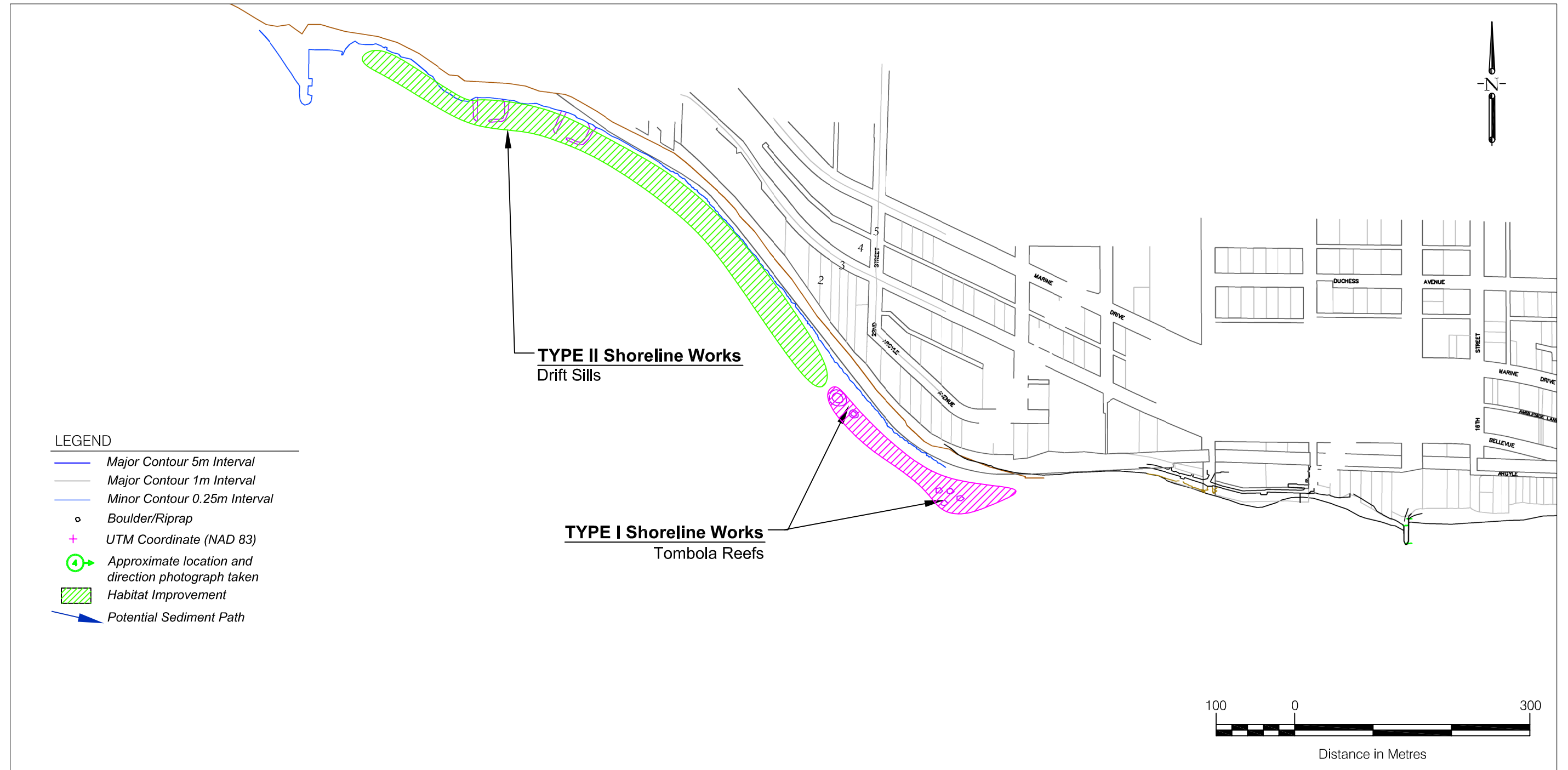


APPENDIX D
Future Project Drawings

WEST VANCOUVER SHORELINE PRESERVATION PHASE 2 PILOT PROJECT LOCATION LAYOUT



		Client	Author	Checked by	XIE	PROJECT
		 THE WATERFRONT COMMUNITY	 118 Garden Ave. North Vancouver, B.C. CANADA V7P 3H2 Tel: 604.983.3111 Fax: 604.983.3454	Drawn by	DB	PHASE 2 PILOT PROJECTS LOCATION LAYOUT WEST VANCOUVER, BRITISH COLUMBIA
				Date	Dec. 12, 2007	
				Scale	AS NOTED	
				Inspectors	WA/XIE/DC	
				Paper	11 x 17	
Ref. No.	REFERENCE					DWG. No. 2949-Y2-01A-R2









