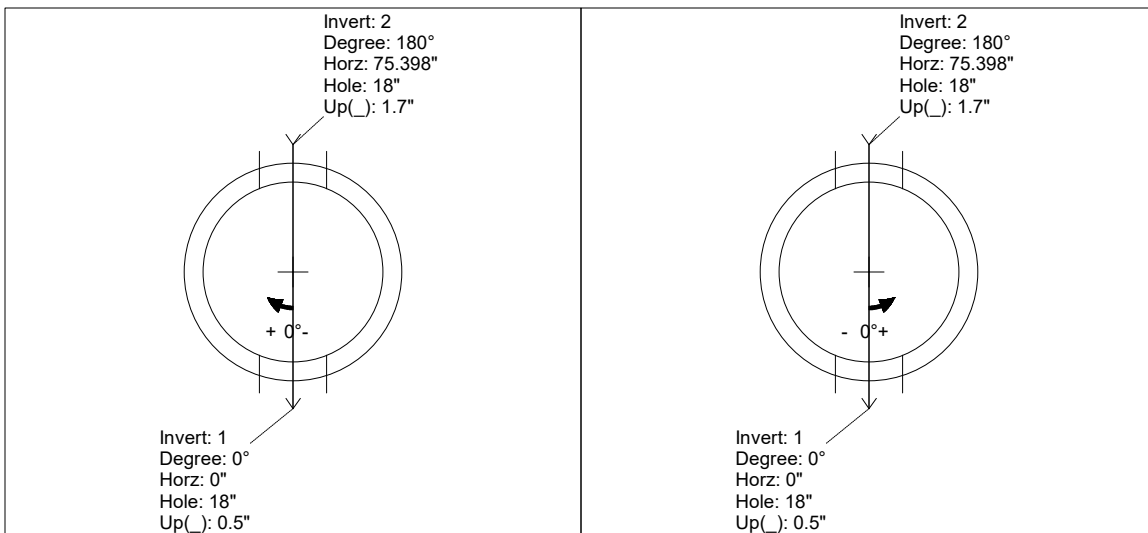
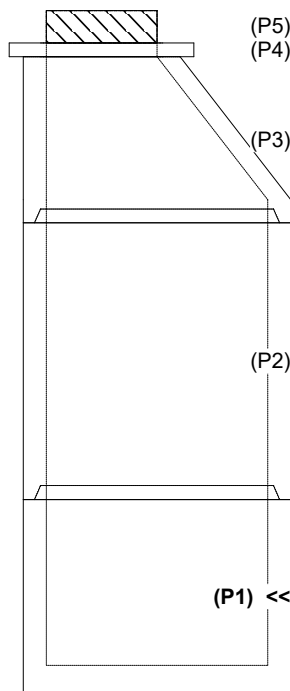
Structure Total: 11982 lb
- Structure Notes:**
1. PER ASTM C478 SPECIFICATIONS.
2. CONCRETE = 4,000 PSI AT 28 DAYS.
3. ADMIXTURE = CONBLOCK CDA RED.
4. CASTING BY ICAST (HOE MC-315 SELF SEAL F/C "SANITARY").
5. NO STEPS.
REINFORCING PER ASTM A615 (GRADE 60).
- CONE (As .12)
- RISER/WALLS (As .12)
- FLOOR (As .31) #5 BARS AT 12" C.C.E.W.

Rim: 12.2' Rim to Invert: 12.2' Slack: 6.4" Sump: 2" Step Position: 0°

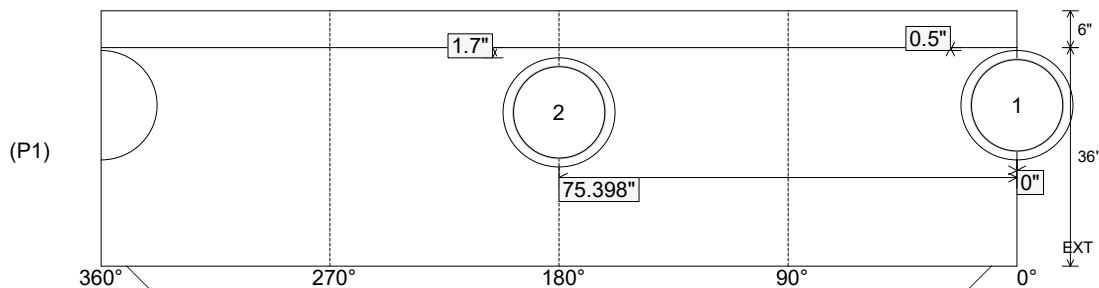
Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up ()	Offset
Invert 1	0'	0°	0"	15" PVC SDR26	15.3"	Kor-N-Seal2 S206-18L	18"	18.451"	0.5"	0"
Invert 2	0.1'	180°	91.106"	15" PVC SDR26	15.3"	Kor-N-Seal2 S206-18L	18"	18.451"	1.7"	0"
Invert 3										
Invert 4										
Invert 5										
Invert 6										
Invert 7										
Invert 8										

RIGHT-SIDE UP VIEW (int. dimensions)

UPSIDE-DOWN VIEW (int. dimensions)



INSIDE WALL DIMENSIONS



Coating (Int):
Coating (Ext):

Seam Up: Tongue
Seam Dn: n/a

Wall Thickness: 5"
Floor Height: 6"

Height (Int): 36"
Height (Ext): 42"

Weight (Net): 3627 lb
Volume (Net): 0.93cu.yd

Job Name: 26-1655 Sanitary Sewer Improvements Project
Job Location: Newburgh, IN
Contractor: S.A.M.M Trucking & Excavating, Inc

Plant: Beaver Dam

Tech: S. Felletter

7/24/2026 11:46:36 AM

PC: M. Sullivan



Structure ID: 2 SS-MH

P1 MH048BA36CDARED

MH BASE w/ConBlock-CDA Red T/n

- P5) 24" - CASTING HEIGHT - 7"
P4) 24" - GRADE RING w/ConBlock-CDA Red F/F - 3"
P3) 48" - ECC CONE w/ 24" HOLE NO STEPS, w/ConBlock-CDA Red F/G - 36"
P2) 48" - MH RISER w/ConBlock-CDA Red NO STEPS T/G - 60"
P1) 48" - MH BASE w/ConBlock-CDA Red T/n - 36"
1) JOINT WRAP - 0.065"x6"x50' CONSEAL CS212
1) JOINT WRAP PRIMER - CONSEAL CS-75 (1 gal.)
1) **48" - MH INVERT CHANNEL w/ConBlockMIC - FULL HEIGHT**
1) CASTING - HOE MC-315 Self Seal F/C Sanitary
2) 48" - Conseal CS-102 1.00" (Double)
2) 24" - Conseal CS-102 1.00" (Double)
2) Kor-N-Seal2 - S206-18L

- 0 lb
202 lb
2251 lb
4192 lb
3627 lb
0 lb
0 lb
1440 lb
258 lb
0 lb
0 lb
12 lb

11982 lb
- Structure Notes:**
1. PER ASTM C478 SPECIFICATIONS.
2. CONCRETE = 4,000 PSI AT 28 DAYS.
3. ADMIXTURE = CONBLOCK CDA RED.
4. CASTING BY ICAST (HOE MC-315 SELF SEAL F/C "SANITARY").
5. NO STEPS.
REINFORCING PER ASTM A615 (GRADE 60).
- CONE (As .12)
- RISER/WALLS (As .12)
- FLOOR (As .31) #5 BARS AT 12" C.C.E.W.

Invert channel drawing. Full height invert.

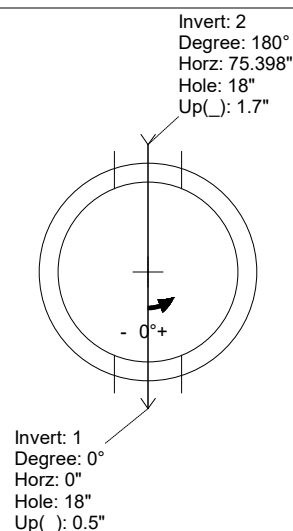
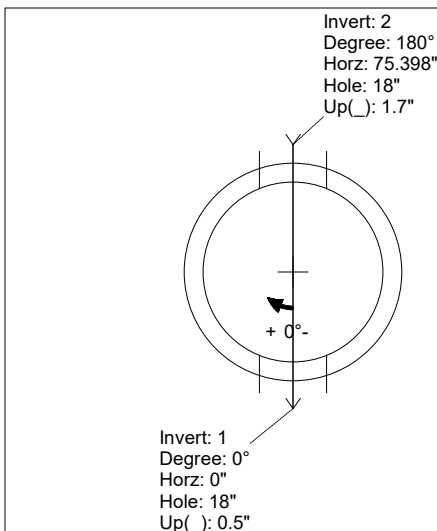
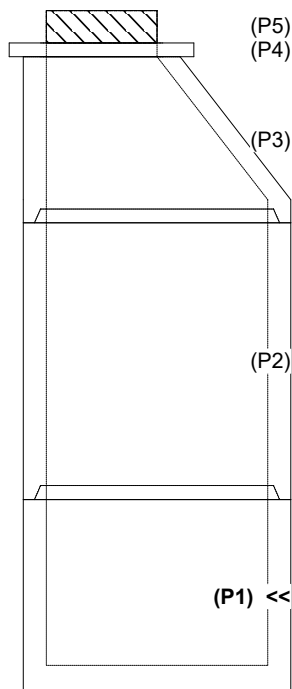
Structure Total:

Rim: 12.2' Rim to Invert: 12.2' Slack: 6.4" Sump: 2" Step Position: 0°

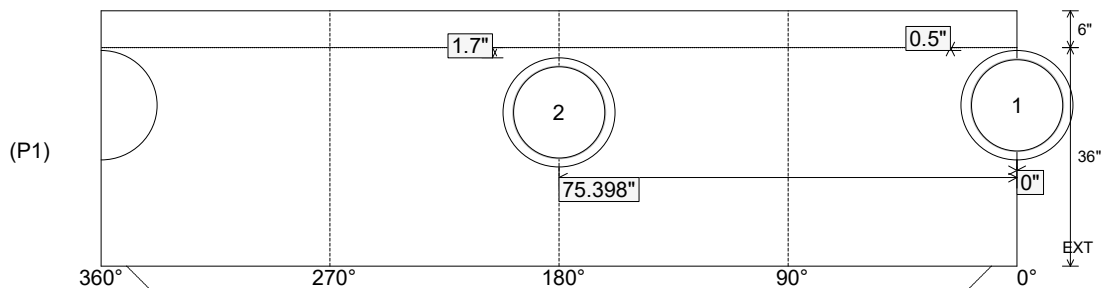
Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up ()	Offset
Invert 1	0'	0°	0"	15" PVC SDR26	15.3"	Kor-N-Seal2 S206-18L	18"	18.451"	0.5"	0"
Invert 2	0.1'	180°	91.106"	15" PVC SDR26	15.3"	Kor-N-Seal2 S206-18L	18"	18.451"	1.7"	0"
Invert 3										
Invert 4										
Invert 5										
Invert 6										
Invert 7										
Invert 8										

RIGHT-SIDE UP VIEW (int. dimensions)

UPSIDE-DOWN VIEW (int. dimensions)



INSIDE WALL DIMENSIONS



Coating (Int):
Coating (Ext):

Seam Up: Tongue
Seam Dn: n/a

Wall Thickness: 5"
Floor Height: 6"

Height (Int): 36"
Height (Ext): 42"

Weight (Net): 3627 lb
Volume (Net): 0.93cu.yd

Job Name: 26-1655 Sanitary Sewer Improvements Project
Job Location: Newburgh, IN
Contractor: S.A.M.M Trucking & Excavating, Inc

Plant: Beaver Dam

7/24/2026 11:47:15 AM

Tech: S. Felletter

PC: M. Sullivan



Structure ID: 2 SS-MH

P2 MH048RS60CDARED-S

MH RISER w/ConBlock-CDA Red NO STEPS T/G

P5) 24" - CASTING HEIGHT - 7"
P4) 24" - GRADE RING w/ConBlock-CDA Red F/F - 3"
P3) 48" - ECC CONE w/ 24" HOLE NO STEPS, w/ConBlock-CDA Red F/G - 36"
P2) 48" - MH RISER w/ConBlock-CDA Red NO STEPS T/G - 60"
P1) 48" - MH BASE w/ConBlock-CDA Red T/n - 36"
1) JOINT WRAP - 0.065"x6"x50' CONSEAL CS212
1) JOINT WRAP PRIMER - CONSEAL CS-75 (1 gal.)
1) 48" - MH INVERT CHANNEL w/ConBlockMIC - FULL HEIGHT
1) CASTING - HOE MC-315 Self Seal F/C Sanitary
2) 48" - Conseal CS-102 1.00" (Double)
2) 24" - Conseal CS-102 1.00" (Double)
2) Kor-N-Seal2 - S206-18L

0 lb
202 lb
2251 lb
4192 lb
3627 lb
0 lb
0 lb
1440 lb
258 lb
0 lb
0 lb
12 lb

11982 lb

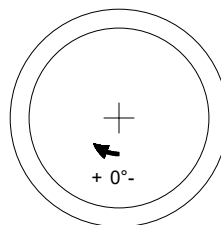
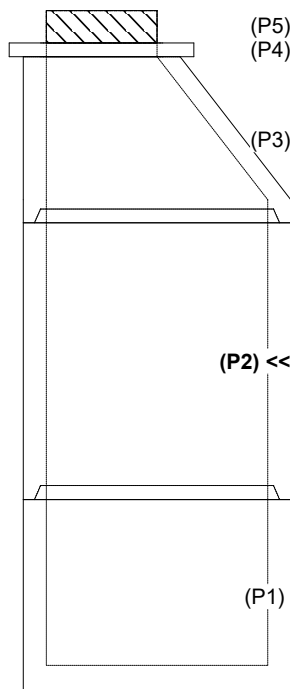
Structure Notes:
1. PER ASTM C478 SPECIFICATIONS.
2. CONCRETE = 4,000 PSI AT 28 DAYS.
3. ADMIXTURE = CONBLOCK CDA RED.
4. CASTING BY ICAST (HOE MC-315 SELF SEAL F/C "SANITARY").
5. NO STEPS.
REINFORCING PER ASTM A615 (GRADE 60).
- CONE (As .12)
- RISER/WALLS (As .12)
- FLOOR (As .31) #5 BARS AT 12" C.C.E.W.

Structure Total:

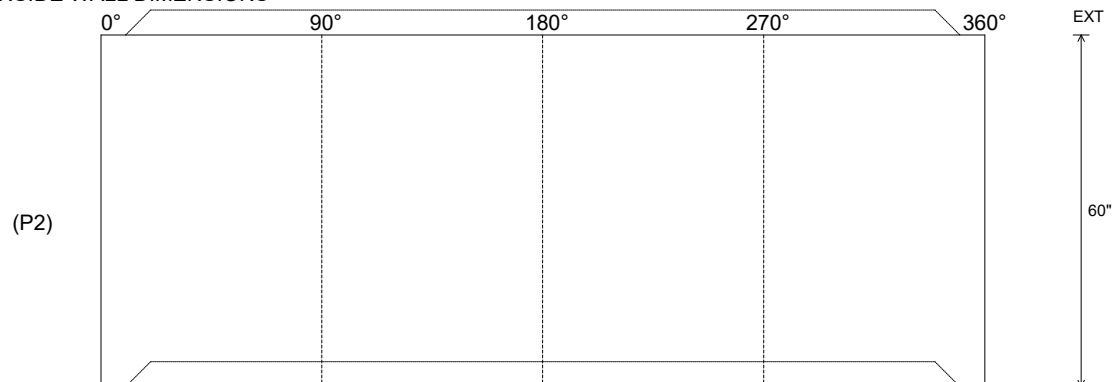
Rim: 12.2' Rim to Invert: 12.2' Slack: 6.4" Sump: 2" Step Position: 0°

Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up (_)	Offset
Invert 1										
Invert 2										
Invert 3										
Invert 4										
Invert 5										
Invert 6										
Invert 7										
Invert 8										

RIGHT-SIDE UP VIEW (int. dimensions)



INSIDE WALL DIMENSIONS



Coating (Int):
Coating (Ext):

Seam Up: Tongue
Seam Dn: Groove

Wall Thickness: 5"
Floor Height: 0"

Height (Int): 60"
Height (Ext): 60"

Weight (Net): 4192 lb
Volume (Net): 1.07cu.yd

Job Name: 25-1145B - 7959 Poplar Creek
Job Location: Nashville, TN 37221
Contractor: Elite Constructors, Inc.

Plant: Beaver Dam, KY
7/22/2026 12:19:10 PM

Tech: J. Horsley
PC: A. Chambers



Structure ID: SAN-A2

P2 MH048RS48SCDARED

MH RISER w/DROP/ConBlock-CDA Red T/G

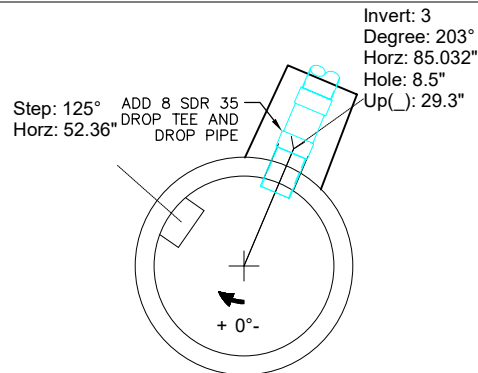
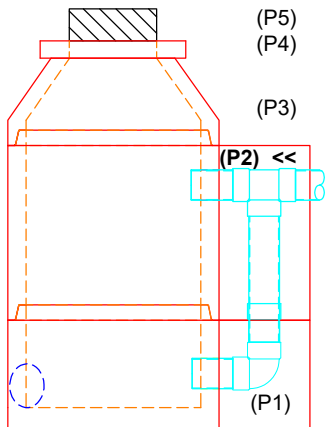
- P5) 24" - CASTING HEIGHT - 7"
P4) 24" - GRADE RING w/ConBlock-CDA Red F/F - 4"
P3) 48" - CON CONE w/24" HOLE, w/ConBlock-CDA Red F/G - 24"
P2) 48" - MH RISER w/DROP/ConBlock-CDA Red T/G - 48"
P1) 48" - MH BASE w/DROP/ConBlock-CDA Red T/n - 24"
1) JOINT WRAP PRIMER - CONSEAL CS-75 (1 gal.)
1) JOINT WRAP - 0.065"x6"x50' CONSEAL CS212
1) 48" - MH INVERT CHANNEL w/ConBlock-CDA Red - FULL HEIGHT
1) CASTING - JBS 1150 F/C SANITARY
2) 48" - Conseal CS-102 1.00" (Double)
1) 24" - Conseal CS-102 1.00" (Double)
1) PSX - 12-08 NYLO
1) Drop Elbow - 8" PVC
1) Drop Tee - 8" PVC
8) MH Step ML-10-TDS-NCR - 10"

- 0 lb
270 lb
1297 lb
3329 lb
2935 lb
0 lb
0 lb
1440 lb
250 lb
0 lb
0 lb
8 lb
0 lb
0 lb
0 lb
- Structure Notes:
1. PER ASTM C478 SPECIFICATIONS.
2. CONCRETE = 4,000 PSI AT 28 DAYS.
3. ADMIXTURE = CONBLOCK CDA RED.
4. CASTING BY ICAST (JBS 1150 F/C "SAN")
5. EXTERIOR ROP ASSEMBLY AT 203° BY ICAST.
- REINFORCING PER ASTM A615 (GRADE 60).
- CONE (As .12)
- RISER/WALLS (As .12)
- FLOOR (As .31) #5 BARS AT 12" C.C.E.W.

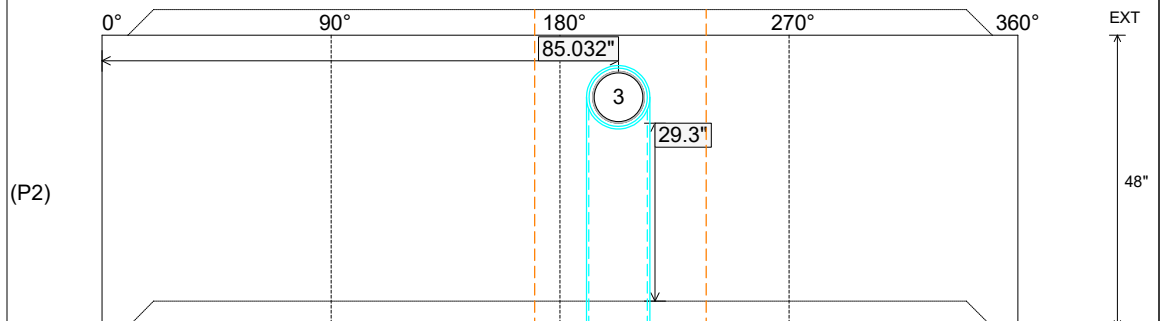
Rim: 611.15' Rim to Invert: 8.8' Slack: 0.6" Sump: 2" Structure Total: 9529 lb
Step Position: 125°

Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up (_)	Offset
Invert 1										
Invert 2										
Invert 3	607'	203°	102.748"	8" PVC SDR35	8.5"	Drop Tee 8" PVC	8.5"	8.545"	29.3"	0"
Invert 4										
Invert 5										
Invert 6										
Invert 7										
Invert 8										

RIGHT-SIDE UP VIEW (int. dimensions)



INSIDE WALL DIMENSIONS



Coating (Int):
Coating (Ext):

Seam Up: Tongue
Seam Dn: Groove

Wall Thickness: 5"
Floor Height: 0"

Height (Int): 48"
Height (Ext): 48"

Weight (Net): 3329 lb
Volume (Net): 0.85cu.yd

Job Name: 25-1145B - 7959 Poplar Creek
Job Location: Nashville, TN 37221
Contractor: Elite Constructors, Inc.

Plant: Beaver Dam, KY
7/22/2026 12:17:29 PM

Tech: J. Horsley
PC: A. Chambers



Structure ID: SAN-A3

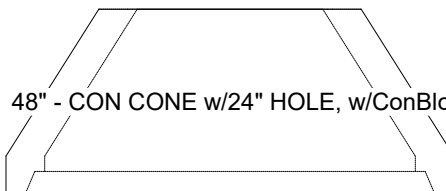
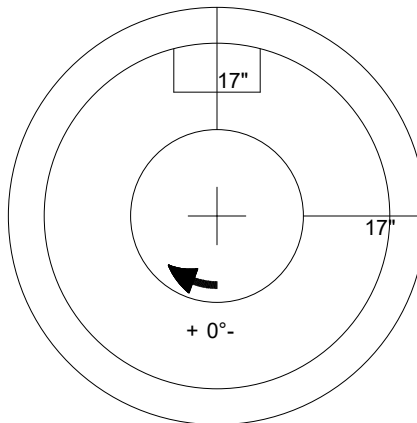
P3 MH048CCN24CDARED

CON CONE w/24" HOLE, w/ConBlock-CDA Red F/G

- P4) 24" - CASTING HEIGHT - 7"
P3) 48" - CON CONE w/24" HOLE, w/ConBlock-CDA Red F/G - 24"
P2) 48" - MH RISER w/ConBlock-CDA Red T/G - 24"
P1) 48" - MH BASE w/ConBlock-CDA Red T/n - 30"
1) JOINT WRAP PRIMER - CONSEAL CS-75 (1 gal.)
1) JOINT WRAP - 0.065"x6"x50' CONSEAL CS212
1) 48" - MH INVERT CHANNEL w/ConBlock-CDA Red - FULL HEIGHT
1) CASTING - JBS 1150 F/C SANITARY
2) 48" - Conseal CS-102 1.00" (Double)
1) 24" - Conseal CS-102 1.00" (Double)
1) PSX - 12-08 NYLO
6) MH Step ML-10-TDS-NCR - 10"

- 0 lb
1297 lb
1677 lb
3378 lb
0 lb
0 lb
1440 lb
250 lb
0 lb
0 lb
8 lb
0 lb
- Structure Notes: .
1. PER ASTM C478 SPECIFICATIONS.
2. CONCRETE = 4,000 PSI AT 28 DAYS.
3. ADMIXTURE = CONBLOCK CDA RED.
4. CASTING BY ICAST (JBS 1150 F/C "SAN")
REINFORCING PER ASTM A615 (GRADE 60).
- CONE (As .12)
- RISER/WALLS (As .12)
- FLOOR (As .31) #5 BARS AT 12" C.C.E.W.

Structure Total: 8050 lb



48" - CON CONE w/24" HOLE, w/ConBlock-CDA Red F/G - 24" - (P3)

Coating (Int):
Coating (Ext):

Seam Up: Flat
Seam Dn: Groove

Wall Thickness: 5"

Height (Ext): 24"

Weight (Net): 1297 lb
Volume (Net): 0.33cu.yd

Job Name: 25-2397 Sandy Springs Sec. 2
Job Location: Elizabethtown, KY 42701
Contractor: Dirt Works Unlimited, LLC.

Plant: 100

7/9/2026 2:51:37 PM

Tech: Jared - A

PC: Thomas Ryan



Structure ID: Y

P1 MH048BAVF

MH BASE Custom Ht

- P3) 24" x 36" - CASTING HEIGHT - 6"
P2) 48" - MH FLAT TOP w/24"x36" Hole - 7"
P1) 48" - MH BASE Custom Ht - 35"
1) CASTING - HOE 525 SET (F/G/H)
1) 48" - Conseal CS-102 1.00"
1) 24" x 36" - Conseal CS-102 1.00"
2) Hole - 30
1) Hole - 18
3) MH Step ML-10-TDS-NCR - 10"

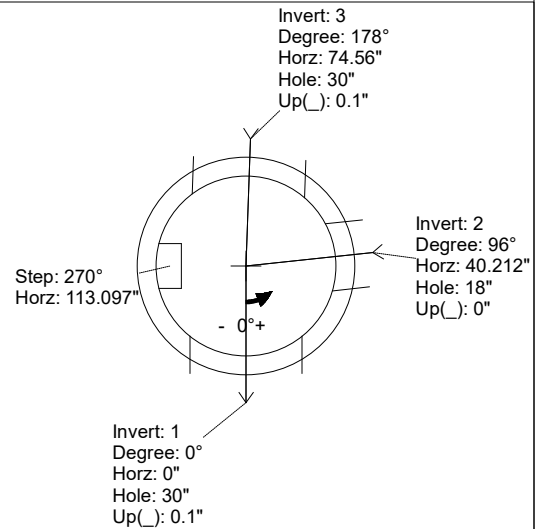
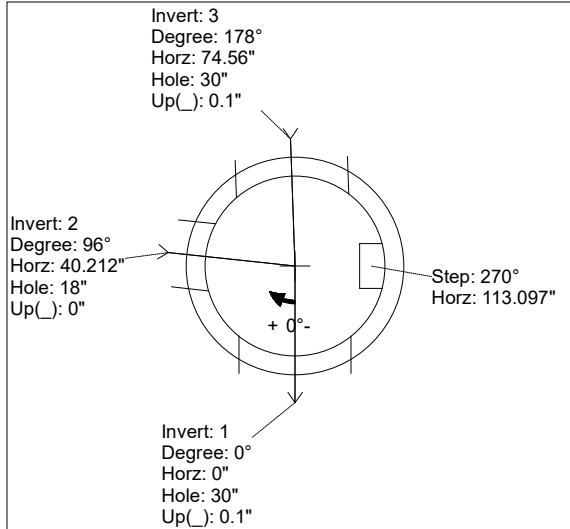
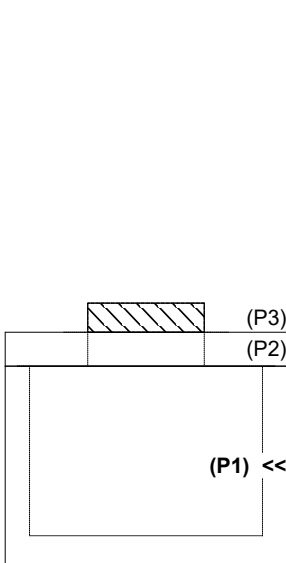
- 0 lb
1044 lb
3034 lb
442 lb
0 lb
0 lb
0 lb
0 lb
0 lb
0 lb
Structure Total: 4521 lb
- Structure Notes:**
PLAN LABEL: Y
1. HOE 525 SET (F/G/H) PROVIDED BY ICAST.
2. PER ASTM C478 SPECIFICATIONS.
3. CONCRETE = 4,000 PSI AT 28 DAYS.
4. REINFORCING PER ASTM A615 (GRADE 60).
- TOP SLAB (As .62) #5 BARS AT 6" C.C.E.W..
- RISER/WALLS (As .12)
- FLOOR (As .31) #5 BARS AT 12" C.C.E.W.

Rim: 690.82' Rim to Invert: 3.85' Slack: 0.2" Sump: 2" Step Position: 269°

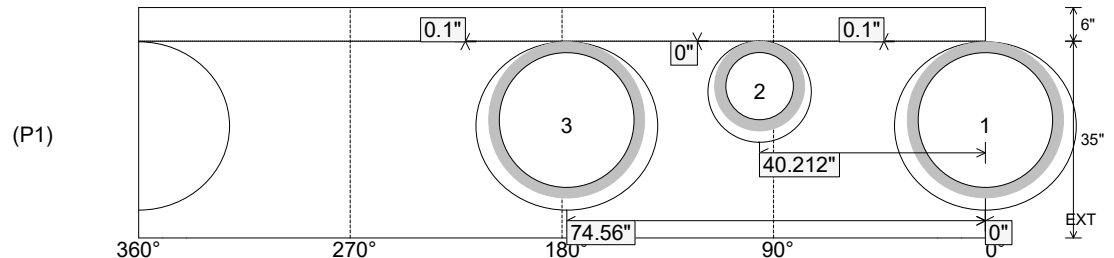
Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up ()	Offset
Invert 1	686.97'	0°	0"	24" HDPE	27.8"	Hole 30	30"	32.406"	0.1"	0"
Invert 2	686.97'	96°	48.59"	12" RCP B WALL	16"	Hole 18	18"	18.451"	0"	0"
Invert 3	686.97'	178°	90.094"	24" HDPE	27.8"	Hole 30	30"	32.406"	0.1"	0"
Invert 4										
Invert 5										
Invert 6										
Invert 7										
Invert 8										

RIGHT-SIDE UP VIEW (int. dimensions)

UPSIDE-DOWN VIEW (int. dimensions)



INSIDE WALL DIMENSIONS



Coating (Int):
Coating (Ext):

Seam Up: Flat
Seam Dn: n/a

Wall Thickness: 5"
Floor Height: 6"

Height (Int): 35"
Height (Ext): 41"

Weight (Net): 3034 lb
Volume (Net): 0.78cu.yd

Job Name: 25-2397 Sandy Springs Sec. 2
Job Location: Elizabethtown, KY 42701
Contractor: Dirt Works Unlimited, LLC.

Plant: 100

7/9/2026 2:51:36 PM

Tech: Jared - A

PC: Thomas Ryan



Structure ID: W

P1 MH048BAVF

MH BASE Custom Ht

- P3) 24" x 36" - CASTING HEIGHT - 6"
P2) 48" - MH FLAT TOP w/24"x36" Hole - 7"
P1) 48" - MH BASE Custom Ht - 31"
1) CASTING - HOE 525 SET (F/G/H)
1) 48" - Conseal CS-102 1.00"
1) 24" x 36" - Conseal CS-102 1.00"
1) DOGHOUSE INVRTD - 30"x30"
1) Hole - 20
1) Hole - 24
2) MH Step ML-10-TDS-NCR - 10"

0 lb
1044 lb
2792 lb
442 lb
0 lb
0 lb
0 lb
0 lb
0 lb
0 lb

Structure Total: 4278 lb

Structure Notes:

PLAN LABEL: W

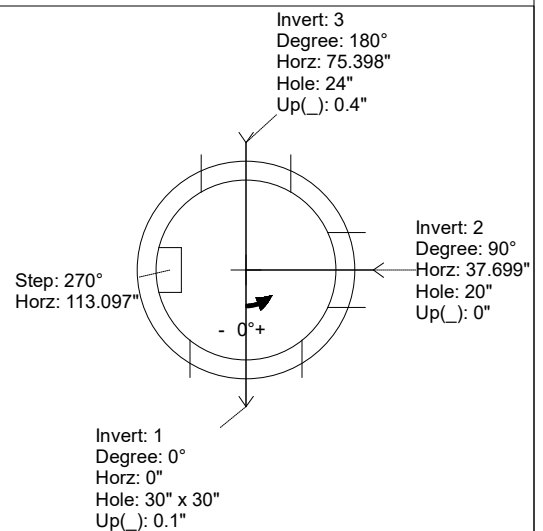
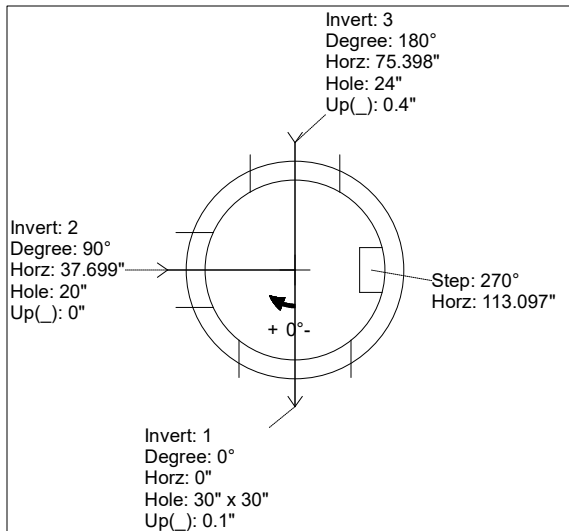
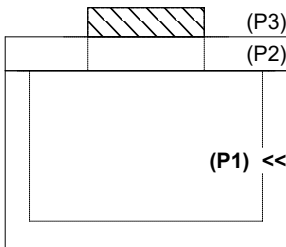
1. HOE 525 SET (F/G/H) PROVIDED BY ICAST.
2. PER ASTM C478 SPECIFICATIONS.
3. CONCRETE = 4,000 PSI AT 28 DAYS.
4. REINFORCING PER ASTM A615 (GRADE 60).
 - TOP SLAB (As .62) #5 BARS AT 6" C.C.E.W..
 - RISER/WALLS (As .12)
 - FLOOR (As .31) #5 BARS AT 12" C.C.E.W.

Rim: 691.82' Rim to Invert: 3.52' Slack: 0.24" Sump: 2" Step Position: 270°

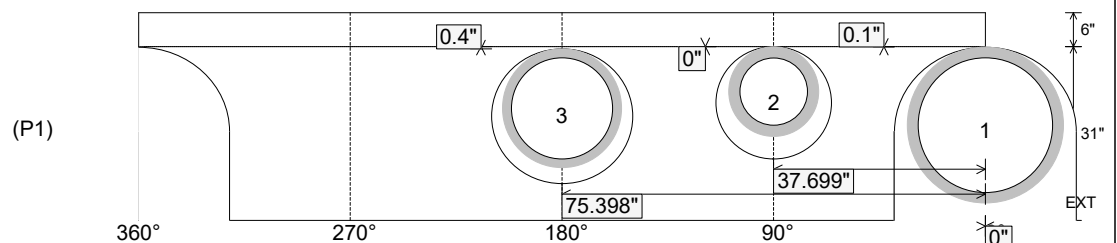
Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up ()	Offset
Invert 1	688.3'	0°	0"	24" HDPE	27.8"	DOGHOUSE INVRTD 30"x30"	30" x 30"	32.406"	0.1"	0"
Invert 2	688.3'	90°	45.553"	12" RCP B WALL	16"	Hole 20	20"	20.629"	0"	0"
Invert 3	688.3'	180°	91.106"	18" HDPE	21.2"	Hole 24	24"	25.133"	0.4"	0"
Invert 4										
Invert 5										
Invert 6										
Invert 7										
Invert 8										

RIGHT-SIDE UP VIEW (int. dimensions)

UPSIDE-DOWN VIEW (int. dimensions)



INSIDE WALL DIMENSIONS



Coating (Int):
Coating (Ext):

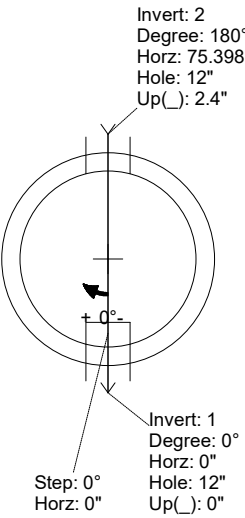
Seam Up: Flat
Seam Dn: n/a

Wall Thickness: 5"
Floor Height: 6"

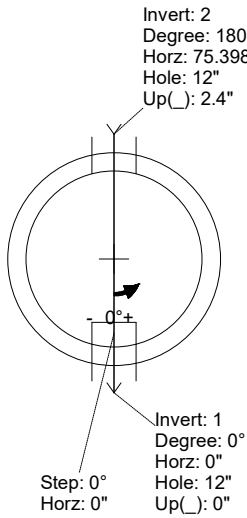
Height (Int): 31"
Height (Ext): 37"

Weight (Net): 2792 lb
Volume (Net): 0.71cu.yd

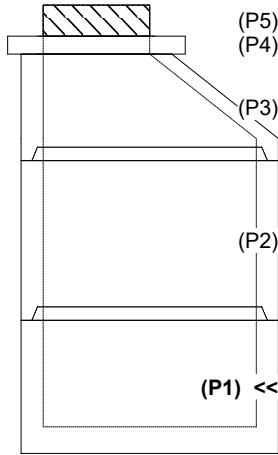
Job Name: 25-4288 - Project Wave Job Location: Franklin, KY 42134 Contractor: Cumberland Pipeline LLC					Plant: 100 7/10/2026 8:13:03 AM		Tech: Jared - A PC: Erica Bradley			
Structure ID: A13.2										
P1 MH048BA24X		MH BASE w/XYPEX								
P5) 24" - CASTING HEIGHT - 7" P4) 24" - XYPEX GRADE RING - 4" P3) 48" - ECC XYPEX CONE w/ 24" HOLE - 24" P2) 48" - MH RISER w/XYPEX - 36" P1) 48" - MH BASE w/XYPEX - 24" 1) JOINT WRAP - 0.065"x6"x50' CONSEAL CS212 1) JOINT WRAP PRIMER - CONSEAL CS-75 (1 gal.) 1) 48" - MH INVERT CHANNEL w/XYPEX - FULL HEIGHT 1) CASTING - JBS 1150 F/C SANITARY 2) 48" - Conseal CS-102 1.00" (Double) 2) 24" - Conseal CS-102 1.00" (Double) 2) PSX - 12-08 NYLO 7) MH Step ML-10-TDS-NCR - 10"					0 lb 270 lb 1738 lb 2515 lb 2911 lb 0 lb 0 lb 1440 lb 250 lb 0 lb 0 lb 16 lb 0 lb ----- 9140 lb		Structure Notes: 1. PER ASTM C-478 SPECIFICATIONS 2. CONCRETE: 4,000 PSI AT 28 DAYS 3. REINFORCEMENT: PER ASTM A615 4. INVERT CHANNEL REQUIRED 5. STEPS AT 0 DEGREES 6. JBS 1150 FRAME & COVER "SANITARY" SUPPLIED BY ICAST			
Rim: 732.04' Rim to Invert: 7.82' Slack: 0.84" Sump: 2" Step Position: 0°										
Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up ()	Offset
Invert 1	724.22'	0°	0"	8" PVC SDR35	8.5"	PSX 12-08 NYLO	12"	12.129"	0"	0"
Invert 2	724.42'	180°	91.106"	8" PVC SDR35	8.5"	PSX 12-08 NYLO	12"	12.129"	2.4"	0"
Invert 3										
Invert 4										
Invert 5										
Invert 6										
Invert 7										
Invert 8										



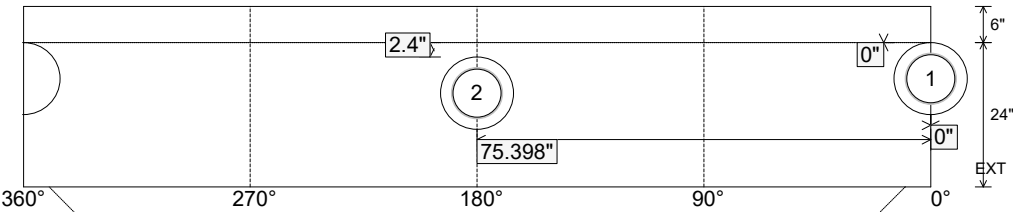
RIGHT-SIDE UP VIEW (int. dimensions)



UPSIDE-DOWN VIEW (int. dimensions)



INSIDE WALL DIMENSIONS



Coating (Int): Coating (Ext):	Seam Up: Tongue Seam Dn: n/a	Wall Thickness: 5" Floor Height: 6"	Height (Int): 24" Height (Ext): 30"	Weight (Net): 2911 lb Volume (Net): 0.74cu.yd
----------------------------------	---------------------------------	--	--	--

Job Name: 25-4288 - Project Wave

Job Location: Franklin, KY 42134

Contractor: Cumberland Pipeline LLC

Plant: 100

7/10/2026 8:13:03 AM

Tech: Jared - A

PC: Erica Bradley



Structure ID: A13.2

P1MH048BA24XMH BASE w/XYPEX

P5) 24" - CASTING HEIGHT - 7"

P4) 24" - XYPEX GRADE RING - 4"

P3) 48" - ECC XYPEX CONE w/ 24" HOLE - 24"

P2) 48" - MH RISER w/XYPEX - 36"

P1) 48" - MH BASE w/XYPEX - 24"

1) JOINT WRAP - 0.065"x6"x50' CONSEAL CS212

1) JOINT WRAP PRIMER - CONSEAL CS-75 (1 gal.)

1) 48" - MH INVERT CHANNEL w/XYPEX - FULL HEIGHT

1) CASTING - JBS 1150 F/C SANITARY

2) 48" - Conseal CS-102 1.00" (Double)

2) 24" - Conseal CS-102 1.00" (Double)

2) PSX - 12-08 NYLO

7) MH Step ML-10-TDS-NCR - 10"

0 lb

270 lb

1738 lb

2515 lb

2911 lb

0 lb

0 lb

1440 lb

250 lb

0 lb

0 lb

16 lb

0 lb

9140 lb

Structure Notes:

1. PER ASTM C-478 SPECIFICATIONS

2. CONCRETE: 4,000 PSI AT 28 DAYS

3. REINFORCEMENT: PER ASTM A615

4. INVERT CHANNEL REQUIRED

5. STEPS AT 0 DEGREES

6. JBS 1150 FRAME & COVER "SANITARY" SUPPLIED BY ICAST

INVERT CHANNEL DRAWING

FULL HEIGHT INVERT

Structure Total:

9140 lb

Rim: 732.04'

Rim to Invert: 7.82'

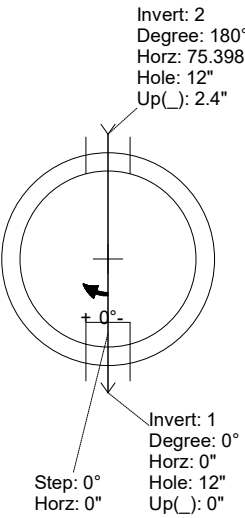
Slack: 0.84"

Sump: 2"

Step Position: 0°

Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up ()	Offset
Invert 1	724.22'	0°	0"	8" PVC SDR35	8.5"	PSX 12-08 NYLO	12"	12.129"	0"	0"
Invert 2	724.42'	180°	91.106"	8" PVC SDR35	8.5"	PSX 12-08 NYLO	12"	12.129"	2.4"	0"
Invert 3										
Invert 4										
Invert 5										
Invert 6										
Invert 7										
Invert 8										

RIGHT-SIDE UP VIEW (int. dimensions)



Invert: 2

Degree: 180°

Horz: 75.398"

Hole: 12"

Up(): 2.4"

Invert: 1

Degree: 0°

Horz: 0"

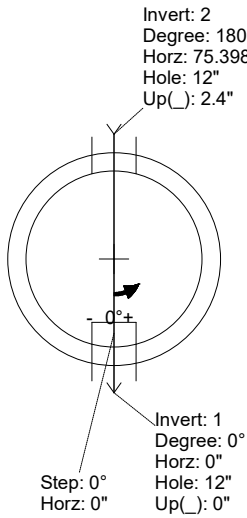
Hole: 12"

Up(): 0"

Step: 0°

Horz: 0"

UPSIDE-DOWN VIEW (int. dimensions)



Invert: 2

Degree: 180°

Horz: 75.398"

Hole: 12"

Up(): 2.4"

Invert: 1

Degree: 0°

Horz: 0"

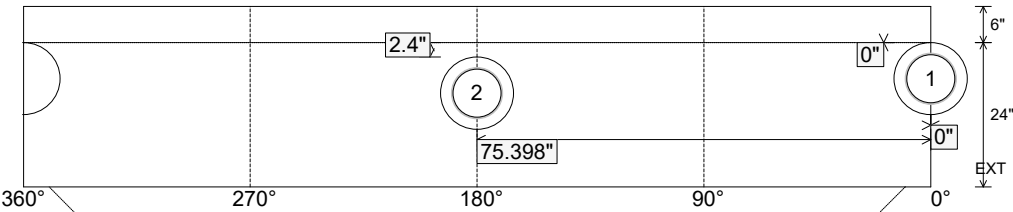
Hole: 12"

Up(): 0"

Step: 0°

Horz: 0"

INSIDE WALL DIMENSIONS



2.4"

75.398"

0"

0"

6"

24"

EXT

360°

270°

180°

90°

0°

Coating (Int):

Coating (Ext):

Seam Up: Tongue

Seam Dn: n/a

Wall Thickness: 5"

Floor Height: 6"

Height (Int): 24"

Height (Ext): 30"

Weight (Net): 2911 lb

Volume (Net): 0.74cu.yd

Job Name: 25-4288 - Project Wave

Job Location: Franklin, KY 42134

Contractor: Cumberland Pipeline LLC

Plant: 100

7/10/2026 8:12:58 AM

Tech: Jared - A

PC: Erica Bradley



Structure ID: A7

P1 MH048BA30X

MH BASE w/XYPEX

P6) 24" - CASTING HEIGHT - 7"

P5) 48" - ECC XYPEX CONE w/ 24" HOLE - 30"

P4) 48" - MH RISER w/XYPEX - 60"

P3) 48" - MH RISER w/XYPEX - 60"

P2) 48" - MH RISER w/XYPEX - 60"

P1) 48" - MH BASE w/XYPEX - 30"

1) JOINT WRAP - 0.065"x6"x50' CONSEAL CS212

1) JOINT WRAP PRIMER - CONSEAL CS-75 (1 gal.)

