

MOBILITY MANAGEMENT BEST PRACTICES



CITY OF FORT COLLINS



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MOBILITY MANAGEMENT BEST PRACTICES REVIEW

DRAFT

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EXECUTIVE SUMMARY

As Fort Collins finds itself in the spotlight of cities on the leading edge of conservation initiatives, this report serves as a scorecard for its strengths and weaknesses in the area of transportation, and a platform from which to embark on long-term strategies that will help the City achieve its mobility management goals. This report also indicates the importance of addressing funding and institutional reforms that are needed to provide the infrastructure for continued success as the City continues to grow.

Because Fort Collins is growing from a small into a medium-sized city, it can increasingly benefit from more multi-modal transportation and land use development policies. Demographic and economic trends, such as rising fuel prices, environmental concerns, increased recognition of the health benefits of non-motorized travel, and a growing demand for more urban lifestyles, will help encourage the use of alternative transportation and reduce per capita vehicle travel.

Mobility management (also called transportation demand management or vehicle miles traveled [VMT] reduction) includes various strategies and programs that improve travel options and encourage people to use more efficient forms of travel. It includes improvements to alternative modes (walking, cycling, ridesharing, public transit, telecommuting), changes in traffic management, pricing reforms, and land use policies that create more multi-modal and accessible communities. Although individually these strategies only affect a small portion of total regional travel, their impacts are cumulative and synergistic (total impacts are greater than the sum of individual impacts). When all benefits and costs are considered, mobility management programs often turn out to be the most cost-effective way to achieve transportation planning objectives.

Reducing the VMT growth rate has been identified as an important factor in meeting Fort Collins' goals for land use, transportation, air quality, and livability. The City intends that its overall VMT reduction program meet or exceed the performance of similar programs in comparable cities. This report was prepared in order to gauge the City's VMT-reduction efforts compared with best practices among cities of comparable size and land use and transportation limitations.

A comprehensive discussion of current City mobility management practices is provided in Attachment 1. Fort Collins has implemented many good mobility management strategies, including outstanding pedestrian and cycling programs, land use planning to encourage more compact development, commute trip reduction programs, and plans to develop bus rapid transit service. The table below illustrates the City's efforts toward mobility management, as well as recommendations for improving upon these efforts. However, like many other communities, Fort Collins is not implementing all of the mobility management programs that are economically viable, taking into account all benefits and costs. There is significant potential for the City to develop additional mobility management programs that could provide social, economic, and environmental benefits to the community and surrounding areas.

Mobility Management Program Grades and Recommendations for Improvement

	Grade	Comments	Needed To Achieve An “A”
Commute Trip Reduction (CTR) Programs	B	Discontinuation of the SmartTrips program may reduce this grade.	Continue and expand services currently provided by SmartTrips. Encourage or require employers to support CTR, especially in sprawled areas.
School Transport Management	B	City has several good programs, but many are scheduled to end this year.	Expand so all schools have programs that support alternative modes.
Campus Mobility Management	C	UPass is good, but limited transit service and low parking prices reduce use of alternative modes.	Significantly increase transit funding and service, support vanpooling by Colorado State University (CSU) staff, and implement parking pricing on CSU campus.
Walking and Cycling Programs	B+	Good programs for new development.	More resources needed to improve walking and cycling in some existing areas.
Transit Service Improvements	C	Current funding and service is modest for city of this size.	Significantly increase transit service to attract discretionary riders. Implement Mason Corridor program.
Rideshare Programs	B+	Regional VanGo program is now expanding services and outreach.	Continue VanGo service expansion and marketing, and integrate with other mobility management programs, including CTR and transit promotion.
Parking Management	D	City provides increased flexibility for new development, but few other management strategies.	Implement more parking management strategies, including more sharing, regulating, and pricing in both downtown and automobile-oriented areas.

	Grade	Comments	Needed To Achieve An “A”
Smart Growth Policies	C	City has good policies for new development, but must overcome sprawl in many areas.	Implement strong policies and programs to create more compact, mixed, walkable redevelopment of sprawled areas developed before City Plan.
Institutional Reforms	B-	City has good policies on paper, but many are not being aggressively implemented because there is a lack of cooperation by stakeholders.	Continue to reform transportation and land use policies, planning, and funding practices. Continue to educate stakeholders concerning the benefits that can result from better planning. Encourage or require more cooperation by local businesses, CSU, regional organizations, and state agencies.

This report highlights future demographic and economic trends that will drive City progress, evaluates City mobility management efforts relative to best management practices from leading U.S. cities, discusses potential management options and strategies available to the City, and recommends several types of programs that can help Fort Collins achieve its transport planning objectives and provide other economic, social, and environmental benefits.

The report also identifies needs associated with improving overall best practices in Fort Collins. In particular, it is paramount for the City to secure reliable long-term funding for alternative transportation infrastructure, services, and promotion programs in order to achieve its transportation improvement goals.

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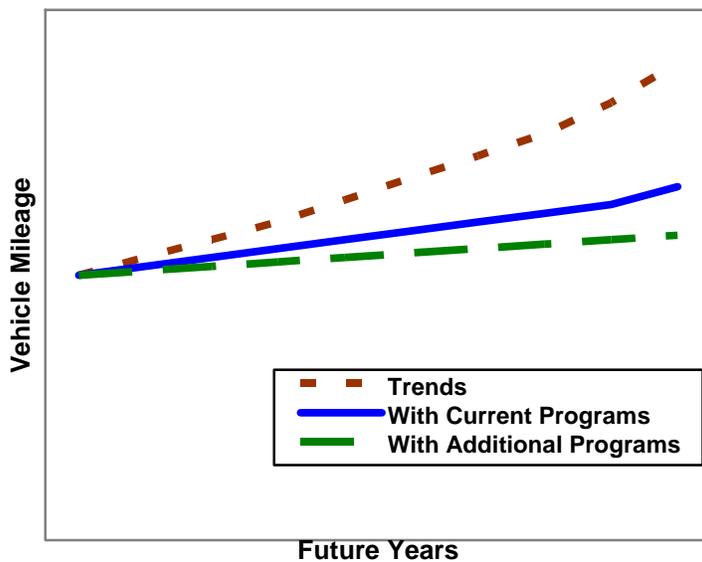
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1.0 INTRODUCTION

As a rapidly growing city, Fort Collins currently has approximately 139,000 residents (August 2006) and an average 2.6 percent annual population growth rate. At this rate population is expected to increase 68 percent to approximately 230,000 residents during the next 20 years if current trends continue. Employment and business activity also are expected to increase. Peak period vehicle traffic volumes currently exceed the capacity of many roads, and congestion problems are predicted to become severe if current travel trends continue. It is not economically feasible to accommodate growing traffic by continually expanding road and parking facilities, and doing so would threaten the community’s quality of life. Reducing vehicle traffic growth can help allay severe traffic problems, save roadway and parking facility costs, and provide numerous other benefits to city residents.

Several future demographic and economic trends support efforts to reduce automobile traffic and encourage alternative modes of transportation, including an aging population, rising fuel prices, increasing demand for urban locations, rising land values, and increased concern over the health and environmental impacts of excessive driving (Litman 2006). Many communities now are making efforts to create more efficient and multi-modal transportation systems. Fort Collins already has taken significant actions in this regard; including establishing objectives to reduce total vehicle miles traveled (VMT) and encouraging alternative transportation modes. This study was initiated to help the City of Fort Collins identify policies and programs that would help achieve these objectives.

Figure 1 Transportation Futures



With current trends, vehicle travel would continue to increase with population and employment growth (see Figure 1). Current efforts should moderate this growth. Additional mobility management strategies can further reduce future traffic, helping to avoid associated transportation costs and problems.

We use the term *mobility management* (also called *transportation demand management* or *VMT reduction*) to refer to policies and programs that increase transportation system efficiency by changing travel behavior, such as when and how people travel. Table 1 summarizes various types of mobility management strategies.

Table 1 Mobility Management Strategies (VTPI 2004)

Improved Transport Options	Pricing Incentives	Land Use Management	Implementation Programs
<ul style="list-style-type: none"> • Transit improvements • Walking improvements • Cycling improvements • Rideshare programs • Flextime • Carsharing • Telework • Taxi improvements • Guaranteed ride home 	<ul style="list-style-type: none"> • Congestion pricing • Distance-based fees • Employee transportation benefits • Parking cash out • Parking pricing • Pay-as-you-drive vehicle insurance • Fuel tax increases 	<ul style="list-style-type: none"> • Smart growth • New urbanism • Location-efficient development • Parking management • Transit oriented development • Car free planning • Traffic calming 	<ul style="list-style-type: none"> • Commute trip reduction • School and campus transport management • Freight transport management • Tourist transport management • Transit marketing • Nonmotorized encouragement

Of course, efforts to reduce vehicle traffic must be consistent with other planning objectives, such as economic development, improving opportunity for disadvantaged people, increasing community livability, and improving public health. Fortunately, many mobility management strategies do provide multiple benefits.

Planning professionals increasingly recognize and support mobility management, although they do not always use that term. For example, the U.S. Federal Highway Administration uses the term *operations* and the Institute of Transportation Engineers uses the terms *transportation demand management*, *smart growth* and *access management*, all of which are types of mobility management. Recognition and support of mobility management is occurring, in part, because the number of issues considered in transportation planning is expanding (see Table 2). In addition to issues that have been around for decades, new issues are arising that affect how cities plan and manage their infrastructure.

Table 2 Transport Planning Issues

Older Issues	Newer Issues
<ul style="list-style-type: none"> • Improve mobility/reduce congestion • Vehicle parking convenience • Freight transport • Traffic safety 	<ul style="list-style-type: none"> • Environmental quality • Energy conservation • Equity – serving disadvantaged people • Smart growth land use development objectives • Community livability • Public health and fitness

For example, if planners are primarily concerned with reducing traffic congestion, improving parking convenience, and accommodating freight transport, expanding roadway and parking capacity may rank as the best way to improve transportation. But if planners also are concerned with protecting environmental quality, conserving energy, improving transport options for disadvantaged people, supporting smart growth, and improving public health and fitness, mobility management strategies become more attractive because they provide a wider range of benefits. Table 3 contrasts the range of benefits provided by facility expansion and mobility management strategies.

Table 3 Planning Impacts (✓ = supports objective; ✕ = Contradicts Objective)

Objective	Roadway/Parking Expansion	Mobility Management
Improve mobility/reduce congestion	✓	✓
Vehicle parking convenience	✓	✓
Freight transport	✓	✓
Traffic safety	Mixed *	✓
Emission Reduction	Mixed *	✓
Energy conservation	Mixed *	✓
Equity – serving disadvantaged people	✕	✓
Smart growth land use	✕	✓
Community livability	✕	✓
Public health and fitness	✕	✓

(*Increased roadway capacity tends to reduce per-vehicle-mile impacts, but by increasing total vehicle mileage generally increases total impacts.)

Expanding road and parking facility capacity helps achieve some planning objectives, but increasing pavement areas and inducing vehicle travel tends to contradict others. Mobility management provides a greater range of benefits. As more impacts are considered, the justification for mobility management increases. It is worth emphasizing that mobility management is one area where economic, social, and environmental objectives converge. Improving transportation options and reducing vehicle traffic growth tend to reduce infrastructure costs to governments and businesses, and reduce transportation costs to consumers. Each dollar spent on motor vehicles means one less dollar to spend on other goods. Expenditures on automobiles, fuel, and roadway facilities provide relatively little regional economic activity because they are capital intensive and are mostly imported from other areas. A study in San Antonio, Texas, found that each 1 percent of regional travel (53 million vehicle miles) shifted from automobile to transit increases regional income by \$2.9 million (approximately 5 cents per mile shifted), resulting in 226 additional regional jobs (Miller, Robison and Lahr 1999). Table 4 shows the economic impacts of consumer expenditures in Texas, according to this study.

Table 4 Economic Impact of \$1 Million Expenditure (Miller, Robison and Lahr 1999)

Expenditure Category	Regional Income	Regional Jobs
Automobile Expenditures	\$307,000	8.4
Non-automotive Consumer Expenditures	\$526,000	17.0
Transit Expenditures	\$1,200,000	62.2

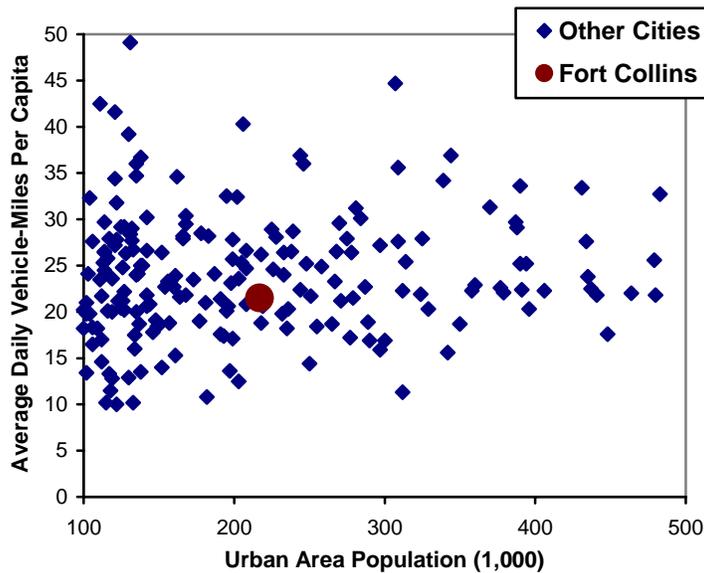
This table indicates that automobile expenditures provide less regional income and employment than other types of consumer or transportation expenditures, indicating the mobility management tends to provide economic development benefits.

A more walkable community with a more multi-modal transportation system reduces roadway and parking costs, supports urban redevelopment and infill, increases property values and tax revenues, and makes a community more attractive, particularly for tourists, retirees and young adults. It also helps achieve equity objectives and increases affordability by improving travel options and reducing transportation costs. All of these benefits fit with the goals of the City of Fort Collins as it plans for the future and can be achieved through careful planning and program implementation.

2.0 POTENTIAL TRAVEL IMPACTS AND BENEFITS

Travel patterns vary significantly from one community to another. Figure 2 compares per capita vehicle mileage for U.S. urbanized areas with populations between 100,000 and 500,000 people, indicating a range from less than 10 to more than 50 daily vehicle-miles. Many factors contribute to these differences, including demographics, economic conditions, land use patterns, parking supply and price, walking and cycling conditions, public transit service quality and price, and commute policies (Litman 2005a). Some of these factors can be affected by municipal policies and mobility management programs (VTPI 2005).

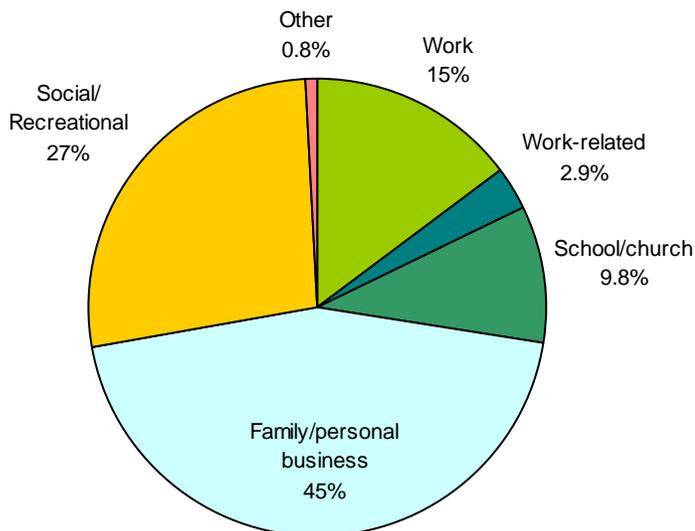
Figure 2 Per Capita Vehicle Travel Comparison (FHWA 2005, Table 72)



The Fort Collins urban region has approximately average per capita vehicle mileage compared with other urban regions in the 100,000 to 500,000 population range. As defined by FHWA, the Fort Collins urban region includes the City of Loveland and other areas outside Fort Collins.

Experience indicates that smart growth land use policies can reduce per capita automobile travel by 10 to 40 percent compared with conventional development. Mobility management programs can reduce affected automobile travel by 5 to 15 percent if they rely primarily on persuasion and 10 to 30 percent if they include significant improvements in travel options or financial incentives, such as parking pricing, transit subsidies, or Parking Cash Out (VTPI 2005, particularly the “Success Stories” chapter). Total impacts depend on the portion of total trips affected. For example, nationally, only approximately 15 percent of total trips are for commuting to work (see Figure 3), so a mobility management program that reduces work commute trips by 20 percent only reduces total trips by approximately 3 percent. However, since most peak period trips are for commuting, commute trip management can be particularly effective at reducing traffic and parking congestion, and commute trip reduction programs can help leverage reductions in other types of travel, such as chauffeuring children to school and shopping.

Figure 3 Trip Purpose (NPTS 2001)



Mobility management tends to provide economic, social, and environmental benefits, and can help achieve a variety of planning objectives, as summarized in Table 5. Not every mobility management strategy achieves all of these objectives, but most help achieve several. As a result, it is important to account for these multiple benefits when evaluating mobility management programs. For example, a mobility management program may initially be proposed to reduce congestion or air pollution emissions, but total benefits are far greater when consumer cost savings, parking cost savings, and safety benefit are also considered.

Table 5 Mobility Management Benefits

Economic	Social	Environmental
<ul style="list-style-type: none"> • Reduced congestion • Road and parking cost savings • Consumer cost savings • Crash cost savings • Increased local employment and business activity 	<ul style="list-style-type: none"> • Improved mobility for non-drivers • Increased community livability • Improved public health and fitness 	<ul style="list-style-type: none"> • Energy conservation • Reduced air, noise, and water pollution • Reduced pavement and sprawl

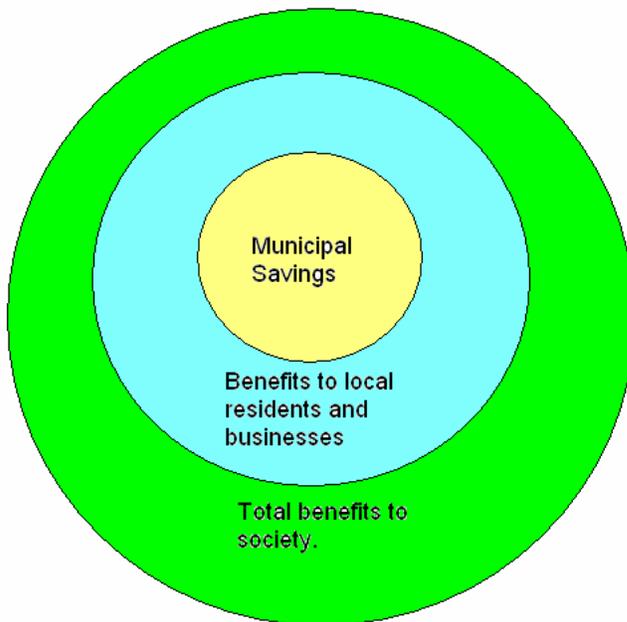
These benefits can be considered from various perspectives:

- *Direct financial savings to the municipal government*, such as reduced need to widen roads, increase parking supply, and provide various traffic services.
- *Benefits to city residents and businesses*, such as reduced congestion delay, reduced parking costs, reduced vehicle costs (including fuel cost savings), improved mobility for non-drivers, reduced crash costs, and reduced environmental impacts.

- *Overall benefits to society*, such as reduced accident risk and pollution exposure to residents of other communities, and national security and economic benefits from reduced dependence on imported petroleum.

Figure 4 illustrates that economic impacts can be evaluated from a narrow perspective, considering only financial costs and savings to municipal governments, more broadly to include impacts on local residents and businesses, or comprehensively, to include all impacts, including those in distant locations and times. This broadest perspective reflects sustainable planning.

Figure 4 Scope of Impact Analysis



To the degree that mobility management supports smart growth (more compact, mixed, and connected land use development), it can provide a variety of additional benefits, including government infrastructure cost savings, utility cost savings, reduced costs of providing public services (e.g., schools and emergency response facilities), reduced stormwater and snow management costs, reduced distribution costs to businesses, and increased economic productivity.

Mobility management also can increase municipal tax revenues by shifting consumer expenditures from motor vehicles and fuel to goods with more local inputs, and by encouraging more urban infill, which leads to more local employment and business activity within city boundaries. Although additional research is needed to quantify these fiscal benefits with precision, they can be substantial, totaling hundreds of dollars annually per household. This level of benefit justifies similar sized expenditures to improve alternative modes and support mobility management programs.

3.0 PLANNING DOCUMENT REVIEW

As part of this project, the project team reviewed and evaluated various local and regional planning documents in terms of their support for mobility management. Table 6 lists these documents and highlights of the analysis are summarized in this section.

Table 6 Planning Documents Reviewed

Name	Internet Link
City of Fort Collins' Air Quality Plan	http://fcgov.com/airqualityplan/pdf/airqualityplan.pdf
Northern Colorado I-25 Corridor Plan	http://fcgov.com/advanceplanning/pdf/i25regional-plan-doc.pdf
City of Fort Collins' Air Quality Action Plan	http://fcgov.com/airquality/lap.php
Fort Collins Transportation Master Plan 2004	http://fcgov.com/transportationplanning/tmp.php
Transfort Strategic Operating Plan	http://fcgov.com/transportationplanning/transfort.php
Fort Collins Pedestrian Plan	http://fcgov.com/transportationplanning/pedplan.php
Fort Collins Bicycle Program Plan	http://fcgov.com/transportationplanning/pdf/bike_plan.pdf
Fort Collins Master Street Plan	http://fcgov.com/transportation/msp-new.php
Northern Front Range (NFR) 2030 Regional Transportation Plan	www.nfrmpo.org/planning/rtpMaterials.asp
NFR Long-Range Strategic Action Plan	www.nfrmpo.org/pdfs/longRangeSAP.pdf
Fort Collins Comprehensive Plan (City Plan)	www.fcgov.com/advanceplanning/city-plan.php
TMA Feasibility Study	http://www.fcgov.com/transportationplanning/pdf/tmafeasibilityreport.pdf

3.1 Fort Collins City Plan (www.fcgov.com/advanceplanning/city-plan.php), 2004

The *Fort Collins City Plan* is the overall guide to local development. It includes the following features that support and are supported by mobility management.

An overall commitment to sustainable community development, which includes efficient use of resources and coordinated economic, social, and environmental planning (p. 6).

A commitment to confront and mitigate the negative impacts of automobiles while recognizing their importance through an overall transportation system that supports choice for travel and thereby reduces daily VMT (p. 11).

Land use development goals to create a compact land use pattern, cohesive neighborhoods, a strong downtown, and redevelopment of underused commercial and industrial areas with mixed-use growth. (p. 15).

Transportation development goals to create a multi-modal transportation system that integrates many travel modes, including automobiles, transit, bicycles, and pedestrians; integrated transportation and land use planning; improved walking and cycling conditions; and a comprehensive public transit system (p. 21-27).

A commitment to conserving energy, water, and habitat resources (p. 43).

Growth management to coordinate and guide development (p. 53-55).

3.2 Fort Collins Transportation Master Plan 2004 (<http://fcgov.com/transportationplanning/tmp.php>), 2004

The *Transportation Master Plan* (TMP) presents the vision, goals, principles, and policies for how transportation and land use planning should occur in the City of Fort Collins. It includes the following policies and principles related to mobility management (described in the Executive Summary):

- Promote the development of a multi-modal transport system (automobile, transit, bicycle, and pedestrian) that encourages mobility and a variety of safe and efficient travel choices.
- Recognize Transportation Demand Management (SmartTrips) programs (carpool, regional vanpool, telecommuting, etc.) as transportation options.
- Encourage regional transit between Fort Collins and other northern Colorado communities.
- Encourage interregional transit between Fort Collins and Denver.
- Promote a local transit system.
- Expand public transit to provide integrated, high-frequency, productivity-based transit service along major transportation corridors, with feeder transit lines connecting all major district destinations.
- Promote travel demand reduction measures that reduce automobile trips and promote alternative travel modes from which results can be measured (e.g., telecommuting and in-home businesses, electronic communications, variable work weeks, flextime, transit access, bicycle and pedestrian amenities, parking management, and trip reduction programs for large employers).

- Recognize bicycling as a practical alternative to automobile use for all trip purposes.
- The City will acknowledge pedestrian travel as a practical transportation mode and elevate it in importance to be in balance with all other modes.
- Reduce the growth rate of VMT by implementing a comprehensive VMT reduction program that strives to meet or exceed VMT reduction in comparable cities.

3.3 Fort Collins Air Quality Plan

(<http://fcgov.com/airqualityplan/pdf/airqualityplan.pdf>), 2004

The 2004 *Fort Collins Air Quality Plan* establishes policies and strategies to improve the City's air quality. It includes the following actions:

- Adopting greenhouse gas emission reduction targets as part of the Cities for Climate Protection Campaign (p. 1-3)
- Developing transportation demand management programs and actions to reduce VMT (pp. 1-3, 4-2, 4-3, 4-5)

3.4 Northern Front Range Transportation and Air Quality Planning Council Long-Range Strategic Action Plan (www.nfrmpo.org/pdfs/longRangeSAP.pdf), 2003

This document defines regional transportation and air quality improvement strategies to be coordinated by the North Front Range Metropolitan Planning Organization (NFRMPO). These strategies are outlined below:

- A commitment to support Transportation Management Organizations (TMOs) to implement transportation demand management programs for particular local areas (p. 15)
- Increased safety and security for motorized and nonmotorized transportation; increased accessibility and mobility; enhanced connectivity of the transportation system across and between modes; and efficient system management (p. 26)
- Integrated transportation and land use to support efficient and cost-effective local and regional transportation systems (p. 27)
- Decreased reliance on Single Occupant Vehicles (pp. 32-32)
- Value pricing and other funding alternatives to upgrade and maintain the transportation system (p. 49)

3.5 Northern Front Range 2030 Regional Transportation Plan (www.nfrmpo.org/planning/rtpMaterials.asp), 2004

This report provides guidance for regional transportation planning. It includes the following features related to mobility management:

- Potential environmental impacts need to be considered in all transportation improvements. Those improvements that provide enhancements to the natural and/or social environment of the region are encouraged (p. 107).
- Transportation demand management projects are included (p. 111).
- Transit improvements and high-occupancy vehicle (HOV) priority systems are included (p. 114).

3.6 TMA Feasibility Study, 2006

Fort Collins community leaders and the Colorado Department of Transportation explored the feasibility of forming a Transportation Management Association (TMA) within the city. The TMA would bring public and private interests together to address transportation, access, and mobility problems, and the increasing effects of activity growth and vehicle use on both quality of life and economic vitality.

