

Appendix K.
Conformity Documentation
Of the Metropolitan Council 2004 Transportation Policy Plan to the 1990 Clean
Air Act Amendments
August 25, 2004

The United States Environmental Protection Agency's (EPA's) *40 CFR PARTS 51 and 93 Transportation Conformity Rule Amendments: Flexibility and Streamlining; Final Rules* for determining conformity to state or federal implementation plans of transportation plans, programs, and projects funded or approved Under Title 23 U.S.C. or the Federal Transit Act (Conformity Rule), requires the Metropolitan Council to prepare a conformity analysis of the region's *2004 Transportation Policy Plan* (plan) to be adopted in December 2004 and the *FY 2005-2008 Transportation Improvement Program* (TIP). Based on the air quality analysis, the Council must determine the conformity of the transportation plan to meet the 1990 Clean Air Act Amendments (CAAA) schedule to attain carbon monoxide (CO) standards. This appendix describes the procedures used to perform the analysis on the TPP and lists the findings and conclusions to support the Metropolitan Council's (Council) determination that the plan conforms to the requirements of the CAAA. The Minneapolis/St. Paul Seven County Metropolitan Area and Wright County CO maintenance area is designated as in conformity for federal CO standards by the EPA. A map of the Twins Cities Area CO maintenance area is attached as Exhibit 1.

The analysis described in the appendix has resulted in a Conformity Determination that the projects included in the plan meet all relevant regional emissions analysis and budget tests as described herein. The plan conforms to the relevant sections of the Federal Conformity Rule and to the applicable sections of Minnesota State Implementation Plan for air quality.

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I. CONFORMITY OF THE 2004 TRANSPORTATION POLICY PLAN

FINDINGS AND CONCLUSIONS

- A. Pursuant to Section 93.110 of the Conformity Rule, the Council reviewed the TPP and certifies that it conforms to the recent estimates of mobile source emissions based on the most current transportation models using population, employment, travel and congestion forecasts:
1. The Council is required by Minnesota statute to prepare regional population and employment forecasts for the Seven County Twin Cities Metropolitan Area. The air quality analysis of CO emissions for Wright County is prepared under the guidance of the Council as part of an intergovernmental agreement with the county, MN/DOT and the Council.
 2. The published source of socioeconomic data is in the Metropolitan Council's *2030 Regional Development framework*. The planning document provides the Council with the socio-economic data (planning assumptions) to develop long range forecasts of regional highway and transit facilities needs. These forecasts were used in the TPP and the 2005-2008 TIP. They are the latest Council socio-economic forecasts used in the regional air quality analysis.
- B. The Minnesota Pollution Control Agency (MPCA), Minnesota Department of Transportation (Mn/DOT) and Federal Highway Administration (FHWA) were consulted during the preparation of the plan and its conformity review and documentation.
- C. A quantitative analysis of CO emissions impact using the latest emission estimation model was prepared using the projects listed in Tables K-2 through K-5. A revised CO emissions budget for motor vehicles was submitted to the EPA as an amendment to the State Implementation Plan for Air Quality (SIP). The EPA is expected to take action on the amendment in December 2004. The emissions analysis used the submitted budget and the MOBILE 6.2 emissions model. The analysis shows daily CO emissions in tons/day in the analysis years of 2010, 2020 and 2030 are below the submitted regional CO motor vehicle emissions budget (see Table K-1). The CO emissions are estimated to be sustained below the budget for a reasonable period beyond the initial analysis year 2010.
- D. No regionally significant projects are planned or programmed for the City of New Prague. Two regionally significant projects were identified for Wright County to be built within the planning period of the plan and are included in the air quality analysis. Both areas are in the attainment area, but are outside the Metropolitan Council's seven-county planning jurisdiction.
- E. Exempt projects not included in the regional air quality analysis were identified and classified in accordance with the EPA guidance in Section 93.126 of the Conformity Rule.
- F. The quantitative analysis includes all known federal and nonfederal regionally significant projects as defined in Section 93.101 of the Conformity Rule.
- G. The plan addresses the requirements of the TEA-21 metropolitan planning rule 23CFR part 450, Section 450.324 and Section 93.108 of the Conformity Rule, to be fiscally constrained. Chapter

5 of the plan documents the consistency of proposed transportation investments with already available and projected sources of revenue.

- H. The Council reviewed the plan and certifies that the plan does not conflict with the implementation of the SIP, and conforms to the requirement to implement the Transportation System Management Strategies which are the adopted Transportation Control Measures for the region.
- I. All TIP projects that are not specifically listed in the plan are consistent with the policies and purposes of the plan and will not interfere with other projects specifically included in the plan.
- J. The status of major transit projects programmed are provided in the 2005-2008 TIP
- K. Although a small portion of the Twin Cities Metropolitan Area is a maintenance area for PM-10, the designation is due to non-transportation sources.
- L. The plan includes the 2005-2008 Transportation Improvement Program projects.

RESPONSES TO THE CRITERIA IN THE EPA TRANSPORTATION CONFORMITY RULE

1.Consistent with the long-range transportation comprehensive plan	The 2004 Transportation Policy Plan is the comprehensive transportation plan for the Metropolitan Council.
2.Consistent with the State Implementation Plan (SIP) for Air Quality	The plan does not conflict with the implementation of the SIP.
3. Status of all Transportation Control Measures (TCP's) officially adopted as part of the SIP	Section V in Appendix K describes the status of the TCP's listed in the SIP.
4.The plan is based on the most recent planning estimates adopted by the Council	The plan air quality modeling is based on the most current Council socioeconomic data used in the Council's <i>2030 Regional Development Framework</i> .
5. The plan's air quality analysis uses the most recent EPA approved air quality models.	The CO emission estimates in Table K-1 of Appendix K were developed using MOBILE 6.2, the latest EPA approved air quality model. A description of the models used in the air quality analysis is in Section III of the appendix and samples of the modeling outputs are in Exhibit K-2.
6. Demonstrates that regional emissions resulting from implementation of projects of regional significance are less than those in the regional emissions budget established by the emissions inventory	The results of the plan's air quality modeling shown in Table K-1 demonstrates that future CO emissions will remain below the submitted emissions budget, if the regionally significant projects listed in the plan are built.
7.Includes emissions from nonfederal funded regionally significant project in the	All regionally significant projects are included in the analysis regardless of funding source.

plan emission analysis.	
8. Appropriately classify TIP projects as exempt from needing regional emissions analysis , or in a category in which they may need a hotspot analysis	Exempt projects listed in the 2005-2008 TIP tables are identified and categorized using the codes listed in Exhibit K-3 of Appendix K.
9. The plan is fiscally constrained	The plan is fiscally constrained over its forecast period.
10. Leads to no increases in the number or severity of violations at any monitored site currently violating federal air quality standards.	The TIP air quality modeling demonstrates that CO emissions will remain below the emissions budget. Further, there have been no officially measured violations of the CO standards at any regional monitored site since 1991.
11. Demonstrates it meets public involvement requirements of TEA-21.	The TIP meets the TEA-21 public involvement requirements. Public involvement activities relative to the adoption of the TIP are listed in Section IV of Appendix K. The notice of proposed action by the Transportation Advisory Board (TAB) and the Council to adopt the plan were announced in regular Council publication of meeting notices and on its web site. The MPCA comments to the public hearing draft document is attached to the document circulated for public comments. Public involvement is guided by a Citizen Participation Plan in Appendix D of the plan.
13. Include all Title 23 (FHWA) and Transit Act (FTA) projects	All Title 23 and FTA projects are listed in the TIP.
14. Identify all projects which have received National Environmental Policy Act (NEPA) approval, but have not progressed within three years.	There are no projects which have received NEPA approval and have not progressed within three years.

II. EMISSION REDUCTIONS IN THE TWIN CITIES CARBON MONOXIDE MAINTENANCE AREA

The EPA in response to a MPCA request, redesignated the Twin Cites seven-county Metropolitan Area and Wright County as in attainment for CO in October 1999. A 1996 motor vehicle emissions budget (MVEB) submitted by the MPCA as part of the redesignation request needed to be revised using MOBILE 6.2. A revised budget was submitted to the EPA as part of a SIP amendment. The EPA is expected to take action on the revised MVEB in December 2004.

The submitted budget will establish a not-to-exceed threshold of 1,961 tons per day of CO emissions for the analysis horizon years of 2010, 2020 and 2030. The results of the emissions analysis is shown in Table K-1. A description of the methods and models used to prepare the CO calculations are in Section III of this appendix.

