



MAMQUAM (RE-)EMERGING

RECALLING THE WATER BENEATH THE CHIEF

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2013-4-21

QUESTION

Can we reinforce a sense of place by investigating a landscape through a lens of time and strengthening its experiences of time?

INVESTIGATING THROUGH A LENS OF TIME

LANDSCAPE AS AN ON-GOING PROCESS

every phenomenon in landscape has its own process of
emerging, growing, sustaining, decaying, & vanishing

STRENGTHENING EXPERIENCES OF TIME

HOW HUMAN BEINGS PERCEIVE TIME?

Geographer, R. A. Dodgson (2008)

1. biological time: experiences through growth
2. event time: experiences through particular phenomena in time

SQUAMISH 2012-13



Adventure Centre



kite-surfing



downtown & Mt. Garibaldi



library



O'siem pavilion



downtown Cleveland Ave.

SQUAMISH DOWNTOWN 2012-13



LOGGING HISTORY & 1959



source: Crown Registry and Geographic base Branch - GeoBC BC5007:20

Highway 99 connected Squamish with Vancouver at 1959

Railway connected Squamish with Vancouver at 1956

Logging activities on the Channel

Trains on the Loggers Lane

Flooding threats:
Training dyke built at 1976

the Chief

FUTURE DEVELOPMENTS



the Spit

training dyke

estuary

Squamish Terminals

Cattermole Slough

public spaces

library

city hall

downtown

adventure centre

Oceanfront development

Mamquam Blind Channel

Waterfront Landing development

Squamish First Nation

railway

Highway 99

Smoke Bluffs

the Chief

site

MAMQUAM BLIND CHANNEL 2012-13



MAMQUAM BLIND CHANNEL 2012



MAMQUAM BLIND CHANNEL 2013



PROCESSING TOWARD FUTURE

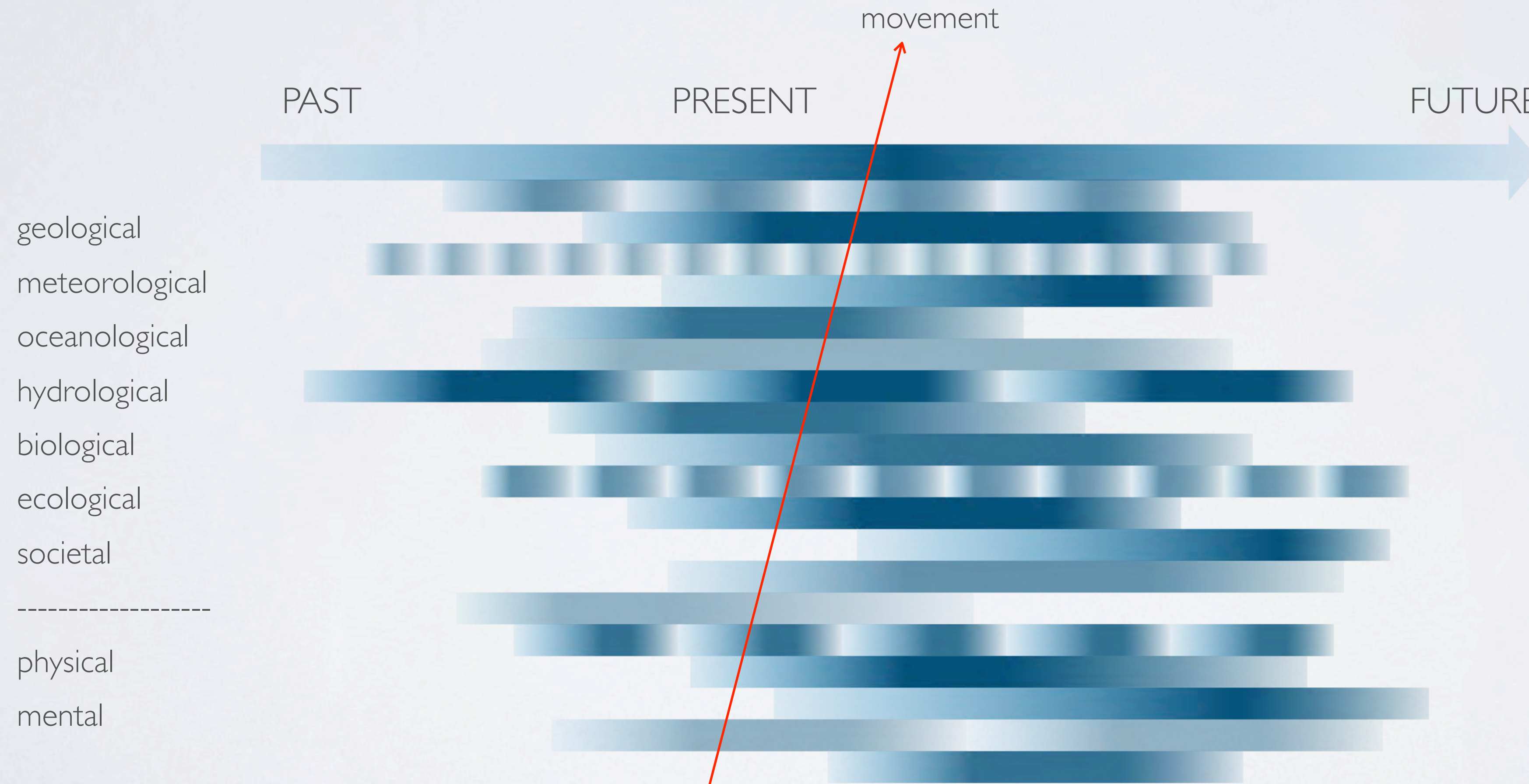
contested interests

- restoring natural habitats vs building dykes
- maintaining public access vs privatising waterfront
- preserving industrial past vs introducing new developments



HOW COULD A SENSE OF TIME BE REINFORCED

1. articulating perceivable phenomena
2. dynamic experiences when moving



RE-EMERGING FROM NEGLECT

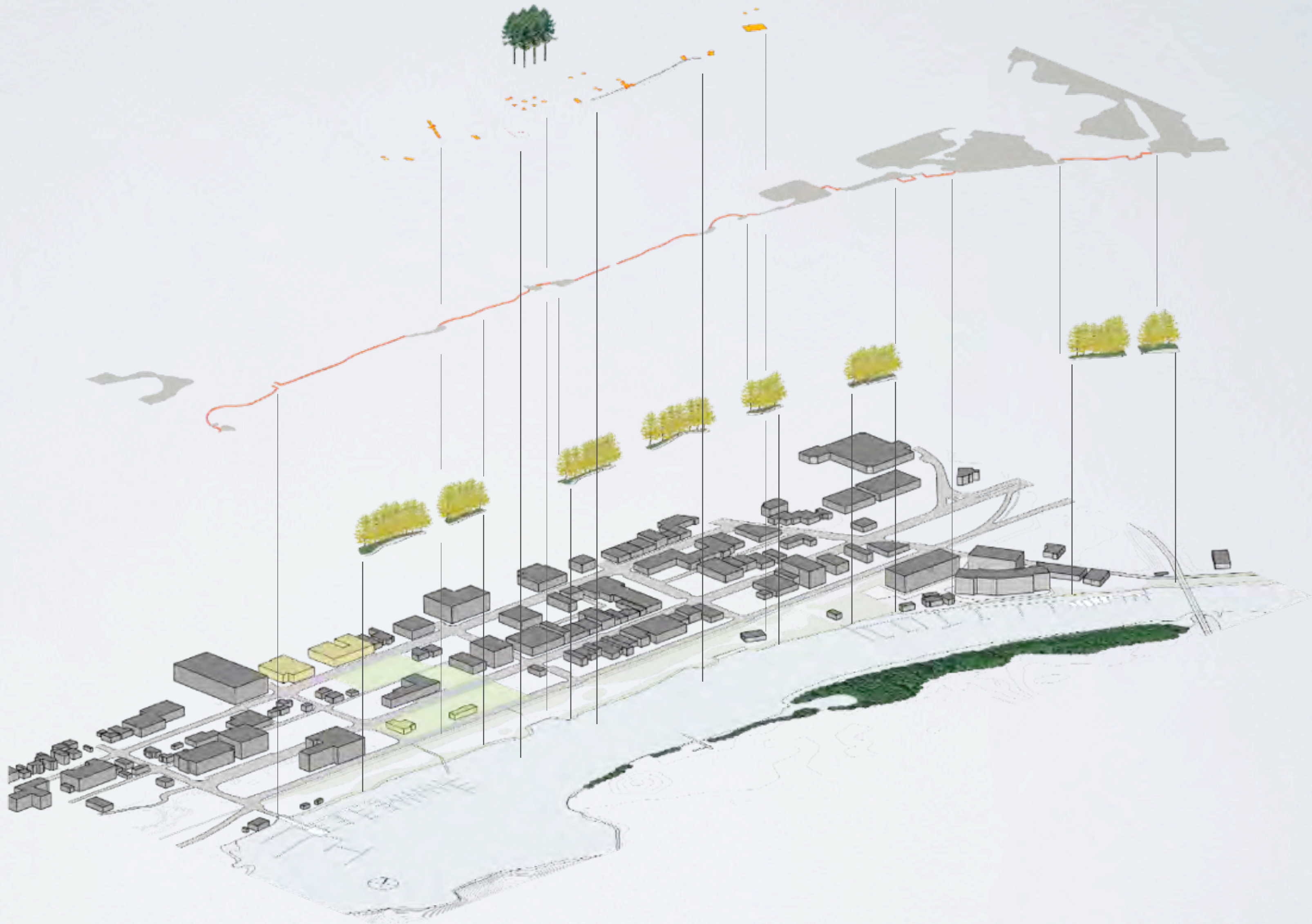


site interventions

new dyke connected to existing high ground

protecting existing eco-patches

existing condition



PROCESSING TOWARD FUTURE



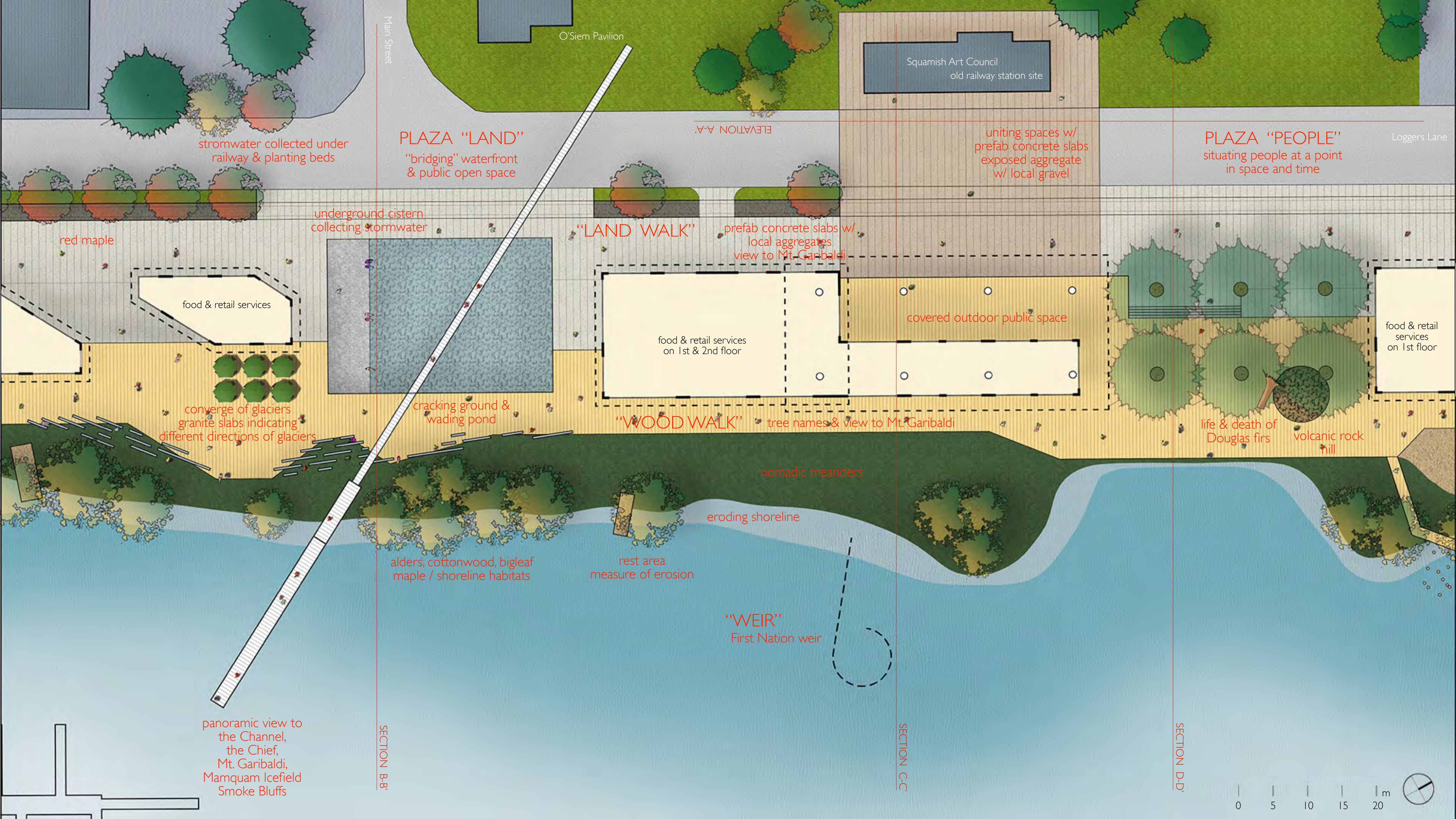
new developments

site interventions

adjacent developments

before new development





Main Street

O'Siem Pavilion

Squamish Art Council
old railway station site

PLAZA "LAND"
"bridging" waterfront
& public open space

ELEVATION A-A'

uniting spaces w/
prefab concrete slabs
exposed aggregate
w/ local gravel

PLAZA "PEOPLE"
situating people at a point
in space and time

Loggers Lan

stromwater collected under
railway & planting beds

underground cistern
collecting stormwater

"LAND WALK"

prefab concrete slabs w/
local aggregates
view to Mt. Garibaldi

red maple

food & retail services

covered outdoor public space

food & retail services
on 1st & 2nd floor

food & retail
services
on 1st floor

converge of glaciers
granite slabs indicating
different directions of glaciers

cracking ground &
wading pond

"WOOD WALK"

tree names & view to Mt. Garibaldi

life & death of
Douglas firs

volcanic rock
hill

nomadic meanders

eroding shoreline

alders, cottonwood, bigleaf
maple / shoreline habitats

rest area
measure of erosion

"WEIR"
First Nation weir

panoramic view to
the Channel,
the Chief,
Mt. Garibaldi,
Mamquam Icefield
Smoke Bluffs

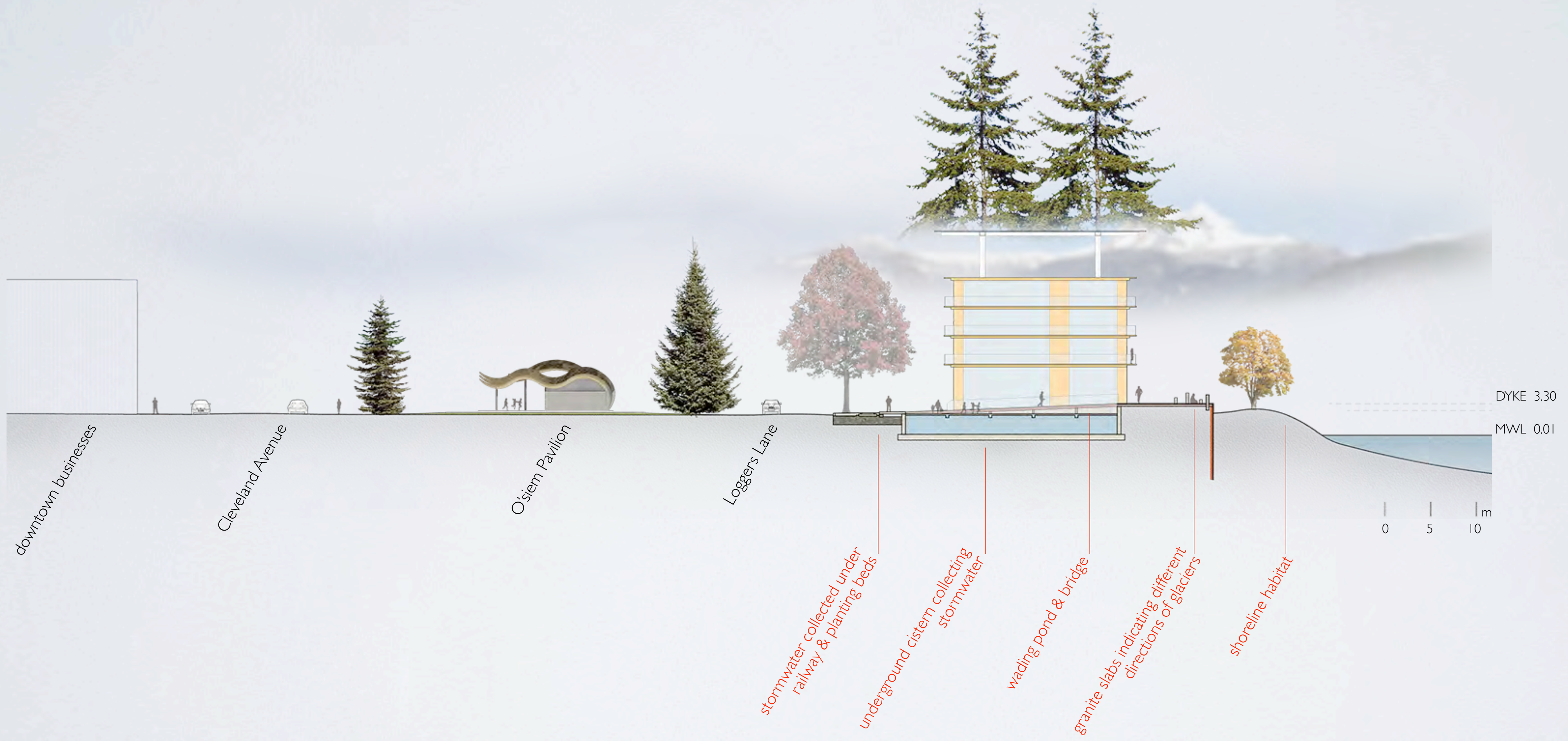
SECTION B-B'

SECTION C-C'

