SECTION 400553 - IDENTIFICATION FOR PROCESS PIPING

Note that this section has only been edited for NYSOGS standardization and has not been technically edited. The designer shall make all technical edits specific to the project for this section.

This Section specifies nameplates, labeling, and identification methods for process piping, valves, and accessories.

1. GENERAL
   * + 1. SUMMARY
          1. Section Includes:

Nameplates.

Tags.

Stencils.

Pipe markers.

Ceiling tacks.

Labels.

Lockout devices.

* + - * 1. Related Requirements:

List other Sections directly related to or affecting Work of this Section. Include Sections specifying information expected to be found in this Section as well as Sections required to describe complete system or assembly requirements.

Section 400551 - Common Requirements for Process Valves: Basic materials and methods for valves.

* + - 1. REFERENCE STANDARDS

List reference standards included within text of this Section, with designations, numbers, and complete document titles.

LEED requires compliance with specific editions of referenced standards.

* + - * 1. ASME International:

ASME A13.1 - Scheme for the Identification of Piping Systems.

* + - 1. PREINSTALLATION MEETINGS
         1. Convene minimum [**one week**] [**<\_\_\_\_\_\_\_\_> weeks**] prior to commencing Work of this Section.
      2. SUBMITTALS

Only request submittals needed to verify compliance with Project requirements.

* + - * 1. Submittals for this section are subject to the re-evaluation fee identified in Article 4 of the General Conditions.
        2. Manufacturer’s installation instructions shall be provided along with product data.
        3. Submittals shall be provided in the order in which they are specified and tabbed (for combined submittals).
        4. Product Data: Submit manufacturer's catalog literature for each specified product.
        5. Shop Drawings:

Indicate list of wording, symbols, letter size, and color-coding for mechanical identification and valve chart and schedule.

Indicate valve tag number, location, function, and valve manufacturer's name and model number.

Include following Paragraph to submit physical samples to select finish, color, texture, and other properties.

* + - * 1. Samples: Submit [**two**] <**\_\_\_\_\_\_\_\_**> [**tags**] [**labels**] [**pipe markers**] [**and**] <**\_\_\_\_\_\_\_\_**> for each size to be used on Project.
        2. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.

Include separate Paragraphs for additional certifications.

* + - * 1. Manufacturer Instructions: Submit detailed instructions on installation requirements, including storage and handling procedures.
        2. Qualifications Statement:

Coordinate following Subparagraph with requirements specified in QUALIFICATIONS Article.

Submit qualifications for manufacturer.

* + - 1. SUSTAINABLE DESIGN SUBMITTALS
         1. Manufacturer's Certificate:

Certify that products meet or exceed specified sustainable design requirements.

Insert material certifications list below to suit products specified in this Section and Project sustainable design requirements. Specific certificate submittal and supporting data requirements are specified in Section 018113.

Materials Resources Certificates:

Certify source and origin for [**salvaged**] [**and**] [**reused**] products.

Certify recycled material content for recycled content products.

Certify source for regional materials and distance from Project Site.

* + - * 1. Product Cost Data:

Submit cost of products to verify compliance with Project sustainable design requirements.

Exclude cost of labor and equipment to install products.

Provide cost data for following products:

Edit list of material cost data below to suit products specified in this Section and Project sustainable design requirements. Specific cost data requirements are specified in Section 018113.

Salvaged, refurbished, and reused products.

Products with recycled material content.

Regional products.

<**\_\_\_\_\_\_\_\_**>.

* + - 1. CLOSEOUT SUBMITTALS
         1. Project Record Documents: Record actual locations of tagged valves; include valve tag numbers.
      2. MAINTENANCE MATERIAL SUBMITTALS
         1. Extra Stock Materials: Furnish [**two**] <**\_\_\_\_\_\_\_\_**> [**containers of spray-on adhesive**] <**\_\_\_\_\_\_\_\_**>.
         2. Tools: Furnish special [**crimpers**] <**\_\_\_\_\_\_\_\_**> and other devices required for Director’s Representative to reinstall tags.
      3. QUALITY ASSURANCE

Include this Article to specify compliance with overall reference standards affecting products and installation included in this Section.

* + - * 1. Piping Color Scheme and Lettering Size: Comply with ASME A13.1.

In following Paragraph insert "State of New York Department of Transportation," "Municipality of \_\_\_\_\_\_\_\_ Department of Public Works," or other agency as appropriate.

* + - * 1. Perform Work according to <**\_\_\_\_\_\_\_\_**> standards.

Include following Paragraph only when cost of acquiring specified standards is justified.

* + - * 1. Maintain <**\_\_\_\_\_\_\_\_**> [**copy**] [**copies**] of each standard affecting Work of this Section on Site.
      1. QUALIFICATIONS

Coordinate following Paragraphs with requirements specified in SUBMITTALS Article.

