

### Case Study: National City

National City is one of the San Diego region's often over-looked and under-estimated cities located immediately south of Downtown San Diego along San Diego Bay. It has long been a low-income, ethnically diverse, and heavily industrialized pocket within the region. In January 2012, the City completed a comprehensive planning process,<sup>96</sup> from setting an ambitious vision, to creating policy and developing zoning regulations, to the programming components including a General Plan update, Climate Action Plan, specific plans, and Capital Improvement Program implementation. Through this effort the City focused on becoming a model for sustainability, smart growth and equity – and to complete its streets in the process. Key aspects of the program are:

- Integration of sustainability, health and environmental justice considerations throughout the planning process.
- Plans for construction of over 6,000 units of high-density housing in close proximity to two light rail transit stations.
- Designation of Complete Street community corridors throughout the City.
- Conversion of 10 unneeded street blocks into pocket parks dispersed throughout the city.
- Restoration of three miles of Paradise Creek, and construction of a creekside trail.
- Development of neighborhood gardens and local farmers' markets to emphasize healthy food in all of the city's neighborhoods.
- Amortization of industrial uses within residential neighborhoods, and new standards for industrial hygiene to enhance resident health.
- Coordination of these efforts with SANDAG's regional planning efforts under SB 375 to expedite processing future transit-priority projects.

## Conclusions

1. Complete Streets implementation can be made easier by adopting newly emerging planning tools: more effective multi-departmental planning processes, "living street" design guidelines, and a Complete Streets project checklist.
2. Although new planning processes are proving invaluable to implement Complete Streets, the standard planning toolbox, from general plans to zoning and design guidelines, should also be employed.
3. Newer street design manuals are becoming increasingly available to redesign streets to meet the needs of all users while meeting AASHTO and other conventional guidelines. "It's not in the manual" can now be replaced with "We really need to update our manual."
4. Cities leading the way to Complete Streets have found that Five-Year Transportation Action Plans are an essential tool to maintain progress implementing a long-term transportation vision.
5. Public involvement which includes all stakeholders in street design decisions is a cornerstone of the Context Sensitive Solutions approach championed by FHWA, AASHTO, and Caltrans, and helps ensure design decisions consider the needs of diverse community members.

*This page intentionally left blank.*



## MEASURING PROGRESS

### Purpose of Performance Measures

While the General Plan and other long-range plans may include transportation goals, these documents are easily forgotten when it comes to executing a particular project, responding to a constituent issue, or creating the annual capital improvement budget. Performance measures are an important tool for pairing good planning intentions with the everyday work of providing transportation facilities and services.

### Annual Performance Reports

Performance measures should reflect the jurisdiction's long-term goals for Complete Streets and other transportation priorities. However, they are useful only to the extent they are carefully tracked and distributed among departments, to the public, and to elected officials to ensure progress. Noteworthy examples include:

- » New York City's Sustainable Streets Progress Report<sup>97</sup> and the Citywide Performance Reporting System<sup>98</sup>
- » Redmond, Washington's Annual Mobility Report Card<sup>99</sup>
- » Charlotte's Transportation Action Plan Annual Report<sup>100</sup>

### Recommended Performance Measures

Performance measures discussed in this section are recommended for tracking progress toward meeting Complete Streets goals, for both a single project and at the community or network level. The metrics chosen should be meaningful to professionals, citizens, and elected officials so that all can be conversant in assessing how well community objectives are being met. Elected leaders also find annual progress reports to be useful in communicating with constituents, creating the annual city budget, establishing departmental priorities, and holding staff accountable.

