



livableBOULEVARDS

Toolkit CD Resource Guide

Distributed at the Westside Cities
Livable Boulevards Symposium
Friday, October 6, 2006



TRANSIT

URBAN DESIGN

MOBILITY

AMENITIES

HOUSING

BEAUTY

ACCESSIBILITY

URBAN LIVING

**LIVABLE BOULEVARDS
TOOLKIT CD RESOURCE GUIDE**

**Prepared by Freedman, Tung & Bottomley for
consideration by the
Westside Cities Council of Governments**

**Presented at the
Westside Cities Livable Boulevards Symposium**

October 6, 2006

Funding: This report was prepared through a grant made possible by the Southern California Association of Governments (SCAG). The preparation of this report was financed in part through grants from the United States Department of Transportation (DOT).

The contents of this report reflect the views of the author who is responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the Westside Cities Council of Governments, SCAG or DOT. This report does not constitute a standard, specification or regulation.

More information about the Westside Cities Council of Governments is available at: www.westsidecities.org

OVERVIEW

This overview describes the material included in the four sections of the Toolkit CD including a synopsis of each. The Livable Boulevards Toolkit CD provides digital resources related to the topic of Livable Boulevards for consideration by the Westside Cities COG. Compiled to supplement information presented at the Livable Boulevard Symposium hosted by the Westside COG on October 6, 2006, the material on the CD offers participants the opportunity to explore more deeply key concepts discussed at the Symposium and in the White Paper prepared for distribution at the event. The full text of the White Paper is also included. Additional material, including a synopsis of the Symposium, will be available following the symposium by download from the Westside Cities COG web page, www.westsidocities.org. All of the Westside Cities are working on issues related to sustainability, accessibility and livability. For more information you can visit the city websites at: www.beverlyhills.org, www.culvercity.org, www.ci.la.ca.us, www.santa-monica.org, and www.weho.org.

1.0 Livable Boulevards Symposium White Paper

2.0 Toolkit CD Resource Guide

3.0 Toolkit Resources

a. Sustainability

- *Our Common Future*, United Nations General Assembly
- *Sustainable City Plan*, City of Santa Monica, CA
- *Broad City Initiatives to Promote Sustainability*, City of Vancouver, BC
- *Compact for a Sustainable Bay Area*, Bay Area Alliance for Sustainable Community
- *PLACE³S - The Energy Yardstick*, U.S. Department of Energy

b. Accessibility

- *"Efficiency - Equity - Clarity" Measuring Transportation: Traffic, Mobility and Accessibility*, Victoria Transport Policy Institute
- *Transport Demand Management (TDM) Encyclopedia, "Accessibility - Defining, Evaluating and Improving Accessibility"*, Victoria Transport Policy Institute
- *Toward an Accessibility Framework for Transportation Planning*, Susan Handy, University of California Davis
- *"Development of an Urban Accessibility Index: Formulations, Aggregation, and Application"*, Chandra Bhat, et al, Texas Department of Transportation
- *TDM Encyclopedia, "Evaluating Nonmotorized Transport"*, Victoria Transport Policy Institute
- *Comprehensive Transportation Review Methodology*, City of Rockville, MD
- *San Francisco Case Study*, U.S. Department of Transportation, Federal Highway Administration

c. Livable Boulevards: Housing Demand and Design

- *Current Preferences and Future Demand for Denser Residential Environments*, Dowell Myers and Elizabeth Gearin, University of Southern California
- *Hidden in Plain Sight: Capturing the Demand for Housing Near Transit*, Jennifer L. Dorn, Reconnecting America's Center for Transit-Oriented Development
- *The Minneapolis Corridor Housing Strategy Presentation*, Minneapolis Community Planning and Economic Planning Department
- *Design Issues for Housing on Corridors*, Metropolitan Design Center
- *Vancouver's New Neighborhoods, Achievements in Planning and Urban Design*, Larry Beasley, City of Vancouver, BC
- *Facilitating Small Scale, Mixed Use Development: What the Westside Cities Could Do*, Hamilton, Rabinovitz & Alschuler, Inc.

