

Chapter 5

Transportation

Ensuring people and goods can move to, through, with-in and out from Wahpeton is important in sustaining its role as a community where people want to live, work and recreate. A community's transportation network is arguably one of the largest components of the public realm. In terms of land area, public right-of-way, the railroad, and the airport encompass about one-third of the City's total land area. In planning for the future it is important that all modes of transportation are addressed, including roads, sidewalks/trails, railroad, airport and transit.

Roadway Network

Regional Connections

Wahpeton has quality roadway connections to the surrounding region. Often stated as "located between the I's," Wahpeton is located between Interstate 29 in North Dakota and Interstate 94 in Minnesota. These interstate connections provide convenient connections for both residents and businesses to adjacent communities, including Fargo, Moorhead, and Fergus Falls. The connectivity of the Richland and Wilkin County highways facilitate movement of both industrial and non-industrial traffic to the interstate highways and the smaller surrounding communities in the region, including Fairmont, Dwight and Abercrombie.

Local Pattern

The city streets follow the generally preferred patterns of the times in which they were developed. Much of the city consists of a grid system which reflects the original town-site plat. Streets that were built in the latter half of the 1900s are more curvilinear with longer blocks and fewer access points to the collector street.

The street pattern is also heavily influenced by the school campuses, particularly the North Dakota College of Science. Established in 1903, the campus occupies the central part of the community and limits the number of through-street connections both north-south and west-east.

Functional Classification

A cornerstone of transportation planning, roadway function classification is the process by which streets and highways are identified and grouped according to the character of the service it is intended to provide. Roads are placed into categories based on the degree to which they provide access to adjacent land versus providing higher-speed mobility for "through" traffic. The intent is to create a network that distributes traffic from neighborhood streets to



This ribbon cutting for the reopening of Dakota Avenue demonstrates the importance roads play in the day to day operations of the community.

collector roadways and ultimately to arterials which connect to the regional system. A balance of all functions of roadways is important to any transportation network.

As shown in Figure 5-1 Proposed Functional Classification, there are four functional roadway classifications:

Principal Arterial

Principal Arterials are intended to connect the City of Wahpeton to other communities in the region. Generally the intent is to have a high level of mobility on principal arterials and a low number of access points. In Wahpeton, the Principal Arterials are Highway 13, Highway 127, Highway 210 and Dakota Avenue.

Minor Arterial

Minor Arterials are the second highest classification in the roadway functional classification system. Minor Arterials are generally more local in nature but emphasize mobility over access. Minor Arterials connect cities with adjacent communities and to Principal Arterials. Major businesses, industries, and other traffic generators are often located along these roadway corridors. Wahpeton's minor arterials consists of 4th Street N, 9th Street N, 11th Street N, 6th Street N, 11th Street S, 16th Avenue N, 4th Avenue S, and 11th Avenue S.

Collector

Collectors serve shorter trips and provide access from neighborhoods to the arterial system. There are a number of collectors in the City, including 2nd Street N, 7th Street N, 9th Street N, 2nd Avenue N, 8th Avenue N, 14th Avenue N, 2th Street S, 4th Street S, 4th Avenue S and 11th Avenue S.



As a principal arterial, the community needs to strike a balance on Dakota Avenue between mobility and access to Downtown businesses.

Local

Local roadways provide access from private property to collectors and arterials. They are intended to be relatively slower in speed. In addition to providing access to individuals properties, local roads generally accommodate on-street parking needs. All roads not classified in one of the three other categories are considered local roads.

Changes to Functional Classification

Figure 5-1 identifies some roadways where the functional classification is proposed to be modified. These modifications are intended to better reflect the intended traffic patterns in the community. These changes include a consistent designation of 4th Avenue S (Old Highway 13) as a minor arterial, as well as the designation of 14th Avenue N as a collector. A few short street segments in Downtown were recommended to be changed to local streets.

System Analysis

The roadway transportation system is adequately serving the needs of the community. Community input gathered during the comprehensive planning process did not highlight significant issues to be addressed. Concerns identified are summarized on page 5-4.