Goals and performance measures are suggested below in the following areas:

- |                        |                         |
|------------------------|-------------------------|
| » Economic Development | » Pedestrian Facilities |
| » Mode Shares          | » Bike Facilities       |
| » Crashes              | » Safety                |
| » Public Perception    | » Environment           |

## Project Measures – Before and After Construction

At the project-level, performance measures help focus the design of a project to meet transportation policy goals and ensure the needs of all users are met, or are at least balanced to the extent possible. Since project designers cannot possibly anticipate the needs of all users of a street, community stakeholders should be involved in establishing project-level performance measures for all significant projects. The following measures are recommended for Complete Street projects in both the before and after conditions:

- » Average vehicle speed
- » Number of pedestrian crashes
- » Pedestrian counts at representative locations
- » Bicycle counts at representative locations
- » Percentage of people surveyed who feel safe using non-motorized modes
- » Noise level at the sidewalk edge
- » Total sales tax collections for affected street segments
- » On-street parking use

## Community or Network Measures

Performance measures at the community or network level should reflect policy goals from the General Plan, Circulation Element, Pedestrian or Bicycle Plan, or other publicly-vetted policy document. It is important to recognize that goals are value-based. For example, vehicle Level of Service standards favor vehicle through-put over all other considerations. The community may or may not share this value. In fact, surveys consistently suggest most do not. For this reason, the public and any especially affected stakeholders should be involved in establishing transportation goals, and then in crafting performance measures that will quantify progress toward meeting them.

The following should be considered for performance measures for the community or circulation network as a whole:

### Economic Development

- » Total sales tax collections
- » Sales tax collections for key businesses or market segments such as “locally-owned”
- » Mode share of Home-to-shop and Work-to-shop trips
- » Percent of businesses easily accessible on foot or by bike

### Travel Mode

- » Pedestrian trips (representative sample taken at the same locations over a number of years)
- » Bicycle trips

- » Transit trips
- » Vehicle trips

### **Crashes**

- » Pedestrian injuries per pedestrian trip
- » Pedestrian fatalities per pedestrian trip
- » Bicyclist injuries per bicycle trip
- » Bicyclist fatalities per bicycle trip
- » Motor vehicle occupant injuries
- » Motor vehicle occupant fatalities
- » Property damage
- » Number of hotspot locations (crash clusters)
- » Percent reduction in crashes (pedestrian, bike, and/or vehicle) at top-15 crash locations

### **Public Perception**

- » Percent of people surveyed who feel safe using non-motorized modes on arterial streets
- » Percent of parents who feel comfortable allowing their children to walk or bike to school or to use city streets on the weekend, unaccompanied by an adult

### **Pedestrian Facilities**

- » Percent of sidewalk mileage in good condition
- » Percent of signalized intersections with marked crosswalks
- » Percent of signalized intersections with one or more of the following: countdown signals, leading pedestrian intervals, bulb-outs, or pedestrian refuge islands
- » Percent of uncontrolled crosswalks that are marked consistent with federal guidelines
- » Percent of unsignalized 4-way (multilane) intersections along urban arterials with marked crosswalks and one or more of the following: HAWK signal, yield to pedestrian signage, user-activated overhead warning lights, pavement flashers, rapid flash beacons, or equally effective treatment
- » Percent of required curb ramps installed

### **Bike Facilities**

- » Percent of urban arterial mileage with dedicated bike lane/trail
- » Percent of intersections with one or more of the following bicycle improvements: bike box, painted bicycle lane through the intersection, bicycle signal, functioning bicycle loop detectors, bicycle left turn lane

## Safety

- » Percent of urban arterials on which the 85th percentile driving speed is no greater than 25 mph
- » Miles of lane reductions (road diets)
- » Number of driveway cuts per mile on urban arterials

## Environment

- » Percent of urban arterial mileage designed to reduce environmental impacts through “green street” principles.

## Conclusions

1. The use of performance measures is important in tracking progress implementing Complete Streets and other long-term transportation goals. The chosen measures should reflect the general plan or other important policy documents.
2. Performance measures are meaningful only to the extent they are compiled in an annual report and distributed to city departments, to elected officials, and to the public. Annual progress reports are an excellent tool utilized by cities leading the way on Complete Streets implementation.
3. Performance measures should be established at the community level, and for particular projects. Community stakeholders should be involved in establishing performance measures, particularly at the project level.
4. Project-level performance measures may be a small subset of the community-level measures, but should meaningfully reflect project objectives, chosen with the input from the community.



