



Saint Cloud
Area Planning Organization

1040 County Road 4, St. Cloud, MN 56303-0643

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October 13, 2011

Mr. Steve Voss
Minnesota Department of Transportation
1991 Industrial Park Road
Baxter, MN 56401

Re: 2011 St. Cloud Area Planning Organization Transportation System Management (TSM)

Dear Mr. Voss:

In accordance with the Memorandum of Understanding (MOU) between the St. Cloud Area Planning Organization (APO), the Minnesota Department of Transportation (Mn/DOT), and the Metropolitan Transit Commission (MTC), I have enclosed for your review and consideration the 2011 APO Transportation System Management (TSM) document.

The enclosed document was adopted by the St. Cloud APO Executive Board on October 13, 2011.

Sincerely,

Cathryn C. Hanson
Transportation Planner

Cc: Bobbi Retzlaff, MnDOT
Innocent Eyoh, MPCA
David Tripp, MTC

Representing the Following Jurisdictions

Benton County • Haven Township • LeSauk Township • St. Augusta • St. Cloud • St. Joseph
St. Joseph Township • Sartell • Sauk Rapids • Sherburne County • Stearns County • Waite Park



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MEMORANDUM

DATE: October 7, 2011

TO: APO Executive Board

FROM: Cathryn Hanson

RE: 2011 Transportation System Management (TSM) Document

Metropolitan Transportation Planning regulations require the APO to develop a transportation plan that includes both long and short range planning elements. The TSM is considered the short-range element of the APO's Transportation Plan. It addresses two of the seven planning factors that must be considered by the metropolitan transportation planning process. The objective of TSM is to attain maximum efficiency and utilization from the existing transportation system through low cost improvements.

The TSM document consists of two segments referred to as the Process and the Plan. The Process is simply the methodology used to develop the Plan. Since the Process is unchanged from year to year, these pages are not included in the attachment. Also, pages relative to analysis of elements in the plan are not included. Should you desire a copy of the Process and Plan in its entirety, please let me know.

The roadway portion of the 2011 Plan studied 190 intersections throughout the metropolitan area. Based on the evaluation methods described in the Process, no locations were considered deficient from either an accident or congestion perspective for the time period studied, however all locations will continue to be monitored in the future.. Listed below is a summary of the locations evaluated in each jurisdiction:

<u>Jurisdiction</u>	<u>Locations Requiring Evaluation</u>	<u>Locations Considered Deficient</u>
St. Augusta	0	0
St. Cloud	139	0
Waite Park	16	0
Sauk Rapids	6	0
Sartell	8	0
St. Joseph	6	0
Stearns Co.	8	0
Sherburne Co.	1	0
Benton Co.	<u>6</u>	<u>0</u>
	190	0

The transit portion of the Plan, addresses 25 different aspects of transit operation and transit management. The transit portion of this document was produced in collaboration with Metro Bus.

The 2011 TSM Plan was reviewed and approved by the Technical Advisory Committee on September 8, 2011.

Recommended Action: Adopt the 2011 Transportation System Management Document.

Representing the Following Jurisdictions

Benton County • Haven Township • LeSauk Township • St. Augusta • St. Cloud • St. Joseph
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ST. CLOUD METROPOLITAN AREA TRANSPORTATION SYSTEM MANAGEMENT (TSM) REPORT 2011

Prepared by the St. Cloud Area Planning Organization
October 2011

This report is the product of a study funded in part by the U.S. Department of Transportation.

The contents of the report reflect the views of the Saint Cloud Area Planning Organization, which is responsible for the facts and the accuracy of the data presented herein. The contents do not necessarily reflect the official views or policy of the U.S. Department of Transportation.

This report does not constitute a standard, specification, or regulation.

St. Cloud Area Planning Organization

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CERTIFICATION

ST. CLOUD AREA PLANNING ORGANIZATION

HEREBY CERTIFIES THAT the Transportation System Management Document was adopted at a regular meeting of the St. Cloud Area Planning Organization on October 13, 2011.

Scott M. Mareck, Executive Director
St. Cloud Area Planning Organization



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I. INTRODUCTION

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) requires each metropolitan area, as a condition to the receipt of federal financial assistance, to have a "continuing, cooperative, and comprehensive transportation planning process that results in plans and programs that consider all transportation modes and supports metropolitan community development and social goals. These plans and programs must lead to the development and operation of an integrated intermodal transportation system that facilitates the efficient, economic movement of people and goods."

The metropolitan transportation planning process must include development of the following:

- A Unified Planning Work Program (UPWP) describing the mutual responsibilities of the metropolitan planning organization, the State, and operators of publicly-owned transit services in carrying out planning requirements.
- A transportation plan including both long-range and short-range strategies/actions that lead to the development of an integrated intermodal transportation system that facilitates the efficient movement of people and goods.
- A Transportation Improvement Program (TIP) must be a staged multi-year program of transportation improvement projects consistent with the transportation plan.

Prior to the Intermodal Surface Transportation Efficiency Act (ISTEA), metropolitan planning rules and regulations required the short-range element of the Transportation Plan to be addressed by the Transportation System Management (TSM) Document.

These rules and regulations require that the TSM element of the Transportation Plan shall:

- Provide for the short-range transportation needs of the urbanized area by making efficient use of existing transportation resources and providing for the movement of people in an efficient manner; and
- Identify traffic engineering, transit, regulatory, pricing, management, operational, and other improvements to the existing urban transportation system not including new transportation facilities or major changes in existing facilities.

Figure I on page 3, shows how TSM fits into the St. Cloud Area Planning Organization's (APO's) planning process.

SAFETEA LU lists eight planning factors that must be considered in the transportation planning process. The system management, system safety and system preservation factors are associated with TSM strategies.

Preservation of existing transportation system seeks methods of reducing travel volumes that the system must accommodate. These Transportation Demand Management (TDM) methods are focused primarily on the usage of transit services. Accordingly, the APO and the Metropolitan Transit Commission (MTC) have agreed to address this factor as part of the Transit Plan.

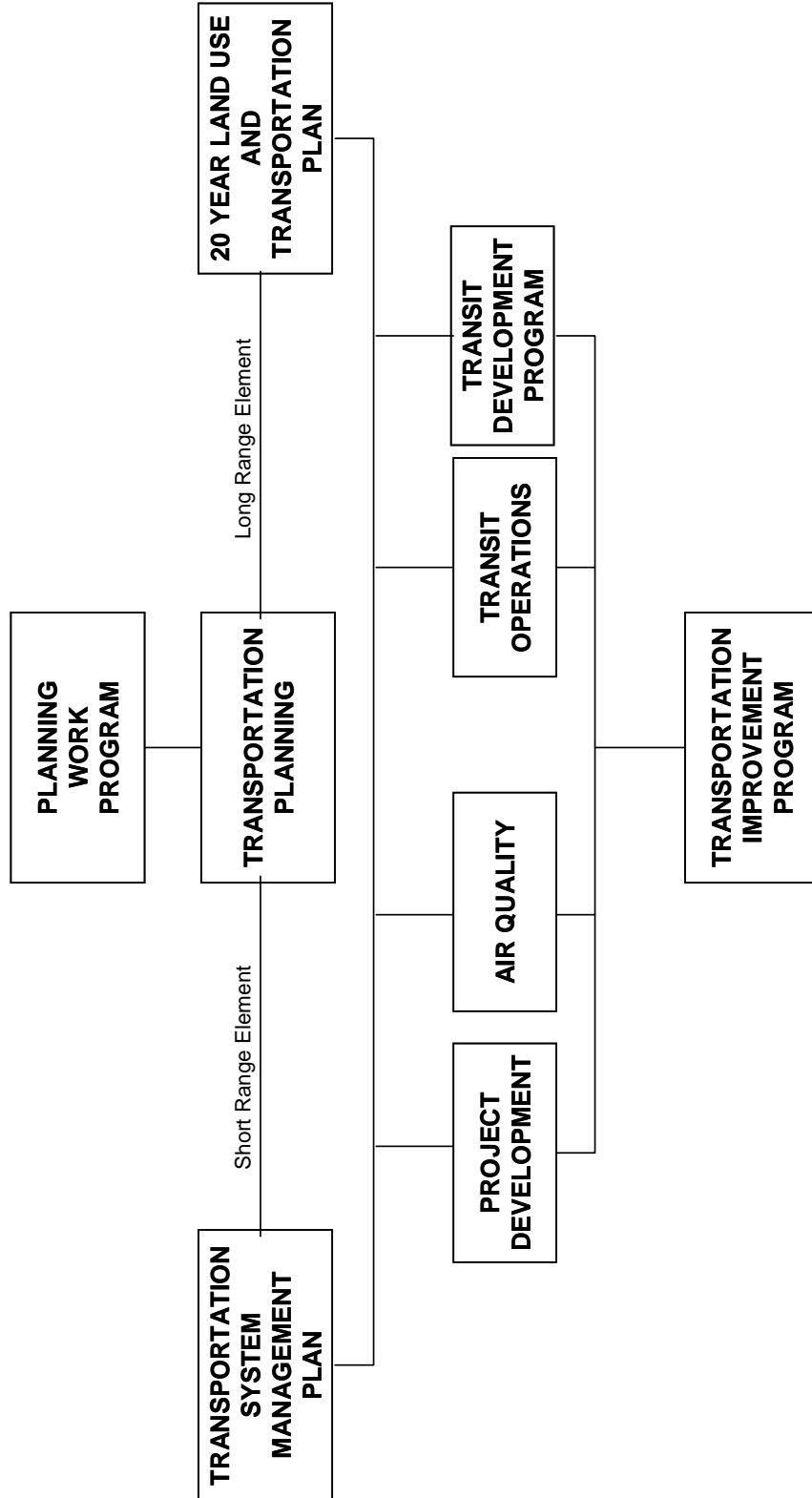
Promoting efficient system management and operation and system safety can be considered as synonymous with TSM in the St. Cloud area. These types of strategies have the same goals as TDM but are more focused on increasing the efficiency of the existing transportation system.

The purpose of the TSM document is to establish overall policies and present a process to be followed in developing plans, which will ensure the efficient use of the existing transportation system. This process is shown in Appendix D.



II. ORGANIZATION

PRODUCTS OF THE APO TRANSPORTATION PLANNING PROCESS





According to Federal requirements, the Metropolitan Planning Organization (MPO) is the agency responsible for developing both the long-range and short-range elements of the Transportation Plan in urbanized areas. The APO as the officially designated MPO for the St. Cloud Urbanized Area has the responsibility for coordination, development, and publication of the TSM document.

Development of the TSM element can only be effective if it includes the involvement of a wide range of transportation-related agencies and organizations. Participants in the TSM development come from the APO's Technical Advisory Committee (TAC). The TAC provides representation for technical staff (primarily engineers and planners) from six (6) municipalities, area townships, three (3) counties, Mn/DOT, FHWA, MTC, and the Pollution Control Agency (PCA).

Each of these groups advise the APO on transportation-related matters including but not limited to, the development of transportation plans and programs, preparation of the transportation portion of the work program and study design, and review of transportation projects submitted to the APO.

The organizational structure of agencies responsible for various aspects of TSM planning, programming and implementation are listed in Appendix D.

III. FORMULATION OF OVERALL POLICY STRATEGIES

In 2010, the APO adopted the St. Cloud Metropolitan Area 2035 Long Range Transportation Plan (the Plan). This Plan provides information necessary for making decisions on when and where improvements should be made in the transportation system, thus satisfying travel demands and promoting land development patterns that are consistent with the urbanized area's goals and objectives.

The goals and objectives developed for the Plan are the framework for the development of TSM policy strategies. It is essential that the TSM element be compatible with needs and issues identified in the Plan. For example, the long-range plan for a particular project could affect the type of TSM strategy used as an interim measure. Conversely, a TSM strategy could make a long-range capital-intensive project unnecessary, possibly postpone its implementation or alter its design. Therefore, the TSM element should respond to applicable goals and objectives of the Plan, by providing more efficient utilization of existing transportation system investments.

The Plan's goals are organized into six major categories: mobility and accessibility, transportation investments for the movement of freight and people, multimodal solutions, safety, social/environmental/economic impacts, and transportation system preservation. These goals guide transportation planning efforts in the St. Cloud Metropolitan Area to accommodate all modes of travel in a safe and efficient manner with minimal social and economic impacts and assure the attainment of air quality and noise level standards.

It must be recognized that some TSM actions resulting from the above policy strategies will be competitive rather than complementary. As an example, promotion of carpooling through preferential employee parking can adversely affect an action to increase transit ridership. Also, transportation policymakers must be cognizant of possible conflicts between jurisdictions promoting different types of actions, e.g. a central city could address its problems with traffic restraint projects while suburbs could promote traffic expediting projects. The evaluation process will address these inter-action and inter-jurisdiction conflicts and discuss trade-offs.



APO 2035 Transportation Plan: Policies, Strategies, and Performance Measures

Policies	Strategies	Performance Measures (1)
Improve Access and Mobility of Entire Transportation System	Provide improved system connectivity	Reduction of congested lane miles from 2035 Base Reduction of VMT from 2035 Base Reduction of VHT from 2035 Base % of APO target spent on roadway capacity improvements (50% goal)
	Provide additional system capacity	
	Encourage sound access management	
	Address the most congested facilities	
	Encourage smart land use planning	
Maximize Transportation Investments for Movement of People and Freight	Advance investment strategies of the MN freight & passenger rail plan	Progress towards implementing Northstar to St. Cloud
	Provide improved system connectivity & improved system capacity	Reduction of congested lane miles, VMT & VHT from 2035 base
Promote and Support Multi-Modal Solutions	Invest in multi-modal solutions including bike, pedestrian & transit	Increase in bus route service hours/passengers % of APO target spent on transit, bike, ped projects (10% goal)
Improve the Safety of All Transportation Modes and Users	Implement low-cost safety improvements	% of APO target invested in safety projects
	Implement intersection safety improvements from TSM Report	# of TSM projects implemented
	Increase HSIP, SRTS, HES & HRRR safety investments	# of HSIP, SRTS, HES & SRR projects implemented
Minimize Social, Economic and Environmental Impacts	Choose transportation solutions that incorporate multiple modes and minimize SEE impacts	# of successfully completed NEPA processes by cities, counties and Mn/DOT in APO Area
Promote System Preservation	Increase system preservation investments	% of APO target invested in road preservation projects (40% goal)

**TSM STRATEGIES, OBJECTIVES AND CRITERIA DEFINITIONS**

POLICY STRATEGY	OBJECTIVE	CRITERIA
EMPHASIZE IMPROVED UTILIZATION OF THE EXISTING TRANSPORTATION SYSTEM	MINIMIZE CONGESTION AT ARTERIAL INTERSECTIONS	LEVEL OF SERVICE ON THE FACILITY
	MINIMIZE ACCIDENTS AT ARTERIAL INTERSECTIONS	TOTAL ANNUAL ACCIDENTS ELIMINATED
	MINIMIZE ARTERIAL TRAVEL TIME	TRAFFIC CONTROL DEVICE USED
	MAXIMIZE AVAILABILITY OF TRANSIT TO ACTIVITY CENTERS	PROJECT ACCOMMODATION FOR TRANSIT VEHICLES
	MAXIMIZE AVAILABILITY OF ARTERIAL/COLLECTOR SYSTEM	ACCESSIBILITY ASSUMED
MINIMIZE THE COSTS ASSOCIATED WITH MAINTENANCE OPERATION, AND CAPITAL IMPROVEMENT OF THE SYSTEM	MINIMIZE PHYSICAL IMPROVEMENT COSTS	COST OF NEW RIGHT-OF-WAY
	MINIMIZE ROAD USER COSTS	AVERAGE DELAY PER VEHICLE
	MINIMIZE TRANSIT SYSTEM CAPITAL PURCHASES	PROJECT COSTS
	MINIMIZE TRANSIT COSTS IN OPERATION AND MAINTENANCE	OPERATION COSTS
REDUCE TRANSPORTATION RELATED ENVIRONMENTAL DEGRADATION IMPROVEMENT OF THE SYSTEM	MINIMIZE VEHICLE EMISSIONS AT ARTERIAL INTERSECTIONS	AVERAGE CARBON MONOXIDE CONTRIBUTION
	MINIMIZE NOISE POLLUTION ON ARTERIALS	L10 NOISE LEVEL
	MINIMIZE DISRUPTION AND FRAGMENTATION OF NEIGHBORHOODS	TYPE AND AMOUNT OF RIGHT-OF-WAY
IMPROVE METROPOLITAN TRANSIT MANAGEMENT AND OPERATION	MAXIMIZE TRANSIT USE TO MAJOR ACTIVITY CENTERS	TOTAL TRANSIT VEHICLE/HOURS SERVING CENTER
	MAXIMIZE TRANSIT CONVENIENCE AND COMFORT	TRANSIT HEADWAYS (AVERAGE)
	MAXIMIZE TRANSIT MANAGEMENT EFFICIENCY	COST OF REVENUE RATIO
	MAXIMIZE WIDESPREAD TRANSIT USAGE	AVERAGE DAILY PATRONAGE
	MAXIMIZE TRANSIT OPERATION EFFICIENCY	AVERAGE DAILY PASSENGERS TOTAL CAPACITY



IV. DATA COLLECTION TO IDENTIFY EXISTING SYSTEM CHARACTERISTICS

The objective of TSM is to coordinate the movement of automobiles, transit, taxis, trucks, pedestrians, and bicycles to achieve the maximum system efficiency and productivity.

Transportation system data collection and analysis is the basis for measuring system efficiency. At present there are no established criteria for measuring the efficiency of transportation systems, and there are no federal policies to require or develop any. Rather, system efficiency analysis should be scaled to the size of the urban area and to the data collection and analysis capabilities of the MPO.

To date, TSM data collection efforts involve only automobile and transit characteristics on the arterial and collector street systems. Categories to be considered include: physical, operational, management, and long-range planning characteristics.

V. IDENTIFICATION OF PROBLEMS AND DEFICIENCIES RESULTING IN INEFFICIENT USE OF THE TRANSPORTATION SYSTEM

The collection and analysis of transportation system data is accomplished under the APO Unified Work Program categories:

- 301: Census
- 601: Transportation Data/GIS
- 602: Transportation System Management (TSM)
- 604: Transportation Plan Development
- 608: Bicycle-Pedestrian Planning
- 610: Transit Planning
- 801: External Study Coordination

The primary means for identifying existing deficiencies that result in the inefficient use of the transportation system will be standard traffic engineering and transit management analysis techniques. Typical examples of data collected and plotted for analysis includes:

- Traffic Volume Flow
- Crash Severity Rates
- Network Level of Service
- Functional Classification System
- Transit Revenue and Cost
- Transit Patronage
- Transit Travel Characteristics

In addition to these deficiency indicators, information provided in special transportation-related studies will be utilized whenever applicable. Typical examples of these studies include:

- On-Board Transit Surveys (1979 to 2011)
- Section 15 Transit Data Reports (Annual)
- Non-User Surveys (1980-2008)
- Year 2035 St. Cloud Metropolitan Area Transportation Plan (2010)
- St. Cloud Metropolitan Area External Origin/Destination Survey (1998)
- Metro Area Corridor Studies and NEPA Studies

For roadways, deficiencies are identified through a screening process where existing characteristics are compared to selected evaluation criteria to determine the magnitude of the deficiency. Transit deficiencies are determined on a more subjective basis rather than by set criteria. Figure II on page 10 shows how the deficiency identification process works for roadways. An explanation is provided below on how the deficiency identification process works:



Define Deficiency and Evaluation Criteria:

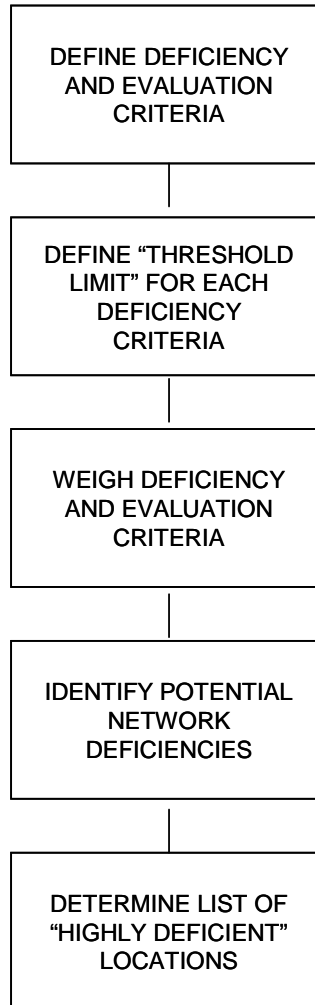
Four (4) criteria were selected as significant identifiers of priority TSM locations:

Deficiency Criteria

5 Year Accident Severity
Current Year Accident

Rate Trend
Severity Rate

**DEFICIENCY IDENTIFICATION
PROCESS**



Evaluation Criteria

Functional Class of Roadway
Level of Service

The evaluation criteria was developed because, in the normal sense of the word, an intersection's functional class is not a deficiency. However, this criteria was used to place more emphasis on the higher-class roadways.

**Define "Threshold Limit" for Each Deficiency Criteria:**

Limits were set for each of the above deficiency criteria to identify when a location would be considered as deficient. A location has to be deficient in at least one area before it is evaluated further.

5 Year Accident Trend: Average Severity ≥ 4

Current Year Accident Severity: ≥ 4

Level of Service: $\leq D$

Weight Deficiency and Evaluation Criteria:

The criteria were weighted to establish their relative importance. Ten points were spread between the four (4) criteria (see figure III on page 12): Level of service was given the largest weight since it is a measure of system efficiency and effectiveness, which is closely related to the primary objective of TSM.

Identify Possible Network Deficiencies:

A number of intersections are then investigated based on measures near the "Threshold Limits" defined in the above step. The recorded measures are converted to a point score on a scale between zero (0) and ten (10). (Ten as worst, zero as best). These scales are shown on page 13.

EXAMPLE: One location identified this year was the intersection of Trunk Highway 23 at 33rd Avenue. See Appendix B for roadway deficiency analysis. The translation from measured deficiency values to a point score is as follows:

<u>MEASURED VALUE FOR CRITERIA</u>	<u>POINT SCORE</u>
Current Year Accident Severity = 0.6	0
5 Year Accident Trend = Level	5
Level of Service = D	6
Functional Class = Maj/Min	8

Determine List of "Highly Deficient" Locations:

Finally after the above steps have been completed, the total weighted score is calculated by multiplying the point score times the weight assigned to the evaluated criteria.

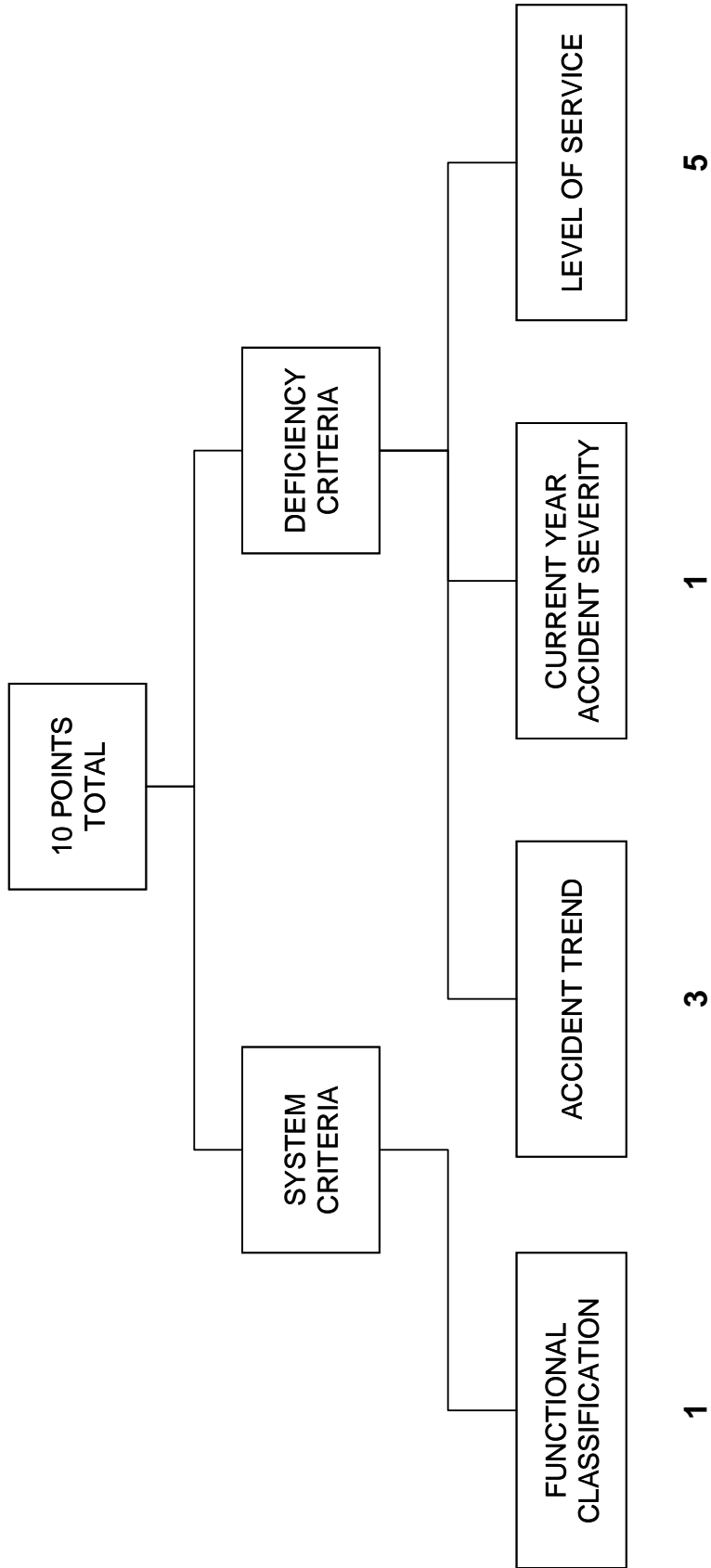
EXAMPLE: Using the same example information as in the previous section for Trunk Highway 23 and 33rd Avenue:

CRITERIA	MEASURED VALUE	POINT SCORE	WEIGHT	WEIGHTED SCORE (COL 3 X COL 4)
Current Year Accident Severity	0.6	0	$1/10 = 0.10$	0
Five Year Accident Trend	Level	5	$3/10 = 0.30$	1.5
Level of Service	D	6	$5/10 = 0.50$	3.0
Functional Class	Maj/Min	8	$1/10 = 0.10$	0.8
<i>Total Weighted Score</i>				5.3

This total weighted score reflects how deficient this location is with respect to ten (worst) and zero (best). TAC then analyzes all intersections above a predetermined score weight for possible solutions within the TSM action categories described in the next section.

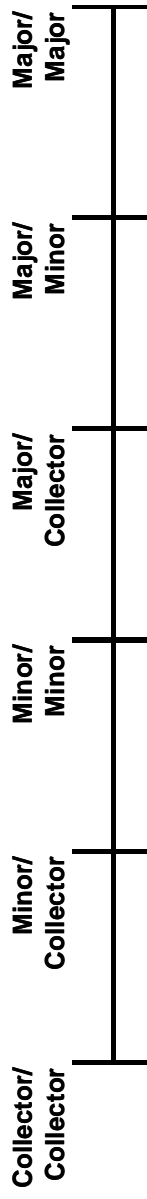
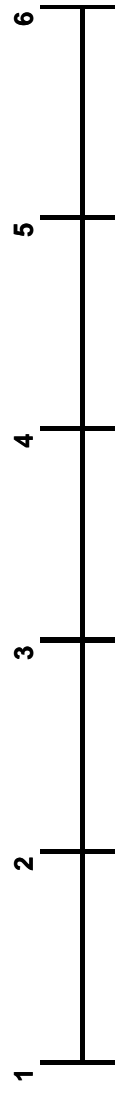
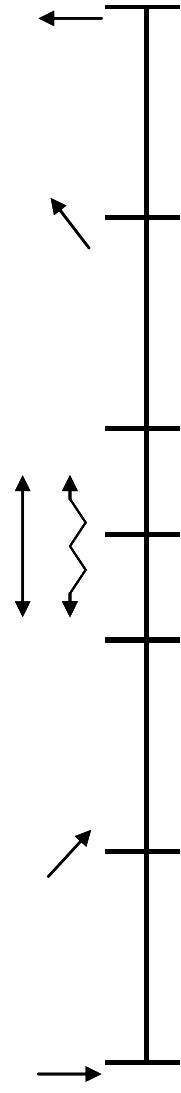
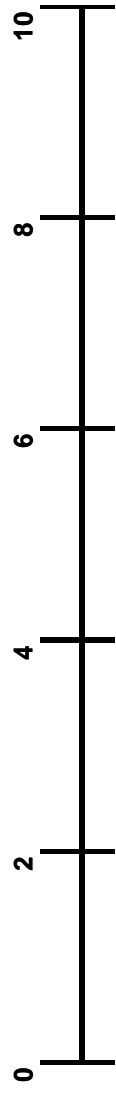


WEIGHT DISTRIBUTION FOR THE FOUR INTERSECTION EVALUATION CRITERIA





CONVERSION SCALES FOR MEASURED CRITERIA TO ADJUST SCORE





VI. DEVELOPMENT OF POSSIBLE SOLUTIONS FOR EXISTING PROBLEMS AND DEFICIENCIES

Identified system deficiencies are then addressed in one of the following four (4) major action categories specified in FHWA and FTA regulations:

- Actions to ensure efficient use of existing road space.
- Actions to reduce vehicle use in congested areas.
- Actions to improve transit service utilization.
- Actions to improve internal transit management efficiency.

Individual actions under each category are structured for the particular needs of St. Cloud area. The list of actions to be considered under each action category can be found in Appendix A.

VII. DEVELOPMENT OF SOLUTION EVALUATION CRITERIA

Transportation system evaluation criteria consistent with short-range objectives indicate the degree to which TSM policy strategies are attained. The criteria are intended for the evaluation of alternative solutions to an identified deficiency or problem. The criteria are organized by the four (4) TSM policy strategies and are shown in the chart on page 5.

These criteria were developed by the TAC after considerable study and discussion. The choice of the criteria were based on:

- The criteria should be as quantifiable as possible to decrease subjectivity.
- The data required should be easily obtainable.
- The criteria should be easily calculated.
- The performance characteristics of the criteria had to be easily understood and straightforward.

In order to keep the list of criteria to a manageable number, the TAC chose only one criteria per objective. Each criteria was chosen based on its ability to best measure the objective achievement.

VIII. EVALUATION AND SELECTION OF ALTERNATIVE SOLUTIONS TO PROBLEMS AND DEFICIENCIES

The alternative selection process involves two separate and independent bodies who determine the course of the evaluation. Local elected officials of the APO establish the relative importance of the policy strategies and the short-range objectives under each strategy. The TAC of the APO establishes the relative importance of the criteria under the objectives. This process is shown in the Figure IV on page 17 (it is also shown in Appendix D).

In the evaluation phase, the achievement of each alternative solution is weighted against the relative importance APO officials and TAC members gave to the policy strategies, objectives, and criteria. The way the process works for roadway deficiencies is as follows:

- After the deficiencies have been identified, engineering staff of each agency with jurisdiction over the location are contacted and informed of the areas where deficiencies were found.
- Technical representatives from affected jurisdictions are asked for possible alternative solutions to each deficiency. Information provided in other planning documents is reviewed at this time for compatibility purposes. The TSM action list is used as a guide for formulating those alternatives.
- Alternative solutions are then analyzed in relation to policy strategies, objectives, and criteria. This procedure results in choosing the preferred solution to a particular deficiency.



- A list is then prepared itemizing the preferred solution and recommended TSM direction for each identified deficiency.

For action categories related to transit, the evaluation and selection process is coordinated with the MTC.

IX. PROJECT INITIATION UNDER TIP

Federal regulations require the TSM process to develop specific actions for implementation. These TSM actions are submitted for inclusion in the Transportation Improvement Program (TIP).

Implementing agencies are encouraged by the APO to select highly deficient locations from the list of recommended TSM projects for inclusion in the TIP. Projects submitted to the TIP are then prioritized for programming and funding. A set of criteria has been determined within the TIP for project prioritization. Each project will be measured against the criteria and given a priority score and rank. High priority projects will be eligible for inclusion in the annual element of the TIP.

The prioritization process is contained in the TIP document. APO officials will annually review the priority list of projects and select those to be programmed in the TIP.

X. 2011 TSM PLAN

The objective of a TSM plan is to make efficient use of existing transportation resources through low-cost projects, which improve all modes of transportation, reduce traffic congestion, conserve gasoline, and minimize air pollution. To this end the 2011 TSM Plan has addressed the following action categories:

- Actions to ensure the efficient use of existing road space.
- Actions to improve transit service utilization.
- Actions to increase transit management efficiency.

Illustrations are provided that map the 2011 monitored locations for jurisdictions within the TSM Plan. In 2011, none of the monitored intersections have been deemed deficient in nature. This is due, in large part, to ongoing efforts to address issues identified by past TSM reports. Several studies are underway that will examine monitored areas and corridors, and several areas have improvements that are currently programmed, and/or are currently under construction.

After projects have been implemented, they are monitored annually and evaluated to determine if TSM policy strategies and objectives were met. This process provides the information necessary for recommendations on the continuation, modification, or elimination of specific actions suggested in the TSM process. Appendices B and C provide background on this year's roadway and transit analysis work.



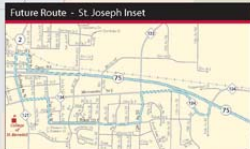
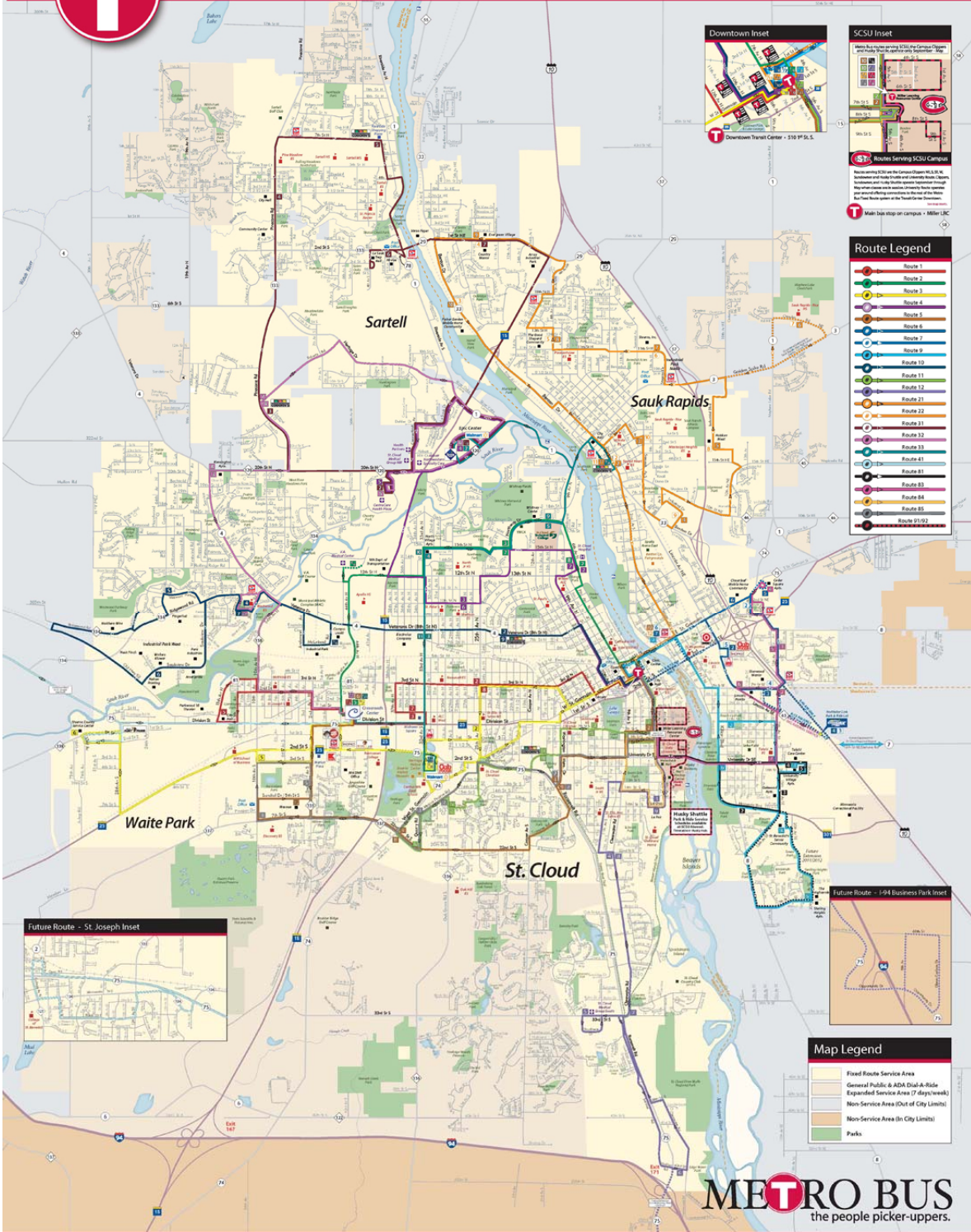
**STUDIED JURISDICTIONS WHERE THE TSM PLAN HAS NOT IDENTIFIED
ANY DEFICIENT INTERSECTIONS AT THIS TIME
(Locations will continue to be monitored):**

- City of Saint Augusta*
- City of Saint Cloud
- City of Saint Joseph
- City of Sartell
- City of Sauk Rapids
- City of Waite Park
- Benton County
- Sherburne County
- Stearns County

*No locations required monitoring in St. Augusta for the 2011 Report.



METRO BUS SYSTEM MAP



METRO BUS
the people picker-uppers.

Download and print your bus schedule at
ridemetrobust.com

251.RIDE(7433)

fax: 320.251.3499 • administration: 320.251.1499
Greyhound/Jefferson Lines: 320.251.5411 • Greyhound 24-hrs a day: 800.231.2222



**METRO BUS
2011 TSM ACTION CATEGORY
TRANSIT SERVICE UTILIZATION IMPROVEMENTS**

TRANSIT CENTER

Identified Deficiency

Permanent transit terminal location needs to be identified.

Background

The need for a permanent location has been studied by past TDP's. Study completed in 1984. Efforts to purchase a site failed in 1984, 1987, 1989 and 1990.

Implemented Action

- 1989 Implement best location option as determined by 1981-89 TDP. Study new proposals from private developers as they occur.
- 1987 Private M&H development failed in summer of 1987.
- 1989 Old fire hall and 1st st/5th ave. So. failed in winter 1989.
- 1990 Old zapp site failed in spring, 1990.
- 1991 Loop lot failed spring of 1991.
- 1992 MTC transit center site located at 5th avenue south/1st street south fall 1991. Transit center project completed august 1992.
- 1993 Greyhound consolidation completed Feb. 1993.
- 2002 West end transit hub project identified and programmed in 2025 transit plan update and programmed in CIP for 2002. Circulation study commenced fall 2002 for Crossroads center to determine optimal transit service operation and bus stop,
- 2005 Additional transit facilities identified in 2030 long range transit plan adopted summer 2005.
- 2004 SCSU bus stop and transfer site improvements approved for new Miller Learning Resources Center at SCSU. Shelters to be added to new bus stop area in 2004.
- 2005 Implementation of crossroads center upgraded bus stops and shelters at current bus staging area. Shelters and bus stop work completed summer 2005.
- 2007 A traffic impact study was conducted as a result of changed traffic patterns downtown as part of a civic center expansion and opening of 5th Av at Hwy 23. Further study of Transit Center may be needed to determine if relocation is necessary as a result of changed traffic patterns downtown as part of a civic center expansion and related traffic pattern change due to opening of 5th Av at Hwy 23.
- 2009 Feasibility analysis of Transit Center and transit hubs completed as part of 2035 LRP Update by AECOM. Recommends existing site improvements and expansion at current site.

Current Status

2011 Feasibility analysis recommends existing site improvements and expansion.

2011 TSM PLAN**Action Recommended**

2011 Complete Transit Center expansion and renovation projects.

BUS SHELTERS

Identified Deficiency

Bus shelter facilities needed at high volume stops.

Background

This program is part of the 1981-89 TDP. Preliminary location study completed in 1982. Original system-wide shelter installation completed in 1984.

**Implemented Action**

- 1982 Developed shelter site identification program as part of TDP and implement construction.
- 1983 36 shelters installed and being maintained.
- 1992 Large modern shelter installed at SCSU Performing Arts Center.
- 1995/6 Ten new shelters installed.
- 1999 Two additional shelters Installed in Sauk Rapids.
- 2001 Replacement of existing wood shelters programmed in CIP starting in 2001 and continuing through FY 2004/05
- 2002 West end transit hub project identified and programmed in 2025 transit plan update and programmed in CIP for 2002.
- 2002 Circulation study commenced fall 2002 for crossroads center to determine optimal transit service operation and bus stop
- 2005 2030 long range transit plan identifies replacement & expansion of transit amenity program.
- 2004 Implementation of crossroads center upgraded bus stops and shelters at current bus staging area.
- 2005 Shelters and bus stop work completed spring 2005.
- 2006 Purchase of replacement shelters and benches in 2006 and 2007 including some with solar lighting and advertising panels.
- 2009 15 new and replacement shelters and 5 benches purchased through STP advanced funding to replace remaining wood shelters and add new sites.

Current Status

- 2011 Final wood shelter replacements completed.

2011 TSM PLAN**Action Recommended**

- Continue maintenance program and identify future sites for more shelters. Move shelters from unproductive areas to higher demand areas.
- Continue working with member cities on transit amenity program, including ordinance revisions to accommodate bus stop advertising and bus stop amenities.

EXPANDED SERVICES**Identified Deficiency**

When requested new or expanded service outside current transit service area.

Background

Metro Bus transit services do not operate outside of member city jurisdiction boundaries.

Implemented Action

- 1990 Feasibility study done for St. Cloud Township 1990.
- 1991 Feasibility study for St. Joseph done 1991. Included Sartell in spring 1991 public phone survey - asked residents about bus service.
- 1992 Sartell requested service feasibility study; completed 1992.
- 1993 Completed travel survey and report for Sartell spring 1993. Sartell took no action.
- 1997 Portions of former St. Cloud township of St. Cloud and Waite park received Specialized Service March 1997.
- 1998 Extended service identified in TDP and 2020 transit plan update for Sartell and St. Joseph for future years.
- 2000 General public service to former St. Cloud township became available march 2000.
- 2000 Prepared feasibility studies for Sartell and St Joseph as component of transit study completed in spring 2000.
- 2001 Transit service plans for the city of Sartell were presented to city council may 2001.



2001 Service to medical group nw and new allina health center could be provided on an interim basis by extending Waite Park and Pantown routes extended to the centracare health plaza in Nov. 2001. Sauk rapids route was extended farther north along Benton Drive to Cty Rd 29/Sartell as part of creation of Sartell route.

2002 Sartell joined the MTC as full member in 2002 as best way to pay local share of services. Implementation of fixed route and dial-a-ride services began in May 2002.

2006 Extension of transit service to St. Joseph studied with Survey. Results indicating low/moderate community support.

2009 Long range plan update includes expansion planning of fixed route services to St. Joseph, St. Augusta, I-94 Business Park, Airport and east St. Cloud, east Sauk Rapids, and west Waite Park Bel Clare Acres/Tri-Cap areas.

Current Status

2011 Further planning and discussion of service expansion on hold.

2011 Sartell route restructured to service Walmart and Sam's Club stores at Epic Center.

2011 TSM PLAN

Action Recommended

2011 Re start expansion plans adopted in 2009 long range route restructuring plan. Work with jurisdictions on expansion planning.

PARK AND RIDE

Identified Deficiency

Park and ride locations needed throughout St. Cloud metro area.

Background

Working with Mn/DOT and area jurisdictions to study potential public & private sites.

Implemented Action

1997 Committee formed to work on regional park & ride lot infrastructure development.

1998 Park & ride development budgeted for 1998 by Mn/DOT for district wide park & ride development.

1999/2000 Park and ride and station site selected for Northstar commuter rail service in Southeast St. Cloud at Lincoln Avenue & TH 10.

2007/08 Park and ride sites identified and evaluated for Phase II Northstar commuter bus service planning along TH 10 and I 94. I 94 sites at Opportunity Drive, CSAH 75 and CSAH 2 in St. Joseph identified for future expansion.

2009 Development of southeast St. Cloud Northstar Link park & ride site to be completed for service start up November 2009.

Current Status

2011 No other park and ride projects underway.

2011 TSM PLAN

Action Recommended

Continue working with jurisdictions on incorporating with transit system and commute corridors.

FIXED ROUTE SERVICE INDUSTRIAL PARK SOUTH AREA ST. CLOUD

Identified Deficiency

Fixed route service to Industrial Park South/Mc Stop are of St. Cloud not available.

**Background**

Area became part of Metro Bus service area in mid-1990's.

Implemented Action

- 1992 Employee surveys conducted.
- 1996 St. Cloud Township merger with city of St. Cloud created potential for service requests.
- 1997 Specialized Service extended to Industrial Park South area March 1997.
- 2000 General public transit service to Industrial Park South became available with expansion of Dial-a-Ride services in march 2000.
- 2001 Extension of transit service to I 94 Business Park being explored as part of DAR service expansion.
- 2008 Route 75 created to south Industrial Park South along Clearwater and Roosevelt Roads to Mc Stop area to accommodate increasing demand for fixed scheduled transit services in 2008. Partially funded by JARC grant through Mn/DOT.
- 2011 Route 75 programmed to be restructured extending the route to SCSU and downtown creating a 60 minute headway.

Current Status

- 2011 Route 75 to be restructuring delayed.

2010/2011 TSM PLAN**Action Recommended**

Monitor performance of restructured Route 75.

- 2011 Revisit restructuring plans for Route 75 as component of system wide restructuring planning.

**Background**

First driver roadeo in 9/86. Safety management program has comprehensive incentive program with yearly results.

Implemented Action

Continue program and update on regular basis driver roadeo and recognition program conducted annually.

2004 Full time driver and staff trainer added

Current Status

Expanded training programs included in annual budget.

2011 TSM PLAN**Action Recommended**

On going Continue driver public relations and skills training.

GOALS AND OBJECTIVES**Identified Deficiency**

System of goals and objectives with performance measures needed.

Background

Some goals and objectives established in late 1970's.

Implemented Action

1987 Review and revise performance concepts.

1989 Goals in APO draft TDP.

1995 Revised goals and objectives and mission statement developed for TDP.

1998 2020 transit plan update completed.

2000 Transit system performance analysis study completed.

2005 Identified service goals and peer group comparisons.

Updated service performance measures system and peer group comparisons completed.

2009 Peer and overall system performance measures reviewed and described in 2035 long range plan update.

Current Status

Goals and objectives to be quantified for annual review and updating.

2011 TSM PLAN**Action Recommended**

Continue to refine goals and objectives with transit plan updates.

2009 Performance measures task in system performance analysis study.

NATIONAL TRANSIT DATABASE**Identified Deficiency**

National transit database analysis compilation and tabulation.

Background

Recording section 15 (now NTD) data since 1986.

**Implemented Action**

- 1992 Computerized data entry program completed for analyzing boarding and deboarding information.
- 2004 Computerized data collection technology utilizing GPS tested.
- 2006 Part time NTD data collector added to staff to regularly collect on/off rider information.

Current Status

All NTD survey information entered into computerized database.
Information primarily used for route and bus stop/shelter programming.

2011 TSM PLAN**Action Recommended**

Continue NTD tabulation. Study ways to make NTD data more useful.

MARKETING**Identified Deficiency**

Marketing program needed updating and improvement.

Background

No comprehensive program existed to date through discussed in the past.

Implemented Action

- 1981 Expand marketing budget.
Target markets and institute program. Have expanded marketing budget. Annual projects established and implemented. Comprehensive plan to be developed.
- 1996 Marketing coordinator hired to organize major rideshare event. Position became permanent upon successful integration of new position within Metro Bus.
- 1998-2000 "a leap in the right direction" alternative transportation event provided community-wide exposure to the benefits of alternative transportation.
- 2007 Metro bus took over courtesy bench program benches replaced with new style.
- 2009 Marketing advertising programs enhanced by contracting with two companies to handle shelter and bench advertising and on-bus advertising.

Current Status

Marketing program includes advertising program for buses, interior and exterior, shelters, and benches.

2011 TSM PLAN**Action Recommended**

Continue to enhance comprehensive marketing plans.

- 2011 Enhance social media exposure through Website, Facebook and other internet social media outlets.

BUS STOP SCHEDULE INFORMATION**Identified Deficiency**

Bus stop schedule information program needs to be developed.

Background

Limited schedule information at high ridership bus stops and shelters.

**Implemented Action**

Bus info to be reviewed and updated with additional signs by using ntd rider data for each route.

2003 New bus stop schedule information display signs purchased and installed

2005 Customer relations coordinator position added oversees external schedule information and outlets.

Current Status

Bus information to be integrated with key bus stop and shelter locations.

All new bus shelters to have schedule timetable information panels integrated.

2011 TSM PLAN**Action Recommended**

Monitor and update annually. 2011 Investigate methods to incorporate real time web-based schedule information at bus stops and online.

ADVANCED DISPATCHING COMMUNICATIONS**Identified deficiency**

Advanced dispatching and communications system needed due to growth of demand responsive services.

Background

Specialized service, evening and Sunday demand responsive service needs to be coordinated with advanced dispatching system.

Implemented Action

1995 Included in capital improvement program.

1997 Dispatching and communications system programmed as an ITS project.
Scoping study completed.

1999 Deployment of dispatching component for paratransit system programmed with MN/DOT St. Cloud TOCC project.

2000 Advanced paratransit dispatching system fully-operational.

2003 Dispatching system computer upgrades completed.

2004 Additional its/communication components for fixed route system explored as an extension of transit priority project.

2005 Upgrade of dial-a-ride communications system combined with fixed route AVL system.
Fixed route AVL demonstration project conducted through a partnership with mentor engineering streets system.

2007/2008 On-board computer upgrades completed.

2009/2010 Mentor STREETS fixed route AVL system operational.

Current Status

Continue to develop advanced communications and dispatching systems.