* + - * 1. Manufacturer: Company specializing in manufacturing products specified in this Section with minimum [**three**] <**\_\_\_\_\_\_\_\_**> years' [**documented**] experience.
      1. DELIVERY, STORAGE, AND HANDLING
         1. Inspection: Accept materials on Site in manufacturer's original packaging and inspect for damage.
         2. Store materials according to manufacturer instructions.
         3. Protection:

Protect materials from moisture and dust by storing in clean, dry location remote from construction operations areas.

Provide additional protection according to manufacturer instructions.

1. PRODUCTS
   * + 1. NAMEPLATES

designer to provide two manufacturers and approved equivalent for all listed products.

\*\*\*\*\*\* [OR] \*\*\*\*\*\*

In following Subparagraph insert "State of New York Department of Transportation," "Municipality of \_\_\_\_\_\_\_\_ Department of Public Works," or other agency as appropriate.

Furnish materials according to <**\_\_\_\_\_\_\_\_**> standards.

* + - * 1. Description: Laminated three-layer plastic with engraved [**black**] <**\_\_\_\_\_\_\_\_**> letters on light, contrasting background color.
      1. TAGS
         1. Plastic Tags:

designer to provide two manufacturers and approved equivalent for all listed products.

Description:

Laminated three-layer plastic with engraved [**black**] <**\_\_\_\_\_\_\_\_**> letters on light, contrasting background color.

Minimum Tag Size and Configuration: 1-1/2 inches; [**diameter**] [**square**] <**\_\_\_\_\_\_\_\_**>.

* + - * 1. Metal Tags:

designer to provide two manufacturers and approved equivalent for all listed products.

Description:

[**Brass**] [**Aluminum**] [**Stainless-steel**] <**\_\_\_\_\_\_\_\_**> construction; stamped letters.

Minimum Tag Size and Configuration: 1-1/2 inches; [**diameter**] [**square**] <**\_\_\_\_\_\_\_\_**> with finished edges.

* + - * 1. Information Tags:

designer to provide two manufacturers and approved equivalent for all listed products.

Description:

Clear plastic with printed text [**DANGER**] [**CAUTION**] [**WARNING**] <**\_\_\_\_\_\_\_\_**> [**and message consisting of <\_\_\_\_\_\_\_\_>**].

Minimum Tag Size: 3-1/4 by 5-5/8 inches

Furnish grommet and self-locking nylon ties.

Tag Chart: Typewritten, letter-size list of applied tags and location, [**in anodized aluminum frame**] [**plastic laminated**].

* + - 1. STENCILS
         1. [Manufacturers](http://www.specagent.com/LookUp/?ulid=7994&mf=04&src=wd):

designer to provide two manufacturers and approved equivalent for all listed products.

\*\*\*\*\*\* [OR] \*\*\*\*\*\*

In following Subparagraph insert "State of New York Department of Transportation," "Municipality of \_\_\_\_\_\_\_\_ Department of Public Works," or other agency as appropriate.

Furnish materials according to <**\_\_\_\_\_\_\_\_**> standards.

* + - * 1. Description:

Quality: Clean-cut symbols.

Letters:

Up to 2-Inch OD of Insulation or Pipe: 1/2-inch- high letters.

2-1/2- to 6-Inch OD of Insulation or Pipe: 1-inch- high letters.

More Than 6-Inch OD of Insulation or Pipe: [**1-3/4-inch**] [**<\_\_\_\_\_\_\_\_>-inch-** ] high letters.

* + - * 1. Stencil Paint:

Description: Semigloss enamel.

* + - 1. PIPE MARKERS
         1. Plastic Pipe Markers:

[Manufacturers](http://www.specagent.com/LookUp/?ulid=7995&mf=04&src=wd):

designer to provide two manufacturers and approved equivalent for all listed products.

Description:

Factory-fabricated, flexible, and semi-rigid plastic.

Preformed to fit around pipe or pipe covering.

Larger sizes may be of maximum sheet size, with spring fastener.

* + - * 1. Plastic Tape Pipe Markers:

[Manufacturers](http://www.specagent.com/LookUp/?ulid=7996&mf=04&src=wd):

designer to provide two manufacturers and approved equivalent for all listed products.

Description: Flexible, vinyl film tape with pressure-sensitive adhesive backing and printed markings.

* + - * 1. Plastic Underground Pipe Markers:

[Manufacturers](http://www.specagent.com/LookUp/?ulid=7943&mf=04&src=wd):

designer to provide two manufacturers and approved equivalent for all listed products.

Description:

Brightly colored, continuously printed plastic ribbon tape.

Minimum Size: 6 inches wide by 4 mils) thick.

Manufactured for direct burial service.

* + - 1. CEILING TACKS
         1. [Manufacturers](http://www.specagent.com/LookUp/?ulid=7997&mf=04&src=wd):

designer to provide two manufacturers and approved equivalent for all listed products.

