

RAV Fill: Public Opportunity

— [Rescuing Fill to help build the City



Balfour & Co. Architect

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RAV Fill as Public Asset

- [Floodproofing of lowland areas/rising oceans
- [New Highway construction and ferry terminal
- [New Public lands: Islands and beach expansion
- [New housing sites, new marina sites, live-aboard sites.
- [Making sure we do not pollute the ocean.

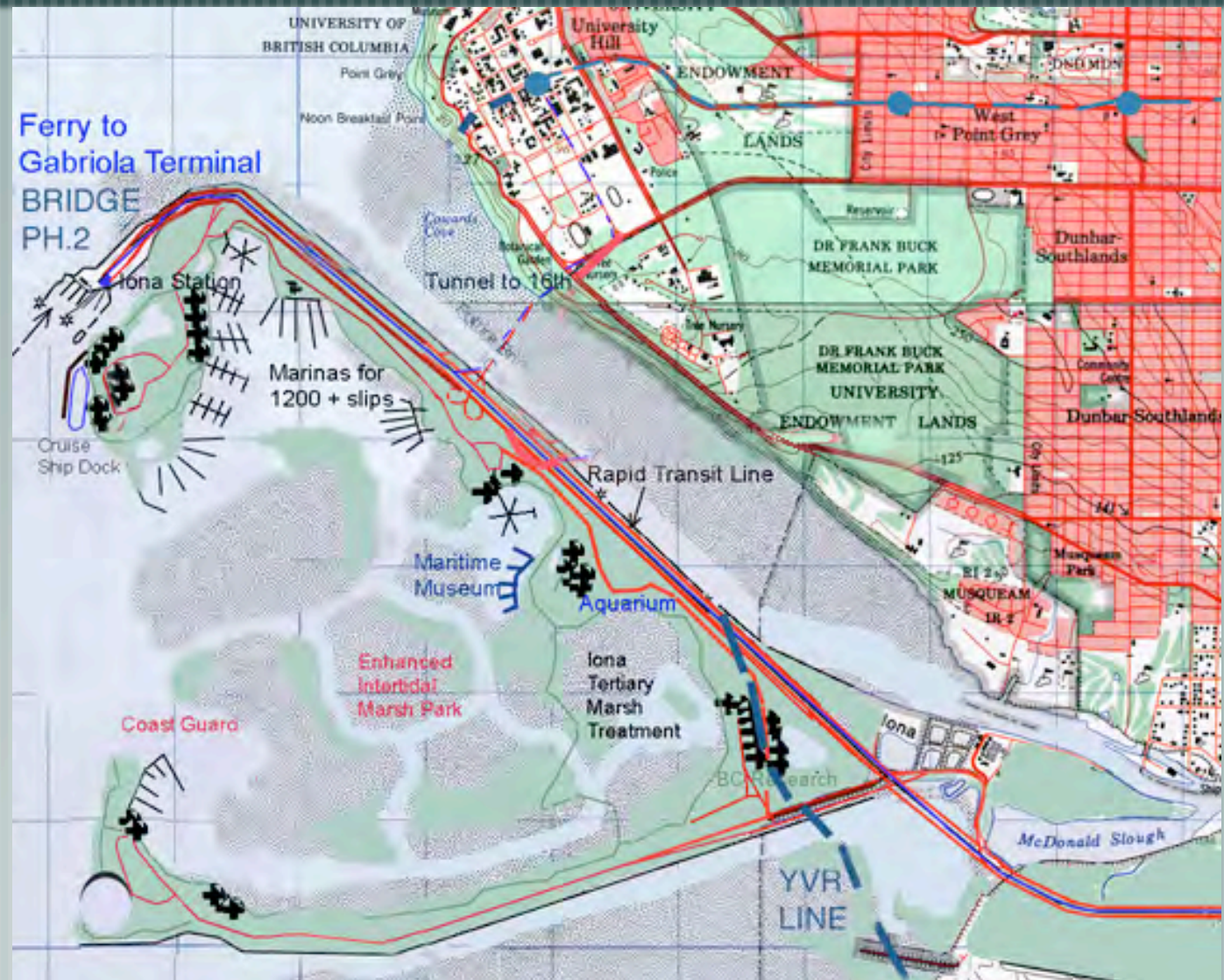
RAV Fill: Liberating an Asset

- [The volume of fill is valued at \$20-\$30 Million
- [The value of new highways, parks= \$0.5 billion
- [New works can also increase environment & habitat
- [Iona Terminal = immediate Island access by Vancouver
- [Iona route improves YVR/Island, UBC to South of Fraser



