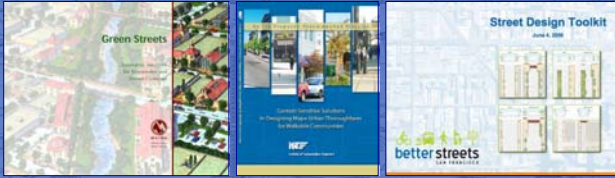


## Street Design Guidelines for Livable Communities



Phil Erickson, AIA  
 President  
 Community Design + Architecture  
 Oakland, California

## Tenets of Context Sensitive Solutions

- Balance safety, mobility, community and environment
- Involve public and stakeholders
- Interdisciplinary teams
- Multimodal
- Flexibility in design
- Incorporate aesthetics



Source: Minnesota Department of Transportation

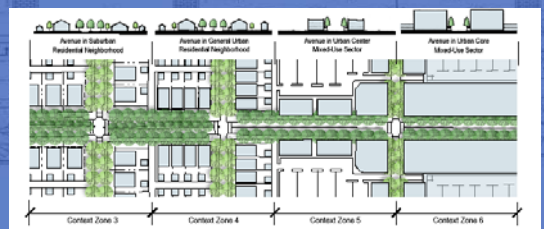
## Conventional vs. Context Sensitive Approach

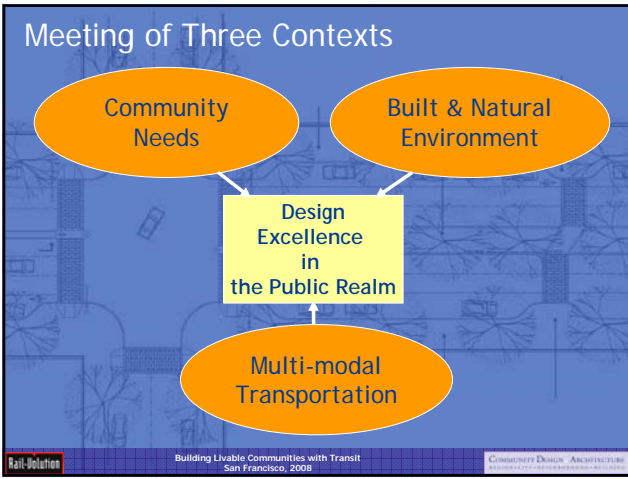
- Engineers & Designers working together with
  - Decision makers
  - Citizens & Businesses

Conventional	CSS Approach
Context: Urban Rural	Context: Suburban General urban Urban center Urban core
Design criteria primarily based on: Transportation function Design speed Forecast travel demand Level of service	Design criteria primarily based on: Community values Transportation function Street type Adjacent land use Mobility for all modes

## Context Sensitive Tenet – *Street Design Changes as Context Changes*

“Thoroughfare design is not just sensitive to context—but part of the context and helps define the place”





## Defining Context & Street Together

- Region & City
- District & Neighborhood
- Building & Site

- Regional Patterns
  - Land Use Patterns
  - Transportation Network

Places29 - Albemarle County, Virginia

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## Defining Context & Street Together

- Region & City
- District & Neighborhood
- Building & Site

- Mixed use walkable places
  - Neighborhoods for living
  - Employment districts for working

Urban Advantages for Dover K201 & Parktown

Urban Advantages for CD-A

Places29 - Albemarle County, Virginia

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## Defining Context & Street Together

- Region & City
- District & Neighborhood
- Building & Site

Street Enclosure Height to Width Ratio

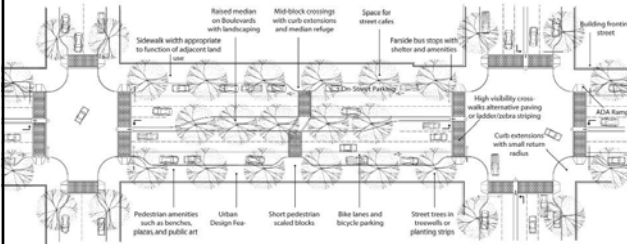
Gap in Context

Buildings do not provide Desired Context

Match of Context and Thoroughfare

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## CSS Elements in Urban Contexts



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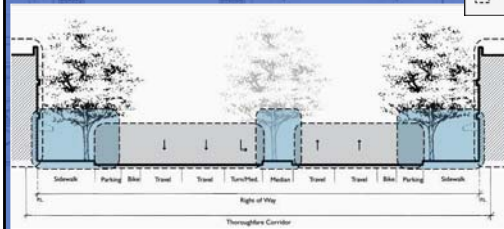
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COMMUNITY DESIGN ARCHITECTURE  
ARCHITECTURE AND URBAN PLANNING

## Elements of the Cross Section

- Realms of the Street
  - Context Realm
  - Pedestrian Realm
  - Travelway Realm

LEGEND	
	Context Realm
	Context/ Pedestrian Overlap
	Pedestrian Realm
	Pedestrian/ Travelway Overlap
	Travelway Realm
	Intersection Realm



ITE/CNU Urban Thoroughfare Design Manual - Kimley Horne Associates and CD+A

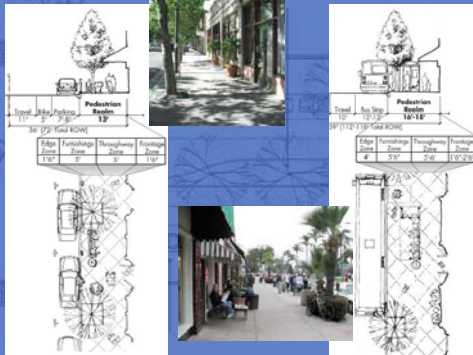
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COMMUNITY DESIGN ARCHITECTURE  
ARCHITECTURE AND URBAN PLANNING

