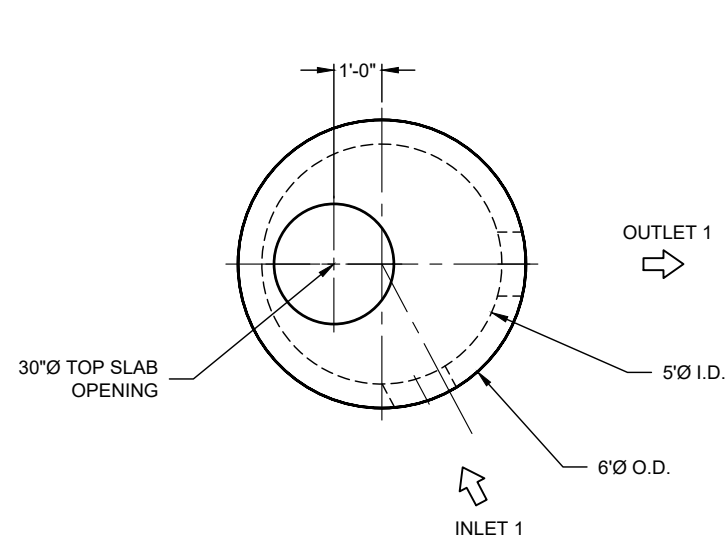
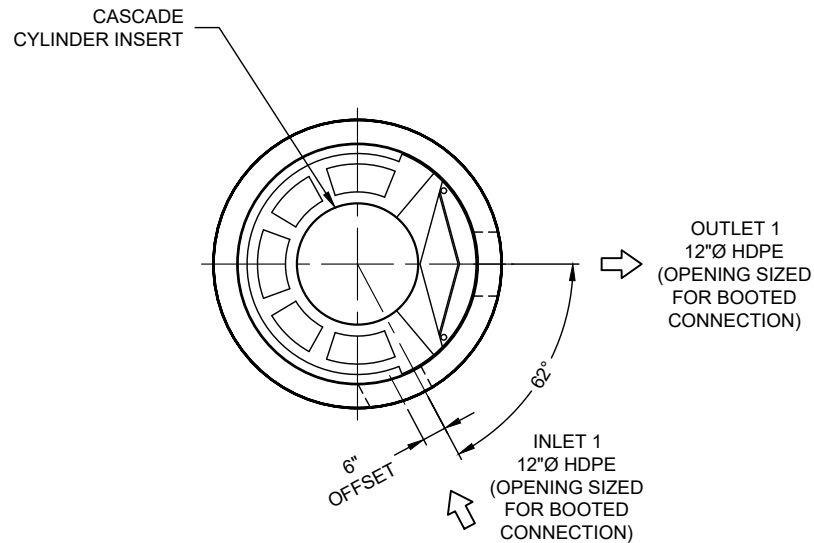