**TABLE K-1
CO EMISSION BUDGET CONFORMITY TEST
PLAN ACTION SCENARIOS DAILY CO EMISSIONS FOR ANALYSIS
YEARS 2010, 2020, 2030 (Short Tons/day)**

NETWORK	2010	2020	2030
SUBMITTED BASELINE EMISSIONS BUDGET	1,961	1,961	1,961
ACTION (BUILD) SCENARIO	1,286	1,125	1,142
CO EMISSIONS BELOW THE EMISSIONS BUDGET	675	836	819

III. DESCRIPTION OF EMISSION ESTIMATION MODEL AND ANALYSIS METHODOLOGY, ASSUMPTIONS

A. 2004 TRANSPORTATION POLICY PLAN

Pursuant to Sections 93.118 and 93.119 of the Conformity Rule, the Council has reviewed the plan document. Based on this review, the Council finds that the plan related CO emissions are below the submitted MVEB and contribute to daily emissions reductions consistent with Sections 93.118 and 93.119 for the analysis horizon years 2010, 2020 and 2030. The following are the descriptions of the emissions budget test used in the emissions analysis to comply with the Conformity Rule.

The networks used in the computer modeling analysis described in Section IV (F) of this Appendix are the future transportation systems for each analysis year. They are developed from all:

- in-place regionally significant highway or transit facilities, services, and activities;
- regionally significant projects (regardless of funding sources) which are currently:
 - under construction, or;
 - undergoing right-of-way acquisition, or;
 - come from the first year of a previously conforming TIP (2005-2008), or;
 - have completed the NEPA process.

Projects used in the year 2010 network (Table K-2) is a revised network of the 2010 action scenario projects listed in Appendix B of the 2004- 2006 TIP plus new projects identified or rescheduled projects in the 2005-2008 TIP, and other regionally significant projects expected to be completed by 2010 and open to traffic. The projects used in the Action Scenarios for the years 2010 -2020 and 2030 networks are listed in Tables K-2 through K-5. All regionally significant projects are included in the scenarios regardless of funding sources. The networks for the 2010, 2020 and 2030 analysis years “action scenarios” were developed by adding regionally significant projects or making the changes by moving projects from one action scenario to another as warranted by changes to the timing of a project and projected funding availability.

Conformity Emissions Budget Test: The conformity test as defined in Section 93.118 requires that the CO emissions calculated in the conformity analysis for the plan and the TIP must be equal to or less than the CO MVED for the region. The submitted MVEB in the SIP amendment under review by the EPA, proposes a conformity daily emissions budget of 1,961 tons/day for the region. The budget is assumed to remain constant throughout the 25-year planning period of the plan.

The Action Scenario as described in the Conformity Rules Section 93.119(g) and referenced in Section 93.122(a)(5), is the future transportation system that would result from the implementation of the plan and other regionally significant projects to start construction in the time frame of the TIP.

The results of the emissions budget conformity test for the plan are shown in Table K-1. CO emissions from motor vehicle sources for the analysis milestone years 2010, 2020 and 2030 remain below the MVEB. The emissions can be reasonably expected to remain below the emissions budget for the following reasons:

1. Continued improvement in auto emissions controls systems and the implementation of an oxygenated gasoline program as required by the modeling assumptions used in the redesignation request to the EPA.
2. A regional commitment to continue capital investments to maintain and improve the operational efficiencies of the highway and transit systems.
3. Adoption of a regional long-term *2030 Regional Development Framework*. The Development Framework strategies support land use patterns that efficiently connect housing, jobs, retail centers and civil uses with neighborhoods, urban and rural centers and as transit oriented development along transit corridors. The strategies will pursue alternative methods such as congestion pricing to reduce congestion and the rate of growth of vehicle miles traveled. A land use development pattern should emerge that is more compact, mixed-use and pedestrian -friendly. The Council has the authority by state statute to periodically review local comprehensive plans for consistency with regional plans, make capital investments for the regional sewer collection and treatment system and the metropolitan transit system which it operates, and approval of the design and capital investments on principal arterials. These capital investments are programmed to implement the regional land use and system plans.
4. Extensive CO air quality emissions modeling by the MPCA and accepted by the EPA as part of the documentation for the redesignation request indicated that the National Ambient Air Quality standards can be met without the operation of a regional vehicle inspection maintenance program.

5. The continued involvement of local governmental units in the regional 3C transportation planning process to address local congestion, effectively manage available capacities in the transportation system, and promote transit supportive land uses and development patterns as part of a coordinated regional smart growth strategy.

Given the long -term nature of the projects listed in the plan, no major studies have yet been completed to evaluate their alternatives unless otherwise noted. For air quality modeling purposes only, a worst case build alternative was identified and applied to each project where a major investment study has not been completed. This alternative is the addition of one mixed -use lane for vehicle traffic in each direction.

An attainment area for PM-10 is located in the City of St. Paul. The attainment designation is based on an EPA approved MPCA plan to bring this area into attainment . The previous non-attainment designation was not due to transportation sources.

B. TRANSPORTATION IMPROVEMENT PROGRAM HIGHWAY PROJECTS

EPA Transportation Exempt Projects

Pursuant to the Conformity Rule, the projects in the 2005-2008 TIP and listed in the plan, were reviewed and categorized using the following determinations to identify projects that are exempt from a regional air quality analysis, or are regionally significant projects and must be included in the analysis. The classification process used to identify exempt and regionally significant projects was developed through an interagency consultation process involving the MPCA, FHWA, the Council and MnDOT. The exempt air quality classification codes used in the “AQ” column of project tables of the TIP are listed in Exhibit K-3. Projects which are classified as exempt must meet the following requirements:

1. The project does not interfere with the implementation of transportation control measures.
2. The project is segmented for purposes of funding or construction and received all required environmental approvals from the lead agency under the NEPA requirements including:
 - a. A determination of categorical exclusion: or
 - b. A finding of no significant impact: or
 - c. A final Environmental Impact Statement for which a record of decision has been issued.
3. The project is exempt if it falls within one of the categories listed in Section 93.126 in the Conformity Rule. Projects identified as exempt by their nature do not affect the outcome of the regional emissions analyses and add no substance to the analyses. These projects are determined to be within the four major categories described in the conformity rule.
 - a. Safety projects that eliminated hazards or improved traffic flows.
 - b. Mass transit projects that maintained or improved the efficiency of transit operations.

- c. Air quality related projects that provided opportunities to use alternative modes of transportation such as ride-sharing, van-pooling, bicycling, and pedestrian facilities.
- d. Other projects such as environmental reviews, engineering, land acquisition and highway beautification.

C. REGIONALLY SIGNIFICANT PROJECTS

Regionally significant projects, as defined in Section 93.101 of the Conformity Rules, were identified and assigned to the appropriate horizon year for the plan air quality analysis. Projects assigned to each scenario analysis year are assumed to be completed and open for operation by the year indicated.

Tables K-2 through K-4 lists the planned projects included in the air quality analysis as part of the "Action Scenario" for the horizon years 2010, 2020 and 2030.

D. WRIGHT COUNTY AND THE CITY OF NEW PRAGUE PROJECTS

A significant portion of Wright County and the City of New Prague are included in the Twin Cities CO non-attainment area as identified in the November 6, 1991, *Federal Register*. However, since neither the county nor the city are part of the Seven County Metropolitan Area, Wright County and New Prague projects are not part of the Seven-County regional transportation model or emissions modeling. However, Wright County and New Prague projects are evaluated for air quality analysis purposes, and the emissions associated with the regionally significant projects identified are added to the Seven-County region's emissions total.

No regionally significant projects are currently planned or programmed for the City of New Prague during the time period of this plan. Two Wright County projects were included in the regional air quality analysis. The construction of 9.32 miles of four- lanes (from two lanes) on TH25 from TH55 in Monticello to I-94 in Buffalo in Wright County and its emission estimates were added to the results of the 2010 Action Scenario analysis. Approximately eight miles of TH 55 is planned to be widened to four lanes from Buffalo to Rockford and the results of its emission estimates were added to the 2020 Action Scenario analysis.

