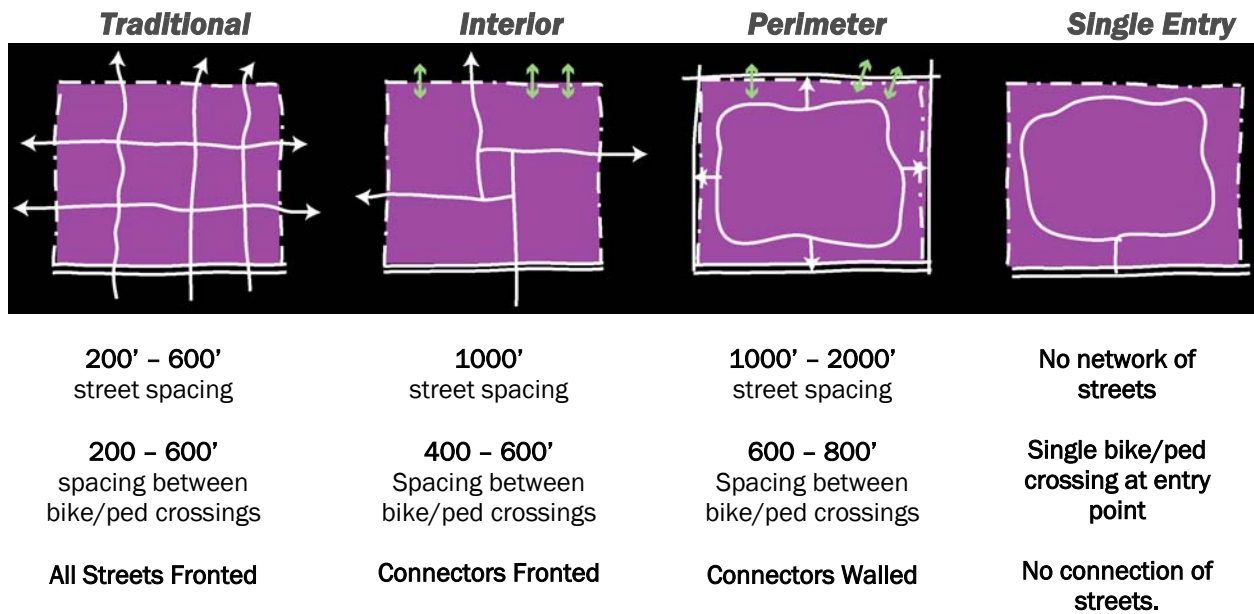




It has already been said that in order to create a great place, there needs to be a great emphasis in the design of streets. Streets are key determinants of neighborhood livability; they provide access to homes and neighborhood destinations for pedestrians, and to a variety of vehicle types, from bicycles and passenger cars to moving vans and emergency response trucks. Motorists' behavior is primarily dictated by street design, which plays a major role in community design. Because of this, many disciplines must collaborate to achieve the best street patterns. Left only to traffic engineers, street design has reflected the interests of cars rather than the needs of people and neighborhoods. The design of streets, together with the amount and speed of traffic they carry, contributes significantly to a sense of community, neighborhood feeling, and perceptions of safety and comfort. The fact that these may be intangible values makes them no less real or important at the time to consider variables that affect street design.

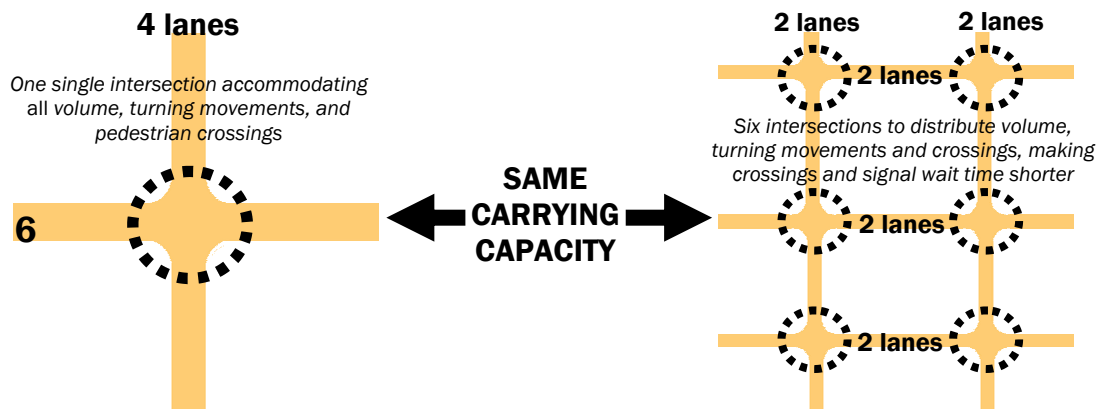
The degree to which communities are connected has strong implications for how well they will serve pedestrians. The greater the number of opportunities to form direct paths, to choose between alternative routes, and generally to navigate through our built environment, the more attractive and practical walking becomes as an option. In any event, we try to minimize the length of trips, to save energy and to save time. While it is generally understood that altering Nord Avenue will be a long-term activity, the ability to cross or even reach other destinations along this roadway is limited throughout much of the study area. Nord Avenue has clearly been designed as a large road intended to move traffic, and this designation has been made at the expense of general connectivity. The following illustrations underscore the importance of connectivity and why it should be enhanced — even if it means crossing large roads in the short term.



This illustration underscores the importance of connectivity—or rather, the consequences that we may face when we do not provide for it. Though the actual distance between the house circled in yellow and the house circled in blue is not more than two hundred feet, the street path that must be taken is many times that. Where connectivity would make walking between these two points a highly practical option, the lack of connectivity makes it highly inconvenient. Walkability depends on connectivity to make moving around on foot an attractive and useful choice.

