

NACTO's Urban Design Guidelines

Changing the DNA of California Streets



National Association of
City Transportation Officials

Edward Reiskin
Director, SFMTA
President, NACTO



SFMTA
Municipal Transportation Agency

SPUR
July 9, 2014

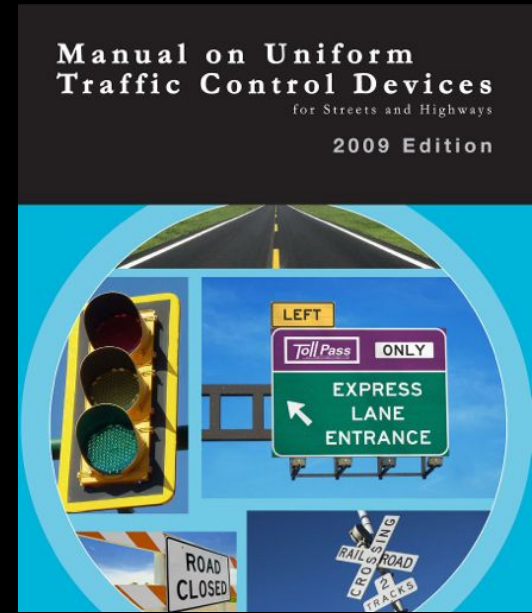
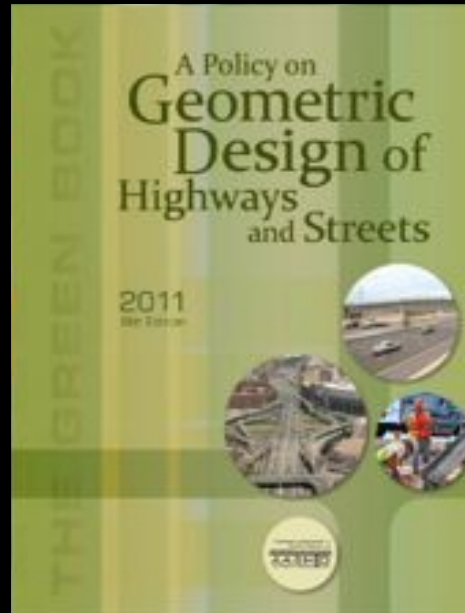
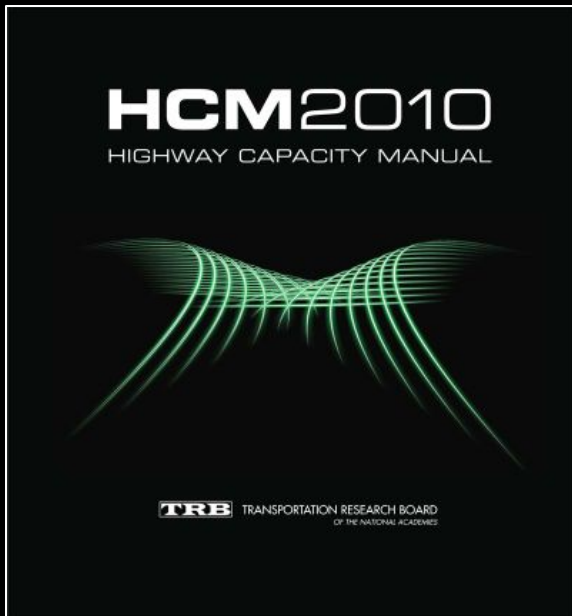


What Is NACTO?

- Founded 1996
- Peer Network of Large Central Cities (35)
- Advancing Sustainable Transportation and Street Design
- Focus on Local Innovation and Expertise
- City Counterpart to AASHTO (American Association of State Highway and Transportation Officials)



Prevailing design guidelines define every **street** as a **highway**



What do we expect of our streets?