In summary, the study recommends that developing a formal, traditional TMA is premature at this time. However, a number of key transportation issues emerged, and a TMA program could be developed and incorporated into an existing organization, such as the Downtown Development Authority (DDA). Because the existing SmartTrips program will lose its funding in the fall of 2006, a TMA program could be established to replace some services that SmartTrips currently provides. A smaller program housed within an existing organization could accelerate the formation of a formal TMA in the future in response to the changing transportation and employment climate.

The Study identified three potential activity centers a TMA could serve:

- Downtown/University: Includes downtown Fort Collins and the Colorado State University (CSU) campus.
- Harmony Road Corridor: Located along the Harmony Corridor with Shield Street on the east and Ziegler Street on the west.
- East Fort Collins: Located east of downtown Fort Collins, with Lemay Avenue on the east, Vine Drive on the north, Drake Road on the south, and extending slightly east of Timberline Road.

Of these three activity centers, the Downtown/CSU area exhibits the most characteristics that would potentially warrant forming a TMA: diversity of local land uses, sufficient development density, a common set of transportation issues, and a well-defined and distinct geographic area. Development pressures along the Harmony Road Corridor may make this a viable activity center in the near future as well.

3.7 Document Summary

In summary, local and regional planning documents show a strong commitment to the concept of mobility management and support many individual mobility management strategies, including improved travel options, pricing reforms, and land use policies that create a more multi-modal and accessible community.

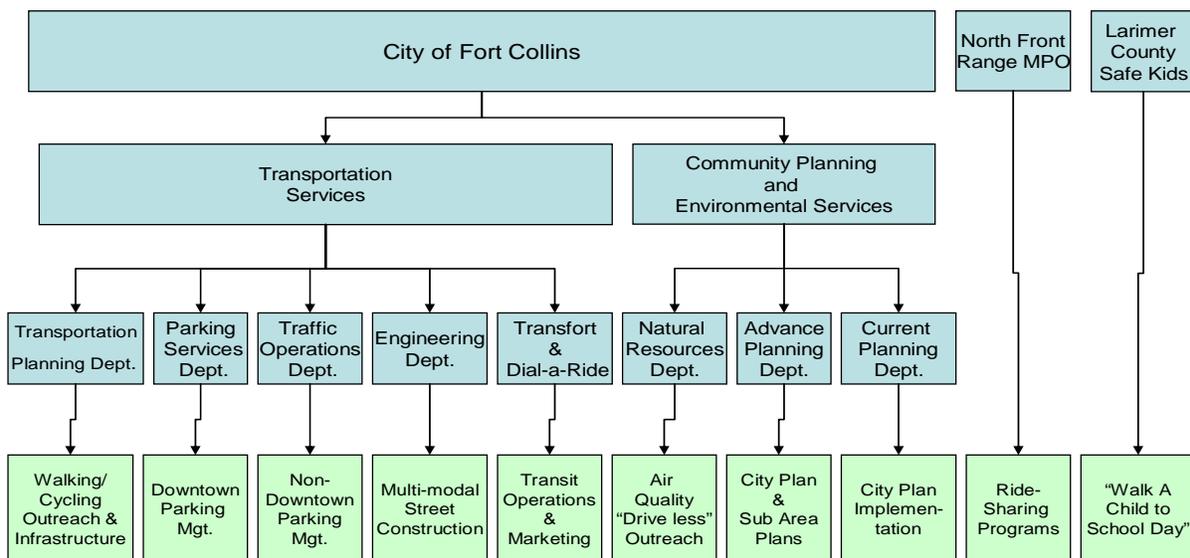
4.0 CURRENT MOBILITY MANAGEMENT PROGRAMS

Attachment 1 provides a comprehensive scan of City and regional mobility management policies and programs organized by the following topics:

1. City Plan (Comprehensive Plan)
2. City Plan Implementation (including Land Use Code)
3. Transportation Demand Management/Smart Trips
4. School Programs
5. Campus Programs
6. Walking and Cycling Programs
7. Transit Services
8. Rideshare Programs
9. Parking Management
10. Institutional Capacity
11. Data Monitoring
12. Regional Transportation Plan

These topics are further described in Section 5 in direct comparison to top mobility management strategies and best practices from various cities nation-wide. The City’s organizational structure for delivering the above-listed programs is described in Figure 5.

Figure 5 Organization of Mobility Management Programs



To complement the document review described in Section 3, the project team consulted a variety of local perspectives about the potential of implanting mobility management programs in Fort Collins. This

information was gathered during interviews and meetings held on February 14 and 15, 2006. The purpose was to take into account local support or barriers and implementation logistics when aligning best practices nation-wide with meaningful recommendations for Fort Collins. The interviews and meetings involved affected staff, local businesses, the Chamber of Commerce, City advisory board members, local schools, and CSU. Results of the interviews are provided in Attachment 2.

Most groups indicate general support for mobility management, and recognize that it is likely to be increasingly important in the future. However, many expressed concerns about specific strategies. In particular, there were concerns that commute trip reduction programs have been tried and failed, that CSU administrators and officials in other nearby cities provide little support for mobility management programs, and that residents and businesses will not accept parking pricing, commute trip reduction requirements, or policies that strongly favor transit over automobile transportation in facility investment or roadway management.

In terms of specific mobility management strategies, there was general support for large employer transportation management plans, carpooling, vanpooling, downtown parking collectives, and establishing a downtown TMA. Participants did not support downtown parking pricing strategies.

5.0 POTENTIAL MOBILITY MANAGEMENT STRATEGIES

This section describes specific mobility management strategies that seem the most appropriate for Fort Collins given the information gathered during this project. For more information on these strategies, see the *Online TDM Encyclopedia* (VTPI 2006).

5.1 Commute Trip Reduction Programs

Commute trip reduction (CTR) (also called employee trip reduction or vehicle trip reduction) programs give commuters resources and incentives to reduce their automobile trips. These programs typically include company policies that support flextime and telework, facilities located and designed for access by alternative modes (including proximity to transit services, priority parking for vanpools, and bicycle parking and changing facilities), parking cash out (employees who are offered a subsidized parking space can choose to receive the cash equivalent instead), or other commuter financial incentives and various marketing campaigns.

Implementation

Employers sometimes establish CTR programs to reduce their own parking problems or to be good corporate citizens. Governments can encourage CTR programs by providing funding and program support, by rewarding employers who offer CTR programs, or by requiring employers (typically larger employers or businesses in the most congested areas) to implement such programs. CTR programs also may be implemented by TMAs, which are private, non-profit, member-controlled organizations that provide transportation services in a particular area, such as a commercial district, mall, medical center, or industrial park.

Program administrative costs typically range from \$10 to \$50 annually per employee to cover management, marketing, and evaluation activities. This rate typically is more for programs that include financial incentives, such as parking cash out and transit subsidies. These costs are often offset by parking cost savings, provided the employer is able to reduce its parking supply and capture the resulting economic savings.

Impacts

CTR programs tend to reduce automobile commuting by 5 to 10 percent if they involve persuasion and 10 to 30 percent if they include significant financial incentives, such as parking cash out. Because most commutes occur during peak travel periods, CTR programs are particularly effective at reducing traffic congestion.

Examples

King County METRO Commute Partnership Program (www.transit.metrokc.gov)

The King County (Seattle area) METRO Transit Agency has developed a comprehensive CTR program that includes general support and resources to employers to develop CTR programs and direct services to encourage using alternative commute modes.

Space Coast Commuter Assistance (www.ridescat.com)

The Space Coast Area Transit agency in Southern Florida supports the Space Coast Commuter Assistance (SCCA) program to help commuters use alternative modes. The program supports car/vanpool matching, fixed route bus service, employer parking incentive programs, Park-n-Ride locations, telecommuting options, the vanpool program, alternative work scheduling, bicycle commuting, pedestrian commuting, or combinations of the above elements. The agency helps develop individualized CTR programs for each business. There is no charge for SCCA’s services.

Current Status

Fort Collins currently has several CTR programs that are summarized in Table 7 below. These programs primarily are promotion campaigns that provide information and encouragement for using alternative modes. Such programs tend to have modest travel impacts if implemented alone, typically reducing 5 to 15 percent of affected trips. However, they can have much greater impacts if implemented in conjunction with strategies that include financial incentives (e.g., parking cash out and transit subsidies), improved travel options (e.g., significantly improved walking and cycling conditions, and rideshare and transit services), and more accessible land use (e.g., more walkable neighborhoods, mixed land use, transit oriented development).

Table 7 Current Fort Collins Commute Trip Reduction Programs

Program	Description	Status as of Fall 2006
Business Outreach		
Drive Less Challenge	Incentive program to report miles traveled using alternative modes	Ended
Freewheels Program	Provides loaner bikes to employers	Ended
Commuter Bicycle Coach	Encourages bicycling to work	Ended
PassFort	Provides bulk rate bus passes to employees	Continuing [at Transfort]
Carpool/Vanpool	Promotion including on-line carpool matching	Continuing [at North Front Range MPO]

Program	Description	Status as of Fall 2006
Transit Marketing		
Communities in Motion		Continuing
Senior Campaign		Continuing
Events & Free Ride Promotions		Continuing
CSU Promotions		Continuing
Route-specific Promotions		Continuing
Bicycle/Pedestrian Outreach		
Bike to Work Day	A day when people are encouraged to bike to work. Stations are provided with food and drink for those who bike.	Continuing [at Transportation Planning]
Bike to Worship Day	A day when people are encouraged to bike to church. Stations are provided with food and drink for those who bike.	May continue [at Transportation Planning]
Bike to Campus Day	A day when people are encouraged to bike to campus. Stations are provided with food and drink for those who bike.	May continue [at Transportation Planning]
Youth Outreach		
SchoolPool	Facilitates carpooling for families from participating schools	Ended
Youth Drive Less Contest	Challenges high school students and staff to carpool	Ended
Walk a Child to School Day	A day when parents are encouraged to walk their child to school. Stations are provided with food and drink for those who walk or bike.	Continuing [at Larimer County and Transportation Planning]
Summer Reading Program/Clean Air Campaign	Encourages using alternate modes going to the library.	Ended

Most of these programs consist primarily of encouragement, and so are unlikely to have major impacts by themselves. More effective programs also include financial incentives, significant improvements in alternative modes, and changes in land use patterns.

5.2 School Transport Management Programs

School Transport Management encourages parents, students, and staff members to reduce automobile trips and use alternative modes for travel to and from schools. These programs generally include walking, cycling, and ridesharing encouragement.

Implementation

School transport management programs are generally implemented by individual schools, often with the support of local governments (for pedestrian and cycling improvements around schools), school districts (which set policies and allocate funds for services such as crossing guards and busing), and parent groups.

Costs typically include program expenses (often for a staff person who provides support for schools in a city or district) plus pedestrian and cycling facility improvements where needed, and in some cases transit subsidies. These costs may be offset by reduced school parking requirements, local traffic congestion costs, and costs to parents for chauffeuring children.

Impacts

School transport management programs often reduce automobile trips by 10 to 30 percent, depending on type of program and geographic conditions. Since school trips typically represent 5 to 15 percent of peak-period trips, this can reduce 1 to 2 percent of total trips, and much more in certain areas. In addition, these programs may have significant long-term impacts by helping children establish more multi-modal travel habits that continue later in life.

Examples

Contra Costa SchoolPool Program (www.cccan.org)

The Contra Costa SchoolPool Program provides carpool ridematching for parents transporting their children to and from school to approximately 150 public and private kindergarten through twelfth grade schools in Contra Costa County, California. Parents unable to find a carpool partner are offered 20 free bus tickets for their children to take the bus. School staff members work with the transit agencies to develop and produce updated bus schedules that explain bus routes serving each school. A route map is included with time schedules to provide parents with additional information to encourage transit use. Ridematching forms are sent directly to schools and distributed in fall registration packets.

Marin County Safe Routes to School (www.saferoutestoschools.org)

The Safe Routes to School Program in Marin County, California, is working to promote walking and biking to school. Using a multipronged approach, the program identifies and creates safe routes to schools and invites community-wide involvement. By its second year, the program was serving 4,665 students in 15 schools. Participating public schools reported an increase in school trips made by walking (64 percent), biking (114 percent), and carpooling (91 percent) and a decrease in trips by private vehicles carrying only one student (39 percent).

Current Status

The Poudre School District (PSD) covers all of Fort Collins and some surrounding areas. Except for busing students to neighborhood schools, PSD generally takes a hand-off approach to managing parent and student vehicle travel.

PSD's School Choice program allows families to select the school that best meets their child's educational needs. Parents may register their child to attend a school outside their neighborhood attendance area on a

space-available basis. Round-trip transportation is the responsibility of parents. While this program gives parents desired educational flexibility, it has the consequence of increasing vehicle trips to and from schools.

Due to budget restrictions, outreach programs are generally limited to promoting safety for students who walk or bike to school. The City's Safe Route 2 School Program addresses critical safety needs on walking and cycling routes to schools. It may be possible to combine efforts with PSD to conduct school workshops geared toward age-specific training on pedestrian, bicycle, bus, and auto safety.

Safe Kids Larimer County is a partnership of health care, City and County government, civic organizations, law enforcement, and private organizations to prevent accidental injuries in children up to age 14. Because bicycle and pedestrian safety is one of the partnership's areas of interest, Safe Kids sponsors Walk a Child to School Day, when parents are encouraged to walk or bike their child to school and stations are provided at participating schools with food and drink for those who walk or bike.

Most education and outreach to reduce vehicle trips to school will end with the SmartTrips program in fall 2006. School Pool will be eliminated, a free service that matches families from participating schools with others who are interested in sharing a trip to school via carpooling, biking, or walking. Forty-two schools participate in School Pool, and the program benefits families who cannot drive their kids to school every day and those who are already doing so but want to share the responsibility and/or cost. It also benefits school facilities by decreasing traffic congestion on roadways and in front of schools. The North Front Range MPO will take up commuter ride matching, but school ride matching will be lost.

Another mature outreach program, the Youth Drive Less Contest, also will end with SmartTrips. This program challenges high school students and staff to carpool, bike, or bus to school, and has been very popular at the participating schools.

Despite declining programs through SmartTrips, the City's Transportation Planning Department does coordinate with PSD as needed and, likewise, PSD has implemented a variety of policies and practices related to mobility management:

- Trip-chaining
- Bus routing (3 tiers/3 schools)
- Total integration: people, profits, vehicles – decreased driver time, decreased mileage
- Integrated buses, part 1 – mix of students: regular, Head Start, special education
- Integrated buses, part 2 – mix of peers and siblings to decrease mileage and driver time without cost increase
- Overall goal to decrease cost per student per transported mile
- Balanced buses that are closest to areas and scheduling (balancing hours and miles)
- A global positioning system in the next 6 to 12 months that is tied to routing software and is interactive with drivers

- Coordination with City of Fort Collins/Transfort on changing bus routes, bus stops placements
- Parking areas for bikes
- Employee bus opportunities (assignments based on home location)

5.3 Campus Mobility Management Programs

Campus Transport Management encourages students and employees at college, university, research, and industrial campuses to use alternative modes. These programs generally include strategies that encourage walking, cycling, ridesharing, and public transit. Transit service improvements, transit fare discounts, and parking pricing reforms tend to be particularly effective.

Implementation

Campus transport management programs generally are implemented by campus administrations, often with encouragement from and support of student organizations and local governments.

Impacts

Campus transport management programs often reduce automobile trips by 10 to 30 percent, depending on the type of program and geographic conditions.

Examples

Stanford University (<http://transportation.stanford.edu>)

Stanford University in Palo Alto, California, plans to expand campus capacity by 25 percent, adding more than 2.3 million square feet of research and teaching buildings, public facilities, and housing without increasing peak period vehicle traffic. By 2000, 1.7 million square feet of new buildings were developed while automobile commute trips were reduced by 500 per day. To accomplish this, the campus transportation management plan includes the following:

- 1½ -mile transit mall
- Free transit system with timed transfers to regional rail
- Bicycle network
- Staff parking cash-out
- Ridesharing program
- Other transportation demand management elements

This approach allowed the campus to add \$500 million in new projects with minimal planning or environmental review. The University also avoided significant parking and roadway costs. Planners calculate that the University saves nearly \$2,000 annually for every commuter shifted out of a car and into another mode. This also reduced regional agency traffic planning costs. Public benefits include decreased congestion and improved safety on surrounding roadways and the regional traffic system; reduced air, noise, and water pollution; and improved local transit options. All of Stanford's transportation services are available to students, employees, and the general public.

University of Colorado Ski Bus (www.colorado.edu/rec-center/programs/skibus)

The University of Colorado, Boulder, ski bus program provides students and staff members with access to downhill ski areas, including Copper Mountain, Winter Park, and Vail resorts. The program was established in 1996 and is jointly funded by the ski resorts, ticket sales, and student bus pass fees. Students pay \$5 and faculty-staff members pay \$10 for a round-trip ticket. The program has proven quite popular. During its first 2 years, all buses were sold out. Some students report that it allows them to live on campus without a car.

Current Status

CSU is a relatively walkable and bikeable campus, and the University has a *UPass*, which allows students to use TransFort transit at no extra charge. In addition, the University is developing a new \$10-million transit center on campus. However, while university officials are committed to creating a sustainable campus, they have so far failed to implement most of the sustainable transportation policies and programs used at other major colleges and universities, particularly parking pricing reforms. Campus parking fees are currently among the lowest of any university campus in the state, are structured to favor purchasing annual passes (once a motorist purchases such a pass, he/she has little incentive to use alternative modes), and are far below market rates.

CSU's main campus is central to the City of Fort Collins. The University is the City's greatest trip generator, with 25,000 students and 7,000 employees.

The campus Physical Development Master Plan calls for the University to become a pedestrian-oriented campus in order to improve safety and the campus environment. The principles and assumptions of the Plan include the following:

- Locate parking on the campus periphery.
- Promote (with the City) alternative travel modes to reduce the number of single-occupant vehicles used to access campus.
- Implement an improved campus bikeway system.
- Take action to dramatically increase intra-campus transportation links among the main campus and its five satellite campuses: South, Vet Center, Foothills, Agricultural Research, Environmental Learning, and Pingree Park.
- Rely on Transfort to transport people within and among campuses.
- Take full advantage of the proposed Mason Transportation Corridor to reduce vehicle trips to campus.

The perimeter parking concept of the master plan has not been implemented. In fact, the perimeter parking concept appears to be contradicted by the presence in the 10-year campus Physical Development Plan of a \$10 million parking structure.

CSU sells parking permits at the lowest rates of any campus in the Colorado University System (Table 8). In addition, some students avoid parking fees by parking in residential neighborhoods surrounding the campus. As a rule, the City grants free access to parking on residential streets.

Table 8 CSU Parking Permit Fees

Off-campus student	\$85 per year
Residence-hall student	\$110 per year
Student motorcycle	\$45 per year
Faculty/Staff	\$95 per year

Campus administrators have been interested in assuring free access to the campus by car. In particular, there is a concern that the CSU campus would become less competitive to attract and retain students if there were any perceived restrictions on automobile access. This approach seems more consistent with a vision of CSU as a large commuter college rather than the university setting to which it aspires.

Transfort provides public transit to and from CSU. Transfort’s system of bus routes is strongly concentrated on the campus in recognition of the needs and prevalence of student riders. Approximately one third of TransFort’s 1.5 million annual riders are going either to or from the campus, and at least 8,000 students reside within 2 miles of the campus. As noted earlier, a new \$10 million Transit Center will be completed during the fall semester of 2006. Students each receive an unlimited Transfort pass. In addition, the University plans to implement a similar benefit for faculty and staff members after completing the Transit Center.

However, the University provides zero funding for student transit services. Rather, the students have voted to assess themselves a fee of \$9.44 per year to provide each student with the unlimited transit pass. The student government, Associated Students of Colorado State University (ASCSU), collects these student fees and passes them on to Transfort. In 2003, however, a court ruling allowed a disconnect between student fee revenue and payments to Transfort. Now, ASCSU officers annually negotiate with Transfort to determine payment and service levels. Ridership dropped in 2004 because of low distribution of bus passes to students. In response, payments to Transfort were cut back by approximately one third and Transfort service after 6:30 p.m. was eliminated. Better bus pass distribution has resulted in increased ridership, but payments to Transfort have not been increased.

Marketing of transit services is shared by ASCSU and Transfort, and is coordinated by a joint transit-marketing plan negotiated annually. In 2005, the marketing plan included the elements listed here:

- Bus pass distribution
- Campus publicity and advertising — “Life in Motion” campaign
- Brochure and schedule distribution
- Advertising in connection with sports events
- “Ram Welcome” — special events to introduce first-year students to the transit services provided to them

- Information tables– to promote transit and distribute information at various campus events
- Transfort rider survey
- On-campus shuttle pilot project — shuttle from “Z” lot west of Moby Gym to center campus
- CSU Transit Center – educate students about activities to develop the Transit Center

The campus has an informal Sustainable Transportation Committee that advocates for and makes recommendations on transportation matters in and around the campus. The committee has representation from campus departments, student organizations, and the City. Its mission is to enhance mobility and access to the campus and community while encouraging alternative transportation. This committee is currently seeking to be registered as a formal committee that reports to campus administration.

The Parking Services Department is a focal point for mobility management at the University. This role is informal, however, because parking is not interconnected with transit and alternative modes promotion as it is at other campuses. CSU Parking Services staff has worked with City staff to implement such programs as Guaranteed Ride Home, Drive Less Challenge, Bike to Work Day, and Freewheels for both faculty and staff, although City support for some of these programs will end when SmartTrips is sunset in fall 2006. Parking Services staff is discussing a proposal to increase parking fees and to use the increased revenue for enhancements, such as a shuttle service for both internal campus circulation and access to outlying parking lots.

Two developments suggest it may be possible to revisit, and perhaps shift, campus mobility management practices. First, campus administration has changed at several levels recently, including the University President, the Administrative Vice President, and the Parking Services Director. Second, past president Al Yates is a signatory of the Talloires Declaration that commits university administrators to environmental sustainability in higher education. The University has established a Talloires Committee, to ensure that the University continues to comply with the Declaration's 10-point action plan for incorporating sustainability and environmental literacy in teaching, research, outreach, and — most important for mobility management — operations.

5.4 Walking and Cycling Programs

Walking and cycling programs improve nonmotorized conditions (sidewalk, crosswalk, and path improvements; traffic calming and streetscaping to create more pedestrian-friendly streets, etc.) and encourage nonmotorized travel.

Implementation

Local governments, often with support of regional governments, and various other organizations, generally implement walking and cycling programs. They generally include the following elements:

- Development of overall pedestrian and cycling plans
- Funding to implement pedestrian and cycling facility improvements
- Funding and support for walking and cycling education and encouragement programs
- Traffic calming and road diet programs, which reduce traffic volumes and speeds and improve non-motorized travel conditions on existing roadways

- Roadway design and maintenance policies that improve conditions for non-drivers, such as improved curb maintenance and wider shoulders on rural roadways
- Land use design practices to create more walkable communities (e.g., locating schools within neighborhoods and encouraging more mixed-use development so retail and other public services are within walking distance of more homes and worksites)

Impacts

According to some estimates, 5 to 10 percent of automobile trips can reasonably be shifted to non-motorized transport in a typical urban area, and nonmotorized improvements can have leverage effects that increase their importance. Most transit and rideshare trips involve walking links, and people sometimes choose between a longer automobile trip and a shorter non-motorized trip. Walking improvements also are important for smart growth land use and parking management strategies. Nonmotorized travel can provide a variety of economic, social, and environmental benefits.

Examples

Madison, Wisconsin (www.ci.madison.wi.us/reports/execsum2.pdf)

Adopted in September 1997, Madison's visionary plan for walking incorporates planning, design, maintenance, and long-term goals and objectives. Madison was one of the first communities to adopt a separate plan for walking.

Arlington County, Virginia (www.co.arlington.va.us/dpw/planning/ped/ped.htm)

Arlington County is one of the nation's densest urban areas and has developed a pedestrian plan that builds on the accessibility of two major transit corridors in the county. An extensive sidewalk-building program is complemented by a neighborhood traffic-calming program, all directed by citizen task forces.

Downtown Walkability Improvements

The City of St. Petersburg, Florida, converted the downtown business district into a more walkable area by reducing the number of traffic lanes, converting to angled parking, and reducing the speed limit to 15 miles per hour. These efforts increased access by automobiles (due to more convenient parking), attracted pedestrian activity, and increased safety. During the following years the area experienced significant economic growth supported by millions of square feet of mixed residential and commercial development that was the result, at least in part, of improved downtown walkability.

Current Status

The City of Fort Collins has been a national leader in developing "complete streets" arterial roadway design standards, which ensure that new roads effectively accommodate nonmotorized modes. A recently passed municipal tax will provide an estimated \$4 million for bike and pedestrian improvements and programs over a 10-year period. This represents an average of approximately \$3 annually per capita, along with various other resources devoted to nonmotorized transportation improvements and programs in the city.

Fort Collins adopted comprehensive bicycle and pedestrian plans in the mid-1990s in order to reduce barriers for those who choose to walk or bicycle, and to build a city where walking and bicycling for transportation is an easy choice to make. Both plans address engineering, education, enforcement, and encouragement, or the Four Es. With the later adoption of City Plan, which calls for new development areas to be constructed according to smart growth principles, the bicycle and pedestrian plans acquired

additional importance to provide alternative mode support for the City Plan vision of activity centers, mixed-use development, and increased urban density.

The League of American Bicyclists gave Fort Collins the Silver Award as a Bicycle Friendly Community in 2003 and 2005, making it one of only 14 such cities with this distinction in the nation.

Fort Collins is one of the first cities to extend Level of Service (LOS) standards, which traditionally applied only to vehicle traffic, to alternative modes. LOS standards have been adopted for walking, cycling, and transit, and the standards vary according to the type of development. For example, while traffic LOS-D is called for on most arterials, it is allowed to drop to LOS-E in more dense activity centers, with corresponding increases in the LOS for walkers and cyclists.

Several programs assure that new development areas are constructed with the appropriate alternative-mode LOS standards, including site design standards in the Land Use Code, street design and construction standards, LOS standards and adequate public facilities program. These programs assure the construction of sidewalk and bicycle facilities and intersection crossings that meet LOS standards for pedestrian and cyclist improvements. However, the bicycle and pedestrian plans are sometimes compromised when developers are granted variances from approved design and LOS standards, sometimes with the support of neighborhoods that resist roadway expansions or connections they perceive would diminish their quality of life.

Much of the City was built without walking and cycling LOS standards, and in some areas, bicycle and pedestrian connections do not exist or are unsafe. For that reason, the effectiveness of the bicycle and pedestrian plans is directly related to the amount of capital contribution made by the City to construct missing links in the system. At existing funding levels, it would take many years to bring the entire bicycle and pedestrian system up to the City's current standards.

The Bicycle Plan calls for constructing 20 high-priority bike facilities at an estimated cost of \$15 million. To date, only three have been built: Harmony Road bikeway, a portion of the Elizabeth Street improvements, and the Spring Creek Trail. While the City has lacked a dedicated funding source specifically for bicycle system improvements, some have been completed over the years using federal funds provided through grants from the North Front Range MPO and the Colorado Department of Transportation/Federal Highway Administration. The sales-tax-supported *Building Community Choices* has funded Mason Transportation Corridor walking and cycling facilities that will be completed during the summer of 2006. Voters approved a new sales tax called *Building on Basics* in 2005, which includes \$100,000 annually for constructing and maintaining bicycle improvements, not including intersection improvements. The Bicycle Program Plan will be updated in 2006 and will include a new listing of prioritized projects and programs.

The Pedestrian Plan calls for increasing the annual budget for pedestrian improvements from \$1,500,000 to \$2,560,000. *Building Community Choices* provided additional annual funding of \$343,000, or approximately one-third of the estimated shortfall. Recently, the City's general fund contribution of \$300,000 per year to help make improvements according to the Americans with Disabilities Act (ADA) was eliminated because of budget cuts, and the Building on Basics annual funding (which replaces the previous Building Community Choices funding) was reduced to \$300,000 per year.

Education and encouragement for walking and cycling are handled by the Transportation Planning Department. With the end of the SmartTrips program, City staff has made a determined effort to retain as much education and outreach as possible with the reduced resources available. A half-time Bicycle Coordinator has been added to facilitate bike programs and pedestrian safety programs, such as Safe Route to School.

5.5 Transit Service Innovations and Improvements

There are many ways to improve public transit service and encourage transit ridership:

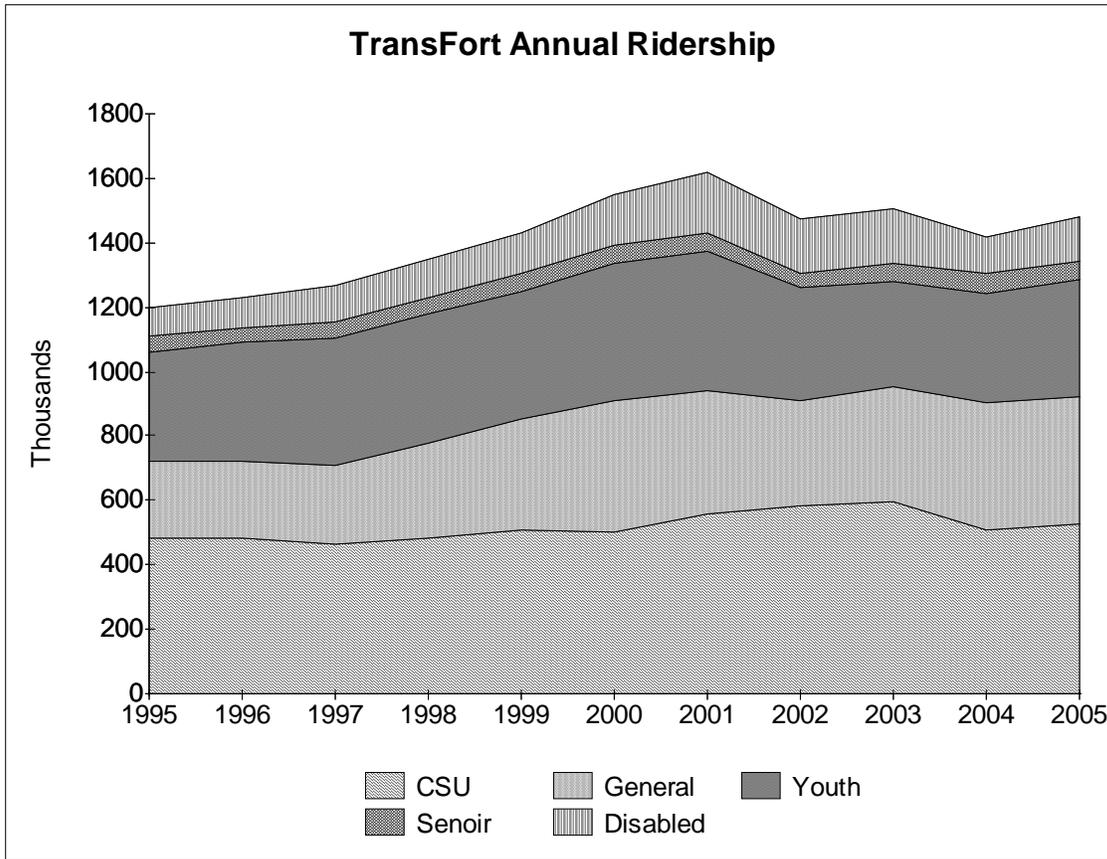
- Additional routes, expanded coverage, increased service frequency, and longer hours of operation
- HOV priority (HOV lanes, busways, queue-jumper lanes, bus-priority traffic signals, and other measures that reduce delay to transit vehicles) and separate transit line grades, so they are not delayed by cross-streets and traffic congestion
- Comfort improvements, including bus shelters and better seats
- Lower and more convenient fares (such as discounts for frequent users)
- More convenient fare payment using electronic smart cards
- Improved rider information and marketing programs, including real-time information on transit vehicle arrival
- Transit oriented development resulting in land use patterns more suitable for transit transportation
- Pedestrian and cycling improvements that improve access around transit stops.
- Park and Ride facilities
- Improved security for transit users and pedestrian.
- Services targeting particular travel needs, such as express commuter buses, special event services, and various types of shuttle services

Implementation

Transit improvements and encouragement programs are generally implemented by transit agencies, often with support from local, regional, and state transportation agencies, and various community organizations. The Transfort system currently provides a variety of transit services in Fort Collins. There is growing demand for transit use. Service improvements and ridership growth are constrained by limited funding and a lack of transit priority features in roadway design and management.

Transfort has seen a 14 percent increase in ridership since 1997 as shown in Figure 6.

Figure 6 TransFort Annual Ridership



Impacts

Public transit serves two types of trips: basic mobility for people who for many reasons cannot use an automobile, and as a way to reduce traffic, parking, and pollution costs on busy urban corridors. It is generally one of the main alternatives to automobile travel. Although public transit provides a relatively small portion of total travel, it serves a much larger portion of specific types of trips. For example, in most large cities, 10 to 40 percent of peak-period trips to downtowns and other major employment centers typically are made by public transit. Smaller cities with aggressive transit encouragement programs also have achieved relatively high levels of transit commuting to major destinations, such as downtowns, campuses, medical centers, and tourist attractions. Public transit tends to serve a relatively large portion of travel by students, tourists, seniors, and people with disabilities.

Transit improvements are particularly effective at reducing vehicle travel if they result in transit-oriented development. That is, if transit stations become a catalyst for more compact, mixed, walkable centers. Where this occurs, public transit improvements leverage much larger VMT reductions than just the trips shifted from automobile to transit. It also shifts some driving to local walking and cycling trips.

Examples

Colorado Springs Transit System

Colorado Springs twice asked voters to fund significant increases in transit service. A major transit bond proposed in 2001 failed 59 percent to 41 percent. But a 2004 proposal was approved by voters in Colorado Springs, El Paso County, Manitou Springs, and Green Mountain Falls to collect a one percent sales tax to fund transportation and transit improvements (55 percent for a voter-approved list of capital projects; 35 percent for additional maintenance such as street overlays and pothole patching; and 10 percent to expand transit service), creating the *Pikes Peak Rural Transportation Authority* (www.pikespeakrta.com).

This new authority began operating in November 2005, offering an expanded regional transit service called Mountain Metro (the transit system was previously called Springs Transit). It offers fixed-route service known as Metro, paratransit service called Metro Mobility, and rideshare service called Metro Rides. Metro now offers three express routes between major destinations, including Falcon to Downtown Colorado Springs, Falcon to Garden of the Gods, and Union Town Center to Downtown. The agency also is planning development of rapid transit service on major corridors in the city (www.springsgov.com/Page.asp?NavID=4144).

Night Owl Transit Service (www.capmetro.org/news/news_detail.asp?id=809)

In Austin, Texas, Capital Metro provides transportation options for late night workers.

With the help of a new grant from the Federal Transit Administration, Capital Metro now offers a new reverse commute shuttle and expanded Night Owl routes and services designed to help late night workers more efficiently commute to and from work. The Job Access and Reverse Commute (JARC) grants totaling \$2.9 million have allowed Capital Metro to develop five new routes: one circulator, one reverse commute, and three new Night Owl routes. All the new routes and services began on Monday, January 30, 2006, and are designed to take low income workers to their jobs and help residents in urban areas commute to rural and suburban employment centers. Reverse commute service addresses the transportation needs of shift employers and employees in suburban job sites in Northeast Austin at Tech Ridge.

“Capital Metro is pleased to be able to respond to a transportation need within the community,” said Rob Smith, Capital Metro’s Director of Strategic Planning and Development. “Getting people to and from work is something we’re proud to do and now we have the means to provide this service to late night and early morning workers who have not always had available transit options.”

“One of the most significant barriers to finding and maintaining employment is lack of transportation,” said Fred Butler, Executive Director of the Community Action Network. “By engaging in the Job Access and Reverse Commute program and expanding their services, Capital Metro is providing a critical service to help employers retain their workforce, employees find and keep their jobs, and the community curb unemployment rates.”

Commuter Transit, in Phoenix, Arizona (www.valleymetro.org)

Starting in 2003, the Phoenix, Arizona, region Valley Metro RAPID bus service has attracted thousands of commuters, many of whom would otherwise drive to work. Using specially-built buses with padded, high-back seats, individual air controls, and luggage racks, four bus routes take commuters on non-stop, rush-hour freeway rides from the edges of the city to downtown on weekdays.

RAPID was instituted as part of the Phoenix Transit Plan, passed by voters in March 2000. This funded the purchase of 56 buses designed for freeway travel, and the construction of eight Park and Ride lots. The service started with two routes, a northeast Phoenix line that uses Arizona 51 and an Ahwatukee route that runs up Interstate 10. Two more routes have been added, a north Phoenix route that operates on Interstate 17 and a west Phoenix route on I-10. Valley Metro hopes to expand the service to other areas.

Free Transit in Missoula, Montana (www.iclei.org)

In 1997, funding from the International Council for Local Environmental Initiatives (ICLEI) Transportation Solutions Grant Program allowed Missoula's Mountain Line transit service to offer free summer fares to the town's youth, and for everybody during monthly "Try A Better Way Days" during an annual "Free Fare" week, and during periods of bad air quality. Transit ridership increased 66 percent from 1996 to 1997.

Boulder, Colorado (www.ci.boulder.co.us/gettingthere)

Starting in 1989, the City of Boulder, Colorado, began implementing a demonstration transit service using a fleet of small, colorfully designed buses to provide high-frequency, inexpensive and direct service within the city. And thus, the first Community Transit Network bus, the HOP, was born. Today, there are six bus routes in the Community Transit Network — HOP, SKIP, JUMP, BOUND, DASH, and STAMPEDE. All have a unique identity and amenities shaped with community input and direction. In 1990, Transit ridership was approximately 5,000 riders daily for all local and regional routes in and out of Boulder. In 2002, ridership averaged approximately 26,000 daily, a 500 percent increase. The City of Boulder is partnering with the City of Longmont and Boulder County added another high-frequency bus route on Highway 119 in 2004.

Benefits of the Community Transit Network:

- Provides a convenient transit alternative to the single occupancy vehicle.
- Strengthens the local economy by improving access between Boulder and surrounding communities.
- Provides wheelchair accessible transportation.
- Reduces air pollution by using clean-burning fuels.
- Alleviates traffic congestion and minimizes the need for roadway expansion.
- Provides reliable, high-frequency service.
- Uses neighborhood-scaled vehicles with special amenities, such as music.
- Promotes a positive transit image with attractive vehicles and on-going marketing support.
- Accepts Eco Passes (transit passes for students and residents of certain neighborhoods).
- Includes bike racks that can hold two bikes at one time, allowing integrated travel.

In November of 2000, residents of the Forest Glen neighborhood in Boulder voted to form a General Improvement District (GID) to provide RTD transit passes for all neighborhood residents. All Forest Glen residents are eligible to receive an RTD Eco Pass, including homeowners and renters. These passes are paid for by residents in Forest Glen as part of their annual property tax. The RTD Eco Pass allows

unlimited riding on all RTD buses, Light Rail service to Denver International Airport, and Eldora Mountain Resort buses.

Bus Rapid Transit Service Being Developed (www.ltd.org)

A new type of public transit service, called *EmX*, is being developed using a new type of 60-foot articulated bus with hybrid-electric propulsion. The Lane Transit District (in central Oregon) and the Greater Cleveland Regional Transit Authority (in central Ohio) is implementing a program scheduled to begin in late 2006. The system includes the following features to improve service, quality, and efficiency:

- Exclusive right-of-way that guarantees travel time
- Signal priority, giving buses priority through intersections
- At-grade boarding, making boarding easier and quicker
- Pre-paid fares — no fumbling with change
- Boarding at all doors, not just the front door
- Less frequent stops, improving travel time
- Improved stations with amenities for customer comfort
- Park and Ride connections
- Vehicle Image
- Tram-like quiet
- Low emission (green) bike capacity
- Low-floor increased ADA capacity
- Wider doors on both sides for easier access

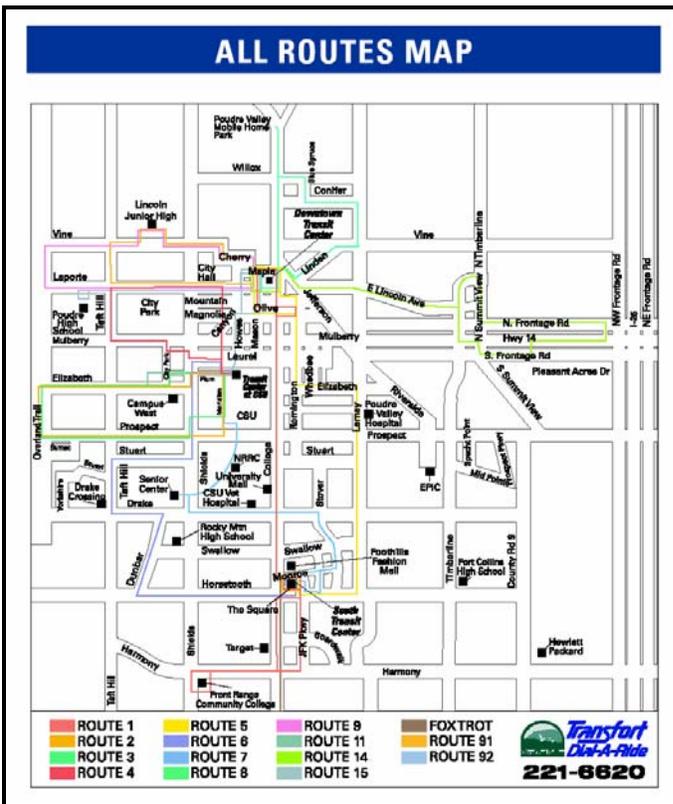
Current Status

The City of Fort Collins is served by Transfort, which operates 12 fixed bus routes in the city (see Figure 7). In addition, a regional route provides service between Fort Collins and Loveland through a cooperative agreement between the City of Fort Collins, the City of Loveland, and Larimer County. Transit service operates between 6:00 a.m. and 7:30 p.m. Monday through Saturday.

While Transfort currently provides one regional route to Loveland, future service additions could include regional connections to areas surrounding the city, such as Wellington, Windsor, LaPorte, Berthoud, Longmont, and Timnath.

The majority of the transit routes currently serve the Downtown/University area. Several routes serve areas outside of the Downtown/University area, such as the College/US-287 Corridor where 60 percent of the employment is located in Fort Collins. Transfort does lack service to the Harmony, Timberline, and East Prospect corridors, which are home to many large employers.

Figure 7 Existing TransFort Bus Service



Transfort also offers Dial-A-Ride, a door-to-door paratransit service for individuals who cannot use fixed-route bus service because of a disability or senior citizens who are 60 years of age or older. Dial-A-Ride is in place to meet complementary paratransit service mandates of the ADA. The regular fare for a one-way trip is \$2.50, and reduced fares of \$1.25 and \$.50 cents are available for low-income riders. Dial-A-Ride operates Monday through Saturday, and reservations require a minimum 1-day notice, up to 14 days in advance.

Prior to 2006, the Fort Collins SmartTrips department provided marketing assistance for Transfort. Transfort recently has hired new staff, bringing marketing functions in-house. Transfort will develop new marketing and outreach programs for various rider categories, including CSU students who represent one third of the ridership. A past marketing program

included PassFort, a transit pass designed as an employee benefit to area employers. Transit passes are issued in the form of smart cards, which make boarding and payment more convenient.

All youth ages 17 or younger ride fare-free at the present time. Budget restrictions will end this program unless funding is found to support it. A private, charitable foundation donated \$50,000 annually to maintain free youth fares through 2007.

Bus shelters and benches are provided at many bus stops through a public/private partnership. A marketing firm installs and maintains the shelters in exchange for placing paid advertising on the shelters. A portion of the advertising revenue then reverts to Transfort.

Comparative data regarding transit funding, service, and ridership in similar-sized cities is shown in Table 9.

Table 9 Fort Collins Transit Funding, Service, and Ridership Compared with Similar Size Cities

	Annual Expenditure Per Capita	Annual Revenue Hours Per Capita	Annual Ridership Per Capita
Fort Collins, CO – Transfort	\$ 41.54	0.48	13

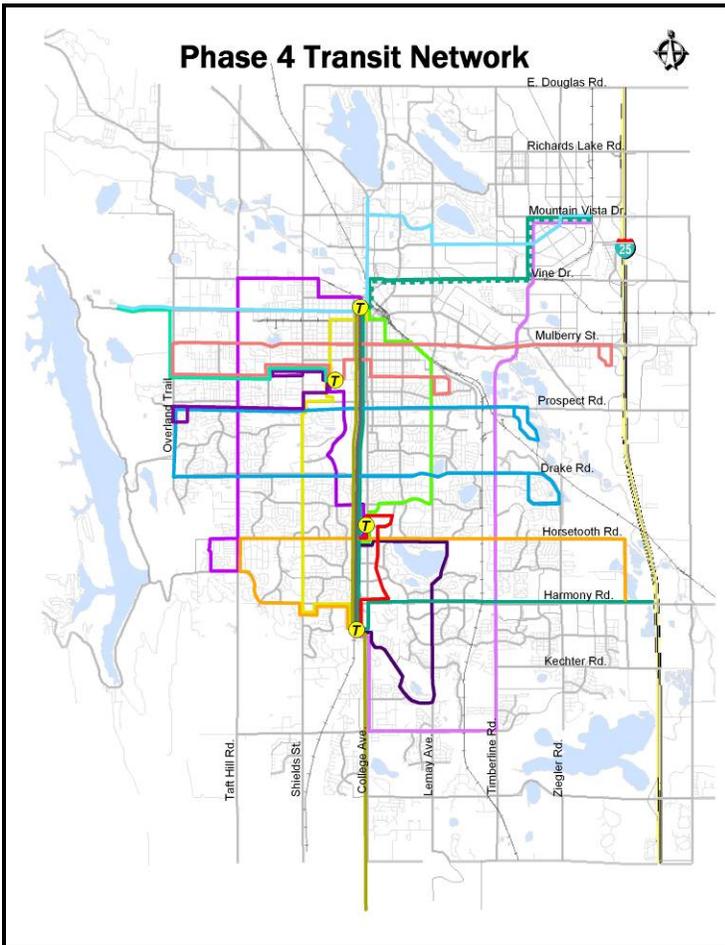
	Annual Expenditure Per Capita	Annual Revenue Hours Per Capita	Annual Ridership Per Capita
Green Bay, WI – Green Bay Metro	\$ 25.87	0.43	9
Kalamazoo, MI – Metro Transit	\$ 46.21	0.67	16
Lubbock, TX – Citibus	\$ 27.03	0.56	26
Santa Barbara, Can – SBMTD	\$ 71.73	0.90	36
Anchorage, AK – People Mover	\$ 60.09	0.60	15
Salem, OR – Cherriots	\$ 69.91	0.78	25
Eire, PA – EMTA	\$ 36.96	0.61	13
Savannah, GA – CAT	\$ 50.68	0.85	17
Tallahassee, FL – TalTran	\$ 46.04	0.69	21
Eugene, OR – Lane Transit District	\$ 98.92	1.06	37
Average	\$ 52.27	0.69	21

(Metro areas with between 180,000 and 225,000 people.)

City Council adopted the Transfort Strategic Operating Plan in 2001, which changed transit service from a coverage service to a productive service. Phase I of the Plan called for more frequent service in the relatively few corridors where high ridership was possible. It called for minimal service to parts of the city that were not generating a high demand for ridership at that time. For example, six routes now serve CSU, which accounts for 35 percent of ridership.

The 10-year Plan identified four phases that progressively move from relatively few changes and no budget growth to phase four, which more than doubles the operating budget to provide a grid system with frequent service on all major arterials. Phase four is shown below (Figure 8).

Figure 8 Phase 4 Transit Network



Implementation of this system faces several barriers, including limited financial resources, lack of a funding mechanism dedicated to support transit, lack of broad community support, and resistance to travel behavior change. However, transit services will become increasingly needed and accepted over time as traffic congestion and fuel costs increase.

The Mason Transportation Corridor is a key element of the planned transit grid system being centered along the Burlington Northern Railroad right-of-way from Cherry Street on the north to approximately 1/2 mile south of Harmony Road. The corridor will provide Bus Rapid Transit with frequent headways of 7.5 minutes, providing the major north-south spine of the transit grid. Project goals are to provide safe, efficient, and convenient transportation alternatives to the automobile in a corridor that is the City's highest employment, recreation, and shopping center and is

already stretched to capacity. The corridor will enhance travel for pedestrians and bicyclists as well as transit riders, encourage in-fill development, and provide economic opportunities. Transit ridership is expected to increase by over 50 percent once bus rapid transit is operating on the corridor.

Funding from the 1997 Building Community Choices tax paid for the Mason Transportation Corridor master planning and preliminary engineering, as well as the construction of 3 1/2 miles of the corridor bicycle/pedestrian trail from the Fossil Creek trail on the south to the Spring Creek Trail on the north. The Mason Transportation Corridor also is eligible for New Starts/Small Starts funding from the Federal Transit Administration, which provides capital dollars to build fixed guide way transit projects, which must be matched with local funds. City Council has adopted the Mason Transportation Corridor Master Plan, and City staff members continue to work on securing local, state, and federal funds to fully implement the corridor improvements.

5.6 Rideshare Programs

Ridesharing refers to carpooling and vanpooling (the term is sometimes also applied to public transit, particularly commuter express buses). Carpooling generally uses participants' own automobiles. Vanpooling generally uses vans that are owned by an organization (such as a business, non-profit, or government agency) and made available specifically for commuting, typically carrying 6 to 12 occupants

(such as a driver and 5 passengers). Vanpooling is particularly suitable for longer commutes (10 miles or more each way). Since vanpools usually serve long commutes, shifts from driving to vanpooling tend to provide relatively large VMT reductions.

Ridesharing has low costs per passenger-mile since it uses otherwise empty seats and, unlike conventional public transit, does not require a paid driver or empty backhaul. However, ridesharing generally is only suitable for trips with predictable schedules, such as commuting, and there is little flexibility — if you miss your ride there is not usually a later carpool or vanpool conveniently available.

Implementation

Rideshare problems usually include ridematching, vanpool formation and support, and development of incentives, such as HOV priority lanes and parking facilities. Rideshare programs are generally implemented by a local or regional organization (city or regional governments, transit agencies, nonprofits, etc.) with employer support.

Impacts

A certain amount of ridesharing occurs in any community, but ridesharing, particularly vanpooling rates, can increase significantly if given support. Rideshare programs that include incentives, such as HOV priority and parking cash out, often reduce affected commute trips by 10 to 30 percent. If implemented without such incentives, travel impacts are usually smaller.

Examples

Puget Sound Rideshare Marketing (www.wsdot.wa.gov/Mobility/TDM)

The Puget Sound region has some of North America's most successful vanpool programs. Approximately 2 percent of total commute trips and 7 percent of commute trips over 20 miles are by vanpool. Several factors contribute to this success: the state's commute trip reduction law requires large employers in the region to help employees use alternative modes, vanpooling services are provided by transit agencies that ensure quality and integrated services, and HOV priority provides travel time savings for vanpools on some routes. Yet market research by York and Fabricatore (2001) indicates that this ridership could double or triple if supported by a variety of improvements and incentives:

- Increased flexibility:
- Allow commuters to vanpool 2 or 3 days a week, rather than every day.
- Allow unscheduled use as long as a van has extra space (e.g, a commuter who misses his/her regular 5:30 van may ride in a later van).
- Provide empty seat subsidies (temporarily paying a share of costs if a vanpool has less than six riders).
- Offer fare subsidies by employers or transit agencies (currently, transit commuting is often subsidized, but similar trips by vanpools are not).
- Conduct targeted, direct marketing (e.g., calling households in a particular suburb with an offer of 1 month's free vanpooling to encourage area commuters to try the service.
- Rent cars for carpools the same as vans are rented for vanpool use. This provides an option for groups of two to five who want to rideshare if none have a suitable vehicle, including vanpools that lose members.

- Offer premium service options, such as extra high-quality vans with bucket seats, workstations (fold-down tables with electric power so vanpoolers can work while commuting), and complementary newspapers and drinks for vanpoolers who pay an extra fee.
- Pay-As-You-Drive vehicle insurance, parking cash out, and road pricing, which give financial rewards to commuters who shift to ridesharing.
- Implement vanpool schedules to transfer to transit service or other vanpools.
- Implement HOV priority measures, such as HOV lanes and preferred parking spaces.

Current Status

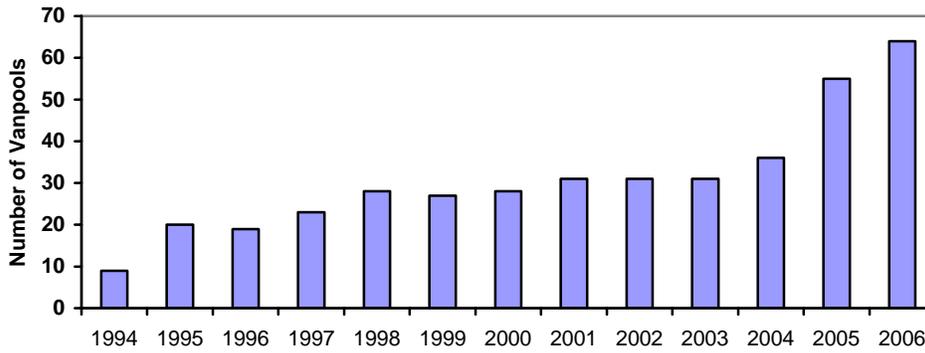
Because of area commute patterns with dispersed worksites and many employees living outside the City of Fort Collins, vanpooling is a particularly appropriate mobility management strategy.

The region is served by the North Front Range Transportation and Air Quality Planning Council's VanGo Vanpool Services program, which was originally established in 1994. The program has experienced rapid growth during the last year and recently established a strategic plan and marketing program that is intended to support continued growth. As of the end of 2005 there were more than 400 participants in 54 vans traveling between Greeley, Fort Collins, Loveland, Longmont, and Denver area, with additional routes under development. The strategic plan includes a variety of improved services and incentives that could significantly increase vanpool ridership.

Fort Collins' Transfort initiated the VanGo vanpool services program in 1994, and the MPO incorporated VanGo into regional SmartTrips 2 years later. At that time both VanGo and SmartTrips were key elements of the Regional Transportation Plan goal to shift 10 percent of single-occupant-vehicle trips into alternative modes by 2015. Because the biggest challenge facing the Northern Front Range is rapid growth, proactive development of alternative transportation modes such as vanpooling will be critical. The VanGo program has been developed over the past decade and provides an essential alternative to driving single occupancy vehicles on the regions highways.

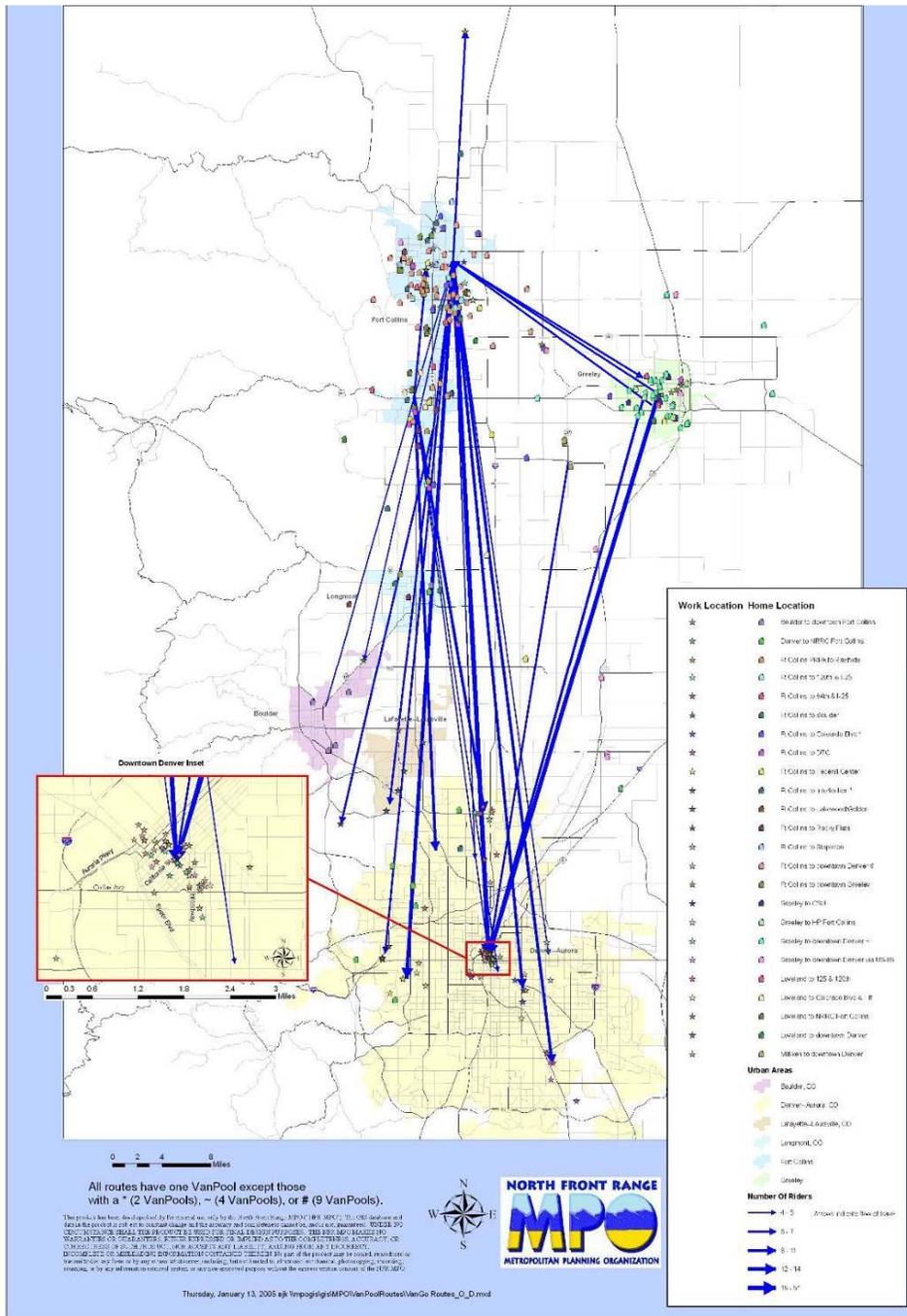
Figure 9 shows the growing number of vanpools by year. As of June 2006, there were 64 vanpools and 45 of them [70 percent] either start or end their trip in Fort Collins, as shown in Figure 10. Note that the number of vanpools has recently doubled. VanGo staff established 15 new routes so far in 2006, meeting program goals even without planned marketing enhancements. Along with rising fuel prices, this growth suggests strong latent demand for vanpools, and the MPO plans for 20 percent annual vanpool growth in the short term.

Figure 9 Vanpools by Year



Regional vanpools have increased steadily during the last decade, particularly in recent years due to new VanGo promotion programs.

Figure 10 VanGo™ Routes Sponsored by the North Front Range MPO



Marketing of the VanGo program includes a web site, TV, radio, print materials, and user surveys. This year, a new web portal will simplify customer access to all aspects of the vanpool service. Although VanGo does some limited outreach to employers, this outreach is not comparable to a full-service, CTR program. Transportation Management Associations in Denver, a key destination city, help market VanGo to employers there.

The MPO staffs the VanGo program with 2.5 full-time employees. The 2006 operating budget has four funding sources shown below. VanGo has a goal to recoup 75 percent of operating costs from fares.

VanGo Revenue

Fares	\$464,000
Federal funds	\$375,000
Regional Transit District	\$250,000
Used vehicle sales	\$ 80,000
Total	\$1,169,000

The MPO adopted a strategic plan for the VanGo program to support the continued growth and development of the program. The VanGo Vanpool Services Strategic Plan (December 2005) evaluates strengths and weaknesses, creates a mission statement and goals, and includes sections that focus on operations, financing, marketing, and an action plan.

The VanGo program has significant strengths, including recent growth, a history of success, cooperative marketing, and the ability to leverage local resources. Principal weaknesses include limited market diversification, lack of driver incentives, and failure to coordinate with transit improvements. There is potential opportunity for more cooperation among regional partners, and the fact that transportation costs have been increasing bodes well for VanGo as a travel option.

The adopted mission of the VanGo program is, "To serve the North Front Range community through the provision of quality and competitively priced vanpool services as an alternative to single occupant vehicle commuting, for the purposes of reducing traffic congestion and air pollution, supporting the growth of new transit, and enhancing labor access for business."

- The VanGo strategic plan includes the following five goals:
- Continue and expanded the current Van Pool program service.
- Enhance commute options to employers in the North Front Range.
- Extend the sales and outreach effectiveness of the VanGo program's partnerships.
- Simplify program administration and the customer experience.
- Plan for long-term vanpool program growth.

5.7 Parking Management

Parking Management includes a variety of strategies that encourage more efficient use of existing parking facilities, improve the quality of service provided to parking facility users, and improve parking facility design. Current parking planning practices (such as generous minimum parking requirements and public provision of on- and off-street parking) tend to result in abundant and generally free parking at most destinations. This subsidizes automobile travel and encourages lower-density land use patterns. More efficient parking management can address these problems, helping to achieve a variety of transportation, land use development, economic, and environmental objectives.

Implementation

Parking management is generally implemented by changing parking planning practices, encouraging developers and building operators to reduce parking supply and apply parking management strategies, providing support for parking management strategies (such as development of transportation management associations), and adjusting public parking supply and prices to reflect parking management objectives.

Impacts

Parking management is one of the most effective ways of encouraging vehicle travel reductions and smart growth development. For example, employees who pay directly for parking or have parking cash out options tend to drive 10 to 30 percent less than employees who are offered free parking and no alternative. Parking management allows more compact and mixed land use development, which reduces automobile use and improves walking and public transit accessibility.

Examples

Aspen, Colorado (www.aspenpitkin.com)

Aspen, Colorado experienced growing parking problems due to its success as an international resort. In 1991, the City built a 340-space underground parking structure in the City center, but despite its convenient location and low price it remained half-empty most days, while motorists fought over on-street parking spaces nearby. Most spaces were occupied by locals and downtown commuters who would perform the “Ninety Minute Shuffle,” moving their cars every 90 minutes to avoid a parking ticket.

In 1995, the City began charging for on-street parking using multi-space meters. Parking fees are highest in the center and decline with distance from the core. Parking is priced on nearby residential streets, but residents are allowed a limited number of passes. The city had a marketing campaign to let motorists know about the meters, including distributing one free \$20 prepaid parking meter card to each resident to help familiarize them with the system. Each motorist was allowed one free parking violation, and parking control officers provide an hour of free parking to drivers who were confused by the meters.

Although some downtown workers initially protested (opponents organized a “Honk if you hate paid parking” campaign the day pricing began), pricing proved effective at reducing parking problems and 6 months later the program was supported by a 3-to-1 margin in the municipal election. Most downtown business people now support pricing to ensure that convenient parking is available for customers, and to raise funds for City programs.

Downtown Pasadena Redevelopment (Kolozsvari and Shoup 2003)

During the 1970s, Old Pasadena’s downtown had become run down with many derelict and abandoned buildings and few customers, in part due to the limited parking available to customers. Curb parking was restricted to 2 hours, but many employees simply parked in the most convenient, on-street spaces and moved their vehicles several times each day. The City proposed pricing on-street parking as a way to increase turnover and make parking available to customers. Many local merchants originally opposed the idea. As a compromise, city officials agreed to dedicate all revenues to public improvements that make the downtown more attractive. A Parking Meter Zone was established within which parking was priced and revenues were invested.

This approach of connecting parking revenues directly to added public services and keeping it under local control helped guarantee the program’s success. With this proviso, the merchants agreed to the proposal. They began to see parking meters in a new way — as a way to fund the projects and services that directly benefit their customers and businesses. The city formed a Parking Meter Zone advisory board consisting

of business and property owners, which recommended parking policies and set spending priorities for the meter revenues. Investments included new street furniture and trees, more police patrols, better street lighting, more street and sidewalk cleaning, pedestrian improvements, and marketing (including maps showing local attractions and parking facilities). To highlight these benefits to motorists, each parking meter has a small sticker that reads, *Your Meter Money Will Make A Difference: Signage, Lighting, Benches, Paving*.

This created a virtuous cycle in which parking revenue funded community improvements that attracted more visitors which increased the parking revenue, allowing further improvements. This resulted in extensive redevelopment of buildings, new businesses, and residential development. Parking is no longer a problem for customers, who can almost always find a convenient space. Local sales tax revenues have increased far faster than in other shopping districts with lower parking rates and nearby malls that offer free customer parking. This indicates that charging market rate parking (i.e., prices that result in 85 to 90 percent peak-period use rates) with revenues dedicated to local improvements can be an effective way to support urban redevelopment.

Tri-Met Parking Management (www.tri-met.org)

The Tri-County Metropolitan Transportation District, which manages transportation in the Portland, Oregon area, has implemented various parking management strategies around transit stations to minimize costs and support transit oriented development. These strategies include the following:

- Sharing parking with Park and Ride and other types of land uses, including apartments, churches, movie theaters, and government buildings near transit stations.
- Using lower minimum parking requirements around transit stations.
- Allowing Park and Ride capacity near transit stations to be reduced if the land is used for transit-oriented development, thus allowing walk/bike trips to replace car trips.

Current Status

Fort Collins has taken moderate steps to manage parking, such as reducing parking requirements for mixed use development. However, it has done little to implement parking pricing either in the downtown or other commercial centers or to promote other parking management strategies, such as unbundling parking from building space or convincing major employers to cash out free parking. Commercial centers and strips outside of downtown are particularly suitable for implementing parking management strategies. Implementing such strategies will require careful planning to address concerns.

5.8 Smart Growth Land Use Policies

Smart growth (also called new community design) is a general term for policies that integrate transportation and land use decisions. An example would be encouraging more compact, mixed-use development within existing urban areas and discouraging dispersed, automobile dependent development at the urban fringe.

Although the travel impacts of individual smart growth policies may seem modest (for example, each 10 percent increase in urban density typically reduces vehicle travel by 1 to 3 percent), these impacts are very durable, lasting many decades, and support other mobility management and community development objectives.

Implementation

Smart growth is usually implemented as a set of policies and programs by state/provincial, regional, or local governments. It can be incorporated into land use development, often in exchange for reduced development fees and parking requirements

Impacts

People who live and work in smart growth communities tend to drive significantly less and rely more on alternative modes compared with the same people living and working in sprawled locations. These impacts tend to increase as smart growth planning expands. For example, people who live and work in compact, mixed use communities are far more likely to reduce their driving and use alternative modes than people who just live or just work in such locations. Table 10 describes various land use factors that can affect travel behavior and population health.

Table 10 Land Use Impacts on Travel (Litman 2005a)

Factor	Definition	Travel Impacts
Density	People or jobs per unit of land area (acre or hectare)	Increased density tends to reduce per capita vehicle travel. Each 10% increase in urban densities typically reduces per capita VMT by 1-3%.
Mix	Degree to which related land uses (housing, commercial, institutional) are located close together	Increased land use mix tends to reduce per capita vehicle travel and increase use of alternative modes, particularly walking for errands. Neighborhoods with good land use mix typically have 5-15% lower vehicle miles.
Regional Accessibility	Location of development relative to regional urban center	Improved accessibility reduces per capita vehicle mileage. Residents of more central neighborhoods typically drive 10-30% fewer vehicle miles than urban fringe residents.
Centeredness	Portion of commercial, employment, and other activities in major activity centers	Centeredness increases use of alternative commute modes. Typically 30-60% of commuters to major commercial centers use alternative modes, compared with 5-15% of commuters at dispersed locations.
Network Connectivity	Degree to which walkways and roads are connected to allow direct travel between destinations	Improved roadway connectivity can reduce vehicle mileage, and improved walkway connectivity tends to increase walking and cycling.
Roadway Design and Management	Scale, design, and management of streets	More multi-modal streets increase use of alternative modes. Traffic calming reduces vehicle travel and increases walking and

Factor	Definition	Travel Impacts
		cycling.
Walking and Cycling Conditions	Quantity, quality, and security of sidewalks, crosswalks, paths, and bike lanes	Improved walking and cycling conditions tends to increase nonmotorized travel and reduce automobile travel. Residents of more walkable communities typically walk 2-4 times as much and drive 5-15% less than if they lived in more automobile-dependent communities.
Transit Quality and Accessibility	Quality of transit service and degree to which destinations are transit accessible	Improved service increases transit ridership and reduces automobile trips. Residents of transit-oriented neighborhoods tend to own 10-30% fewer vehicles, drive 10-30% fewer miles, and use alternative modes 2-10 times more frequently than residents of automobile-oriented communities.
Parking Supply and Management	Number of parking spaces per building unit or acre, and how parking is managed	Reduced parking supply, increased parking pricing, and implementation of other parking management strategies can significantly reduce vehicle ownership and mileage. Cost-recovery pricing (charging users directly for parking facilities) typically reduces automobile trips by 10-30%.
Site Design	The layout and design of buildings and parking facilities	More multi-modal site design can reduce automobile trips, particularly if implemented with improved transit services.

A variety of land use factors affect travel behavior. Smart growth land use planning can use these factors to help support transportation planning objectives, such as encouraging walking, cycling, and public transit travel, and improving land use accessibility so total travel distances are reduced.

Examples

Palo Alto Zoning Code Update (www.city.palo-alto.ca.us/zoning)

The city of Palo Alto, California, has implemented an extensive process to develop a new city zoning code that encourages the type of development a community wants, including more flexible, design-oriented, form-based codes. The city hired leading planners, published several discussion papers, and involved numerous stakeholders. The result is a new approach to zoning that allows and supports many New Urbanist design features.

New Urbanist Residents Walk the Walk (www.lclark.edu/~podobnik/orengo02.pdf)

A study of Orenco Station, a suburban New Urbanist community on Portland's Westside MAX light rail line indicates high rates of transit use and other smart growth goals. Researcher Dr. Bruce Podobnik of Lewis and Clark College asked residents various questions about life in the community 5 years after its founding. Twenty-two percent of residents reported using light rail or the bus to commute to work or school — far higher than the 5 percent average for the region. Sixty-nine percent of residents reported that they use public transit more often than they did in their previous community. G.B. Arrington, a public transit expert, describes these numbers as “totally off the charts for conventional suburban development,” and notes, “the fact that many residents can walk or take very short trips is very significant.”

Ninety-four percent said that they find the community's New Urbanist design superior to typical suburban communities. Podobnik believes the Town Center is an important part of the community's success. He notes that 70 percent of residents say they shop in the Town Center's grocery store or other businesses at least once a week. Orenco Station's tree-lined streets and public spaces also seem to facilitate social interaction among neighbors. Seventy-eight percent of residents state that there is a higher sense of community than in their previous neighborhood, and 40 percent reported participating in neighborhood activities. Residents were asked to name up to three things they like and dislike about the community. Residents said they liked the overall design (13 percent), greenspaces and parks (12 percent), Town Center (10 percent), garages on alleys (9 percent), pedestrian-friendly streets (6 percent), and access to light rail (5 percent). Features residents' dislike included “none” (20 percent), dog problems (11 percent), and traffic problems outside Orenco (8 percent).

City of Orlando Development Fee Structure (Orlando 1998)

As is common in rapidly-growing jurisdictions, the city of Orlando charges development fees to help recover the costs of accommodating additional vehicle traffic generated by new buildings. Starting in 1998, the city has adjusted those fees to reflect the lower vehicle miles generated by developments in more multi-modal locations. For example, a multi-family housing unit located in the downtown area is charged a \$374 fee, compared with an \$807 fee in an automobile-dependent location. Similarly, a small retail building would be charged a fee of \$2,659 per 1,000 square feet of floor area if located downtown, but \$4,647 if located in a more automobile-dependent location.

Boulder Transit Village (www.ci.boulder.co.us)

In 2004, the City of Boulder purchased an 11-acre site located on the northeast corner of 30th and Pearl streets for a proposed transit village. The Boulder Transit Village will be a mixed-use, transit-oriented development that combines transit service (including nearby future commuter rail) with housing (including affordable housing) and supportive commercial services. This is intended to help achieve affordable housing, transportation, economic development, as well as environmental and community sustainability goals.

Current Status

The Fort Collins *City Plan* and *Transportation Maser Plan* were developed together to help integrate transportation and land use planning decisions. This includes developing a Land Use Code, Urban Area Street Standards, and regulations that promote the creation of activity centers, urban growth densification, and a coordinated multi-modal network. The Mason Transportation Corridor plan will integrate infill Transit Oriented Development (TOD) with Bus Rapid Transit service and multi-modal trail transportation options.

Although current land use code supports many aspects of mobility management, much of the development that occurred during the 1990s along arterials does not reflect smart growth principles. It will be important to find ways to support more compact, mixed, multi-modal development in such areas through redevelopment. Implementing the Mason Transportation Corridor could contribute significantly toward motivating property owners in these areas to implement land use changes. Commute trip reduction programs, parking management, and pedestrian improvements also can support smart growth redevelopment.

5.9 Institutional Reforms

Institutional reforms are changes to transportation organizations' policies and practices to support mobility management implementation. Most transportation agencies were created to build roads and are not well structured to support alternatives, particularly those that involve soft strategies, such as financial incentives and programs. Transportation planning and funding practices often are biased toward capacity expansion and away from demand management alternatives. As a result, current planning organizations often overlook or undervalue mobility management solutions, and so fail to implement mobility management strategies to their full potential.

Mobility management programs bridge traditional institutional and jurisdictional boundaries. For example, implementing mobility management often involves coordinating between transportation and land use decision-making, facilitating innovative public-private partnerships, and finding funding for non-traditional transportation programs. This may require new interorganizational relationships.

Below are examples of institutional reforms and implementation activities:

- Create a mobility management program within transportation agencies with clearly established objectives and adequate resources.
- Educate decision-makers and staff about TDM objectives, techniques, and resources.
- Apply more flexible contingency-based plans that identify solutions to be deployed if needed to address future problems.
- Allow and encourage implementation of user-based taxes and fees, such as parking pricing, tax discounts for households that do not own an automobile, and location-based utility fees.
- Apply least-cost planning, which means that mobility management strategies are considered and compared with any capacity expansion project (such as expanding roadways and parking facilities), taking into account all benefits and costs. This often requires correcting existing policies and institutional practices that favor roadway capacity expansion over alternative modes and management solutions.

- Establish a Fix-it-First policy, which means that roadway capacity expansion projects are only implemented if operations and maintenance programs for existing facilities are adequately funded.
- Change codes and standards to allow more context-sensitive design, which means that planners and engineers are allowed greater flexibility to accommodate community values and balance objectives.
- Allow and encourage developers and operators to implement parking and mobility management programs as ways to reduce parking requirements and development fees.
- Create special zoning codes and development policies for downtown areas, transit-oriented development, and other types of special districts.
- Develop cooperative relationships with other organizations that may influence travel. For example, transportation agencies can work with planning agencies to implement parking management strategies, and with education agencies to help implement school transport management programs.

Institutional reform also involves changing the way transportation options are evaluated. Conventional planning tends to evaluate transportation system quality primarily based on motor vehicle traffic conditions. Evaluating transportation system quality based on accessibility expands the range of solutions that can be used to solve problems, including more use of mobility management. For example, improving walking and cycling conditions, smart growth land use policies, and telework are examples of ways to improve accessibility, but they tend to receive little consideration in conventional transport planning. Similarly, conventional transport planning tends to focus on a limited set of costs, such as agency expenses, travel time and vehicle costs, but may fail to account for many indirect, social, and environmental costs. More comprehensive planning recognizes a wider range of mobility management benefits, such as parking cost savings, improved travel options for non-drivers, and reduced sprawl that are often overlooked.

Implementation

Institutional reforms generally are implemented by policy makers and administrators, and may require changes in funding allocation, organizational structures, and evaluation practices.

Impacts

Institutional reforms are often a key step in implementing TDM programs and specific strategies. Travel impacts depend on the design of the TDM program that is actually implemented.

Examples

Cambridge Regulations (www.ci.cambridge.ma.us/~CDD/envirotrans/ptdm)

The City of Cambridge, Massachusetts, requires commercial developers to commit to a maximum single occupancy vehicle (SOV) mode split (the portion of trips made to that destination by automobiles with a single occupant), with penalties if they fail to meet their objectives. Developers pass these requirements on to facility users through lease agreements and tenant fees, resulting in CTR program implementation.

Bellevue, Washington, Transportation Demand Management Ordinance **(www.onelesscarbelleveue.org/sub/emp_ctr.shtml)**

In 1993 Bellevue, Washington, passed an ordinance (14.40) that established municipal CTR program goals and requirements. It requires certain employers to develop a CTR program, and sets the following single occupant automobile commute reduction goals:

- After 2 years: 15 percent
- After 4 years: 20 percent
- After 6 years: 25 percent
- After 12 years: 35 percent

The ordinance identifies which commuters are affected (private and public employers with 100 or more affected employees at a single worksite, with certain exemptions), program components (a transportation coordinator, information distribution to employees, commuter surveys, etc.), what types of commute trip reduction measures may be included in the program, and how travel impacts are measured and reported. The ordinance affects 53 employers with 22,000 employees. Among all CTR-affected worksites, the drive-alone rate has dropped from 77 percent in 1993 to 69 percent in 2001. And among downtown Bellevue CTR-affected worksites, the drive-alone rate has dropped from 73 percent in 1993 to 59 percent in 2001.

Austin Transportation User Fee (www.ci.austin.tx.us)

The City of Austin, Texas, has an innovative way of financing transportation infrastructure that rewards households that reduce their vehicle ownership. City utility bills include a Transportation User Fee (TUF) that averages \$30 to \$40 (US) annually for a typical household (City of Austin Code 14-10). This charge is based on the average number of daily motor vehicle trips made per property, reflecting its size and use. For example, single-family development is estimated to generate 40 motor vehicle trips per acre per day, condominium residential use and townhouse residential use generate approximately 60 motor vehicle trips per acre per day, and offices generate approximately 180 motor vehicle trips per acre per day. The city provides exemptions to residential properties with occupants that do not own or regularly use a private motor vehicle for transportation, or if the user is 65 or older.

Ride-on (www.ride-on.org)

Ride-On in San Luis Obispo County, California, is a non-profit transportation cooperative established in 1993 with a mission to develop and implement creative solutions to transportation and mobility issues that concern employers, businesses, medical providers, visitors services providers, special events coordinators, government agencies, and individuals. It owns 35 vans and buses. The TMA is guided by a steering committee with representation from non-profit organizations, businesses, and local government. It provides the following services:

- Shuttle bus services to regional transportation terminals
- Shuttle services for children and patients
- Special event transportation
- Lunchtime shuttle services
- Employee Transportation Coordinator contract services

- Transportation information and referrals
- Commuter baseline surveys
- Guaranteed/emergency ride home services

Regional Transportation Operations (www.ite.org/library/reg_trans_ops.htm)

Regional Operating Organizations (ROOs) are partnerships among transportation and public safety agencies (police, fire departments, disaster management, etc.) to coordinate transportation operations on a regional basis. These cooperative efforts take different forms depending on needs; available resources; and existing policies, procedures, and institutional relationships of partners within the region. They are increasingly common in North America. ROOs provide the following services:

- Bring together transportation, public safety, and emergency management operators to provide more effective management of incidents, disasters, and emergency evacuations.
- Establish new sources of funding for transportation and regional control of major roadway and transit assets.
- Reduce construction and incident-related delays through multi-agency coordination and real-time information dissemination.
- Enable agencies to share transportation data and software resources via an integrated information backbone.
- Enable public agencies and private partners to combine resources to provide quality public and personalized transportation information services.
- Improve transit services by implementing smartcard fare collection systems.