Table K – 2 Regionally Significant TIP Projects 2010 Action Scenario			
Route	Description	Agency	MN/DOT Project Number/Comments
CSAH 8	ON CSAH 8 FROM TH 61 IN HUGO TO WASH/ANOKA CO LINE & ON ANOKA CSAH 14 FROM CO LINE TO I-35E IN LINO LAKES - RECONSTRUCT TO 4-LANE ROADWAY, PARK/RIDE	WASHINGTON COUNTY	82-608-07
TH 12	CO RD 6 TO WAYZATA BLVD – RECONSTRUCT TH 12 WITH INTERCHANGES AT COUNTY ROAD 6 AND AT WAYZATA BLVD.	MN/DOT	2713-83

CSAH 13	ON RADIO DR (CSAH 13) FROM SOUTH OF PIONEER DR/AFTON RD. TO SOUTH OF BAILY RD(CSAH 18) – RECONSTRUCT FROM 2-LANE RURAL RDWY TO 4-LANE DIVIDED RDWY WITH SEPARATED PED/BIKE PATH	WASHINGTON COUNTY	82-813-22
CSAH 17	ON LEXINGTON AVE FROM MAIN ST TO PHEASANT RIDGE DR - RECONSTRUCT & WIDEN TO 4-LANE ROADWAY	ANOKA COUNTY	02-617-13
CSAH 25	ON CENTURY AVE(CSAH 25) IN FROM WOODBINE AVE TO VALLEY CREEK RD(CASH 16) IN WOODBURY- RECONSTRUCT 2-LANE TO 4-LANE RDWY, PED/BIKE PATH SIGNALS,ETC.	WASHINGTON COUNTY	82-625-02
TH 25	TH 55 IN MONTICELLO TO I-94 IN BUFFALO, WRIGHT CO. - RECONSTRUCT TO 4 LANES	MN/DOT	8605-44
CR 28	TH 149 IN EAGAN TO CSAH 63 IN INVER GROVE HEIGHTS - CONSTRUCT 4-LANE ROADWAY	DAKOTA COUNTY	19-596-03
CSAH 42	ON CSAH 42 FROM CSAH 5 IN BURNSVILLE TO GLENDALE RD IN SAVAGE-RECONSTRUCTION, LANE ADDITION, ACCESS MANAGEMENT, ETC.	DAKOTA COUNTY	19-642-42
CSAH 60	CSAH 60 & CSAH 21 FROM KENYON AVE IN LAKEVILLE TO E OF THE CREDIT RIVER IN SCOTT CO - RECONSTRUCT TO 4-LN RDWY	DAKOTA COUNTY	19-660-05
TH 61	VICINITY OF ST PAUL PARK - RECONSTRUCT, INTERCHANGE, FR RDS, BRS	MN/DOT	8205-100 Part of Wakota Bridge project
CSAH 61	NORTH OF BREN RD TO SOUTH OF CSAH 3 - RECONSTRUCT TO 4-LANE ROADWAY	HENNEPIN COUNTY	27-661-34

**Table K – 2 (continued)
Regionally Significant TIP Projects
2010 Action Scenario**

CSAH 70	ON CSAH 70 FROM 0.6 MILE WEST OF I-35 TO 0.4 MILE OF I-35 IN LAKEVILLE –RECONSTRUCT INTERCHANGE AT I-35, CSAH 70 TO 4-LANE DIVIDED RDWY, BIKE TRAILS, FRONTAGE RDS, ETC	DAKOTA COUNTY	19-670-08
CSAH 78	S OF TH 242 IN COON RAPIDS TO N OF CSAH 116 IN ANDOVER - RECONSTRUCT TO 4 LANES, SIGNALS	ANOKA COUNTY	02-678-16
CSAH 101	TH 7 TO CSAH 5 IN MINNETONKA - RECONSTRUCT TO 4-LANE ROADWAY	HENNEPIN COUNTY	27-701-10
CSAH 116	ON BUNKER LAKE BLVD.(CSAH 116) FROM TH 65 TO RADISSON RD & ON RADISSON RD (CSAH 52) FROM BUNKER LAKE BLVD TO CASH 14 IN HAM LAKE AND	ANOKA COUNTY	02-652-0

	BLAINE- RECONSTRUCT SEGMENTS FROM 2-LANE RURAL TO 4-LANE DIVIDED RDWY, TRAIL, ETC		
TH 149	FROM WESCOTT RD TO TH 55 IN EAGAN- RECONSTRUCT FROM EXISTING 2-LANE UNDIVIDED TO 4-LANE DIVIDED HWY. PED/BIKE PATH, TRAFFIC SIGNAL, ETC.	EAGAN	178-010-02 178-010-02L
TH 169	S OF CSAH 81 TO N OF CSAH 109 IN BROOKLYN PARK - CONSTRUCT INTERCHANGE, BR, PARK/RIDE	MN/DOT	2750-57
TH 169	AT ANDERSON LAKES PKWY. IN BLOOMINGTON - CONSTRUCT INTERCHANGE	MN/DOT	2776-02
TH 169	AT I-494 AND HIGHWOOD DRIVE- CONSTRUCT INTERCHANGE	MN/DOT	2776-02
TH 169	AT PIONEER TRAIL IN BLOOMINGTON, CONSTRUCT INTERCHANGE	MN/DOT	2776-02
TH 212	CSAH 4 IN HENNEPIN CO TO CR 147 IN CARVER CO – CONSTRUCT NEW FREEWAY	Mn/DOT	-
I- 35E/I-694	WEST OF JCT. WITH I-694 TO EAST OF JCT WITH I-694, GRADING, SURFACING, BRIDGES,WEAVE CORRECTION, ADD 3 RD LANE	MN/DOT	6280-317, 6280-304 "Unweave the weave"
I- 35W	66TH ST TO 42 ND ST. – GRADING, SURFACING, BRIDGE AND HOV LANE AND ON TH 62 FROM XERXES AVE. TO PORTLAND AVE. – RECONSTRUCT, HOV LANES	MN/DOT	2782-281 "Crosstown"
I- 94	MCKNIGHT RD TO TH 120, GRADING, ADD 3RD LANE	Mn/DOT	6283-133
I- 494	TH 212 TO TH 55, GRADING, SURFACING, ADD 3RD LANE EACH DIRECTION	Mn/DOT	2785-304
I- 494	WAKOTA BRIDGE FROM TH 61 TO TH 56 - REPLACE BRIDGE AND ADD LANE IN EACH DIRECTION	MN/DOT	"Wakota Bridge"
TH 610	REALIGN CSAH 81 IN THE VICINITY OF TH 610 - GRADING,SURFACING ,BRIDGE	MN/DOT	2771-31
TH 610	AT ZACHARY LANE - CONSTRUCT OVERPASSES, PARK/RIDE	MN/DOT	2771-32
CITY	ON 4TH AVE FROM 20TH ST TO 2ND ST- RECONSTRUCTION & CONST ENG	NEWPORT	98-080-14 Part of Wakota Bridge project
CITY	ON 7TH AVE IN SAINT PAUL PARK - RECONSTRUCT	MN/DOT	184-108-01 Part of Wakota Bridge project

**Table K- 3
Regionally Significant TIP Projects
2020 Action Scenario**

Route	Description	Agency	Mn/DOT Project Numbers – comments
TH 36	OVER ST CROIX RIVER NEAR STILLWATER & OAK PARK HTS- REPLACE BR 4654 & APPROACHES (STAGE 1)	MN/DOT	8217-12 "Stillwater Bridge" 8217-13
I- 35E	FROM I-94 TO MARYLAND AVE, REPLACE CAYUGA BRIDGE, CONNECT PHALEN BLVD	Mn/DOT	6280-308

I-35W	AT LAKE ST IN MPLS, RECONSTRUCT, ADD INTERCHANGE	MN/DOT	2782-278
TH 55	FROM BUFFALO IN WRIGHT COUNTY TO ROCKFORD ; WIDEN TO 4-LANES	Mn/DOT	-
TH 100	FROM 36 TH AVENUE TO CEDAR LAKE ROAD – ADD 3 RD LANE,RECONSTRUCT	MN/DOT	2734-33
TH 169	IN BELLE PLAINE, CONSTRUCT INTERCHANGE AT TH 25	Mn/DOT	7008-45
TH 610	US 169 TO I-94; BUILD 4-LANE FREEWAY	Mn/DOT	-
I-494	TH 55 TO I-94 - CORRIDOR IMPROVEMENTS, ADD HOV/MIXED USE LANE, BUS SHOULDERS	Mn/DOT	2785-330
I-694	FROM I-35W TO LEXINGTON AVENUE – ADD 3 RD LANE, MODIFY INTERCHANGE AT TH 10/51	MN/DOT	-

**Table K – 4
Regionally Significant TIP Projects
2030 Action Scenario**

Route	Description	Agency	Mn/DOT Project Numbers - Comments
TH 41	TH 169 TO TH 212 – NEW RIVER CROSSING AND CONSTRUCT 4-LANE ROAD	Mn/DOT	-
TH 61	REPLACE WITH 4 LANE BRIDGE ON US 61 OVER THE MISSISSIPPI RIVER AT HASTINGS	Mn/DOT	-
TH 252	73RD AVE TO TH 610 - CORRIDOR IMPROVEMENTS, ALTERNATIVES BEING STUDIED INCLUDE: HOV/MIXED USE/BUS SHOULDERS	Mn/DOT	-
I-35W	ADDITION OF A HOV LANE ON I-35W FROM 46 TH ST. NORTH TO DOWNTOWN MPLS., ALONG WITH THE LAKE ST. ACCESS PROJECT	Mn/DOT	-

