



# The Role of Walking in Mobility Management

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Walk 21  
4 November 2006  
*Christchurch, NZ*

# *Sustainability*

- Sustainability emphasizes the integrated nature of human activities and therefore the need for coordinated planning among different sectors, jurisdictions and groups.
- Sustainability planning is to development what preventive medicine is to health: it anticipates and manages problems rather than waiting for crises to develop.

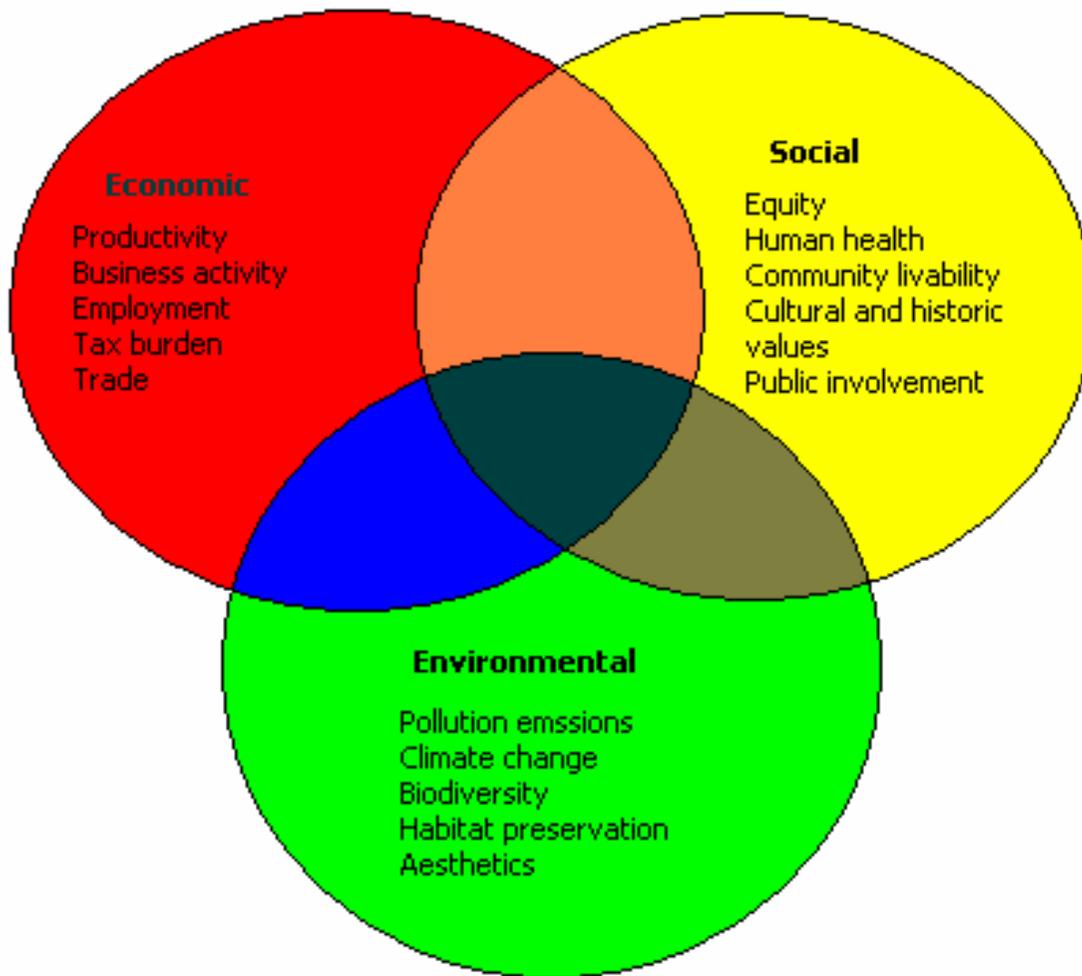


# *Create Paradise*



Paradise is not a distant place, it is something we can create in our own communities.

# *Sustainable Planning*



Sustainable planning strives to balance:

- Economic
- Social
- Environmental

# *Resource Sustainability*

Would we have a sustainable transportation system if all automobiles were solar powered?



# *Paradigm Shifts*

- **Growth** - expanding, doing more.
- **Development** - improving, doing better.



- **Mobility** - physical movement.
- **Accessibility** - obtaining desired goods, services and activities.

# *What is "The" Transportation Problem?*

- Traffic congestion?
- Road construction costs?
- Parking congestion or costs?
- Excessive costs to consumers?
- Government costs?
- Traffic crashes?
- Lack of mobility for non-drivers?
- Poor freight services?
- Environmental impacts?
- Inadequate physical activity?
- Others?