25-4327 - 834447 LOU FUSZ TOYOTA KIRKWOOD



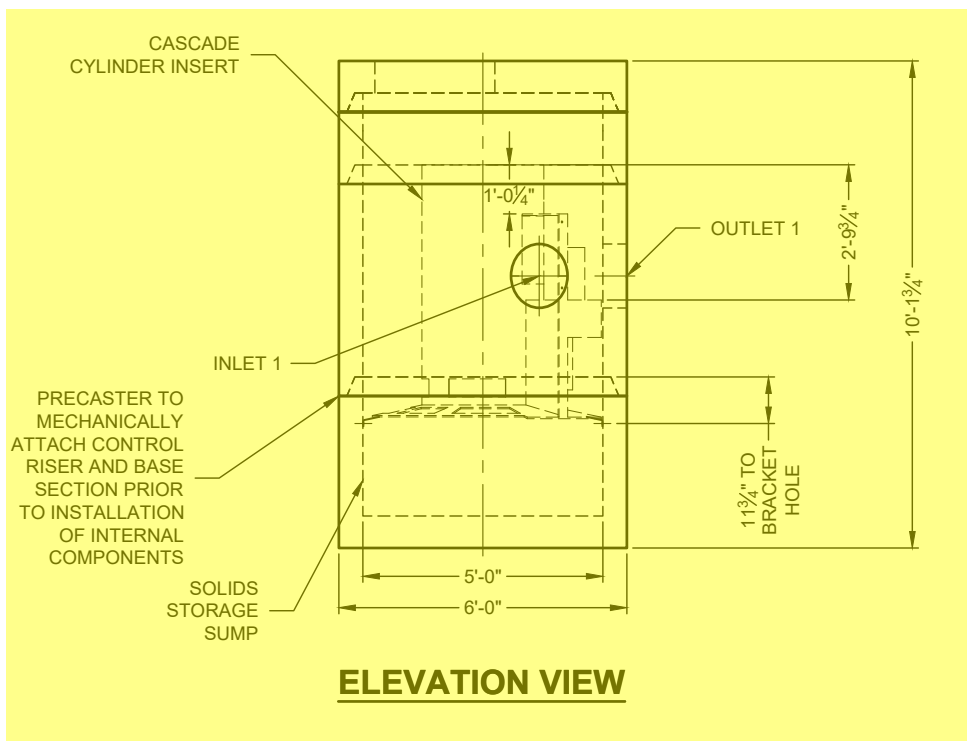
PLAN VIEW
INTERNALS NOT SHOWN



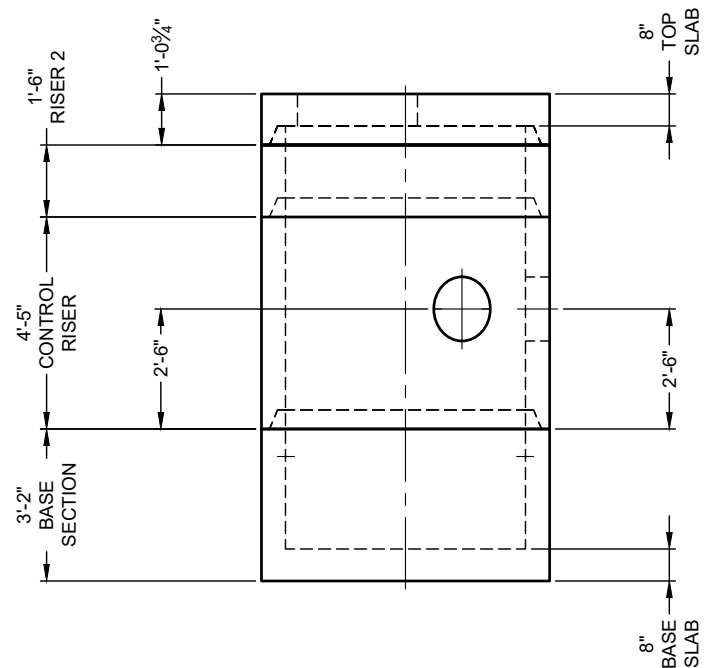
PLAN VIEW FOR PIPE ORIENTATION
TOP SLAB NOT SHOWN

10-CS-5
ICAST to fully pre-assemble
internal materials prior to shipment.

SEE INSTALLATION NOTE A



ELEVATION VIEW



PRECAST COMPONENTS
INTERNALS NOT SHOWN

ICAST
5888 / 757440
LAYOUT 1A
8.19TS

CONTECH
FABRICATION
DRAWING

MATERIAL LIST

COUNT	DESCRIPTION	PART NUMBER	PROVIDED BY	INSTALLED BY
1	CS-5 CYLINDER INSERT, STD.	325-003950	CONTECH	CONTECH
4	CS-5 ALUMINUM INSTALLATION BRACKETS	325-003956	CONTECH	PRECASTER
1	CS-5 HARDWARE KIT	325-003955	CONTECH	PRECASTER
2	BOOT FOR 12" Ø HDPE PIPE		PRECASTER	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

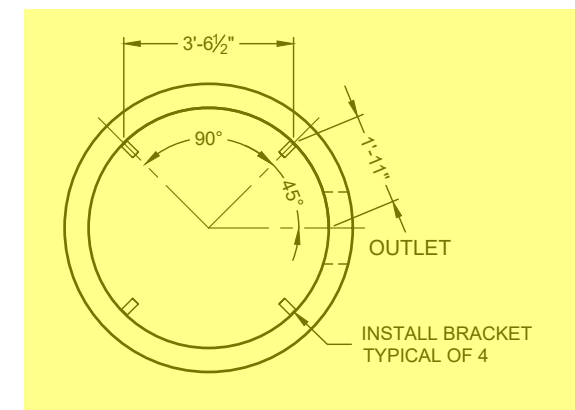
SITE INFORMATION

RIM ELEV. = 640.92+/-
TOP OF STRUCTURE = 640.12
INLET PIPE 1 INVERT ELEV. = 635.14
INLET PIPE 1 DIAMETER AND MATERIAL = 12"Ø HDPE
OUTLET PIPE INVERT ELEV. = 635.14
OUTLET PIPE DIAMETER AND MATERIAL = 12"Ø HDPE
OUTSIDE BOTTOM OF STRUCTURE ELEV. = 629.97

STRUCTURE WEIGHT

APPROXIMATE HEAVIEST PICK = 12500 LBS.
STRUCTURE IS DELIVERED IN 3 PIECES

TOP SLAB = 3000 LBS.
RISER 2 = 2500 LBS.
CONTROL RISER = MECHANICALLY ATTACHED TO BASE SECTION
BASE SECTION = 12500 LBS.