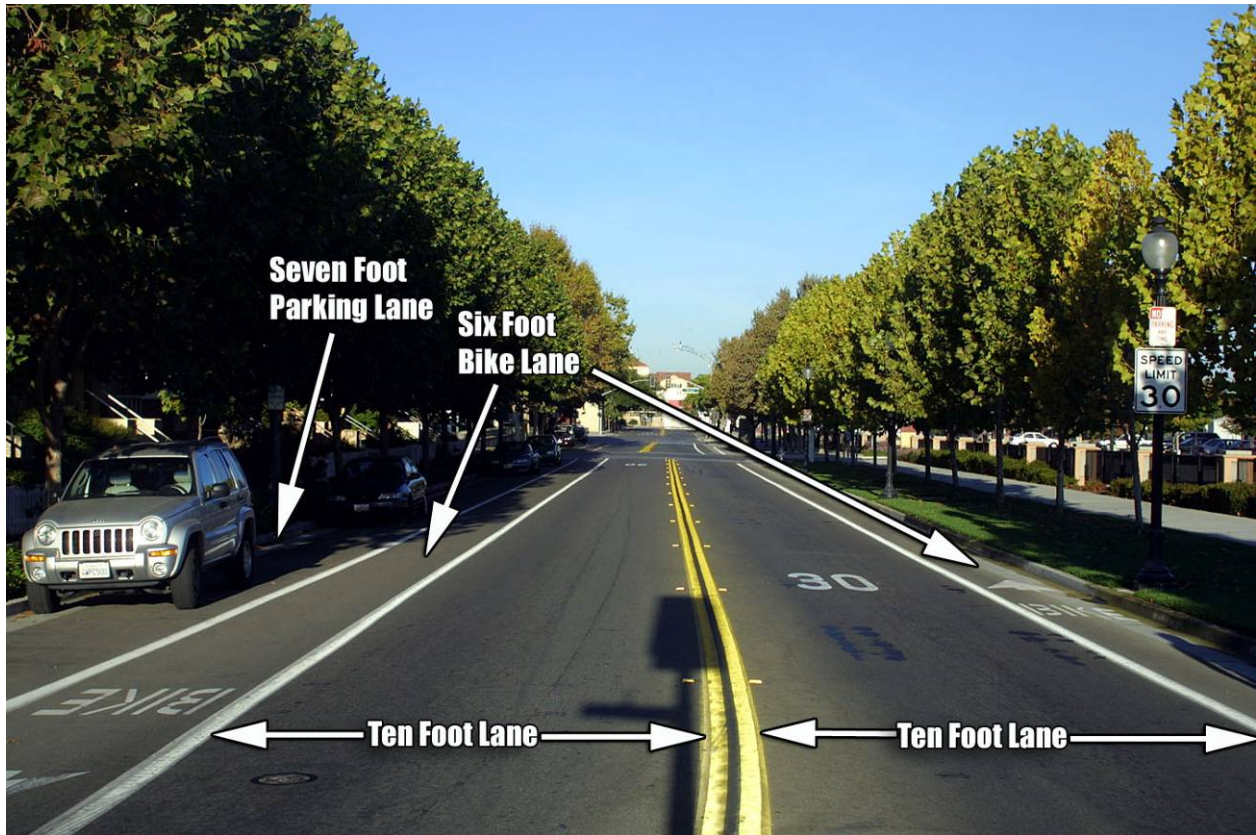


This diagram of Meriam Park in Chico, California illustrates a principle of maximum connectivity. Not only are there well-established paths for pedestrians and motorists alike to cross the streets on the edge of the neighborhood, the close block spacing changes drivers’ sense of caution: encountering intersections more frequently means that drivers adopt safer practices. Diagram courtesy of New Urban Builders



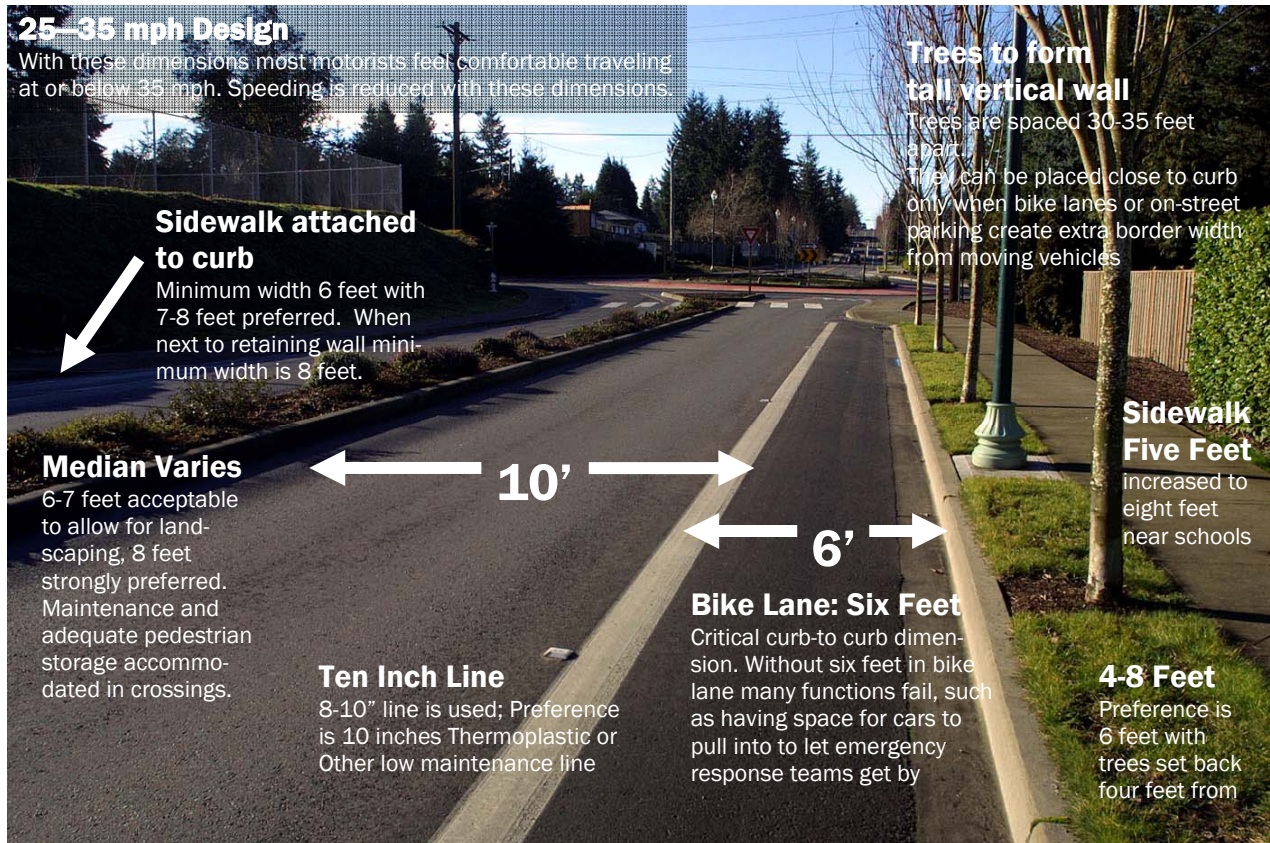
Connectivity gives greater options for vehicle movements as well. The two diagrams here illustrate the same capacity in each direction: four total lanes north and south, six total lanes east and west. In the diagram on the left, all of these lanes must be managed through a single intersection. Assuming this intersection is signalized, the wait times are longer. In the well-networked diagram on the right, vehicle wait times are much shorter with increased turning opportunities at each intersection.

The difference also has implications for pedestrians: instead of crossing narrower streets that have collectively distributed traffic flow of a larger area, pedestrians must cross larger, busier roads that are less safe and potentially require greater crossing time.



High vehicle speeds are a well-understood impediment to walkability, but it is often the case that reconfiguration of the roadway — in a way that benefits the pedestrian, the bicyclist, and the community — is the most effective means of controlling speeds.

In some cases if sidewalks are ample it may be useful to reduce their width in order to add on-street parking that can support adjacent businesses. This should allow buildings to move to the back of the sidewalk and create a more pedestrian-friendly environment. While this involves narrowing the sidewalk, the buffer created by parked cars from moving traffic is ultimately an enhancement to pedestrian safety.



Lane width is an important dimension of roadway design in determining vehicle speed and overall safety. Lane widths of ten feet satisfy the needs of moving vehicles on urban streets, allowing ample separation for both cars and trucks. Eleven-foot lane widths are acceptable, though twelve-foot widths should be avoided on urban streets.

Many urban streets have been designed to the specifications of rural roads and highways, namely with wider lanes overall wider roadways. While these oversized streets may pass through urban areas with lower posted speeds, they nonetheless offer the motorist the space and comfort needed to drive at higher speeds. Only by seeking consistency between posted speeds and road design speeds can motorist behavior be modified to make streets more walkable. The graphic above illustrates practical roadway design dimensions for a street that should accommodate 25-35 mile-per-hour speeds.

