CAMPO *Capital Area Metropolitan Planning Organization*

Congestion Management Process (CMP)
State of the System Report

December 2007

Table of Contents

Introduction

The Capital Area Metropolitan Planning Organization (CAMPO) is the Metropolitan Planning Organization (MPO) for Williamson, Travis and Hays Counties in Central Texas. CAMPO was established in 1973 and is governed by a 19-member Transportation Policy Board (TPB) made up of state, regional and local officials.

CAMPO coordinates regional transportation planning with counties, cities, the Capital Metropolitan Transportation Authority (Capital Metro), the Capital Area Rural Transportation System (CARTS), Texas Department of Transportation (TxDOT) and other transportation providers in the region. CAMPO also approves the use of federal transportation funds within the region. CAMPO's main products are the Transportation Improvement Program (TIP) and the long-range transportation plan (20+ years), known formally as the *CAMPO 2030 Mobility Plan*.

For more information on congestion in the CAMPO area or to obtain copies of maps shown or documents referenced in this report contact:

CAMPO
P.O. Box 1088
Austin, Texas 78767-1088
512.974.2275
campo@campotexas.org

The Congestion Management Process State of the System Report

The main goal of this report is to convey the status of congestion in the region to jurisdictions and transportation providers in the CAMPO area, the general public, the Federal Highway Administration, and the Federal Transit Administration. The report is organized in four sections: Introduction, Analysis of Congestion Data, Congestion Management and Program Implementation, and Action Items.

Introduction to Congestion Management

The Congestion Management Process (CMP) is the CAMPO program that monitors, evaluates and manages congestion in the multi-modal, regional transportation system. The intent of the CMP is to protect the region's investments in, and improve the effectiveness of, the existing and future transportation networks. The CMP is also a planning tool to help reduce vehicle emissions and improve regional air quality.

There are different federal CMP regulations for varying sizes of MPO areas. Areas that have a population over 200,000 are called Transportation Management Areas (TMAs) and have a more distinct list of CMP responsibilities than those with a population under 200,000. The CAMPO area of Hays, Travis and Williamson Counties has a population of 1,519,220[1] and is a TMA. Responsibilities for TMAs include:

- Developing methods to monitor and evaluate the performance of the multimodal transportation system
- Defining parameters for measuring the extent of congestion and for supporting the evaluation of the effectiveness of strategies
- Establishing a program for data collection and system performance monitoring to determine the extent, duration and causes of congestion
- Identifying and evaluating the anticipated performance of CMP strategies
- Identifying an implementation schedule, implementation responsibilities and possible funding sources

[1] Texas State Date Center: July 2006 Estimates

- Implementing a process for periodic assessment of the efficiency and effectiveness of the implemented strategies

Furthermore, there are additional rules which apply to areas declared as nonattainment (exceeding ground-level ozone standards). The CAMPO area is currently in attainment[2], but if the area were declared as nonattainment the following rules would apply:

- Federal funds may not be used for any project that may result in a significant increase in carrying capacity for single occupant vehicles (SOVs) unless the project results from a CMP analysis

- There must be a complete analysis on each congested corridor to determine if there is any reasonable alternative to increasing capacity for SOVs before adding capacity
-

SAFETEA-LU Regulations

On August 10, 2005, the President signed the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). SAFETEA-LU authorizes the Federal surface transportation programs for highways, highway safety, and transit for the 5-year period 2005-2009.

SAFETEA-LU replaced TEA-21 legislation with continued and new requirements for the Congestion Management System (CMS). The CMS must provide a process for effective management and operation, based on a cooperatively developed and implemented metropolitan wide strategy, of new and existing transportation facilities through the use of travel demand reduction and operational management strategies. The MPO must also identify operations partners and work with them to develop projects, priorities and schedule for implementation. Additionally, The CMS must now be called the CMP, or Congestion Management Process.

As detailed later in this report, CAMPO has an established CMP. CAMPO works with regional agencies to develop all aspects of the CMP and has integrated CMP factors into planning for the Transportation Improvement Program (TIP).

[2] The Austin-Round Rock Metropolitan Statistical Area (MSA) was designated as attainment in 2004 for ground-level ozone based on 2001-2003 data. The MSA monitors attainment based on 2005-2007 data.

Currently, a CMP analysis is not applied to specific projects in the CAMPO Mobility 2030 Plan. The plan contains a discussion of the CMP and how the process is used at CAMPO. Integration of CMP into the long range planning process will be a continuing effort. With new data collected in 2006 and 2007, CAMPO will continue to further integrate the CMP analyses into the long range plan.

