Big Streets: An Integrated Place-Based Approach

Ellen Greenberg



Big Streets: An Integrated Place-Based Approach

Addressing Mobility, Urban Design and Land Use in Arterial Planning and Management



Ellen Greenberg April, 2007 revised April, 2008

How did we get here?



The Conventional Approach: What We're Used To

Functional Classification

of Streets

Local

Collector

Arterial



The Conventional Approach: What We're Used To

Functional Classification

of Streets

- Local
- Collector
- Arterial



The Conventional Approach

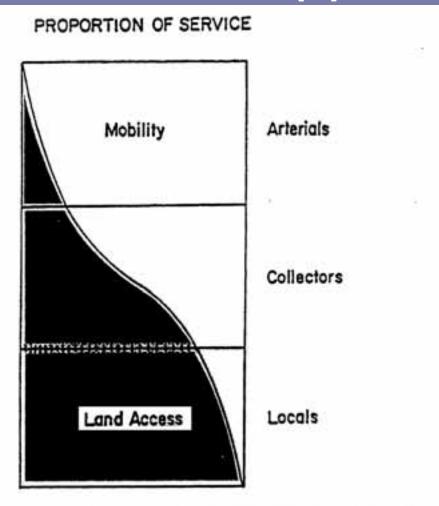


Exhibit 1-5. Relationship of Functionally Classified Systems in Serving Traffic Mobility and Land Access

Ellen Greenberg

The Conventional Approach

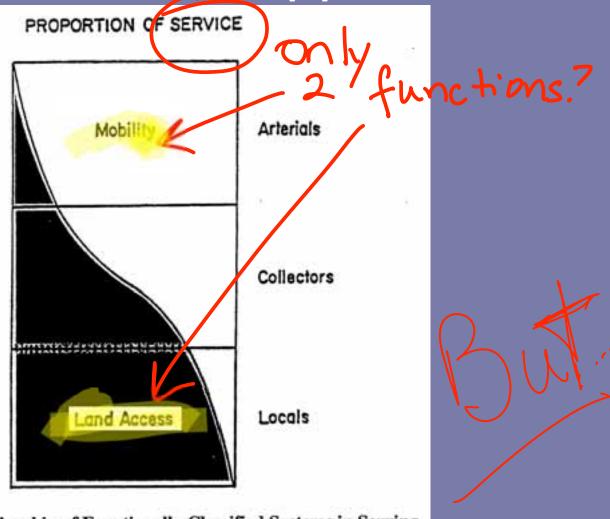


Exhibit 1-5. Relationship of Functionally Classified Systems in Serving Traffic Mobility and Land Access

Ellen Greenberg

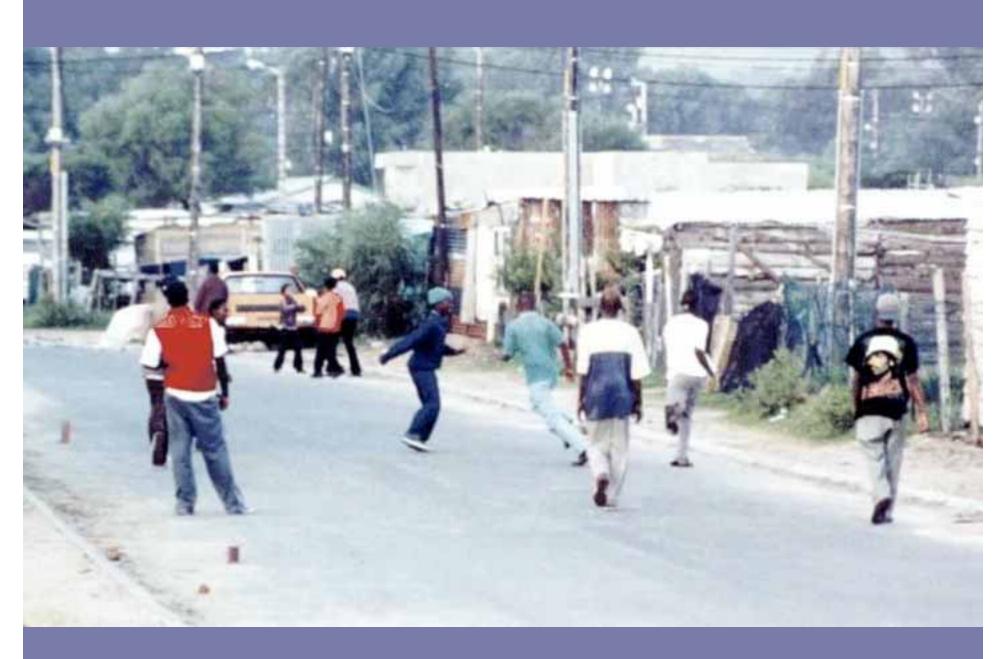














Streets are Settings

For...

