

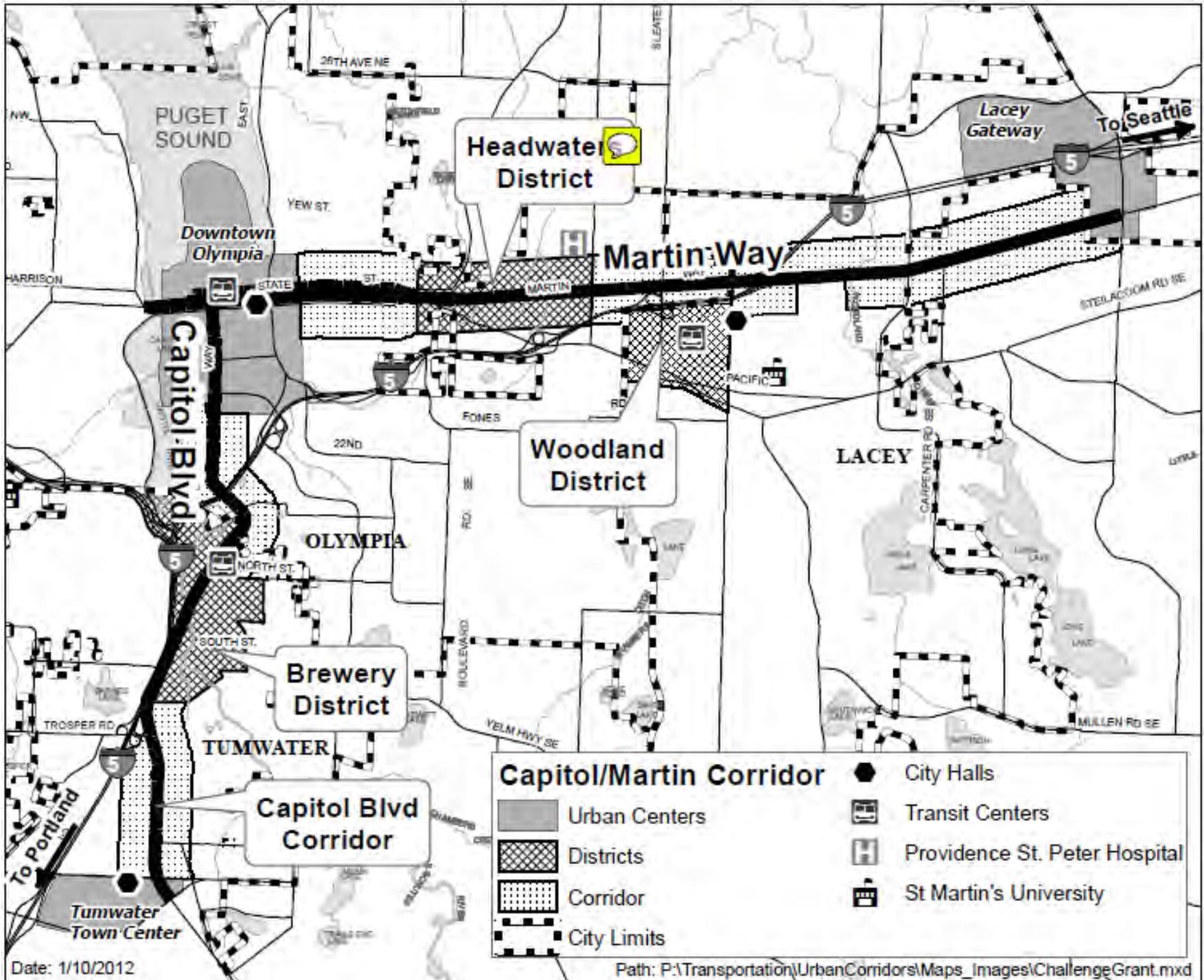


Walking Audit Survey Tool

How to Use the Survey Tool

Four Components:

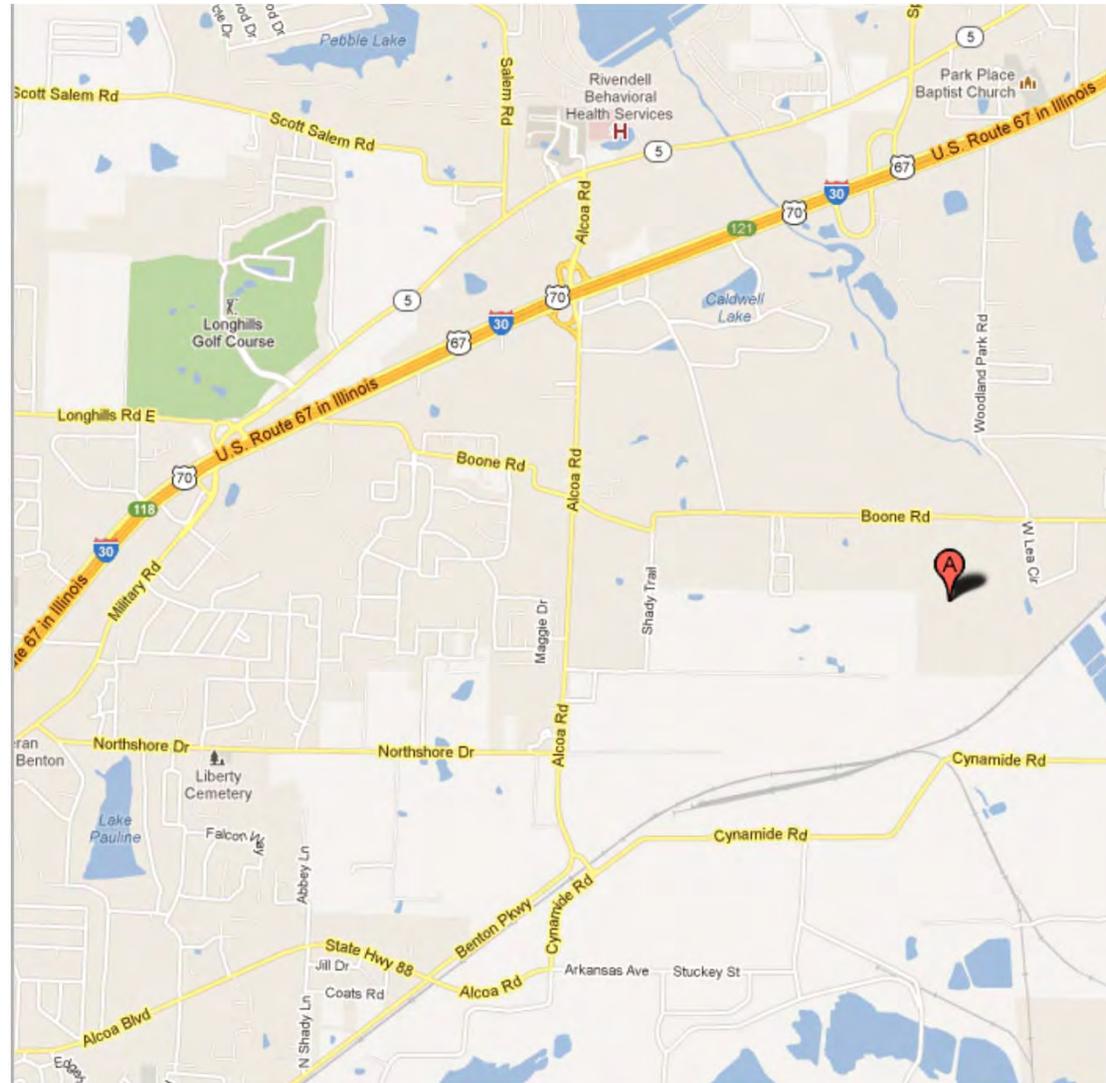
1. Walking Audit Route Map
2. Intersection and Street Sketches
3. Survey Legend
4. General Impression Summary