2011 TSM PLAN**Action Recommended**

2011 Automated stop annunciation and customer information system will become operational through the 2009 ARRA grant program.

TRANSIT SIGNAL PRIORITY**Identified deficiency**

On-time performance of fixed route buses of concern due to increased traffic and signalized intersections.

**Background**

On-time performance of fixed route buses degraded due to increased delay from traffic congestion and signalized intersections.

Implemented Action

- 1997 Study of transit signal prioritization within St. Cloud TOCC ITS scoping project.
- 2000 Transit signal priority pilot test project included TOCC project.
10 buses operating on the southwest route selected for the pilot test with six traffic signals.
- 2001 Evaluation of transit signal priority test project was completed with recommendations for further transit signal priority engineering study and development of deployment plan.
Engineering design and deployment plan development for system-wide operation completed.
Staged implementation began late 2001 and continue into 2002 & 2003.
- 2003 TSP system went live in 2003.
- 2005 System optimization work, final report and evaluation of TSP project.
Annual systemwide TSP maintenance and operational audits began.
- 2007 Econolite TSP software upgraded with introduction of ASC 3 controller.
Opticom emitter lenses replaced on entire fixed route fleet.
- 2009 Opticom emitter lenses replaced.
- 2009 Testing of LED Opticom emitter conducted on four buses for GTT.

Current Status

- 2011 Infrared emitter lenses replaced with LED emitters on entire fleet.

2011 TSM PLAN**Action Recommended**

Continue annual TSP system maintenance audits. 2011 Monitor LED emitter performance.

ELECTRONIC FAREBOXES**Identified deficiency**

Electronic fareboxes are needed to offer additional electronic fare options and accommodate paid transfer system.

Background

New fare collection system included CIP to accommodate ticket transfer system.

Implemented Action

- 1997 Electronic fareboxes programmed in capital improvement program for 1999.
Four Gillig buses delivered fall 1997 equipped with electronic fareboxes.
- 1999 Electronic farebox project included in 1999-2001 capital improvement budgets to equip all 43 fixed route and DAR buses.
- 2000 Electronic farebox award and purchase completed spring 2000.
- 2004 7-Day fixed route pass added.
- 2008 1-Day fixed route pass added.

Current Status

Regular maintenance and fare collection system upgrades completed as needed.

2011 TSM PLAN**Action Recommended**

Monitor farebox system operations.

Consider optimization of fare media types and electronic smart card technologies in the future.



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APPENDICES

Action to Ensure the Efficient Use of Existing Road Space*Traffic Operations Improvement to Manage and Control the Flow of**Motor Vehicles**Channelization**Auxiliary Lanes**One-Way Streets**Improved Signalization**Coordinated Signal Systems**Parking Restriction or Prohibitions**Utilization of Lane Markings**Relocation of Transit Stops and Transfer Points**Truck Restriction and/or Route Restrictions**Improved Street and Intersection Geometrics**Preferential Treatment of Transit and High Occupancy Vehicles**a. Traffic Signal Preemption by Transit Buses**b. Exemption of Transit Buses from Turn and Parking Prohibitions**Conversion of Selected Downtown Streets to Exclusive Bus Use**Creation of Special Turn Lanes or Parking Bays for Buses**Appropriate Provision for Pedestrians and Bicycles**Designation of Bike Routes, Striping of Bike Lanes, and Construction of Bike Paths**Construction of Tunnels, Bridges, and Skyways to Separate Pedestrians and/or Bicycles from Vehicular Traffic**Construction of Pedestrian and/or Parking Malls**Secure and Convenient Storage Areas for Bicycles**Management and Control of Parking**Elimination of On-Street Parking, especially at Peak Hour Periods**Favor Parking by Short-Term Users Over All-Day Commuters**Provision of Fringe and Transportation Corridor Parking to Facilitate Transfers to Transit or Other High Occupancy Vehicles**Pursue a Reduction in the Amount of Long-Term Parking Spaces**Regulation of the Number and Price of Public Parking Spaces**Changes in Work Schedule and Fare Structure**Promote Staggered Work Hours**Promote Flexible Work Hours**Reduce Off-Peak Transit Fares*Actions to Reduce Vehicle Use in Congested Areas*Encouragement of Carpooling and Other Forms of Ride-Sharing**Utilize the Computer Program Developed for Ride Matching in the St. Cloud Urban Area**Make Computer Program Available to Major Employers or Organizations for Promotion of Programs**Work with Firms and Organizations to Provide Incentives for Ride-Sharing (i.e. – preferential parking, subsidize employee transportation costs)**Diversion, Exclusion, and Metering or Auto Access to Specific Areas**Encourage the Use of Traffic Diverters in Residential Neighborhoods to Eliminate Through Traffic**Develop Traffic By-Passes of Congested Areas**Area Licenses, Parking Surcharges, and Other Forms of Congestion Pricing**Establishment of Car-Free Zones and/or Closure of Selected Streets to Through Traffic**a. Encourage Bus Only Traffic on Certain Streets in the CBD*



b. *Promote the Development of Parking Malls and Certain Streets in the CBD which will Increase Parking and Decrease Through Traffic Desires*
Restrictions on Downtown Truck Delivery During Peak Hours

C. *Actions to Improve Transit Service Utilization*

Improve Bus Stop Operation

Relocation

Lengthening

Bus Bays

Pavement Strengthening

Parking and Stopping Restrictions

Off-Street Stations

Bus Stop/Terminal Amenities

Bus Stop Signs

Benches

Shelters

Lights

Heat

Phone

Vending Services

Information Displays

Changes in Fare Structure

General Reduction

General Increase

Peak-Base Differentials

Commuter Discounts

Special Fares (Elderly, etc.)

Reduced Cost Transfers

Increase Loading Efficiency

Wide Doors

Multiple Door Loading

Conductor Fare Collection

"No-Barrier" Collection

In-Station Collection

Passes

Tokens

Minimize Zones

Route Modifications

Change Path

Extend Existing Route

Shorten Existing Route

Interline

Turnbacks

Line Haul-Feeder

New Route

Schedule Modifications

Trippers

Increase Frequency

Decrease Frequency

Change Arrival Times

Change Pick-Up Times

Service Modification

Increase Service Hours

Reduce Service Hours

Reduce Loading Standard



- Set/Change Policy Headways*
- Fleet Modifications*
 - Disposal of Surplus Vehicles*
 - Replace Older Buses*
 - Use Various Bus Sizes*
 - Modify Seating*
 - Rehabilitate Older Vehicles*
 - Expand Reserve Fleet*
- Inter-Modal Integration*
 - Transfer Facilities*
 - Common Stations*
 - Coordinated Routes and Schedules*
- Programming Improvements*
 - Automated Run-Cutting*
 - Improved Data Handling*
 - Automated Data Handling*
 - Improved monitoring/Analysis Capabilities*
- Security Improvements*
 - Silent Alarms*
 - Lighting*
 - Exact Change Policy*
 - Strong Boxes*
- Safety Improvements*
 - Training*
 - Rails and Stanchions*
 - Boarding Area and Door Improvements*
 - Vehicle Lighting*
 - Seat Belts and Modifications*
 - Personnel Safety Measures*
- Special Transit Service*
 - Subscription Service*
 - Express Service*
 - Elderly and Handicapped*
- Modify Demand*
 - Staggered Hours*
 - Short Work Week*
 - Flex-Time*
 - Extended Hours (Shopping)*

D. Actions to Increase Transit Management Efficiency

- 1. Marketing Improvements*
 - Information Booths*
 - Media Campaigns*
 - Information on Buses*
 - Phone Information Center*
 - Destination Signing*
 - Market Analysis*
 - Travel Counseling*
- 2. Management Improvements*
 - Delegate Authority*
 - Assign Responsibilities*
 - Establish Management Objectives*
 - Improve Reporting*
 - Improve Budgeting*
 - Improve Accounting*



- Personnel Relations*
- Internal Communications*
- Short-Range Planning*
- Improved Purchasing*
- Improved Cash Handling*
- In-House Energy Conservation*
- 3. *Supervision of Operations*
 - Roving Supervisors*
 - Checkers*
 - Radios*
- 4. *Maintenance Improvements*
 - a. *Improved Records*
 - Programmed Maintenance*
 - Programmed Inspection*
 - Washing Facilities*
 - Cleaning Facilities*
 - Improved Garages*
 - Improved Shops*
 - Parts Inventory*
 - Energy Conservation*

ROADWAY DEFICIENCY ANALYSIS

2010 RANK	2011 RANK	LOCATION	2006 2007 2008 2009 2010					Measured Criteria			Point Scores				Weighted Scores				TOTAL WEIGHT SCORE
			2006	2007	2008	2009	2010	ACC. TREND	FUN CLASS	L.O.S.	2010 ACC.	ACC. TREND	FUN CLASS	L.O.S.	2010 ACC.	ACC. TREND	FUN CLASS	L.O.S.	
CITY OF ST CLOUD																			
1	1	TH 15 / 2nd St So	3.4	2.5	2.7	2.1	3.1	7	MAJ/MIN	D	3	7	8	6	0.3	2.1	0.8	3.0	6.2
6	2	TH 23 / 25th Ave	0.7	1.1	0.8	1.2	1.6	6	MAJ/MIN	D	1	6	8	6	0.1	1.8	0.8	3.0	5.7
11	3	Division St / TH 15	2.0	1.6	1.0	0.9	0.9	5	MAJ/MAJ	D	0	5	10	6	0.0	1.5	1.0	3.0	5.5
21	4	University Dr / Cooper Ave	0.8	1.4	1.5	1.9	2.4	7	MIN/MIN	C-D	3	7	4	5	0.3	2.1	0.4	2.5	5.3
3	5	TH 23 / 33rd Ave	1.6	1.4	0.6	1.3	0.6	5	MAJ/MIN	D	0	5	8	6	0.0	1.5	0.8	3.0	5.3
7	6	TH 23 / Washington Memorial	0.5	0.6	0.6	0.5	0.4	4	MAJ/MAJ	D	0	4	10	6	0.0	1.2	1.0	3.0	5.2
2	7	University Dr / 9th Ave So	2.0	3.2	2.8	2.6	0.7	6	MIN/MIN	D	0	6	4	6	0.0	1.8	0.4	3.0	5.2
13	8	CSAH 75 / Waite Ave	1.0	0.9	0.9	0.5	1.1	5	MAJ/COL	D	0	5	6	6	0.0	1.5	0.6	3.0	5.1
5	9	TH 10 / East St. Germain	0.9	2.2	1.4	2.7	0.9	6	MAJ/MIN	C-D	0	6	8	5	0.0	1.8	0.8	2.5	5.1
15	10	3rd St No / TH 15	1.7	2.2	0.7	0.9	1.2	6	MIN/LOC	D	0	6	1	6	0.0	1.8	0.1	3.0	4.9
9	11	10th Ave No / 2nd St	0.6	1.4	0.7	1.5	0.5	5	MIN/MIN	D	0	5	4	6	0.0	1.5	0.4	3.0	4.9
20	12	TH 15 / CR 120	0.0	0.0	1.0	1.3	1.2	5	MAJ/MIN	C-D	0	5	8	5	0.0	1.5	0.8	2.5	4.8
16	13	9th Ave No / Northway Dr	0.4	0.0	1.3	1.4	1.7	6	MIN/MIN	C-D	1	6	4	5	0.1	1.8	0.4	2.5	4.8
12	14	TH 15 / 8th St No	1.3	1.3	1.1	1.4	0.7	5	MAJ/MIN	C-D	0	5	8	5	0.0	1.5	0.8	2.5	4.8
	15	7th Ave / 1st St So	0.0	0.0	0.0	0.0	2.3	8	COL/COL	C	3	8	0	4	0.3	2.4	0.0	2.0	4.7
26	16	TH 23 / Lincoln Ave	1.2	2.2	1.1	1.7	1.7	6	MAJ/COL	C	1	6	6	4	0.1	1.8	0.6	2.0	4.5
17	17	CSAH 75 / 33rd St So	0.6	0.0	1.6	0.9	0.0	4	MAJ/MIN	C-D	0	4	8	5	0.0	1.2	0.8	2.5	4.5
4	18	St. Germain / Wilson Ave	0.0	1.3	4.0	4.0	0.0	7	MIN/MIN	C	0	7	4	4	0.0	2.1	0.4	2.0	4.5
33	19	33rd Ave So / CSAH 75	0.8	0.7	0.0	0.0	0.4	2	MAJ/MIN	D	0	2	8	6	0.0	0.6	0.8	3.0	4.4
30	20	TH 23 / 29th Ave	1.9	1.5	1.1	0.5	1.2	6	MAJ/COL	C	0	6	6	4	0.0	1.8	0.6	2.0	4.4
29	21	8th St No / 25th Ave	1.1	0.9	1.4	1.9	1.9	6	MIN/MIN	C	2	6	4	4	0.2	1.8	0.4	2.0	4.4
8	22	12th St No / 29th Ave	0.0	1.4	2.6	3.6	0.0	7	MIN/COL	C	0	7	2	4	0.0	2.1	0.2	2.0	4.3
45	23	CSAH 4 / 54th Ave	1.6	1.4	0.8	1.0	1.4	6	MIN/MIN	C	1	6	4	4	0.1	1.8	0.4	2.0	4.3
38	24	TH 10 / 15th Ave SE	1.7	1.8	1.3	0.4	1.1	5	MAJ/MIN	C	0	5	8	4	0.0	1.5	0.8	2.0	4.3
36	25	TH 23 / Cooper Ave	0.0	0.0	0.3	0.3	0.8	5	MAJ/MIN	C	0	5	8	4	0.0	1.5	0.8	2.0	4.3
35	26	8th St No / 33rd Ave	0.0	2.1	0.6	1.5	1.6	6	MIN/MIN	C	1	6	4	4	0.1	1.8	0.4	2.0	4.3
24	27	TH 23 / Waite Ave	0.9	0.8	0.0	0.7	0.2	4	MAJ/COL	C-D	0	4	6	5	0.0	1.2	0.6	2.5	4.3
23	28	TH 15 / 12th St No	1.0	1.9	1.0	1.0	0.8	5	MAJ/MIN	C	0	5	8	4	0.0	1.5	0.8	2.0	4.3
19	29	25th Ave So / CSAH 75	0.4	2.1	0.5	1.5	0.5	5	MIN/MAJ	C	0	5	8	4	0.0	1.5	0.8	2.0	4.3
18	30	University Dr / Wash Mem Dr	0.9	1.1	0.6	1.5	0.4	5	MAJ/MIN	C	0	5	8	4	0.0	1.5	0.8	2.0	4.3
28	31	TH 10 / TH 23 (Underpass)	1.5	0.9	0.2	0.2	0.5	4	MAJ/MAJ	C	0	4	10	4	0.0	1.2	1.0	2.0	4.2
27	32	TH 23 / Park Ave	1.0	0.3	0.6	0.6	0.3	4	MAJ/LOC	C-D	0	4	5	5	0.0	1.2	0.5	2.5	4.2
47	33	33rd Ave No / 3rd St	2.8	2.0	1.3	0.0	1.0	6	MIN/MIN	C	0	6	4	4	0.0	1.8	0.4	2.0	4.2
22	34	University Dr / 5th Ave So	1.4	1.7	2.2	2.1	0.9	6	MIN/MIN	C	0	6	4	4	0.0	1.8	0.4	2.0	4.2
32	35	CSAH 75 / 37th Ave So	0.0	0.0	0.7	0.0	0.4	2	MAJ/LOC	D	0	2	5	6	0.0	0.6	0.5	3.0	4.1
39	36	TH 23 & 9th Ave So	0.0	0.0	0.0	1.0	0.5	4	MAJ/MIN	C	0	4	8	4	0.0	1.2	0.8	2.0	4.0
14	37	St. Germain / Lincoln Ave	1.8	1.8	1.6	3.1	1.1	6	MIN/COL	C	0	6	2	4	0.0	1.8	0.2	2.0	4.0
	38	TH 23 / 23rd Ave No	0.0	0.0	0.0	0.0	0.3	5	MAJ/LOC	C	0	5	5	4	0.0	1.5	0.5	2.0	4.0
67	39	9th Ave No / 8th St No	0.8	0.5	1.3	0.7	1.1	5	MIN/MIN	C	0	5	4	4	0.0	1.5	0.4	2.0	3.9
48	40	4th Ave No / 1st St	0.0	0.6	2.9	0.8	0.0	5	MIN/MIN	C	0	5	4	4	0.0	1.5	0.4	2.0	3.9