The Iona Causeway & Park

Habitat+



RAV Line Fill Volumes

Causeway to ferry

Islands for parks

New Beaches

Volume of Excavated Materials and Surplus Materials for Disposal

Item	Volume	Comment
Total Volume of Excavated Material	768,000 m³	- from Vancouver segment cut-and-cover and bored tunnels, and cut-and-cover stations
Material Not Suited for Other Uses or Disposal at Sea	minus 28,000 m ³	- pavement, concrete, waste soils
Material to be Re-used on RAV Project	minus 105,000 m ³	- engineering fill to be used as backfill
Material Valued for Other Uses	minus 27,000 m ³	- rock
Maximum Volume of Material Suitable as Engineering Fill on Other Projects or for Disposal at Sea (assumes no contamination)	608,000 m³	- Disposal at Sea will be considered if no suitable economical local land based disposal options available once excavation is underway

The proposed excavation schedule for tunnels and stations is shown in **Figure 1**. The majority of excavation and, therefore, the greatest volume of material will be removed from the latter part of 2006 through the end of 2007.

Figure 1 – Excavation Schedule

Primary Excavation Activities	2006	2007	2008
Cambie cut-and-cover tunnel (starting with 63 rd Ave end and progressing northward to 2 nd Ave)	██████████	██████████	
Downtown cut-and-cover tunnel (South side of Dunsmuir to Waterfront Station)		██████████	
Bored tunnel (2 sequential northbound passes from 2 nd Ave)	██████████	██████████	
Underground stations (cut-and-cover for Waterfront and stations south of False Creek; bored and cut-and-cover for Davie and Robson stations)		██████████	

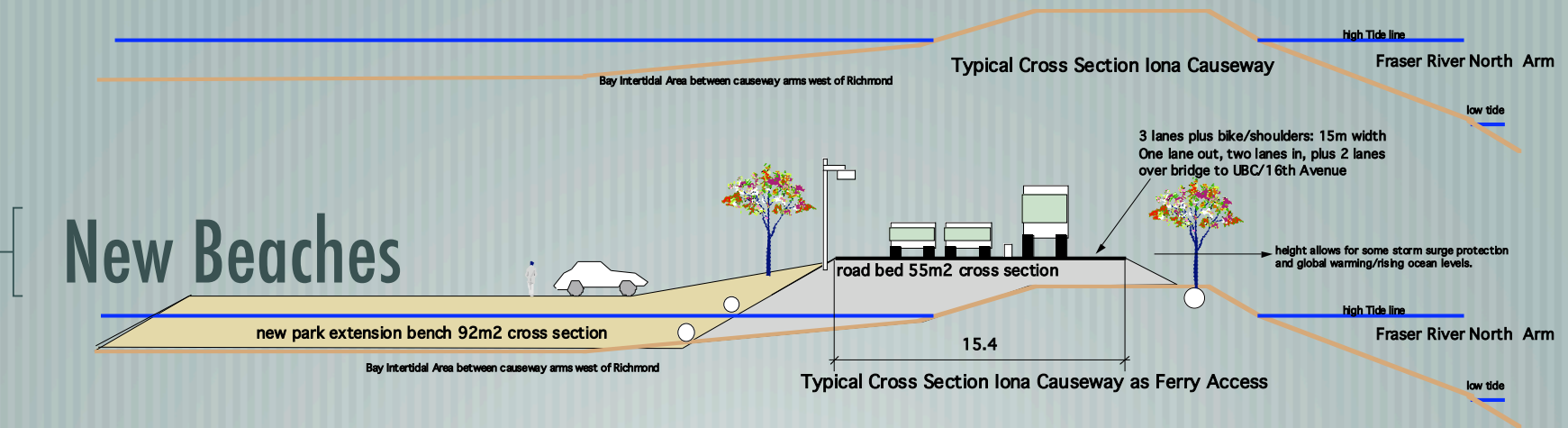
Vancouver's Best Beach

— [Iona Spit



Causeway fill = 2/3 RAV

RAV line fill and the Iona Connector to the New Vancouver Ferry Terminal
(Iona to Gabriola travel time = one half of other existing routes.) See Terminal and Connector Concept Plans)



