

# What does the CSS Manual Mean for Walkability?

Terri Musser

Ryan Snyder

# Types of Pedestrian Environments

1. Pedestrian Intolerant
2. Pedestrian Tolerant
3. Pedestrian Supportive
4. Pedestrian Place

# Pedestrian Intolerant



# Pedestrian Tolerant



# Pedestrian Supportive



# Pedestrian Place

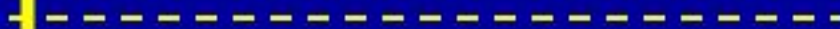


# Pedestrian Environment Continuum

**Pedestrian Friendliness**



Pedestrian Place/District



Pedestrian Supportive  
Environment



Pedestrian Tolerant  
Environment



Pedestrian Intolerant  
Environment



urban

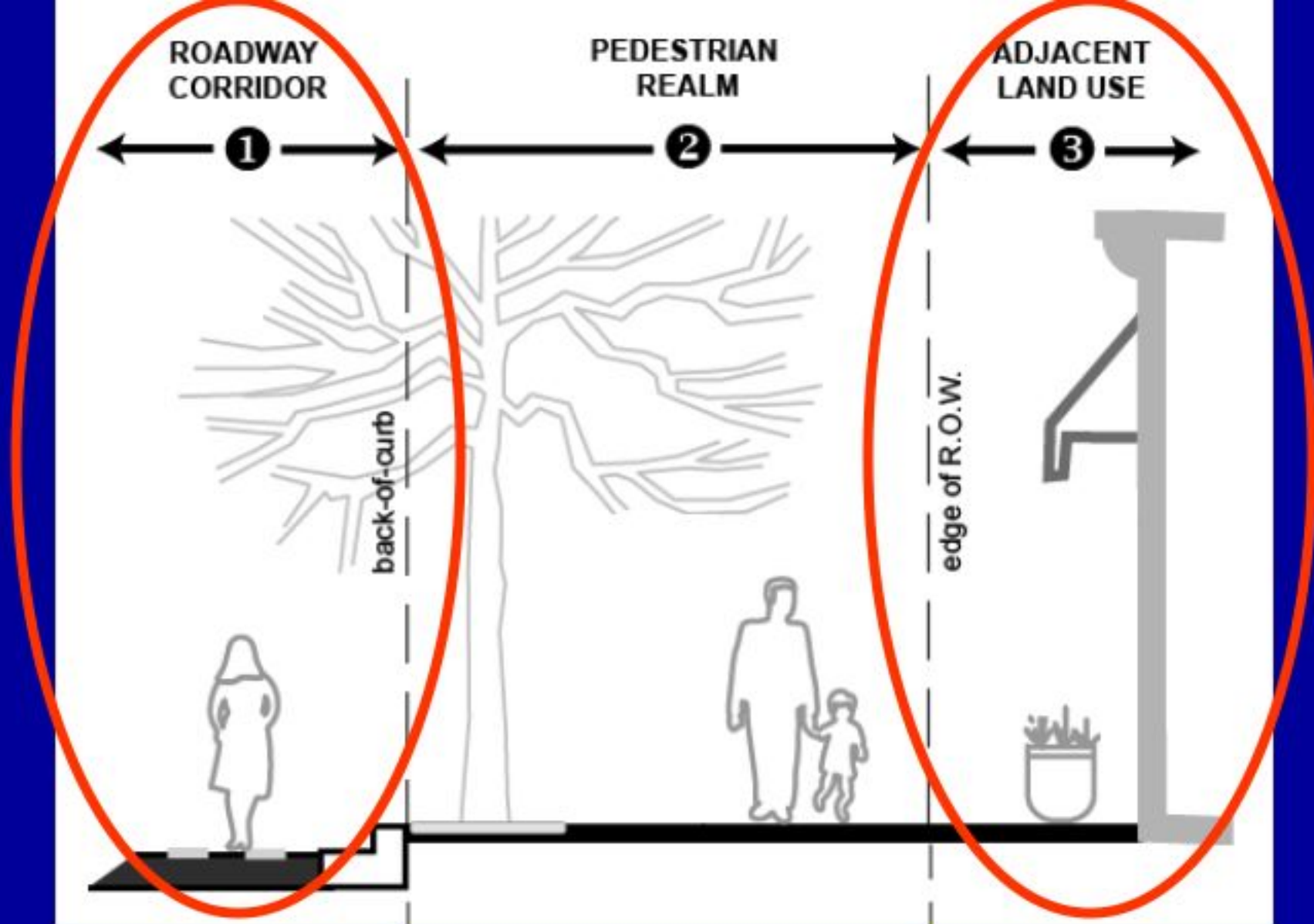
**Transect**

rural

SPEED  
LIMIT  
45

4' min.





