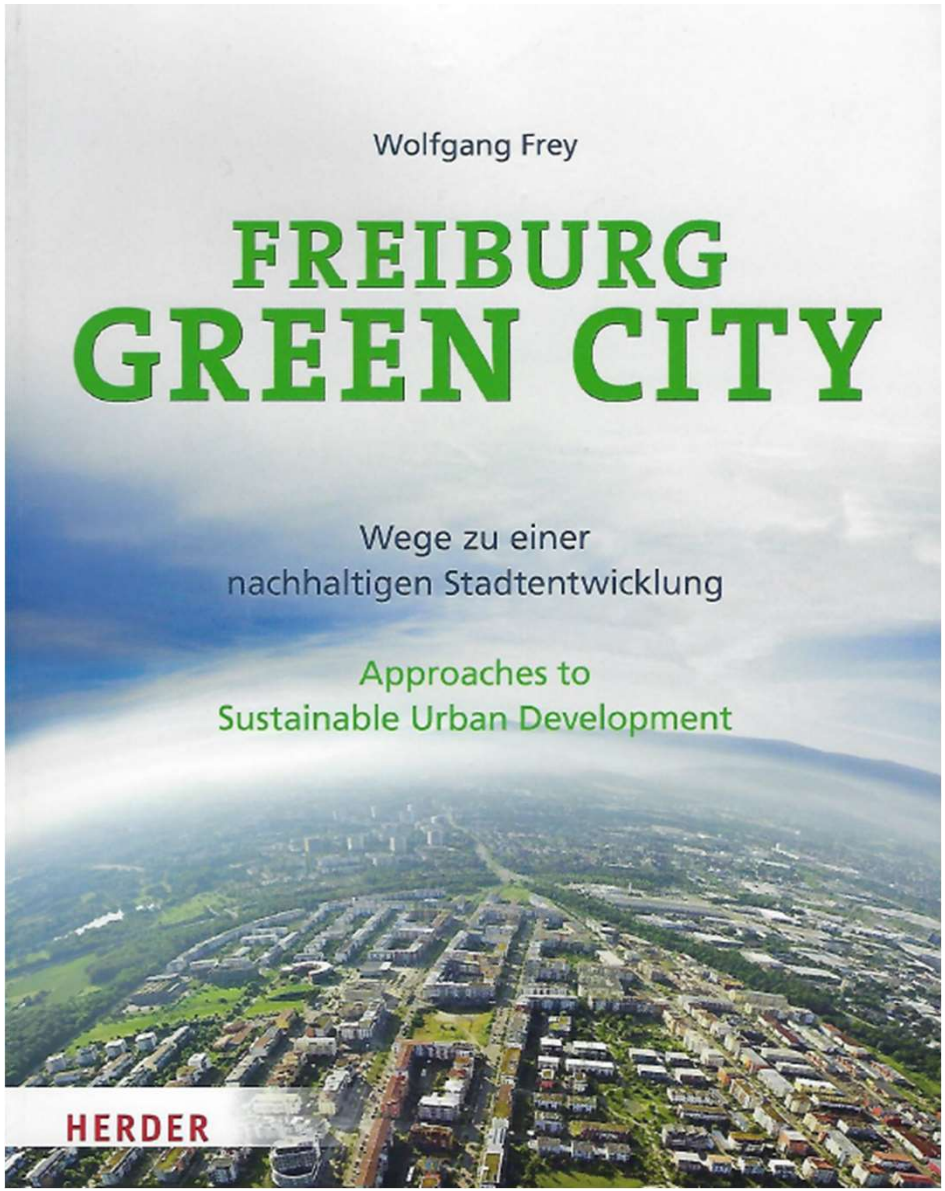
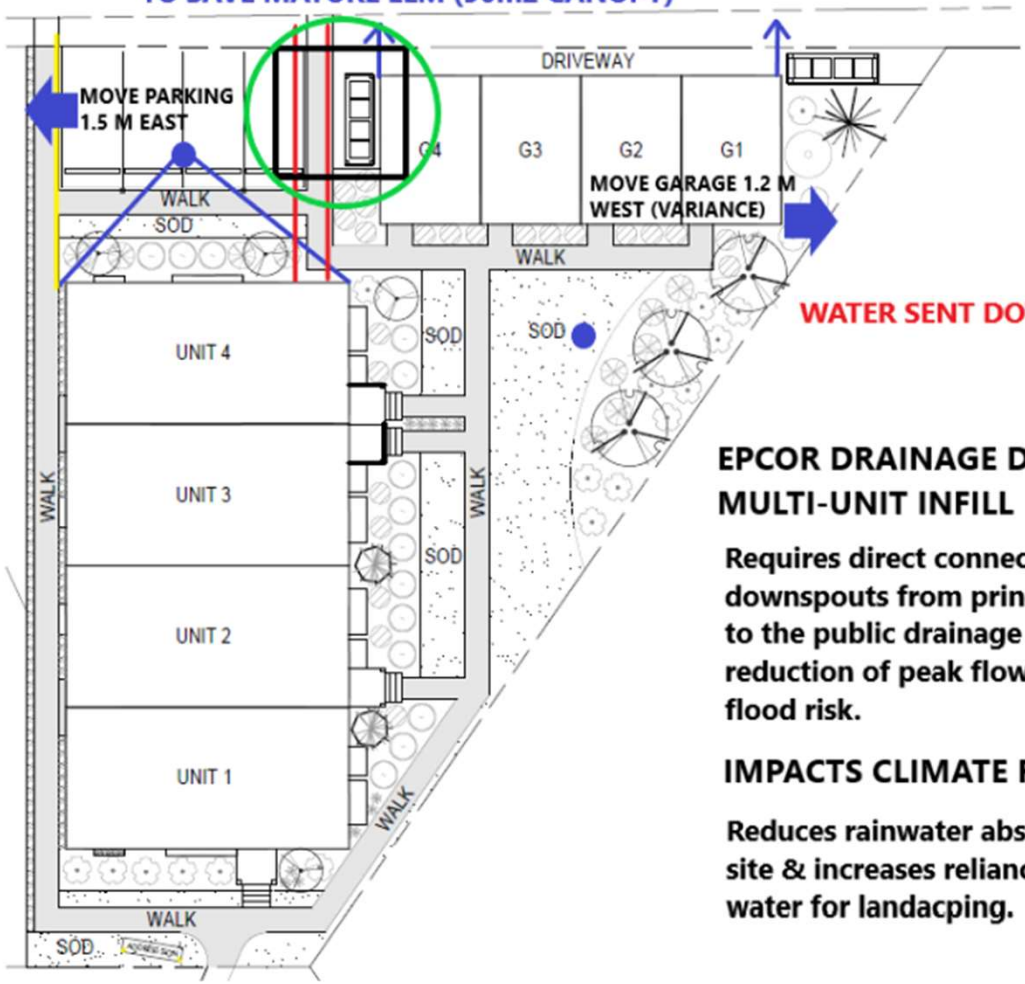
7.4 Multi Unit Residential Building Design