1) 48" - MH INVERT CHANNEL w/XYPEX - FULL HEIGHT

1) CASTING - JBS 1150 F/C SANITARY

4) 48" - Conseal CS-102 1.00" (Double)

1) 24" - Conseal CS-102 1.00" (Double)

2) PSX - 12-08 NYLO

20) MH Step ML-10-TDS-NCR - 10"

0 lb

1981 lb

4192 lb

4192 lb

4192 lb

3330 lb

0 lb

0 lb

1440 lb

250 lb

0 lb

0 lb

16 lb

0 lb

Structure Total: 19592 lb

Structure Notes:

1. PER ASTM C-478 SPECIFICATIONS

2. CONCRETE: 4,000 PSI AT 28 DAYS

3. REINFORCEMENT: PER ASTM A615

4. INVERT CHANNEL REQUIRED

5. STEPS AT 0 DEGREES

6. JBS 1150 FRAME & COVER "SANITARY" SUPPLIED BY ICAST

Rim: 726.27'

Rim to Invert: 20.65'

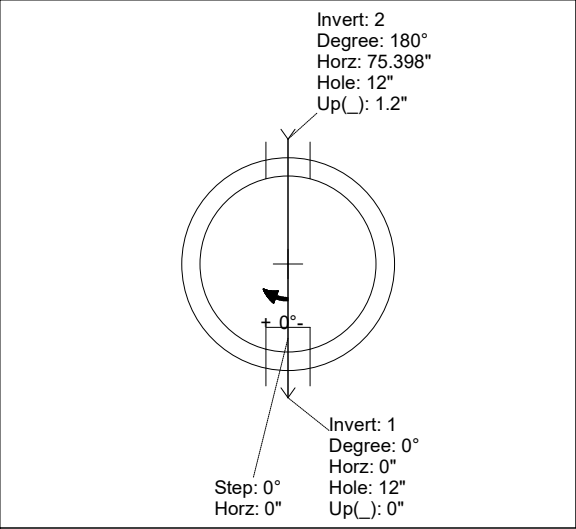
Slack: 2.8"

Sump: 2"

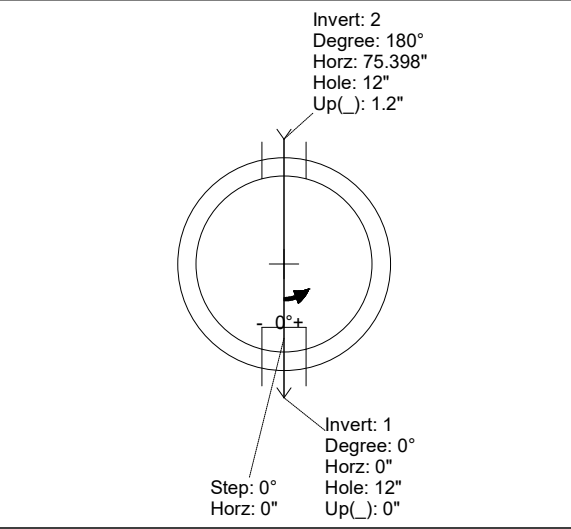
Step Position: 0°

Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up ()	Offset
Invert 1	705.62'	0°	0"	8" PVC SDR35	8.5"	PSX 12-08 NYLO	12"	12.129"	0"	0"
Invert 2	705.72'	180°	91.106"	8" PVC SDR35	8.5"	PSX 12-08 NYLO	12"	12.129"	1.2"	0"
Invert 3										
Invert 4										
Invert 5										
Invert 6										
Invert 7										
Invert 8										

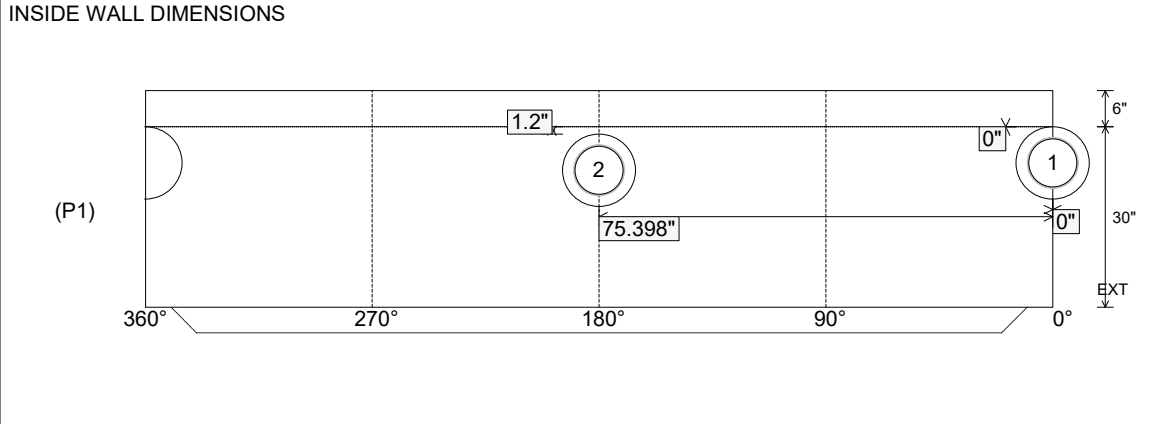
RIGHT-SIDE UP VIEW (int. dimensions)



UPSIDE-DOWN VIEW (int. dimensions)



INSIDE WALL DIMENSIONS



Coating (Int):

Coating (Ext):

Seam Up: Tongue

Seam Dn: n/a

Wall Thickness: 5"

Floor Height: 6"

Height (Int): 30"

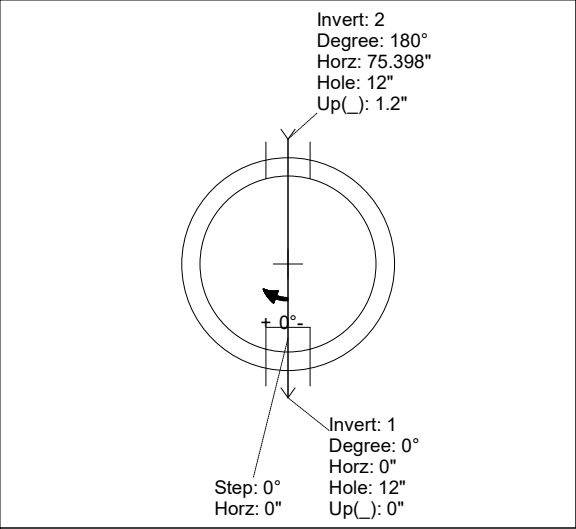
Height (Ext): 36"

Weight (Net): 3330 lb

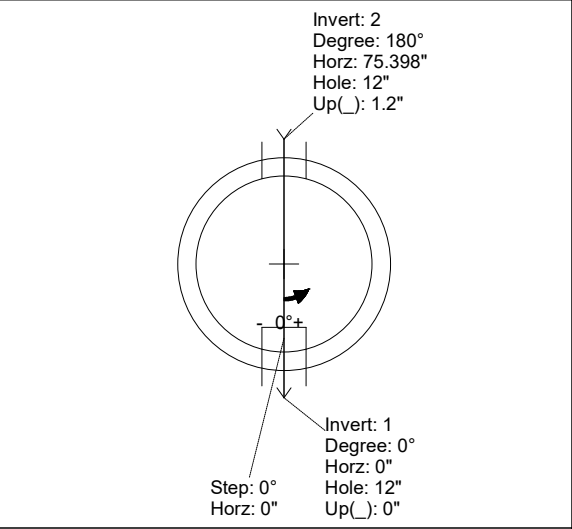
Volume (Net): 0.85cu.yd

Job Name: 25-4288 - Project Wave Job Location: Franklin, KY 42134 Contractor: Cumberland Pipeline LLC					Plant: 100 7/10/2026 8:12:58 AM		Tech: Jared - A PC: Erica Bradley			
Structure ID: A7										
P1 MH048BA30X		MH BASE w/XYPEX								
P6) 24" - CASTING HEIGHT - 7" P5) 48" - ECC XYPEX CONE w/ 24" HOLE - 30" P4) 48" - MH RISER w/XYPEX - 60" P3) 48" - MH RISER w/XYPEX - 60" P2) 48" - MH RISER w/XYPEX - 60" P1) 48" - MH BASE w/XYPEX - 30" 1) JOINT WRAP - 0.065"x6"x50' CONSEAL CS212 1) JOINT WRAP PRIMER - CONSEAL CS-75 (1 gal.) 1) 48" - MH INVERT CHANNEL w/XYPEX - FULL HEIGHT 1) CASTING - JBS 1150 F/C SANITARY 4) 48" - Conseal CS-102 1.00" (Double) 1) 24" - Conseal CS-102 1.00" (Double) 2) PSX - 12-08 NYLO 20) MH Step ML-10-TDS-NCR - 10"					0 lb 1981 lb 4192 lb 4192 lb 4192 lb 3330 lb 0 lb 0 lb 0 lb 1440 lb 250 lb 0 lb 0 lb 0 lb 16 lb 0 lb ----- Structure Total: 19592 lb		Structure Notes: 1. PER ASTM C-478 SPECIFICATIONS 2. CONCRETE: 4,000 PSI AT 28 DAYS 3. REINFORCEMENT: PER ASTM A615 4. INVERT CHANNEL REQUIRED 5. STEPS AT 0 DEGREES 6. JBS 1150 FRAME & COVER "SANITARY" SUPPLIED BY ICAST INVERT CHANNEL DRAWING FULL HEIGHT INVERT			
Rim: 726.27' Rim to Invert: 20.65' Slack: 2.8" Sump: 2" Step Position: 0°										
Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up ()	Offset
Invert 1	705.62'	0°	0"	8" PVC SDR35	8.5"	PSX 12-08 NYLO	12"	12.129"	0"	0"
Invert 2	705.72'	180°	91.106"	8" PVC SDR35	8.5"	PSX 12-08 NYLO	12"	12.129"	1.2"	0"
Invert 3										
Invert 4										
Invert 5										
Invert 6										
Invert 7										
Invert 8										

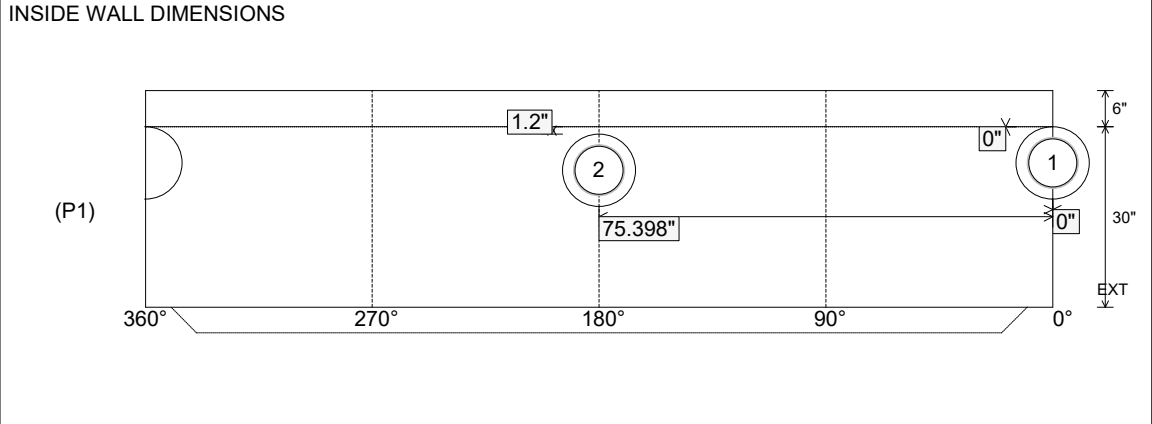
RIGHT-SIDE UP VIEW (int. dimensions)



UPSIDE-DOWN VIEW (int. dimensions)



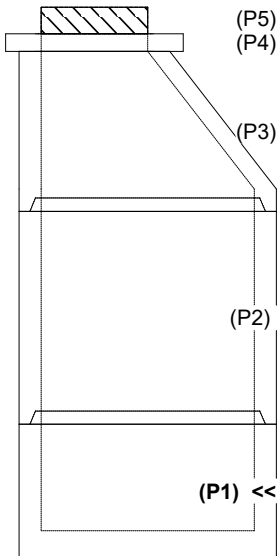
INSIDE WALL DIMENSIONS



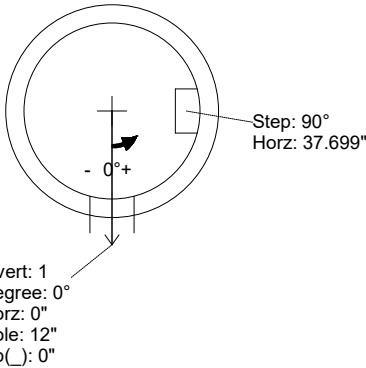
Coating (Int): Coating (Ext):	Seam Up: Tongue Seam Dn: n/a	Wall Thickness: 5" Floor Height: 6"	Height (Int): 30" Height (Ext): 36"	Weight (Net): 3330 lb Volume (Net): 0.85cu.yd
----------------------------------	---------------------------------	--	--	--

Job Name: 23-2309 - Richland Estates Subdivision Job Location: Portland, TN Contractor: Core & Main LP (BG)					Plant: 100 6/30/2026 8:52:27 AM		Tech: J. Horsley PC: T. Lewis				
Structure ID: 06 SS-MH											
P1 MH048BA24X			MH BASE w/XYPEX								
P5) 24" - CASTING HEIGHT - 6" P4) 24" - XYPEX GRADE RING - 4" P3) 48" - ECC XYPEX CONE w/ 24" HOLE - 36" P2) 48" - MH RISER w/XYPEX SPECIAL - 48" P1) 48" - MH BASE w/XYPEX - 24" 1) JOINT WRAP - 0.065"x12"x50' CONSEAL CS212 1) JOINT WRAP PRIMER - CONSEAL CS-75 (1 gal.) 1) 48" - MH INVERT CHANNEL w/ConBlock-CDA Red - FULL HEIGHT 2) 48" - Conseal CS-102 1.00" (Double) 1) 24" - Conseal CS-102 1.00" (Double) 2) PSX - 12-08 NYLO 9) MH Step ML-10-TDS-NCR - 10"					0 lb 270 lb 2251 lb 3305 lb 2959 lb 0 lb 0 lb 1440 lb 0 lb 0 lb 16 lb 0 lb		Structure Notes: . 1. PER ASTM C478 SPECIFICATIONS. 2. CONCRETE = 4,000 PSI AT 28 DAYS. 3. ADMIXTURE = XYPEX C-500 NF RED 4. CASTING BY OTHERS (JBS 1155 F/C SANITARY). REINFORCING PER ASTM A615 (GRADE 60). - CONE (As .12) - RISER (As .12) - FLOOR (As .31) #5 BARS AT 12" C.C.E.W.				
Rim: 814.74' Rim to Invert: 9.7' Slack: 0.4" Sump: 2" Step Position: 90°					Structure Total: 10241 lb						
Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up ()	Offset	
Invert 1	805.04'	0°	0"	8" PVC SDR26	8.5"	PSX 12-08 NYLO	12"	12.129"	0"	0"	
Invert 2											
Invert 3											
Invert 4											
Invert 5											
Invert 6											
Invert 7											
Invert 8											

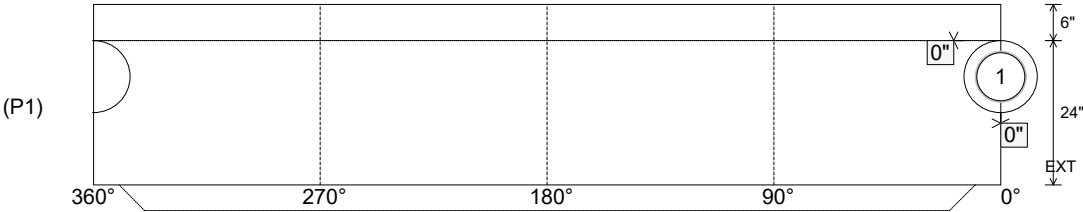
RIGHT-SIDE UP VIEW (int. dimensions)



UPSIDE-DOWN VIEW (int. dimensions)



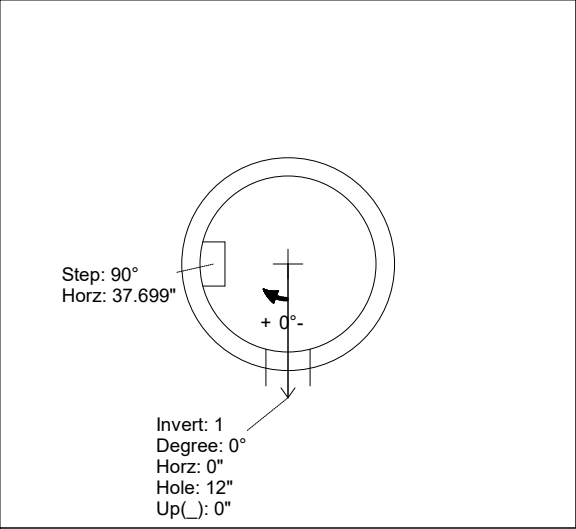
INSIDE WALL DIMENSIONS



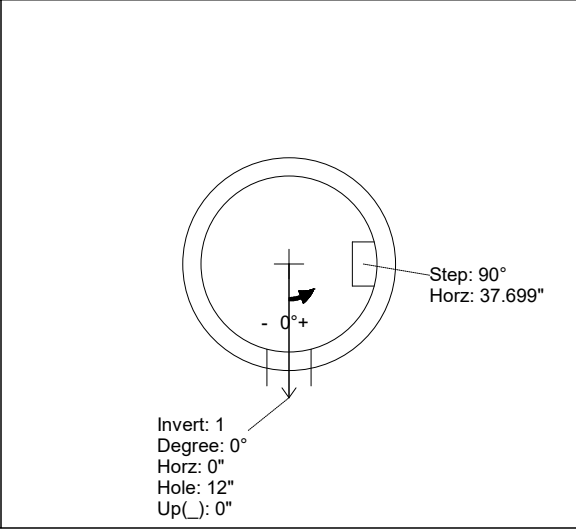
Coating (Int): Coating (Ext):	Seam Up: Tongue Seam Dn: n/a	Wall Thickness: 5" Floor Height: 6"	Height (Int): 24" Height (Ext): 30"	Weight (Net): 2959 lb Volume (Net): 0.76cu.yd
----------------------------------	---------------------------------	--	--	--

Job Name: 23-2309 - Richland Estates Subdivision Job Location: Portland, TN Contractor: Core & Main LP (BG)					Plant: 100 6/30/2026 8:52:27 AM		Tech: J. Horsley PC: T. Lewis				
Structure ID: 06 SS-MH											
P1 MH048BA24X			MH BASE w/XYPEX								
P5) 24" - CASTING HEIGHT - 6" P4) 24" - XYPEX GRADE RING - 4" P3) 48" - ECC XYPEX CONE w/ 24" HOLE - 36" P2) 48" - MH RISER w/XYPEX SPECIAL - 48" P1) 48" - MH BASE w/XYPEX - 24" 1) JOINT WRAP - 0.065"x12"x50' CONSEAL CS212 1) JOINT WRAP PRIMER - CONSEAL CS-75 (1 gal.) 1) 48" - MH INVERT CHANNEL w/ConBlock-CDA Red - FULL HEIGHT 2) 48" - Conseal CS-102 1.00" (Double) 1) 24" - Conseal CS-102 1.00" (Double) 2) PSX - 12-08 NYLO 9) MH Step ML-10-TDS-NCR - 10"					0 lb 270 lb 2251 lb 3305 lb 2959 lb 0 lb 0 lb 1440 lb 0 lb 0 lb 16 lb 0 lb		Structure Notes: . 1. PER ASTM C478 SPECIFICATIONS. 2. CONCRETE = 4,000 PSI AT 28 DAYS. 3. ADMIXTURE = XYPEX C-500 NF RED 4. CASTING BY OTHERS (JBS 1155 F/C SANITARY). REINFORCING PER ASTM A615 (GRADE 60). - CONE (As .12) - RISER (As .12) - FLOOR (As .31) #5 BARS AT 12" C.C.E.W.				
Rim: 814.74' Rim to Invert: 9.7' Slack: 0.4" Sump: 2" Step Position: 90°					Structure Total: 10241 lb		INVERT CHANNEL DRAWING FULL HEIGHT INVERT				
Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up ()	Offset	
Invert 1	805.04'	0°	0"	8" PVC SDR26	8.5"	PSX 12-08 NYLO	12"	12.129"	0"	0"	
Invert 2											
Invert 3											
Invert 4											
Invert 5											
Invert 6											
Invert 7											
Invert 8											

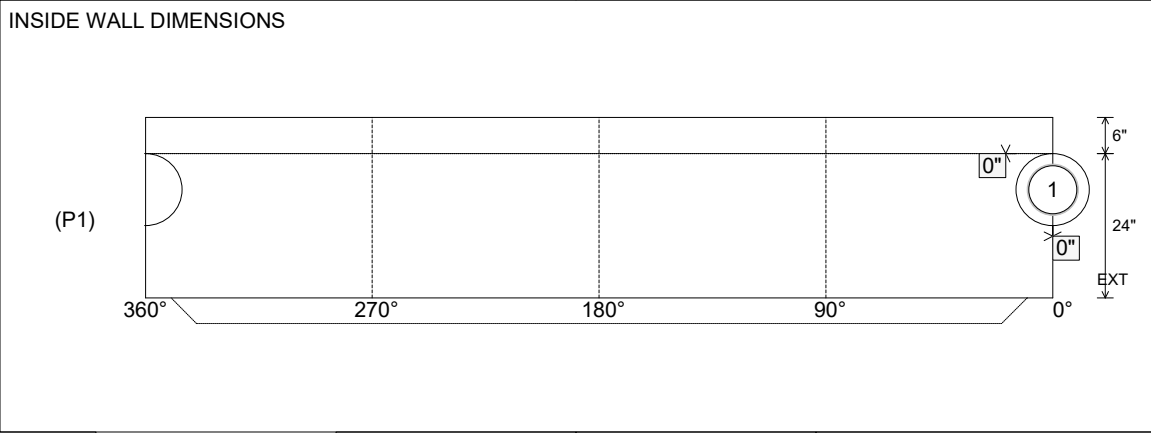
RIGHT-SIDE UP VIEW (int. dimensions)



UPSIDE-DOWN VIEW (int. dimensions)

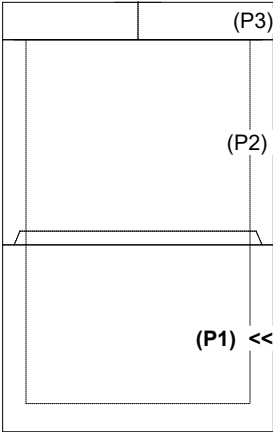


INSIDE WALL DIMENSIONS



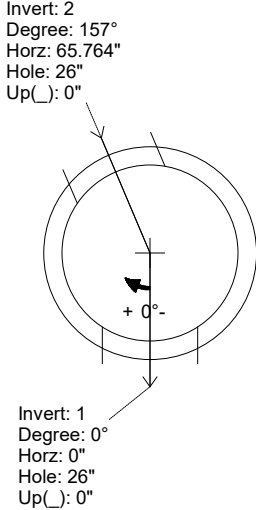
Coating (Int): Coating (Ext):	Seam Up: Tongue Seam Dn: n/a	Wall Thickness: 5" Floor Height: 6"	Height (Int): 24" Height (Ext): 30"	Weight (Net): 2959 lb Volume (Net): 0.76cu.yd
----------------------------------	---------------------------------	--	--	--

Job Name: 25-1401 Irwin Landing Ph. 1 Job Location: Murfreesboro, TN Contractor: Bear Construction LLC					Plant: Beaver Dam 6/9/2026 10:37:28 AM		Tech: S. Felletter PC: Erica Bradley				
Structure ID: R53											
P1		MH048BAVF		MH BASE Custom Ht T/n							
P3) 48" - MH FLAT TOP - TDOT D-RJB-1 (SOLID) F/F - 8" P2) 48" - MH RISER Custom Ht F/G - 44" P1) 48" - MH BASE Custom Ht T/n - 34" 1) 48" - STORM INVERT CHANNEL - 1/4 HEIGHT 2) 48" - Conseal CS-102 1.00" 3) Hole - 26"					1774 lb 2841 lb 3239 lb 1075 lb 0 lb 0 lb ----- Structure Total: 8928 lb		Structure Notes: . 1. PER TDOT D-RJB-1 / ASTM C913 SPEC'S. 2. CONCRETE = 4,000 PSI AT 28 DAYS. REINFORCING PER ASTM A615 (GRADE 60). ** SEE TDOT STD DRAWING D-RJB-1 ** - TOP SLAB (As .42) #5 BARS AT 10" C.C.E.W. - WALLS (As .47) #5 BARS AT 8" C.C.E.W. - FLOOR (As .47) #5 BARS AT 8" C.C.E.W.				
Rim: 568.97' Rim to Invert: 8.21' Slack: 15.02" Sump: 2.5" Step Position:											
Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up ()	Offset	
Invert 1	560.76'	0°	0"	18" RCP B WALL	23"	Hole 26	26"	27.476"	0"	0"	
Invert 2	560.76'	157°	79.465"	18" RCP B WALL	23"	Hole 26	26"	27.476"	0"	0"	
Invert 3											
Invert 4											
Invert 5											
Invert 6											
Invert 7											
Invert 8											



(P3)
(P2)
(P1) <<

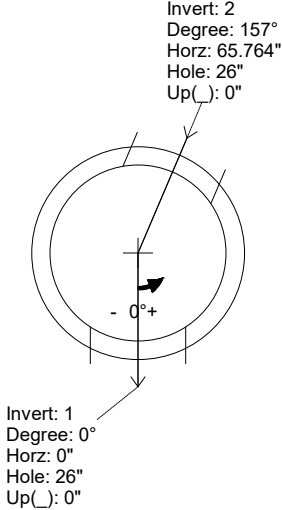
RIGHT-SIDE UP VIEW (int. dimensions)



Invert: 2
Degree: 157°
Horz: 65.764"
Hole: 26"
Up(): 0"

Invert: 1
Degree: 0°
Horz: 0"
Hole: 26"
Up(): 0"

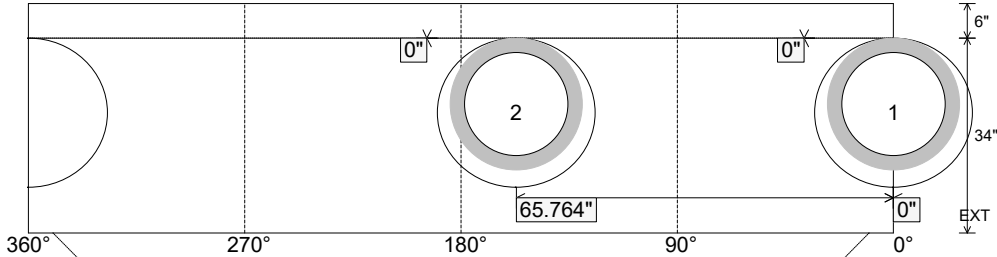
UPSIDE-DOWN VIEW (int. dimensions)



Invert: 2
Degree: 157°
Horz: 65.764"
Hole: 26"
Up(): 0"

Invert: 1
Degree: 0°
Horz: 0"
Hole: 26"
Up(): 0"

INSIDE WALL DIMENSIONS



(P1)

360° 270° 180° 90° 0°

65.764"

6"

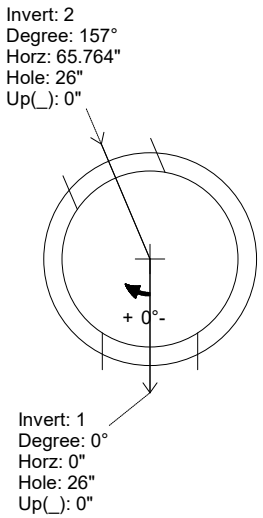
34"

EXT

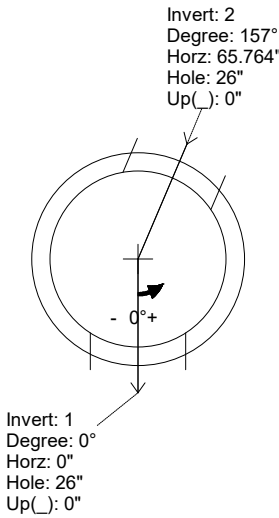
Coating (Int): Coating (Ext):	Seam Up: Tongue Seam Dn: n/a	Wall Thickness: 5" Floor Height: 6"	Height (Int): 34" Height (Ext): 40"	Weight (Net): 3239 lb Volume (Net): 0.83cu.yd
----------------------------------	---------------------------------	--	--	--

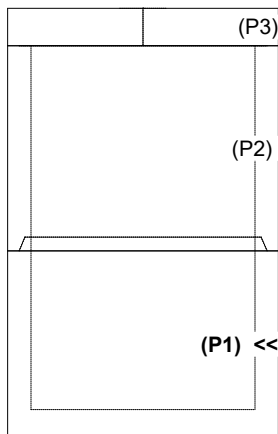
Job Name: 25-1401 Irwin Landing Ph. 1 Job Location: Murfreesboro, TN Contractor: Bear Construction LLC					Plant: Beaver Dam 6/9/2026 10:37:28 AM		Tech: S. Felletter PC: Erica Bradley				
Structure ID: R53											
P1		MH048BAVF		MH BASE Custom Ht T/n							
P3) 48" - MH FLAT TOP - TDOT D-RJB-1 (SOLID) F/F - 8" P2) 48" - MH RISER Custom Ht F/G - 44" P1) 48" - MH BASE Custom Ht T/n - 34" 1) 48" - STORM INVERT CHANNEL - 1/4 HEIGHT 2) 48" - Conseal CS-102 1.00" 3) Hole - 26"					1774 lb 2841 lb 3239 lb 1075 lb 0 lb 0 lb ----- Structure Total: 8928 lb		Structure Notes: . 1. PER TDOT D-RJB-1 / ASTM C913 SPEC'S. 2. CONCRETE = 4,000 PSI AT 28 DAYS. REINFORCING PER ASTM A615 (GRADE 60). ** SEE TDOT STD DRAWING D-RJB-1 ** - TOP SLAB (As .42) #5 BARS AT 10" C.C.E.W. - WALLS (As .47) #5 BARS AT 8" C.C.E.W. - FLOOR (As .47) #5 BARS AT 8" C.C.E.W.				
Rim: 568.97' Rim to Invert: 8.21' Slack: 15.02" Sump: 2.5" Step Position:											
Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up ()	Offset	
Invert 1	560.76'	0°	0"	18" RCP B WALL	23"	Hole 26	26"	27.476"	0"	0"	
Invert 2	560.76'	157°	79.465"	18" RCP B WALL	23"	Hole 26	26"	27.476"	0"	0"	
Invert 3											
Invert 4											
Invert 5											
Invert 6											
Invert 7											
Invert 8											

RIGHT-SIDE UP VIEW (int. dimensions)

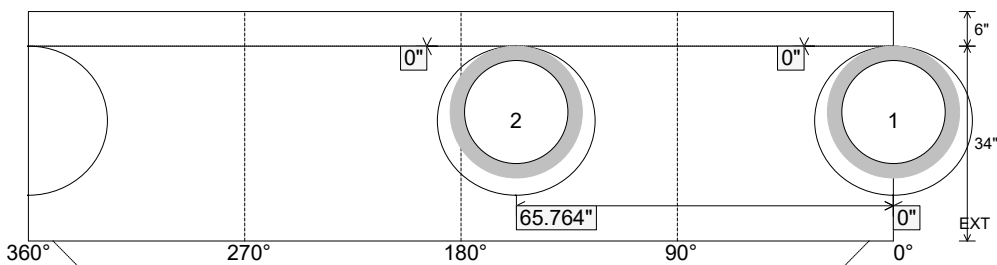


UPSIDE-DOWN VIEW (int. dimensions)





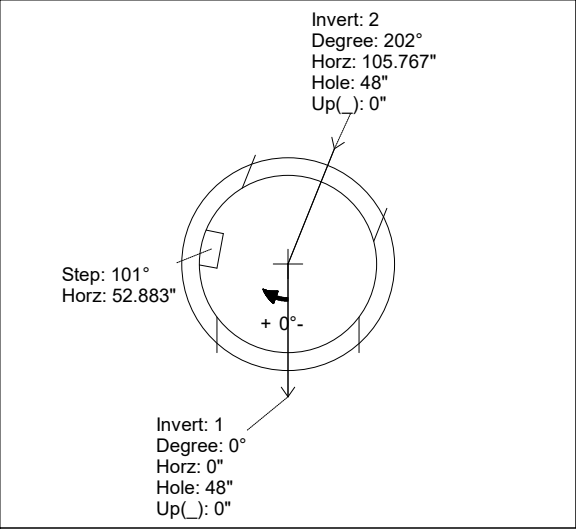
INSIDE WALL DIMENSIONS



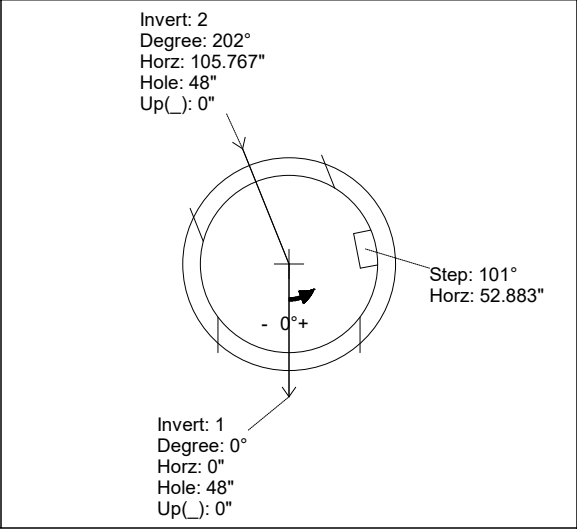
Coating (Int): Coating (Ext):	Seam Up: Tongue Seam Dn: n/a	Wall Thickness: 5" Floor Height: 6"	Height (Int): 34" Height (Ext): 40"	Weight (Net): 3239 lb Volume (Net): 0.83cu.yd
----------------------------------	---------------------------------	--	--	--

Job Name: 25-1401 Irwin Landing Ph. 1 Job Location: Murfreesboro, TN Contractor: Bear Construction LLC					Plant: Beaver Dam 6/9/2026 10:37:26 AM		Tech: S. Felletter PC: Erica Bradley				
Structure ID: R49											
P1		MH060BA72		MH BASE T/n							
P5) 24" - CASTING HEIGHT - 7" P4) 24" - GRADE RING F/F - 6" P3) 60" - MH FLAT TOP w/ 24" ECC Hole F/G - 13" P2) 60" - MH RISER T/G - 48" P1) 60" - MH BASE T/n - 72" 1) 60" - STORM INVERT CHANNEL - 1/4 HEIGHT 1) CASTING - JBS 1150 F/C STORM 2) 60" - Conseal CS-102 1.00" 2) Hole - 48 10) MH Step ML-10-TDS-NCR - 10"					0 lb 405 lb 2869 lb 5011 lb 8196 lb 1700 lb 250 lb 0 lb 0 lb 0 lb Structure Total: 18431 lb		Structure Notes: 1. PER ASTM C478 SPECIFICATIONS. 2. CONCRETE = 4,000 PSI AT 28 DAYS. 3. CASTING BY ICAST (JBS 1150 F/C "STORM"). REINFORCING PER ASTM A615 (GRADE 60). - TOP SLAB (As .62) #5 BARS AT 6" C.C.E.W.. - RISER/WALLS (As .18) - FLOOR (As .37) #5 BARS AT 10" C.C.E.W.				
Rim: 579.59' Rim to Invert: 11.83' Slack: -0.04" Sump: 4" Step Position: 101°											
Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up ()	Offset	
Invert 1	567.76'	0°	0"	36" RCP B WALL	44"	Hole 48	48"	55.638"	0"	0"	
Invert 2	567.76'	202°	126.92"	36" RCP B WALL	44"	Hole 48	48"	55.638"	0"	0"	
Invert 3											
Invert 4											
Invert 5											
Invert 6											
Invert 7											
Invert 8											

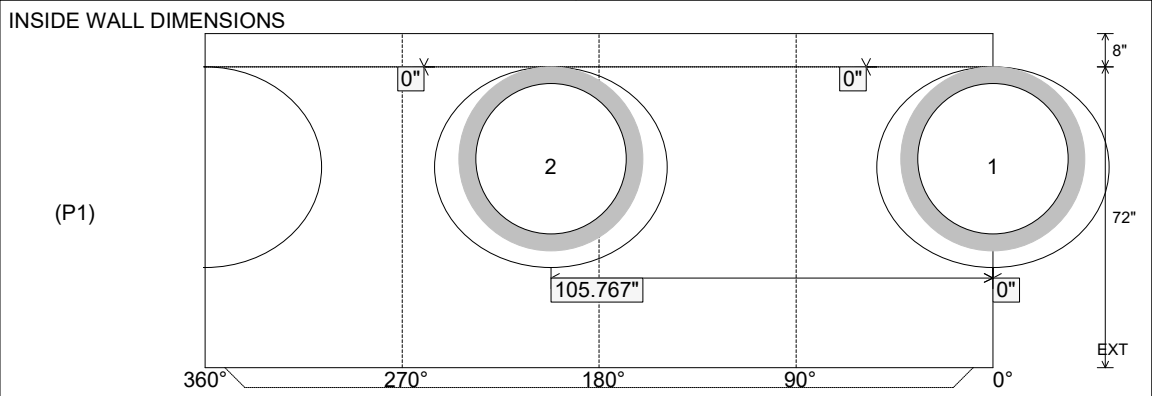
RIGHT-SIDE UP VIEW (int. dimensions)



UPSIDE-DOWN VIEW (int. dimensions)



INSIDE WALL DIMENSIONS



Coating (Int): Coating (Ext):	Seam Up: Tongue Seam Dn: n/a	Wall Thickness: 6" Floor Height: 8"	Height (Int): 72" Height (Ext): 80"	Weight (Net): 8196 lb Volume (Net): 2.09cu.yd
----------------------------------	---------------------------------	--	--	--

Job Name: 25-1401 Irwin Landing Ph. 1

Job Location: Murfreesboro, TN

Contractor: Bear Construction LLC

Plant: Beaver Dam

6/9/2026 10:37:26 AM

Tech: S. Felletter

PC: Erica Bradley



Structure ID: R49

P1 MH060BA72

MH BASE T/n

P5) 24" - CASTING HEIGHT - 7"

P4) 24" - GRADE RING F/F - 6"

P3) 60" - MH FLAT TOP w/ 24" ECC Hole F/G - 13"

P2) 60" - MH RISER T/G - 48"

P1) 60" - MH BASE T/n - 72"

1) 60" - STORM INVERT CHANNEL - 1/4 HEIGHT

1) CASTING - JBS 1150 F/C STORM

2) 60" - Conseal CS-102 1.00"

2) Hole - 48

10) MH Step ML-10-TDS-NCR - 10"

0 lb

405 lb

2869 lb

5011 lb

8196 lb

1700 lb

250 lb

0 lb

0 lb

0 lb

Structure Total: 18431 lb

Structure Notes:

1. PER ASTM C478 SPECIFICATIONS.

2. CONCRETE = 4,000 PSI AT 28 DAYS.

3. CASTING BY ICAST (JBS 1150 F/C "STORM").

REINFORCING PER ASTM A615 (GRADE 60).

- TOP SLAB (As .62) #5 BARS AT 6" C.C.E.W..

- RISER/WALLS (As .18)

- FLOOR (As .37) #5 BARS AT 10" C.C.E.W.

Invert channel drawing

1/4 Height storm invert

Rim: 579.59'

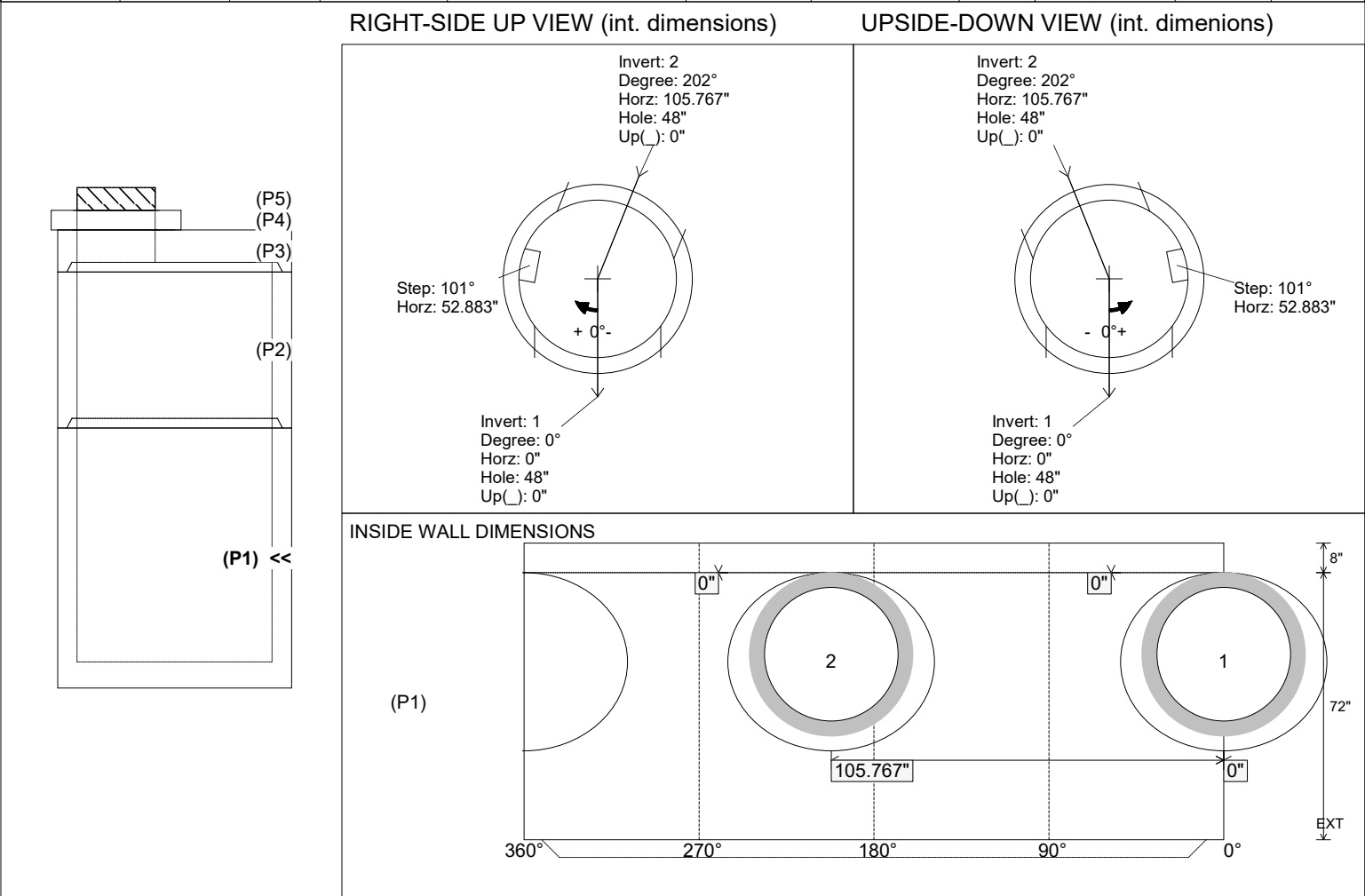
Rim to Invert: 11.83'

Slack: -0.04"

Sump: 4"

Step Position: 101°

Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up (_)	Offset
Invert 1	567.76'	0°	0"	36" RCP B WALL	44"	Hole 48	48"	55.638"	0"	0"
Invert 2	567.76'	202°	126.92"	36" RCP B WALL	44"	Hole 48	48"	55.638"	0"	0"
Invert 3										
Invert 4										
Invert 5										
Invert 6										
Invert 7										
Invert 8										



Coating (Int):

Coating (Ext):

Seam Up: Tongue

Seam Dn: n/a

Wall Thickness: 6"

Floor Height: 8"

Height (Int): 72"

Height (Ext): 80"

Weight (Net): 8196 lb

Volume (Net): 2.09cu.yd

Job Name: 25-4547 - WWTP Improvements & Hydraulic Expansion
Job Location: Shepherdsville, KY
Contractor: Pace Contracting, LLC

Plant: 100

6/4/2026 5:54:52 PM

Tech: Jared - F

PC: J Jarvis



Structure ID: METER VAULT 2

P3 MH060LD13S

MH FLAT TOP w/36"x36" Hatch F/G

P4) 36" x 36" - CASTING HEIGHT - 0"
P3) 60" - MH FLAT TOP w/36"x36" Hatch F/G - 13"
P2) 60" - MH RISER T/G - 60"
P1) 60" - MH BASE Custom Ht T/n - 47"
1) HATCH (Alum.) - HALLIDAY W1S 36"x36"
2) 60" - Con Seal CS-102 1.00" (Double)
1) 36" x 36" - Con Seal CS-102 1.00" (Double)
2) PSX - 8QRS DD

Structure Total:

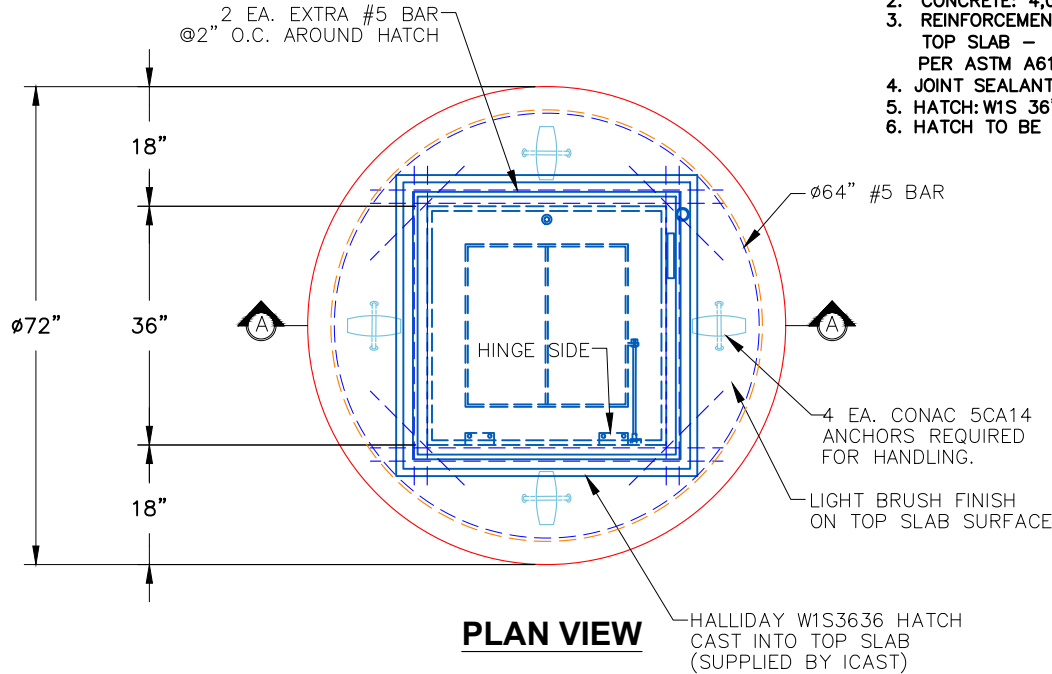
0 lb
2132 lb
6213 lb
7640 lb
78 lb
0 lb
0 lb
13 lb

16075 lb

Structure Notes:

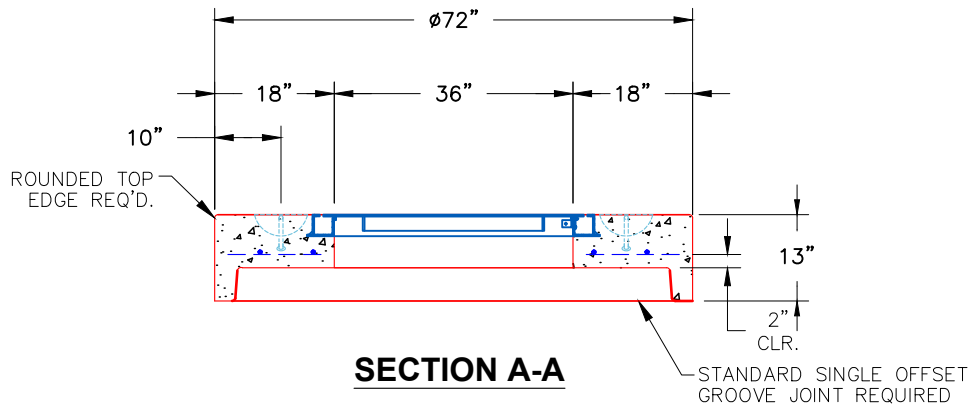
1. PER ASTM C478 SPECIFICATIONS.
2. CONCRETE = 4,000 PSI AT 28 DAYS.
3. HATCH SUPPLIED BY I-CAST (HALLIDAY W1S 36"x36")

REINFORCING PER ASTM A615 (GRADE 60).
- TOP SLAB (As .62) #5 BARS AT 6" C.C.E.W.
- RISER/WALLS (As .18)
- FLOOR (As .47) #5 BARS AT 12" C.C.E.W.