SUPPORT BRACKET LAYOUT PLAN VIEW

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REVISION DESCRIPTION	DATE	MARK	BY

CS-5 - 834447-10
LOU FUSZ TOYOTA KIRKWOOD
SAINT LOUIS, MO
SITE DESIGNATION: CASCADE CS-5

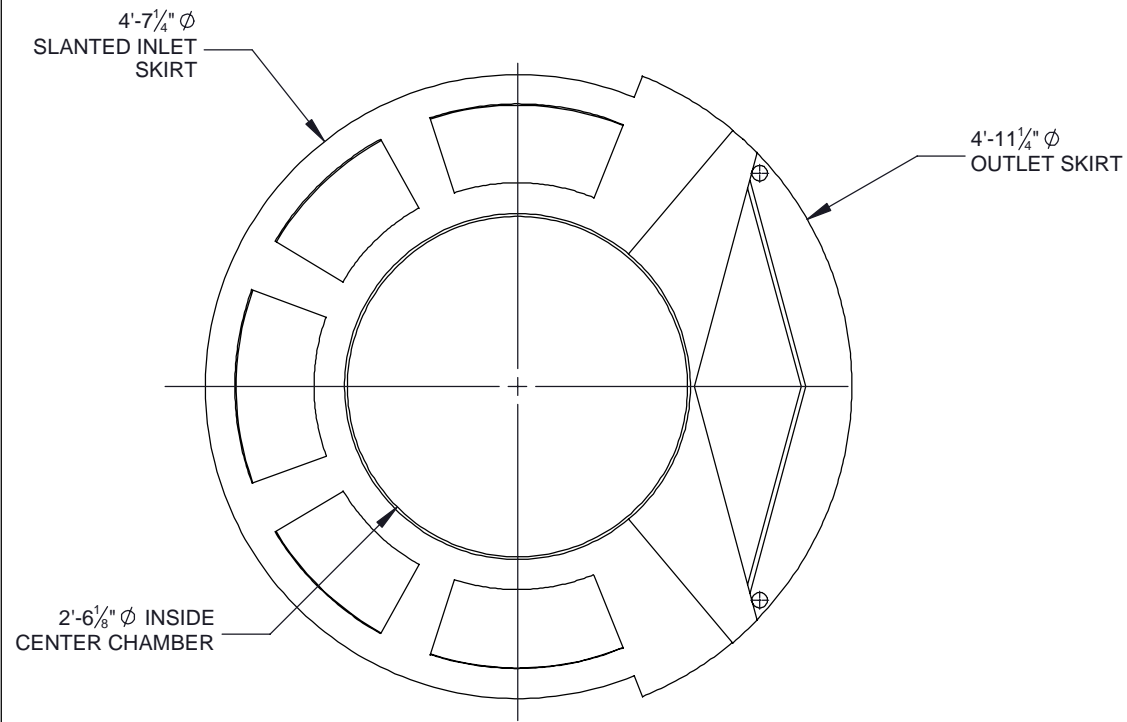
CONTECH
ENGINEERED SOLUTIONS LLC
A CONTECH COMPANY
910 Centre Pointe Dr., Suite 400, West Chester, OH 45380
800.338.1122 513.646.7000 513.645.7803 FAX
CASCADE
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FOR PATENT INFORMATION, GO TO www.contech.com/PP

