

CONSTRUCTION LOADING DIAGRAM
NOT TO SCALE

CONSTRUCTION LOADING
FOR TEMPORARY CONSTRUCTION VEHICLE LOADS, AN EXTRA AMOUNT OF COMPACTED COVER MAY BE REQUIRED OVER THE TOP OF THE PIPE. THE HEIGHT OF COVER SHALL MEET THE MINIMUM REQUIREMENTS SHOWN IN THE TABLE BELOW. THE USE OF HEAVY CONSTRUCTION EQUIPMENT NECESSITATES GREATER PROTECTION FOR THE PIPE THAN FINISHED GRADE COVER RECOMMENDATIONS FOR NORMAL HIGHWAY TRAFFIC.

PIPE SPAN, INCHES	AXLE LOADS (KIP)			
	18-30	30-75	75-110	110-150
12-42	2.0	2.5	3.0	3.0
48-72	3.0	3.0	3.5	4.0
78-120	3.0	3.5	4.0	4.0
126-144	3.5	4.0	4.5	4.5

REINFORCING TABLE

Ø CMP RISER	A	B Ø	REINFORCING	**BEARING PRESSURE (PSF)
24"	4'0"	20"	#5 @ 10" OCEW #5 @ 10" OCEW	2,540 1,950
30"	4'-6"	32"	#5 @ 10" OCEW #5 @ 10" OCEW	2,260 1,670
36"	5'0"	38"	#5 @ 10" OCEW #5 @ 10" OCEW	2,000 1,500
42"	5'-6"	44"	#5 @ 10" OCEW #5 @ 10" OCEW	1,490 1,370
48"	6'-0"	50"	#5 @ 10" OCEW #5 @ 10" OCEW	1,210 1,270

ACCESS CASTING NOT SUPPLIED BY CONTECH

ROUND OPTION PLAN VIEW

SQUARE OPTION PLAN VIEW

MANHOLE CAP DETAIL
NOT TO SCALE

MATERIAL SPECIFICATION
NOT TO SCALE

CONTECH ENGINEERED SOLUTIONS LLC
11814 NE Green Spring Drive, Portland, OR 97220
503-944-4800 503-250-3320 503-951-1217 FAX

CONTECH CMP DETENTION SYSTEMS

72"Ø UNDERGROUND DETENTION SYSTEM - 669462-010
SWBC ROCKWALL PHASE 2
ROCKWALL, TX
SITE DESIGNATION: UDS

PROJECT NO. 669462 SHEET NO. 010 DATE 3/3/2021
DESIGNED BY SJ APPROVED BY SLEJIB
CHECKED BY SJ
DATE 05/07/2021

TYPICAL SECTION VIEW
NOT TO SCALE

TYPICAL MANWAY DETAIL
NOT TO SCALE

TYPICAL BACKFILL DETAIL
NOT TO SCALE

BACKFILL REQUIREMENTS FOLLOW THE GUIDELINES OF AASHTO LRFD BRIDGE DESIGN (SEC 12) AND CONSTRUCTION (SEC 26)

- MINIMUM TRENCH WIDTH MUST ALLOW ROOM FOR PROPER COMPACTION OF HAUNCH MATERIALS UNDER THE PIPE. THE MINIMUM TRENCH WIDTH IS (2.6.5.1):
PIPE ≤ 12" D = 16"
PIPE = 12" - 144" D = 12"
- MINIMUM EMBANKMENT WIDTH (IN FEET) FOR INITIAL FILL ENVELOPE IS (2.6.6.2):
PIPE = 24" - 300"
PIPE 24" - 144" D = 4"
PIPE = 144" D = 10"
- THE FOUNDATION UNDER THE PIPE AND SIDE BACKFILL SHALL BE ADEQUATE TO SUPPORT THE LOADS ACTING UPON IT (2.6.5.2). A MINIMUM OF TWICE THE CORRUGATION DEPTH IN THICKNESS, WITH THE MAXIMUM PARTICLE SIZE OF ONE-HALF OF THE CORRUGATION DEPTH (26.3.8.1, 26.5.3).
- CORRUGATED STEEL PIPE (CSP / HEL-COR), DIAMETERS 18" - 72"
- HAUNCH ZONE MATERIAL SHALL BE HAND SHOVELED OR SHOVEL SLICED INTO PLACE TO ALLOW FOR PROPER COMPACTION (2.6.5.4).
- INITIAL BACKFILL SHALL BE WELL GRADED CRUSHED ROCK UP TO SPRINGLINE OF PIPE.
- BACKFILL PLACED ABOVE THE SPRINGLINE TO MEET AASHTO A-1, A-2 OR A-3 CLASSIFICATION, OR APPROVED EQUAL, COMPACTED TO 90% STANDARD PROCTOR (1.8). MAXIMUM PARTICLE SIZE NOT TO EXCEED 3" (12.4.1.2). ALL LIFTS PLACED IN A CONTROLLED MANNER. IT IS RECOMMENDED THAT LIFTS NOT EXCEED AN 8" UNCOMPACTED LIFT HEIGHT TO PREVENT UNEVEN LOADING, AND THE LESSES OF 1/3 THE DIAMETER OR 24" AS THE MAXIMUM DIFFERENTIAL SIDE-TO-SIDE (2.6.5.4).
- SAND BACKFILL (AASHTO A-3 OR APPROVED EQUAL) TO BE PLACED FROM SPRINGLINE TO 12" ABOVE PIPE. INITIAL BACKFILL ABOVE MAY INCLUDE ROAD BASE MATERIAL AND ROAD PAVEMENT IF APPLICABLE.
- TOTAL HEIGHT OF COMPACTED COVER FOR CONVENTIONAL HIGHWAY LOADS IS MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TOP OF RIGID PAVEMENT (12.6.3).
- FINAL BACKFILL MATERIAL SELECTION AND COMPACTION REQUIREMENTS SHALL FOLLOW THE PROJECT PLANS AND SPECIFICATIONS PER THE ENGINEER OF RECORD (2.6.5.1).

