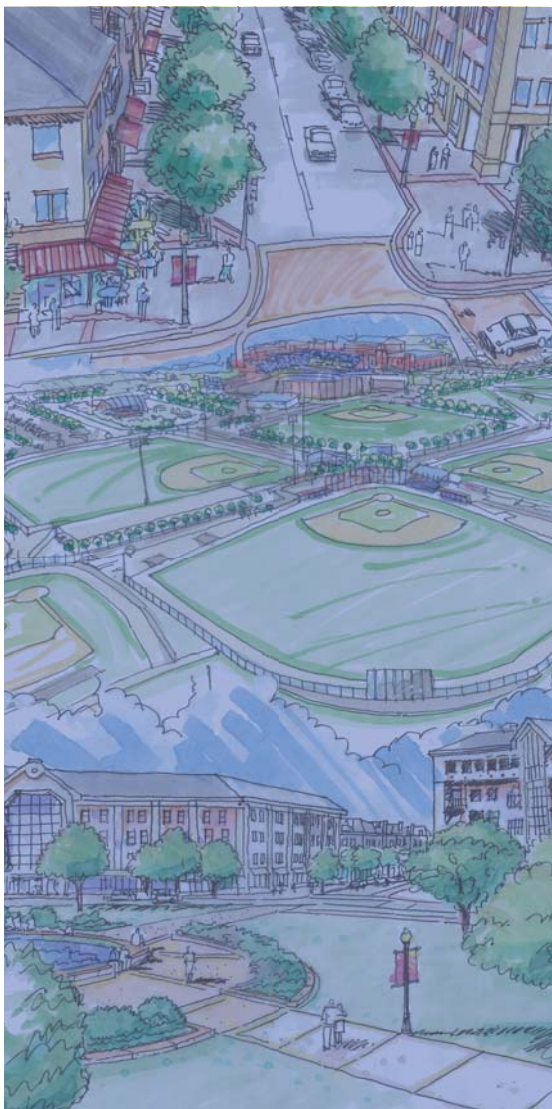


Section 4.0

Transportation and Utilities



4.0 Introduction

Transportation and utility systems represent services that are essential to accommodate and support development proposed in the Future Land Use Map. The following pages present the Comprehensive Plan's recommendations regarding transportation and utility systems.

4.1 Transportation

The 2000 Thornton Thoroughfare Plan recommended improvements to the City's roadway system, to accommodate travel demand forecasted to 2020. The Thoroughfare Plan should be updated periodically as improvements are implemented, and ultimately integrated into a comprehensive Transportation Plan that addresses all existing and proposed modes of travel within Thornton and its planning area. These plan updates should also reflect transportation and circulation recommendations in the Comprehensive Plan.

Thornton's transportation system connects to a larger regional system of roadways, mass transit routes and trails. The City's multi-modal system should continue to complement and fit with the larger regional system in order to be efficient and effective for residents, and provide for adequate future growth of the community.



Coordination with the Adams County Transportation Plan, the Denver Regional Council of Governments (DRCOG) Transportation Improvement Program, the North Front Range Transportation Alternatives Study, and other regional plans and studies will be an important component associated with the development of Thornton's transportation system.

While existing land use patterns and practices suggest continued reliance on the automobile to move through the community and region, a multi-modal transportation system that includes roadways, mass transit, and trails is vitally important to Thornton's future growth and development. The Comprehensive Plan, therefore, contains recommendations and policies for multiple modes of transportation.

Key transportation challenges include:

- Maintaining adequate levels of service. The City has limited ability to unilaterally increase capacities along roadways, so it must pursue improvements that require participation of other entities.
- Timing roadway capacity with new demands. The City may need to consider delaying development in certain areas until adequate capacity is available, or arrangements are made to fund improvements that provide adequate capacity concurrently with new development demands.
- Remedying existing deficiencies. Thornton needs to continue to improve connections within the community and between adjacent cities.
- Coordinating transportation system improvements with other entities. The planning and development of additional new interchanges along I-25, E-470, I-76 and US 85 requires the participation of the Denver Regional Council of Governments (DRCOG), the Colorado Department of Transportation (CDOT) and adjacent municipalities.



▲ 120th and Grant Intersection

- Developing effective alternatives to single occupancy vehicles. As environmental concerns and the costs of managing congestion increase, providing alternatives to the automobile becomes more important. The proposed FasTracks commuter rail system will require active City coordination with the Regional Transportation District (RTD) and adjacent municipalities.
- Ensuring access for all residents. The need for alternatives to automobiles extends to the disabled, the young, the elderly and low income residents. The City will need to consider these populations in its transit planning.