## COMPLETE STREET TREATMENTS

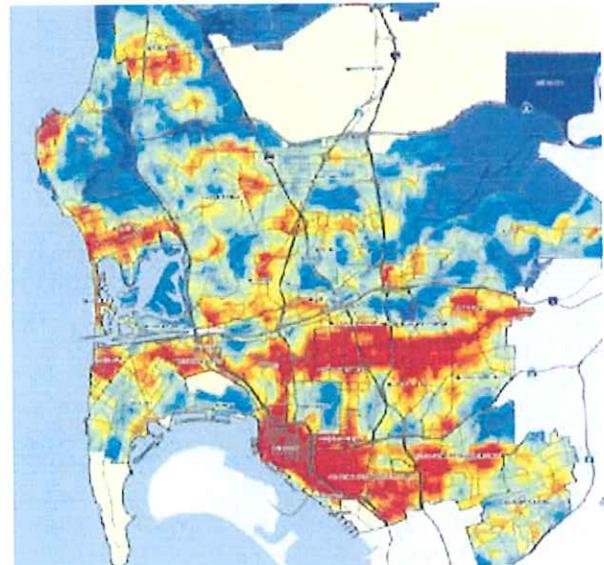
Once a jurisdiction embarks on the Complete Street approach, it must answer the questions of “Where?” and “What?” Although these questions are beyond the scope of this report, this chapter provides some hints on where to start.

### Selecting Streets for Complete Street Treatments

Complete Street treatments are available for every imaginable street and situation. Once staff or interested stakeholders begin looking around, candidate streets pop up almost immediately. Some are high cost and require substantial planning; others, such as retiming a signal's pedestrian phase to accommodate slower walkers, can be implemented this afternoon. But where is the largest bang for the buck? There are a few ways to make these decisions.

#### Pedestrian Demand Models

Pedestrians are considered the “indicator species” of a livable community, which makes walkability investments a good place to start when considering Complete Street priorities. In recent years, pedestrian master plans prepared for many of the region's cities have included a GIS-based model which identifies the most promising areas for investment in traffic calming and pedestrian facilities. The model considers generators such as residences, attractors such as schools and shopping, and detractors such as injury crashes or posted speeds over 30 mph. A “composite model” combines these factors into a single pedestrian demand map. This methodology has the benefit of providing objective logic to the process of choosing areas for treatments, and helps steer the selection process away from the political process. To put it bluntly, it becomes harder to argue that places where fatalities are occurring should not receive the highest priority.



*Composite Pedestrian Demand Model  
City of San Diego Pedestrian Master Plan<sup>101</sup>*

## **SANDAG's Healthy Communities Atlas**

An important product of the HealthyWorks work program undertaken by SANDAG and the County Health Department (Chapter 3) is a complete inventory of the region's sidewalks, and layering of GIS health data with neighborhood variables. Using these data, SANDAG has issued a "Healthy Communities Atlas" that maps many environmental and social determinants of health (proximity to parks, violent crime, income, traffic density, etc.). The GIS data behind those maps are available to help local agencies identify and address neighborhoods where improvements would be most likely to improve health and livability. No other US region has this mapping capability. Interested jurisdictions should contact SANDAG about using this tool.

## **Smart Growth Opportunity Areas**

Another resource for identifying best Complete Street opportunities is SANDAG's Smart Growth Opportunity Areas (SGOA) map.<sup>102</sup> The map includes both existing and planned areas of denser, mixed use, walkable areas designated by each jurisdiction that is, will be, or could be served by public transit. Both major and minor streets in smart growth areas need to be carefully designed to serve all modes if the transit, walking, and biking in those areas is to be viable. The advantage of choosing streets from the SGOA map is that each jurisdiction has already spent considerable resources identifying these areas, hopefully in conjunction with residents and other stakeholders.

