APPENDICES

RFID Tag Parameters for use on Plastic Pipe

Dimensions: Must be a minimum size of 4.5"x 1"x .017", with the option of being larger.

Material: .002'thick Polyester; total tag thickness to be .017"

Label Copy: The label copy will include block type lettering, your company name & state ID and your company logo. All copy, block type lettering, company name & state ID, your company logo and bar code are subsurface printed. This unique process provides excellent resistance to solvents, caustics, acids and moderate abrasion.

Colors: Color of ink must be black on white background. This is due to the required contrast needed for the bar code scanner to properly read the tags information.

Serialization: Bar code and human-readable equivalent shall be subsurface printed. Code 128 in 24-character hexadecimal format shall be utilized. A QR Code linking to the NCDOT vendor apps web lookup shall be subsurface printed on the label.

Numbering Scheme: 24 character numbering scheme will be utilized as follows.
AA00xx000000002000000000
The first six digits identify the material and state assigned plant id (insert plant id here xx)
AA will identify polyethylene pipe while AB will identify polypropylene pipe.
Numbering will start with a 2 in the billions position to prevent duplication of numbers across products.

RFID inlay: The inlay shall be Alien Squiggle or comparable UHF passive inlay.

Frequency Range: 860-960 MHz

Read Range: Tag shall have a minimum read range of 18-36ft. with a reader at 24 dbm (1/4 of maximum reader power)

Adhesion: Adhesives shall be non-proprietary and have a minimum of a 2 year above ground life span while being subjected to the various natural elements. Including but not limited to UV exposure, wind, rain, snow, heat.

Tag Proof: (M&T) must approve the tag design and type prior to producer placing an order for the tags from any vendor. This will include an image of the tag and a copy of the tag specifications.

Tag Example: