ACTIVITY

11 Highway Cross Section and Roadside Design

Reading

Purpose

To guide you through the design equations, tables, and figures used for rural highway cross sections as stated in Chapter 4 of AASHTO *Green Book* and roadside features in Chapters 3 and 5 of *Roadside Design Guide*.

Learning Objective

Be able to recognize the equations, tables, and figures in AASHTO *Green Book* and *Roadside Design Guide* that are applicable for rural highway cross sections and roadside design

Required Resources

- Selected sections (see the selection in **Information** section) from the Chapter 4 of AASHTO *Green Book*
- *Roadside Design Guide* [Chapters 3 (clear zone) and 5 (roadside barrier)]
- Answer sheet for the Critical Thinking Questions

Critical Thinking Questions

1. What are the typical elements of a highway cross section? What are the typical dimensions (width or slope) of each element?
2. What is the clear zone? How do you determine the clear zone distance?
3. How do you check for barrier warrant?
4. How do you determine the barrier length of need?

Tasks

Attend the lecture and make notes when necessary. Prepare to take the quiz at the end of the lecture. Answer the Critical Thinking Questions after completing the readings.

Deliverable

Completed quiz and answer sheet for the Critical Thinking Questions.

Information

The sections of Chapter 4 (2011, 6th edition of the *Green Book*) selected for this reading activity include: sections from 4.1 to 4.6. These sections cover what you need to know about cross sections for the course project.

AASHTO's *Roadside Design Guide* is intended to cover technical details about highway roadside safety not addressed in the *Green Book*. The current edition of the AASHTO *Roadside Design Guide* is the 4th edition published in 2011. Readings for this activity include sections 3.0 to 3.3, and sections 5.0 to 5.4, 5.5.1to 5.5.3, and 5.6.1 to 5.6.3.

Name: _____

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2. What is the clear zone? How do you determine the clear zone distance?

3. How do you check for barrier warrant?

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