## **Regional Bike Plan Routes**

Another excellent resource for considering Complete Street treatments is the 2012 Regional Bicycle Plan,<sup>103</sup> especially where planned bike facilities overlap with Smart Growth Opportunity Areas, transit stations, schools, beach access areas, and similar priority areas.

## **How Big Is the Regional Opportunity?**

Using the SanGIS regional database, the Complete Streets Task Force sought to identify segments of existing non-residential roads throughout the region that may be good candidates for Complete Streets treatment. The database was queried for segments with relatively dense land use clusters within walking proximity of transit stops and nearby destinations such as shopping, parks, and schools. This gross-level query identified 1,029 miles of non-residential street segments worthy of consideration as high-priority candidates. Of this total, 292 miles fall within Smart Growth Opportunity Areas; around half of this total (158 miles) fall within the City of San Diego (Table 8-1). This query represents only one way to cut the data, but it provides a sense of the opportunity for applying Complete Street treatments throughout the region.

## **Potential Treatments**

This descriptive section and the photo gallery in the next section hint at ways to apply Complete Street improvements to various types of roadways.

Table 8-1. Complete Street Opportunities within SANDAG Smart Growth Areas

Jurisdiction	Light Collector	Rural Collector	Major Road	Rural Light Collector	Prime Arterial	Collector	Two Lane Major	Local Street	Six Lane Major	Total Miles	Percentage of Total
San Diego	12.0	-	82.7	0.1	1.0	47.3	6.2	3.8	5.4	158.4	54%
San Diego County	1.9	0.4	4.8	1.6	7.1	2.5	2.9	0.0	-	21.2	7%
Escondido	3.2	-	0.4	-	7.7	6.0	0.3	-	-	17.5	6%
National City	1.4	-	10.6	-	-	2.3	0.1	-	0.1	14.5	5%
La Mesa	1.0	-	8.4	-	2.1	2.1	0.4	0.1	0.2	14.3	5%
Chula Vista	-	-	4.7	-	1.4	3.0	-	0.8	0.4	10.3	4%
Oceanside	2.2	-	2.5	-	2.4	1.4	0.2	0.0	0.6	9.4	3%
Vista	0.4	-	2.4	-	4.7	1.5	0.1	-	0.1	9.2	3%
San Marcos	0.1	-	0.7	-	5.3	1.1	-	-	0.2	7.4	3%
El Cajon	0.9	-	2.9	-	0.4	1.7	0.2	-	0.1	6.4	2%
Imperial Beach	1.5	-	1.1	-	0.3	1.5	0.1	-	-	4.6	2%
Santee	-	-	1.0	-	1.0	1.9	-	-	-	3.9	1%
Encinitas	0.4	-	-	-	2.2	0.7	-	-	0.1	3.5	1%
Coronado	0.4	-	1.8	-	0.6	0.3	-	-	-	3.0	1%
Carlsbad	0.5	-	0.8	-	1.1	0.6	0.1	-	-	3.0	1%
Lemon Grove	0.2	-	2.0	-	-	0.7	-	-	0.1	3.0	1%
Poway	-	-	0.3	-	0.7	0.3	-	-	-	1.4	0%
Solana Beach	-	-	-	-	0.9	-	-	-	-	0.9	0%
Del Mar	0.0	-	-	-	0.5	-	-	-	-	0.6	0%
<b>Total</b>	<b>26.1</b>	<b>0.4</b>	<b>127.0</b>	<b>1.7</b>	<b>39.5</b>	<b>75.0</b>	<b>10.5</b>	<b>4.7</b>	<b>7.2</b>	<b>292.1</b>	<b>100%</b>
<b>Percentage of Total</b>	<b>9%</b>	<b>0%</b>	<b>43%</b>	<b>1%</b>	<b>14%</b>	<b>26%</b>	<b>4%</b>	<b>2%</b>	<b>2%</b>	<b>100%</b>	



## Arterials (45 mph+)

Most of the region's major arterials are part of the Regional Arterial Network System. Although they serve high volumes of traffic and serve important transit routes, most lack basic amenities to not just accommodate but attract pedestrians, bicyclists (other than "strong and fearless" cyclists), and transit riders. Examples include Palm Avenue (Imperial Beach), H Street (Chula Vista), El Cajon Boulevard and Clairemont Mesa Boulevard (San Diego), and El Camino Real (North County).