**Traveled Way**  
 Chapters 9-10

**Roadside**  
 Chapter 8

**Context Zones**  
 Chapter 4

SPEED  
LIMIT  
**45**



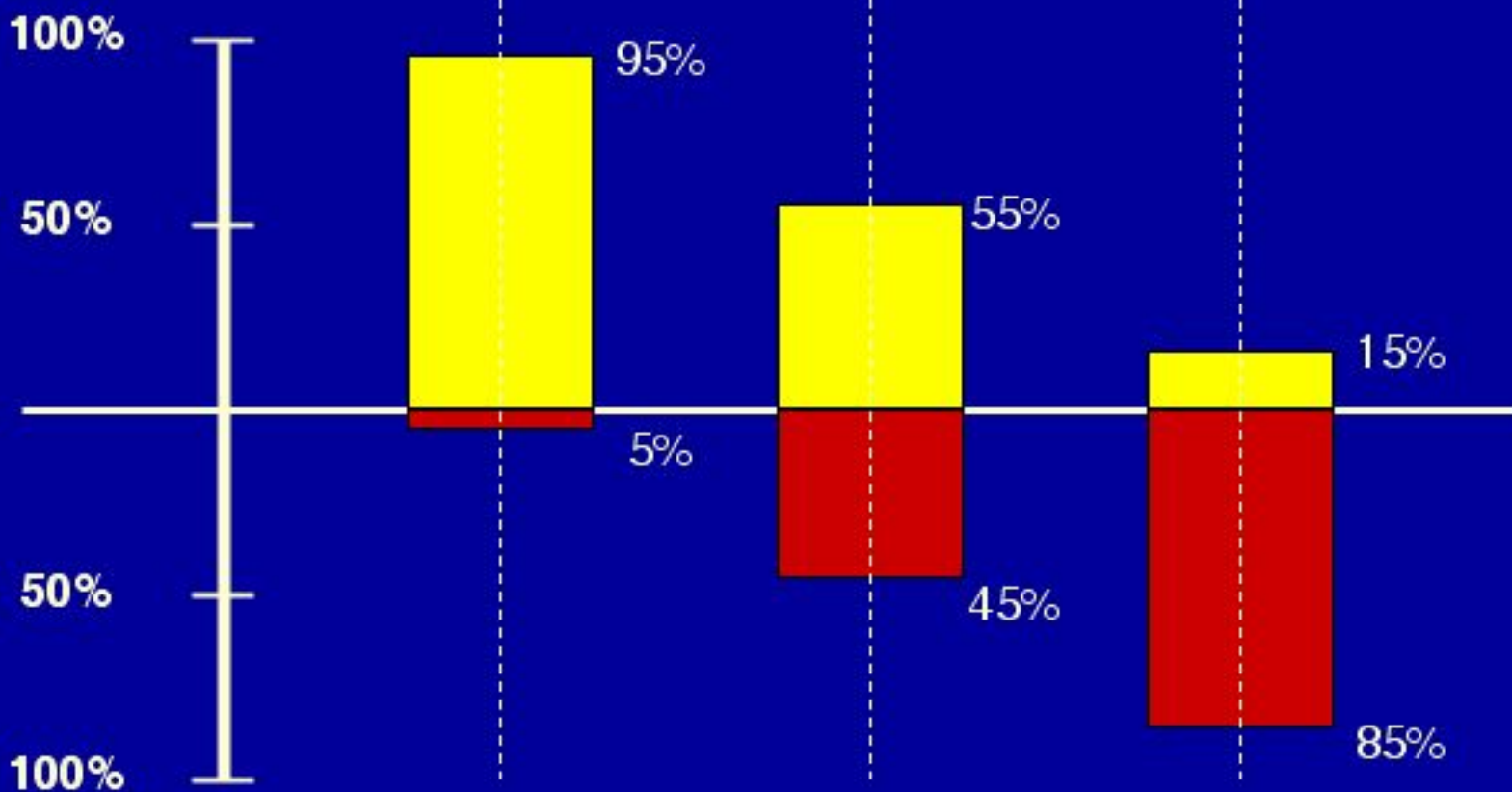
# Pedestrian Survival Rates – Vehicle Speeds