Action Item:

CAMPO will continue to work with regional entities on the CMP program to integrate CMP into the long range plan.

Analysis of Congestion Data

The CAMPO CMP program collects, maintains and analyzes congestion data and compiles the data into a comprehensive report. Peak period non-summer weekday data collected in 2006 and 2007 include average speed and travel time delay for roadway segments and intersections in Williamson, Travis and Hays counties. The Winter 2006 / Spring 2007 study was conducted on approximately 860 miles of roadways in the CAMPO region. The study included 84 different roadways divided into 2485 directional links bound by a traffic signal, stop sign, or major cross street.
The data sets provide a comprehensive snapshot of recent congestion conditions in the CAMPO area, reflecting congestion at the time the runs were conducted. CAMPO has a bi-annual data collection process for all three counties to ensure data consistency.

CAMPO continues to work with the TxDOT Austin District and the Texas Transportation Institute (TTI) to better utilize the data collected by the area's intelligent transportation system (ITS). This data is collected continuously on several area freeways, providing extensive data on the extent and duration of congestion on these roads. The continuous nature of the ITS data provides a better analysis of congestion over time than can be obtained through travel time runs alone. Once the data is proved to be reliable, data collected at selected locations will be analyzed and summarized annually. A map showing the selected ITS station locations is found in Appendix A.

CAMPO has also collected manual intersection delay counts and congestion duration data in recent years, though primarily in Travis County. In addition, the Texas Transportation Institute has released two indices to assist with congestion management: the Travel Time Index and the Texas Congestion Index. CAMPO models future congestion using the four-step modeling process. This process produces a volume to capacity ratio that can be used to identify both existing and future congested areas.

Data Collected to Analyze Current System Performance
There are two primary methods to analyze system performance: the volume to capacity ratio and average travel speed. CAMPO uses a congestion index (CI) based on observed average travel speed and the posted speed limits to analyze current system performance. Control delay and level-of-service data may also be used. The volume to capacity ratio is used to analyze future system performance.

Performance Measures: CAMPO Congestion Index

The Congestion Index (CI) is the ratio of the actual average speed to the posted speed.

Congestion Index (CI) = Actual Average Speed / Posted Speed Limit

Performance thresholds for the CI established for this years CMP include:

- CI less than 0.75 indicates a congested section,
- CI of 0.75 to 0.99 indicates a section of stable flow, and
- CI greater than .99 indicates free flow conditions.

For example, traveling less than 30 mph when the posted speed limit is 40 mph would indicate congested conditions. A CI of 0.75 to 0.99, or approximately 30 mph to 39 mph, indicates stable flow under the same speed limit. And a CI greater than 0.99, or 40 mph or higher, indicates free flow conditions. Figure 1 defines the congestion index criteria.

The travel speeds on congested segments are slower than drivers typically want to drive, and there may be less opportunity for lane changing and maneuvering. Stable sections are accommodating volumes less than capacity. Travel speeds are somewhat slower than the speed limit, but generally acceptable to drivers. Lane changing and maneuvering is less difficult than in congested segments. Free-flow sections are operating well below capacity. Travel speeds equal or exceed the speed limit and traffic can maneuver without interference.

Figure 1 -Congestion Index Criteria

Congestion Index (CI)		
Congestion	Stable Flow	Free Flow
< 0.75	0.75 to 0.99	> 0.99

Congestion Monitoring and Analysis Program

The Congestion Monitoring and Analysis Program studies regional congestion and locates "hot spots." This program included Global Positioning System (GPS) based travel time delay studies on roadway segments and intersections in Williamson, Travis and Hays Counties. Carter & Burgess, Inc. recently completed data collection and analysis of data for the 2006 and 2007 Congestion Monitoring and Analysis report.

Roadway and Intersection Congestion

A probe vehicle with a Global Position System (GPS) collects the roadway and intersection congestion data. In general, a probe vehicle goes with the flow of traffic and passes a vehicle for each one that passes it. The probe vehicle cannot create any traffic delays or block traffic. Data collected in 2006 and 2007 was used to determine the most congested roadway segments. The twenty most congested segments in the AM and PM peaks identified in the CAMPO/Carter Burgess study are shown in Figures 2-A and 2-B.

