


# PBOT

PORTLAND BUREAU OF TRANSPORTATION

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## CITY TRAFFIC ENGINEER DIRECTIVE

Number	Supersedes	Effective Date	Cancellation Date
WC 004		March 11, 2024	
Subject		Issuer	
Use of Temporary Materials for Transportation Infrastructure on Quick Build and Capital Improvement Projects		 Wendy Cawley, P.E. City Traffic Engineer	

### PURPOSE:

Provide guidance for the use of specific temporary materials for construction of transportation infrastructure. This Directive is applicable on all PBOT Quick Build (QB) and Capital Improvement Projects (CIP) that have yet to reach 60% design as of the date of this directive.

### BACKGROUND:

The number of temporary materials used for transportation infrastructure in Portland is growing. For the purposes of this directive, temporary material refers to the following materials that are used in lieu of concrete curb, concrete separators, concrete islands, concrete diverters embedded/doweled into the roadway, or steel pipe signposts with footings, such as:

- Plastic curbing (e.g. Tuff Curb)
- Tubular markers, except when used to delineate hazards or vertical features including curbs, islands, and separators
- Concrete sewer rings
- Planters
- “Paint and post” installations – a combination of striping and tubular markers
- Parking stops

This directive does not address:

- Rubber bumps for left turn calming, which have been adopted as a standard PBOT treatment
- Tubular markers delineating median islands/transit boarding islands, concrete traffic separators, or other permanent infrastructure that requires delineation
- Parking stops for bike corrals
- Modular platforms, such as Zicla

Temporary materials require more maintenance than permanent infrastructure when left in the field for long periods of time. PBOT is facing a fifth year of budget cuts and cannot afford to reliably maintain temporary



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materials/infrastructure at the current level of usage. Additionally, the aesthetics of temporary materials do not support the vision for Portland that City Leadership and Portlanders have.

This Directive provides:

1. Guidelines for use of temporary materials on QB and CIP projects
2. Alternatives to temporary materials for permanent infrastructure
3. Guidance for existing temporary materials

## **DIRECTIVE:**

### **1. Guidelines for Use of Temporary Materials on Quick Build and CIP projects**

Use of temporary materials for permanent infrastructure on QB and CIP plans will require a design exception from the City Traffic Engineer or their designee, except for the following:

- a. Pilot projects, which must have concurrence from Maintenance Operations, have an end date, and have funding to maintain materials during the pilot and for removal or upgrade of temporary materials at the end of the pilot.
- b. On structures where permanent features cannot be attached to the structure. Temporary materials used for these types of installations will be considered permanent and will be added as PBOT assets for long term maintenance.
- c. Mitigation measures during long-term construction projects where the project is responsible for maintaining materials during construction. Upon completion of construction, temporary materials must be removed or upgraded to permanent materials.
- d. Interim treatment for a limited duration while awaiting final design and installation of permanent infrastructure. Project funding for permanent infrastructure must be secured prior to installation of temporary materials.
- e. Plastic curbing or tubular markers delineating vertical features, including curbs, islands, and separators. These types of installations shall follow MUTCD guidance.

### **2. Alternatives to Temporary Materials for Permanent Infrastructure**

Limited budget or a shortened project schedule should not result in substituting temporary materials for permanent infrastructure, rather the project should be rescope to fit within the allotted budget and schedule.

- a. **Tubular markers and plastic curbing:** These are often used to provide protection for bike facilities or to limit car traffic on bikeways. Moving forward, these types of treatments should be designed as concrete curbing, concrete separators, concrete islands per PBOT Standard Drawings P-555 and P-557 or should use other permanent infrastructure. "Paint and post" curb extensions should be designed as concrete curb extensions with ADA compliant ramps or concrete islands.
- b. **Planters and sewer rings:** These may still be used to provide a vertical element when needed but must be protected by concrete curbing to minimize vehicle strikes and the need to reset or move materials back into place. Planters that have plantings should have a maintenance plan or a sponsor to ensure vegetation is maintained. Sponsorship requires a PBOT permit to allow for maintenance activities in the right-of-way.
- c. **Signs:** Permanent signs should not be installed on tubular markers or blockbusters in the roadway (this type of installation may still be used for temporary street use permits.) Where possible, permanent signs should be installed in the furnishing zone of the sidewalk or adjacent to the roadway per PBOT Standard Drawings P-400, P-405 and P-406. Pavement markings can be utilized where additional conspicuity is needed (e.g. parking adjacent to bike lanes.) If traffic signs must be located in the street, they should be mounted on a breakaway steel pipe sign post cored into the asphalt and protected by short sections of concrete island or separator.
- d. **Type 3 Barricades or Barrels:** Barricades and barrels that are not permanently embedded in or attached to the roadway or sidewalk area are considered temporary infrastructure. These temporary installations are approved for use only during construction.

- e. **Parking Stops:** Parking stops that are used to define bike corrals can remain in place until a programmatic effort is funded for their upgrade. Other parking stop installations should be reviewed by a traffic engineer and/or maintenance operations signing and striping supervisors to determine if the installation would be better served by concrete infrastructure.

### **3. Existing Temporary Materials**

- a. All QB and CIP projects should plan to upgrade temporary materials within the project limits to permanent infrastructure, when feasible within the project budget. Projects that are at 60% or beyond at the time of this directive should consider upgrading to permanent materials but will not be required to.
- b. Locations that require little to no maintenance may remain in place until a project is funded to upgrade the installation to permanent materials.
- c. At locations where there are high knock-down rates, and where funding is not available for an upgrade, Traffic Operations may propose a redesign, e.g., adjusting locations of materials, or enhanced signage and pavement markings.