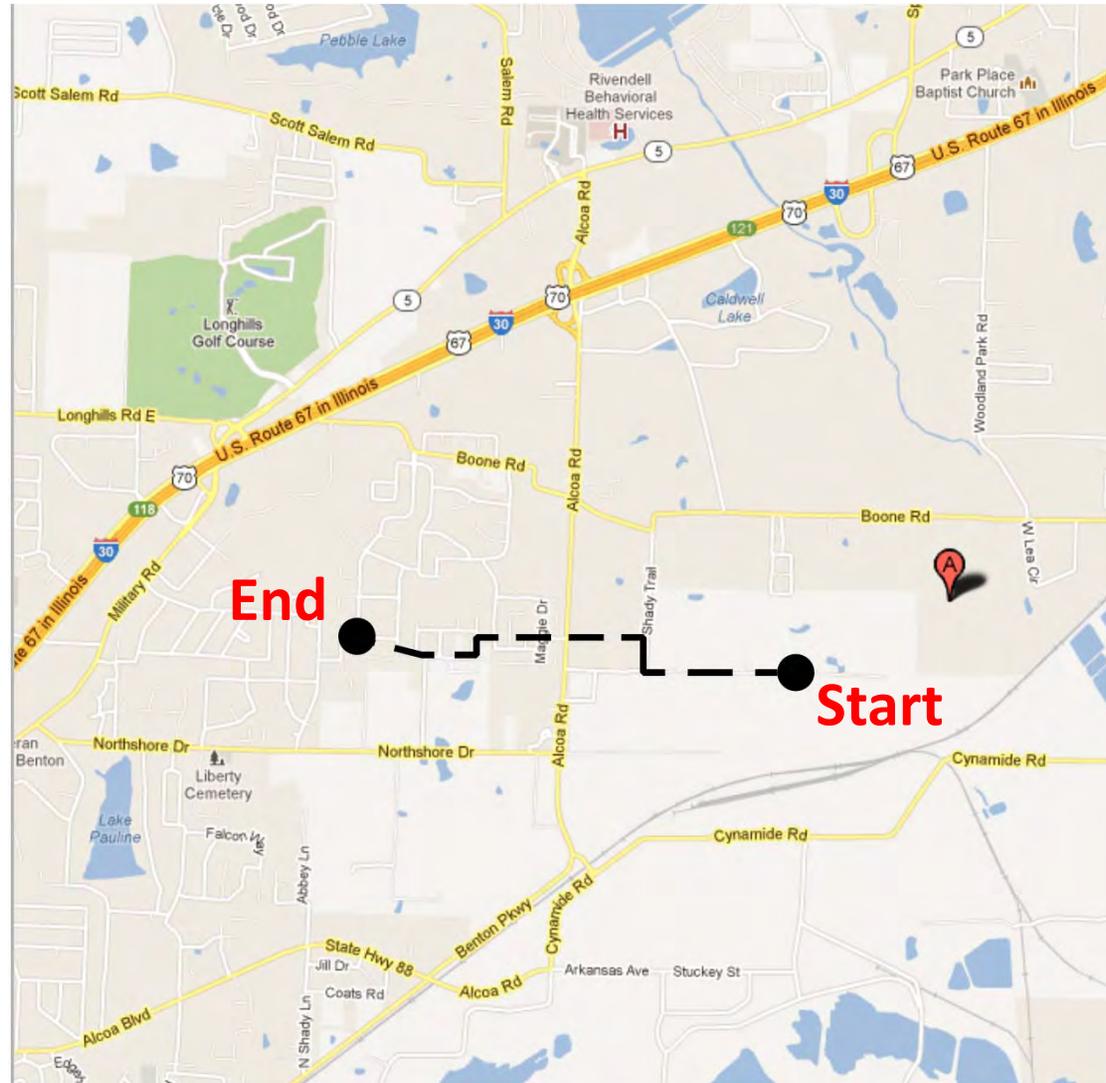
Date: 1/10/2012

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Walking Audit Route Map

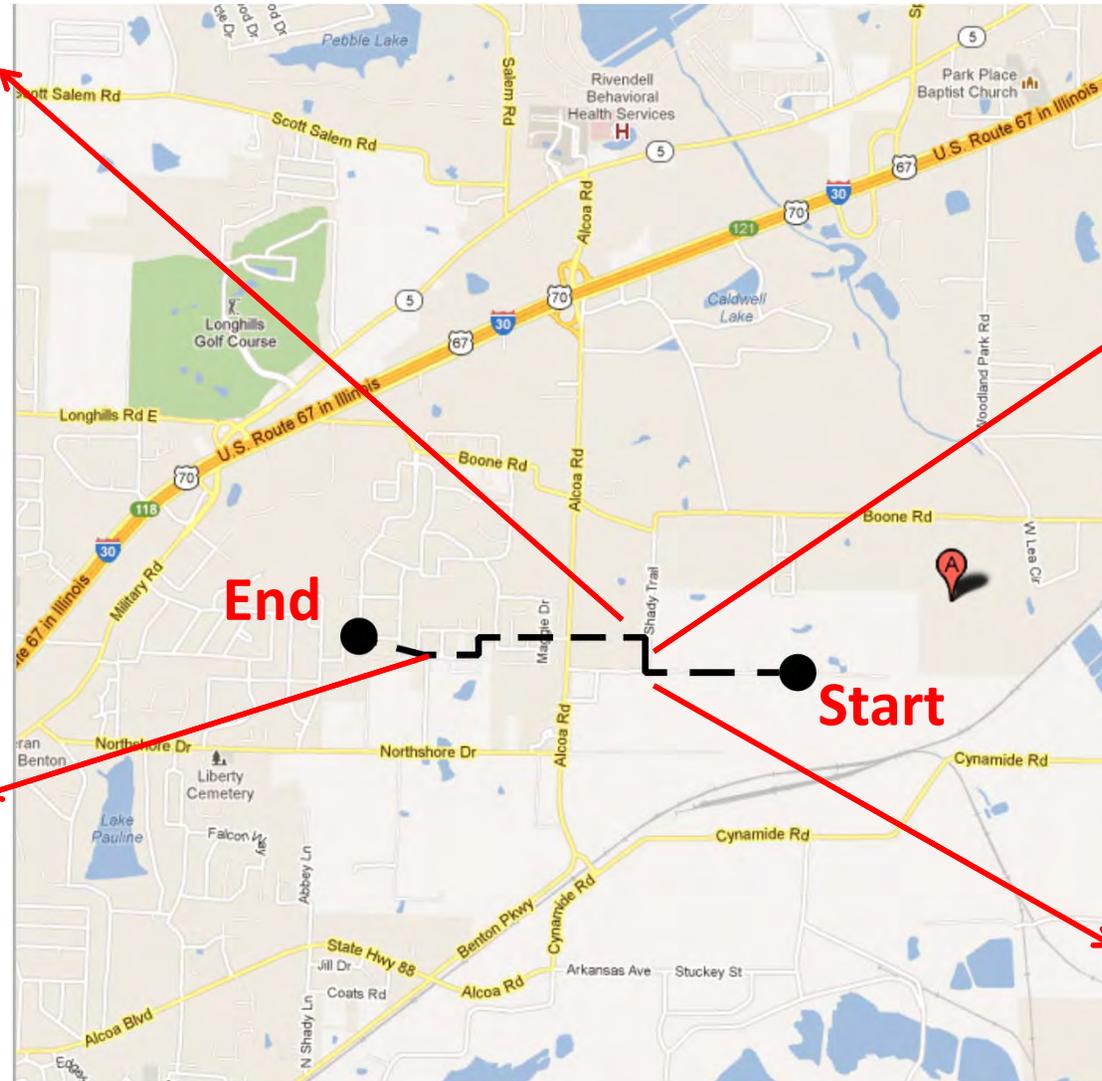


Walking Audit Route Map



Walking Audit Route Map

- Left turn delays from park
- Challenging route for busses
- Many children & seniors
- Poor yielding behaviors
- No edge / open drains
- Observed speed is 40mph; posted speed is 35mph
- 9' travel lanes with ditches; no room for pedestrians or bikes



- To Do: Research Average Daily Traffic (ADT) on Boone
- Stormwater flooding / flood zone
- Why aren't there marked crosswalks between the park and apartments?
- Cantilevered sidewalks or boardwalk possible?
- At park entrance, vehicle stacking after school

Survey Legend

Areas to Survey:

- **Street**
 - Sidewalks
 - Bike Lanes
 - Vehicle Travel Lanes
 - Driveways
 - Parking



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Survey Legend

Areas to Survey:

- **Intersection**
 - Complexity
 - Width
 - Visibility
 - Exposure



Survey Legend

Areas to Survey:

- Crossings
 - Type
 - Width
 - Condition
 - Maintenance



Survey Legend

Areas to Survey:

- Signals
 - Type
 - Placement
 - Timing



Survey Legend

Areas to Survey:

- **ADA Compliance**
 - Curb Cuts
 - Ramp Placement
 - Grade
 - Obstructions



Survey Legend

Areas to Survey:

- **User Comfort**
 - Lighting
 - Street Furniture
 - Landscaping
 - Safety Features
 - Land Use



Survey Legend

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- **User Comfort**
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Survey Legend

- Use the survey legend to capture conditions based on specific criteria.
- For those items that do not exist, you can choose “not applicable,” but *if you personally feel that these items are needed*, then make a note of this on the survey legend and mark the item as “needs improvement.”
- The goal of the survey legend is to document your impressions of the built environment.