Florida Department of Transportation Multi-Modal Level-of-Service Evaluation (www.dot.state.fl.us/planning/systems/sm/los/default.htm)

The Florida Department of Transportation (FDOT) has developed several planning tools for evaluating access and multi-modal LOS. The state's Transportation Concurrency Management Area defines geographically compact areas where traffic congestion thresholds are reduced due to a high level of accessibility and quality travel options. FDOT pays particular attention to walking and cycling.

Redmond, Washington

Redmond's transportation master plan is based on Washington State growth management requirements. The plan includes integrated transportation and land use planning objectives, concurrency management, and performance monitoring. The plan states that, "level of service standards should reflect access, mobility, mode split, or capacity goals for the transportation facility depending on the surrounding development density and community goals, and should be developed in consultation with transit agencies serving the planning area." Local transportation planning decisions are integrated with regional multi-modal planning goals. The country's multi-modal LOS standards include traffic volume and roadway capacity, regional transit service quality, local transit accessibility, bicycle system implementation, and pedestrian environmental adequacy.

Flexible Level Of Service Standards

Montgomery County and City of Rockville, Maryland, have different roadway LOS standards depending on whether or not an area is transit-oriented, as summarized in the Table 11 below. Transit-oriented areas are allowed to have higher levels of local congestion since development is more concentrated, there are more travel options, and a smaller portion of trips are made by automobile. These jurisdictions also have TDM programs that encourage using alternative modes in transit-oriented areas. Developers are provided credits based on the quantity and quality of TDM strategies and programs they implement. This supports increased land use accessibility.

Table 11 Comparison of Allowable Congestion Levels

Road Classification	Transit-Oriented Area		Non-Transit-Oriented Area	
	V/C Ratio	LOS	V/C Ratio	LOS
Primary residential (Class II)	Less than 0.9	D	Less than 0.8	C
Major arterial, minor arterial, major collector (Class I)	Less than 1.0	E	Less than 0.9	D
Business district roads, freeway ramps, and intersections of two major arterials	Less than 1.0	E	Less than 1.0	E

Current Status

City of Fort Collins agencies apply many policies and programs that support mobility management. These programs are located within eight City Departments in two Service Areas and in two outside organizations, as depicted in Figure 5 in Section 4 of this report. The following bullets summarize the City’s institutional strengths and weaknesses toward aligning its mobility management programs with nationally recognized best practices.

Institutional Strengths

- In response to the end of the SmartTrips program, City Transportation Services staff members worked hard to retain as many program components as possible within existing City departments and budget restrictions.
- The City has a commitment to mobility management [VMT reduction]: “The City will continually strive to reduce the growth rate in vehicle miles traveled by implementing a VMT reduction program that strives to meet or exceed the performance of similar programs in comparable cities.”
- Land use and transportation are strongly linked in the comprehensive plan. This assures that, in the long term, the undeveloped one third of the city will be built according to smart growth concepts, such as higher density, mixed use, urban design that is friendly to walkers, cyclists, and transit users, and will be supported by enhanced transit corridors.
- LOS Standards apply to walkers, cyclists, and transit users as well as drivers. The LOS standards adjust to land use districts so that alternative modes have increased priority within activity

centers. The City of Fort Collins is nationally recognized as a leader in developing and implementing standards of service for all modes of travel.

- Context-sensitive design is used in constructing transportation improvements. Fort Collins is on the forefront of municipalities that apply this approach to their own projects.
- The City's transportation modeling software includes the ability to estimate travel mode splits for all modes, including transit, bike, and pedestrian travel. This helps give a more accurate representation of alternate-mode needs and potential.
- The City has a strong record of securing grants and funds for alternative mode projects and programs. Transportation Planning has secured over \$3 million dollars in grants and funds since 2001.

Institutional Weaknesses

- The principal weakness is the lack of consistent, dedicated funding for transit, bike, pedestrian, ridesharing, and education/outreach, as called for in adopted City plans. In the past, the City has relied too much on outside funding (Federal Congestion Management and Air Quality funds) to support SmartTrips.
- Mobility management strategies have a hard time competing with street infrastructure needs for limited resources. Transportation budget shortfalls are overwhelming, particularly the shortfall in needed street improvements. This situation makes it very difficult for decision-makers to invest in mobility management strategies even though they can be more cost-effective than capacity improvements when implemented as an integrated whole.
- While many mobility management strategies are synergistic (i.e., most effective when implemented together), budget restrictions have forced the City to segment the mobility management strategies among different departments. This way of organizing mobility management has consequences that must be recognized and overcome. With the end of SmartTrips, other departments have assimilated TDM activities into their work plans as best they can with available resources. Although bicycle, pedestrian, transit, and carpool/vanpool efforts will still be available, there will be no central group in the City organization whose sole mission is mobility management or VMT reduction.
- Although there is recognition that alternative mode investments are needed in both facilities and outreach, as long as mobility management is not given adequate resources, programmatic response to the City's VMT reduction policy will be inadequate to the task. There also is a sense among some policy makers that investments made in the SmartTrips program are not justified considering the relatively small resultant changes in travel behavior.
- The City has a chicken versus egg dilemma. The effectiveness of SmartTrips' message to encourage alternative modes of travel is tempered somewhat by limited funding of the sidewalk, bikeway, and public transit networks available to travelers. That can lead to lessened support for alternative mode education and outreach. Without adequate, attractive travel alternatives, SmartTrips is seen by some as selling snake oil. Hence the dilemma: is it more effective to put off promotional programs until alternative mode networks are improved, or do promotional programs create the public support that would hasten the day that alternative modes networks are better funded and improved?

6.0 EXAMPLES – COMPREHENSIVE COMMUNITY PROGRAMS

This section describes examples of comprehensive community mobility management programs.

Seattle Climate Action Plan (www.ci.seattle.wa.us/climate/report.htm)

In 2005, Seattle Mayor Greg Nickels established a Green Ribbon Commission that included a wide variety of stakeholders and experts to recommend climate protection actions for the Seattle community to meet or beat the Kyoto target. In 2006, the commission released a report and recommendations, which include the following strategies to reduce automobile use:

- Increase the supply of frequent, reliable, and convenient public transportation
- Significantly expand bicycling and pedestrian infrastructure
- Lead a regional partnership to develop and implement a road pricing system
- Implement a new commercial parking tax
- Expand efforts to create compact, green, urban neighborhoods

Along with their recommendations, the commission offered these observations:

- Success will require a deliberate, sustained, community-wide effort. And, since cars and other transportation sources are the largest source of climate pollution in our area, we will need strong regional collaboration as well.
- The actions and investments needed to rein in Seattle's climate pollution will, at the same time, make our community healthier and more livable, for example, by reducing traffic congestion and toxic air pollution from diesel emissions.
- In addition, reducing our reliance on fossil fuels increases our energy independence, keeps more money circulating in the local economy, and supports local and regional economic development.
- The road to a more climate-friendly community is paved with economic opportunities, including cost-savings from energy efficiency measures for our families and businesses—especially in light of rising and volatile energy prices — and new business prospects for our companies and entrepreneurs.
- Implementing these recommendations requires a significant investment of time and money by the community. But we believe the price tag is dwarfed by the cost to our community of not taking additional action.
- Finally, meeting the Kyoto target here — and, more importantly, transforming Seattle into the nation's most climate-friendly city — is an extraordinary challenge. But our community has rallied to meet such challenges in the past. With Seattle's unique mix of eco-intelligence and entrepreneurial zeal, we will meet and exceed the goal.

The Chattanooga Story (www.chattanooga.gov)

Over the last 20 years, Chattanooga, Tennessee, has redeveloped its once-depressed downtown to become a major commercial and tourist center that attracts millions of visitors a year. This success evolved out of three decades of community planning that emphasize citizen involvement, local environmental quality, and strategic investments.

Concerned about the impacts that pollution was causing on the local economy, the Chattanooga Chamber of Commerce created an Air Pollution Control Board in 1967. The board included a diverse group of business leaders and citizens. It established a 1972 deadline for all existing major sources of pollution to be in compliance with emission standards, which was met at a cost of \$40 million. National and international attention was focused on a city that in three years had changed from the most polluted city in the United States to one of the cleanest. This inspired a new community challenge, revitalizing a dying city.

In the early 1980s, City officials established a goal that Chattanooga should become a leader in developing solutions to urban problems. In 1982, City and County governments appointed a task force to study and define the best way to develop the 22-mile Tennessee River corridor around Chattanooga. Through this process, thousands of citizens attended hundreds of meetings to focus on the riverfront. The Task Force drafted the Tennessee Riverfront Master Plan, which covered 20 years and involved \$750 million in commercial, residential, and recreational development.

This effort helped to create the RiverCity Corporation, a private, nonprofit organization with a mandate to implement the Riverfront Master Plan and 40 community development goals. Among other achievements, it developed the Tennessee Aquarium, the world's largest freshwater aquarium, which opened in 1992. The structure has become a trademark for the City that in 10 years transformed itself from a dying city to one of growth and sustainable development.

A second structure that defines Chattanooga also was introduced in 1992. The Electric Shuttle was implemented by the Chattanooga Area Regional Transportation Authority. With free 5-minute service between the Tennessee Aquarium and the Chattanooga Choo Choo Hotel, the Electric Shuttle provided the transportation link that had been identified as one of the top goals during Vision 2000. As a result of these efforts, Chattanooga is now one of America's most livable cities.

TravelSmart Program: Kamloops, British Columbia (www.city.kamloops.bc.ca/transportation/plans/travelsmart.shtml)

The TravelSmart program in Kamloops, a rapidly growing city of 100,000 residents in central British Columbia, promotes changes in travel behavior and encourages sustainable community development in order to minimize demands on the municipal transportation system. Launched in January 1997, TravelSmart includes the following:

- Land use integration: Recognizing the strong links between transportation and land use, the City's official plan was revised to minimize the demand for car travel by influencing growth patterns. The plan now favors a compact form of development, situating accommodation close to employment and community services, and increasing density of the central area.
- Less expensive road structure alternatives: To avoid expensive improvements to road networks, the City has slowed or halted development in some areas and identified underused arterial corridors for access to the downtown core. Rather than building bypasses over the busy highway that runs through town, the City encourages residents to use alternatives to the highway.

- Improved public transit: The City developed a comprehensive travel plan to improve the level of service and provide alternatives to the single occupant vehicle. Some improvements include increased frequency of service to outlying communities and using smaller buses that feed into the main system.
- Promoting bicycle use: The Kamloops Bicycle Plan identifies \$6 million worth of additional cycle routes and initiatives for businesses to provide end-of-trip facilities to cyclists, such as showers and bike racks.
- Promotional programs: Transportation alternatives, such as carpooling, biking, and walking, are promoted through workshops and seminars in workplaces; the “Safe Routes to School” program in schools; “Go Green” billboards on commuter streets; and door-to-door neighborhood education by City staff. The plan recognizes the need for an ongoing awareness campaign and community involvement to sustain TravelSmart.

Total project planning costs totaled \$300,000, of which \$245,000 was funded by the City and \$55,000 by the province. The full program is funded through the City’s general revenue, development cost charges, the BC Transportation Financing Authority, specific developers, and BC Transit. TravelSmart will be updated every 5 years as one component of Kamplan, the City’s growth management strategy. After 3 years of operation, the program has improved air quality and reduced planned road expenditures by 75 percent. Economic and environmental benefits include reduced anticipated road expenditures from \$120 million to \$14 million, reduced annual energy consumption from 128 to 125 gigajoules per capita, as well as small reductions in per capita pollution emissions.

Go Boulder (www.ci.boulder.co.us/goboulder)

The City of Boulder has a number of innovative transportation management programs, called Go Boulder. Established in 1989, Go Boulder is a community-based program that improves and promotes transportation options.

By improving public transit service and providing incentives, approximately 60 percent of City residents have City bus passes, the highest rate in the United States for cities of its size. Buses operate with 10-minute headways on several highly visible routes, with amenities such as music and bike racks.

University students, employees at the City’s main hospital, and several other major worksites all receive transit passes. The municipal group that collects downtown Boulder parking fees uses a portion of that revenue to buy annual bus passes for 6,000 employees who work in the City core. The Chamber of Commerce followed suit, adding \$50 per year to the fees of its members. Employees appreciate it because they commute for free and do not need to find or pay for downtown parking. They also can use the bus pass for non-commute trips. Merchants appreciate the program because it frees up scarce parking spots for shoppers. Several private companies with hundreds of employees pay for annual, unlimited transit passes. The Go Boulder group also persuaded resident groups in several neighborhoods to sign annual bus pass contracts. Through these contracts, all members of each household get a photo ID and unlimited bus use.

A Boulder City bylaw requires developers of new residential subdivisions to buy each household 3 years’ worth of unlimited transit passes at an average cost of \$50 each. After the third year, the residents can either drop the deal or pay the same amount through their local residents’ or apartment association. There is virtually no attrition on any of these ridership programs.

Go Boulder also offers a safe ride home service. By pooling \$2 from each \$50 pass, the transit agency contracted with City taxis to pick up, at no extra cost to the employee, anyone in the office who needs an

emergency ride or a ride after bus operating hours. The same deal applies to all 1,200 employees of the City hospital. Shift nurses especially welcomed the low-cost, flexible bus service with taxi backup.

Boulder has extensive pedestrian and cycling programs, including sidewalk and path facilities, bicycle parking, and bike racks on buses.

Go Boulder also promotes telework (use of telecommunications to substitute for private vehicle ownership), ridesharing (carpooling and vanpooling), and a carsharing service (www.carshare.org) — a vehicle rental service designed to substitute for private vehicle ownership.

The City's TMP Update is proposing to create multiple Transportation Management districts that will provide services to reduce the overall traffic demand on the City's roadways through ongoing commuter and traveler assistance programs. TDM services within the districts will correspond to the level of expected development and redevelopment in the area.

7.0 EVALUATING MOBILITY MANAGEMENT OPTIONS

Different mobility management strategies have different types of travel impacts. Table 12 indicates the project team’s judgment as to the effectiveness of the specific strategies described above in achieving various transportation planning objectives, and therefore in achieving broader objectives, such as reducing traffic congestion, providing road and parking cost savings, and increasing physical fitness and health. Of course, actual impacts will vary depending on the type and quality of the program.

Table 12 Impact of Mobility Management Strategies on Transportation Objectives

	Improved Mobility Options	Reduced Total VMT	Reduced Urban-Peak VMT	More Walking & Cycling	Smart Growth
CTR Programs	2	2	3	1	1
School Transport Management	2	1	2	2	2
Campus Mobility Management	1	2	2	2	1
Walking and Cycling Programs	3	1	1	3	2
Transit Service Improvements	3	3	3	2	2
Rideshare Programs	2	2	3	0	0
Parking Management	0	2	2	1	3
Smart Growth Policies	2	3	2	3	3
Institutional Reforms	3	3	3	3	3

(Rating from 3 [very beneficial] to –3 [very harmful], with 0 indicating no impact or mixed impacts.)

Reducing vehicle travel can provide large cost savings. Road maintenance is a relatively modest cost, typically averaging 2 cents per vehicle-mile, but expanding major roadway capacity typically costs approximately 25 cents per additional peak-period vehicle mile accommodated, and an urban parking space typically has an annualized cost of approximately \$1,000, or \$5.00 per day. Owning an automobile typically costs \$3,000 in fixed expenses and 15 cents per mile in operating expenses. Driving also imposes various external costs, including congestion delay, crash risk, and environmental costs. As a result, a typical 40-mile round trip commute shifted from automobile to an alternative mode saves at least \$16.80 per day in reduced roadway, parking, and operating costs, or \$26.80 per day if it allows a household to reduce its vehicle ownership. In addition, reduced driving reduces congestion, accidents, and environmental costs imposed on other people.

Table 13 summarizes estimated costs of a typical automobile commute, indicating the potential savings that can result from shifts to alternative modes. Of course, actual costs will vary depending on many factors, and using alternative modes also imposes various costs on users and society.

Table 13 Typical Automobile Commute Costs (“Transportation Costs” VTPI 2006)

	Unit Costs	Miles	Total Costs
Road maintenance	2¢/mile	40	\$0.80
Roadway capacity expansion	25¢/mile	20	\$5.00
Parking	\$5.00/day		\$5.00
Vehicle operation	15¢/mile	40	\$6.00
Vehicle ownership	\$10/day		\$10.00
Congestion costs	?		?
Crash costs	?		?
Environmental impacts	?		?
Totals			\$26.80+

A typical automobile commute imposes roadway, parking and vehicle costs totaling more than \$26.80 per day. This does not include costs of congestion, accidents and pollution imposed by driving. Mobility management strategies can reduce these costs, providing significant cost savings to consumers, governments and businesses.

It is also important to take into account factors such as the time, comfort, safety, and health effects of alternative modes. In some cases automobile travel will be the most cost-effective option when all impacts are considered. In many cases, however, alternative modes are the most cost effective transportation option but they are not being used as much as is economically justified because of market distortions (e.g., the common practice of providing subsidized parking but no comparable benefit for using alternative modes). Similarly, in many cases dedicated funding is available to expand highways and parking facilities, but this funding cannot be used to improve transit and vanpooling services even though attracting commuters from automobiles would reduce traffic growth, which might be more cost effective.

There are often debates over the cost effectiveness of mobility management policies and programs. Costs are often concentrated while benefits, although numerous, are often diffuse. For example, a school transport management program may require schools to hire a transportation coordinator and implement local pedestrian and cycling facility improvements. Benefits include reduced neighborhood traffic and parking problems, road and parking cost savings, reduced costs to parents for chauffeuring children to schools, and improved student health and fitness. The costs are relatively easy to calculate while many of the benefits are indirect and therefore difficult to quantify.

The simplest way to evaluate municipal mobility management strategies is to compare their costs to the City’s per vehicle-mile reduced. Applying least-cost planning principles, mobility management programs should be implemented whenever they are more cost effective overall than alternatives that involve expanding roads and parking facilities, taking into account all benefits and costs. However, this approach may require adjustment for the following reasons.

First, many strategies have minimal direct costs to the City. Some, such as narrower roads, more compact development, and parking pricing, reduce municipal costs or raise revenue. Their costs are therefore the costs of overcoming institutional and political resistance to such change, as well as costs to consumers, such as reduced traffic speeds and spillover impacts.

Second, not all miles impose the same costs on society, and so not all vehicle miles reduced provide the same benefits. For example, urban-period trips cause more traffic congestion, and some types of trips impose more parking costs. Automobile trips that shift to nonmotorized modes provide more health benefits than trips shifted to ridesharing and transit. Strategies that affect land use development patterns, such as parking management, smart growth, and transit-oriented development, have many indirect benefits besides reducing traffic problems. Table 14 summarizes the benefits provided by different types of travel changes.

Table 14 Benefits from Various Types of Travel Changes

	Improved Mobility Options	Reduced Total VMT	Reduced Urban-Peak VMT	More Walking & Cycling	Smart Growth
Congestion reduction			✓		
Roadway cost savings		✓	✓		
Parking cost savings			✓		
Consumer cost savings		✓	✓		✓
Reduced traffic crashes		✓	✓		
Improved mobility for non-drivers	✓				✓
Supports land use objectives		✓	✓	✓	✓
Reduced pollution emissions		✓	✓		
Improved public fitness and health		✓		✓	✓
Supports economic development	✓	✓	✓	✓	✓

More comprehensive analysis, which considers a wider range of planning objectives, can help prioritize and optimize mobility management strategies. For example, strategies that improve mobility options for

non-drivers, reduce urban-peak travel, increase walking and cycling activity (particularly by people who are most at risk to sedentary lifestyle and obesity), or support smart growth land use development can be given higher priority because of these additional benefits.

Third, some mobility management strategies have little direct impact on travel. Instead, they support other strategies that do have direct impacts. For example, transportation management associations provide a foundation for CTR programs, while institutional reforms often shift planning practices to provide more support for alternative modes. In addition, many strategies have synergistic effects. For example, Guaranteed Ride Home programs have little effect by themselves but significantly increase take-up of rideshare and transit services. It can be difficult to determine how to allocate the reduced vehicle mileage among these overlapping strategies.

8.0 IMPLEMENTATION SUMMARY

Chapters 6 and 7 of this report identify several types of mobility management programs that can help Fort Collins achieve its transport planning objectives and provide other economic, social, and environmental benefits. Virtually all can be cost effective under some conditions, when all benefits are considered. The question therefore is not, “Which should be implemented?” but rather, “How should each be implemented to maximize benefits?”

Because their impacts are synergistic (implemented together, the sum of their impacts tend to be larger than if these strategies were implemented individually), it is generally necessary to implement these programs as an integrated package. For example, to maximize effectiveness, transit service improvements also require pedestrian improvements, smart growth strategies, CTR programs, and parking management.

A major obstacle is the need to enlist cooperation from other stakeholders to implement these strategies. For example, CSU could do more to encourage using alternative modes by raising parking rates and reducing discounts for long-term passes, by improving travel options (particularly public transit and ridesharing services), and by changing campus culture to support alternative modes. Similarly, employers could do much more to support using alternative commute modes.

Table 15 lists the various categories of mobility management strategies described in this report and specific actions for implementing them. Fort Collins currently is implementing most of these strategies to some degree, but much greater implementation is possible.

Table 15 Mobility Management Program Implementation Actions

Strategy	Implementation Actions
CTR Programs	<ul style="list-style-type: none"> • Encourage or require employers to establish CTR programs. • Educate employers concerning the benefits of CTR programs. • Reduce parking requirements and development fees for businesses that implement CTR programs. • Provide support for CTR programs, such as establishing and helping to fund local transportation management associations in particular commercial districts.
School Transport Management Programs	<ul style="list-style-type: none"> • Encourage or require school districts to establish transport management programs. • Provide support for school transport management programs, such as improved walking and cycling conditions around schools.
Campus Mobility Management Programs	<ul style="list-style-type: none"> • Encourage or require campuses to establish transport management programs. • Provide support for campus transport management programs, such as improved walking and cycling conditions, and transit priority measures.

Strategy	Implementation Actions
Walking and Cycling Programs	<ul style="list-style-type: none"> • Develop pedestrian and bicycle plans. • Establish stable and adequate funding for pedestrian and cycling improvements and programs. • Implement traffic calming and streetscape improvements that benefit non-motorized modes. • Implement programs that encourage nonmotorized modes.
Transit Service Innovations and Improvements	<ul style="list-style-type: none"> • Implement a strategic transit development plan that significantly improves transit service quality in ways that make transit travel attractive to discretionary riders. • Establish stable and adequate funding for transit service improvements. • Establish roadway design and operational practices that favor transit access, including transit priority lanes and traffic control systems. • Establish land use policies that help create transit-oriented development. • Integrate transit with rideshare and CTR programs.
Rideshare Programs	<ul style="list-style-type: none"> • Recognize vanpooling as an important commute option that deserves support comparable to transit services. • Establish and implement a strategic rideshare development plan that identifies how rideshare services will be improved. • Integrate rideshare programs with transit services and regional transportation programs. • Develop HOV priority facilities. • Integrate ridesharing with transit and CTR programs.
Parking Management	<ul style="list-style-type: none"> • Change parking planning practices to encourage more efficient management. • Develop a strategic parking plan that leads to more efficient management and increased pricing. • Use parking pricing and taxes to repay parking facility costs, finance transportation services, finance local improvements (such as streetscaping and security services), and as an incentive to use parking resources more efficiently.
Smart Growth Land Use Policies	<ul style="list-style-type: none"> • Change zoning codes and development practices to reflect smart growth principles. • Implement parking management. • Establish location-based development fees, utility rates, and taxes that reduce charges where it is cheaper to provide public services.

Strategy	Implementation Actions
<p>Institutional Reforms</p>	<ul style="list-style-type: none"> • Require large employers to establish CTR programs. • Create transportation management associations in major commercial centers to provide coordinated transportation management services and programs. • Specify roadway expenditures in local property tax assessments and provide discounts to households that do not own an automobile on the basis of their reduced roadway costs. • Apply least-cost planning, so demand management programs are considered equally with road and parking capacity expansion projects. • Use comprehensive evaluation in transport planning, which takes into account all significant benefits, costs, and planning objectives. • Apply fix-it-first principles to transport planning, so road and parking facilities are not expanded if funding to efficiently operate and maintain existing transportation facilities and services is inadequate. • Establish integrated transportation agencies that provide multi-modal services, including mobility management.

9.0 CONCLUSIONS

Fort Collins is a rapidly growing city. This creates challenges and opportunities with regard to increasing transportation system efficiency. As cities grow, vehicle traffic and parking demand increase and facility expansion becomes increasingly costly. Demographic and economic trends also are increasing the value of a more efficient, multi-modal transportation system. As a result, alternative modes and mobility management become increasingly appropriate solutions to transport problems. To take advantage of these opportunities requires changing planning practices and organizations.

Fort Collins has taken some important steps toward creating a more efficient transport system. It has established goals to reduce VMT and increase use of alternative modes. In addition, the City has established programs to support mobility management including outstanding pedestrian and cycling programs, good efforts to encourage more compact development, CTR programs, and plans to establish bus rapid transit service. However, like most communities, Fort Collins is not implementing all of the mobility management programs that are economically justified. There is much more that the City can do to increase transportation system efficiency. Action now can prepare the City to accommodate future trends, including population growth; rising fuel costs; an aging population; and increased demand for walking, cycling, and urban living.

Table 16 grades the City’s progress and identifies what more would be needed to reflect best practices. To achieve its transportation improvement goals, the City will need to implement more challenging strategies, including reliable funding for mobility management programs, incentives for employers to support CTR, road design and traffic management strategies that favor transit over general traffic, and parking pricing.

Table 16 Mobility Management Program Grades and Recommendations for Improvement

	Grade	Comments	Needed To Achieve An “A”
CTR Programs	B	Discontinuation of the SmartTrips program may reduce this grade.	Continue and expand services currently provided by SmartTrips. Encourage or require employers to support CTR, especially in sprawled areas such as Harmony Road.
School Transport Management	B	City has several good programs, but many are scheduled to end this year.	Expand so all schools have programs that support alternative modes.
Campus Mobility Management	C	UPass is good, but limited transit service and low parking prices reduce use of alternative modes.	Significantly increase transit funding and service, support vanpooling by CSU staff, and implement parking pricing on CSU campus.