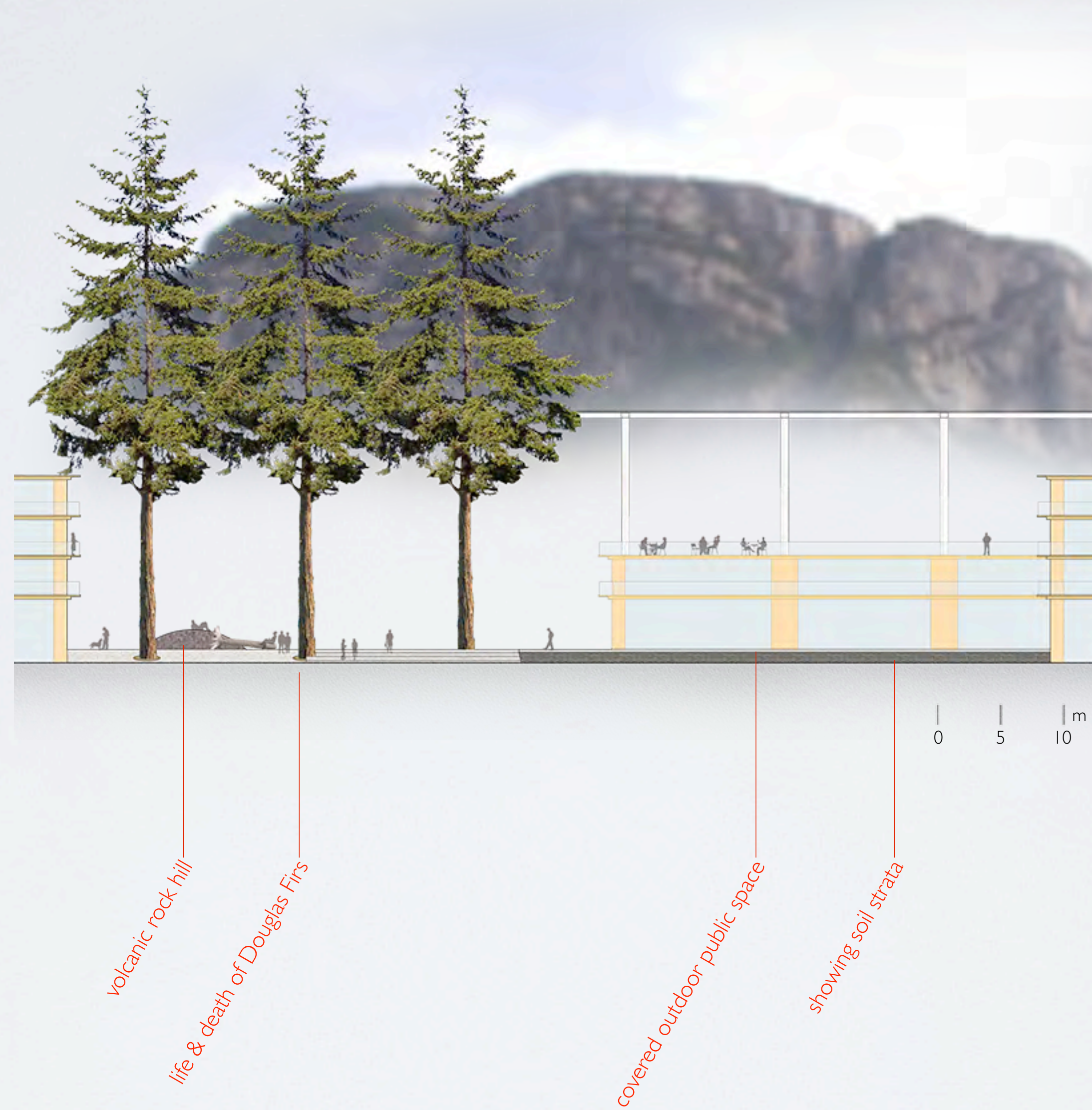
SECTION D-D'



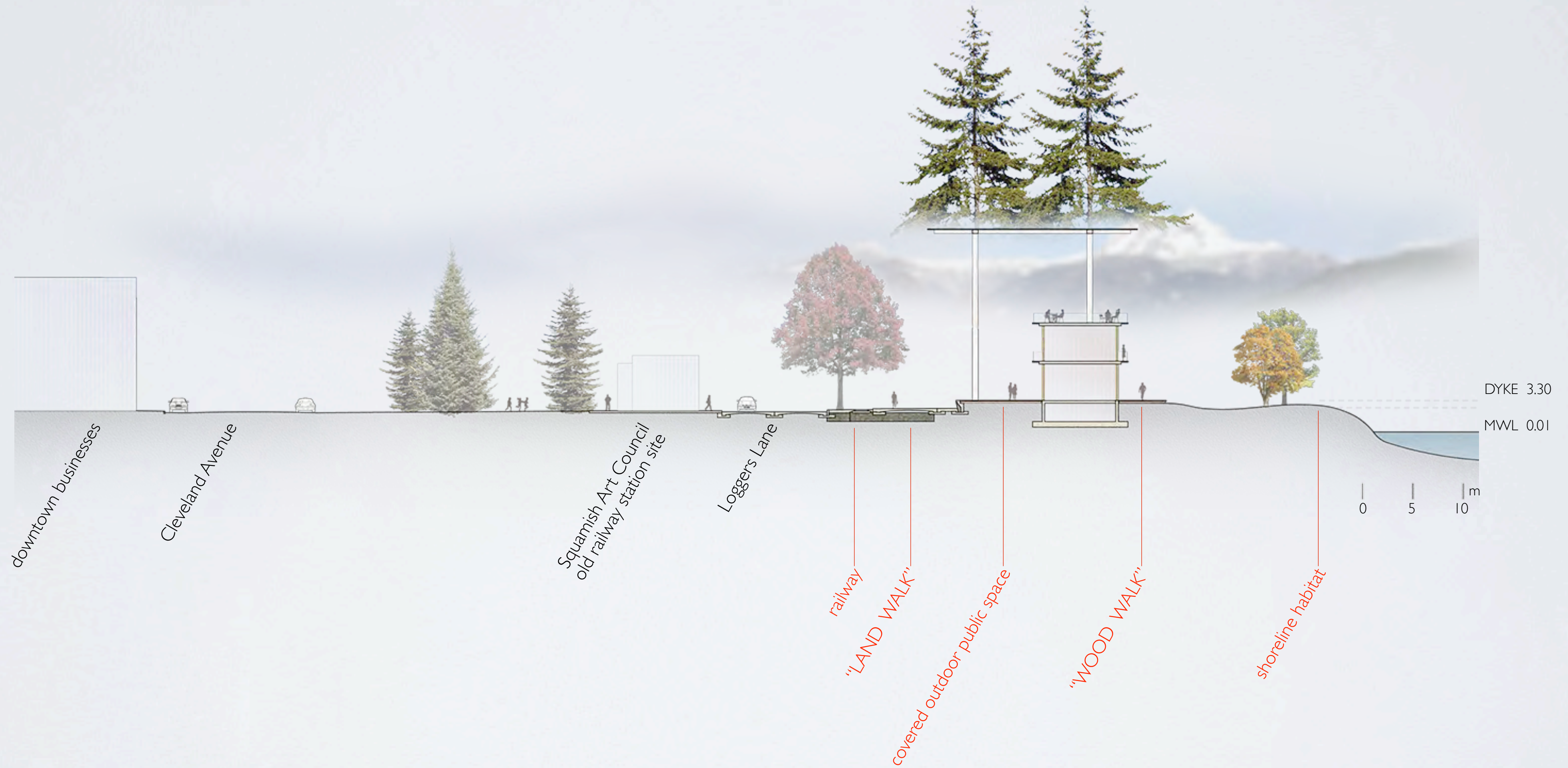
SECTION B-B'



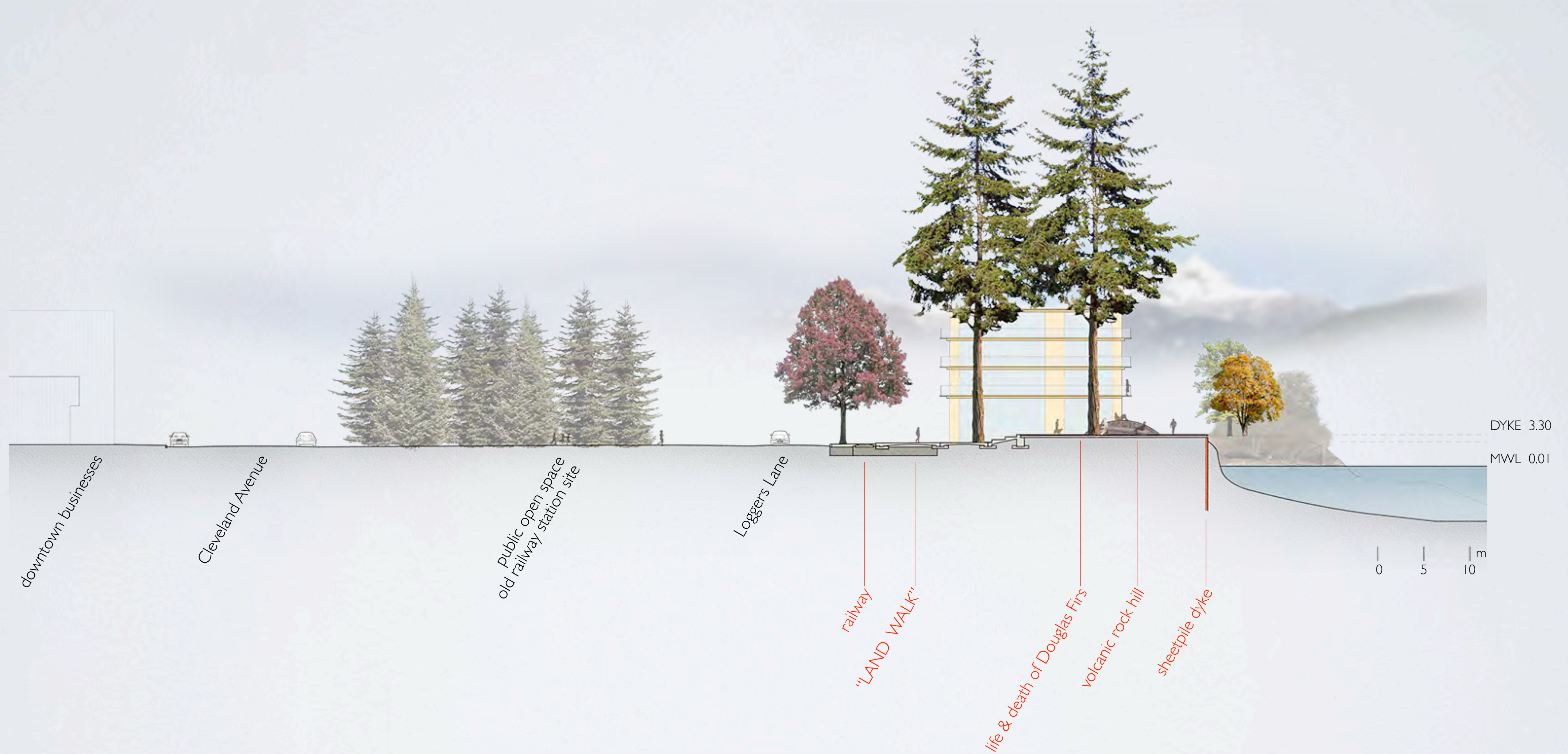
ELEVATION A-A'

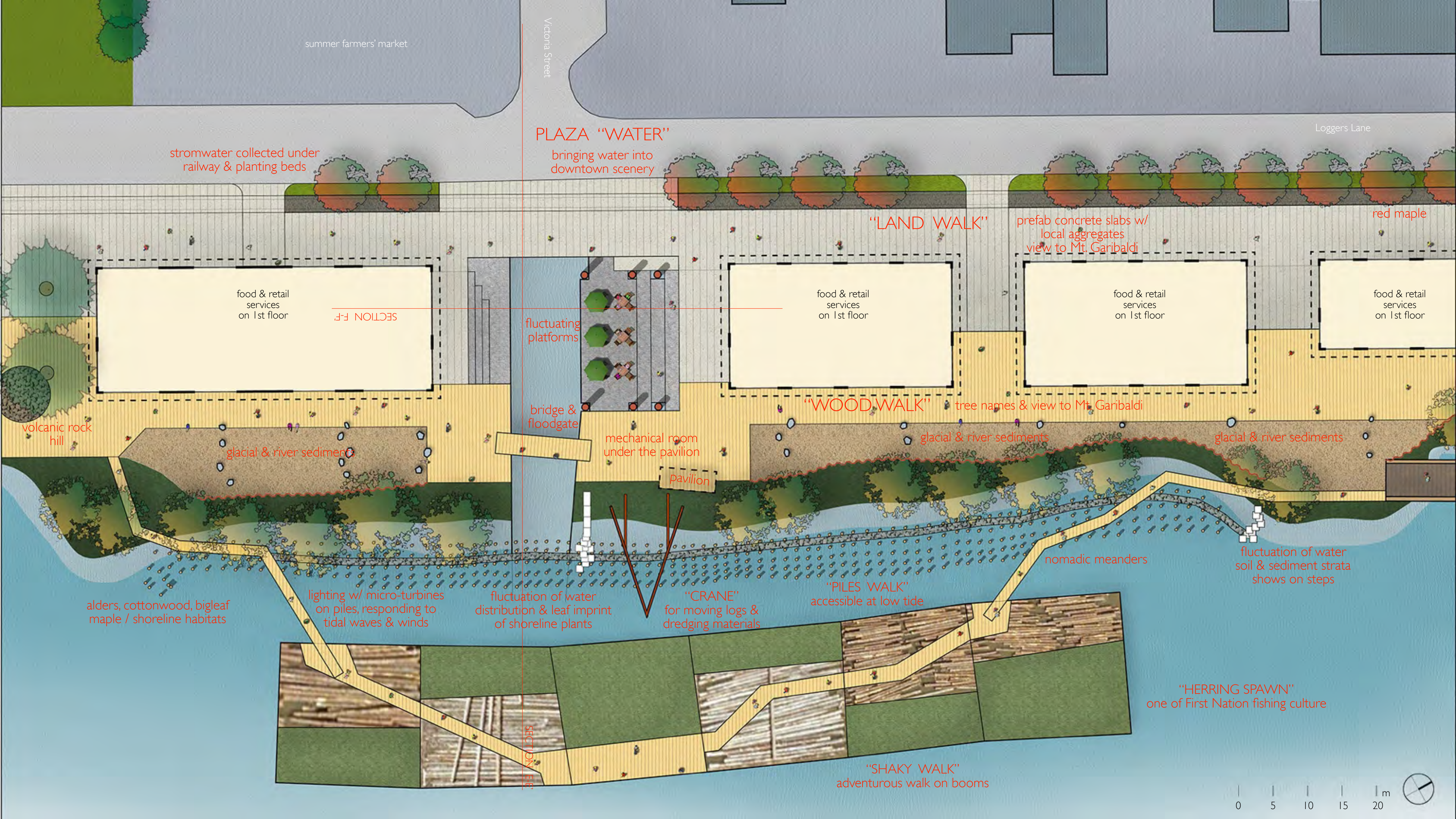


SECTION C-C'



SECTION D-D'





summer farmers' market

Victoria Street

PLAZA "WATER"

bringing water into downtown scenery

Loggers Lane

stormwater collected under railway & planting beds

"LAND WALK"

prefab concrete slabs w/ local aggregates view to Mt. Garibaldi

red maple

food & retail services on 1st floor

SECTION F-F

fluctuating platforms

food & retail services on 1st floor

food & retail services on 1st floor

food & retail services on 1st floor

volcanic rock hill

glacial & river sediments

bridge & floodgate

mechanical room under the pavilion

pavilion

"WOOD WALK"

tree names & view to Mt. Garibaldi

glacial & river sediments

glacial & river sediments

nomadic meanders

fluctuation of water soil & sediment strata shows on steps

alders, cottonwood, bigleaf maple / shoreline habitats

lighting w/ micro-turbines on piles, responding to tidal waves & winds

fluctuation of water distribution & leaf imprint of shoreline plants

"CRANE" for moving logs & dredging materials

"PILES WALK" accessible at low tide

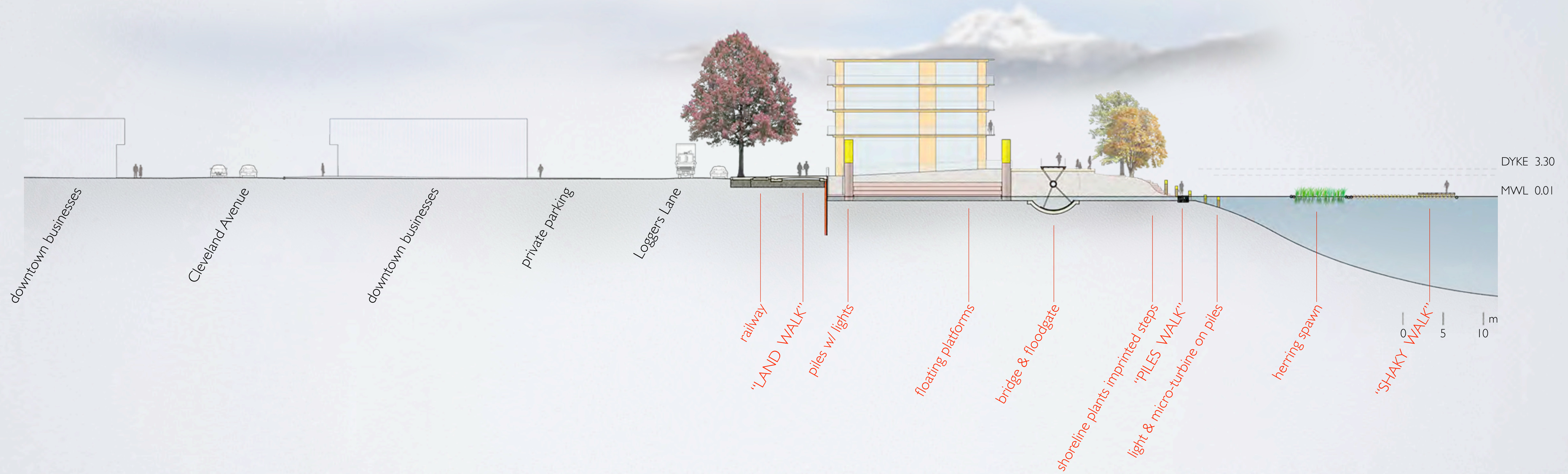
"HERRING SPAWN" one of First Nation fishing culture

"SHAKY WALK" adventurous walk on booms

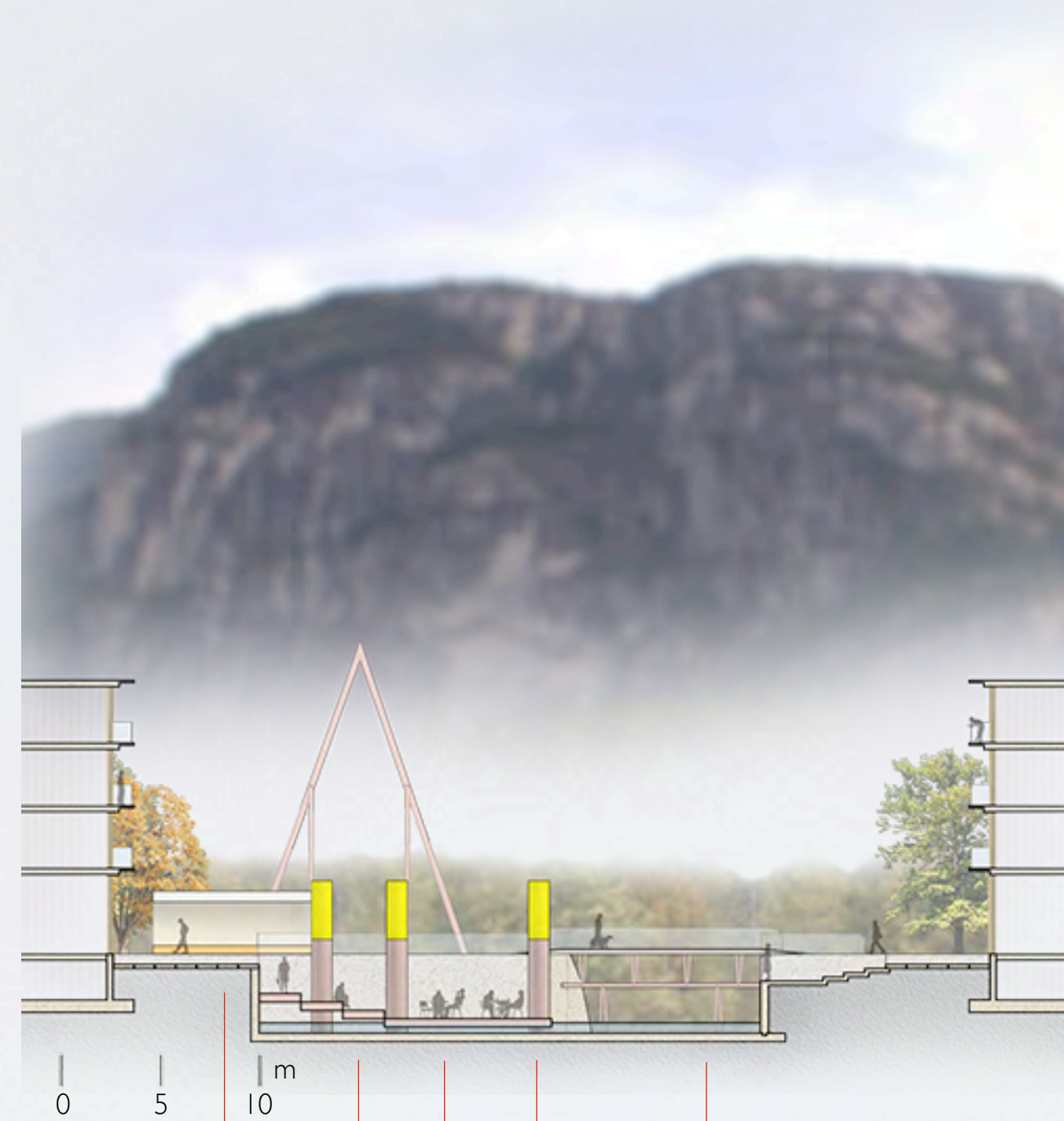
SECTION E-E



SECTION E-E'