How well can the motorist see crosswalk markings on their approach? Consider the intensity of the marking, the ease of maintenance, the durability. Are markings visible in daytime and nighttime conditions? Note that motorists have great difficulty seeing two parallel lines, night or day. Enhanced crossing patterns help detection, and sometimes color and contrast helps crosswalks really pop out. Discuss what works and why it work. You will learn much.

- 0-2 Walker's Nightmare
- 3-4 Walking is tolerable, but not pleasant
- 5-6 Walking is almost pleasant
- 7-8 Walking is pleasant, almost fun
- 9-10 Walker's Paradise



1A CROSSWALKS Visibility and Detection

Exemplary Crossing: When crossings are highly visible, and speeds are low, motorists almost automatically stop to let pedestrians go. These double set of bands are highly visible to approaching drivers. Yielding rates are high. *(Broadway Avenue in Boulder, Colorado)*



Getting across wide streets is a problem. When side streets are kept compact, and have median islands it is possible to keep crossing distances down to as little as 14 feet. Some streets that lack a median will be 26-30 feet wide (2-lanes) and some will be much wider. Principal streets that must be crossed and can be 40-50 or even 90 feet across. You may want to measure some of your crossings in advance (or followup) using Google Earth, and use their handy measuring ruler. It is very accurate.

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1B CROSSWALKS Width of Crossing

Exemplary Crossing: In the ideal crossing pedestrians would not cross side street widths wider than 14 feet, and motorists would enter the areas at speeds no higher than 10 mph.
(Keene, New Hampshire)



Sidewalk widths determine levels of comfort for people to walk together and to socialize, to take children or their dogs on walks. The lack of a walkway, or only 2-3 feet wide rates a nightmare. At 4 feet conditions are cramped. At 5 feet there is adequate comfort for two people to talk together. At greater widths, 6 feet, 8 feet or 10 feet enjoyment of walking increases. In these images ignore other conditions, and rate only the width of the walkway (ignore setbacks, sidewalk location, shade).

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2A SIDEWALKS Width

Exemplary Width: Although sidewalks can be too wide, there are places where a wide walkway creates the right mood for comfortable strolls that are fully at ease. Widths of ten to twenty feet feel quite good to most people, and may be needed on college campuses.

(UofV, Burlington, VT)



Sidewalk surfaces provide full traction in all types of weather. Although it is recommended, encouraged even, to use colorful, natural and attractive materials, they must be chosen to prevent slips and falls. Even slate can be carefully set, chipped and made to be anti-slip. However, when pavers are chosen their design, placement and maintenance must be performed well.

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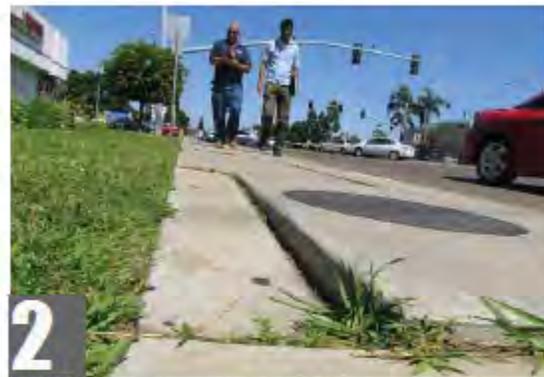
2B SIDEWALKS Surface Condition and Type

Exemplary Type: Surfaces with high coefficient of friction, such as these bricks in Portland, Oregon were found through research and experimentation ... anti-slip and yet smooth in all weather. *(Portland, Oregon)*



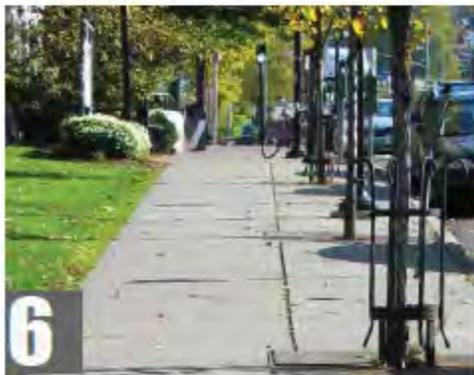
Sidewalk maintenance has been neglected in many cities. Even when replacement slabs are made, they seldom are swept by city crews. Slabs are known to sink or rise, and are sometimes uprooted by trees. Once in poor condition older people are denied the chance to walk. Measure and discuss those blocks and areas that need some attention, or major attention.

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2C SIDEWALKS Maintenance

Exemplary Maintenance: Sidewalks are built with top quality materials. Careful attention is paid to construction methods, leading to almost self-maintaining systems. Tree selection is important if sidewalks are to have a long life.
(San Diego, Ca.)



The higher the speed and volume of traffic the more critical that a sidewalk buffer becomes. Notice how the pedestrian in the 6-lane boulevard street feels comfortable away from the walkway ... there is no bike lane, no parking and no park strip. As added separation is added people are more inclined to walk and to walk with comfort. Measure the actual physical width of the combined buffers. Four feet is fine with low volumes and low speeds. From 10-20 feet may be needed when speed and volumes are high.

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0



2



4

3A BUFFER To Street



6



8



10

Exemplary Buffer: When vertical height is added (note wall of trees and ground cover) people feel relaxed and are willing to spend time (and money) in an area. *(Lake Oswego, Oregon)*

Parking lots pose special problems to people walking along a roadway. This is especially problematic in suburban locations where past practices favored building setbacks. This practice was brought into downtowns in some cases, creating a noticeable gap (the "missing tooth") in downtown locations, as well. Many steps should be taken to correct this blight, such as providing a narrow in flow and a narrow out flow of access to parking, colorizing the entry and exit areas, and providing a definitive edge to parking.