Because of prevailing speeds and volumes, major arterial roads have high crash rates, high ambient noise levels, and act as community barriers. Initially, Complete Street treatments on these facilities make the most sense where transit routes, regional bike facilities, and dense adjacent land uses coincide.

## Lower Classification Arterials (25-45mph)

These community-serving roads suffer from some of the same constraints and challenges for non-drivers as major arterials, but also present some of the most promising Complete Street opportunities. Examples include University Avenue and Clairemont Drive (San Diego), Grand Avenue (Escondido), and much of the Coast Highway in North County.

## Neighborhood Collectors

These roads are often lined with homes but serve an entire neighborhood or a particular group of residential streets. Examples include Texas Street (San Diego), Moss Street (Chula Vista), and Borden Road (San Marcos). Traffic calming, and bicycle and pedestrian facilities can attract more bicyclists and pedestrians to these streets. Since daily traffic volumes usually do not exceed 10,000, 4-lane collectors can successfully be restriped to two or three lane configurations while adding bike lanes.

## Residential Streets

Residential street opportunities are very case-specific, based on prevailing speeds and neighborhood character. Even without sidewalks, many residential areas are considered walkable and bike-friendly by local residents because their narrow or curving design discourages fast vehicle speeds. A good test of whether a residential street is "complete" is whether parents allow their children to travel the street or to play in it during traffic lulls. If not, parking arrangements, traffic calming treatments, sidepaths, or other treatments can help.

## Gallery of Complete Street Treatments

### Multi-way Boulevard Design

This treatment applies to prime arterials of six or more lanes. It uses three medians to reduce pedestrian crossing distances, reduce speeds and crashes, and create a local access lane for busses, parking, bicyclists, and right-turning vehicles.



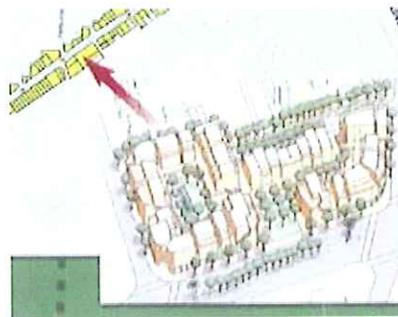
*Octavia Blvd., San Francisco  
Photo: MIG, Inc.*



Planned multi-way boulevard conversion, Palm Avenue, Imperial Beach  
 Courtesy of SANDAG

### Supportive Land Uses

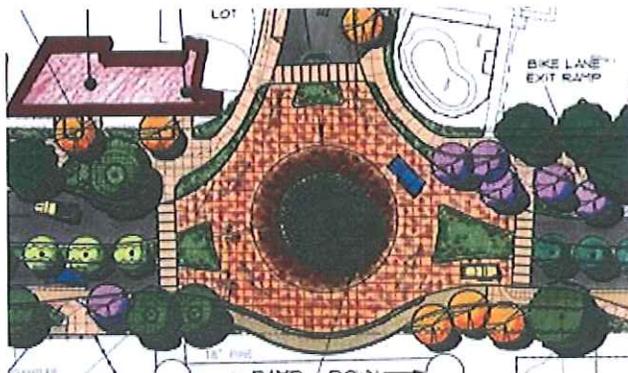
Adopt new or overlay zoning, form based code, and/or design guidelines to bring development to the sidewalk, create façade transparency (not blank walls), add landscaping, pedestrian amenities, bike parking, bus shelters, etc.