DATE: 10/09/25

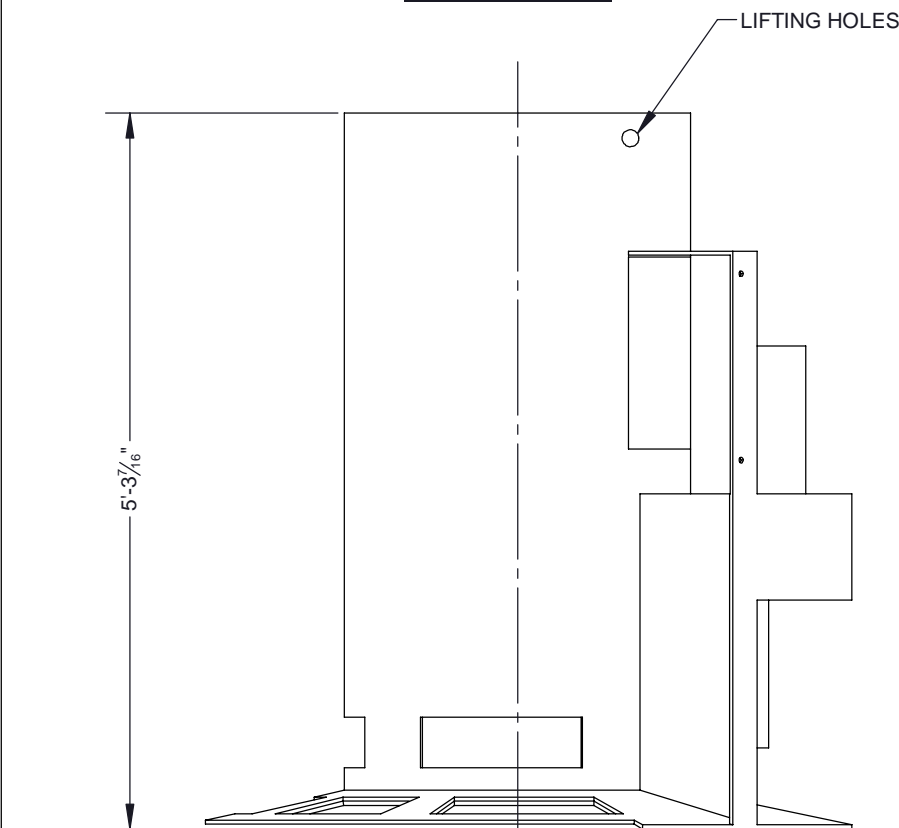
DESIGNED: TRC	DRAWN: HJF
CHECKED: LJK	APPROVED: LJK
PROJECT No.: 834447	SEQUENCE No.: 10
SHEET: 1	OF 1