- Movement
- Play
- Culture
- Commerce
- Spectacle
- Democracy



Streets are Settings

For...

- Movement
- Play
- Culture
- Commerce
- Spectacle
- Democracy



Streets are Settings

For...

- Movement
- Play
- Culture
- Commerce
- Spectacle
- Democracy

So...

How can we improve our approach to planning streets to recognize these many important functions?

Two New Approaches

ITE Recommended Practice

- Uses Functional Class
- Adds Thoroughfare Type
- Context Zones convey place-based information

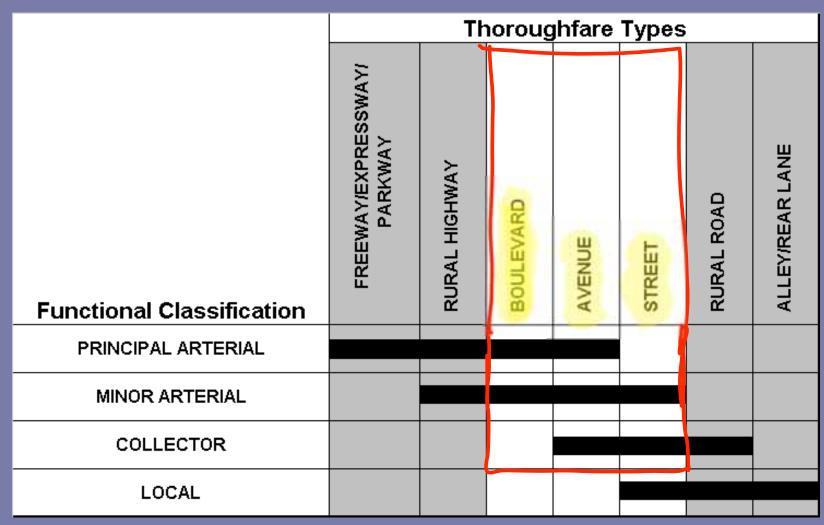
Integrated Place-Based Approach

- Maintains functional class for funding purposes
- Addresses
 thoroughfare design
 and management as
 part of place

ITE Recommended Practice Context Sensitive Solutions in designing Major Urban Thoroughfares for Walkable Communities

- Uses Functional Class
- Adds Thoroughfare Type
- Place-based information conveyed with context zones

ITE: Thoroughfare Type and Functional Class



Functional Classification in Thoroughfare Design

- Function and role in the network
 - Continuity
 - Trip purpose and length
 - Level of land access
 - Type of freight
 - Types of public transit
- Design controls
 - Design speed for sight distance
 - Horizontal and vertical curvature

Thoroughfare Type in Design

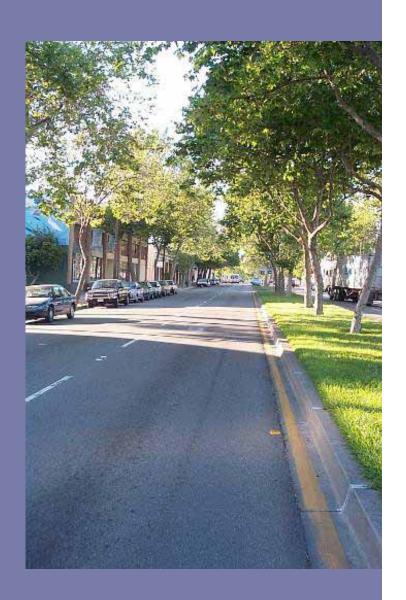
- Design criteria
 - Target speed (desirable operating speed)
- Physical configuration
 - With surrounding context
- Dimensions for:
 - Roadside
 - Traveled way
 - Intersections