New Causeway about 8 km; 8000m
Highway part of fill= 400,000m³
Beach irregular area about 4000m x 100m²= 400,000m²

RAV Line excavation, tunnel parts example: 8 km
Minimal cross section of one tunnel example with outer structures 30m², 50m² for two.
Approximate surplus fill materials: 50 x 8000m= 400,000
This would allow for at least the roadway to be constructed, and the dredged sand from the North Arm clearing would provide the sand for the beach park over 10 years.

Vancouver City Planning Commission

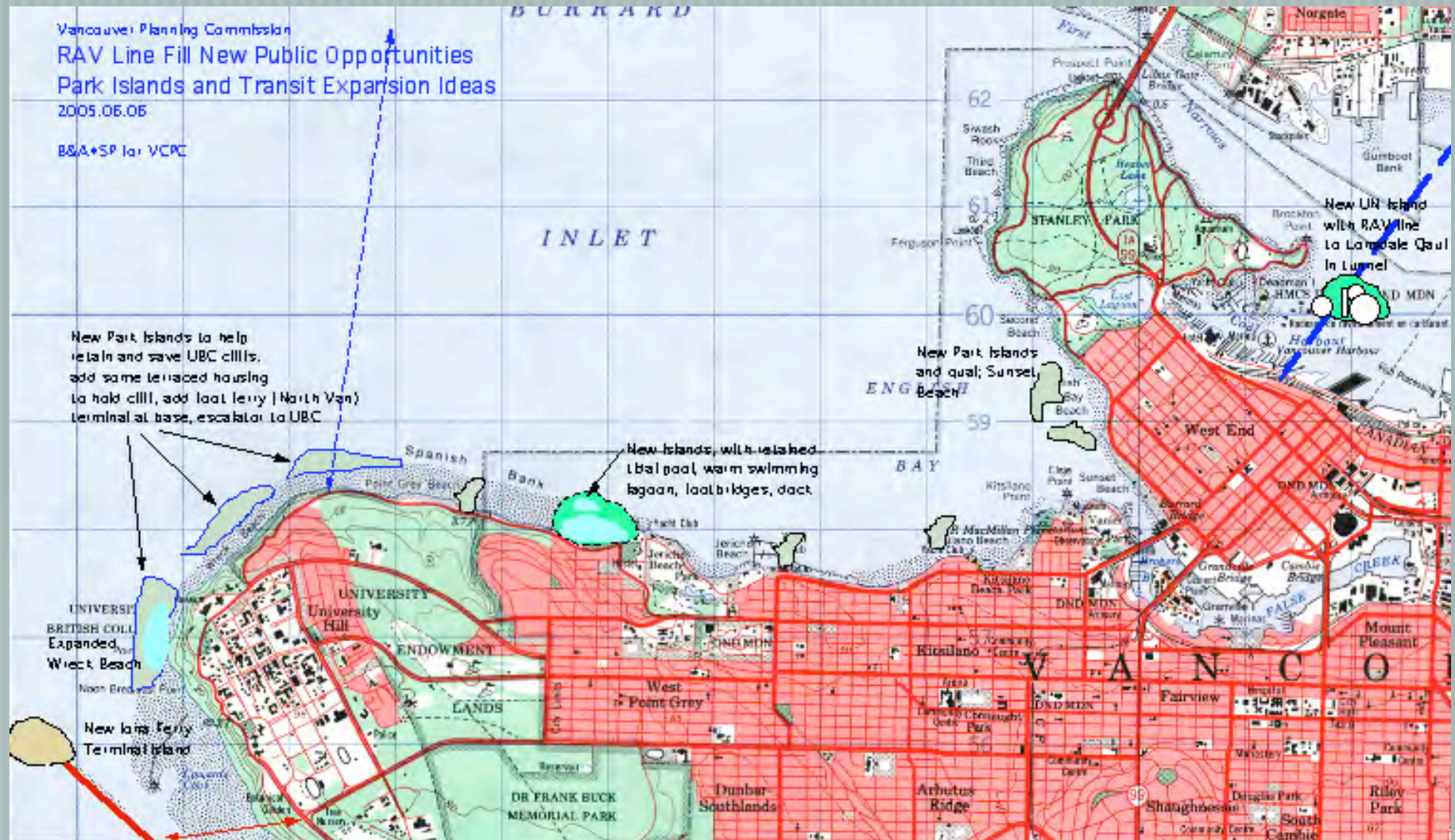
Strategic Planning Committee • Discussion Paper 2005.12 12
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Iona Causeway & Beaches

