

Based on the above and internal discussions with technical staff within the Department, fully paved shoulders are recommended for two-lane National Highway System Routes and two-lane Primary Arterials with an existing AADT greater than 3500 v/d.

The shoulder paving standard for 4-lane divided highways (Expressways, Arterials and Collectors) is recommended as follows:

Bituminous Surface:

outside: 0.8 m bituminous paved strip
inside: fully paved bituminous

Concrete Surface:

outside: 0.6 m concrete strip
inside: fully paved bituminous

Partial shoulder paving is recommended for Primary Arterials with an existing AADT of 500 to 3500 and other 2-lane highways with an AADT greater than 1000. For bituminous surface highways, the recommended standard is a 0.8 m paved strip. For concrete highways, the proposed standard is a 0.6 m concrete paved strip.

The standard for all other highways will be gravel shoulders. Consideration will be given for full width paved shoulders under the following circumstances:

- 1) roads having posted speeds equal to or less than 50 km / h;
- 2) roads having posted speeds of 50 - 70 km / h and where local conditions and/or developments dictate (e.g., shoulders serve cyclists/pedestrians);
- 3) route continuity;
- 4) where soil conditions dictate that the shoulder be paved.

The Department's present practice of paving shoulders, based on the above discussions, are shown in **Table 4 - "Paved Shoulder Criteria and Design Standards (Resurfacing of Existing Highways with Paved Shoulders)"** on page 9.

Shoulder Edge Treatment:

Shoulder edge treatment is recommended to provide for a smooth change in cross fall from shoulder slope to side slope. A gravel shoulder edge treatment and two paved shoulder edge treatment options are detailed in **Figure 1 "Shoulder Edge Treatment"** (see page 10). The two paved shoulder edge