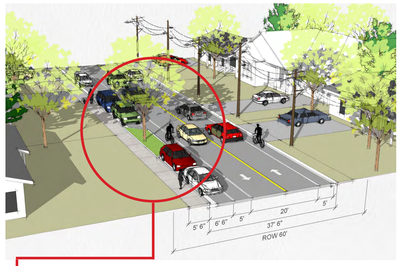
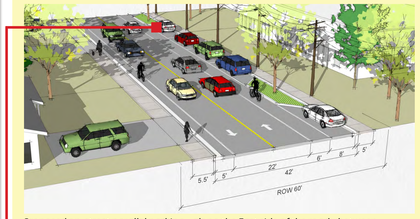
On-Street Parking



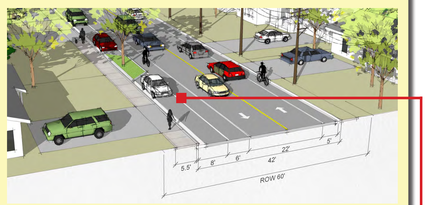
Scaleybark Road is wide enough to accomodate on-street parking along one side only. The plan for Scaleybark Road includes segments with on-street parallel parking on alternating sides of the street. Alternating on-street parking creates a lateral shifts (see section to the right on *Lateral Shifts*). The spaces are 7' wide from edge of curb and 21 to 23 feet in length. On-street parking should be defined to provide convenient access, provide additional guest parking to residences, and provide a buffer between pedestrians and moving traffic. Parking rows should be protected at both ends by bulbouts. For long runs of on-street parking, mid-block bulbouts can be placed periodically in the parking lane; one bulbout every three or four parking spaces is a good guide. Each bulbout should have at least one street tree. Street trees are particularly important because the trees provide an enhanced sense of enclosure as they canopy over the street. Shade trees are recommended.

Lateral Shifts

Shifting parking from one side to the other creates a lateral shift for motorists. Shifting a travel lane has an effect on speeds, since it requires the driver to be more attentive, and focused on the near and middle distances as opposed to long distances. The taper lengths for traffic calming purposes may be as much as half of what is suggested in traditional highway engineering.

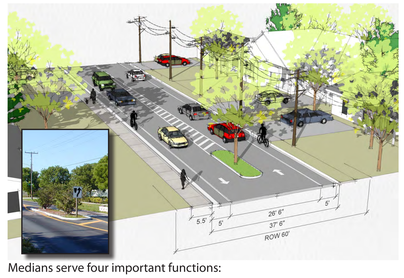


Proposed on-street parallel parking - along the East side of the road - between Murrayhill Road and Aycock Lane and between Shadow Elm Drive and Sewickley Drive.



Proposed on-street parallel parking - along the West side of the road - between Sewickley Drive and Broadmoor Drive.

Landscaped Medians



Medians serve four important functions:

Medians help motorists to focus on the near and middle distances as opposed to long distances, which will help them slow down to safer speeds.

Medians, used in conjunction with pedestrian crossings, act as refuges for pedestrians crossing the street. The idea is that the pedestrian can look one way, cross to the refuge, look the other way, and then cross the other half of the street. Thus, crossing the street becomes simpler and safer.

Medians landscaped with trees provide an increased "sense of enclosure" along the street, increasing the safety and beauty along the street. Shade trees are recommended and they will help drivers slow down.

Medians help reduce unsafe overtaking (aggressive driving behavior).

Several landscaped medians are being proposed along Scaleybark Road. These were strategically located to help transition the street from a two-lane to a three-lane section and/or to facilitate crossings at specific locations. The median/crossing north of Hartford Avenue is particularly important due to its dual funcition as a school crossing. Medians should not block access to driveways.