Traffic volumes can be compared to roadway design to determine the level of service an individual road offers. In contrast to when the community was growing rapidly, roadway volumes have not increased dramatically in the last decade within Wahpeton. For example, between 1991 and 1994, the traffic volume on Highway 210 just north of Highway 13 rose 32% from 3,350 to 4,350. However, between 1994 and 2010 it only rose two percent (2%) to 4,455. At this time there are no roads where the level of service provided is of concern.

Similarly, roads in Wahpeton have not had a significant number of traffic accidents in the last five years. Improvements have been made as safety concerns have arisen.

Proposed Improvements

Planned roadway improvements are primarily related to the proposed expansion of the community. Figure 5-1 identifies where new roads are proposed and what functional classification those roads should have. Additional

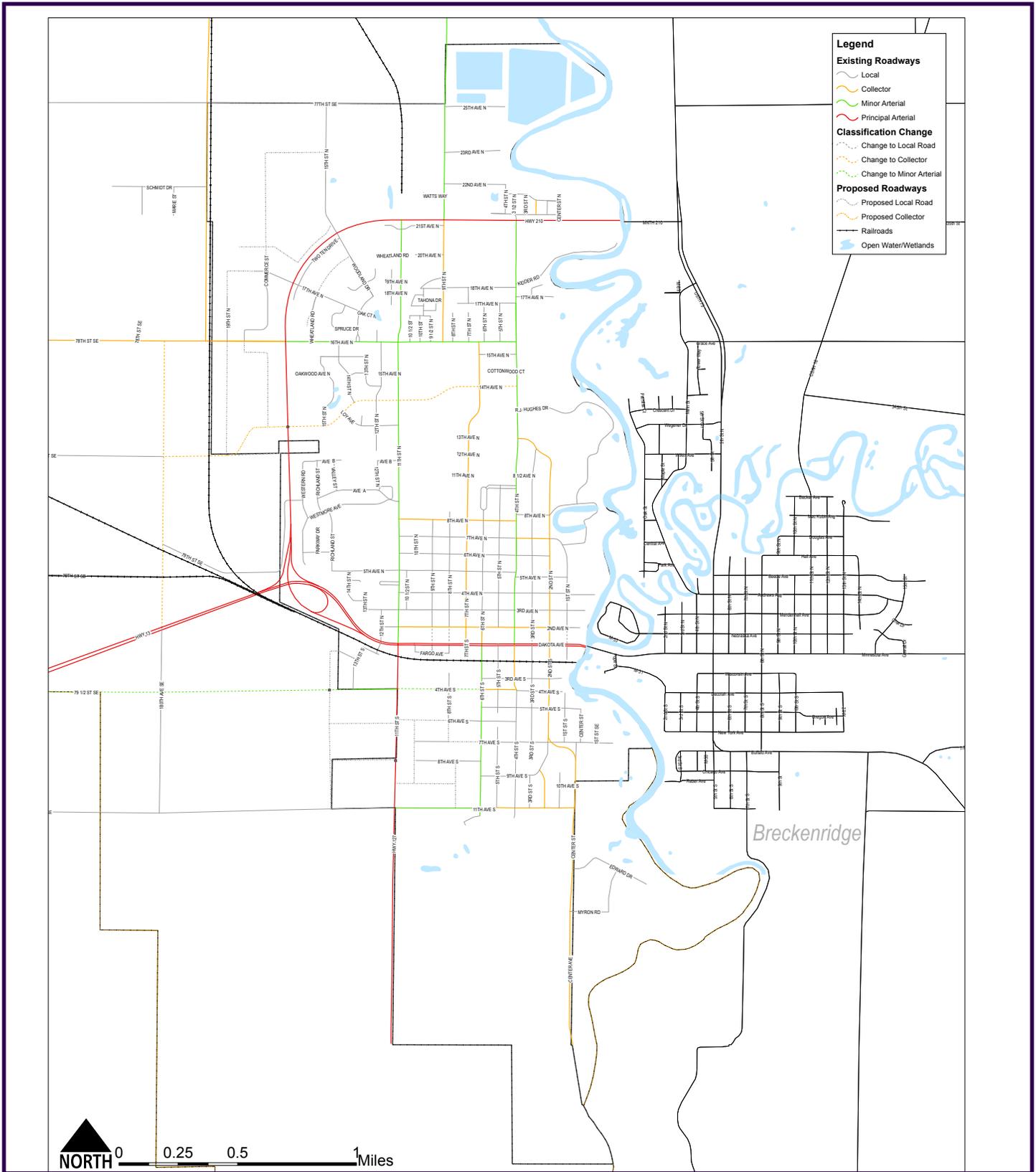


Figure 5.1: Future Functional Classification

Community input

- Road improvements or expansions are not needed to support industrial sector.
- Road quality of concern - particularly south of Downtown
- Safer non-motorized transportation is needed, especially to commercial areas
- Railroad access a strength
- Airport is an asset that should be promoted and supported
- Public transportation, particularly for seniors is needed
- Additional bike lanes needed

local roads will be needed as development occurs. While proposed roads are identified, it should be noted that these are general locations that may be adjusted as specific developments are proposed. Design of roads should follow the provisions set forth in the Subdivision Ordinance. The City should be careful to ensure sufficient right-of-way is dedicated to accommodate proposed roads and any trails if desired.

The City, as part of its capital improvement program, intends to continue its annual improvement to maintain a good street system. Improvement schedules are designed annually and updated every year during the budget preparation process.

Trails and Sidewalks

Trails and sidewalks are an important component of the overall transportation system. It is important that a system of connected trails and sidewalks is provided to accommodate walking, bicycling and other forms of non-motorized transportation. Connecting residents, commercial areas, schools, public facilities and employment will continue to be important, especially if the community wants to be “a community for a lifetime.”

