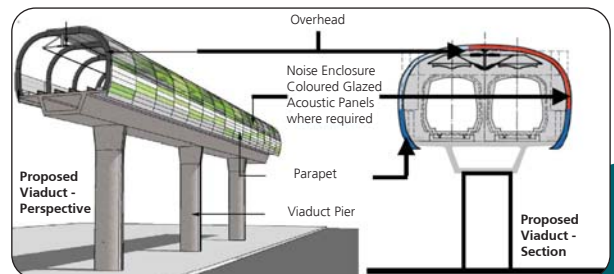


South Island Line : C903 Wong Chuk Hang and Ocean Park Stations and Viaducts

INTRODUCTION

Atkins China has undertaken the detailed design of two elevated stations; Wong Chuk Hang Station (WCH) and Ocean Park Station (OCP) as well as the viaducts that will form the above ground section of the South Island Line East (SIL(E)).

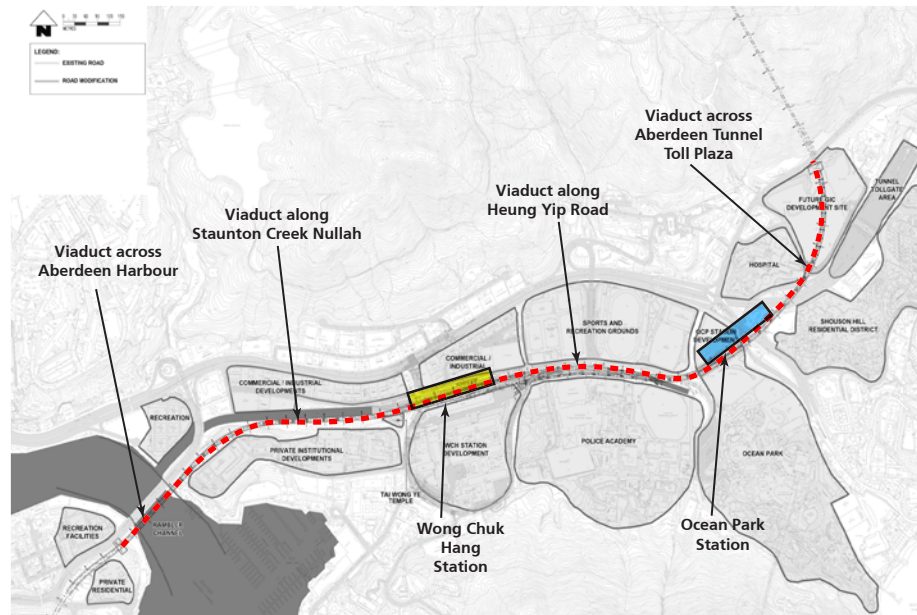
The SIL(E) is a medium capacity railway with a length of 7km and with five stations including intermediate stations at WCH and OCP. WCH will adjoin a depot that will provide maintenance support for the SIL(E) and both stations will serve new adjacent property developments. WCH has been designed to future proof an interchange with the proposed SIL (West) whilst OCP will serve the Ocean Park theme park directly and provide Park and Ride interchange for residents of the southern districts of Hong Kong Island.





OUR SOLUTION

Atkins has produced station and viaduct designs that meet all the exacting the functional requirements of the railway as well as meeting the many requirements of sensitive receivers along the viaduct section. Particular effort was expended in the development of cost effective schemes that minimise visual impacts whilst creating an appropriate identity for the railway.



The proposed viaduct design features a singular viaduct for the twin tracks, profiled and rounded piers and integrated supporting frames for both the noise enclosures and the overhead line .

The design of OCP is highly cognisant of the station's function to serve the adjacent Ocean Park theme park. A side platform arrangement affords a view from arriving trains of the theme park and the connecting footbridge and concourse layouts have considered the operation of the station during special events at the theme park when the station will experience high demand.

OUR APPROACH

Extensive value engineering studies were undertaken at an early stage of scheme design to ensure that an optimal design that met all functional requirements and with sympathetic station and viaduct structures would be taken forward to detailed design with a robust associated cost estimate.

Human factors considerations were instrumental in the production of station designs that reflect the need to address unique human attributes of the design beyond prescriptive requirements with respect to user-friendliness, system efficiency and reliability.

OUTCOMES

The SIL (E) is set to provide at least a railway link to the southern areas of Hong Kong Island that will provide residents with a vital alternative to road based transportation and stimulate development along its route. The elevated stations at WCH and OCP, and the associated viaduct sections of the railway will be the most visible aspects of the new railway. Atkins' design of these components has responded to the requirements of sensitive receivers and the specific functions of theme park integration and multi/modal interchange.