Right-Turn Slip Lane

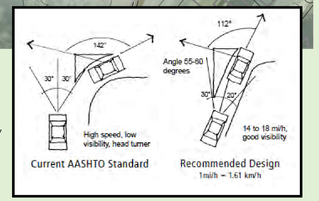


Diagram from Pedestrian Facilities Users Guide - Providing Safety and Mobility. FDOT - FHWA

The existing slip lane design at Woodlawn and Scaleybark Road creates high speeds and lower visibility. While right-turn slip lanes are generally a negative facility from the pedestrian perspective due to the emphasis on easy and fast motor vehicle travel, they can be designed to be less conflicting. This intersection can be redesigned to provide a right-turn lane that is designed to optimize the right-turning motorist's view of the pedestrian and of vehicles to their left. A proper design of the corner island, reduced lane width, and tight curb radii of right-turn slip lanes should discourage highspeed turns, while still accommodating large trucks and buses.

Design Notes/Considerations

1) Bus stops need to be located or relocated such that transit users and other pedestrians can cross the street at a staged crossing or shortest crossing distance with the aid of a refuge on a short median, or eventually on a roundabout splitter island, or with the aid of bulbouts. The preference is crossing with a refuge. Ideally, the design of the street near each bus stop discourages or prevents motorists from overtaking the bus while the bus is at the bus stop. The short median will really help with this.

2) The concept will not block access to side streets or driveways.

3) Lateral shifts and any other measure that requires the consideration of a design speed will use the 30 mph design speed.

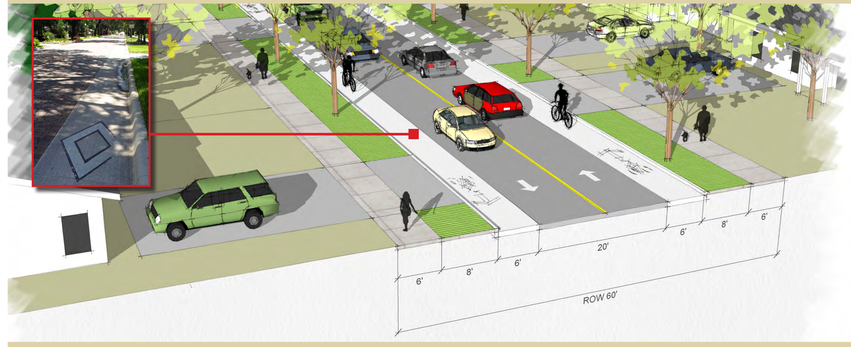
4) Shade trees (i.e. real trees/not bushes) are strongly suggested in every bulbout and median.

5) If the project requires phasing, much of the concept can be achieve temporarily with paint. The upstream physical measures and those associated with lateral shifts should be given priority. The medians and bulbouts associated with bus stops are the highest priority.

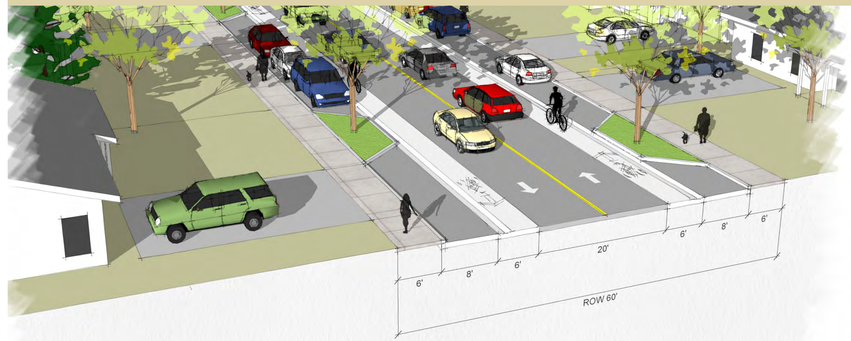
Ultimate Cross-Section

Sometime in the future this roadway may be redesigned in its entirety. At that time, the ultimate cross-section shown below should be considered. The designers and government leadership, at that time, can use their judgment and more current experience with the street to decide where to employ these sections and if any modifications to the ultimate sections are needed. The new ideas in the ultimate sections include the concrete bike lane and more consistency in the aesthetic and dimensions.