WEST VANCOUVER SHORELINE PRESERVATION PHASE 2 PILOT PROJECT PROPOSALS

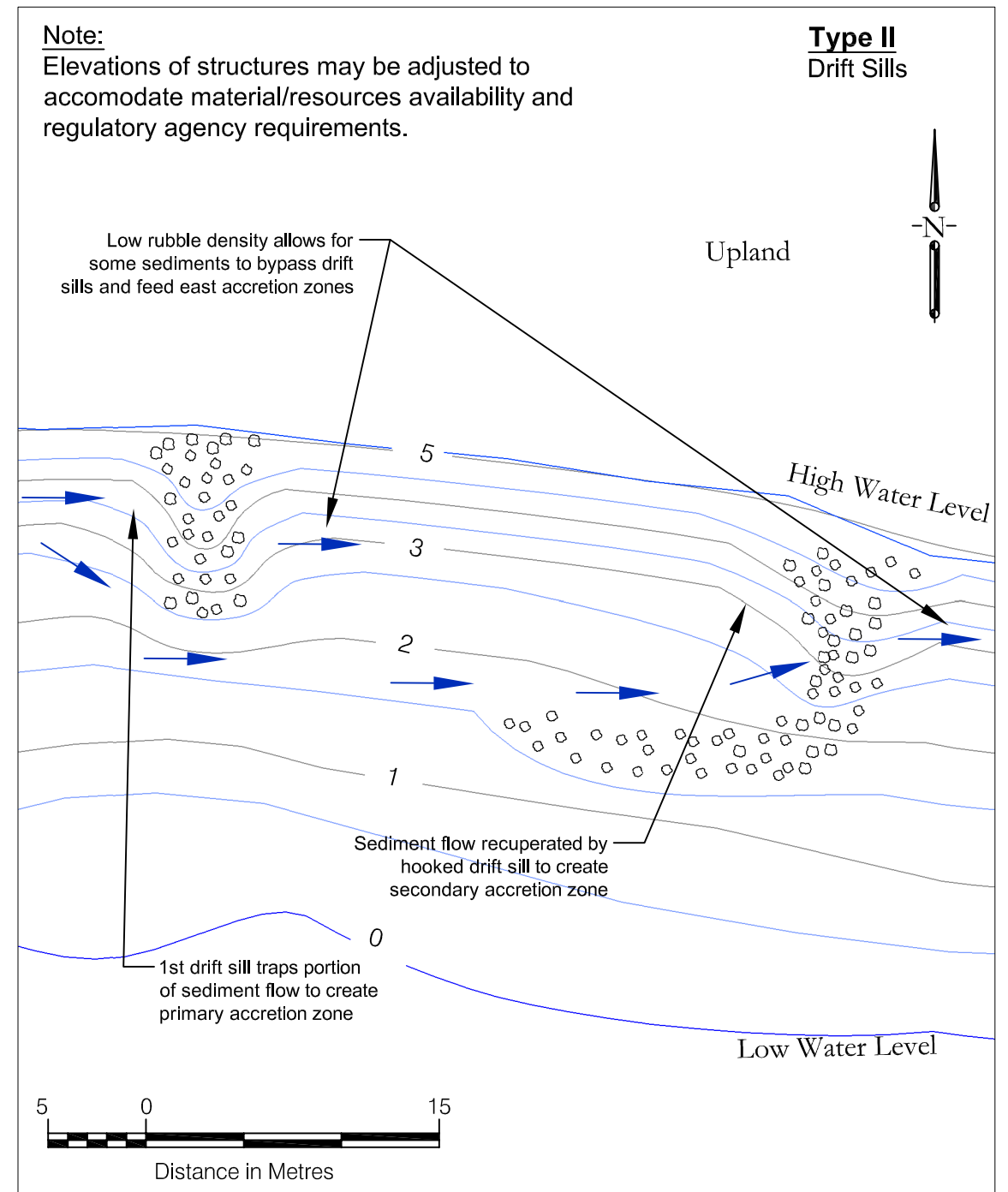
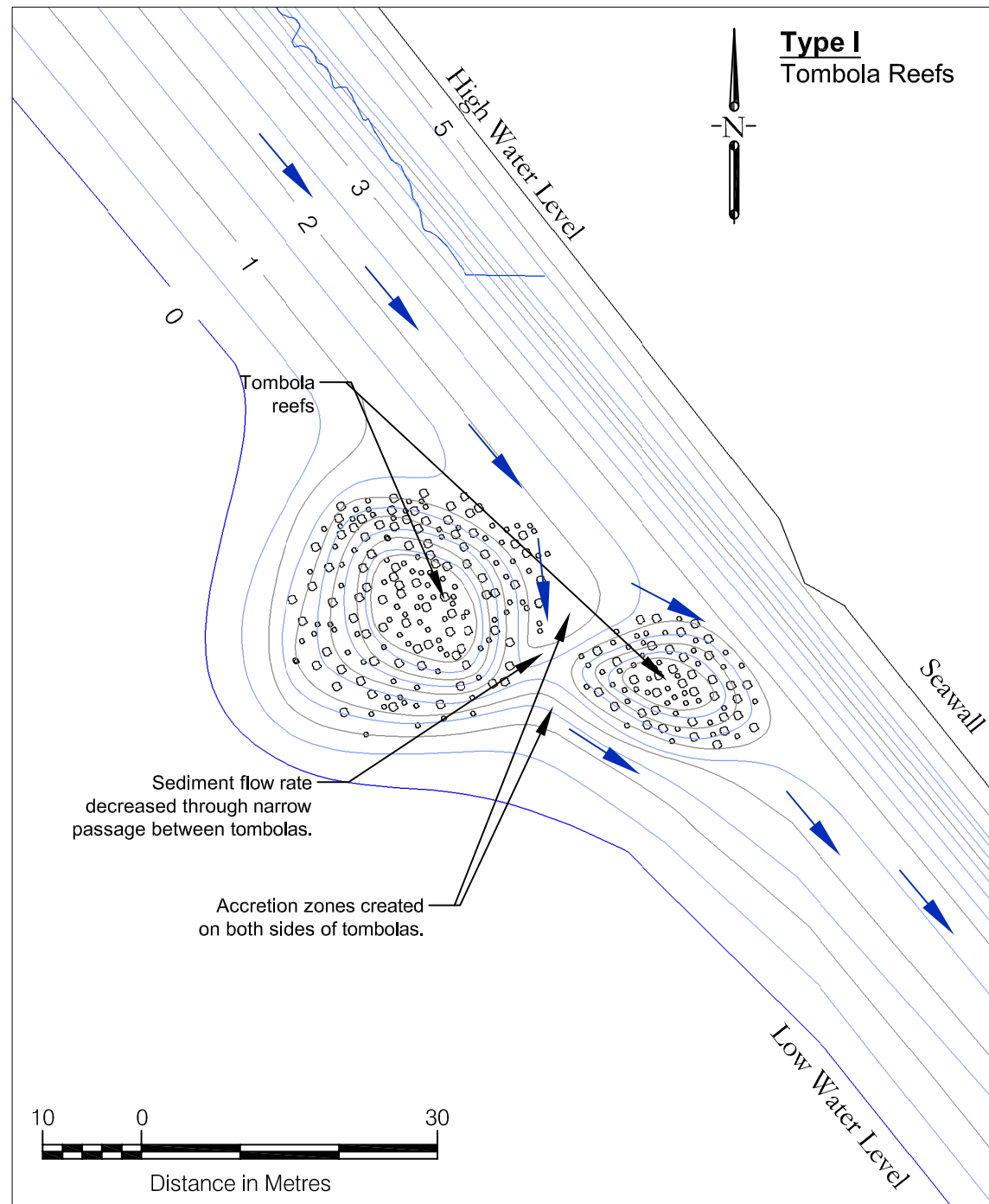
PROJECT DESCRIPTION