ROADWAY DEFICIENCY ANALYSIS

2010 RANK	2011 RANK	LOCATION						Measured Criteria			Point Scores				Weighted Scores				TOTAL WEIGHT SCORE
			2006	2007	2008	2009	2010	ACC. TREND	FUN CLASS	L.O.S.	2010 ACC.	ACC. TREND	FUN CLASS	L.O.S.	2010 ACC.	ACC. TREND	FUN CLASS	L.O.S.	
46	41	CSAH 75 / Cooper Ave	2.8	1.6	1.2	0.7	0.5	5	MIN/MIN	C	0	5	4	4	0.0	1.5	0.4	2.0	3.9
43	42	CSAH 4 / 44th Ave	0.7	1.1	1.1	0.9	0.8	5	MIN/MIN	C	0	5	4	4	0.0	1.5	0.4	2.0	3.9
37	43	25th Ave No / 3rd St	0.9	1.0	1.4	1.3	0.5	5	MIN/MIN	C	0	5	4	4	0.0	1.5	0.4	2.0	3.9
25	44	CSAH 75 / Washington Mem.	0.4	1.0	0.0	0.9	0.0	3	MAJMAJ	C	0	3	10	4	0.0	0.9	1.0	2.0	3.9
10	45	TH 23 / 4th Ave	1.9	1.0	0.6	0.0	0.0	2	MAJMIN	C-D	0	2	8	5	0.0	0.6	0.8	2.5	3.9
107	46	25th Ave / 10th St No	0.7	2.5	0.0	0.0	1.3	5	MIN/COL	C	1	5	2	4	0.1	1.5	0.2	2.0	3.8
77	47	9th Ave No / 13th St No	0.8	1.1	0.0	0.8	1.3	5	MIN/COL	C	1	5	2	4	0.1	1.5	0.2	2.0	3.8
41	48	33rd Ave No / 1st St	2.3	1.0	1.1	1.8	1.5	5	MIN/COL	C	1	5	2	4	0.1	1.5	0.2	2.0	3.8
34	49	Lincoln Ave & 15th Ave SE	0.0	0.0	0.0	1.2	0.0	4	MAJCOL	C	0	4	6	4	0.0	1.2	0.6	2.0	3.8
31	50	CSAH 75 / 38th St So	0.0	0.5	0.0	0.0	0.0	1	MAJLOC	D	0	1	5	6	0.0	0.3	0.5	3.0	3.8
85	51	9th Ave So / 4th St	0.8	0.6	0.6	0.6	1.0	5	MIN/COL	C	0	5	2	4	0.0	1.5	0.2	2.0	3.7
72	52	CSAH 75 / 22nd St So	1.4	2.7	2.7	0.8	1.7	6	MAJMIN	B	1	6	8	2	0.1	1.8	0.8	1.0	3.7
58	53	TH 23 / 22nd Ave	0.0	0.4	0.5	0.7	0.4	4	MAJLOC	C	0	4	5	4	0.0	1.2	0.5	2.0	3.7
56	54	CSAH 75 / Traverse Rd	0.0	0.0	0.0	0.6	0.0	3	MAJMIN	C	0	3	8	4	0.0	0.9	0.8	2.0	3.7
44	55	Northway Dr / 15th St No	1.4	1.7	1.8	2.0	0.9	5	MIN/COL	C	0	5	2	4	0.0	1.5	0.2	2.0	3.7
	56	Clearwater Rd / 16th St So	0.0	0.0	0.0	0.0	0.7	5	MIN/COL	C	0	5	2	4	0.0	1.5	0.2	2.0	3.7
96	57	St. Germain / 10th Ave	0.0	0.7	0.6	0.0	0.5	4	MIN/MIN	C	0	4	4	4	0.0	1.2	0.4	2.0	3.6
65	58	CSAH 4 / CR 134	0.4	1.1	0.4	0.6	0.4	4	MIN/MIN	C	0	4	4	4	0.0	1.2	0.4	2.0	3.6
64	59	33rd Ave No / 12th St	0.0	1.4	0.0	0.6	0.0	4	MIN/MIN	C	0	4	4	4	0.0	1.2	0.4	2.0	3.6
50	60	25th Ave No / 5th St	0.0	1.3	1.5	1.8	0.0	5	MIN/LOC	C	0	5	1	4	0.0	1.5	0.1	2.0	3.6
49	61	E St Germain / 3rd Ave	0.0	0.0	3.5	1.1	0.0	5	MIN/LOC	C	0	5	1	4	0.0	1.5	0.1	2.0	3.6
40	62	CSAH 4 / McClelland Ave	0.0	0.5	0.0	1.2	0.0	4	MIN/MIN	C	0	4	4	4	0.0	1.2	0.4	2.0	3.6
52	63	TH 23 / 16th Ave	1.4	0.6	0.0	0.4	0.0	3	MAJCOL	C	0	3	6	4	0.0	0.9	0.6	2.0	3.5
124	64	TH 23 / 14th Ave	1.1	0.0	0.0	0.0	0.3	3	MAJLOC	C	0	3	5	4	0.0	0.9	0.5	2.0	3.4
90	65	T.H.15 & Under Ped Walk	0.0	0.0	0.0	0.6	0.0	3	MAJOR	C	0	3	5	4	0.0	0.9	0.5	2.0	3.4
89	66	T.H.15 & Over BNSF	0.0	0.0	0.0	0.4	0.5	3	MAJOR	C	0	3	5	4	0.0	0.9	0.5	2.0	3.4
84	67	TH 23 / 12th Ave	0.4	1.0	0.0	0.0	0.3	2	MAJMIN	C	0	2	8	4	0.0	0.6	0.8	2.0	3.4
82	68	CSAH 75 / Park Ave	0.5	0.5	0.7	0.0	0.5	3	MAJLOC	C	0	3	5	4	0.0	0.9	0.5	2.0	3.4
76	69	TH 23 / 5th Ave	0.3	0.0	0.0	0.3	0.6	3	MAJLOC	C	0	3	5	4	0.0	0.9	0.5	2.0	3.4
73	70	2nd St No & 7th Ave	0.0	0.0	0.0	1.9	0.7	4	MIN/COL	C	0	4	2	4	0.0	1.2	0.2	2.0	3.4
61	71	TH 23 / Wilson Ave	1.2	1.5	0.0	0.0	0.0	2	MAJMIN	C	0	2	8	4	0.0	0.6	0.8	2.0	3.4
60	72	CSAH 75 / 43rd St So	0.0	0.4	1.1	0.4	0.0	3	MAJLOC	C	0	3	5	4	0.0	0.9	0.5	2.0	3.4
59	73	TH 23 / 37th Ave	0.9	0.3	0.9	0.6	0.0	3	MAJLOC	C	0	3	5	4	0.0	0.9	0.5	2.0	3.4
42	74	4th Ave So / 1st St	0.0	0.0	1.3	1.9	0.0	4	MIN/COL	C	0	4	2	4	0.0	1.2	0.2	2.0	3.4
98	75	10th Ave No / 1st St No	1.3	0.7	1.3	0.0	0.6	4	MIN/LOC	C	0	4	1	4	0.0	1.2	0.1	2.0	3.3
71	76	E St. Germain & 6th Av NE	0.0	0.0	0.0	1.2	0.0	4	MIN/LOC	C	0	4	1	4	0.0	1.2	0.1	2.0	3.3
70	77	C.S.A.H. 4 & 10th Ave No	0.0	0.0	0.0	1.2	0.0	4	MIN/LOC	C	0	4	1	4	0.0	1.2	0.1	2.0	3.3
68	78	E St Germain / 2nd Ave	0.0	0.0	2.4	1.0	0.0	4	MIN/LOC	C	0	4	1	4	0.0	1.2	0.1	2.0	3.3
66	79	1st St No / 5th Ave	2.3	1.6	0.0	1.2	0.0	4	MIN/LOC	C	0	4	1	4	0.0	1.2	0.1	2.0	3.3
63	80	9th Ave So / 9th St So	1.2	0.6	0.0	1.1	0.0	4	MIN/LOC	C	0	4	1	4	0.0	1.2	0.1	2.0	3.3
62	81	University Dr / McKinley	0.0	0.0	0.0	1.3	0.0	4	MIN/LOC	C	0	4	1	4	0.0	1.2	0.1	2.0	3.3
57	82	25th Ave No / 1st St	0.0	2.0	0.0	1.3	0.0	4	MIN/LOC	C	0	4	1	4	0.0	1.2	0.1	2.0	3.3

