

## IOWA DEPARTMENT OF TRANSPORTATION

To Office Bridges and Structures

Date: October 1, 2010

Attention All Employees

Memo M-09-2010-01

From Gary Novey

Office Bridges and Structures

Subject MM No. 222 (Definition of Profile Grade Line at Centerline of Approach Roadway)

For situations where the profile grade line is at the centerline of approach roadway, elevations for the bridge deck will be established in the following manner:

As shown in figure 1, the elevation at the bridge deck crown will be below the roadway profile grade elevation to account for the rounding of the deck with a parabolic template at the cross slope intersection.

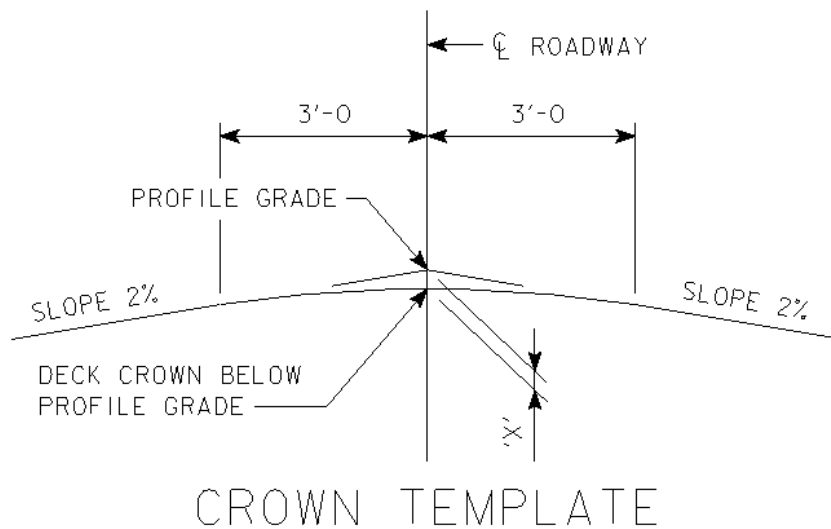


Figure 1

Recommended Values for `X`	
Slope %	X, ft
2%	0.03
2.5%	0.04
3%	0.05

The rounding of the approach roadway surface is not as well defined as the parabolic template established for the bridge deck crown, however some rounding of the roadway

surface at the cross slope intercepts is typical during pavement placement and will match reasonably close to the template shown for the bridge deck crown.

Using this method will ensure the approach roadway surface in the travelled lanes and the outside edge of pavement, match the bridge deck elevations. Elevations shown on the longitudinal section of the TS&L will reflect the top of bridge deck crown elevations along the centerline of approach roadway to the nearest hundredth of a foot (0.0X).

These elevations will be noted on the TS&L as "TOP OF BRIDGE DECK CROWN 'X' BELOW PROFILE GRADE".

NOTE: The designer shall fill in the `X` value based on the specific project cross slopes. This revision should be made to all projects where detailing has not begun.

GAN/ssn