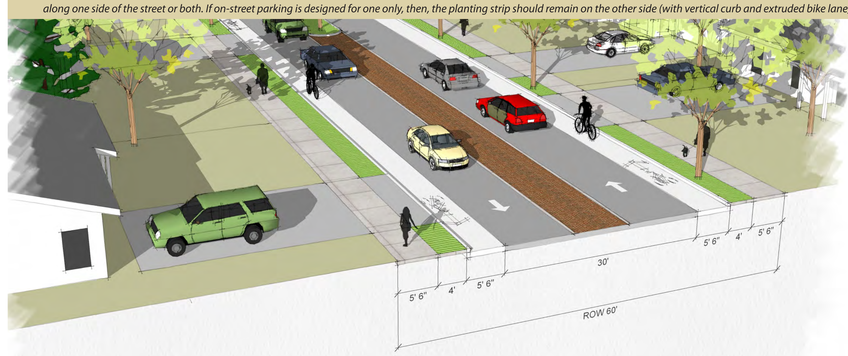
There are three basic cross-sections including: i) a section with no-parking; ii) a section with parking on one or both sides; and iii) a section with a short median, textured left turn lane, (or textured mountable median). The first four design notes/considerations above apply to the ultimate section. Additionally, at driveways, the sidewalk material and pattern need to cross the driveway uninterrupted and at the elevation and slope of the sidewalk. Any change in elevation between the sidewalk and street needs to happen via a concrete apron. The exception is where the outer curb is next to the sidewalk to accommodate an on-street parking row.



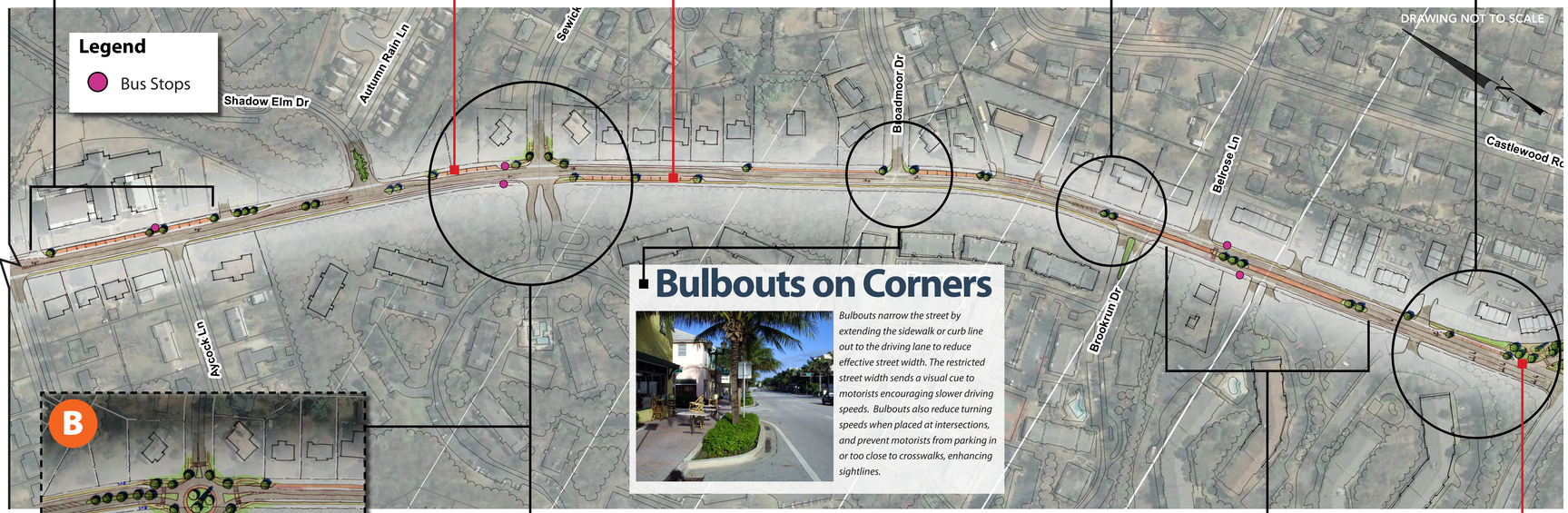
***Cross-section option 1**: 2-lane section with bike lanes (extruded from gutter pan), planting strip, and sidewalk.*