Figure 2-A Top 20 Most Congested Segments during AM

Rank	Route Name	Segment	Average Speed (mph)	Congestion Index	Weighted Average Speed Limit (mph)
1	Dessau/ FM 685 - SB	RUTHERFORD TO US 183 SB	5.4	0.12	45
2	FM 620/ SH 71 - SB	MALL ENTRANCE TO US 290	5.4	0.12	45
3	Manchaca Rd - SB	FORTVIEW TO 290 EB	4.3	0.12	35
4	McNeil Sr/ Howard Lane/ Wells Branch - WB	TANDEM TO MOPAC NB	5.5	0.14	40
5	Slaughter Ln - EB	HEB ENTRANCE TO MANCHACA RD	5.7	0.14	40
6	IH 35 - NB	EXIT TO SHELBY TO ENTRANCE FROM BENWHITE	8.9	0.15	60
7	McNeil Sr/ Howard Lane/ Wells Branch - WB	SAN FELIPE TO 183NB	6.7	0.15	45
8	FM 620/ SH 71 - SB	HATCH TO ELSALIDO PKWY	7.6	0.15	50
9	MoPac/FM 1325 - NB	ENTRANCE FROM LOOP 360 TO EXIT TO BARTON SKYWY	10.0	0.15	65
10	Congress Ave - NB	INDUSTRIAL TO 290 EB	6.3	0.16	40
11	IH 35 - NB	ENTRANCE FROM BENWHITE TO EXIT TO ROYAL HILL	9.4	0.16	60
12	IH 35 - NB	ENTRANCE FROM STASSNEY TO EXIT TO SHELBY	9.8	0.16	60
13	Burnet Rd/ Duval Rd - SB	KRAMER TO BRAKER	7.8	0.17	45
14	Sam Bass Rd - EB	CHISHOLM TRAIL TO 35 SB	6.1	0.18	35
15	Bee Caves Rd/ RM 2244 - WB	THE VILLAGE APTS TO 360NB	8.0	0.18	45
16	FM 620/ SH 71 - NB	CHISOMETRAIL TO 35 SB FRNTG	7.3	0.18	40
17	Oltorf St WB	GRENFIELD TO 35 NB	5.5	0.18	30
18	IH 35 - NB	ENTRANCE FROM ROYAL HILL TO EXIT TO WOOD LAND	11.1	0.18	60
19	US 183 - SB	ENTRANCE FROM MANOR TO LOYOLA	10.2	0.18	55
20	Congress Ave - NB	4TH TO 5TH	5.6	0.19	30

Figure 2-B Top 20 Most Congested Segments during PM

Rank	Route Name	Segment	Average Speed (mph)	Congestion Index	Weighted Average Speed Limit (mph)
1	Parmer Lane - NB	MCCALLEN TO 35 NB	5.1	0.08	62
2	MoPac/FM 1325 - NB	EXIT TO ENFIELD TO ENTRANCE FROM CESAR CHAVEZ	5.7	0.09	65
3	MoPac/FM 1325 - NB	EXIT TO CESAR CHAVEZ TO EXIT TO ENFIELD	6.3	0.10	65
4	SH 29 - WB	MALL ENTRANCE TO 35 NB	3.8	0.11	35
5	MoPac/FM 1325 - NB	ENTRANCE FROM CESAR CHAVEZ TO ENTRANCE FROM ENFIELD	7.5	0.12	65
6	Airport Blvd - NB	PARKWOOD TO 35NB	5.2	0.12	43
7	Sam Bass Rd - EB	CHISHOLM TRAIL TO 35 SB	4.3	0.12	35
8	Riverside Dr - NB	BARTON SPRINGS TO S 1ST	4.3	0.12	35
9	Congress Ave - SB	7TH TO 6TH	3.9	0.13	30
10	RM 12/ SH 80 - SB	L.B.J. DR. NORTH TO EDWARD GARY	5.3	0.13	40
11	Gattis School Rd - EB	AW GRIMES TO SOUTH CREEK	5.5	0.14	40
12	FM 620/ SH 71 - SB	MALL ENTRANCE TO US 290	6.5	0.14	45
13	MoPac/FM 1325 - NB	ENTARNCE FROM ENFIELD TO EXIT TO WINDSOR	9.5	0.15	65
14	Bee Caves Rd/ RM 2244 - WB	THE VILLAGE APTS TO 360NB	6.7	0.15	45
15	IH 35 Frntg-a - SB	AIRPORT TO 38th1/2	6.4	0.16	40
16	Parmer Lane - SB	SPECTRUM TO 620 WB	10.1	0.17	60
17	Gattis School Rd - WB	SOUTH CREEK TO AW GRIMES	6.8	0.17	40
18	Bee Caves Rd/ RM 2244 - WB	WESTWOOD TERRAIN TO WESTBANK DR	6.0	0.17	35
19	Oltorf St WB	GRENFIELD TO 35 NB	5.2	0.17	30
20	Business US 79 - EB	TALBOT TO SH 95	5.3	0.18	30

