

# Goals, Objectives, and Design Guidelines Report

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# Introduction

In 2012, the Greater Mankato Transit System (GMTS) completed an ambitious restructuring plan. Since then, the transit system's ridership has more than doubled. GMTS is now producing the region's first transit development plan (TDP) to identify opportunities for continued improvement and to meet a wider variety of transit customer needs in the Greater Mankato area.

The purpose of this report is to inform and guide the development of the Goals, Objectives, and Design Guidelines chapter of the TDP. Existing plans, guidance, and regulations were reviewed to develop a framework for GMTS.

## Review of Existing Goals and Objectives

Existing GMTS goals and design guidelines include those identified in the 2012 Greater Mankato Transit Redesign Study (2012 Study) as well as goals and design guidelines set by GMTS.

The 2012 Study was conducted to guide future public transit improvement efforts for the Greater Mankato area. The goals derived from this process are as follows:

- ◆ Goals
  - Reduce travel time between major destination points
  - Reduce vehicle miles traveled
  - Reduce CO2 emissions
  - Provide more direct service
  - Improve connections between major activity centers
  - Maintain transfers between routes
  - Maintain a strong level of service to Minnesota State University, Mankato (MSU-Mankato)

While design guidelines for GMTS were not set as part of the 2012 Study, the study evaluated the system on the following design guidelines:

- Passengers per revenue hour
- Passengers per revenue mile
- Ridership
- Revenue
- Operating expenses
- Revenue per passenger
- Operating cost per passenger
- Annual revenue hours
- Vehicle requirements
- Average frequency

Since the publication of the 2012 Study, GMTS has developed four additional goals to address specific system performance needs. These include:

Provide an annual increase to the Green Fee

- ◆ Maintain an average passenger per hour greater than industry average (17 PPH)
- ◆ Maintain 90 percent on-time performance standard
- ◆ Improve service to New Americans and community members with low incomes

A comprehensive update of GMTS' goals, objectives, and design guidelines incorporates the above-mentioned existing GMTS goals within the Mankato/North Mankato Area Planning Organization (MAPO)



Long-Range Transportation Plan (LRTP) framework of goals. The MAPO LRTP goals were created under MAP-21 legislation. They provide a complete set of systems and operational considerations and were used as the framework for the TDP goals. They include:

- ◆ **Access and Reliability**
  - Develop a transportation system that increases access and reliability options for all users
- ◆ **Economic Vitality**
  - Maintain a transportation system that promotes economic growth through the planning area
- ◆ **Safety**
  - Develop and maintain a transportation system that promotes the safety of all users
- ◆ **Preservation**
  - Develop a regional system that promotes the preservation of the existing and future transportation system
- ◆ **Multimodal Transportation**
  - Develop and maintain a multimodal transportation system that offers viable connectivity to vehicular and active transportation options that align with public health initiatives and land use plans
- ◆ **Coordination and Collaboration**
  - Maintain intergovernmental cooperation and coordination, along with community participation and input in all stages of the transportation planning process
- ◆ **Education**
  - Establish the building blocks of a new MPO
- ◆ **Environmental Conservation and Sustainability**
  - Support transportation improvements that promote energy conservation to improve community quality of life, health, and character
- ◆ **Funding and Implementation**
  - Develop a balanced transportation system that effectively uses available transportation funds
- ◆ **Land Use**
  - Establish a strong connection between transportation modes and the land uses that they serve
- ◆ **Security**
  - Work with the county to increase security of the transportation system for motorized and non-motorized users in preparedness for emergency events and natural disasters
- ◆ **System Management**
  - Promote efficient system management and operations while increasing collaboration among businesses, community and industry groups, and federal, state, and local governments to better target investments and improve accountability

## Goals and Objectives Update

In addition to building upon the MAPO LRTP goals, the updated goals and objectives were developed by integrating performance measures from the Greater Minnesota Transit Investment Plan, feedback from the public, the goals, objectives, and standards of peer transit agencies, the FAST Act requirements, and Title VI requirements for transit providers.

The updated goals, objectives, and guidelines follow.

## Access and Reliability

### Develop a transportation system that increases access and reliability options for all users

Objective 1: Maintain or increase service frequency

Objective 2: Extend service hours further into the evening

Objective 3: Provide service on Sundays

Objective 4: Maintain quality service to MSU-Mankato

Objective 5: Improve service for New Americans and community members with low incomes

Objective 6: Improve service for middle and high school students

Objective 7: Increase system ridership each year

Objective 8: Minimize overcrowding on buses

Objective 9: Improve system on-time performance

Objective 10: Implement transit signal priority at key intersections

### Design Guidelines and Levels

- ◆ Frequency
  - Average frequency of 30 minutes on 60 percent of routes
  - Minimum frequency of 30 minutes on all U-Zone (MSU-Mankato) routes
- ◆ Revenue hours per capita: 0.7 revenue hours per capita
- ◆ Increase system ridership by 3 percent each year
- ◆ Maximum seated passenger load: 120 percent
- ◆ On-time performance: 90 percent

