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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 02934

### ROOT BARRIER PANELS

Specifier Notes: This section covers NDS "Shawtown™ EP Series" root barrier panels. Consult NDS for assistance in editing this section for the specific application.

#### PART 1 GENERAL

##### 1.1 SECTION INCLUDES

- A. Root barrier panels.

##### 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\_\_\_\_\_ - Trees.

### 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 256 - Standard Test Methods for Determining the Izod Pendulum Impact Resistance of Plastics.
- B. ASTM D 638 - Standard Test Method for Tensile Properties of Plastics.
- C. ASTM D 785 - Standard Test Method for Rockwell Hardness of Plastics and Electrical Insulating Materials.
- D. ASTM D 790 - Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials.

### 1.4 SUBMITTALS

- A. Comply with Section 01330 - Submittal Procedures.
- B. Product Data: Submit manufacturer's product data, including installation instructions.
- C. Samples: Submit manufacturer's 6-inch by 6-inch sample of root barrier panels.
- D. 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 protected from weather in accordance with manufacturer's instructions. Do not store materials in direct sunlight.
- 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](http://www.ndspro.com). E-Mail [nds@ndspro.com](mailto:nds@ndspro.com).

### 2.2 ROOT BARRIER PANELS

- A. Root Barrier Panels: Shawtown EP Series root barrier panels.

Specifier Notes: Specify required root barrier panel. Delete panels not required.

1. 12-Inch High by 24-Inch Long EP Panel: Part Number EP-1250.
2. 18-Inch High by 24-Inch Long EP Panel: Part Number EP-1850.
3. 24-Inch High by 24-Inch Long EP Panel: Part Number EP-2450.
4. 36-Inch High by 24-Inch Long EP Panel: Part Number EP-3650.

**B. Modular Panel Description:**

1. Material: Up to 100 percent post-consumer, high-impact polypropylene (HIPP) with UV inhibitor.
2. Thickness: Minimum 0.090 inch.
3. Joiner Strips: Factory-installed, independent, interlocking, joiner strips.
4. Reinforcing Ribs: 1/2-inch deep, raised vertical ribs running perpendicular to panel, 6 inches on center.
5. Top Edge: 3/8-inch wide, T-shape top edge.
6. Base Flange: 1/8-inch wide, external ground anchoring base flange.
7. Color: Black.

**C. Physical Properties:**

1. Tensile Stress, ASTM D 638: 3,600 psi to 4,200 psi.
2. Yield Elongation, ASTM D 638: 12 percent.
3. Flexural Modulus, ASTM D 790: 150,000 psi.
4. Notched Izod Impact, ASTM D 256: 3.0 psi at 73 degrees F.
5. Rockwell Hardness, ASTM D 785: R70.

## **PART 3 EXECUTION**

### **3.1 EXAMINATION**

- A. Examine areas to receive root barrier panels. Notify Architect if areas are not acceptable. Do not begin installation until unacceptable conditions have been corrected.

### **3.2 INSTALLATION**

- A. Install root barrier panels in accordance with manufacturer's instructions at locations indicated on the Drawings.

Specifier Notes: Specify linear/root pruning or surround application. Delete application not required.

- B. Linear/Root Pruning Application: Place root barrier panels directly adjacent to hardscape being protected.
- C. Surround Application: Place root barrier panels around root ball, at sufficient distance to allow proper backfill.
- D. Do not allow roots to circle or grow over top of root barrier panels.

**END OF SECTION**