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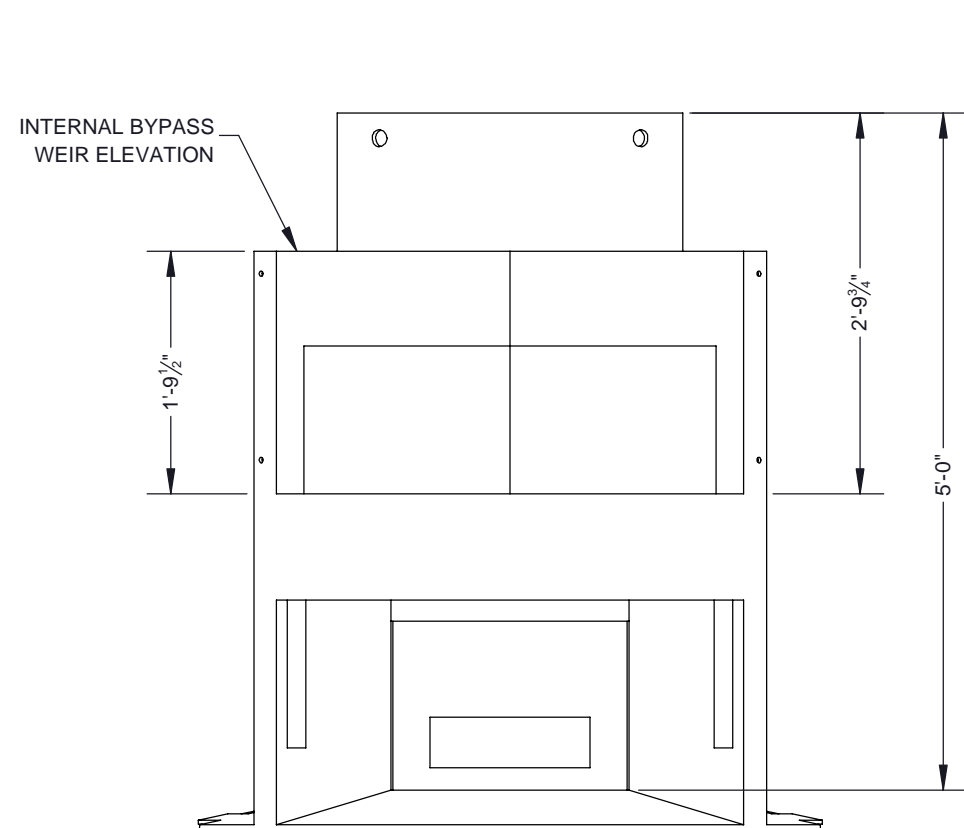
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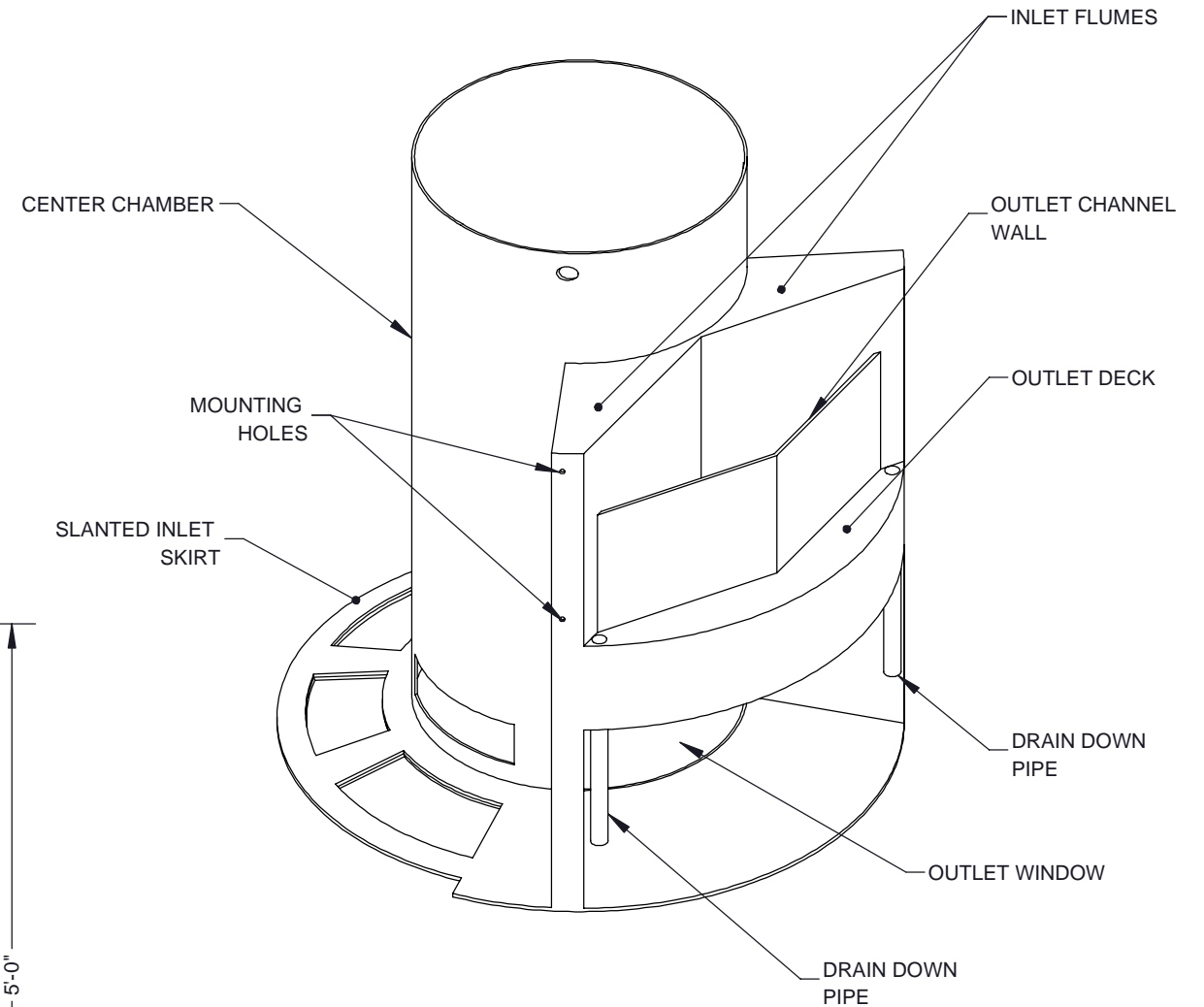
PLAN VIEW