Figure 3-A Top 20 Segments Based on Control Delay during AM -2006/2007

Rank	Route Name	Intersection Segment	Average Delay (sec)
1	Congress Ave - NB	SLAUGHTER TO WM CANNON	406.8
2	FM 973 - SB (seg 2)	HAROLD CREEK TO US 71 E	213.6
3	McNeil Sr/ Howard Lane/ Wells Branch - WB	TANDEM TO MOPAC NB	209.0
4	FM 620/ SH 71 - NB	COMANCHE TRAIL TO BULLICK HOLLOW	197.0
5	Dessau/ FM 685 - SB	RUTHERFORD TO US 183 SB	180.0
6	Brushy Creek/ Cypress Creek - WB	ARROWHEAD TO US 183	165.8
7	FM 973 - NB (seg 2)	LEXINGTON TO US 290	162.9
8	Bullick Hollow/ RM 2222 - EB	MESA TO BALCONES	159.0
9	Bullick Hollow/ RM 2222 - EB	OASIS BLUFF TO FM 620	144.8
10	Lamar Blvd - NB	RIVERSIDE TO MARTIN LUTHER KING JR	141.2
11	Parmer Lane - SB	HARRISGLEN TO DESSAU	138.7
12	Dessau/ FM 685 - SB	GREGG TO PARMER	126.1
13	FM 620/ SH 71 - NB	SOUTHWEST PKWY TO BEE CAVES RD/2244	120.6
14	Parmer Lane - NB	SAMSUNG TO DESSAU	116.8
15	Brushy Creek/ Cypress Creek - EB	LYNN WOOD TO US 183	115.9
16	IH 35 Frntg-a - NB	MLK TO 38th1/2	113.4
17	IH 35 Frntg-a - NB	WILLIAM CANNON DR. TO STASSNEY LN.	113.4
18	Lakeline Blvd - SB	FALL CREEK DR/LOOP TO CYPRESS CREEK RD	113.2
19	Red Bud Ln/ CR122 - SB	CR 110 TO US 79	112.5
20	Parmer Lane - SB	RIATA VISTA/LEGENDRY TO LOOP 1 SB	110.9

Figure 3-B Top 20 Segments Based on Control Delay during PM -2006/2007

Rank	Route Name	Intersection Segment	Average Delay (sec)
1	IH 35 Frntg-a - SB	MLK TO RIVERSIDE DR.	372.9
2	McNeil Sr/ Howard Lane/ Wells Branch - EB	MCNEIL ROUND ROCK TO MOPAC SB	338.3
3	IH 35 Frntg-a - NB	US 290 TO US 183	277.9
4	Parmer Lane - SB	RIATA VISTA/LEGENDRY TO LOOP 1 SB	250.1
5	IH 35 Frntg-a - NB	OLTORF TO RIVERSIDE	227.6
6	IH 35 Frntg-a - NB	WOODWARD TO OLTORF	220.0
7	Parmer Lane - SB	SH 130 TO US 290	191.0
8	Parmer Lane - NB	MCCALLEN TO 35 NB	187.9
9	Bullick Hollow/ RM 2222 - EB	OASIS BLUFF TO FM 620	186.7
10	FM 620/ SH 71 - NB	SOUTHWEST PKWY TO BEE CAVES RD/2244	180.8
11	IH 35 Frntg-a - NB	BREAKER TO PARMER LN	178.2
12	Braker Ln - WB	HORNSBY TO LAMAR	167.3
13	IH 35 Frntg-a - SB	Airport TO 38th1/2	166.3
14	IH 35 Frntg-a - NB	PARMER LN TO WELLS BRANCH	165.0
15	MoPac/ FM 1325 - SB	EXIT TO WILLIAM CANNON TO SLAUGHTER LANE	157.3
16	Congress Ave - SB	CIRCLE S TO WM CANNON	155.4
17	Bee Caves Rd/ RM 2244 - EB	BARTONCREEK BLVD TO 360SB	146.8
18	Parmer Lane - NB	SAMSUNG TO DESSAU	143.5
19	Brushy Creek/ Cypress Creek - EB	S.LAKELINE BLVD TO SOUTH BELL BLVD	142.5
20	FM 620/ SH 71 - NB	35 NB FRNTG TO MAYS/ BUS 35	141.9

