



Kelso

Low Impact Development

Issue #2
March 28, 2017

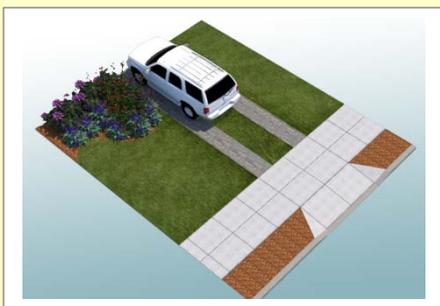
Find Out More

Kelso LID Web Page:
<http://www.kelso.gov/stormwater/low-impact-development-lid>

Upcoming Events

City Council presentation on
April 18, 2017

City Council Hearing on May
2 or June 6, 2017



An illustration of a residential ribbon driveway, which reduces impervious surface (Otak, Inc.)

Focus on Kelso Engineering Design Manual - Streets and Paved Areas

As part of Kelso's effort to include Low Impact Development (LID) principles and best management practices in its development codes, the Kelso Engineering Design Manual (KEDM) will be updated.

In this issue, we focus on proposed updates to KEDM standards governing streets, driveways, frontages, and parking in the city.

Streets

Several changes are proposed to standards for streets.

- Allow narrower street width and narrower right-of-way (ROW) width in a new residential subdivision with approval of Community Development Director and Fire Marshal
- Allow sidewalk on only one side of the street in a new residential subdivision with approval
- In new subdivisions, allow utilities such as telephone and cable to be placed under the sidewalk instead of in a public utility easement on a residential lot when space is needed for a rain garden
- Allow bioretention in the ROW with planters and curb extensions

Why? *These measures reduce impervious surfaces and allow flexibility to manage stormwater runoff on private residential lots and in the ROW.*

Driveways

Several changes are proposed for driveway standards.

- Reduce maximum width of commercial driveway from 30 ft to 28 ft
- Allow residential driveway width as narrow as to 9 ft
- Allow ribbon driveway (two-track) design for residential and some commercial driveways
- Encourage use of permeable pavement for commercial driveways

Why? *These measures reduce impervious surfaces.*

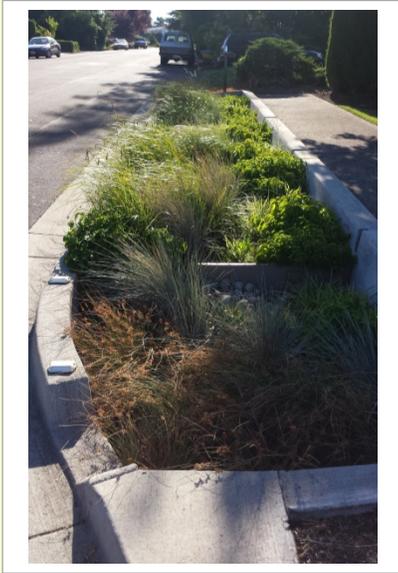
Parking

The following changes are proposed to parking standards:

- Encourage permeable pavement for commercial parking lots
- Allow parking lot landscaping to be used to manage runoff with bioretention facilities

Why? *These measures reduce impervious surfaces and allow flexibility to manage stormwater runoff on private commercial/industrial property.*

Continued on page 2.



Bioretention curb extension manages runoff in ROW (Otak, Inc.)

Focus on KEDM - Streets, Frontage, and Parking (con't.)

Frontage – Bioretention, Plants, and Trees

The following changes are proposed to standards for frontage landscaping:

- Allow two species of street tree to be planted within a bioretention facility in the ROW
- Specify plants for use in bioretention facilities in the ROW
- Require maintenance of plants in bioretention planter in landscape strip by adjacent property owner
- Assign responsibility for maintaining plants in bioretention curb extension to City

Why? Plants are an integral part of managing runoff using bioretention.

New Standard Plans and Details

- Standard plans for bioretention planter and curb extension
- Standard details for inlets and outlets to bioretention
- Curb extension planting template

Why? Standard Plans and Details make it easier to design, construct, and plant LID facilities.



Bioretention planter in the landscape strip manages stormwater runoff in the ROW. See below for standard engineering plan for a similar facility. (Photo courtesy Muralmouth.Wordpress)

LID Update Process

To meet state stormwater requirements, Kelso is incorporating LID principles into its existing development standards and is adopting a new stormwater design manual – the 2014 Stormwater Management Manual for Western Washington.

LID is a way of managing stormwater by slowing it down, spreading it out, and soaking it in. It uses site planning to reduce impervious surfaces and retain native vegetation and focuses on installing small, vegetated stormwater practices distributed throughout a site to manage runoff.

Proposed Standard Plan for Bioretention Planter in the Landscape Strip