SECTION F-F'



mechanical room underneath
pavilion
crane
floating platforms
piles w/ lights
bridge & floodgate



stormwater collected under railway & planting beds

red maple

"LAND WALK"

prefab concrete slabs w/ local aggregates view to Mt. Garibaldi

food & retail services on 1st floor

food & retail services on 1st floor

food & retail services on 1st floor

food & retail services on 1st floor

Winnipeg Street
PLAZA "WOOD"
memorial to logging

Loggers Lane

"LOGGING TRAIN"

size of logs & view to Mt. Garibaldi

"WOOD WALK"

tree names & view to Mt. Garibaldi

glacial & river sediments

"SIX LOGS"

transformation of logged trees from log to wood products

nomadic meanders

"DUMPING WOODS"

old log dumping bridge transformed into climbing walls & hanging seats

"PILES WALK"
accessible at low tide

alders, cottonwood, bigleaf maple / shoreline habitats

"SHAKY WALK"

adventurous walk on booms

"HERRING SPAWN"

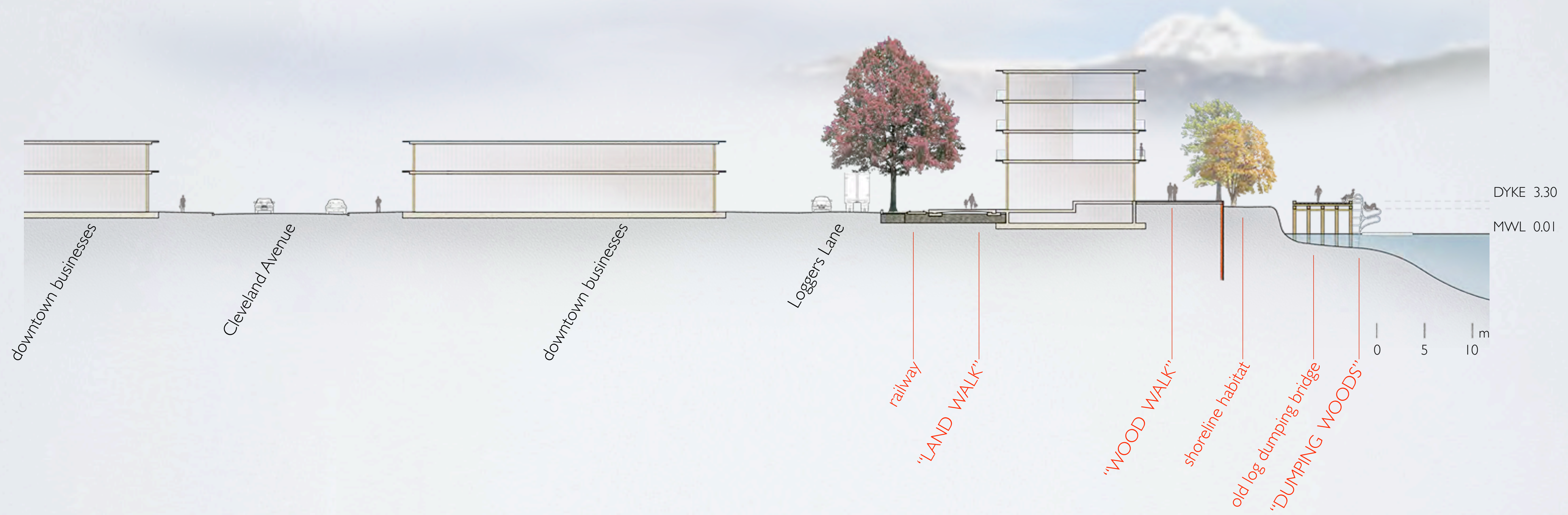
one of First Nation fishing culture

SECTION G-G'

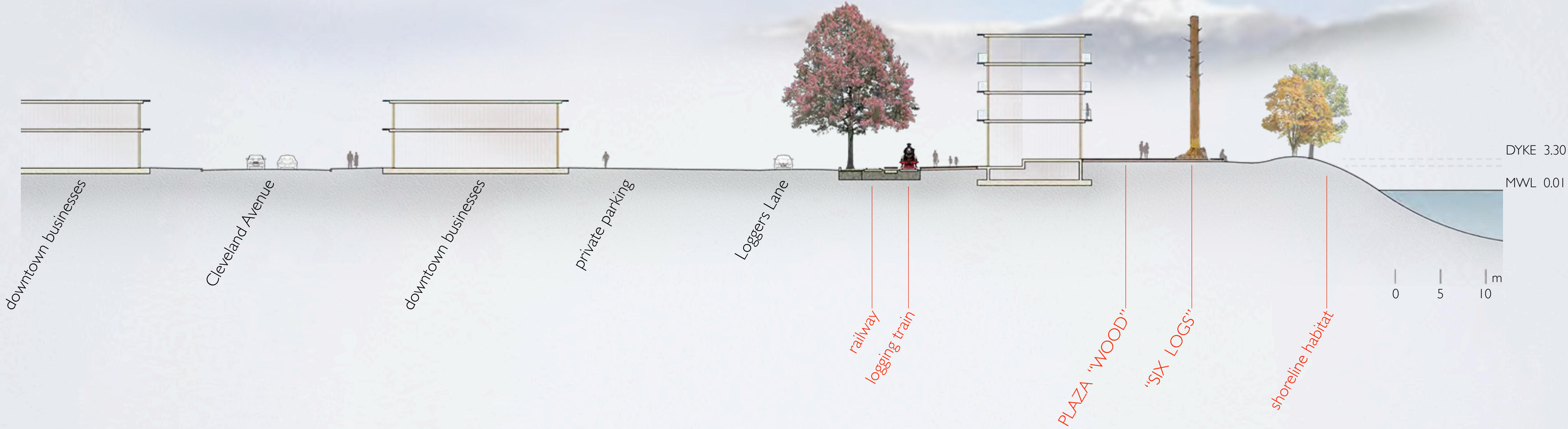
SECTION H-H'



SECTION G-G'

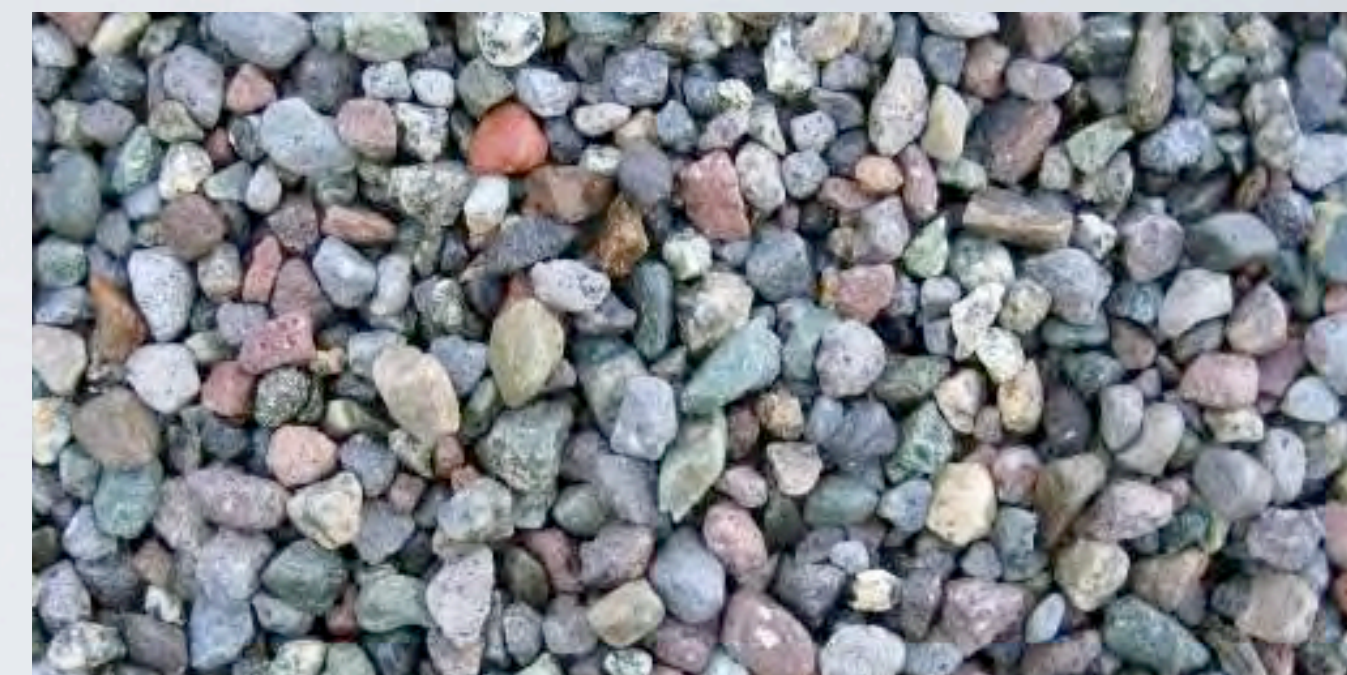


SECTION H-H'



a nomadic landscape adjacent to downtown

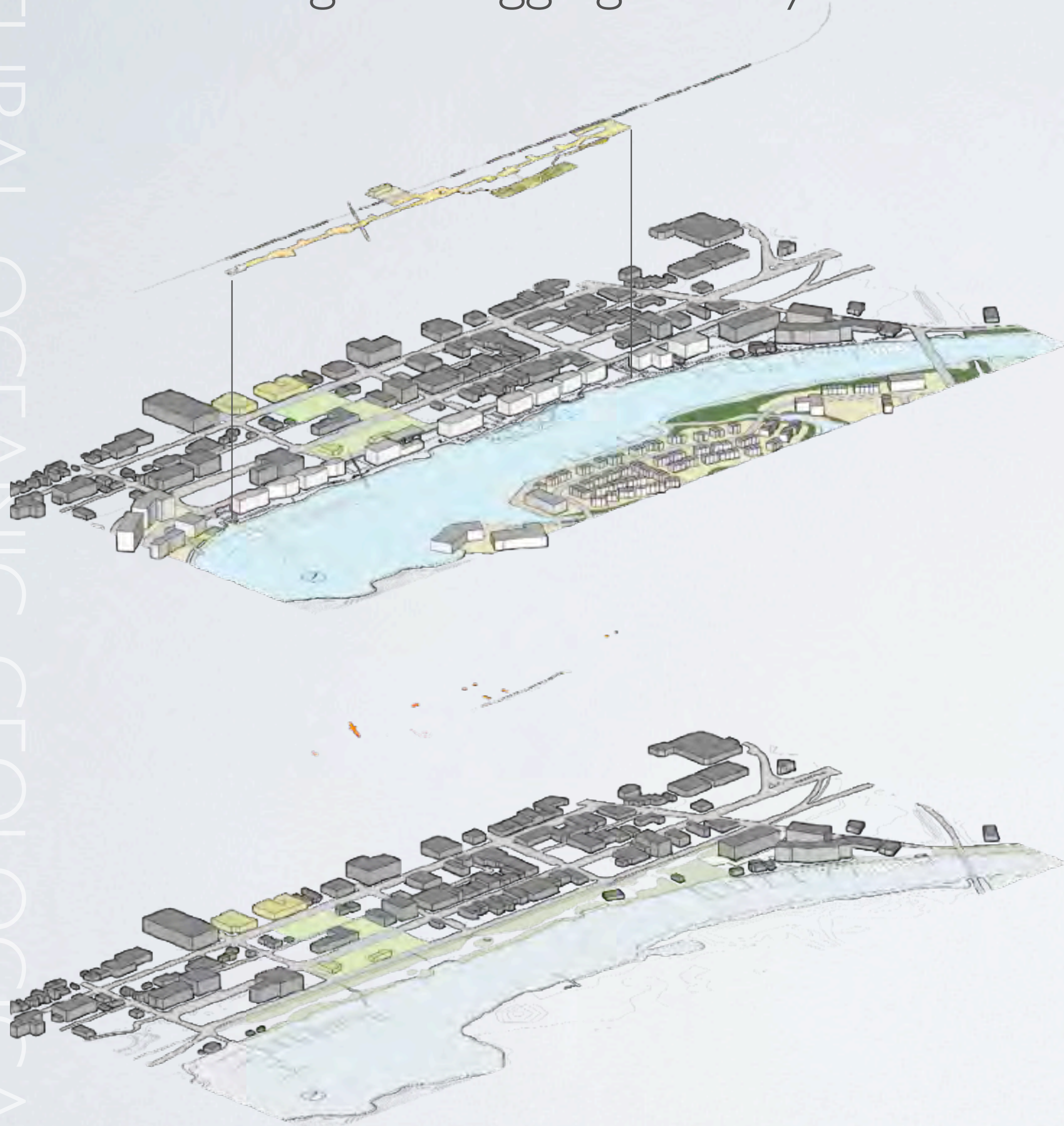
- sheetpile dyke minimises disturbance of construction
- sheetpiles maintain a cohesive image
- rest areas measure erosion of waterbank
- steps toward water edge measure tidal fluctuation
- new colourful, local gravel gradually blends in old gravel, indicating walking traces



WOOD WALK

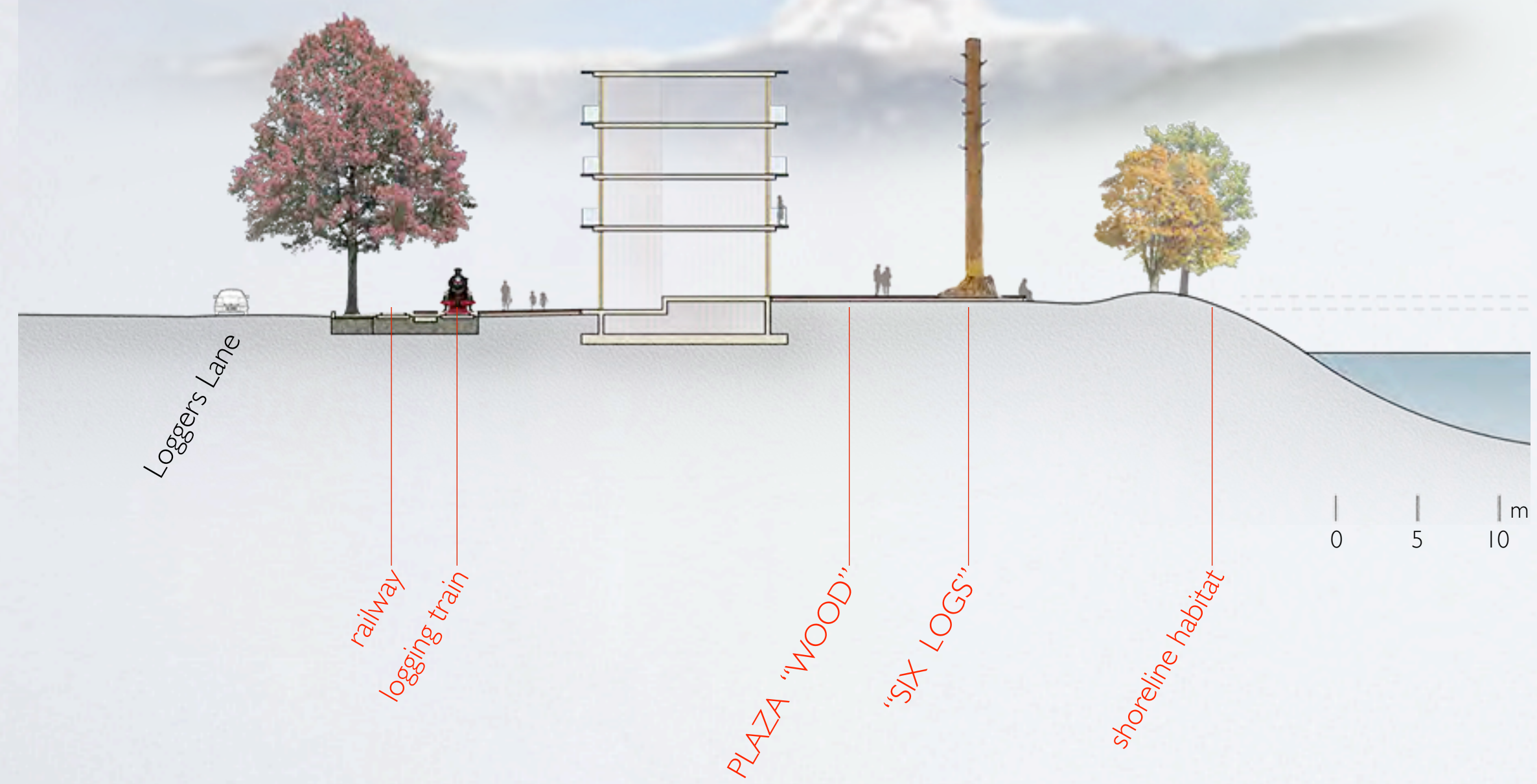
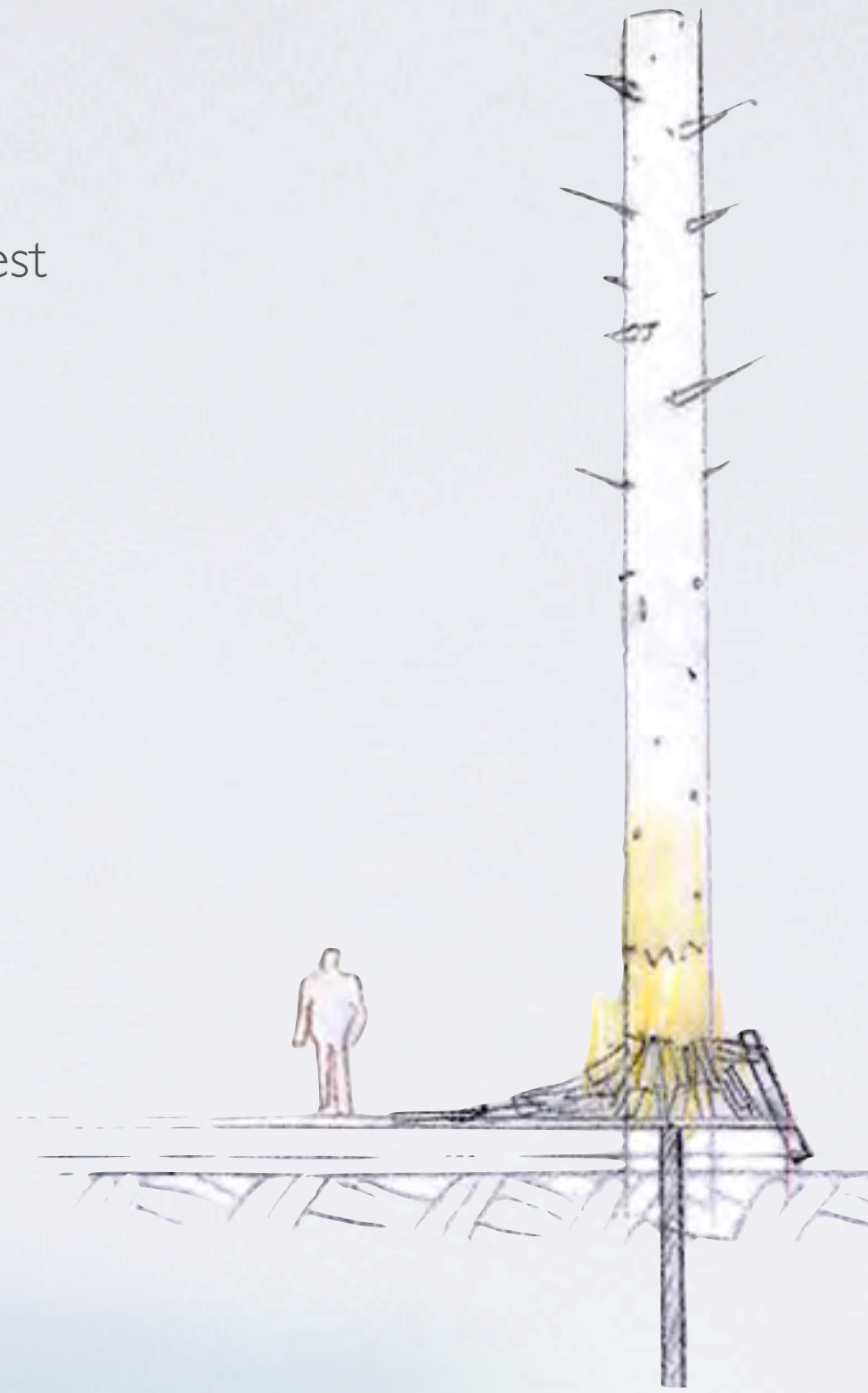
recollecting the logging history