## Economic Vitality

### Maintain a transportation system that promotes economic growth throughout the planning area

Objective 1: Provide service within ¼ mile<sup>1</sup> of local commercial activity centers, educational institutions, and other major destinations

Objective 2: Increase access to jobs, educational opportunities, and housing, with an emphasis on jobs, education, and housing for people with low- to moderate-incomes

Objective 3: Provide service to businesses and their employees during the major work schedule

### Design Guidelines and Levels

- ◆ Service Availability
  - Increase the number jobs within ¼ mile of routes
  - 75 percent of service area population within ¼ mile of routes
  - 80 percent of affordable housing within ¼ mile of routes
  - 90 percent of major activity centers within ¼ mile of routes

<sup>1</sup> ¼ mile is the industry standard for the distance the average person is willing to walk to a local bus stop

## Safety

### Develop and maintain a transportation system that promotes the safety of all users

Objective 1: Promote the safety of all users by developing an agency safety plan and training staff and drivers in incident response

Objective 2: Include safety tips for riding the bus in marketing and educational outreach materials

Objective 3: Ensure safe waiting areas for passengers by providing transit-supportive infrastructure (e.g., lighting, benches, and/or shelters) at major stops

### Design Guidelines and Levels<sup>2</sup>

- ◆ Crashes per 100,000 revenue miles: 0.4
- ◆ Shelters at stops with at least 20 boardings per day or major transfer points
- ◆ Benches at bus stops with 15 or more daily boardings
- ◆ Lighting at bus stops with 15 or more daily boardings

## Preservation

### Develop a regional system that promotes the preservation of the existing and future transportation system

Objective 1: Create a Transit Asset Management plan and update it every 4 years

### Design Guidelines and Levels<sup>3</sup>

- ◆ Fleet condition: At least 80 percent of all regular fleet available for operations
- ◆ Spare Ratio: Ratio of spare vehicles to fleet vehicles is less than 20 percent
- ◆ Equipment: 50 percent of non-revenue vehicles meet or exceed useful life
- ◆ Rolling Stock: 20 percent of revenue vehicles meet or exceed useful life
- ◆ Facilities: 50 percent of facilities (including passenger amenities) adequate or better

## Multimodal Transportation

### Develop and maintain a multimodal transportation system that offers viable connectivity to vehicular and active transportation options that align with public health initiatives and land use plans

Objective 1: Connect to other local and regional transit services (Minnesota River Valley Transit and True Transit) and to other last mile-connectivity options (e.g., transportation network companies)

Objective 2: Provide bicycle parking at transit centers and major bus stops

Objective 3: Increase pedestrian access by locating bus stops along sidewalks and trails

Objective 4: Support MAPO and partner agencies in adopting a complete streets policy

### Design Guidelines and Levels

- ◆ 90 percent of regional transit routes have no wait transfers to GMTS routes
- ◆ Bicycle parking at transit stops with 20 or more boardings per day
- ◆ Pedestrian sidewalks or trails within ¼ mile of bus stops with at least 20 boardings per day

<sup>2</sup> Design guidelines recommended in the Greater Minnesota Transit Investment Plan

<sup>3</sup> Design guidelines recommended in the Greater Minnesota Transit Investment Plan

## Coordination and Collaboration

### Maintain intergovernmental cooperation and coordination, along with community participation and input in all stages of the transportation planning process

Objective 1: Engage the local business community and local, state, and federal governments to combine local and regional transportation improvement efforts

Objective 2: Coordinate with MAPO on local and regional transit improvements

Objective 3: Seek community participation and input in planning processes such as route modifications, service expansions, stop/shelter locations

Objective 4: Report system design guidelines internally to management and externally to decision-makers and the general public

Objective 5: Coordinate with human services to share resources and align efforts to improve public transportation

Objective 6: Seek opportunities for public-private partnerships (e.g., Transportation Network Companies) to improve transportation options and expand on pilot programs

## Education

### Educate the Greater Mankato area on how to ride the transit system and the benefits of transit\*

Objective 1: Create how to ride materials, videos, and frequently asked questions

Objective 2: Host travel training sessions at schools, senior living facilities, and community events

Objective 3: Advertise travel training on the GMTS website

Objective 4: Create materials that highlight the benefits of transit to individuals and the community and illustrate the true costs of automobile ownership

Objective 5: Collaborate with major employers to advertise and educate their employees directly

\*NOTE THIS IS A DIFFERENT GOAL STATEMENT THAN WHAT WAS USED IN THE LONG-RANGE TRANSPORTATION PLAN

## Environmental Conservation and Sustainability

### Support transportation improvements that promote energy conservation to improve community quality of life, health, and character

Objective 1: Reduce CO2 emissions

Objective 2: Integrate GMTS into development of quality of life initiatives in the Greater Mankato area

Objective 3: Increase alternate fuel vehicles in the GMTS fleet

## Design Guidelines and Levels

- ◆ Add an electric bus to the fleet in the next 5 years

## Funding and Implementation

### Develop a balanced transportation system that effectively uses available transportation funds

Objective 1: Maintain an average passengers-per-hour greater than peer average



Objective 2: Promote cost efficiency by maintaining or increasing the system's farebox recovery ratio