Controlling and reducing excessive travel lane width allows the same roadway to accommodate additional functions, such as turning lanes to keep through traffic flowing without impediment and on-street parking to enhance viability and access to land uses along the street.



10-foot travel lanes provide a good balance between vehicle and pedestrian safety and comfort.



Overly wide lanes and one way streets were built to assist easy flow of traffic into suburban and rural areas. Overly wide and stark streets had many unintended consequences. One of these was the elimination of accessibility and safety of walking to common destinations. This had the further effect of placing more people into autos and adding to traffic congestion.



Ten foot travel lanes, curb extensions, trees, shrubs, improved markings have the effect of bringing speeds to more appropriate levels, reduce crossing distances and allow areas to be reclaimed for mixed use. From 2-7 mph speed reductions are common.

Narrow Lanes and Safety

"Unlike previous papers, Noland's is not a localized study or one reflecting unusual roadway types. It is specific to collectors, and it applies to all roads of this category throughout the US.

Noland states bluntly,

'as more arterial and collector lane widths are increased up to 12 ft or more, traffic fatalities and injuries increase....'

These results are quite stunning as it is general practice to 'improve' the safety of roads by increasing lane widths.'

Evidence that showed narrowing traffic lanes reduce motorist speeds. The Journal Accident Analysis and Prevention (<http://www.sagepub.com/journalsPermissions.nav>) has this article 'In-Press.'



Photo 1 (above). Wide may not be affordable or healthy. Mounting evidence is available regarding the safety and effectiveness of narrow lanes. The tendency to use 12 foot travel lane widths as the starting point for urban travel lanes may no longer be justified for safety or capacity. This comes as good news as the cost of concrete and asphalt are increasing significantly with oil and other energy price increases.

Photo 2. Olive Avenue. Lanes were narrowed to 10 feet in downtown West Palm Beach, Florida in 2005-06. This city is now completing a series of lane width reductions on four different typical sections of Olive Avenue (formerly 3 to 5 lanes wide).



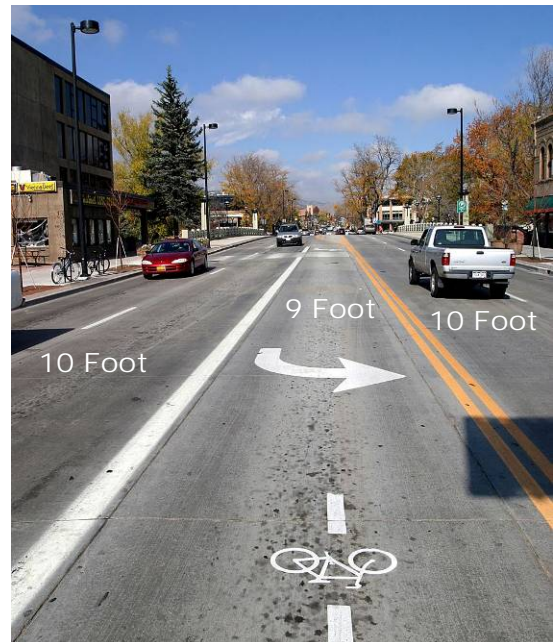
Conclusions

The results of this analysis suggest that changes in highway infrastructure that have occurred between 1984 and 1997 have not reduced traffic fatalities and injuries and have even had the effect of increasing total fatalities and injuries.

This conclusion conflicts with conventional engineering wisdom on the benefits of "improving" highway facilities and achieving higher standards of design (Transportation Research Board, 1987). While not all explicit highway design improvements were analyzed, the fact that adding new and higher design standard lane miles leads to increased fatalities and injuries suggests that new "improved" design standards are not achieving safety benefits.

— Robert B. Noland

TRAFFIC FATALITIES AND INJURIES: ARE REDUCTIONS THE RESULT OF 'IMPROVEMENTS' IN HIGHWAY DESIGN STANDARDS? (November, 2000)



Good practice in placing crossings calls for them to be in a consistent path with the sidewalk. If this is not possible, deviation from the sidewalk’s path should be minimized.

In general, crossings should be of adequate width for the volume of pedestrians that the street is carrying. They should not be significantly narrower than their corresponding sidewalks, though accessible ramps are not always the full width of the sidewalk or crossing.



Crossings should be wide enough to accommodate the expected volumes, including people with disabilities.



ADA requirements were often originally met in haste without proper alignment of paths. Many municipalities are now correcting these placements.



Crossing enhancements (especially stripes) should be maintained to draw motorist attention to pedestrian zones. Crossings that are not maintained lead to less certain (and less visible) pedestrian paths.



Tactile edges allow the vision-impaired to sense the edge of the “safe zone” for pedestrians and know they are crossing traffic.



Crossings can be either informal or formal, (below). In many cases it is preferred to formalize crossings in order to direct pedestrians to the best places to cross. These areas should have a minimum of six seconds of detection (discovery) time.



Median Islands
Formal crossings

Curb extensions—On streets with on-street parking, curb extensions reduce the total crossing distance. Reducing the crossing distance helps pedestrians in two ways: it reduces the time they are exposed to moving traffic, and it makes it easier for pedestrians to assess and find an acceptable gap, as the time needed to cross is shorter. They also increase visibility: the waiting pedestrian can better see approaching motor vehicle traffic and motorists can better see pedestrians waiting to cross the road; their view is no longer blocked by parked cars. Curb extensions should be designed to accommodate storm water drainage and should never extend more than 6 ft (1.8 m).



Crossing Islands
Informal crossings



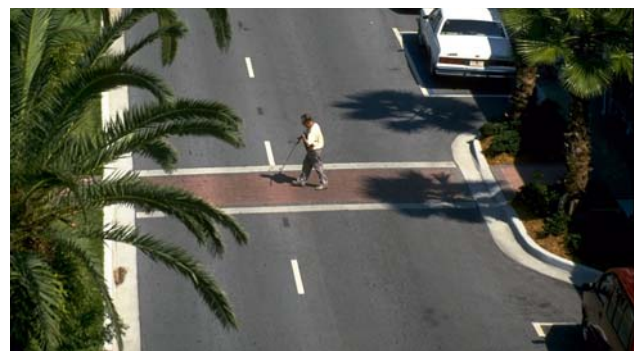
Mid-block crossings are appropriate on longer block lengths. Though intersections are the preferred locations for pedestrian crossings, when block lengths exceed 400 feet it is a good idea to consider formalized mid-block crossings to avoid “impromptu crossings” from pedestrians that may be unsafe. Using a diagonal shift from one leg of the crossing to the next allows pedestrians to have refuge, and physically shifts the pedestrian’s view toward motorists, forcing them to look in the direction of oncoming traffic. The eye contact established with the motorist also helps to tame his or her behavior, resulting in a safer pedestrian environment



Mid-block crossings seek to minimize the distance between intersections, but careful placement (especially in front of important civic buildings, transit facilities, and other destinations) renders them far more useful and allows them to contribute better to overall pedestrian safety than when their placement is arbitrary (or at least determined solely by distance).



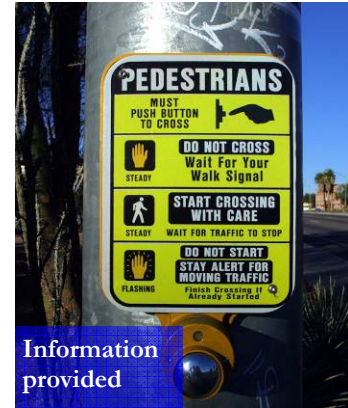
To aid motorist detection of islands, it is best to have both colorful ground cover and vertical trees. When using ground cover preference is given to native species that are slow growth varieties. Irrigation may be required with many plant types. Many areas may prefer low maintenance designs. Vegetation should be kept trimmed to 24-28 inches high in order to maximize the view of pedestrians.



