

## SECTION 0210

### PIPE MARKING, DETECTION TAPE AND TRACER WIRE

#### 0210.0100 GENERAL

**0210.0101 Description of Work.** The work under this section shall consist of furnishing all labor, materials and equipment necessary for providing and installing pipe marking tape, pipe detection tape and tracer wire in accordance with the requirements of these specifications.

**0210.0104 Delivery, Storage, and Handling.** Pipe marking tape, pipe detection tape and tracer wire shall be delivered to the site, stored, and handled in accordance with the manufacturer's instructions except as modified by the plans, special specifications, or as directed by the Engineer.

Pipe marking tape, pipe detection tape and tracer wire shall be stored in a manner such that it is protected from prolonged exposure to sunlight and/or extreme heat.

#### 0210.0300 EXECUTION

##### 0210.0301 General.

(A) **Reclaimed Water Marking Tape.** Underground pipe marking tape shall consist of a minimum 4.0 mil thickness, inert polyethylene plastic which is impervious to all known alkalis, acids, chemical reagents and solvents likely to be encountered in the soil. The tape width shall be equal to the diameter of the pipe for mainlines and 3 inches for service lines. All locating and marking tape shall be Seymore Safety purple in color. The tape shall have printed thereon the following:

“CAUTION NON-POTABLE WATERLINE: CONTACT TUCSON WATER”

Tape shall be imprinted continuously over the entire length in permanent black lettering. The lettering shall be a minimum 1 inch high. In no instance shall the spacing of the individual segment of the identifying message be greater than eight inches (8”). The marking tape shall be installed on all reclaimed pipelines and service lines. It shall be laid directly on top of the pipe along the pipe centerline and shall be permanently affixed by wrapping the pipe circumference with 10 mil. PVC pipe tape at no greater than 4 feet intervals along the pipeline. IF purple pipe is used or if ductile iron is encased with purple polyethylene, marking tape does not have to be installed. (SD 116, SD 309).

(B) **Potable Water Detectable Pipe Locating Tape.** After the trench is backfilled per applicable Standard and/or Special Specification to within 18 inches of the finished grade the contractor shall install a detectable pipe locating tape over all water mains. The backfill shall be sufficiently leveled so that the tape will be installed on a flat surface. The tape shall be centered in the trench and laid flat with printed side up. Caution shall be exercised to avoid displacement of tape and to ensure its integrity. Service laterals will require detectable tape and tracer wire (SD 309, 310, 311, 312).

The remainder of the trench is then backfilled in accordance with applicable standard and special specifications.

The tape shall consist of a minimum 4.0 mil thickness, inert polyethylene plastic which is impervious to all known alkalis, acids, chemical reagents and solvents likely to be encountered in the soil, with a minimum 1/3-mil metallic foil. The tape shall be at least six inches (6”) in width and shall be solid blue with identifying print in black letters. The tape shall have printed thereon the following:

## SECTION 0210

### “CAUTION - BURIED WATERLINE BELOW”

The identifying lettering shall be minimum 1 inch high and repeated continuously the full length of the tape. In no instance shall the spacing of the individual segment of the identifying message be greater than eight inches (8”).

(C) **Reclaimed Water Detectable Pipe Locating Tape.** After the trench is backfilled per applicable Standard and/or Special Specifications to within 18 inches of the finished grade the contractor shall install a detectable pipe locating tape over all reclaimed water mains. The backfill shall be sufficiently leveled so that the tape will be installed on a flat surface. The tape shall be centered in the trench and laid flat with printed side up. Caution shall be exercised to avoid displacement of tape and to ensure its integrity. The tape shall consist of a minimum 4.0 mil thickness, inert polyethylene plastic which is impervious to all known alkalis, acids, chemical reagents and solvents likely to be encountered in the soil, with a minimum 1/3-mil metallic foil. The tape shall be at least six inches (6”) in width and shall be Seymore Safety purple in color with identifying print in black letters. The tape shall have printed thereon the following:

“CAUTION NON-POTABLE WATERLINE: CONTACT TUCSON WATER”

The identifying lettering shall be 1 inch high and repeated continuously the full length of the tape. In no instance shall the spacing of the individual segment of the identifying message be greater than eight inches (8”). The remainder of the trench shall then be backfilled and compacted per applicable Standard and/or Special Specification.

(D) **Tracer Wire.** All waterlines and appurtenances, both potable and reclaimed, require the installation of tracer wire in accordance with SD-116.