NOTES:

1. PER ASTM C-478 LATEST REVISION
2. CONCRETE: 4,000 PSI AT 28 DAYS.
3. REINFORCEMENT:
TOP SLAB - #5 BAR @ 6" C.C.E.W.
PER ASTM A615 (GRADE 60)
4. JOINT SEALANT - 1" CS-102-DOUBLE
5. HATCH: W1S 36"x36" HATCH IS PROVIDED BY ICAST.
6. HATCH TO BE CAST INTO TOP SLAB.



SECTION A-A

Coating (Int):
Coating (Ext):

Seam Up: Flat
Seam Dn: Groove

Wall Thickness: 6"

Height (Ext): 13"

Weight (Net): 2132 lb
Volume (Net): 0.55cu.yd

Job Name: 25-3118 - W6 Ph 2-C Force Main Improvements
Job Location: Fort Mitchell, KY 41017
Contractor: Lykins Contracting

Plant: 100

3/27/2026 11:40:58 AM

Tech: J. Horsley - A

PC: Celina Goff



Structure ID: 2301567

P2 MH060TS15-48ECC

MH Transition Slab 48" Hole T/G

P5) 24" - CASTING HEIGHT - 7"
P4) 48" - CON CONE w/24" HOLE F/G - 24"
P3) 48" - MH RISER T/G - 36"
P2) 60" - MH Transition Slab 48" Hole T/G - 15"
P1) 60" - MH BASE Custom Ht T/n - 65"
1) 60" - MH INVERT CHANNEL - FULL HEIGHT
1) 60" - Conseal CS-102 1.00" (Double)
2) 48" - Conseal CS-102 1.00" (Double)
2) A-Lok - 1235
10) MH Step ML-10-TDS-NCR - 10"

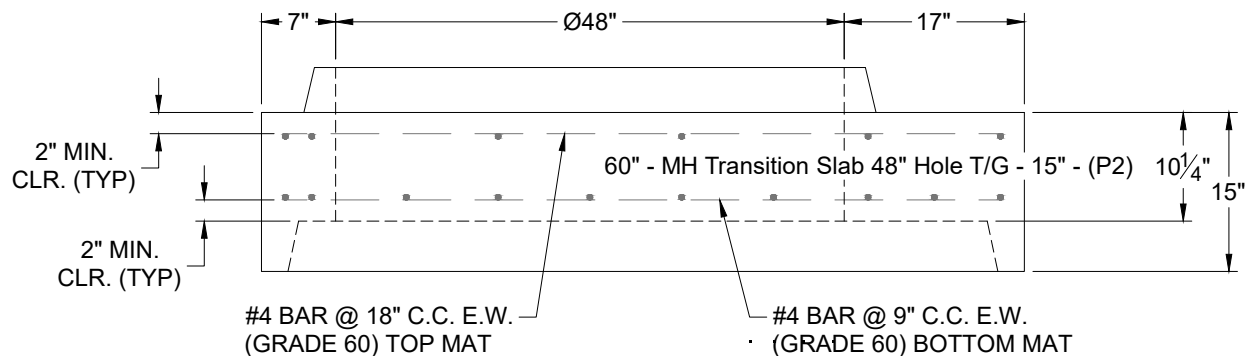
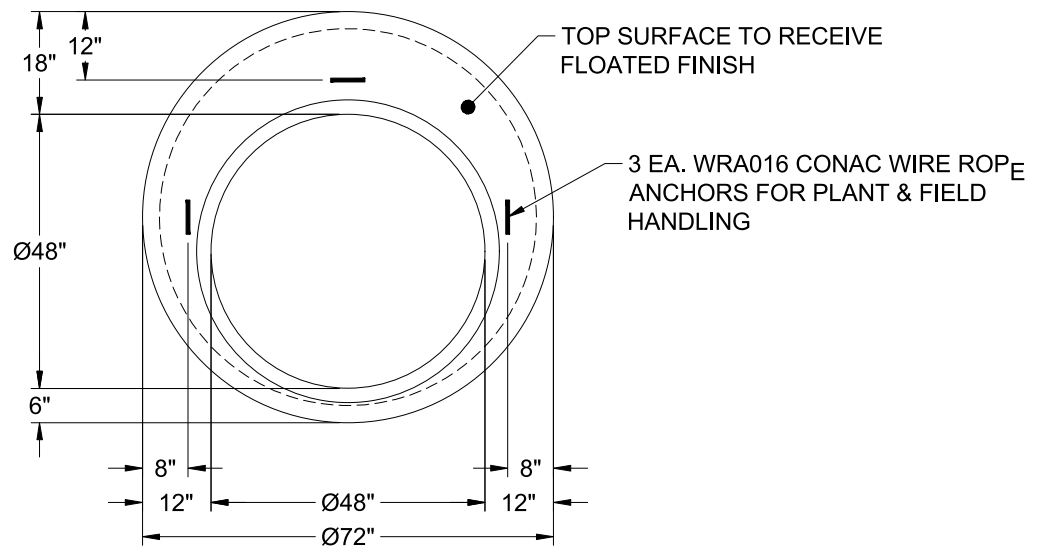
Structure Total:

0 lb
2252 lb
2515 lb
2204 lb
8164 lb
2692 lb
0 lb
0 lb
2 lb
0 lb

17829 lb

Structure Notes:

1. PER ASTM C-478 SPECIFICATIONS
2. CONCRETE: 4,000 PSI AT 28 DAYS
3. REINFORCEMENT - 2" MIN. REBAR CLEARANCE (TYP):
 - TOP MAT: #4 BAR @ 18" C.C. E.W. (GRADE 60)
 - BOTTOM MAT: #4 BAR @ 9" C.C. E.W. (GRADE 60)
4. 7" CASTING SUPPLIED BY OTHERS
5. LIFTERS: 3 EA. WRA016 CONAC WIRE ROPE ANCHORS FOR PLANT & FIELD HANDLING
6. TOP SURFACE TO RECEIVE FLOATED FINISH



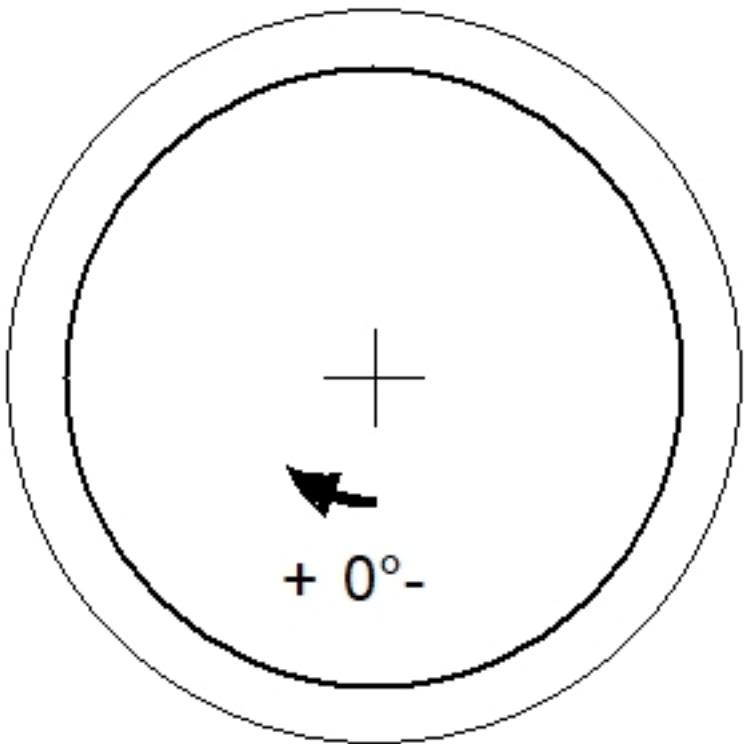
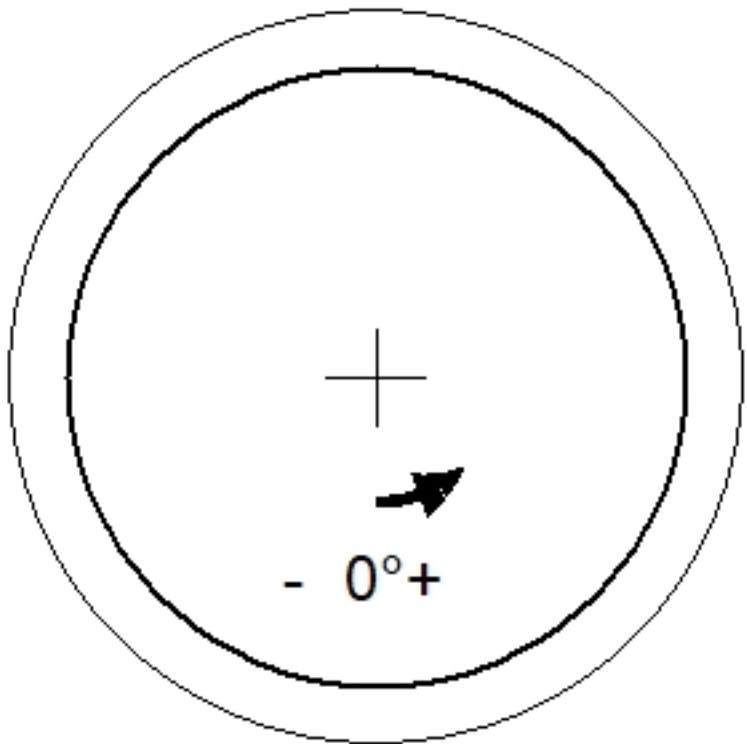
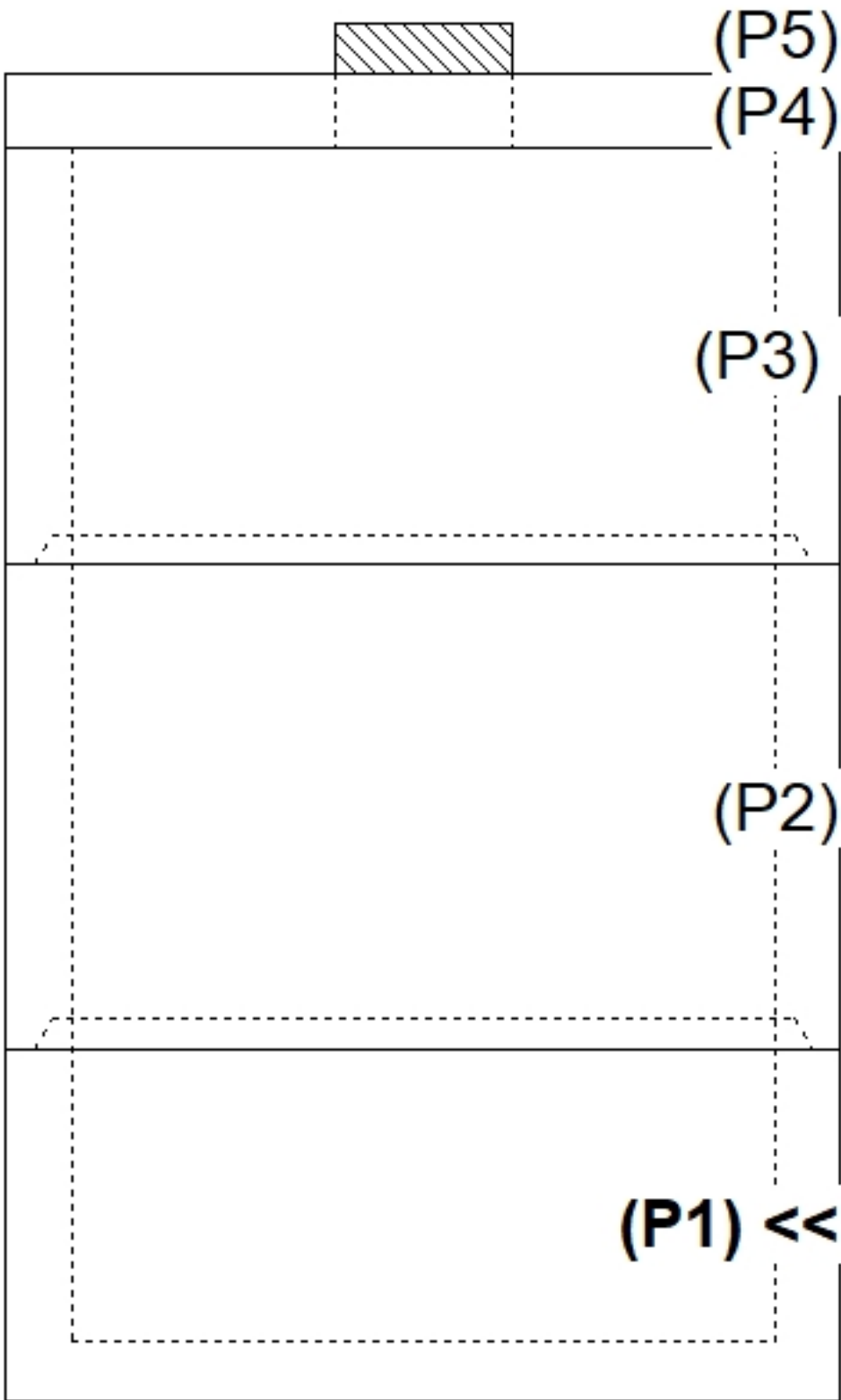
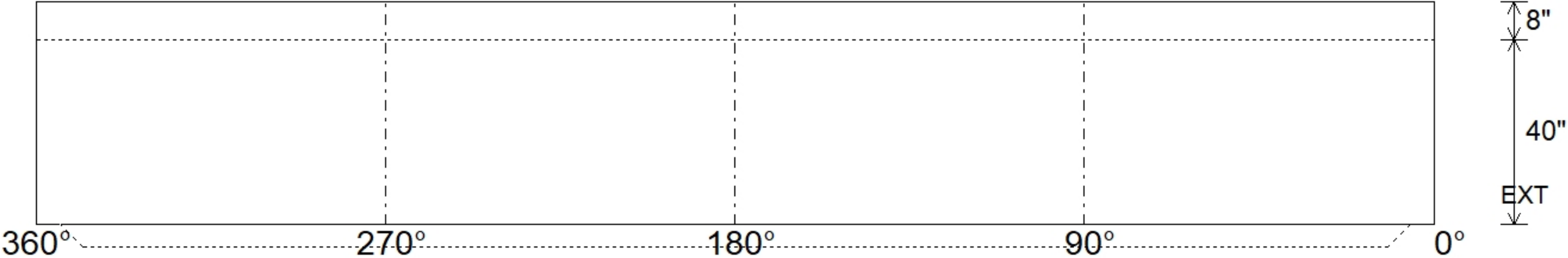
Coating (Int):
Coating (Ext):

Seam Up: Tongue
Seam Dn: Groove

Wall Thickness: 6"

Height (Ext): 15"

Weight (Net): 2204 lb
Volume (Net): 0.56cu.yd

Job Name: 26-3009 ADS FedEx Mt. Juliet Job Location: Mt. Juliet, TN Contractor: ADS Advanced Drainage Systems, Inc.					Plant: Beaver Dam 7/23/2026 8:34:24 AM		Tech: S. Felletter PC: T. Ryan						
Structure ID: S07													
P1		MH096BAVF										MH BASE Custom Ht T/n	
P5) 24" - CASTING HEIGHT - 7" P4) 96" - MH FLAT TOP w/ 24" Conc. Hole F/F - 10" P3) 96" - MH RISER Custom Ht F/G - 57" P2) 96" - MH RISER T/G - 66" P1) 96" - MH BASE Custom Ht T/n - 40" 1) ASSEMBLY REQUIRED - BRACKETS ONLY 1) CASTING - HOE MC-375 F/C Storm 3) 96" - Conseal CS-102 1.00" 1) 24" - Conseal CS-102 1.00" 2) Hole - 30						0 lb 8185 lb 13117 lb 16442 lb 16817 lb 0 lb 271 lb 0 lb 0 lb 0 lb ----- 54831 lb		Structure Notes: . 1. PER ASTM C478 SPECIFICATIONS. 2. CONCRETE = 4,000 PSI AT 28 DAYS. 3. CASTING BY ICAST (HOE MC-375 F/C "STORM"). 4. LIFTING ANCHORS TO BE INSTALLED ON THE OUTSIDE OF THE STRUCTURE. 5. ASSEMBLY REQUIRED - BRACKETS ONLY. 6. P2 & P3 RISERS TO BE MECHANICALLY ATTACHED PRIOR TO INTERNAL INSTALLATION/DELIVERY . REINFORCING PER ASTM A615 (GRADE 60). - TOP SLAB (As .62) #5 BARS AT 6" C.C.E.W. - RISER/WALLS (As .24) - FLOOR (As .47) #5 BARS AT 8" C.C.E.W.				Structure Total: 54831 lb	
Rim: 556'		Rim to Invert: 4'		Slack: 0"		Sump: 132"		Step Position:					
Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up ()	Offset			
Invert 1													
Invert 2													
Invert 3													
Invert 4													
Invert 5													
Invert 6													
Invert 7													
Invert 8													
RIGHT-SIDE UP VIEW (int. dimensions)						UPSIDE-DOWN VIEW (int. dimenions)							
													
INSIDE WALL DIMENSIONS													
													
Coating (Int): Coating (Ext):			Seam Up: Tongue Seam Dn: n/a		Wall Thickness: 9" Floor Height: 8"		Height (Int): 40" Height (Ext): 48"		Weight (Net): 16817 lb Volume (Net): 4.3cu.yd				

Job Name: 26-1827 - INDOT R-46095-A Dubois County Roundabout
Job Location: Bretzville, IN
Contractor: Ragle, Inc.

Plant: 100

7/21/2026 12:13:40 PM

Tech: Jared - F
PC: A. Chambers

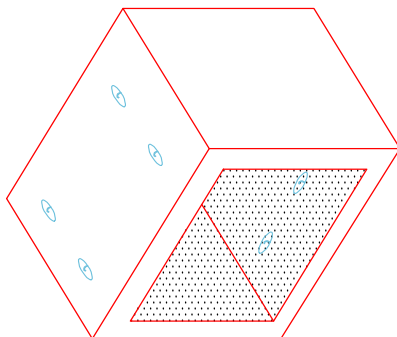
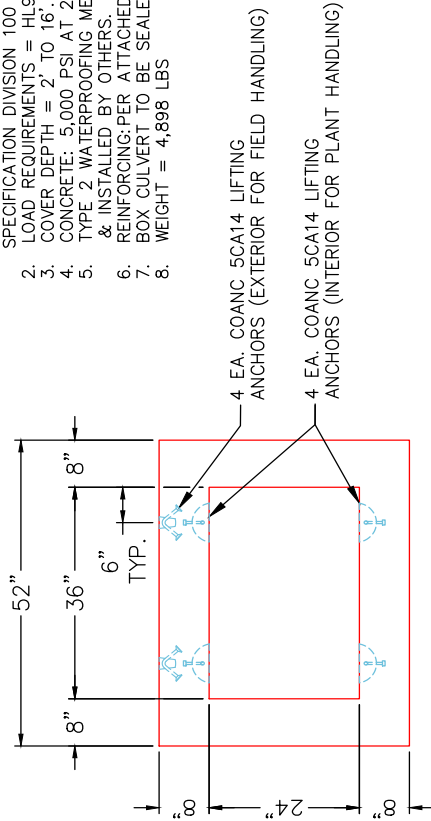


Structure ID: 3X2 BOX CULVERT

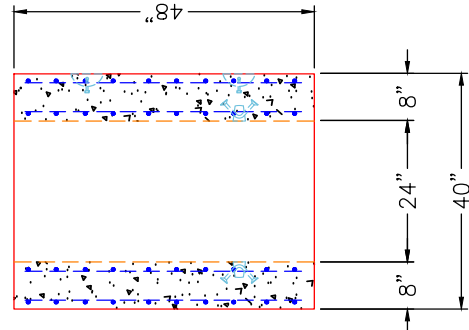
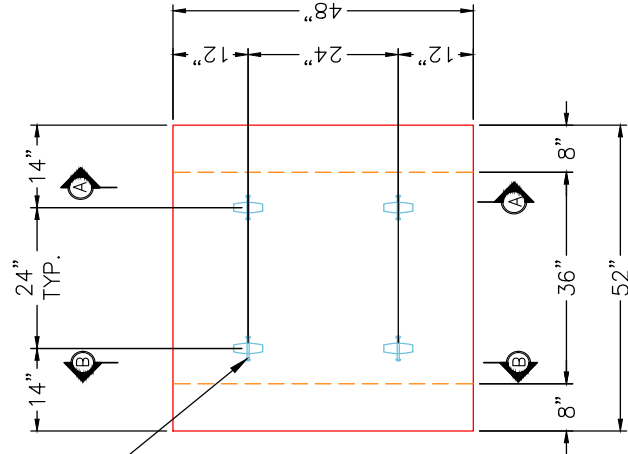
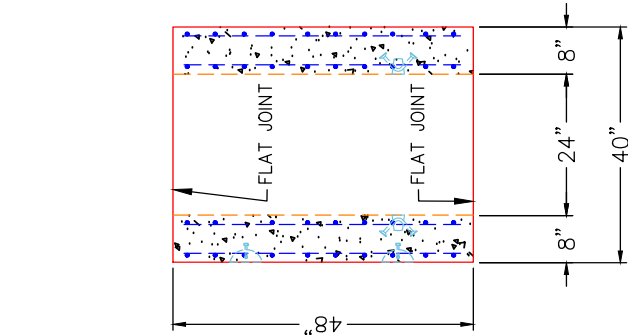
P1 BC024036-08WLF-FTFB BOX CULVERT (08W/08F/08T) No Haunch Flat/Flat Variable Ht F/F

NOTES:

1. BOX CULVERT IS DESIGNED PER INDOT STANDARD SPECIFICATION DIVISION 100 SECTION 106.01(c).
2. LOAD REQUIREMENTS = HL93.
3. COVER DEPTH = 2' TO 16'.
4. CONCRETE: 5,000 PSI AT 28 DAYS.
5. TYPE 2 WATERPROOFING MEMBRANE TO BE PROVIDED & INSTALLED BY OTHERS.
6. REINFORCING: PER ATTACHED CALCULATIONS.
7. BOX CULVERT TO BE SEALED WITH CS-102 ROLL
8. WEIGHT = 4,898 LBS



**COMPONENT
ISOMETRIC VIEW**



Coating (Int):
Coating (Ext):

Seam Up: Flat
Seam Dn: Flat

Wall Thickness: 8"
Floor Height: 0"

Height (Int): 48"
Height (Ext): 48"

Weight (Net): 4898 lb
Volume (Net): 1.25cu.yd

INFRASTRUCTURE PRECAST (ICAST)

Project : Dubois Co. Roundabout

Task :

Job No. : 26-1827

Client: Ragle inc.

File: 3x2 BC Four Sided (no haunch) - 26-1827 Dubois Co. Roundabout.etcx

Sht _____ of _____

By: J. Horsley

Ck: _____

7/20/2026 11:50:21 AM

Roundabout.etcx

Spec.: LRFD 9th ed.

Type of Culvert: Precast

Physical Dimensions

Clear Span:	3'-0"
Clear Height:	2'-0"
Top Slab:	8"
Bottom Slab:	8"
Ext. Wall:	8"
Fill Depth:	16.00 ft
Length:	4'-0"
Skew Angle:	0.00 deg
Bottom Slab Support:	Full Slab
Top Haunch, Width:	0"
Top Haunch, Height:	0"
Bottom Haunch, Width:	0"
Bottom Haunch, Height:	0"

Material Properties

Concrete	
Strength, f' _c :	5.000 ksi
Density:	0.150 kcf
Elasticity, E _c :	4266 ksi
Type:	Normal wt

Steel	
Yield, f _y :	60 ksi
Allow Stress:	36 ksi
Elasticity, E _s :	29000 ksi

Soil	
Density:	0.120 kcf

Exposure Factor
Class 2 Exposure

Reinforcement Covers

Ext. Cover Top Slab:	2"
Ext. Cover Bottom Slab	1"
Ext. Cover Walls	1"
Int. Cover Walls	1"
Int. Cover Top Slab	1"
Int. Cover Bottom Slab	1"

Controlling Ratings

Inventory Rating: 1000.00

Operating Rating: 1000.00

Loads

Live Load

Vehicle Names:	KY HL-93
Traffic Direction:	Parallel
Eq. Height of Soil:	3.94 ft (Calc'd)

Dead Load

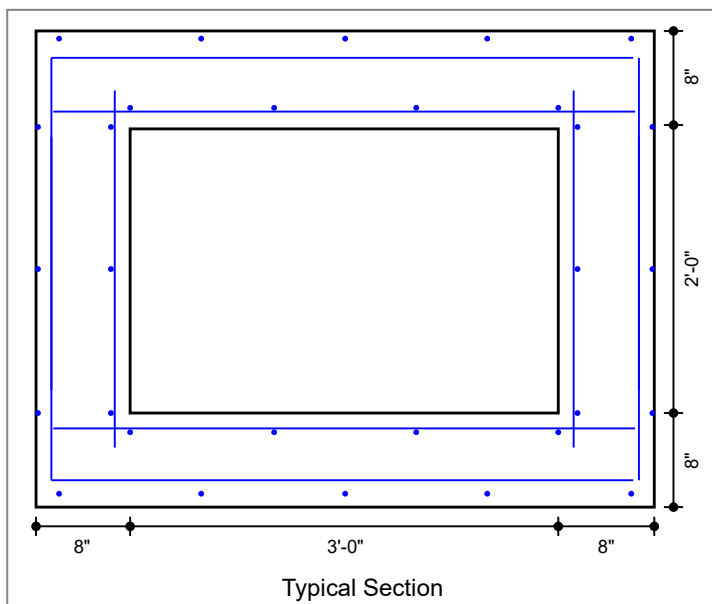
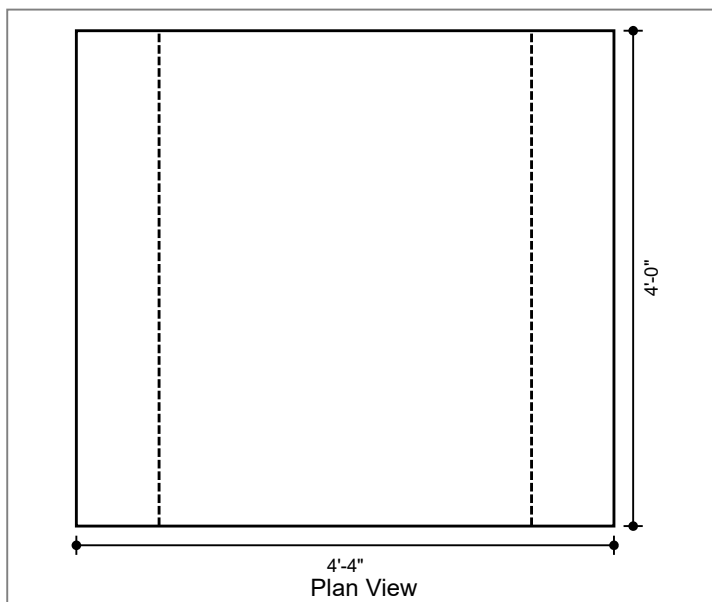
Future Wearing Surface:	0.000 klf
Additional Dead Load:	0.000 klf
Concentrated Loads:	none

Lateral Soil Loads

Eq. Fluid Press. Max:	60.00 pcf
Eq. Fluid Press. Min:	30.00 pcf

Interior Water Pressure: yes, head pressure = 0 ft

Exterior Water Pressure: no



INFRASTRUCTURE PRECAST (ICAST)

Project : Dubois Co. Roundabout

Task :

Job No. : 26-1827

Client: Ragle inc.

File: 3x2 BC Four Sided (no haunch) - 26-1827 Dubois Co. Roundabout.etcx

Sht _____ of _____

By: J. Horsley

Ck: _____

7/20/2026 11:50:21 AM

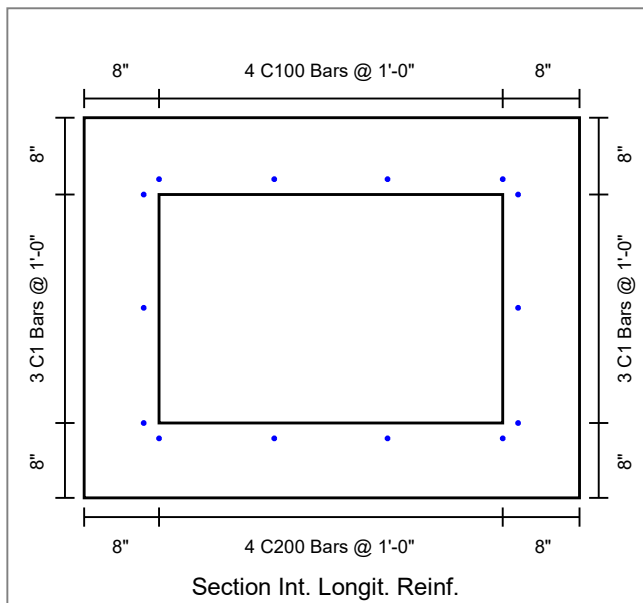
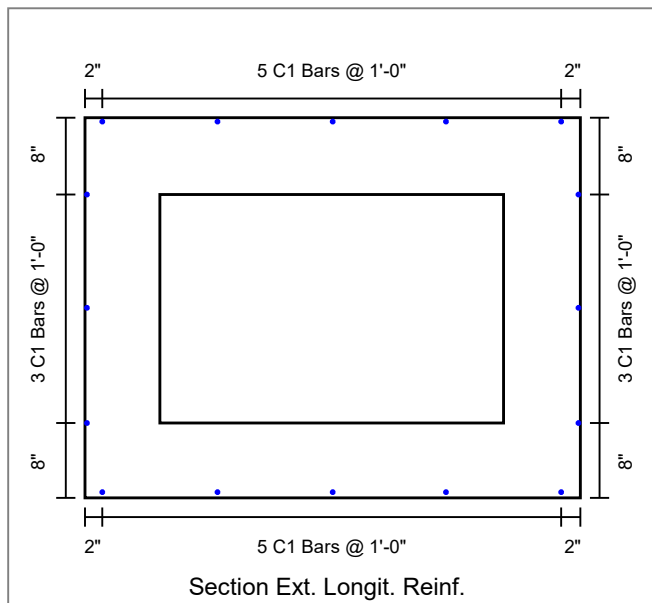
Roundabout.etcx

Concrete Summary

Volume of Concrete: 0.313 cy/ft Total Volume of Concrete: 1.251 cy

Reinforcing Steel Bar Schedule (lb)

Location	Mark	Qty	Size	Spacing	Type	Length	Center	Ver. Leg	Tot. Weight
Top Slab(Int)	A100 (AS2)	5	5	10"	S	4'-1"	--	--	21.0
Bot Slab(Int)	A200 (AS3)	5	5	10"	S	4'-1"	--	--	21.0
Corner(Top)	A1 (AS1)	5	5	10"	U	8'-9"	4'-1"	2'-4"	46.0
Corner(Bot)	A2 (AS1)	5	5	10"	U	8'-11"	4'-1"	2'-5"	47.0
Wall(Int)	B1 (AS4)	10	5	10"	S	2'-6"	--	--	26.0
Longit. Top (Int)	C100 (AS5)	4	5	1'-0"	S	3'-11"	--	--	16.0
Longit. Bot (Int)	C200	4	5	1'-0"	S	3'-11"	--	--	16.0
Longit. Top (Ext)	C1 (AS6)	5	5	1'-0"	S	3'-11"	--	--	20.5
Longit. Bot (Ext)	C1 (AS6)	5	5	1'-0"	S	3'-11"	--	--	20.5
Longit. Wall (Ext)	C1 (AS6)	6	5	1'-0"	S	3'-11"	--	--	24.6
Longit. Wall (Int)	C1 (AS6)	6	5	1'-0"	S	3'-11"	--	--	24.6
									283



INFRASTRUCTURE PRECAST (ICAST)

Project : Dubois Co. Roundabout

Task :

Job No. : 26-1827

Client: Ragle inc.

File: 3x2 BC Four Sided (no haunch) - 26-1827 Dubois Co. Roundabout

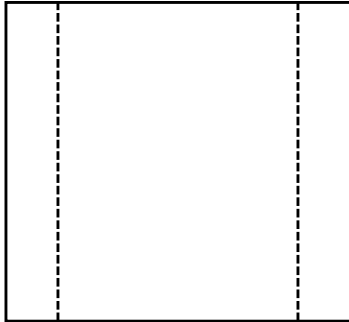
Sht _____ of _____

By: J. Horsley

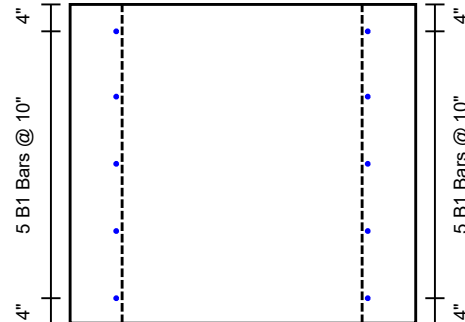
Ck:

7/20/2026 11:50:22 AM

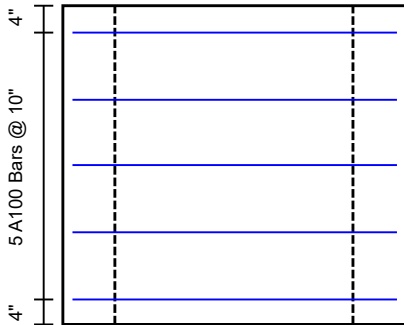
Roundabout



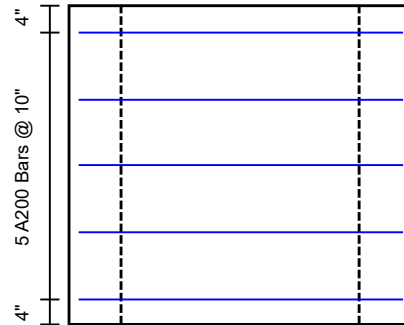
Ext. Wall Reinf.



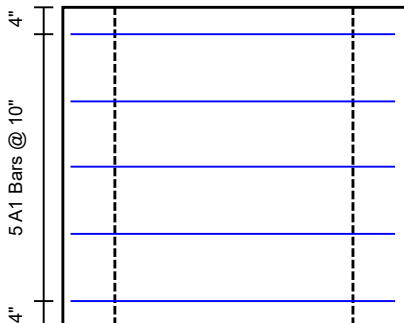
Int. Wall Reinf.



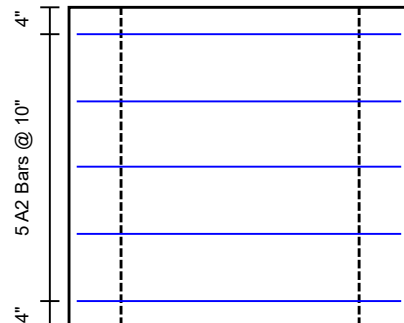
Top Slab Int. Reinf.



Bottom Slab Int. Reinf.



Top Slab Corner Reinf.



Bottom Slab Corner Reinf.

Project: Dubois Co. Roundabout
Task :
Client : Ragle inc.
Job No.: 26-1827

CULVERT PROPERTIES

=====

Type of Culvert: Precast	Specification : LRFD 9th Edition
Operating Mode : Analysis	

Physical Dimensions

No. of Boxes: 1	Name: BoxCulvert
Clear Span : 3.0000 ft	Fill Depth : 16.00ft
Clear Height: 2.0000 ft	Skew Angle : 0.00 deg
Length : 4.0000 ft	Bottom Slab Support: Full Slab
Haunches: Top, Length: 0.0000 in	Height: 0.0000 in
Bottom, Length: 0.0000 in	Height: 0.0000 in
Member Thicknesses:	Top Slab: 8.0000 in Bot Slab: 8.0000 in
	Ext wall: 8.0000 in

Wall Joint: None

Material Properties

Concrete: Strength, f'c :	5.000 ksi	Density :	0.150 kcf	Elasticity, Ec:	4266 ksi
Type :	Normal	Weight		Density Modification Factor :	1.00
Fr Factor :	0.24	Gamma1 :	1.20	Gamma3 :	1.00 (user defined)
Steel: Yield, fy :	60.00 ksi	fss Limit :	0.60fy	Elasticity, Es:	29000 ksi
Yield, fyv :	60.00 ksi	Diameter :	1.000 in	Type :	Rebar
Soil: Density :	0.120 kcf	Slope Factor:	1.150		
Poisson's :	0.5				
Fe Factor :	1.150 (Maximum for Compacted Fill)				
Serviceability, Gamma-e:	0.75				

Loads

Live Load: Vehicle: (AA) KY HL-93 - Design Vehicle

Axle No.	Weight(k)	Dist. From Previous(ft)
1	10.00	0.00
2	40.00	14.00
3	40.00	14.00

Gage width: 6.00 ft, Tread width: 20.00 in, Tread Length: 10.00 in
Include Tandem: yes
Tandem: Axle 1: 25.00 k, Axle 2: 25.00 k, Axle Spacing: 4.00 ft
Lane Load: 0.64 klf, P-Moment: 0.00 k, P-Shear: 0.00 k
Combine: Truck + Lane Or Tandem + Lane
Inventory Rating Load Factor: 1.75 Operating Rating Load Factor: 1.35
Design Load Combinations: Strength I
Override MPF: no
Override DLA: no
Include Lane Load : no Max. No. of Lanes: 1
Traffic Direction : Lanes Parallel to Main Reinforcement
Neglect Live Load if: Fill > 8 ft and Fill > Clear Span
Apply Surcharge at Fill Depths > 2 ft : yes
Compute Surcharge Depth: yes

Dead Load: Future wearing Surface : 0.00 klf Add. Dead Load : 0.00 klf
Concentrated Loads : none

Lateral Soil Loads: Max. Equiv. Fluid Press.: 60.00 pcf Min. Equiv. Fluid Press. : 30.00 pcf
Include Additional Uniform Horiz. Load: no
Include Additional Uniform Vert. Load: no
Buoyancy Check : no
Fluid Pressures : Apply Water Press. : yes, interior only
Interior Pressure Head : 0.00 ft

Foundation Model : Uniform Loads
Seismic Analysis : Do not include

Load and Resistance Factors

Max	Min		
DC: 1.250	0.900		
DW: 1.500	0.650		
EV: 1.300	0.900		
EH: 1.350	0.900		
WA: 1.000			
EQ: 1.000			
LL I : 1.750	LL II : 1.350	LL Legal : 1.750	LL Extreme : 0.500
Ductility: 1.000	Importance: 1.000	Redundancy, non-earth: 1.000	Redundancy, earth: 1.050
Condition: 1.000	System : 1.000		
Phi Shear: 0.900	Phi Moment: 1.000	PM Compression: 0.750	PM Tension : 1.000
Load Factor Multipliers, Design Mode: 1.00	Analysis Mode: 1.00		

Reinforcement

Reinforcement Covers : Exterior Interior
Top Slab: 2.0000 in 1.0000 in
Walls : 1.0000 in 1.0000 in
Bot Slab: 1.0000 in 1.0000 in

Assigned reinforcement:

Location	Mark	Size	Spacing (in)
Top Slab Inside	A100 (AS2)	5	10.0000
Bottom Slab Inside	A200 (AS3)	5	10.0000
Top Corner	A1 (AS1)	5	10.0000
Bottom Corner	A2 (AS1)	5	10.0000
Ext. Wall Inside	B1 (AS4)	5	10.0000
Longitudinal	C1 (AS6)	5	12.0000
Top Distribution	C100 (AS5)	5	12.0000
Bottom Distribution	C200	5	12.0000

Analysis Options

Live Load Analysis =====
Automatically Set Traffic Direction to Account for Skew Effects: No
Limit LL Distribution width to Culvert Length for: Fills < 2 ft
Combine Longitudinal Axle Distribution Overlaps: Yes, Max of 2 Axles
Combine Transverse Axle Distribution Overlaps: No
Axle Placement Increment for Moving Load Analysis: 20
Include Impact on Bottom Slab: Yes
Always Distribute Wheel Load: Yes
Approach Slab will be Used: No

Live Load Deflection Criteria =====
Deflection Criteria: 1/800
Always check deflections: No

Slenderness =====
Not Checked

Additional Analysis Points =====
Evaluate Top of Walls: No
Evaluate Bottom of Walls: No
Evaluate Right Slabs: No
Evaluate Left Slabs: No

Reinforcement =====
Always Include Distribution Steel: No
Distribution Slab Provided: No
User Defined Longitudinal Steel: Yes
Max. As used in Vc Calcs: 2.00 in²/ft
Distribute Minimum Reinforcement per Face: Yes
Use individual Member Thicknesses for Min Steel: No
Epoxy coat steel: No
Use M-dimension for bar length calcs.: No
Individual top and bottom slab design: Yes
Individual interior and exterior wall design: Yes

Shear =====
Check Iterative Beta Method Only When Appropriate

Environmental =====
Apply durability factors: No

Additional Load Combinations =====
LRFD min/min: No

Critical Sections at Corners =====
Flexure critical section location: 1.5 member depth
Shear critical section location: dv beyond support
Use Max. Moment with Max. Shear at the Critical Section for Shear: Yes
Include depth of haunch for critical sections: No

Flexure =====
Ignore Axial Thrust: No
Use Eq. 12.10.4.2.4a-1: Yes Nu Multiplier: 1.00
Ignore fatigue: No
Use table 12.5.5-1 for P-M: No

Structural Analysis Modeling =====
Use Haunches in the Structural Analysis Model: Yes

Approaching wheel Load =====
Use for Design: No
Use for Rating: No

ANALYSIS RESULTS
=====

Top Slab Thickness = 8.00 in
Bottom Slab Thickness = 8.00 in
Exterior Wall Thickness = 8.00 in

Modular Ratio (N) = 6.80 Max. Steel Ratio = 0.025
Design Span = 3.67 ft Design Height = 2.67 ft
Design Fill Depth = 16.00 ft

Volume of Concrete: 0.313 cy/ft weight of Steel: 71 lb/ft

Note: Design and analysis results do not include force effects from stripping and handling stages

M dimension = 1' 8" (method of equivalent capacity)
= 2' 2" (method of contraflexure - ASTM)

Reinforcing Steel Schedule

Location	Bar Mark	Qty	Size	Type	Spacing (in)	As,prv (in2/ft)	Length (ft-in)	Wgt (lbs)	H Leg (ft-in)	V Leg (ft-in)
Top Slab (int)	A100 (AS2)	5	5	STR	10.00	0.372	4- 1	21		
Bot Slab (int)	A200 (AS3)	5	5	STR	10.00	0.372	4- 1	21		
Corner Top-U	A1 (AS1)	5	5	U-BAR	10.00	0.372	8- 9	46	2- 4	2- 4
Corner Bottom-U	A2 (AS1)	5	5	U-BAR	10.00	0.372	8-11	47	2- 5	2- 5
Ext wall (int)	B1 (AS4)	10	5	STR	10.00	0.372	2- 6	26		
Top slab (int- 1)	C100 (AS5)	4	5	STR	12.00	0.310	3-11	16		
Bot Slab (int- 1)	C200	4	5	STR	12.00	0.310	3-11	16		
Temperature (1)	C1 (AS6)	5	5	STR	12.00	0.310	3-11	21		
Temperature (1)	C1 (AS6)	5	5	STR	12.00	0.310	3-11	21		
Temperature (1)	C1 (AS6)	6	5	STR	12.00	0.310	3-11	25		
Temperature (1)	C1 (AS6)	6	5	STR	12.00	0.310	3-11	25		
Total								283		

Note: A denotes flexural steel, B denotes vertical steel, C denotes longitudinal steel

AS Bar Marks

Location	As prv in2/ft
Transverse Side Wall - Outside Face (AS1)	0.372
Transverse Top Slab - Inside Face (AS2)	0.372
Transverse Bottom Slab - Inside Face (AS3)	0.372
Transverse Side wall - Inside Face (AS4)	0.372
Distribution Top Slab - Inside Face (AS5)	0.310
Distribution Top Slab - Outside Face (AS6)	0.310
Transverse Top Slab - Outside Face (AS7)	0.000
Transverse Bottom Slab - Outside Face (AS8)	0.000

Notes: 1.) Final areas of steel provided must be checked in analysis mode
3.) AS7 and AS8 not required - corner steel has been extended

Summary of Ratings Table:

Flexure								Shear				
Truck	ILF	OLF	Fill	Member	Location	IR	OR	Fill	Member	Location	IR	OR
(AA)KY HL-	1.75	1.35	16.00	1	BOT	NC	NC	16.00	1	BOT	NC	NC

Critical Sections Summary: Flexure

Member 1: (Exterior wall), Thickness = 8.00 in

Loc	Dist. (in)	Design Moment (k-ft)	Corr. A. F. (k)	Mu (k-ft)	ds (in)	Ma (k-ft)	phi	As (in2)	Mcr (k-ft)	Load Ratings		Truck	Fill Depth (ft)
										IR	OR		
BOT	4.00	-2.07	5.75	12.03	6.69	13.71	1.00	0.37	6.87	NC	NC	AA	16.00
MID	16.00	0.00	3.63	12.03	6.69	13.10	1.00	0.37	6.87	NC	NC	AA	16.00
MID-	16.00	-1.74	5.75	12.15	6.75	13.83	1.00	0.37	6.87	NC	NC	AA	16.00
TOP	4.00	-1.95	5.75	12.03	6.69	13.71	1.00	0.37	6.87	NC	NC	AA	16.00

Member 2: (Top Slab), Thickness = 8.00 in

Loc	Dist. (in)	Design Moment (k-ft)	Corr. A. F. (k)	Mu (k-ft)	ds (in)	Ma (k-ft)	phi	As (in2)	Mcr (k-ft)	Load Ratings		Truck	Fill Depth (ft)
										IR	OR		
LT	4.00	-0.66	1.89	10.17	5.69	10.73	1.00	0.37	6.87	NC	NC	AA	16.00
MID	22.00	3.10	0.78	12.03	6.69	12.26	1.00	0.37	6.87	NC	NC	AA	16.00
MID-	22.00	0.0#	1.91	0.00	6.00	0.63	1.00	0.00	6.87	NC	NC	AA	16.00

Eriksson Culvert v6.4.1
 Copyright © 2010-2025 Eriksson Software, Inc.(www.ErikssonSoftware.com)
 Filename: 3x2 BC Four Sided (no haunch) - 26-1827 Dubois Co. Roundabout.etcx
 RT 4.00 -0.66 1.89 10.17 5.69 10.73 1.00 0.37 6.87 NC

Sht:____of____
 By:J. Horsley Chk:____
 7/20/2026 11:50:22 AM
 Culvert p. 4 of 7
 NC NC AA 16.00

Member 4: (Bottom Slab), Thickness = 8.00 in

Loc	Dist. (in)	Design	Corr.	Mu	ds	Ma	phi	As (in2)	Mcr (k-ft)	Load Ratings		Truck	Fill Depth (ft)
		Moment (k-ft)	A. F. (k)							IR	OR		
LT	4.00	-0.73	2.12	12.03	6.69	12.66	1.00	0.37	6.87	NC	NC	AA	16.00
MID	22.00	3.25	0.91	12.03	6.69	12.30	1.00	0.37	6.87	NC	NC	AA	16.00
MID-	22.00	0.0#	2.10	NaN	7.00	NaN	1.00	NaN	6.87	NC	NC	AA	16.00
RT	4.00	-0.73	2.12	12.03	6.69	12.66	1.00	0.37	6.87	NC	NC	AA	16.00

- A 0.0 design moment indicates no negative moments at this location. Check the 'Load Combination Results' table to determine if a positive moment exists.