I- 35E	MARYLAND TO I- 694 - CORRIDOR IMPROVEMENTS, ALTERNATIVES BEING STUDIED INCLUDE: HOV/MIXED USE/BUS SHOULDERS	Mn/DOT	-
I- 35E	TH 110 TO TH 55 - CORRIDOR IMPROVEMENTS, ALTERNATIVES BEING STUDIED INCLUDE: HOV/MIXED USE/BUS SHOULDERS	Mn/DOT	-
I- 494	TH 77 TO TH 100 - CORRIDOR IMPROVEMENTS, ALTERNATIVES BEING STUDIED INCLUDE: HOV/MIXED USE/BUS SHOULDERS FROM EAST BUSH LAKE RD. TO 34 TH AVE.	Mn/DOT	-
I- 694	FROM EAST OF LEXINGTON AVE. TO JUNCTION I-35E ; GRADING, SURFACING , ADD 3 RD LANE	Mn/DOT	-
I- 694	E JCT I-35E to TH36 – CORRIDOR IMPROVEMENTS, ALTERNATIVES BEING STUDIED INCLUDE: HOV/MIXED USE/BUS SHOULDERS	Mn/DOT	-

E. TRAVEL FORECASTING AND TRAFFIC ASSIGNMENT DOCUMENTATION

The traffic forecasts used to calculate the CO emissions listed in Table K-1 are based on the most recent socioeconomic data prepared by the Council for the Regional Framework. The following provides a summary of the traffic forecast models used in the air quality analysis. Detailed technical information on the models are found in technical memorandums developed as part of the 2000 Travel Behavior Inventory. The information is available through the Council’s web site or the Metropolitan Transportation Services Division.

Highway Model Network

Travel analysis zones (TAZ's) are used in the traffic modeling process as the common geographic unit for data summary. The system of TAZ's covers the entire seven-county, Twin Cities Metropolitan Area, plus the adjoining collar counties. All home-interview data and selected other trip and socioeconomic data were compiled by TAZ. In additions, the TAZ system forms the geographic framework for coding highway and transit networks. Each TAZ is linked to all others by the highway network. Inside the core seven counties, most are linked to one another by the transit network as well.

The most significant application of the TAZ is as the geographic unit used by the models to predict attractions and productions of person-trips. An example of a TAZ is a shopping mall. A mall has a homogeneous commercial land use that attracts people to work or shop. Another type of TAZ produces person-trips generated in proportion to the number of households, type of household, size of household, and an income variable such as the number of automobiles that each household has available on a daily basis for trip-making.

The 2000 zone system consists of 1201 zones within the 7-county region (Anoka, Dakota, Carver, Hennepin, Ramsey, Scott, and Washington), 35 “inner” external station zones around these 7 counties, 364 zones in the 13 collar or ring counties (Chisago, Isanti, Mille Lacs, Sherburne, Wright, McLeod, Sibley, LeSueur, Rice, Goodhue, Pierce, WI; St. Croix, WI; and Polk, WI) and 32 zones representing “outer” external stations around the ring counties. Internal zone boundaries most often lie along major highways or arterial streets or on any other significant physical boundary that shapes and directs trip movements, such as a large lake or major river. County boundaries also form edges of zones where appropriate. An external station is a point at the edge of the twenty-county area where vehicle trips leave

or enter the system without being associated with the local land use. In other words, one end of the trip is outside the twenty-county area.

The development of the 2000 highway network was completed by the Council with assistance from Mn/DOT, and the transportation departments of counties and cities. The rebuilt network is based on data from the 2000 regional Travel Behavior Inventory (TBI).

To reflect some key parameters for related transportation modeling, such as typical speeds by location in the region, the network links are relate to geographical area types of Rural, Developing, Developed, Residential Core, Business Core and Outlying Business Center.

Area types are used to create a matrix by facility types. Facility types are categories of roads which operate in a similar manner. These facility types are:

- | | |
|----------------------|-----------------------|
| 1. Metered Freeway | 6. Undivided Arterial |
| 2. Unmetered Freeway | 7. Collector |
| 3. Metered Ramp | 8. HOV |
| 4. Unmetered Ramp | 9. Centroid Connector |
| 5. Divided Arterial | 10. HOV Ramp |

The Geographic Information System (GIS) software was used to assign default speed based on 2000 Travel Behavior Inventory (TBI) highway speed survey data and capacity values for all the network links. In this process, area type polygons are created that automatically identify all the links inside of the polygon. The area type value is automatically assigned to the link. Figure 1 illustrates the flow of the trip demand models used in the trip distribution model.

The Trip Generation Model

The Trip Generation Model produces productions and attractions for each transportation analysis zone based on the population, number of households, employment level and socio-economic characteristics of each zone. The model was calibrated through the use of the 2000 Travel Behavior Inventory Home Interview Survey.

Destination Choice Model

The Destination Choice Model (also known as the trip distribution model) estimates the probability of selecting a particular destination zone, given a particular zone of production, as defined by the regional network and zone system.

The model generates the number of person trips that are anticipated to be made between any two zones in the regional model on an average weekday, regardless of mode. The model was calibrated through the use of the 2000 Travel Behavior Inventory Home Interview Survey which provided a database of observed daily trips.

Mode Choice Model

The Mode Choice Model applies a logic model to home-based work, home-base other and non-home based trips. In addition, non-home based trips are further divided into work-related and non-work related. Home-based University of Minnesota trips are dealt with separately, using the work model. The model is uses different parameters to estimate peak versus off-peak mode choices. As in the past, the model estimates Transit, SOV and HOV trips. In addition, the model, as updated by the 2000 Travel Behavior Inventory estimates walk and bicycle trips.

The mode choice models use the travel times and costs of the highway and transit systems to estimate the proportion of trips which are allocated to the transit system, single occupancy vehicle trips and high occupancy vehicle trips.

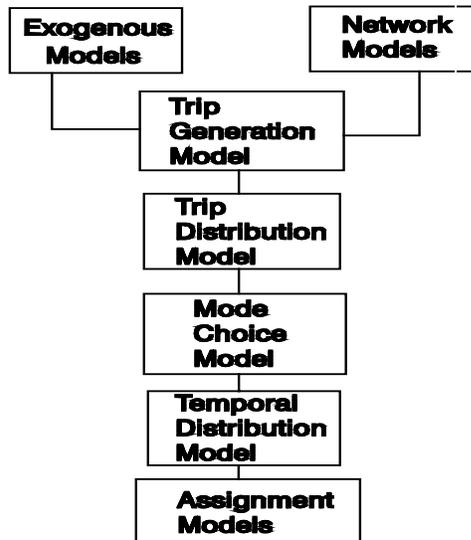
Temporal Distribution Model

The Temporal Distribution Model splits the daily trip tables into 24 time segments to replicate the peak hours, peak period and off-peak travel periods.

Assignment Model

The Assignment model distributes vehicle trips onto the highway system through a capacity restrained equilibrium method. Capacity on the highway system, in proportion to the volume of travel assigned to each link in an iteration, results in a decrease in speed on the link. The relationship between volume and capacity was adjusted for certain facility types based on 2000 Travel Behavior Inventory Highway Speed Survey data, rather than solely using the default Bureau of Public Roads ratios.

**FIGURE 1
GENERAL FLOW DESCRIPTION OF THE TRIP GENERATION MODELS**



F. AIR QUALITY MODELING

A regional air quality analysis was prepared using the MOBILE 6.2. The MOBILE 6.2 model is used to produce carbon monoxide emission factors from mobile sources for the region. Sample input and output files for MOBILE 6.2 are in Exhibit K-3. The daily mobile source Carbon Monoxide air pollution was calculated based on emission factors from MOBILE 6.2 (in grams per vehicle mile), vehicle miles of travel (VMT) aggregated by county and road facility type. Travel on Centroid connectors, and intrazonal travel also are accounted for by the model. Adjustment factors were implemented to ensure consistency with 2000 Highway Performance Measures System (HPMS) data and to adjust for the use of January CO rates. Further information on the recalculation of the regional Motor Vehicle Emissions Budget (MVEB) shown in Table 1 is in the *Revision of the Minneapolis-St. Paul Carbon Monoxide Maintenance Plan* prepared in August 2004 by Sonoma Technology, Inc. for MPCA. The revised CO maintenance plan was submitted to the EPA by the MPCA in September 2004 to revise the current MVEB.