\*\*\*\*\*\* [OR] \*\*\*\*\*\*

In following Subparagraph insert "State of New York Department of Transportation," "Municipality of \_\_\_\_\_\_\_\_ Department of Public Works," or other agency as appropriate.

Furnish materials according to <**\_\_\_\_\_\_\_\_**> standards.

* + - * 1. Description:

Material: Steel.

Head:

Color-coded.

Diameter: 3/4 inch.

* + - 1. LABELS
         1. [Manufacturers](http://www.specagent.com/LookUp/?ulid=7998&mf=04&src=wd):

designer to provide two manufacturers and approved equivalent for all listed products.

\*\*\*\*\*\* [OR] \*\*\*\*\*\*

In following Subparagraph insert "State of New York Department of Transportation," "Municipality of \_\_\_\_\_\_\_\_ Department of Public Works," or other agency as appropriate.

Furnish materials according to <**\_\_\_\_\_\_\_\_**> standards.

* + - * 1. Description:

Material: [**Aluminum**] [**Polyester**] [**Laminated Mylar**] <**\_\_\_\_\_\_\_\_**>.

Minimum Size: 1.9 by 0.75 inches.

Adhesive backed, with printed identification [**and bar code**].

* + - 1. LOCKOUT DEVICES
         1. Lockout Hasps:

[Manufacturers](http://www.specagent.com/LookUp/?ulid=7999&mf=04&src=wd):

designer to provide two manufacturers and approved equivalent for all listed products.

Description:

Material: [**Anodized aluminum**] [**Reinforced nylon**] <**\_\_\_\_\_\_\_\_**>.

Furnish hasp with erasable label surface.

Minimum Size: 7-1/4 by 3 inches.

* + - * 1. Valve Lockout Devices:

[Manufacturers](http://www.specagent.com/LookUp/?ulid=8000&mf=04&src=wd):

designer to provide two manufacturers and approved equivalent for all listed products.

Description:

Material: [**Nylon**] [**Steel**] [**Plastic**] <**\_\_\_\_\_\_\_\_**>.

Furnish device to restrict access to valve operator and to accept lock shackle.

* + - 1. SUSTAINABILITY CHARACTERISTICS

Insert sustainable design characteristics in this Article to suit content of this Section and Project sustainable design requirements as specified in Section 018113.

* + - * 1. Section 018113 – LEED Documentation Requirements: Requirements for sustainable design compliance.
        2. Material and Resource Characteristics:

Recycled Content Materials: Furnish materials with maximum available recycled content [**including:**] [**.**]

Insert list of materials specified in this Section required to have recycled content.

<**\_\_\_\_\_\_\_\_**>.

Regional Materials: Furnish materials extracted, processed, and manufactured within 500 miles of Project Site [**including:**] [**.**]

Insert list of materials specified in this Section required to be regional materials.

<**\_\_\_\_\_\_\_\_**>.

1. EXECUTION
   * + 1. PREPARATION
          1. Degrease and clean surfaces to receive adhesive for identification materials.
       2. INSTALLATION
          1. According to manufacturer instructions.
          2. Install identifying devices after completion of coverings and painting.
          3. Install plastic nameplates with corrosion-resistant mechanical fasteners or adhesive.
          4. Labels:

Install labels with sufficient adhesive for permanent adhesion and seal with clear lacquer.

For unfinished covering, apply paint primer before applying labels.

* + - * 1. Tags:

Identify valves in main and branch piping with tags.

Install tags using corrosion-resistant chain.

Number tags [**consecutively by location**] [**as indicated in tag schedule**].

* + - * 1. Install underground plastic pipe markers 6 to 8 inches below finished grade, directly above buried pipe.
        2. Piping:

Identify piping, concealed or exposed, with [**plastic pipe markers**] [**plastic tape pipe markers**] [**stenciled painting**].

[**Use tags on piping 3/4-inch diameter and smaller.**]

Identify service, flow direction, and pressure.

Install in clear view and align with axis of piping.

Locate identification not to exceed 20 feet on straight runs, including risers and drops, adjacent to each valve and tee, at each side of penetration of structure or enclosure, and at each obstruction.

* + - * 1. Ceiling Tacks:

Provide ceiling tacks to locate valves above T-bar-type panel ceilings.

Locate in corner of ceiling panel closest to equipment.

* + - 1. ATTACHMENTS

When relying on separate schedules, tables, illustrations, or forms to specify product requirements, include list of each attachment. Include identical list of attachments in Project Manual table of contents.

Insert attachments following END OF SECTION. Consider following examples when developing Project schedule.

* + - * 1. Valve Tag Schedule:

Tag Number: PRV-1.

Location: West Pipe Gallery.

Function: Pressure reducing.

Manufacturer: Flomatic.

Model Number: C101.

END OF SECTION 400553