
APPENDIX E: RETAIL ORIENTED STREET CASE STUDY ¹

¹ Excerpt from ITE Recommended Practice: Context Sensitive Solutions in Designing Major Urban Thoroughfares for Walkable Communities, <http://www.ite.org/css/>

Design Example #1: Creating a Retail-Oriented Main Street

Objective

Design a commercial-oriented street that supports an adjacent mix of retail, restaurants and entertainment uses on the ground floor.

Stage 1: Review or develop an area transportation plan

Review the area transportation plan to determine how the subject thoroughfare relates to the overall network, types of modes served, functional classification and existing and future operational characteristics, etc. Collect existing and projected data as necessary.

Existing Street Characteristics

Existing street is a four-lane, undivided collector street with the following characteristics:

- Functional classification: minor collector;
- Right-of-way: 60 ft.
- On-street parking: none
- ADT: 10,000–13,000 vpd
- Speed limit: 35 mph
- Percent heavy vehicles: 2–3 percent
- Intersection spacing: 600–700 ft.
- Network pattern: grid
- Center turn lane: none
- Transit: low frequency local route
- Bicycle facilities: not a designated bike route
- Sidewalks: 6-ft. wide on both sides
- No landscaping
- Conventional street and safety lighting

Stage 2: Understand community vision for context and thoroughfare

Vision

An existing commercial street in a suburban (C-3) area undergoing change to an urban center (C-5) emphasizes an active street life achieved through the mix and intensity of land uses, site and architectural design with an emphasis on pedestrian facilities and on-street parking.

Stage 3: Identify compatible thoroughfare types and context zones

Existing context is identified by assessing the character and attributes of existing land uses such as building orientation to the street, building height, parking orientation and mix and density of uses, etc. Future context is determined by interpreting the vision, goals and objectives for the area. Thoroughfare type is selected based on the urban thoroughfare characteristics (Table 3.4 in Chapter 3).

- Existing context zone: C-3
- Future context zone: C-5
- Thoroughfare type: avenue

Stage 4: Develop and test the initial thoroughfare design

Desirable Design Elements (in prioritized order based on vision)

- Lower operating speed
- On-street parking
- Wide sidewalks
- Street furniture and landscaping including benches and space for cafes, public space, etc.
- Pedestrian-scaled lighting
- Street trees
- Bus stops with shelters
- Transitions between main street and adjacent higher-volume segments
- Mid-block crosswalks
- Bike lanes

Factors to Consider/Potential Trade-Offs

- Right-of-way constrained to 60 ft.
- Maximizing parking with angled vs. parallel parking
- Reduction in the number of through lanes and vehicle capacity vs. wider sidewalks and on-street parking

- Accommodation of large vehicles vs. narrowing lane width and smaller curb return radii; and
- Accommodation of bicyclists vs. width of other design elements.

Alternative Solutions

1. Emphasize vehicular capacity by retaining existing four-lane section with 9-ft. wide travel lanes to allow 12-ft. wide sidewalks.
2. Emphasize parking by providing angled parking on one side, parallel parking on the other side and narrowing the two travel lanes.
3. Emphasize parking and wider sidewalks by providing parallel parking on both sides, two travel lanes and 12-ft. wide sidewalks.
4. Emphasize parking and vehicular capacity with parallel parking on both sides, 9-ft. wide sidewalks, two travel lanes and a center turn lane

Selected Alternative

Alternative #3:

- Maximizes sidewalk width
- Provides moderate to good level of on-street parking
- Balances street width with accommodation of larger vehicles and speed reduction
- Allows for left-turn lanes at intersections

Stage 5: Develop detailed thoroughfare design

Solution Design Features

Traveled Way:

- Target operating speed: 25 mph
- Two 10 ft. travel lanes
- Two 8 ft. parallel parking lanes

Roadside:

- 12 ft. sidewalks
- Pedestrian-scaled lighting
- Street trees in tree wells
- 6 ft. furnishings zone (includes 1.5 ft. edge zone)
- 6 ft. clear pedestrian throughway
- No frontage zone

Intersections:

- Curb extensions to reduce pedestrian crossing distance unless left-turn lane is provided
- High-visibility crosswalks
- Safety lighting
- Farside bus stops with curb extension and shelters
- ADA compliance



Figure 6.1A View of existing street. Source: Kimley-Horn and Associates Inc.