Pedestrians and bicyclists seek to cross streets without going too far out of their direction of travel. Two or three lane streets can include medians or crossing islands. Crossing islands reduce the potential for a crash by up to 40%. When used, these islands or crossing points allow pedestrians to cross where conflicts are minimized. A pedestrian crossing island breaks an otherwise difficult crossing maneuver into two easier, shorter steps: instead of needing to find a gap long enough to cross all lanes at once, a pedestrian looks left, finds an acceptable gap in one direction only, crosses to the island, then looks right and finds a second gap. Principles include:

Basic and advanced measures:

1. Assure 6 or more seconds of sight lines (discovery time) at crossing points
2. Use good lighting of crossings
3. Use high emphasis crosswalk markings
4. Use at least minimum required signing and pavement markings (MUTCD). Additional measures are encouraged.
5. Use curb extensions on streets with parking to maximize view of pedestrians and motorist conflicts, and to minimize crossing distances.
6. Use raised tables on appropriate streets



Information provided



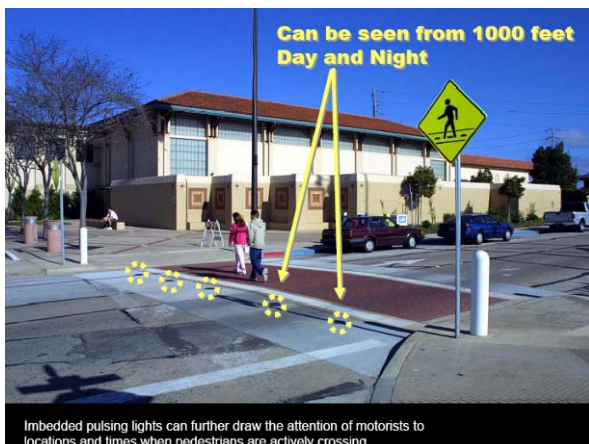
Activated by Pedestrian



Activated Automatically



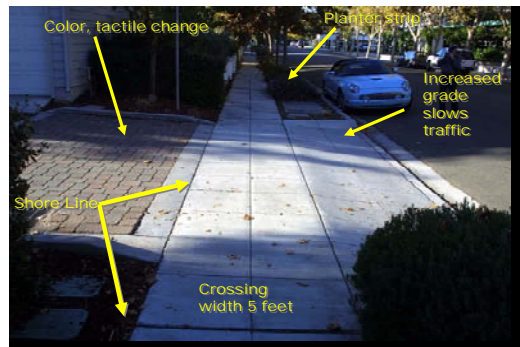
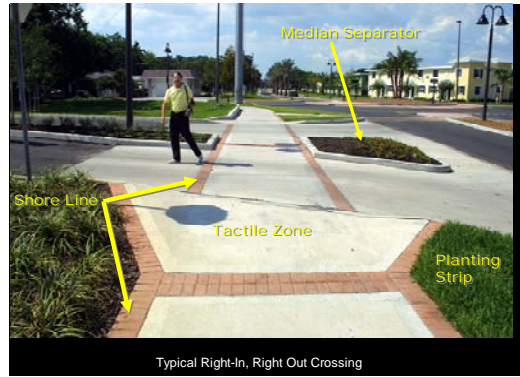
ADA – crossing angle can be detected by blind.



Driveways, alleys and other crossings. Many driveways are incorrectly designed to look like a street. They are overly wide, poorly lit, and pose multiple threats (up to six conflict points) to pedestrians. Transitioning from suburban areas where pedestrians were largely omitted from roadway designs includes changing driveway designs to look, act and feel like driveways. Suburban driveways were often designed to allow high speed exits to and from adjacent roadways. Transitioning to pedestrian friendly corridors requires the following measures:

Driveway details:

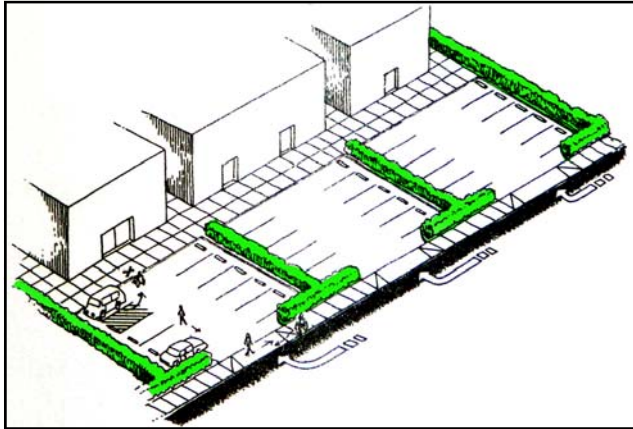
1. Keep entry and exit speeds low. General approach speeds should be 5-8 mph, or less.
2. Speed can be controlled by a change in grade (gradual ramps increase speed potential).
3. It is best to use color, patterns and texture to highlight and make clear to motorists that they are intruding into the right-of-way of pedestrians, and that they have a legal duty to allow pedestrians to complete their movements.
4. In some cases tactile areas are used to define edges of safe zones (especially for blind pedestrians). Use of color and texture helps all people, especially during twilight when changes in grade are difficult to detect.
5. When necessary, sidewalks can be brought down to lower driveway elevations in order to meet ADA needs. It is often best, however to use planter strips and have grade changes be in portions of the right-of-way occupied by planter strips. Keep sight lines open.
6. Keep higher capacity (commercial) driveways well lit, with strong, well defined edges to accentuate crossing areas.
7. Pedestrian crossings of driveways are best when kept to the full width of the sidewalk. A five foot minimum width sidewalk is necessary on long driveways (more than 20 feet wide).
8. Right-in, right-out (or single direction) driveways are strongly preferred, especially on multiple lane roadways.



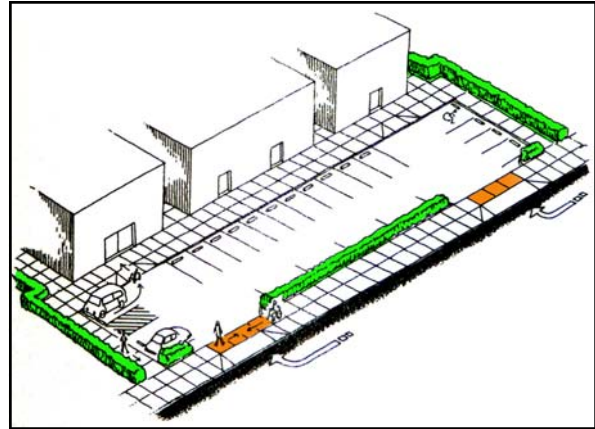
Landscape bumpouts and sensitive ramp treatments can ease driver behavior when frequent driveway cuts need to be employed.



In addition to the benefit of facilitating vehicle movements by eliminating the numbers of turning opportunities that make streets and roads inefficient, managing and consolidating access to fewer points lengthens the pedestrian’s comfort zone and minimizes the opportunity for vehicle-pedestrian conflicts.