The series of models currently used are not capable of analyzing individual transportation demand management strategies. This type of analysis must be performed "off-model" by applying CO reduction estimate techniques developed to analyze the benefits of CMAQ types of projects.

Table K-6 lists the input values applied by the MOBILE 6.2 model.

METROPOLITAN AREA FORECAST SUMMARY					
	1990	2000	2010	2020	2030
Population	2,288,729	2,642,062	3,005,000	3,334,000	3,608,000
Households	875,504	1,021,459	1,198,000	1,362,000	1,492,000
Employment	1,272,773	1,563,245	1,816,000	1,990,000	2,124,000

Table K - 6

MOBILE 6.2 INPUT VALUES

The EPA-MOBILE 6.2 model produced the vehicular CO emissions for the inventory using the following input values:

Passenger/light vehicle Registration	2004, 7-county area
Heavy Duty Trucks	MOBILE 6 Default
Gasoline volatility	13.4 RVP
Minimum temperature.....	16 degrees F.
Maximum temperature.....	38 degrees F.
Altitude	low altitude

IV. CONSULTATION

A. PUBLIC INVOLVEMENT PROCESS

The Council remains committed to a proactive public involvement process used in the development and adoption of the plan as required by the Council's Citizen Participation Plan. The Citizen Participation Plan is in Appendix D and complies with the public involvement process as defined in 23 CFR 450.316(b) and the most current revisions to the EPA conformity rules.

In addition to the Citizen Participation Plan, the Council continues to develop, refine and test public involvement tools and techniques as part of extensive ongoing public involvement activities that provide information, timely notices and full public access to key decisions and supports early and continuing involvement to the development of plans and programs. For example, open houses, comment mail-in cards, emails, letters, internet bulletin board, voice messages and notices on its web site are used to attract participation at the open houses, disburse informational materials and solicit public comments

The final plan is adopted after a 45-day public comment period which is the draft plan revised as needed in response to comments received. A public hearing is held by the Council on the plan during the public comment period. Copies of the plan are available at over 20 public libraries throughout the Twin Cities Metropolitan Area and on the Council's web site. The draft document for public comment and technical information are available at no charge to the public through requests to the Council's Data Center. The Data Center serves approximately 12,000 clients annually. The plan public comment period and public hearing date are announced on the Council's web site. The draft plan document can also be accessed through the web site. The public can contact the Council's transportation department directly by phone using a contact phone number posted on the web site.

B. INTERAGENCY CONSULTATION PROCESS

An interagency consultation process was used to develop the plan. Consultation continues through out the public comment period to respond to comments and concerns raised by the public and agencies prior to final adoption by the Council. The Council, MPCA and Mn/DOT confer on the application of the latest air quality emission models, the review and selection of projects exempted from a conformity air quality analysis, and regionally significant projects that must be included in the conformity analysis of the plan. An interagency conformity work group provides a forum for interagency consultation. The work group has representatives from the Council, MPCA, Mn/DOT and the FHWA. The following is a list of interagency meetings held and scheduled to consult during the preparation and adoption of the plan

document. Ongoing communication occurred along with periodic meetings, draft reports, emails and phone calls.

DATE	ACTIVITY
February 2004	The Council, MPCA , FHWA and MnDOT (interagency conformity work group) developed conformity review schedule , identified exempt projects and their classification. TIP revision procedures and conformity review schedule were adopted by the TAB's Technical Advisory Committee (TAC) Funding and Programming Committee.
February 2004	Review revised project listings and format for Appendix B tables.
April 14, 2004	Joint meeting with the MPCA, MnDOT, FHWA and Council to review technical issues in modeling using Mobile 6.2 , review possible options for remedies , and agree on a course of action.
April 19, 2004	MPCA, Council, FHWA and Mn/DOT, conference call with EPA Region 5 to present technical modeling issues and suggest a course of action.
April 22, 2004	MPCA, Council, FHWA and MnDOT conference call with EPA Region 5 to hear response from EPA on interim modeling procedures proposed by the interagency conformity work group. It was agreed to revise the emissions budget by the amending the SIP and seek EPA approval by December 2004.
April 29, 2004	Interagency work group developed schedule to revise SIP and to contract for air quality modeling consultant to assist in the SIP revisions.
May 10, 2004	MPCA, Council, MnDOT and FHWA met to review proposed changes in modeling using winter VMT rates rather than summer. The revised method to determine daily VMT for use in air quality modeling had to be accepted by the EPA before it could be applied.
May 14, 2004	Changes recommended by the interagency conformity work group to modeling procedures regarding use of winter VMT rates was presented to the EPA in a conference call. The EPA Region 5 approved the changes which addressed the technical modeling issues encountered for the draft TIP document conformity review.
May 19, 2004	Interagency group agrees to amend SIP to update MVEB using MOBILE 6. A proposed new MVEB would be used until EPA completed its review of the amendment expected to be completed by December 2004. The proposed MVEB submitted to the EPA in September 2004 would be used in the conformity review of the draft plan.
August 18, 2004	MPCA completes review of plan and provides comments to Council for inclusion in the public review document adopted by the Council on August 25, 2004
August 25, 2004	Council adopts draft plan for the purposes of soliciting public comment – 45-day public comment period began.
September 10, 2004	SIP amendment submitted to EPA by MPCA
September 27, 2004	Council conducts public hearing on draft plan
October 11, 2004	MPCA conducts public hearing on SIP amendment
October 22, 2004	Public comment period ends. Comments received are reviewed and draft plan revised where appropriate.
December 2004	EPA completes review of SIP Amendment and provides its findings to MPCA
December 8, 2004	Council adopts plan and forwards to U.S. Department of Transportation.

V. CONFORMITY TO THE SIP AND TIMELY IMPLEMENTATION OF TRANSPORTATION CONTROL MEASURES (TCM's)

Pursuant to the Conformity Rule, the Council reviewed the plan and certifies that the plan conforms the SIP and does not conflict with its implementation . All Transportation System Management (TSM) strategies which were the adopted TCM's for the region have been implemented or ongoing and funded. Table K-7 is a summary and status of the TSM's found in the Transportation Air Quality Control Plan that describes the status of each TSM. There are no TSM projects remaining to be completed. It is anticipated that the Transportation Air Quality Control Plan will be revised in the near future.

There are no fully adopted regulatory new TSM's nor fully funded non-regulatory TSM's that will be implemented during the programming period of the TIP. There are no prior TSM's that were adopted since November 15, 1990, nor any prior TSM's that have been amended since that date.

Table

K-7 lists two TCM's that are traffic flow amendments to the SIP. The MPCA added them to the SIP since its original adoption. These include in St. Paul, a CO Traffic Management System at the Snelling and University Avenue CO monitoring site. While not control measures, the MPCA added two additional revisions to the SIP which reduce CO: a vehicle emissions inspection/maintenance program, implemented in 1991, to correct the region-wide carbon monoxide problem, and a federally mandated four-month oxygenated gasoline program implemented in November 1992. In December 1999 the vehicle emissions inspection/maintenance program was eliminated.

The MPCA requested that the U.S. EPA add a third revision to the SIP, a contingency measure consisting of a year-round oxygenated gasoline program if the CO standards were violated after 1995. The U.S. EPA has approved this proposal. Because of current state law which remains in effect, however, the Twin Cities area has had a year-round program starting in 1995, regardless of any U.S. EPA rulemaking.

The SIP is currently being amended by the MPCA to revise the region's Motor Vehicle Emissions Budget for CO using the MOBILE 6 model. EPA is expected to take action on the proposed amendment in December 2004.