**% survive**

20mph

30mph

40mph

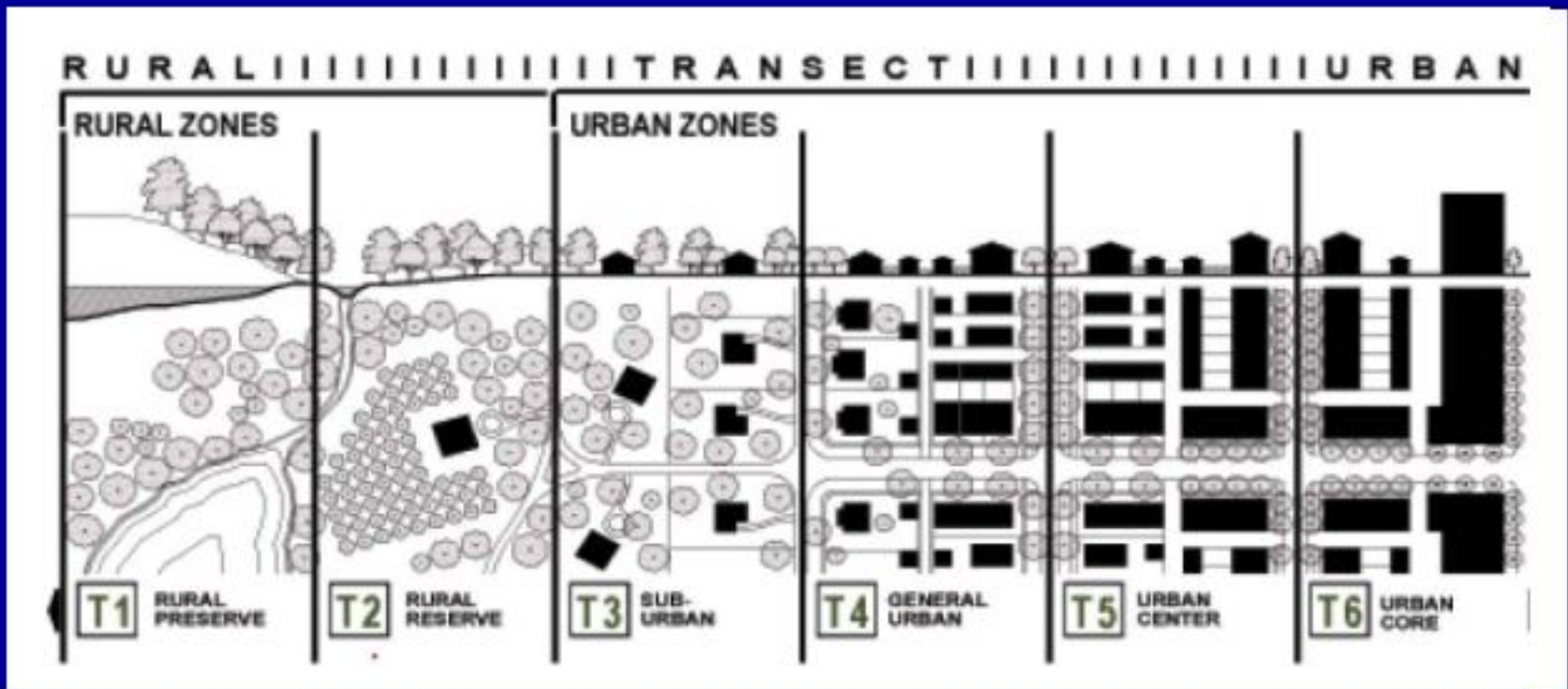


**% die**

# Understanding Walkability

- Types of Walking
- Types of Pedestrian Environments
- Components of the Pedestrian Environment
- Walkability across the Transect

# Using Context Sensitive Solutions



pages 66-67

page 47

page 107

# ...for establishing Street Standards

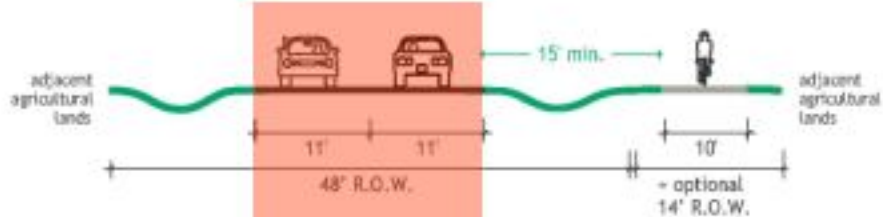
	Collector Roadway	Avenue	Connector Street	Local Street
T1 preserve		N/A		
T2 edge		N/A		
T3 general				
T4 core		N/A	N/A	