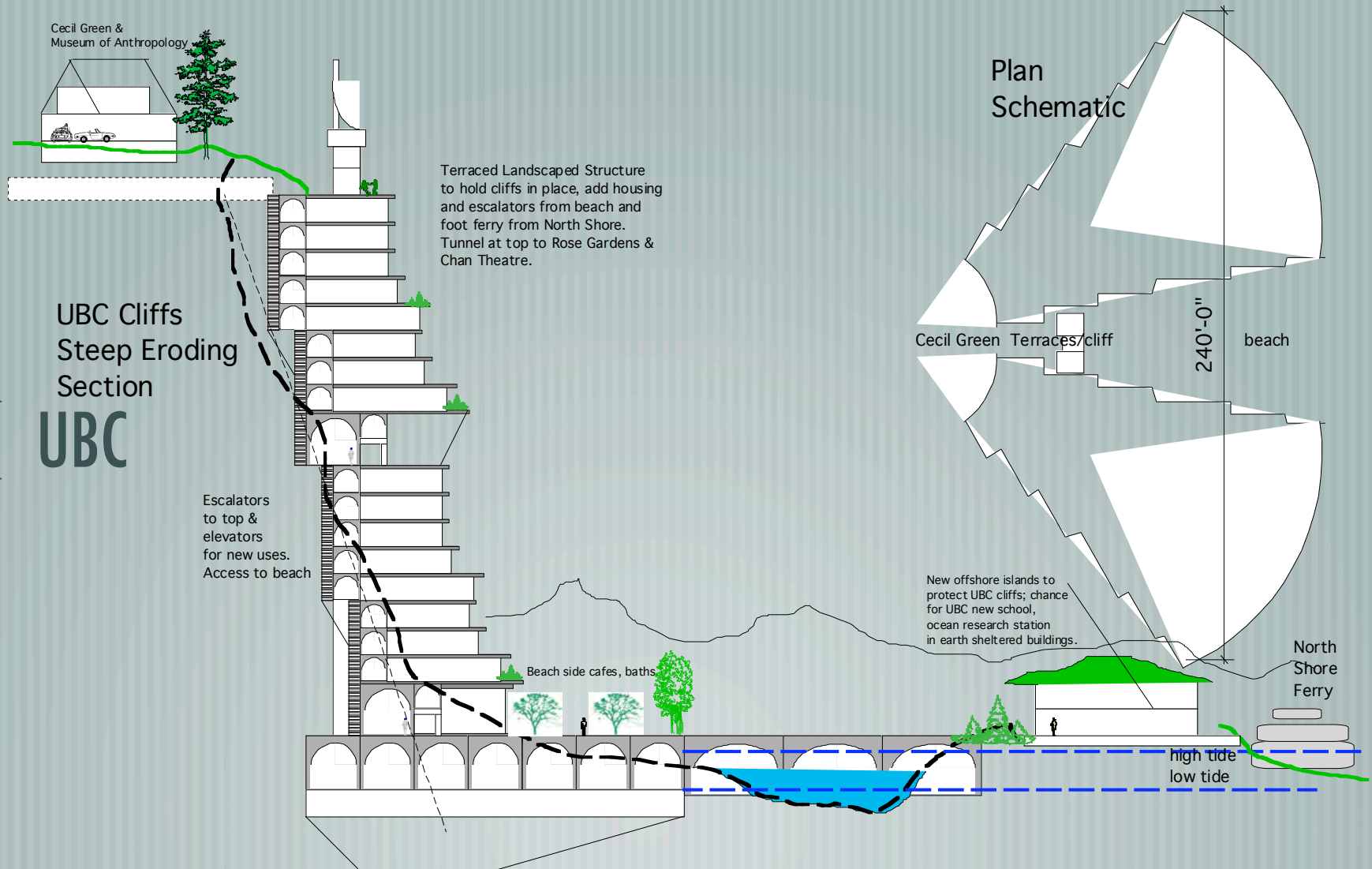
— [North Arm



New Island Parks



UBC Islands & Cliffs



UBC Cliffs, Water Access

