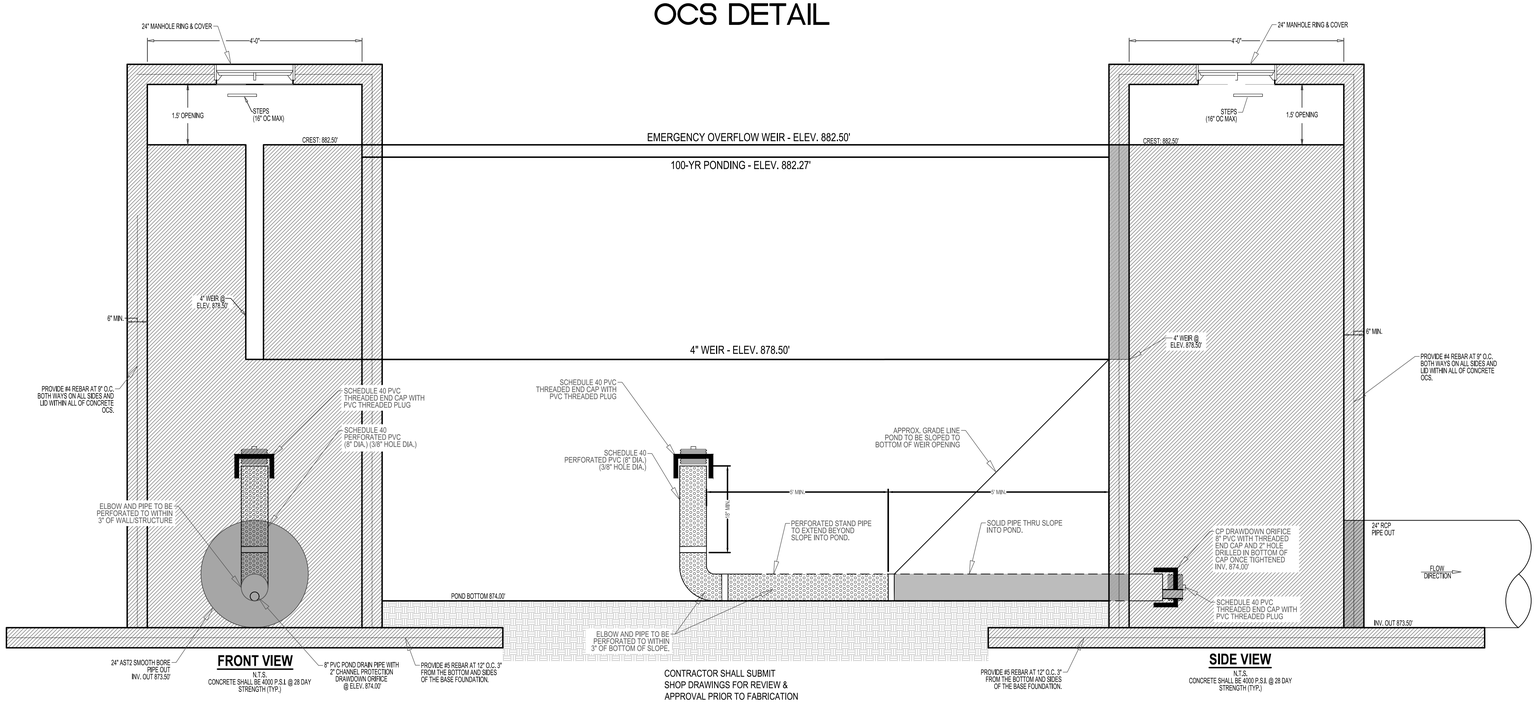
OCS DETAIL



O.C.S. SHALL BE CONSTRUCTED ON COMPACTED SUBGRADE, MIN. 6" #57 STONE BENEATH MANHOLE AND 24" COMPACTION TO 98% STANDARD PROCTOR BELOW.

COMPACTION BELOW SHALL BE APPROVED BY ONSITE GEOTECHNICAL ENGINEER.