THEN

Speed
Mobility
Safety

NOW

Multi-Modal Options

Public Health/Safety

Economic Development

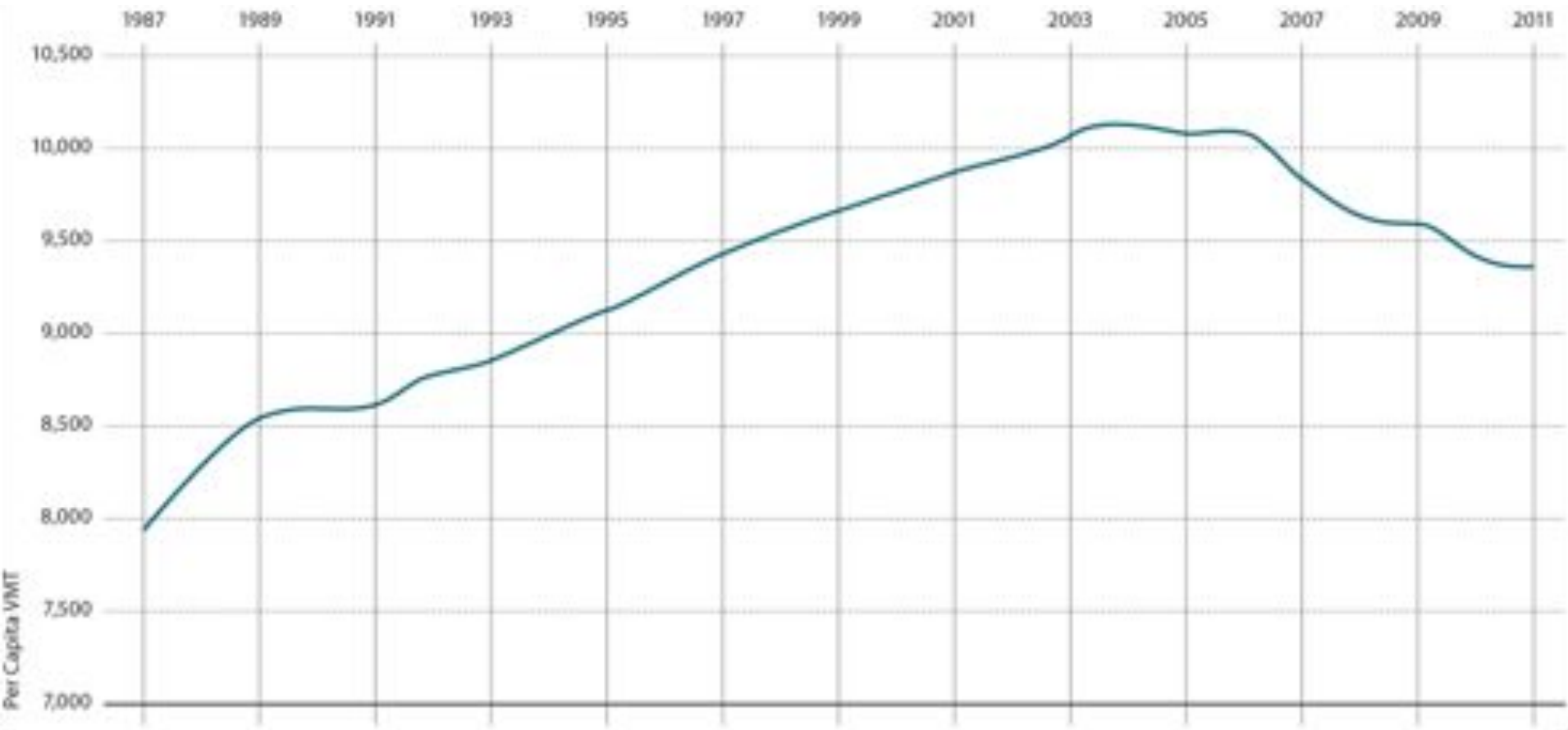
Environmental Quality

Community Building/Livability

Equity



People are Driving Less, Biking, Walking, and Taking Transit More



**We must align our Policy Goals
With our Engineering Specs**



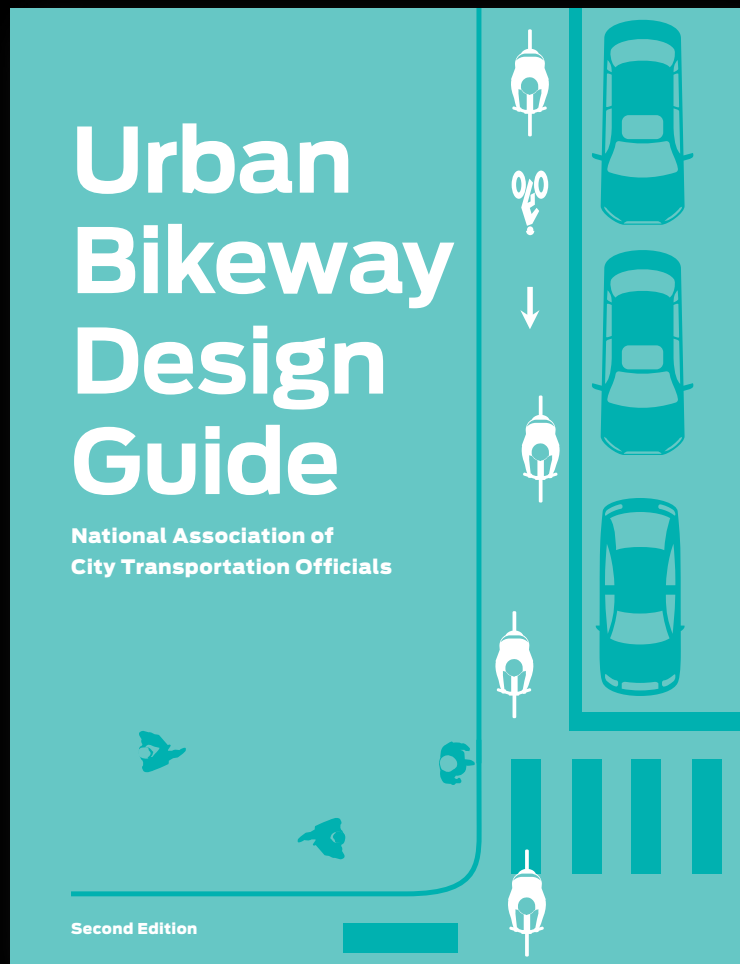
Boston Complete Streets
Guidelines, 2012



New York City
Street Design
Manual, 2nd Ed.
2013

San Francisco
Better Streets
Plan, 2010





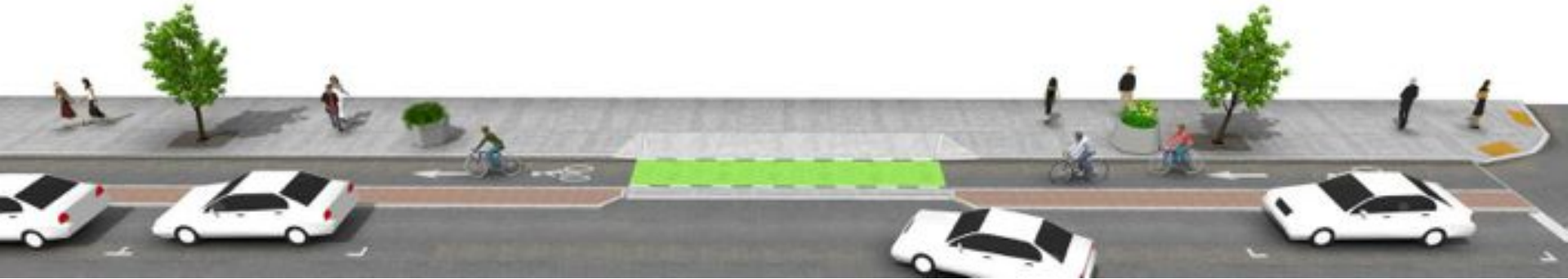
**Published March 2011
Second Edition Fall 2012**



**Published
September 2013**



Urban Bikeway Design Guide 2011-12





1 The layout of the intersection should be designed to encourage a high level of safety for all road users. The layout should be designed to encourage a high level of safety for all road users.

2 The layout of the intersection should be designed to encourage a high level of safety for all road users. The layout should be designed to encourage a high level of safety for all road users.

3 The layout of the intersection should be designed to encourage a high level of safety for all road users. The layout should be designed to encourage a high level of safety for all road users.

Proposed Features

4 The layout of the intersection should be designed to encourage a high level of safety for all road users. The layout should be designed to encourage a high level of safety for all road users.

5 The layout of the intersection should be designed to encourage a high level of safety for all road users. The layout should be designed to encourage a high level of safety for all road users.

6 The layout of the intersection should be designed to encourage a high level of safety for all road users. The layout should be designed to encourage a high level of safety for all road users.

7 The layout of the intersection should be designed to encourage a high level of safety for all road users. The layout should be designed to encourage a high level of safety for all road users.

8 The layout of the intersection should be designed to encourage a high level of safety for all road users. The layout should be designed to encourage a high level of safety for all road users.