	Grade	Comments	Needed To Achieve An “A”
Walking and Cycling Programs	B+	Good programs for new development.	More resources needed to improve walking and cycling in some existing areas.
Transit Service Improvements	C	Current funding and service is modest for city of this size.	Significantly increase transit service to attract discretionary riders. Implement Mason Corridor program.
Rideshare Programs	B+	Regional VanGo program is now expanding services and outreach.	Continue VanGo service expansion and marketing, and integrate with other mobility management programs, including CTR and transit promotion.
Parking Management	D	City provides increased flexibility for new development, but few other management strategies.	Implement more parking management strategies, including more sharing, regulating, and pricing in both downtown and automobile-oriented areas.
Smart Growth Policies	C	City has good policies for new development, but must overcome sprawl in many areas.	Implement strong policies and programs to create more compact, mixed, walkable redevelopment of sprawled areas developed before City Plan.
Institutional Reforms	B-	City has good policies on paper, but many are not being aggressively implemented because there is a lack of cooperation by stakeholders.	Continue to reform transportation and land use policies, planning, and funding practices. Continue to educate stakeholders concerning the benefits that can result from better planning. Encourage or require more cooperation by local businesses, CSU, regional organizations, and state agencies.

The greatest overall threat to successfully implementing mobility management programs is the lack of reliable long-term funding for alternative transportation infrastructure, services, and promotion programs. Although some funding exists, it is much smaller and less reliable than roadway funding (available from state programs), and parking facility funding (largely hidden in development costs).

Probably the single most important action required is for Fort Collins citizens to approve funding for the Mason Transportation Corridor, which will be a major, tangible commitment to creating a multi-modal transportation system with sufficient service quality to attract a portion of travelers who could drive for a particular trip. However, even this project will only have moderate impacts by itself. Increasing transportation system efficiency requires coordinated efforts that include improved system-wide transit

services, aggressive rideshare promotion, creating more accessible communities, non-motorized transport improvements, and incentives for commuters to use alternative modes when feasible.

The City has limited direct effects on regional travel patterns. It will need to continue to show leadership in building cooperation with stakeholders, including other jurisdictions and levels of government in the region, to create integrated programs, including business organizations, major developers and employers, CSU, and regional and state agencies.

ATTACHMENT 1 – MOBILITY MANAGEMENT IN FORT COLLINS – A SCAN OF CURRENT PRACTICE

Introduction

Mobility Management (also called Transportation Demand Management or VMT Reduction) includes various strategies and programs that improve travel options and encourage more people to use more efficient forms of travel. It includes improvements to alternative modes (walking, cycling, ridesharing, public transit, and telecommuting), changes in traffic management, pricing reforms, and land use policies that create more multi-modal and accessible communities. The purpose of this report is to document Fort Collins' current policy and practices with respect to mobility management.

Just as in communities throughout the nation, vehicle miles traveled (VMT) grows much faster in Fort Collins than the population grows. Reducing the VMT growth rate has been identified as an important factor in meeting Fort Collins goals for land use, transportation, air quality, and livability. The City has implemented a number of plans and programs, described in this report, that each contribute to the goal of reducing VMT growth, and, taken together, constitute the City's overall VMT-reduction program.

The City intends that its overall VMT-reduction program meet or exceed the performance of similar programs in comparable cities. This intent is reflected in the City Plan Principle and Policy below.

Principle T-3. City transportation programs shall address themselves to reduce vehicle miles of travel through strategies that reduce trip generation, reduce trip length, and increase vehicle occupancy.

Policy T-9.1 Vehicle miles traveled (VMT): The City will continually strive to reduce the growth rate in VMT by implementing a VMT reduction program that strives to meet or exceed the performance of similar programs in comparable cities.

The City does not yet have a way of measuring performance against this policy goal. The essential first question, however, is "How well is Fort Collins doing with respect to mobility management best practices?" To answer that question, the City has asked the consulting team of Brendle Group / Victoria Transport Policy Institute to gauge the City's current policy and practice and make recommendations that would align the City's efforts with best practices for cities of comparable size and land-use and transportation limitations.

This Attachment scans Fort Collins' current mobility management practice. The scan is within the context of a shrinking City budget: alternative mode spending is being gradually reduced as having lower priority than spending on motor vehicle capacity and services. Because things are changing, this scan uses the "snapshot date," September 2006, when the SmartTrips program is scheduled to sunset.

- Current mobility management in Fort Collins can be conceptualized in two points:
- Realize the City Structure Plan on the ground.
- Invest in alternatives to vehicle travel and encourage residents to use them.

City land use planning shows that activity centers can help meet the VMT-reduction goal – a small number of compact, mixed-use urban villages that would receive most of the intensive future multi-family residential building, focused around hubs of neighborhood commercial services such as grocery stores. These places would feature transit-oriented and pedestrian-oriented urban design. Walking, cycling, and transit would account for more personal travel within activity centers, thus reducing dependence on vehicle travel. The City Structure Plan – a basic map of how Fort Collins should evolve over the next 20

years – is the centerpiece of City Plan. It incorporates the activity center concept into what it calls districts: downtown, mixed commercial, residential, employment, etc. **One key to reduce VMT growth, therefore, is to make sure the City Structure Plan is realized on the ground.**

City transportation planning maintains a commitment to a multi-modal transportation system. It supports the City Plan vision with transportation improvements, along with adjusted standards for development and street design, which enable activity centers to reduce vehicle trips as intended. A fundamental goal is to balance the transportation system by increasing investment in alternative-mode capacity, to make it possible to increase use of alternative modes. **The second key to reduce VMT growth, therefore, is to invest in alternatives to vehicle travel, to make them attractive choices for residents, and encourage residents to use them.**

This scan of Fort Collins mobility management practices is divided into the following sections.

- City Plan
- City Plan implementation
- Transportation Demand Management / SmartTrips
- School programs
- Campus programs
- Walking and cycling
- Transit services
- Rideshare programs
- Parking management
- Institutional capacity
- Data monitoring
- Regional transportation plan

City Plan

This section describes City Plan’s role in mobility management, including its components: Subarea Plans, Transportation Master Plan, Master Street Plan, Capital Improvement Program, and Air Quality Plan.

CITY PLAN

City Plan is the City of Fort Collins’ Comprehensive Plan setting overall policy guidance for growth and development of the community. All other growth-related policy documents are considered parts of City Plan. City Plan was updated in 2004 in close collaboration with a Transportation Master Plan update.

Transportation concepts in City Plan stem from the Congestion Management Plan developed in the early 1990s. The Congestion Management Plan established the need for better coordinated Land Use, Transportation, and Air Quality (**LUTRAQ**) planning in dealing with the community’s air quality/transportation issues. The new approach recognized the need to attack problems from both the “supply” and “demand” perspectives. Thus, in order to do proper air quality planning it is necessary to do proper transportation planning, which, in turn, requires proper land use planning. City Plan’s land use

patterns are specifically designed to help reduce VMT. They encourage generally higher residential densities, establish activity centers along transportation corridors, and foster urban design that enables alternative modes to become increasingly viable for more people.

Because City Plan's policies mainly affect new growth areas of the community, large areas of pre-existing development will retain features that encourage dependence on the private automobile, such as low density, segregated land uses and urban design patterns. The small amount of infill properties, which may lead to some increase in density and/or mixing of land uses, and new growth areas will only represent 1/3 or less of the developed area by 2015, while at least 2/3 of the developed area is set in pre-existing land patterns and travel behaviors.

SUB-AREA PLANS

City Plan is amended from time to time by adding sub-area plans that respect specific conditions in different parts of the city. The geographic area may be as large as an entire corridor, such as along I-25 or as small as an individual neighborhood organization. Sub area plans can affect VMT growth in the following ways:

Land use – type, mix, intensity and density, location, infill and redevelopment.

Transportation – the plans provide policies for future roadway networks, access control and management; street geometric design and widening; location and design of pedestrian paths, grade separation and amenities, location and design of bikeways and linkages to regional systems; parking availability; transit services such as rail and transit centers, stops and routes; and employer initiatives to reduce congestion.

Design – design details can incorporate congestion reduction design characteristics into a sub area.

TRANSPORTATION MASTER PLAN

The Transportation Master Plan [TMP] is the comprehensive transportation-planning document for the City and is considered a key aspect of City Plan. The TMP was updated in 2004 in close collaboration with the 2004 City Plan update. Transportation funding issues and potential sources were identified to help defray some of the more than \$1.3 billion dollars in capital project costs for all modes through 2025.

- Although City Plan and the Transportation Master Plan together exert a good, downward influence on VMT growth, their success depends upon key alternative-mode investments, which are yet unfunded. Unfortunately, economic and social forces are causing per-capita VMT to increase: trips/household is up, miles/trip is up, and vehicle occupancy is down. Difficulty in achieving the multi-modal Level of Service standards is another barrier. Adequate public facilities are not constructed when developers are granted variances from approved standards, or when deficiencies in older infrastructure provide no nexus for new development to make upgrades. Either way the city bears the cost of completing the transportation system or bringing improvements up to standards.

MASTER STREET PLAN

The Master Street Plan [MSP] is a map-based plan identifying the ultimate major transportation network within the Urban Growth Area. The transportation network is sized to accommodate future needs based on reasonable forecasting. The goal is to plan the system correctly to increase mobility and decrease congestion. This should reduce VMT by ensuring that the network provides direct links between neighborhoods and primary destinations. If roadways are sized and spaced correctly, motorists can find direct routes that minimize travel miles. The MSP network is predicated on the assumption that a fully functioning grid transit network is in place to offset roadway capacity demands. If the Transit system is not put into place, many of the MSP street classifications will have to be upgraded to larger facility types.

CAPITAL IMPROVEMENT PROGRAM

The Transportation Master Plan estimated total capital needs at \$1.3 billion through 2025, while revenue sources are only \$139 million for the period.

The Transportation Master Plan includes a fiscally constrained Capital Improvement Program [CIP], which represents the projects that can be funded given the City’s current practices for funding transportation projects and services.

Revenue Sources to Fund Capital Projects 2004-2025 (constant 2003 dollars)

Transportation Services Fund	\$0
Transit Services	\$57,200,000
Street Over sizing Fund	\$81,400,000
Capital Projects Fund	\$18,500,000
Total	\$139,300,000

These funding sources have restrictions on the types of projects that can be funded. For that reason, the CIP has separate lists of projects for each travel mode. The process to develop the CIP first assessed the capital revenues available for each mode, and then added high-priority projects for that mode to the CIP list until the modal funds were exhausted.

Capital needs and CIP expenditures, by travel mode

Category	Capital needs	CIP expenditure
Street	\$798,500,000	\$147,200,000
Transit	\$122,800,000	\$31,700,000
Bicycle	\$53,300,000	[included in other categories]
Pedestrian	\$10,200,000	\$9,700,000
Rail crossings	\$80,700,000	0
Parking	\$52,000,000	0
Traffic Management System	\$4,000,000	0
Total	\$1,121,500,000	\$188,600,000

AIR QUALITY PLAN

Vehicle emissions are the largest collective source of air pollution in the City, and the City’s Air Quality Plan identified reducing the VMT growth rate as a key air quality objective. The Plan recognizes, however, that the City's efforts to reduce VMT are carried out through City Plan and the Transportation Master Plan and the departments and programs that implement those plans.

City Plan Implementation

This section describes programs that implement City Plan and support its role in mobility management.

LAND USE CODE

City Plan implementation is accomplished during the development process through application of the Land Use Code [LUC]. The LUC identifies permitted uses within each zoning district along with land use and development standards specific to each zoning district. The Code assures that activity centers have the proper land uses and site design to support reduced vehicle travel. The Code also includes development standards relating to site planning and design, engineering, environmental considerations, buildings and transportation that are applied to all developments.

Mobility management may be obstructed by perceived conflicts between departmental goals and regulations. For instance, the traffic operations goal of smooth, safe, and efficient traffic flow may conflict with Land Use Code requirements for active, pedestrian-oriented street fronts and human-scaled development generally.

LARIMER COUNTY URBAN AREA STREET STANDARDS [LCUASS]

LCUASS is a design and construction standard for street systems within the city limits and growth management areas of Fort Collins and Loveland. The standards contribute to VMT reduction by requiring new developments and public streets to provide facilities for all modes of travel [e.g., sidewalks, bike

lanes, medians for pedestrian refuge, enhanced crosswalks] in addition to roadways and intersections for vehicle traffic.

The LCUASS standards are referenced in the site design standards of the Land Use Code and the street classifications in Sub-Area and Corridor Plans, which provide the legal basis for imposing street standards in new developments.

The LCUASS standards cannot always be applied in large parts of the City that were developed under previous standards. Because the new standards require wider right-of-way (ROW) to accommodate bike lanes and detached sidewalks, the standards may be compromised when retrofitting developed areas where space is constrained by existing developments and narrower ROW. When redevelopment or in-fill projects come into development review, existing conditions may make it necessary to leave out some features of the new standards. Even if the development can provide the necessary ROW, building to the new standard often makes no sense because of the transition problems to the older standards on adjacent properties. Compromise is often the rule, and pedestrian and bicycle standards may be modified to provide safe streets for vehicular needs.

LEVEL OF SERVICE STANDARDS

Levels of service [LOS] standards were developed for each travel mode – motor vehicles, public transit, bicycles, and pedestrians. These standards are part of a system of goals, objectives, and standards that provide adequate public facilities for transportation. The LOS Standards define “adequate” for each mode of travel. The LOS standards make a direct contribution to VMT reduction because they are applied whenever transportation facilities are constructed or upgraded, assuring safe, direct, and continuous alternatives to vehicular travel.

LOS standards are directly linked the Land Use Code, Bicycle and Pedestrian Plans, Larimer County Urban Area Street Standards, Transit Development Plan, Transportation Impact Study guidelines, and the Adequate Public Facilities Program. Each of these programs establishes goals and policies, which the Level of Service Standard is intended to implement.

While appropriate LOS is being built into new developments, older neighborhoods and those outside the City limits, however, did not comply with such standards. Consequently, there are missing links and inconsistencies throughout the transportation network. For best effectiveness of the LOS standards, it is critical that the City provides the capital funding to construct “missing links” in the alternative mode systems. The current sales tax and street over sizing program will partially address system inadequacies. However, it will take many years and future funding sources (public & private) to bring the overall transportation network to the standards established in the Level of Service Manual.

TRAFFIC IMPACT STUDY GUIDELINES

A Traffic Impact Study [TIS] is required for most developments in Fort Collins. In addition to vehicle traffic impacts, the TIS assures that the LOS standards for bike, pedestrian, and transit are met, so people have choices of travel.

ADEQUATE PUBLIC FACILITIES POLICY

Adequate Public Facilities [APF] policy and requirements ensure that appropriate multi-modal transportation services are available as urban development occurs. The Land Use Code requires that all development have adequate public facilities available to it in order to be approved. Adequate is defined as meeting the transportation LOS standards for all modes, and development must take its vehicle access from the improved arterial street network. This last requirement is a powerful disincentive to “leap frog” development, since the cost of extending significant off site improvements is often prohibitive. The APF

policy supports VMT reduction by limiting leapfrog development, increasing the feasibility of alternative modes use, and encouraging development of activity centers in accordance with City Plan.

Transportation Demand Management / SmartTrips

This section includes Commute Trip Reduction programs, the SmartTrips program, which will conclude in fall 2006, and the feasibility of forming a Transportation Management Association.

COMMUTE TRIP REDUCTION

Fort Collins does not have a program named Commute Trip Reduction (CTR). The SmartTrips program described below, however, performs some CTR functions including business outreach. As will be seen, many of these functions will end when the SmartTrips program sunsets in fall 2006.

SMARTTRIPS

Fort Collins developed SmartTrips, a TDM program aimed at reducing the city's dependence on automobiles and promoting the use of alternative modes of travel. The goal of the Fort Collins SmartTrips program is “to ease congestion on Fort Collins streets and improve air quality.” This is accomplished through various programs focused on reducing vehicle miles traveled and increasing the mode share of trips made by modes other than the single occupant vehicle. SmartTrips success in reducing automobile dependency and promoting alternative travel modes is largely dependent on the successful implementation of local transit systems, bicycle and pedestrian networks, and employer participation in allowing their employees to work from home and/or work flexible schedules.

SmartTrips included a range of programs in the following table.

SmartTrips Programs

Program	Description	Status as of Fall 2006
Business Outreach		
Drive Less Challenge	Incentive program to report miles traveled using alternative modes	Ended
Freewheels Program	Provides loaner bikes to employers	Ended
Commuter Bicycle Coach	Encourage bicycling to work	Ended
PassFort	Provide bulk rate bus passes to employees	Continuing [at Transfort]
Carpool/Vanpool	Promotion including on-line carpool matching forms	Continuing [at MPO]
Presentations	Breakfast/lunch presentation to business districts, and numerous other presentations to raise awareness	Ended
On-line survey forms	To assess the potential success of	Ended

Program	Description	Status as of Fall 2006
	various programs	
Guaranteed Ride Home	Streamlined	Ended
Transit Marketing		
Try Transit Days	A three-day event with free transit rides	
Business challenge	With CSU	
Ride assistance program	Provides free bus passes to people in emergency situations	
Communities in Motion		Continuing at Transfort
Senior Campaign		Continuing at Transfort
Events & Free Ride Promotions		Continuing at Transfort
CSU Promotions		Continuing at Transfort
Route Specific Promotions		Continuing at Transfort
Bicycle/Pedestrian Outreach		
Bike to Work Day, Bike to Worship Day, Bike to Campus Day	Days when people are encouraged to bike instead of drive, including a challenge to businesses or congregations, data collection (participants, miles saved), stations are provided with food and drink for those who bike to work.	Bike to Work Day continues [at Transportation Planning].
Education & safety programs	Bicycle rodeo kits to educate kids about bike safety and Strap 'n Snap Program providing free and low-cost helmets.	May Continue [at Transportation Planning] and Larimer County Safe Kids
Youth Outreach		
Safe Route 2 School	Assists students wishing to bike/walk to school	Continuing at Transportation Planning
Walk a Child to School Day	A day in which parents are encouraged to walk or bike their child to school, stations are provided at participating schools with food and	Continuing [at Larimer County Safe Kids Coalition and

Program	Description	Status as of Fall 2006
	drink for those who rode their bike	Transportation Planning]
School Pool	Facilitates carpooling for families from participating schools	Ending 9/2006
Youth Drive Less Contest	Challenges high school students and staff to carpool, bike, or bus	Ended
Summer Reading Program/Clean Air Campaign	Encourage use of alternate modes going to the library when school is out	Ended

This table summarizes various SmartTrips programs. Many of these are scheduled to end this year due to budget cutbacks.

SmartTrips began in 1998 as a local offshoot of the North Front Range MPO program of the same name. Program participation has grown with continuing outreach to businesses. Over 400 companies participated in SmartTrips programs in 2003, saving nearly 3 million VMT. The bulk of SmartTrips funding came from federal Congestion Management and Air Quality (CMAQ) funds, supplemented by the City’s General Fund. Recently, intense competition for both CMAQ and General Fund money has led to discontinuation of SmartTrips as of fall 2006. In order to keep SmartTrips programs alive, City departments and outside agencies have stepped forward to take up certain SmartTrips functions. Transit marketing will move to Transfort, where new staff has been hired for that purpose. Transportation Planning will take on bicycle & pedestrian outreach and they have hired a half-time bicycling coordinator. Business outreach and marketing will end, except the MPO will now manage the carpool/vanpool program. Youth outreach programs will end except for “Safe Route 2 School” and “Walk a Child to School Day.”

TRANSPORTATION MANAGEMENT ASSOCIATION FEASIBILITY STUDY (March 2006)

Fort Collins community leaders and Colorado Department of Transportation explored the feasibility of forming a Transportation Management Association (TMA) in the City. The TMA would bring public and private interests together to address transportation, access and mobility problems, and the increasing effects of activity growth and vehicle use on both quality-of-life and economic vitality.

In summary, the Study recommended that development of a formal, traditional TMA is premature at this time. However, a number of key transportation issues emerged, and a TMA program could be developed and incorporated into an existing organization such as the Downtown Development Authority (DDA). Because the existing SmartTrips program will lose its funding in the fall of 2006, a TMA program could be established to replace some services that SmartTrips currently provides. A smaller program housed within an existing organization could accelerate the formation of a formal TMA in the future, in response to the changing transportation and employment climate.

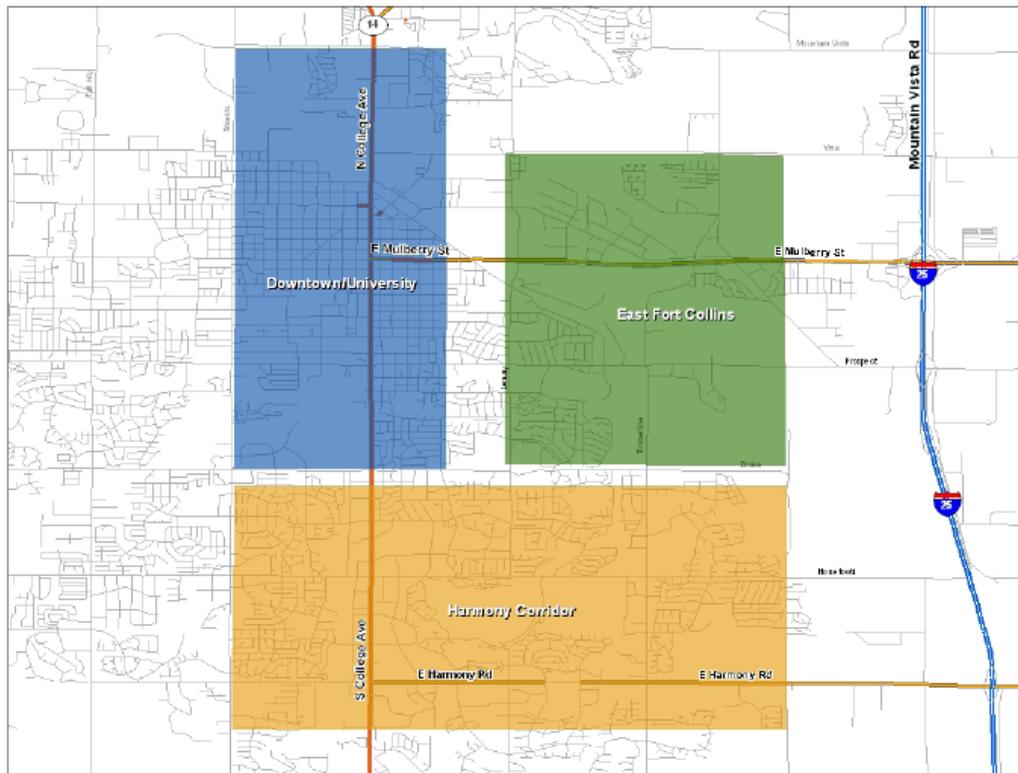
The Study identified three potential activity centers a TMA could serve, which are shown in the following figure.

- Downtown/University: Includes downtown Fort Collins and the Colorado State University campus.

- Harmony Road Corridor: Located along the Harmony Corridor with Shield St. on the east and Ziegler St. on the west.
- East Fort Collins: Located east of downtown Fort Collins, with Lemay Avenue on the east, Vine Drive on the north, Drake Road on the south, and extending slightly east of Timberline Road.

Of these three, the Downtown/Colorado State University area exhibits the most characteristics that would potentially warrant TMA formation: diversity of local land uses, sufficient development density, a common set of transportation issues, and a well-defined and distinct geographic area. Development pressures along the Harmony Road Corridor may make this a viable TMA candidate location in the near future as well.

Boundaries of Three Activity Centers



Interviews with major employers in the Fort Collins area showed that most stakeholders were generally unfamiliar with the concept of a TMA. Once the concept was explained, many seemed interested in the idea and thought of various opportunities that a TMA could offer. Although no stakeholder emerged to champion TMA formation, the Downtown Development Authority (DDA) expressed interest in exploring expansion of projects within their existing organization to address transportation issues for their members.

A survey of stakeholders yielded two principal findings:

Transportation is a growing concern to the Fort Collins area. Traffic congestion is cited as a concern by many survey respondents. Parking is currently a relatively minor, but growing, problem and transit service is largely perceived to be inadequate.

There is uncertainty about the potential for a TMA. While 30% of respondents initially indicated interest in a TMA, only 6% are certain they would financially participate. The majority was uncertain about participating in a TMA, much less financially supporting one. A TMA could have the potential for success, if established with a focus on transportation advocacy, marketing, and education for transportation options and provision of various services such as ride matching or parking management assistance.

At this time, no local stakeholders have made commitments that would provide the necessary financial sustainability. A large number of businesses currently participate in the SmartTrips program. The employer survey indicates that since these services are currently provided at no additional cost to the business, there is uncertainty as to whether businesses are ready to fund these activities themselves.

City of Fort Collins in Relation to Primary Criteria for TMA Success

Table 10: City of Fort Collins in Relation to Primary Criteria for TMA Success		
TMA Criteria	Fort Collins Assessment	Probability of TMA Success
Transportation Challenges:		
Traffic	Traffic congestion in and around the area is cited as a concern.	MEDIUM
Access & Mobility	Access and Mobility are adequate	LOW
Employers & Employees	Accessibility and traffic congestion do not play a significant role in employer or employee recruitment and retention	LOW
Regional Characteristics:		
Activity Center	The area is well known	MEDIUM
Employment	There is a solid employee base	MEDIUM
Economic Development	Area plans include significant long term growth forecasts.	MEDIUM
Stakeholder Commitment:		
History	Fort Collins has evidence of the public and private sector working together to address transportation issues.	MEDIUM
Core Group/Champion	There is some interest in a TMA, but no commitments have been made.	MEDIUM – LOW
Financial Sustainability:		
Multiyear Commitment	There is not a multiyear funding commitment	LOW
Stakeholders	There have not been any commitments from local stakeholders	MEDIUM

The Study concluded that, although a TMA is not likely to be feasible in Fort Collins today, TMAs could be an appropriate and important strategy in the future. There may be a future opportunity to incorporate an informal TMA program into an existing organization such as the Downtown Development Authority (DDA) or the Downtown Business Association (DBA). Such an informal TMA program could later evolve into a more traditional TMA organization if certain trigger points are met, including the emergence of both private sector leadership and sustainable funding sources. The Study concluded by outlining the steps to create an informal TMA program and identification of trigger points needed to start a formal TMA.

Step 1: Create an informal TMA program

Identify stakeholders. Find a core group of at least three private and three public-sector stakeholders, who would later form the TMA program advisory committee.

Create goals. Identify clear, achievable, and appropriate goals.

Formalize the advisory committee. Create an advisory committee of six to 20 members that would meet quarterly.

Research funding opportunities. The program is likely eligible for limited grants and funding opportunities.

Develop an outreach & marketing strategy. Both the private and public sectors should be involved in outreach and marketing. Given the elimination of the SmartTrips program, an assessment of that program should be conducted to identify opportunities for a TMA program to provide similar services.

Step 2: Identify trigger points for a traditional TMA

Regional transportation. E.g., continuing traffic growth and increased traffic congestion, major construction on regional travel corridors, and creation of a Regional Transportation Authority.