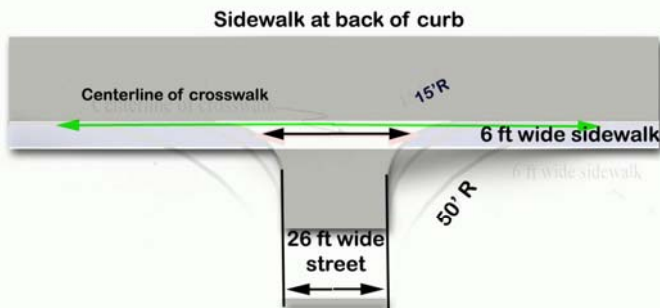


Multiple driveway access points increase the hazard to the pedestrian.



Consolidating driveway access extends the pedestrian’s path without conflict opportunity.

Effect of Corner Turning Radii on Pedestrian Crossing Distances



Radius	Crossing Distance	Increased Crossing	Percent Increase
15'	37'	+11'	42%
25'	50'	+24'	92%
50'	89'	+63'	203%



The wider a turning radius, the greater the distance a pedestrian must travel to cross the street at a corner. The extended distance increases the potential for conflicts, especially toward the edges of the crossing areas (the corners) where motorist attention may be diverted to checking for oncoming traffic before making turns.

In addition to managing access by limiting the number of driveways, it is important to ensure that turning radii at corners — even corners of streets and driveways — are adequate to allow safe movement but not overly wide.

Traditional streets favor on-street parking over off-street parking. On-street parking can be used as part of the strategy to reduce motorist speed through increased “side-friction.” Sight lines are preserved at intersections with 30 to 50 foot parking setbacks from intersecting legs.

Compared with on-street, off-street parking requires triple the land and creates triple the heat gain, water runoff and other negative environmental impacts. Walkable communities tap into significant on-street parking. Visual effects from on-street parking provide multiple benefits of including traffic calming, improved safety, buffers to sidewalks and shopping convenience.



Back-in angled parking is safer and easier to manage than head-in angled and parallel parking. The most important safety advantage is the driver’s ability to see into the travel lane when pulling out of the parking stall.

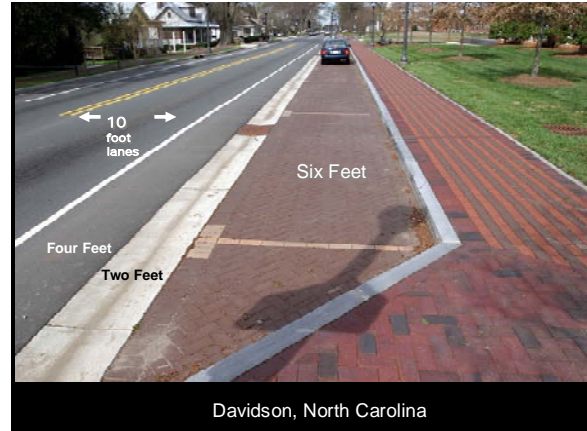
Head-in angled parking is familiar to most motorists along with its primary benefit (larger parking supply) and its primary safety problem (blindly backing out into a travel lane). A growing number of cities are converting their head-in parking to back-in parking.



Lane diets, bike lanes and on-street parking can be used in combination. A number of minimum dimensions are needed to maximize speed reductions, safe entry and exit from autos, and comfortable bike lane use.

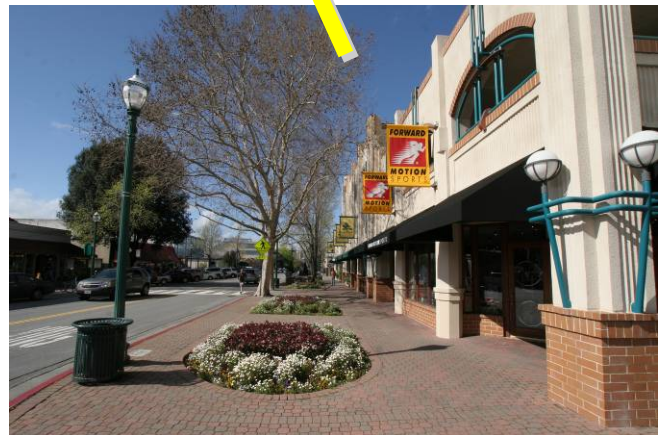
The following principles apply:

1. Quiet neighborhood collectors. If volumes and speeds are low (25 mph or less), keep roadways compact, and do not use bike lanes. Bicyclists do well when there are few autos, and in this case bicycle lanes result in wider streets and higher vehicle speeds which discourage bicycling.
2. On major collectors and arterials, the higher the volume and speed the more important bike lanes become. Minimize width of marked parking to six feet, then maximize the width of bike lanes (7 feet is preferred, and no less than 6 feet should be used next to parking). In the scenes to the right, narrow travel lanes of 10 feet with 7 foot bike lanes and six foot parking is an ideal combination. This road in Del Mar, CA operates with high levels of congestion, making it comfortable for bicycle travel.
3. With two-lane ten foot lane diets shown to the right, parking is kept to six feet. A two foot valley gutter adds bonus width to both the bike lane and/or parking lane. This combination, next to travel lanes creates low speed travel and a designated place for bicyclists.
4. The bottom photo shows a scene at the Stanford (Palo Alto) campus. Although narrow lanes and on-street parking with bike lanes may be comfortable for many, it is the very low turnover of parking and moderately low traffic volume that creates the greatest comfort. Taking one additional foot out of the travel lane increases comfort, and reduces the tendency to travel fast. The primary purpose of an auto trip here is to search for elusive parking spaces.



Manage Parking. As new retail and residential development takes place along Nord Avenue — and especially around West Sacramento — the opportunity to build parking garages with ground floor shops and services may arise. Shown on this page are just a few new parking garages that brought significant new income to communities while providing much needed parking. Some area streets can also increase parking at the core and surrounding the town center. When back-in angled parking can be used, as much as 7 feet of street width (per side) can be freed up. Thus, more parking can be found on streets that currently have only parallel parking.

- The top right photo is a large parking garage in Santa Fe, New Mexico. Critical parking is provided, along with many luxury residential properties, neighborhood shops and other services.
- Tree wells (bottom two photos) may be appropriate on some streets, greening up streets and widening sidewalks.
- In some areas a single on-street parking space turns over 20 to 40 times daily (providing strong retail support).



Bicycle parking. Convenient and secure bicycle parking should be provided at several locations on each block of all commercial areas. Employers with more than 25 employees and all schools should also provide bicycle parking. All bike parking should be attractive, convenient, and in plain view (for security reasons). It can also be whimsical and fun as some of these photos show.

- Apartments and employers should provide interior, secure parking.
- Large work centers (50 or more employees) should provide showers and lockers.
- Parking garages should have fenced in, secure parking near toll operations. Access by key code or other convenient, secure systems are needed.
- Significant transit stops should have parking. Major transit stops should provide lockers.
- Parking garages and all employment centers with 25 or more employees should have secure parking (lockers, garage space or interior building parking).