Atlanta



Austin



Salt Lake City



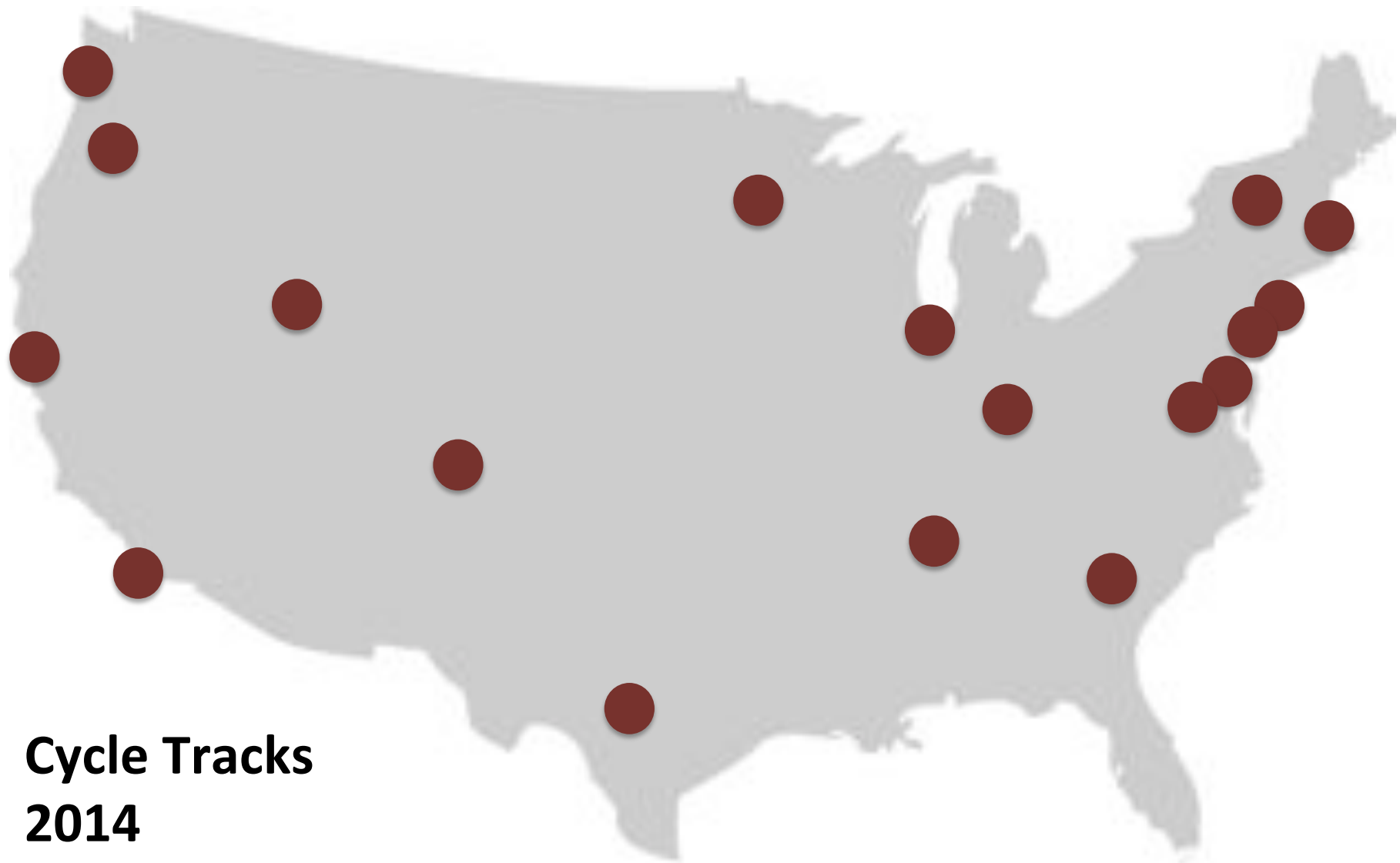
Charlotte



**Cycle Tracks
2009**

Pre-NACTO Guide

*NACTO Members only



**Cycle Tracks
2014
Post-NACTO Guide**

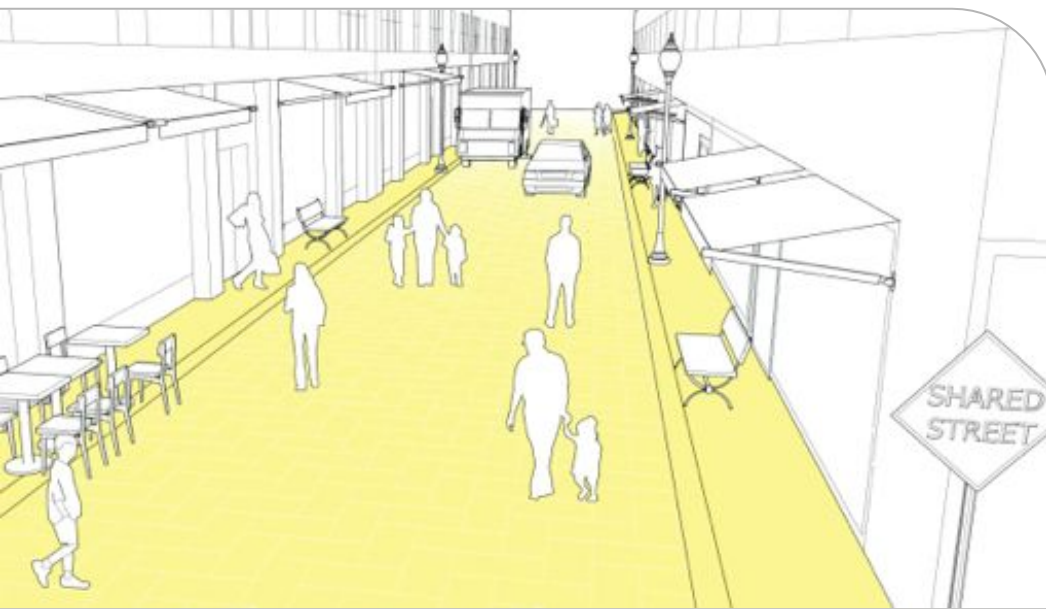
*NACTO Members only

ION STATION

Design
Guidance



The Urban Street Design Guide

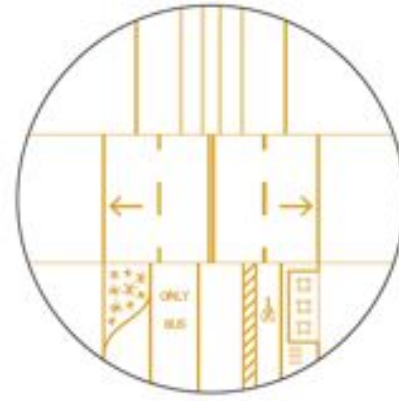




Streets Are
Public Spaces



Great Streets are
Great for Businesses



Streets Can
Be Changed



Design for
Safety



Streets are
Ecosystems



Act Now!