ROADWAY DEFICIENCY ANALYSIS

2010 RANK	2011 RANK	LOCATION	2006-2010					Measured Criteria			Point Scores				Weighted Scores				TOTAL WEIGHT SCORE
			2006	2007	2008	2009	2010	ACC. TREND	FUN CLASS	L.O.S.	2010 ACC.	ACC. TREND	FUN CLASS	L.O.S.	2010 ACC.	ACC. TREND	FUN CLASS	L.O.S.	
120	83	TH 23 / 14th Ave SE	0.0	1.0	1.1	0.8	1.4	5	MAJ/COL	B	1	5	6	2	0.1	1.5	0.6	1.0	3.2
102	84	TH 23 / 8th Ave	0.3	1.0	0.5	0.0	0.0	2	MAJ/COL	C	0	2	6	4	0.0	0.6	0.6	2.0	3.2
74	85	TH 23 / 7th Ave	0.3	0.0	0.0	0.3	0.0	2	MAJ/COL	C	0	2	6	4	0.0	0.6	0.6	2.0	3.2
55	86	Wilson Ave/ 1st St SE	0.0	0.0	3.8	0.0	0.0	4	COL/LOC	C	0	4	0	4	0.0	1.2	0.0	2.0	3.2
54	87	5th Ave So / 1st St	0.0	0.0	3.3	0.0	0.0	4	COL/LOC	C	0	4	0	4	0.0	1.2	0.0	2.0	3.2
53	88	W St. Germain / 22nd Av So	0.0	5.5	0.0	0.0	0.0	4	LOC/LOC	C	0	4	0	4	0.0	1.2	0.0	2.0	3.2
51	89	TH 23 / 6th Ave	1.1	0.4	0.6	0.0	0.0	2	MAJ/COL	C	0	2	6	4	0.0	0.6	0.6	2.0	3.2
91	90	T.H.23 & 191/2 To Wash Mem	0.0	0.0	0.0	0.3	0.0	2	MAJOR	C	0	2	5	4	0.0	0.6	0.5	2.0	3.1
87	91	TH 23 / 27th Ave	1.2	0.7	0.5	0.0	0.0	2	MAJ/LOC	C	0	2	5	4	0.0	0.6	0.5	2.0	3.1
86	92	CSAH 75 / 41st St So	1.0	0.0	0.5	0.0	0.0	2	MAJ/LOC	C	0	2	5	4	0.0	0.6	0.5	2.0	3.1
83	93	TH 23 / 34th Ave	0.6	1.0	0.3	0.0	0.0	2	MAJ/LOC	C	0	2	5	4	0.0	0.6	0.5	2.0	3.1
81	94	I 94 / 1/2 Mi E of CR 136	0.0	0.0	0.3	0.0	0.0	2	MAJOR	C	0	2	5	4	0.0	0.6	0.5	2.0	3.1
80	95	I 94 / CSAH 75 WB Exit	0.0	0.0	0.6	0.0	0.0	2	MAJOR	C	0	2	5	4	0.0	0.6	0.5	2.0	3.1
79	96	I 94 / CSAH 75 EB Exit	0.0	0.0	0.4	0.0	0.0	2	MAJOR	C	0	2	5	4	0.0	0.6	0.5	2.0	3.1
	97	I-94 / Opportunity Dr	0.0	0.0	0.0	0.0	0.4	5	MAJ/COL	B	0	5	6	2	0.0	1.5	0.6	1.0	3.1
88	98	9th Ave No / 15th St	0.0	0.0	1.3	0.9	0.0	3	MIN/COL	C	0	3	2	4	0.0	0.9	0.2	2.0	3.1
78	99	University Dr / Kilian Ave	0.0	0.0	0.9	0.5	0.0	3	MIN/COL	C	0	3	2	4	0.0	0.9	0.2	2.0	3.1
75	100	1st St No & 6th Ave	0.0	0.0	0.0	1.7	0.0	3	MIN/COL	C	0	3	2	4	0.0	0.9	0.2	2.0	3.1
114	101	University Dr / 11th Ave So	0.0	0.0	0.0	0.6	0.0	3	MIN/LOC	C	0	3	1	4	0.0	0.9	0.1	2.0	3.0
110	102	33rd Ave So / 1st St So	0.0	1.6	0.0	0.0	0.7	3	MIN/LOC	C	0	3	1	4	0.0	0.9	0.1	2.0	3.0
101	103	CSAH 1 & 9th Ave No	0.0	0.0	0.0	0.4	0.0	2	MIN/MIN	C	0	2	4	4	0.0	0.6	0.4	2.0	3.0
100	104	E St. Germain & 7th Av NE	0.0	0.0	0.0	1.0	0.0	3	MIN/LOC	C	0	3	1	4	0.0	0.9	0.1	2.0	3.0
99	105	33rd Ave No / Cooper	0.0	0.0	1.9	0.0	0.0	3	MIN/LOC	C	0	3	1	4	0.0	0.9	0.1	2.0	3.0
97	106	E St Germain / RRKing	0.0	0.0	1.7	0.0	0.0	3	MINOR	C	0	3	1	4	0.0	0.9	0.1	2.0	3.0
95	107	12th St No / 25th Ave	0.7	0.9	0.5	0.0	0.0	2	MIN/MIN	C	0	2	4	4	0.0	0.6	0.4	2.0	3.0
94	108	2nd St No / 9th Ave	1.4	0.8	0.0	0.8	0.0	3	MIN/LOC	C	0	3	1	4	0.0	0.9	0.1	2.0	3.0
93	109	CSAH 4 / Anderson Ave	0.5	0.9	0.0	0.5	0.0	3	MIN/LOC	C	0	3	1	4	0.0	0.9	0.1	2.0	3.0
92	110	St. Germain / Franklin Ave	0.0	0.0	0.0	1.0	0.0	3	MIN/LOC	C	0	3	1	4	0.0	0.9	0.1	2.0	3.0
69	111	Wash Mem Dr / 8th St So	0.0	0.0	2.9	0.0	0.0	3	MIN/LOC	C	0	3	1	4	0.0	0.9	0.1	2.0	3.0
115	112	TH 23 / 19 1/2 Ave	0.6	0.0	0.0	0.0	0.0	1	MAJ/COL	C	0	1	6	4	0.0	0.3	0.6	2.0	2.9
103	113	5th Ave So / 4th St	0.0	0.0	1.5	0.0	0.0	3	COL/LOC	C	0	3	0	4	0.0	0.9	0.0	2.0	2.9
133	114	CR 120 / 50th Ave No	0.0	0.0	0.0	0.0	0.6	2	MIN/COL	C	0	2	2	4	0.0	0.6	0.2	2.0	2.8
123	115	TH 23 / 31st Ave	0.6	0.0	0.0	0.0	0.0	1	MAJ/LOC	C	0	1	5	4	0.0	0.3	0.5	2.0	2.8
121	116	TH 23 / 15th Ave	0.6	0.0	0.0	0.0	0.0	1	MAJ/LOC	C	0	1	5	4	0.0	0.3	0.5	2.0	2.8
106	117	CSAH 75 / 29th Ave So	1.1	0.4	0.0	0.0	0.0	1	MAJ/LOC	C	0	1	5	4	0.0	0.3	0.5	2.0	2.8
105	118	TH 23 / 36th Ave	0.6	0.0	0.3	0.0	0.0	1	MAJ/LOC	C	0	1	5	4	0.0	0.3	0.5	2.0	2.8
104	119	T.H.23 / 24th Ave	0.0	0.0	0.3	0.0	0.0	1	MAJ/LOC	C	0	1	5	4	0.0	0.3	0.5	2.0	2.8
130	120	CSAH 4 / CR 120	1.8	0.0	0.0	0.0	0.0	1	MIN/MIN	C	0	1	4	4	0.0	0.3	0.4	2.0	2.7
113	121	25th Ave / 7th St No	2.8	1.4	0.0	0.0	0.0	2	MIN/LOC	C	0	2	1	4	0.0	0.6	0.1	2.0	2.7
112	122	University Dr / 12th Ave So	0.0	1.6	0.0	0.0	0.0	2	MIN/LOC	C	0	2	1	4	0.0	0.6	0.1	2.0	2.7
111	123	25th Ave No / 4th St	0.0	1.3	0.0	0.0	0.0	2	MIN/LOC	C	0	2	1	4	0.0	0.6	0.1	2.0	2.7
109	124	9th Ave So / 8th St	0.0	0.0	0.9	0.0	0.0	2	MIN/LOC	C	0	2	1	4	0.0	0.6	0.1	2.0	2.7

ROADWAY DEFICIENCY ANALYSIS

2011 TSM
Appendix B

2010 RANK	2011 RANK	LOCATION						Measured Criteria			Point Scores				Weighted Scores				TOTAL WEIGHT SCORE
			2006	2007	2008	2009	2010	ACC. TREND	FUN CLASS	L.O.S.	2010 ACC.	ACC. TREND	FUN CLASS	L.O.S.	2010 ACC.	ACC. TREND	FUN CLASS	L.O.S.	
108	125	12th St No / 34th Ave	0.0	0.0	0.8	0.0	0.0	2	MIN/LOC	C	0	2	1	4	0.0	0.6	0.1	2.0	2.7
118	126	13th St No & Whitney Dr.	0.0	0.0	0.0	0.6	0.0	2	COL/LOC	C	0	2	0	4	0.0	0.6	0.0	2.0	2.6
117	127	Kilian Blvd / 15th St SE	0.0	2.0	0.0	0.0	0.0	2	COL/LOC	C	0	2	0	4	0.0	0.6	0.0	2.0	2.6
116	128	St. Germain / 11th Ave	0.0	1.2	0.0	0.0	0.0	2	COL/LOC	C	0	2	0	4	0.0	0.6	0.0	2.0	2.6
125	129	St. Germain / 16th Ave	2.7	0.0	0.0	0.0	0.0	1	MIN/COL	C	0	1	2	4	0.0	0.3	0.2	2.0	2.5
119	130	Northway Dr / 13th St No	0.0	0.6	0.0	0.0	0.0	1	MIN/COL	C	0	1	2	4	0.0	0.3	0.2	2.0	2.5
138	131	T.H.10 / T.H.301	0.0	0.0	0.0	0.0	0.6	2	MAJ/MIN	B	0	2	8	2	0.0	0.6	0.8	1.0	2.4
135	132	33rd Ave / 2nd St No	0.7	0.0	0.0	0.0	0.0	1	MIN/LOC	C	0	1	1	4	0.0	0.3	0.1	2.0	2.4
129	133	2nd St No / 11th Ave	1.9	1.3	0.0	0.0	0.0	1	MIN/LOC	C	0	1	1	4	0.0	0.3	0.1	2.0	2.4
128	134	25th Ave So / 1st St So	0.8	1.2	0.0	0.0	0.0	1	MIN/LOC	C	0	1	1	4	0.0	0.3	0.1	2.0	2.4
127	135	University Dr / 7th Ave So	0.0	0.0	0.5	0.0	0.0	1	MIN/LOC	C	0	1	1	4	0.0	0.3	0.1	2.0	2.4
126	136	13th St No / 24th Ave	0.0	0.7	0.0	0.0	0.0	1	MIN/LOC	C	0	1	1	4	0.0	0.3	0.1	2.0	2.4
132	137	Waite between 1st NE & Div	2.5	0.0	0.0	0.0	0.0	1	COL/LOC	C	0	1	0	4	0.0	0.3	0.0	2.0	2.3
134	138	9th Ave So / 7th St	0.7	0.9	0.5	0.5	0.0	3	MIN/COL	B	0	3	2	2	0.0	0.9	0.2	1.0	2.1
139	139	CSAH 74 / CSAH 6 / CR 122	1.6	0.0	0.0	0.0	0.0	1	COL/COL	B	0	1	0	2	0.0	0.3	0.0	1.0	1.3

ROADWAY DEFICIENCY ANALYSIS

2010 RANK	2011 RANK	LOCATION	2006 2007 2008 2009 2010					Measured Criteria			Point Scores				Weighted Scores				TOTAL WEIGHT SCORE
								ACC.	FUN	L.O.S.	2010	ACC.	FUN	L.O.S.	2010	ACC.	FUN	L.O.S.	
								TREND	CLASS	L.O.S.	ACC.	TREND	CLASS	L.O.S.	ACC.	TREND	CLASS	L.O.S.	