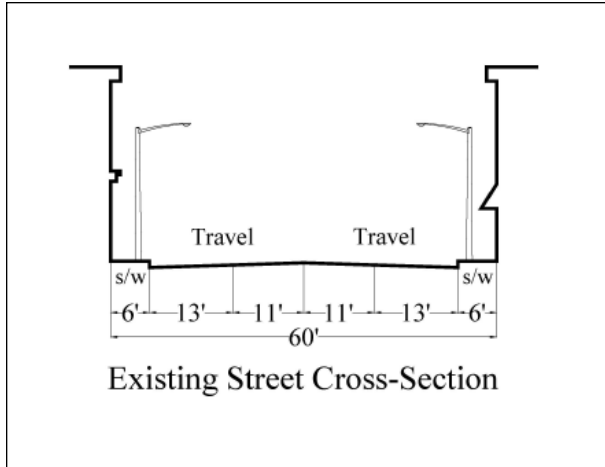


Figure 6.1B Existing street cross section. Source: Kimley-Horn and Associates Inc.

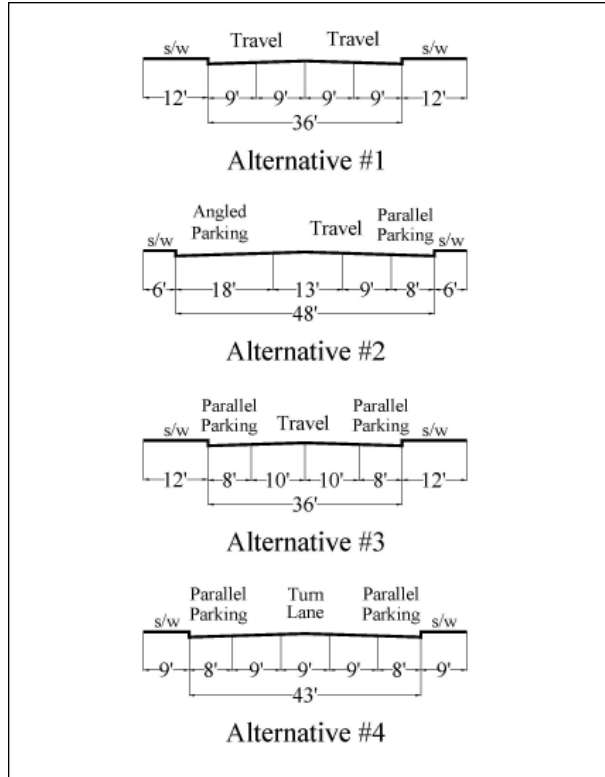


Figure 6.1C Alternative street cross sections. Source: Kimley-Horn and Associates Inc.

Relative Comparison of Trade-Offs									
Alternative	Parking	Sidewalk Width	Vehicular Capacity	Large Vehicle Accommodation	Pedestrian Crossing Width	Left Turn Lanes	Bike Accommodation	Ped. Amenity Accommodation	Speed Reduction
Existing	--	--	++	++	--	--	--	--	--
1	--	++	++	--	--	-	--	++	+
2	++	--	-	+	++	++	--	--	-
3	+	++	-	++	++	-	--	++	+
4	+	-	+	--	+	++	--	-	++

Score (relative to other alternatives)

- ++ Good (achieves objectives)
- + Fair
- Poor
- Fails to meet achieve objectives

Figure 6.1D Relative comparison of alternative trade-offs. Source: Kimley-Horn and Associates Inc.