d. Corridor Structuring: A Classifications-Based Approach

- *Blueprint Denver, Chapter 4: The Plan Map*, The City and County of Denver, CO
- *The Transportation System Plan: 2004 Technical Update*, City of Portland OR
- *Transportation Strategic Plan: 2005 Update*, City of Seattle, WA
- *City of Seattle: Comprehensive Street Classification, Performance and Design Standard System, Final Working Paper*, Nelson\Nygaard Consulting Associates
- *City of Seattle Right of Way Manual, Chapter 4 Design Criteria*, City of Seattle, WA

4.0 Content Disclaimer

1.0 SUSTAINABILITY

The World Commission on Environment and Development in 1987 defined sustainable development in the publication [Our Common Future](#) as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” This definition considers that while development may be essential to satisfy human needs and improve quality of life, it should occur in such a way that the capacity of the natural environment to meet present and future needs is not compromised. (See “Our Common Future. pdf”)

A number of municipal and regional efforts have sought to incorporate practical approaches to sustainability into their plans and programs. Santa Monica is among these. Materials from this program are included in the toolkit resources along with material from the cities of Vancouver, British Columbia and the San Francisco Bay Area, leaders in the movement for sustainability.

PUBLIC SECTOR AND PUBLIC-PRIVATE PARTNERSHIP PROGRAMS

City of Santa Monica

Sustainable City Plan

<http://santa-monica.org/epd/scp/>

The City of Santa Monica created the Sustainable City Plan, adopted in February 2003, to help City Staff plan for a sustainable future. The primary goal of the plan is: “to conserve and enhance our local resources, safeguard human health and the environment, maintain a healthy and diverse economy, and improve the livability and quality of life for all community members in Santa Monica.” Together, nine Guiding Principles and eight Goal Areas present a vision of sustainability for the community. Each goal area also has indicators and targets to help city staff determine how well goals are being met. (See “Sustainable City Plan (SCP) - Santa Monica. htm”)

City of Vancouver, BC

Broad City Initiatives to Promote Sustainability

<http://www.city.vancouver.bc.ca/sustainability/initiatives.htm>

Vancouver prides itself on being a “livable city.” Because of this pride, City staff is very concerned with how to sustain this livability over the long term. To that end, they have defined principles of sustainability, which incorporate the three E’s of sustainability - Environment, Economy and Equity. In order to implement these principles, the city has a program of city initiatives that currently encompass the following issues:

- Economic Sustainability
- Transportation
- Building and Development
- Energy Use
- Environment
- Solid Waste/Stormwater Management
- Social Sustainability/Public participation

(see “Vancouver initiatives.htm”)

Bay Area Alliance for Sustainable Communities

Compact for a Sustainable Bay Area

<http://www.bayareaalliance.org/compact.html>

The Bay Area Alliance for Sustainable Communities (Alliance) is a multi-stakeholder coalition established in 1997 to define and pursue the goal of sustainability in the San Francisco Bay Area. The Alliance's perspective on sustainability embraces the Three Es - prosperous economy, quality environment, and social equity. One of the Alliance's accomplishments has been the completion of a regional "Compact" for sustainable development, which is circulated among participating organizations for their endorsement. The Alliance's website includes further information on indicators and projects relating to its mission. (See "Bay Area Alliance_compact.pdf")

Sustainable Development Modeling Software

PLACE³S - The Energy Yardstick

<http://www.smartcommunities.ncat.org/pdf/places.pdf>

The Energy Yardstick report describes PLACE³S, a software modeling program that allows cities to map land use and urban design features to better understand how their growth and development decisions can contribute to improved sustainability. The software was developed as a joint program of the California Energy Commission, Oregon Department of Energy and Washington State Energy Office. The PLACE³S approach to urban planning measures energy expenditure of different development types to evaluate the efficiency of land use and neighborhood design patterns. It pays particular attention to the distribution of housing and jobs, layout and operation of transportation systems, buildings and public infrastructures operations, and site energy facilities. (See "The Energy Yardstick_Place3s.pdf")

2.0 ACCESSIBILITY

In this section of the Toolkit CD, you will find information about accessibility, which can be defined as “the ability to reach desired goods, services, activities and destinations (together called opportunities).” (Victoria Transport Policy Institute Transportation Demand Management Encyclopedia).