Fire Station, Corvallis, Oregon



Public bike lockers



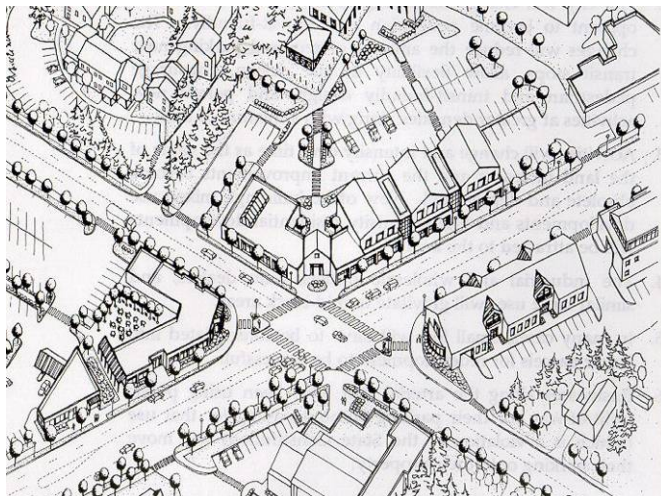
Stanford University, secure bike parking in parking garage (next to parking attendant).



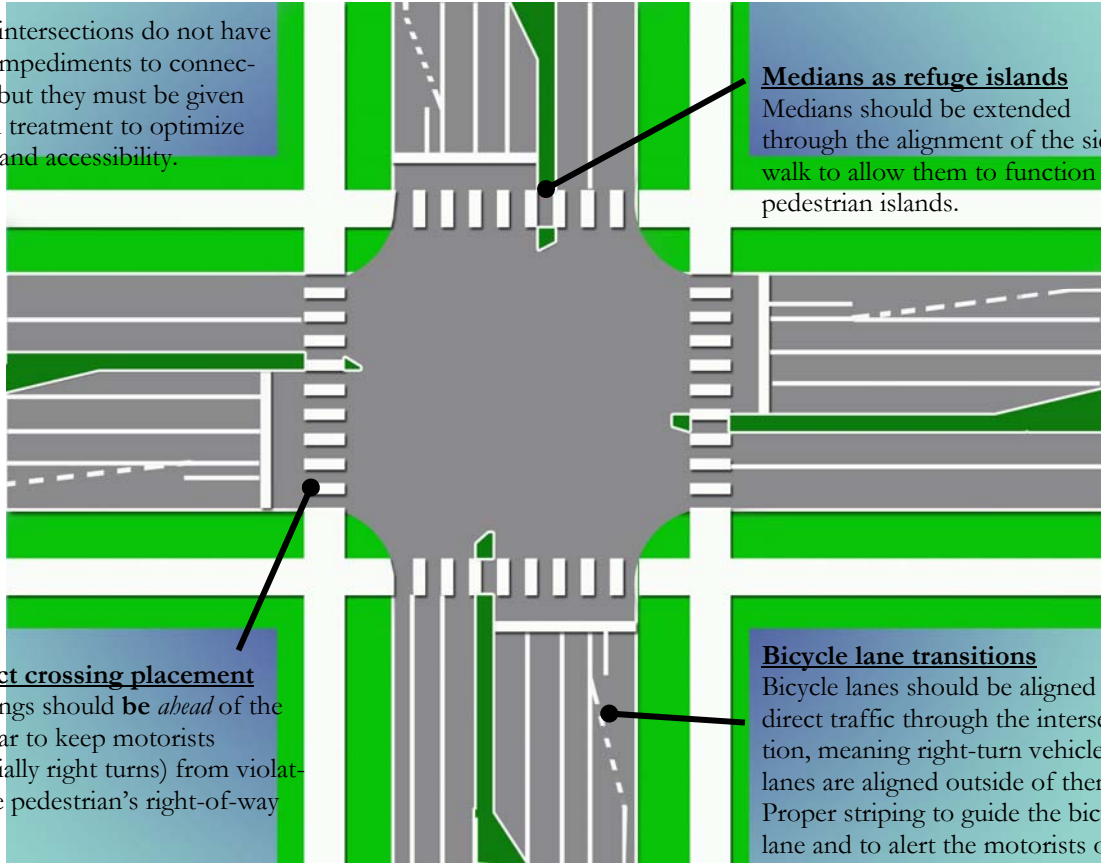
Keep sidewalks clear

Intersections. To enhance walkability the following generic geometric, operations and maintenance practices are recommended.

1. All lanes and intersections should be built as narrow and compact as practicable to perform their mission to safely and efficiently move and provide for all modes of travel.
2. Curb radii should be kept tight, generally using 15 foot radii when practicable. Wider radii should be used in industrial areas, as appropriate, to meet truck turning needs. Effective turn radii are enhanced through curb extensions, bike lanes and parking lanes.
3. Curb extensions should be used whenever practicable to reduce crossing distances and times, add greenery, and to allow shorter signal clearance intervals.
4. Enhanced crosswalk markings should be used in all areas of “A,” “B” and “C” quality, and for crossings of all primary road systems. Side street crossings on “D” category sidewalks can be maintained with either enhanced or standard, well maintained crosswalk markings.
5. Countdown signals should be installed on all crossings greater than 50 feet.
6. Pedestrian Lead Intervals should be used where there is a history of turning motorists cutting off pedestrians.
7. Medians and median noses should be provided on all intersections where they are practicable. Signal recall controls should be used in medians.
8. Category “A,” “B” and “C” streets do not require pedestrian push button controls. These signals automatically activate for pedestrians on each cycle.
9. Pedestrian signals automatically activate during all legs where sufficient time exists for pedestrian crossings. Push buttons are used in many “D” and “E” category walkways and trails, but NEVER on main streets.



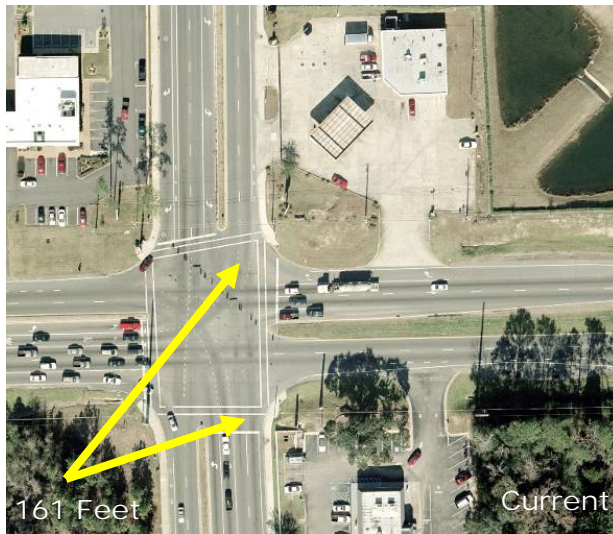
Large intersections do not have to be impediments to connectivity, but they must be given special treatment to optimize safety and accessibility.



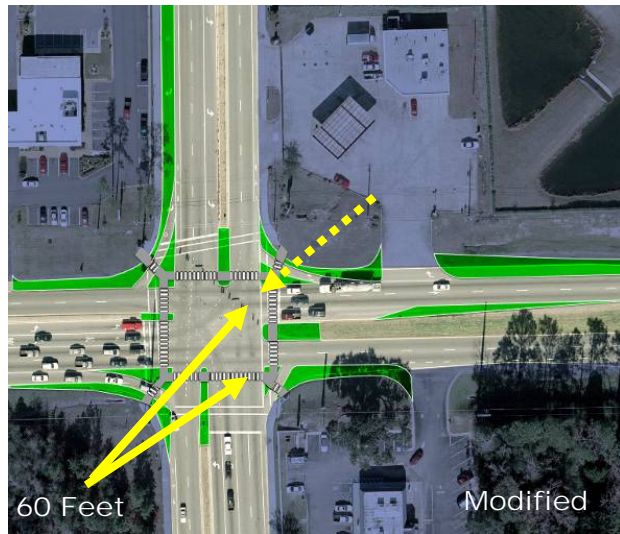
Medians as refuge islands
Medians should be extended through the alignment of the sidewalk to allow them to function as pedestrian islands.

