



Smart Growth America
Making Neighborhoods Great Together



**National Complete
Streets Coalition**

BENEFITS OF COMPLETE STREETS

Complete Streets Fight Climate Change



Incomplete streets make it difficult for people to choose to walk, bicycle, or take transit. *Left: Steve Davis, Right: Ben Miller, City of Charlotte DOT.*

In 1993, Portland, Oregon became the first U.S. city to adopt a plan to address global warming, intended to reduce emissions to 10 percent 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

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 percent 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



Complete streets provide an enticing atmosphere for people to get out of their cars. *Ben Miller, City of Charlotte DOT*

The climate cooling potential of Complete Streets

Walking and bicycling are zero-emission transportation modes, and transit is a lower-emissions mode – using transit can help a solo commuter who switches from driving to transit to reduce carbon dioxide emissions by 20 pounds per day, or more than 4,800 pounds in a year.⁸

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 percent of all trips in metropolitan areas are three miles or less and 28 percent of all metropolitan trips are one mile or less – distances easily traversed by foot or bicycle. Yet 72 percent of trips under one mile are now made by automobile,⁹ 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 percent 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 not just a worthy end in themselves. They are also an important means to help reduce heat-trapping pollution and should be an element of every jurisdiction's climate change toolbox.

Learn more at www.smartgrowthamerica.org/completestreets.

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