As trails and sidewalks are also part of the recreation system, this area is addressed fully in the Parks and Recreation Section of Chapter Six - Community Facilities.

Railroad

The City of Wahpeton is served by a complex rail system owned and operated by the Red River Valley and Western (RRV & W), a North Dakota regional railroad. RRV & W, which began operations in 1987, currently owns and operates more than 500 miles of tracks. It also has trackage rights on other railroads. RRV & W has more than doubled their annual volume since 1987, now handling about 42,000 carloads annually. According to the RRV & W this is attributed to the railroad’s more frequent service, the addition of local markets and the acquisition of 100 grain cars. RRVW presently serves more than 60 customers, including 4-grain shuttle facilities and 35-grain elevators.

Wahpeton has rail connections extending in four direc-



Trails and sidewalks are an important component of the City's overall transportation system.

tions. The east-west line extends to Oakes, North Dakota and connects with Soo Line in Wyndmere and D.M.V. & W. in Oakes. To the northwest, this line extends to Casselton and joins Burlington Northern and Santa Fe (BNSF). The line extending to the north crosses the Red River about five (5) miles north of the City and enter Minnesota to continue on to Moorhead. On the east, the main line enters Breckenridge and continues on east to the BNSF. On the south side of Breckenridge, two BNSF operated rail lines, running south and southeast, provide for connections with the RRV & W system.

The service provided by RRV & W has maintained railroad service as a component of Wahpeton's transportation system. While beneficial for supporting the community's economy, the railroad is also challenging for other modes of transportation and the redevelopment of areas adjacent to the railroad. In the Downtown area, there are currently six (6) at-grade crossings of the railroad. Maintaining most of these crossings are important for fire safety and to provide access to the residents and businesses located on the south side. While there have been previous discussions about creating a grade separated crossing, the costs of construction of one generally will outweigh the benefits due to the street traffic volumes in that area of Wahpeton.



Wahpeton has quality rail service extending in four directions from the community.