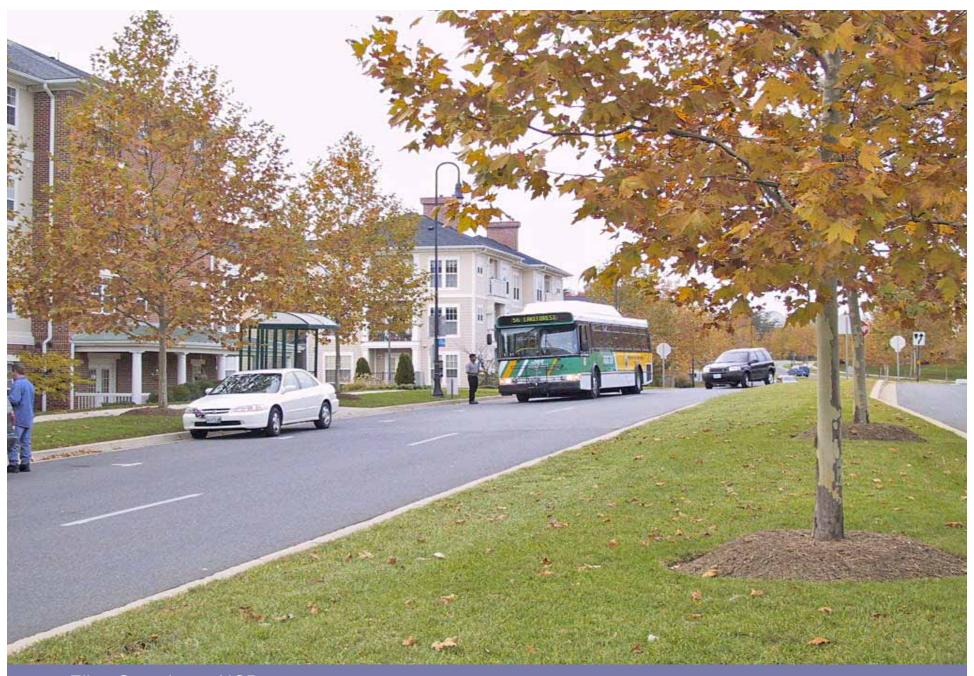
Thoroughfare Type Characteristics

| Urban Thoroughfare Type | Number of Through Lanes | Design Speed (mph) | Operating Speed (mph) | Intersection Spacing [1] | Transit Service Emphasis | Median | Driveway Access | Curb Parking | Pedestrian Facilities [2] | Bicycle Facilities | Freight Mvmt. [3] |
|----------------------------|-------------------------------|---------------------------------------|--------------------------|--|--------------------------------|----------|-------------------------|-----------------------------|----------------------------------|----------------------------------|---|
| FREEWAY | 4 to 6+ | 50-70 | 45-65 | 1 to 2 miles | Express | Required | No | No | No | Optional Separated Pathway | Regional Truck Route |
| EXPRESSWAY/PARKWAY | 4 to 6 | 50-60 | 45-55 | 1/2 to 1 mile | Express | Required | No | No | Optional Separated Pathway | Optional Separated Pathway | Regional Truck Route |
| BOULEVARD | 4 to 6 | 35-40 | 30-35 | 660 to 1,320 feet | Express and Local | Required | Limited | Optional | Sidewalk | | Regional Truck Route |
| MULTIWAY BOULEVARD | 4 to 6 | 30-40 (20 in access roadway) | 25-35 | 660 to 1,320 feet (400 to 660 feet for access lanes) | Express and Local | Required | Yes from access lane | Yes on access roadway | Sidewalk | | Regional Route/Local deliveries only on access roadway |
| AVENUE | 2 to 4 | 30-35 | 25-30 | 300 to 660 mile | Local | Optional | Yes | Yes | Sidewalk | | Local Truck Route |
| STREET | 2 | 30 | 25 | 300 to 600 feet | Local | Optional | Yes | Yes | Sidewalk | | Local Deliveries Only |
| ALLEY/REAR LANE | 1 | 10 | 5 | Not Applicable | None | No | Yes | No | Shared | Shared | Local Deliveries Only |

Avenue

- Arterial or collector (4 lanes max)
- Target speed (30 to 35 mph)
- Land access
- Primary ped and bike route
- Local transit route
- Freight local deliveries
- Optional raised landscaped median
- Curb parking





Street

- Collector or local street (2 lanes)
- Target speed (25 mph)
- Land access primary function
- Designed to:
 - Connect residential neighborhoods
 - Connect neighborhoods with commercial districts
 - Connect local streets to arterials
- May be commercial main street
- Emphasizes curb parking
- Freight restricted to local deliveries



Multi-way Boulevard

- Characterized by:
 - Central roadway for through traffic
 - Parallel roadways access abutting property, parking, and pedestrian and bicycle facilities
 - Parallel roadways separated from the through lanes by curbed islands
- Require significant right-of-way
- Special treatment of intersections