ALL PIPE SLOPES & LENGTHS ARE CALCULATED FROM CENTER OF STORM STRUCTURE TO CENTER OF STORM STRUCTURE.

CONCRETE SHALL BE 4000 P.S.I. @ 28 DAY STRENGTH (TYP.)

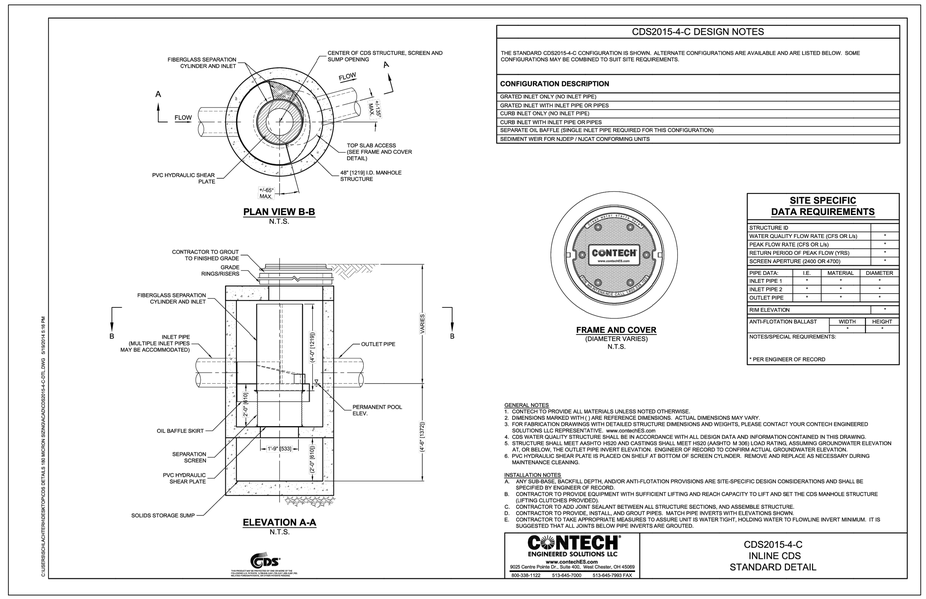
NOTES:

1. STONE FILTER SHALL BE #4 STONE.
2. ALL CONCRETE TO BE 6" MIN. THICKNESS.
3. OCS MANHOLE SHALL BE OFFSET TO PROVIDE DIRECT ACCESS TO STRUCTURE ACCESS STEPS.
4. THE OCS REBR SHALL BE PLACED IN THE STRUCTURE WALL.

ROUND OUTLET CONTROL STRUCTURE

PRECAST OUTLET CONTROL STRUCTURE BOX SHALL EXTEND A MINIMUM OF 6" LOWER THAN THE LOWEST INVERT. PRECAST STRUCTURE SHALL BE OPEN IN THE BOTTOM WHEN DELIVERED TO SITE, AND SHALL BE SET INTO CONCRETE WHEN BASE FOUNDATION IS POURED IN PLACE. SIX INCHES BELOW THE LOWEST INVERT, #5 REBAR SHALL EXTEND THROUGH DRILLED HOLES, ONE FOOT ON CENTER, ON ALL FOUR SIDES. CONTINUOUS SECTIONS OF #5 REBAR SHALL EXTEND THROUGH THE HOLES FORM ONE SIDE OF THE STRUCTURE, ACROSS THE INSIDE OF THE STRUCTURE AND THROUGH THE MATCHING HOLE ON THE OTHER SIDE OF THE STRUCTURE. THE REBAR SHALL EXTEND A MINIMUM OF 10" BEYOND EACH OUTSIDE FACE OF THE STRUCTURE AND BE WIRED TO THE REBAR SET IN THE CONCRETE BASE FOUNDATION. CONCRETE SHALL BE POURED AND FINISHED UP TO THE ELEVATION OF THE LOWEST INVERT ON THE INSIDE AND OUTSIDE OF THE OUTLET CONTROL STRUCTURE.