# *Conventional Evaluation*

## **Generally Considered**

- Congestion impacts.
- Vehicle operating costs.
- Per-mile crash impacts.
- Per-mile pollution emissions.

## **Often Overlooked**

- Parking costs.
- Total consumer costs.
- Downstream congestion.
- Crash, energy & pollution impacts of changes in mileage.
- Land use impacts.
- Impacts on mobility options for non-drivers/equity impacts.
- Changes in active transport and related health impacts.

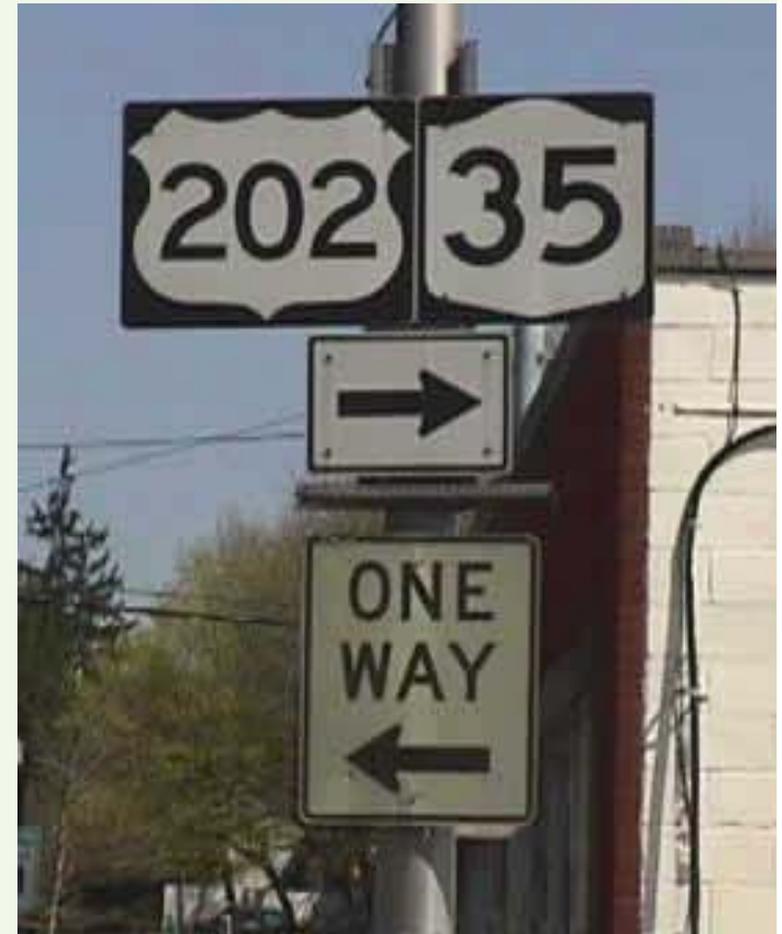
# *Current Transport Planning*

Current planning tends to be reductionist: each problem is assigned to a single agency with narrowly defined responsibilities. For example:

- Transport agencies deal with congestion.
- Environmental agencies deal with pollution.
- Welfare agencies deal with the needs of disadvantaged people.
- Public health agencies are concerned with community fitness.
- Etc.

# *Reductionist Decision-Making*

Reductionist planning can result in public agencies implementing solutions to one problem that exacerbate other problems facing society, and tends to undervalue strategies that provide multiple but modest benefits.



# *Win-Win Solutions*

Put another way, more comprehensive planning helps identify “Win-Win” strategies: solutions to one problem that also help solve other problems facing society.

**Ask:**

*“Which congestion-reduction strategy also reduces parking costs, saves consumers money, and improves mobility options for non-drivers.”*

# Comparing Benefits

Planning Objectives	Improve Travel Options	Incentives To Shift Mode	Expand Roads	Alternative Fuels
Congestion reduction	✓	✓	✓	
Roadway cost savings	✓	✓	x	
Parking cost savings	✓	✓	x	
Consumer cost savings	✓	✓/x		
Better mobility options	✓	✓		
Improved traffic safety	✓	✓		
Reduced pollution	✓	✓	x	✓
Energy conservation	✓	✓	x	✓
land use Objectives	✓	✓	x	
Public fitness & health	✓	✓		

✓ = Supports Objective

x = Contradicts Objective

# *How Do We Do It?*

Walking supports and is supported by mobility management (also called *Transportation Demand Management* or *TDM*)

There is no single strategy that will increase transport efficiency. It requires an integrated program.



# *Walking and Cycling Improvements*



- More investment in sidewalks, crosswalks, paths and bike lanes.
- More traffic calming.
- Bicycle parking and changing facilities.
- Programs to encourage safe walking and cycling.

# *Design Vehicle*



# *Mode Shifts*



How do we  
convince people  
who drive luxury  
cars to shift mode?

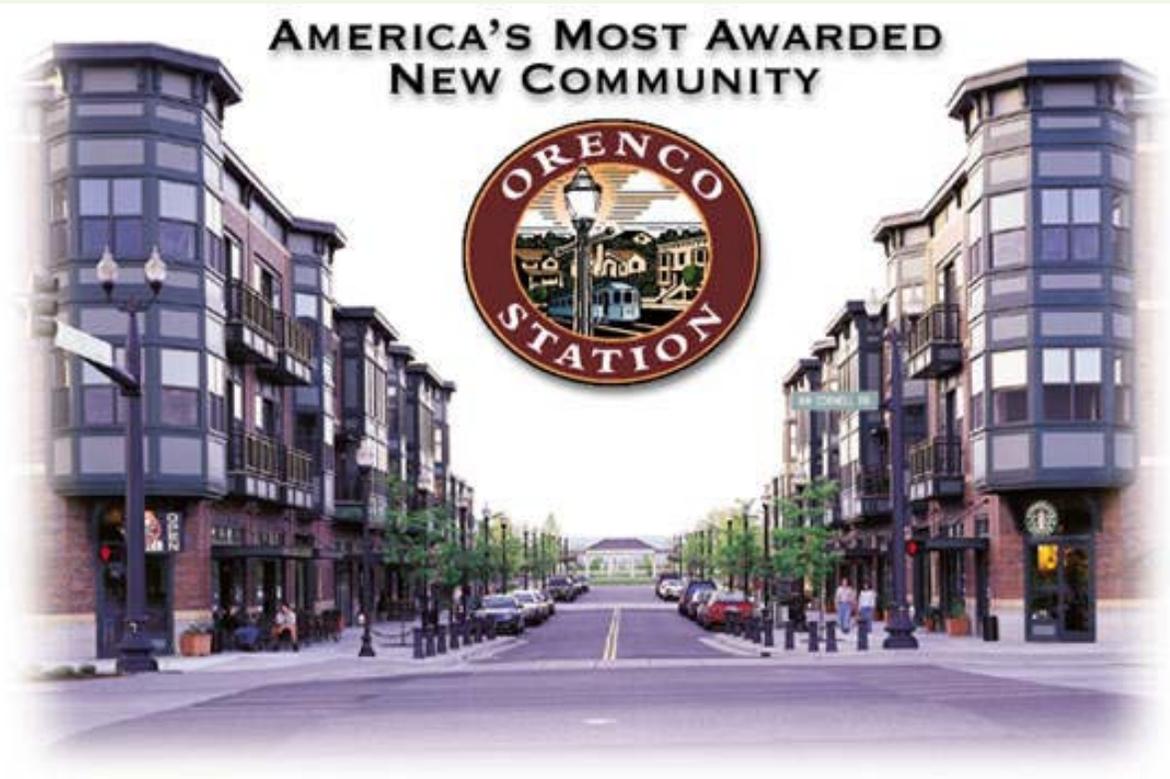
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# *Encouraging Transit Use*

- Quality service (convenient, fast, comfortable).
- Affordable fares.
- Walkable, compact communities.
- Support (park & ride facilities, commute trip reduction programs, attractive stops and stations).
- Parking pricing or “cash out”.
- Integrated with special events.
- Convenient information.
- Positive Image.



# *Transit-Oriented Development*



Transit-Oriented Development means that communities are designed around transit stations.

## *Ridesharing: Puget Sound Example*

The Puget Sound region had the most successful vanpool program in North America. About 7% of commute trips over 20 miles in length were by vanpooling. A marketing study suggests that this could double or triple. More than a third of suburban automobile commuters would consider vanpooling, if it had:

- More flexibility.
- High Occupant Vehicle priority lanes and parking.
- More financial incentives.
- Integration with public transit.
- Employer support.



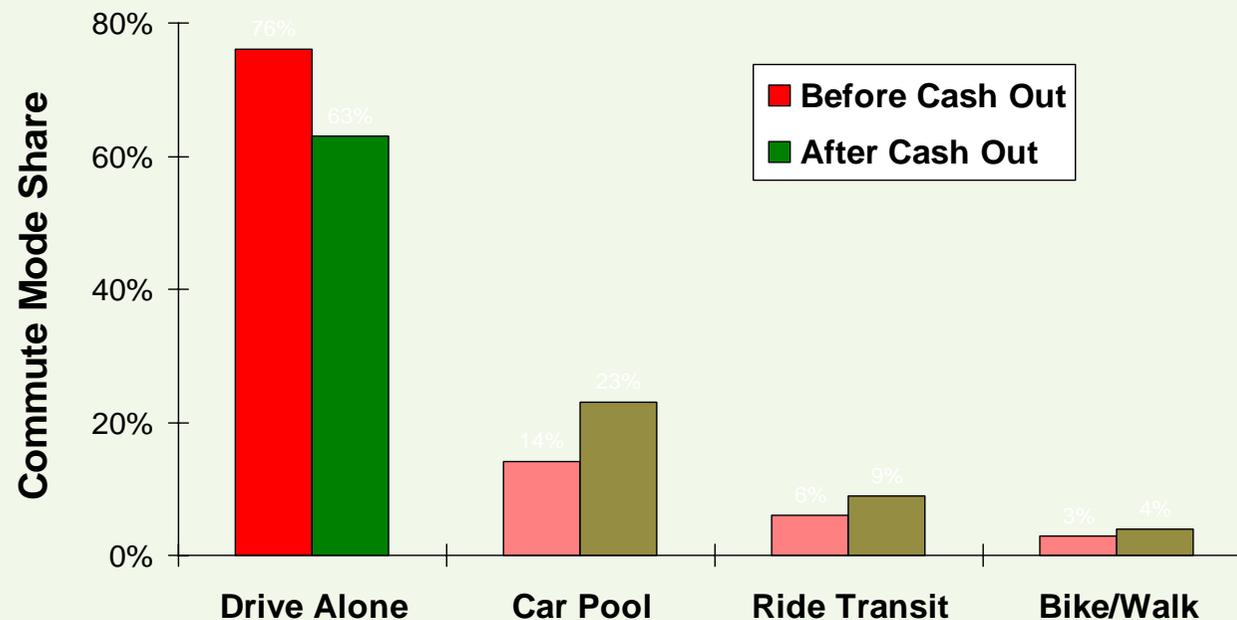
## *Employee Trip Reduction Programs*



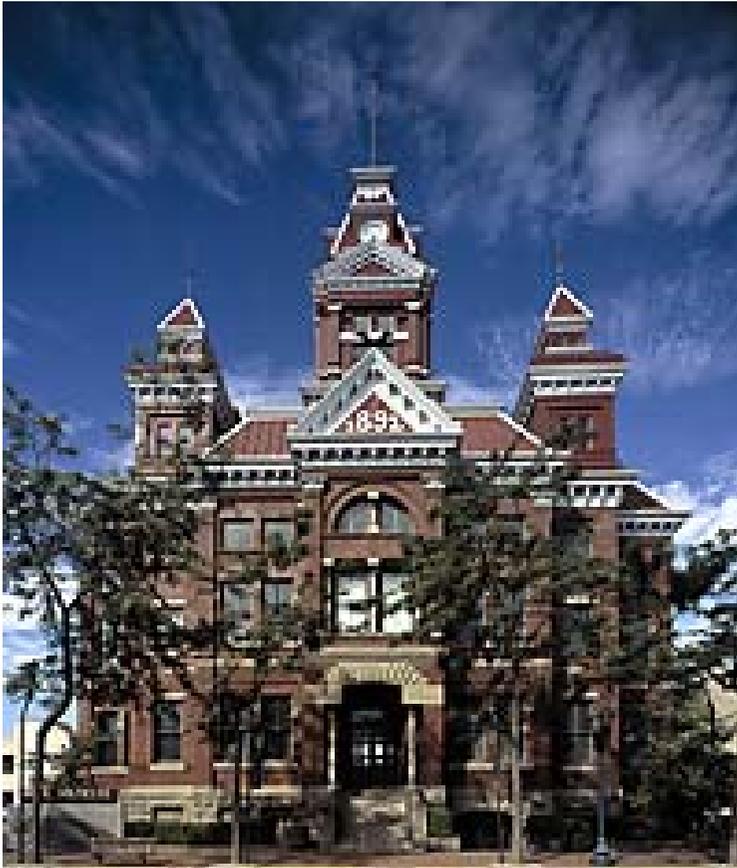
Employers encourage employees to walk, bicycle, carpool and ride transit rather than drive to work. For example, offer a tax incentive for businesses that have effective commute trip reduction programs.

# *Parking Cash Out*

Cashing out free parking typically reduces automobile commute trips 15-25% among affected employees. Put another way, a significant portion of peak-period automobile trips result from bias in current commute benefits that favors driving over other modes.



# *Transportation Management Associations*



*Transportation Management Associations (TMAs) 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.*

TMAs provide an institutional framework for implementing Mobility Management.

# *School & Campus Transport Management*



Programs that encourage parents and students to use alternative modes to travel to schools, colleges and universities.

# *Parking Management*

## **More efficient parking:**

- Reduce minimum parking requirements in zoning codes.
- Share parking spaces rather than having assigned spaces.
- Charge users directly for parking, rather than indirectly through taxes and rents.
- Develop parking management programs in specific areas to facilitate planning, sharing, trading and pricing, and to address spillover problems.

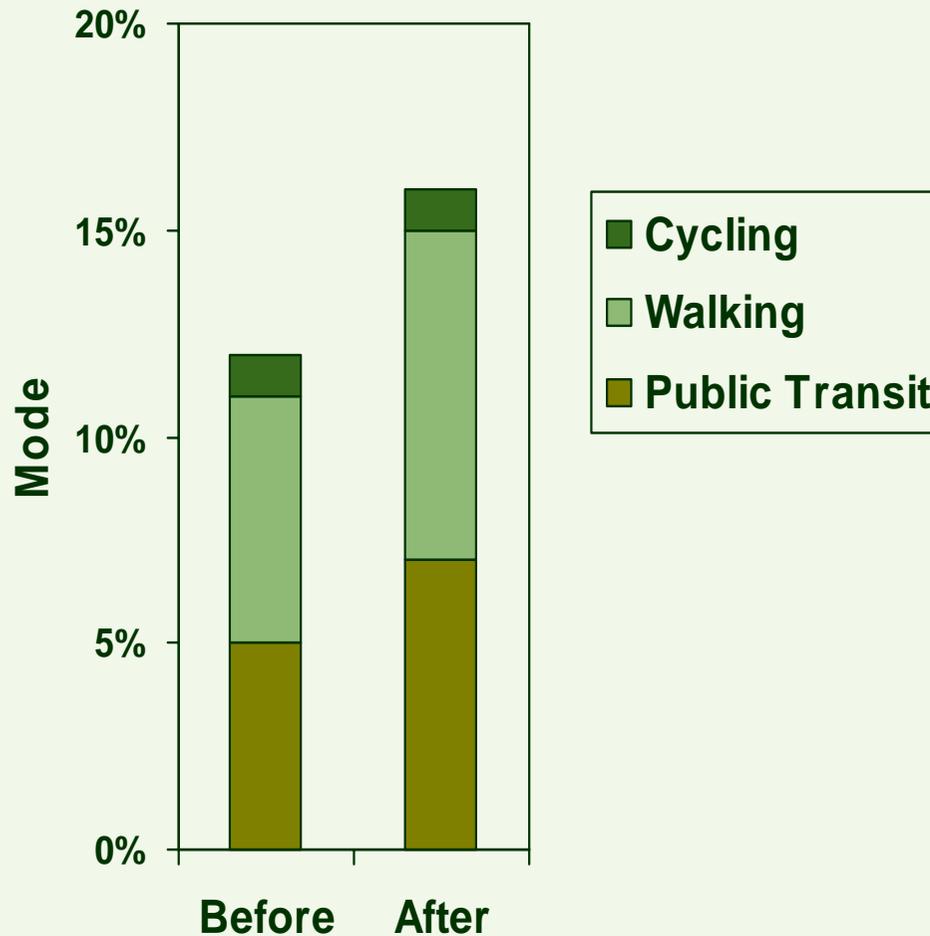


# *Unbundle Parking*



Rent and sell parking spaces separately from building units. For example, rather than renting an apartment with two free parking spaces for \$800 per month, rent the unit for \$700, and each parking space for \$50 per month.

# *Mobility Management Marketing*



The TravelSmart program offers personalized transit, rideshare and cycling information, and trial transit and vanpooling services. **It typically reduces automobile trips 5-15%.**

# *Carsharing*

Automobile rental services intended to substitute for private vehicle ownership.



# *Pay-As-You-Drive Pricing*

Motorists pay by the vehicle-km, so a \$600 annual premium becomes 3¢/km and a \$2,000 annual premium becomes 10¢/km. This gives motorists a significant financial incentive to drive less, but is not a new fee at all, simply a different way to pay an existing fee.



# *Reform Planning Practices*

- *Multi-modal planning:* create a diverse and integrated transportation system.
- *Fix-It-First:* Major capacity expansion deferred until basic maintenance and operations needs are met.
- *Least-cost planning:* equal funding for mobility management solutions.
- *Context Sensitive Design:* Designing roadways to reflect local needs and preferences.



## *Smart Growth (Density, Design, Diversity)*

- More **compact**, infill development.
- **Mixed** land use.
- Increased **connectivity**.
- Improved **walkability**.
- **Urban villages**.
- Increased transportation **diversity**.
- Better parking **management**.
- Improved **public realm**.
- More **traffic calming** and speed control.



