

DESIGN BULLETIN #2/2001 (Revised March 2007)

GUARDRAIL POSTS – Use of Plastic Materials.

Superseded in January 2008 by Roadside Design Guide:
<http://www.transportation.alberta.ca/3451.htm>

**March 2007 Update to Design Bulletin #2/2001:
Item 2 under Summary**

Summary: This technical bulletin is issued to clarify some points in regard to the department's current policy on use of plastic guardrail posts.

The department has recognized the suitability of guardrail posts manufactured from recycled plastic materials by Amity Plastics Ltd. of Clyde, Alberta. This product is listed in the department's list of "recognized products" which is displayed on the department's website. Although this product has received certification from FHWA, under the NCHRP 350 testing protocols, it is a new product with a limited in-service track record, therefore the department prefers to restrict its use to the following applications at this time:

1. New construction of Weak Post W-Beam guardrail system except on Highway 2 between Edmonton and Calgary.
2. New construction of Strong Post W-Beam guardrail system except on Highway 2 between Edmonton and Calgary. [Refer to Design Bulletin #24/2005 for update.](#)
3. Replacement of wood posts that are damaged or otherwise deteriorated on existing W-beam systems.
4. Where plastic posts are used to do a replacement of part of an existing system, the installer should ensure that plastic and wood posts are not used alternately i.e. it is better to use a series of plastic posts followed by a series of wood posts rather than intermixing. This is due to the slightly higher rail deflection expected with the plastic post.

Designers should note the following:

1. Plastic posts are not to be used in the transition area between a roadway guardrail system and a bridge rail system.
2. Plastic posts should not be used as part of a proprietary end treatment such as BCT or CAT which normally use wood posts.
3. The plastic post as manufactured by Amity Plastics is not to be used in cable barrier systems. These systems require a weaker post.

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