Other Indices

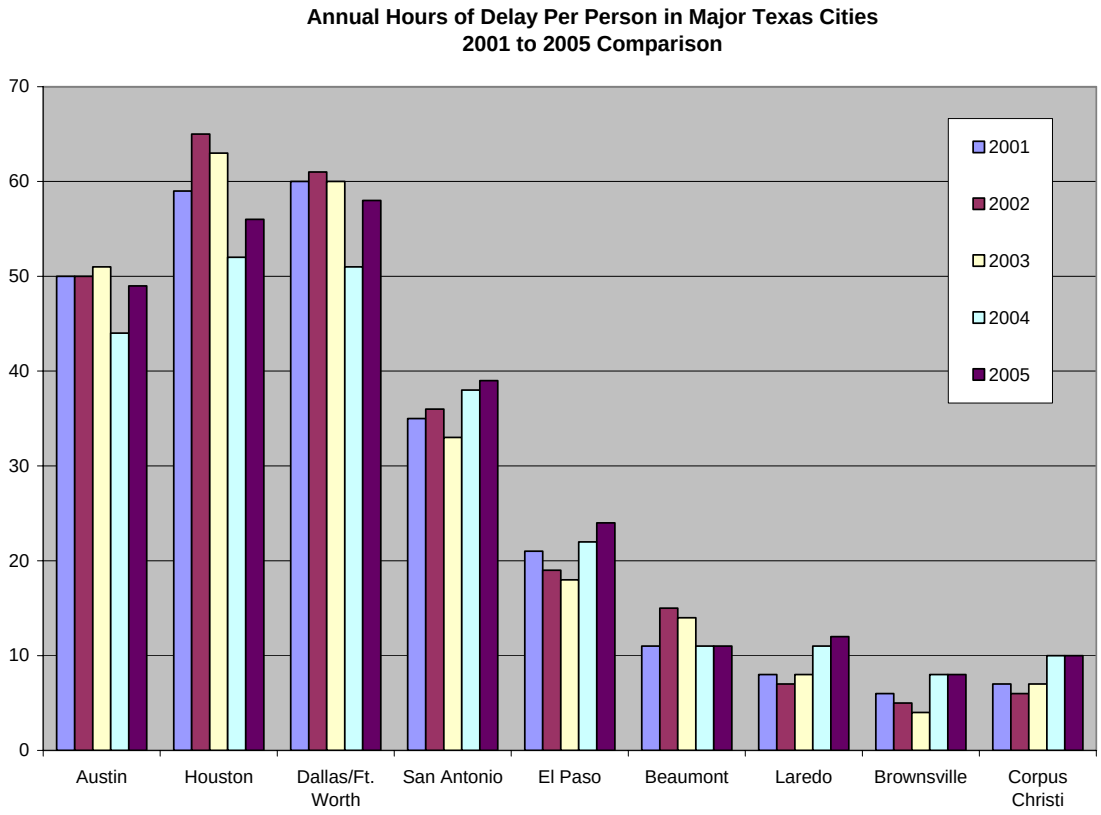
The Texas Transportation Institute developed two indices to assist with congestion management: the Travel Time Index and the Texas Congestion Index. Both use the ratio of peak period travel time to free-flow travel time, but each determines the ratio from different data sources.

Travel Time Index (TTI)

Every two years the Texas Transportation Institute produces *The Urban Mobility Report*, which summarizes urban congestion in major cities throughout the United States. The main measurement used in this study is the Travel Time Index (TTI). This index is the ratio of peak period travel time to free-flow travel time. The index is calculated using HPMS (Highway Performance Monitoring System) data, a national highway information system that includes data on the extent, condition, performance, use, and operating characteristics of the nation's highways.

This index is useful to CAMPO for two reasons: it offers an overview of congestion levels and facilitates comparison between Austin and other similarly sized cities, or other Texas cities. Figure 4 shows Austin's congestion levels in comparison to other cities in Texas.