page 66-67 of the CSS Manual

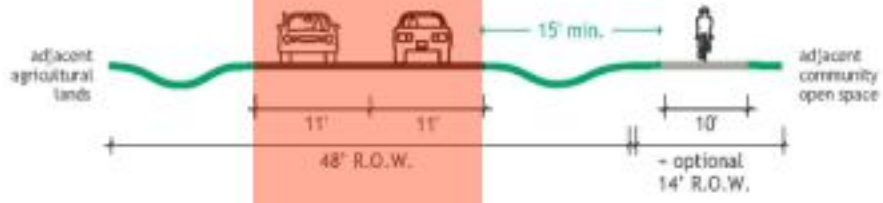
# ....for establishing Street Standards

pages 66-67

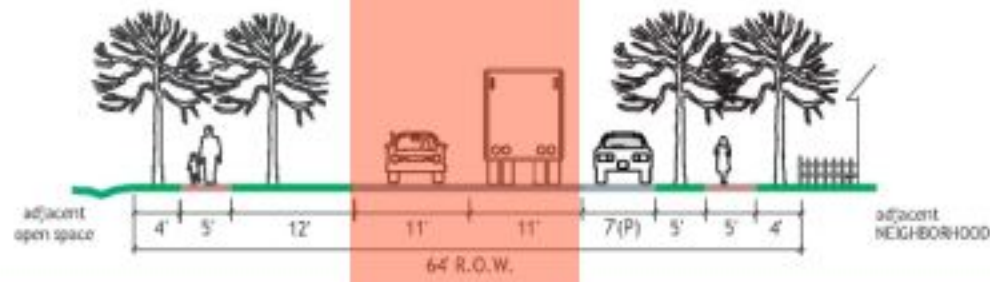
T1 preserve



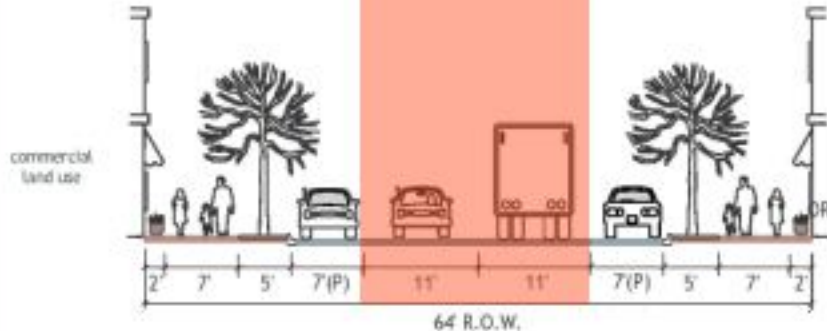
T2 edge



T3 general

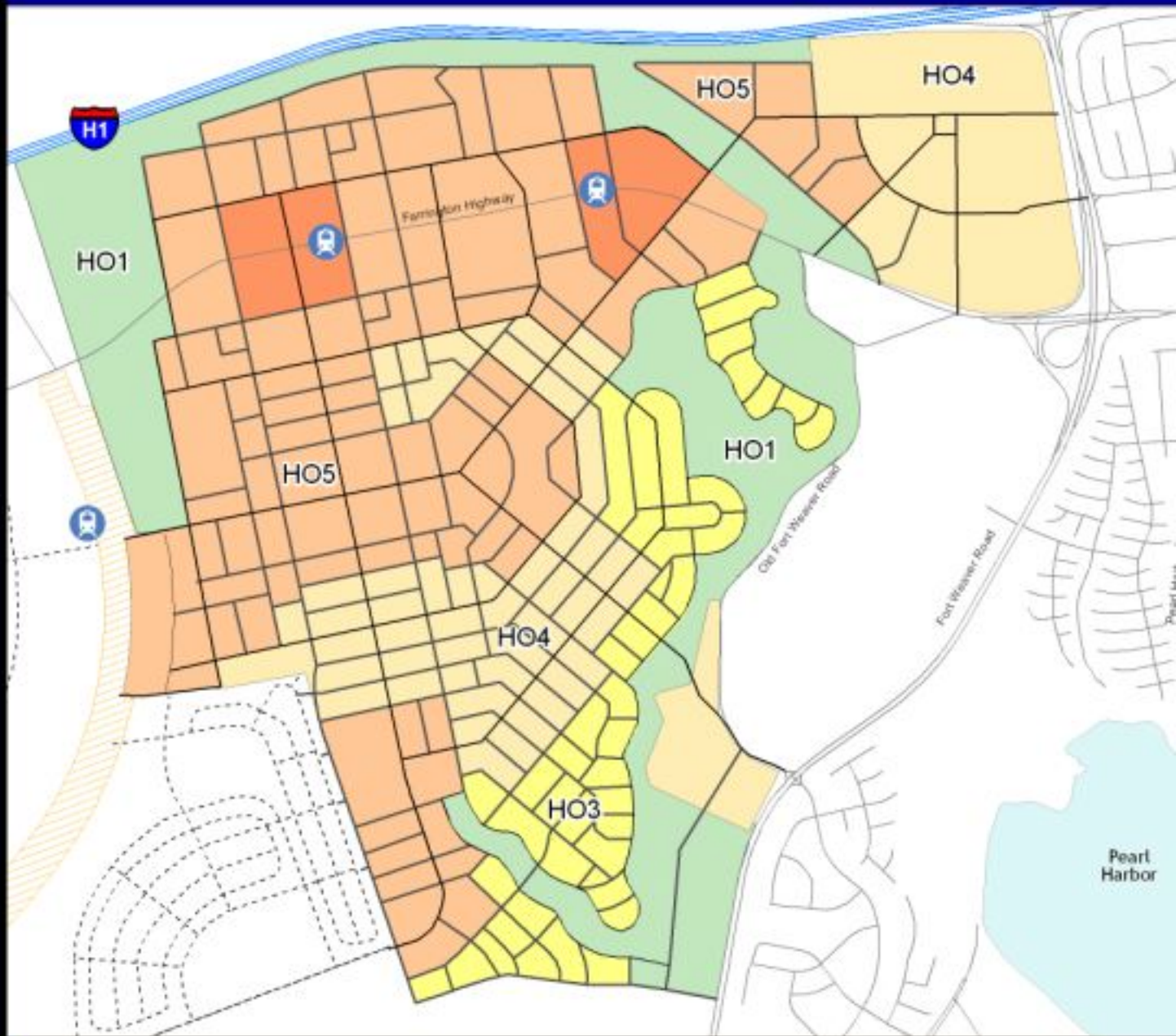


T4 core



....for  
Master  
Planning

page 47





# ....for Roadside Design Criteria

page 107

Street Type	Ped Realm Width	H03	H04	H05	H06
Rail Transit Boulevard	14'	N/A			N/A
Parkway	19'	N/A			N/A
Avenue	15'				
Connector	15'	Residential 	Commercial 		N/A
Main Street	17'	N/A			N/A
Festival Street	15'				N/A
Street	13'				N/A
Yield Street	13'	Residential 	Commercial 	N/A	N/A
Drive	15'		N/A	N/A	N/A

