BCEA 2013 Conference Taking The Hurt Out Of Major Works

KEN LARSSON PRINCIPAL, BCSLA, CSLA, ASLA



Soil Management

- Work with what you have on site;
- Minimize hauling and off-site disposal;
- Develop soil testing and amendment program;
- Coordinate with Geotechnical slope stability;
- Coordinate with Civil site preparation and grading;

Embankment Vancouver International Airport Interchange Richmond, BC



Water Management

- Improve water quality;
- Slow down run off;
- Green Infrastructure and 'Visible' sustainability;
- Durable and minimal maintenance;
- Filtration media technologies
- Coordinate with Geotechnical infiltration
- Coordinate with Civil overflow and drainage

Wet Meadow

Vancouver Island University, Cowichan Campus Richmond, BC

Permeability

- Slow run off through gravel infiltration;
 Improve groundwater quality;
- Reduction of TSS and some hydro carbons;
- Provides water source for canopy trees;
- Green Infrastructure and 'Visible' sustainability;
- Coordinate with Geotechnical infiltration
- Coordinate with Civil overflow and drainage

Coquitlam Town Centre Park Coquitlam, BC

Structural Soils

- Water holding capacity;
- 50 75 mm angular rock with mineral soil, compost, & binder
- Continuous soil trenching;
- Future water reservoir technologies
- Coordinate with Geotechnical infiltration
- Coordinate with Civil overflow and drainage



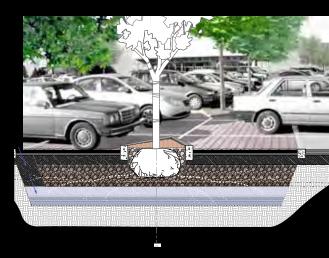
Soil Particle

Stone Particle

Air or Water Pore

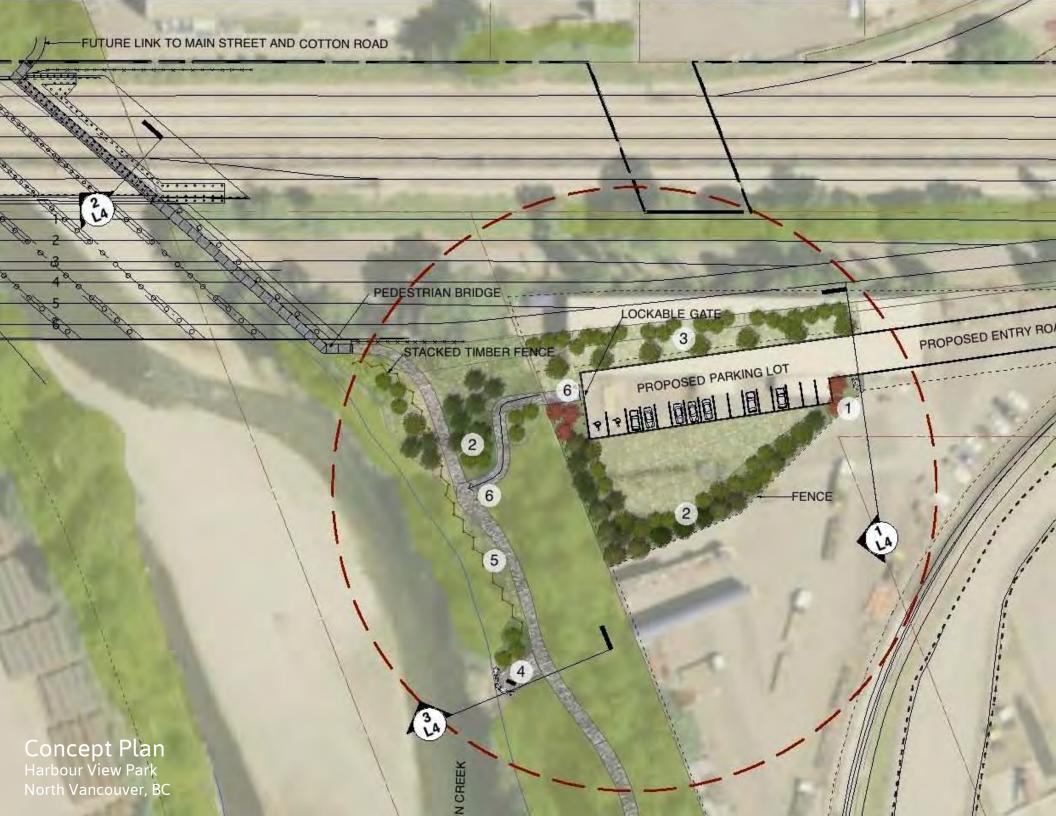
Stone contact points where load is transferred

Fig. 1: The stone lattice bears loading while the soil particle partially fills the lattice voids.





