

**Interdisciplinary Science Building
Webster University
Cannon Design Project No. 004561.01**

Project: Webster ISB Substitution Request Number: 15
From: Castle Contracting
To: Melissa Pirtle stl-
cac@cannondesign.com Date: 4/25/2016
Re: SaniTite Piping Contract For: Webster ISB Site Utilities

Specification Title: Storm Drainage Piping Description: 12" – 30" Gravity Piping
Section: 221413 Page: 221413-1 Article/Paragraph: 2.6A

Proposed Substitution: ADS Dual Wall SaniTite Piping
Trade Name: _____
Model No.: 12" – 30" HP
Manufacturer: _____
Address: 4640 Trueman Blvd.
Hilliard, OH 43026
Phone: _____ Manufacturer Web Page: http://www.ads-pipe.com/en/

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.

Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation.

Savings to Owner for accepting substitution: _____ (\$ _____ 0)

Proposed substitution changes Contract Time: ☒ No ☐ Yes [Add] [Deduct] _____ days.

The Undersigned Bidding General Contractor/Construction Manager Certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified products.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.

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- The following supporting data is attached to this request and verifies the above statements:

- ☐ Drawings
- ☒ Product Data
- ☐ Samples
- ☐ Tests
- ☐ Reports
- ☐ Other (explain) _____

Submitted by: Ethan Gwinn

Signed by: Ethan Gwinn

Contractor: Castle Contracting

345 Marshall Ave., Suite 302 | Webster Groves, MO 63119

Address: _____

Phone: 314-452-3815 Email : Gwinn, Ethan <Ethan.Gwinn@digcastle.com>

Review and Action

- ☒ Substitution approved – Make submittals in accordance with the Specifications.
- ☐ Substitution approved as noted – Make submittals in accordance with the Specifications.
- ☐ Substitution rejected – Use specified materials.
- ☐ Substitution received too late – Use specified materials.

Comments: _____

Signed by: Mark Davis, DMA Date: 5-10-2016

ADS SANITITE® HP 12" - 30" PIPE SPECIFICATION

Scope

This specification describes 12- through 30-inch (300 to 750 mm) ADS SaniTite HP pipe for use in gravity-flow sanitary sewer applications.

Pipe Requirements

ADS 12" – 30" (300 to 750mm) SaniTite HP pipe shall have a smooth interior and annular exterior corrugations.

- 12- through 30-inch (300 to 750 mm) pipe shall meet ASTM F2736
- 12- through 30-inch (300 to 750 mm) pipe shall have a minimum pipe stiffness of 46 pii when tested in accordance with ASTM D2412.
- Manning's "n" value for use in design shall be 0.012.

Joint Performance

Pipe shall be joined with a gasketed integral bell & spigot joint meeting the requirements of ASTM F2736.

12- through 30-inch (300 to 750 mm) shall be watertight according to the requirements of ASTM D3212.

Spigot shall have two gaskets meeting the requirements of ASTM F477. Gaskets shall be installed by the pipe manufacturer and covered with a removable, protective wrap to ensure the gaskets are free from debris. A joint lubricant available from the manufacturer shall be used on the gasket and bell during assembly.

12- through 30-inch (300 to 750 mm) diameters shall have a reinforced bell with a polymer composite band installed by the manufacturer.

Fittings

Fittings shall conform to ASTM F2736. Bell & spigot connections shall utilize a spun-on, welded or integral bell and spigot with gaskets meeting ASTM F477. Fitting joints shall meet the watertight joint performance requirements of ASTM D3212.

Field Pipe and Joint Performance

To assure watertightness, field performance verification may be accomplished by testing in accordance with ASTM F1417 or ASTM F2487. Appropriate safety precautions must be used when field-testing any pipe material. Contact the manufacturer for recommended leakage rates.

Material Properties

Polypropylene compound for pipe and fitting production shall be an impact modified copolymer meeting the material requirements of ASTM F2736, Section 4.