## Sidewalk Zones

- Edge
- Furnishing
- Throughway
- Frontage



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COMMUNITY DESIGN ARCHITECTURE  
ARCHITECTURE AND URBAN PLANNING

## Sidewalk - Throughway Zone

- Pedestrian travel
- Must be clear of obstacles
- Absolute minimum 4' width, wider on streets with many pedestrians



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COMMUNITY DESIGN ARCHITECTURE  
ARCHITECTURE AND URBAN PLANNING

## Sidewalk - Frontage Zone

- Defined by building façade, landscaping, or fence
- Used for window shopping, entering & exiting buildings
- May be used for displays & outdoor seating
- Must not impede on the Throughway Zone



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COMMUNITY DESIGN ARCHITECTURE  
ARCHITECTS AND PLANNERS

## Sidewalk - Furnishing Zone

- Landscaping, lighting, utilities, and amenities for pedestrians
- Buffering from traffic (combined with parking lane, bike lane, etc.)
- Defines street character: aesthetic detail of elements, setting rhythm, reducing clutter...
- Appropriate width determined by street and context



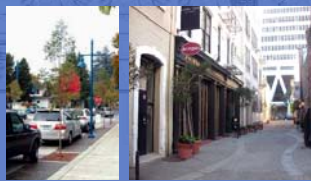
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## Sidewalk - Edge Zone

- Interface between roadway and sidewalk
- 6" minimum, 18"-24" minimum for parked car door swing, 4' minimum for circulation at transit stops
- Does not need vertical definition



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COMMUNITY DESIGN ARCHITECTURE  
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## Intersection Design

- Avoiding large undefined open spaces
- Providing safe circulation for all modes

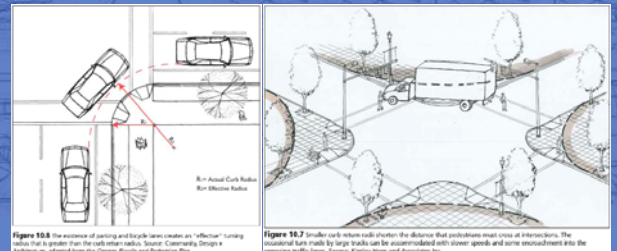


Figure 10.6 The enclosure of parking and bicycle lanes creates an "effective" curbing radius that is greater than the curb return radius. Source: Community Design Architecture, adapted from the Design Manual and Reference Plan.

Figure 10.7 Smaller curb return radii shorten the distance that pedestrians must cross at intersections. The enclosure lanes made by large trucks can be accommodated with slower speeds and some encroachment into the opposing travel lanes. Source: Kinney-Korn and Associates, Inc.

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COMMUNITY DESIGN ARCHITECTURE  
ARCHITECTS AND PLANNERS

## Intersection Design

- Avoiding large undefined open spaces



El Camino Real @ Los Robles - EXISTING CONDITIONS

Palo Alto, California

## Intersection Design

- Creating opportunities to improve context



El Camino Real @ Los Robles - PROPOSED IMPROVEMENTS

Palo Alto, California

## Green Streets

- Integrating Streets & Context with Natural Environment



## Green Streets - Example Project

- Street Planters  
SW 12th St, Portland, OR



Designer: Kevin Perry, City of Portland Bureau of Environmental Services



## San Francisco Better Streets

- Defining a Vision
- Departmental Coordination
- Defining Street Types
- Creating a Toolkit



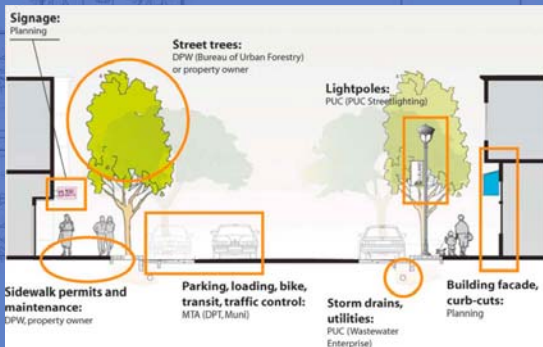
## Why the Better Streets Plan?

- Developed Parcels: 57% of city land
- Parks: 18% of city land
- Streets: 25% of city land



## Why the Better Streets Plan?

- Need of Agency Coordination



## Why the Better Streets Plan?

- Need for -
  - Standards for street design & maintenance
  - Framework for implementation
  - Citywide 'cookbook' for use by all agencies



## Residential Neighborhood Street

- Basic Improvements
  - More consistent tree & landscape planting
  - Pedestrian-scale lighting
  - Corner curb extensions at corners with major streets
  - High visibility crosswalks with directional curb



## Details

- Street Design Elements
  - Curb Extensions
  - Curb Radii
  - Pedestrian Crossings
  - Median and Median Islands
  - Sidewalk and Median Pocket Parks
  - On-street Parking Lanes
  - Curb Cuts
  - Intersection Treatments
  - Special Conditions
- Streetscape Elements
  - Urban Forest
  - Lighting
  - Paving
  - Street Furnishings
  - Consolidated Parking Meters
  - Wayfinding Signage
  - Public Art
- Sub-surface Elements
  - Stormwater Treatment
  - Underground Utilities

## Other Considerations

- Stormwater management
- Reuse of underused r.o.w. space
- Culturally-sensitive plantings
  - For Asian residents feng shui can be important in designing the streetscape
- Urban forest as habitat



The reuse of underused spaces for increasing greenery on San Francisco's streets is a key strategy for improving the public realm and making a more sustainable city.

## Redesign of a Neighborhood Street



Simulation by: Urban Advantage

## Redesign of a Neighborhood Street



## Street Design Guidelines for Livable Communities



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