- providing a cohesive image at eastern side of new buildings
- transforming from a logging waterfront
- strengthening the connection to logging history



PLAZA "WOOD"

- SIX LOGS erecting 6 major timber species of coastal BC forest
- logs gradually transformed from raw log to sawn timber, then merged into ground pattern of the WOOD WALK
- lighting from beneath
- LOGGING TRAIN showing the historical log transportation, contrasting to log trucks running on the Loggers Lane
- forming a street end amenity to Winnipeg Street



6 major species have been exported to more than 25 different countries speaking more than 15 different languages.

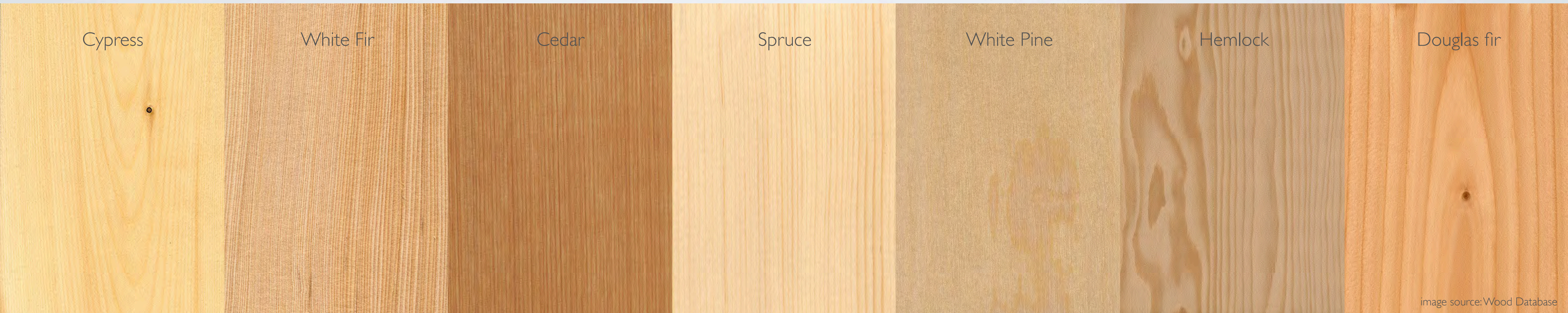
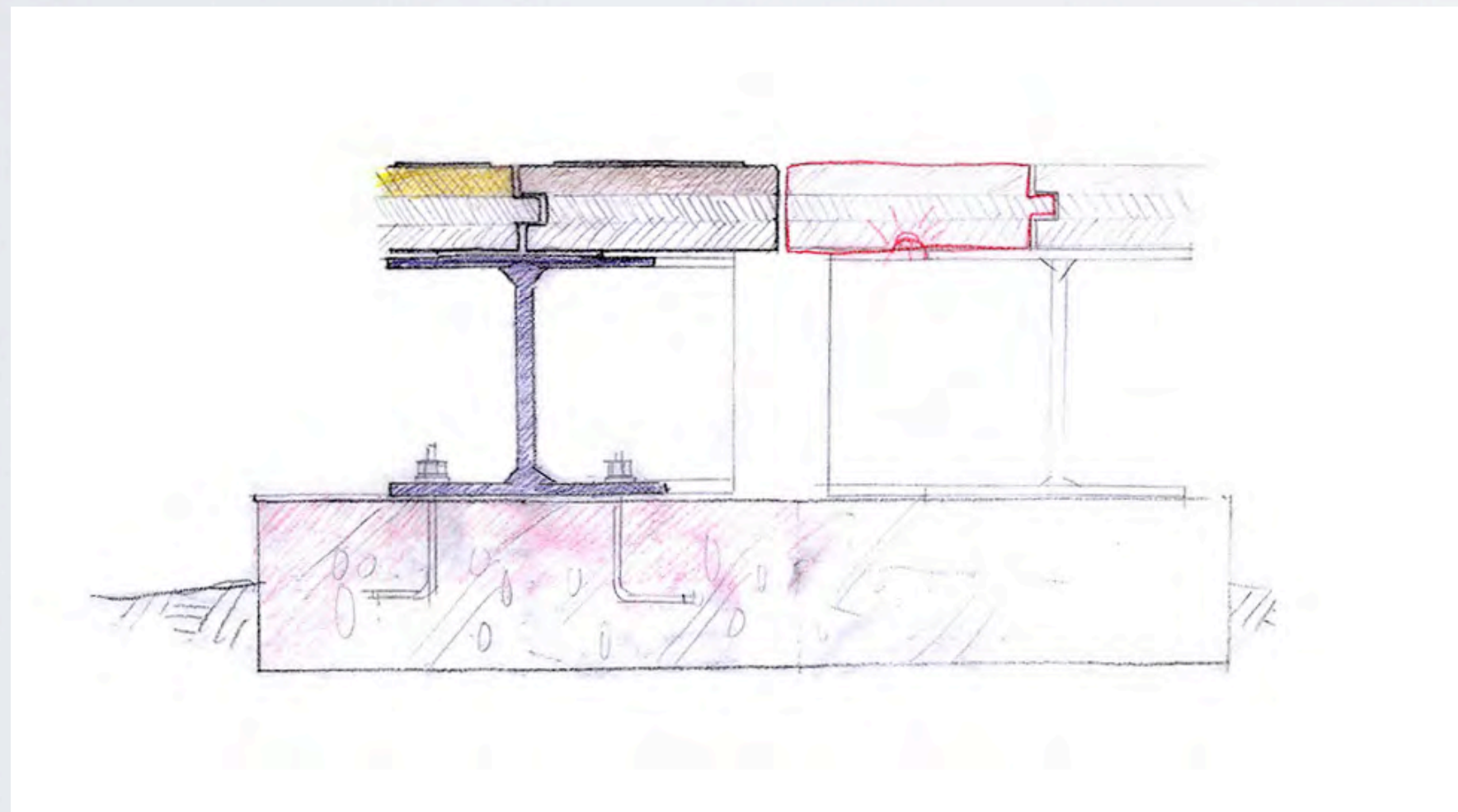


image source: Wood Database

Latin	Squamish Name	English	German (Deutsch)	Russian (русский язык)	Italian (italiano)	French (le français)	Finnish (Suomi)	Español
Chamaecyparis nootkatensis	K'elhmáy'	Cypress	Nootka-Scheinzypresse	Кипарис нутканский	Callitropsis nootkatensis	Cyprés de Nootka	Nutkansyypressi	Callitropsis noot
Abies amabilis	Kwéxwmay	White Fir	Purpur-Tanne	Пихта миловидная		Sapin gracieux	Purppurapihta	Abies amabilis
Thuja plicata	Qapaiyai	Red Cedar	Riesen-Lebensbaum	Туя складчатая		Thuja plicata	Jättituija	Thuja plicata
Picea sitchensis	Ts'its'icháyay'	Sitka Spruce	Sitka-Fichte	Ель ситхинская	Picea sitchensis	Épinette de Sitka	Sitkankuusi	Picea sitchensis
Pinus monticola	Ts'ayts'aykay	White Pine	Westliche Weymouth-Kiefer		Pinus monticola	Pin argenté		Pinus monticola
Tsuga heterophylla	Kwáytsay	Western Hemlock	Westamerikanische Hemlocktanne	Тсуга западная		Pruche de l'Ouest	Lännehemlockki	Tsuga heterophy
Pseudotsuga menziesii	Ch'say'	Douglas fir	Douglasie	Псеудотсуга Мензиса	Pseudotsuga menziesii	Pseudotsuga menziesii	Douglaskuusi	Pseudotsuga me

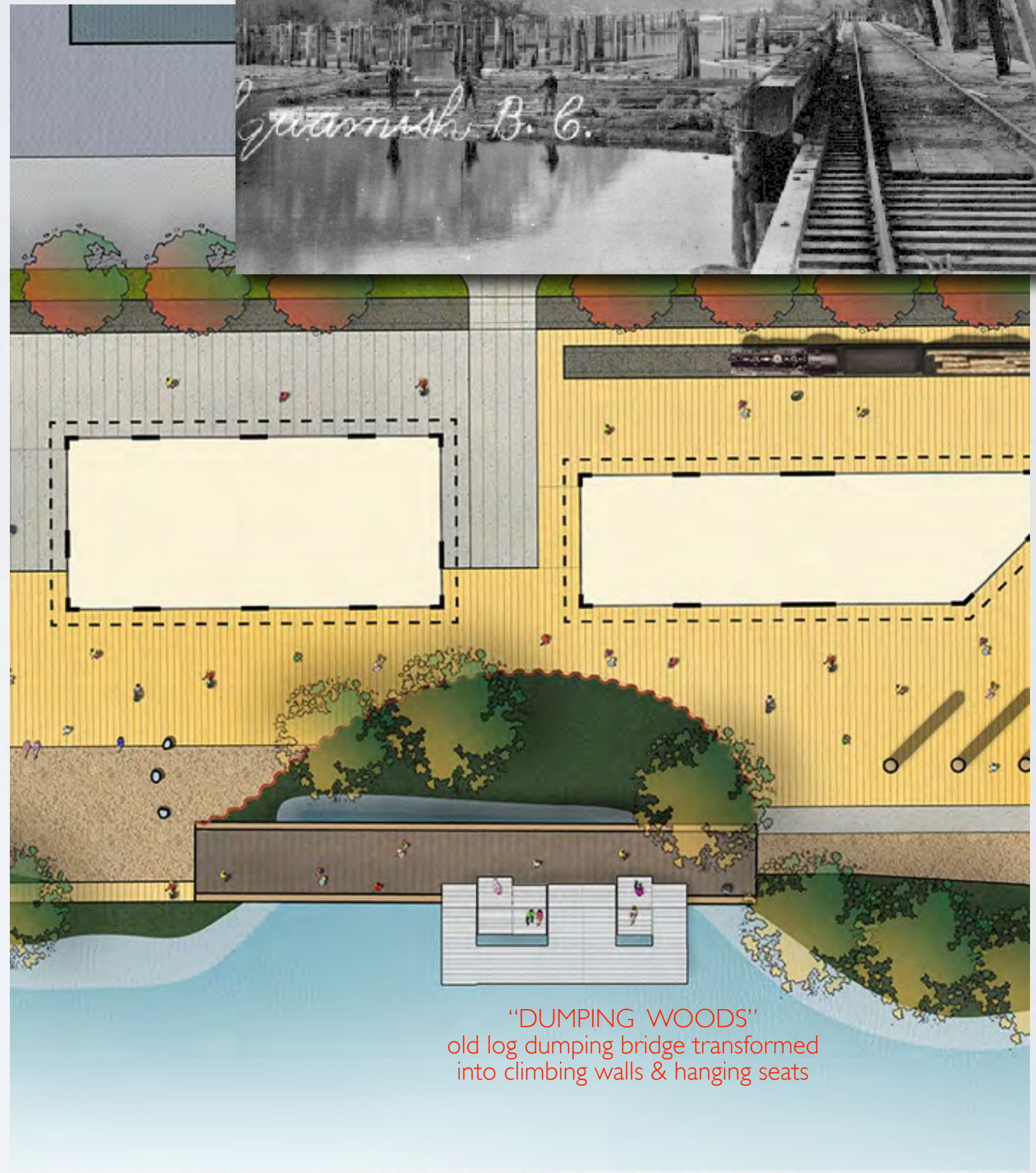
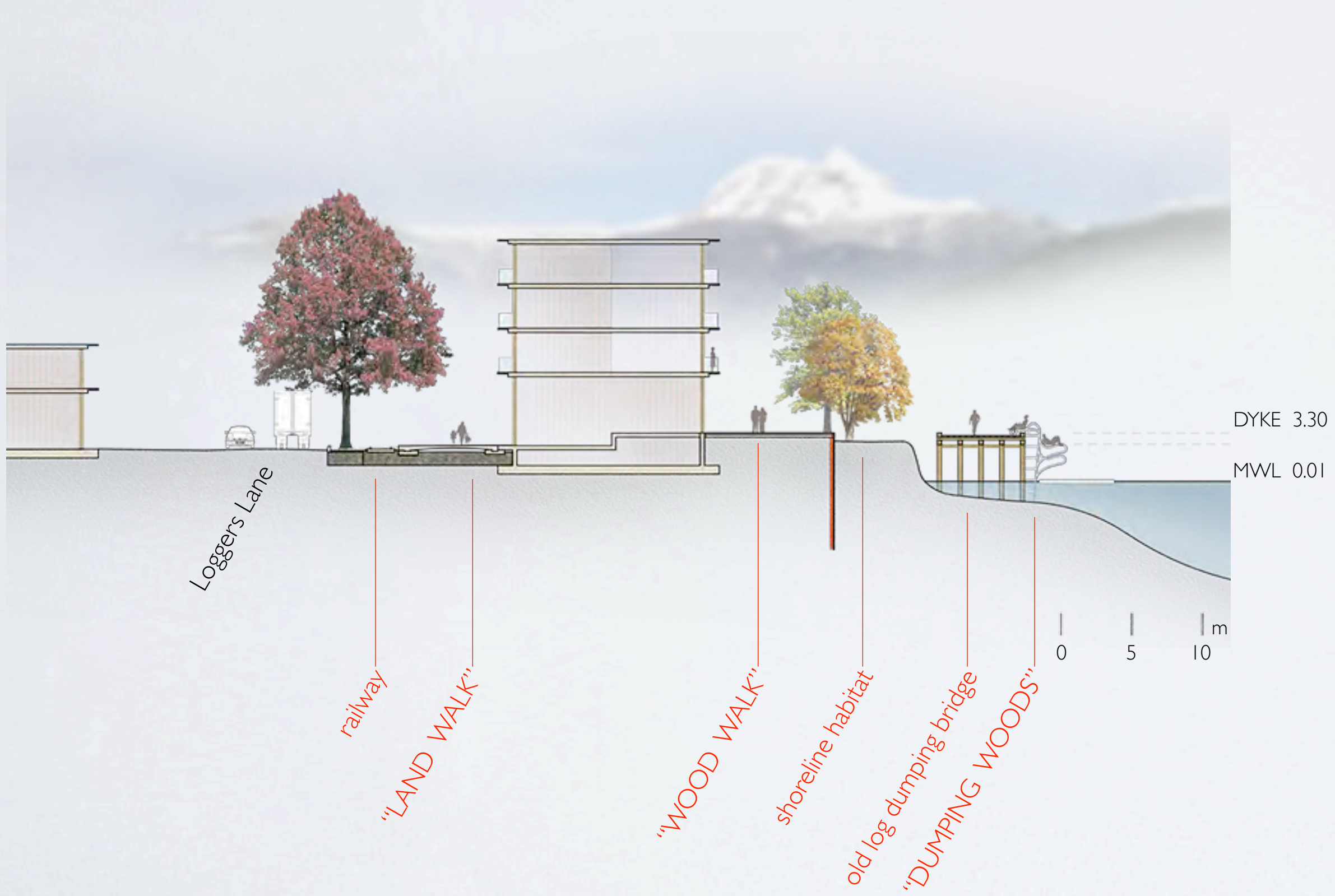
WOOD WALK

- randomly mixed species providing interesting experiences
- cross laminating timbers to enhance stability
- different decaying rates -- replaced with contemporary species by local carpenters
- a glocal vision -- species names carved in different languages, including the native Squamish language



DUMPING WOODS

- transforming abandoned log dumping bridge into climbing wall and hanging seats
- representing the explosive and adventurous logging activities
- reflecting Squamish as the outdoor recreation capital of Canada
- lower platform fluctuating with tides