Installation

Installation shall be in accordance with ASTM D2321 and ADS recommended installation guidelines, with the exception that minimum cover in traffic areas for 12- through 30-inch (300 to 750 mm) diameters shall be one foot (0.3 m) in single run applications. Backfill for minimum cover situations shall consist of Class 1 or Class 2 (minimum 90% SPD) material. Maximum fill heights depend on embedment material and compaction level; please refer to Technical Note 2.05. Contact your local ADS representative or visit our website at www.ads-pipe.com for a copy of the latest installation guidelines.

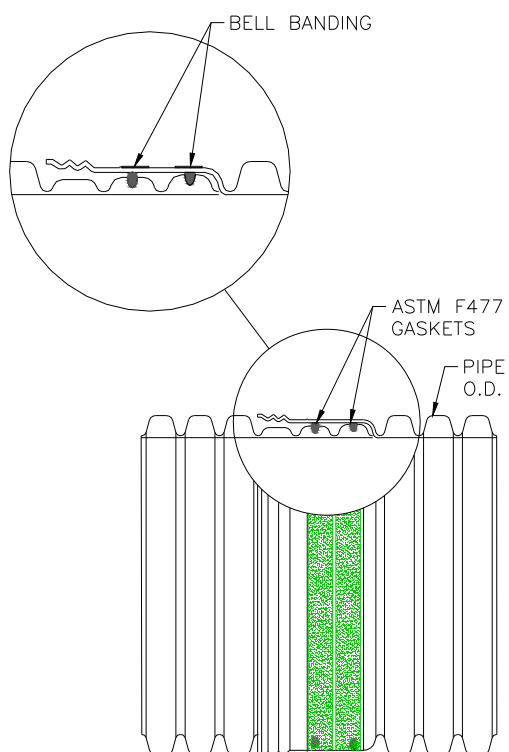
Pipe Dimensions

Nominal Diameter, in (mm)					
Pipe I.D. in (mm)	12 (300)	15 (375)	18 (450)	24 (600)	30 (750)
Pipe O.D. in (mm)	14.5 (368)	17.6 (447)	21.2 (538)	28.0 (711)	35.4 (899)
Minimum Pipe Stiffness @ 5% Deflection* #/in./in. (kN/m ²)	75 (520)	60 (411)	56 (385)	50 (343)	46 (320)

* Minimum pipe stiffness values listed; contact a representative for maximum values

SANITITE® HP 12" – 30" PIPE JOINT SYSTEM

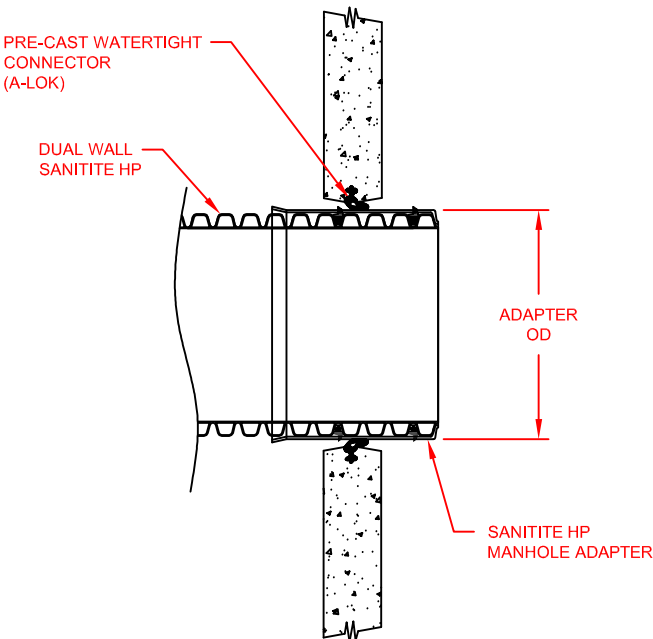
(Joint configuration & availability subject to change without notice. Product detail may differ slightly from actual product appearance.)