Figure 4

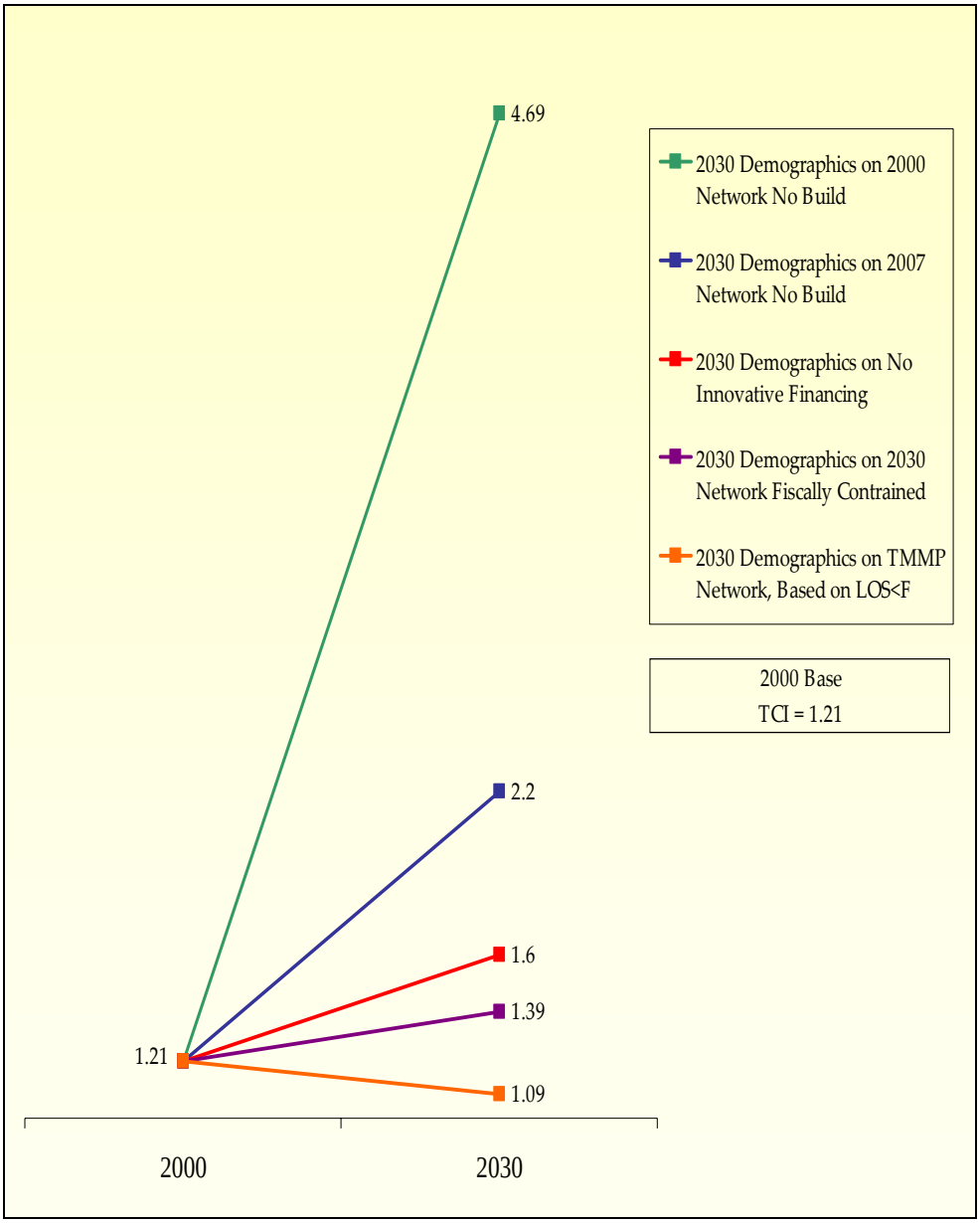


The Texas Congestion Index (TCI)

The Texas Congestion Index (TCI) was developed by the Texas Transportation Institute specifically for Transportation Management Areas (urban population over 200,000) in Texas. This index, which also measures the ratio of peak period travel time to free-flow travel time, uses MPO modeling output as the data source. In addition, the TCI takes into account the economic ramifications of vehicle and truck congestion and does so only for the peak periods of travel time. Under this index, the CAMPO area has a TCI of 1.21 in 2000; this means that a peak period trip takes 21% longer than a free-flow speed trip would take.

The TCI supports the *Texas Metropolitan Mobility Plan*. Under this Plan, each TMA established a target reduction in the TCI. This TCI, along with data on safety, air quality, mobility, improved quality of life and economic development were used to demonstrate the CAMPO area's non-fiscally constrained transportation needs. Figure 5 shows the current TCI and projected TCIs under six different scenarios.

Figure 5
Six Scenarios of the Texas Congestion Index[3] for the CAMPO Area



[3] Note that the Texas Metropolitan Mobility Plan is not fiscally constrained. Figure 5 depicts congestion levels on a hypothetical network developed specifically for the TMMP. Specific projects to lower the TCI have not been identified.

Data Modeled to Analyze Future System Performance

The 24 hour average v/c ratio is used to analyze future roadway congestion.