ELEVATION VIEW



ELEVATION VIEW: OUTLET SIDE



ISOMETRIC VIEW

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

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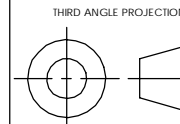
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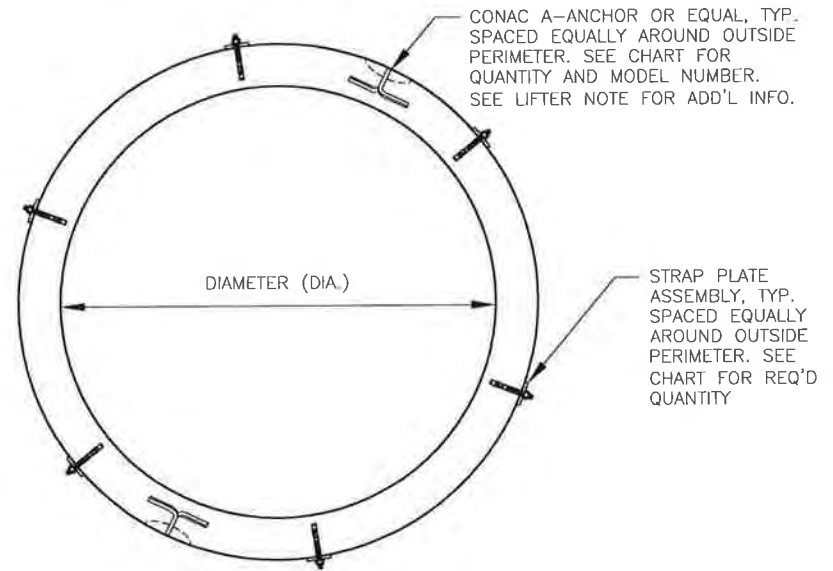
REFERENCE DETAIL
INTERNALS CS-5
CASCADE SEPARATOR



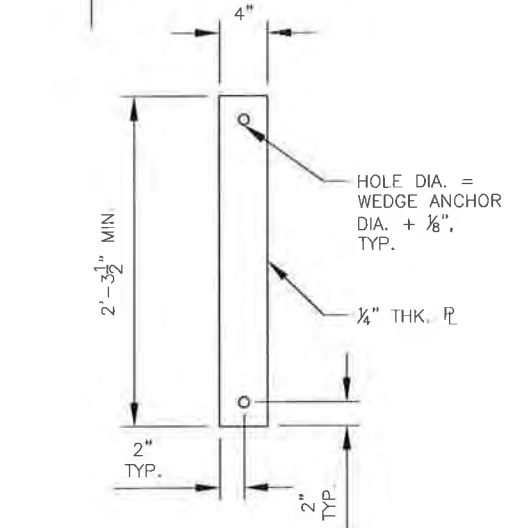
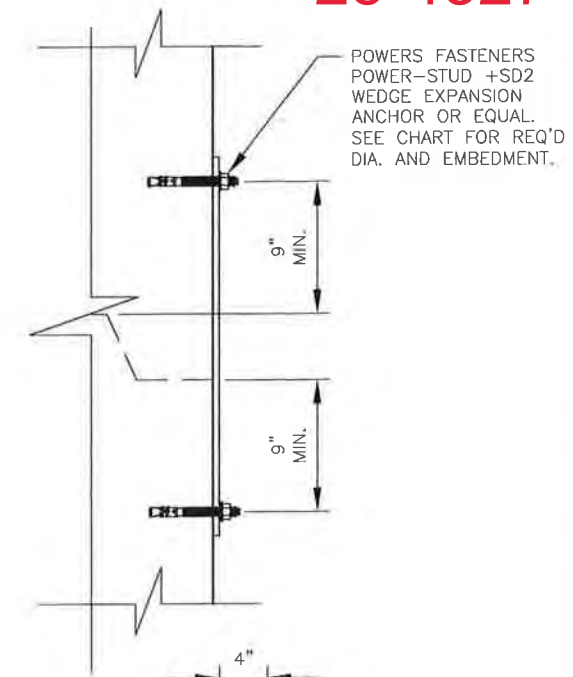
UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES

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

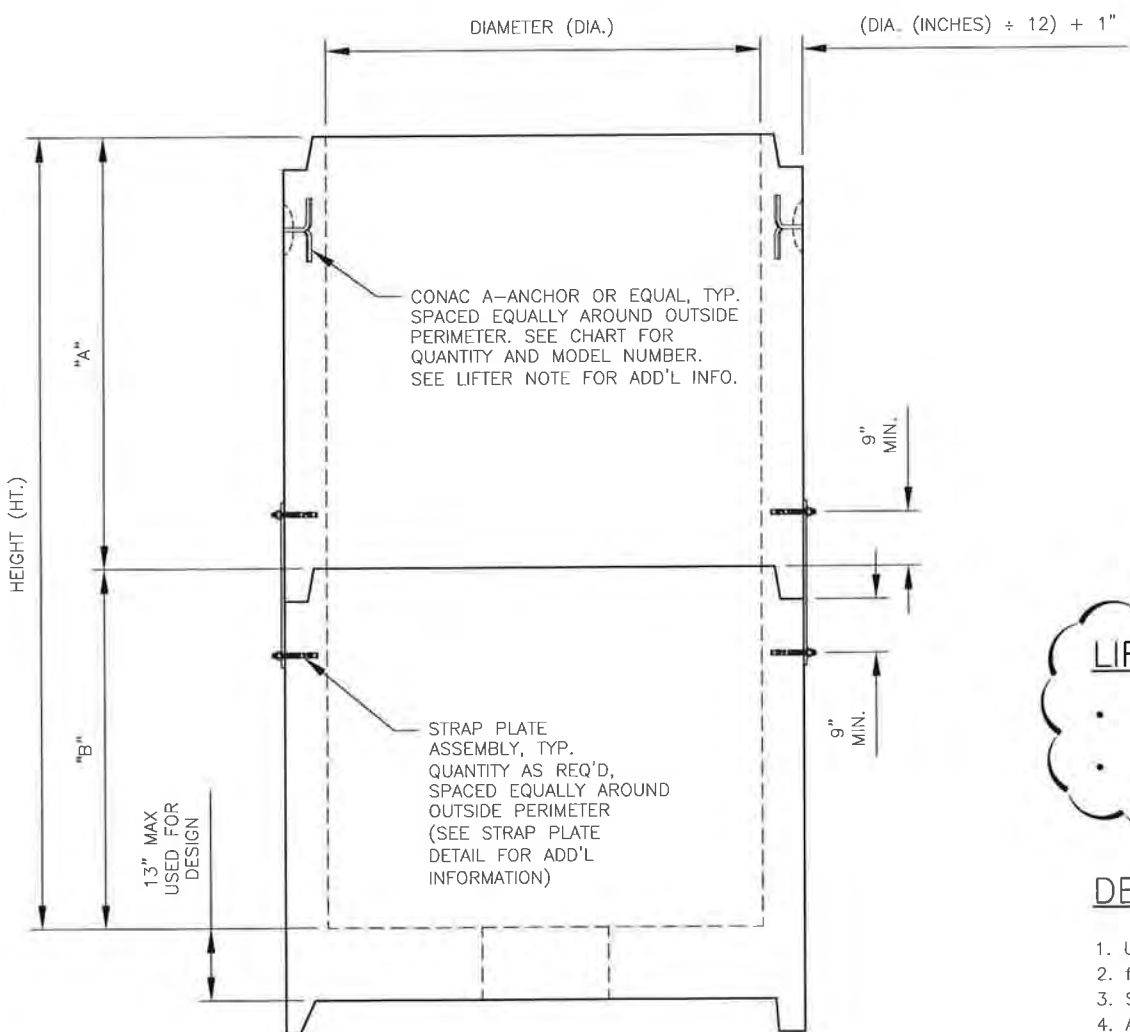
PART NUMBER: 325-003950		
APPROVED BY: M. BROOKS	DRAWN BY: J. BELL	
APPROVED BY DATE: 2021.10.21	DRAWN BY DATE: 2021.09.15	REV: D
SCALE: N/A	SHEET 1 OF 1	



PLAN VIEW



STRAP PLATE DETAIL



ELEVATION VIEW

LIFTER NOTE:

- FOR ALL UNITS w/DIA. < 8'-0", DO NOT PLACE LIFTERS IN UPPER RISER WHEN "A" < 2'-0".
- FOR DIAMETER = 8'-0", DO NOT PLACE LIFTERS IN UPPER RISER WHEN "A" < 3'-0".

DESIGN NOTES

1. UNIT WEIGHT OF CONCRETE = 150 PCF
2. f'c @ LIFTING = 4,000 PSI MIN.
3. STEEL STRAP PLATES: ASTM A36 MIN.
4. ALL HARDWARE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.