HARBOUR VIEW PARK North Vancouver, BC





Outfall Bridge - Spirit Trail Connection Harbour View Park North Vancouver, BC

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MOUNTAIN EQUIPMENT CO-OP North Vancouver, BC

MODITAIN EQUIPMENT CO-OP

Rain Garden Mountain Equipment Co-op North Vancouver, BC

Roof Runoff Mountain Equipment Co-op North Vancouver, BC

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Lynn Creek Outfall Mountain Equipment Co-op North Vancouver, BC

VANCOUVER INTERNATIONAL AIRPORT Sea Island Richmond, BC

Interchange Embankments Vancouver International Airport Richmond, BC

PLANTING

Vancouver International Airport Richmond, BC

DEERE

Interchange Vancouver International Airport Richmond, BC

CONTRACTOR OF

Interchange Vancouver International Airport Richmond, BC

Sea Island Station YVR, Richmond, BC

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CANADA LINE Living wall YVR, Richmond, BC







GREENWAYS SICA, Cora Brown Trail Sea Island, Richmond, BC

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CENTRAL VALLEY GREENWAY Columbia Street New Westminster, BC

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Central Valley Greenway New Westminster, BC

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VANCOUVER ISLAND UNIVERSITY COWICHAN CAMPUS

Wet Meadow (Fall) Vancouver Island University, Cowichan Campus Duncan, BC

Rain Garden Under Construction Vancouver Island University, Cowichan Campus Duncan, BC

Continuous Soil Vancouver Island University, Cowichan Campus

Duncan, BC

The Constitution of L

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Well - Colore

Wet Meadow Under Construction Vancouver Island University, Cowichan Campus

Duncan, BC

Permeable Paving

Vancouver Island University, Cowichan Campus Duncan, BC

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line.

Parking Swale Vancouver Island University, Cowichan Campus Duncan, BC

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Green and Blue Roof Vancouver Island University, Cowichan Campus Duncan, BC

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In Chief

SEYMOUR / CAPILANO FILTRATION PLANT

W P F

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North Vancouver, BC

Dry Stream Seymour / Capilano Filtration Plant North Vancouver, BC 140.5

Green Roof Seymour / Capilano Filtration Plant North Vancouver, BC

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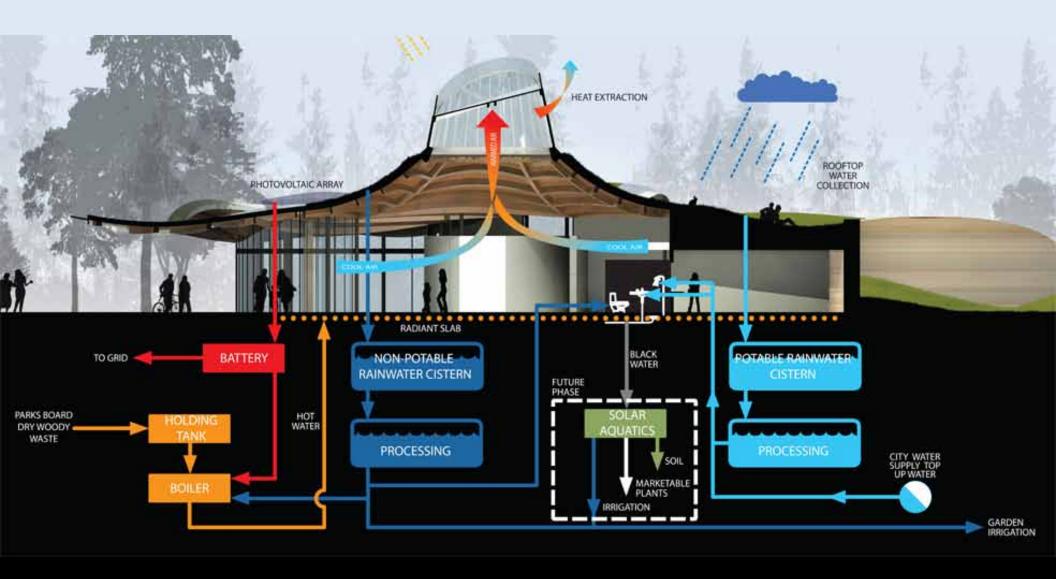
JERICHO MARGINAL WHARF Vancouver, BC







VANDUSEN BOTANICAL GARDEN VISITOR CENTRE VISITOR CENTRE



Rain Garden VanDusen Botanical Garden Visitor Centre

Stream Restoration VanDusen Botanical Garden Visitor Centre

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SUMMARY

Green Infrastructure Benefits:
 Cost Effective;
 Innovative;
 Visual Sustainability
 Collaboration with Engineering & Landscape;

Habitat Restoration Robert's Bank Delta, BC

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