ROCKWALL COUNTY THOROUGHFARE PLAN

EXECUTIVE SUMMARY

The thoroughfare plan is the formal document used by municipalities, counties, and other local
government entities to provide for the development of an efficient and appropriate thoroughfare
system to meet existing and future travel needs. **The primary objective of the thoroughfare plan**
is to ensure the preservation of adequate rights-of-way on appropriate alignments of
sufficient width to allow the orderly and efficient expansion and improvement of the
thoroughfare system to serve existing and future transportation needs. The Rockwall County
Thoroughfare Plan was developed based on the fundamental guidance of a Technical Steering
Committee and a Policy Advisory Committee comprised of Rockwall County elected officials and
local government staff and the results of this planning endeavor have been incorporated into and
are consistent with the regional transportation planning process as conducted by the North Central
Texas Council of Governments (NCTCOG), the Metropolitan Planning Organization for the Dallas-
Fort Worth region.

The Rockwall County Thoroughfare Plan is comprised of three basic elements which individually
identify specific areas for improvement or set standards for consistency, but taken as a whole, these
elements form the basis for a comprehensive and cohesive roadway system designed to meet
current and future travel needs for the County. Specifically, the three main elements of the Plan are:
thoroughfare plan roadway recommendations; functional classification of roadways; and geometric
design standards for various types of roadway configurations. Each of these elements will be
discussed in greater detail.
Thoroughfare Plan Recommendations

The Rockwall County Thoroughfare Plan makes specific and detailed recommendations for every roadway in the County except for smaller local streets serving neighborhood access needs. Both the technical steering and policy advisory committees were instrumental in formulating various alternatives to consider, study, and evaluate as part of the development process for this planning study. In addition, four distinct planning issues were identified which dealt with the inadequacy of the existing transportation system and served as the foundation for developing a more complete and coordinated roadway system.

The four planning issues having the greatest impact on the development of this Plan include: 1) the lack of critical east-west access to and from Dallas and Collin Counties; 2) the lack of contiguous major north-south facilities in Rockwall County; 3) the proximity of potential high traffic-volume intersections in the City of Rockwall; and 4) the lack of secondary east-west facilities in the County. Based on these planning issues, alternatives were developed and tested which addressed each of these concerns and formed the underlying concept for dealing with current and future roadway needs. Ultimately, the recommendations resulting from this study focus on making major improvements to north-south corridors allowing traffic to move through Rockwall County and to utilize major east-west facilities in neighboring counties. This strategy also calls for making improvements to minor east-west facilities to accommodate the shorter intra-county trips. This Plan provides long-term recommendations for meeting Rockwall County’s present and future transportation system which is supported by the Cities and County it serves. The final recommended thoroughfare plan system improvements for the Rockwall County Thoroughfare Plan are shown in the map provided as Exhibit 1.
Roadway Functional Classification

A roadway functional classification system is a hierarchical organization of streets and highways that facilitates the safe and efficient operation of vehicles along different types of facilities. More specifically, a functional classification system facilitates a progressive transition in the flow of traffic, from the provision of access to the provision of movement. Freeway and arterial facilities are at one end of the spectrum, primarily providing the function of movement. The collector and local streets are at the opposite end of the spectrum, providing the function of access.

Based on functional classification designations adopted in the Regional Thoroughfare Plan, three distinct roadway classes, “freeways,” “regional arterials,” and “other arterials,” are assigned directly to the Rockwall County recommended roadway system. These designations are made based on trip length, traffic volumes, system continuity, facility spacing, design speeds, and other criteria. This results in the hierarchical organization of roadways as depicted in Exhibit 2.

Thoroughfare Plan Geometric Design Standards

Another important aspect of planning for the roadway needs of the County is the establishment of geometric design guidelines appropriate for each roadway classification. The American Association of State Highway and Transportation Officials (AASHTO) publishes A Policy on Geometric Design of Highways and Streets that establishes minimum criteria and suggested guidelines. Most state departments of transportation and many local governments use this policy to guide the development of specific design criteria and many of the design elements of this Thoroughfare Plan were incorporated from the AASHTO document. In addition, NCTCOG’s report titled, “Thoroughfare Planning and Design Guidelines,” was used as a reference to assure consistency with other regional design standards. A comprehensive assessment of geometric design guidelines for the implementation of arterial streets in Rockwall County is included in this document.
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Recommended Roadway Functional Classification System

Legend

- County Boundary
- Lakes
- Freeways
- Regional Arterials (Principal/Minors)
- Other Arterials

North Central Texas Council of Governments
Transportation Department