Buoyancy Calculations For OCS:
HEIGHT OF OCS= **11 FT**
TOP OF STRUCTURE (EMER. OVRFLW) = **882.50'**
BOTTOM OF MANHOLE= **873.50'**
100YR STAGE= **882.27'**
DEPTH OF WATER TOP-BOTTOM= **8.77 FT**
VOLUME WATER DISPLACED= (4)(3.14)(**8.77**)= **110.15 CF**
Fb displaced water:
Fb dw= (62.4 lb/cf) * **110.15** cf= **6873.36** lbs
Concrete Volume of Manhole With 6" Walls=
(5)(3.14)(**8.77**) - (4)(3.14)(**8.77**)= **27.54 cf**
Specific weight concrete= 150 lb/cf
Weight of Manhole= **27.54***150 lb/f= **4,131 lbs**
Required weight of concrete footing and manhole=
= **4,131** lbs
Required Weight of Footing= **6,873** - **4,131** = **2,742** lbs
Volume Req= **2,742**/150= 18.28 cf
Dimensions of footing= 5' X 5' X 1.00'= 36 cf



CDS2015-4-C DESIGN NOTES

THE STANDARD CDS2015-4-C CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

CONFIGURATION DESCRIPTION
GRATED INLET ONLY (NO INLET PIPE)
GRATED INLET WITH INLET PIPE OR PIPES
CURB INLET ONLY (NO INLET PIPE)
CURB INLET WITH INLET PIPE OR PIPES
SEPARATE OIL BAFFLE (SINGLE INLET PIPE REQUIRED FOR THIS CONFIGURATION)
SEGMENT WEIR FOR NJDEP / NJCAT CONFORMING UNITS

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID			
WATER QUALITY FLOW RATE (CFS OR L/s)			*
PEAK FLOW RATE (CFS OR L/s)			*
RETURN PERIOD OF PEAK FLOW (YRS)			*
SCREEN APERTURE (2400 OR 4700)			*
PIPE DATA:	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	*	*	*
INLET PIPE 2	*	*	*
OUTLET PIPE	*	*	*
RIM ELEVATION			*
ANTI-FLOTATION BALLAST	WIDTH	HEIGHT	
	*	*	

NOTES/SPECIAL REQUIREMENTS:

* PER ENGINEER OF RECORD

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.contech-cpi.com
4. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
5. STRUCTURE SHALL MEET AASHTO H520 AND CASTINGS SHALL MEET H520 (AASHTO M 306) LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION.
6. ALL HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
C. CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

CONTECH ENGINEERED SOLUTIONS LLC
www.contech-cpi.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CDS2015-4-C
INLINE CDS
STANDARD DETAIL

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Professional Seal

GEORGIA REGISTERED PROFESSIONAL ENGINEER JASON P. BROWN

Project Information

DRYWALL WAREHOUSE HWY 81
257 HIGHWAY 81
OXFORD, GA 30054
ZONING: R1

DRAWING DATE:	5/27/2026
DRAWN BY:	DLD
CHECKED BY:	JPB

REVISIONS

DATE:	DESCRIPTION:

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Sheet Title

STORM WATER MANAGEMENT DETAILS

Sheet Number

C-4.3

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Contact 811 before you dig.

Utilities/Services shown are for Contractors' convenience. Items are shown schematically and neither the site design professional nor the owner assumes any responsibility for variances in their actual location. This plan may not show and/or may incorrectly show utilities located on site. Contractor shall be responsible to secure and use the services of a private utility locator firm during the entire course of work and shall pay for said services. Contractor shall locate utilities prior to any disturbance (including field verifying location and depth of utilities that are to be saved and protected). Contractor shall notify the site design professional of any utility conflicts prior to installation of new utilities, grading, etc. The Contractor, at their expense, shall be responsible to repair, replace and/or relocate, as necessary, any utilities damaged, whether shown or not. Abandonment, relocation, etc. of utilities shall be coordinated with the respective utility company.