### Design Guidelines and Levels

- ◆ Passengers per revenue hour: Greater than 17
- ◆ Paratransit trips per revenue hour: Greater than 2
- ◆ Passengers per revenue mile: Greater than 2
- ◆ Farebox recovery
  - Fixed-Route: 20 percent
  - Mobility Bus: 6 percent

### Land Use

**Establish a strong connection between transportation modes and the land uses that they serve**

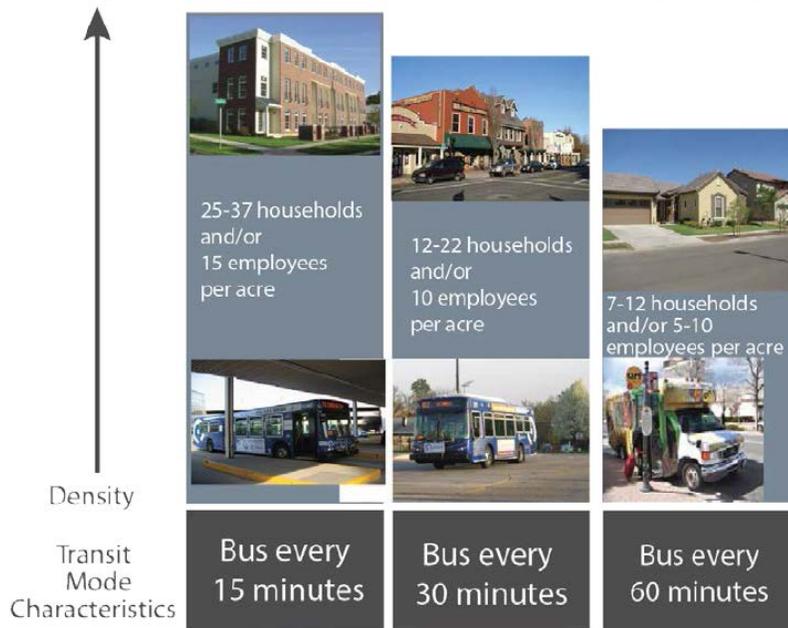
Objective 1: Facilitate and promote moderate to higher density and mixed-use development in areas near or along planned/existing transit routes

Objective 2: Encourage the concentration of employment and services along transit routes

Objective 3: Promote transit-oriented development into small area plans, master-planned developments, and site plans

### Design Guidelines and Levels

- ◆ Consider using the Greater Minnesota Transit Investment Plan's Population and Employment density guidelines when encouraging development along transit routes
  - Bus every 15 minutes: 25-37 households and/or 15 employees per acre
  - Bus every 30 minutes: 12-22 households and/or 10 employees per acre
  - Bus every 60 minutes: 7-12 households and/or 5-10 employees per acre



## Security

### **Increase security of the transportation system for motorized and non-motorized users in preparedness for emergency events and natural disasters**

Objective 1: Coordinate with the County on its Emergency Event and Natural Disasters Plan and seek opportunities to utilize the region's transit service in such events

Objective 2: Develop an agency safety plan and certify the plan meets FTA requirements

Objective 3: Maintain or reduce the number of security-related complaints

Objective 4: Maintain or improve customer satisfaction regarding perceptions of safety and security

## System Management

### **Promote efficient system management and operations while increasing collaboration among businesses, community and industry groups, and federal, state, and local governments to better target investments and improve accountability**

Objective 1: Establish service standards for each mode regarding vehicle loads, vehicle headways, on-time performance, and service availability, as required by Title VI

Objective 2: Establish systemwide service policies for transit amenities and vehicle assignment by mode, as required by Title VI

Objective 3: Annually review Title VI and the Greater Minnesota Transit Investment Plan performance indicators and related processes to ensure consistency with all requirements

Objective 4: Monitor and reduce operating costs per passenger

## Design Guidelines and Levels

- ◆ Service Standards
  - Vehicle load standard: 1.2
  - Vehicle headway standard
    - Weekday: 30 minutes
    - Weekend: 60 minutes
  - On-time performance standard: 90 percent
  - Service availability standard: 75 percent of population within ¼ mile of routes
- ◆ Service Policies
  - Transit amenities standards
    - Shelters at stops with at least 20 boardings per day or major transfer points
    - Benches at bus stops with 15 or more daily boardings
    - Lighting at bus stops with 15 or more daily boardings
  - Vehicle assignment standard: vehicles with greater capacity will be assigned to routes with the greater ridership
- ◆ Operating cost per passenger: Less than or equal to \$3

## Next Steps

The continued monitoring of the system is dependent on the ability to collect and analyze data. GMTS should work to collect the following data to more accurately measure the design guidelines and levels indicated for the goals above:

- Automatic Vehicle Location (AVL)
- Automated Passenger Counter (APC)
- Farebox Data
- Ridership Data

Data should be collected at a granular level if possible, making trip-level and/or stop-level data collection a priority.