

Low Impact Development Parking Ordinance

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I. Purpose

The purpose of this ordinance is to provide parking lots and landscaping in parking lots that will:

- Maximize the infiltration of storm water runoff;
- Minimize the quantity of storm water runoff generated to be discharged or treated away from the parking area;
- Filter pollutants from storm water runoff to yield cleaner storm water runoff that will improve the water quality of local lakes and streams;
- Maximize the use of native plant species;
- Improve the aesthetics of developed areas;
- Minimize the amount of impervious surfaces;
- Reduce the potential for flooding; and
- Utilize low impact development practices to devise site specific solutions for reducing the quantity and improving the quality of storm water runoff.

II. Definitions

The following terms used in this ordinance shall have the following meanings:

Aesthetic landscape treatment means a landscaped area within a parking lot whose purpose is aesthetic and is not an island or median.

Bioretention area means a landscaped area designed to infiltrate storm water runoff.

Impervious Surface means a surface composed of any material that impedes or prevents natural infiltration of water into the soil. Impervious surfaces shall include but are not limited to eaves, roofs, (including overhangs), solid decks, driveways, patios, sidewalks, parking areas, tennis courts, concrete or asphalt streets, or compacted gravel surfaces. Slatted decks, porous paving with a runoff coefficient of less than 25 percent, and water surfaces such as ponds and streams shall be considered to be pervious. Calculation of impervious surfaces for streets shall include the area compacted for pavements of gravel base.

Infiltration basin means a shallow impoundment that is designed to infiltrate storm water into the ground. An infiltration basin should only be used on small drainage areas (less than ten acres) and where soils are highly permeable

Infiltration bio-swale means a grassed or vegetated swale designed specifically to treat and attenuate storm water runoff for a specified water quality volume. Storm water runoff that flows through an infiltration bio-swale is treated through filtering by the vegetation in the swale, filtering through a subsoil matrix, and/or infiltration into the underlying soils.

Infiltration trench means a rock-filled trench with no outlet that receives storm water runoff. Storm water runoff passes through some combination of pretreatment measures and into the infiltration trench. There, runoff is stored in the void space between the stones and infiltrates through the bottom and into the soil matrix.

Parking lot means an area not within a building where motor vehicles may be parked for temporary, daily, or overnight off-street parking.

Pervious material means a hard-surfaced material that contains spaces that allow storm water runoff to pass through to a permeable subbase layer.

Sand filter means a two-chambered storm water management device in which a settling chamber settles out large particles before a filter bed filled with sand or another filtering media removes finer particles and other pollutants. This definition encompasses similar devices such as a surface sand filter, an underground sand filter, a perimeter sand filter, an organic media filter, and a Multi-Chamber Treatment Train.

Vegetated filter strip means a vegetated surface designed to treat sheet flow from adjacent surfaces by slowing runoff velocities and filtering out sediment and other pollutants.

Vegetated swale means a broad, shallow channel with a dense stand of vegetation covering the side slopes and bottom that filter pollutants and reduce the velocity of storm water runoff. Although a vegetated swale allows for storm water runoff to infiltrate the ground, it is typically not designed to infiltrate storm water runoff to the extent of an infiltration bio-swale.

III. Design

A. Design Hierarchy

Parking lots shall be designed according to the following hierarchy to utilize low impact development practices to reduce the quantity of storm water runoff generated and improve the quality of storm water runoff. The purpose of this hierarchy is to guide the design of the parking lot. The design of the parking lot shall incorporate each of these steps in order (Step 1 shall be completed, then Step 2 shall be completed, then Step 3 shall be completed, etc.) to the maximum extent practicable:

1. Preserve natural areas such as wetlands and areas that consist of native vegetation and incorporate them into the storm water management system as areas where runoff can be infiltrated or discharged;
2. Maintain natural drainage patterns;

3. Reduce the amount of impervious surface through the use of shared parking and the use of pervious surfaces such as permeable concrete, geoblock porous pavement, and other similar materials;
4. Incorporate landscape features such as vegetated filter strips, sand filters, and other practices that filter pollutants from storm water runoff before runoff infiltrates the ground within the parking area or is conveyed to an area outside of the parking area;
5. Incorporate landscape features such as vegetated swales, bioretention areas, and other practices that infiltrate storm water runoff within the parking area or convey storm water runoff to an area outside of the parking area.