# Street Patterns - Connectivity

## Comparing Distances

1.3 miles

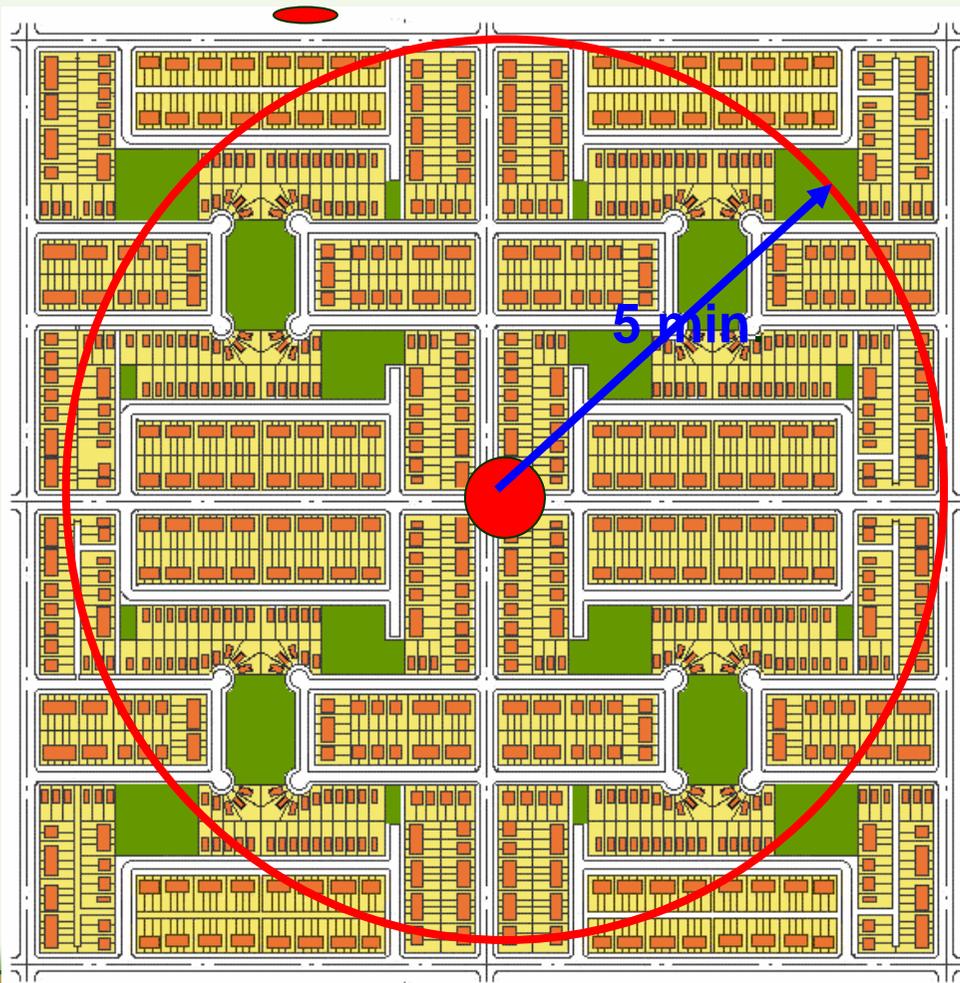
vs.

0.5 miles



Images are same scale, approximately 1 sq mi.

# *Walking & Cycling Connectivity*



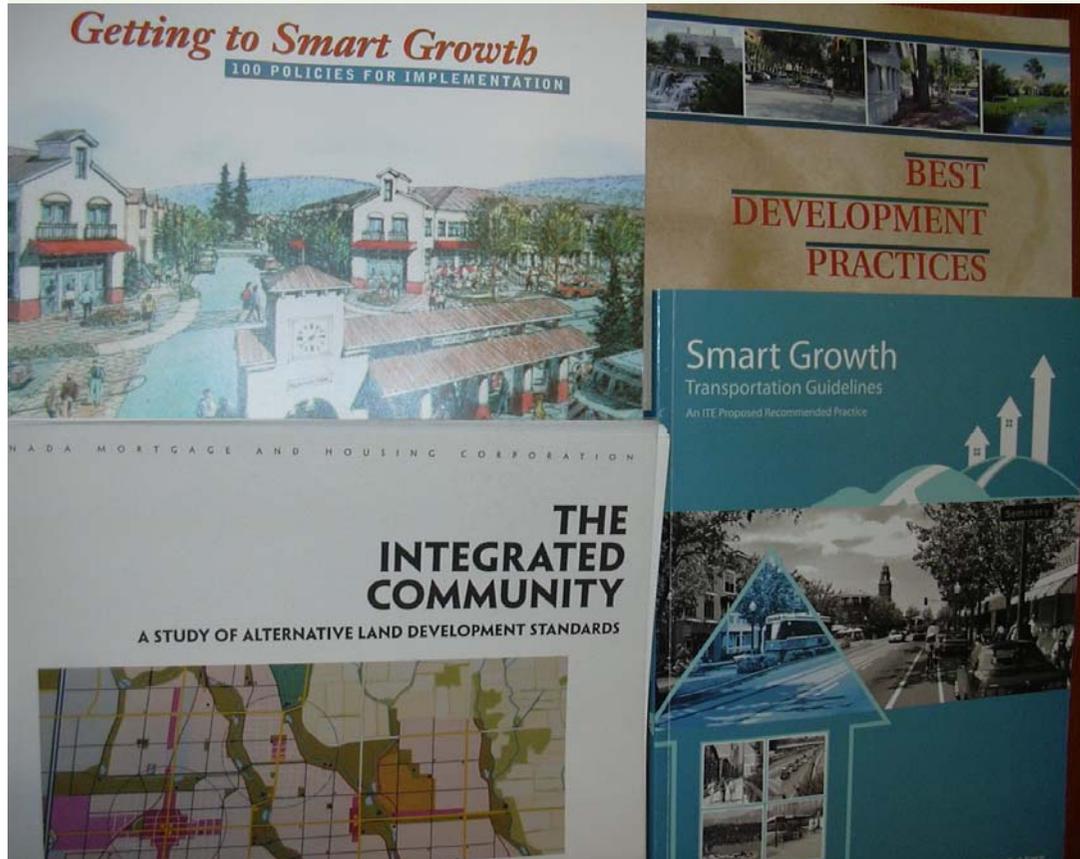
Improve walking and cycling connectivity relative to automobile connectivity.