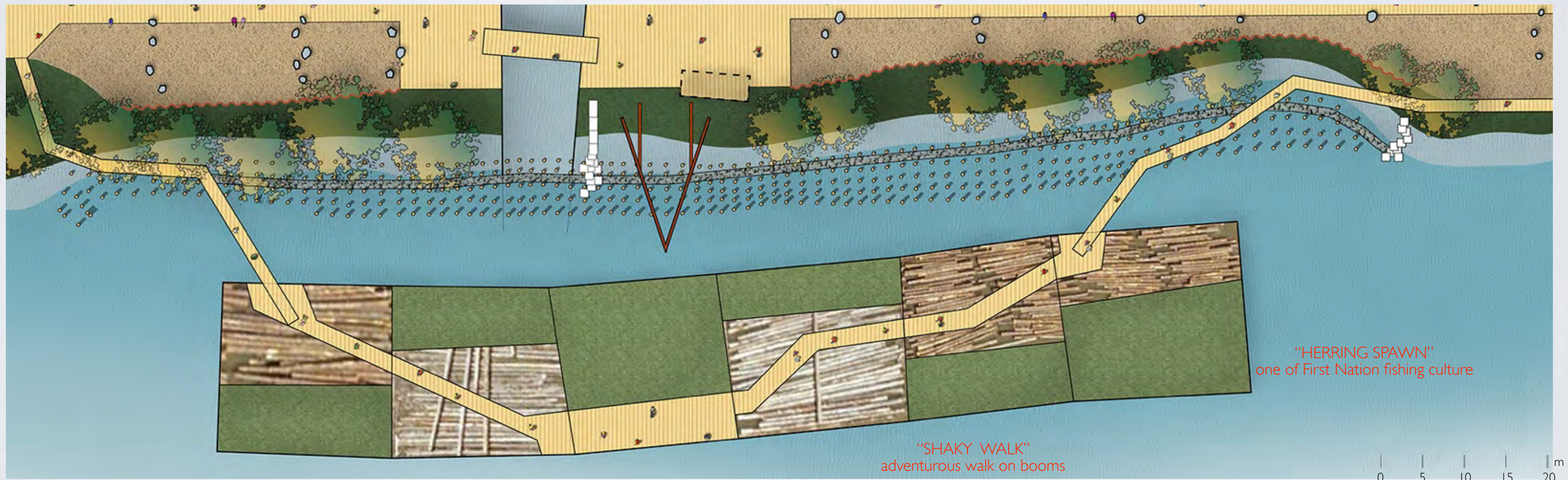
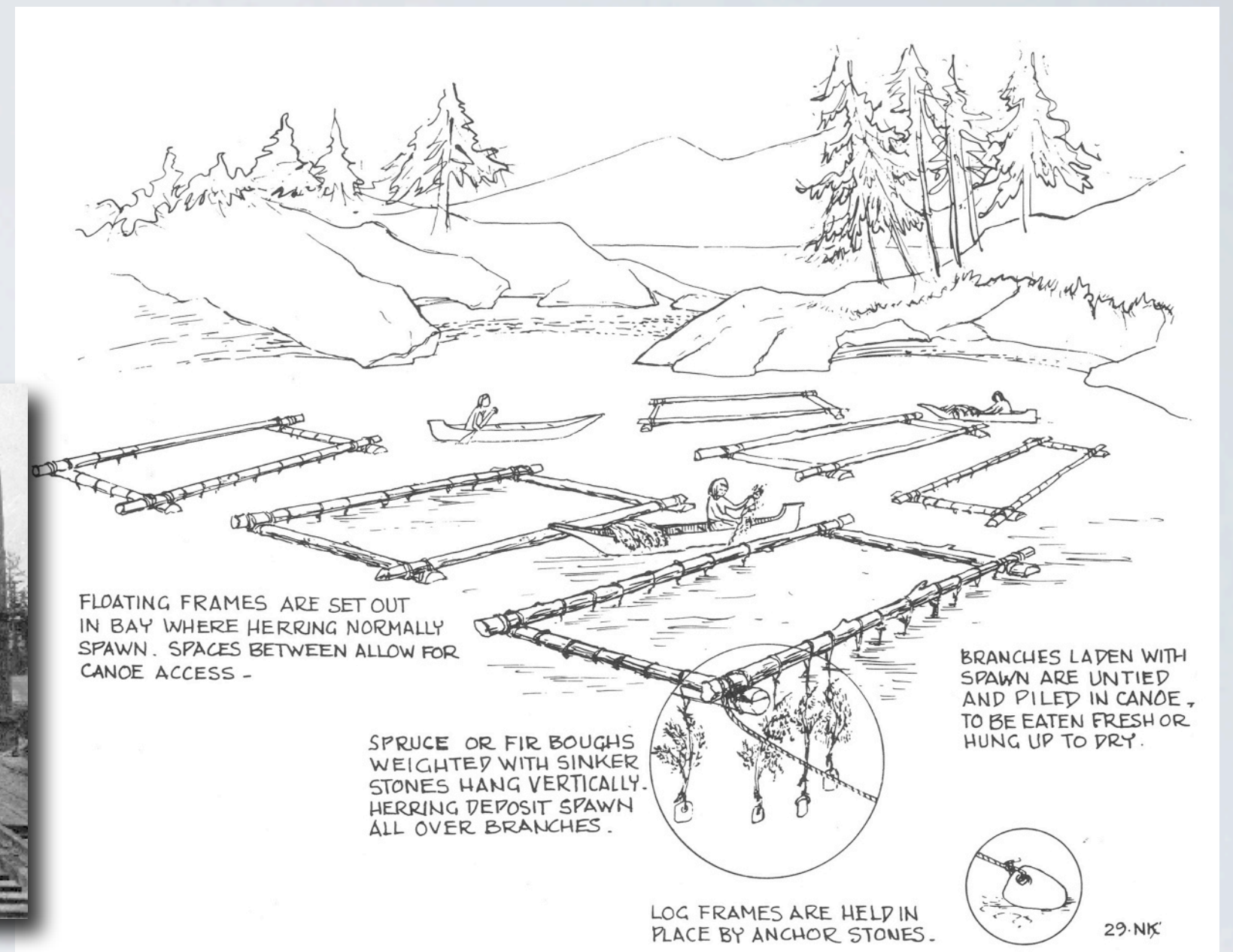
DUMPING WOODS

- view to the Channel, ecological habitat across the Channel, the Chief, the Smoke Bluffs, the Mamquam Icefield, the Mt. Garibaldi, etc.
- form reflecting log dumping.



SHAKY WALK & HERRING SPAWN

- boardwalk swaying in winds and with boating activities
- fluctuating with tides
- honouring harmonious, natural living of First Nations
- representing the explosive and adventurous logging activities
- scents from logs, contrary to decomposing smell of estuary
- most expansive view in the Channel



ECOLOGICAL, METEOROLOGICAL, CULTURAL, OCEANIC,

SHAKY WALK & HERRING SPAWN

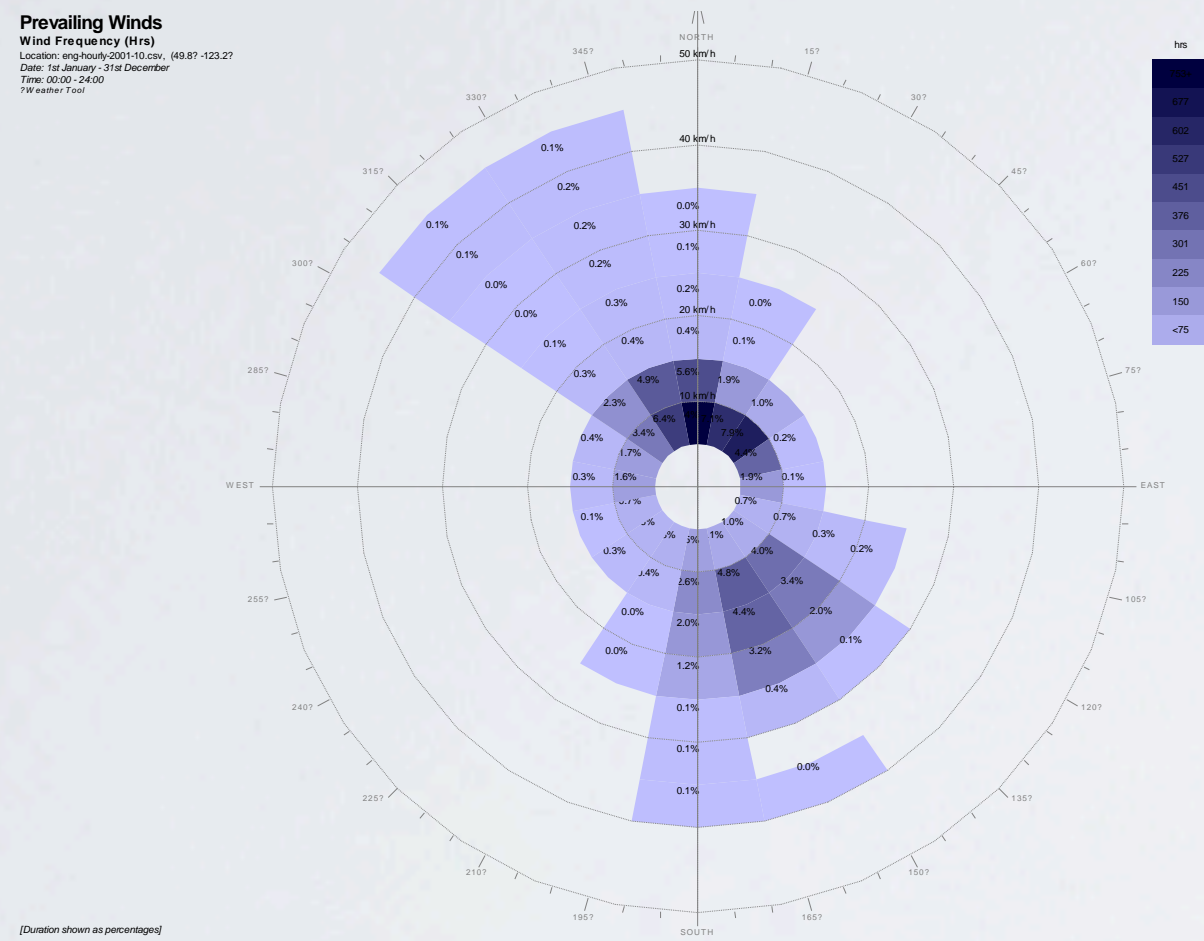
- measuring fluctuation on piles

ECOLOGICAL, METEOROLOGICAL,
CULTURAL, OCEANIC,



SHAKY WALK & HERRING SPAWN

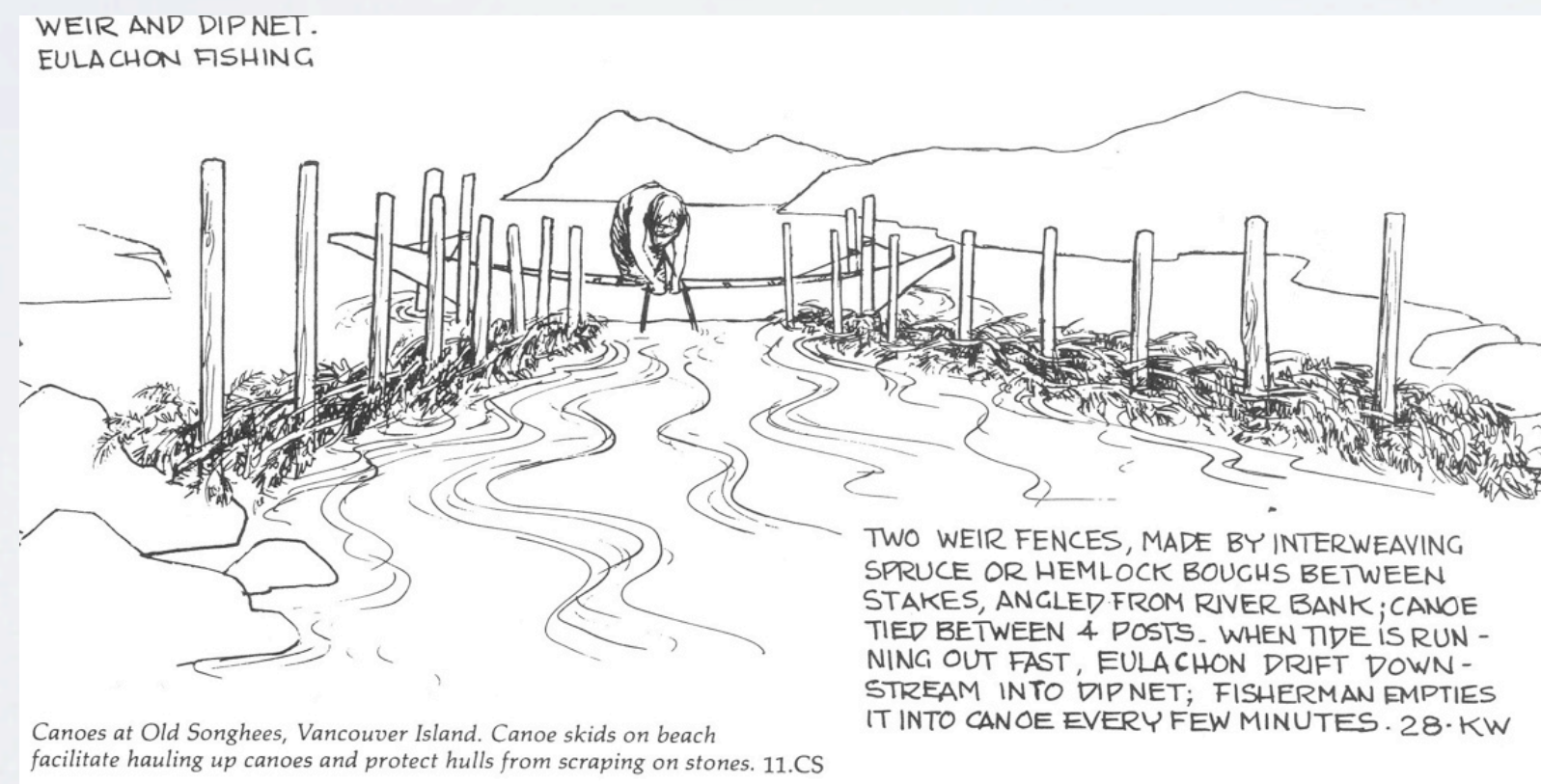
- lights with micro-turbines glimmering with either tidal waves or wind



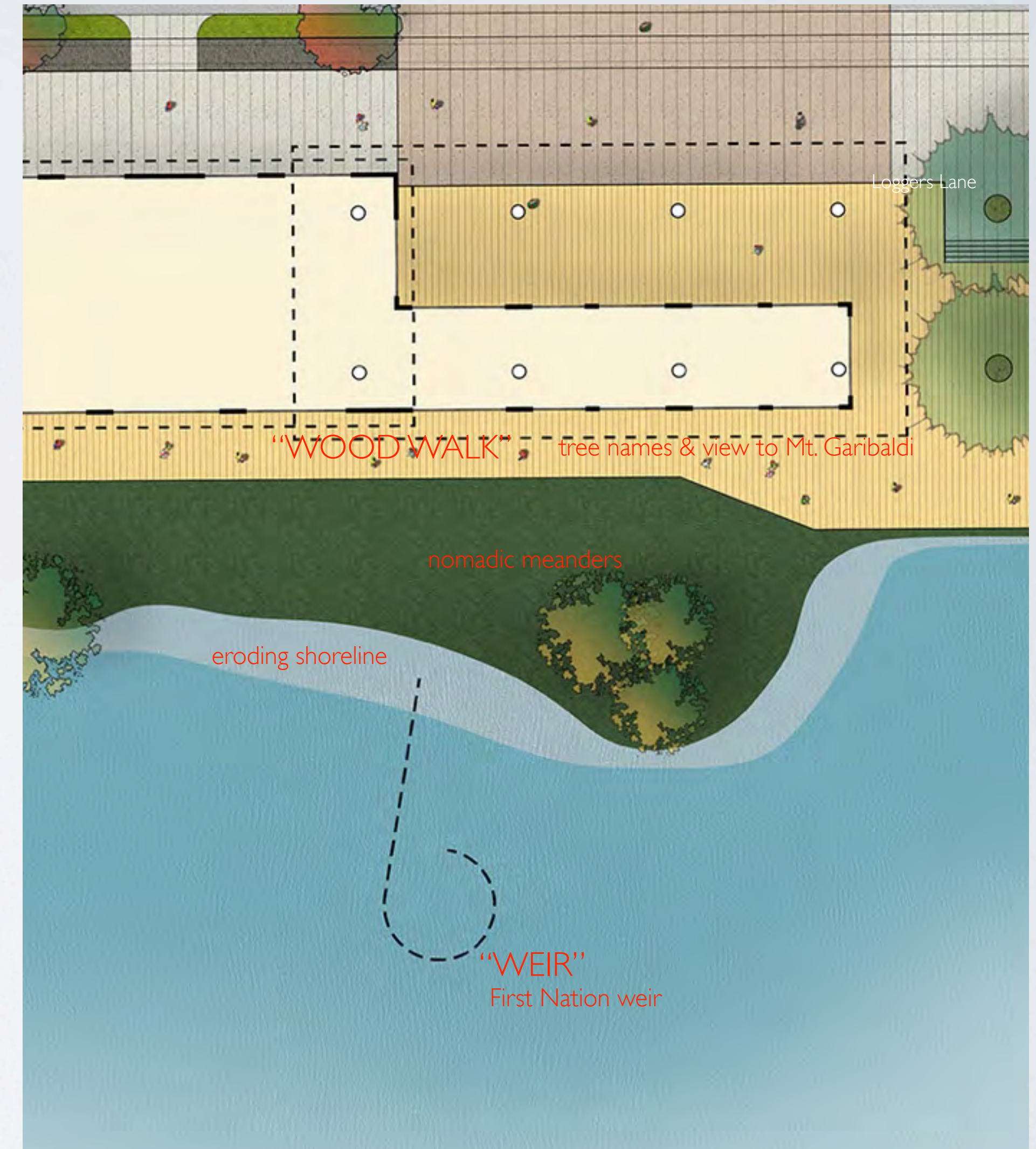
ECCOLOGICAL, METEOROLOGICAL, CULTURAL, OCEANIC,

THE WEIR

- honouring harmonious, natural living of First Nations
- revealing or hiding depending on tide level
- measuring erosion of water bank
- indicating sediment composition



source: Stewart, H. 1996



THE WEIR

PHASE I

- dyke installed, Douglas firs planted
- 2 different experiences at different side of the dyke
- sheetpile dyke & Douglas fir bosque offering architectural experience, reminding the historical working waterfront