Correct crossing placement
Crossings should be *ahead* of the stop bar to keep motorists (especially right turns) from violating the pedestrian's right-of-way

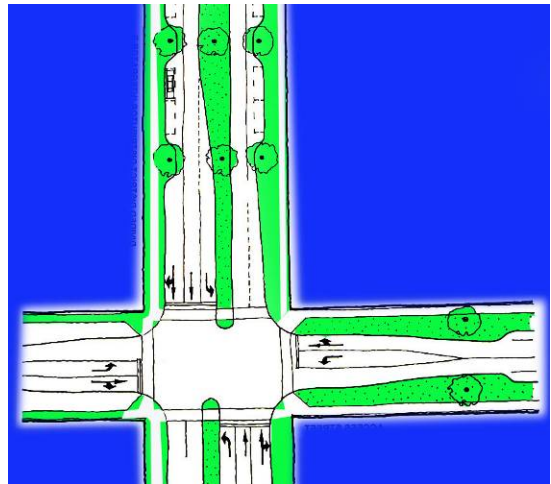
Bicycle lane transitions
Bicycle lanes should be aligned to direct traffic through the intersection, meaning right-turn vehicle lanes are aligned outside of them. Proper striping to guide the bicycle lane and to alert the motorists of this change in alignment will allow for a safe and effective transition.

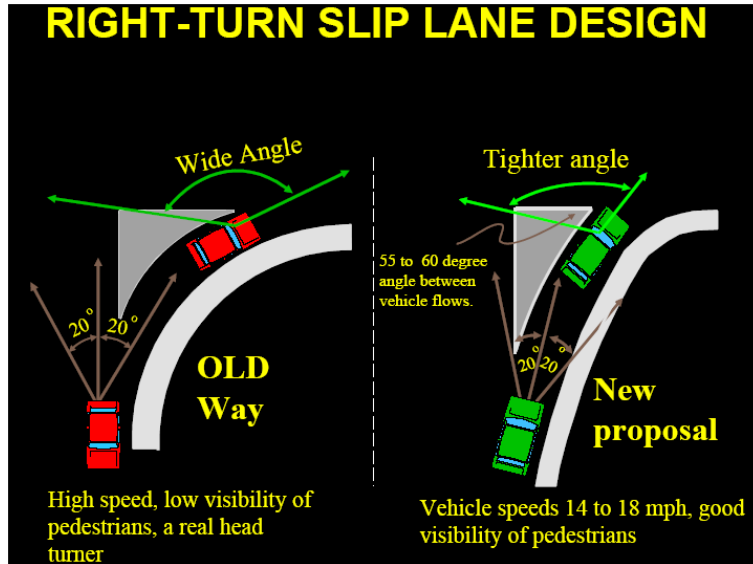


Overly wide intersections create unsafe conditions, discourage walking and bicycling, and lead to long delays of motorists. The pedestrian clearance interval for this crossing is 60 seconds.



Crossing islands (pork chop islands) medians and more compact designs shorten pedestrian crossings to 30 second allowing motorists to be underway with less delay.

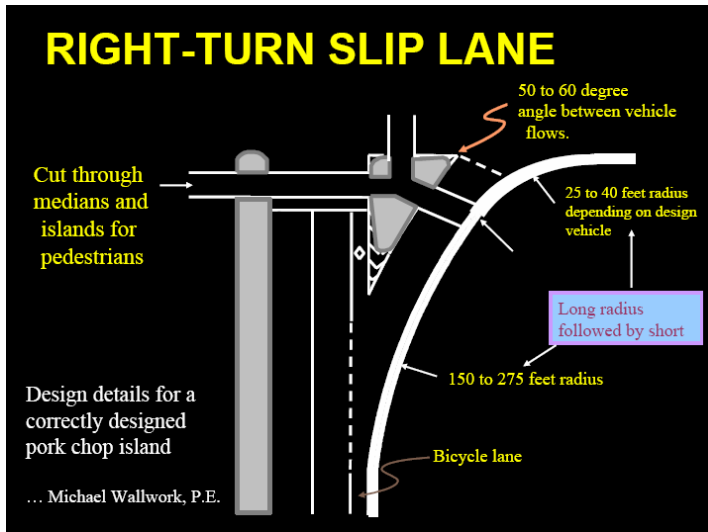




At larger intersections, right-turn slip lanes provide additional storage room for vehicles attempting right turns and, in volumes that do not exceed the length of the lane, allow the outer travel lane of the street to be reserved for through traffic. While they have advantages to motorists and are beneficial from a traffic engineering perspective, they can be a detriment to a safe and convenient pedestrian environment: they increase the distance pedestrians must travel from corner to corner when crossing a street, and the curve in most designs (old way in diagram to left) suggests that motorists may make the turn without slowing. The new design shown here lowers speeds, makes pedestrians more visible and allows drivers to find a gap without turning their necks as much.

Geometry. Entry ramps (pork chop islands) in urban areas should control speeds to safe and efficient levels. In general, 10-12 mph entry speeds give the best opportunity to merge safely in standard intersections, while 15-25 mph may be acceptable over some ramp areas and allow trailing motorists time and distance to respond. These speeds also produce the greatest yielding rates to pedestrians and bicyclists.





The illustration to the immediate left provides design details when bike lanes are used at conventional intersections. Entry principles remain similar in a SPUI (Single Point Urban Interchange). Other ways to reduce crashes include high emphasis crossings and focus on entry angles of pedestrians (face toward motorists).



When these slip lanes are augmented by pedestrian crossings that take advantage of them, they function as refuge islands between vehicles making right turns and those moving through the intersection, and they allow the paths of sidewalks to remain aligned mostly parallel to the streets with minimal diversion.

The photo below illustrates a low speed entry ramp accentuated by a raised crossing to assure low speeds.





Bradenton Beach, Florida. This high-volume intersection was one of the town's most dangerous for pedestrians, though immediately adjacent to its prime amenity.



Installation of a roundabout calmed traffic speeds and facilitated pedestrian crossing. It also improved property values and catalyzed redevelopment.



Myth breaker. This Brighton, Michigan roundabout disproved the myth that roundabouts with dominant primary street volumes will not let side street traffic enter during peak periods. It handles 20,000 vehicles per day and vehicles on the secondary street find numerous gaps when cars enter or exit the roundabout, a pedestrian crosses or a cars slow to park.

At certain intersections, placement of a roundabout greatly facilitates through traffic and turning movements without requiring signal control delays. Roundabouts are made up of a circulating roadway with a raised island that is often used for landscaping or other decorative features. The circulating roadway is typically wider than approach roadways and features an additional “raised truck apron” on the outer section of the circle; both of these features allow for operating contingencies, especially with trucks, emergency response vehicles, and other large vehicles.

Roundabouts most often increase intersection capacity up to 30 percent: as the only requirement for yielding the right-of-way is to traffic already in the circulating roadway, vehicles can continue moving through intersections carrying a light volume, requiring no queue at the approach roadways and potentially allowing all intersecting streets to use the intersection at once.