Performance Measures: Volume to Capacity Ratio

CAMPO uses a four-step modeling process to determine future congestion levels. The output currently used to study congestion is called the volume to capacity (v/c) ratio. The model is not currently used to determine future peak period travel speeds (as is done with current data collection) because its outputs are an average of 24 hour activity. These 24 hour averages cannot be converted into AM or PM peak period outputs without additional model runs. The v/c ratio can be used to quantify future congestion levels, help determine where additional capacity-added facilities need to be located and evaluate the potential benefits of new projects.

There are some important assumptions to note with CAMPO's calculation of the v/c ratio. The modeling output is heavily influenced by the modeling input. One input to the model is congestion by area type and facility type. This surrogate measure for acceptable levels of congestion assumes that areas which have more dense development and therefore slower travel speeds, will have a higher roadway capacity than areas with spread-out or no development and higher travel speeds. Examples of some of these thresholds are shown in Figure 6.

Figure 6
Examples of 24-Hour Roadway Capacity (in vehicles per lane)

	CBD	CBD Fringe	Urban Residential	Suburban Residential	Rural
IH 35	27,600	29,500	27,750	26,500	16,000
Principle Arterials – Divided	9,000	9,500	10,000	9,250	6,500
Collectors	4,500	4,750	5,250	4,500	2,000

One of the last components in the modeling process is to show expected volumes for all major roadways in the CAMPO area. This information can be divided by the expected capacity of the roadway to determine the expected v/c ratio. CAMPO uses the standards shown in Figure 7 for all modeled congestion data.

Figure 7
V/C Ratio and Congestion Level

V/C Ratio	Congestion Level
< 1.0	Uncongested
1.0 – 1.3	Congested
> 1.3	Severely Congested

Transportation Modeling Results

According to the CAMPO transportation model, congestion will increase in the future, despite planned investments in roadway and transit infrastructure. Although the model shows that the planned investments are effective in reducing congestion, expected population growth offsets planned investments, resulting in increased congestion.

Conclusions
The 2006/2007 Congestion Management Process report conclusions are:

The majority of roadways studied are operating under stable or free-flow conditions. Only 27.5% of the roadways were operating under congested conditions during the Winter 2006 / Spring 2007 season.

On many of the segments with CI's in the congested range, the congestion occurred only near a stop sign or traffic signal and had acceptable conditions through the remainder of the segment.

Modeled volume to capacity ratios indicate congestion will increase in the future.

The CAMPO CMP implementation process uses the congestion data as a tool to identify and manage congested areas.

Action Items:

CAMPO, in coordination with the TxDOT Austin District and TTI, will analyze and summarize the ITS congestion data annually for selected locations if data is available.

CAMPO will provide the congestion data to local jurisdictions, agencies and transportation providers and work with them to reduce congestion levels on area roads. Congestion solutions may be operations improvements (including access and transportation system management), travel demand management or roadway expansion.

Congestion Management and Program Implementation

Introduction

CAMPO has two main avenues to implement congestion management strategies: requiring projects in the CAMPO Transportation Improvement Program to use travel demand management and transportation systems management techniques and influencing the policies that drive the project selection process in the long-range transportation plan and transportation improvement program.

Transportation Improvement Program

The Transportation Improvement Program (TIP) is a priority list of projects and project segments to be carried out within a three to five year period. The TIP demonstrates how the project can be implemented and lists the funding source. All transportation projects that expect to receive federal funding must be in the TIP; all projects in the TIP must be CMP compliant or receive a waiver from the CMP process.

For all new roadway projects where the addition of general-purpose lanes is determined to be an appropriate strategy, demand management must be considered. This can include numerous travel demand management (TDM) and transportation systems management (TSM) techniques. All projects in the TIP must demonstrate which TDM/TSM they will use, unless they get a waiver. Waivers can be granted if:

- The project is not federally funded
- The project is a safety improvement project only
- The project is a bottleneck elimination project only
- The project advanced beyond the National Environmental Policy Act (NEPA) prior to April 6, 1982 and has been actively advancing since then or
- The project does not consist of a new general-purpose facility in a new location or the addition of general-purpose lanes to an existing facility.

<u>FY 2006-2008 TIP and FY 2008-2011 TIP</u>

The CAMPO Transportation Policy Board adopted the FY 2008-20011 TIP in February 2007, and amended the TIP in October 2007. Both the FY 2006-2008 TIP and the 2008-20011 TIP contain projects that are not eligible for a CMP waiver. These projects, with TDM and TSM techniques identified, are listed in Figure 8.

