

## Pattern 3: Parking



**“Parking in great amounts is not a characteristic of great streets.” – Allan Jacobs**

Parking is an integral part of the municipal circulation system and is often as important as roads in shaping local activity patterns. The location, capacity, and design of parking facilities have enormous consequences for community form and mobility, as well as for the visual quality of neighborhoods. By providing designated places to park and prohibiting parking elsewhere, a municipality shapes much of the allowable use of public space within its borders.

### Community Form and Mobility Principles

Four key principles define mobility-friendly parking:

- Scale,
- Contextual Design,
- Efficiency, and
- Loading and Delivery.

**Scale:**

***Provide a realistic and not excessive amount of parking for a given location; routinely include bicycle parking at trip destinations.***

Managing the quantity and location of parking is a common concern in New Jersey's municipalities. Parking issues in communities with strong centers differ from those in low density suburban areas. In the former, there is usually a need to maximize parking availability in the center, enhance public awareness of parking locations, and encourage compliance with parking regulations to squeeze the most benefit out of existing parking capacity. Providing a sufficient number of conveniently placed handicapped parking spaces and enforcing use restrictions can also be challenging.

In suburban areas, residential and commercial parking are generally plentiful, but these parking areas tend to consume large amounts of land, contribute to the deterioration of water quality, and often detract from personal mobility. The prevalence of vast parking areas along commercial corridors tends to create an oppressive environment for drivers and an inhospitable one for pedestrians. Where this problem exists, steps can be taken to retrofit parking areas with internal landscaping and to visually screen parking from the roadway. Opportunities to redevelop underutilized parking for new uses can also be considered.



**Separate parking for individual establishments, as along Route 9 in Ocean County, consumes excess land and forces shoppers back onto the arterial for each individual errand.**

Excessive construction of parking can be prevented by reducing the amount of parking required in local ordinances. One way to do this is to establish a reduced parking option for those developments that are located near transit services. Some communities have adopted parking *maximums* in place of the minimums typical of local ordinances. Provisions for shared parking may be adopted, along with requirements for bicycle parking in new developments.

The availability of safe and convenient parking is as critical to bicyclists as it is for motorists, and yet frequently overlooked. Many jurisdictions have adopted a systematic approach and specific requirements for bicycle parking design, location, and installation. A comprehensive program for municipal bike parking would consider location and use, type of racks or lockers, protection from the elements, and signage and markings. Sheltered, illuminated bicycle parking is especially helpful at all-day parking locations such as workplaces, transit stations, and schools, providing a dry bicycle and a secure, comfortable place to stand while unlocking a bike in inclement weather. Bicycle parking areas should be visible to passersby to increase the level of security.



Secure, lighted & free bicycle parking and lockers at a university. A key is required to enter the compound.



Sheltered bicycle parking at Westfield Station.



Bicycles should be inside a fenced area, not on a fenced area!

### *Contextual Design:*

*Design parking areas (whether structured, surface, or on-street) for pedestrian navigation and security; integrate them with surrounding uses; screen structures and lots through design features or landscaping or placement behind buildings.*

The design quality of community parking facilities has evolved in recent years. Though parking structures are often controversial, exemplary designs are available that integrate these facilities into the surrounding streetscape or use color, texture, and landscaping to create attractive facades. Improved designs for surface lots and on-street parking areas are also available. Basic principles of mobility-friendly parking design include the use of screening techniques, rear or side placement of surface lots, and designs that avoid the need for pedestrians (including transit users) to walk through large expanses of parking en route to their destinations. Form-based codes may be used to specify many of these features. Conventional zoning ordinances can also be modified to require landscaping in parking lots.



**Structured parking is less obtrusive when it is incorporated into the streetscape design. The parking structure at the right is completely wrapped with ground floor retail and upper story residential uses. To the left, the bank drive thru is serviced from the rear parking lot and does not enter or exit onto Metuchen's Main Street.**



High quality designs avoid a “sea of asphalt” by breaking lots up into smaller sections with landscaping and internal walkways. Both surface lots and parking structures should be visually screened from adjacent streets and sidewalks, through design features and/or landscaping. However, security for parking lot users is a paramount concern; screening should not render

access areas or surface lots completely invisible. The internal layout of lots and garages, pedestrian access areas, garage stairwells, elevators and lighting are all factors in creating a sense of security.