Critical Sections Summary: Vertical Shear

Member 1: (Exterior Wall), Thickness = 8.00 in

Loc	Dist. (in)	Design	Corr.	Corr.	Dv	phi*Vn	Beta	Vc (k)	Vs (k)	Av (in2)	Max. Spac (in)	Load Ratings		Truck	Fill Depth (ft)
		Shear (k)	Moment (k-ft)	A. F. (k)								IR	OR		
BOT	9.85	0.82	-2.1	5.75	6.47	9.87	2.000	10.97	b	0.00	0.00	NC	NC	AA	16.00
MID	16.00	0.06	0.0	3.63	6.47	9.87	2.000	10.97	b	0.00	0.00	NC	NC	AA	16.00
MID-	16.00	0.02	-1.7	5.75	6.53	9.97	2.000	11.08	b	0.00	0.00	NC	NC	AA	16.00
TOP	9.85	-0.74	-2.0	5.75	6.47	9.87	2.000	10.97	b	0.00	0.00	NC	NC	AA	16.00

Member 2: (Top Slab), Thickness = 8.00 in

Loc	Dist. (in)	Design	Corr.	Corr.	Dv	phi*Vn	Beta	Vc (k)	Vs (k)	Av (in2)	Max. Spac (in)	Load Ratings		Truck	Fill Depth (ft)
		Shear (k)	Moment (k-ft)	A. F. (k)								IR	OR		
LT	9.76	3.20	-0.7	1.89	5.69	13.02	n/a	14.47	c	0.00	0.00	NC	NC	AA	16.00
MID	22.00	0.00	3.1	0.78	6.69	15.31	n/a	17.01	c	0.00	0.00	NC	NC	AA	16.00
MID-	22.00	0.00	0.0	1.91	6.00	13.74	n/a	15.26	c	0.00	0.00	NC	NC	AA	16.00
RT	9.76	3.20	-0.7	1.89	5.69	13.02	n/a	14.47	c	0.00	0.00	NC	NC	AA	16.00

Member 4: (Bottom Slab), Thickness = 8.00 in

Loc	Dist. (in)	Design	Corr.	Corr.	Dv	phi*Vn	Beta	Vc (k)	Vs (k)	Av (in2)	Max. Spac (in)	Load Ratings		Truck	Fill Depth (ft)
		Shear (k)	Moment (k-ft)	A. F. (k)								IR	OR		
LT	9.85	3.36	-0.7	2.12	6.69	15.31	n/a	17.01	c	0.00	0.00	NC	NC	AA	16.00
MID	22.00	0.00	3.2	0.91	6.69	15.31	n/a	17.01	c	0.00	0.00	NC	NC	AA	16.00
MID-	22.00	0.00	0.0	2.10	7.00	NaN	n/a	NaN	c	0.00	0.00	NC	NC	AA	16.00
RT	9.85	3.36	-0.7	2.12	6.69	15.31	n/a	17.01	c	0.00	0.00	NC	NC	AA	16.00

Vc Calculation By: a - Iterative Beta, b - Constant Beta, c - Box Culvert, d - Standard/Arema

Analysis Results: Fill Depth = 16.00 ft

Load Parameters:

Fe = 1.15 Surcharge Depth : -1.00 ft

Applied Horizontal Loads: (k/ft)

Load Description	Bottom of wall	Top of wall
Live Load Surcharge	0.000	0.000
Internal Water Pressure	-0.125(4.0in)	0.000(-4.0in)
External Water Pressure	0.000(0.0in)	0.000(0.0in)
Horizontal Earth Load	1.140	0.980

Applied Uniform Bottom Slab Loads: (k/ft)

Load Description	
Dead Load	0.245
Vertical Earth	2.208
Wearing Surface	0.000

Unfactored Moments due to All Loads: (k-ft)

M-PT	Mdc	Mev	Mdw	Meh	Mls	Mwa	Mgw
Member 1: (Exterior wall)							
Bottom							
1- 0	-0.18	-1.43	0.00	-0.27	0.00	0.02	0.00
1- 1	-0.16	-1.43	0.00	0.08	0.00	-0.01	0.00
1- 2	-0.15	-1.43	0.00	0.35	0.00	-0.02	0.00
1- 3	-0.14	-1.43	0.00	0.53	0.00	-0.04	0.00
1- 4	-0.12	-1.43	0.00	0.64	0.00	-0.04	0.00
1- 5	-0.11	-1.43	0.00	0.68	0.00	-0.04	0.00
1- 6	-0.10	-1.43	0.00	0.64	0.00	-0.03	0.00
1- 7	-0.09	-1.43	0.00	0.52	0.00	-0.02	0.00
1- 8	-0.07	-1.43	0.00	0.33	0.00	-0.01	0.00
1- 9	-0.06	-1.43	0.00	0.07	0.00	0.00	0.00
1-10	-0.05	-1.43	0.00	-0.26	0.00	0.01	0.00
Top							

Unfactored Shears due to All Loads: (k)

M-PT	Vdc	Vev	Vdw	Veh	Vls	Vwa	Vgw
Member 1: (Exterior wall)							
Bottom							
1- 0	0.05	0.00	0.00	1.45	0.00	-0.08	0.00
1- 1	0.05	0.00	0.00	1.15	0.00	-0.08	0.00
1- 2	0.05	0.00	0.00	0.85	0.00	-0.06	0.00
1- 3	0.05	0.00	0.00	0.56	0.00	-0.03	0.00
1- 4	0.05	0.00	0.00	0.27	0.00	0.00	0.00
1- 5	0.05	0.00	0.00	-0.02	0.00	0.01	0.00
1- 6	0.05	0.00	0.00	-0.30	0.00	0.03	0.00
1- 7	0.05	0.00	0.00	-0.57	0.00	0.04	0.00
1- 8	0.05	0.00	0.00	-0.85	0.00	0.04	0.00
1- 9	0.05	0.00	0.00	-1.11	0.00	0.05	0.00
1-10	0.05	0.00	0.00	-1.38	0.00	0.05	0.00
Top							

Member 2: (Top Slab)

Left							
2- 0	-0.05	-1.43	0.00	-0.26	0.00	0.01	0.00
2- 1	0.01	-0.10	0.00	-0.26	0.00	0.01	0.00
2- 2	0.06	0.94	0.00	-0.26	0.00	0.01	0.00
2- 3	0.09	1.68	0.00	-0.26	0.00	0.01	0.00
2- 4	0.11	2.13	0.00	-0.26	0.00	0.01	0.00
2- 5	0.12	2.28	0.00	-0.26	0.00	0.01	0.00
2- 6	0.11	2.13	0.00	-0.26	0.00	0.01	0.00
2- 7	0.09	1.68	0.00	-0.26	0.00	0.01	0.00
2- 8	0.06	0.94	0.00	-0.26	0.00	0.01	0.00
2- 9	0.01	-0.10	0.00	-0.26	0.00	0.01	0.00
2-10	-0.05	-1.43	0.00	-0.26	0.00	0.01	0.00
Right							

Member 4: (Bottom Slab)

Left							
4- 0	-0.18	-1.43	0.00	-0.27	0.00	0.02	0.00
4- 1	-0.03	-0.10	0.00	-0.27	0.00	0.02	0.00
4- 2	0.09	0.94	0.00	-0.27	0.00	0.02	0.00
4- 3	0.17	1.68	0.00	-0.27	0.00	0.02	0.00
4- 4	0.22	2.13	0.00	-0.27	0.00	0.02	0.00
4- 5	0.24	2.28	0.00	-0.27	0.00	0.02	0.00
4- 6	0.22	2.13	0.00	-0.27	0.00	0.02	0.00
4- 7	0.17	1.68	0.00	-0.27	0.00	0.02	0.00
4- 8	0.09	0.94	0.00	-0.27	0.00	0.02	0.00
4- 9	-0.03	-0.10	0.00	-0.27	0.00	0.02	0.00
4-10	-0.18	-1.43	0.00	-0.27	0.00	0.02	0.00
Right							

Unfactored Thrusts due to All Loads: (k)

Member	Pdc	Pev	Pdw	Peh	Pls	Pwa
1	0.18	4.05	0.00	0.00	0.00	0.00
2	-0.05	0.00	0.00	1.38	0.00	-0.05
4	0.05	0.00	0.00	1.45	0.00	-0.08

----- No analysis truck, live load neglected -----

Serviceability Check: Crack Control

Bar Mark	Location	Moment (k-ft)	Thrust (k)	Fss (ksi)	Spacing (in)	Allow (in)
A1	Top Corner Bar	-1.4	4.23	2.18	10.00	99.99
A2	Bot Corner Bar	-1.5	4.23	2.61	10.00	99.99
A100	Top Slab (int)	2.3	0.59	11.03	10.00	34.54
A200	Bot Slab (int)	2.4	0.69	11.50	10.00	33.04

Strength Limit State at Critical Sections: Flexure

Member 1: (Exterior wall), Thickness = 8.00 in

Loc	Dist. (in)	Design Moment (k-ft)	Corr. A. F. (k)	Mu (k-ft)	ds (in)	Ma (k-ft)	phi	As (in2)	Mcr (k-ft)	Load Ratings IR	OR
BOT	4.00	-2.07	5.75	12.03	6.69	13.71	1.00	0.37	6.87	NC	NC
MID	16.00	0.00	3.63	12.03	6.69	13.10	1.00	0.37	6.87	NC	NC
MID-	16.00	-1.74	5.75	12.15	6.75	13.83	1.00	0.37	6.87	NC	NC
TOP	4.00	-1.95	5.75	12.03	6.69	13.71	1.00	0.37	6.87	NC	NC

Member 2: (Top Slab), Thickness = 8.00 in

Loc	Dist. (in)	Design Moment (k-ft)	Corr. A. F. (k)	Mu (k-ft)	ds (in)	Ma (k-ft)	phi	As (in2)	Mcr (k-ft)	Load Ratings IR	OR
LT	4.00	-0.66	1.89	10.17	5.69	10.73	1.00	0.37	6.87	NC	NC
MID	22.00	3.10	0.78	12.03	6.69	12.26	1.00	0.37	6.87	NC	NC
MID-	22.00	0.0#	1.91	0.00	6.00	0.63	1.00	0.00	6.87	NC	NC
RT	4.00	-0.66	1.89	10.17	5.69	10.73	1.00	0.37	6.87	NC	NC

Member 4: (Bottom slab), Thickness = 8.00 in

Loc	Dist. (in)	Design Moment (k-ft)	Corr. A. F. (k)	Mu (k-ft)	ds (in)	Ma (k-ft)	phi	As (in2)	Mcr (k-ft)	Load Ratings IR	OR
LT	4.00	-0.73	2.12	12.03	6.69	12.66	1.00	0.37	6.87	NC	NC
MID	22.00	3.25	0.91	12.03	6.69	12.30	1.00	0.37	6.87	NC	NC
MID-	22.00	0.0#	2.10	NaN	7.00	NaN	1.00	NaN	6.87	NC	NC
RT	4.00	-0.73	2.12	12.03	6.69	12.66	1.00	0.37	6.87	NC	NC

Notes: Mu - Resisting moment under pure flexure, Ma - Allowable moment under applied axial load
 # - A 0.0 design moment indicates no negative moments at this location. Check the 'Load Combination Results' table to determine if a positive moment exists.

Strength Limit State at Critical Sections: Vertical Shear

Member 1: (Exterior wall), Thickness = 8.00 in

Loc	Dist. (in)	Design Shear (k)	Corr. Moment (k-ft)	Corr. A. F. (k)	Dv (in)	phi*vn (k)	Beta	Theta	Vc (k)	Vs (k)	Av (in2)	Max. Spac (in)	Load Ratings IR	OR
BOT	9.85	0.82	-2.1	5.75	6.47	9.87	2.000	45.00	10.97 b	0.00	0.00	0.00	NC	NC
MID	16.00	0.06	0.0	3.63	6.47	9.87	2.000	45.00	10.97 b	0.00	0.00	0.00	NC	NC
MID-	16.00	0.02	-1.7	5.75	6.53	9.97	2.000	45.00	11.08 b	0.00	0.00	0.00	NC	NC
TOP	9.85	-0.74	-2.0	5.75	6.47	9.87	2.000	45.00	10.97 b	0.00	0.00	0.00	NC	NC

Member 2: (Top Slab), Thickness = 8.00 in

Loc	Dist. (in)	Design Shear (k)	Corr. Moment (k-ft)	Corr. A. F. (k)	Dv (in)	phi*vn (k)	Beta	Theta	Vc (k)	Vs (k)	Av (in2)	Max. Spac (in)	Load Ratings IR	OR
LT	9.76	3.20	-0.7	1.89	5.69	13.02	n/a	n/a	14.47 c	0.00	0.00	0.00	NC	NC
MID	22.00	0.00	3.1	0.78	6.69	15.31	n/a	n/a	17.01 c	0.00	0.00	0.00	NC	NC
MID-	22.00	0.00	0.0	1.91	6.00	13.74	n/a	n/a	15.26 c	0.00	0.00	0.00	NC	NC
RT	9.76	3.20	-0.7	1.89	5.69	13.02	n/a	n/a	14.47 c	0.00	0.00	0.00	NC	NC

Member 4: (Bottom slab), Thickness = 8.00 in

Loc	Dist. (in)	Design Shear (k)	Corr. Moment (k-ft)	Corr. A. F. (k)	Dv (in)	phi*vn (k)	Beta	Theta	Vc (k)	Vs (k)	Av (in2)	Max. Spac (in)	Load Ratings IR	OR
LT	9.85	3.36	-0.7	2.12	6.69	15.31	n/a	n/a	17.01 c	0.00	0.00	0.00	NC	NC
MID	22.00	0.00	3.2	0.91	6.69	15.31	n/a	n/a	17.01 c	0.00	0.00	0.00	NC	NC
MID-	22.00	0.00	0.0	2.10	7.00	NaN	n/a	n/a	NaN c	0.00	0.00	0.00	NC	NC
RT	9.85	3.36	-0.7	2.12	6.69	15.31	n/a	n/a	17.01 c	0.00	0.00	0.00	NC	NC

Vc Calculation By: a - Iterative Beta, b - Constant Beta, c - Box Culvert, d - Standard/Arema

M-PT	+Moment	-Moment	+Axial	-Axial	+Shear	-Shear
------	---------	---------	--------	--------	--------	--------

Bottom						
1- 0	-1.763	-2.552	3.635	5.755	2.115	0.914
1- 1	-1.260	-2.113	3.635	5.755	1.687	0.720
1- 2	-0.871	-1.945	3.635	5.755	1.266	0.552
1- 3	-0.594	-1.819	3.635	5.755	0.850	0.391
1- 4	-0.427	-1.736	3.635	5.755	0.440	0.229
1- 5	-0.368	-1.697	3.635	5.755	0.064	0.019
1- 6	-0.416	-1.702	3.635	5.755	-0.102	-0.378
1- 7	-0.569	-1.751	3.635	5.755	-0.269	-0.770
1- 8	-0.826	-1.846	3.635	5.755	-0.438	-1.155
1- 9	-1.185	-1.985	3.635	5.755	-0.609	-1.535
1-10	-1.644	-2.388	3.635	5.755	-0.779	-1.908
Top						

Left						
2- 0	-1.644	-2.388	1.908	1.891	5.755	3.635
2- 1	-0.271	-0.489	0.779	1.891	4.604	2.908
2- 2	1.206	0.489	0.779	1.908	3.453	2.181
2- 3	2.261	1.155	0.779	1.908	2.302	1.454
2- 4	2.894	1.555	0.779	1.908	1.151	0.727
2- 5	3.105	1.688	0.779	1.908	0.000	0.000
2- 6	2.894	1.555	0.779	1.908	-0.727	-1.151
2- 7	2.261	1.155	0.779	1.908	-1.454	-2.302
2- 8	1.206	0.489	0.779	1.908	-2.181	-3.453
2- 9	-0.271	-0.489	0.779	1.891	-2.908	-4.604
2-10	-1.644	-2.388	1.908	1.891	-3.635	-5.755
Right						

Left						
4- 0	-1.763	-2.552	2.098	2.115	6.088	3.875
4- 1	-0.322	-0.543	0.914	2.115	4.870	3.100
4- 2	1.241	0.510	0.914	2.098	3.653	2.325
4- 3	2.357	1.221	0.914	2.098	2.435	1.550
4- 4	3.026	1.647	0.914	2.098	1.218	0.775
4- 5	3.250	1.789	0.914	2.098	0.000	0.000
4- 6	3.026	1.647	0.914	2.098	-0.775	-1.218
4- 7	2.357	1.221	0.914	2.098	-1.550	-2.435
4- 8	1.241	0.510	0.914	2.098	-2.325	-3.653
4- 9	-0.322	-0.543	0.914	2.115	-3.100	-4.870
4-10	-1.763	-2.552	2.098	2.115	-3.875	-6.088
Right						

Job Name: 26-2254 - Wilder Box Culvert
Job Location: Wilder, KY
Contractor: Eaton Asphalt

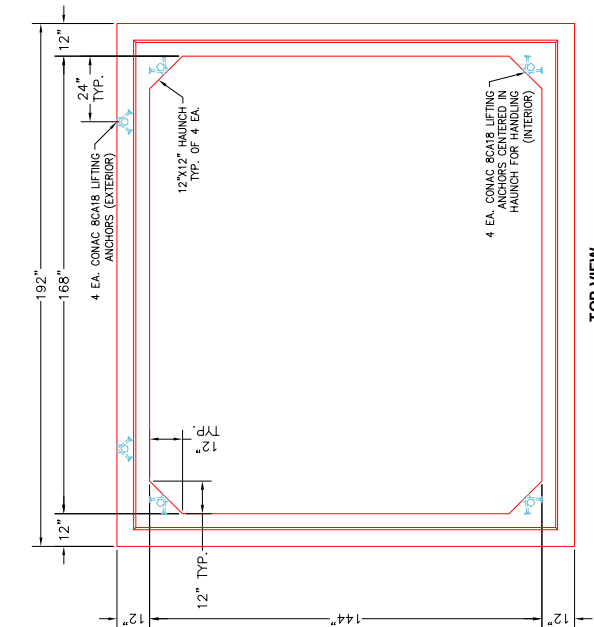
Plant: 100
7/6/2026 1:23:10 PM

Tech: Jared - A
PC: E. Bradley

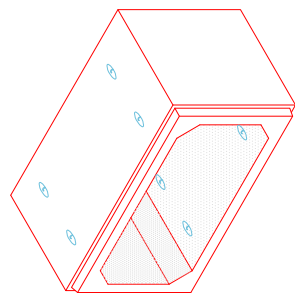


Structure ID: Box Culvert
P2 BC168144-12W12T12F-12H BOX CULVERT (12W/12F/12T) T/G

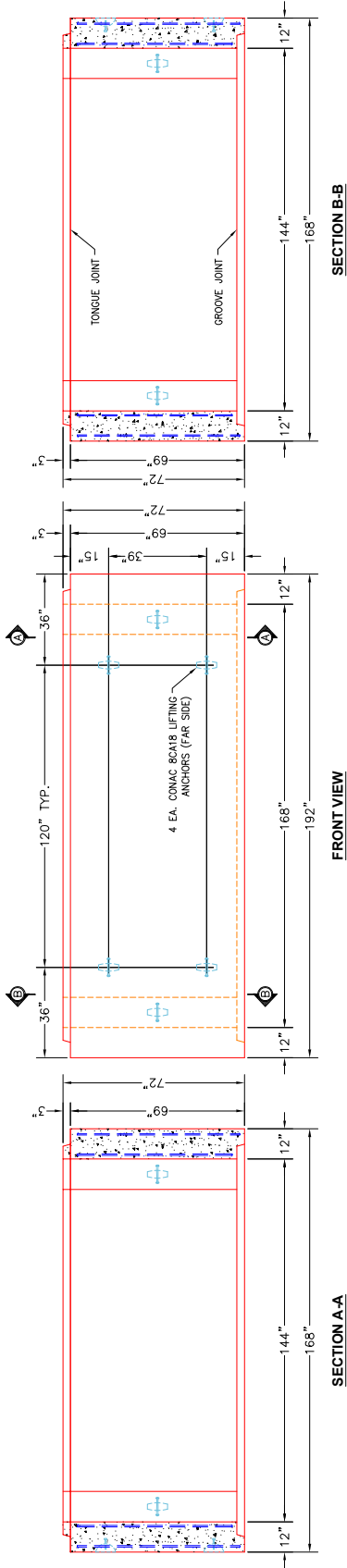
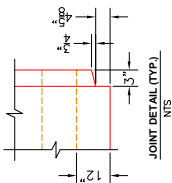
- NOTES:
- 1. BOX CULVERT IS DESIGNED PER ATTACHED PE STAMPED DRAWINGS & CALCULATIONS.
 - 2. LOAD REQUIREMENTS PER KY-HL93 (KY TABLE 1)
 - 3. COVER DEPTH = 15' - 0"
 - 4. CONCRETE: 5,000 PSI AT 28 DAYS.
 - 5. REINFORCING: AS SHOWN BY MATT CHILDS ENGINEERING.
 - 6. BOX CULVERT TO BE SEALED WITH CS-102 ROLL BUTYL MASTIC & CS-212 12" WRAP. (SUPPLIED BY ICAST).
 - 7. WEIGHT: 48,363 LBS.



TOP VIEW



COMPONENT ISOMETRIC VIEW



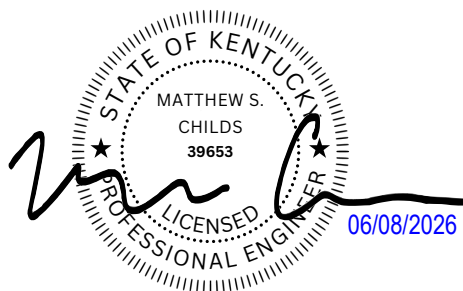
FRONT VIEW

SECTION B-B

SECTION A-A

Coating (Int): Coating (Ext):	Seam Up: Tongue Seam Dn: Groove	Wall Thickness: 12" Floor Height: 0"	Height (Int): 69" Height (Ext): 69"	Weight (Net): 48363 lb Volume (Net): 12.35cu.yd
----------------------------------	------------------------------------	---	--	--

Project: Mooch Road
Product: 14' x 12' Box Culvert
Job: 26-2254
Design No.:
Location: Wilder, KY
Reference #:



MATT CHILDS ENGINEERING, PLLC

Project : City of Wilder
Task : 14x12 15' Fill
Job No. :

Client: ICast
File: 20260605-ICast-CityofWilder-14x12(15'Fill).etcx

Sht ____ of ____
By:MBJ
Ck:
6/5/2026 4:35:08 PM
p. 1 of 2

Spec.: LRFD 9th ed.
Type of Culvert: Precast

Physical Dimensions

Clear Span:	14'-0"
Clear Height:	12'-0"
Top Slab:	1'-0"
Bottom Slab:	1'-0"
Ext. Wall:	1'-0"
Fill Depth:	15.00 ft
Length:	4'-0"
Skew Angle:	0.00 deg
Bottom Slab Support:	Full Slab
Top Haunch, Width:	1'-0"
Top Haunch, Height:	1'-0"
Bottom Haunch, Width:	1'-0"
Bottom Haunch, Height:	1'-0"

Material Properties

Concrete
Strength, f_c: 5.000 ksi
Density: 0.150 kcf
Elasticity, E_c: 3834 ksi
Type: Normal wt

Steel
Yield, f_y: 65 ksi
Allow Stress: 39 ksi
Elasticity, E_s: 29000 ksi

Soil
Density: 0.120 kcf

Exposure Factor
Class 2 Exposure
Reinforcement Covers
Ext. Cover Top Slab: 1"
Ext. Cover Bottom Slab: 1"
Ext. Cover Walls: 1"
Int. Cover Walls: 1"
Int. Cover Top Slab: 1"
Int. Cover Bottom Slab: 1"

Controlling Ratings

Inventory Rating: 5.85
Operating Rating: 7.59

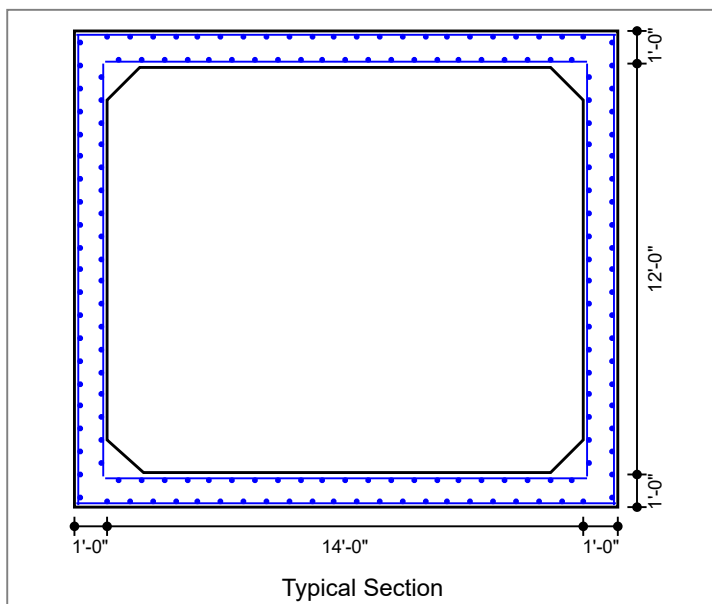
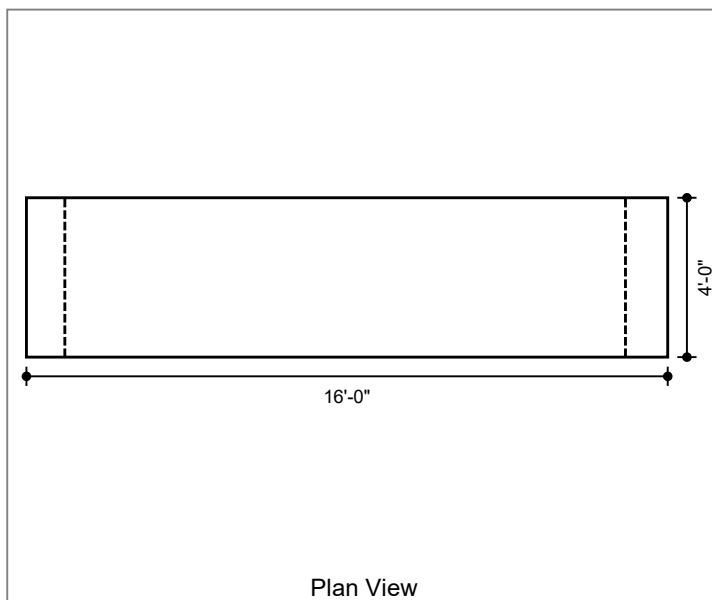
Loads

Live Load
Vehicle Names: HL-93
Traffic Direction: Parallel
Eq. Height of Soil: 2.00 ft (Calc'd)

Dead Load
Future Wearing Surface: 0.000 klf
Additional Dead Load: 0.000 klf
Concentrated Loads: none

Lateral Soil Loads
Eq. Fluid Press. Max: 60.00 pcf
Eq. Fluid Press. Min: 30.00 pcf

Interior Water Pressure: yes, head pressure = 0 ft
Exterior Water Pressure: no



MATT CHILDS ENGINEERING, PLLC

Sht ____ of ____

By:MBJ

Ck:_____

6/5/2026 4:35:09 PM

p. 2 of 2

Project : City of Wilder

Task : 14x12 15' Fill

Job No. :

Client: ICast

File: 20260605-ICast-CityofWilder-14x12(15'Fill).etcx

Concrete Summary

Volume of Concrete: 2.148 cy/ft Total Volume of Concrete: 8.593 cy

Reinforcing Steel Bar Schedule (lb)

Location	Mark	Sheets Included	As Provided
Top Slab(Int)	A100 (AS2)	Top	1.200
Bot Slab(Int)	A200 (AS3)	Bot	1.290
Top Slab(Ext)	A300 (AS7)	Top	0.300
Bot Slab(Ext)	A400 (AS8)	Bot	0.300
Corner(Top)	A1 (AS1)	Top	0.780
Corner(Bot)	A2 (AS1)	Bot	0.780
Wall(Int)	B1 (AS4)	L&R	0.300
Wall(Ext)	B2 (AS1)	L&R	0.780
Longit. Top (Int)	C100 (AS5)	Top	0.150
Longit. Bot (Int)	C200	Bot	0.150
Longit. Top (Ext)	C1 (AS6)	Top	0.150
Longit. Bot (Ext)	C1 (AS6)	Bot	0.150
Longit. Wall (Ext)	C1 (AS6)	L&R	0.150
Longit. Wall (Int)	C1 (AS6)	L&R	0.150

Job Name: 24-1643B - KYTC McCracken Co. Call 200 (ID 241301)
Job Location: Paducah, KY
Contractor: Jim Smith Contracting Co, LLC

Plant: 100

5/28/2026 7:52:52 AM

Tech: J. Horsley

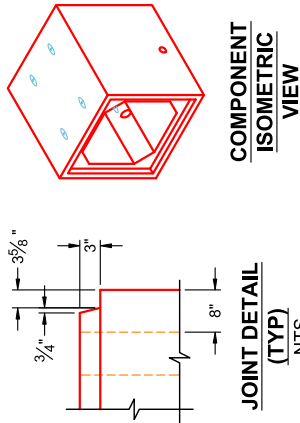
PC: C. Goff



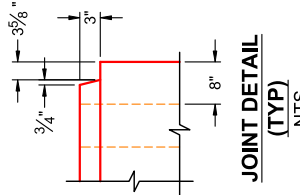
Structure ID: St. 45+00 (PC 18)

P1 BC048048-08WLF-9H

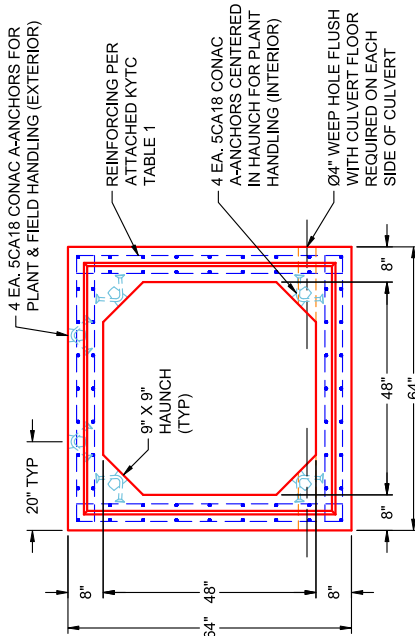
BOX CULVERT (08W/08F/08T) G/T



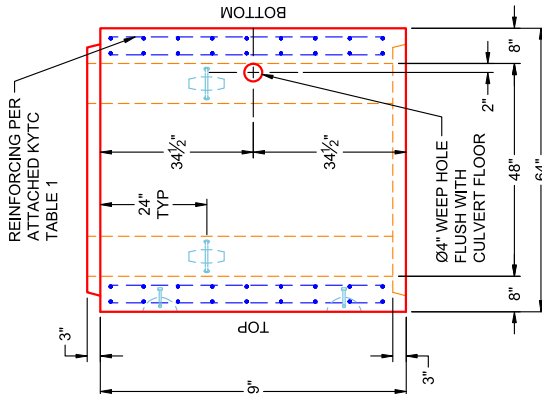
COMPONENT
ISOMETRIC
VIEW



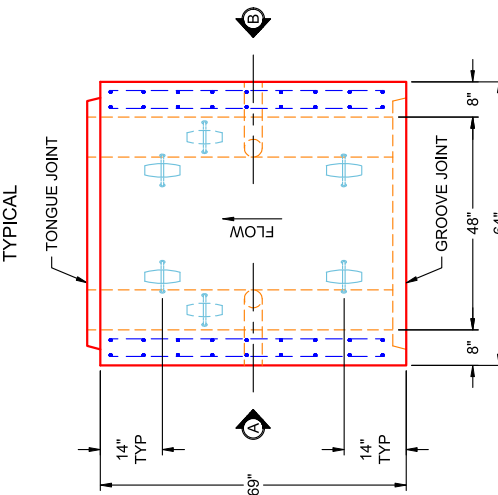
JOINT DETAIL
(TYP)
NTS



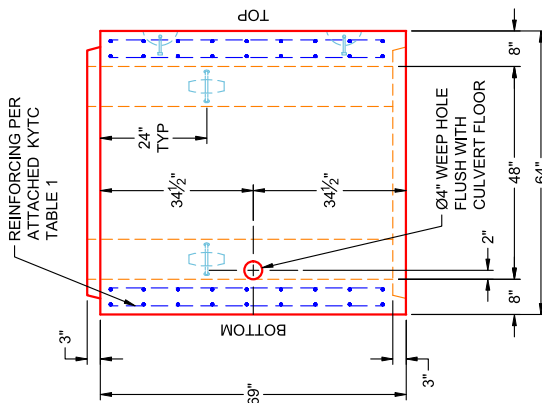
END VIEW
TYPICAL



VIEW B
PC 18
(UPRIGHT IN MOLD)



PLAN VIEW
PC 18
(UPRIGHT IN MOLD)



VIEW A
PC 18
(UPRIGHT IN MOLD)

GENERAL NOTES:

- PER SECTION 605 OF KYTC STANDARD SPECS FOR ROAD & BRIDGE CONSTRUCTION
- KYTC STAMP REQUIRED
- WEEP HOLES REQUIRED
- LOAD REQUIREMENTS: KY-HL93 (KY TABLE 1)
- REINFORCEMENT PER ATTACHED KYTC TABLE 1
- COVER DEPTH: 0' - 7'
- CONCRETE: 5,000 PSI AT 28 DAYS
- JOINT SEALANT: 1" BUTYL MASTIC (CS-102)
EXTERIOR JOINT WRAP: 12" WIDE (CS-212)
- WEIGHT: 4' X 4' RCBC = 1,968 LBS / LF
(5-9' LONG SECTION = 11,314 LBS)

PRODUCTION WORK ORDER

QUALITY CONTROL CHECKLIST

- ☐ ALL DIMENSIONS CORRECT.
- ☐ LIFTERS INSTALLED INSIDE.
- ☐ RECESS WITH HAUNCHES CORRECT.
- ☐ REINFORCING CORRECT.
- ☐ SURFACE QUALITY ACCEPTABLE.
- ☐ LIFTERS INSTALLED OUTSIDE.
- ☐ PRODUCT SQUARE.



PRODUCT I.D.: BC048048-08WLF-9H

PRODUCT VIEW: RIGHT SIDE UP

PLANT: BEAVER DAM, KY

WEIGHT: 11,314 LBS

TOP SECTION JOINT: TONGUE

BASE SECTION JOINT: GROOVE

QC CHECK INITIALS:

DESCRIPTION: 48" X 48" X 69" BOX CULVERT (8" WALLS & 9" HAUNCH)

CUSTOMER: JIM SMITH CONTRACTING

PROJECT: KYTC MCCracken CO. CALL 200 (ID 241301)

STRUCTURE: ST. 45+00 (PC 18)

ORDER NO: 24-1643B

PE: J.H. ROSS

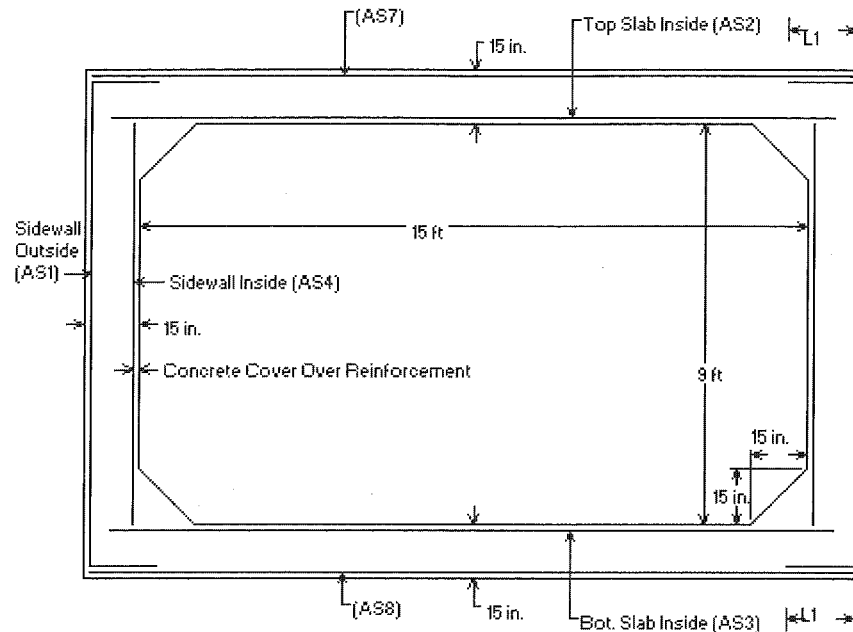
DRAWING: K. CARDWELL

DATE: 05/28/26

SCALE: NTS

PG. 1 OF 1

THIS DRAWING IS THE PROPERTY OF INFRASTRUCTURE PRECAST, INC. ANY USE OR DUPLICATION OF THIS DRAWING WITHOUT PRIOR AUTHORIZATION IS STRICTLY PROHIBITED.



- * <L1> is Splice Length
- * (AS7) is Top Slab Outside
- * (AS8) is Bottom Slab Outside
- * See Box Culvert Design Summary Sheet for transverse and distribution reinforcement, as required.
- * For sidewall thicknesses of 6 in. and above, extend AS2 and AS3 a min. of 4 in. beyond the inside face of the sidewall. For thicknesses less than 6 in., extend AS2 and AS3 at least to within 1-1/2 in. of the outside face of the sidewall.

Notes:

- 1) Other reinforcement schemes that provide the required reinforcement areas at all locations identified in the program output are acceptable.
- 2) Longitudinal reinforcement is not shown for clarity, see AASHTO M259 for longitudinal reinforcement and for additional requirements.

KY Table 1

Precast Culvert KYHL-93 Design Table

Design Earth Cover, ft		As1	As2	As3	As4	As7	As8	As5	As6
4x3x5	0<2*	0.18	0.705	0.199	0.12	0.18	0.144	0.18	0.18
	2<3	0.198	0.309	0.27	0.12	0.12	0.12		
	3-5	0.123	0.191	0.193	0.12	0.12	0.12		
	10	0.12	0.142	0.146	0.12	0.12	0.12		
	15	0.12	0.193	0.197	0.12	0.12	0.12		
	20	0.152	0.249	0.253	0.12	0.12	0.12		
	25	0.187	0.306	0.31	0.12	0.12	0.12		
	30	0.225	0.366	0.37	0.12	0.12	0.12		
	35	0.263	0.428	0.432	0.12	0.12	0.12		

*top slab 7.5", bottom slab 6"

Design Earth Cover, ft		As1	As2	As3	As4	As7	As8	As5	As6
4x4x5	0<2*	0.18	0.745	0.22	0.12	0.18	0.144	0.18	0.18
	2<3	0.154	0.314	0.276	0.12	0.12	0.12		
	3-5	0.12	0.215	0.219	0.12	0.12	0.12		
	10	0.12	0.155	0.162	0.12	0.12	0.12		
	15	0.12	0.21	0.217	0.12	0.12	0.12		
	20	0.124	0.269	0.276	0.12	0.12	0.12		
	25	0.152	0.331	0.339	0.12	0.12	0.12		
	30	0.182	0.396	0.403	0.12	0.12	0.12		
	35	0.213	1.205	0.471	0.12	0.12	0.12		

*top slab 7.5", bottom slab 6"

Design Earth Cover, ft		As1	As2	As3	As4	As7	As8	As5	As6
5x3x6	0<2*	0.192	0.726	0.201	0.144	0.6	0.168	0.192	0.192
	2<3	0.224	0.288	0.232	0.144	0.144	0.144		
	3-5	0.16	0.205	0.19	0.144	0.144	0.144		
	10	0.144	0.164	0.168	0.144	0.144	0.144		
	15	0.174	0.224	0.228	0.144	0.144	0.144		
	20	0.223	0.288	0.292	0.144	0.144	0.144		
	25	0.276	0.354	0.359	0.144	0.144	0.144		
	30	0.331	0.423	0.427	0.144	0.144	0.144		
	35	0.389	1.349	1.168	0.144	0.144	0.144		

*top slab 8", bottom slab 7"

Strength Reduction Factors

Design Code

Flexure

Shear 0.9

Reinforcement Diameter: _____ **Diameter** _____ **Crack Width [CHBDC Only]** **mm**

Maximum Spacing _____

$$+ \frac{n}{n+1} \ln \frac{n}{n+1}$$

	Top Inside	Bottom Inside	Sidewall Inside	Top Outside	Bottom Outside
Top Slab Thickness	{A5-2}	{A5-3}	{A5-4}	{A5-7}	{A5-8}
Bottom Slab Thickness	{0}	{0}	{0}	{0}	{0}
Sidewall Thickness	{0}	{0}	{0}	{0}	{0}
Top Slab Thickness	{0}	{0}	{0}	{0}	{0}
Bottom Slab Thickness	{0}	{0}	{0}	{0}	{0}
in.	in.	in.	in.	in.	in.