12"-24" DUAL WALL SANITITE HP
WATERTIGHT CONNECTION USING A
PRE-CAST COMPRESSION GASKET

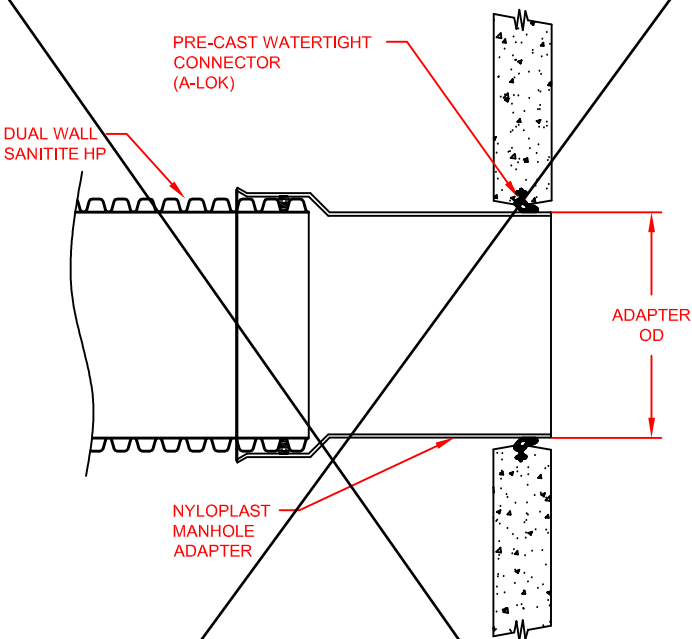
NOTES:
PERFORMANCE HIGHLY DEPENDENT ON INSTALLATION. CONTRACTOR
MUST ENSURE MANHOLE GASKET IS UNIFORMLY SEATED AROUND
STRUCTURE ADAPTER. EXTRA PRECAUTIONS MUST BE TAKEN TO PREVENT
DIFFERENTIAL SETTLEMENT BETWEEN THE PIPE AND MANHOLE.

SEE STANDARD DETAIL STD-201 AND TECHNICAL NOTE: 5.04 CONNECTIONS
TO MANHOLES AND STRUCTURES FOR INSTALLATION RECOMMENDATIONS.



SANITITE HP MANHOLE ADAPTER			
PIPE SIZE (IN)	ADAPTER OD (IN)	ADS ADAPTER PRODUCT CODES	A-LOK® PREMIUM *
12	15.3	1222AAPP	490
15	18.3	1522AAPP	580
18	22.0	1822AAPP	710
24	29.0	2422AAPP	915

* THIRD PARTY - CODES AS SUPPLIED BY MANUFACTURER
A-LOK is a registered trademark of A-LOK Products, Inc. (www.a-lok.com)



NYLOPLAST EXTENDED MANHOLE ADAPTER			
PIPE SIZE (IN)	ADAPTER OD (IN)	NYLOPLAST PRODUCT CODES	A-LOK® *
12	12.5	1257AGHPU2	410
15	15.3	1557AGHPU2	490
18	18.7	1857AGHPU2	610
24	24.8	2457AGHPU2	800

* THIRD PARTY - CODES AS SUPPLIED BY MANUFACTURER
A-LOK is a registered trademark of A-LOK Products, Inc. (www.a-lok.com)

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7	UPDATED INFO & REVISED GASKETS	TJR	10/11/13		
REV.	DESCRIPTION	BY	MM/DD/YY	CHK'D	
WATERTIGHT STRUCTURE 12"-24" SANITARY DETAIL					
DRAWING NUMBER: STD-205A					
 4640 TRUEMAN BLVD HILLIARD, OHIO 43026 ADVANCED DRAINAGE SYSTEMS, INC.					
DRAWN BY: JAB					
DATE: 4/3/09					
C'D BY:					
SCALE: NTS					
SHEET 1 OF 1					