

ITEM 459

TIMBER BENTS

459.1 This section includes the requirements for providing and installing timber bents on outfall pipes.

459.2 References.

- ASTM A153, "Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware"
- ASTM A307, "Standard Specification for Carbon Steel Bolts and Studs, 60 000 PSI Tensile Strength"
- AWPA U1, "Use Category System: User Specification for Treated Wood"
- ANSI 05.1, "American National Standard for Wood Poles – Specification and Dimensions"
- SPIB Section 300, "National Grading Rule Book for Dimensional Lumber"

459.3 Materials.

A. Timber Piles

1. Provide southern pine wood poles for use as timber bent piles that meet the requirements of ANSI 05.01. Minimum diameter at the pile tip shall be not less than 8 inches.
2. Provide southern pine wood poles that are pressure preservative treated in accordance with the requirements of AWPA Use Category 5C.

B. Timber Members.

1. Provide southern pine timber members meeting SPIB Section 300, National Grading Rule for Dimensioned Lumber, SEL STR Grade No. 2 or better.
2. Provide pressure preservative members treated per the requirements of AWPA Use Category 5C.

C. Hardware.

1. Provide bolts conforming to ASTM A307.
2. Provide hot dipped galvanized hardware in accordance with ASTM A153.

459.4 Installation.

A. Drive piles to the depth shown on the drawings.

B. Drill holes no more than 3/16 inch larger in diameter than the bolts being used. Drill holes straight and true. Drill bolt holes in center of the pile and timber member. Use washers under

bolt head and nut to prevent direct bearing of head or nut on wood.

459.5 Certification. All shipments shall include certification from the appropriate wood treatments plant. This certificate shall also state that all samples representing each lot have been tested and inspected in accordance with American Wood Preservers' Association Standard M2, "Inspection of Treated Products" and have been found to meet the requirements of applicable American Wood Preservers' Association standards for wood treatment for its intended use.

459.6 Measurement and Payment.  
Timber bents shall be measured per each of the size of pipe installed.

Payment for timber bent shall be per each per bid price. The price shall include all material, labor and equipment necessary for excavation and any incidentals necessary for complete installation.

There are line code(s), description(s) and unit(s) for this item.

END OF ITEM 459