UBC



New Park Islands

— [Jericho



Iona Route / Foreshore Park

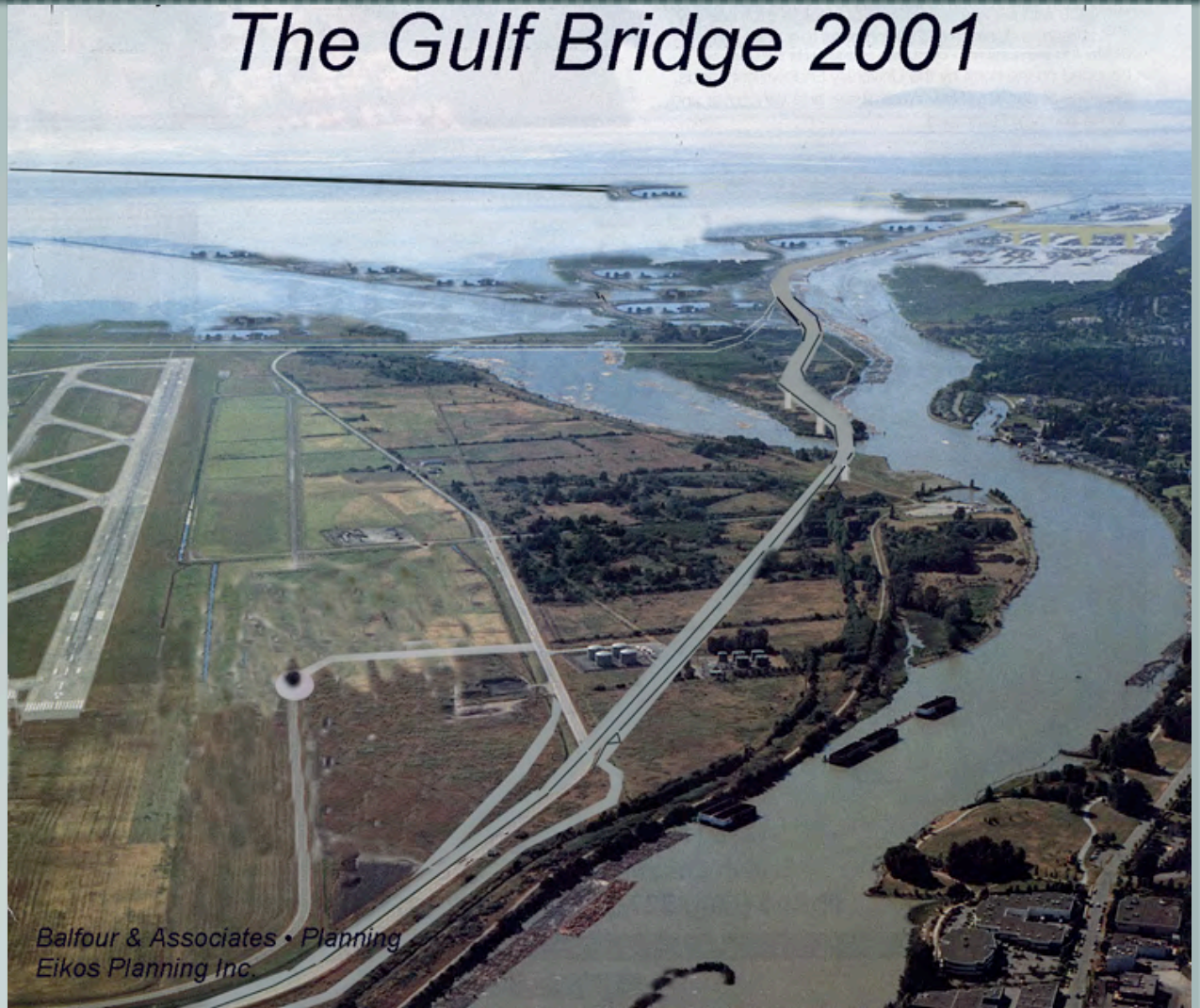
