



Standard Drawing Report

Date: August 9, 2023

Technical Owner: Traffic – Jennifer Ruth Tower, P.E.

Standard Drawing No. P-420 **Calculation Book No.** n/a

Drawing Title: Street Name Sign Detail



Expires 6/30/24

Original Report Date: October 3, 2017

Background Information, Including Reference Material:

Street name signs provide people using all modes of transportation information to help navigate the road network. Street name signs also provide location information for people reporting incidents to emergency responders. The MUTCD Section 2D.43 provides general rules and recommendations regarding how street name signs should be designed.

Assumption Made:

Standard drawing P-420 describes the size and positioning of words, numbers and the City's rose logo for street name signs on City maintained streets.

Design Narrative:

MUTCD Section 2D.43, Table 2D-2 recommends a minimum letter height of 12 inches for the initial upper-case letter on overhead street name signs; however, PBOT has found that an 8-inch letter height is most appropriate for overhead mounting on City streets. The 8-inch letter height (16-inch-tall sign blank) for overhead street name signs was first used on the Interstate MAX project. A 2006 email from Dave Hutson in the City's maintenance group to Rob Burchfield, City Traffic Engineer, confirmed that there were no issues with the 16-inch tall overhead signs used on the Interstate MAX project and also stated, "We piloted an overhead street name sign using just 10" letters (18" blank) and it proved to be too large to fit amongst the signal hardware... MUTCD recommendations notwithstanding, I believe a 12" letter height is unrealistic as it cascades a multitude of other problems (cost of fabrication, cost of installation, finding room for it)."

PBOT developed the letter heights for the initial upper-case letter on ground mounted street name signs based on the maximum sign lengths that can be supported with City standard ground mount hardware. The PBOT letter heights are generally smaller than the MUTCD recommendations. MUTCD Section 2D.43, Table 2D-2 recommends the following minimum letter heights for the initial upper-case letter on ground mounted street name signs:

- 8 inches on multi-lane streets with speed limits greater than 40mph. (PBOT uses 6 inches)
- 6 inches on multi-lane streets with speed limits of 40mph or less. (PBOT uses 4 inches)
- 6 inches on two-lane streets with speed limits greater than 25mph. (PBOT uses 4 inches)
- 4 inches on local two-lane streets with speed limits of 25 mph or less. (PBOT uses 4 inches)

The City's Rose logo is used on all overhead street name signs but not on ground mounted street name signs. The Rose logo was first designed for use on "Entering Portland" guide signs (City sign code G5011) in 1997, and then began to be used on overhead street name signs shortly thereafter.

In 2009 the street name sign standard drawing was updated to include mixed case lettering instead of all upper-case lettering and included Clearview font instead of FHWA font. In 2017 the drawing was modified to change the font from Clearview back to FHWA font, but the mixed case lettering was retained.

Mixed case lettering became a shall condition in the 2009 MUTCD, Section 2D.43.

Clearview font was granted an FHWA interim approval for use on guide signs in 2004, but the interim approval was revoked by FHWA in 2016. Clearview font was developed to provide better legibility without increasing the capital letter height and overall length of signs. However, further research has shown the legibility difference of Clearview vs. FHWA font to be inconsistent. Additional information regarding research on Clearview font vs. FHWA font can be found on the FHWA interim approval website.

The following is a list of the revisions that were made for the September 9, 2022 drawing:

- 1) Reworded and reorganized notes to match Standard Drawing P-421.
- 2) Corrected the prefix for "Lovejoy St" from "NW" to "NE".
- 3) Replaced sign type information with sheeting information to agree with the 2020 City of Portland Standard Construction Specifications.