Solutions at a Glance:

CREATING A BICYCLE CULTURE

"The bicycle is the most efficient machine ever created. Converting calories into gas, a bicycle gets the equivalent of three thousand miles per gallon." Bill Strickland, The Quotable Cyclist

A problem we'd like to have: Where to park all those bicycles?

The Challenge

In the United States, particularly in the west, cities have grown up around the automobile. Metropolitan areas that had room to spread were a welcome change for those who grew up in older cities that had become dirty and congested. A car meant freedom. The location of the workplace was no longer tied to the location of the home, and with lots of roads and little traffic, great distances could be traveled quickly. Cars were big, gas was cheap and Rachel Carson hadn't written Silent Spring yet. With the oil embargo of 1973-1974, we got a taste of what would happen if the gush of gasoline slowed to a trickle. In the subsequent years, the availability and price of gas has generally been stable, but other problems associated with the automobile have emerged such as air pollution, traffic and parking problems, urban flight, and gridlock. In London today, the average speed of a car is about the same as that of a horse-drawn carriage from a century ago. The frustration born of this level of inefficiency has even lead to the creation of a new term, "Road Rage." For many who live in cities, the car, once the icon of freedom and prosperity, has become a necessary evil, feeding frustration, spewing out CO2 emissions and other pollutants, and even contributing to obesity, a national epidemic.

The Solution

A safe, continuous bicycle infrastructure linked with public transportation has been successfully implemented in many European cities. Cities that have adopted bicycle initiatives, and prioritized bicycles and public transportation over cars in transportation planning have increased mobility, reduced the growth in the number of cars on the road, decreased pollution and CO2 emissions, and generally improved the life and health of the public.

Background

Copenhagen is a beautiful northern European City of 1.8 million people living in the greater metropolitan area. With its continuous bike paths, overflowing bike racks, and grandmas whizzing by on their 3-speeds, it would be natural for visitors to assume that it has always been a bicycling city. However, the truth is that bicycling peaked in the 1950s and reached an all time low by the 1970s. It has only been through the concerted and sustained efforts of politicians, planners, and traffic engineers that Copenhagen has become a City of Bicycles. Cycling is an integral part of mainstream planning, and bike paths and other bike-friendly facilities are a part of the planning of every new or rebuilt road. Copenhagen's road infrastructure network has not increased since the 1970s and miles driven per year have decreased by 10% over the same period of time.

Currently 32% of workers bicycle to work. In surveys, 50% say they cycle to work because it is fast and easy. An equal number say they do it for exercise. Financial reasons play a part for some cyclists. Weather does have an impact on cycle use but not as

much as one might expect. 60% of cyclists normally cycle in rainy weather and 66% continue cycling in the winter in temperatures that hover around freezing. Still, these figures aren't good enough for the Department of Traffic Planning, which now has the goal of increasing bicycle commuters to 40%. With high levels of cycling, it would be natural to expect a high accident rate, but the paradox is that the more cyclists there are, the safer it is. This is because a critical mass has been achieved in which drivers have a heightened sense of awareness about bicyclists.

Our group found that even double-decker bike racks aren't enough to accommodate all the bicycles

How has Copenhagen achieved such a high level of bicycle use? First of all, bicycle planning has the same status as public transport in planning and funding. Bike paths and routes are either clearly marked or separated from vehicular traffic by curbs, bike lanes have their own traffic signals, and bikes are prioritized over cars at places where they meet. Extensive marketing and public relations campaigns have been implemented to get people to leave their cars at home for in-city travel even if they have a car for use on the weekends. In addition to good planning, the local and national governments use a big stick when it comes to trying to keep people from relying on cars. Fees and taxes for automobile purchase add on 200% to the price of a new car. There are few parking spaces, and the ones that exist are very expensive.

A free city bike

In order to insure that everyone has access to a bike, Copenhagen has a free bike program called City Bikes. Riders pay a refundable deposit of about $3.00 to have unlimited use of a bike within a specified area. The cost of the program is paid by sponsors, who pay about $280 per year for a minimum of 25 bikes. In return for sponsorship, the bikes carry advertisements, which appear on the top tube panel and disk wheels. The bicycles used in the City Bikes program were designed with components that are incompatible with other bikes, preventing theft of parts. Since the launch of the program, bicycle theft in Copenhagen has decreased. The City Bikes program has become part of Copenhagen's downtown culture, and a visible sign that Copenhagen cares about being a livable city.

Okay, you might say Copenhagen is flat -- a perfect city for bicycle commuting. Even though Seattle isn't flat, there are many streets, particularly those going north/south to and from downtown that have gentle inclines for miles. A street-by-street analysis could be done to determine the best streets for bicycle routes. An excellent bike path system could be created using the most appropriate streets. Copenhagen does a street-by-street analysis such as this to figure out how to alleviant bicycle congestion.

In addition, Copenhagen does an extensive bicycle survey every two years to continuously improve upon its bike system. If Seattle were to do such as survey, it might be discovered that many people would ride their bike, hills and all. After all, how many people rush home from work to get on the Stairmaster or stationery bicycle and use the hill setting? San Francisco, also a hilly city, is consistently ranked by Bicycling Magazine as a top city for cycling.

<u>The 2004 Urban Sustainability Study Group to Sweden and Denmark</u>

In March 2004, a group of architects, engineers, developers and others from Seattle, Washington and Portland, Oregon went to Sweden and Denmark to look at advanced urban sustainability projects.

During this trip, they were taken on a bicycle tour of Copenhagen by the Department of Traffic Planning, Roads and Parks Division. This department created the strategic plan Cycle Policy 2002-2012 and produces a Bicycle Account semi-annually. Both can be found in English at: http://www.vejpark.kk.dk/byenstrafik/cyklernesby/uk/index.htm

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