



5A-1 General Information

A. Concept

The primary consideration of this chapter is that all new roadways and major reconstruction of existing corridors provide for safe, efficient and economic transportation throughout the design life of the roadway. The values contained herein, specifically under design criteria, are to be considered basic design guidelines which will serve as framework for satisfactory design of new street and highways facilities. The Project Engineer is encouraged to develop the design based on this framework and tailored to particular situations that are consistent with the general purpose and intent of the design criteria through the exercise of sound engineering judgment. Situations do arise that require special considerations, therefore, to eliminate hardships or problems, the Jurisdictional Engineers may allow an exception to the design criteria upon submittal of justification for such variances by the Project Engineer.

Cost effective design is encouraged along with the joint use of the transportation corridor and the consideration of the environment. The values contained herein are not intended as criteria for resurfacing restoration or rehabilitation projects.

B. Conditions

1. The design for roadway facilities shall be in conformance with the following:
 - a. Jurisdiction Supplemental Design Standards and Construction Standards.
 - b. Iowa Department of Transportation (IaDOT) Design Manual for State routes or State pending projects.
 - c. Iowa Department of Transportation (IaDOT) Urban Design Aids for new or completely reconstructed non-primary city streets.
 - d. Federal Highway Administration (FHWA) in regards to the design and funding on Federal Aid routes.
 - e. The American Association of State Highway and Transportation Official (AASHTO) - "A Policy on Geometric Design of Highways and Streets – 2001" (Green Book).
 - f. The U.S. Department of Transportation - Federal Highway Administration - "Manual on Uniform Traffic Control Devices" (MUTCD) and "Traffic Control Device Handbook".
 - g. The Transportation Research Board - "Highway Capacity Manual" - Special Report 209 the 1997 update.
 - h. The Institute of Transportation Engineers - "Transportation and Traffic Engineering Handbook".
 - i. Conflict - In case of a conflict between the above design standards, the Jurisdictional Engineer should be contacted for clarification.

2. **Construction standards.** Construction standards shall be the most recent revision of the Urban Standard Specifications for Construction of Public Improvements together with the latest addenda. For those projects involving State Jurisdictional roadways the current "Standard Specifications for Highway and Bridge Construction - Iowa Department of Transportation" and supplemental specifications shall apply. All details and materials shall conform to these standards.

The classification of streets, as defined in Section 5B-1, shall be used to determine the design standards to be used. The classifications are arterials (major and minor), collectors (major and minor), and local streets.

3. **Project submittals.** All projects are to be submitted to the Jurisdictional Engineer for review, comment, and approval. Those involving IDOT need to be submitted to the District Local Systems Engineer in addition to the Jurisdictional Engineer unless otherwise directed. See Chapter 1 for Detailed Paving Plan requirements.