While a grade separated crossing may not be possible, the City should continue to explore the establishment of a "Quiet Zone" in Downtown. Quiet Zones are segments of railroad lines where train crews are exempt from sounding the horn at grade crossings. As noted in the sidebar, the City will be required to make improvements to design and safety. This may involve the closing of one or more of the at-grade crossings. A likely candidate for closing would be 3rd Avenue S. The establishment of a "quiet zone"

To Establish a Railroad Quiet Zone, the City needs to:

- Define the group of crossings to be included - the crossings must be adjacent and at least a 1/2 mile segment of railroad must be included.
- Review and evaluate existing conditions at the crossings within the segment and improve to certain baseline criteria.
- Calculate a Risk Index both with and without the train horns at the crossings.
- Develop an enhancement plan that improves the Risk Index without train horns back to the level of the Risk Index with train horns using supplemental or alternative safety measures identified in accordance with the Federal Railroad Administration.

Quiet Zones=



In establishing a “Quiet Zone” the City may have to close one or more of the six (6) current at-grade crossings in Downtown.

3rd Street S may be the most logical choice to close because of the connections the other streets make with surrounding

would be a benefit to the redevelopment of Downtown, particularly for housing purposes. Community members expressed that railroad noise is one of their concerns for the community.

On the west side of Wahpeton, the railroad has been generally used as the western boundary for community growth. It is anticipated that railroad crossings will generally be limited to the existing crossings at 16th Avenue N and the extension of 14th Avenue (currently 78 1/2 St SE outside of the city) so further expansion west of the tracks should be limited in the near future.

Airport

Wahpeton has had a general aviation airport since 1945. It is located on the south side of the City and occupies a site of about 500 acres. This airport is eligible for federal funding and is governed by the Wahpeton Airport Authority. Currently, four aviation businesses operate from the airport.

The facility is served by a full range of services with a lighted, concrete runway of 5,100 feet and a grass cross-wind runway of 3,254 feet. While airport traffic varies from year to year, it has remained relatively consistent in the last five years. The airport continues to serve the business and industrial sectors, as well as agricultural community.

The long-term needs of the facility include the construction of a hard surface cross-wind runway with lighting, and navigational aid upgrades. Short-term needs include the reconstruction of the apron, and general facility maintenance. The Airport Authority will be revising its master plan to reflect changes to airport property due to the construction of the City’s southside levee. Airport improve-

ments and upgrades are generally funded by the Federal Aviation Administration (FAA) and the North Dakota Aeronautics Commission. A small portion of real estate taxes also fund the airport.

At this time the extent of the airport is not anticipated to grow. However, it is important that land use plans ensure surrounding land uses are appropriate for a location adjacent to an airport given the potential for noise. The Land Use Plan generally recommends that industrial uses continue to be the predominant land uses on the north and west sides of the airport. Building height restrictions on lands surrounding the airport need to be referenced to ensure buildings do not impeded airport operations.

Transportation Goals and Policies

Goal

Develop a multi-modal transportation system that will serve the broad range of mobility and access needs of all the City’s residents, visitors, businesses and institutions.

Policies

- 7.1 Ensure street and sidewalk improvements are on the City’s Capital Improvement Program so that both new and old areas in need of improvement are planned for and financed.
- 7.2 Ensure adequate public right-of-way for the construction of roads and trails.
- 7.3 Manage vehicular access onto major roadways with adequate distances between driveways and intersections, as well as traffic control methods as appropriate.
- 7.4 Channel major traffic volumes onto collector and arterial roadways so as to minimize motorized traffic from passing through residential areas on local streets OR En-

sure new roads connect logically to the existing transportation system and distribute traffic sufficiently.

7.5 Integrate trail system improvements with roadway and bridge projects to make implementation more cost effective.

7.6 Encourage interconnection of similar land uses to facilitate local through traffic flow, maximize dispersion opportunities, and minimize congestion and safety conflicts

7.7 Require new developments to connect with existing street grid system and layout of adjacent neighborhoods.

7.8 Streets should be designed to enhance the image and experience of both pedestrians and automobiles.

7.9 Support and encourage the use and continued development of the airport.

7.10 The City will generally discourage new residential development in areas most affected by aircraft noise.

7.11 Identify opportunities for trail corridors that can be located within roadway ROW which provide more direct connections to popular destination routes used by commuters.