La Mesa Mixed-Use Strategic Plan  
 Courtesy of City of La Mesa

### Street Conversion (“Road Diet”)

Convert one or more travel lanes to provide room for buffered/colored bike lanes, wider sidewalks, bioswale gardens, street trees, etc.



North Coast Highway 101 Streetscape Project  
 Courtesy of City of Encinitas



University Avenue Mobility Plan  
 Courtesy of City of San Diego and KTU+A

### Intersection Treatments

Pork chop islands, median refuge islands, pedestrian signal enhancements, cyclist call buttons, bicycle conflict area markings, etc. The publication, *Intersection Treatments That Benefit Pedestrians*<sup>104</sup> (America Walks/Fehr and Peers) recommends many possible treatments.



*Pork chop island, Olympia Washington  
Photo: Dan Burden via PedBikelimages.org*



*Multiple intersection treatments, Branford, CT  
Photo: Tom Harned via PedBikelimages*

### Buffered Bike Lanes

To be "complete," arterial bicycle facilities must be sufficiently protected to attract the 60% of riders falling in the category of "Interested but Concerned" Riders (Chapter 1).



*Buffered bike lane, Seattle  
Photo: Seattle DOT*



*9th Avenue cycle track, parking lane, and crosswalk, New York City  
Photo: Jacob-uptown via Flickr*

### Enhanced Crosswalks



*Crosswalk and Pedestrian Refuge, San Diego  
Photo: Andy Hamilton*



*High Intensity Activated Crosswalk Signal, Tucson, AZ  
Photo: Mike Cynecki*

### Parking Space Conversions



Portland Bike Corral

Photo: Heather Bowden via PedBikeImages



San Francisco Parklet

Photo: Jeremy A. Shaw via Flickr

### Traffic Calming Treatments

These apply primarily to two-lane roads.



Chicane, Fousatt Road, Oceanside

Photo: Andy Hamilton



Traffic circle, Louisiana Street, San Diego

Photo: Andy Hamilton



Raised crosswalk, Cedros Avenue, Solana Beach

Photo: Dan Gallagher



Curb extension and asphalt sidewalk, Del Mar

Photo: Andy Hamilton

### Public Art Traffic Calming



Portland "intersection repair"  
Photo: Donkeycart via Flickr



Portland "Intersection Repair"  
Photo: City Repair via Flickr

### New Pedestrian and Bicycle Facilities



Texas Street Multi-Use Path under construction  
Photo: Andy Hamilton



Cherokee Street, San Diego  
Photo: Greg Konar

### Shared Streets or Pedestrian-Only Streets



Wall Street, Asheville, NC  
Photo: Dan Burden via PedBikeImages

## Conclusions

1. Tools for selecting street segments for Complete Street treatments include the following:
  - » Pedestrian Composite GIS Model
  - » SANDAG's Healthy Communities Atlas
  - » SANDAG's Smart Growth Opportunity Areas, submitted by each jurisdiction
  - » Regional Bike Plan routes
2. The Complete Streets Task Force estimates that, across the region, there are 1092 miles of street segments that may be good candidates for treatments. Of that total, 292 miles are in existing or planned Smart Growth Opportunity Areas.
3. Potential treatments exist for high-speed arterials, lower classification arterials, and neighborhood collectors, as well as residential streets.
4. Some promising approaches are Multi-way Boulevards, road diets, traffic calming devices, various intersection treatments, buffered bike lanes, enhanced crosswalks, conversion of a small number of parking spaces to seating or bike corrals, new bicycle or pedestrian facilities, and "shared streets."



## OVERCOMING BARRIERS TO IMPLEMENTATION

While Complete Streets goals and policies are finding their way into the plans and ordinances of many cities, strategies for systematic and widespread implementation are still evolving. An important first step in developing such strategies is identifying the barriers that are impeding progress.