The value of using accessibility as a criteria in creating livable boulevards is discussed in the companion white paper to this toolkit. The following documents explain the concept in greater detail and provide examples of how cities are implementing accessibility measures. These examples range from the highly technical (see, for example, Development of an Urban Accessibility Index: Formulations, Aggregation, and Application) to less complex, intuitive techniques (See “Rockville MD_LOS_Accessibility Example.pdf”)

CONCEPT OF ACCESSIBILITY

Victoria Transport Policy Institute

The Victoria Transport Policy Institute (VTPI) has a wealth of information about the concept of accessibility and its importance to creating effective transportation systems. The following documents provide concise explanations of the concept.

Litman, Todd. “Efficiency - Equity - Clarity” Measuring Transportation: Traffic, Mobility and Accessibility.”
Victoria Transport Policy Institute

<http://www.vtppi.org/measure.pdf>

This article by Mr. Litman compares three approaches to measuring transportation systems; 1) a traffic based approach, 2) a mobility based approach and 3) an accessibility based approach. The article describes methods of measurement, applications and pros and cons for each type. (See “Litman_T_Measuring Accessibility.pdf”)

Transport Demand Management (TDM) Encyclopedia, “Accessibility - Defining, Evaluating and Improving Accessibility.” Victoria Transport Policy Institute.

<http://www.vtppi.org/tdm/tdm84.htm>

The TDM Encyclopedia, developed by the Victoria Transport Institute, is a comprehensive resource for professionals involved in transportation planning. The Accessibility section, included in this toolkit, provides a wide range of information about the definition, application and measurement of accessibility. The entry includes the following sections:

- Description
- Factors That Affect Accessibility
- Evaluating Accessibility
- Additional Factors to Consider
- Strategies to Improve Access
- Best Practices
- References And Resources For More Information

(See “accessibility_VTPI_tdm84.htm”)

Dr. Susan Handy, University of California at Davis

***Toward an Accessibility Framework for Transportation Planning*, presented at *From Mobility to Accessibility*, University of Michigan, December 2004**

This presentation by Dr. Handy introduces and illustrates the concept of accessibility, compares it to mobility, and explains how the use of accessibility as a policy objective can influence decisions about transportation investments and land use strategies. The presentation also reports on the use of accessibility as a performance measure, as well as summarizing research findings regarding the impact of heightened accessibility on travel behavior. (See “S. Handy Accessibility Framework.pdf”)

MEASUREMENT SYSTEMS

Texas Department of Transportation

***Bhat, Chandra; Susan Handy, et al, “Development of an Urban Accessibility Index: Formulations, Aggregation, and Application”*, Texas Department of Transportation in cooperation with the U.S. Department of Transportation, Federal Highway Administration by the Center for Transportation Research, Bureau of Engineering Research, and The University of Texas at Austin, October 2002. http://www.utexas.edu/research/ctr/pdf_reports/4938_4.pdf**

Some measures of accessibility can be very complex. As described elsewhere in the materials provided here, measures of accessibility take into account both transportation and land use factors to assess the ease, cost and time of travel. The accessibility measure provided here quantifies accessibility in terms of four dimensions: trip purpose, mode, time-of-day, and spatial distribution (i.e. distance between destinations, the ease of reaching those destinations, and the quality of the destinations). It is intended for statewide transportation planning but could be adapted to a sub-regional application. (See “Urban Accessibility Index.pdf”)

Victoria Transport Policy Institute

***TDM Encyclopedia, “Evaluating Nonmotorized Transport.”* Victoria Transport Policy Institute. <http://www.vtpi.org/tdm/tdm63.htm>**