Freiberg has earned an international reputation for its commitment to socially and ecologically sustainable urban development.

Sustainable Development is at once ecologically, economically and socially sustainable in virtue of meeting our present needs, without compromising the ability of future generations to meet their needs.

MINOR PLAN CHANGES POSSIBLE
TO SAVE MATURE ELM (90m2 CANOPY)



CATCH BASIN /
PEAK FLOW ORIFACE

DIRECT STORMWATER
CONNECTION

GAS LINE

ELECTRICAL

PROPOSED TREE
PROTECTION ZONE

ELM TREE REMOVED

WATER SENT DOWN THE DRAIN!

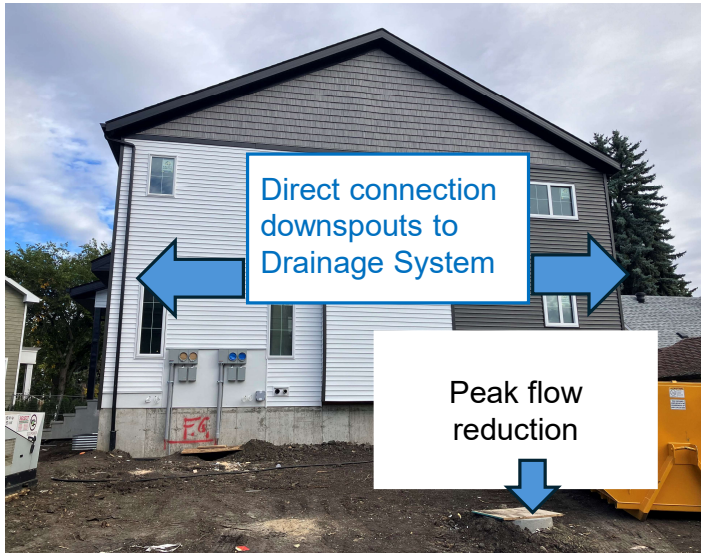
EPCOR DRAINAGE DESIGN
MULTI-UNIT INFILL

Requires direct connection of downspouts from principal building to the public drainage system & reduction of peak flow to mitiage flood risk.

IMPACTS CLIMATE RESILIENCE

Reduces rainwater absorption by site & increases reliance on potable water for landacping.

Multi-unit Residential Building Design prevents LID strategies, not climate resilient!



Connection of downspouts to public utility (left) & drainage manhole in Soft Landscape Area (below).

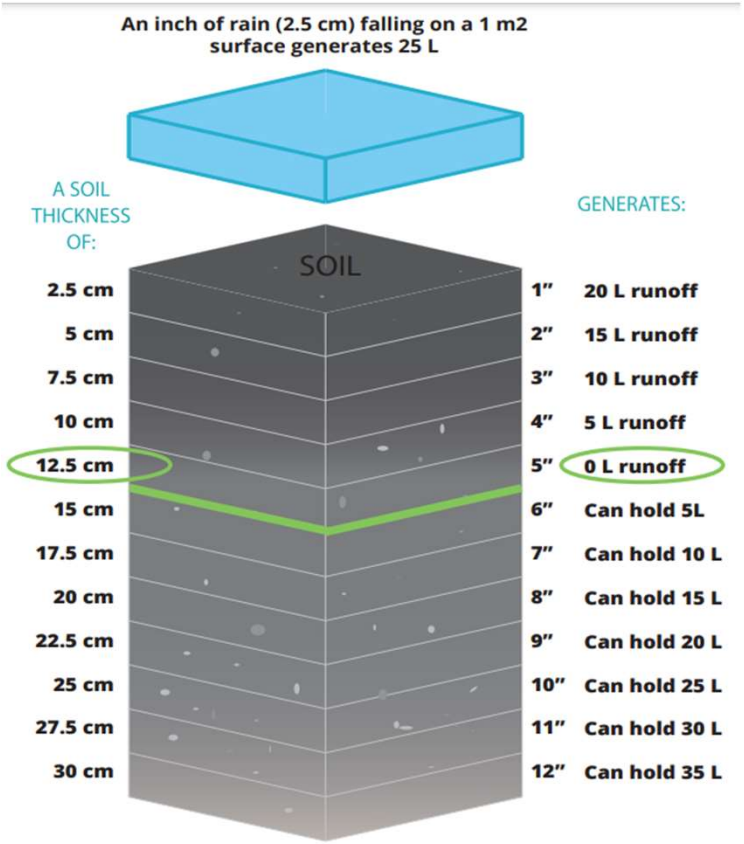
70% Impervious Site Coverage = 816 m2

A 1-inch rain event produces 25 L / m2 of runoff.

This sends **sends 20,405 L of storm water down the drain!**

Increases reliance on potable water to sustain landscaping.

Soil is a stormwater sponge – the deeper the better!



Increasing soil depth offsets reduced area for absorption

Increasing imperviousness increases stormwater runoff

TABLE – STORMWATER RUNOFF/SURFACE AREA IN A 2.5 CM (I") RAIN EVENT

Surface Type	Runoff from Site
Roofs & Impervious Hardscaping*	25 L/m2
Patios, Gravel	20 L/m2
Decks	10 L/m2
Lawn with Minimum Soil Depth of 10.0 cm (1")	5 L/m2
Lawn with Soil Depth of 30.0 cm (12")	-35 (L/m2 absorbed by soil)

Source: https://resilientlandscaping.ca/crag/

COMPARISON TREE CANOPY - NORTH GLENORA SKINNY HOMES & MATURE DEVELOPMENT

Other Jurisdictions - Reports & Programs

metrovancouver

2020 Regional Tree Canopy Cover & Impervious Surface

March 2024

Kelowna Neighbourwoods – Private Tree Program

End