### State-Wide Survey

A 2011 survey of California cities conducted by the UC Davis Department of Civil and Environmental Engineering<sup>105</sup> found that although many cities are exploring strategies that better integrate all modes into traditionally designed streets, more than half (57%) had not adopted a Complete Streets or context sensitive design approach. Further, the implementation of individual features typically associated with Complete Streets (such as enhanced landscaping, narrow lane widths, mid-block crossings, traffic circles, road diets etc.) varies widely.

Most cities have employed at least some Complete Street techniques ranging from planting trees (61% of reporting cities) to improving bicycle facilities (36%) to the use of road diets (15%). Yet the use of these techniques unguided by adopted policy or context does not necessarily achieve “Complete Streets.”

In the same study, when cities were asked to identify key constraints to implementing Complete Streets and context sensitive design, the two most common responses were: 1) lack of financial resources (40%) and 2) unable to dedicate staff time to implement (32%).

### Region-Wide Interviews

In conjunction with WalkSanDiego’s report, *Safe for All: 2011 Street Design Benchmark Study for the San Diego Region*,<sup>106</sup> interviews were conducted with key staff from each city in the region to identify best street design practices and common barriers to context-sensitive Complete Street implementation, as follows:

#### **Inadequate Funding for Roadway Retrofit Projects**

Every city reported that the list of street retrofit projects, including bike and pedestrian projects identified in bicycle and pedestrian master plans, far exceeds available funding. All jurisdictions rely heavily on Transnet funding and actively seek other available sources. Nevertheless, local street maintenance sources do exist. Routine maintenance projects are an opportunity to restripe a street to accommodate more modes. Without sufficient funding the pace of more comprehensive Complete Street solutions is slow, projects are limited in scope, and political considerations often override plan priorities.

## FROM POLICY TO PAVEMENT: IMPLEMENTING COMPLETE STREETS IN THE SAN DIEGO REGION

Several jurisdictions have planned or implemented Complete Street pilot projects and have produced some exemplary general plan circulation elements and bicycle and pedestrian master plans strongly supporting Complete Streets. However, staffing levels are dependent upon dwindling funding, and jurisdictions are unable to dedicate sufficient staff time towards rapid Complete Street implementation. Still, there appears to be untapped potential to harness ongoing street construction and maintenance projects as Complete Street projects. The goal should be to systematically implement an interconnected system of context sensitive Complete Streets in the San Diego region.

As noted previously, in the 2050 RTP, SANDAG increased the regional Active Transportation Program allocation from less than half of 1% in the previous RTP to 3% of the total transportation budget. This amounts to \$3.8 billion dollars, and includes an Early Action Program (before 2013). It also includes a commitment to adopt a regional Complete Streets policy for the region.

### **Inconsistent City Council Direction**

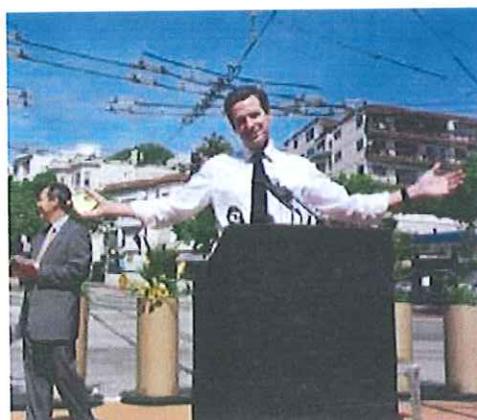
City councils within the San Diego region are showing increased interest in Complete Streets. This interest has mainly focused on traditional “main street” corridor projects identified in recently adopted general plans and revitalization/traffic calming projects initiated by business improvement districts or neighborhood groups. The cities of San Diego, Chula Vista, La Mesa, and Encinitas, in particular, have made significant progress. However, according to city staff, inconsistent city council direction is still a major barrier to widespread Complete Street implementation. It should be noted that, as one respondent stated, there has not yet been a concerted effort to “sell” the Complete Streets concept to city councils, and reinforce it with regular updates.

