

Bulletin: Site Coverage and Impermeable Surfaces

Created: Sept 27, 2022

Updated: Oct 14, 2022

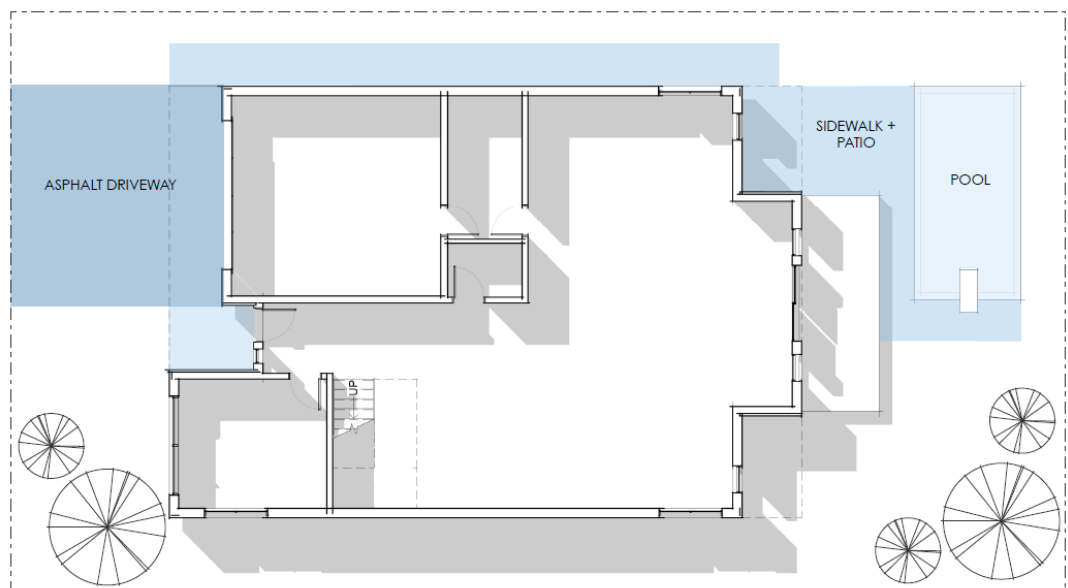
This information is summarized for convenience. Please refer to the applicable bylaw for the complete regulation.

Properties must satisfy all applicable Bylaws/Regulations of the City of Kelowna and conform to the B.C. Building Code.

What is Maximum Site Coverage?

Maximum site coverage is the percentage of the total horizontal lot area that may be built upon, including accessory buildings/structures. Site coverage does not include steps, eaves, cornices, cantilevered balconies, pergolas, or similar projections.

Site coverage also includes all impermeable surfaces such as pathways, patios, and swimming pools under [Zoning Bylaw No. 12375](#). Note - a swimming pool counts as part of the overall site coverage but not the building coverage calculation.



BUILDING SITE COVERAGE + IMPERMEABLE SURFACES = TOTAL SITE COVERAGE

PRINCIPLE DWELLING
CARRIAGE HOUSE
GARAGE
SHED
STRUCTURES

DRIVEWAYS
SIDEWALKS / PATHS / PATIOS
POOLS

**any surface that prevents / impedes water entering into the soil*

What is an Impermeable Surface?

An impermeable surface prevents or impedes the flow of water into the soil. These surfaces cause rain and snowmelt (stormwater) to runoff in greater quantities. By limiting the amount of hard, water limiting surfaces, the City is encouraging good drainage on all lots. When stormwater is able to pass through surface materials into the ground, we avoid water runoff that may damage property, pool in a neighbour's lot, or on the street.

**Development
Planning**

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How is Impermeability Determined?

Site coverage regulations ([Zoning Bylaw No. 12375](#)) promote on-site stormwater infiltration on all lots across the City. To assess the permeability of a surface, and how well water will soak in, a Runoff Coefficient is used. A higher runoff coefficient number means there will be greater water runoff. The lower the runoff coefficient number, the more permeable the surface is, and water will infiltrate better.

A surface will be considered impermeable when the runoff coefficient is greater than 0.3. The total area covered by those surfaces is used in the site coverage calculation. Divide the impermeable area by the total area of the lot to calculate the percentage of impermeable surface.

SURFACE		RUN OFF COEFFICIENT
Forested		0.059 - 0.2
Lawns, well drained (sandy soil)	Up to 2% slope	0.05 – 0.1
	2% to 7% slope	0.1 – 0.15
	Over 7 % slope	0.15 – 0.2
Lawns, poor drained (clay soil)	Up to 2% slope	0.13 – 0.17
	2% to 7% slope	0.18 – 0.22
	Over 7 % slope	0.25 – 0.35
Asphalt		0.7 – 0.95
Concrete		0.8 – 0.95
Shingle Roof		0.75 – 0.95
Brick Pavers (12mm joint or less)		0.7 – 0.85
Turfstone (with permeable cells)		0.25
Grasspave		0.1 – 0.25
Uni Eco-Stone (with permeable joints)		0.25

If surface materials not shown in this table are proposed, supporting documentation will be required from an engineer to prove the run-off coefficient for the proposed material(s).

When is Impermeable Surface Info Required?

Site coverage and impermeable surface calculations are required for Building Permit applications and may also be required for Development Permit applications. This requirement is not only for new construction or redevelopment of a lot, but also for single-family home additions, detached accessory buildings, and swimming pools.

The site plan should show the impermeable surface calculation for all elements of the proposed project.

The maximum site coverage for all buildings and impermeable surfaces varies for each zone. Please refer to the appropriate zone in [Zoning Bylaw No. 12375](#) to determine the maximum permitted site coverage and impermeable surfaces for your project.