***Cross-section option 2**: 2-lane section with bike lanes (extruded from valley gutter), on-street parallel parking (with bulbouts), and sidewalk. The on-street parking can be implemented along one side of the street or both. If on-street parking is designed for one only, then, the planting strip should remain on the other side (with vertical curb and extruded bike lane)*



***Cross-section option 3**: 3-lane section (two travel lanes and textured turn lane/mountable median) with bike lanes (extruded from gutter pan), planting strip, and sidewalk. Landscaped islands or medians are recommended at strategic locations to avoid overtaking and/or to facilitate pedestrian crossings. These medians shouldn't block access to any driveways.*



Bulbouts on Corners

Bulbouts narrow the street by extending the sidewalk or curb line out to the driving lane to reduce effective street width. The restricted street width sends a visual cue to motorists encouraging slower driving speeds. Bulbouts also reduce turning speeds when placed at intersections, and prevent motorists from parking in or too close to crosswalks, enhancing sightlines.

Alternative "B" shows a concept alternative for the intersection of Scaleybark Road and Sewickley Drive. A roundabout could be considered at this location; a roundabout would simplify the operation (left turning movements are eliminated), which would make this intersection safer. A detailed analysis is recommended to determine the feasability, operational details, and geometry with respect to the suggested roundabout. The sloping terrain and the acquisition or negotiation of an easement with the apartment complex at this location might be issues to overcome .

Roundabouts

Modern roundabouts are circular intersections that use "horizontal deflection" on entry and exit to bring vehicle speeds down to a safe 15-25 mph.

The safety benefits of roundabouts are a result of three main factors:

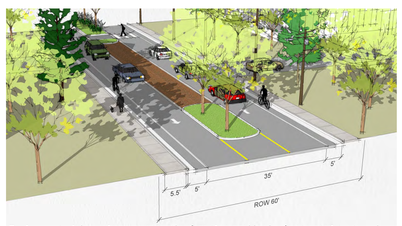
1) Lower vehicle speeds: At typical signalized intersections motorists may speed up for green or yellow lights. As motorists approach a roundabout they slow down. As a result, motorists are much more accepting and respectful of pedestrians.

2) Fewer points of conflict: At a typical intersection, there are 32 vehicle-to-vehicle and 24 vehicle-to-pedestrian points of conflict; at a roundabout, points of conflict are reduced to eight for both vehicles and pedestrians.

3) Simplified operation: Left-turning movements are eliminated. Every turn in and out of a roundabout is a right turn.

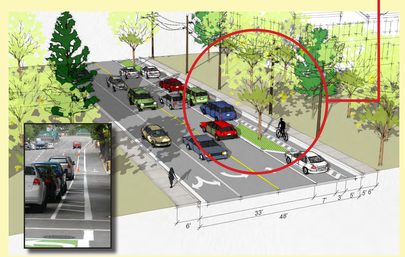
Roundabouts are designed to accommodate emergency vehicles, school buses, and delivery vehicles. The center island employs a "mountable ring" around its circumference that is designed to accept the rear left wheels of large vehicles in order to eliminate any damage to the island's landscaping.

Mountable Median



Paving materials are important to the function and look of a street. A textured material such as brick, concrete pavers, or stamped asphalt, can be applied to the center turn lane to produce small, constant changes in vertical alignment. Textured pavements in and of themselves act as a traffic calming measure by creating the perception of street narrowing, and by creating friction, which helps lower driving speeds by sending a cue to drivers that the street is not intended to be a fast-moving arterial.

Protected Bike Lane



A short segment of protected bike lane is being proposed between Woodlawn Road and the entrance to Charlotte Woods apartment complex. This configuration results in a protected environment for bikers, especially as they navigate around the right-turn slip lane. The bike lane should then transition to a conventional bike lane.