Employer pressures. Employers may become more concerned with transportation issues, and more willing to support a TMA, when the SmartTrips program sunsets. A TMA could provide many similar services that employers are currently accustomed to receiving through the SmartTrips effort.

Activity center changes. Changes in employment, land use, and population could occur in activity centers, which would merit further consideration of any TMA.

Stakeholder commitment and identification of sustainable funding sources are key criteria for determining TMA potential. And, although employers perceive worsening traffic congestion and need improved transit services, they have not yet put pressure on the city to address these issues. Given this criterion, the formation of a TMA would not likely occur until at least 2007-2008.

School Programs

The Poudre School District [PSD] covers all of Fort Collins and some surrounding areas. Except for busing students to neighborhood schools, PSD generally takes a hand-off approach to managing parent and student vehicle travel.

PSD's School Choice program allows families to select the school that best meets their child's educational needs. Parents may register their child to attend a school outside their neighborhood attendance area on a space-available basis. Round-trip transportation is the responsibility of parents. While this program gives parents desired educational flexibility, it has the consequence of increasing vehicle trips to and from schools.

Due to budget restrictions, outreach programs are generally limited to promoting safety for students who walk or bike to school. The City's Safe Route 2 School Program, addresses critical safety needs on walking and cycling routes to schools. It may be possible to combine efforts with PSD to conduct school workshops geared toward age-specific training on pedestrian, bicycle, bus, and auto safety.

Safe Kids Larimer County is a partnership of health care, City and County government, civic, law enforcement, and private organizations to prevent accidental injuries in children up to age fourteen. Because bicycle and pedestrian safety is one of their areas of interest, Safe Kids sponsors Walk a Child to

School Day, when parents are encouraged to walk or bike their child to school, and stations are provided at participating schools with food and rink for those who bike.

Most education and outreach to reduce vehicle trips to school will end with the SmartTrips program in fall 2006. School Pool will be eliminated, a free service that matches families from a participating schools with others who are interested in sharing a trip to school via carpooling, biking or walking. Forty-two schools participate in School Pool. School Pool benefits families who cannot drive their kids to school every day and those who are already doing so but want to share the responsibility and/or cost. It also benefits school facilities by decreasing traffic congestion on roadways and in front of schools. The North Front Range MPO will take up commuter ride matching, but school ride matching will be lost.

Another mature outreach program, the Youth Drive Less Contest, will also end with SmartTrips. This program challenges high school students and staff to carpool, bike, or bus to school, and has been very popular at the participating schools.

Campus programs

The Colorado State University [CSU] main campus is central to the City of Fort Collins. CSU is the City's greatest trip generator, with 25,000 students and 7,000 employees.

The campus Physical Development Master Plan calls for the University to become a pedestrian-oriented campus, in order to improve safety and the campus environment. Principles and Assumptions of the Plan include:

- Parking will be located on the campus periphery
- Promotion, with the City, of alternative travel modes to reduce the number of single-occupant vehicles used to access campus
- An improved campus bikeway system
- Take action to dramatically increase intra-campus transportation links among Main campus and its five satellite campuses: South, Vet Center, Foothills, Agricultural Research, Environmental Learning , and Pingree Park
- The University will rely on Transfort to transport people within and among campuses
- The University also intends to take full advantage of the proposed Mason Transportation Corridor, to reduce vehicle trips to campus.
- The perimeter-parking concept of the Master Plan has not been implemented. In fact, the perimeter-parking concept appears to be contradicted by the presence in the 10-year campus Physical Development Plan of a \$10 million parking structure.
- CSU sells parking permits at the lowest rates of any campus in the Colorado University System. In addition, some students avoid parking fees by parking in residential neighborhoods surrounding the campus. As a rule, the City grants free access to parking on residential streets.

CSU Parking Permit Fees

Off-campus student	\$85 per year
Residence-hall student	\$110 per year
Student motorcycle	\$45 per year
Faculty/Staff	\$95 per year

Campus administrators have been interested in assuring free access to the campus by car. In particular, there is a concern that the CSU campus would become less competitive to attract and retain students, if there were any perceived restrictions on automobile access. This approach seems more consistent with a vision of CSU as a large commuter college, rather than the university setting it actually aspires to.

Transfort provides public transit to and from CSU. Transfort’s system of bus routes is strongly concentrated on the campus, in recognition of the needs and prevalence of student riders. About one third of TranFort’s 1.5 million annual riders are going either to or from the campus, and at least 8,000 students reside within 2 miles of the campus. Construction of a new \$10 million Transit Center will be completed fall semester 2006.

Students each receive an unlimited Transfort pass. In addition, the University plans to implement a similar benefit for faculty and staff after completion of the Transit Center.

However, the University provides zero funding for student transit services. Rather, the students have voted to assess themselves a fee of \$9.44/year in order to provide each student with an unlimited transit pass. The student government, Associated Students of Colorado State University (ASCSU), collects these student fees and passes them on to Transfort. In 2003, however, a court ruling allowed a disconnect between student fee revenue and payments to Transfort. Now, ASCSU officers annually negotiate with Transfort, to determine payment and service levels. Ridership dropped in 2004 due to low distribution of bus-passes to students. In response, payments to Transfort were cut back about 1/3, and Transfort service after 6:30 was eliminated. Better bus pass distribution has resulted in increased ridership, but payments to Transfort have not been increased.

- Marketing of transit services is shared by ASCSU and Transfort, and is coordinated by a joint transit-marketing plan negotiated annually. In 2005, the marketing plan included:
- Bus Pass distribution
- Campus publicity and advertising – “Life in Motion” campaign
- Brochure & schedule distribution
- Advertising in connection with sports events
- “Ram Welcome:” special events to introduce first-year students to the transit services provided to them
- Tabling – to promote transit and distribute information at various campus events.
- Transfort rider survey

- On-campus shuttle pilot project – shuttle from “Z” lot west of Moby Gym to center campus
- CSU Transit Center – educate students about activities to develop the Transit Center

The Campus has an informal Sustainable Transportation Committee that advocates and makes recommendations on transportation matters in and around the campus. The committee has representation from campus departments, student organizations, and the City. Its mission is to enhance mobility and access to the campus and community while encouraging alternative transportation. This committee is currently seeking to be registered as a formal committee that reports to campus administration.

The Parking Services Department is a focal point for mobility management at the University. This role is informal, however, because parking is not interconnected with transit and alternative modes promotion as it is at other campuses. CSU Parking Services staff has worked with City staff to implement such programs as Guaranteed Ride Home, Drive Less Challenge, Bike to Work Day, and Freewheels for both faculty and staff, although City support for some of these programs will end when SmartTrips is sunset in fall 2006. Parking Services staff is discussing a proposal to increase parking fees, and to use the increased revenue for enhancements such as a shuttle service for both internal campus circulation and access to outlying parking lots.

Two developments suggest it may be possible to revisit, and perhaps shift, campus mobility management practices. First, campus administration has changed at several levels recently, including the University President, the Administrative Vice President, and the Parking Services Director [pending]. Second, past president Al Yates is a signatory of the Talloires Declaration that commits university administrators to environmental sustainability in higher education. The University has established a Talloires Committee, to ensure that the University continues to comply with the Declaration's ten-point action plan for incorporating sustainability and environmental literacy in teaching, research, outreach, and [most important for mobility management] operations.

Walking and Cycling Programs

Fort Collins adopted comprehensive bicycle and pedestrian plans in the mid-1990's, in order to reduce barriers for those who choose to walk or bicycle, and to build a city where walking and bicycling for transportation is an easy choice to make. Both plans address engineering, education, enforcement, and encouragement, or the four E's. With the later adoption of City Plan, which calls for new development areas to be constructed according to principles, the bicycle and pedestrian plans acquired additional importance to provide alternative mode support for the City Plan vision of activity centers, mixed-use development, and increased urban density.

The League of American Bicyclists gave Fort Collins the Silver Award as a Bicycle Friendly Community in 2003 and 2005, making it one of only 14 such cities with this distinction in the nation.

Fort Collins is one of the first cities to extend Level of Service (LOS) standards, which traditionally applied only to vehicle traffic, to alternative modes. LOS standards have been adopted for walking, cycling, and transit, and the standards vary according to the type of development. For example, while traffic LOS-D is called for on most arterials, it is allowed to drop to LOS-E in more dense activity centers, with corresponding increase in the LOS for walkers and cyclists.

Several programs assure that new development areas constructed with the appropriate alternative-mode LOS, including site design standards in the Land Use Code, street design and construction standards, level of service standards, and the adequate public facilities program. These programs assure the construction of sidewalk and bicycle facilities and intersection crossings that meet LOS standards for pedestrian & cyclist improvements. However, the bicycle and pedestrian plans are sometimes

compromised when developers are granted variances from approved design and LOS standards, sometimes with the support of neighborhoods that resist roadway expansions or connections they perceive would diminish their quality of life.

Much of the City was built without walking and cycling LOS standards, and in many cases, bicycle and pedestrian connections do not exist or are unsafe. For that reason, the effectiveness of the bicycle and pedestrian plans is directly related to the amount of capital contribution made by the City to construct “missing links” in the system. At existing funding levels, it would take many years to bring the entire bicycle and pedestrian system up to the City’s current standards.

The Bicycle Plan called for construction of 20 high priority bike facilities at an estimated cost of \$15 million. To date only three have been built: Harmony Road bikeway, a portion of the Elizabeth Street improvements, and the Spring Creek Trail. While the city has lacked a dedicated funding source specifically for bicycle system improvements, some have been completed over the years using federal funds provided through grants from the North Front Range MPO and the Colorado Department of Transportation/Federal Highway Administration. The sales-tax-supported *Building Community Choices* has funded Mason Transportation Corridor walking and cycling facilities, to be completed summer of 2006. Voters approved a new sales tax called *Building on Basics* in 2005, which includes \$100,000 annually for construction and maintenance of bicycle improvements, not including intersection improvements. The Bicycle Program Plan will be updated in 2006, including a new listing of prioritized projects/programs.

The Pedestrian Plan called for increasing the annual budget for pedestrian improvements from \$1,500,000 to \$2,560,000. *Building Community Choices* provided additional annual funding of \$343,000, or about one-third of the estimated shortfall. Recently, the City’s general fund contribution of \$300,000/year to help make improvements in accordance with the Americans with Disabilities Act (ADA) was eliminated due to budget cuts and the Building on Basics annual funding (which replaces the previous Building Community Choices funding) was reduced to \$300,000 per year.

Education and encouragement for walking and cycling are handled by the Transportation Planning Department. With the end of the SmartTrips program, City staff has made a determined effort to retain as much education and outreach as possible with the reduced resources available. A half-time Bicycle Coordinator has been added to facilitate bike programs and pedestrian safety programs such as Safe Route to School.

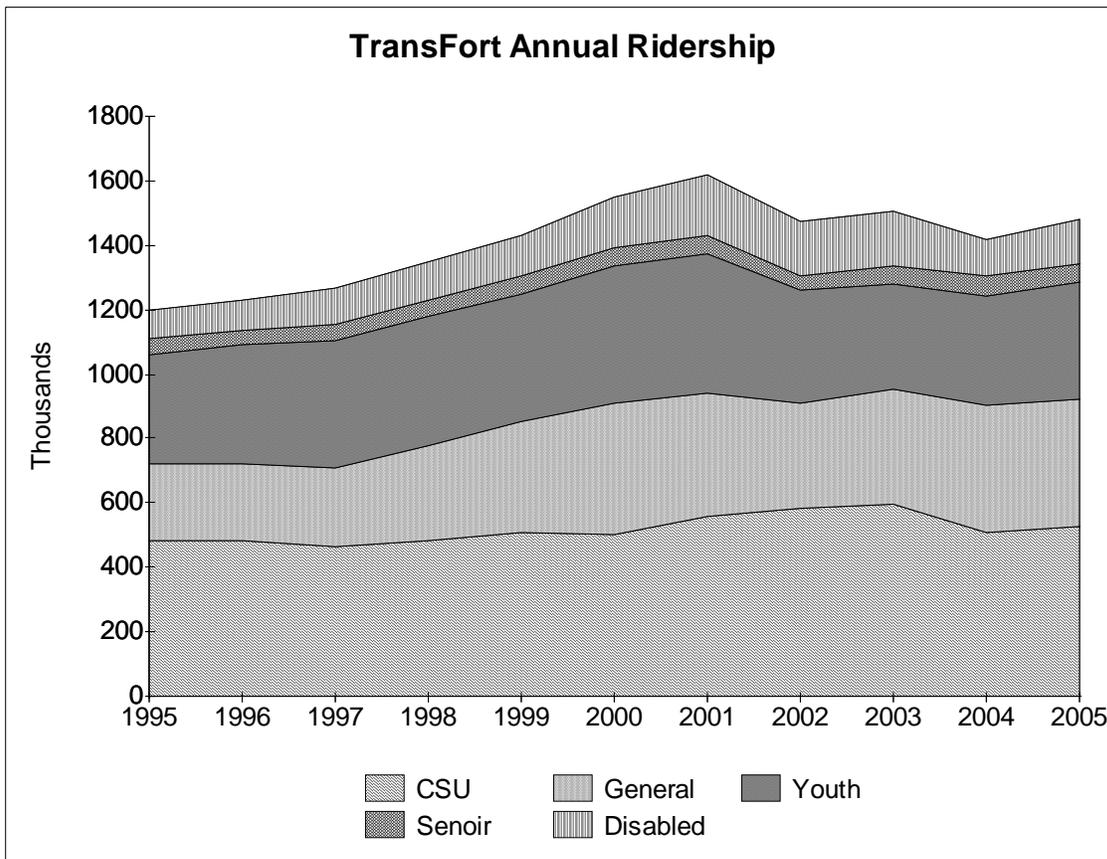
Transit Services

This section describes public transit services, including future services on the Mason Transportation Corridor.

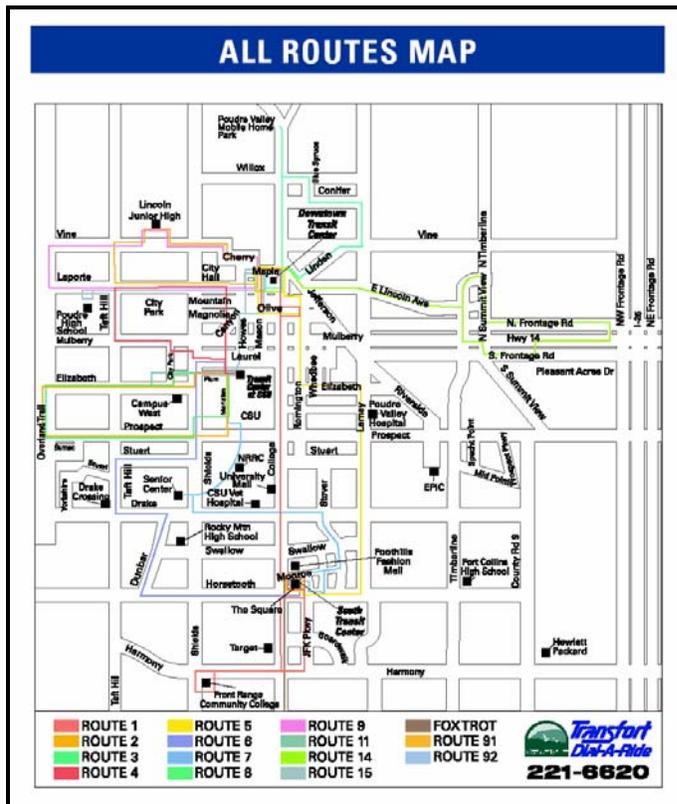
The City of Fort Collins is served by Transfort, which operates 12 fixed bus routes in the City. In addition, a regional route provides service between Fort Collins and Loveland, through a cooperative agreement between the City of Fort Collins, City of Loveland, and Larimer County. Transit service operates between 6:00 a.m. and 7:30 p.m., Monday through Saturday.

Transfort has seen a 14% increase in ridership since 1997 as shown by the graph below.

TransFort Annual Ridership



Existing Transfort Bus Service



While Transfort currently provides one regional route to Loveland, future service additions could include regional connections to areas surrounding the city such as Wellington, Windsor, LaPorte, Berthoud, Longmont, and Timnath.

The majority of the transit routes currently serve the Downtown/University area. Several routes serve areas outside of the Downtown/University area, such as the College/US-287 Corridor where 60% of the employment is located in Fort Collins. Transfort does lack service to the Harmony and Timberline corridors, which is home to many large employers.

Transfort also offers Dial-A-Ride, a door-to-door paratransit service for individuals who cannot use fixed-route bus service because of disability or senior citizens who are 60 years of age or older. Dial-A-Ride is in place to meet complementary paratransit service mandates of the

Americans with Disabilities Act. The regular fare for a one-way trip is \$2.50, and reduced fares of \$1.25 and \$.50 cents are available for low-income riders. Dial-A-Ride operates Monday through Saturday, and reservations require a minimum one-day notice, up to 14 days in advance.

Prior to 2006, the Fort Collins SmartTrips department provided marketing assistance for Transfort. Transfort has recently hired new staff, bringing marketing functions in-house. Transfort will develop new marketing and outreach programs for various rider categories, including Colorado State University students who represent 1/3 of the ridership. A past marketing program offered includes PassFort, a transit pass designed as an employee benefit, to area employers. Transit passes are issued in the form of smart cards, which make boarding and payment more convenient.

All youth ages 17 or younger ride fare-free at the present time. Budget restrictions will end this program unless funding is found to support it. A private, charitable foundation donated \$50,000 annually to maintain free youth fares through 2007.

Bus shelters and benches are provided at many bus stops, through a public/private partnership. A marketing firm installs and maintains the shelters in exchange for placing paid advertising on the shelters. A portion of the advertising revenue then reverts to Transfort.

Comparative data regarding transit funding, service, and ridership in similar-sized cities is shown in the following table.

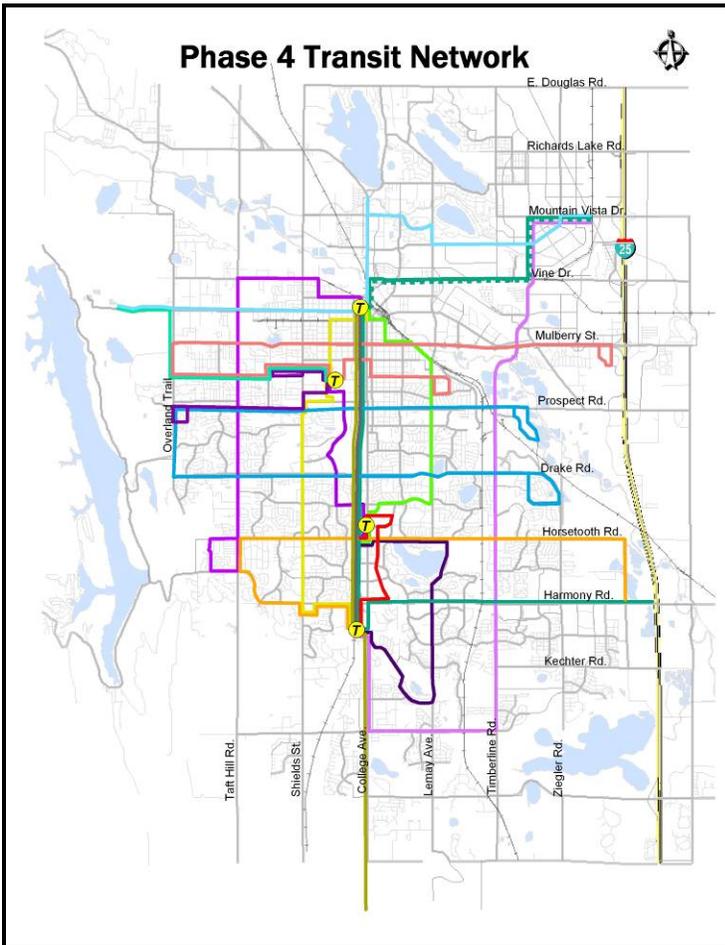
**Compared with Metros between 180,000 & 225,000 Population
2003 TransFort Funding, Service, and Ridership Compared with Similar Size Cities**

	Annual Expenditure Per Capita	Annual Revenue Hours Per Capita	Annual Ridership Per Capita
Fort Collins CO – Transfort	\$ 41.54	0.48	13
Green Bay WI – Green Bay Metro	\$ 25.87	0.43	9
Kalamazoo MI – Metro Transit	\$ 46.21	0.67	16
Lubbock TX – Citibus	\$ 27.03	0.56	26
Santa Barbara Can – SBMTD	\$ 71.73	0.90	36
Anchorage AK – People Mover	\$ 60.09	0.60	15
Salem OR – Cherriots	\$ 69.91	0.78	25
Eire PA – EMTA	\$ 36.96	0.61	13
Savannah GA – CAT	\$ 50.68	0.85	17
Tallahassee FL – TalTran	\$ 46.04	0.69	21
Eugene OR – Lane Transit District	\$ 98.92	1.06	37
Average	\$ 52.27	0.69	21

City Council adopted the Transfort Strategic Operating Plan in 2001, which changed transit service from a “coverage” service to a “productive” service. Phase I of the Plan called for more frequent service in the relatively few corridors where high ridership was possible. It called for minimal service to parts of the city that were not generating a high demand for ridership at that time. For example, six routes now serve CSU, which accounts for 35% of ridership.

The 10-year Plan identified four phases that progressively move from relatively few changes and no budget growth to phase four, which more than doubles the operating budget to provide a grid system with frequent service on all major arterials. Phase four is shown below.

Planned Transfort Service Network



Implementation of this system faces several barriers, including limited financial resources, lack of a funding mechanism dedicated to support transit, lack of broad community support, and resistance to travel behavior change. However, transit services will become increasingly needed and accepted over time, as traffic congestion and fuel costs increase.

The Mason Transportation Corridor (MTC) is a key element of the planned transit grid system being centered along the Burlington Northern Railroad right-of-way from Cherry Street on the north to approximately ½ mile south of Harmony Road. The corridor will provide Bus Rapid Transit [BRT] with frequent headways of 7.5 minutes providing the major north-south spine of the transit grid. Project goals are to provide safe, efficient, and convenient transportation alternatives to the automobile in a corridor that is the City’s highest employment, recreation, and shopping

center and is already stretched to capacity. The Corridor will enhance travel for pedestrians and bicyclists as well as transit riders, encourage in-fill development, and provide economic opportunities. Transit ridership is expected to increase by over 50% once BRT is operating on the Corridor.

Funding from the 1997 Building Community Choices tax paid for the MTC master planning and preliminary engineering, as well as the construction of 3 ½ miles of the MTC bicycle/pedestrian trail from the Fossil Creek trail on the south to the Spring Creek Trail on the north. The Mason Corridor is also eligible for New Starts/Small Starts funding from the Federal Transit Administration, which provides capital dollars to build fixed guide way transit projects, which must be matched with local funds. City Council has adopted the MTC Master Plan and City staff continues to work on securing local, state, and federal funds to fully implement the corridor improvements.

Rideshare Programs

The North Front Range MPO provides carpool matching and vanpool services to commuters throughout the Fort Collins, Loveland, and Greeley areas, with commute destinations as far south as Denver. These services are part of the MPO’s TDM program called SmartTrips, which coordinates its regional efforts with local SmartTrips efforts in its member cities.

CARPOOL

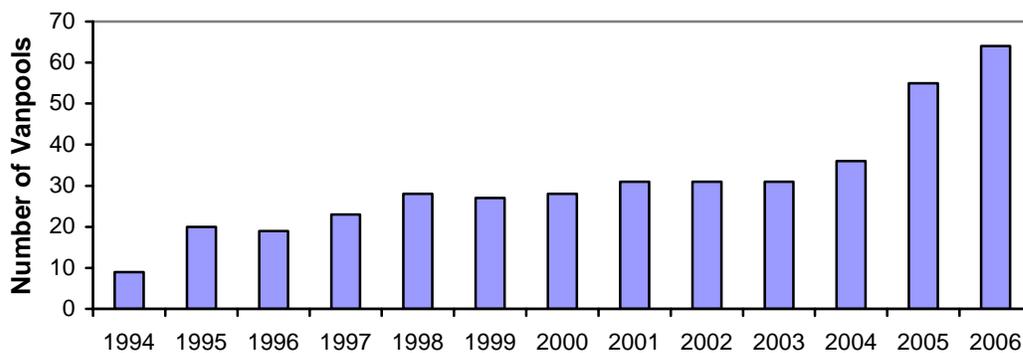
The MPO supports local carpooling programs with a computerized ride matching service. Accessed through the SmartTrips web site, this service instantly and interactively displays potential matches and maps pick-up routes. In addition to the SmartTrips web site, the MPO markets their carpool matching service through local initiatives and cooperative campaigns. The City plans no local carpooling initiatives or campaigns, because the local SmartTrips program will end in fall 2006. The MPO carpool program was budgeted at \$209,000 in 2005, all federal funds.

VANPOOL

Fort Collins' Transfort initiated the VanGo vanpool services program in 1994, and the MPO incorporated VanGo into regional SmartTrips two years later. At that time both VanGo and SmartTrips were key elements of the Regional Transportation Plan goal to shift 10% of single-occupant-vehicle trips into alternative modes by 2015. Because the biggest challenge facing the North Front Range is rapid growth, proactive development of alternative transportation modes such as vanpooling will be critical. The VanGo program has been developed over the past decade and provides an essential alternative to driving single occupancy vehicles on the regions highways.

The following graph shows the growing number of vanpools by year. As of June 2006, there were 64 vanpools total, and 45 of them [70%] either start or end their trip in Fort Collins, as shown in Figure 15. Note that the number of vanpools has recently doubled. VanGo staff established 15 new routes so far in FY 2006, meeting program goals even without the marketing enhancements they had planned. Along with rising fuel prices, this growth suggests strong latent demand for vanpools, and the MPO plans for 20% annual vanpool growth in the short term.

Fort Collins Area Vanpools



Marketing of the VanGo program includes a web site, TV, radio, print materials, and user surveys. This year, a new web “portal” will simplify customer access to all aspects of the vanpool service. Although VanGo does some limited outreach to employers, this outreach is not comparable to a full-service, commute-trip-reduction program. Transportation Management Associations in Denver, a key destination city, help market VanGo to employers there.

The MPO staffs the VanGo program with 2.5 FTE. The 2006 operating budget has four funding sources, below. VanGo has a goal to recoup 75% of operating costs from fares.

VanGo Program Revenues

Fares	\$464,000
Federal funds	\$375,000
Regional Transit District	\$250,000
Used vehicle sales	\$ 80,000
Total	\$1,169,000

The MPO adopted a strategic plan for the VanGo program, to support the continued growth and development of the program. The VanGo Vanpool Services Strategic Plan [December 2005] evaluates strengths and weaknesses, creates a mission statement and goals, and includes sections that focus on operations, financing, marketing, and an action plan.