The purpose of these works is to improve the shoreline profile and sediment erosion from wave action. This is achieved by introducing a variety of rock mound structures that appropriately direct sediment flow and accretion in order to create naturally occurring accretion zones that will encourage longterm stability of the shoreline, disrupt incident wave action and improve habitat value.

Two mechanism types are shown that work in different ways to control littoral sediment transport. Type I illustrates the use of two 'tombola' reef structures to broaden the surf zone by triggering waves to break. This disruption reduces the concentration of wave energy against the rip rap and allows for a more effective sediment accretion zone in the area around these structures. Type II shows how rock drift sills can be employed in tandem to catch sediment flow in two steps while still allowing a portion to accumulate on the far side of each sill.

LEGEND

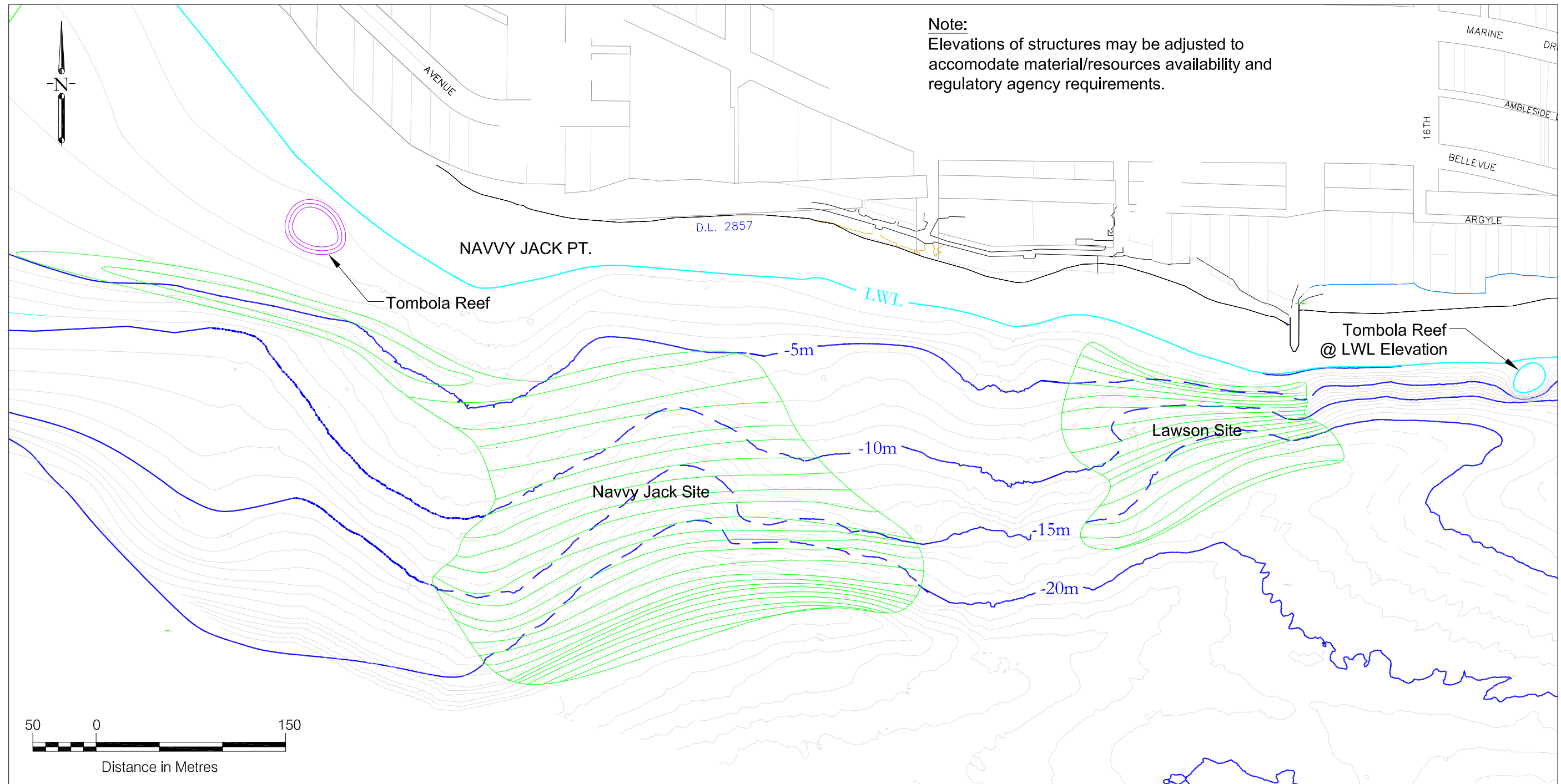
-  Major Contour 5m Interval
-  Major Contour 1m Interval
-  Minor Contour 0.25m Interval
-  Boulder/Riprap
-  UTM Coordinate (NAD 83)
-  Approximate location and direction photograph taken
-  Habitat Improvement
-  Potential Sediment Path



Note:
Elevations of structures may be adjusted to accommodate material/resources availability and regulatory agency requirements.