# ....for Multimodal Planning

pages  
95-111

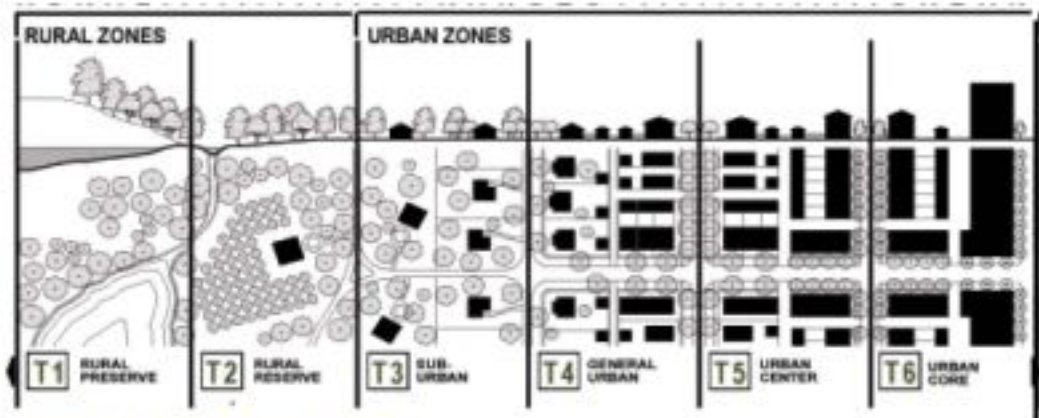


- PEDESTRIANS**
- Strollers/Lingers
  - Utilitarian Walkers
  - Ramblers
  - Hikers

