

**VANCOUVER HARBOUR READY MIX CONCRETE PLANT
PROPOSED SITE SERVICES (DRAFT)**

The following outlines the proposed plan for providing utilities to the Lafarge Vancouver Harbour Ready Mix Concrete Plant site. The plan includes both the off-site and on-site requirements.

Site Grading: Work will consist of re-contouring and re-grading the site to separate process and storm water management areas. Existing site soil material will be graded and compacted, providing the material is geotechnically stable and uncontaminated. Excavated materials will be used as fill on other portions of the site. Unsuitable materials will be disposed of as per BCMELP guidelines. Process Areas and main traffic routes will be paved, while non-process areas will remain un-paved, allowing for natural infiltration on-site.

Roads and Paving: Off-site Work - Construction and paving of new entrance ways, installation of signage, and a revamping of the existing parking area fronting the site with a new sidewalk, if required.

On-site Work - Process Areas and main traffic routes will be paved, while non-process areas will remain un-paved (to be confirmed), allowing for natural infiltration on-site. The perimeter road will be crossfalled to the centre of the site to prevent drainage waters from accessing the local foreshore.

Electrical Power: Off-site Work – The existing building on-site is currently serviced by a 12kV powerline (to be confirmed).

On-site Work – Construction of a 1250kV transformer substation (providing 1200 amps at 600V 3ph) and one or more Motor Control Centre(s) (MCC). Electrical service from the MCC(s) to buildings or equipment will be installed by others.

Telephone: Telephone service is generally run in parallel to BC Hydro and should be a relatively minor item.

Water: The site is currently serviced by a 40mm dia. water line from the 300mm dia. Commissioner Street water main. The 40mm dia. water line transits through a backflow preventer, providing water to the existing building and a standpipe.

Off-site Work – Construction of a larger service connection, complete with a buried chamber housing a meter and backflow chamber at the site boundary.

On-site Work – Construction of a water distribution system complete with several fire hydrants.

Natural Gas:

Existing utility drawings of the site show two gas service lines (unknown diameter) to the site boundary from a 168mm dia. gas distribution line, although this has not been determined in the field.

Off-site Work – Information on requirements is being forwarded to BC Gas for confirmation of the adequacy of the existing services, or the provision of adequate gas service to the site.

On-site Work – Construction of a valve station and gas distribution system to provide heating capability for site buildings and water for cold weather concrete production.

Sanitary Sewerage:

The existing utility drawings show a 150mm dia. sanitary gravity line to the GVSDD Harbour Interceptor line currently services the site. Our site visit identified the appearance of a sanitary lift station to this gravity feed.

On-site Work – Installation of sewage collection piping and a retrofit of the existing pumping station to lift sewage to the existing gravity feed.

Storm Run-off:

An existing storm drainage system on site captures and discharges storm water through a 375mm dia. outfall at the North Corner of the site.

On-site Work – Construction of two separate storm water collection systems – the larger storm collection system will cover most of the site, pass the storm drainage through treatment for oil/grease, suspended solids and pH, and discharge into an existing provisional lead to the outfall. The smaller system will cover the Process Area (area surrounding the batch plant and truck wash-outs where contamination due to spillage and wash-down is likely). Storm water from the Process Area will drain to a collection pond and pump sump for re-use in the manufacturing of concrete. The pump sump will be oversized to accommodate the majority of volume surges during storm events. Under extreme storm events, or during prolonged storm events during plant closure, the Process Area collection system will overflow to the storm system for treatment prior to discharge through the outfall.