NOTES:

- GEOTEXTILE SHOULD BE CONSIDERED FOR USE TO PREVENT SOIL MIGRATION INTO VARYING SOIL TYPES (PROJECT ENGINEER).
- FOR MULTIPLE BARREL INSTALLATIONS THE RECOMMENDED STANDARD SPACING BETWEEN PARALLEL PIPE RINGS SHALL BE PIPE DIA. 2 BUT NO LESS THAN 12" OR 3P FOR PIPE DIAMETERS 72" AND LARGER. CONTACT YOUR CONTECH REPRESENTATIVE FOR NONSTANDARD SPACING (TABLE C12.6.1-1).

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PLAIN END CMP RISER PIPE

2 2/3"x1/2" RE-ROLLED END HEL-COR PIPE

H-12 HUGGER BAND DETAIL
NOT TO SCALE

GENERAL NOTES:

- DELIVERED BAND STYLE AND FASTENER TYPE MAY VARY BY FABRICATION PLANT.
- JOINT IS TO BE ASSEMBLED PER AASHTO BRIDGE CONSTRUCTION SPECIFICATION SEC 26.4.2.4.
- BAND MATERIAL AND GAGE TO BE SAME AS RISER MATERIAL.
- IF RISER HAS A HEIGHT OF COVER OF 12" OR MORE, USE A SLP JOINT.
- BANDS ARE NORMALLY FURNISHED AS FOLLOWS:
 - 12" THRU 48" 4-PIECES
 - 54" 2-PIECES
- ALL RISER JOINT COMPONENTS WILL BE FIELD ASSEMBLED.
- MANHOLE RISERS IN APPLICATIONS WHERE TRAFFIC LOADS ARE IMPOSED REQUIRE SPECIAL DESIGN CONSIDERATIONS.
- DIMENSIONS SUBJECT TO MANUFACTURING TOLERANCES.

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The use of Project/MC/20000/04-Production/As-Built/Details/MC20000-048-206
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MCADAMS

SWBC ROCKWALL PHASE II

SWBC ROCKWALL PHASE II
Lot 1, Block A
SWBC ROCKWALL ADDITION, PHASE II
21,275 Acres
in the
J.M. ALLEN SURVEY, ABSTRACT NO. NO. 2
CITY OF ROCKWALL,
ROCKWALL COUNTY, TEXAS

UNDERGROUND DETENTION SYSTEM DETAILS

AS-BUILT RECORD DRAWING

THE INFORMATION ON THESE PLANS HAS BEEN REVISED TO REFLECT CHANGES TO PUBLIC IMPROVEMENTS MADE DURING CONSTRUCTION. UNLESS OTHERWISE NOTED, THE CONSTRUCTION OF THE PUBLIC IMPROVEMENTS IS IN GENERAL CONFORMANCE WITH THESE PLANS, BASED UPON INFORMATION PROVIDED BY THE CONTRACTOR AND FIELD VERIFICATIONS. THE RESPONSIBILITY FOR ACCURACY AND COMPLETENESS BELONGS TO THE CONTRACTOR.

Matthew G. St. Marie
THE JOHN R. MCADAMS COMPANY, INC.
Date: 09/25/2023

MCADAMS
TBPE 19762

Drawn By: CMK
Date: 12/30/2020
Scale: #####
Revisions:
02/11/2021
03/11/2021
05/07/2021
07/12/2021
09/25/2023 - AS-BUILTS

WBC20000

C3.21

OWNER/DEVELOPER
SWBC ROCKWALL LP
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DALLAS, TEXAS 75225
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Contact: Spencer Byington