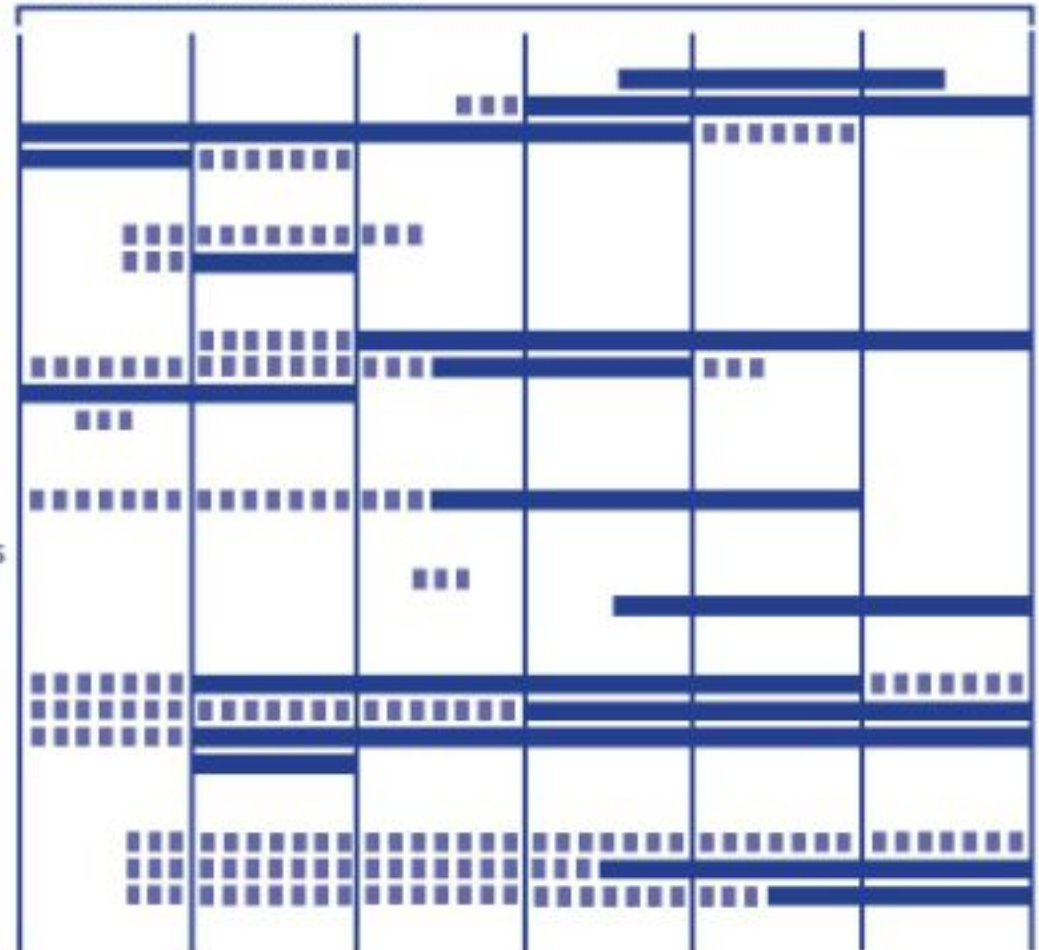
pages  
124-130



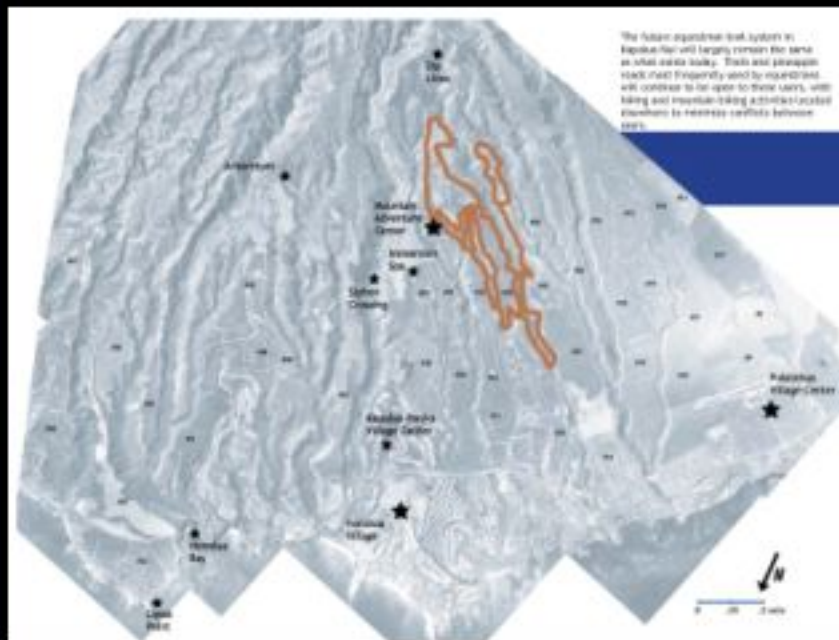
- EQUESTRIANS**
- Novice
  - Cross-Country
- BICYCLISTS**
- Type A Cyclists
  - Type B/C Cyclists
  - Mountain Bikers
  - Freeriders
- OTHER NON-MOTORIZED**
- Skaters, skateboards, etc.
- NON-ROAD-LEGAL VEHICLES**
- Electric Carts
  - Segways, scooters, etc.
- ROAD-LEGAL VEHICLES**
- Personal Vehicles
  - Service/Delivery
  - Emergency Vehicles
  - Agricultural Vehicles
- TRANSIT**
- Van Shuttles
  - Bus System
  - Train/Tram



TYPICAL CIRCULATION MODES