THE WEIR

PHASE 2

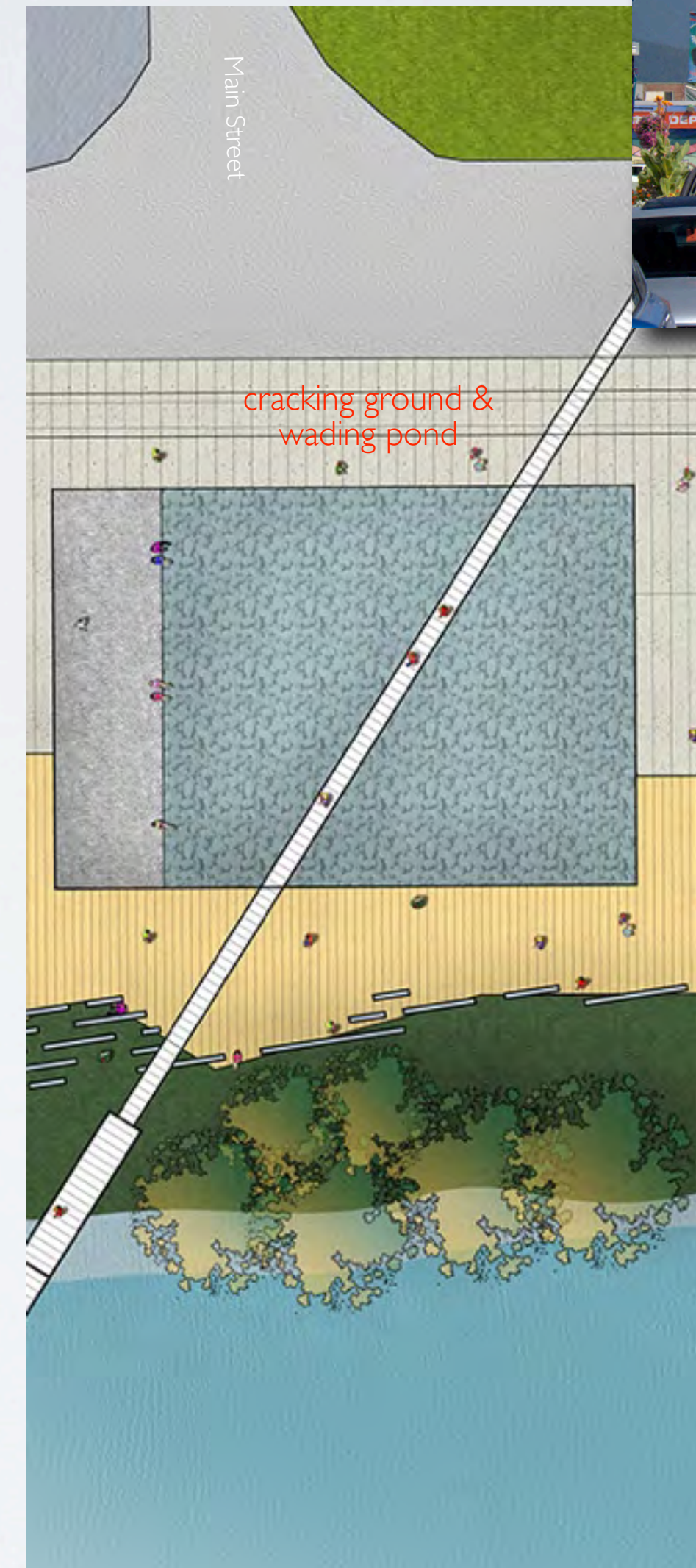
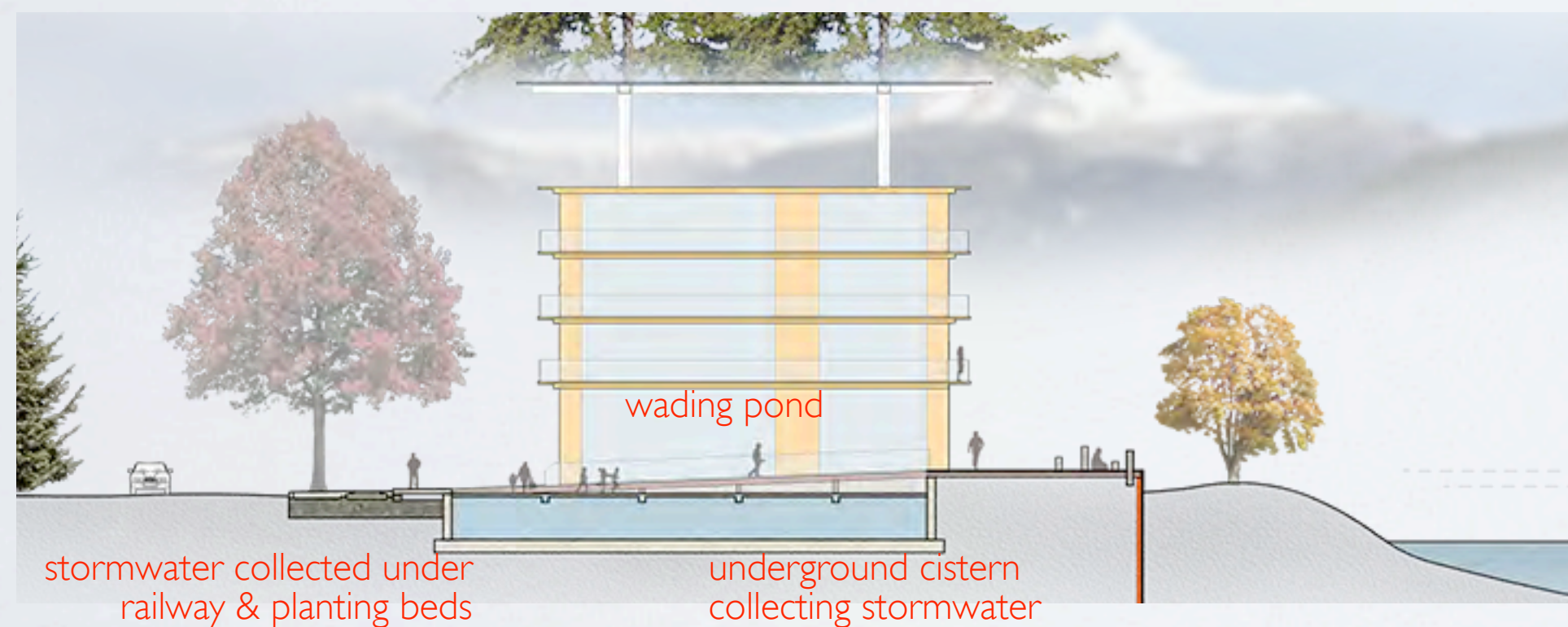
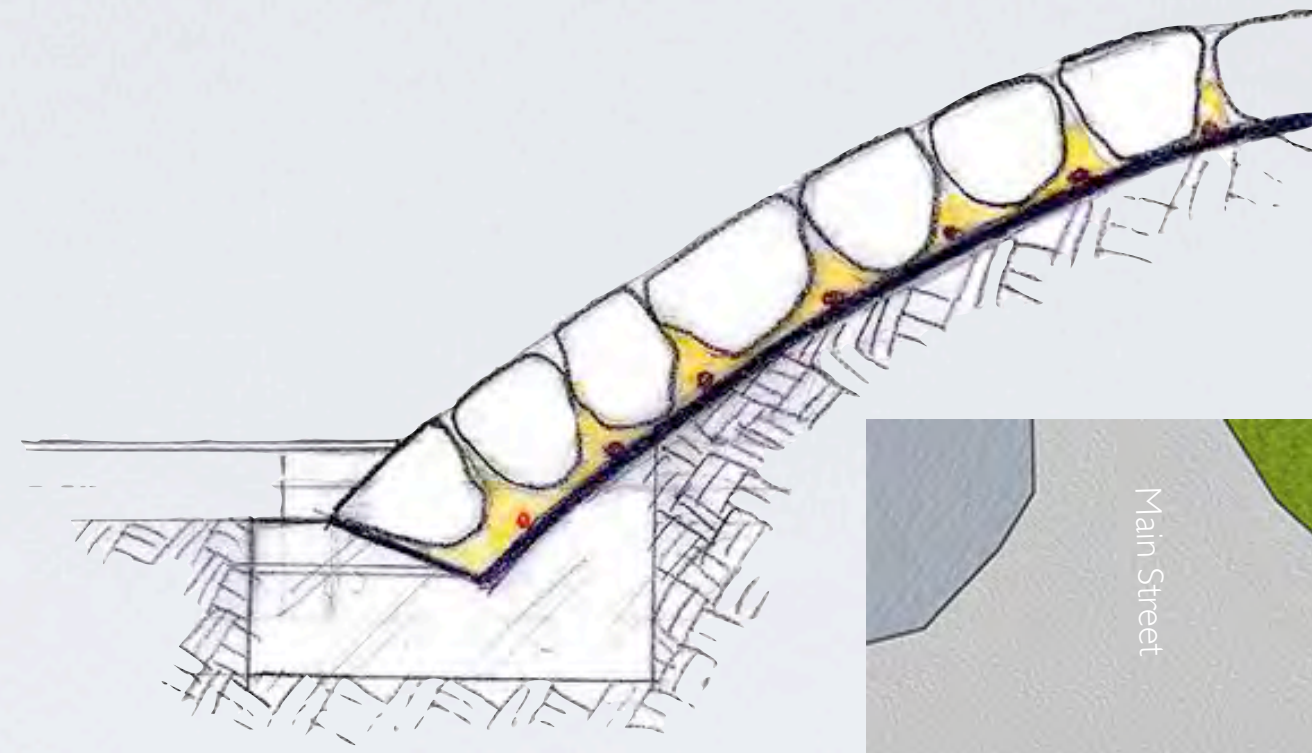
- a nomadic meander outside the dyke
- architectural experience inside the dyke reinforced



CRACKING GROUND & VOLCANIC ROCK HILL

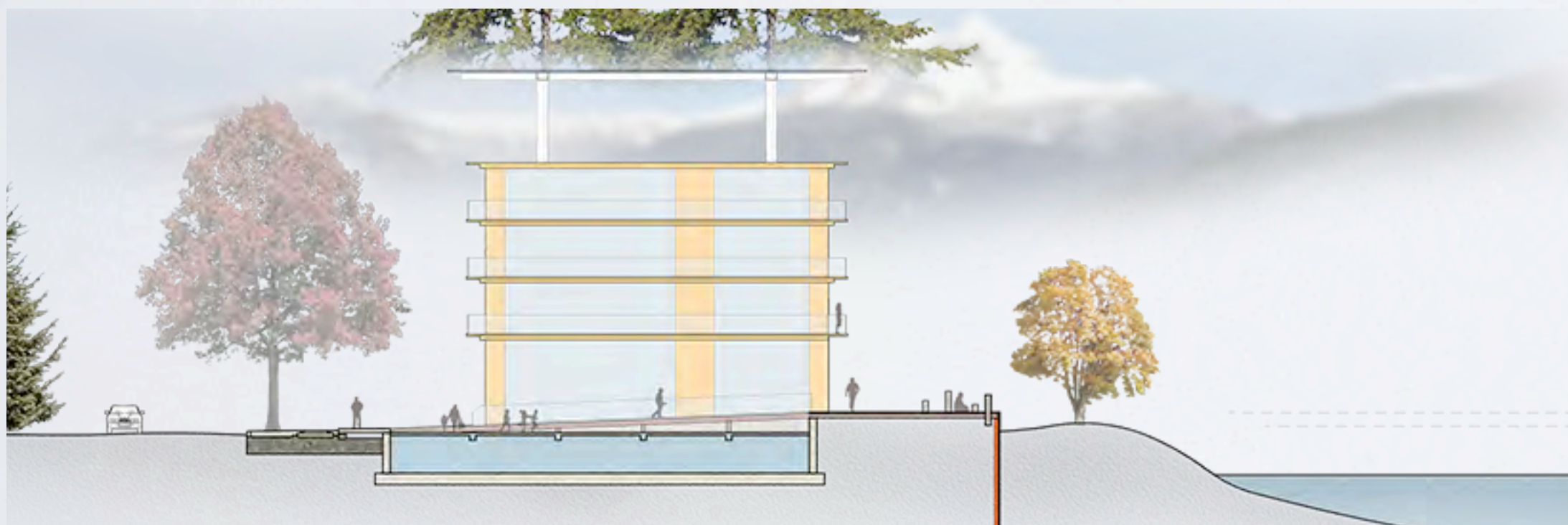
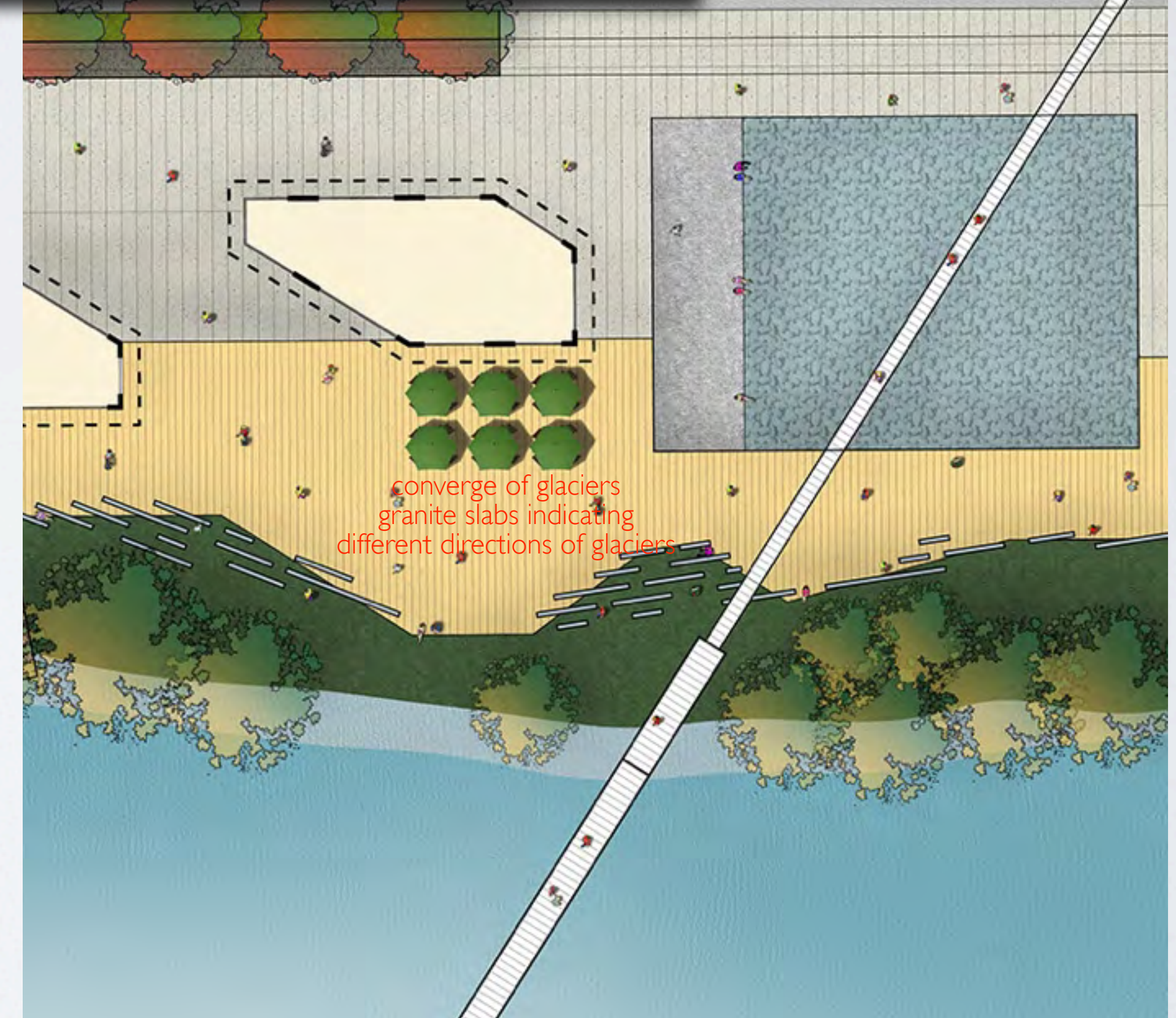
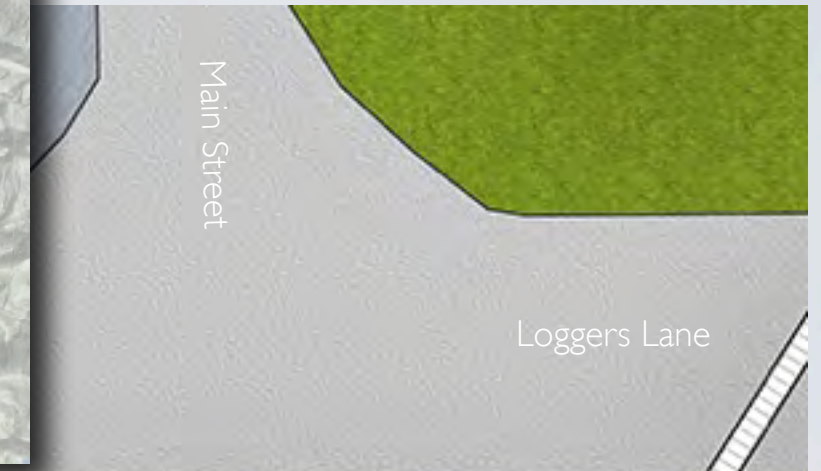
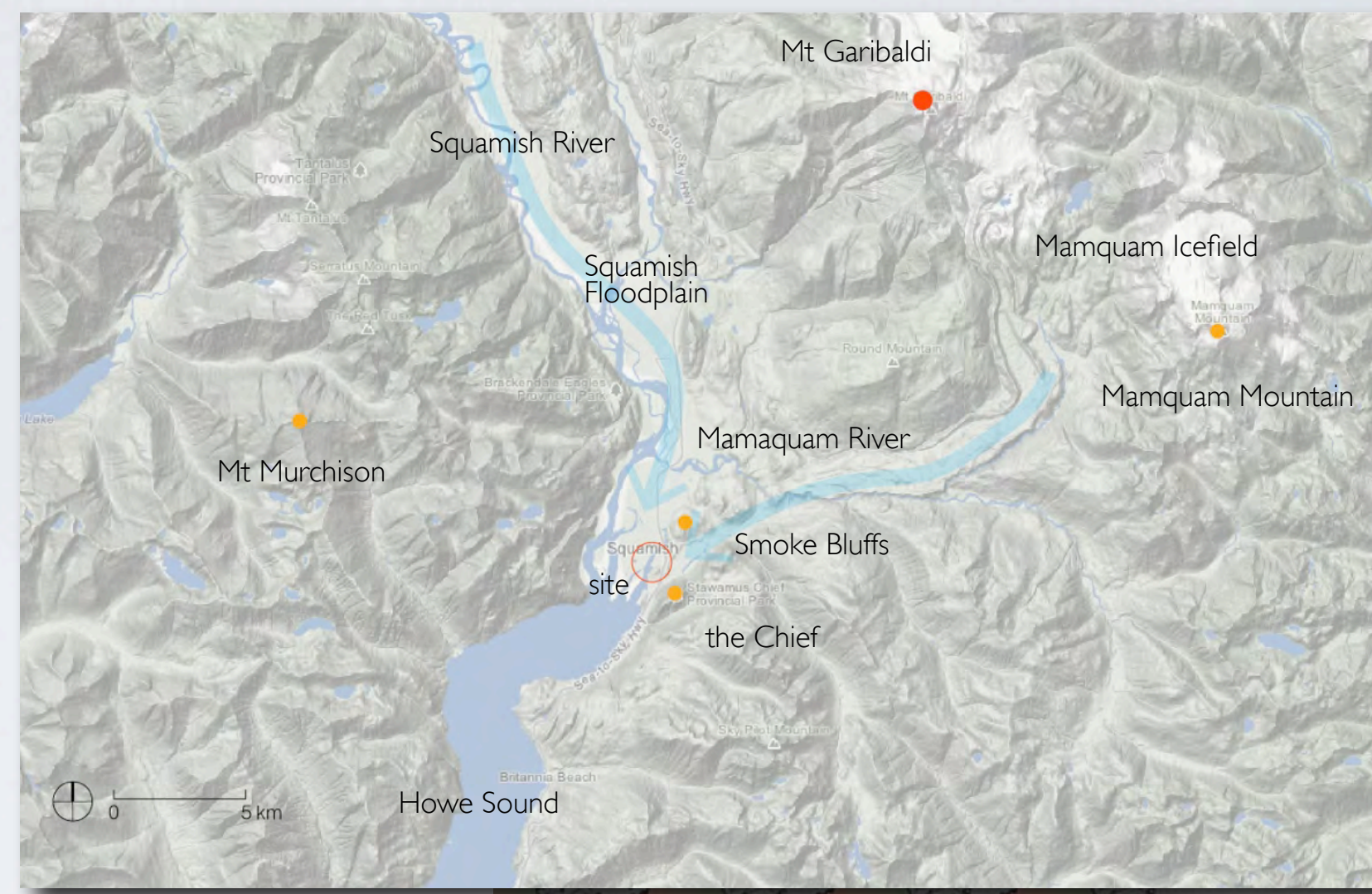
GEOLOGICAL, METEOROLOGICAL

- volcanic activities before the last Ice Age
- an analogy to volcanic rocks under glacier & river deposits & highly erected volcano -- Mt. Garibaldi
- using local basalt stones
- lighting and heating in the cracks of the hill
- water emerging from underground cistern when excessive stormwater collected