## *Road Diets*

Redesign highways and arterials to be more multi-modal and walkable.

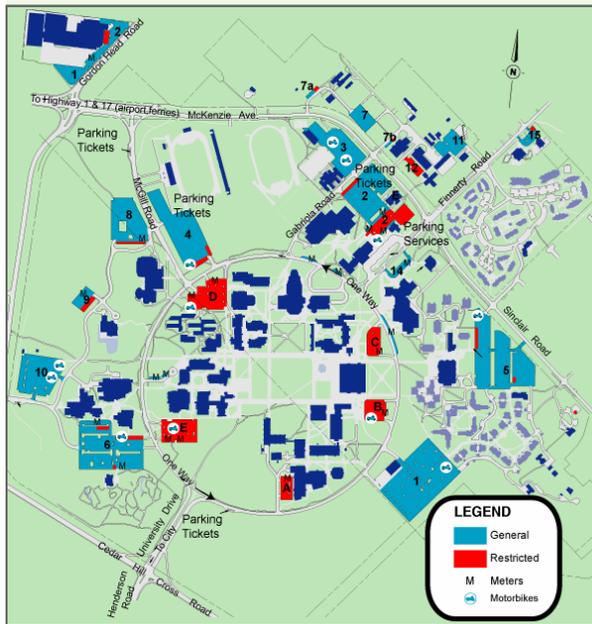


# *Supported by Professional Organizations*



- Institute of Transportation Engineers.
- American Planning Association.
- American Farmland Trust.
- Federal, state, regional and local planning and transportation agencies.
- International City/County Management Association
- National Governor's Association
- Health organizations.
- And much more...

# Campus Transport Management



- **U-Pass programs**, bulk purchase of transit passes for students and staff.
- Gradually raise parking fees. Use revenues to support alternatives.
- Replace cheap monthly and annual passes with daily and hourly fees.
- Offer discounted rates for less convenient parking lots.
- Establish employee commute trip reduction programs.
- Provide vanpool services to suburban locations.
- Establish overflow parking plan.
- Improve campus walking conditions.
- Cooperative transport and parking management programs with nearby businesses.

## *Example – Lancaster, CA*

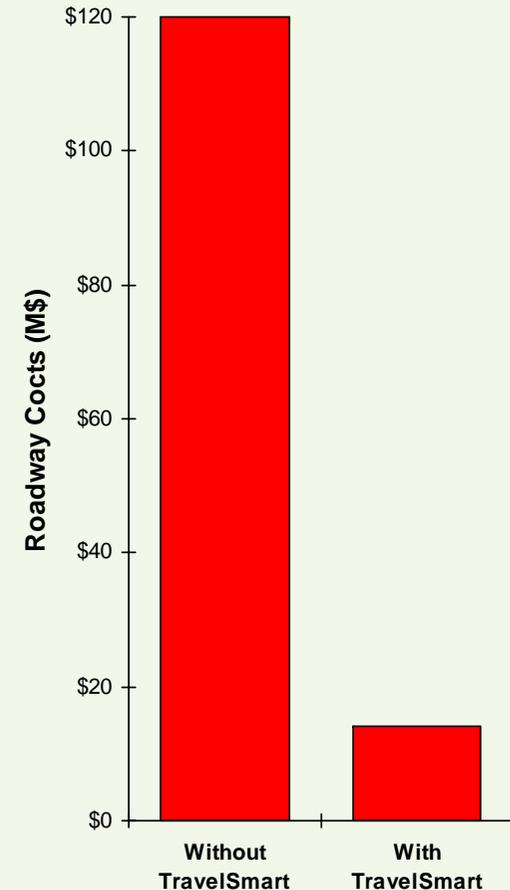


Development fees calculated by civil engineering firm based on actual costs. Fees for a typical house located near the city edge are \$5,500, but increase to \$10,800 if located a mile away. Shifted development to smarter growth locations.