# ....for Multimodal Planning



## Equestrian Trails

### Transect



Rugged Natural Surface Horse Trail

### Key Design Criteria

- 4' min. trail width desired.
- 10' vertical clearance.
- <10% grade desired (max. 20% for <100').
- Follow the contour.
- Vary user experiences along routes.
- Accommodate animals by limiting distance wider turns on trail.
- Do not parallel streams >50' from stream bank.
- Soils may require adding a hardener for trail tread stability.



## Bike Paths for B/C Bicyclists

### Transect



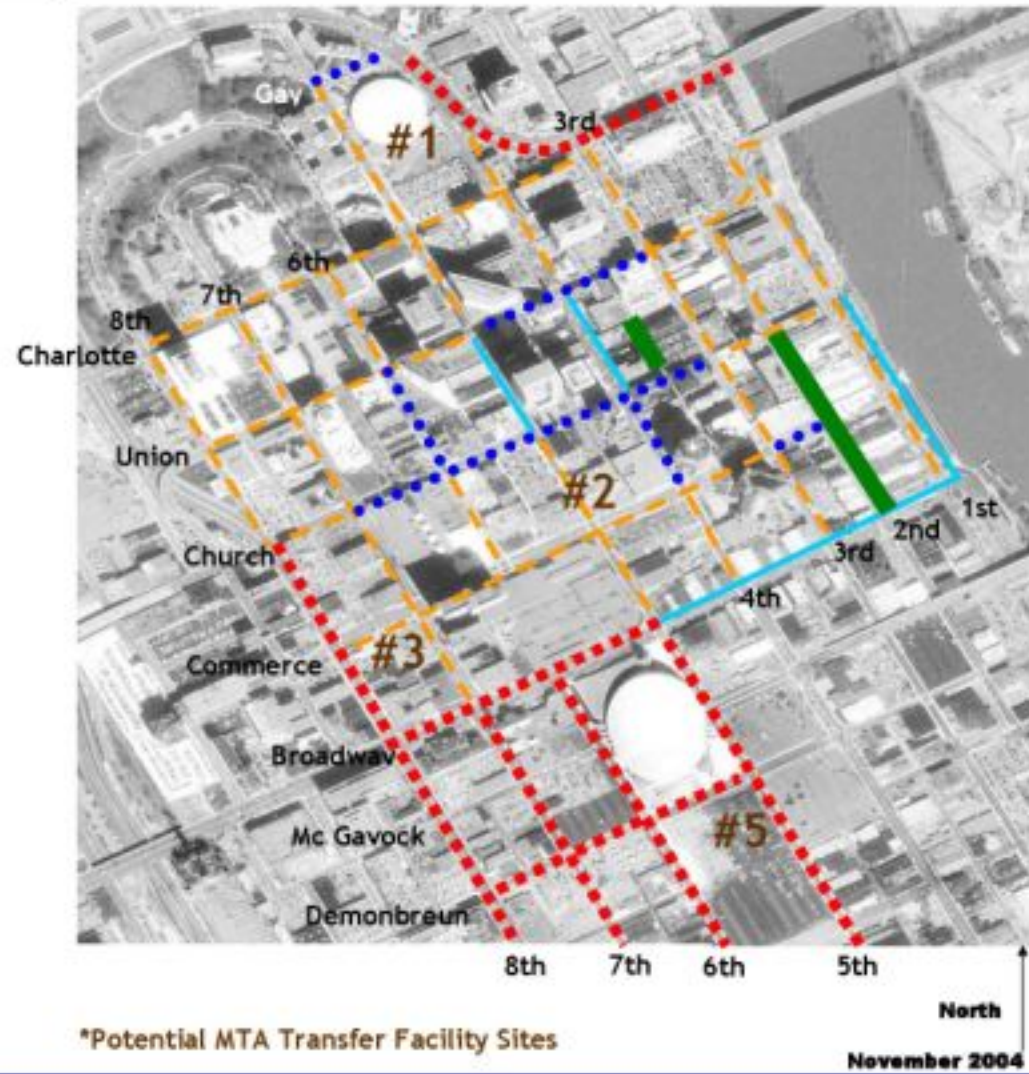
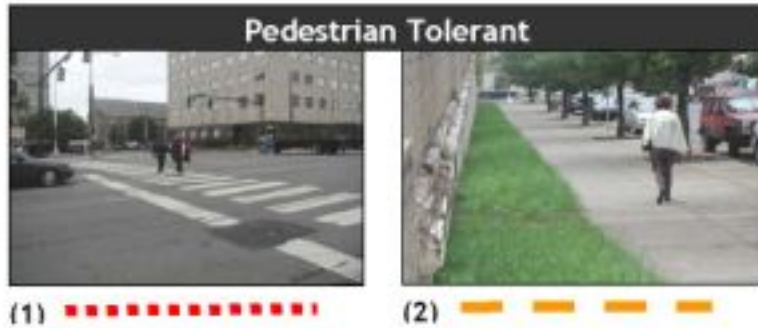
Multi-Use Path