100

Maximum Lateral Pressure Coefficient
Vertical Arching Factor

0.5

Embankment/Compacted

<< Previous Page Next Page >>

[Return to Main Menu](#)

pool/print	Length	Width
By Code	10	in.
By Code	10	in.
By Code	0	in.
By Code	10	in.
By Code	10	in.
By Code	10	in.

Diagram of a three-span continuous beam. The spans are 14 ft, 5 ft, and 4 ft. The beam is supported by four piers. The first span has a uniformly distributed load of 0.5 k/ft. The second span has a point load of 0.67 k at its center. The third span has a uniformly distributed load of 0.5 k/ft. The beam is labeled "A = 81 in²" and "mod".

Steel Layout

14 ft.

5 ft.

0.5 ft.

0.67 ft.

0.5 ft.

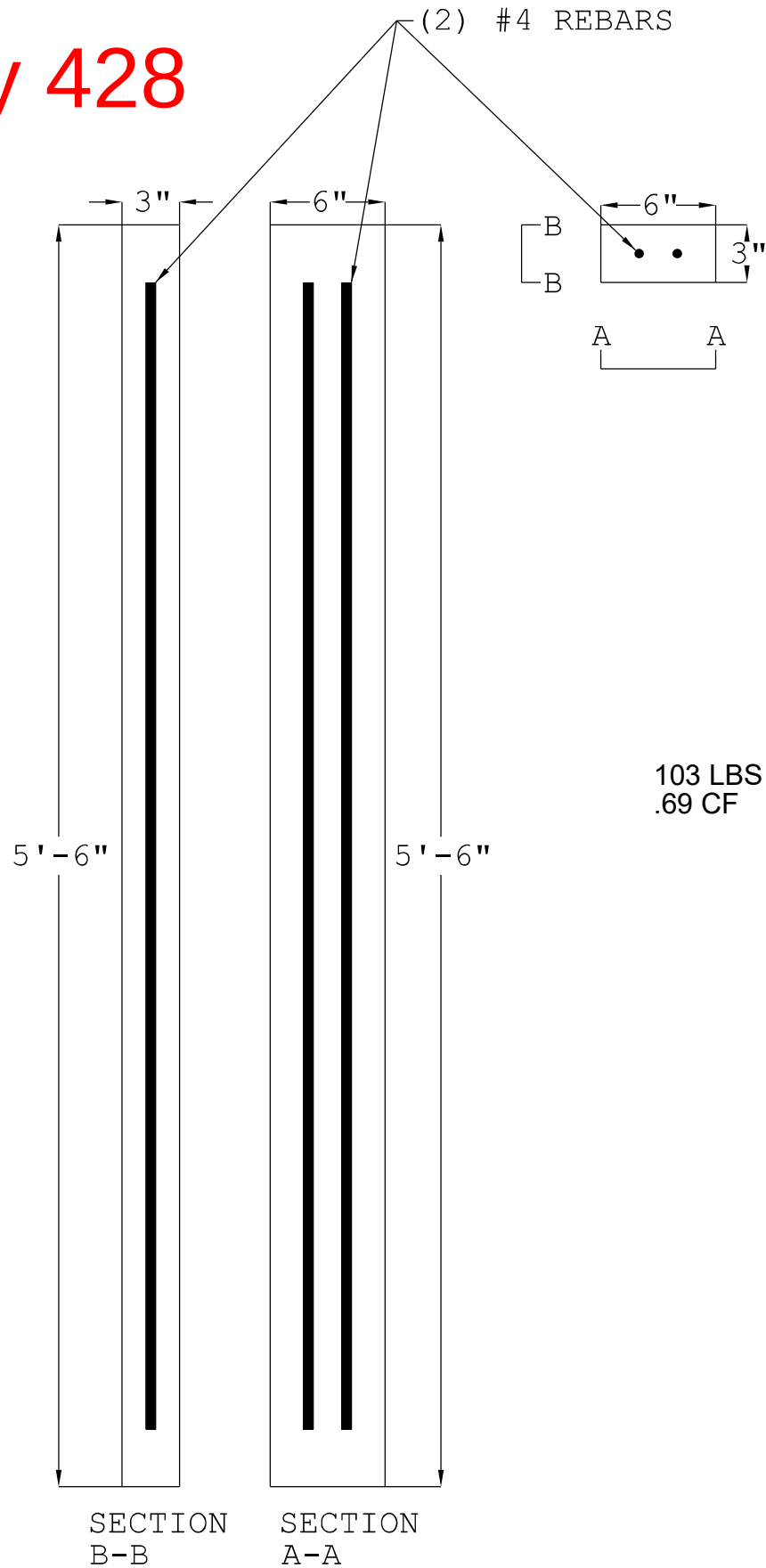
0.5 ft.

4 ft.

A=4x16 Load

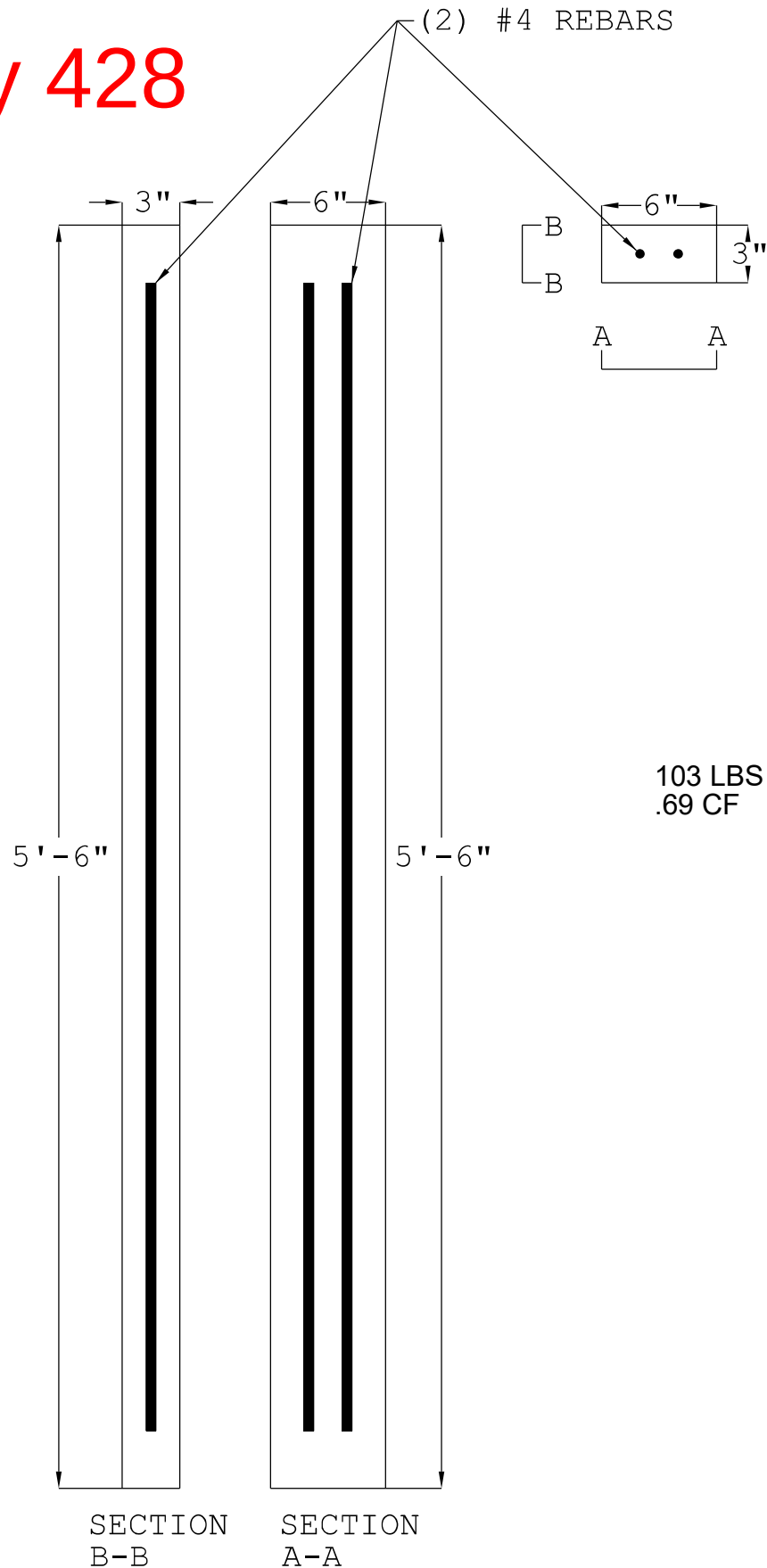
ALCOA CONCRETE LOGS

Quantity 428



ALCOA CONCRETE LOGS

Quantity 428



Job Name: 25-1684P13 KYTC Jefferson Co. Call 200 (251007)
Job Location: I-264 Louisville, Ky.
Contractor: Cleary Construction, Inc.

Plant: Beaver Dam, Ky.

7/21/2026 12:34:09 PM

Tech: N. Richards

PC: J. Jarvis



Structure ID: 5136+37 RT DBI TYPE 1-NA

P1 BX3636-08BAVF

BOX BASE 8inW, 8inF, Variable Ht

P3) 36" x 36" - P.I.P. - BY OTHERS - 8"
P2) 36" x 36" - BOX RISER 8inW - 30"
P1) 36" x 36" - BOX BASE 8inW, 8inF, Variable Ht - 46"
1) 36" x 36" - Conseal CS-102 1.00"
1) Hole - 18"

Structure Total:

0 lb
3544 lb
7079 lb
0 lb
0 lb

10624 lb

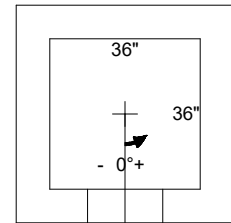
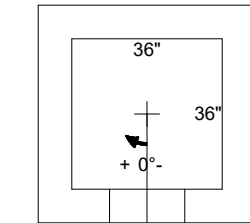
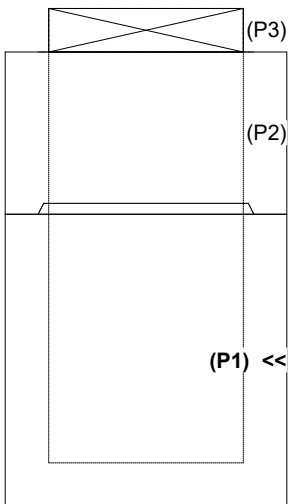
Structure Notes:
-KYTC STATE PROJECT 251007
-REINFORCING: #5 BAR @ 12" C/C E.W. (TYP.)
-TOP SLAB WITH FRAME & GRATES BY OTHERS (NO APRON).
-CS-102 BUTYL REQUIRED (SUPPLIED BY ICAST).
-KYTC CERTIFICATIONS REQUIRED.
-#5 BAR EXTENDED OUT OF TOP OF RISER 20" AT 12" C/C.

Rim: 560.97' Rim to Invert: 7.1' Slack: 1.2" Sump: 0" Step Position:

Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up (_)	Offset
Invert 1	553.87'	0°	26"	15" CMP	16"	Hole 18	18"	18"	-1.5"	0"
Invert 2										
Invert 3										
Invert 4										
Invert 5										
Invert 6										
Invert 7										
Invert 8										

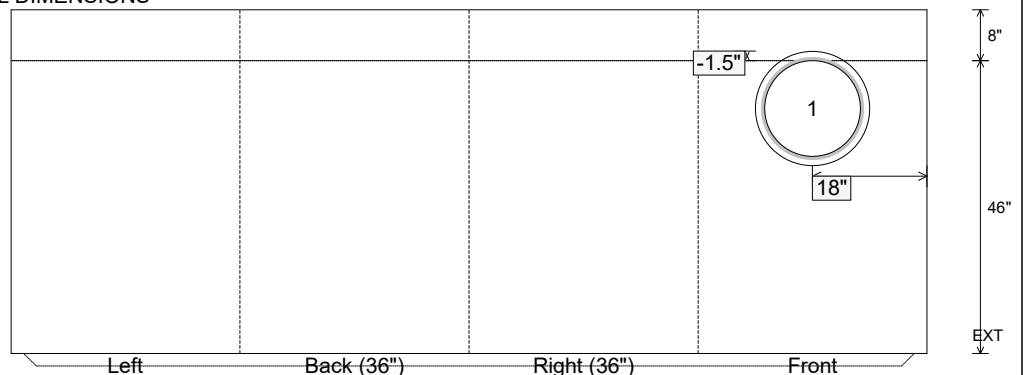
RIGHT-SIDE UP VIEW (int. dimensions)

UPSIDE-DOWN VIEW (int. dimensions)



INSIDE WALL DIMENSIONS

(P1)



Coating (Int):
Coating (Ext):

Seam Up: Tongue
Seam Dn: n/a

Wall Thickness: 8"
Floor Height: 8"

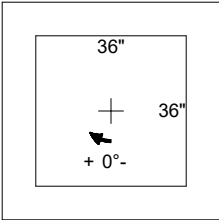
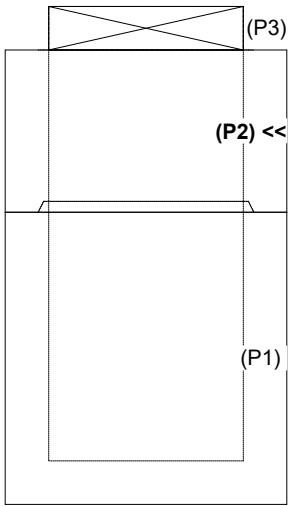
Height (Int): 46"
Height (Ext): 54"

Weight (Net): 7079 lb
Volume (Net): 1.81cu.yd

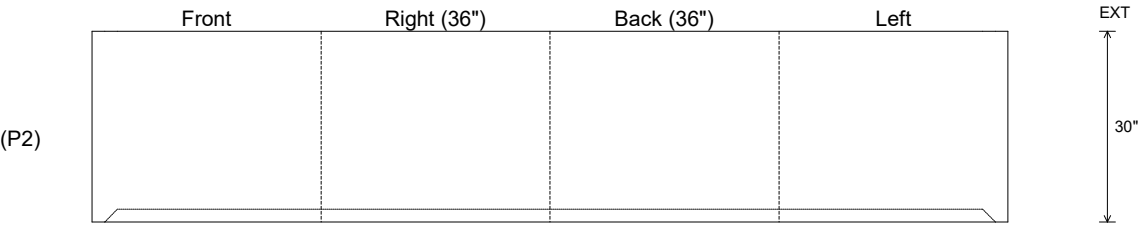
P3) 36" x 36" - P.I.P. - BY OTHERS - 8" P2) 36" x 36" - BOX RISER 8inW - 30" P1) 36" x 36" - BOX BASE 8inW, 8inF, Variable Ht - 46" 1) 36" x 36" - Conseal CS-102 1.00" 1) Hole - 18						0 lb 3544 lb 7079 lb 0 lb 0 lb ----- Structure Total: 10624 lb	Structure Notes: . -KYTC STATE PROJECT 251007 -REINFORCING: #5 BAR @ 12" C/C E.W. (TYP.) -TOP SLAB WITH FRAME & GRATES BY OTHERS (NO APRON). -CS-102 BUTYL REQUIRED (SUPPLIED BY ICAST). -KYTC CERTIFICATIONS REQUIRED. -#5 BAR EXTENDED OUT OF TOP OF RISER 20" AT 12" C/C.
Rim: 560.97' Rim to Invert: 7.1' Slack: 1.2" Sump: 0" Step Position:							

Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up (_)	Offset
Invert 1										
Invert 2										
Invert 3										
Invert 4										
Invert 5										
Invert 6										
Invert 7										
Invert 8										

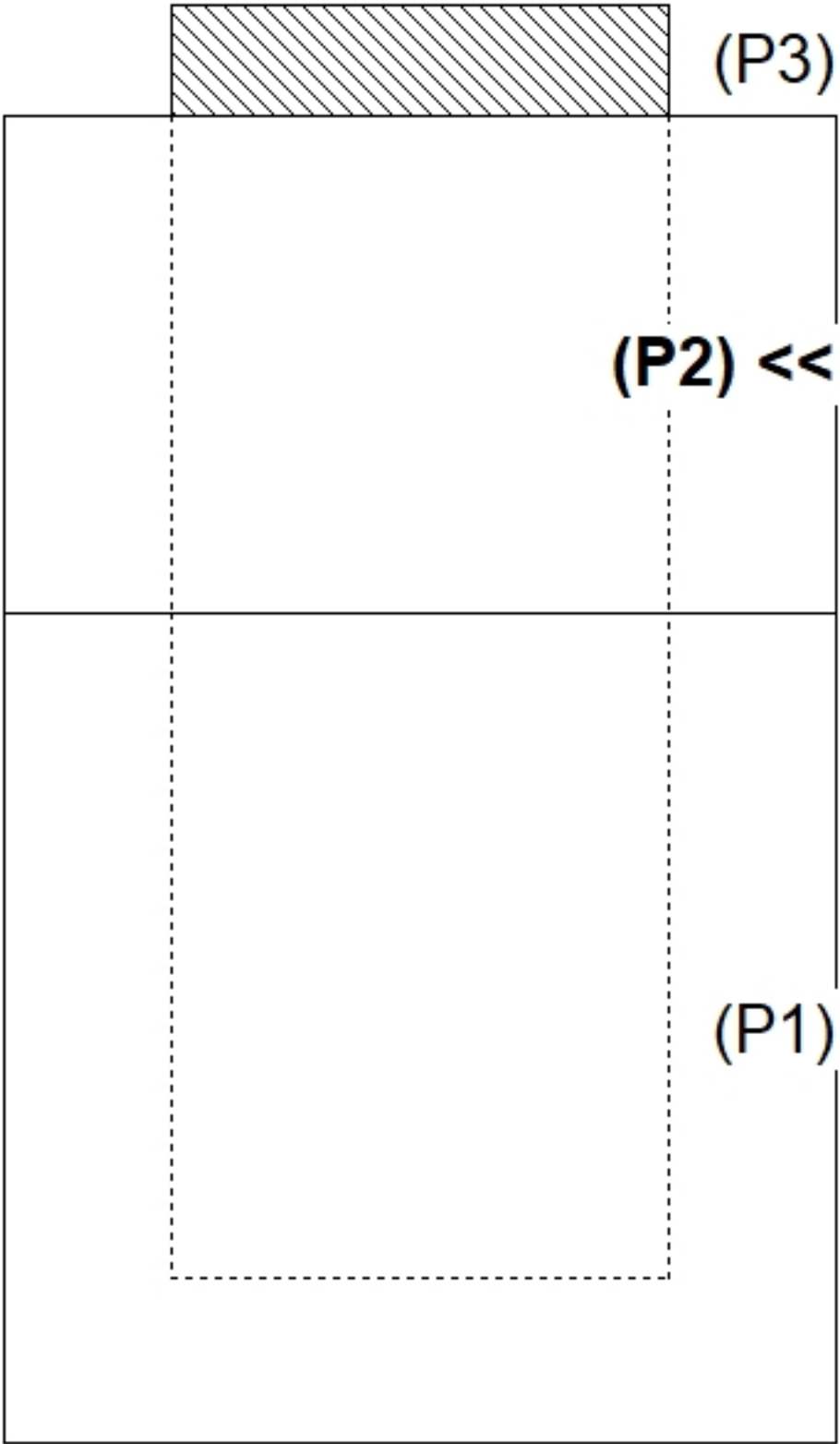
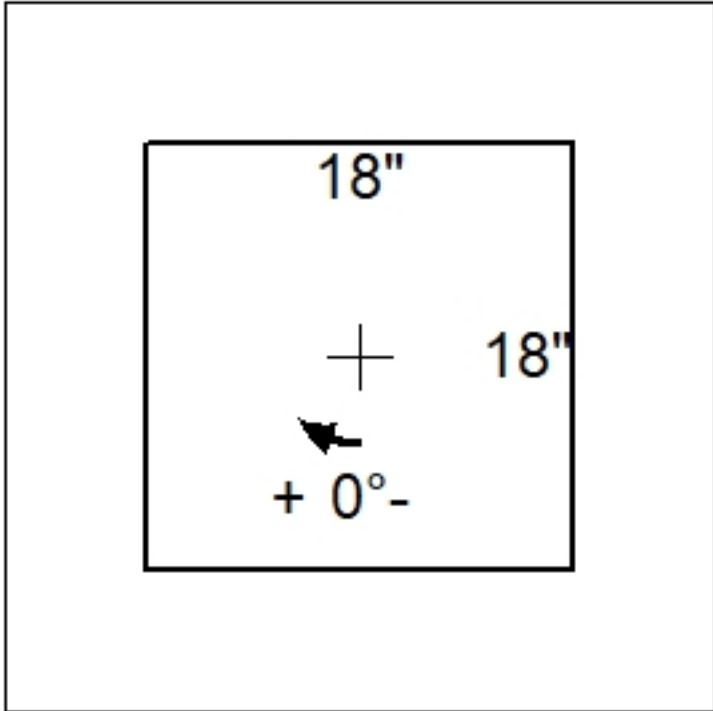
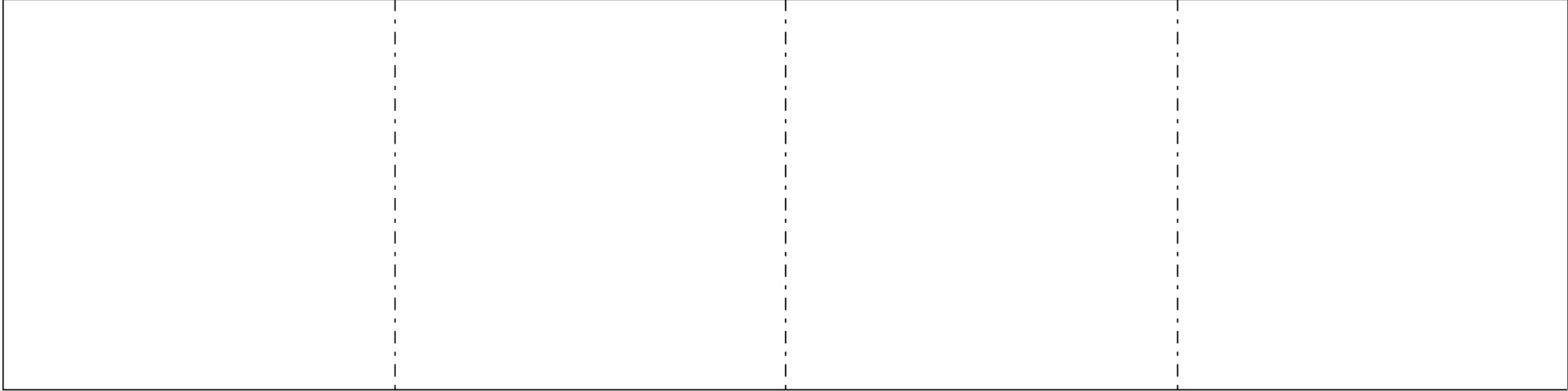
RIGHT-SIDE UP VIEW (int. dimensions)



INSIDE WALL DIMENSIONS



Coating (Int): Coating (Ext):		Seam Up: Flat Seam Dn: Groove	Wall Thickness: 8" Floor Height: 0"	Height (Int): 30" Height (Ext): 30"	Weight (Net): 3544 lb Volume (Net): 0.9cu.yd
---	--	---	---	---	--

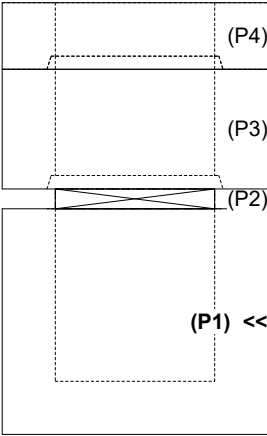
Job Name: 26-2119 512 W Kingston Ave MSD Job Location: Louisville, KY Contractor: TRC, LLC				Plant: Beaver Dam 7/16/2026 3:43:41 PM		Tech: S. Felletter PC: T. Lewis					
Structure ID: QL3 ST-CB 14											
P2 BX1818-06R18				BOX RISER 6inW F/F							
P3) 18" x 18" - CASTING HEIGHT - 4" P2) 18" x 18" - BOX RISER 6inW F/F - 18" P1) 18" x 18" - KNOCKOUT BASE 6"W/F - STOCK F/n - 24" 1) CASTING - HOE 165A F/G 2) 18" x 18" - Conseal CS-102 1.00"						0 lb 870 lb 1613 lb 138 lb 0 lb ----- 2621 lb		Structure Notes: . 1. PER ASTM C913 SPECIFICATIONS. 2. CONCRETE = 4,000 PSI AT 28 DAYS. 3. NO INVERT CHANNEL. 4. CASTING BY ICAST (HOE 165-A F/G). . REINFORCING PER ASTM A615 (GRADE 60). - WALLS (As .12) #5 BARS AT 12" C.C.E.W. - FLOOR (As .12) #5 BARS AT 12" C.C.E.W.			
Rim: 3.833' Rim to Invert: 0' Slack: 0" Sump: 46" Step Position:											
Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up (┘)	Offset	
Invert 1											
Invert 2											
Invert 3											
Invert 4											
Invert 5											
Invert 6											
Invert 7											
Invert 8											
RIGHT-SIDE UP VIEW (int. dimensions)											
											
INSIDE WALL DIMENSIONS											
(P2)		FrontRight (18")Back (18")Left				EXT 18"					
											
Coating (Int): Coating (Ext):				Seam Up: Flat Seam Dn: Flat		Wall Thickness: 6" Floor Height: 0"		Height (Int): 18" Height (Ext): 18"		Weight (Net): 870 lb Volume (Net): 0.22cu.yd	

Job Name: 26-2763 - The Flats of Martin Job Location: Paris, TN 38242 Contractor: BTM Excavating, LLC				Plant: 100 7/14/2026 11:10:25 AM		Tech: Jared - F PC: T. Lewis				
Structure ID: 1 ST-AD										
P1 BX28280606VH				BOX BASE 6inW, 6inF, Variable Ht F/n						
P2) 28" x 28" - CASTING HEIGHT - 6" P1) 28" x 28" - BOX BASE 6inW, 6inF, Variable Ht F/n - 23" 1) CASTING - JBS 4310 F/G 2) 28" x 28" - Conseal CS-102 1.00" 1) Hole - 18				0 lb 2252 lb 500 lb 0 lb 0 lb ----- Structure Total: 2752 lb		Structure Notes: . 1. PER ASTM C913 SPECIFICATIONS. 2. CONCRETE = 4,000 PSI AT 28 DAYS. 3. NO STEPS AND NO INVERT CHANNEL. 4. CASTING BY ICAST (JBS 4310 F/G). REINFORCING PER ASTM A615 (GRADE 60). - WALLS (As .31) #5 BARS AT 12" C.C.E.W. - FLOOR (As .31) #5 BARS AT 12" C.C.E.W.				
Rim: 354.5' Rim to Invert: 2.4' Slack: 0.925" Sump: 1.125" Step Position:										
Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up (_)	Offset
Invert 1	352.1'	0°	20"	12" HP STORM	14.5"	Hole 18	18"	18"	0"	0"
Invert 2										
Invert 3										
Invert 4										
Invert 5										
Invert 6										
Invert 7										
Invert 8										

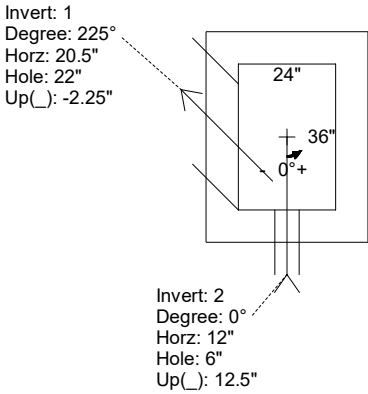
Coating (Int): Coating (Ext):	Seam Up: Flat Seam Dn: n/a	Wall Thickness: 6" Floor Height: 6"	Height (Int): 23" Height (Ext): 29"	Weight (Net): 2252 lb Volume (Net): 0.57cu.yd
----------------------------------	-------------------------------	--	--	--

Job Name: 24-4208 - KYTC Christian Co. Call 100 (ID 241018) Job Location: Hopkinsville, KY Contractor: Scotty's Contracting & Stone, LLC					Plant: Beaver Dam 6/26/2026 7:36:01 AM		Tech: J. Horsley PC: C. Goff				
Structure ID: 222											
P1 BX2436-08BVF			BOX BASE 8inW, 8inF, Variable Ht F/n								
P4) 24" x 120" - CB INLET KY A 10' TOP RIGHT F/G - 10" P3) 24" x 120" - CB INLET KY A 10' BOTTOM RIGHT T/G - 18" P2) 24" x 36" - FIELD ADJUSTMENT - 3" P1) 24" x 36" - BOX BASE 8inW, 8inF, Variable Ht F/n - 26" 1) CASTING - HOE KY-206 F/C (KY TY1) 1) This Structure Includes a Cast-in Item - KY-206 Frame (Supplied by iCast) 2) 24" x 36" - Conseal CS-102 1.00" 1) Hole - 22 1) Hole - 6						3398 lb 5270 lb 0 lb 3669 lb 206 lb 0 lb 0 lb 0 lb 0 lb		Structure Notes: ** KYTC STATE PROJECT ** STATION: 420+26 LT 1. PER KYTC CBI TYPE A / ASTM C-913 SPECS 2. CONCRETE: 4,000 PSI AT 28 DAYS 3. REINFORCEMENT: #5 BAR @ 12" C.C. E.W. (GRADE 60) - 2" MIN. REBAR CLEARANCE (TYP) 4. HOE KY-206 FRAME & COVER "STORM" SUPPLIED BY ICAST - FRAME TO BE CAST INTO TOP PHASE TOP FLANGE SIDE UP			
Rim: 552.84' Rim to Invert: 4.83' Slack: 0.96" Sump: 0" Step Position:						Structure Total: 12543 lb					
Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up (_)	Offset	
Invert 1	548.01'	225°	20.5"	15" RCP B WALL	19.5"	Hole 22	22"	31.113"	-2.25"	10.209"	
Invert 2	549.09'	0°	20"	4" HDPE (perf pipe)	4.8"	Hole 6	6"	6"	12.5"	0"	
Invert 3											
Invert 4											
Invert 5											
Invert 6											
Invert 7											
Invert 8											

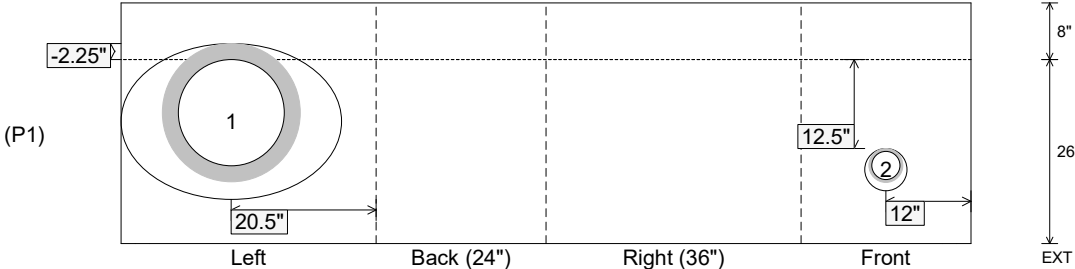
RIGHT-SIDE UP VIEW (int. dimensions)



UPSIDE-DOWN VIEW (int. dimensions)



INSIDE WALL DIMENSIONS



Coating (Int): Coating (Ext):	Seam Up: Flat Seam Dn: n/a	Wall Thickness: 8" Floor Height: 8"	Height (Int): 26" Height (Ext): 34"	Weight (Net): 3669 lb Volume (Net): 0.94cu.yd
----------------------------------	-------------------------------	--	--	--

Job Name: 24-4208 - KYTC Christian Co. Call 100 (ID 241018)

Job Location: Hopkinsville, KY

Contractor: Scotty's Contracting & Stone, LLC

Plant: Beaver Dam

6/26/2026 7:35:57 AM

Tech: J. Horsley

PC: C. Goff



Structure ID: 218

P1 BX24300808VF

BOX BASE 8inW, 8inF, Variable Ht F/n

P2) 24" x 30" - CASTING HEIGHT - 3.75"

P1) 24" x 30" - BOX BASE 8inW, 8inF, Variable Ht F/n - 35"

1) CASTING - HOE KY-460-11 F/G (DBI 11)

1) 24" x 30" - Conseal CS-102 1.00"

1) Hole - 20

0 lb

4314 lb

421 lb

0 lb

0 lb

Structure Total: 4735 lb

Structure Notes:

** KYTC STATE PROJECT **

STATION: 418+00 RT

1. PER KYTC DBI TYPE 11 / ASTM C-913 SPECS

2. CONCRETE: 4,000 PSI AT 28 DAYS

3. REINFORCEMENT: #5 BAR @ 12" C.C. E.W. (GRADE 60) - 2" MIN. REBAR CLEARANCE (TYP)

4. HOE KY-460-11 FRAME & GRATE SUPPLIED BY ICAST

Rim: 554.8'

Rim to Invert: 3.27'

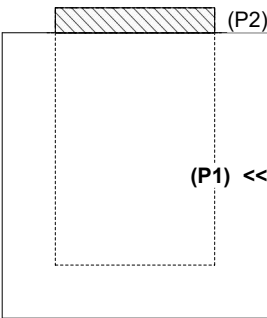
Slack: 0.49"

Sump: 0"

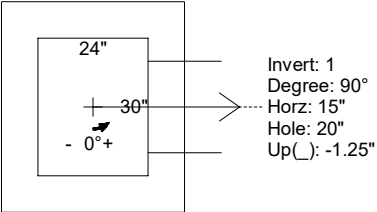
Step Position:

Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up ()	Offset
Invert 1	551.53'	90°	23"	15" HDPE	17.6"	Hole 20	20"	20"	-1.25"	0"
Invert 2										
Invert 3										
Invert 4										
Invert 5										
Invert 6										
Invert 7										
Invert 8										

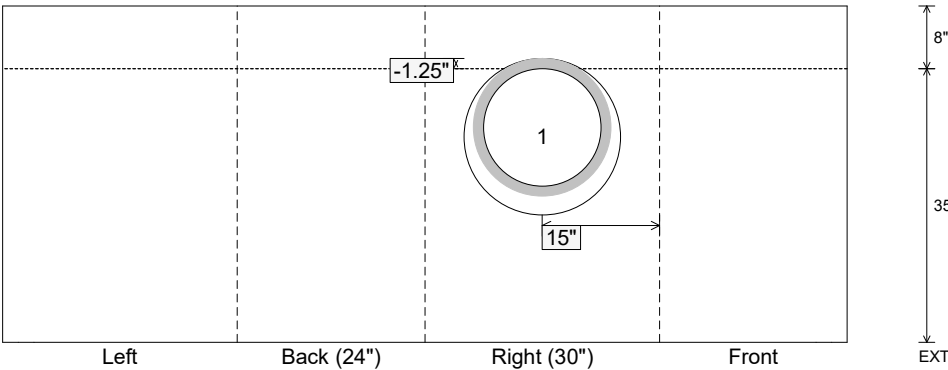
RIGHT-SIDE UP VIEW (int. dimensions)



UPSIDE-DOWN VIEW (int. dimensions)



INSIDE WALL DIMENSIONS



Coating (Int):

Coating (Ext):

Seam Up: Flat

Seam Dn: n/a

Wall Thickness: 8"

Floor Height: 8"

Height (Int): 35"

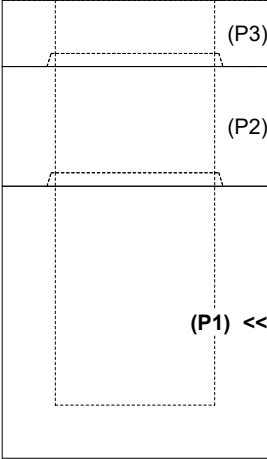
Height (Ext): 43"

Weight (Net): 4314 lb

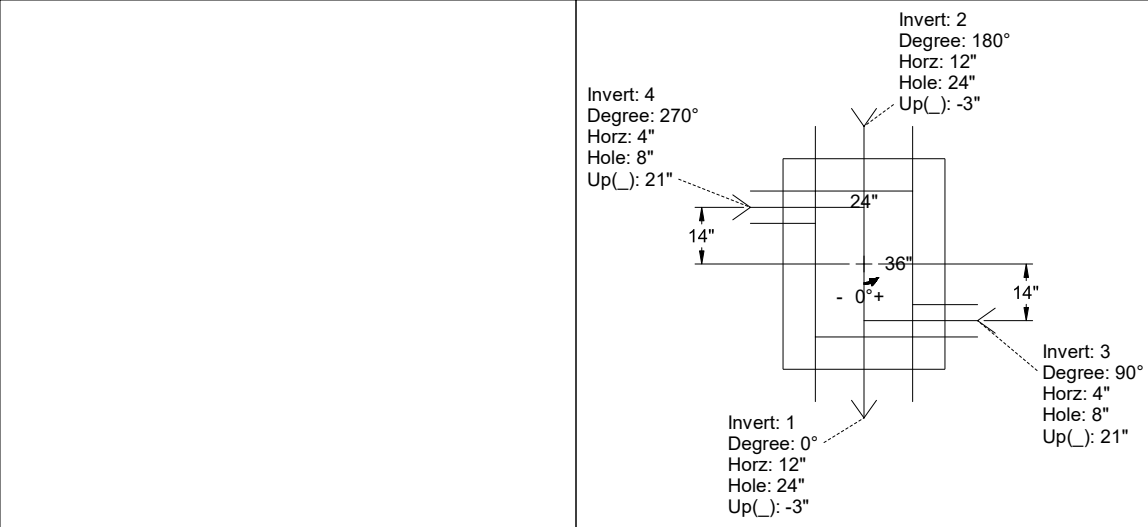
Volume (Net): 1.1cu.yd

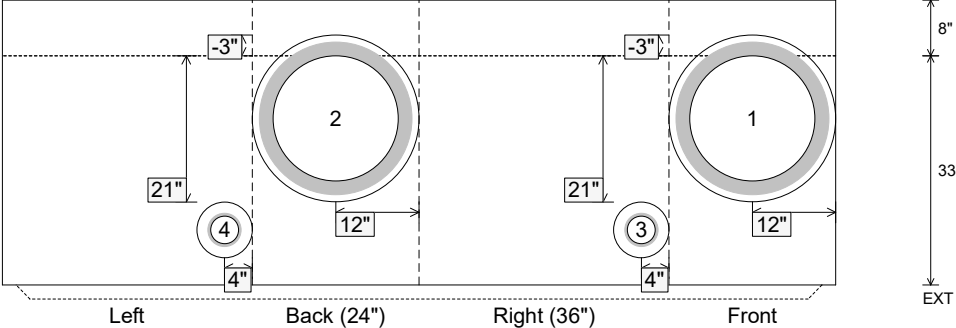
Job Name: 25-3193 - KYTC Kenton Co Call 328 (251320) Job Location: Independence, KY Contractor: Eaton Asphalt				Plant: 100 6/4/2026 4:51:04 PM		Tech: Jared - A PC: J. Jarvis						
Structure ID: 565												
P1		BX2436-08BVF		BOX BASE 8inW, 8inF, Variable Ht T/n								
P3) 24" x 120" - CB INLET KY A 10' TOP LEFT F/G - 10" P2) 24" x 120" - CB INLET KY A 10' BOTTOM LEFT T/G - 18" P1) 24" x 36" - BOX BASE 8inW, 8inF, Variable Ht T/n - 33" 1) CASTING - HOE KY-206 F/C (KY TY1) 1) This Structure Includes a Cast-in Item - KY-206 Frame (Supplied by iCast) 1) 24" x 36" - Conseal CS-102 1.00" 2) Hole - 24 2) Hole - 8						3400 lb 5270 lb 4375 lb 206 lb 0 lb 0 lb 0 lb 0 lb ----- Structure Total: 13251 lb		Structure Notes: ** KYTC STATE PROJECT ** 1. PER KYTC CBI TY A / ASTM C-913 SPECS 2. CONCRETE: 4,000 PSI AT 28 DAYS 3. REINFORCEMENT: #5 BAR @ 12" C.C. E.W. (GRADE 60) - 2" MIN. REBAR CLEARANCE (TYP) 4. NO STORM INVERT 5. NO STEPS 6. KY-206 FRAME & COVER "STORM" SUPPLIED BY ICAST - FRAME TO BE CAST INTO TOP PHASE TOP FLANGE SIDE UP 7. INVERTS 3 & 4 OFFSET 14" FROM CENTER OF WALL				
Rim: 854.04'		Rim to Invert: 5.09'		Slack: 0.08"		Sump: 0"		Step Position:				
Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up (_)	Offset		
Invert 1	848.95'	0°	20"	18" ADS N-12	22"	Hole 24	24"	24"	-3"	0"		
Invert 2	848.95'	180°	20"	18" ADS N-12	22"	Hole 24	24"	24"	-3"	0"		
Invert 3	850.87'	90°	12"	4" HDPE (perf pipe)	4.8"	Hole 8	8"	8"	21"	-14"		
Invert 4	850.87'	270°	12"	4" HDPE (perf pipe)	4.8"	Hole 8	8"	8"	21"	-14"		
Invert 5												
Invert 6												
Invert 7												
Invert 8												

RIGHT-SIDE UP VIEW (int. dimensions)



UPSIDE-DOWN VIEW (int. dimensions)



(P1)	INSIDE WALL DIMENSIONS			
				

Coating (Int): Coating (Ext):	Seam Up: Tongue Seam Dn: n/a	Wall Thickness: 8" Floor Height: 8"	Height (Int): 33" Height (Ext): 41"	Weight (Net): 4375 lb Volume (Net): 1.12cu.yd
----------------------------------	---------------------------------	--	--	--

Job Name: 25-3193 - KYTC Kenton Co Call 328 (251320)

Job Location: Independence, KY

Contractor: Eaton Asphalt

Plant: 100

6/4/2026 4:51:02 PM

Tech: Jared - A

PC: J. Jarvis

Structure ID: 564

P1 BX2436-08BVF

BOX BASE 8inW, 8inF, Variable Ht T/n

P3) 24" x 120" - CB INLET KY A 10' TOP LEFT F/G - 10"

P2) 24" x 120" - CB INLET KY A 10' BOTTOM LEFT T/G - 18"

P1) 24" x 36" - BOX BASE 8inW, 8inF, Variable Ht T/n - 33"

1) CASTING - HOE KY-206 F/C (KY TY1)

1) This Structure Includes a Cast-in Item - KY-206 Frame (Supplied by iCast)

1) 24" x 36" - Conseal CS-102 1.00"

2) Hole - 24"

2) Hole - 8"

3400 lb

5270 lb

4232 lb

206 lb

0 lb

0 lb

0 lb

0 lb

Structure Total: 13108 lb

Structure Notes:

** KYTC STATE PROJECT **

1. PER KYTC CBI TY A / ASTM C-913 SPECS

2. CONCRETE: 4,000 PSI AT 28 DAYS

3. REINFORCEMENT: #5 BAR @ 12" C.C. E.W. (GRADE 60) - 2" MIN. REBAR CLEARANCE (TYP)

4. NO STORM INVERT

5. NO STEPS

6. KY-206 FRAME & COVER "STORM" SUPPLIED BY iCAST - FRAME TO BE CAST INTO TOP PHASE TOP FLANGE SIDE UP

7. INVERT 4 OFFSET 14" FROM CENTER OF WALL

Rim: 852.11' Rim to Invert: 5.09' Slack: 0.08" Sump: 0" Step Position:

Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up (_)	Offset
Invert 1	847.02'	270°	26"	18" ADS N-12	22"	Hole 24	24"	24"	-3"	0"
Invert 2	847.02'	180°	20"	18" ADS N-12	22"	Hole 24	24"	24"	-3"	0"
Invert 3	848.94'	0°	20"	4" HDPE (perf pipe)	4.8"	Hole 8	8"	8"	21"	0"
Invert 4	848.94'	270°	12"	4" HDPE (perf pipe)	4.8"	Hole 8	8"	8"	21"	-14"
Invert 5										
Invert 6										
Invert 7										
Invert 8										

RIGHT-SIDE UP VIEW (int. dimensions)

UPSIDE-DOWN VIEW (int. dimensions)

(P3)

(P2)

(P1) <<

INSIDE WALL DIMENSIONS

Coating (Int):

Coating (Ext):

Seam Up: Tongue

Seam Dn: n/a

Wall Thickness: 8"

Floor Height: 8"

Height (Int): 33"

Height (Ext): 41"

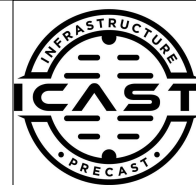
Weight (Net): 4232 lb

Volume (Net): 1.08cu.yd

Job Name: 25-3062 Portland Bypass
Job Location: Portland, TN
Contractor: Scotty's Contracting & Stone, LLC

Plant: Beaver Dam
6/1/2026 8:23:12 AM

Tech: J. Coppage
PC: C. Goff



Structure ID: CB-38

P1 BX3648-08BA36

BOX BASE 8inW, 8inF

- P3) 28" x 34" - CASTING HEIGHT - 7"
P2) 36" x 48" - BX FLAT LID 8"W - TDOT 12P (28"x34" Hole) - 10"
P1) 36" x 48" - BOX BASE 8inW, 8inF - 36"
1) CASTING - JBS-3123 MODIFIED SET
1) 36" x 48" - Conseal CS-102 1.00"
1) 28" x 34" - Conseal CS-102 1.00"
3) Hole - 26
1) Hole - 6

- 0 lb
2044 lb
5984 lb
250 lb
0 lb
0 lb
0 lb
0 lb

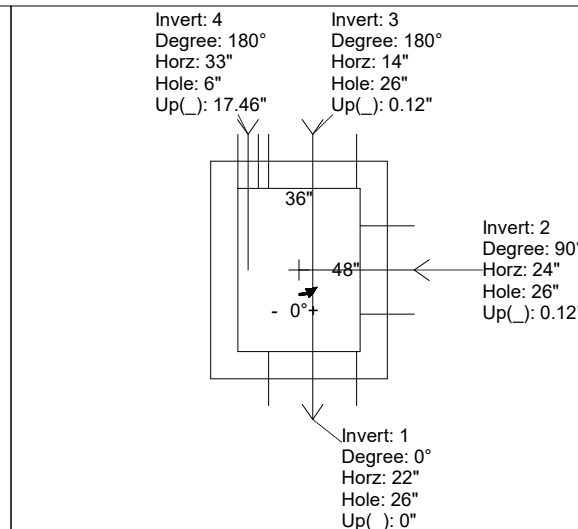
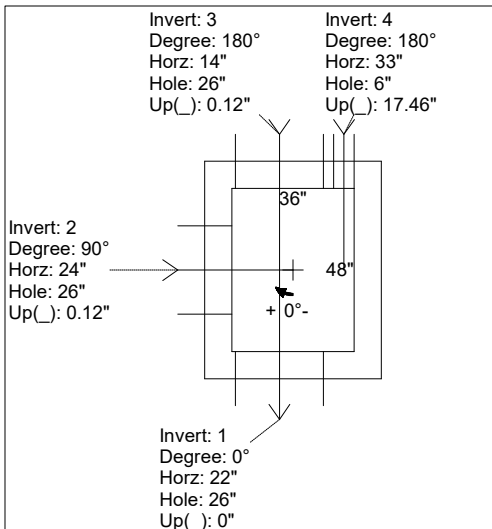
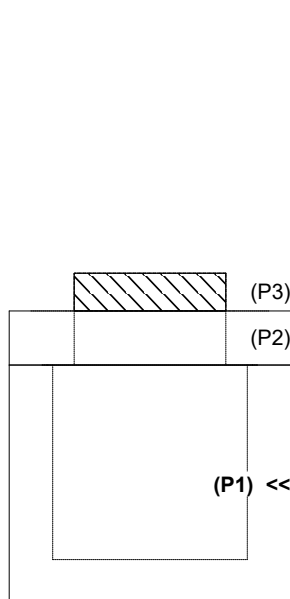
Structure Total: 8278 lb
- Structure Notes:**
1. PER TDOT D-CB-12S / ASTM C913 SPEC'S.
2. CONCRETE = 4,000 PSI AT 28 DAYS.
3. NO INVERT CHANNEL.
4. JBS 3123 MOD SINGLE SET BY ICAST
5. REINFORCING PER ASTM A615 (GRADE 60).
** SEE TDOT STD DRAWING D-CB-12S **
- TOP SLAB - DBL MAT #5 BARS.
- WALLS (As .47) #5 BARS AT 8" C.C.E.W.
- FLOOR (As .47) #5 BARS AT 8" C.C.E.W.