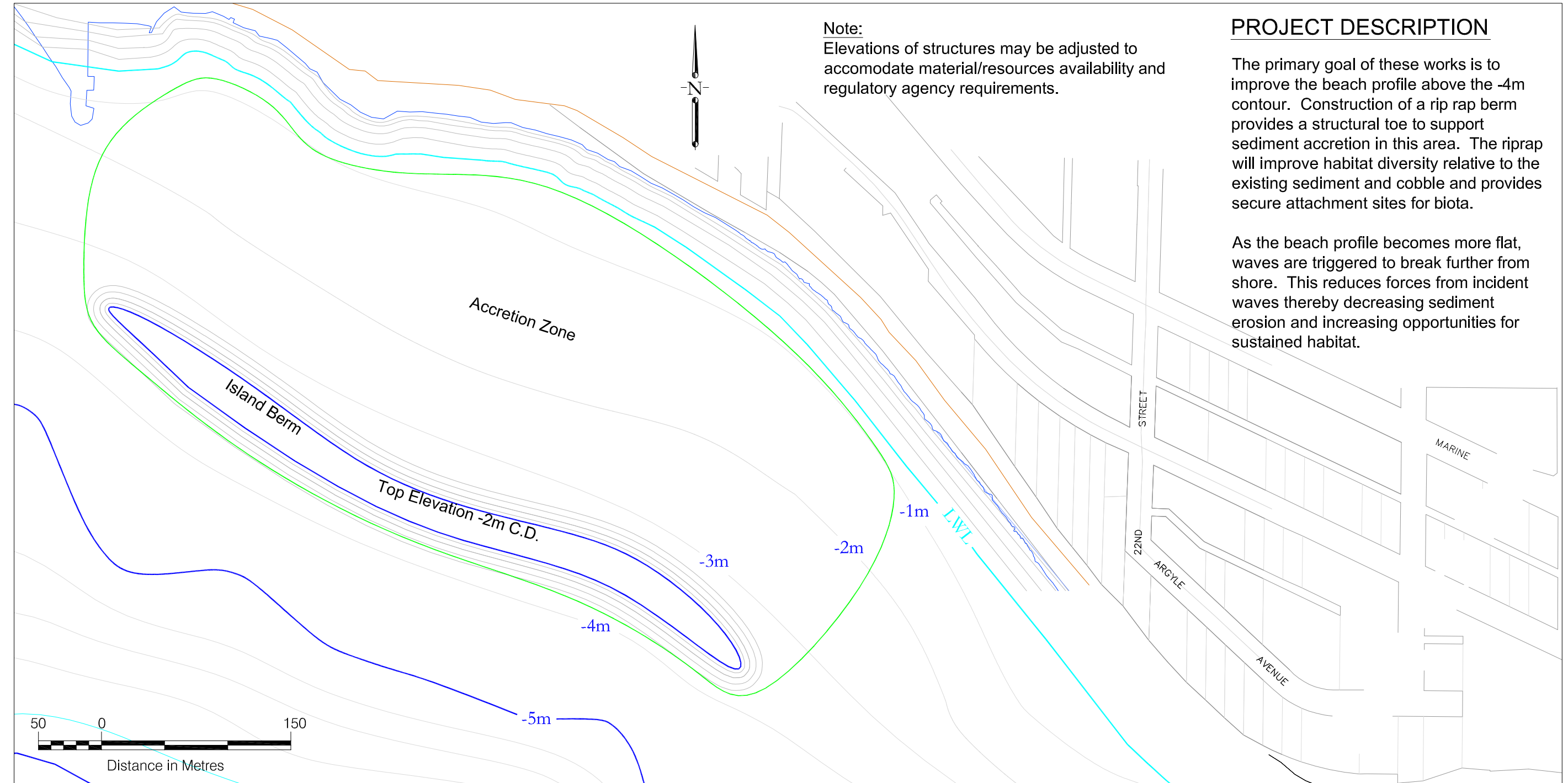
		Client	Author	Checked by	XIE	PROJECT
		 THE WATERFRONT COMMUNITY	 118 Garden Ave. North Vancouver, B.C. CANADA V7P 3H2 Tel: 604.983.3111 Fax: 604.983.3454	Drawn by	DB	PHASE 2 PILOT PROJECTS TYPES I & II WEST VANCOUVER, BRITISH COLUMBIA
				Date	Dec. 12, 2007	
				Scale	AS NOTED	
				Inspectors	WAXIE/DC	
				Paper	11 x 17	
Ref. No.	REFERENCE					DWG. No. 2949-Y2-01B-R2