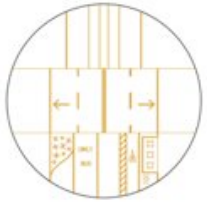
Streets Are Public Spaces





Great Streets are Great for Business





Streets can be Changed



Atlanta



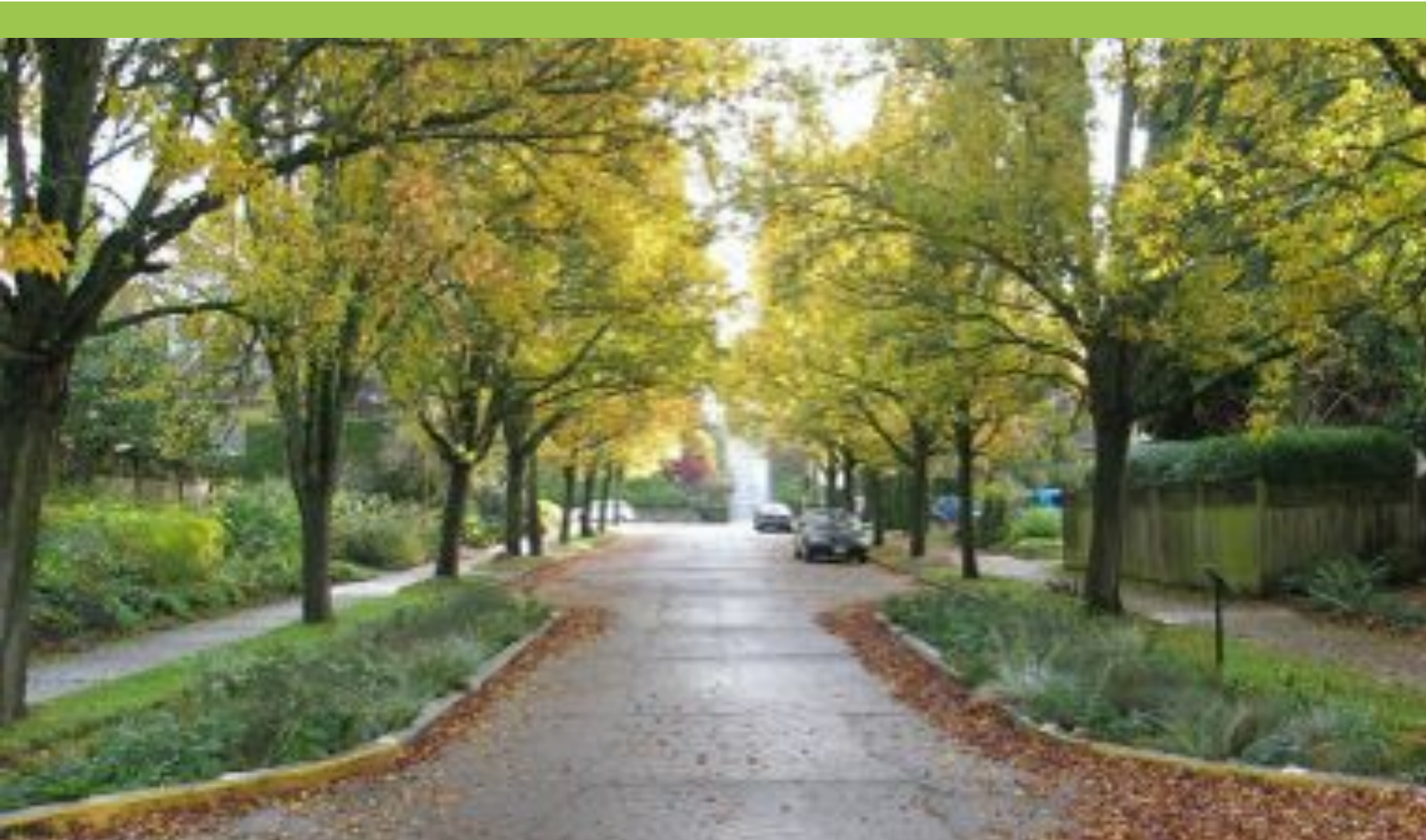


Design for Safety





Streets are Ecosystems





Act Now!



Raised Intersections

Raised intersections create a safe, slow-speed crossing and public space at minor intersections. Similar to speed humps and other vertical speed control elements, they reinforce slow speeds and encourage motorists to yield to pedestrians at the crosswalk.



RECOMMENDATIONS

1 Raised intersections are flush with the sidewalk and ensure that drivers traverse the crossing slowly. Crosswalks do not need to be marked unless they are not at grade with the sidewalk, ADA-compliant ramps and

2 Raised intersections (and mini roundabouts) with yield control are preferred to signals on low-speed (<20 mph) and low-volume (<3,000 ADT) streets, as well as some moderate-volume streets in 30 mph zones. STOP signs should be used instead of YIELD signs if there are concerns that drivers might ignore the pedestrians.

4 Where two 1-way streets intersect, there will be two corners around which no drivers turn. This can be designed with the smallest constructible radius (approximately 2 feet) as long as a 40-foot fire truck can make the turn without encroaching upon the sidewalk.

NACTO.ORG/USDG



Urban Street Design Guide

[USDG Home](#) [About The Guide](#) [Master Reference Matrix](#) [Purchase](#) [Chapters](#)

[Next »](#)

URBAN STREET DESIGN GUIDE

STREETS



INTERSECTIONS



STREET DESIGN ELEMENTS



INTERSECTION DESIGN ELEMENTS



INTERIM DESIGN STRATEGIES



DESIGN CONTROLS



A commercial shared street environment should be considered in places where pedestrian activity is high and vehicle volumes are either low or discouraged.



EXISTING

The downtown street in the rendering above is a common sight in many older cities where downtown commercial streets may predate wider grid streets. In newer cities, a retail district with heavy parking utilization and narrow, congested sidewalks may have similar conditions or opportunities.

- 1 Sidewalk congestion creates unsafe conditions, as crowding forces some pedestrians to walk in the street to avoid crowds.

Vehicles in search of on-street parking create traffic congestion.

- 2 Loading and unloading trucks obstruct pedestrian and vehicle traffic. Truck drivers park on the sidewalk to preserve vehicle flow while unloading, forcing pedestrians to mix with motorists.