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3B BUFFER To Parking Lots, other space

Exemplary Buffer: Highest quality parking edges are adopted and cared for, create no visual screening of pedestrians and create gardens. *(Sacramento, California)*



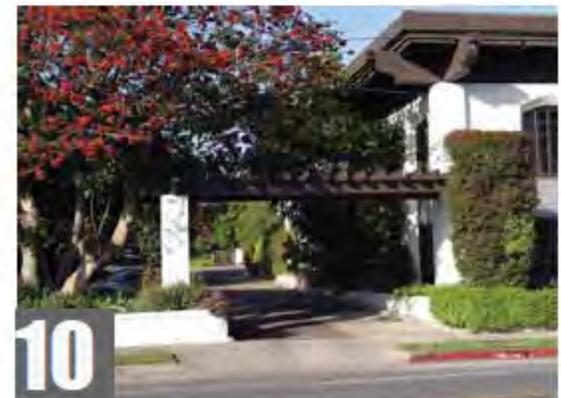
Driveways greatly impact the ability to walk. They too often have high entry or exit speeds, physical barriers, lengthy exposure, and poor surface conditions. The safest and most inviting driveways make ample use of color, narrow the ramp to 14 feet, provide a smooth surface, and use color to make motorists realize that they are intruding into a pedestrian space. It is best to use an in only and out only separation in parking lots, and then keep ramps to only 14 feet. By using a shorter taper and a short elevation change speeds are kept under control.



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4 DRIVEWAYS Width, Contrast, Speed

Exemplary Driveway: Santa Barbara (below) sets the bar height for virtually everything walkable and aesthetic. A narrow, offset entry graces a pleasant walkway where safety is the quest. (*Santa Barbara, California*)



Shade is a vital element in the urban walking environment. Trees produce shade naturally, and in abundance, and with multiple benefits to a community, including safety (see 22 benefits of urban street trees at www.walklive.org). Trees can be placed on either side of the walkway, but if placed with care on the street side they produce the greatest results. Trees should be evaluated as to if they are the right species, the right spacing. Evaluations go from the shade desert, to the shade oasis, then the shade edge ... all the way up to the shade cathedral. As the planet warms, shade may dictate who walks and where.

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5 SHADE Trees

Exemplary Shade: The ideal shade planting should create a crowning achievement, sometimes caught on principal streets, and more often caught on neighborhood streets. Many towns call themselves Tree Cities, but it is time to raise the bar height to have streets of this quality become common place. *(Winnipeg, Canada)*



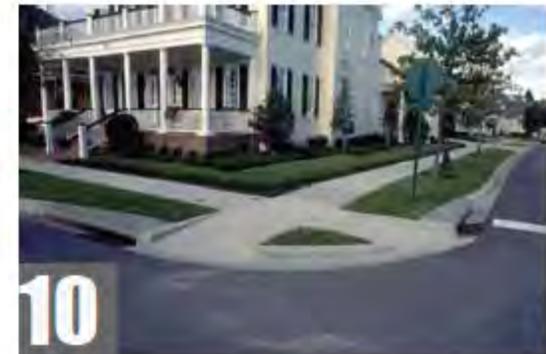
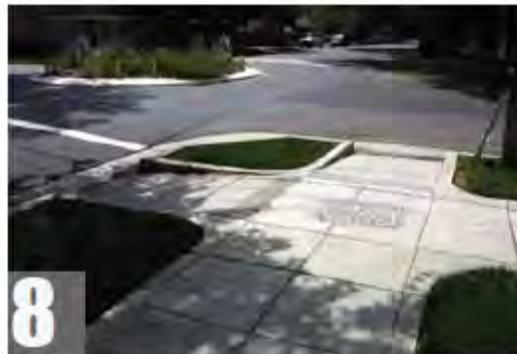
ADA ramps have been an oversight in our nation for too long. Rate yours on a number of factors, from no ramps at all, to ramps poorly constructed and with lips of more than 1/4 inch, to those only providing one ramp per corner, to ramps on both corners, to those that provide guidance and assure that debris and lakes will not form in the pathway. A good ramp is as wide as the crosswalk (not kept to the 40" minimum. It also provides a seamless joint to the paved street, and is designed to not collect debris.

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6 ADA Ramps

Exemplary ADA: The ideal set of ramps is found on narrow streets with tight corner radii of 15 feet or less. This ramp perfectly aligns with routes of travel, set back from the street. It also sports an edge, while providing contrast. Note how the drainage grates capture all water on both sides of the radius. (*Celebration, FL*)



Walking Audit Scoring Sheet

(Please Copy and Print out multiple copies)

Date: _____

Location: Town/Street _____

Block: _____

1A Crosswalk Markings 1 2 3 4 5 6 7 8 9 10 Comments:

1B Crossing Width 1 2 3 4 5 6 7 8 9 10 Comments:

2A Sidewalk Width 1 2 3 4 5 6 7 8 9 10 Comments:

2B Sidewalk Surface 1 2 3 4 5 6 7 8 9 10 Comments:

2C Sidewalk Maintenance 1 2 3 4 5 6 7 8 9 10 Comments:

3A Buffer to Street 1 2 3 4 5 6 7 8 9 10 Comments:

3B Buffer to Parking Lot 1 2 3 4 5 6 7 8 9 10 Comments:

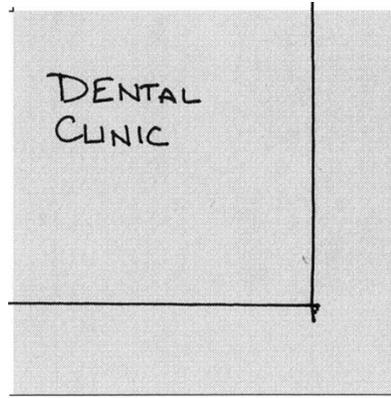
4 Driveways 1 2 3 4 5 6 7 8 9 10 Comments:

5 Shade 1 2 3 4 5 6 7 8 9 10 Comments:

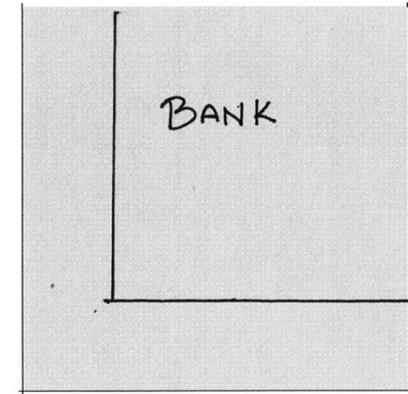
6 ADA Ramps 1 2 3 4 5 6 7 8 9 10 Comments:

Intersection Sketch

- Note Street Names
- Identify Landmarks
- Describe Land Uses

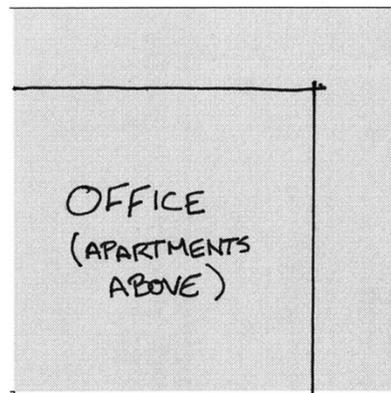