WEST VANCOUVER SHORELINE PRESERVATION PHASE 2 MAJOR CAPITAL PROJECTS - EAST LAYOUT



Ref. No.	REFERENCE	<p>Client</p>  <p>THE WATERFRONT COMMUNITY</p>	<p>Author</p>  <p>118 Garden Ave. North Vancouver, B.C. CANADA V7P 3H2 Tel: 604.983.3111 Fax: 604.983.3454</p>	Checked by XIE	<p>PROJECT</p> <p>PHASE 2 MAJOR CAPITAL PROJECTS EAST LOCATION LAYOUT WEST VANCOUVER, BRITISH COLUMBIA</p>
				Drawn by DB	
Date Dec. 12, 2007					
Scale AS NOTED					
Inspectors WA/XIE/DC					
Paper 11 x 17	DWG. No. 2949-Y2-02B-R2				

WEST VANCOUVER SHORELINE PRESERVATION PHASE 2 MAJOR CAPITAL PROJECTS - WEST LAYOUT



Note:
Elevations of structures may be adjusted to accommodate material/resources availability and regulatory agency requirements.

PROJECT DESCRIPTION

The primary goal of these works is to improve the beach profile above the -4m contour. Construction of a rip rap berm provides a structural toe to support sediment accretion in this area. The riprap will improve habitat diversity relative to the existing sediment and cobble and provides secure attachment sites for biota.

As the beach profile becomes more flat, waves are triggered to break further from shore. This reduces forces from incident waves thereby decreasing sediment erosion and increasing opportunities for sustained habitat.

Ref. No.	REFERENCE	Client	Author	Checked by	XIE	PROJECT PHASE 2 MAJOR CAPITAL PROJECTS WEST LOCATION LAYOUT WEST VANCOUVER, BRITISH COLUMBIA
		 THE WATERFRONT COMMUNITY	 118 Garden Ave. North Vancouver, B.C. CANADA V7P 3H2 Tel: 604.983.3111 Fax: 604.983.3454	Drawn by	DB	
				Date	Dec. 12, 2007	
				Scale	AS NOTED	
				Inspectors	WA/XIE/DC	
Paper	11 x 17	DWG. No.	2949-Y2-02A-R2			

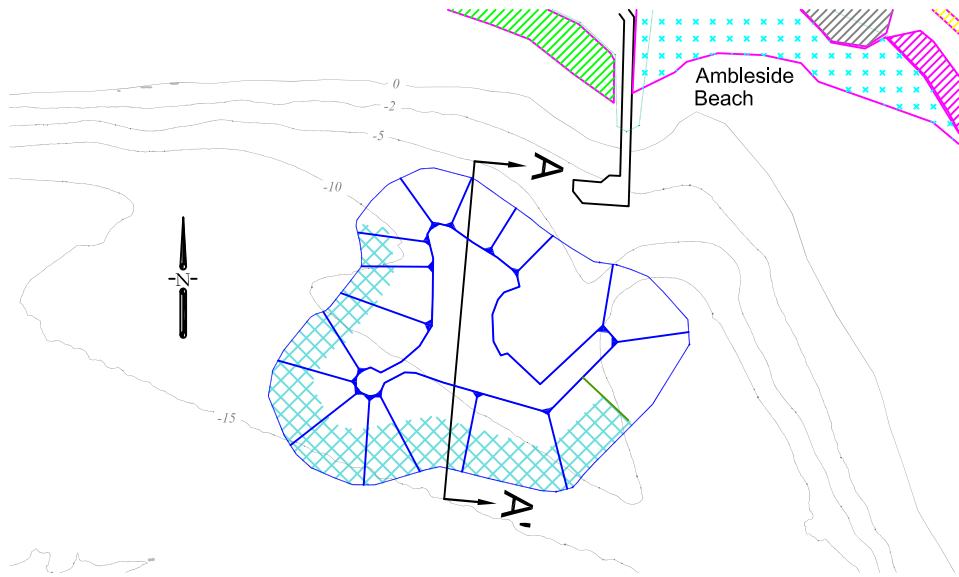
LEGEND

- Depth Contour (metres Chart Datum)
- Option 1 Footprint
- Option 2 Footprint
- Option 3 Footprint
- Ocean Loop Installation Area