**Table K-7
TRANSPORTATION SYSTEM MANAGEMENT STRATEGIES
LISTED IN THE TRANSPORTATION AIR QUALITY CONTROL PLAN**

TWIN CITIES AREA TSM STRATEGIES	STATUS
Vehicle Inspection/Maintenance (listed in Transportation Control Plan as a TSM Strategy)	
<ul style="list-style-type: none"> • Establish VIM Program 	<ul style="list-style-type: none"> • Program became operational in July 1991 and was terminated in December 1999
Exclusive Bus/Carpool Lane	
<ul style="list-style-type: none"> • I-35W Bus/Metered Freeway Project 	<ul style="list-style-type: none"> • Metered freeway access locations have bus and carpool bypass lanes at strategic intersections on I-35W and I-394. In March, 2002 a revised metering program became operational .
<ul style="list-style-type: none"> • Reserved transit lanes in 3rd Ave. distributor in 	<ul style="list-style-type: none"> • 3rd Ave. distributor project including exclusive

**Table K-7
TRANSPORTATION SYSTEM MANAGEMENT STRATEGIES
LISTED IN THE TRANSPORTATION AIR QUALITY CONTROL PLAN**

TWIN CITIES AREA TSM STRATEGIES	STATUS
Minneapolis	bus/carpool lanes was completed in 1992. Auto circulation has been enhanced by installing a system of electronic signage.
Alternative Fuels or Engines	
<ul style="list-style-type: none"> Gasohol demonstration project 	<ul style="list-style-type: none"> Council implemented an alternatives fuel testing program for buses in 1992; completed in 1996. In 2002 tested a biodiesel blend. The Council has purchased 3 hybrid buses for service on Nicollet Mall and evaluation. All the buses are in regular service.
Cold Start Emissions Reductions	
<ul style="list-style-type: none"> Auto plug-in program for cold-start reductions 	<ul style="list-style-type: none"> The measure was studied and found not to be feasible.
Staggered Work Hours	
<ul style="list-style-type: none"> Variable work hours implemented by various agencies 	<ul style="list-style-type: none"> City, county and state employees have flex time programs available. Other employers allow flextime and help support van and carpooling programs. These programs are actively promoted and financially supported by employers.
Improved Public Transit	
<ul style="list-style-type: none"> Reduced Metro Transit fares 	<ul style="list-style-type: none"> Special marketing concepts such as Metro Pass were implemented in 1998 and targeted to employers and SOV users fare concepts and programs to increase ridership continue to be introduced and tested by Metro Transit.
<ul style="list-style-type: none"> Metro Transit Downtown Fare Zone 	<ul style="list-style-type: none"> Special reduced fares for Mpls. and St. Paul downtowns implemented and ongoing.
<ul style="list-style-type: none"> Community Centered Transit 	<ul style="list-style-type: none"> "Opt-out" provisions now allow communities to develop local service. Several community-focused transit hubs are now in operation.
<ul style="list-style-type: none"> Flexible Transit 	<ul style="list-style-type: none"> Alternative transit modes such as dial-a-ride introduced to provide specialized transit service in lower density urban areas. Hiawatha LRT opened from downtown Mpls. to the Mega Mall via the MSP airport
<ul style="list-style-type: none"> Total Community Service Demonstration (elderly, persons with disabilities service) 	<ul style="list-style-type: none"> An accessible route service implemented in addition to ongoing Metro Mobility service.
<ul style="list-style-type: none"> Responsiveness in Routing and Scheduling 	<ul style="list-style-type: none"> Transit agencies have implemented active planning and communication programs with communities such as restructuring of transit service through a regional Transit Redesign program. Reverse commute service between Minneapolis CBD and suburban major employers being implemented. Bus service along Hiawatha LRT rerouted to link with LRT stations
<ul style="list-style-type: none"> CBD Parking Shuttle 	<ul style="list-style-type: none"> Shuttle service incorporated with the CBD regular route

**Table K-7
TRANSPORTATION SYSTEM MANAGEMENT STRATEGIES
LISTED IN THE TRANSPORTATION AIR QUALITY CONTROL PLAN**

TWIN CITIES AREA TSM STRATEGIES	STATUS
	special fare zone.
<ul style="list-style-type: none"> • Simplified Fare Structure 	<ul style="list-style-type: none"> • Council implemented a simplified fare structure that consists of a base rate with a rush hour and express service supplemental rates. Structure further revised in 1996. Fare structure and collection system is being replaced with a seamless smartcard system designed to collect fares for bus, LRT and commuter rail transit services in 2004
<ul style="list-style-type: none"> • Bus Shelters 	<ul style="list-style-type: none"> • Established ongoing program of installing and retrofitting bus shelters with ADA access.
<ul style="list-style-type: none"> • Rider Information 	Region-wide transit information is available through CBD Transit Stores, the Council's web site and a computerized phone system.
<ul style="list-style-type: none"> • Transit Marketing 	<ul style="list-style-type: none"> • Transit marketing is ongoing and remains an integral part of transit planning and the provision of services by the Council.
<ul style="list-style-type: none"> • Cost Accounting Transit Performance Funding 	<ul style="list-style-type: none"> • Operation computer models developed to monitor and assess transit costs and develop performance measures.
<ul style="list-style-type: none"> • Transit Maintenance Program 	<ul style="list-style-type: none"> • New maintenance garage facility in St. Paul became operational in 2001.
<ul style="list-style-type: none"> • "Real-time" Monitoring 	<ul style="list-style-type: none"> • ITS "real time" programs implemented on I-394 corridor. New transit operations center opened in 2000 and regional Traffic Management Center operated by Mn/DOT in 2003.
<ul style="list-style-type: none"> • Park and Ride 	<ul style="list-style-type: none"> • Joint Metro Transit-Mn/DOT program for the planning and construction of park-and-ride facilities throughout the region funded through a "Team Transit" program, federal, state and regional funding sources. Transit service coordinated with construction of suburban park and ride facilities.
Area-wide Carpool Programs	
<ul style="list-style-type: none"> • Expand Existing Area-wide Shared-ride Programs 	<ul style="list-style-type: none"> • Commuter Services (rideshare) program is actively marketed by the Council.
On-street Parking Controls	
<ul style="list-style-type: none"> • Enforcement of Parking Idling and Traffic Ordinances 	<ul style="list-style-type: none"> • Ongoing enforcement aggressively pursued by Mpls. and St. Paul.
Park and Ride/Fringe Parking	
<ul style="list-style-type: none"> • CBD Fringe Parking Programs in Mpls. and St. Paul 	<ul style="list-style-type: none"> • Mpls. and St. Paul implementing ongoing programs for

**Table K-7
TRANSPORTATION SYSTEM MANAGEMENT STRATEGIES
LISTED IN THE TRANSPORTATION AIR QUALITY CONTROL PLAN**

TWIN CITIES AREA TSM STRATEGIES	STATUS
	fringe parking and incentives to encourage carpooling through their respective downtown traffic management organizations.
Pedestrian Malls	
<ul style="list-style-type: none"> Nicollet Mall (Mpls.) 	<ul style="list-style-type: none"> Nicollet Mall pedestrian friendly renovations and extension completed. Street level passenger waiting areas built into new buildings on the mall.
<ul style="list-style-type: none"> Pedestrian Facilities/skyway Systems 	<ul style="list-style-type: none"> Extension of Mpls. Skyway system to the fringe parking in the 3rd Ave. distributor is completed.
<ul style="list-style-type: none"> CBD Housing and Related Pedestrian Way 	<ul style="list-style-type: none"> Mpls. and St. Paul are promoting the expansion of street level commercial uses and affordable housing as part of aggressive CBD redevelopment strategies to create more urban villages and transit supportive land uses in the CBD area.
Employer Programs for Transit, Paratransit and Bicycles	
<ul style="list-style-type: none"> Shared-ride Programs Implemented and Underway in the Metropolitan Area 	<ul style="list-style-type: none"> Program designed to continually expand the number of Twin Cities employers supporting van and carpool programs and participating in Minnesota Rideshare program. Ongoing technical assistance is provided by the Council to implement local TSM programs. Collaboration formed with Clean Air Minnesota to promote awareness of increasing regional ozone problem and to promote volunteer program for emission reduction strategies for ozone precursors.
	<p>Transportation Management Organizations established in the downtowns of Minneapolis, St. Paul and on the I-494 Strip in Bloomington.</p>
Bicycle Lanes and Storage	
<ul style="list-style-type: none"> Bicycle Facilities Implemented by Various Cities in Metropolitan Area 	<ul style="list-style-type: none"> Provisions for bicycle parking are included in fringe parking facilities for downtown Minneapolis. TEA-21 and regional transit capital funds are used to develop bicycle facilities such as trails and bike storage areas. First segments of the Midtown Greenway in Mpls. open to bike and pedestrian traffic –summer 2000. A regional bikeway map is under development.
Traffic Flow Improvements	