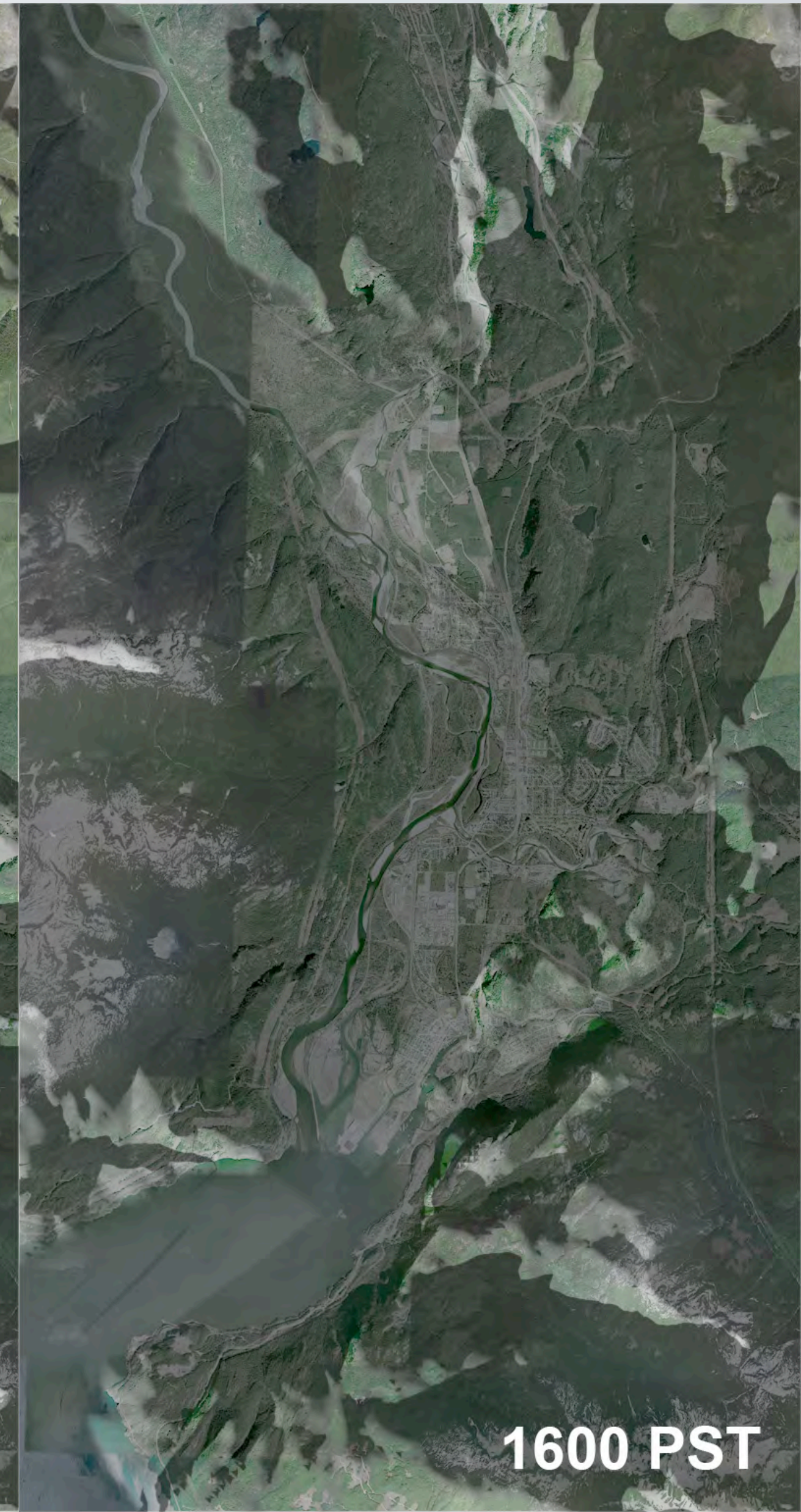
CONVERGE OF GLACIERS

- the facing of granite monoliths indicating the directions of glaciers
- arranging granite slabs as an analogy to glaciers
- shapes of slabs being identical to the Chief and the Smoke Bluffs
- different heights of slabs forming interesting spaces



granite slabs indicating different directions of glaciers

SHORT WINTER SUNSHINE



METEOROLOGICAL

SHORT WINTER SUNSHINE



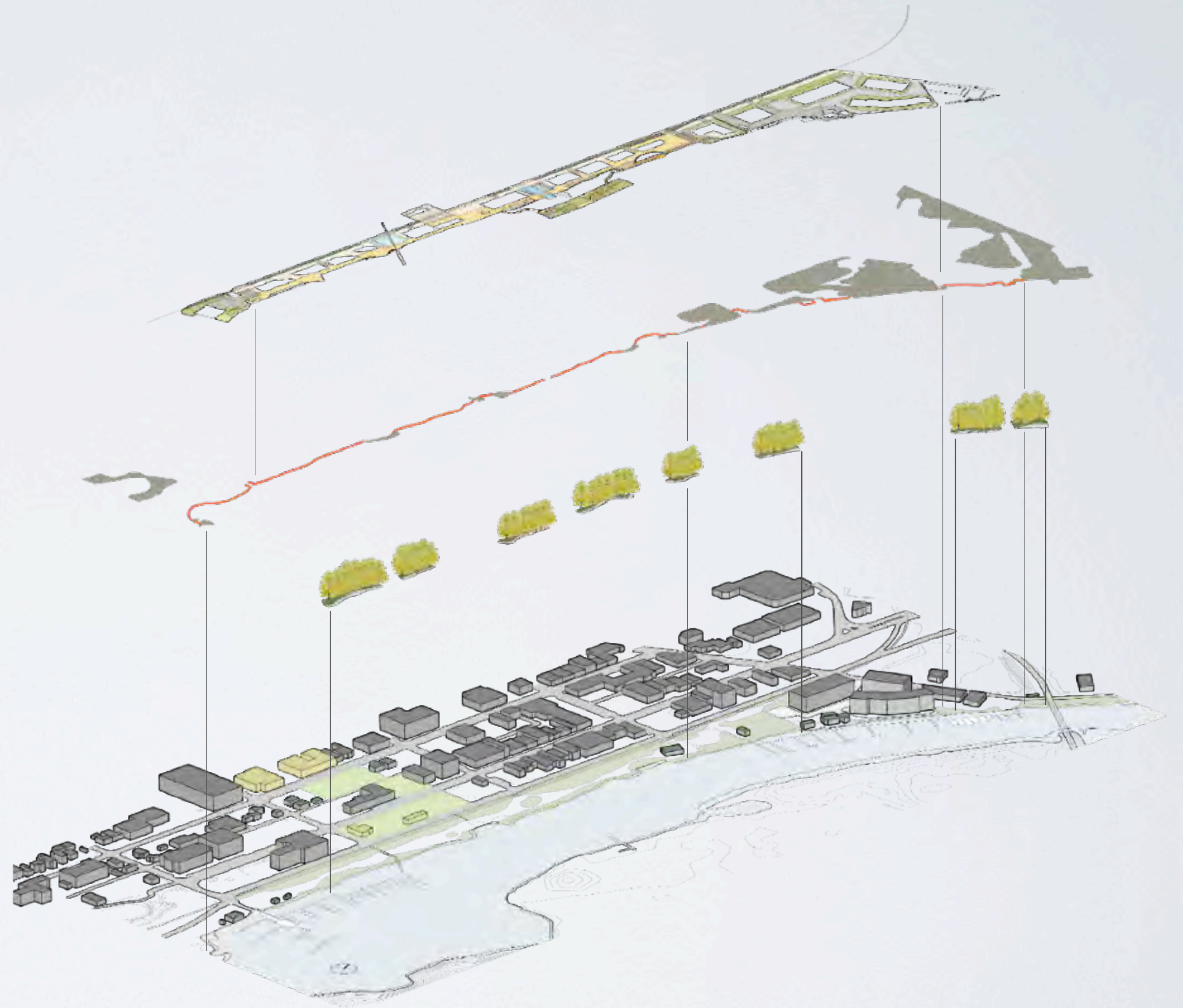
catching the last ray of winter sunshine

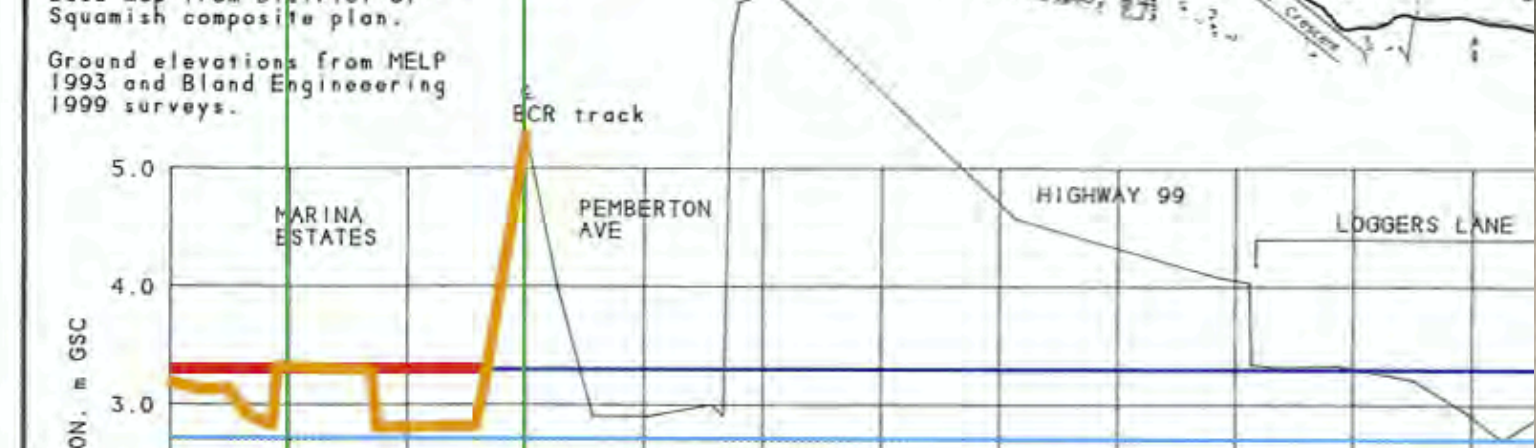
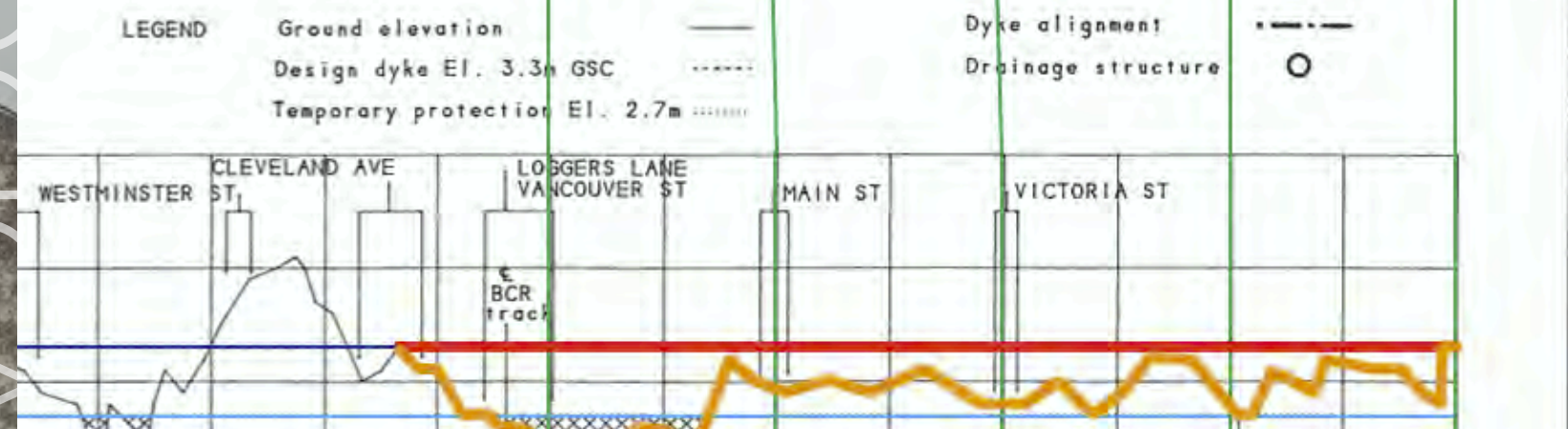
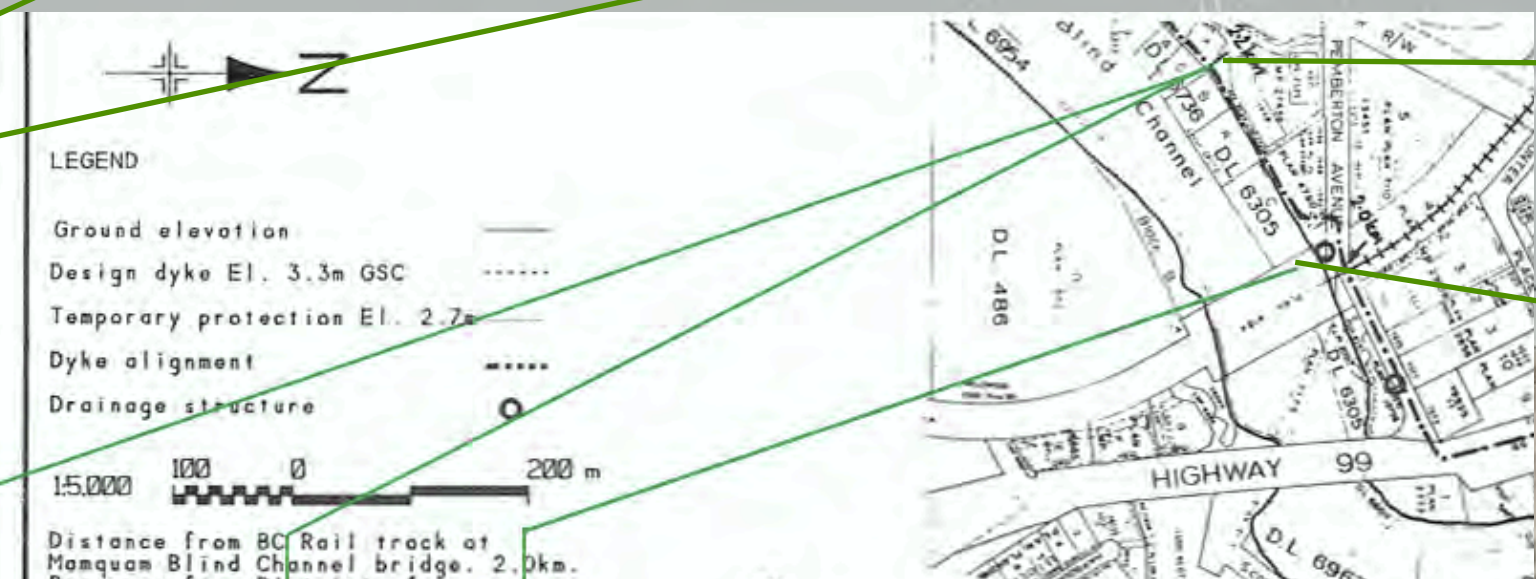
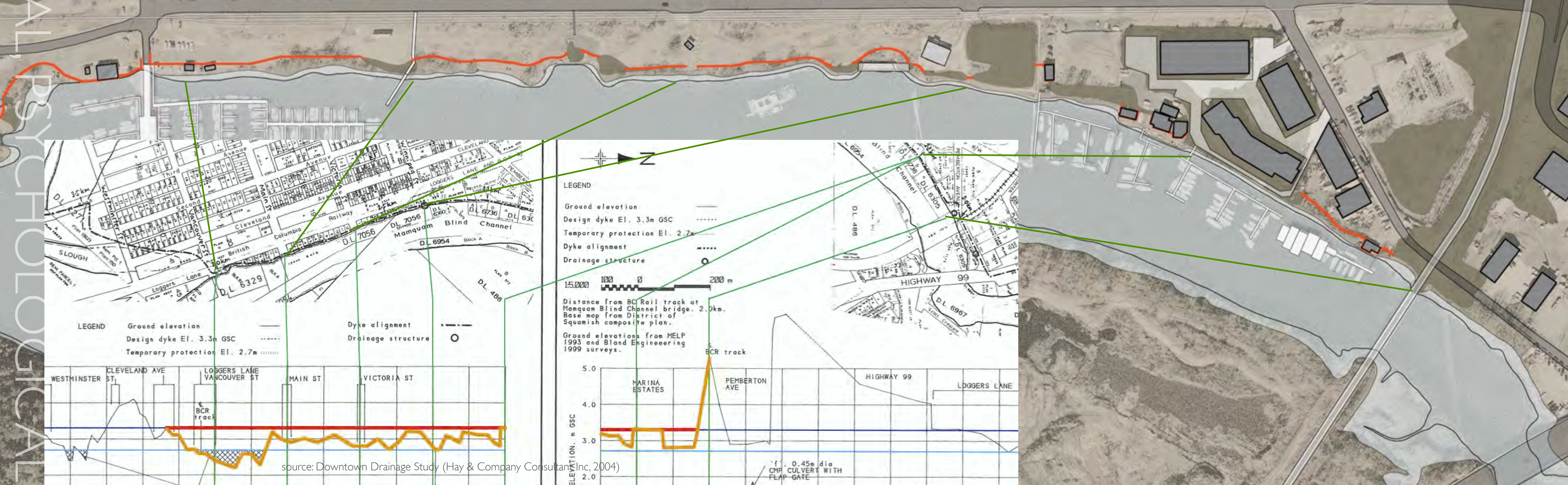
MEOROLOGICAL

EMBRACING CONTESTED INTERESTS

restoring natural habitats vs
building dykes

- enhancing vegetated waterfronts
- minimising disturbance of dyke construction by connecting with high grounds and choosing appropriate construction method
- integrating new developments with dykes



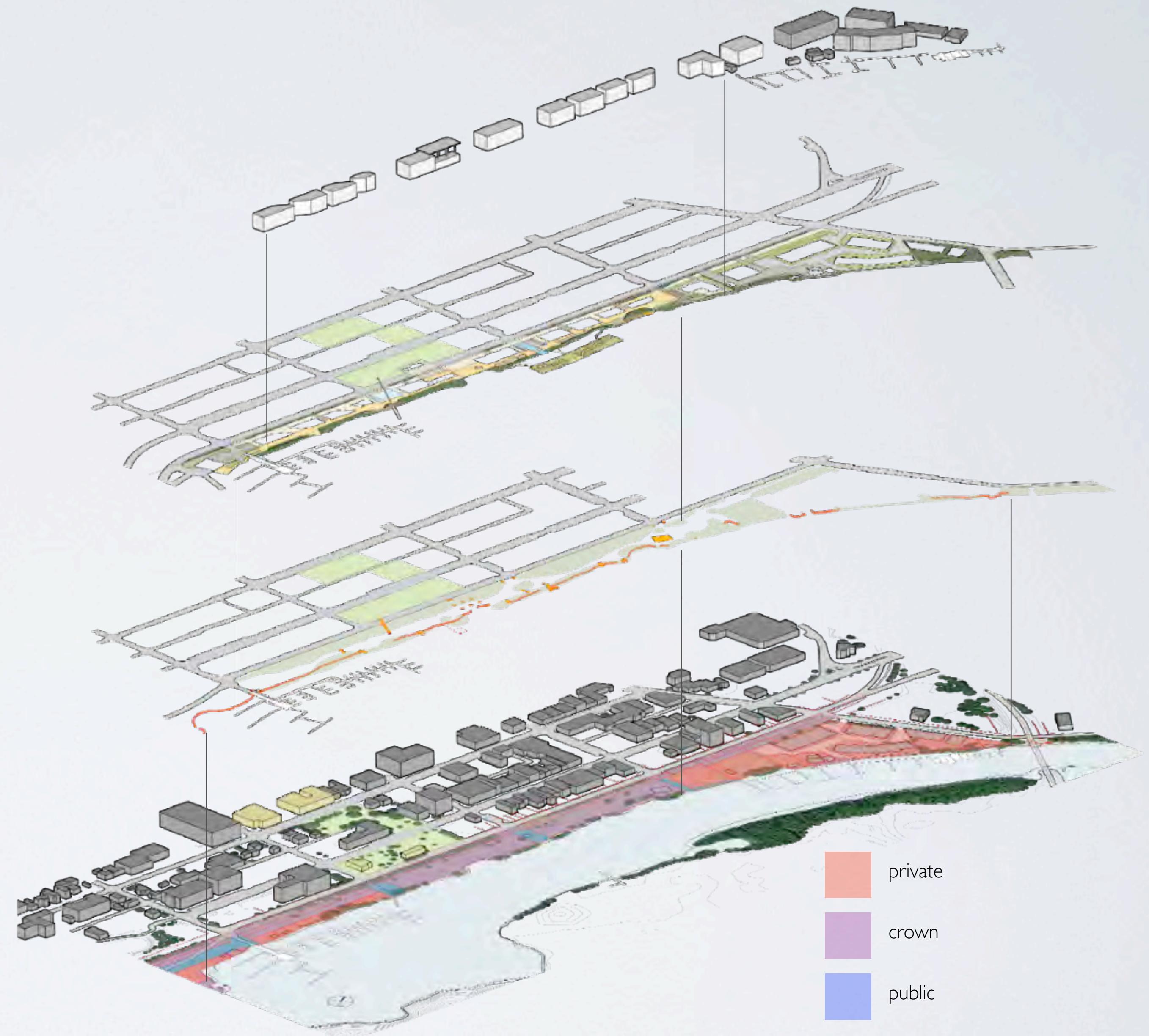


source: Downtown Drainage Study (Hay & Company Consultants Inc, 2004)