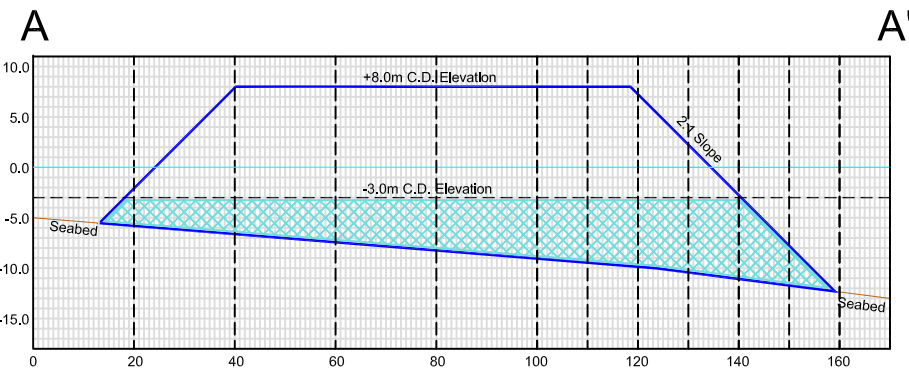
DRAWING NOTES

- Not an As-Built drawing. Not for construction.
 - Estimated volumes and areas for conceptual discussion purposes only.
 - Contours provided by Canadian Hydrographic Service (CHS).
 - All dimensions are in metres.
- The information, including bathymetric and survey data, presented on the drawings may vary from current conditions due to the passage of time or seasonal changes.

OPTION 1: SKYE ISLAND



OPTION 1: SECTION VIEW

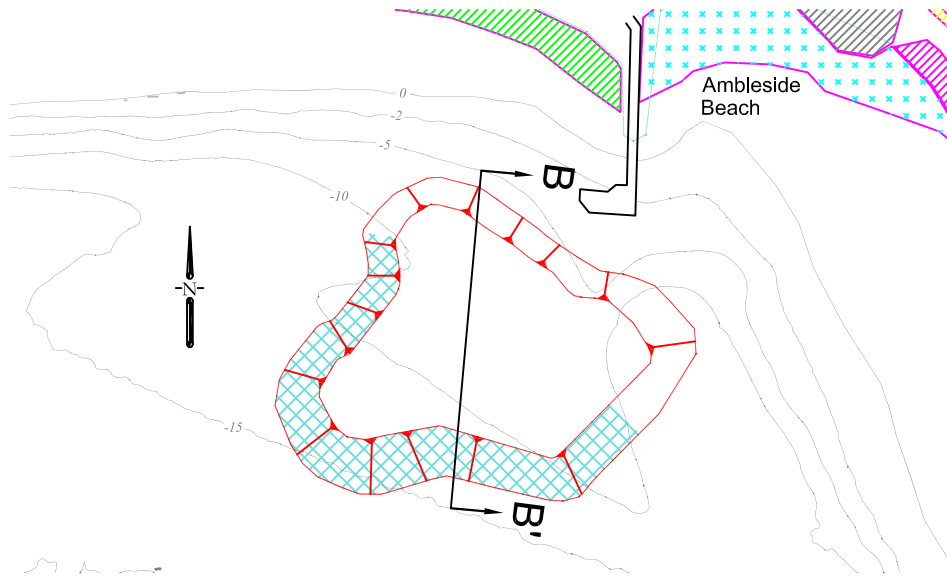


OPTION 1 NOTES

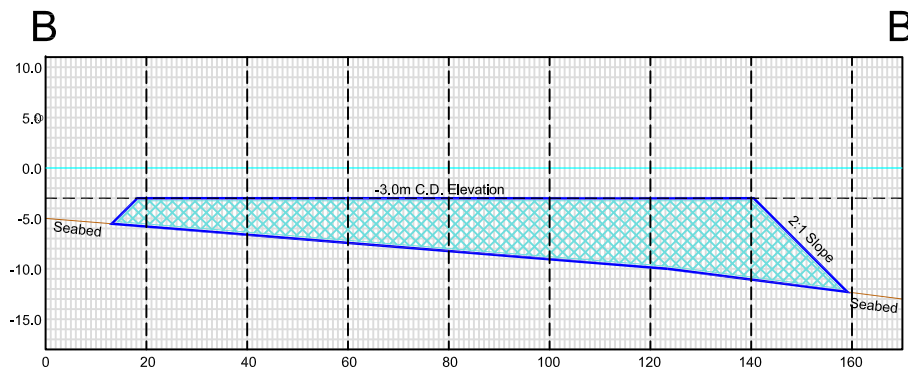
Vertical Scale Exaggerated by 2.0 for illustration purposes.