Rim: 812.01' Rim to Invert: 4.28' Slack: 0.86" Sump: 2.5" Step Position:

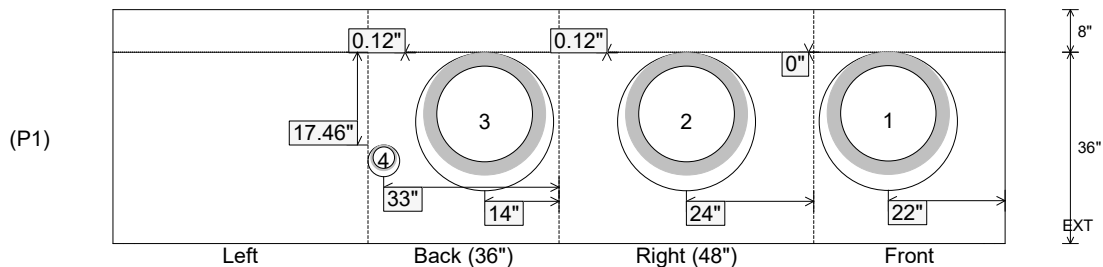
Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up ()	Offset
Invert 1	807.73'	0°	30"	18" RCP B WALL	23"	Hole 26	26"	26"	0"	4"
Invert 2	807.74'	90°	32"	18" RCP B WALL	23"	Hole 26	26"	26"	0.12"	0"
Invert 3	807.74'	180°	22"	18" RCP B WALL	23"	Hole 26	26"	26"	0.12"	-4"
Invert 4	809.01'	180°	41"	4" HDPE (perf pipe)	4.8"	Hole 6	6"	6"	17.46"	15"
Invert 5										
Invert 6										
Invert 7										
Invert 8										

RIGHT-SIDE UP VIEW (int. dimensions)

UPSIDE-DOWN VIEW (int. dimensions)



INSIDE WALL DIMENSIONS



Coating (Int):
Coating (Ext):

Seam Up: Flat
Seam Dn: n/a

Wall Thickness: 8"
Floor Height: 8"

Height (Int): 36"
Height (Ext): 44"

Weight (Net): 5984 lb
Volume (Net): 1.53cu.yd

Job Name: 25-2952 - KYTC Jefferson Co Call 106 (251315)

Job Location: Indiana, KY

Contractor: Louisville Paving and Construction

Plant: 100

6/12/2026 3:10:03 PM

Tech: J. Horsley - A

PC: J. Jarvis



Structure ID: 65

P1 BX2424-08BAVF

BOX BASE 8inW, 8inF, Variable Ht F/n

P3) 19.5" - CASTING (cast in) - 2.75"

P2) 24" x 24" - CB FLAT TOP 8"W (HOE KY-210) F/F - 8"

P1) 24" x 24" - BOX BASE 8inW, 8inF, Variable Ht F/n - 28"

1) This Structure Includes a Cast-in Item - HOE KY-210 Frame (Supplied By Others)

1) 24" x 24" - Conseal CS-102 1.00"

1) Hole - 18

0 lb

943 lb

3292 lb

0 lb

0 lb

0 lb

Structure Total: 4235 lb

Structure Notes:

** KYTC STATE PROJECT **

1. PER KYTC DBI TYPE 14 / ASTM C-913 SPECS

2. CONCRETE: 4,000 PSI AT 28 DAYS

3. REINFORCEMENT: #5 BAR @ 12" C.C. E.W. (GRADE 60) - 2" MIN. REBAR CLEARANCE (TYP)

4. HOE KY-210 FRAME & GRATE SUPPLIED BY OTHERS - FRAME TO BE CAST INTO FLAT LID

Rim: 551.93' Rim to Invert: 3' Slack: 0" Sump: 0" Step Position:

Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up ()	Offset
Invert 1	548.93'	155°	17.25"	12" HDPE	14.5"	Hole 18	18"	19.861"	-3"	6"
Invert 2										
Invert 3										
Invert 4										
Invert 5										
Invert 6										
Invert 7										
Invert 8										

(P3)

(P2)

(P1) <<

RIGHT-SIDE UP VIEW (int. dimensions)

UPSIDE-DOWN VIEW (int. dimensions)

INSIDE WALL DIMENSIONS

(P1)

1

-3"

13"

Left

Back (24")

Right (24")

Front

8"

28"

EXT

Coating (Int):

Coating (Ext):

Seam Up: Flat

Seam Dn: n/a

Wall Thickness: 8"

Floor Height: 8"

Height (Int): 28"

Height (Ext): 36"

Weight (Net): 3292 lb

Volume (Net): 0.84cu.yd

Job Name: 25-2952 - KYTC Jefferson Co Call 106 (251315) Job Location: Indiana, KY Contractor: Louisville Paving and Construction					Plant: 100 6/12/2026 3:09:57 PM		Tech: J. Horsley - A PC: J. Jarvis				
Structure ID: 59											
P1 BX2424-08BAVF BOX BASE 8inW, 8inF, Variable Ht F/n											
P3) 19.5" - CASTING (cast in) - 2.75" P2) 24" x 24" - CB FLAT TOP 8"W (HOE KY-210) F/F - 8" P1) 24" x 24" - BOX BASE 8inW, 8inF, Variable Ht F/n - 28" 1) This Structure Includes a Cast-in Item - HOE KY-210 Frame (Supplied By Others) 1) 24" x 24" - Conseal CS-102 1.00" 1) Hole - 20 1) Hole - 18						0 lb 943 lb 3098 lb 0 lb 0 lb 0 lb 0 lb ----- 0 lb Structure Total: 4041 lb		Structure Notes: ** KYTC STATE PROJECT ** 1. PER KYTC DBI TYPE 14 / ASTM C-913 SPECS 2. CONCRETE: 4,000 PSI AT 28 DAYS 3. REINFORCEMENT: #5 BAR @ 12" C.C. E.W. (GRADE 60) - 2" MIN. REBAR CLEARANCE (TYP) 4. HOE KY-210 FRAME & GRATE SUPPLIED BY OTHERS - FRAME TO BE CAST INTO FLAT LID			
Rim: 551' Rim to Invert: 3' Slack: 0" Sump: 0" Step Position:											
Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up ()	Offset	
Invert 1	548'	180°	20"	15" HDPE	17.6"	Hole 20	20"	20"	-2.5"	0"	
Invert 2	548'	90°	20"	12" HDPE	14.5"	Hole 18	18"	18"	-3"	0"	
Invert 3											
Invert 4											
Invert 5											
Invert 6											
Invert 7											
Invert 8											
RIGHT-SIDE UP VIEW (int. dimensions) UPSIDE-DOWN VIEW (int. dimensions) INSIDE WALL DIMENSIONS											
Coating (Int): Coating (Ext):			Seam Up: Flat Seam Dn: n/a		Wall Thickness: 8" Floor Height: 8"		Height (Int): 28" Height (Ext): 36"		Weight (Net): 3098 lb Volume (Net): 0.79cu.yd		

Plant: Beaver Dam

7/21/2026 8:50:18 AM

Tech:	S. Felletter
PC:	A. Chambers



GRADE RING 6"W F/F

[illegible]

Structure Notes:

- 1. PER ASTM C913 SPECIFICATIONS.
- 2. CONCRETE = 4,000 PSI AT 28 DAYS.

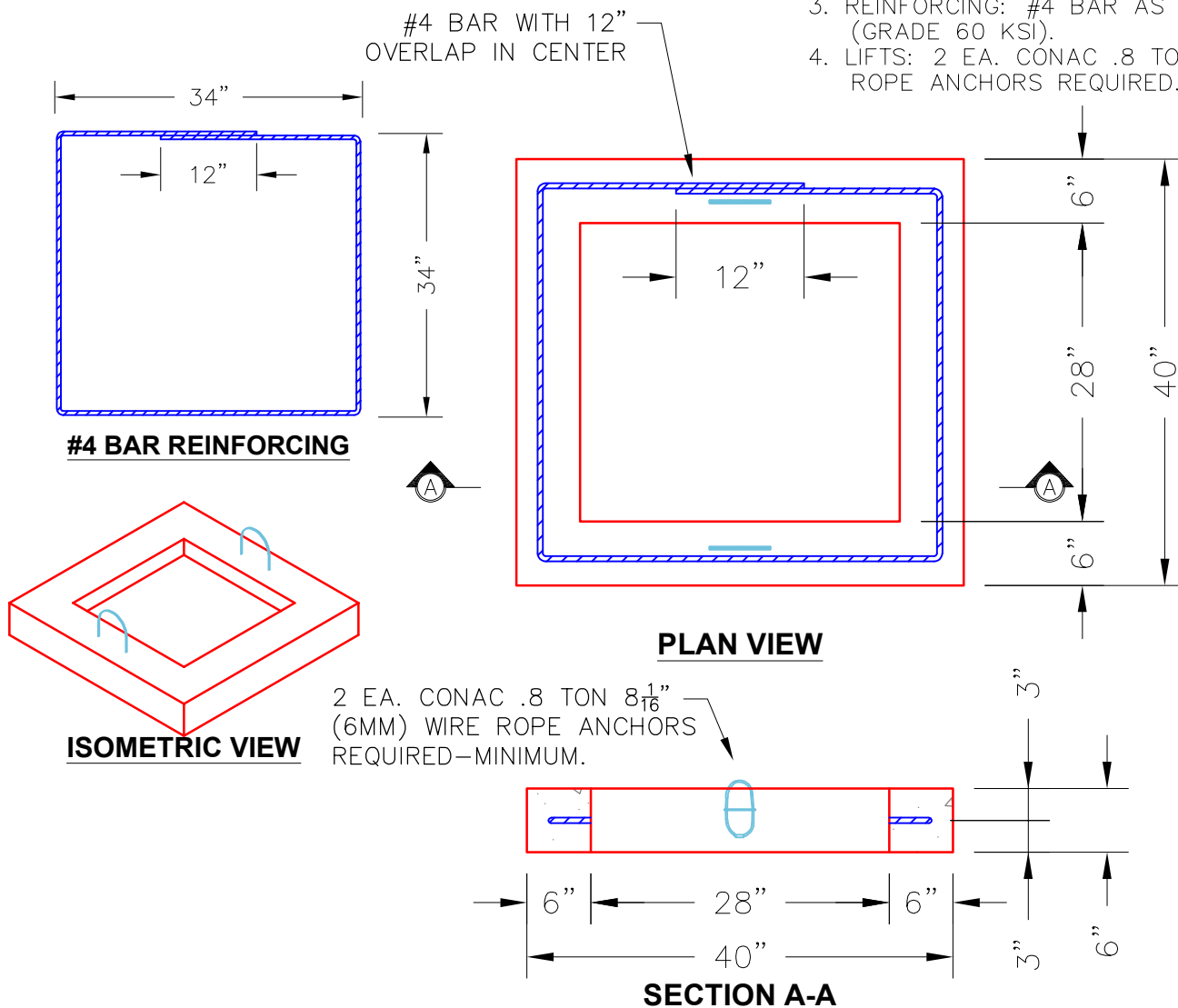
REINFORCING PER ASTM A615 (GRADE 60).

- WALLS (As .31) #5 BARS AT 12" C.C.E.W.

NOTES:

1. MANUFACTURED TO ASTM C-478 (LATEST REVISION).
2. CONCRETE = 4,000 PSI @ 28 DAYS.
3. REINFORCING: #4 BAR AS SHOWN (GRADE 60 KSI).
4. LIFTS: 2 EA. CONAC .8 TON WIRE ROPE ANCHORS REQUIRED.

Structure Total: 9449 lb



Coating (Int):
Coating (Ext):

Seam Up: Flat
Seam Dn: Flat

Wall Thickness: 6"

Height (Ext): 6"

Weight (Net): 411 lb
Volume (Net): 0.1cu.yd



Weight (Net): 411 lb
Volume (Net): 0.1cu.yd

Plant: Beaver Dam

7/21/2026 8:50:19 AM

Tech:	S. Felletter
PC:	A. Chambers



GRADE RING 6"W F/F

411 lb
411 lb
411 lb
411 lb
411 lb
411 lb
411 lb
411 lb
411 lb
411 lb
411 lb
411 lb
411 lb
411 lb
411 lb
411 lb

411 lb
411 lb
411 lb
411 lb
411 lb

Structure Notes:

- 1. PER ASTM C913 SPECIFICATIONS.
- 2. CONCRETE = 4,000 PSI AT 28 DAYS.

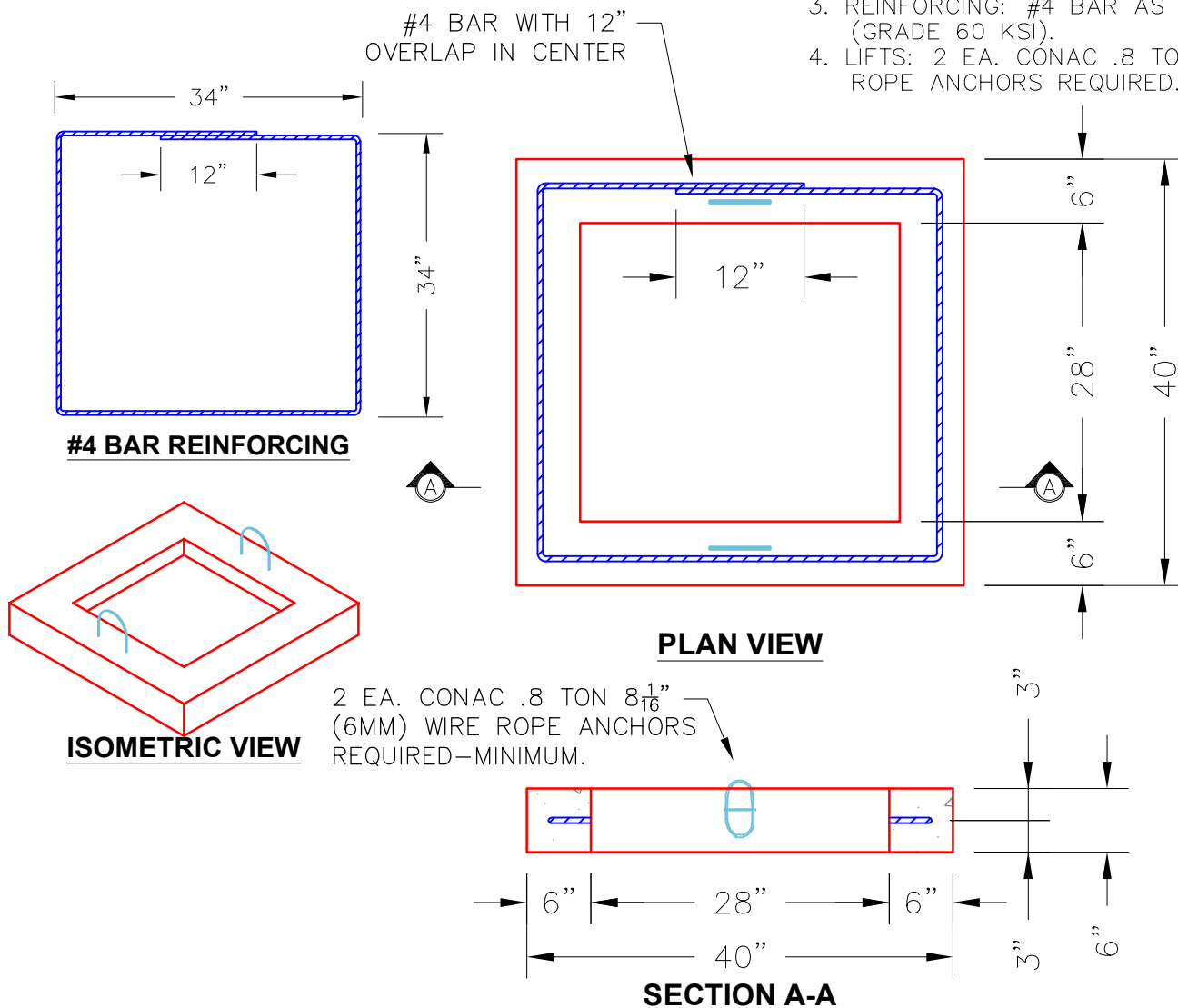
REINFORCING PER ASTM A615 (GRADE 60).

- WALLS (As .31) #5 BARS AT 12" C.C.E.W.

NOTES:

1. MANUFACTURED TO ASTM C-478 (LATEST REVISION).
2. CONCRETE = 4,000 PSI @ 28 DAYS.
3. REINFORCING: #4 BAR AS SHOWN (GRADE 60 KSI).
4. LIFTS: 2 EA. CONAC .8 TON WIRE ROPE ANCHORS REQUIRED.

Structure Total: 9449 lb



Coating (Int):
Coating (Ext):

Seam Up: Flat
Seam Dn: Flat

Wall Thickness: 6"

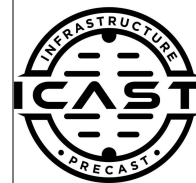
Height (Ext): 6"

Weight (Net): 411 lb
Volume (Net): 0.1cu.yd

Plant: Beaver Dam

7/21/2026 8:50:19 AM

Tech:	S. Felletter
PC:	A. Chambers



GRADE RING 6"W F/F

[illegible]

Structure Notes:

1. PER ASTM C913 SPECIFICATIONS.
2. CONCRETE = 4,000 PSI AT 28 DAYS.

REINFORCING PER ASTM A615 (GRADE 60).

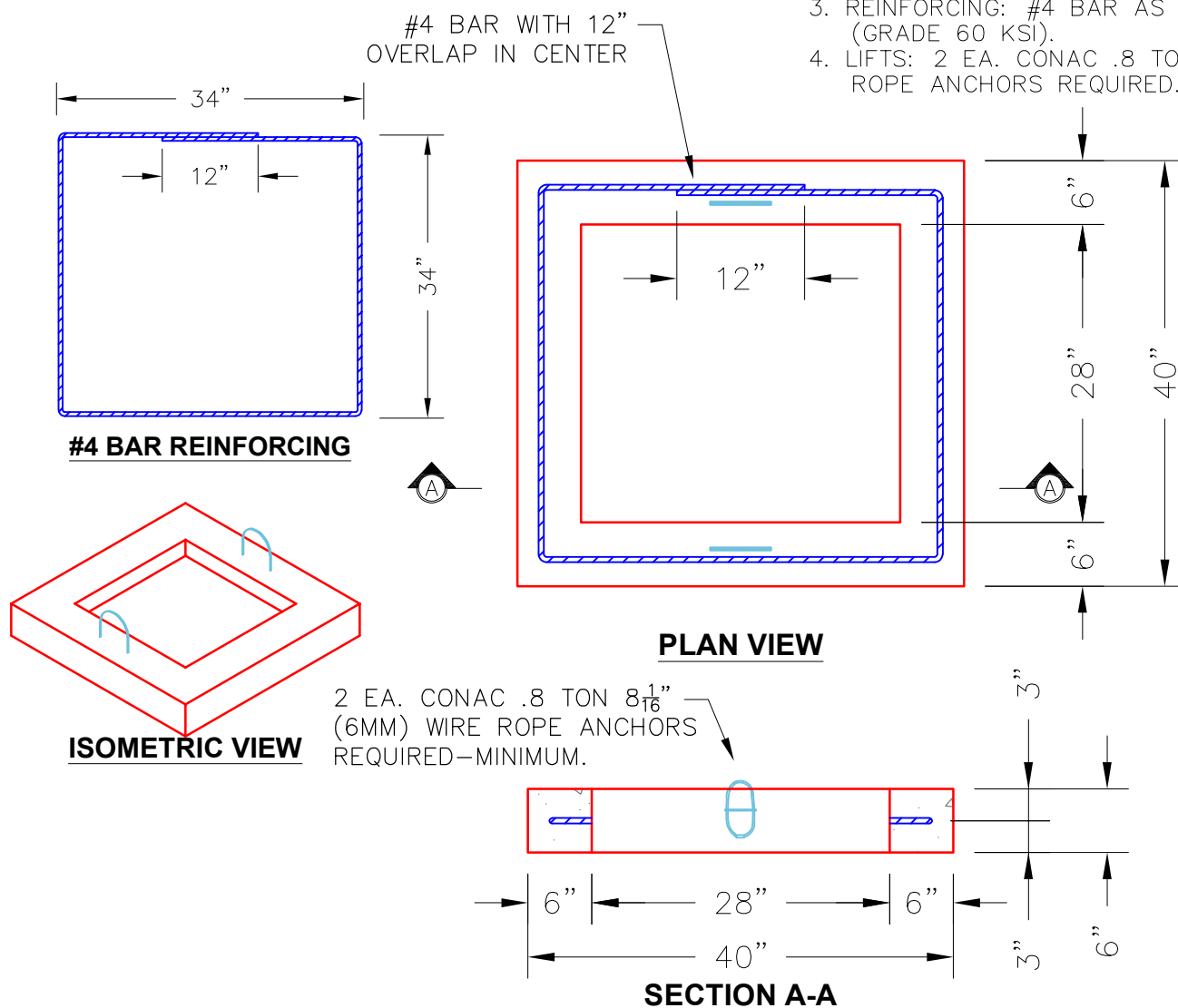
- WALLS (As. 31) #5 BARS AT 12" C.C.E.W.

411 lb
411 lb
411 lb
411 lb
411 lb

Structure Total: 9449 lb

NOTES:

1. MANUFACTURED TO ASTM C-478 (LATEST REVISION).
2. CONCRETE = 4,000 PSI @ 28 DAYS.
3. REINFORCING: #4 BAR AS SHOWN (GRADE 60 KSI).
4. LIFTS: 2 EA. CONAC .8 TON WIRE ROPE ANCHORS REQUIRED.



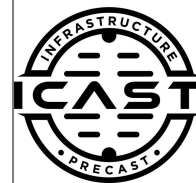
Coating (Int):
Coating (Ext):

Seam Up: Flat
Seam Dn: Flat

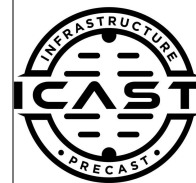
Wall Thickness: 6"

Height (Ext): 6"

Weight (Net): 411 lb
Volume (Net): 0.1cu.yd

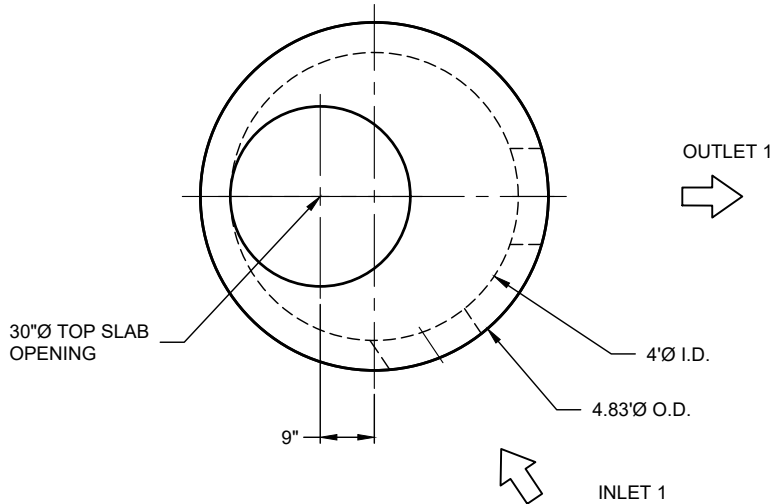


Weight (Net): 411 lb
Volume (Net): 0.1cu.yd

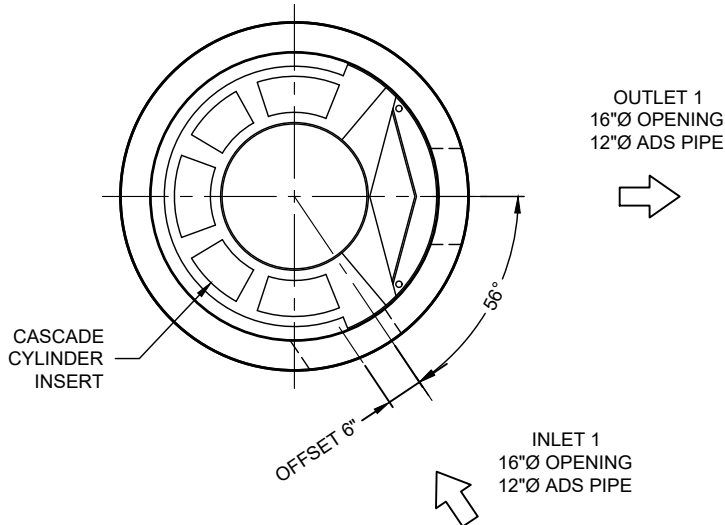


Coating (Int): Coating (Ext):	Seam Up: Flat Seam Dn: Flat	Wall Thickness: 6"	Height (Ext): 6"	Weight (Net): 411 lb Volume (Net): 0.1cu.yd
----------------------------------	--------------------------------	--------------------	------------------	--

26-2791 788327 2221 Bradford Dr



PLAN VIEW
INTERNALS NOT SHOWN



PLAN VIEW FOR PIPE ORIENTATION
TOP SLAB NOT SHOWN

MATERIAL LIST

COUNT	DESCRIPTION	PART NUMBER	PROVIDED BY	INSTALLED BY
1	CS-4 CYLINDER INSERT, STD.	325-003949	CONTECH	PRECASTER
4	CS-4 ALUMINUM INSTALLATION BRACKETS	325-003956	CONTECH	PRECASTER
1	CS-4 HARDWARE KIT	325-003955	CONTECH	PRECASTER
1	SEALANT FOR JOINTS		PRECASTER	CONTRACTOR
1	30"Ø X 4" FRAME AND COVER, EJ #41600483, OR EQUIV.	325-000332	CONTECH	CONTRACTOR

GENERAL NOTES

- DESIGN LOADING - AASHTO HS-20
- ALL PRECAST CONCRETE MANUFACTURED PARTS SHALL CONFORM TO ASTM C-478, WITH MINIMUM CONCRETE STRENGTH OF 4000 PSI AT 28 DAYS
- JOINT SEALANT SHALL CONFORM TO ASTM C-990 OR ASTM C-443
- GROUND WATER ELEVATION ASSUMED AT OUTLET INVERT
- MANUFACTURING TOLERANCE = +/- 1/2-INCH
- SOME HIDDEN LINES MAY BE OMITTED FOR CLARITY

INSTALLATION NOTES

- PRECASTER TO SHIP ACCESS CASTINGS WITH STRUCTURE
- REFER TO CONTECH ASSEMBLY INSTRUCTIONS FOR ADDITIONAL INFORMATION.
- PRECASTER TO INSTALL INTERNAL COMPONENTS PRIOR TO SHIPPING UNLESS INSTRUCTED OTHERWISE BY CONTECH
- PIPE OPENINGS SHALL BE STENCILED "INLET" OR "OUTLET" AS APPROPRIATE
- APPLYING ALIGNMENT MARKS ON ALL PIECES OF MULTIPLE PIECE ASSEMBLIES IS ENCOURAGED
- IF STRUCTURE IS DELIVERED IN MULTIPLE SECTIONS, EACH PIECE SHALL BE LABELED WITH THE CONTECH PROJECT NUMBER, SEQUENCE NUMBER AND SITE DESIGNATION

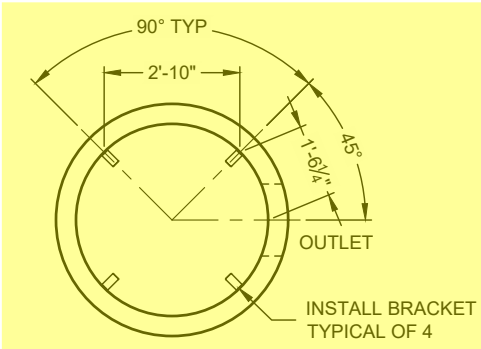
SITE INFORMATION

RIM ELEV. = 495.44+/-
TOP OF STRUCTURE = 494.27
INLET PIPE 1 INVERT ELEV. = 490.00
INLET PIPE 1 DIAMETER AND MATERIAL = 12"Ø ADS
OUTLET PIPE INVERT ELEV. = 490.00
OUTLET PIPE DIAMETER AND MATERIAL = 12"Ø ADS
OUTSIDE BOTTOM OF STRUCTURE ELEV. = 485.25

STRUCTURE WEIGHT

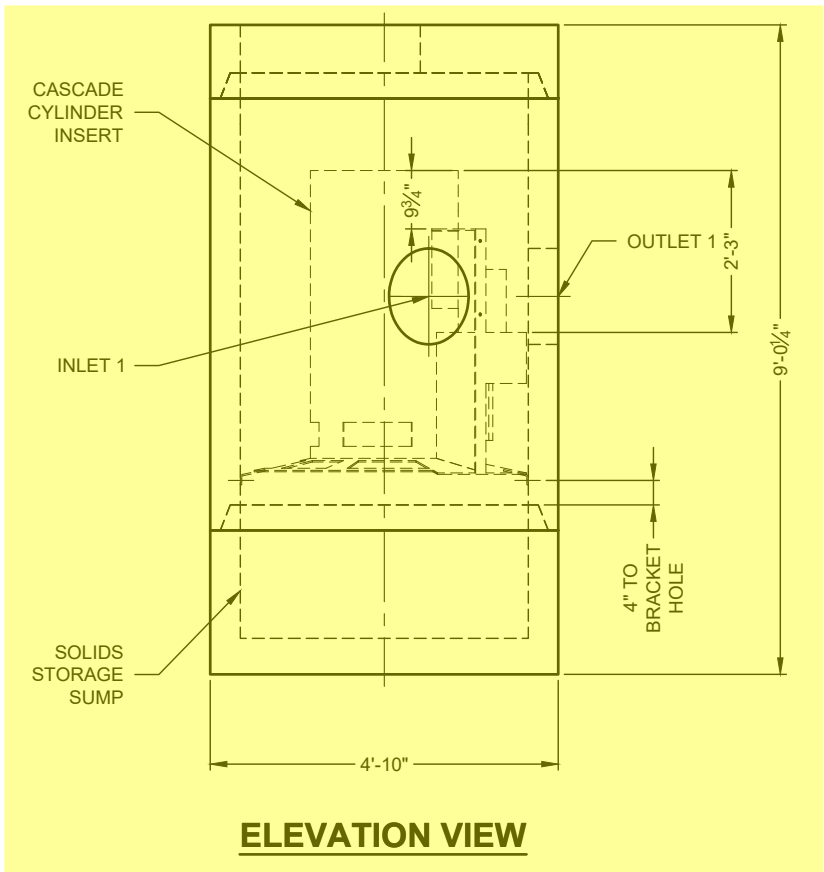
APPROXIMATE HEAVIEST PICK = 5500 LBS.
STRUCTURE IS DELIVERED IN 3 PIECES

TOP SLAB = 2000 LBS.
CONTROL RISER = 5500 LBS.
BASE SECTION = 3000 LBS.

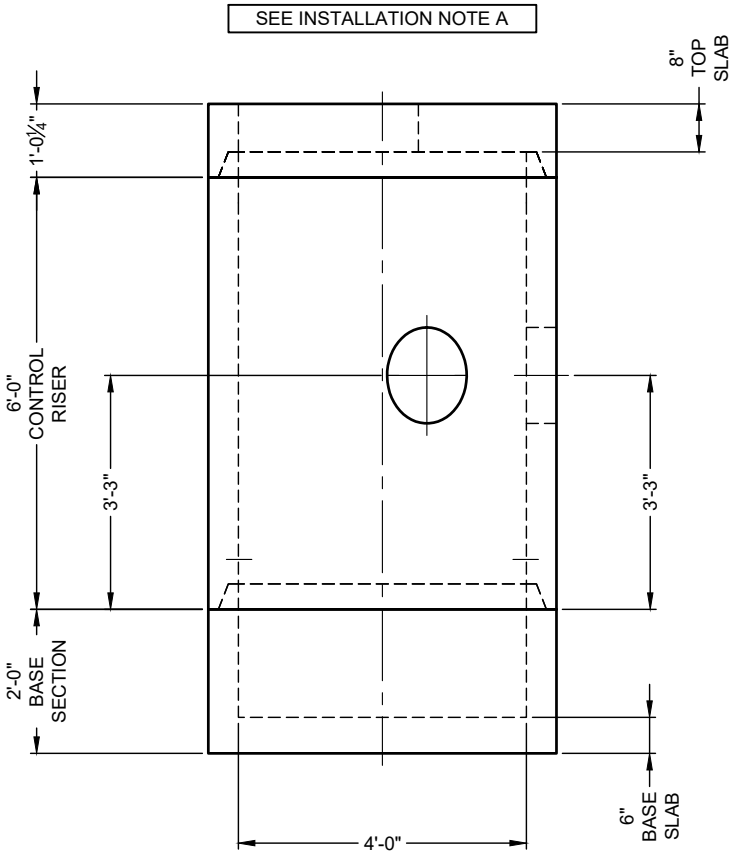


SUPPORT BRACKET LAYOUT PLAN VIEW

10-CS-4
ICAST to fully pre-assemble internal
materials prior to shipment



ELEVATION VIEW



PRECAST COMPONENTS
INTERNALS NOT SHOWN

ICAST
5888 / 757440
LAYOUT 1A
4.68TS

CONTECH
FABRICATION
DRAWING

CS-4 - 788327-10

2221 BRADFORD DRIVE

LOUISVILLE, KY

SITE DESIGNATION: WQU

CONTECH

ENGINEERED SOLUTIONS LLC

A COMPANY

910 Centre Pointe Dr., Suite 400, West Chester, OH 45069

800-338-1122 513-345-7000 513-345-7893 FAX

CASCADE

separator

FOR PATENT INFORMATION, GO TO www.conteches.com/IP

DATE: 6/11/2026

DESIGNED: MDB DRAWN: MAR

CHECKED: LJK APPROVED: MDB

PROJECT No.: 788327 SEQUENCE No.: 10

SHEET: 1 OF 1

The design and information shown on this drawing is the property of CONTECH Engineering Solutions, LLC and is to be used only for the project and location specified on the title block. It is to be used in accordance with the terms and conditions of the license agreement between CONTECH Engineering Solutions, LLC and the user. This drawing, nor any part thereof, may be used, reproduced, or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without the prior written consent of CONTECH Engineering Solutions, LLC. Failure to comply with these terms and conditions constitutes a breach of the license agreement and shall result in the user being liable for all damages, including reasonable attorneys' fees and costs, incurred by CONTECH Engineering Solutions, LLC. CONTECH Engineering Solutions, LLC expressly disclaims any liability or responsibility for such use.

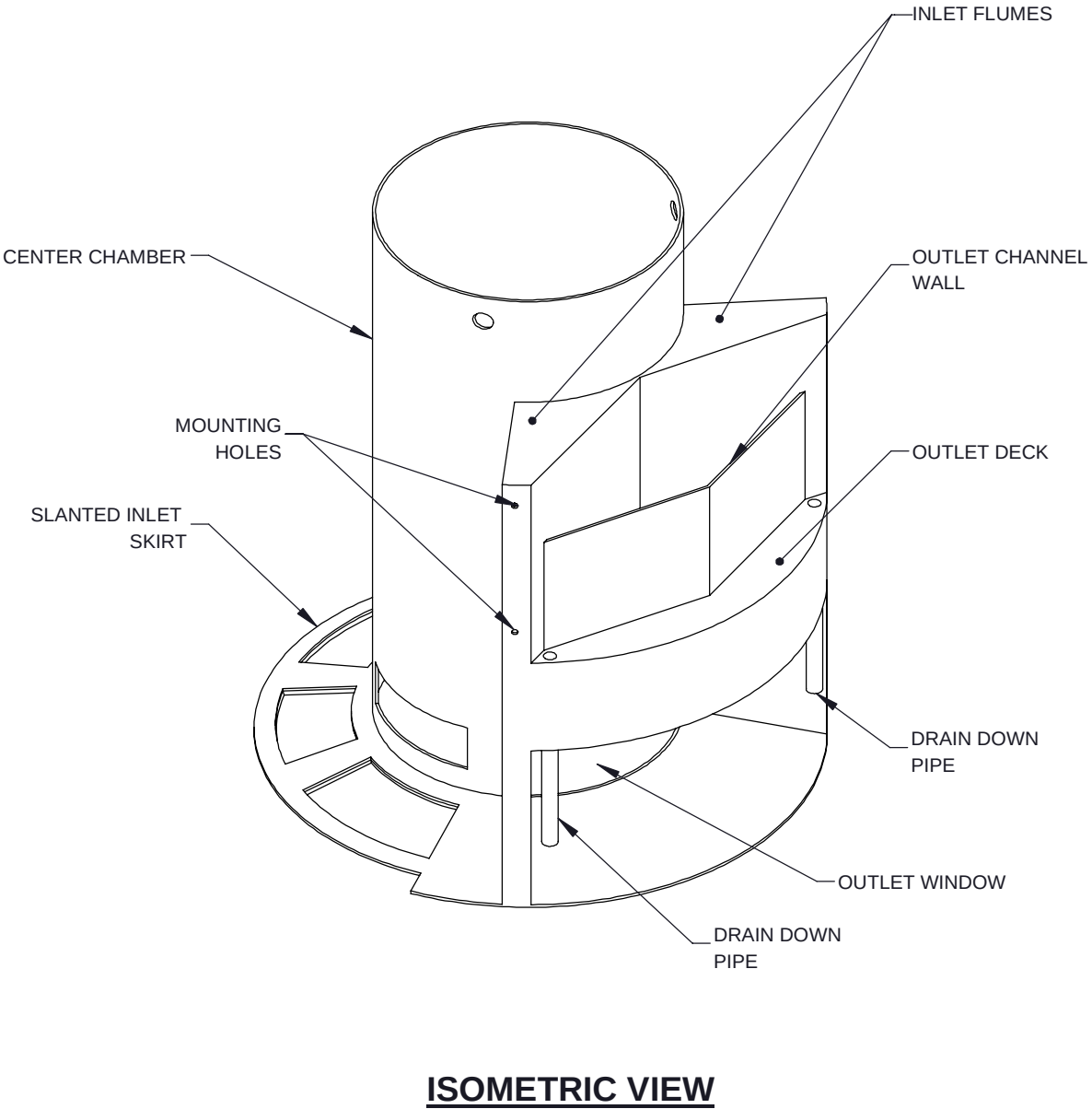
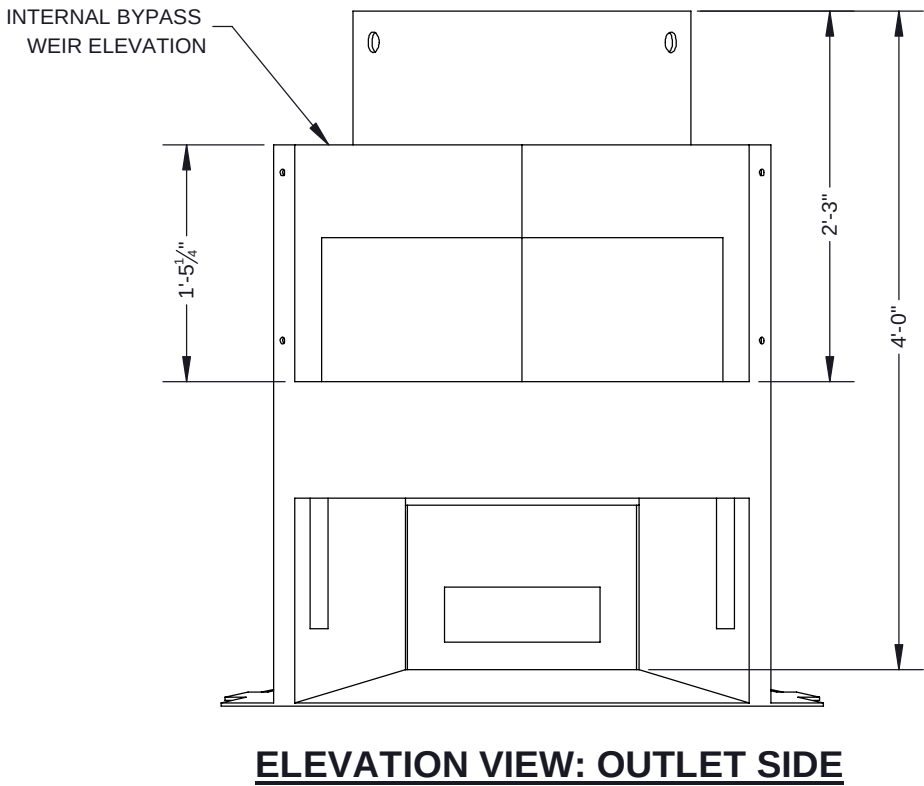
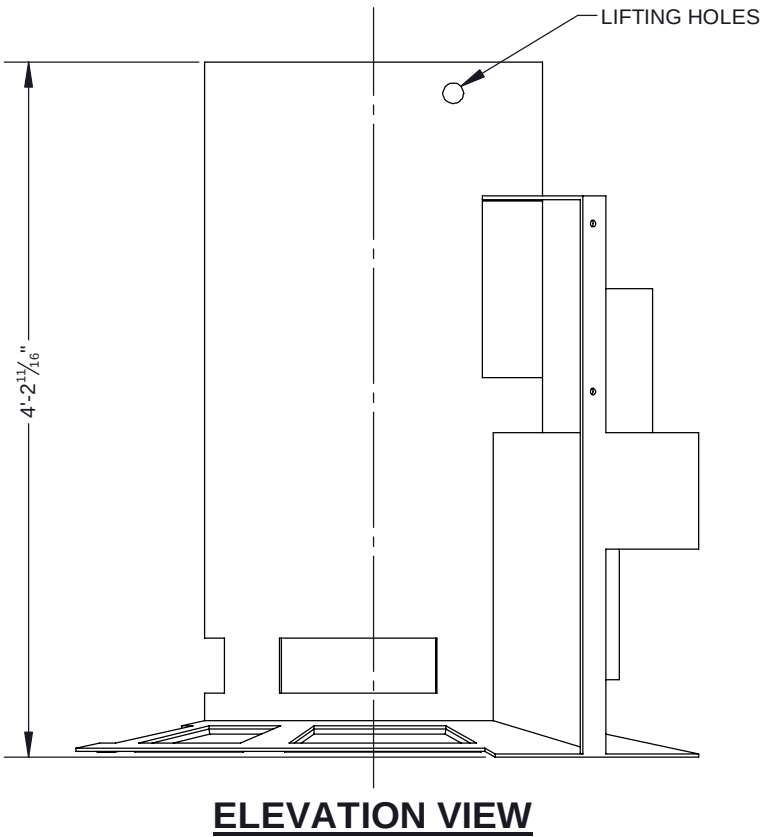
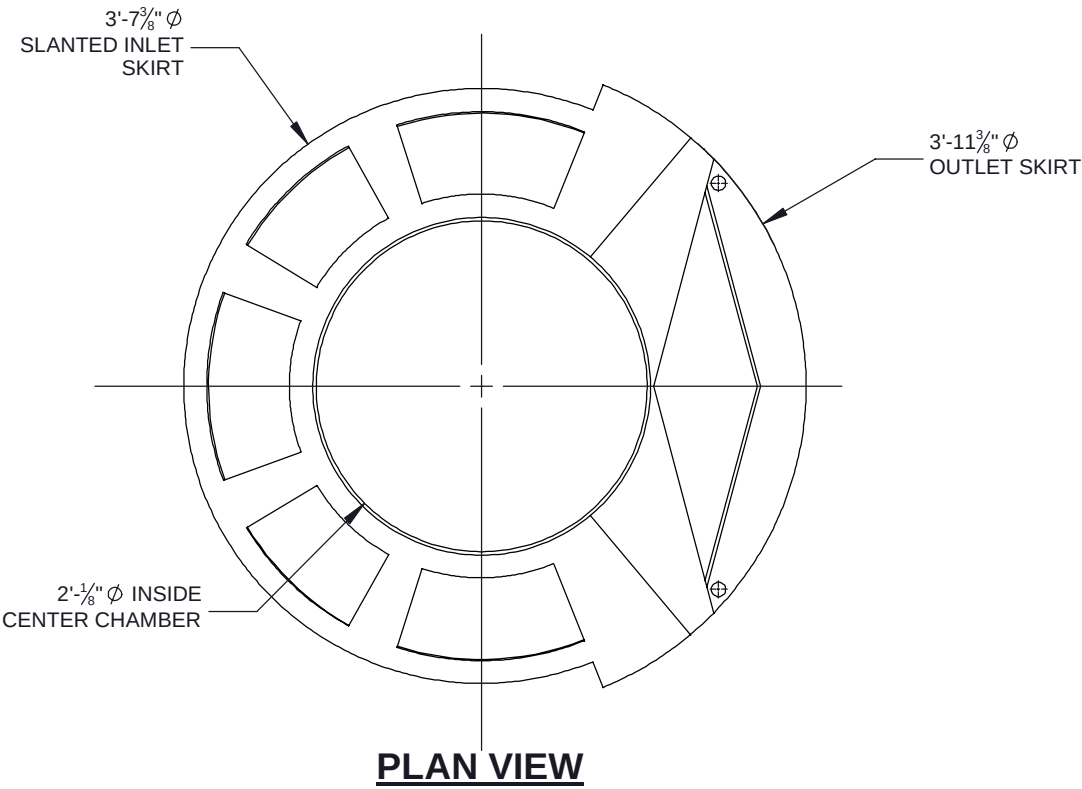
If discrepancies between the supplied information upon which the drawing is based and actual field conditions are encountered as site work progresses, these shall be reported immediately to the design engineer. CONTECH Engineering Solutions, LLC shall not be responsible for any delays or costs incurred by the user as a result of such discrepancies. CONTECH Engineering Solutions, LLC accepts no liability for designs based on missing, incomplete or inaccurate information supplied by others.