This chapter of the TDM describes techniques for measuring nonmotorized travel activity and demand, evaluating nonmotorized conditions, and incorporating nonmotorized travel into transportation models. These techniques can be used to identify specific barriers and problems facing pedestrians and cyclists, predict the increase in nonmotorized travel that would result from improvements, prioritize nonmotorized transportation improvements, and develop effective policies to improve and increase nonmotorized transportation. (See “Evaluating Nonmotorized Transport.htm”)

City of Rockville, MD

***Comprehensive Transportation Review Methodology*, September 29, 2004; Traffic and Transportation Division, City of Rockville, MD**

<http://www.rockvillemd.gov/residents/traffic/ctr.htm>

The City of Rockville Maryland created a Comprehensive Transportation Review (CTR) program as part of the development application process. CTR uses four types of criteria to determine the transportation impacts of new development. These are:

-
- LOS– The LOS for car, bus, bicycle and pedestrian systems around the project area.
 - Transit Orientation – Location of the project in terms of transit accessibility.
 - Transportation Demand Management – Projects that participate in a trip reduction program as defined by the City’s TDM program receive credit to new peak hour site trips before any other trip credits or reductions are applied for the development application.
 - On and Off-Site Accessibility – The CTR requires that all development applicants submit a Site Access and Circulation Analysis, which deals exclusively with on-site issues. Off site evaluation is also required for projects that will generate 30 peak hour vehicle trips per day.

(See “Rockville MD_LOS_Accessibility Example.pdf”)

City of San Francisco, CA

San Francisco Case Study, FHWA

http://www.fhwa.dot.gov/Planning/toolbox/sanfrancisco_overview.htm

The U.S. Department of Transportation Federal Highway Administration did a case study of a City of San Francisco project to measure the equity impacts of the 1998 Regional Transportation Plan. To measure equity, the Metropolitan Transportation Commission (MTC) developed transit and automobile accessibility measures that were compared with and without the plan. Two relatively simple measures were used to evaluate accessibility:

- A “threshold-based” measure, which evaluates the number of jobs reachable within an X-minute travel time of a given zone. MTC selected a variety of thresholds, including 30, 45, 60, and 75 minutes, for comparison.
- A “gravity-based” measure, in which the number of jobs in each zone is weighted in inverse proportion to travel time from the zone of residence (e.g., importance diminishes as distance increases).

The plan’s accessibility impacts were compared between areas of “disadvantaged” population and “not disadvantaged” areas. (See “Accessibility Case Study_sanfrancisco_overview.html”)

3.0 LIVABLE BOULEVARDS: HOUSING DEMAND AND DESIGN

Many cities around the world are improving neighborhood-oriented segments of large streets by designing for living as well as for mobility. The material in this section of the Toolkit covers two topics:

- Analyses of demographic change that is fueling demand for higher-density housing in places characterized by high levels of accessibility and amenity, and
- Urban design programs created by cities to address the special issues relevant to designing housing on large streets

For material addressing the design of the public right of way itself, see Toolkit Section 4.0 for the Design Criteria from the City of Seattle's Right of Way Manual.

HOUSING DEMAND

Housing Policy Debate

Dowell Myers and Elizabeth Gearin, "Current Preferences and Future Demand for Denser Residential Environments", *Housing Policy Debate*, Vol. 12, Issue 4 Pages 633-659, 2001.