RECOMMENDATIONS

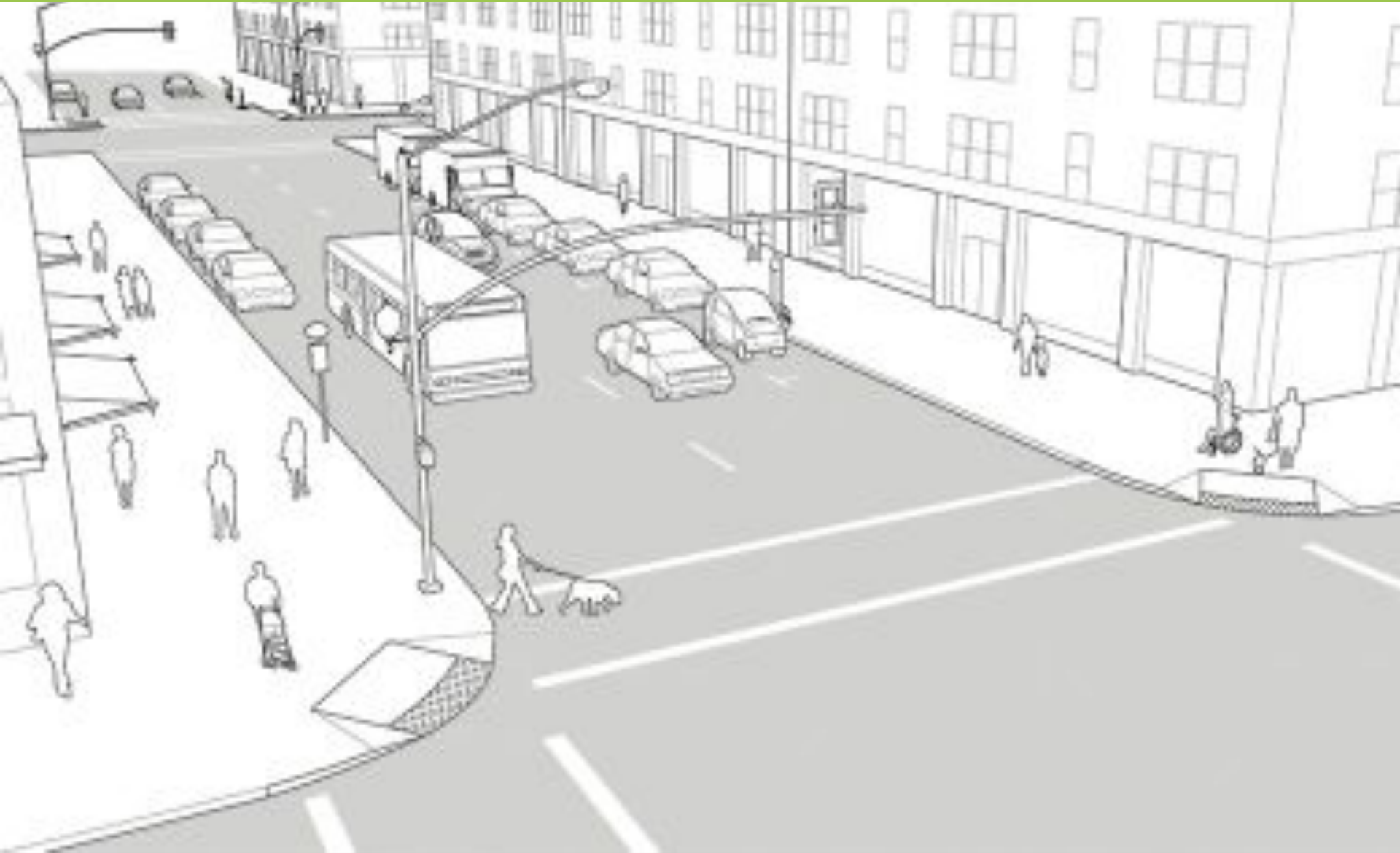
- 3 Textured or porous pavements that are flush with the curb reinforce the pedestrian-priority operation of the street and delineate a non-linear path of travel or narrow right-of-way. Special pavements, especially

- 4 Commercial shared streets should be accessible by single-unit trucks making deliveries. Where commercial alleys are non-existent, it may be advantageous to design a shared street to accommodate large trucks.

Provide tactile warning strips at the entrance to all shared spaces. Warning strips should span the entire intersection crossing.

Prior to the application of a shared street

Existing



Interim



Reconstruction

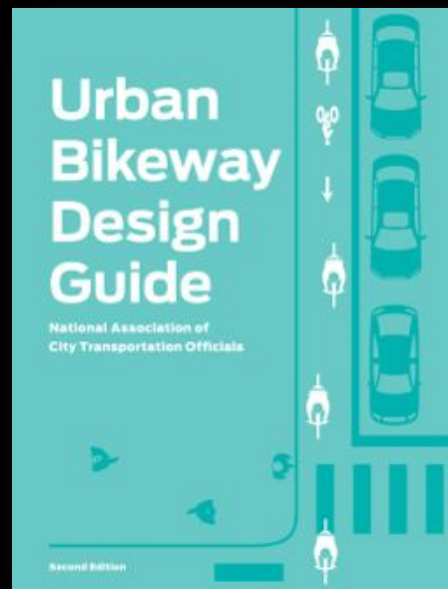


Implementing the Guide: The Next Steps



April 11, 2014

Caltrans Backs Innovative Street Design Guides to Promote Biking and Walking



“California’s transportation system must be multimodal and support bicycles and pedestrians as well as automobiles. Caltrans’ endorsement of these innovative street design options is an important part of modernizing our approach to improving transportation for all Californians.”