Overall Volume: 278,000 m³
 Footprint Area: 25,950 m²
 Buildable Area: 4,470 m²
 Oceanloop Area (Below -3m CD): 5,100 m²

OPTION 2: SKYE ISLAND (BELOW -3m C.D.)



OPTION 2: SECTION VIEW

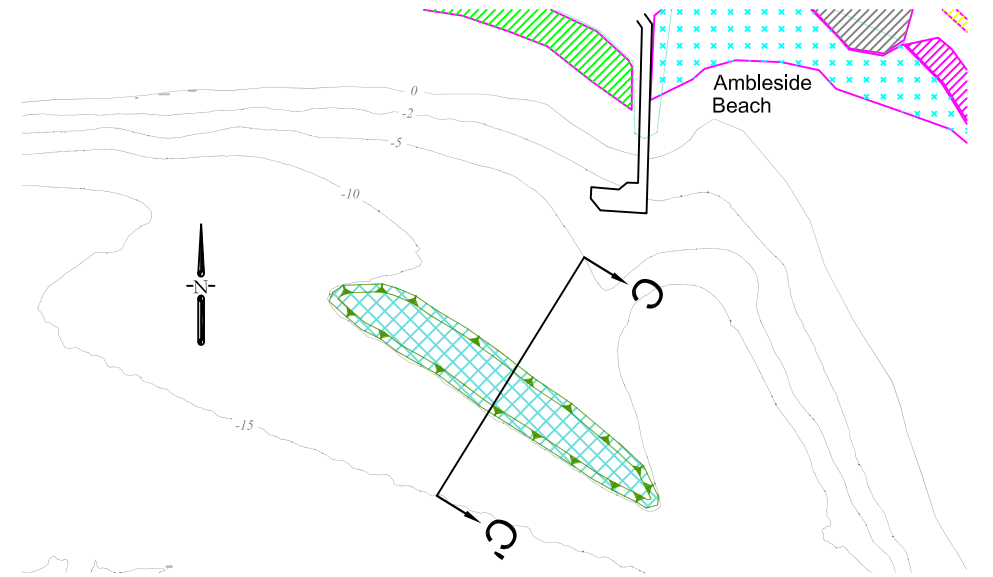


OPTION 2 NOTES

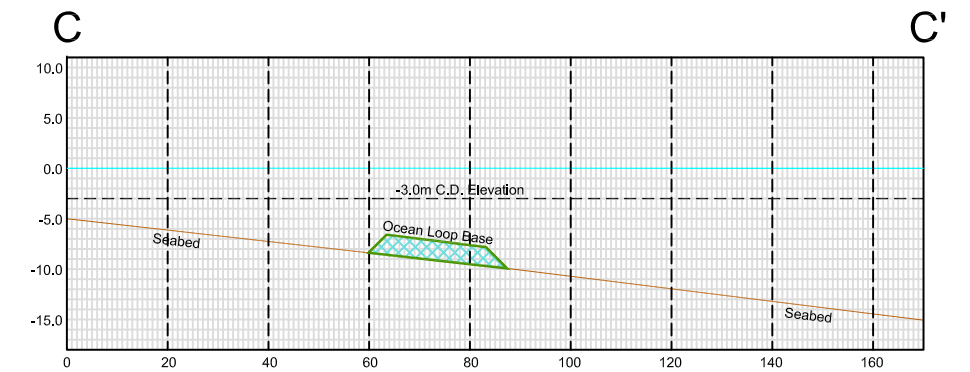
Vertical Scale Exaggerated by 2.0 for illustration purposes.

Overall Volume: 137,000 m³
 Footprint Area: 25,950 m²
 Oceanloop Area (Below -3m CD): 5,100 m²

OPTION 3: OCEAN LOOP BASE



OPTION 3: SECTION VIEW



OPTION 3 NOTES

Vertical Scale Exaggerated by 2.0 for illustration purposes.

Overall Volume: 10,200 m³ (Filter Material)
 Footprint Area: 5,100 m²
 Oceanloop Area (Below -3m CD): 5,100 m²

Client



Author



Checked by	SC
Drawn by	DB
Date	Dec. 18, 2009
Scale	AS SHOWN
Inspectors	N/A
Paper	11 x 17

PROJECT	
OCEAN LOOP OPPORTUNITIES ASSOCIATED WITH HABITAT ENHANCEMENT AND SHORELINE PROTECTION WEST VANCOUVER, BRITISH COLUMBIA	
DWG. No.	5209-50-R1

Ref. No. REFERENCE