

DATE: November 21, 1995

TO: K. Mauro

FROM: S. W. Horton

SUBJECT: Minimum Metric Vertical Bridge Clearance Requirements

There is a need on current metric projects to standardize the conversion of the vertical clearances to bridges given in Table 210.7 and subsection 210.8 of the Roadway Design Manual. As per comments we received regarding our September 14, 1995 letter addressing this subject, we recommend that the following minimum vertical clearances be incorporated in Chapter 4 (Structures) of the CDOT Metric Conversion Manual:

- a) 7.05 meters for all railroad undercrossings. This requirement meets those mandated by the Colorado PUC and the AREA.
- b) 5.35 meters for all sign and pedestrian - only bridges. (This clearance is based upon the 17' (5.2 m) requirement as specified in the 1990 English edition of the AASHTO Geometric Design Policy as opposed to the 1994 metric edition which specifies 5.1 m.)
- c) 5.05 meters for all major arterial and freeway undercrossings.
- d) 4.45 meters for all undercrossings of local roads, streets and collectors.
- e) 2.60 meters for pedestrian or bicycle underpasses.
- f) 2.75 meters for equestrian underpasses.

Except for items e and f, the above clearances provide 150 mm of clearance for future track grade adjustments and for future asphalt overlays at undercrossings as per the 1995 AASHTO Geometric Design Policy.

SWH/RLO/ld

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