

4.10 RETROFITTING REGIONAL ROADS

When retrofitting pedestrian or cycling facilities to existing Regional roads, i.e. not as part of Regional road reconstruction projects, consideration is given to limiting the cost of construction and impacts of the retrofit.

Retrofit projects generally avoid widening roadways and reconstructing curb and gutters and associated stormwater infrastructure. Retrofit projects also need to consider impacts to roadway capacity and on-street parking, and avoid relocating above and below-ground utilities in order to control costs and limit impacts. The preservation of existing street trees should also be a key consideration when evaluating the location of new pedestrian and cycling infrastructure, in accordance with York Region's Forest Management Plan and canopy cover targets.

Retrofit facilities may include:

Pedestrian Facilities

- Sidewalks on one or both sides of the street added within the existing boulevard

Cycling Facilities

Road Reconfiguration

- Bike lanes installed as part of a road reconfiguration from four travel lanes to two travel lanes with a centre two-way left-turn lane or medians when traffic volumes are 20,000 vehicles per day or less
- Buffered bike lanes installed as part of a road reconfiguration as above

Boulevard Modification

- Raised cycle tracks installed behind the existing curb and gutter

Rural Road Retrofit

- Paved shoulders installed on existing granular shoulders on rural roads with two travel lanes
- Paved shoulders with buffer installed on existing granular shoulders on rural roads with four travel lanes

Shared Facilities

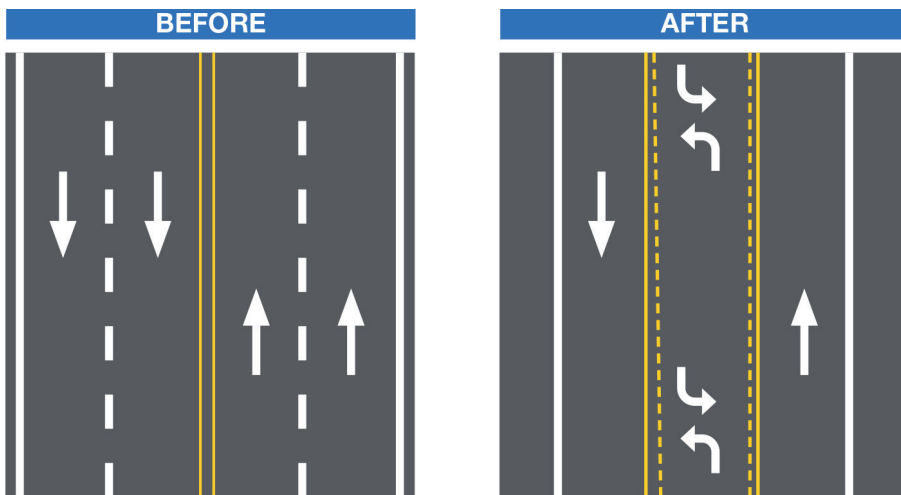
- Multi-use path on one or both sides of the street constructed within the existing boulevard

Information on cross-section elements other than the pedestrian and cycling facilities should be obtained from the associated design guidelines for those elements. Cross-sections are shown for one-half of the right-of-way only – duplicate pedestrian and cycling facilities should be provided on both sides of the road unless noted.

Road Reconfiguration

In the following retrofit examples shown in Exhibit 4-29 and Exhibit 4-30, roadways with four or more existing travel lanes are reconfigured with a two way left-turn lane and bike lanes or buffered bike lanes (refer to Exhibit 4-28). This type of lane reconfiguration is a Schedule A+ (Pre-approved) project under the Municipal Class EA process.

Exhibit 4-28. Lane Reconfiguration



Adapted from the FHWA's Road Diet Information Guide

As noted, the application of these road diets is dependent on roadway volumes and other operational factors.

Key criteria are noted below:

- Annual Average Daily Traffic - Roadways with AADT of 20,000 vpd or less may be good candidates for a Road Diet and should be evaluated for feasibility
- Peak Hour/Peak Direction Traffic - Typically considered for roadways with at or below 750 vehicles per hour per direction (vphpd) during the peak hour
- Turning Movements
- Impacts to Transit
- Goods Movement

For further information on road diets, see FHWA's Road Diet Information Guide.