Using preference surveys and demographic trends, Myers and Gearin project the housing demand for denser residential developments for the period of 2000 – 2010. Their results show that such demand will increase over the decade, particularly in older households. The report sheds light on the emerging market for corridor housing and the types of products that may be best suited for newly interested homebuyers. (See "HPD – Urban Housing Demand.pdf")

Reconnecting America

***Hidden in Plain Sight: Capturing the Demand for Housing Near Transit*, Reconnecting America's Center for Transit-Oriented Development, September 2004.**

A study by Reconnecting America's Center for Transit Oriented Development shows that demand for compact housing near transit is likely to more than double by 2025. "Hidden in Plain Sight: Capturing the Demand for Housing Near Transit" finds that across the U.S. more than 14.6 million households are likely to want to rent and buy housing near transit by 2025, double the number that live in these neighborhoods today. Meeting this demand would require building 2,100 residential units near each of the 3,971 stations included in the study. The Los Angeles area is identified as one of the 10 regions most likely to experience growth in demand for transit-oriented housing in the next 20 years. (See "Reconnecting America - TOD Housing.pdf")

HOUSING DESIGN

Minneapolis, MN

***The Minneapolis Corridor Housing Strategy Presentation*, City of Minneapolis MN**

http://www.ci.minneapolis.mn.us/cped/corridor_housing_strategy.asp

The City of Minneapolis initiated a corridor housing strategy to respond to unmet housing demand. The city found that large streets provided the best opportunity to integrate new high density housing into neighborhoods while at the same time battling disinvestment on its historic corridors. The City developed strategies to encourage redevelopment on residential, commercial and transit corridors. The program is introduced and

explained in the Minneapolis Corridor Housing Strategy Presentation (See “Minneapolis Corridor Housing Strategy Presentation.pdf”)

Design Issues for Housing on Corridors, Metropolitan Design Center

http://www.designcenter.umn.edu/projects/current/current_research_areas/housing/corridor_housing/corridor_housing.html

In conjunction with the Metropolitan Design Center (MDC), the City of Minneapolis developed urban design recommendations to address issues pertinent to corridor housing such as noise, traffic and parking and neighborhood character. MDC also provided examples of housing types appropriate to a range of corridor conditions (see “Minneapolis MDC corridor urban design.pdf”)

The Minneapolis Community Planning and Economic Development Department website on the Corridor Housing Strategy has additional information about the project (See “corridor_housing_strategy.asp.htm”)

Vancouver, British Columbia Canada

Vancouver’s New Neighbourhoods, Achievements in Planning and Urban Design, City of Vancouver, BC, December 2003.

The City of Vancouver is at the cutting edge of design for urban residential development. The City has been developing new prototypes for urban housing since the mid-1980s. The publication included in this toolkit highlights five Vancouver neighborhoods. Not all of the housing development shown are built on large arterials. However, most of the building types and configurations shown are appropriate for large streets and provide solutions to many of the challenges of urban living such as the need to balance public and private space, creating pedestrian scale street fronts while building multi-story buildings, and achieving comfortable “domestic” environments even in the heart of the city. (See “Vancouver Residential Neighborhoods Publication.pdf”)

City of Vancouver Community Services Urban Design Webpage

<http://www.city.vancouver.bc.ca/commsvcs/currentplanning/urbandesign/index.htm>

The City of Vancouver Current Planning Department’s Urban Design webpage describes the City’s goals for urban design, provides many examples of residential development that is appropriate throughout the City, with many good examples of corridor housing. The City’s urban design website provides additional information about design in Vancouver. (See “Vancouver_urban design website.htm”)

FEASIBILITY AND IMPLEMENTATION OF MIXED USE PROJECTS

Westside Cities and Southern California Association of Governments

“Facilitating Small Scale, Mixed Use Development: What the Westside Cities Could Do,” prepared by Hamilton, Rabinovitz & Alschuler, Inc. for the Westside Cities and the Southern California Association of Governments

This study was prepared over a decade ago, but continues to have relevance for those interested in understanding what local government can do to implement mixed use development. Case studies of built projects in the Westside cities are of particular interest. These are offered along with evaluation of feasibility of prototype projects that are illustrated and described in the report. (See “HRA_Westside mixed use.pdf”)