Roadways

Roadways in Thornton are categorized into several functional classifications. These are: regional thoroughfares, major and minor arterials, major and minor collectors, and local streets. I-25 and E-470 are regional thoroughfares that transect the City, while I-76 and US 85 also provide access to Thornton. Recent interchanges constructed at 136th Avenue and 144th Avenue have improved access from I-25 into Thornton's northern growth area between 120th Avenue and State Highway 7. Thornton has a basic one-mile grid of east-west and north-south arterial streets typical of the Denver area and other western metropolitan areas. Collector and local streets serve Thornton's neighborhoods.

Trails

While trails are designed as a community amenity and often used for recreation purposes, transportation and connectivity can be considered a primary function of a comprehensive trail system. The City has developed and continues to expand a comprehensive off-street trail network that provides a safe and convenient alternative to the automobile for travel throughout the community. Trails serve all ages, but are vital for the mobility of children and others who do not have access to automobiles. In addition, it serves those who desire to replace trips by automobile with walking or bicycling to and from destinations when practical.

Mass-Transit

Thornton is currently served by RTD with local, express call-n-ride, and regional bus routes, in addition to special events services. RTD operates three park-n-Ride facilities that directly serve Thornton. Future transit improvements include the Fas-Track commuter rail line, with six stations serving Thornton. Commuter rail service is planned to start operations in the summer of 2015.

Transportation Management Organizations

One opportunity for partnerships in providing needed transportation improvements and services is the creation of Transportation Management Organizations (TMO's). The TMO is a tool that can be used in a variety of ways to meet transportation needs associated with a particular major development or district. TMOs are often used by major employers or major mixed-use development where major traffic is generated to help manage and mitigate the traffic impacts of the development. TMOs can be involved in a variety of activities ranging from the simple to the complex. Some examples of simple functions would include; offering to match-up commuters for car pooling and ride sharing, organizing and stratifying working hours among tenants to spread out demand, and/or subsidi-



▲ Transit Station



▲ park-n-Ride Facility



▲ Rail Transit

dizing the costs of transit passes for workers who opt for transit. Some examples of more complex functions would include; hiring off-duty police officers to manage traffic at key entry/egress points, funding the operation of shuttles and/or van pools, and/or contribution to construction of off-site transportation improvements determined to be warranted due to traffic demands from the development.

Regardless of the technique and level of involvement, the goals of TMOs are to help reduce and lessen traffic impacts from the parent development on adjoining transportation systems. Following the theme of encouraging community partnerships and the creation of major new employment centers, the Comprehensive Plan for Thornton recognizes that tools such as TMOs will be an important component necessary in the development of any new major employment center. TMOs could be a particularly useful component in the creation of Urban Villages and other major employment centers. These organizations could provide important services such as shuttle services to FasTracks stations that otherwise would probably not be funded.



▲ Wes Brown Water Treatment Plant

4.2 Water and Wastewater Utilities

Since 1963, the City has provided water and sanitary sewer service to residents and businesses within its boundaries and, to a limited extent, outside City limits.

The City's Water and Wastewater Systems Master Plan, completed in 2000, provides specific information on the existing water and wastewater utility system, its expansion and maintenance. The Water and Wastewater Systems Master Plan recommended improvements to the water and wastewater system for four time frames: pre-2000, 2000-2010, 2011-2020, and 2021 to build-out. The Water and Wastewater Systems Master Plan is currently being revised and should continue to be updated periodically as improvements are implemented and new challenges emerge.

City of Thornton Comprehensive Plan

The City of Thornton has acquired significant amounts of water and water rights, and has developed an extensive raw water collection and storage system. Additional water rights acquisitions, and development of additional raw water facilities, as described in the City's Long Range Utility Plan, will provide sufficient water to implement the Comprehensive Plan.

As Thornton continues to grow, key challenges will include:

- Acquiring and protecting adequate water supplies. The City must import water from other locations to serve its existing and future needs. For the City to continue to serve existing needs and to meet future demands, the City will need to protect the water rights it has secured.
- Managing the water distribution system. The City will need to ensure that pipeline extensions are phased to serve future development, that facilities are sized to serve planned growth, and that the treatment plants, storage facilities and distribution system mains are located to maintain adequate flows for normal and emergency demands.
- Efficiently expanding the wastewater system. The City will need to manage the costs of systems extensions into new development areas and the associated energy costs of pumping wastes from one wastewater drainage basin to the next.
- Funding improvements. As the City's water and wastewater systems age, operation and maintenance costs will increase. The City may need to adjust the fees for capital improvements and prioritize capital improvements based on on-going operations and maintenance needs considered along with system expansion for new growth areas.



▲ Thornton Water Tower