



2. Pump Station Description

The Ocean Boulevard Pump Station was constructed in 2000. A cross-section through the station site is provided in Figure 2-1, attached. The station pumps raw sewage from a catchment area including approximately 200 dwellings. The station includes a masonry block building which houses electrical equipment, a standby diesel generator set and public washrooms and a wet well which houses two submersible sewage pumps. There is a small kiosk housing a ventilation fan and odour control equipment located adjacent to the wet well.

The pump station is situated directly west of the beach. The station floor elevation is 2.80 m CGVD and the top of slab elevation of the wet well is 2.45 m CGVD. If flooding reaches 2.80 m CGVD elevation, it is possible that the pump station electrical systems will be damaged and rendered inoperable and the pump station structure and architectural finishes will receive some damage. In addition, access to the station under this flooding scenario would be unsafe. At the 2.45 m CGVD flooding elevation, seawater can enter the wet well, potentially causing a sewage overflow, the ventilation and odour control kiosk could be damaged and access to the station will be difficult due to standing water and debris.

A lock block and riprap berm has been constructed on the seaward side of the station, presumably for erosion protection; the elevation of the top of the berm is estimated as 3.3 m CGVD. The berm is 25 m long and extends roughly the length of the station (wet well and building). Key station data are provided in Table 2-1.

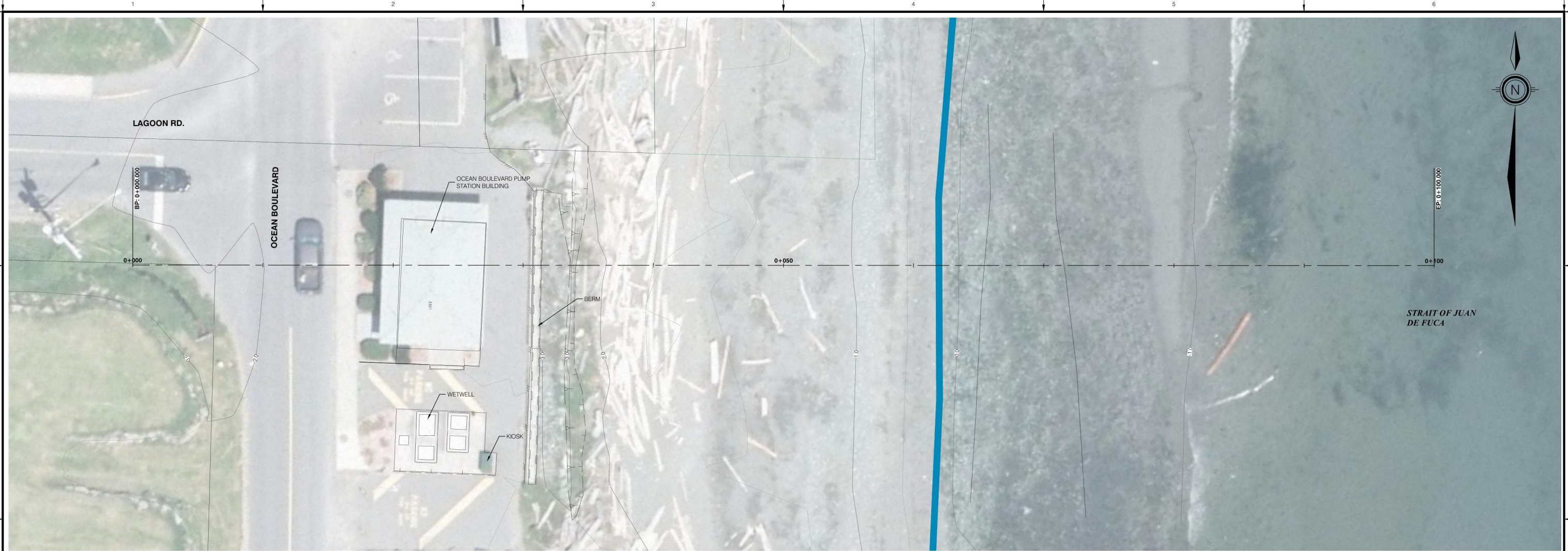
Table 2-1: Key Data for the Ocean Boulevard Pump Station

Parameter	Value
Catchment Area	Area sloping down to the shoreline east of Metchosin Road, south of the 205 Portsmouth Dr. Pump Station and north of the 293 Perimeter Pl. Pump Station, 36.7 ha, approximate population of 534 (2011) with 200 dwellings in catchment area
Peak Winter Station Inflow	11.7 L/s existing/28.1 L/s projected future ¹
Firm Pumping Capacity	87.8 L/s (1 of 2 pumps running)
Note: 1. Based on the City's Sewer Master Plan, completed by Kerr Wood Leidal Associates Ltd. in 2013.	

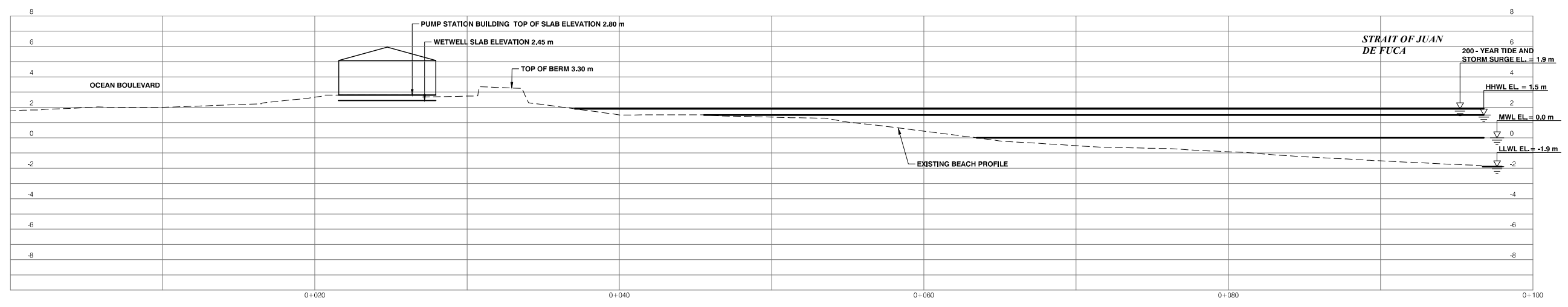
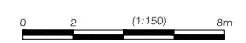
Given that the pump station was constructed in 2000, there are no expected deficiencies in its pumping capacity and facilities of this type typically last about 65 years, one can expect that the pump station will require replacement in approximately 2065. It should be noted that the service life is for the structural components and that electrical and mechanical systems will require replacement before this date.

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Plot Size = ANSI D
At Full Size, this border measures 620 mm x 800 mm



PLAN
Scale: 1:150



PROFILE
Scale: H 1:150, V 1:150

NOTE:
1) ALL ELEVATIONS ARE TO CANADIAN GEODETIC VERTICAL DATUM



Rev	Date	Des	Dwn	Chk	Description of Revision	Rev	Date	Des	Dwn	Chk	Description of Revision
A	2015-08-25	EM	AF	DNM	ISSUED FOR INFORMATION						

CITY OF COLWOOD

OCEAN BOULEVARD PUMP STATION PROTECTION PLAN FLOOD HAZARD ASSESSMENT

Project No: 2417.006 Drawing No. Rev.

Group: GENERAL **FIGURE 2-1**

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