EMBRACING CONTESTED INTERESTS

maintaining public access vs
privatising waterfront

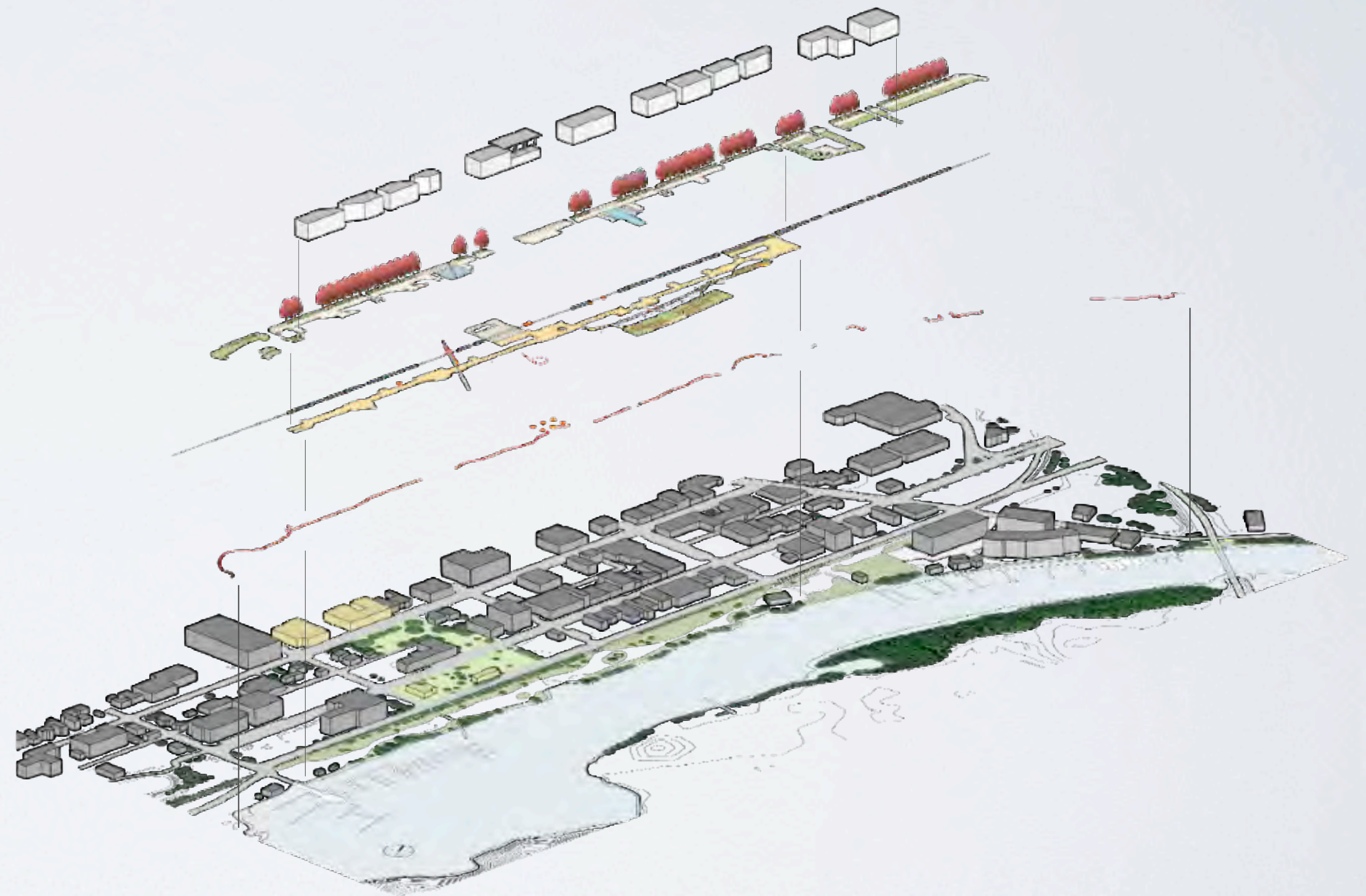
- maintaining existing floor-space ratio (0.9~1.3)
- developing trade-off mechanisms to achieve win-win results
- securing water area to avoid more piers
- connecting with downtown open spaces



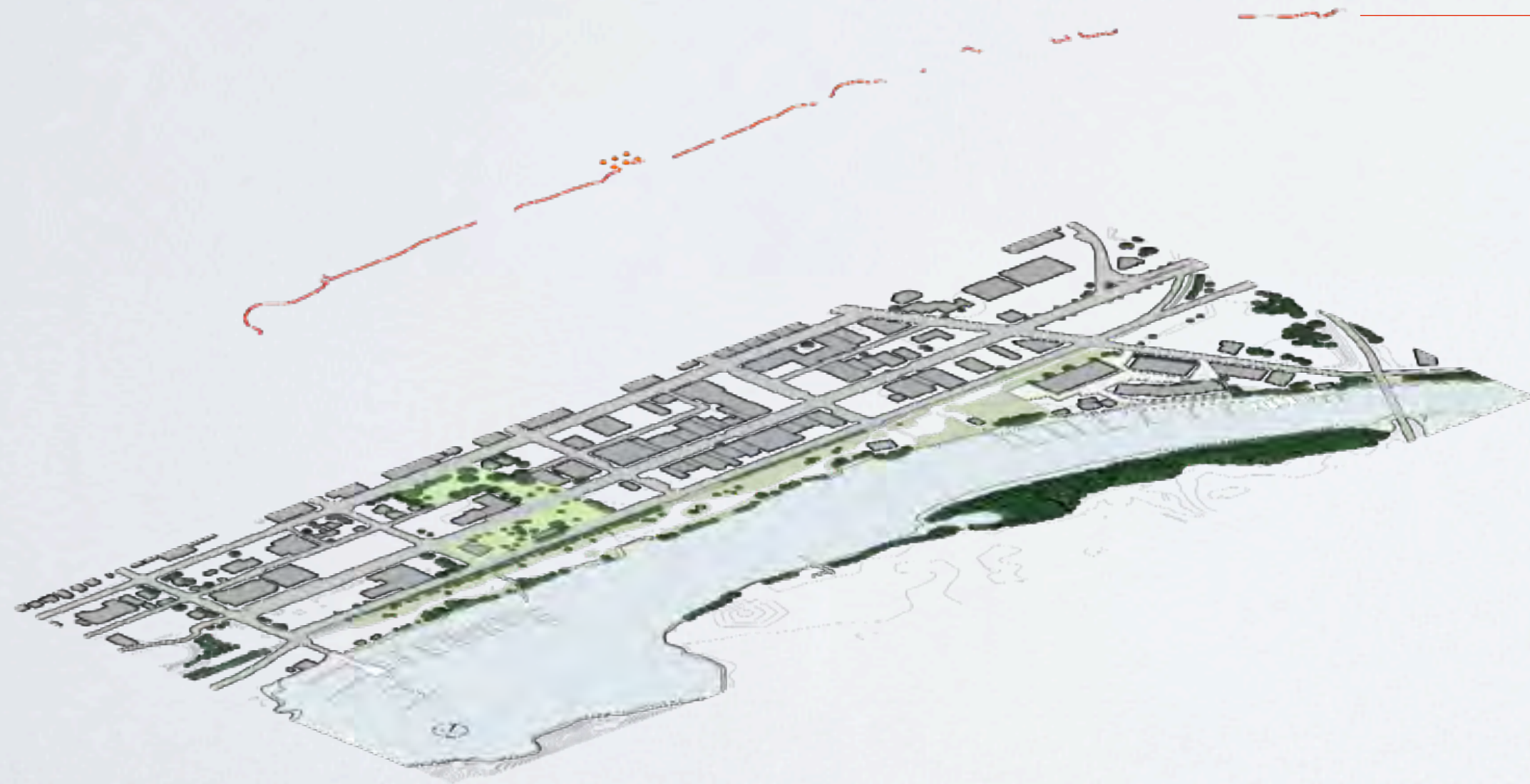
EMBRACING CONTESTED INTERESTS

preserving industrial past vs
introducing new development

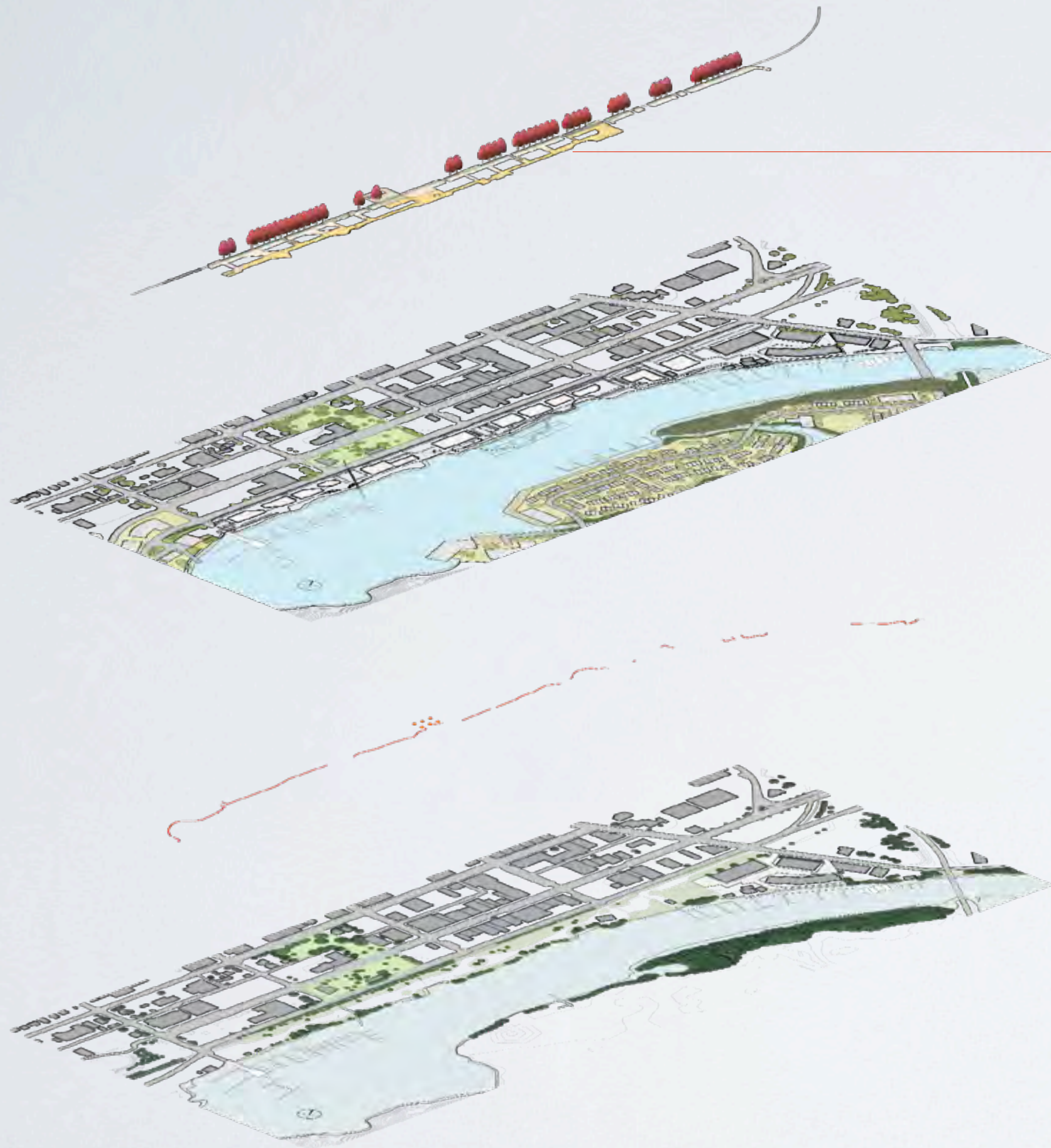
- respecting and articulating significant historical elements
- transforming historical elements into new uses
- introducing appropriate new materials to intrigue dialogues



unified by consisting with motives

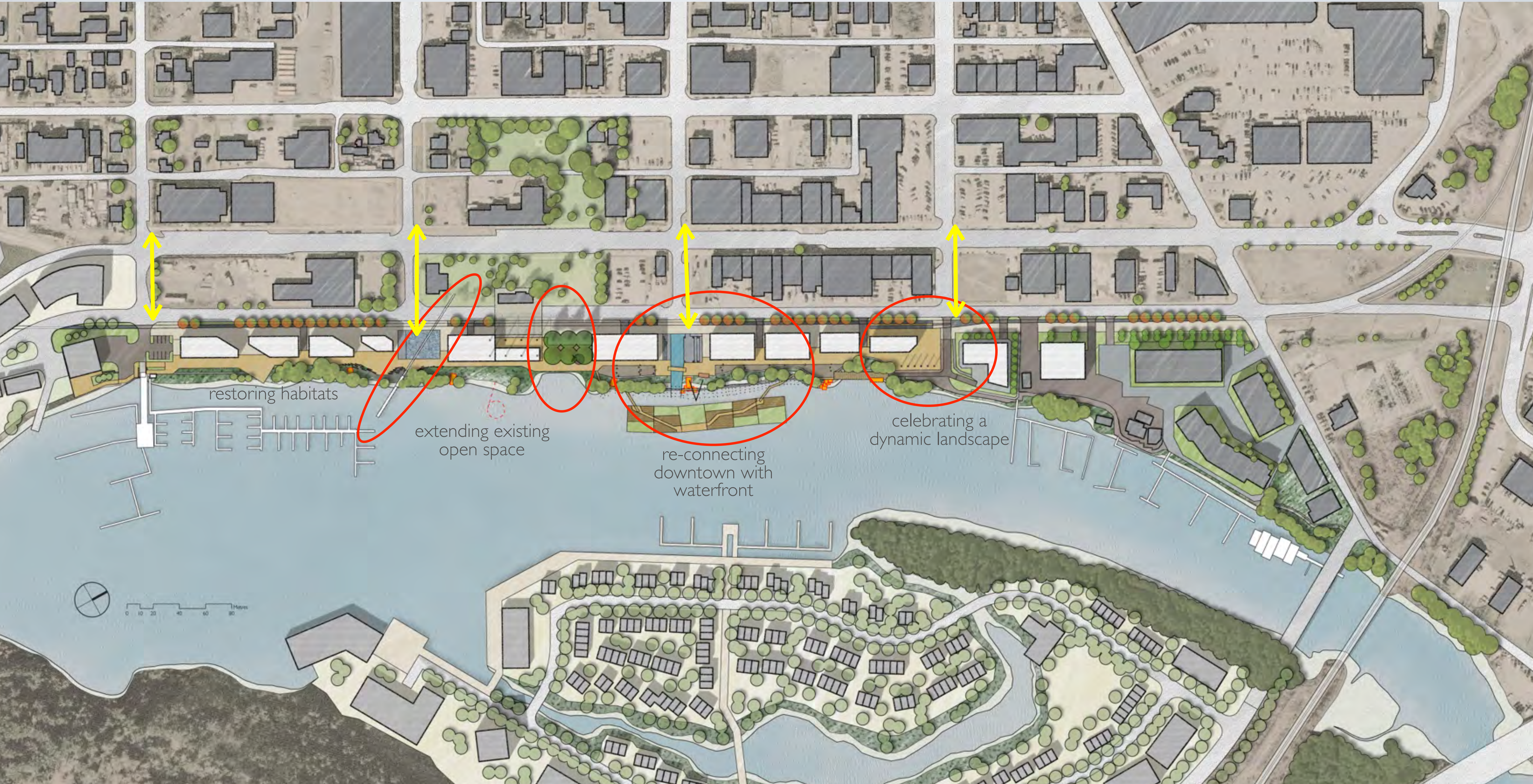


unified by consisting with motives



Norfa-Cypres	Linh sam Douglas duyên hâi	美西鐵杉	Porppurapinhô	Jättitulja
Westamerikanische Hemlocktanne	Red Cedar	Chamaecyparis nootkatensis	Pinus monticola	Sitka-Gran
de Nootka	Sitka Spruce	Sapin gracieuux	Teuga zapadnâa	Pseudotsuga Menziesii
Thông trắng miền tây	Norfanacypressi	Boylu mazi	Sitkeniruoci	Dennenhemlocki
Sitkagroni	Туя складчатая	Abies amabilis	Westliche Weymouth-Kiefer	Douglas fir
de l'Ouest	Callitropsis nootkatensis	Pin argenté	Ель ситхинская	Riesen-Lebensbaum
Pseudotsuga menziesii	美西側柏	Teuga heterophylla	White fir	西加鐵杉
Kaampe-Thuja	Ts'ayis'aykay	Picea de Sitka	Nootka-Scheinzypressen	Kwáiyisay
Пихта МИЛОВИДНАЯ	Ziprer de Nootka	Gran Douglasgran	Thuja plicata	Norfa-Cypres
Sitka-Fichte	Jättitulja	White Pine	Kwéxwmay	美西鐵杉
花旗松	Кипарис кутландский	Porpur-Tanne	يوكيتيرون بيرونث	Туя складчатая
Sitka	Pinus monticola	Linh sam Douglas duyên hâi	Kaampe-Thuja	アメリカツガ(鐵杉)
Thuja plicata	Sitka Jedini	Western Hemlock	Cypres de Nootka	メイマツ(鐵杉)
de	Douglaslauci	Westliche Weymouth-Kiefer	Sitka-Gran	Abies amabilis
White Pine	Bâchi Nootka	Douglasie	Teuga heterophylla	Qapalyai
Dennenhemlocki	يوكيتيرون بيرونث	Sapin gracieuux	Épincite de Sitka	Gl'isay'
Abies amabilis	Ts'its'ichéyay'	Thông trắng miền tây	Chamaecyparis nootkatensis	Westamerikanische Hemlocktanne
Nootka	Red Cedar	Pseudotsuga menziesii	Sitkagroni	Пихта МИЛОВИДНАЯ
Ts'ayis'aykay	阿拉斯加扁柏	Bruche de l'Ouest	メイスキ(鐵杉)	Picea sitchensis
Ель ситхинская	Porppurapinhô	Kjellhméy'	Pin argenté	Douglas fir

dedicated to people of Squamish



Mamquam Blind Channel: an endless story



Do you know what time is Mamquam Blind Channel now?