FIRST AVE

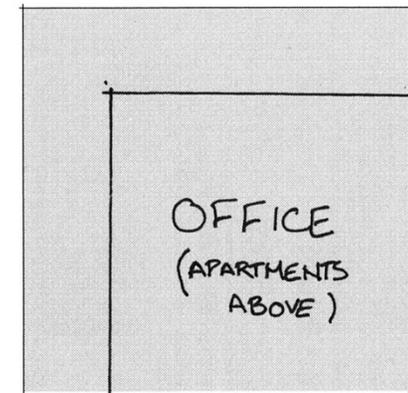


MAIN ST

MAIN ST

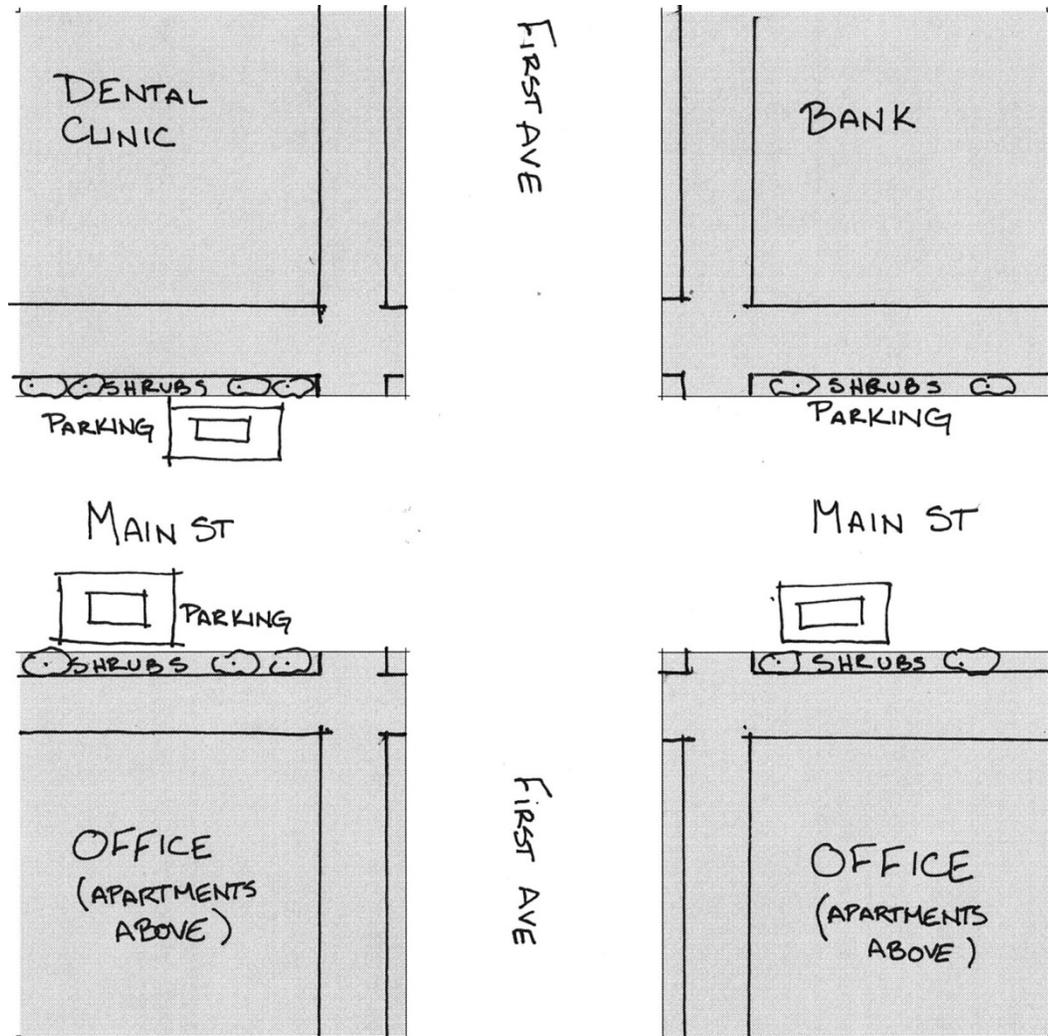


FIRST AVE



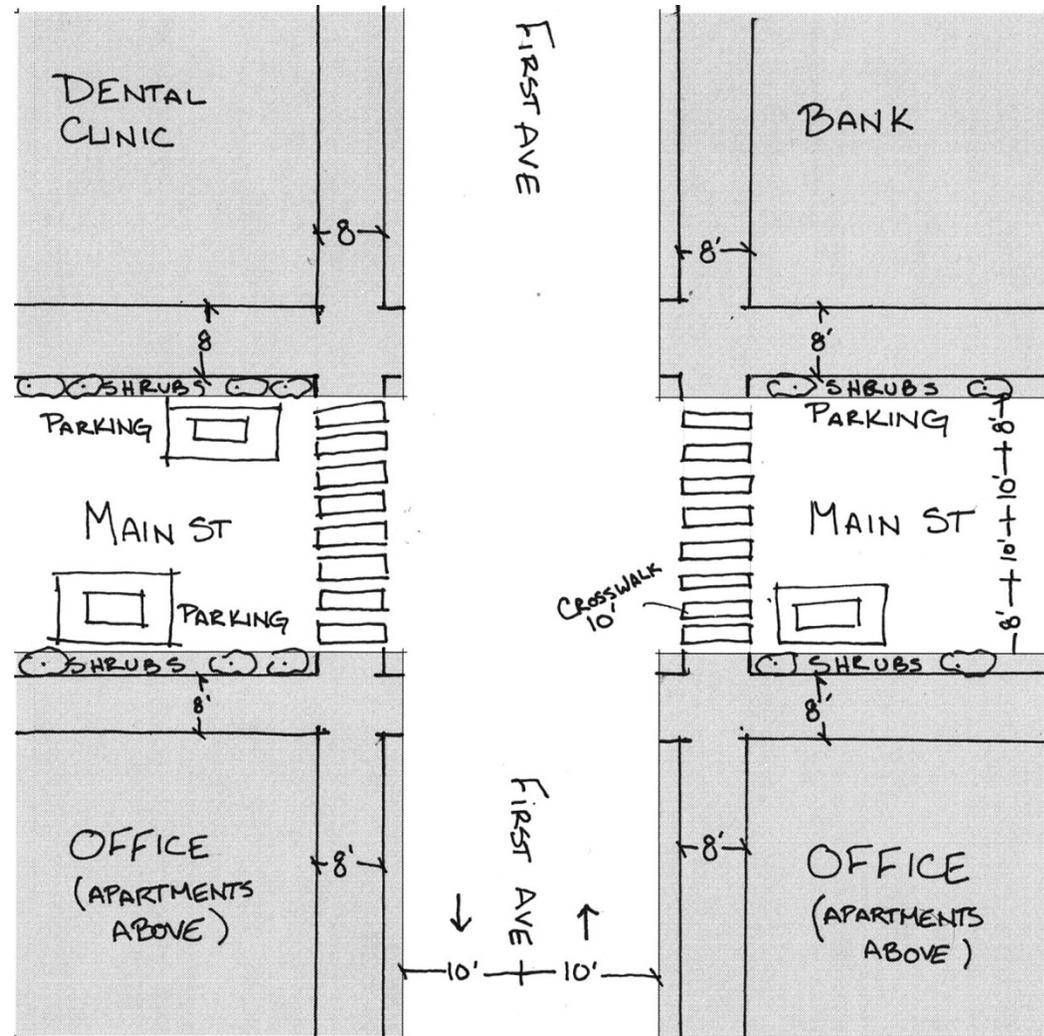
Intersection Sketch

- Layer in Observations