WAITE PARK

1	1	3rd St No / 2nd Ave NE	1.7	0.0	1.1	1.1	0.0	4	MAJ/MIN	D	0	4	8	6	0.0	1.2	0.8	3.0	5.0
4	2	CSAH 75 / 2nd Ave	2.2	0.5	0.5	1.0	0.7	5	MAJ/MIN	C-D	0	5	8	5	0.0	1.5	0.8	2.5	4.8
2	3	10th Ave So / 1st St So	1.6	2.9	2.0	1.7	1.0	6	MIN/LOC	C-D	0	6	1	5	0.0	1.8	0.1	2.5	4.4
5	4	TH 23 / 2nd Ave So	0.4	1.4	0.9	1.1	0.8	5	MAJ/MIN	C	0	5	8	4	0.0	1.5	0.8	2.0	4.3
6	5	TH23 / 10th Ave So	0.3	0.0	0.9	0.7	0.8	5	MAJ/MIN	C	0	5	8	4	0.0	1.5	0.8	2.0	4.3
3	6	3rd St No / Waite Ave	0.5	1.2	0.0	1.5	0.7	5	MIN/COL	C-D	0	5	2	5	0.0	1.5	0.2	2.5	4.2
8	7	Waite Ave / 2nd St No	4.2	0.0	1.4	0.0	1.7	7	COL/LOC	C	1	7	0	4	0.1	2.1	0.0	2.0	4.2
7	8	CSAH 75 / 10th Ave	0.5	0.3	0.9	0.4	0.4	4	MAJ/MIN	C	0	4	8	4	0.0	1.2	0.8	2.0	4.0
	9	2nd Ave So / 3rd St So	0.0	0.0	0.0	0.0	2.0	8	MIN/LOC	B	2	8	1	2	0.2	2.4	0.1	1.0	3.7
	10	CSAH 75 / 6th Ave So	0.0	0.0	0.0	0.0	0.5	5	MAJ/LOC	B	0	5	5	2	0.0	1.5	0.5	1.0	3.0
11	11	10th Ave So / 3rd St So	2.0	0.0	1.1	0.0	1.0	6	MIN/LOC	B	0	6	1	2	0.0	1.8	0.1	1.0	2.9
10	12	2nd Ave So / 4th St	0.0	2.5	0.0	0.0	0.0	2	MIN/LOC	C	0	2	1	4	0.0	0.6	0.1	2.0	2.7
15	13	2nd Ave / 1st St So	0.0	1.4	0.0	0.0	1.1	5	MIN/LOC	B	0	5	1	2	0.0	1.5	0.1	1.0	2.6
13	14	3rd St No / 10th Ave	0.0	0.7	0.0	0.0	0.0	1	MIN/MIN	B	0	1	4	2	0.0	0.3	0.4	1.0	1.7
14	15	3rd St No / 2nd Ave	1.0	0.0	0.0	0.0	0.0	1	MIN/MIN	B	0	1	4	2	0.0	0.3	0.4	1.0	1.7
17	16	Waite Ave / 1st St No	1.3	0.0	0.0	0.0	0.0	1	MIN/LOC	B	0	1	1	2	0.0	0.3	0.1	1.0	1.4

SARTELL

1	1	TH 15 / CSAH 1	0.0	0.0	1.0	1.8	0.7	6	MAJ/MIN	C-D	0	6	8	5	0.0	1.8	0.8	2.5	5.1
5	2	Pinecone Rd / 2nd St So	0.0	0.0	0.0	0.0	2.0	8	MIN/MIN	B	2	8	4	2	0.2	2.4	0.4	1.0	4.0
2	3	Pinecone Rd / CSAH 120	0.7	0.0	2.0	0.0	0.0	4	MIN/MIN	C	0	4	4	4	0.0	1.2	0.4	2.0	3.6
4	4	TH 15 / CR 29	0.0	1.6	0.5	0.9	0.0	4	MAJ/MIN	B	0	4	8	2	0.0	1.2	0.8	1.0	3.0
3	5	Pinecone Rd / 1st St So	3.6	0.0	2.0	2.0	0.0	6	MIN/LOC	B	0	6	1	2	0.0	1.8	0.1	1.0	2.9
6	6	Pinecone Rd / Heritage	0.0	0.0	0.0	0.0	0.0	1	MIN/MIN	B	0	1	4	2	0.0	0.3	0.4	1.0	1.7
7	7	Pinecone Rd / Roberts Rd	0.0	0.0	0.0	0.0	0.0	1	MIN/LOC	B	0	1	1	2	0.0	0.3	0.1	1.0	1.4
8	8	Pinecone Rd / Scout Dr	0.0	0.0	0.0	0.0	0.0	1	MIN/MIN	B	0	1	1	2	0.0	0.3	0.1	1.0	1.4

ROADWAY DEFICIENCY ANALYSIS

2010 RANK	2011 RANK	LOCATION	2006 2007 2008 2009 2010					Measured Criteria			Point Scores				Weighted Scores				TOTAL WEIGHT SCORE
			TREND	CLASS	L.O.S.	ACC.	FUN	L.O.S.	TREND	CLASS	L.O.S.	ACC.	TREND	CLASS	L.O.S.				
SAUK RAPIDS																			
1	1	TH15 / 18th St No	2.7	0.0	1.1	2.0	0.0	6	MAJ/COL	B	0	6	6	2	0.0	1.8	0.6	1.0	3.4
2	2	2nd St / 2nd Ave No	1.1	0.0	0.9	0.0	0.0	3	MIN/MIN	C	0	3	4	4	0.0	0.9	0.4	2.0	3.3
	3	TH 15 / Benton Dr	0.0	0.0	0.0	0.0	0.6	5	MAJ/MIN	B	0	5	8	2	0.0	1.5	0.8	1.0	3.3
3	4	Benton Dr / 2nd St No	0.0	0.0	0.0	0.7	0.0	2	MIN/MIN	C	0	2	4	4	0.0	0.6	0.4	2.0	3.0
4	5	TH 10 / Benton Dr	0.0	0.0	0.8	0.0	0.0	2	MAJ/MIN	B	0	2	8	2	0.0	0.6	0.8	1.0	2.4
5	6	1st St So / 4th Ave So	5.5	0.0	0.0	0.0	0.0	2	COL/LOC	B	0	2	0	2	0.0	0.6	0.0	1.0	1.6
ST. JOSEPH																			
1	1	CSAH 75 / CR 133	0.0	0.0	0.5	0.6	0.0	3	MAJ/MIN	C	0	3	8	4	0.0	0.9	0.8	2.0	3.7
2	2	CSAH 75 / 1st Ave	0.0	0.0	0.8	1.1	0.0	4	MAJ/LOC	C	0	4	5	4	0.0	1.2	0.5	2.0	3.7
3	3	CSAH 75 / College Ave	0.9	0.5	0.5	0.0	0.0	2	MAJ/MIN	C	0	2	8	4	0.0	0.6	0.8	2.0	3.4
4	4	CSAH 75 / Northland	0.5	0.0	0.8	0.0	0.0	2	MAJ/COL	C	0	2	6	4	0.0	0.6	0.6	2.0	3.2
5	5	CSAH 75 / CSAH 3	0.0	0.0	1.5	0.0	0.0	2	MAJ/COL	B	0	2	6	2	0.0	0.6	0.6	1.0	2.2
6	6	CR 133 / Elm St E	0.0	0.0	0.0	0.0	0.0	1	MIN/LOC	B	0	1	1	2	0.0	0.3	0.1	1.0	1.4
STEARNS COUNTY																			
1	1	I-94 / Bridge over CSAH 75	0.4	0.6	1.8	0.3	1.8	6	MAJ/MAJ	B	2	6	10	2	0.2	1.8	1.0	1.0	4.0
2	2	I-94 / TH 15	0.4	0.5	0.4	0.2	0.4	5	MAJ/MAJ	B	0	5	10	2	0.0	1.5	1.0	1.0	3.5
	3	I-94 / Btwn TH 23 & CSAH 2	0.0	0.0	0.0	0.0	0.4	5	MAJOR	B	0	5	5	2	0.0	1.5	0.5	1.0	3.0
4	4	TH 23 / I-94	1.5	1.1	0.7	0.6	0.4	4	MAJOR	B	0	4	5	2	0.0	1.2	0.5	1.0	2.7
3	5	TH 15 / CSAH 74	0.0	0.0	1.0	0.0	0.0	3	MAJ/COL	B	0	3	6	2	0.0	0.9	0.6	1.0	2.5
5	6	I 94 / Under CSAH 75	0.0	0.7	0.3	0.0	0.0	2	MAJ/MIN	B	0	2	8	2	0.0	0.6	0.8	1.0	2.4
6	7	I-94 / CSAH 75 St Joe	0.0	0.0	0.3	0.0	0.0	1	MAJ/MAJ	B	0	1	10	2	0.0	0.3	1.0	1.0	2.3
8	8	CSAH 75 / CR 134	0.4	0.5	0.0	0.0	0.0	1	MIN/COL	B	0	1	2	2	0.0	0.3	0.2	1.0	1.5
SHERBURNE COUNTY																			
	1	TH 10 / CSAH 16 / CR 160	0.0	0.0	0.0	0.0	0.9	5	MAJ/COL	B	0	5	6	2	0.0	1.5	0.6	1.0	3.1

ROADWAY DEFICIENCY ANALYSIS

2011 TSM
Appendix B

2010 RANK	2011 RANK	LOCATION						Measured Criteria			Point Scores				Weighted Scores				TOTAL WEIGHT SCORE
			2006	2007	2008	2009	2010	ACC. TREND	FUN CLASS	L.O.S.	2010 ACC.	ACC. TREND	FUN CLASS	L.O.S.	2010 ACC.	ACC. TREND	FUN CLASS	L.O.S.	
BENTON COUNTY																			
2	1	TH 10 / CR 29	0.0	0.0	0.0	0.8	0.0	4	MAJMIN	B	0	4	8	2	0.0	1.2	0.8	1.0	3.0
	2	TH 10 / 15th AveNW	0.0	0.0	0.0	0.0	0.6	5	MAJLOC	B	0	5	5	2	0.0	1.5	0.5	1.0	3.0
1	3	TH 10 / CSAH 13	0.0	0.4	1.8	0.0	0.0	4	MAJCOL	B	0	4	6	2	0.0	1.2	0.6	1.0	2.8
3	4	TH 10 / CSAH 33	0.0	0.0	0.0	0.4	0.0	4	MAJCOL	B	0	4	6	2	0.0	1.2	0.6	1.0	2.8
4	5	TH 10 / CSAH 4	0.0	0.5	0.0	0.0	0.0	1	MAJCOL	B	0	1	6	2	0.0	0.3	0.6	1.0	1.9
5	6	TH 10 / 85th St NW	0.0	0.7	0.0	0.0	0.0	1	MAJLOC	B	0	1	5	2	0.0	0.3	0.5	1.0	1.8



ST. CLOUD METROPOLITAN TRANSIT COMMISSION SERVICES 2010-2011

The St. Cloud Metropolitan Transit Commission (Metro Bus) has identified short term and long term transit capital and operating improvement projects the 2035 Long Rang Transit Plan Update, completed in 2011. The LRP identified the programming of fixed route transit service restructuring and expansion in the existing four city service area, including expansion to neighboring St. Joseph and St. Augusta areas. Related capital improvement projects are included in the analysis.

The 2035 LRP update identifies the need for Metro Bus to continue service and infrastructure growth in response to increased demand for transit services in metro growth areas and St. Cloud State University (SCSU). The LRP update programs development of an expanded fixed route network in Sartell and northwest St. Cloud, south, southeast and east St. Cloud, east Sauk Rapids and St. Joseph. Route 75, which began operation in January 2008 to south St. Cloud along Clearwater and Roosevelt Roads funded 50% by a Job Access and Reverse Commute (JARC) grant will be extended to SCSU and downtown. Sunday fixed route service hours will be expanded by adding Sartell, West Metro and Westwood routes. Under the plan, to accommodate expanded service areas, two routes will extend to 40 minute and two to 80 minute headways, while the rest of the system will remain on a 30 and 60 minute headway.

Capital improvements include concluding the on going replacement of the ADA small bus fleet and replacement of 23 large fixed route buses. Bus shelter/transit amenity improvements continue annually. Metro Bus is continuing work with member cites to implement the Transit Amenity program through the addition of courtesy benches and advertising shelters. Study of additional transit hubs have also been identified in the 2035 LRP. The expansion of regional park and ride lot network beginning with the Northstar Corridor site along TH 10 in southeast St. Cloud has begun while development of additional sites along I 94 near Opportunity Drive, CSAH 75 and CSAH 2 in St. Joseph is contemplated.

The future of the Transit Center located in downtown St. Cloud was included as a component of the 2035 LRP update. The LRP recommended the Transit Center remain in its current location and proposed an expansion and improvements plan which began in 2010. The multi-modal use of the facility for intercity travel has changed with the discontinuation of service by Greyhound along the I 94 corridor,



but a new contract with Jefferson Lines has picked up where Greyhound left off.

Metro Bus has continued its ITS partnerships with Mn/DOT and area cities and counties through continued operations and maintenance of the fixed route transit signal priority (TSP) system. TSP system optimization and regular maintenance continues each year. A system-wide customer audio and visual stop announcement system will be completed in 2011, to include additional features for real time customer information and web site applications.

Metro Bus has continued to monitor the effectiveness of its fixed route service through the National Transit Database ridership survey analysis, on-board rider and public surveys. On going recommendations for increasing route efficiency, effectiveness and overall ridership improvements are included in the LRP update.

The Metro Bus Dial-a-Ride program continues its eligibility restructuring through an aggressive Travel Training and Community Outreach program funded by a federal New Freedom grant from Mn/DOT.