Exhibit 4-29. Retrofit (36 m ROW) - Bike lanes installed as part of a road reconfiguration from four travel lanes to two travel lanes with a centre two-way left-turn lane or medians

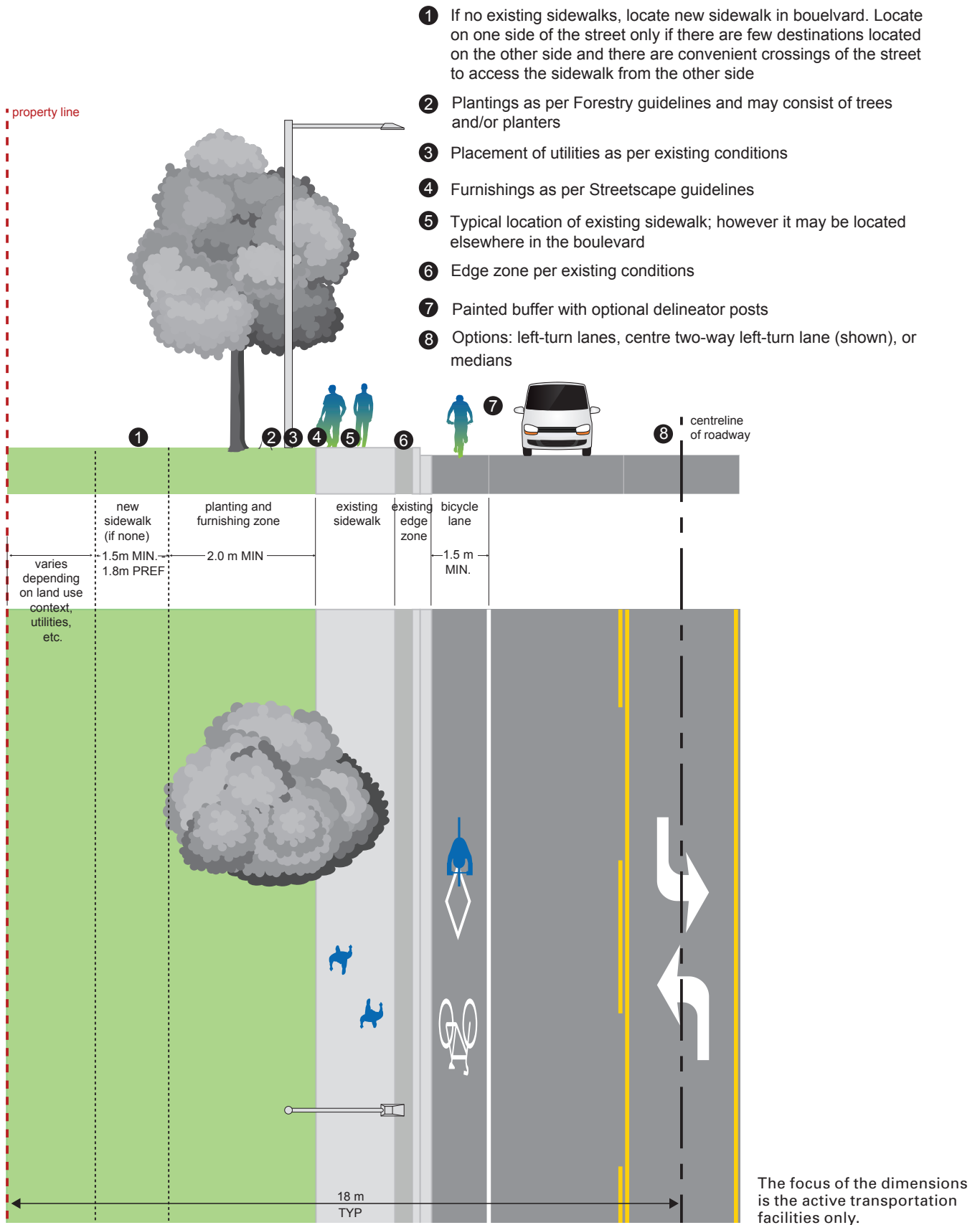


Exhibit 4-30. Retrofit (36 m ROW) - Buffered bike lanes installed as part of a road reconfiguration from four travel lanes to two travel lanes with a centre two-way left-turn lane or medians