As part of an effort to redesign the Route 29 freeway through downtown Trenton into an urban boulevard, NJDOT is working with the City of Trenton to reinvent this employee parking lot, which is vacant on nights and weekends. The proposal involves building a parking garage that is covered by mixed use development that caters to the needs of the area, including shops and restaurants. Source: Glatting Jackson

The design of residential parking can also affect community life in subtle ways. Attached garages, the norm in suburban developments, provide convenience but can reduce opportunities for interaction with neighbors, if people come and go solely in their cars. House designs that place garages nearest the street and obscure the front doors can give a neighborhood an inhospitable quality. Conversely, designs that reduce the prominence of garages may make a street more welcoming to pedestrians and encourage social interaction.



If garages face onto an alley, front porches can face the street.



**Parking lots can be designed to minimize conflicts between pedestrians and drivers.**

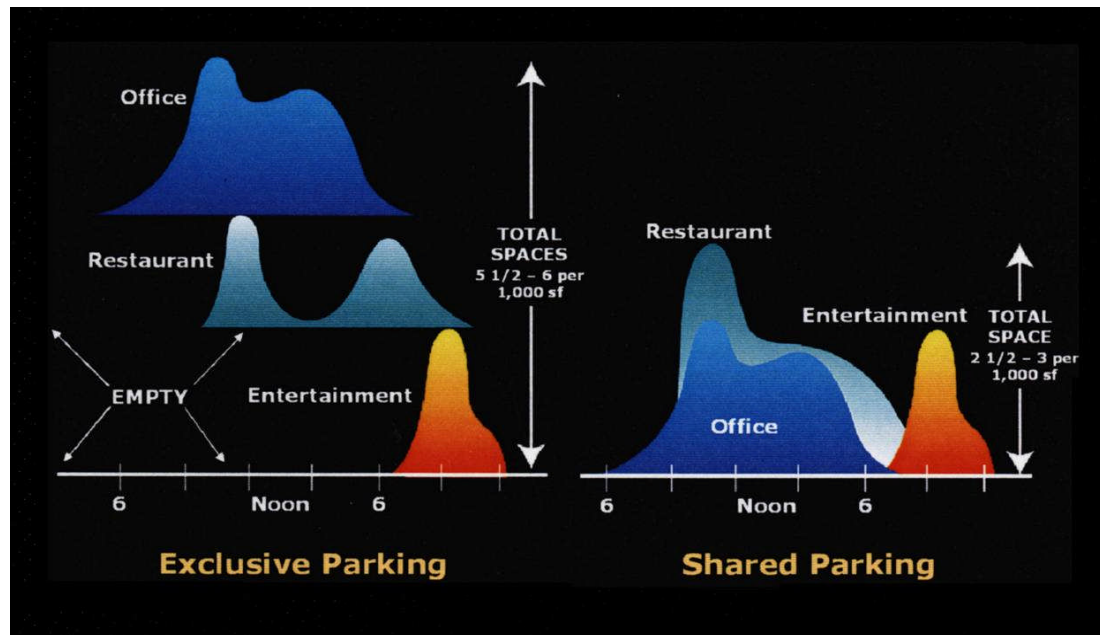
Surface parking facilities can be designed to be environmentally friendly by including stormwater treatment features for runoff. Bioretention is an efficient method that uses natural materials to remove pollutants from runoff. Placing bioretention areas—consisting of sand and soil mixed with native plants—adjacent to impervious surfaces, including parking areas and internal access ways, helps filter runoff and improve drainage. Alternatively, permeable pavement can be used to reduce runoff. Materials such as porous asphalt pavement and permeable pavers allow water to soak through into the soil below. These options provide sustainable solutions for managing parking.



**Permeable interlocking pavers and biofiltration swales can reduce environmental impacts. Source: Sikich and Kelsey (left), Wendi Goldsmith (right).**

**Efficiency:**

*Encourage shared parking and shared driveways.*

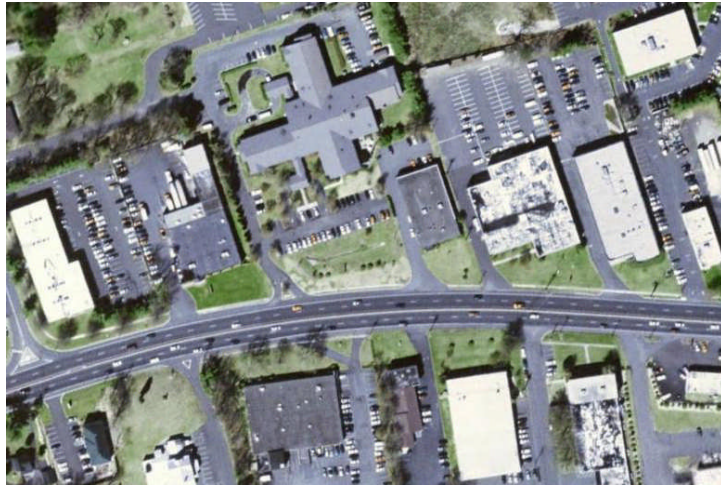


Parking shared among different users at various times of day may mean that as little as half of what a zoning ordinance requires would actually be sufficient. Since each parking space requires about 300 square feet of land, savings add up quickly. Source: Glatting Jackson