B. Design Standards

The purpose of these design standards is to identify how the parking lot should function. Parking lots shall be designed to achieve the following standards:

1. Infiltration of storm water runoff shall occur within the parking area to the maximum extent practicable;
2. Filtration of pollutants in storm water runoff shall occur within the parking area to the maximum extent practicable;
3. Native vegetation shall be used as plantings for all landscape features designed to filter pollutants from storm water runoff, infiltrate storm water runoff, and convey storm water runoff to the maximum extent practicable;
4. Storm water runoff shall be conveyed so that pollutants and debris are removed prior to infiltration or conveyance off-site;
5. No untreated storm water runoff shall be discharged directly to a natural wetland, water body, or area outside of the parking area;
6. Landscape features designed to infiltrate storm water runoff and filter pollutants from storm water runoff shall be designed to minimize the need for maintenance and reduce the chances of failure; and
7. The quantity of storm water runoff leaving the parking area shall not be released at a rate greater than the applicable peak release rate listed in Section VIII of the Low Impact Development Storm Water Ordinance.

C. Site Plan

A site plan shall be provided for all proposed parking areas that includes the following information:

1. Total area of parking and loading area;
2. Dimensions of all parking and loading spaces;
3. Total number of parking and loading spaces;
4. Proposed future or expansion parking and loading spaces;
5. Dimensions and vegetative composition of all landscape features designed to allow storm water runoff to infiltrate the ground, filter pollutants from storm water runoff, and convey storm water runoff to other portions of the parking area or outside of the parking area;
6. All wetlands, water bodies, retention/detention areas, storm sewers, or other features that receive storm water discharge;
7. The location, invert elevations, pipe sizes, flow calculations, drainage patterns, velocities and discharge rates of storm water runoff discharged to wetlands outside of the parking area, the holding capacities of all receiving wetlands and water bodies, and all other similar information to allow the Local Government to properly evaluate the storm water management plan for the parking area.

IV. Shared Parking

The Local Government may approve shared parking facilities for developments or uses if the shared parking complies with all of the following standards.

A. Shared Parking Analysis

Applicants wishing to use shared parking as a means of satisfying off-street parking requirements shall submit a shared parking analysis to the Local Government that clearly demonstrates the feasibility of shared parking. The study must be provided in a form established by the Local Government and made available to the public. The study must address, at a minimum, the size and type of the proposed development, the composition of tenants, the anticipated rate of parking turnover, the anticipated peak parking and traffic loads for all uses that will be sharing off-street parking spaces, and the times at which anticipated peak parking and traffic loads for all uses will occur.

B. Approval of Shared Parking

The Local Government shall approve a shared parking arrangement when it finds that there shall not be a substantial overlap of peak parking periods for the uses and that a sufficient number of spaces exists to accommodate the peak parking periods of the uses. Opposing peak parking periods may occur during daytime and evening, weekday and weekend, or during other times judged to be sufficient to accommodate shared parking by the Local Government.

C. Distance from Primary Entrance

Shared parking spaces must be located within 600 feet of the primary entrances of all uses served.

D. Location on Separate Parcels

Shared parking spaces may be located on different parcels as long as spaces are located within 600 feet of the primary entrances of all uses served.

E. Covenant for Shared Parking

A shared parking plan will be enforced through an irrevocable, written covenant among all owners of record. An attested copy of the irrevocable covenant between the owners of record must be submitted to the Local Government for recording on forms made available by the Local Government. The covenant must be recorded in the County Recorder's office before any building permits may be issued for any use to be served by the shared parking area. A shared parking covenant may be revoked only if all required off-street parking spaces will be provided. The shared parking covenant must guarantee long-term access to and use of the shared parking spaces by the recipient uses.

V. Dimensions

Each parking stall, except for those provided for handicapped parking, shall be a maximum width of 9 feet and a maximum length of 18 feet. To request larger parking stalls, the applicant must submit a written explanation of why the larger parking stalls will benefit the public health, safety, comfort, or general welfare and why these benefits outweigh the increase in impervious surface.

VI. Construction

A. Use of Pervious Materials

Parking areas composed of pervious materials such as permeable concrete, geoblock porous pavement, and other similar materials are encouraged in order to minimize storm water runoff. The applicant shall provide evidence of the pervious materials' structural

strength to accommodate expected vehicular traffic and provide a maintenance plan for the materials to be approved by the Local Government Engineer. The maintenance plan shall include a schedule of activities to be performed to keep the pervious materials functional.

B. Curbs

Curb cuts, flat curbs, or some other means of allowing storm water runoff to enter landscaped areas designed to convey, filter and infiltrate storm water runoff shall be used to connect parking surfaces with landscaped areas. The size and number of such features shall be selected to ensure storm water runoff reaches landscaped areas to the maximum extent practicable.

VII. Landscaping

A. Applicability

The landscaping standards of this chapter shall apply to all off-street parking areas containing a minimum of five (5) off-street parking spaces with the exception of multi-level parking structures.