— [Airport/Island



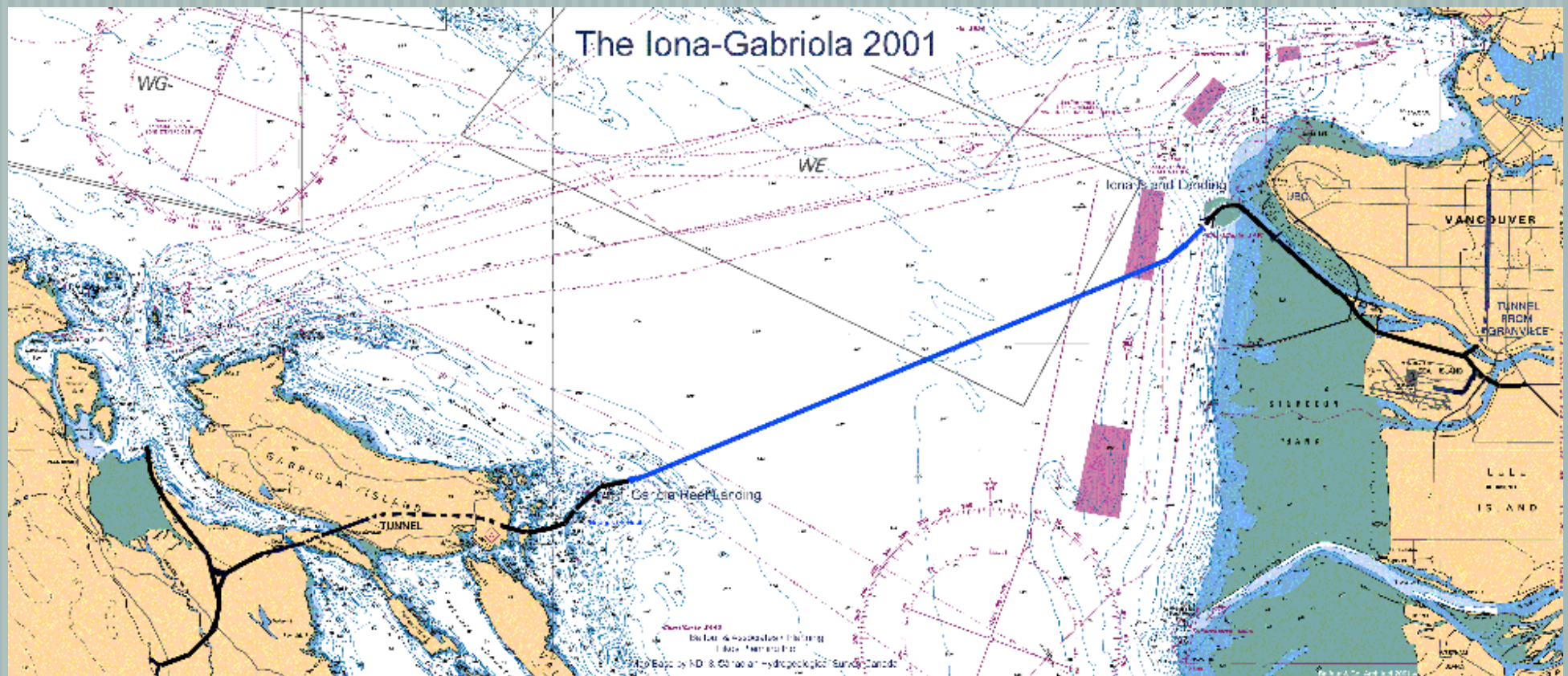
Urban Centre Connector

The Gulf Bridge 2001

— [After ferries...



