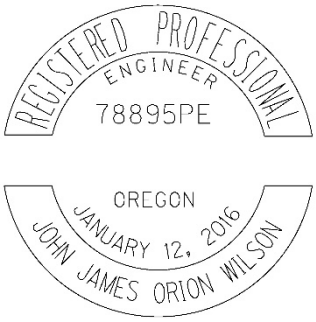
Standard Drawing Report

Date: October 3, 2022

Technical Owner: Civil – John Wilson, PE

Standard Drawing No. P-549 **Calculation Book No.** n/a

Drawing Title: Concrete Gutter at Curb Ramps and Transition Panels



Expires 06/30/2024

Background Information, Including Reference Material:

This drawing replaces an obsolete standard drawing, Midblock Sidewalk Ramp with Concrete Gutter, which replicated P-547. The curb and gutter transition details were moved to P-544.

The 24" Concrete Gutter at Curb Ramps detail originated on P-544, and is based on the FHWA publication Designing Sidewalks and Trails for Access section 7.3.7, Change of grade.

The Transition Panels detail is based on the Sidewalk and Curb Ramp Transition Panels detail on ODOT Standard Drawing RD722.

Assumption Made:

The drawing meets 2010 ADA Standards and FHWA guidelines. The drawing is used with the City of Portland Standard Construction Specifications. No major assumptions were made.

Design Narrative:

Section 7.3.7 of the FHWA publication Designing Sidewalks and Trails for Access specifies that an algebraic grade difference no greater than 11 percent is required to prevent portions of mobility devices from impacting the surface of the pedestrian route. The 24" concrete gutter detail is typically required on curb ramp retrofit projects where existing streets have been overlaid and include a parabolic cross section with grades that exceed 5%. A gutter width of 24 inches provides the minimum width to establish a new grade and minimizes change to gutter vertical alignment to maintain existing street drainage patterns. The pavement restoration shown is a transitional segment connecting the ADA-compliant curb ramp to the existing street.

Transition panels are transitional segments that connect ADA-compliant ramps and sidewalks to existing unaltered segments of pedestrian circulation paths. Transition panels comply with ADA Standards for pedestrian access routes to the extent practicable. Transition panels may transition both horizontal width and

cross slope vertical components. A transition panel is not limited to a single sidewalk panel square but may be multiple squares as required to do the transition. The transition panel is always adjacent to the existing sidewalk.

Transition panels adjacent to combination curb ramps on sites with steep terrain will be part of the parallel curb ramp run. In these cases, the portion of the parallel ramp run in outside of the ramp flare may transition the cross slope with values exceeding 2%. Note 7 also clarifies in these situations that the ramp run length should measure at least 15 feet when the running slope exceeds 8.3%.

Update: March 29, 2022

24" Concrete Gutter at Curb Ramp -
A leader line was removed to clarify that the 11% maximum grade break shown in the applies at the grade break at the gutter flow line. Dimensions were added to clarify how to transition the 7" thick gutter pan to the sidewalk. Note 3 was added to reduce the counterslope and minimize grade breaks as practicable.

Transition Panels -
The detail was added for curb ramp retrofit projects to simplify standard drawings P-547 and P-548.