

Complete Streets Fight Climate Change!



Complete Streets are designed and operated so they work for all users— pedestrians, bicyclists, motorists and transit riders of all ages and abilities. Communities that adopt complete streets policies are asking transportation planners and engineers to consistently design and alter the right-of-way with all users in mind. Contact the National Complete Streets Coalition (www.completestreets.org) to learn about the diverse groups working together to enact complete streets policies across the country!

In 1993, Portland, Oregon became the first U.S. city to adopt a plan to address global warming, intended to reduce emissions to 10% below 1990 levels by 2010. New transit investments and continued improvements to bicycling and walking infrastructure have thus far resulted in per capita CO₂ emissions reductions of 12.5 percent.¹ Ultimately, Portland's complete streets and associated land use policies yield carbon savings worth between \$28 and \$70 million annually.²



Right: Ben Miller, City of Charlotte DOT
Left: photo courtesy of Steve Davis

Incomplete streets make it difficult for people to choose to walk, bicycle, or take transit.

Incomplete streets will hamper climate change strategies

The transportation sector is the fastest growing carbon dioxide source in the United States with emission rates rising 2% per year. Projections show that more efficient fuels and 'clean' vehicles won't be enough to offset the projected 59 percent increase in driving between now and 2030. Even with expected improvements in vehicle and fuel economy, carbon emissions from transportation would be 41 percent above today's levels by 2030 if driving is not curbed.³

The IPCC recommends modal shifts from driving to walking, bicycling, and transit as a key mitigation strategy.⁴ Yet the transportation infrastructure in the United States is not diverse enough to accommodate an increase in pedestrians, bicyclists, and transit users. Many trips are made by automobile because of incomplete streets that make it dangerous or unpleasant to walk, bicycle, or take transit. In fact, a national survey found that bike lanes were available for less than five percent of bicycle trips, and more than one-quarter of pedestrian trips were taking place on roads with neither sidewalks nor shoulders.⁵ Other surveys have found that a lack of sidewalks and safe places to bike are a primary reason people give when asked why they don't walk or bicycle more.⁶ For example, a recent survey of Florida residents found only 25 percent felt it was safe to walk along or to cross the closest U.S. or State road.⁷

Streets need to be completed to include places for people to walk, bicycle, and safely reach transit stops.

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The Benefits of Complete Streets 6



Complete Streets Steering Committee Organizations

AARP

Alliance for Biking & Walking

America Bikes

America Walks

American Council of the Blind

American Planning Association

American Public

Transportation Association

American Society of

Landscape Architects

Association of Pedestrian and

Bicycle Professionals

City of Boulder

HNTB

Institute of Transportation Engineers

League of America Bicyclists

McCann Consulting

National Association of Area Agencies

on Aging

National Center for Bicycling

and Walking

Safe Routes to School National

Partnership

Smart Growth America

SvR Design Company

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Right: Ben Miller, City of Charlotte DOT
Left: Don Burden

Complete streets provide an enticing atmosphere for people to get out of their cars.

The climate cooling potential of complete streets

Complete Streets are essential in order to make it possible for Americans to drive less and use our streets to get around more easily on foot, bike, and public transit. The potential to shift trips to lower-carbon modes is undeniable: The 2001 National Household Transportation Survey finds that 50% of all trips in metropolitan areas are three miles or less and 28% of all metropolitan trips are one mile or less – distances easily traversed by foot or bicycle. Yet 65 percent of trips under one mile are now made by automobile⁹, in part because of incomplete streets that make it dangerous or unpleasant to walk, bicycle, or take transit. Complete streets would help convert many of these short automobile trips to multi-modal travel. Other studies have calculated that 5-10% of urban automobile trips can reasonably be shifted to non-motorized transport.¹⁰

Places that are giving people options are seeing a reduction in their emissions. Boulder, Colorado is working to create a complete street network, with over 350 miles of dedicated bike facilities, paved shoulders and a comprehensive transit network. Between 1990 and 2003, fewer people in the city drove alone, more people bicycled, and transit trips grew by a staggering 500 percent. The reduction in car trips has cut annual CO₂ emissions by half a million pounds.¹¹

Complete streets policies are an important means to help reduce heat-trapping pollution and should be an element of every jurisdiction's climate change toolbox.

¹ City of Portland, Office of Sustainable Development. *Local Action Plan on Global Warming, 2005 Progress Report.*

² Cortright, Joe. "Portland's Green Dividend." *CEOs for Cities.* July 2007.

³ Ewing, Reid, *Growing Cooler: The Evidence on Urban Development and Climate Change* Urban Land Institute/Smart Growth America 2007.

⁴ Working Group III contribution to the Intergovernmental Panel on Climate Change Fourth Assessment Report, *Climate Change 2007: Mitigation of Climate Change Summary for Policymakers.*

⁵ BTS survey

⁶ Wilbur Smith Associates Bellevue, Washington. *Public Attitude Survey of Bicycle and Pedestrian Planning* May 2007.

⁷ Center for Urban Transportation Research (2005) *Statewide Survey on Bicycle and Pedestrian Facilities.* Report prepared for Florida Department of Transportation.

⁸ Davis & Hale. *Public Transportation's Contribution to U.S. Greenhouse Gas Reduction.* SAIC. September 2007.

⁹ 2001 NHTS Poll.

¹⁰ Litman, Todd *TDM Encyclopedia* (ADONIS, 1999; Mackett, 2000; Socialdata Australia, 2000; Cairns et al, 2004).

¹¹ 'Modal Shift in the Boulder Valley 1990 – 2003', National Research Center Inc. for the City of Boulder, May 2004.