CDS MH Dia.	Ht. (ft.)	A (ft.)	B (ft.)	Number of Connection Plates Req'd (equally spaced)	POWERS FASTENERS POWER-STUD +SD2 WEDGE EXPANSION ANCHOR OR EQUAL.	Number of Lifters Req'd (equally spaced)	Conac A-Anchor (or Equal)
4'	5'	1'	4'	4	1/2"Ø - w/ 2 1/2" Min. Embed	2	Model 4CA14
		2'	3'	3	1/2"Ø - w/ 2 1/2" Min. Embed	2	Model 4CA14
		3'	2'	3	1/2"Ø - w/ 2 1/2" Min. Embed	2	Model 4CA14
		4'	1'	2	1/2"Ø - w/ 2 1/2" Min. Embed	2	Model 4CA14
5'	6'	5'	0'	0	1/2"Ø - w/ 2 1/2" Min. Embed	2	Model 4CA14
		1'	5'	3	5/8"Ø - w/ 3 7/8" Min Embed	2	Model 6CA14
		2'	4'	3	5/8"Ø - w/ 3 7/8" Min. Embed	2	Model 6CA14
		3'	3'	2	5/8"Ø - w/ 3 7/8" Min. Embed	2	Model 6CA14
		4'	2'	2	5/8"Ø - w/ 3 7/8" Min Embed	2	Model 6CA14
6'	7'	5'	1'	2	5/8"Ø - w/ 3 7/8" Min. Embed	2	Model 6CA14
		6'	0'	0	5/8"Ø - w/ 3 7/8" Min. Embed	2	Model 6CA14
		1'	6'	4	3/4"Ø - w/ 4 1/2" Min. Embed	2	Model 6CA14
		2'	5'	3	3/4"Ø - w/ 4 1/2" Min. Embed	2	Model 6CA14
		3'	4'	3	3/4"Ø - w/ 4 1/2" Min. Embed	2	Model 6CA14
		4'	3'	3	3/4"Ø - w/ 4 1/2" Min. Embed	2	Model 6CA14
7'	7'	5'	2'	2	3/4"Ø - w/ 4 1/2" Min. Embed	2	Model 6CA14
		6'	1'	2	3/4"Ø - w/ 4 1/2" Min. Embed	2	Model 6CA14
		7'	0'	0	3/4"Ø - w/ 4 1/2" Min. Embed	2	Model 6CA14
		1'	6'	5	3/4"Ø - w/ 4 1/2" Min. Embed	2	Model 8CA18
		2'	5'	4	3/4"Ø - w/ 4 1/2" Min. Embed	2	Model 8CA18
		3'	4'	4	3/4"Ø - w/ 4 1/2" Min. Embed	2	Model 8CA18
		4'	3'	3	3/4"Ø - w/ 4 1/2" Min. Embed	2	Model 8CA18
8'	9'	5'	2'	3	3/4"Ø - w/ 4 1/2" Min. Embed	2	Model 8CA18
		6'	1'	2	3/4"Ø - w/ 4 1/2" Min. Embed	2	Model 8CA18
		7'	0'	0	3/4"Ø - w/ 4 1/2" Min. Embed	2	Model 8CA18
		1'	8'	7	3/4"Ø - w/ 4 1/2" Min Embed	2	Model 8CA18
		2'	7'	6	3/4"Ø - w/ 4 1/2" Min. Embed	2	Model 8CA18
		3'	6'	6	3/4"Ø - w/ 4 1/2" Min. Embed	2	Model 8CA18
		4'	5'	5	3/4"Ø - w/ 4 1/2" Min. Embed	2	Model 8CA18
5'	4'	5	3/4"Ø - w/ 4 1/2" Min. Embed	2	Model 8CA18		
6'	3'	4	3/4"Ø - w/ 4 1/2" Min. Embed	2	Model 8CA18		
7'	2'	4	3/4"Ø - w/ 4 1/2" Min. Embed	2	Model 8CA18		
8'	1'	3	3/4"Ø - w/ 4 1/2" Min. Embed	2	Model 8CA18		

REV. NO. DATE REVISION			PREPARED FOR: CONTECH ENGINEERED SOLUTIONS LLC		
PREPARED BY: DELTA ENGINEERS, ARCHITECTS, & LAND SURVEYORS 860 HOOPER ROAD, ENDWELL, NY 13760 TEL: (607) 231-6600 FAX: (607) 231-6650			DATE: 9/24/15 SHEET TITLE: LIFTING DETAILS DRWN BY: GAS SCALE: N.T.S. CKD BY: GJP		
PROJECT:			CDS UNIT LIFTING		
CONTRACTOR:			DWG. I.D. RS-01		
DELTA PROJ. NO.: 2015.025.041			SHT. NO. 1 OF 1		