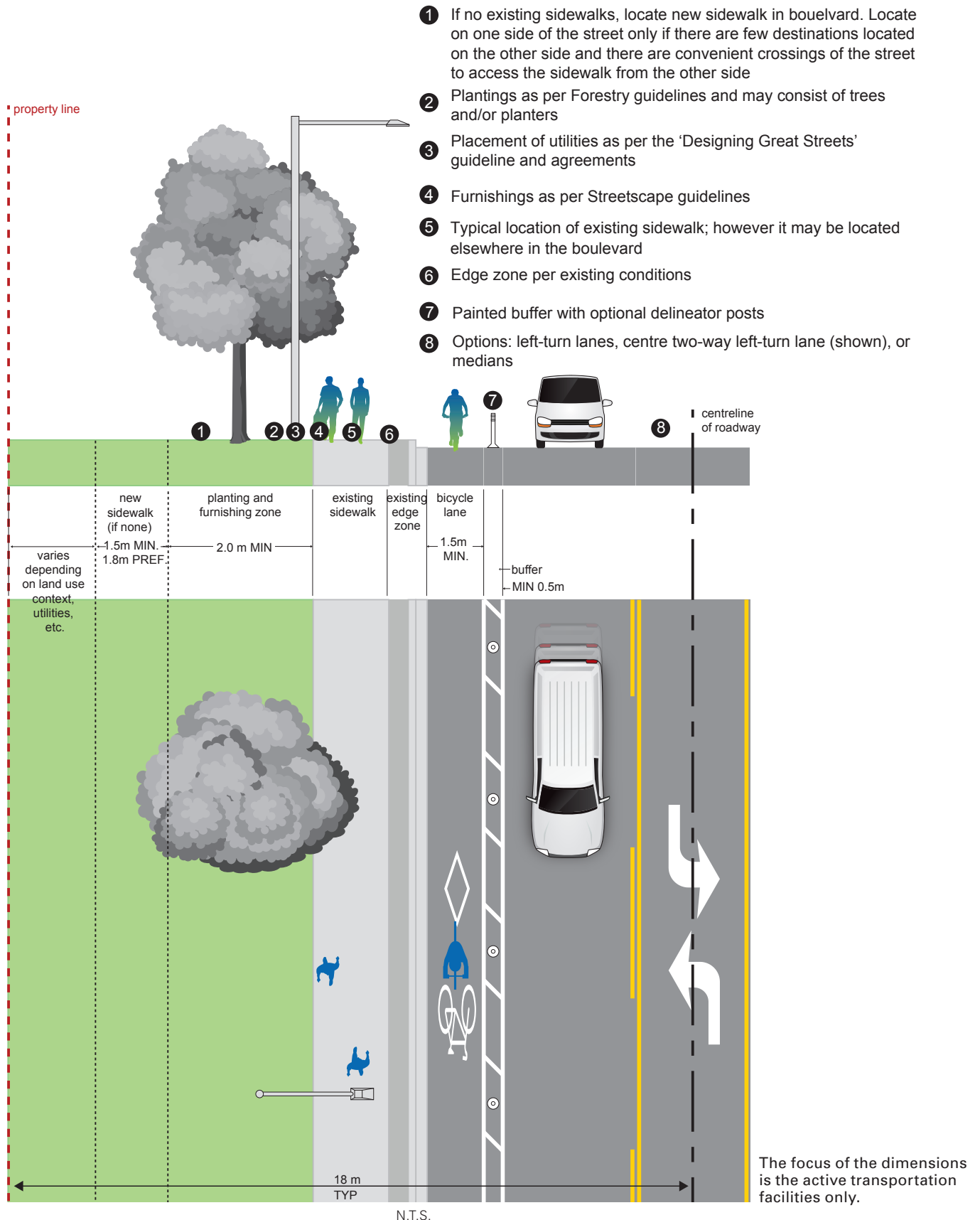


Exhibit 4-31. Retrofit (36 m ROW) - Multi-use path constructed on one or both sides of the street in the boulevard