Mediterranean Cities



Creating Public Real Estate

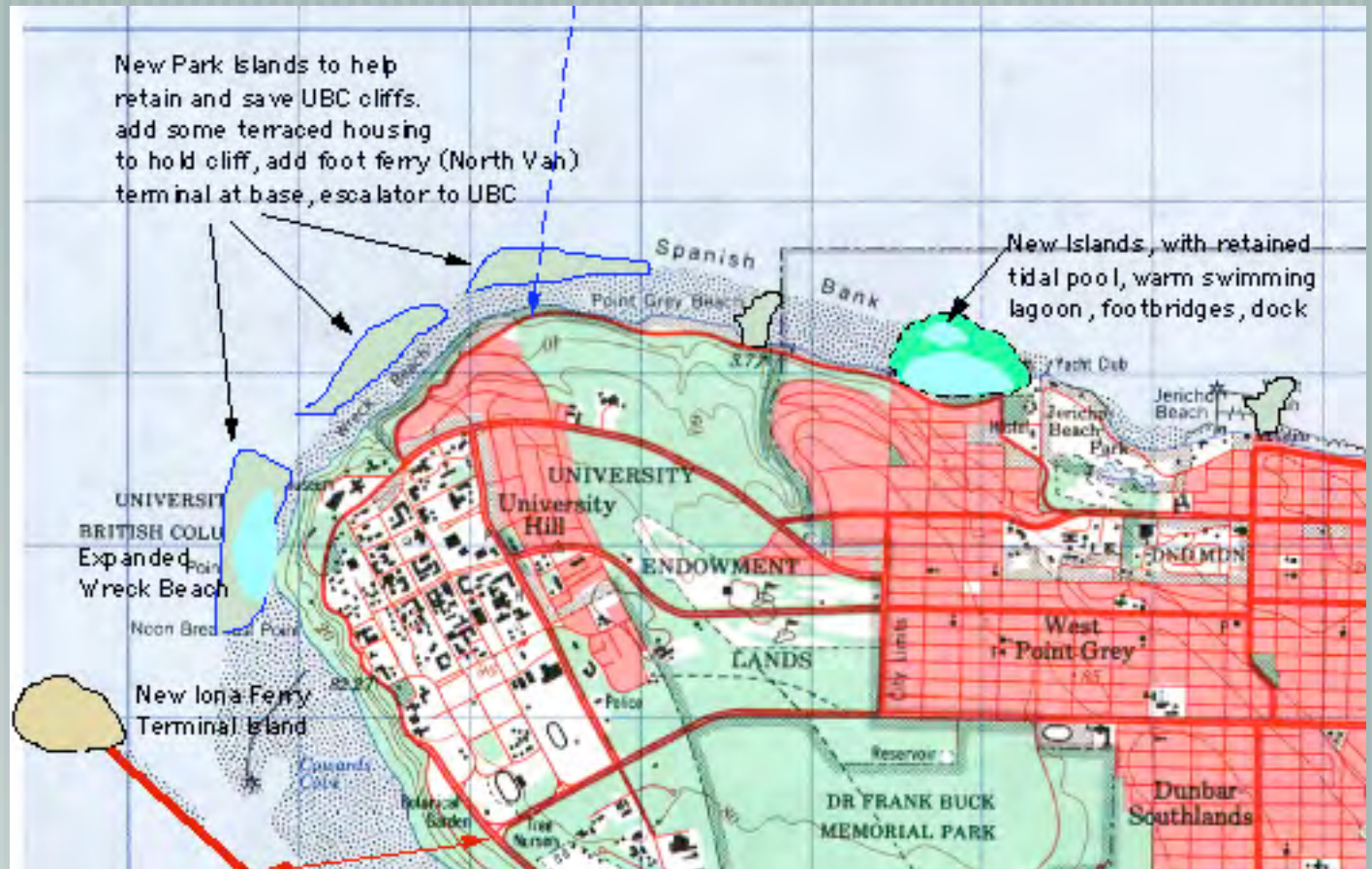
- [Iona Terminal route also opens best beaches/Metro area
- [UBC islands help save UBC cliffs, real estate, buildings
- [UBC islands open foot ferry option from North Shore
- [UBC islands may open new building sites with parks
- [Jericho Islands gives warm water lagoon/birds + people.