Because Complete Streets require a significant departure from the traditional approach to street design, staff may be hesitant to recommend new methods. Merely studying innovative techniques may be politically safe, but proposed projects can easily be shot down unless staff has assurances that the city council fully embraces a Complete Streets approach.

Context sensitive designs require more leadership from elected officials and more collaboration between traffic engineers, land planners, and specialized staff than ever before. Such collaboration demands a reorganization of current decision processes, the institution of new performance measures, and in some cases a rebalancing of Level of Service analysis, among other changes. Only the mayor or city council can provide the direction needed to overcome institutional barriers between city departments.

As discussed below, some neighborhood opposition to Complete Streets projects is inevitable, at least initially. Such opposition can easily compromise or derail good projects unless council members have a strong vision of what they wish to accomplish.

The good news for local leaders is that public acceptance of multi-modal streets is likely to be very strong once any initial skepticism is overcome. Cities that have taken the plunge toward a more balanced street system have discovered a pent up demand for walking and bicycling opportunities. The response of residents and businesses has been overwhelmingly positive and demand appears to be growing.



An attractive characteristic of Complete Street programs is that the community benefits are immediate and tangible. Politicians who campaign on a Complete Streets platform and deliver on their promises are likely to benefit at the polls. It is worth noting that Complete Streets concepts have the potential to be implemented rapidly--within a four-year election cycle. This potential has been amply demonstrated in cities outside the San Diego region, including Long Beach, New York City, Charlotte, Seattle, and many others.

### **Uncoordinated Transportation Implementation**

Most local cities rely on the general plan circulation element for transportation policy guidance, and bicycle and pedestrian plans for more detailed policies and objectives related to active transportation. Bicycle and pedestrian plans do an excellent job of identifying projects and establishing implementation priorities. But while logical and thorough, the implementing components are not well coordinated across other transportation plans, maintenance practices, or repaving schedules.

While recent plan updates encourage the implementation of Complete Streets, including the concept at the core of a multi-modal transportation system is largely missed. For the most part, existing plans lack measurable goals, commitments to action, schedules for implementation, or a publicly accessible report on progress.

Cities outside the San Diego region that have committed to Complete Street implementation often have overarching multi-modal transportation plans or street design guidelines that elevate the role of Complete Streets in the larger transportation picture.

Examples of plans organized around Complete Street concepts include the *Charlotte Urban Street Design Guidelines (2007)*,<sup>107</sup> the *City of New York Sustainable Streets Strategic Plan (2008)*,<sup>108</sup> the *Seattle Transportation Strategic Plan (2005)*,<sup>109</sup> and the *City of Redmond, Transportation Master Plan (2005)*.<sup>110</sup> In Seattle, one dedicated planner interviewed department heads from various disciplines and wrote a series of white papers on the anticipated barriers to implementing the city's Complete Streets plan. The white papers were the basis for inter-disciplinary meetings among various departments regarding necessary revisions to codes and policies.

### **Initial Public Opposition**

San Diegans live in an automobile oriented culture and the concept of actually designing streets for slower traffic speeds may alarm city residents who depend on the automobile for most trips. Such concerns when expressed at public hearings also influence local politics. Traffic engineers and planners interviewed during the study often described how Complete Street projects were scaled back or innovative features were trimmed in response to resident concerns over potential impacts to vehicular traffic or parking.

In general, support for Complete Streets appears to be stronger in urban areas with higher densities and transit opportunities and weaker in suburban areas that are more dependent on the automobile. But concern over the possibility of increased congestion and traffic delay can be found everywhere.

To be effective, Complete Streets must deliver on the promise that while speeds may be lowered, travel times will not be substantially reduced, congestion will not increase, and overall street capacity will be enhanced considering all modes. (From Lancaster to New York, this has proven to be quite feasible, in part because most trips are flexible by nature – see Chapter 4.)