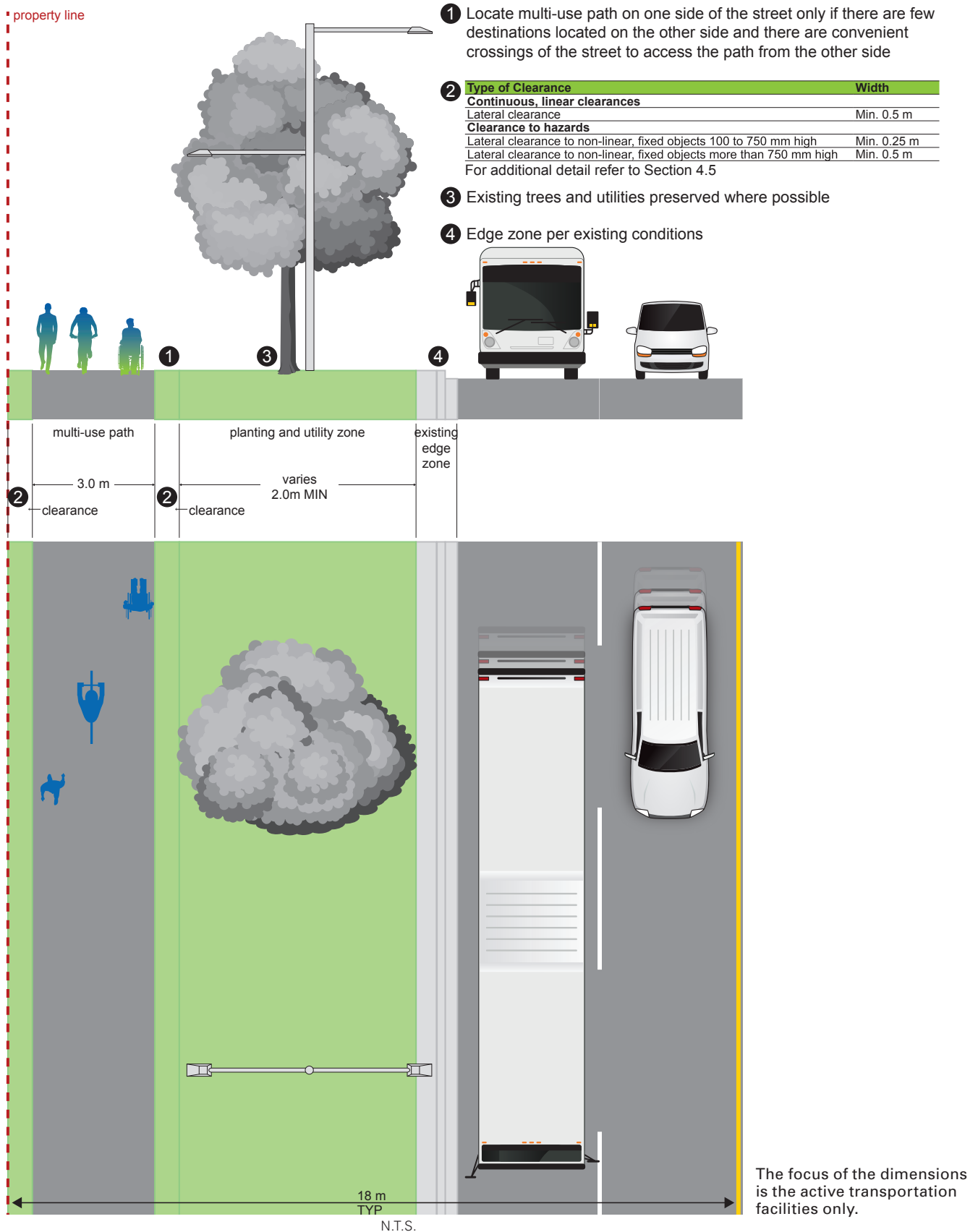
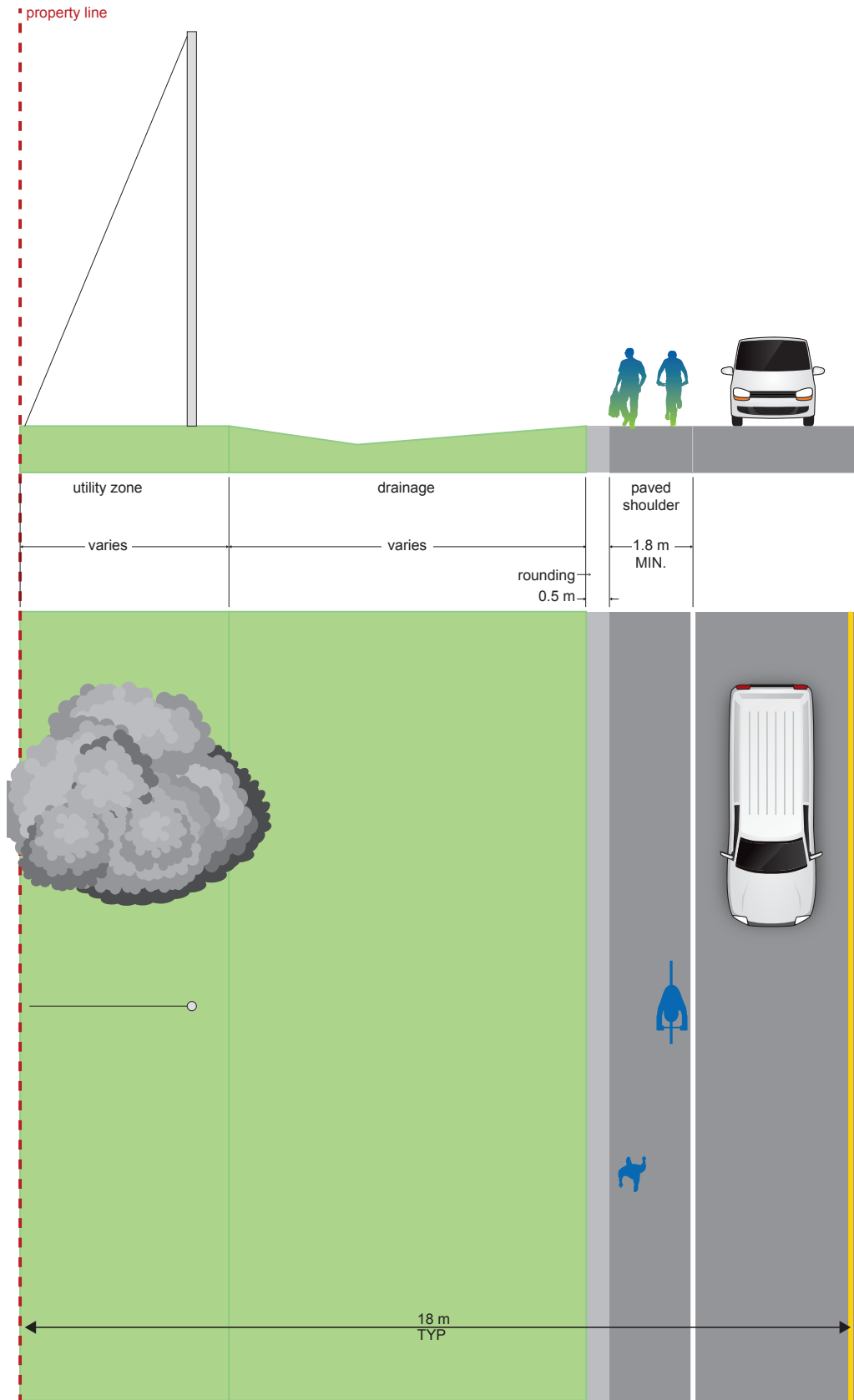


Exhibit 4-32. Retrofit (36 m ROW) – Paved shoulders installed on existing granular shoulders on rural roads with two travel lanes



The focus of the dimensions is the active transportation facilities only.

Exhibit 4-33. Regional Road Retrofit (36 m ROW) – Paved shoulders with buffer installed on existing granular shoulders on rural roads with four travel lanes