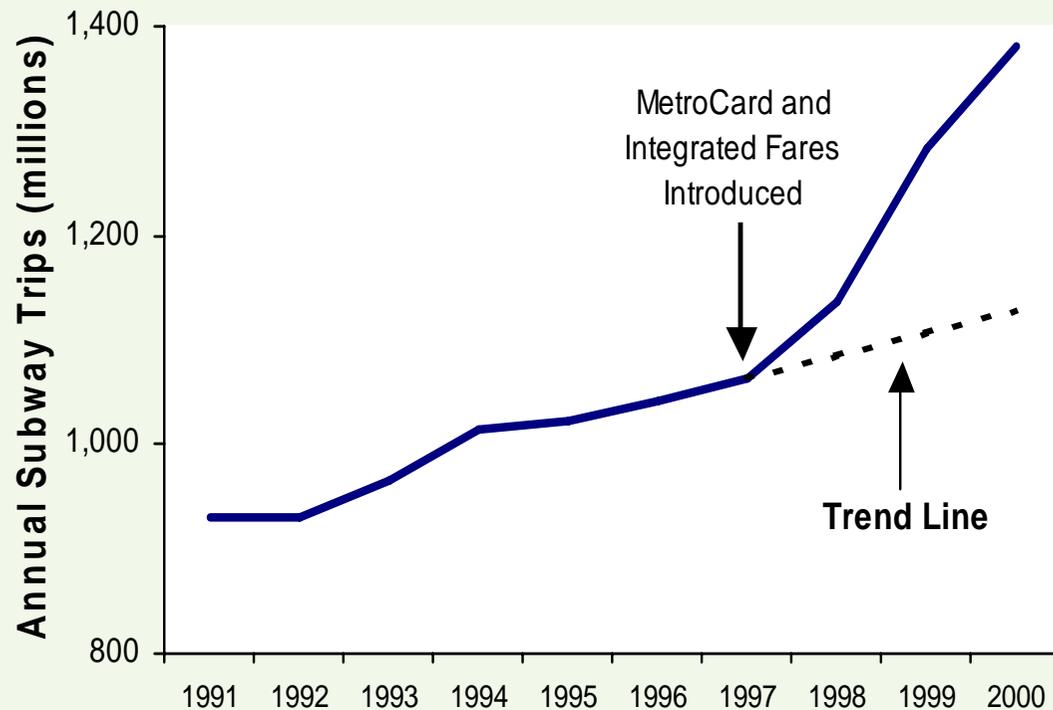
# *Kamloops TravelSmart Program*

**Reduces planned road expenditures by 75%, reduces pollution and improves travel options. Consists of the following:**

- City's official plan favors compact development.
- Improved public transit-increased frequency of service to outlying communities.
- Additional cycle routes and cycling initiatives.
- Promotional programs-workshops and seminars in schools.



# *Transit Fare Innovations*



***Impacts increase over time.***

- Transfers.
- Electronic fares.
- Bulk discounts to groups (college students, employees, etc.)
- Off-peak discounts.
- Debit cards.

## *Example - Old Pasadena*

The city charges for on-street parking to increase turnover and make spaces available to customers. Revenues are dedicated to improving downtown public facilities and services:

- Street furniture
- Trees
- Police patrols
- Better street lighting,
- More street and sidewalk cleaning
- Pedestrian facility improvements
- Downtown marketing



# *Motorists Benefit*

A more diverse and efficient transport system is no more “anti-car” than a healthy diet is anti-food. Motorists have every reason to support it:

- Reduced traffic and parking congestion.
- Improved safety.
- Improved travel options.
- Reduced chauffeuring burden.
- Often the quickest and most cost effective way to improve driving conditions.





**“Measuring Transportation: Traffic, Mobility & Accessibility”**

**“Rail Transit In America: Comprehensive Evaluation of Benefits”**

**“Quantifying The Benefits of Nonmotorized Transportation”**

**“Online TDM Encyclopedia”**

**and more...**

**[www.vtppi.org](http://www.vtppi.org)**