4.0 CORRIDOR STRUCTURING: A CLASSIFICATIONS-BASED APPROACH

Cities across the country are developing new planning tools to address improved integration of land use, transportation and urban design. An increasingly common tool is the use of thoroughfare classification systems to convey desired land use and mobility characteristics and guide decisions about zoning, capital investments, and transit services. Material from three cities – Seattle, Portland, and Denver – is included on the Toolkit CD and discussed in the White Paper on Livable Boulevards. A generalized approach is offered by The Institute of Transportation Engineers (ITE), in a 2006 Proposed Recommended Practice, which suggests combining conventional classifications with three thoroughfare types: Boulevard, Avenue and Street. In the ITE material, Boulevards are higher speed facilities, with a greater emphasis on mobility, while Avenues have more of the qualities that contribute to livability (ITE material is available through www.ITE.org). The White Paper proposes a classification process that might be used on the Westside.

DENVER, COLORADO

Blueprint Denver, Chapter 4: The Plan Map, Denver, CO,

http://www.denvergov.com/blueprint_Denver/

The City of Denver is using a street classification system that blends street design with land use and district types. The Denver classification system begins with a modified application of a conventional functional classification system (arterials, collectors, local streets, downtown access streets) which adds specificity about whether mobility or access is to be emphasized in a given location (pages 48 – 52). These functional classifications are overlaid with street types that are determined by the desired surrounding land use. Each street type prioritizes various design elements by looking at factors related to both the adjacent land use and the appropriate balance of transportation modes (pages 54-62). The plan uses the concept of a street interface, which specifies three major components of the street (travel-way, pedestrian area, and land use and urban design area), to determine the design features that should be emphasized (pages 52-54). (See “Blueprint Denver.htm”)

PORTLAND, OREGON

The Transportation System Plan: 2004 Technical Update, City of Portland, OR; Adopted by City Council on October 13, 2004, effective November 12, 2004). Volume 1

The Transportation System Plan for the City of Portland provides very clear policy language describing the classification system employed in Portland. (Pages 2-4 – 2-5). It also includes detailed definitions for several categories of streets including: Traffic Classifications (pages 2-6 – 2-8), Transit Classifications (pages 2-8 – 2-12); Bicycle Classifications (pages 2-12 – 2-13); Pedestrian Classifications (pages 2-13 – 2-15); Freight Classifications (pages 2-15 – 2-17); Minor Emergency Response Classification (pages 2-17 – 2-18); and Urban Design Classifications (pages 2-18 – 2-24). One street may have multiple classifications, which are used to evaluate the appropriateness of proposed improvements as well as to determine functional priorities. (See [Portland_Transportation Plan-Street Classification.pdf](#)” and “[Portland_Transportation Plan-Street Classification_figures.pdf](#)”

SEATTLE, WASHINGTON

Transportation Strategic Plan, 2005 Update City of Seattle

The City of Seattle has an extensive street classification system that incorporates similar characteristics as those systems adopted in Portland and Denver (i.e. function, context or land use, and form). In addition, Seattle

has refined a system of performance measurements to better help city staff evaluate if they are meeting transportation goals. (See [Seattle Transportation Strategic Plan_classifications policy.pdf](#))

City of Seattle: Comprehensive Street Classification, Performance and Design Standard System, Final Working Paper, Nelson\Nygaard Consulting Associates, Seattle, WA

www.seattle.gov/transportation/docs/transitplan_3366SeattlePerformanceMeasures0416.pdf

The performance and design standards system developed by Nelson/Nygaard for Seattle combines level of service conventions for automobiles with additional quality measures, such as quality of service for transit and quality of the pedestrian environment, to achieve more informative outcomes. (See “[SeattlePerformanceMeasures_Street Classification.pdf](#)” and “[Seattle Classifications maps](#)” folder).

Right of Way Manual, Chapter 4 Design Criteria, City of Seattle

In order to achieve their transportation goals, the City of Seattle has established street design standards for each street classification. These standards address not only the right – of – way but also the public frontage, which forms the pedestrian travel-way, and private frontage – or the relationship of buildings to the street. Chapter 4, Design Criteria, links the City’s street classification system with specific design elements. (See “[Seattle_ROW Manual_chapter 4 design criteria.pdf](#)”)