

## The Role of Walking in Mobility Management

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## 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.

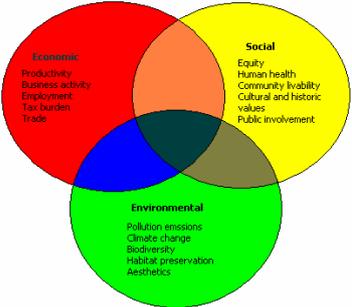


## Create Paradise



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	✓	✓	✗	
Parking cost savings	✓	✓	✗	
Consumer cost savings	✓	✓/✗		
Better mobility options	✓	✓		
Improved traffic safety	✓	✓		
Reduced pollution	✓	✓	✗	✓
Energy conservation	✓	✓	✗	✓
land use Objectives	✓	✓	✗	
Public fitness & health	✓	✓		

✓ = Supports Objective

✗ = 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.

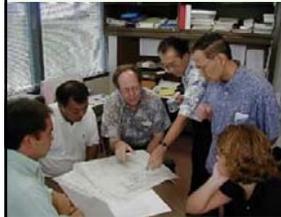
### Ridesharing: Puget Sound Example

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.



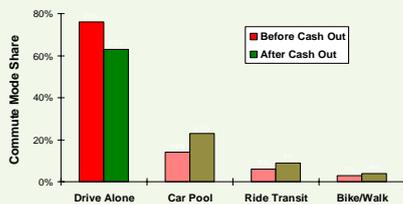
### Employee Trip Reduction Programs



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.

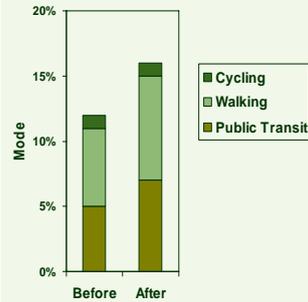


## Unbundle Parking



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)

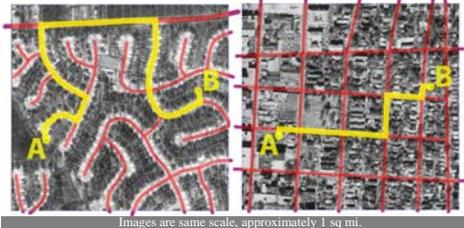
- More **compact**, infill development.
- **Mixed** land use.
- Increased **connectivity**.
- Improved **walkability**.
- **Urban villages**.
- Increased transportation **diversity**.
- Better parking **management**.
- Improved **public realm**.
- More **traffic calming** and speed control.



## Street Patterns - Connectivity

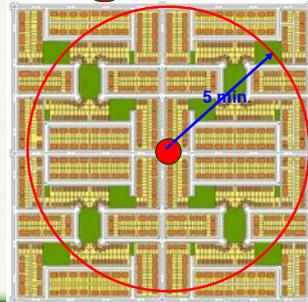
### Comparing Distances

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

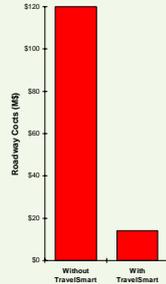


Development fees calculated by civil engineering firm based on actual costs. Fees for a typical house located near the city edge are \$5,500, but increase to \$10,800 if located a mile away. Shifted development to smarter growth locations.

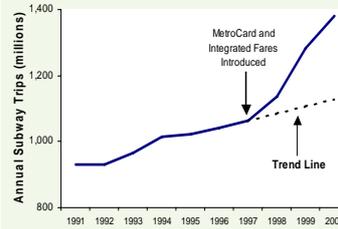
## Kamloops TravelSmart Program

**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.



Victoria Transport Policy Institute

"Measuring Transportation: Traffic, Mobility & Accessibility"  
 "Rail Transit In America: Comprehensive Evaluation of Benefits"  
 "Quantifying The Benefits of Nonmotorized Transportation"  
 "Online TDM Encyclopedia"  
 and more...

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