B. Planting Standards

Parking lot landscaping shall be dispersed throughout off-street parking areas in internal islands, terminal medians, aesthetic landscape treatments, and/or along the perimeter of off-street parking areas in order to facilitate infiltration of storm water runoff and filtration of pollutants that complies with the Design Standards in Section III.B. Off-street parking areas containing a minimum of five (5) spaces shall provide a minimum of 15 percent of the total parking area as landscaped open space. The interior dimensions of any landscaped area shall be sufficient to protect plant materials and to ensure proper growth.

C. Landscaping Features

Any combination of the following features that meets the Design Standards within Section III. shall be used as parking lot landscaping to filter pollutants from storm water runoff, allow storm water runoff to infiltrate the ground on site, and convey runoff off-site to a receiving area:

1. Vegetated filter strips;
2. Bioretention areas;
3. Infiltration bio-swales;

4. Vegetated swales;
5. Infiltration basins;
6. Infiltration trenches;
7. Sand filters; and
8. Created wetlands.

If other landscape features are proposed to be used in parking areas, the applicant shall submit a written statement explaining why the proposed landscape features are necessary and why the landscaping features identified above in Section VII.C.1-8 are not suitable to be used in the parking area.

D. Maintenance

The landscape features included within parking areas shall be considered as elements of the project in the same manner as parking surfaces, building materials and other details are elements of the project. The property owner, or successors in interest, shall be responsible for the following:

1. The regular maintenance of landscaping so that it remains in good condition, presents a healthy appearance, and allows for proper infiltration of storm water runoff. All landscaping shall be maintained free from disease, pests, litter, and objects that obstruct or hinder proper drainage. Maintenance shall include all steps necessary to present a proper appearance and ensure proper drainage, including repair and replacement of landscaping where necessary;
2. The adequate control of the growth of noxious weeds so that primary vegetation remains healthy and presents an orderly and healthy appearance; and
3. Continuous maintenance of the site as a whole.

E. Assurance of Performance and Maintenance

The Local Government may require the documented assurance of continued landscape performance and/or maintenance in the form of a condition, covenant, contract, development agreement or performance/maintenance assurance to assure installation and the continued maintenance of landscape improvements associated with development of

an off-street parking area. The amount of the performance assurance shall be at least 130 percent of the estimated cost of installing the required landscape improvements.

F. Native Vegetation

1. Use

Native vegetation shall be utilized in all landscape features designed to accomplish storm water conveyance, infiltration, or filtration. Vegetation shall be selected so that it performs the specific intended function. Native vegetation may not be used only when site conditions or availability of species warrant the use of other plantings compatible with the area. When native vegetation cannot be used, appropriate vegetation and/or an engineered soil mix shall be used to perform the specific intended functions.

2. Exotic Invasive Species Removal

Where possible, exotic invasive plant species shall be removed where they exist within native plant communities after development of landscape features is complete. Tested methods for removal of specific species shall be employed to ensure that the native species do not return in the same or increased numbers.

VIII. Number of Required Parking Spaces

A. Existing Parking Requirement

The number of parking spaces required under the current ordinance shall be incorporated into this ordinance to determine the number of parking spaces to be provided for different land uses.

B. Parking Reduction Requests

In the case that an applicant believes that the required parking amounts are in excess of what is needed for the proposed use, the applicant may submit a request with justification to the Local Government for a reduction in parking space requirements. All or part of the off-street parking requirements may be waived by the Local Government where the proposed site creates unique parking demand, design or construction.

C. Reserved Parking Spaces

If a reduction in parking space requirements is granted, the Local Government may require the applicant to reserve a percentage of the required spaces for future parking needs. Such reserved spaces shall comply with the dimension requirements of this ordinance, be shown in dotted lines on the site plan, be labeled as “Reserved

Parking,” and be limited to natural or grassed areas without trees or buildings thereon. The Local Government may require the future construction of said reserved parking, or a portion thereof, into paved parking within three (3) months of written notice to do so based upon a change in parking demand, a change of use, or a change in traffic safety circumstances as determined by the Local Government. Such notice shall take into account the time of the year suitable for pavement installation.

D. Parking in Excess of the Required Amount

The Local Government may approve parking areas with more spaces than the required amount only if the applicant can demonstrate a need for additional spaces. If additional spaces are approved, all of the spaces in excess of the required amount must be composed of a pervious surface such as permeable pavement or concrete or grass pavers. Storm water management must be provided for the additional spaces so that no runoff is generated by the additional spaces.

The Local Government may also approve parking lots with additional impervious parking spaces above the allowed maximum spaces where the use of pervious spaces would not be environmentally sound and where storm water management is provided so that no runoff is generated by the additional spaces.

IX. Severability

If any section, paragraph, clause or provision of this Ordinance shall for any reason be held to be invalid or unenforceable, the invalidity or unenforceability of such section, paragraph, clause or provision shall not affect any of the remaining provisions of this Ordinance.