BY

DATE

MARK

REVISION DESCRIPTION



- NOTES:
1. SEE CASCADE SEPARATOR INSTALLATION GUIDE FOR ADDITIONAL INFORMATION

The design and information shown on this drawing is provided as a service to the project owner, engineer and contractor by Contech Engineered Solutions LLC, or one of its affiliated companies ("Contech"). Neither this drawing, nor any part thereof, may be used, reproduced or modified in any manner without the prior written consent of Contech. Failure to comply is done at the user's own risk and Contech expressly disclaims any liability or responsibility for such use.

If discrepancies between the supplied information upon which the drawing is based and actual field conditions are encountered as site work progresses, these discrepancies must be reported to Contech immediately for re-evaluation of the design. Contech accepts no liability for designs based on missing, incomplete or inaccurate information supplied by others.

CASCADE
separator™

CONTECH
ENGINEERED SOLUTIONS LLC

www.ContechES.com

9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

REFERENCE DETAIL
INTERNALS CS-4
CASCADE SEPARATOR

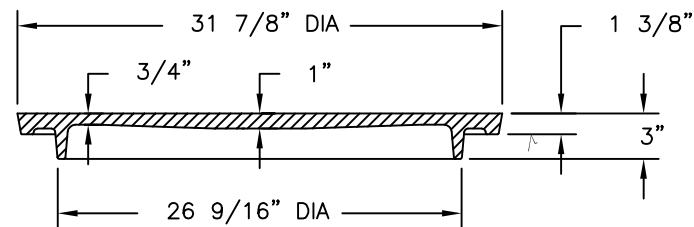
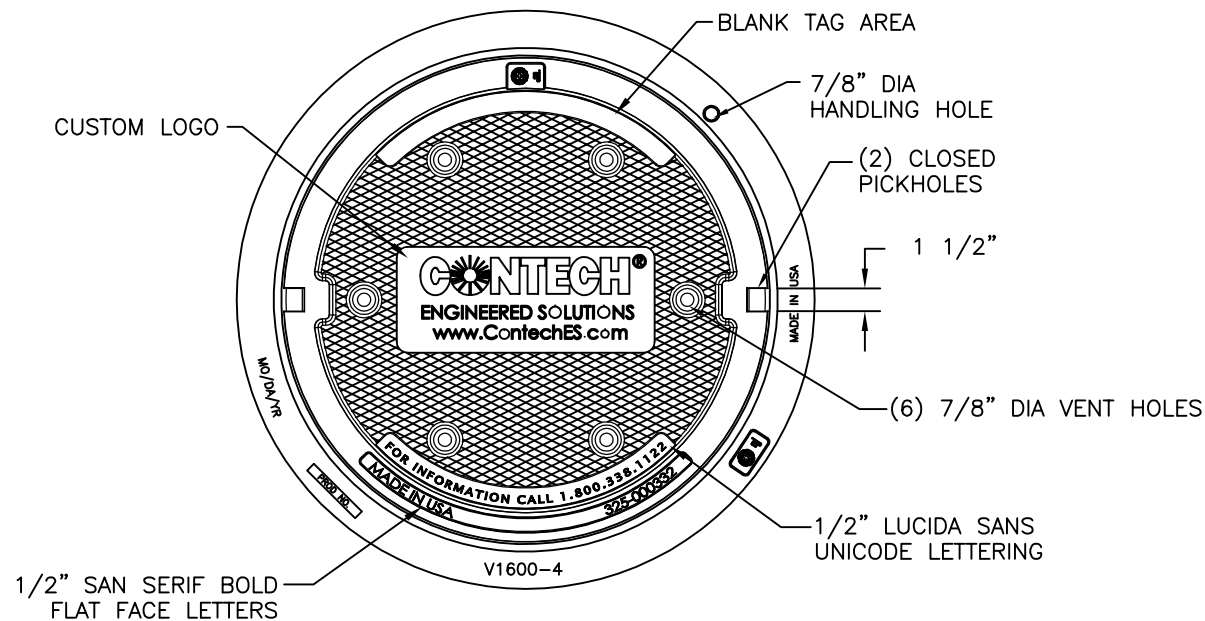
THIRD ANGLE PROJECTION

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES

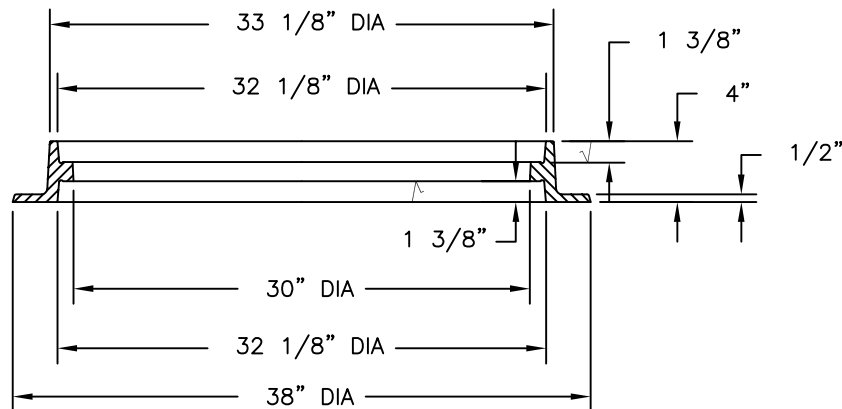
TOLERANCES:
FRACTIONAL $\pm 1/16$
ANGLES ± 1 DEGREE
TWO PLACE DECIMAL ± 0.06
THREE PLACE DECIMAL ± 0.030

PART NUMBER: 325-003949		
APPROVED BY: M. BROOKS	DRAWN BY: M. BROOKS	
APPROVED BY DATE: 2021.10.21	DRAWN BY DATE: 2021.09.14	REV: B
SCALE: N/A	SHEET 1 OF 1	

26-2791 788327 2221 Bradford Dr
1810B4 V1600-4 Assembly



COVER SECTION



FRAME SECTION

Product Number
41600483

Design Features

- Materials
 - Cover
 - Gray Iron (CL35B)
 - Frame
 - Gray Iron (CL35B)
- Design Load
 - Heavy Duty
- Open Area
 - n/a
- Coating
 - Undipped
- √ Designates Machined Surface

Certification

- ASTM A48
- Country of Origin: USA

Major Components

00180783
41600410

Drawing Revision

05/09/2007 Designer: SMH
6/26/2017 Revised By: DAE

Disclaimer

Weights (lbs./kg) dimensions (inches/mm) and drawings provided for your guidance. We reserve the right to modify specifications without prior notice.

CONFIDENTIAL: This drawing is the property of EJ GROUP, Inc., and embodies confidential information, registered marks, patents, trade secret information, and/or know how that is the property of EJ GROUP, Inc. Copyright © 2012 EJ GROUP, Inc. All rights reserved.

Contact

800 626 4653
ejco.com

Arcadia™ Hydrodynamic Separator Installation Guide

Concrete Manhole Installation

This installation guide is a reference for installing the Arcadia Water Quality unit into a precast concrete structure. These directions assume the manhole base and riser have been assembled, and that the top slab has not been set.

Note: Do not insert the inlet or outlet pipes until after the Arcadia internals have been installed. All pipes should sit flush inside the manhole. If pipes must be inserted in advance, the pipes should not protrude into the structure as they can interfere with installation of the Arcadia Internals.

Content

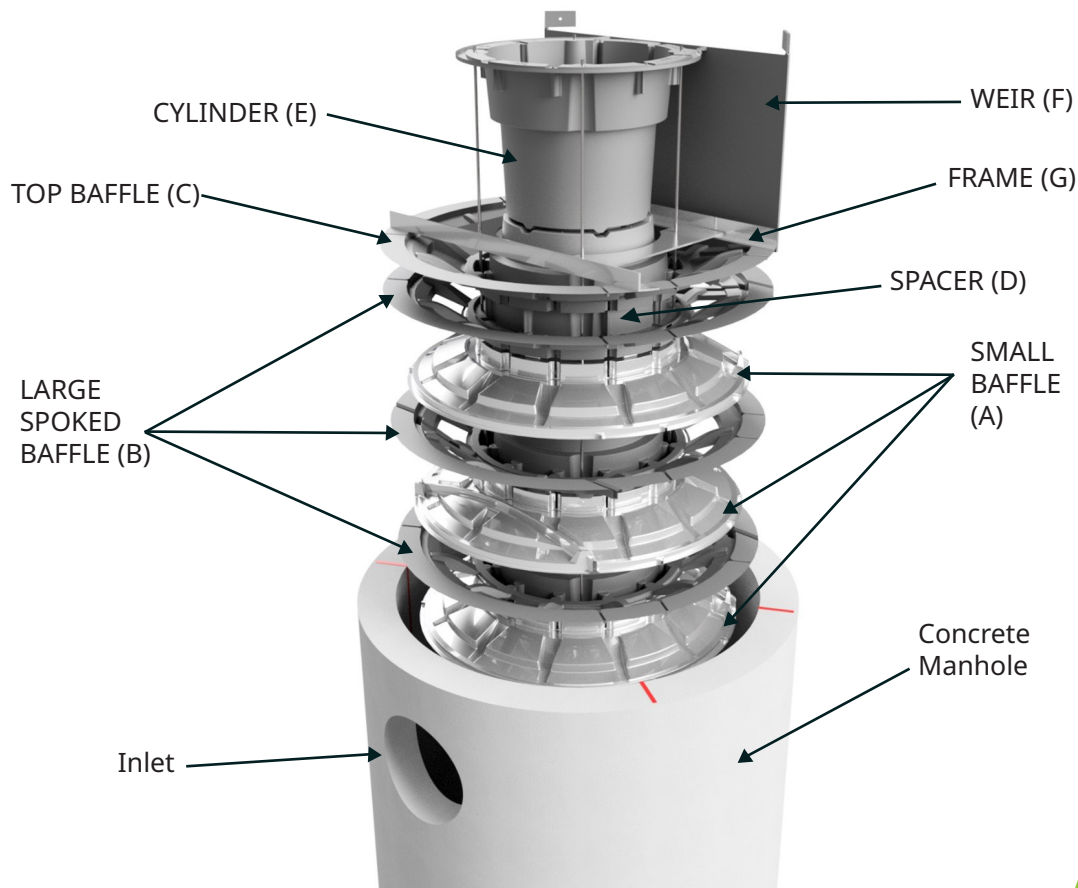
Section 1: Internal Components, Hardware & Tools

Section 2: Assembling Internal Components

Section 3: Mounting Brackets within Concrete Manhole Riser

Section 4: Transporting Assembled Arcadia Internals

Section 5: Installing Arcadia Internals into the Manhole – For Contactor/Jobsite



Section 1: Internal Components, Hardware and Tools



SMALL BAFFLE (A) Qty: 3



**LARGE SPOKED BAFFLE (B)
Qty: 3**



TOP BAFFLE (C) Qty: 1



SPACER (D) Qty: 1



CYLINDER (E) Qty: 1



WEIR (F) Qty: 1



FRAME (G) Qty: 1

Note: To separate baffles in shipping stack, pull from center of each baffle.

Hardware Provided by ADS



**Threaded Rod
(4 long and 4
short) Qty: 8**



**Washers
Qty: 12**



**Nuts
Qty: 12**



**Threaded
Coupling
Qty: 4**



Screws



**Bolts for frame
Assembly**



**Rod Caps
Qty: 4**



**Threadlocker
Capsules
Qty: 2**

Please set aside the following items that will later be delivered to the jobsite along with the assembled Arcadia Unit.

- Small Hardware package marked "Arcadia Installation, For Jobsite Contractor (Not for Precaster)".
- Conseal Roll(s).
- Copy of the Installation Guide

Other Tools Needed

- $\frac{9}{16}$ " (14.28 mm) or $\frac{3}{4}$ " (19.05 mm) Hand Wrench, depending on model size
- Phillips screwdriver or screw gun with Phillips bit
- 4 small hand clamps
- Pair of sawhorses

Section 2: Assembling Internal Components

1. Suggested procedure to facilitate assembly:
 - Utilize a set of sawhorses to support the initial assembly.
 - Set the spacing between the sawhorses (outside distance, see **figure 1**) according to the table below.

Arcadia Model	Spacing in (mm)
AR3	10 (250)
AR4	15 (375)
AR5	17 (425)
AR6	19 (475)
AR8	25 (625)

2. Place one SMALL BAFFLE (A) on the saw horses with the molded word "UP" readable and facing upward."

*Note: Throughout this procedure, as you stack up the baffles, make sure to align the molded word UP for each layer. For each baffle, UP should be readable and aligned with previous layers shown in **figure 2**.*

3. Rotate the baffle as needed to ensure the word UP is aligned with that of the previous baffle, then slide one LARGE SPOKED BAFFLE (B) down the threaded rods until it rests on the previous part, as shown in **figure 3**. Each part mates with the previous part in only one orientation.
4. Place another SMALL BAFFLE (A) on top of the previous part, as shown in **figure 4**. There should now be a total of three (3) baffles in place (two SMALL BAFFLES (A) and one LARGE SPOKED BAFFLE (B)).

Note: The long threaded rods will not reach up to the third baffle yet.

5. One at a time, grasp each of the long threaded rods and feed / pull up through the three baffles until the washer end is tight against the underside of the bottom baffle. Place a hand clamp on each long threaded rod against the top-most baffle to hold it in position, as shown in **figures 5 and 6**.
6. Carefully lower the entire assembly to floor level. If picking up by hand, this is most easily done by grasping two of the long threaded rods in between baffles.
7. Once on the floor, remove all 4 clamps and allow long threaded rods to rest on the floor.

Scan the QR Code
to watch the
Arcadia
installation video



Figure 1



Figure 2



Figure 3



Figure 4



Figure 5

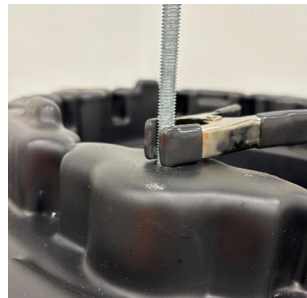


Figure 6



8. Repeat steps 2 & 3 once, then step 2 once more, such that two more LARGE SPOKED BAFFLE (B) and one more SMALL BAFFLE (A) have been added, for a total of six baffles, as shown in **figure 7**.
9. If SPACER (D) is supplied, slide it down the long threaded rods until it rests on the previous part. The SPACER (D) flange should be oriented down, as shown in **figure 8**.

Note: there is no SPACER (D) provided for the 3' (0.9 m) diameter unit (AR3) and the 6' (1.8 m) diameter unit (AR6). For these two sizes, skip this step.

10. Slide TOP BAFFLE (C) down the long threaded rods until it rests on the previous part, as shown in **figure 9**. Each part mates with the previous part in only one orientation. Check that the molded word UP, on the outer edge is readable, facing upward, and aligned with the word UP on the previous part before sliding down the rods into position.
11. Grasping each long threaded rod between baffles, push each rod up until the washer is once again snug at the bottom of the stack, as shown in **figure 10**. Hand snug a washer and nut to each long threaded rod with a wrench.

Note: Recommended to hold the nut with the wrench and turn the threaded rod to snug.

12. **Two people are needed for this step.** Assemble FRAME (G) by bolting the 4 metal pieces with provided short bolts, nuts & washers. As shown in **figure 11 and 12**.
13. Slide FRAME (G) onto the threaded rods until it rests flat on TOP BAFFLE (C). Orient FRAME (G) so that it aligns parallel to the flat portion of TOP BAFFLE (C), as shown in **figure 13**.

Note: Make sure the frame is installed upright, with the angled bends pointing upward, as shown in figure 13.

14. Add another washer and nut to each of the long threaded rods above FRAME (G). Do not screw the nut all the way down. Then, attach a threaded coupling at the top end of each long threaded rod. Screw it down until the top of the coupling is flush with the top of the threaded rod. Leave the nut just below the coupling, as shown in **figure 14**. (This is to facilitate step 17.)

Figure 7



Figure 8

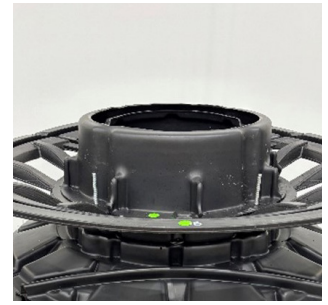


Figure 9



Figure 10



Figure 11



Figure 12

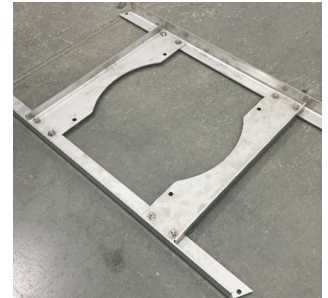


Figure 13

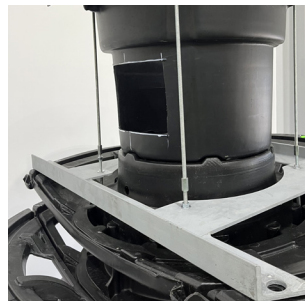


Figure 14



15. Place a washer and nut onto the end of the four short threaded rods, screwing about 3" (75 mm) down. Orient CYLINDER (E) with the flange facing up, feed the rods from the top through the holes in the CYLINDER (E) until the nuts rest on top of the CYLINDER, as shown in **figure 15**.
16. Place CYLINDER (E) assembly on top of TOP BAFFLE (C). Each part mates with the previous part in only one orientation. Check that flat side of the flange of CYLINDER (E) is aligned with the flat side of the TOP BAFFLE (C) as shown in **figure 16**. Attach the bottom end of the 4 short threaded rods to each threaded coupling at the top of the 4 long threaded rods. Hand tighten snug by twisting the long and short threaded rods in opposite directions.
17. Secure CYLINDER (E) onto each of the 4 short threaded rods with a washer and nut at the top. Hand snug with wrench.
18. Slide WEIR (F) into top slot with the curved edge down. Ensure WEIR (F) is centered in the slot. To easily insert WEIR (F), push one end home and secure lower corner of WEIR (F) to TOP BAFFLE (C) with a screw, as shown in **figures 17 and 18**; then push the other end home and secure with screw. For the 8' (2.4 m) diameter unit (AR8), add additional screws into the slot and through the bottom of the weir at approximately the middle, 1/4, and 3/4 positions.
19. Screw down and hand snug the nuts to the steel FRAME (G) with a wrench. Also hand snug the nuts to the top of the CYLINDER (E), and to the top of the TOP BAFFLE (C) if they have loosened. Add a drop of Threadlocker to the rod threads near each nut before final tightening.
20. Secure the top of WEIR (F) with three screws into CYLINDER (E), as shown in **figure 19**.
21. Attach Rod Caps to the top of each threaded rod, on top of the unit.
22. The finished assembly should appear as shown in **figure 20**.

Figure 15



Figure 16



Figure 17



Figure 18



Figure 19



Figure 20



Section 3: Mounting Brackets within Concrete Manhole Riser

Materials provided by ADS

- Mounting Template (Qty: 1)
- Brackets (Qty: 4)
- ¼" (6.35 mm) Diameter 20 thread size,
3 ¼" (82.55 mm) wedge anchors (Qty: 4)

Other Tools Needed

- Drill
 - ¼" (6.35mm) Masonry drill bit
 - Hammer
 - 7/16" (11.11 mm) socket or wrench
 - Masking Tape
 - Rigging
1. Use one of the 3 methods below to locate and mark the elevation and center line for each of the 4 brackets.
 - a. Mounting Template Method:
 1. Position top of template to match the outlet pipe invert elevation.
 2. Align centerline of template with the center of the outlet pipe hole.
 3. Spread template along inner circumference of the manhole wall, maintaining level. Affix with tape as you proceed. Check level as you proceed.
 4. Mark bracket elevations and centerlines at bottom of template.
 5. Remove template.
 - b. Angular Dimensions Method:
 1. From the outlet invert, measure depth A (Table 1) and around B° and C° in each direction to locate the top of each bracket. Mark top of bracket.
 - c. Linear Dimensions Method:
 1. From the outlet invert, measure depth A (Table 2) and around the inside arc B" and C" in each direction to locate the top of each bracket. Mark top of bracket. Crosscheck outlet invert elevations from approved job specific drawings.

Figure 22

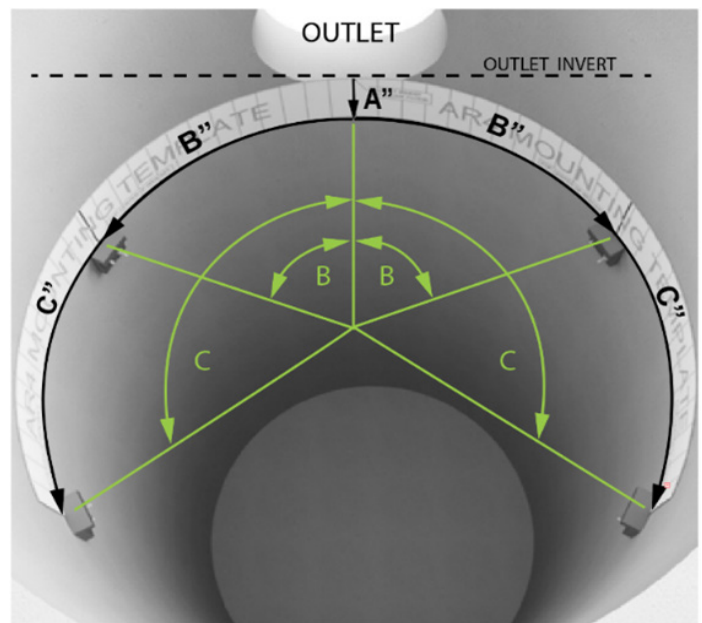


Table 1: Angular Measurements

Arcadia Model	A. Depth from Outlet Invert in (mm)	B. Angle from Outlet Center	C. Angle from Outlet Center
AR3	4 1/2 (114.3)	65°	115°
AR4	5 1/2 (139.7)	60°	120°
AR5	6 (150)	65°	115°
AR6	6 1/2 (165.1)	60°	120°
AR8	8 (200)	60°	120°

Table 2: Linear Measurements

Arcadia Model	A. Depth from Outlet Invert in (mm)	B. Measurement from Outlet Center in (mm)	C. Measurement from Outlet Center in (mm)
AR3	4 1/2 (114.3)	20 3/8 (517.5)	36 1/8 (917.6)
AR4	5 1/2 (139.7)	25 1/8 (638.1)	50 1/4 (1276.3)
AR5	6 (150)	34 (850)	60 1/8 (1527.2)
AR6	6 1/2 (165.1)	37 3/4 (958.8)	75 1/2 (1917.7)
AR8	8 (200)	50 1/4 (1276.3)	100 1/2 (2552.7)

- Hold bracket in position in manhole at locations indicated. Mark anchor holes for each bracket as shown in **figure 23**.
- Drill two 1/4" (6.35 mm) holes per bracket, 2 1/2" (63.5 mm) deep. Diagonal holes are recommended. Extra holes provided if needed as shown in **figure 24**.
- Attach 4 brackets to manhole at positions marked, aligned with top of bracket. Lightly hammer the anchors in place. Tighten the locking nuts to firmly secure brackets to the concrete. Trim any excess anchor that extends beyond the bracket edge as shown in **figure 25**.
- Extend center lines up the manhole wall to the top. Also extend lines across top edge. These center lines will be used by installers at the jobsite to align the unit during installation as shown in **figure 26**.

Note: These center lines are part of the bracket installation and should be made with a suitable marking device that can be easily seen, such as a level and marker, or chalk line.

Figure 23



Figure 24



Figure 25

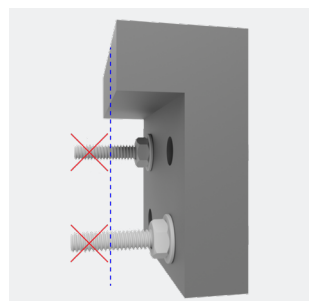
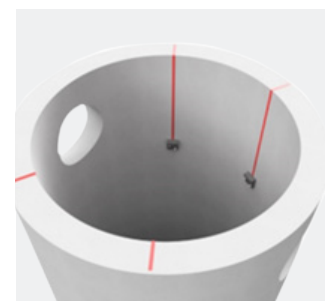


Figure 26



Section 4: Transporting Assembled Arcadia Internals

Placing assembled Arcadia inside concrete manhole riser section; Most common.

1. Choosing a segment of precast concrete manhole riser or base.
 - For transport, choose a riser section that does not contain the mounting brackets, with the following minimum riser depths. This riser section will serve as shipping containment for the internals.
 - The Arcadia internals will be permanently installed onto the mounting brackets at the jobsite. See Section 5.
2. Rigging Arcadia Internals for lifting.
 - Use the stainless-steel frame arms as pick points for straps, chains or other qualified rigging. It is recommended to attach at diagonally opposite arms.
 - Appropriate rigging examples shown in **figures 27 and 28**.
3. Place Arcadia Internals within the riser segment using hoisting equipment.
4. Secure with strapping.
5. Along with the internals, be sure to also deliver the 3 additional items listed in the note below and seen in **figures 29 and 30**.

Minimum Depth Transport Riser Section ft (m)	Arcadia Model
3 (0.9)	AR3
4 (1.2)	AR4, AR5, AR6
5 (1.5)	AR8
6 (1.8)	AR10

Figure 27



Figure 28



Figure 29



Figure 30



Note: Please deliver the following additional items to the jobsite along with the assembled Arcadia unit.

- Small hardware package marked "Arcadia Installation, For Jobsite Contractor (NOT FOR PRECASTER)"
- Conseal roll(s)
- Copy of the Installation Guide

Transporting without a concrete riser?
Contact ADS for guidance.

Table 4: Arcadia Separator Internals Weight Once Assembled

Arcadia Model	AR3	AR4	AR5	AR6	AR8	AR10
lbs (kg)	82 (37.1)	165 (74.8)	252 (411.3)	356 (161.4)	882 (400)	1306 (592.3)

Section 5: Installing Arcadia Internals into the Manhole

These directions assume the manhole base and riser have not been assembled, and that the top slab has not been set.

Note: Do not insert the inlet or outlet pipes until after the Arcadia internals have been installed. If pipes must be inserted in advance, the pipes should not protrude into the structure as they can interfere with installation of the Arcadia Internals.

Materials provided by ADS

- Arcadia Internals (Qty: 1)
- ¼" (6.35 mm) Diameter 20 thread count, 3 ¼" (82.55 mm) wedge anchors (Qty: 2)
- ⅝" (7.93 mm) Diameter 1 ½" (38.1 mm) hex head lag screws and washers (Qty: 4)
- ¼" (6.35 mm) high speed drill bit for drilling into steel brackets (only for AR8 model)
- Conseal Roll(s)

Other Tools Needed

- Drill
 - ¼" (6.35 mm) Masonry Drill Bit
 - ⅜" (4.76 mm) Multi-Purpose Drill Bit
 - Hammer
 - ⅞" (11.11 mm) socket or wrench
 - Rigging
1. Before assembling the manhole base and riser(s), remove the assembled Arcadia unit from the precast segment that was used for protection during transport, if applicable. Rig the Arcadia internals for overhead lifting. Use the stainless-steel frame arms as pick points for straps, chains or other qualified rigging. It is recommended to attach diagonally to opposite arms. See **figures 31 and 32**. Set the Arcadia unit on level ground.
 2. Locate the concrete riser section with Arcadia Mounting Brackets installed.
 3. Check for bracket centerline markings inside and on top edge of the manhole. If no markings are present, find and extend the centerlines of each bracket along the inside of the riser all the way to the riser top edge as shown. These centerlines will be used to align the unit during installation. See **figure 33**.
 4. Rig Arcadia internals for overhead lifting. Use the stainless-steel frame arms as pick points for straps, chains or other qualified rigging. It is recommended to attach diagonally to opposite arms. See **figures 31 and 32**.

Figure 31



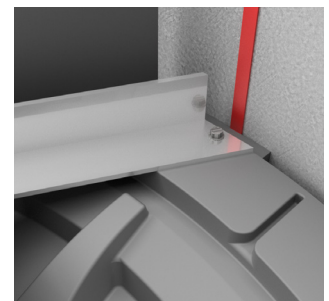
Figure 32



Figure 33



Figure 34



- a. Keep the WEIR (F) centered above the outlet pipe opening. See **figure 35**.
- b. Keep frame arms aligned with bracket centerlines during the entire lowering process. Failure to maintain alignment could result in damage to the unit. See **figure 36**.

5. Lift Arcadia internals at slow speed. Before lowering the unit into the manhole, check for proper alignment with the mounting brackets inside the manhole. Orientation is important throughout the entire installation process.
6. Once aligned, slowly lower Arcadia internals into manhole. Utilize a spotter to guide the alignment of the unit with tagline. Proceed until the stainless-steel frame arms are resting on the pre-installed mounting brackets within the manhole.
7. Affix Arcadia internals with provided lag screws and washers through the holes in the ends of the stainless-steel frame arms, through the top plastic of the unit and into the plastic brackets beneath. First pre-drill each with a 3/16" (4.76 mm) drill bit, or for AR8 use the provided 1/4" (6.35 mm) drill bit into steel brackets below. Use 7/16" (11.11 mm) socket to drive in lag screws until snug.
8. Affix WEIR (F) edges to manhole walls using concrete anchors. See **figures 37 and 38**.
 - a. Bend WEIR (F) installation tabs to the manhole wall as shown in **figure 37**.
 - b. Mark holes for anchors, one hole per tab.
 - c. Drill a 1/4" (6.35 mm) hole 2 1/2" (63.5 mm) deep at each marked hole.
 - d. Bend WEIR (F) installation tabs to manhole wall.
 - e. Insert anchors and lightly hammer in place to secure WEIR (F) to manhole wall.
 - f. Tighten the locking nuts to firmly secure brackets to the manhole wall as shown in **figure 38**.
9. Finally, seal WEIR (F) & TOP BAFFLE (C) edges to manhole wall using conseal to fill any gaps. See **figure 35**.

Figure 35

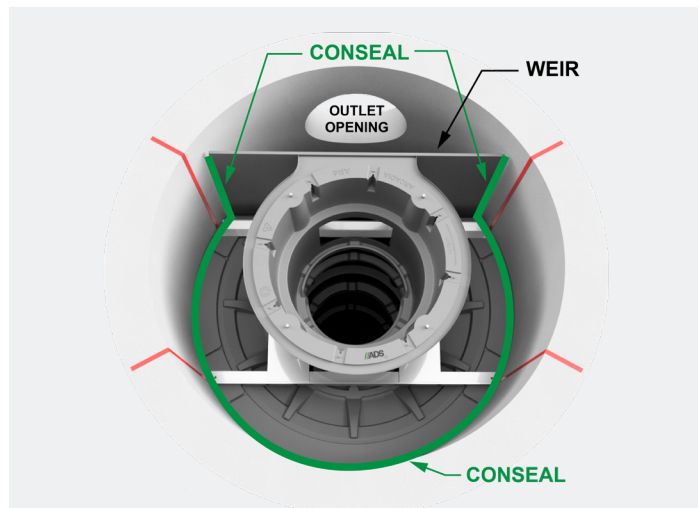


Figure 36

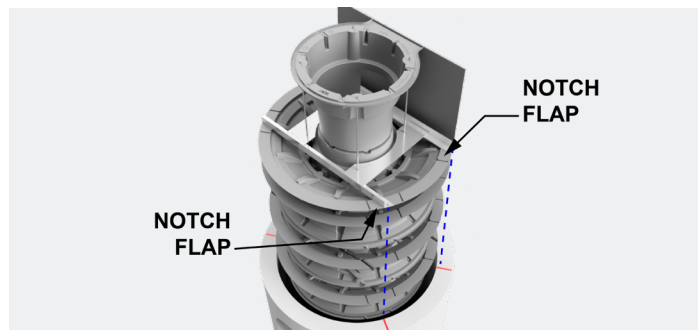


Figure 37

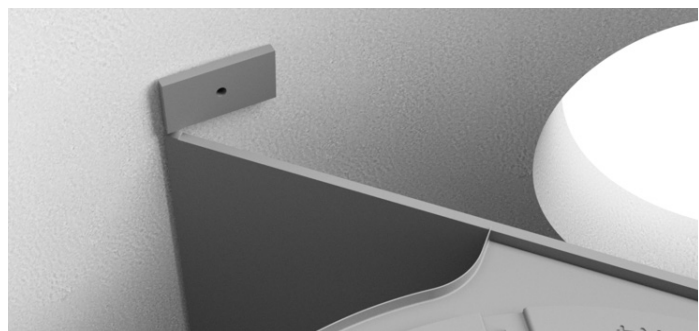
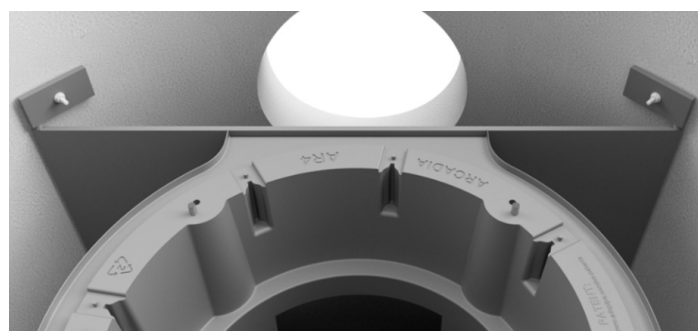


Figure 38



Job Name: 26-2840 - Cumberland Pipeline Platform Lids
Job Location: Ohio County,KY
Contractor: Cumberland Pipeline LLC

Plant: 100

7/22/2026 2:43:11 PM

Tech: Jared - F

PC: E. Bradley



Structure ID: QL1-2

P1 CTS

87IN X 87IN OD FLAT TOP SPEC. (w/ 24IN ECC HOLE)

P1) 87" x 87" - 87IN X 87IN OD FLAT TOP SPEC. (w/ 24IN ECC HOLE) - 8"

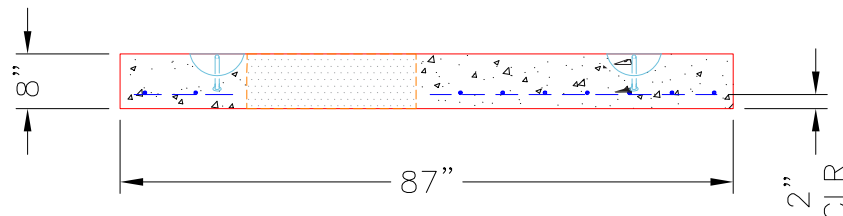
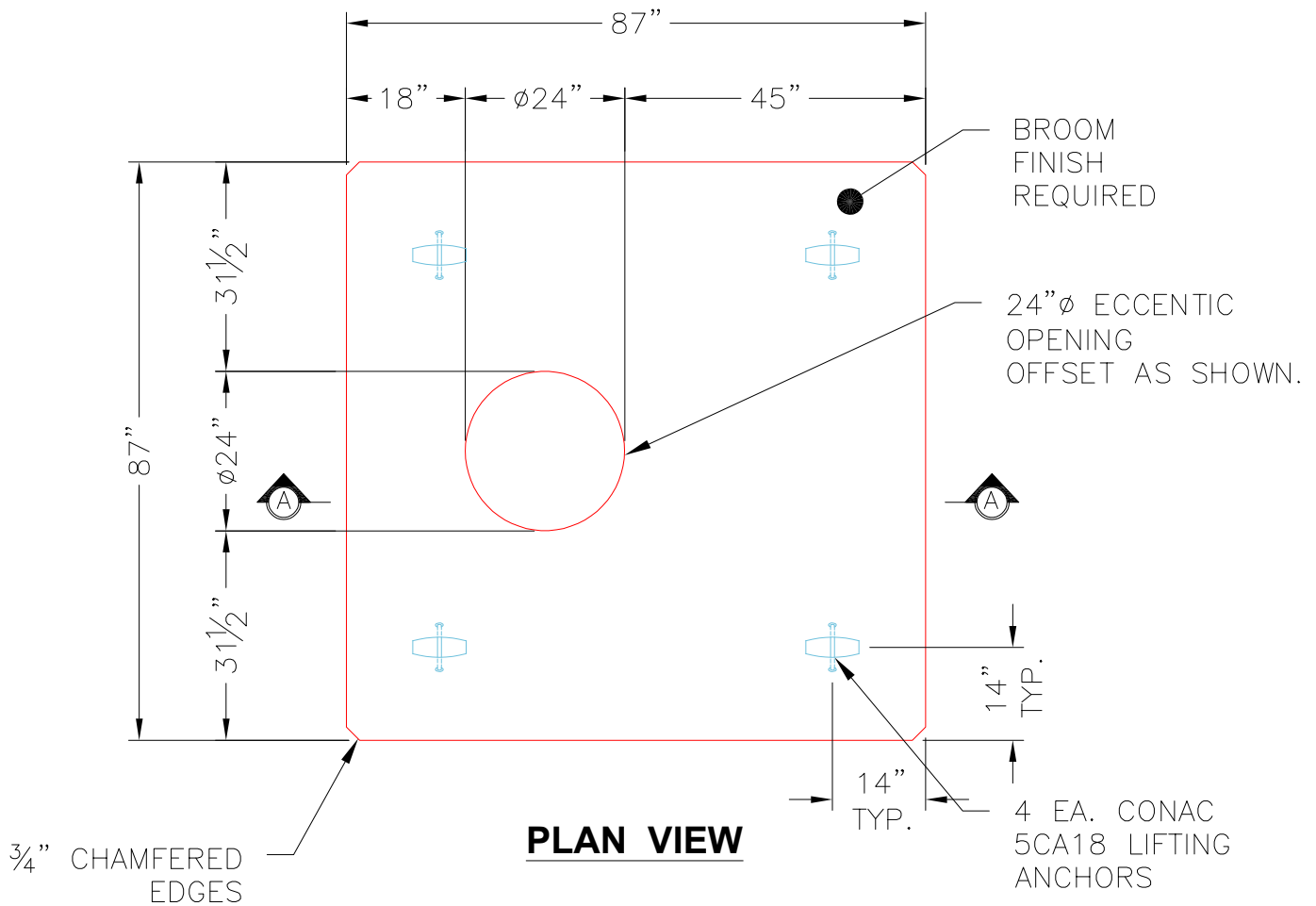
Structure Total:

4777 lb

4777 lb

GENERAL NOTES:

1. MANUFACTURED PER ASTM C913 SPECIFICATIONS.
2. CONCRETE: 4,000 PSI AT 28 DAYS.
3. REINFORCING PER ASTM A615 (GRADE 60)
TOP SLAB = #5 BARS AT 6" C.C.E.W.
4. WEIGHTS:
TOP SLAB.....4,785 LBS.



Coating (Int):
Coating (Ext):

Seam Up: Flat
Seam Dn: Flat

Wall Thickness: 0"

Height (Ext): 8"

Weight (Net): 4777 lb
Volume (Net): 1.22cu.yd



1. MANUFACTURED PER ASTM C913 SPECIFICATIONS.
2. CONCRETE: 4,000 PSI AT 28 DAYS.
3. REINFORCING PER ASTM A615 (GRADE 60)
TOP SLAB = #5 BARS AT 6" C.C.E.W.
4. WEIGHTS:
TOP SLAB.....4,785 LBS.

Weight (Net): 4777 lb
Volume (Net): 1.22cu.yd

Job Name: 26-1364 - Ollie Car Wash
Job Location: Owensboro, KY
Contractor: Winwater Hartford KY Co.

Plant: 100

7/17/2026 6:38:25 PM

Tech: Jared - F

PC: A. Chambers



Structure ID: 2000-GT-TANK-1

P2 BX072144-08LD06S

CB FLAT TOP 6"W w/(2) 24" HOLES F/F

- P4) 24" - CASTING HEIGHT - 7"
P3) 24" - GRADE RING F/F - 3"
P2) 60" x 126" - CB FLAT TOP 6"W w/(2) 24" HOLES F/F - 8"
P1) 60" x 126" - BOX BASE 6inW, 6inF, Variable Ht F/n - 72"
1) CASTING - HOE MC-315 F/C Storm
2) 24" - Con Seal CS-102 1.00"
1) Hole - 10
1) Hole - 5

0 lb
202 lb
6064 lb
19308 lb
258 lb
0 lb
0 lb
0 lb

25833 lb

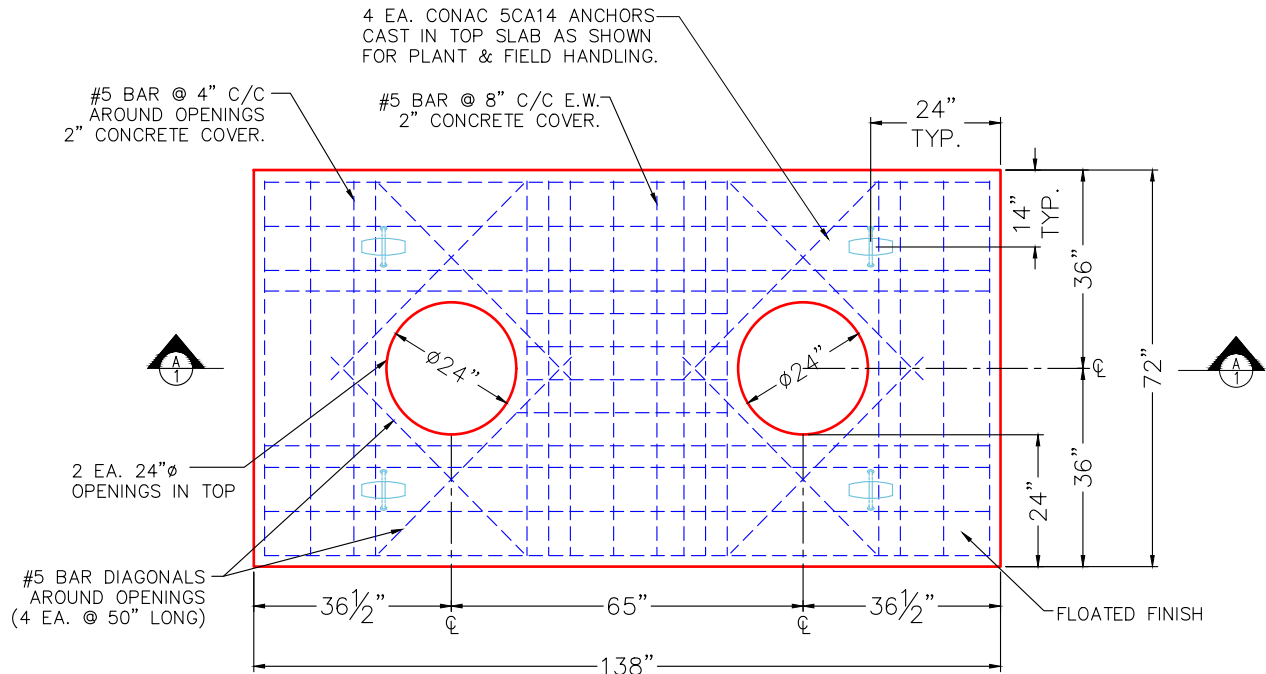
Structure Total:

Structure Notes:

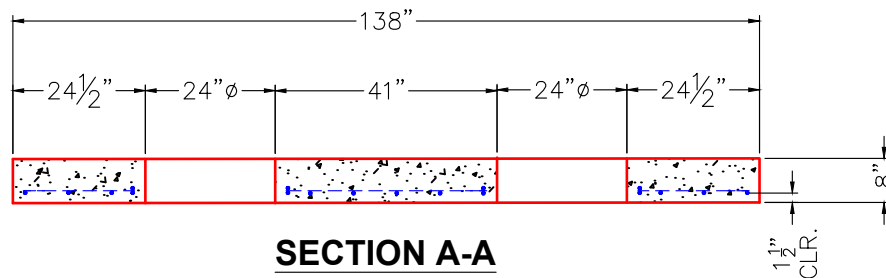
1. PER ASTM C-890-13 SPECIFICATIONS.
2. CONCRETE = 4,500 PSI AT 28 DAYS.
3. THIRD POUR REQ'D - BAFFLE WALL.
4. CASTING BY ICAST (HOE MC-315 F/C "STORM")

REINFORCING PER ASTM A615 (GRADE 60)
FOR H-20 DESIGN LOADING.