Roundabout benefits are so significant that some states and cities require that any intersection rebuilds must be first modeled to see if a roundabout will work. Benefits include:

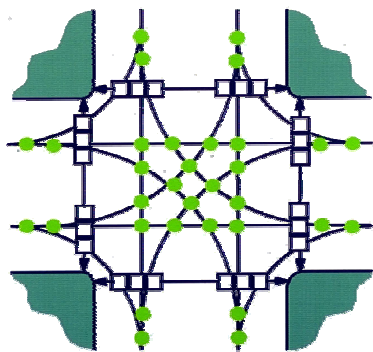
1. Reduction in personal injury crashes (80-90%)
2. Reduced delays
3. Increased capacity (often 30% is a safe estimate).
4. Increased property values. At times higher development potential can pay the cost of new roundabouts.
5. Improved conditions for motorists, pedestrians and bicyclists.
6. Space conserving. As a general rule a single lane roundabout fits into a 130-foot intersection (measured diagonally from one corner to another). Some roundabouts can fit into less space (see above Bradenton Beach, Florida roundabout).



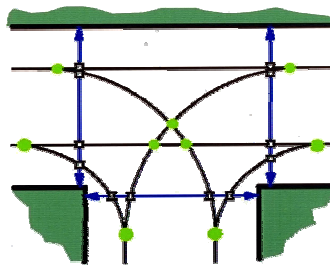
Roundabouts provide safer and more amenable pedestrian crossings, namely from use of the splitter island on each approach as a pedestrian refuge. Allowing one car length between the yield line and crossing optimizes roundabout efficiency for vehicles, allowing vehicles waiting to enter the circulating roadway to be closer to it and preserving a safe distance between pedestrians and vehicles traveling out of the circulating roadway to one of the cross streets.

One very important safety feature of roundabouts is their reduction of conflict opportunities. When crossing, pedestrians face only one potential conflict (traffic either entering or exiting the roundabout, divided by the splitter island).

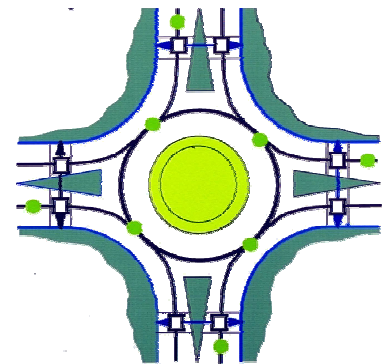
Pedestrian crossings at roundabouts require as little as 13-14 feet of exposure per crossing versus 60-100 feet at signalized intersections capable of carrying similar traffic volumes. Speeds and crashes are greatly reduced.



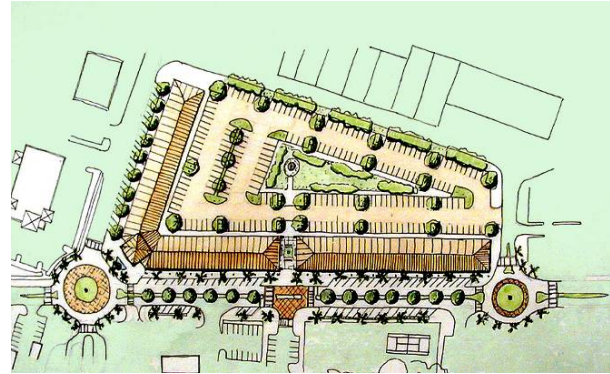
FOUR-WAY INTERSECTION
32 Vehicle-Vehicle conflicts
24 Vehicle-Pedestrian conflicts



THREE-WAY ('T') INTERSECTION
9 Vehicle-Vehicle conflicts
12 Vehicle-Pedestrian conflicts



ROUNDABOUT
8 Vehicle-Vehicle conflicts
8 Vehicle-Pedestrian conflicts



A 2000 report by the Insurance Institute for Highway Safety reported that: "Results of this study indicate that converting conventional intersections from stop sign or traffic signal control can produce substantial reductions in motor vehicle crashes."

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Roundabouts

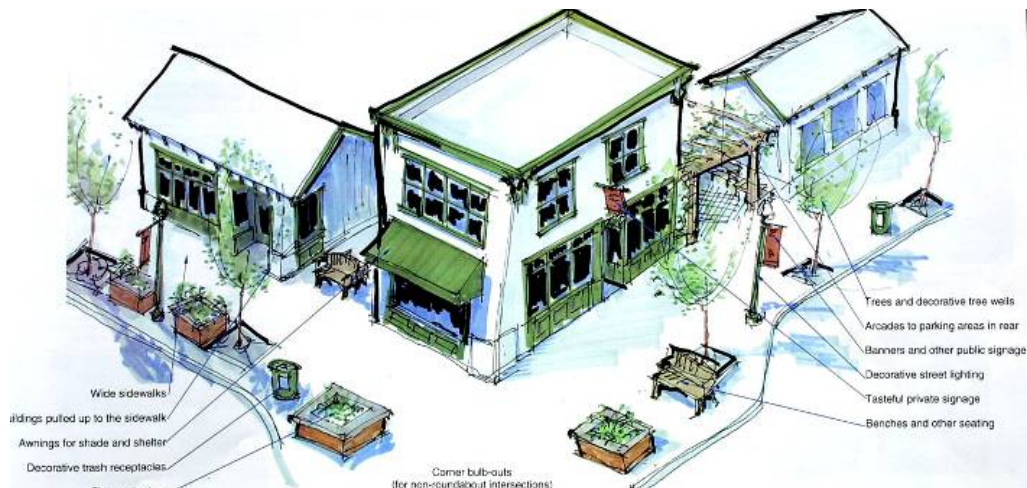
They sharply reduce crashes, study finds
Roundabouts may be an unfamiliar type of intersection in the United States, but they're becoming more familiar as evidence of their benefits grows. Improved traffic flow, aesthetics, and cost savings make roundabouts a good idea, and the safety gains are compelling. An Institute study shows far fewer crashes occur at intersections with roundabouts than at intersections with signals or stop signs. This is especially true of crashes

It has been discussed previously that streets are an important public space — indeed, they are the most fundamental and basic public space in our built environments. In this role, streets have an opportunity to create a sense of place as well: whether through their celebration of local architecture, local customs or simply the integration of natural and built environments. Through streetscaping improvements Nord Avenue could be given a lot of character and identity.

Streetscaping refers to the planting of street trees, median treatment, corner treatment, decorative signs, park benches, pathways, color, lighting, transit stops, etc. All these amenities increase motorists’ awareness of the various purposes of the street besides moving cars.



Engaging streets also provide opportunities for discovery and surprise. Public art, street furniture decoration or other functional elements can be used to proclaim a place’s history, its people and its values. These additions to the street define its character and charm.



In places where basic walkability functions are operating well and pedestrians enjoy a generally safe, comfortable environment, how can the public realm be enhanced to strengthen a sense of place? The best urban environments have a very strong sense of place: the feeling of ownership and belonging that people have for their communities and the sentiment of pride and distinction that visitors experience, creating memories of their visit and knowing without a doubt where they are.

Signs that celebrate local culture, environment or monuments affirm a walkable environment by speaking about the character of a place. Gateways offer a sense of arrival and help to mark transitions between one part of a place and another, such as crossing town limits or moving from one neighborhood to another.

While communities without a strong sense of place may have all of the characteristics of a walkable environment, the nod to local culture signifies that certain places have utilized their walkability to more than a functional level: their streets have become public space and incubators of social activity, exchange and community interaction.

