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## Product Guide Specification

Specifier Notes: This product guide specification is written according to the Construction Specifications Institute (CSI) 3-Part Format, including *MasterFormat*, *SectionFormat*, and *PageFormat*, contained in the *CSI Manual of Practice*.

The section must be carefully reviewed and edited by the Architect to meet the requirements of the project and local building code. Coordinate this section with other specification sections and the Drawings.

Delete all "Specifier Notes" when editing this section.

### SECTION 02535

#### FLEXIBLE SADDLES

Specifier Notes: This section covers NDS flexible saddles. Consult NDS for assistance in editing this section for the specific application.

#### PART 1 GENERAL

##### 1.1 SECTION INCLUDES

- A. Flexible saddles.

##### 1.2 RELATED SECTIONS

Specifier Notes: Edit the following list of related sections as required for the project. Provide section numbers. List other sections with work directly related to this section.

- A. Section 02\_\_\_\_\_ - Excavation and Backfill.
- B. Section 02\_\_\_\_\_ - Sanitary Sewerage.

## 1.3 REFERENCES

Specifier Notes: List standards referenced in this section, complete with designations and titles. This article does not require compliance with standards, but is merely a listing of those used.

- A. ASTM D 395 - Standard Test Methods for Rubber Property--Compression Set.
- B. ASTM D 412 - Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers--Tension.
- C. ASTM D 471 - Standard Test Method for Rubber Property--Effect of Liquids.
- D. ASTM D 518 - Standard Test Method for Rubber Deterioration--Surface Cracking.
- E. ASTM D 543 - Standard Practices for Evaluating the Resistance of Plastics to Chemical Reagents.
- F. ASTM D 573 - Standard Test Method for Rubber-Deterioration in an Air Oven.
- G. ASTM D 624 - Standard Test Method for Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomers.
- H. ASTM D 746 - Standard Test Method for Brittleness Temperature of Plastics and Elastomers by Impact.
- I. ASTM D 1149 - Standard Test Method for Rubber Deterioration-Surface Ozone Cracking in a Chamber.
- J. ASTM D 2240 - Standard Test Method for Rubber Property--Durometer Hardness.

## 1.4 SUBMITTALS

- A. Comply with Section 01330 - Submittal Procedures.
- B. Product Data: Submit manufacturer's product data, including installation instructions.
- C. Warranty: Submit manufacturer's standard warranty.

## 1.5 DELIVERY, STORAGE, AND HANDLING

- A. Delivery: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.
- B. Storage: Store materials in clean, dry area in accordance with manufacturer's instructions.
- C. Handling: Protect materials during handling and installation to prevent damage.

## PART 2 PRODUCTS

### 2.1 MANUFACTURER

- A. NDS, Inc., 851 North Harvard Avenue, PO Box 339, Lindsay, California 93247. Toll Free (800) 726-1994. Toll Free Fax (800) 726-1998. Phone (559) 562-9888. Fax (559) 562-4488. Website www.ndspro.com. E-Mail nds@ndspro.com.

## 2.2 FLEXIBLE SADDLES

- A. Flexible Saddles: NDS flexible saddles.
- B. Material: Elastomeric PVC.
  - 1. Chemical Resistance, ASTM D 543.
    - a. 1N Sulfuric Acid: No weight loss.
    - b. 1N Hydrochloric Acid: No weight loss.
  - 2. Tensile Strength, ASTM D 412, Die C: 1,000 psi (7 MPa) minimum.
    - a. Elongation at Break: 200 percent minimum.
  - 3. Hardness, ASTM D 2240, Shore Durometer: 50 to 75.
  - 4. Compression Set, ASTM D 395, Method B, Type 2: Maximum 30 percent of original deflection.
  - 5. Water Absorption, ASTM D 471, Immersed 7 Days at 158 Degrees F, Method A: 5 percent maximum.
  - 6. Ozone Resistance, ASTM D 1149 and D 518, Method A: No visible cracking under 7x magnification.
  - 7. Oven Aging, ASTM D 573, 158 Degrees F for 70 Hours:
    - a. Minimum 75 percent of original tensile strength.
    - b. Minimum 65 percent of original elongation.
  - 8. Cold Brittleness, ASTM D 746: Minus 43 degrees C.
  - 9. Tear Strength, ASTM D 624, Die C: 125 pounds per inch.

Specifier Notes: Specify flexible saddles required for the specific application. Delete saddles not required.

- C. 4-Inch Tees with Clamps: Part Number 4T/C.
- D. 4-Inch Tees without Clamps: Part Number 4T/WOC.
- E. 4-Inch Wyes with Clamps: Part Number 4Y/C.
- F. 4-Inch Wyes without Clamps: Part Number 4Y/WOC.
- G. 6-Inch Tees with Clamps: Part Number 6T/C.
- H. 6-Inch Tees without Clamps: Part Number 6T/WOC.
- I. 6-Inch Wyes with Clamps: Part Number 6Y/C.
- J. 6-Inch Wyes without Clamps: Part Number 6Y/WOC.

## **2.3 SADDLE CLAMPS**

- A. Clamp for Flexible Coupling:
  - 1. Part Number: 33S248 CLAMP.
  - 2. Material: Stainless steel, Series 300.

## **PART 3 EXECUTION**

### **3.1 EXAMINATION**

- A. Examine pipe to receive flexible saddles. Notify Architect if pipe is not acceptable. Do not begin installation until unacceptable conditions have been corrected.

### **3.2 INSTALLATION**

- A. Install flexible saddles in accordance with manufacturer's instructions at locations indicated on the Drawings.
- B. Tighten saddle clamps to a minimum of 60 inch-pounds torque.

**END OF SECTION**