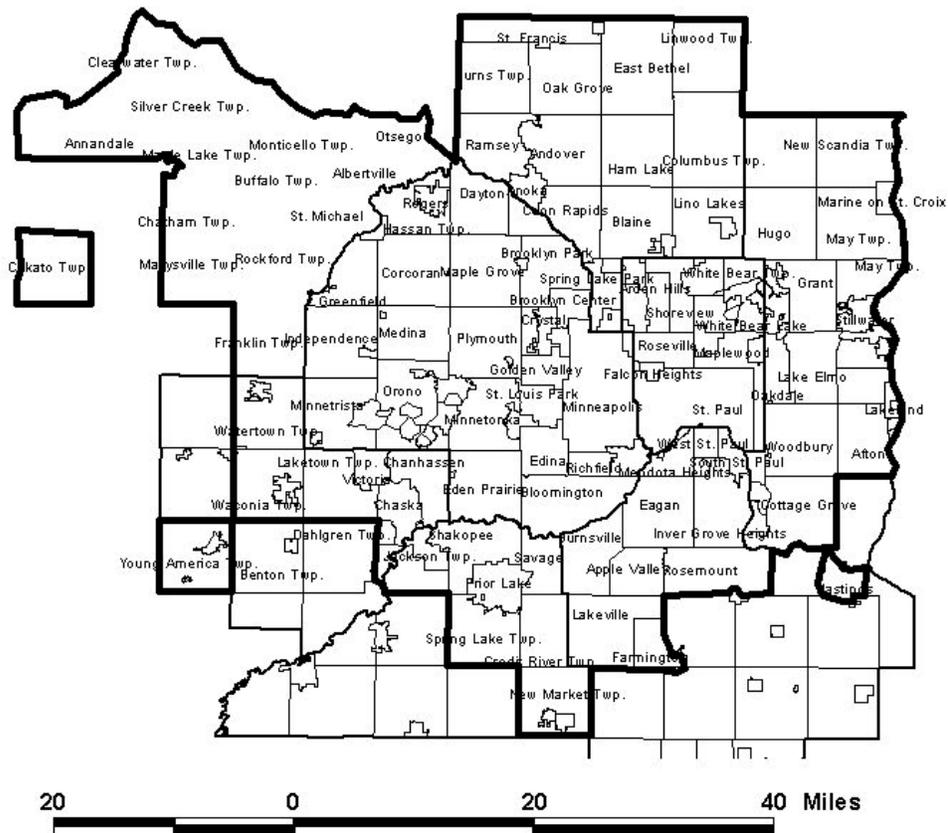
Table K-7
TRANSPORTATION SYSTEM MANAGEMENT STRATEGIES
LISTED IN THE TRANSPORTATION AIR QUALITY CONTROL PLAN

TWIN CITIES AREA TSM STRATEGIES	STATUS
<ul style="list-style-type: none"> • Minneapolis Computerized Traffic Management System 	<ul style="list-style-type: none"> • Minneapolis system installed. New hardware and software installation completed in 1992. System has be significantly extended since 1995 using CMAQ funding
<ul style="list-style-type: none"> • St. Paul Computerized Traffic Management System 	<ul style="list-style-type: none"> • St. Paul system completed in 1991.
<ul style="list-style-type: none"> • New Construction - Minneapolis; 3rd Ave. Distributor, I-35E, St. Paul 	<ul style="list-style-type: none"> • 3rd Ave. distributor in Minneapolis with computerized signals completed. I-35E through the downtown St. Paul reconstructed. Messaging signage system installed to direct motorist to available parking.
<ul style="list-style-type: none"> • University and Snelling Avenues, St. Paul; traffic flow improvements 	<ul style="list-style-type: none"> • Improvements completed in 1990 and became fully operational in 1991.

VI. EXHIBITS

This section contains the exhibits referenced in Sections III(B) and III(G) of this appendix.

**Exhibit 1
Twin Cities Carbon Monoxide Maintenance Area**



Based on Federal Register Notice November 6, 1991

Exhibit 3

Samples of MOBILE 6.2 Input and Output Files for 2010 Analysis Year

MOBILE 6.2 Input Command Set for 2010

```
* Filename: C:\Documents and Settings\sbai\Desktop\MOBILE6_mod\mn2010.in

> 2010 MOBILE6.2.03 input file for CO budget update - Winter scenario
> Designed to create emission rate tables for specific facility types
> in the MINNEAPOLIS/ST.PAUL Seven-County Metropolitan Area and Wright County

***** Header Section *****
MOBILE6 INPUT FILE :

POLLUTANTS          : CO

RUN DATA           :
>*****
>* Definition of General Parameters
>*****

FUEL RVP            : 13.4
MIN/MAX TEMP       : 16.0 38.0

* Use local vehicle age distribution data from external file
REG DIST           : 04regdat.mn

* Use local fuel sulfur level data
FUEL PROGRAM       : 4
300.0 299.0 100.0 100.0 100.0 92.0 33.0 33.0
30.0 30.0 30.0 30.0 30.0 30.0 30.0 30.0
1000.0 1000.0 1000.0 1000.0 303.0 303.0 87.0 87.0
80.0 80.0 80.0 80.0 80.0 80.0 80.0 80.0
OXYGENATED FUELS   : 0.001 0.977 0.001 0.034 2

>*****
>* Generation of Freeway Rate Tables *
>*****

***** Scenario 1 *****
SCENARIO RECORD    : Anoka freeway - 65.8 mph
CALENDAR YEAR     : 2010
AVERAGE SPEED    : 65.8 non-ramp 100.0 0.0 0.0 0.0
EVALUATION MONTH  : 1

***** Scenario 2 *****
SCENARIO RECORD    : Anoka arterial/collector - 35.3 mph
CALENDAR YEAR     : 2010
AVERAGE SPEED    : 35.3 arterial 0.0 100.0 0.0 0.0
EVALUATION MONTH  : 1

***** Scenario 3 *****
SCENARIO RECORD    : Carver arterial/collector - 43.0 mph
CALENDAR YEAR     : 2010
AVERAGE SPEED    : 43.0 arterial 0.0 100.0 0.0 0.0
EVALUATION MONTH  : 1

***** Scenario 4 *****
SCENARIO RECORD    : Dakota freeway - 67.7 mph
CALENDAR YEAR     : 2010
AVERAGE SPEED    : 67.7 non-ramp 100.0 0.0 0.0 0.0
EVALUATION MONTH  : 1

***** Scenario 5 *****
SCENARIO RECORD    : Dakota arterial/collector - 38.2 mph
CALENDAR YEAR     : 2010
AVERAGE SPEED    : 38.2 arterial 0.0 100.0 0.0 0.0
EVALUATION MONTH  : 1

***** Scenario 6 *****
SCENARIO RECORD    : Hennepin freeway - 67.0 mph
CALENDAR YEAR     : 2010
AVERAGE SPEED    : 67.0 non-ramp 100.0 0.0 0.0 0.0
```

```

EVALUATION MONTH      : 1

***** Scenario 7 *****
SCENARIO RECORD       : Hennepin arterial/collector - 29.9 mph
CALENDAR YEAR         : 2010
AVERAGE SPEED        : 29.9 arterial 0.0 100.0 0.0 0.0
EVALUATION MONTH     : 1

***** Scenario 8 *****
SCENARIO RECORD       : Ramsey freeway - 66.4 mph
CALENDAR YEAR         : 2010
AVERAGE SPEED        : 66.4 non-ramp 100.0 0.0 0.0 0.0
EVALUATION MONTH     : 1

***** Scenario 9 *****
SCENARIO RECORD       : Ramsey arterial/collector - 27.9 mph
CALENDAR YEAR         : 2010
AVERAGE SPEED        : 27.9 arterial 0.0 100.0 0.0 0.0
EVALUATION MONTH     : 1

***** Scenario 10 *****
SCENARIO RECORD       : Scott freeway - 70.0 mph
CALENDAR YEAR         : 2010
AVERAGE SPEED        : 70.0 freeway 92.0 0.0 0.0 8.0
EVALUATION MONTH     : 1

***** Scenario 11 *****
SCENARIO RECORD       : Scott arterial/collector - 43.0 mph
CALENDAR YEAR         : 2010
AVERAGE SPEED        : 43.0 arterial 0.0 100.0 0.0 0.0
EVALUATION MONTH     : 1

***** Scenario 12 *****
SCENARIO RECORD       : Washington freeway - 71.1 mph
CALENDAR YEAR         : 2010
AVERAGE SPEED        : 71.1 non-ramp 100.0 0.0 0.0 0.0
EVALUATION MONTH     : 1

***** Scenario 13 *****
SCENARIO RECORD       : Washington arterial/collector - 39.7 mph
CALENDAR YEAR         : 2010
AVERAGE SPEED        : 39.7 arterial 0.0 100.0 0.0 0.0
EVALUATION MONTH     : 1

***** Scenario 14 *****
SCENARIO RECORD       : Wright freeway - 73.9 mph
CALENDAR YEAR         : 2010
AVERAGE SPEED        : 73.9 freeway 92.0 0.0 0.0 8.0
EVALUATION MONTH     : 1

***** Scenario 15 *****
SCENARIO RECORD       : Wright arterial/collector - 51.8 mph
CALENDAR YEAR         : 2010
AVERAGE SPEED        : 51.8 arterial 0.0 100.0 0.0 0.0
EVALUATION MONTH     : 1

***** Scenario 16 *****
SCENARIO RECORD       : All ramps - 34.6 mph
CALENDAR YEAR         : 2010
AVERAGE SPEED        : 34.6 Ramp
EVALUATION MONTH     : 1

***** Scenario 17 *****
SCENARIO RECORD       : Local road - 12.9 mph
CALENDAR YEAR         : 2010
AVERAGE SPEED        : 12.9 Local
EVALUATION MONTH     : 1

END OF RUN           :

```



```

-----
Composite Emission Factors (g/mi):
Composite CO : 21.43 22.78 29.35 24.45 7.05 0.784 0.674
1.454 10.12 20.659
-----

```

```

* #####
* Local road - 12.9 mph
* File 1, Run 1, Scenario 17.
* #####

```

```

M585 Warning:
100% of VMT has been assigned to the local roadway
type for all hours of the day for all vehicle types
with an average speed of 12.9 mph.