Figure 8: Added-Capacity Projects with Identified Transportation Systems Management or Travel Demand Management Techniques in the FY 2006-2008 TIP and FY 2008-2011 TIP

Project Name	Location	Access Management	Bicycle Improvements	Motorist Information Systems	Express Lanes	Grade Separation	Intersection Improvements	Intelligent Transportation Systems	Multimodal Facilities	Pedestrian Improvements	Toll Improvements
Brushy Creek Road	Darkwoods Trail to Parmer Ln.		√								
CR 273/274 T	US 183 & 183A to existing FM 2243		√				√			√	
Pflugerville Ln/Loop	Greenlawn Blvd. to Great Basin	√	√							√	
Creek Bend Blvd Extension	Creek Bend Circle to Wyoming Springs Dr.		√							√	
FM 1431	East of US 183 to 183A	√	√							√	
FM 1431 A	Trails End Rod to Vista Oaks Dr.	√	√							√	
Frate Braker Ln.	Brodie Ln. to Manchaca Rd.		√							√	
FM 1460	N. of US 79 to US 79		√								
FM 1460	Quail Valley Dr. to Old Settlers Blvd.	√	√								
FM 2338	Jim Hogg Rd. to Cedar Breaks Rd.		√							√	
O'Connor Rd. (Wyoming Springs)	RM 620 to SH 45(N)									√	
RM 2244	E. of Eanes Creek to Westwood St.									√	
SH 195	S. of SH 138 to 81 mi. S. of SH 138		√								
SH 195	S. of Bell Co. ln. to SH 138		√								
US 79	W. of FM 1460 to CR 195		√								
US 79	W. of FM 1460 to CR 195		√								
US 183 S	Springdale to Patton Ave		√								√

US 290 E	East of US 183 to east of FM 734 (Parmer Lane)		√								√
US 290 W	West of Scenic Brook to east of Williamson Creek		√								√
SH 45 SW	Loop 1 – FM 1626		√								√
SH 71 W	US 290 W. to Silvermine		√								√
SH 71 E	West of Riverside - E. of Presidential Blvd.		√								√
US 183 N	183A to SH 29		√								
Arterial A	Joe DiMaggio to SH 45/Louis Henna Blvd.		√			√	√			√	
Wyoming Springs	FM 1431 to Golden Oak Circle		√				√			√	
Wyoming Springs	Brightwater Blvd. to RM 620		√				√			√	
SH 130	'US 183 (S) to Caldwell/ Travis Co line		√								
FM 973	South of SH 71 to Burleson Road		√				√				
Loop 1	'FM 734 to Cesar Chavez interchange		√		√						

Project Selection in the TIP

The TIP project selection process can be an effective tool to implement congestion management projects. CMP can be prioritized in the project selection process by issuing a call for projects for types of projects that manage congestion, awarding points for congestion management in the project scoring process or other methods. CAMPO is currently using congestion reduction potential and implementation of TDM/TSM measures as project selection criteria.

CAMPO Transportation Plan

The CAMPO long-range transportation plan provides a 25-year blueprint for growth and management of the regional transportation system of roadways, transit, bicycles, and pedestrians. The plan guides federal transportation investment in the region and provides policy direction to member jurisdictions as they add to the regional transportation system. CAMPO's Transportation Improvement Program (TIP) must be consistent with the projects and policies described in the long range plan. Currently, a CMP analysis is not applied to specific projects in the Plan.

Conclusions

CAMPO should continue to use the TIP as a tool to ensure continued congestion management in the region. CAMPO should also develop and implement a process to incorporate congestion management into the CAMPO transportation plan.

Action Item:

CAMPO will continue to use the TIP project selection process and the inclusion of projects in the TIP as tools to ensure continued congestion management in the region. CAMPO will also begin developing a process to more fully incorporate congestion management in the CAMPO transportation plan.

Action Items

CAMPO will continue to work with regional entities on the CMP program to integrate CMP into the long range plan.

CAMPO, in coordination with the TxDOT Austin District and TTI, will analyze and summarize the ITS congestion data annually for selected locations if data is available.

CAMPO will work with local jurisdiction, agencies and transportation providers to reduce anticipated congestion levels on area roads. This could include operations improvements, travel demand management or roadway expansion.

CAMPO will continue to use the TIP project selection process and the inclusion of projects in the TIP as tools to ensure continued congestion management in the region. CAMPO will also begin developing a process to more fully incorporate congestion management in the CAMPO transportation plan.

Appendix A

ITS Detectors in Austin, 2005