### Key Design Criteria

- 10' min. width to support multi-use.
- 12' where substantial use.
- 2' min. graded shoulders (2' min. if >30% cross-slopes).
- 8' min. vertical clearance (12' in tunnels).
- <5% grade desired (max. 10% for <100').
- 50' curve radii.
- Smooth surfaced free of hazards and debris.
- Must be separated from roadways by >5'.

# ...for Corridor Analyses

## Pedestrian Compatibility Criterion

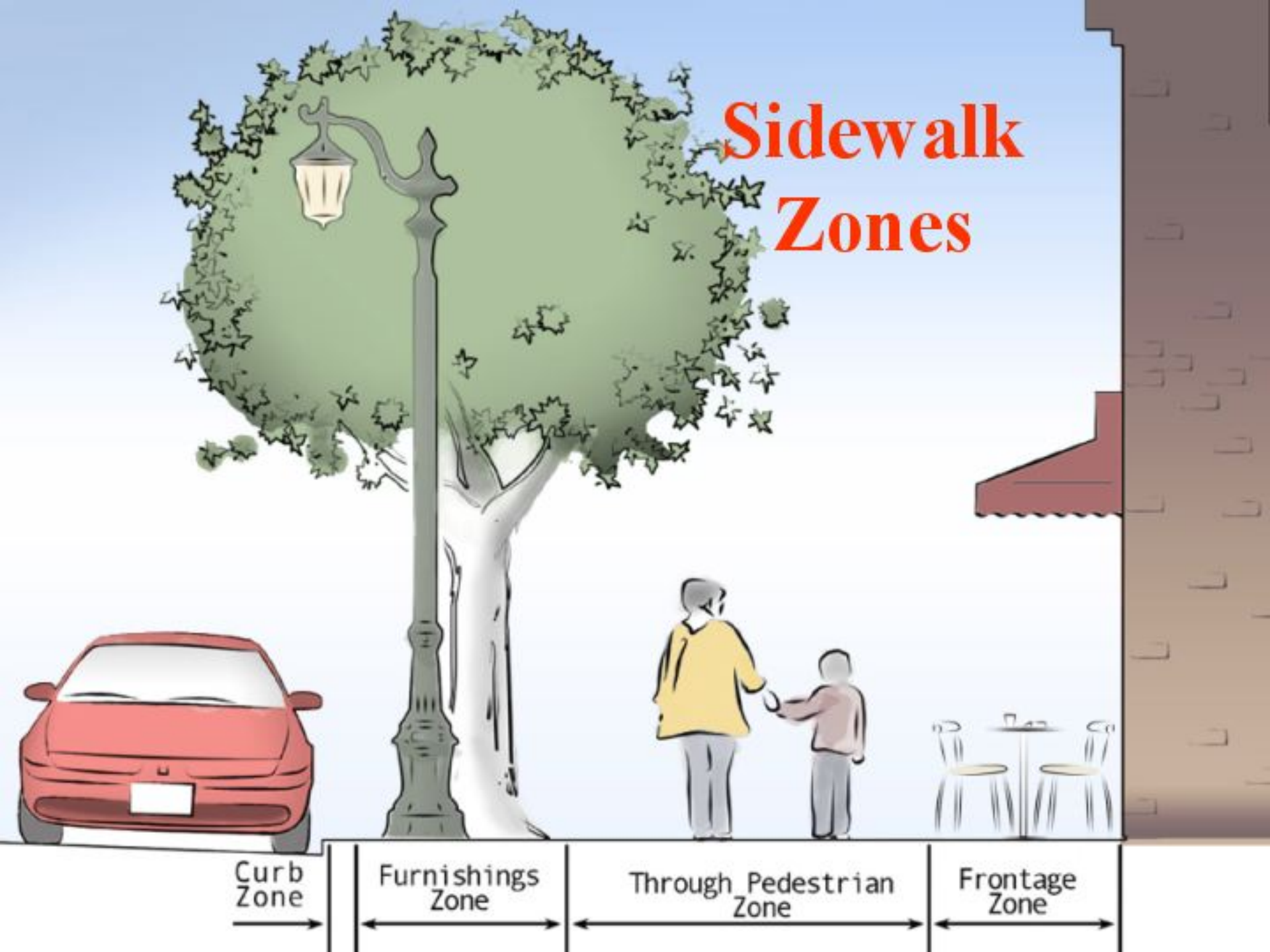


# Design Details

---

1. Sidewalks
2. Pedestrian Crossing Treatments
3. Intersections and Driveways

# Sidewalk Zones



# Types of Walking

---

1. Rambling
2. Utilitarian Walking
3. Strolling, Lingerling
4. Promenading
5. Special Events

# Clear Sidewalk Zones

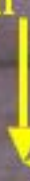
Frontage



Through



Furnishings



Curb or Edge







Sidewalks should be on both sides of the street, and continuous



# Rambling



Redmond

# Utilitarian Walking



Redmond

**Boulder**



**Strolling, Lingerin**

**Boulder**



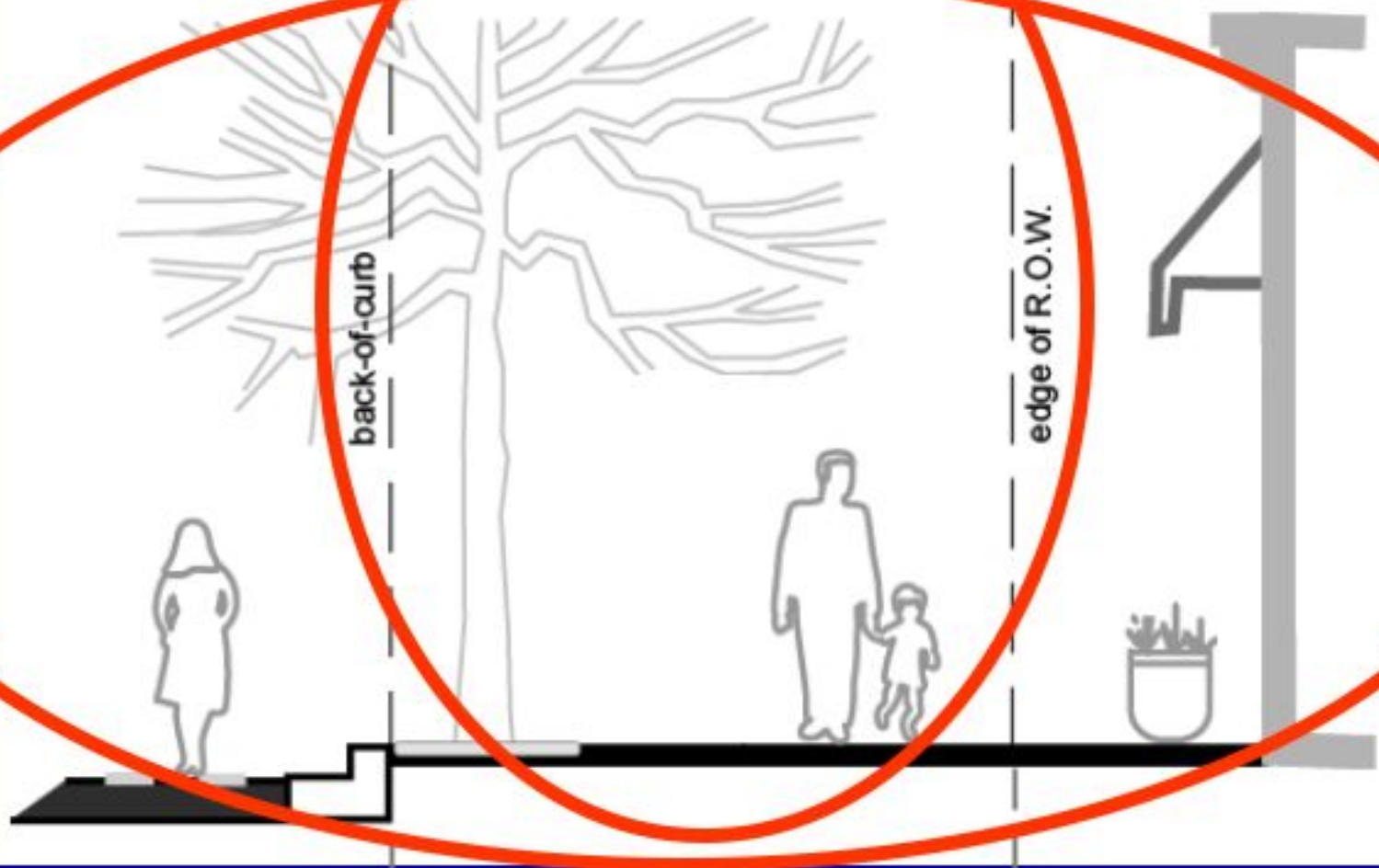
**Promenade**

**Boulder**



**Special Events**

ROADWAY CORRIDOR 1 PEDESTRIAN REALM 2 ADJACENT LAND USE 3



**Traveled Way**  
Chapters 9-10

**Roadside**  
Chapter 8

**Context Zones**  
Chapter 4