```

```

M 48 Warning:
there are no sales for vehicle class HDGV8b

```

```

Calendar Year: 2010
Month: Jan.
Altitude: Low
Minimum Temperature: 16.0 (F)
Maximum Temperature: 38.0 (F)
Absolute Humidity: 75. grains/lb
Nominal Fuel RVP: 13.4 psi
Weathered RVP: 13.9 psi
Fuel Sulfur Content: 30. ppm

```

```

Exhaust I/M Program: No
Evap I/M Program: No
ATP Program: No
Reformulated Gas: No

```

```

Ether Blend Market Share: 0.001 Alcohol Blend Market Share: 0.977
Ether Blend Oxygen Content: 0.001 Alcohol Blend Oxygen Content: 0.034
Alcohol Blend RVP Waiver: Yes

```

```

Vehicle Type: LDGV LDGT12 LDGT34 LDGT HDGV LDDV LDDT
HDDV MC All Veh
GVWR: <6000 >6000 (All)
-----
VMT Distribution: 0.3540 0.3855 0.1314 0.0357 0.0003 0.0019
0.0856 0.0054 1.0000
-----

```

```

-----
Composite Emission Factors (g/mi):
Composite CO : 16.08 17.93 23.91 19.45 19.01 1.492 1.263
3.842 21.43 16.876
-----

```

EXHIBIT 4

PROJECTS THAT DO NOT IMPACT REGIONAL EMISSIONS, AND PROJECTS THAT ALSO DO NOT REQUIRE LOCAL CARBON MONOXIDE IMPACT ANALYSIS

Certain transportation projects eligible for funding under Title 23 U.S.C. or the Urban Mass Transportation Act have no impact on regional emissions. These are "exempt" projects that, because of their nature, will not affect the outcome of any regional emissions analyses and add no substance to those analyses. These projects (as listed in Section 93.126 of conformity rules) are excluded from the regional emissions analyses required in order to determine conformity of the TPP and TIPs.

Following is a list of "exempt" projects and their corresponding codes used in column "AQ" of the 2005-2008 TIP. The coding system is revised from previous TIPs to be consistent with the coding system for exempt projects in the proposed Minnesota Pollution Control Agency (MPCA) revision to the State Implementation Plan for Air Quality for Transportation Conformity.

Except for projects given an "A" code or a "B" code, the categories listed under Air Quality should be viewed as advisory in nature, and relate to project specific requirements rather than to the TIP air quality conformity requirements. They are intended for project applicants to use in the preparation of any required federal documents. Ultimate responsibility for determining the need for a hot-spot analysis for a project under 40 CFR Pt. 51, Subp. T (The transportation conformity rule) rests with the U.S. Department of Transportation. The Council has provided the categorization as a guide to project applicants of possible conformity requirements, if the applicants decide to pursue federal funding for the project.

SAFETY

Railroad/highway crossing.....	S-1
Hazard elimination program	S-2
Safer non-federal-aid system roads.....	S-3
Shoulder improvements	S-4
Increasing sight distance	S-5
Safety improvement program.....	S-6
Traffic control devices and operating assistance other than signalization projects.....	S-7
Railroad/highway crossing warning devices.....	S-8
Guardrails, median barriers, crash cushions	S-9
Pavement resurfacing and/or rehabilitation	S-10
Pavement marking demonstration.....	S-11
Emergency relief (23 U.S.C. 125).....	S-12
Fencing.....	S-13
Skid treatments.....	S-14
Safety roadside rest areas	S-15
Adding medians	S-16
Truck climbing lanes outside the urbanized area.....	S-17
Lighting improvements.....	S-18
Widening narrow pavements or reconstructing bridges (no additional travel lanes).....	S-19
Emergency truck pullovers	S-20

MASS TRANSIT

Operating assistance to transit agencies..... T-1
Purchase of support vehicles..... T-2
Rehabilitation of transit vehicles..... T-3
Purchase of office, shop, and operating equipment
for existing facilities T-4
Purchase of operating equipment for vehicles
(e.g., radios, fareboxes, lifts, etc.)..... T-5
Construction or renovation of power, signal, and
communications systems..... T-6
Construction of small passenger shelters and information kiosks T-7
Reconstruction or renovation of transit buildings and structures
(e.g., rail or bus buildings, storage and maintenance facilities,
stations, terminals, and ancillary structures)..... T-8
Rehabilitation or reconstruction of track structures, track
and trackbed in existing rights-of-way T-9
Purchase of new buses and rail cars to replace existing
vehicles or for minor expansions of the fleet..... T-10
Construction of new bus or rail storage/maintenance facilities
categorically excluded in 23 CFR 771 T-11

AIR QUALITY

Continuation of ride-sharing and van-pooling promotion
activities at current levels..... AQ-1
Bicycle and pedestrian facilities AQ-2

OTHER

Specific activities which do not involve or lead directly to construction, such as:
Planning and technical studies
Grants for training and research programs
Planning activities conducted pursuant to titles 23 and 49 U.S.C.
Federal-aid systems revisions O-1
Engineering to assess social, economic and environmental effects
of the proposed action or alternatives to that action O-2
Noise attenuation O-3
Advance land acquisitions (23 CFR 712 or 23 CFR 771) O-4
Acquisition of scenic easements O-5
Plantings, landscaping, etc..... O-6
Sign removal O-7
Directional and informational signs..... O-8
Transportation enhancement activities (except
rehabilitation and operation of historic
transportation buildings, structures, or facilities)..... O-9
Repair of damage caused by natural disasters, civil unrest,
or terrorist acts, except projects involving
substantial functional, locational, or capacity changes O-10

Projects Exempt from Regional Emissions Analyses that may Require Further Air Quality Analysis

The local effects of these projects with respect to carbon monoxide concentrations must be considered to determine if a "hot-spot" type of an analysis is required prior to making a project-level conformity determination. These projects may then proceed to the project development process even in the absence of a conforming transportation plan and TIP. A particular action of the type listed below is not exempt from regional emissions analysis if the MPO in consultation with other state agencies MPCA, Mn/DOT, the EPA, and the FHWA (in the case of a highway project) or the FTA (in the case of a transit project) concur that it has potential regional impacts for any reason.

Channelization projects include left and right turn lanes and continuous left-turn lanes as well as those turn movements that are physically separated. Signalization projects include reconstruction of existing signals as well as installation of new signals. Signal preemption projects are exempt from hotspot analysis. Final determination of which intersections require an intersection analysis by the project applicant rests with the U.S.DOT as part of its conformity determination for an individual project.

Projects Exempt from Regional Emissions Analyses

Intersection channelization projects.....	E-1
Intersection signalization projects at individual intersections	E-2
Interchange reconfiguration projects	E-3
Changes in vertical and horizontal alignment.....	E-4
Truck size and weight inspection stations.....	E-5
Bus terminals and transfer points.....	E-6

Regionally significant projects

The following codes identify the projects included in the "action" scenarios of the TIP air quality analysis:

Baseline - Year 2000	B-00
Action - Year 2005.....	A-05
Action - Year 2010	A-10

Non-Classifiable Projects

Certain unique projects cannot be classified as denoted by a "NC." These projects were evaluated through an interagency consultation process and determined not to fit into any exempt nor intersection-level analysis category, but they are clearly not of a nature which would require inclusion in a regional air quality analysis.

Traffic Signal Synchronization

Traffic signal synchronization projects (Sec. 83.128 of the Conformity Rules, Federal Register, August 15, 1997) may be approved, funded, and implemented without satisfying the requirements of this subpart. However, all subsequent regional emissions analysis required by subparts 93.118 and 93.119 for transportation plans, TIPS, or projects not from a conforming plan and TIP must include such regionally significant traffic signal synchronization projects.