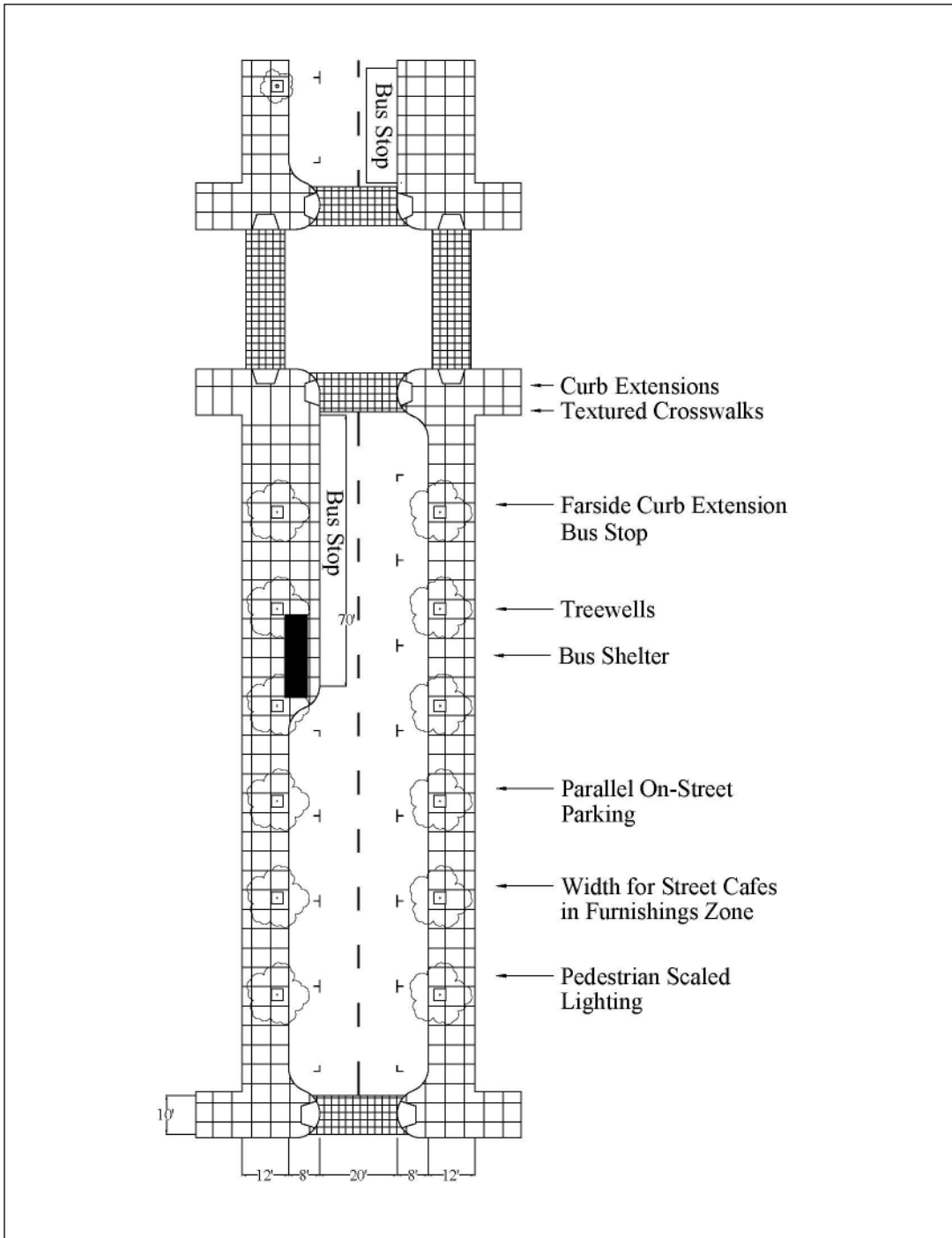


Figure 6.1E Schematic plan view of Alternative #3. Source: Kimley-Horn and Associates Inc.