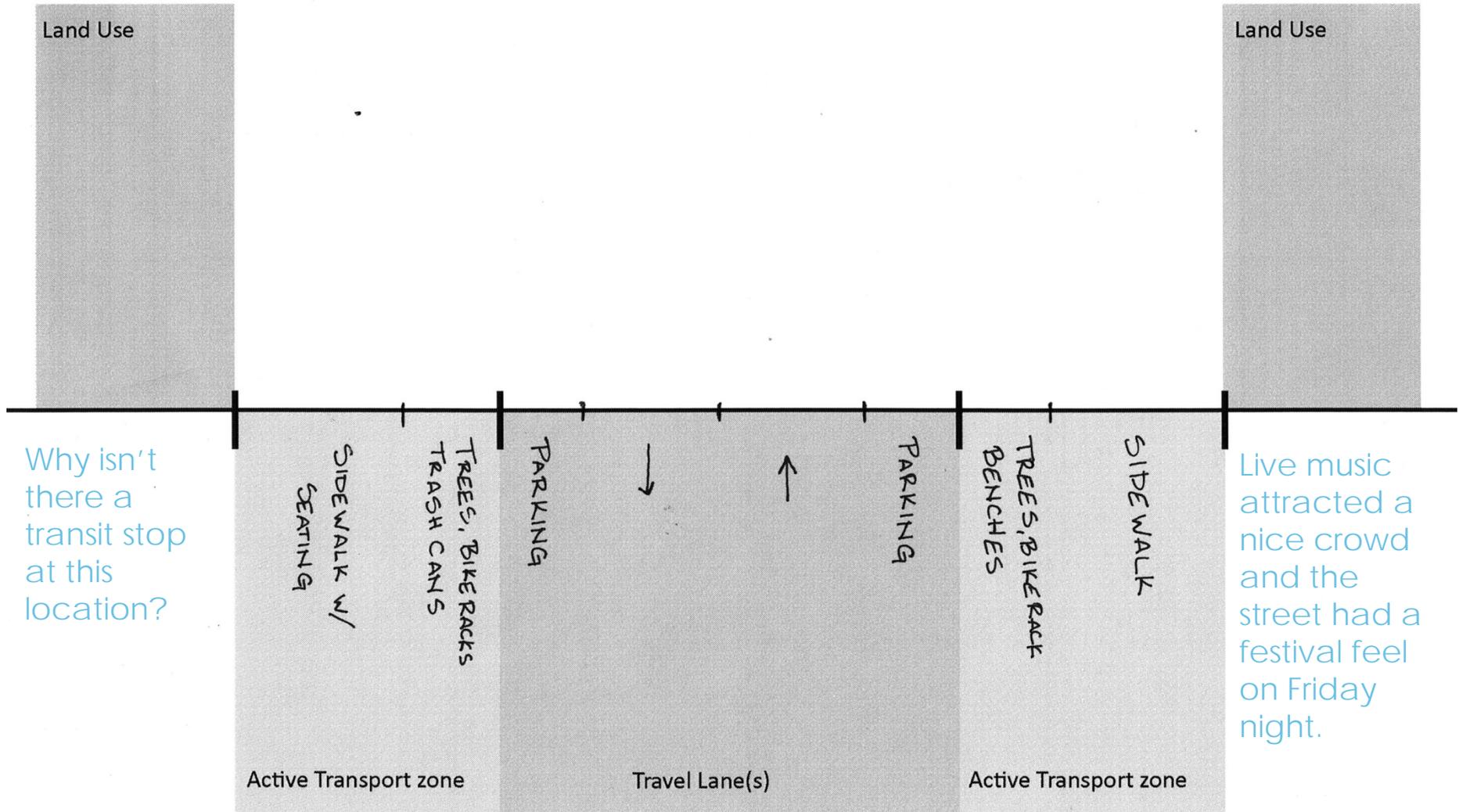


Intersection Sketch

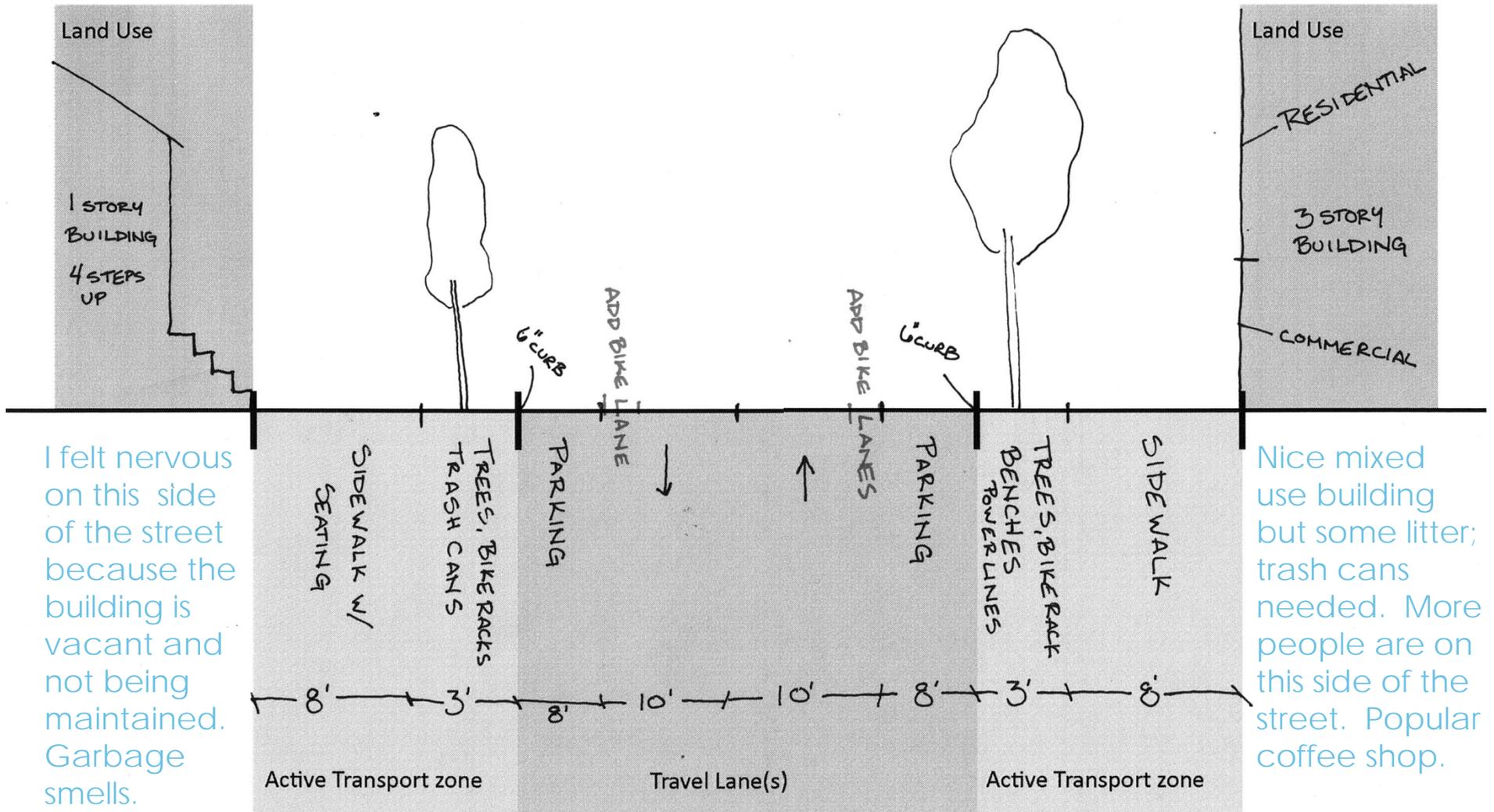
- Layer in More Observations



Street Sketch



Street Sketch





For More Information

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