UBC Cliff Protection+

Jericho

Wreck Beach

New Spits



Downtown fill= Park Islands

- [Short haul by barge: Sunset Beach protection
- [New spit islands allow beach building by nature
- [Inner Harbour Island opens RAV line north
- [Inner Harbour Island adds new symbolic secure office zone

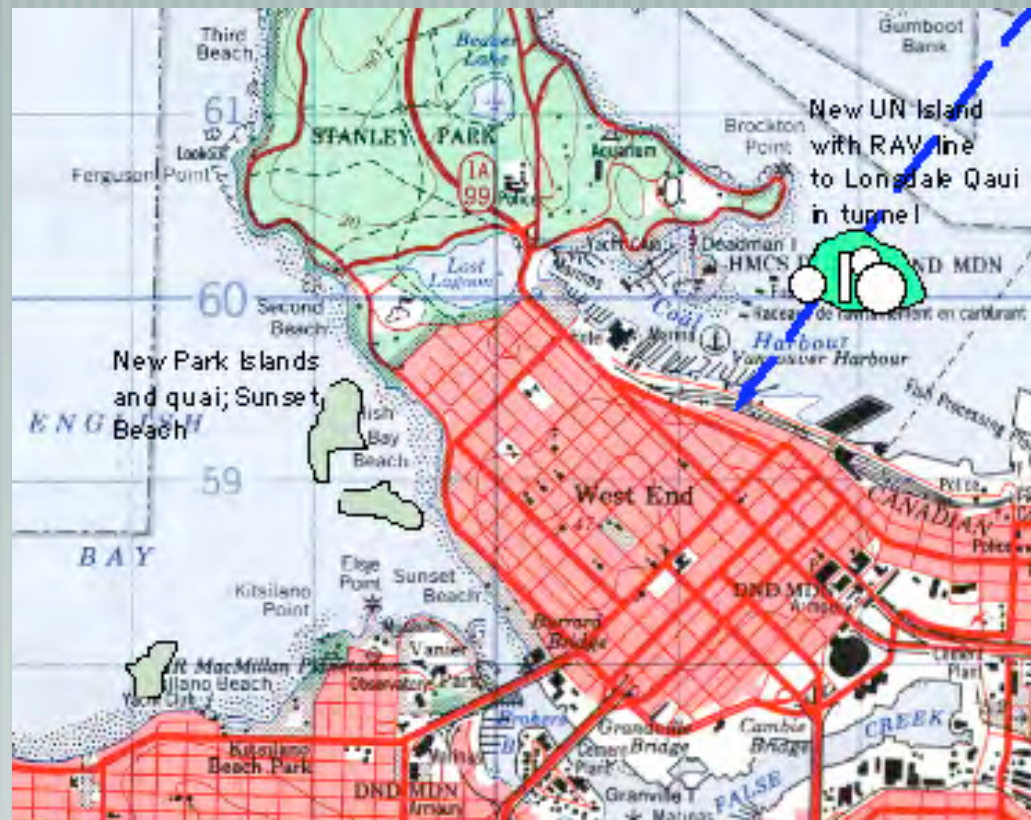
Inner City Islands

Coal Harbour

Sunset Beach

Kits Island Park

RAV line north.



RAV Fill: Public Opportunity

— [Public Bodies Need to Act Quickly:

— [Cities: Parks, Engineering, Council

— [GVRD: Parks, Planning.

— [Translink: new transportation choices.

— [Province, Highways, Ferry Authority.

Vancouver : West

— [New Focus