Street in urban center context



Boulevard in general urban context



Boulevard in urban core context



Avenue in suburban context



Avenue in urban center context



Integrated Place-Based Approach

Intent

- Improve mobility and place-making through design, land use regulation and management
- Tailor approach to place
- Establish a system that helps guide community funding, development policy, design and operational decisions
- Maintain functional class for funding purposes

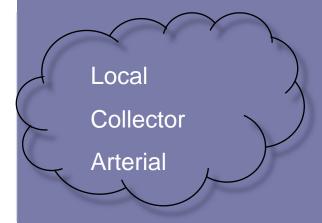
Making a Place-based System

- Move conventional functional classification to the background
- 2. Imagine an alternative

1. Move Conventional Functional Classification to the Background

- LOCAL
- COLLECTOR
- ARTERIAL

1. Move Conventional Functional Classification to the Background



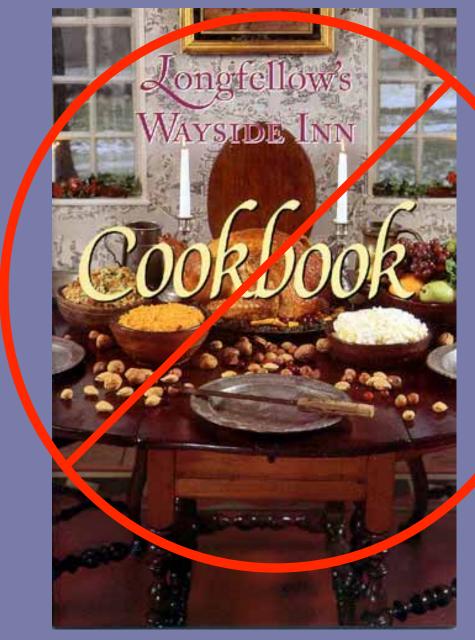
2. Imagine an Alternative that will:



- 1. Address the structure of the City
- 2. Be tailored to your community
- 3. Help make design, programming and management decisions for major streets
- 4. Communicate information about place, vision, and change
- 5. Pay close attention to mobility issues

Making an Integrated Place-based System: Ingredients

- 1. Land Use (activity mix)
- 2. Mobility
- 3. Urban Design
- 4. Ecological functions (emerging priorities)



For Community Consideration

?

?

?

- Community values, necessities and needs
- Possibilities for arterial corridors
- Features that are particular to your place
- •Best future combination of land use, design and mobility characteristics

Example: Los Angeles Westside

- Mature, built out urban area with very strong housing market
- Expanding network of transit services
- Regional plan ("Compass Blueprint") including arterial strategy
- Interest in evolving arterials into livable boulevards

Locally-defined Segment Types (example)

Urban Living

Hybrid Districts

World City

Ellen ellengreenberg.com



Ellen Greenberg, AICP Ellen@ellengreenberg.com Urban Living

Urban Living - land use -



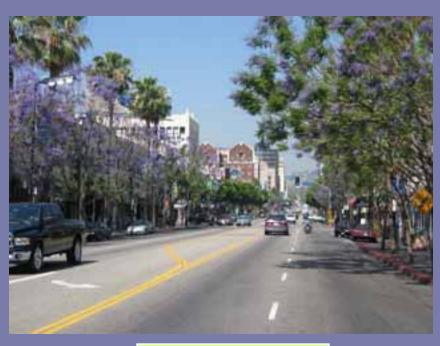
- Corridor Housing
- Local-serving shops and services
- Schools and parks nearby
- Small-scale offices

Urban Living - urban design -



- Building fronts and primary entries oriented to street
- Pedestrian scale design detail
- Consistent street wall
- Single-use segments
 (e.g. housing, office)
 limited in length for
 walkability
- Few curb cuts

Urban Living -mobility-



- Speeds not greater than 25 mph
- Transit with closelyspaced stops & access to regional transit
- Curb parking
- Connectivity with adjoining neighborhoods
- Highest quality pedestrian realm
- Bike circulation

Urban Living - urban design -



- Building fronts and primary entries oriented to street
- Pedestrian scale design detail
- Consistent street wall
- Single-use segments
 (e.g. housing, office)
 limited in length for
 walkability
- Few curb cuts

Urban Living - Ecology -



- Urban forest: shade, habitat and water quality functions
- Drainage...
- Street cleaning...
- Trash and recycling



Ellen Greenberg, AICP Ellen@ellengreenberg.com Hybrid Districts

Hybrid Districts - land use -



- Shopping Centers
- Business Park / R&D
- Warehouse / Industry
- Protected residential (i.e. housing units backing on street with substantial landscape buffer)
- Large-footprint institutional uses (e.g. hospitals)