– CalTrans Director Malcolm Dougherty

Urban Street Design Guide Endorsements

States

California

Massachusetts

Minnesota

Tennessee

Utah

Washington

Cities

Arlington, VA

Atlanta

Austin

Baltimore

Bellevue, WA

Boston

Boulder

Brownsville, TX

Charlotte

Chattanooga

Chicago

Davis

Denver

El Paso

Fort Lauderdale

Hoboken

Indianapolis

Louisville

Minneapolis

New York

Oakland

Philadelphia

Pittsburgh

Phoenix

Portland, OR

Portsmouth, NH

Providence

Rochester, NY

Saint Paul

Salt Lake City

San Diego

San Francisco

Seattle

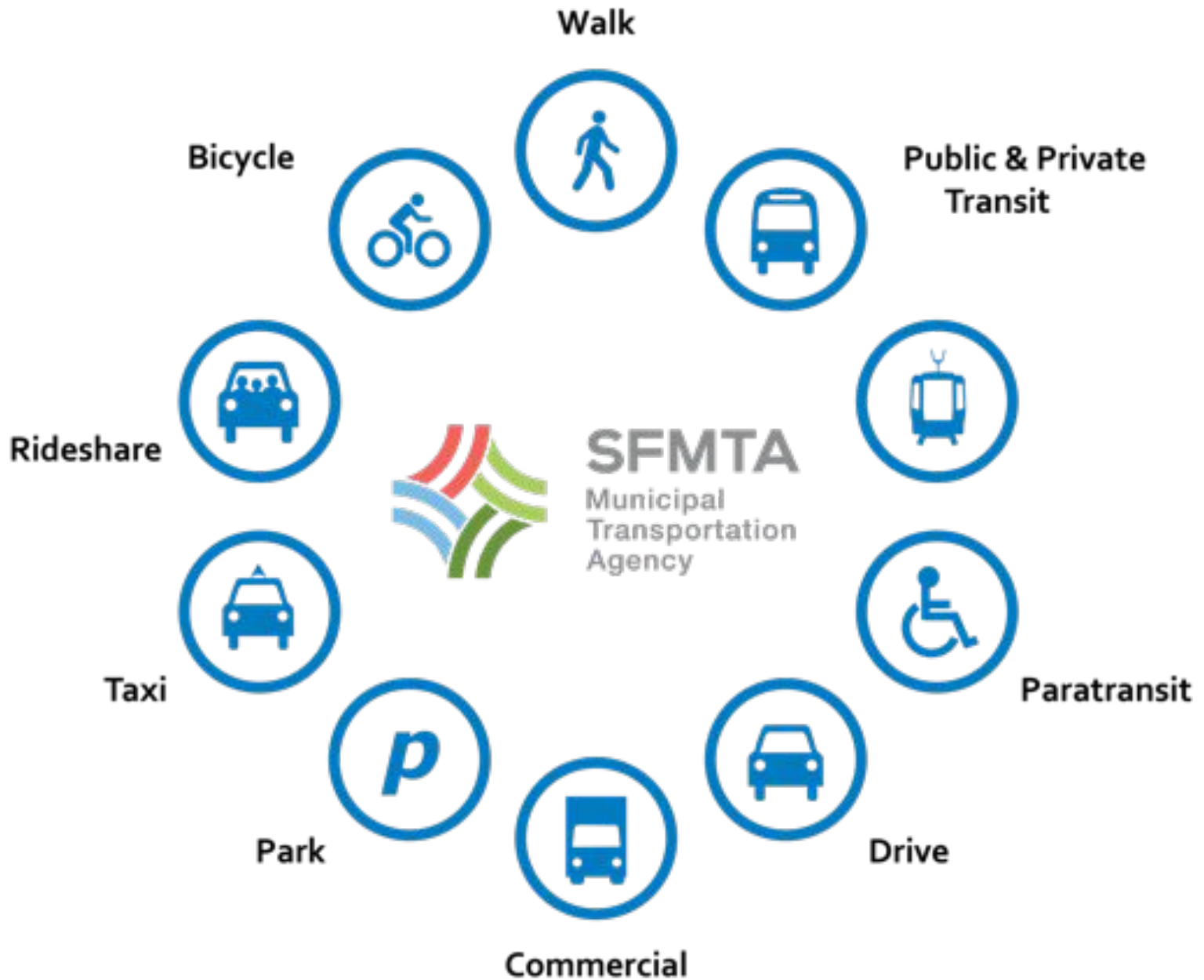
Somerville, MA

Tacoma, WA

Washington, DC



Implementing NACTO Principles in San Francisco





Transit Complete Streets



Improved Transit Reliability



Bicycle Network Safety Upgrades



Walkable Streets & Spaces



Vision Zero Traffic Safety

Quick / Cost-Effective Improvements



Advance Stop
or Yield Lines /
Red Visibility Curbs



Continental
Crosswalks



Leading Pedestrian
Intervals



Turn
Prohibitions



Reduced
Lane Widths



Temporary
Corner Bulbs
& Chokers



Pedestrian
Scrambles



Speed
Humps



Signal Timing
Changes



Protected
Left Turns



Temporary Pedestrian
Refuge Islands



Designing Cities Conference

San Francisco
October 22-25, 2014



NACTO's Urban Design Guidelines

Changing the DNA of California Streets



National Association of
City Transportation Officials

Edward Reiskin
Director, SFMTA
President, NACTO



SFMTA
Municipal Transportation Agency

SPUR
July 9, 2014