The VanGo program has significant strengths, including recent growth, a history of success, cooperative marketing, and the ability to leverage local resources. Principal weaknesses include limited market diversification, lack of driver incentives, and failure to coordinate with transit improvements. There is good potential opportunity for more cooperation among regional partners, and the fact that transportation costs have been increasing bodes well for use of VanGo as a travel option.

The adopted mission of the VanGo program is "To serve the North Front Range community through the provision of quality and competitively priced vanpool services as an alternative to single occupant vehicle commuting, for the purposes of reducing traffic congestion and air pollution, supporting the growth of new transit, and enhancing labor access for business."

- The VanGo strategic plan includes the following five goals.
- Continue and expanded the current Van Pool program service.
- Enhance commute options to employers in the North Front Range.
- Extend the sales and outreach effectiveness of the VanGo program's partnerships.
- Simplify program administration and the customer experience.
- Plan for long-term vanpool program growth.

Parking management

Free, on-street parking is the rule outside the downtown area. By law, the City Traffic Engineer is responsible for regulating parking on the public right-of way, and he generally allows parking on all public streets except arterials and major collectors. Most neighborhoods have parallel, on street parking that is free for residents and non-residents to use at will. Neighborhoods near the CSU campus are treated the same as other residential neighborhoods. The traffic engineer sometimes restricts parking on a case-by-case basis, to address safety problems such as inadequate sight-distance, but not for the purpose of mobility management.

Within the Downtown area [extending to the northern boundary of the CSU campus], the Parking Services Department is responsible for parking management. Their mission is: 1) to support the economic vitality of Downtown through parking space turnover and providing long-term spaces for employees; and 2) to promote the safe and orderly flow of traffic in and around Downtown through enforcement of parking regulations. Parking Services operates two parking structures and seven surface lots, enforces parking regulations, sells permits for long-term parking, produces the Downtown parking map and marketing brochures, coordinates special-event parking, and cooperates with other agencies on special programs.

The Downtown Strategic Plan [2004] covers parking issues in depth. A survey of Downtown businesses found that a majority agree there needs to be change in the way parking supply is managed, although their preferred approaches vary. The Plan identified four key parking problems Downtown:

Turnover – improving parking turnover of on-street parking spaces is of vital importance to business retention and attraction.

Pricing policy is upside-down – the most convenient and valuable spaces are free, while there is a charge to park in the less-convenient off-street parking structures.

Insufficient regulations and technologies – need to strengthen regulations and technologies related to parking enforcement.

Long-term parkers in short-term spaces – discouraging employees and business owners from parking all day in on-street spaces is a key priority.

The Strategic Plan recommended several strategies to integrate parking into the larger Downtown development picture. Parking Services had made very significant strides implementing several of those recommendations — *implementation status is italicized*.

Park Once/Pedestrian First – Modify infrastructure to maximize the pedestrian experience; reduce parking ratios to create a “park once” environment; and enhance accessibility to Downtown while promoting its transportation options. *Completed work on both downtown alleys, to make them more pedestrian friendly. Modified the permit programs in both structures to make them more desirable by long-term parkers, thus contributing to the "park once" philosophy.*

Core Periphery Parking – new parking facilities would locate along the periphery of the Downtown core.

Parking signage and way finding – improve signage to parking opportunities as part of a comprehensive way finding plan. Installed over fifty parking directional signs in and around downtown, using the standard international parking symbol [green “P” on white ground.]

Manage on-street parking – in the short term, enhance parking enforcement as a means to improve turnover; eventually implement on-street pay parking. *Successfully increased turnover through changes to the fine structure (visitor-friendly, harder on repeat offenders), the traffic code (block-face rule discourages long-term parkers and gets them to seek out more appropriate long-term spaces), and new technology (smarter handheld computers and a license plate recognition system).*

Manage off-street parking – Create Downtown Parking Cooperative among private lot owners and the City to improve the private lots, guarantee the lot owner that their parking needs would be met, and use the remaining excess spaces as permit spaces for sale to employees of nearby businesses. The resulting revenue stream would then be used to make improvements such as pavement overlays, striping, signs, and lighting in other private lots, thus perpetuating the program. *Proposed, but not funded, in the 2006-07 budget.*

Neighborhood (residential) parking permits – Consider a permit program to preserve on-street parking for residents and their visitors in neighborhoods impacted by parking pressure from Downtown activities. *Proposed, but not funded in the 2006-07 budget.*

City staff recognizes that parking issues are crucial to the long-term success of the Downtown activity center. To illustrate, the following initiative was proposed, but not funded, in the 2006-07 budget.

Downtown Parking and Infill Development Strategies. This project would develop strategies to address the special parking demands of the Downtown area, such as “fee in lieu of” providing parking on-site, Land Use Code changes geared to the unique parking issues of the Downtown area, and the creation of a comprehensive parking management plan for the Downtown area.

Institutional Capacity

This section describes institutional arrangements that support mobility management in Fort Collins.

ORGANIZATION

Programs that contribute to mobility management are located within eight City Departments in two Service Areas, and in two outside organizations. The organization chart, below, includes only those departments that have a mobility management role.

INSTUTIONAL STRENGTHS

Talented, dedicated, and informed Transportation Services staff.

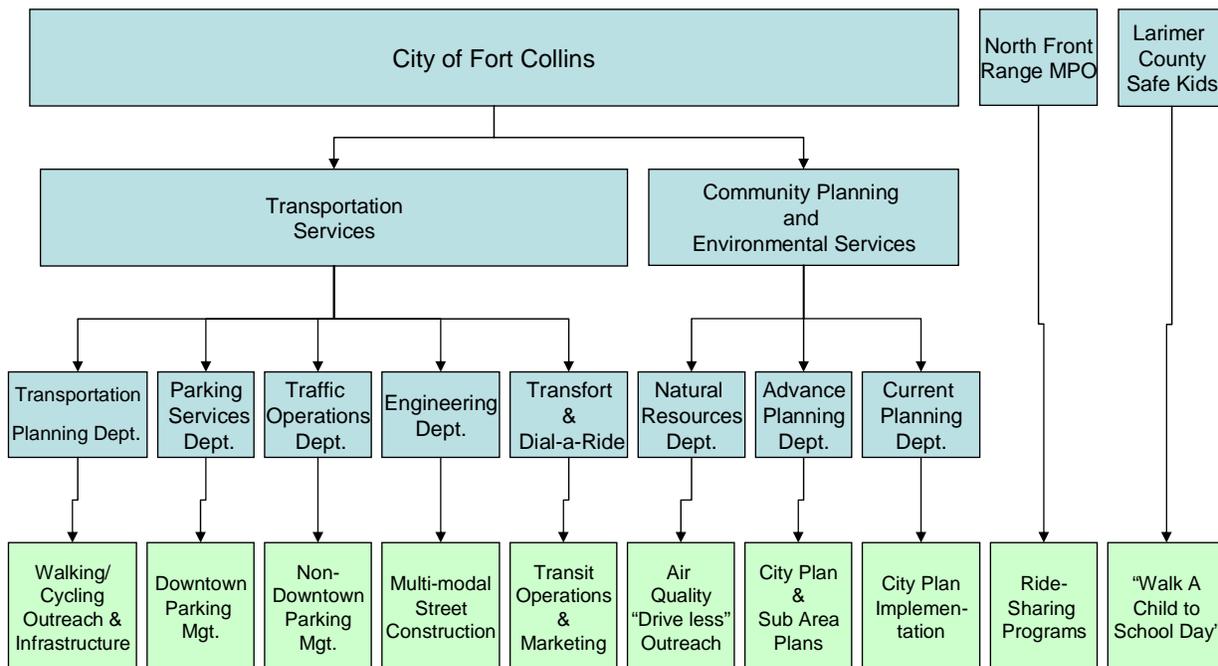
- In response to the ending of the SmartTrips program, City Transportation Services staff worked hard to retain as many program components as possible within existing City departments and budget restrictions.
- City policy on mobility management [VMT reduction]: “The City will continually strive to reduce the growth rate in vehicle miles traveled by implementing a VMT reduction program that strives to meet or exceed the performance of similar programs in comparable cities.”
- Land use and transportation are strongly linked in the comprehensive plan. This assures that, in the long term, the undeveloped 1/3 of the city will be built according to smart growth concepts such as higher density, mixed use, urban design that is friendly to walkers, cyclists and transit users, and will be supported by enhanced transit corridors.

- Level of Service [LOS] Standards apply to walkers, cyclists, and transit users as well as drivers. The LOS standards adjust to land use districts, so that alternative modes have increased priority within activity centers. The City of FC is nationally recognized as a leader in developing and implementing standards of service for all modes of travel.
- Context-sensitive design is used in constructing transportation improvements. Fort Collins is on the forefront of municipalities that apply this approach to their own projects.
- Transportation modeling software includes the ability to estimate travel mode splits for all modes including transit, bike, and pedestrian travel. This helps give a more accurate representation of alternate-mode needs and potential.
- Strong record of accomplishment of securing grants and funds for alternative mode projects and programs. Transportation Planning has secured over \$3 million dollars in grants and funds since 2001.

INSTITUTIONAL WEAKNESSES

The principal weakness is the lack of consistent, dedicated funding for transit, bike, pedestrian, ridesharing, and education/outreach, as called for in adopted City plans. In the past, we have relied too much on outside funding [federal Congestion Management and Air Quality funds] to support SmartTrips.

Organization of Mobility Management Programs



This figure illustrates the relationships between various mobility management programs.

- Mobility management [MM] strategies have a hard time competing with street infrastructure needs for limited resources. Transportation budget shortfalls are overwhelming, particularly the shortfall in needed street improvements. This situation makes it very difficult for decision-makers

to invest in mobility-management strategies, even though they can be more cost-effective than capacity improvements when implemented as an integrated whole.

- While many MM strategies are synergistic, i.e., most effective when implemented together, budget restrictions have forced the City to segment the MM strategies among different departments. This way of organizing MM has consequences that must be recognized and overcome. With the end of SmartTrips, other departments have assimilated TDM activities into their work plans as best they can with available resources. Although bicycle, pedestrian, transit and carpool/vanpool efforts will still be available, there will be no central group in the City organization whose sole mission is MM or VMT reduction.
- Although there is recognition that alternative mode investments are needed in both facilities and outreach, as long as MM is not given adequate resources, programmatic response to the City's VMT reduction policy will be inadequate to the task. There is also a sense among some policy makers that investments made in the Smart Trips program are not justified considering the relatively small resultant changes in travel behavior.
- We have a "chicken vs. egg issue." The effectiveness of SmartTrips' message to encourage alternative modes of travel is tempered somewhat by limited funding of the sidewalk, bikeway, and public transit networks available to travelers. That can lead to lessened support for alternative mode education and outreach. Without adequate, attractive travel alternatives, SmartTrips is seen by some as "selling snake oil." Some may question if we are more effective putting off promotional programs until alternative mode networks are improved. On the other hand, alternative mode promotion may very well hasten the day the alternative modes networks are better funded and improved.

Data monitoring

The City of Fort Collins currently has no effective, comprehensive method of clearly communicating the relative performance of the transportation system.

The City Plan Monitoring Project biennially evaluates trends in meeting certain goals of City Plan. Trends that vary significantly from projections are used to trigger changes in City policy, regulation, or programs. One of the trigger indicators is the growth rate of VMT, a metric that cannot be measured directly, but rather is estimated using transportation models calibrated to ground counts. The growth rate from 1990 through 1998 was 4.9% annually. While reducing the VMT growth rate is an important City Plan objective, VMT is neither the only, nor the best, transportation indicator.

The Mobility Report Card, a biennial determination of growth trends for different travel modes in northern Colorado, was formerly prepared by the North Front Range MPO but has been discontinued. The Mobility Report Card measured VMT, number of trips made, and mode share (automobiles, bikes, pedestrians, and transit), using home surveys, actual mode counts at specific locations, and modeling.

The City Manager and City Council have transitioned the organization to an outcome-based budgeting process. "Budgeting For Outcomes" requires the City to provide clear, accurate information to help the community decide what it will fund as well as to what extent. A performance measurement strategy and method is a necessary element of outcome-based budgeting.

In response to these issues, the Transportation Planning Department proposed to develop and implement an ongoing program to measure and evaluate overall transportation system performance (mobility). This proposal was funded for 2006-2007. Called **FCMOVES!** ["Fort Collins Mobility Objectives & Values Evaluation Statistics"], the program is intended for use by Fort Collins citizens and decision-makers.

However, the new metrics will be easy to understand, will relate directly to customer needs and expectations, and will include benchmark comparisons with similar cities.

Customer service is the primary focus of **FCMOVES!** Transportation system customers generally do not care about traditional performance metrics like volume/capacity ratio, intersection Level of Service, and VMT. Rather, performance indicators should be clear, free of jargon, and answer the questions that matter to the everyday user of the transportation system. Also, benchmark measures will be included, as a way to objectively measure Fort Collins system performance relative to similar communities. Several communities and state agencies across the country have developed ongoing performance metrics that are available for comparison purposes. Benchmark statistics allow citizens and decision makers a better sense of perspective in terms of relative performance.

FCMOVES! Will Have a Customer Focus

<p>“Who are our customers?”</p>	<p>The measurement system must acknowledge many system users, not just automobile users. Customers include truckers, transit users, pedestrians, bicyclists, business users [shippers, manufacturers, freight, transit], City government decision makers and planning staff, and citizens affected by noise, air pollution, and oil import issues.</p>
<p>“What are our customers’ expectations?”</p>	<p>The measurement system would report in terms of customer expectations. Examples include, Get me there safely, Get me there quickly, Keep the system in good condition, Make the system dependable, and Provide viable travel options for those without the ability to drive.</p>
<p>“What are our customers’ behaviors?”</p>	<p>Surveys of actual travel behavior will be considered on a three-to-five-year interval. Surveys would be statistically valid and could combine household travel diaries, vehicle intercept survey, and cordon counts for bike and pedestrian modes. Because the North Front Range MPO no longer produces a Mobility Report Card, the City may need to produce this data for itself.</p>

Some suggested metrics include but are not limited to:

Proposed Transport System Performance Indicators

<p>Customer Expectation</p>	<p>Suggested Metrics</p>
<p>“Get me there safely” (safety)</p>	<ul style="list-style-type: none"> • Number of Fort Collins auto accidents causing a casualty (fatality or serious injury). • Reported pedestrian and bicycle-related accidents • Safety education and enforcement program presentations/activities • Average emergency response time to injury accidents
<p>“Get me there quickly” (system efficiency)</p>	<ul style="list-style-type: none"> • Average travel time on key City arterials • Average delay at intersections on key City arterials (Intersection LOS) • Bus travel time on key city arterials • Average commute travel time

Customer Expectation	Suggested Metrics
<p>“Keep the transportation system in good condition” (system management)</p>	<ul style="list-style-type: none"> • Miles of roadway resurfaced per year (Pavement Management Program) • Pavement condition on key City arterials, collectors (Pavement Management Program) • Average response time to repairs • System cleaning and snow removal statistics • Infrastructure improvements (key projects, miles per year)
<p>“Make the transportation system dependable” (reliability, response time)</p>	<ul style="list-style-type: none"> • Average response time to crashes • Average response time to system malfunctions/repairs • Percentage of on-time transit service • Consistency in travel time on key arterials over time
<p>“Provide viable travel options for those without ability to drive or those who choose not to drive,” including those with no car, physically unable, & senior citizens (equity/access)</p>	<ul style="list-style-type: none"> • Dial a Ride trip requests per year • Transit accessibility proximate to key destinations/activity centers • Transit ridership per year [breakdown of ridership by age, demographic, etc.] • Percent of arterials/collectors on City system with bike lanes • Percent of arterials/collectors/local streets on City system with sidewalks • Number of Tele-work program participants • Carpool/Vanpool participants
<p>“Provide for current and future users’ needs” (sustainability, fiscal responsibility, capacity limits)</p>	<ul style="list-style-type: none"> • Constrained capacity arterials on system • Unfunded existing deficiencies on key City arterials • Roadway, Transit funding per capita • DAR funding per capita of population age 50+ • Cost per trip, factoring gas prices v. VMT • Percent of home to work trips leaving Fort Collins (Jobs/Housing balance)
<p>Additional Data</p>	<ul style="list-style-type: none"> • Comparison of performance data relative to other identified benchmark communities (regional, state, national) • Changes in transportation revenue streams (Federal, State, Regional, Local) • Percent change from previous years; trend analysis • Fort Collins mode share (auto, transit, bike, pedestrian) and percent change from prior years

Regional Transportation Plan

Fort Collins is a member government of the North Front Range MPO, the agency responsible for coordinating transportation planning and distributing federal and state transportation funding. The 2030 Regional Transportation Plan [RTP, September 2004], is the region's plan for addressing the future transportation needs in the NFR region. A key goal is to provide a safe, balanced, multi-modal

transportation system that can move people, goods, and information quickly and efficiently. The RTP provides:

- A one-stop plan that captures all the federal and state transportation dollars projected to be spent within the NFR
- A systematic regional process to create a prioritized and coordinated project list for the state plan
- Update on a three-year cycle
- Ensure a local voice in transportation planning

Strategies for the 2030 RTP

- Land Use/Transportation Connection – Land use and transportation planning need to be integrated. Counties, cities, and towns in the MPO should have land use policies and patterns that support and are supported by efficient and cost-effective local and regional transportation systems. All local governments should have transportation impact fees or a similar program, and should have adopted an adequate public facilities regulation.
- Multi-Modal Options – Residents should be able to choose from a number of regional and inter-regional transportation options, including passenger rail and air transportation. All modes of transportation should be inter-connected, and travel and transfers should be accomplished without inconvenient delays.
- Regionally Significant Corridors – A network of Regionally Significant Corridors should be established based upon travel demand and connections between major North Front Range and surrounding communities and activity centers. Regional planning and transportation investments should focus on maintaining efficient, multi-modal mobility along these strategic corridors. All corridors should be multi-modal, and mobility should be facilitated through connectivity and movement.
- Corridor Visioning – Regionally Significant Corridors should have a vision that describes the desired future of transportation within the corridor. Corridors should have performance objectives, indicating progress toward the vision, and strategies that assist in meeting corridor objectives.

This above emphasis on significant corridors is continued in RTP funding priorities. Member governments that submitted projects for inclusion in the 2030 Plan had to show that the project benefits a regionally significant corridor, have an adequate public facilities ordinance with impact fees allocated toward the project, and show the project is consistent with the corridor vision.

2030 RTP Funding Allocation [draft preferred plan]

Travel mode	Number of projects	Amount, millions
Transit	114	\$ 1,150
Highway	149	\$ 1,410
Bicycle/pedestrian	35	\$ 46
Transportation demand management	10	\$ 24
Transportation support systems	32	\$ 38
Passenger/freight rail	4	\$ 1.82
Total needs		\$ 4,600
Total funding available		\$ 1,000

The primary barrier to the Regional Transportation Plan is funding. Competition for limited resources is stiff at both the statewide level and within the NFR region. With limited federal money for distribution, every transportation-planning region in Colorado lobbies the Colorado Department of Transportation for a share of those scarce resources.

Another barrier is the lack adequate public facilities requirements in many communities in the North Front Range planning area. The result is an extraordinary dependence on federal funding for transportation improvements that support local land development. Rather than development paying its fair share in these communities, the region must use federal money for transportation infrastructure, money that is better used for innovative projects or to fill-in gaps that cannot be constructed with local resources.

ATTACHMENT 2 – STAKEHOLDER INTERVIEWS

Stakeholder Interview Summary Table

Question	Group 1	Group 2	Group 3	Group 4	Group 5
		Parking Management	SmartTrips	Transportation Board, Chair	Transfort
What is your organization or group's overall attitude toward mobility management?	Depends, from a transportation services perspective all are important, but the public doesn't really care. Eric's job is in conflict with all of that. Disconnect – not spending enough, but others think spending too much. Congestion is #1 problem people discuss.	No problem with encouraging people to leave cars at home		Very supportive of TDM, mode shift, behavior change. Supportive of SmartTrips.	
What mobility management strategies do you most support? Why?	Would support large employer required TM plans	Carpool Vanpool is especially good Downtown parking collective	TMA development. TMA feasibility study to be completed in March 2006.		
What mobility management strategies might you oppose? Why?	Downtown parking pricing strategies Employers/employees pay for parking spaces				

	Group 1	Group 2	Group 3	Group 4	Group 5
Question		Parking Management	SmartTrips	Transportation Board, Chair	Transfort
What is your organization or group's role in mobility management implementation?	About 50 Van Pools (mostly long haul to Denver or Boulder) Fort Collins and Greeley	Manager of parking – 12 full time, 15 part time employees – does not do employer parking programs	- Marketing, the behavior change side of TDM. Now reduced to carpool and vanpool. TMA feasibility study.		Transit manager
What do you consider the main obstacles to implementing mobility management in this region? Why?	Scale – we are too small of a town for this to register with people Budget! Transportation – TDM – took large cuts from Budget For Outcomes (Political mindset: TDM plus congestion are decoupled)-not specifically stated, but implied	Lack of funding. We don't have the transit backbone to support non-driving. Lack of political will. Absence of major traffic congestion...trips typically short	Development review allows concessions that reduce effectiveness of transit and TDM. Now follow-through on operational promises made in development process.	City is behind on the public education that leads to behavior change. It's hard to measure improvement (reduction). Some question the ROI for mobility management. Public perception. Lack of funding.	Funding. It's untenable to have transit competing for general fund dollars. Parking is cheap. Trip lengths are short. Travel time low. CSU funding source is unstable. University is not a partner in transit.

	Group 1	Group 2	Group 3	Group 4	Group 5
Question		Parking Management	SmartTrips	Transportation Board, Chair	Transfort
What opportunities do you see that might help implement mobility management in this region?	<p>Regional commutes both to Denver and outlying communities into Fort Collins, e.g. Timnath, Windsor, etc. For example about 20-50% of employees live outside the community</p> <p>Telecommuting</p> <p>4 day work week</p> <p>Carpool incentives</p>	<p>Vanpool option for the region. With support of key business people we may be able to pass a sales tax...perhaps TMA development will help with that.</p>	<p>Marketing and transit could be improved by letting marketing help develop the transit product. Some industries need more service...e.g. hospitals.</p>	<p>Gasoline prices going up. Make the connection between alternative modes and physical fitness. Gradual implementation of City Plan.</p>	<p>Has some success with public-private partnerships, e.g. on Harmony corridor—could do more of that.</p>

ATTACHMENT 3 – PEER CITY COMPARISON

Urbanized Area	Population	Daily VMT Per Capita	Residents Per Square Mile	Roadway Miles/1,000 Pop.	Portion of Road Miles Freeways	Portion of DVMT On Freeways
Greensboro, NC	244,000	36.9	1,497	5.6	4.9	46.9
Savannah, GA	239,000	28.7	722	5.0	3.4	28.0
Atlantic City, NJ	238,000	26.5	996	6.0	3.2	30.9
Lincoln, NE	236,000	20.3	1,639	5.8	2.0	16.1
Eugene, OR	235,000	18.2	2,448	4.7	2.6	35.4
Columbus , GA	233,000	24.0	735	6.6	1.2	14.9
Kissimmee, FL	233,000	26.4	1,094	4.8	1.4	14.4
Gulfport-Biloxi, MS	228,000	28.1	1,041	6.7	2.0	23.9
Huntsville, AL	226,000	24.6	893	5.7	2.2	29.3
Tallahassee, FL	225,000	28.9	1,071	5.2	1.4	9.8
York, PA	219,000	20.6	1,460	5.2	2.3	26.5
Salem, OR	218,000	18.8	2,760	4.0	3.1	35.5
Lakeland, FL	218,000	26.2	1,160	6.9	2.2	22.6
Fort Collins, CO	217,000	21.5	1,160	5.6	2.7	22.1
Rockford, IL	208,000	24.7	1,564	6.0	2.3	18.9
Lubbock, TX	208,000	20.8	1,541	6.6	2.8	22.3
Kalamazoo, MI	208,000	26.6	1,162	5.5	2.8	24.4
Poughkeepsie, NY	206,000	40.3	665	6.7	4.2	31.6
Roanoke, VA	205,000	25.3	1,496	5.6	2.6	33.7

Urbanized Area	Population	Daily VMT Per Capita	Residents Per Square Mile	Roadway Miles/1,000 Pop.	Portion of Road Miles Freeways	Portion of DVMT On Freeways
Springfield, MO	203,000	23.6	2,231	4.5	5.4	43.8
Laredo, TX	203,000	12.5	1,846	2.8	2.9	18.5
Montgomery, AL	202,000	32.4	995	8.1	1.8	26.5
Erie, PA	199,000	17.1	2,140	4.5	2.0	21.5
Green Bay, WI	199,000	27.8	2,261	5.9	3.2	32.6
Appleton, WI	199,000	25.7	2,551	6.0	3.2	38.6
Santa Barbara, CA	198,000	23.1	3,474	3.6	4.4	54.1
Layetteville-Springdale, AR	196,000	20.6	1,798	5.9	1.9	22.4
Norwich-New London, CT	195,000	32.5	916	6.5	5.5	54.8
Waterbury, CT	193,000	17.4	1,969	4.2	2.7	40.6
Huntington , WV	191,000	21.4	1,516	5.8	4.0	30.8
Bremerton, WA	191,000	17.6	1,769	3.5	6.0	44.6
Evansville, IN	187,000	24.1	1,496	5.7	1.4	8.1
Charleston, WV	183,000	28.2	1,620	4.5	4.4	41.4
Salinas, CA	182,000	10.8	5,056	1.6	3.1	24.4
Amarillo, TX	181,000	21.0	1,110	7.1	2.5	36.8
Lafayette, LA	178,000	28.5	764	5.9	2.2	20.1
Kennewick-Richland, WA	177,000	19.0	1,041	5.5	5.1	36.9
Gainesville, FL	173,000	23.5	2,035	5.4	1.1	12.7

Urbanized Area	Population	Daily VMT Per Capita	Residents Per Square Mile	Roadway Miles/1,000 Pop.	Portion of Road Miles Freeways	Portion of DVMT On Freeways
Wilmington, NC	168,000	21.8	1,556	4.0	1.0	7.1
Winter Haven, FL	168,000	30.4	898	8.0	0.5	2.5
Utica, NY	166,000	28.2	806	6.7	6.5	31.4
Waco, TX	166,000	27.9	1,203	7.2	3.0	40.8
Averages,	202,558	24.5	1,553	5.6	2.9	28.1

Fort Collins is about average compared with similar size U.S. cities.

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