Hybrid Districts - design -



- Main entries and doors do not orient to street
- On-site parking (surface or structure)
- Building massing and design detail at auto scale
- High-quality landscaping
- Clear and safe routes for pedestrians

Hybrid Districts - mobility -

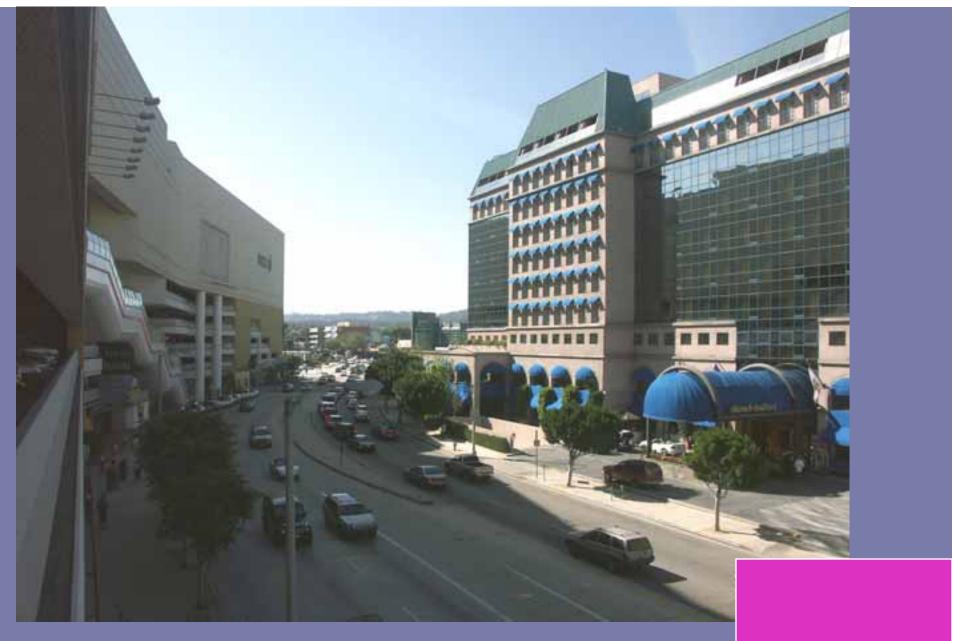


- Emphasis on longerdistance movement of cars & freight
- Transit with widelyspaced stops and high operating speeds
- Vehicle speeds up to 40 mph
- No curb parking
- Access control
- Pedestrian safety

Hybrid Districts - Ecology-



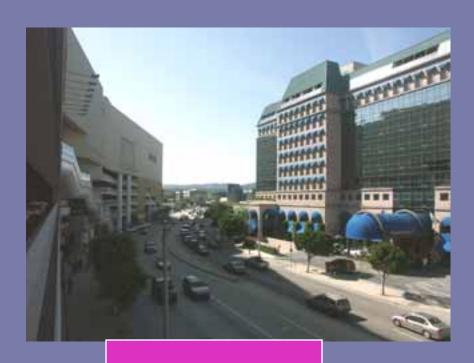
...[needs to be developed]



Ellen Greenberg, AICP Ellen@ellengreenberg.com World City

World City

- uses -



- Unique Activities
- Visitor Attractions
- International Destination Shopping and Dining
- Headquarters and signature employment
- Defining Natural Features

World City - design -



- Building facades that provide sense of entrance and excitement
- Main entries and windows directly onto sidewalk
- Mix of conventional and unusual architectural forms
- Minimum surface parking
- High-quality urban open spaces and streetscape

World City - mobility -



- Longer-distance and local transit
- Comfortable pedestrian realm
- Protect adjoining neighborhoods (low connectivity)
- Abundant signage
- Custom streetscape
- Moderate speeds
- Few driveways

World City - ecology-



...[needs to be developed]

Boulevard Classifications Summary of Example

Urban Living

The arterial is a piece of a highly-accessible neighborhood where many short trips are made on foot or by transit

Hybrid Districts

The arterial and surrounding properties are poorly integrated; vehicle movement dominates the arterial, pedestrian circulation is primarily on-site

World City

The arterial and surrounding properties are well integrated and reflect high level of longer-distance travel and pedestrian circulation primarily along the arterial and on-site at major activity centers

For Community Consideration



- Community values, necessities and needs
- Possibilities for arterial corridors
- Features that are particular to your place
- Best future combination of land use, design and mobility characteristics