The construction of individual parking lots for each commercial or office use along a roadway is the norm in many suburban areas of New Jersey. This practice often results in obstacles to mobility and unnecessarily consuming land for parking. Visitors may find that they cannot use two adjacent stores or services without a trip back out to the highway. Pedestrian pathways connecting neighboring stores may be nonexistent as well. A further problem with multiple individual parking lots is the number of traffic conflict points introduced by having so many driveways along a roadway. This is called “friction”: the constant movement of vehicles in and out of multiple driveways reduces traffic performance, disrupts bicycling, and creates hazards for pedestrians attempting to use a sidewalk.

Several communities have experimented with solutions that include opening up vehicular access between formerly isolated parking areas or bridging adjacent lots with pedestrian pathways. A better approach is to define internal roadways that connect many of the multiple parking areas along a corridor. This allows some of the individual driveways to be consolidated for shared use. Excess driveways can then be closed. Driveway consolidation can provide significant improvements in local traffic flow, while also greatly improving conditions for bicycling and walking.

Parking areas can also be shared for different uses over the course of the day or week. For example, a movie theater may make some of its parking available for carpoolers or express bus users during the day. Zoning ordinances may need to be changed in



order to implement shared parking of this type. Excess commercial spaces may also be leased out for park-and-ride use. Park-and-ride lots and other areas primarily devoted to commuter parking can also be used for other purposes on weekends.

Mixed use town centers also lend themselves to a shared parking approach, in which well-placed public or privately operated surface lots can serve many nearby destinations. In higher density town centers and cities, structured parking often provides still greater efficiency.

Regulations governing the duration and price of municipal parking should take into account the desired parking turnover for each parking district. Should a given lot or set of on-street meters accommodate leisurely shopping and dining, all-day shopping by transit users or area employees, or quick errands only? A combination of time limits, while potentially confusing, may help ensure that spaces regularly become available for those using a drug store or Post Office, while other spaces can be occupied by longer term visitors.



**Shared parking at a Clifton shopping center accommodates transit users on weekdays.**



***Loading and Delivery:  
Provide access and loading areas for truck deliveries.***



**Planning for truck access and loading zones can improve local traffic flow.**

While truck traffic is often a concern to municipalities, goods movement is an essential part of both regional and local economies. Consideration should be given to the need for designated loading areas for deliveries. Loading zones should be accessible from primary truck routes, close to the delivery destinations they serve and well marked. Shared loading areas should be considered. Zones may be regulated at all times, or for certain days or hours only, so that other vehicles may use the space at non-delivery times.

Loading zones should be situated away from crosswalks to avoid hazards to pedestrians from truck backing movements and from the reduction in pedestrian visibility that parked trucks may cause.

Small trucks making local deliveries of parcels, groceries and the like are becoming more prevalent, so loading and very short term parking spaces should be made available for them in both commercial and residential developments.

Due to New Jersey's position within the Northeast freight corridor, and the anticipated long-term growth in port-related traffic, some municipalities may also be affected by regional needs for dedicated freight parking facilities, such as truck terminals and rest areas.

## Resources for Parking

*Context Sensitive Solutions Resource Center.* <http://www.contextsensitivesolutions.org>

*Designing New Jersey.* NJ Office of State Planning, 2000.

*The Dimensions of Parking,* 4<sup>th</sup> edition. Urban Land Institute, 2000.

*Guide for the Development of Bicycle Facilities.* AASHTO, 1999.

*The High Cost of Free Parking.* Shoup, Donald. APA Planners Press, 2005.

*New Jersey Statewide Bicycle and Pedestrian Master Plan.* NJDOT and RBA Group.  
<http://www.state.nj.us/transportation/commuter/bike/resources.shtm>

*New Jersey Bicycle and Pedestrian Resource Center.* <http://policy.rutgers.edu/njbikeped/>

*Parking Requirements for Shopping Centers,* 2<sup>nd</sup> edition. Urban Land Institute, 1999.

*Shared Parking,* 2<sup>nd</sup> edition. Urban Land Institute, 2005.