



PARKING LOTS, IMPERVIOUS COVER & STORM WATER

What is Impervious Cover?

Impervious cover is surfaces that do not allow water to penetrate, such as roads, roofs, and driveways. Impervious cover prevents the infiltration of water into soil and causes surface water sheeting and storm water runoff. It also prevents groundwater/aquifer recharge and the movement of water and nutrients into the soil. The Chagrin River Watershed Partners, Inc. (CRWP) works with member communities to implement planning, zoning, and subdivision practices that reduce the creation of impervious cover and better manage the storm water impacts of necessary hard surfaces.

How do you reduce impervious areas in parking lots?

Parking lots are a significant source of imperviousness in the Chagrin River watershed. CRWP's review of parking regulations in member communities highlighted the opportunities to reduce impervious cover, minimize maintenance costs, and facilitate the construction of more efficient and aesthetically pleasing parking areas by updating parking codes. This fact sheet discusses several of those opportunities. For additional information on implementing the tools discussed here in your community, please see the bottom of this fact sheet.

Review Local Parking Requirements

Many communities are “over parked” due to local regulations that have not kept up with changes in development, design, and usage trends over the last six decades. Evaluating the following factors in your community will highlight areas to reduce parking and improve parking lot design:

- Local parking demand.
- Building types and sizes.
- Surrounding land uses.
- Current and expected population.
- Potential for additional commercial, industrial and institutional development.

Adopt Parking Maximums

Maximum parking limits are typically based on the area of a specific land use and restrict the total number of spaces that can be constructed for a particular use. Maximum, rather than minimum, parking standards encourage better use of existing facilities, motivate businesses to encourage their employees and customers to use alternative travel modes, and allow for more paid parking.

Improve Parking Lot Design

The **parking lot footprint can be improved** by:

- Incorporating compact car spaces.
- Minimizing stall dimensions.
- Requiring the use of pervious surfaces in overflow and other low traffic parking.
- Requiring the incorporation of bioretention areas and landscaping requirements.
- Considering the most efficient dimensions of entrances, aisle ways, and parking spaces.



Use pervious cover areas for overflow parking.



Compact car spaces on pervious pavers.

Require Shared Parking where Appropriate

Shared parking involves an agreement to share two or more land uses at a parking area or space. It is especially appropriate where parking demand patterns and peaks vary by time of day, day of week, and/or season.



Shared parking in the City of Willoughby between a bistro and furniture store.

Provide Bicycle Parking Bonus

Cycling may be encouraged as an alternative means of transportation by **offering bicycle parking and storage facilities**. Bicycle parking bonuses may be integrated into local zoning to dedicate a small percentage of a parking area to bicycle facilities.



Covered bicycle parking for safety and shelter.

Allow Land Banking

Developers or business owners can **designate an area for future parking** if the need arises, but avoid the creation of too much parking when a development is first completed. The banked area is landscaped, or kept as open space, until it is needed to meet parking demands.



Land banked lot left unpaved until future need arises.

Require In-Lieu Parking Fees

In-lieu fees allow for the creation of **centralized, off-street parking**. Communities establish them as an alternative to requiring on-site parking. Developers pay this fee in order to avoid constructing parking on-site.

Park and Ride Options and Transit Programs

Park and ride consists of facilities at transit stations, bus stops and highway onramps, especially those at the urban fringe, that are implemented **to facilitate transit and rideshare use**.



Park and Ride facility in the City of Mentor.

Opportunities for the Chagrin Watershed

Great opportunities exist for incorporation of these innovative solutions into the zoning and planning of communities in the Chagrin watershed. Reducing impervious parking areas can also save communities money by minimizing the need to expand storm water facilities. Call CRWP to evaluate your local parking codes and applicable opportunities in your community. You may obtain a copy of the **Review of National Trends in Parking Requirements** from the Chagrin River Watershed Partners, Inc. at www.crowp.org or (440) 975-3870.