- TOP SLAB (As .47) #5 BARS AT 8" C.C.E.W.
- WALLS (As .47) #5 BARS AT 12" C.C.E.W.
- FLOOR (As .47) #4 BARS AT 12" C.C.E.W.



PLAN VIEW



SECTION A-A

NOTES:

1. PER ASTM C-890-13 LATEST REVISION.
2. CONCRETE = 4,500 PSI AT 28 DAYS.
3. REINFORCING: #5 BAR @ 8" C/C E.W. (GRADE 60).
(H-20 TRAFFIC RATED DESIGN)
4. SEALED WITH 1" CS-102 BUTYL SEALANT
5. TOP SLAB WEIGHT = 6,063 LBS.

Coating (Int):
Coating (Ext):

Seam Up: Flat
Seam Dn: Flat

Wall Thickness: 6"

Height (Ext): 8"

Weight (Net): 6064 lb
Volume (Net): 1.55cu.yd

Job Name: 25-2397 Sandy Springs Sec. 2
Job Location: Elizabethtown, KY 42701
Contractor: Dirt Works Unlimited, LLC.

Plant: 100

7/9/2026 2:52:15 PM

Tech: Jared - A

PC: Thomas Ryan



Structure ID: R

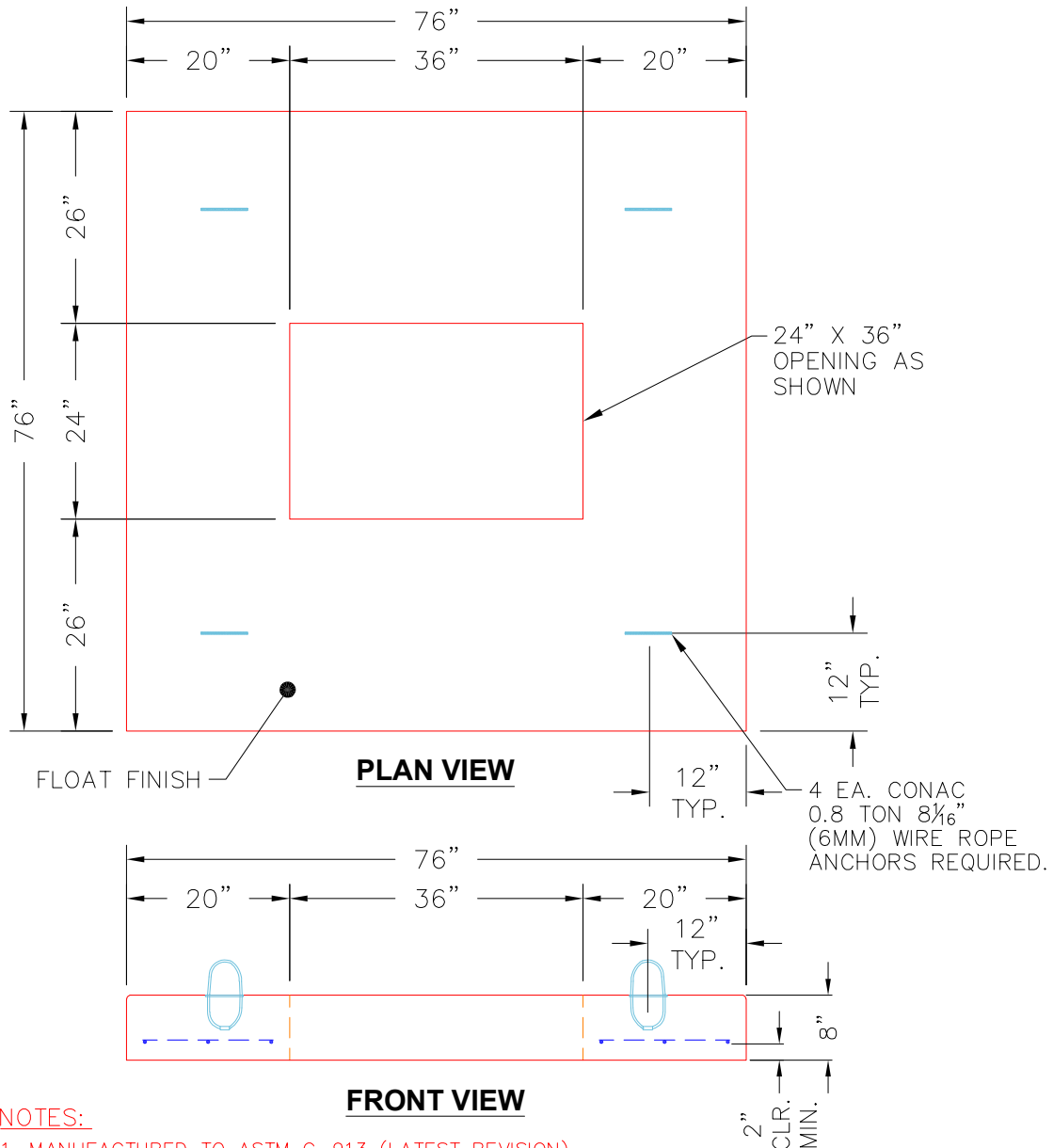
P2 BX060060-08LD08-S

BX FLAT LID 8inW w/24"x36" HOLE

- P3) 24" x 36" - CASTING HEIGHT - 6"
P2) 60" x 60" - BX FLAT LID 8inW w/24"x36" HOLE - 8"
P1) 60" x 60" - BOX BASE 8inW, 8inF, Variable Ht - 56"
1) SECONDARY POUR - WALLS
1) CASTING - HOE 525 SET (F/G/H)
1) 60" x 60" - Conseal CS-102 1.00"
1) 24" x 36" - Conseal CS-102 1.00"
1) Hole - 50
1) DOGHOUSE INVRTD - 54"x53"
5) MH Step ML-10-TDS-NCR - 10"

- 0 lb Structure Notes:
3297 lb PLAN LABEL: R
10961 lb 1. HOE 525 SET (F/G/H) PROVIDED BY ICAST.
0 lb 2. PER ASTM C913 SPECIFICATIONS.
442 lb 3. CONCRETE = 4,000 PSI AT 28 DAYS.
0 lb 4. REINFORCING PER ASTM A615 (GRADE 60).
0 lb - TOP SLAB
0 lb - WALLS (As .31) #5 BARS 12" C.C.E.W.
0 lb - WALLS (As .31) #5 BARS 12" C.C.E.W.

Structure Total: 14700 lb



Coating (Int):
Coating (Ext):

Seam Up: Flat
Seam Dn: Flat

Wall Thickness: 8"

Height (Ext): 8"

Weight (Net): 3297 lb
Volume (Net): 0.84cu.yd



Structure ID: 14

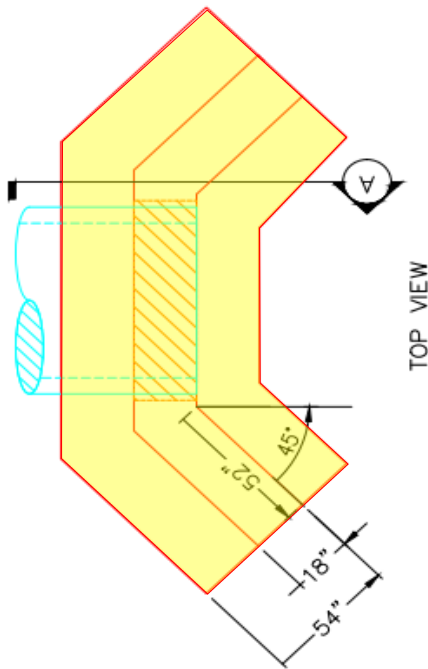
P1 HWPCCUS

48" - PIPE CULVERT HEADWALL CUSTOM F/F

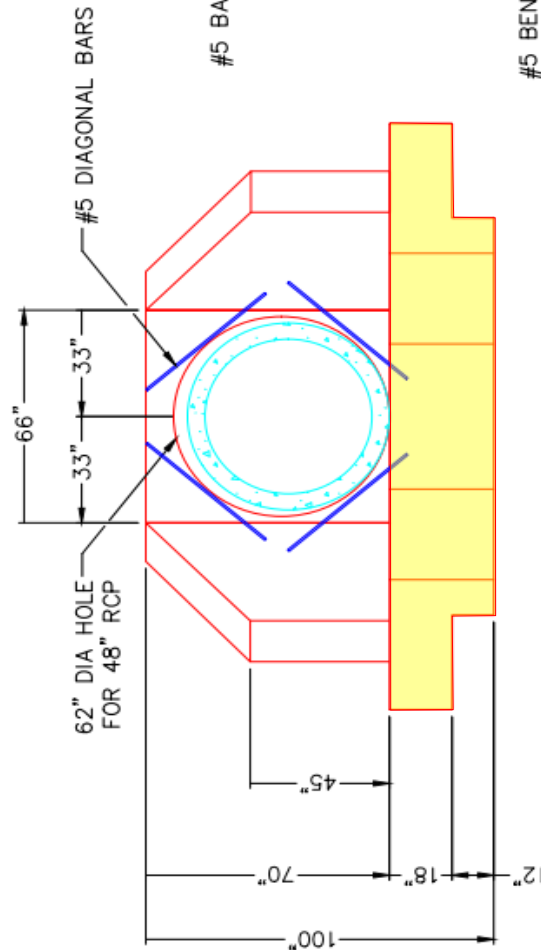
NOTES:

1. PER ODOT SPEC'S (HW 1.1).
2. CONCRETE = 4,500 PSI AT 28 DAYS.
3. REINFORCING = #5 (GRADE 60) **EPOXY COATED REBAR.**
4. WEIGHTS : **1ST POUR - BASE W/TOE24,542 LBS**
2ND POUR - WALLS13,700 LBS

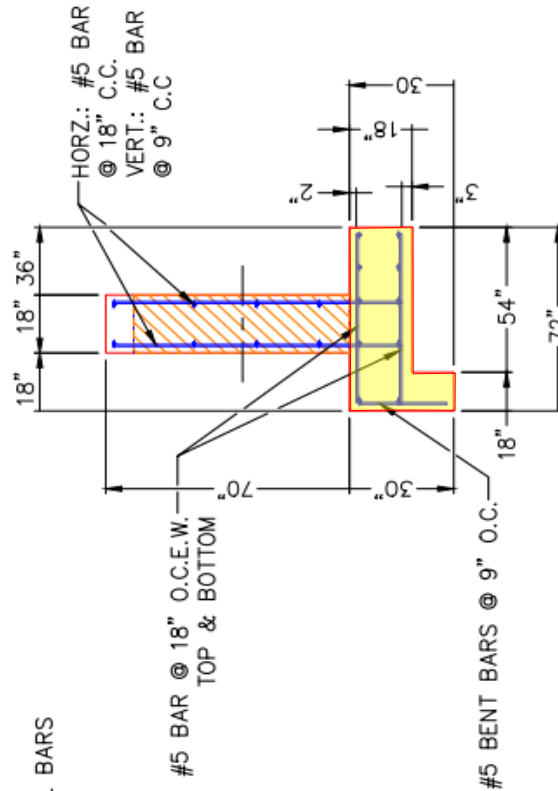
FIRST POUR DRAWING



TOP VIEW



ELEVATION VIEW



SECTION "A"

REVISION INFORMATION		SUBMITTAL DRAWING: 48" SPECIAL HW	
REV. A	DATE: 00-00-00	NO REVISIONS TO DATE	CUSTOMER: SUNESIS CONSTRUCTION
			PROJECT: LOWER MILL CREEK HWDW PROTECTION
			STRUCTURE: 14
			SALES ORDER NO: 26-1466
			PC: E. BRADLEY
			DRAWN BY: FMT
			DATE: 07/17/26
			SCALE: NTS
			PG. 1 of 1





Structure ID: 14

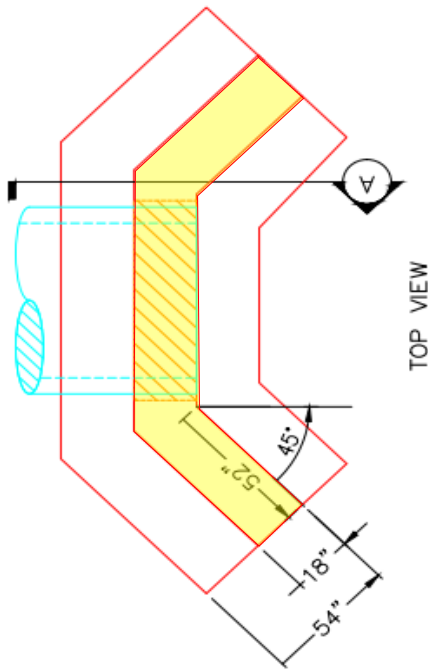
P1 HWPCCUS

48" - PIPE CULVERT HEADWALL CUSTOM F/F

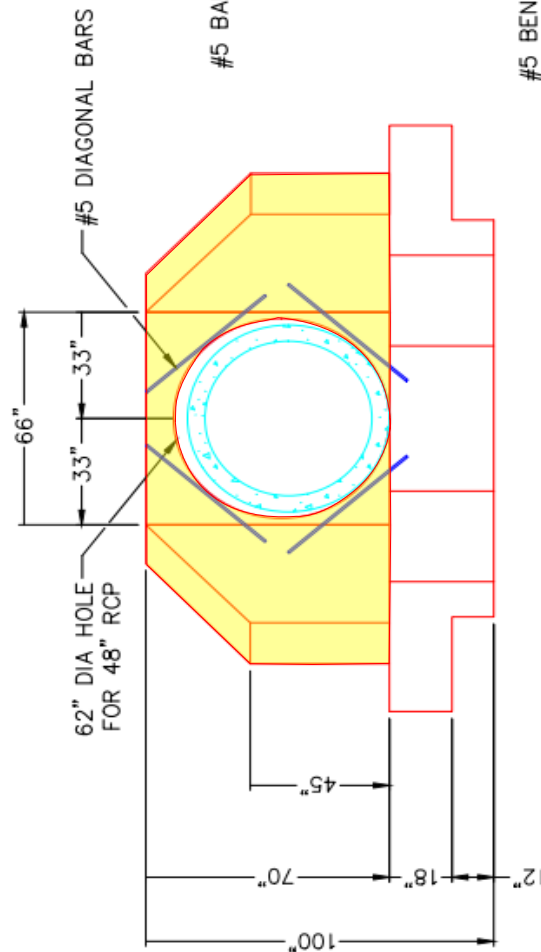
NOTES:

1. PER ODOT SPEC'S (HW 1.1).
2. CONCRETE = 4,500 PSI AT 28 DAYS.
3. REINFORCING = #5 (GRADE 60) **EPOXY COATED REBAR.**
4. WEIGHTS : 1ST POUR - BASE W/TOE 24,542 LBS
2ND POUR - WALLS 13,700 LBS

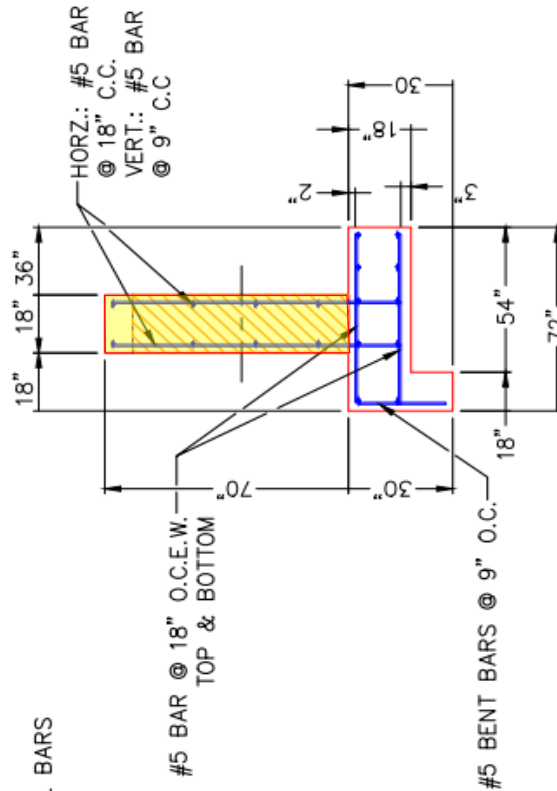
SECOND POUR DRAWING



TOP VIEW



ELEVATION VIEW

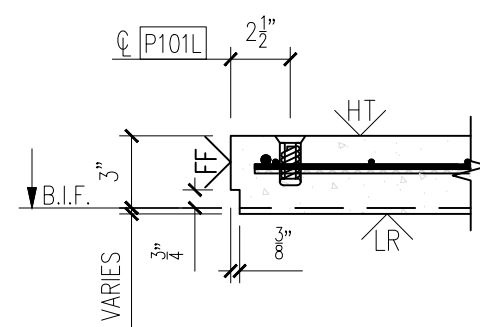
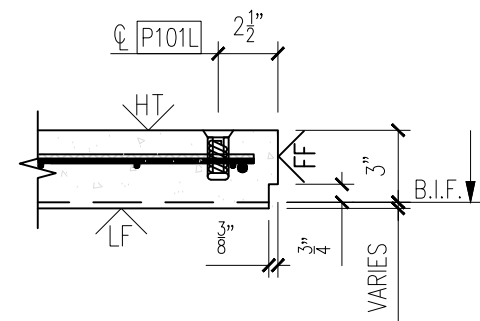
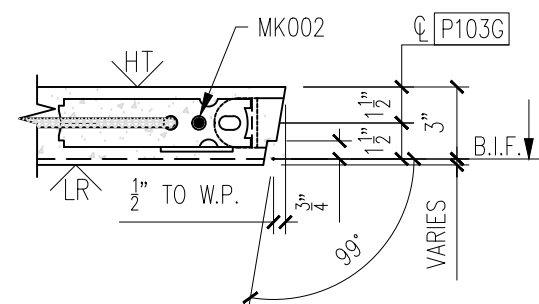
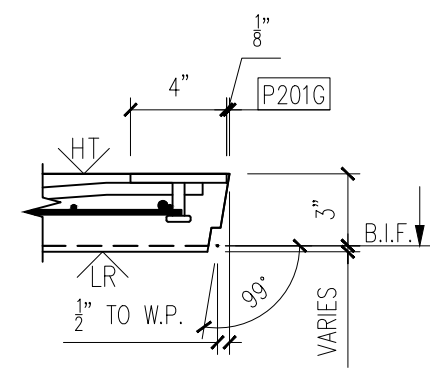
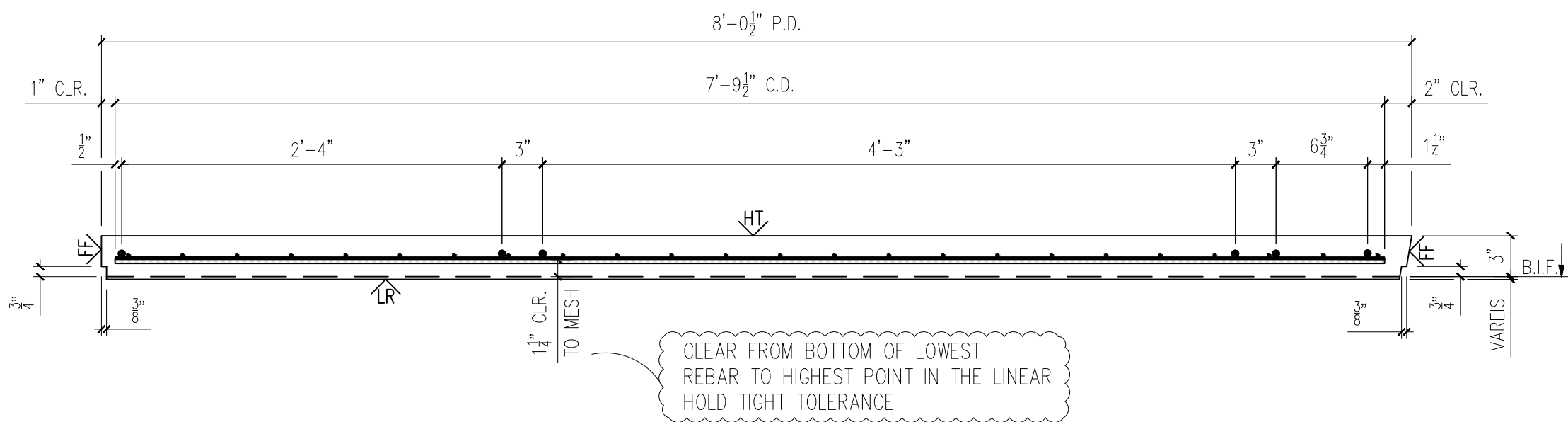
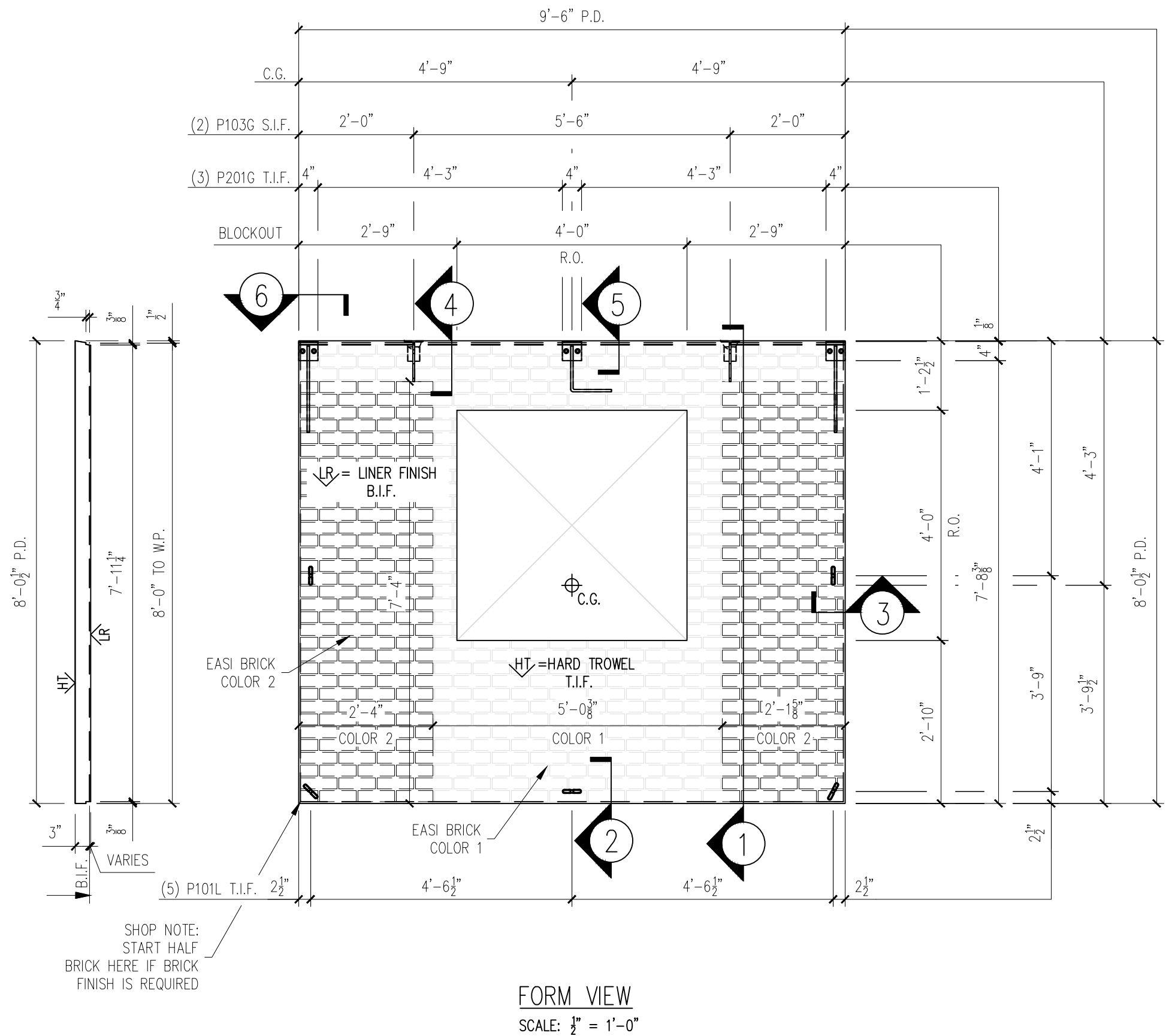


SECTION "A"

REVISION INFORMATION		SUBMITTAL DRAWING: 48" SPECIAL HW	
REV. A	DATE: 00-00-00	NO REVISIONS TO DATE	CUSTOMER: SUNESIS CONSTRUCTION
			PROJECT: LOWER MILL CREEK HWDW PROTECTION
			STRUCTURE: 14
			SALES ORDER NO: 26-1466
			PC: E. BRADLEY
			DRAWN BY: FMT
			DATE: 07/17/26
			SCALE: NTS
			PG. 1 of 1



25-3470
CCHS Precast Buildings
ID - CVW
WALL - WP-04
SOUTH WALL
Weight - 2,430
1 Required



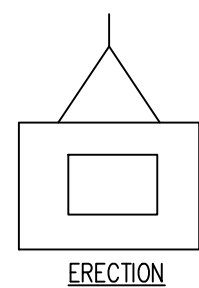
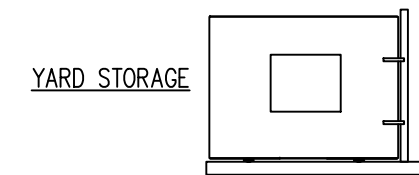
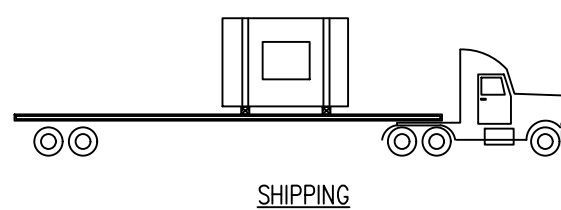
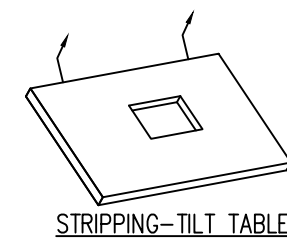
MESSAGE CENTER

1. REFER TO DETAILS AND SECTION FOR REINFORCEMENT PLACEMENT
2. SHOP TICKET SHOWS EXTERIOR FINISH CAST FACE DOWN

CHECKED BY: DATE:
APPROVED BY: DATE:

BILL OF MATERIALS		
MARK #	DESCRIPTION	QTY.
P101L	3/8" X 1 1/2" F-63 FLARED THIN SLAB COIL INSERT (ELECTROPLATED)	5
P201G	4" X 4" X 3/8" W/(2) 3/8" X 1 1/2" H.A.S. W/ 1'-4" BENT REBAR (GALV.)	3
P103G	2 TON TECH ERECTION ANCHOR (GALV.)	2

HANDLING INSTRUCTIONS



CONCRETE INSTRUCTIONS	
CONCRETE RELEASE @ 2,500 P.S.I.	
CONCRETE @ 28 DAYS: 5,000 P.S.I.	
CONCRETE MIXES	
CONCRETE - GRAY	VOLUME = 0.60 C.Y.
CONCRETE - MIX 1	VOLUME = - C.Y.
CONCRETE - MIX 2	VOLUME = - C.Y.
SOFT SOUND	VOLUME = - C.Y.
TOTALS	VOLUME = 0.60 C.Y.
WEIGHT: 2,430 LBS.	
FINISHING INSTRUCTIONS	
LR = LINER FINISH	
FF = FORM FINISH	
HT = HARD TROWEL FINISH	
H = 8'-0 1/2"	SQ.FT.(T.I.F.) = 59.83
W = 9'-6"	SQ.FT.(T.I.F.) = -
D = 3"	SQ.FT.(T.I.F.) = -
CONTROL NUMBERS:	
-	
-	
PRODUCT	SALES ORDER NUMBER
BUILDING	101208C
SHEET NUMBER	NUMBER REQUIRED
1 OF 2	1

EASI-SET® WORLDWIDE
5119 Catlett Rd. • Midland, VA 22728 • info@EasiSet.com
www.EasiSet.com • 800-547-4045 • Fax 540-439-2541

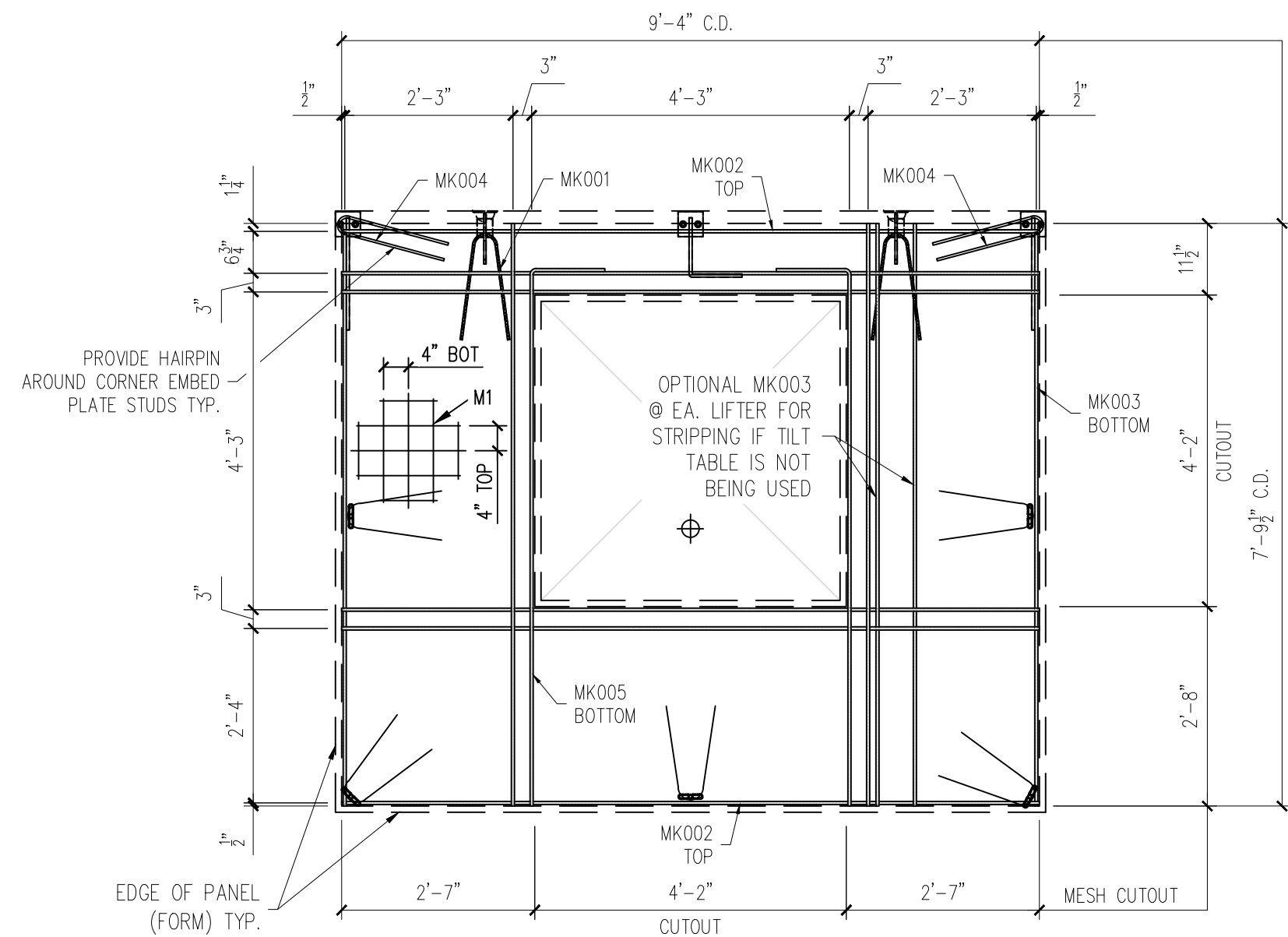
DATE	REV	DESCRIPTION
-	-	-
-	-	-
-	-	-
-	-	-

PROJECT: 10'X12'X8' GATE HOUSE BUILDING
5185 FORT CAMPBELL BOULEVARD
HOPKINSVILLE, KY 42240
CONTRACTOR: CHRISTIAN COUNTY SCHOOLS

SCALE NTS
DRAWN BY FTL
CHECK BY WCR
ISSUE DATE 07.02.26
PIECE MARK WP-04

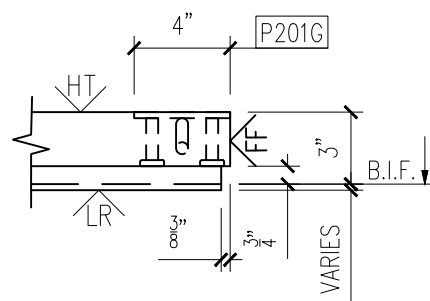
25-3470
CCHS Precast Buildings
ID - CVW
WALL - WP-04
SOUTH WALL
Weight - 2,430
1 Required

NOTE:
DIMENSIONS PROVIDED ARE PULLED FROM EDGE OF
CAGE TO CENTERLINE OF REBAR AND TO CENTER
OF REBAR TO CENTER OF REBAR



REINFORCING VIEW

SCALE: $\frac{1}{2}" = 1'-0"$



REINFORCING SCHEDULE			
MARK #	DESCRIPTION		QTY.
MK001	#3 X 3'-0"		7
MK002	#3 X 9'-4"		6
MK003	#3 X 7'-9 1/2"		4
MK004	#3 X 3'-1"		2
MK005	#3 X 8'-1 1/2"		2

MESH SCHEDULE		
MARK #	DESCRIPTION	QTY.
M1	W4XW4 4"x4" WWF 9'-4" X 7'-9½"	1

DATE	DESCRIPTION	INI.	REV
-	-	-	$\triangle_1$
-	-	-	$\triangle_2$
-	-	-	$\triangle_3$
-	-	-	$\triangle_4$
-	-	-	$\triangle_5$

PROJECT: 10'X12'X8' GATE HOUSE BUILDING
5185 FORT CAMPBELL BOULEVARD
HOPKINSVILLE, KY 42240
CONTRACTOR: CHRISTIAN COUNTY SCHOOLS

SCALE
NTS

DRAWN BY
FTL

CHECK BY
WCR

ISSUE DATE
07.02.26

PIECE MARK
WP-04

MESSAGE CENTER

1. REFER TO DETAILS AND SECTION FOR REINFORCEMENT PLACEMENT
2. SUPPLEMENTAL STEEL FOR STRIPPING AND HANDLING MAY BE ADDED AS REQUIRED.

NOTE:

1. CONSTRUCT REBAR-MESH CAGE ACCORDING TO THE DRAWINGS. SECURE LIFTING APPARATUS TO FORM AND ADD PROPER REINFORCEMENT. PLACE REBAR-MESH CAGE AND HAIRPINS AT INSERTS WITH PROPER CLEARANCES (PER DRAWINGS).

CHECKED BY: _____ DATE: _____

APPROVED BY: _____ DATE: _____

<u>PRODUCT</u>	<u>SALES ORDER NUMBER</u>
BUILDING	101208C
<u>SHEET NUMBER</u>	<u>NUMBER REQUIRED</u>
2 05 2	1

6

EASI-SET® WORLDWIDE
5119 Callett Rd. • Midland, VA 22728 • info@EasiSet.com
www.EasiSet.com • 800-547-4045 • Fax: 540-439-2541

Job Name: 26-1899 - Gateway 65 Industrial Road
Job Location: Franklin, KY
Contractor: RD Sitework LLC

Plant: 100

6/4/2026 4:39:28 PM

Tech: Jared - F
PC: E. Bardley



Structure ID: QL70-2 POND1

P2 BXLD4848FL-24SQ

BX FLAT LID 8inW w/CC 24"x24" HOLE F/F

P3) 24" x 24" - CASTING HEIGHT - 4"
P2) 48" x 48" - BX FLAT LID 8inW w/CC 24"x24" HOLE F/F - 8"
P1) 48" x 48" - BOX BASE 8inW, 8inF F/n - 36"
1) CASTING - HOE-326-BH F/G
1) 48" x 48" - Conseal CS-102 1.00"
1) 24" x 24" - Conseal CS-102 1.00"
1) Hole - 0

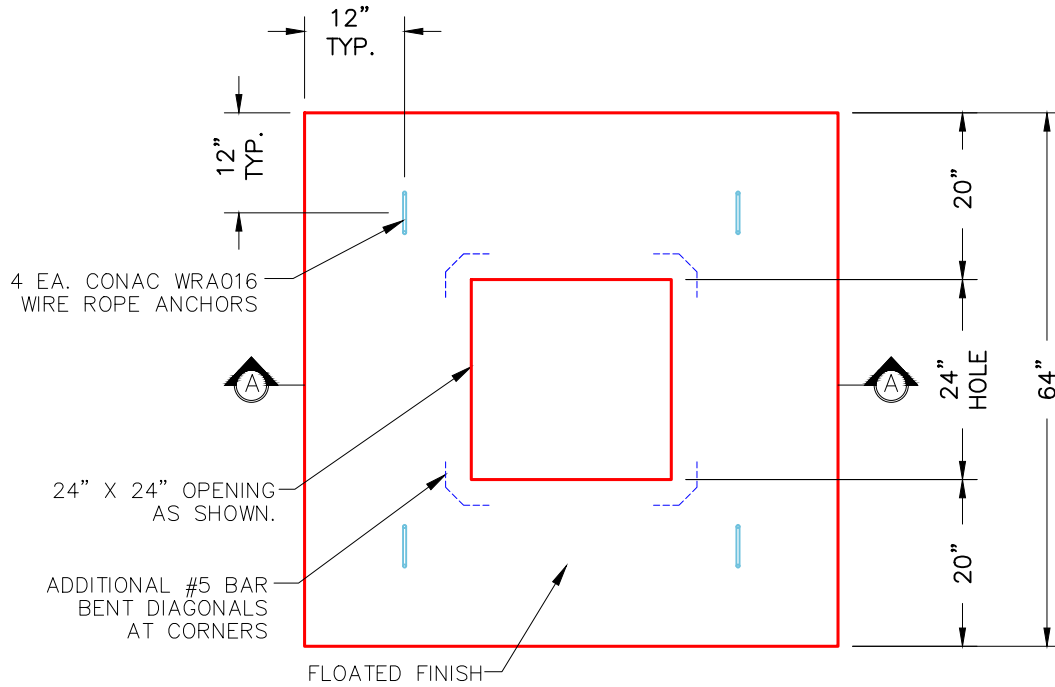
Structure Total:

0 lb
2363 lb
8163 lb
289 lb
0 lb
0 lb
0 lb
10815 lb

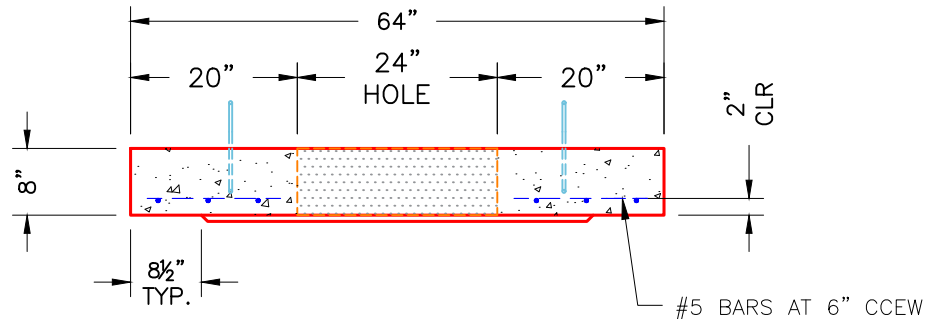
Structure Notes:

1. PER ASTM C913 SPECIFICATIONS.
2. CONCRETE = 4,000 PSI AT 28 DAYS.
3. NO STEPS AND NO INVERT CHANNEL.
4. CASTING BY ICAST (HOE-326-BH F/G OR EJ 6626).

REINFORCING PER ASTM A615 (GRADE 60).
- TOP SLAB (As .62) #5 BARS AT 6" C.C.E.W.
- WALLS (As .12) #5 BARS AT 12" C.C.E.W.
- FLOOR (As .12) #5 BARS AT 12" C.C.E.W.



PLAN VIEW



SECTION A-A

NOTES:

1. MANUFACTURED TO ASTM C-913 (LATEST REVISION).
2. CONCRETE: 4,000 PSI AT 28 DAYS.
3. REINFORCING: #5 BAR @ 6" O.C. E.W. (GRADE 60).

Coating (Int):
Coating (Ext):

Seam Up: Flat
Seam Dn: Flat

Wall Thickness: 8"

Height (Ext): 8"

Weight (Net): 2363 lb
Volume (Net): 0.6cu.yd

Job Name: 26-1899 - Gateway 65 Industrial Road
Job Location: Franklin, KY
Contractor: RD Sitework LLC

Plant: 100

6/4/2026 4:39:27 PM

Tech: Jared - F
PC: E. Bardley



Structure ID: QL70-1 POND2

P2 BXLD4848FL-24SQ

BX FLAT LID 8inW w/CC 24"x24" HOLE F/F

P3) 24" x 24" - CASTING HEIGHT - 4"
P2) 48" x 48" - BX FLAT LID 8inW w/CC 24"x24" HOLE F/F - 8"
P1) 48" x 48" - BOX BASE 8inW, 8inF F/n - 36"
1) CASTING - HOE-326-BH F/G
1) 48" x 48" - Conseal CS-102 1.00"
1) 24" x 24" - Conseal CS-102 1.00"
1) Hole - 0

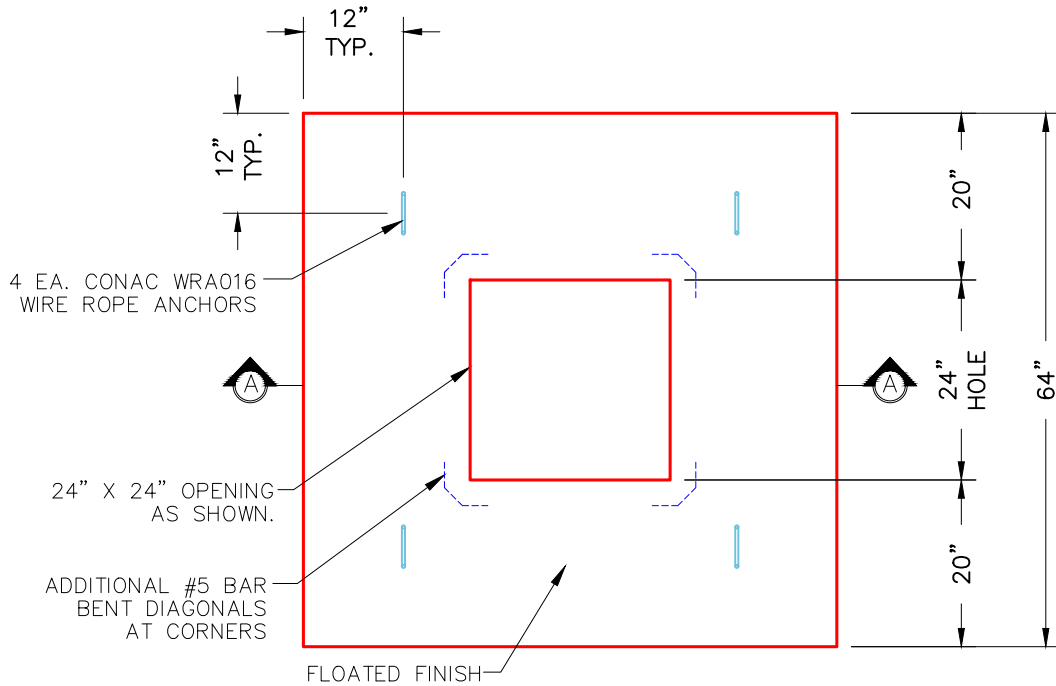
Structure Total:

0 lb
2363 lb
8163 lb
289 lb
0 lb
0 lb
0 lb
10815 lb

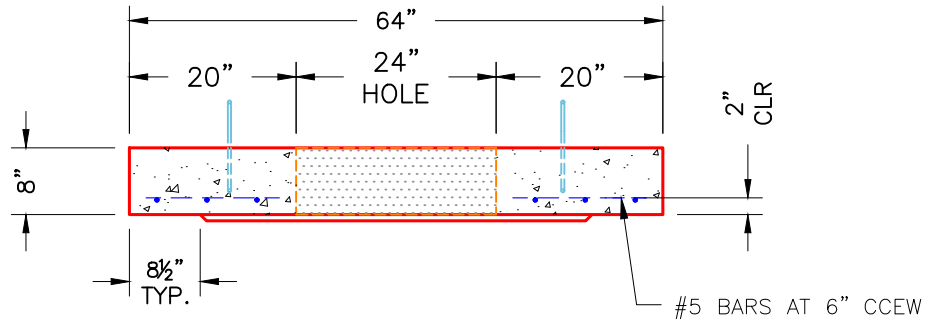
Structure Notes:

1. PER ASTM C913 SPECIFICATIONS.
2. CONCRETE = 4,000 PSI AT 28 DAYS.
3. NO STEPS AND NO INVERT CHANNEL.
4. CASTING BY ICAST (HOE-326-BH F/G OR EJ 6626).

REINFORCING PER ASTM A615 (GRADE 60).
- TOP SLAB (As .62) #5 BARS AT 6" C.C.E.W.
- WALLS (As .12) #5 BARS AT 12" C.C.E.W.
- FLOOR (As .12) #5 BARS AT 12" C.C.E.W.



PLAN VIEW



SECTION A-A

NOTES:

1. MANUFACTURED TO ASTM C-913 (LATEST REVISION).
2. CONCRETE: 4,000 PSI AT 28 DAYS.
3. REINFORCING: #5 BAR @ 6" O.C. E.W. (GRADE 60).

Coating (Int):
Coating (Ext):

Seam Up: Flat
Seam Dn: Flat

Wall Thickness: 8"

Height (Ext): 8"

Weight (Net): 2363 lb
Volume (Net): 0.6cu.yd