


Connecting roadway to TKO new town and

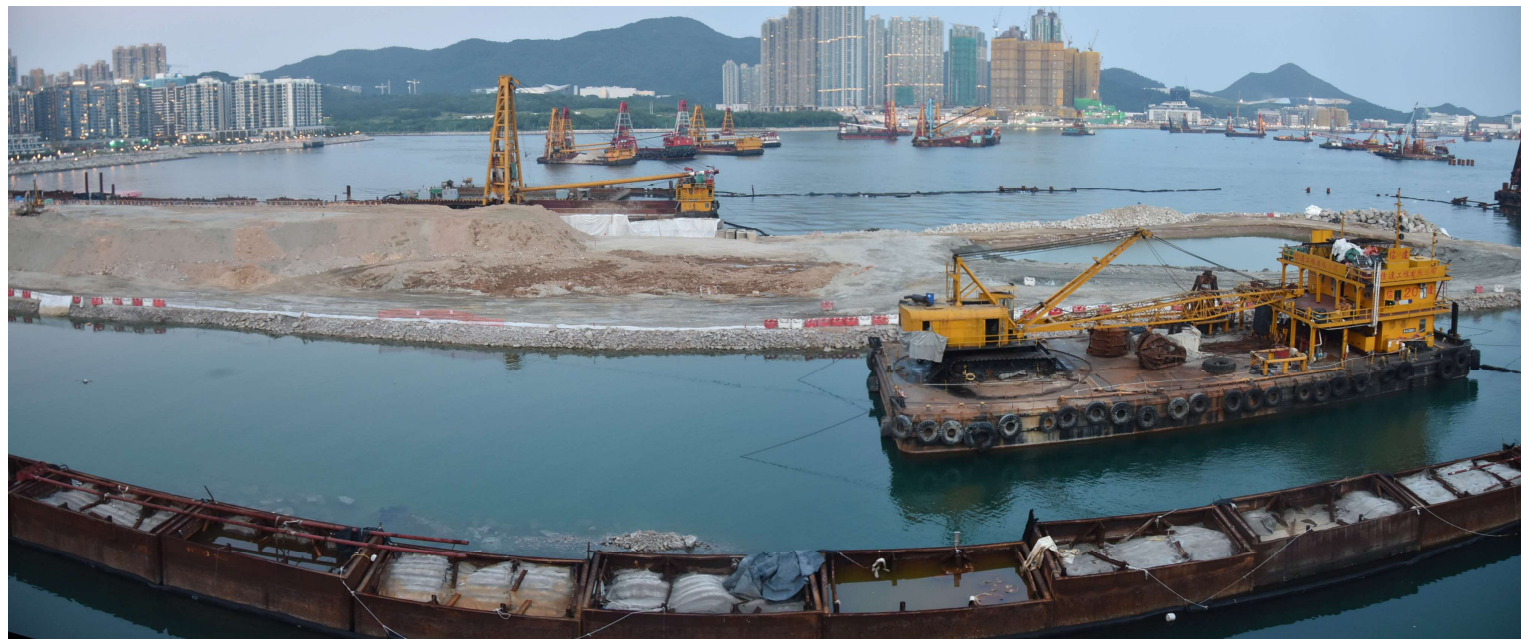
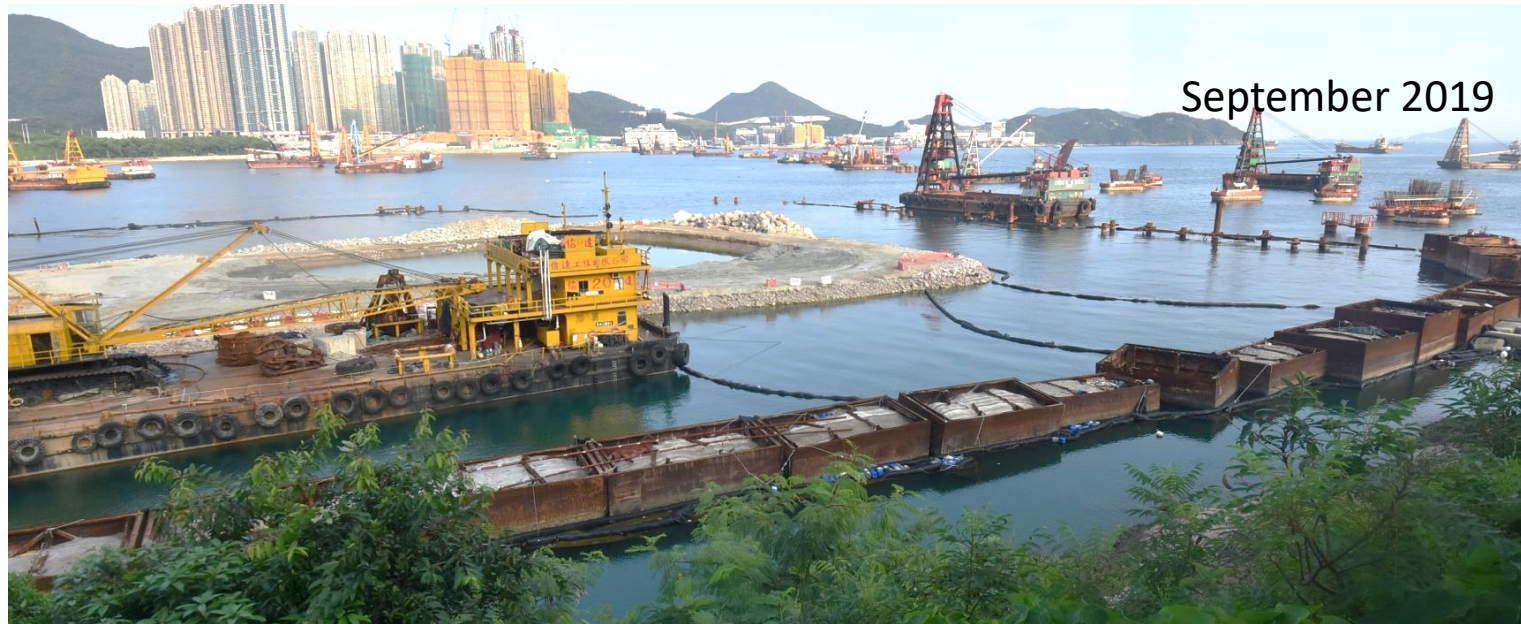


Forming the land taking the
interchanging carriageway into
the existing TKO roadway

Jan 2019



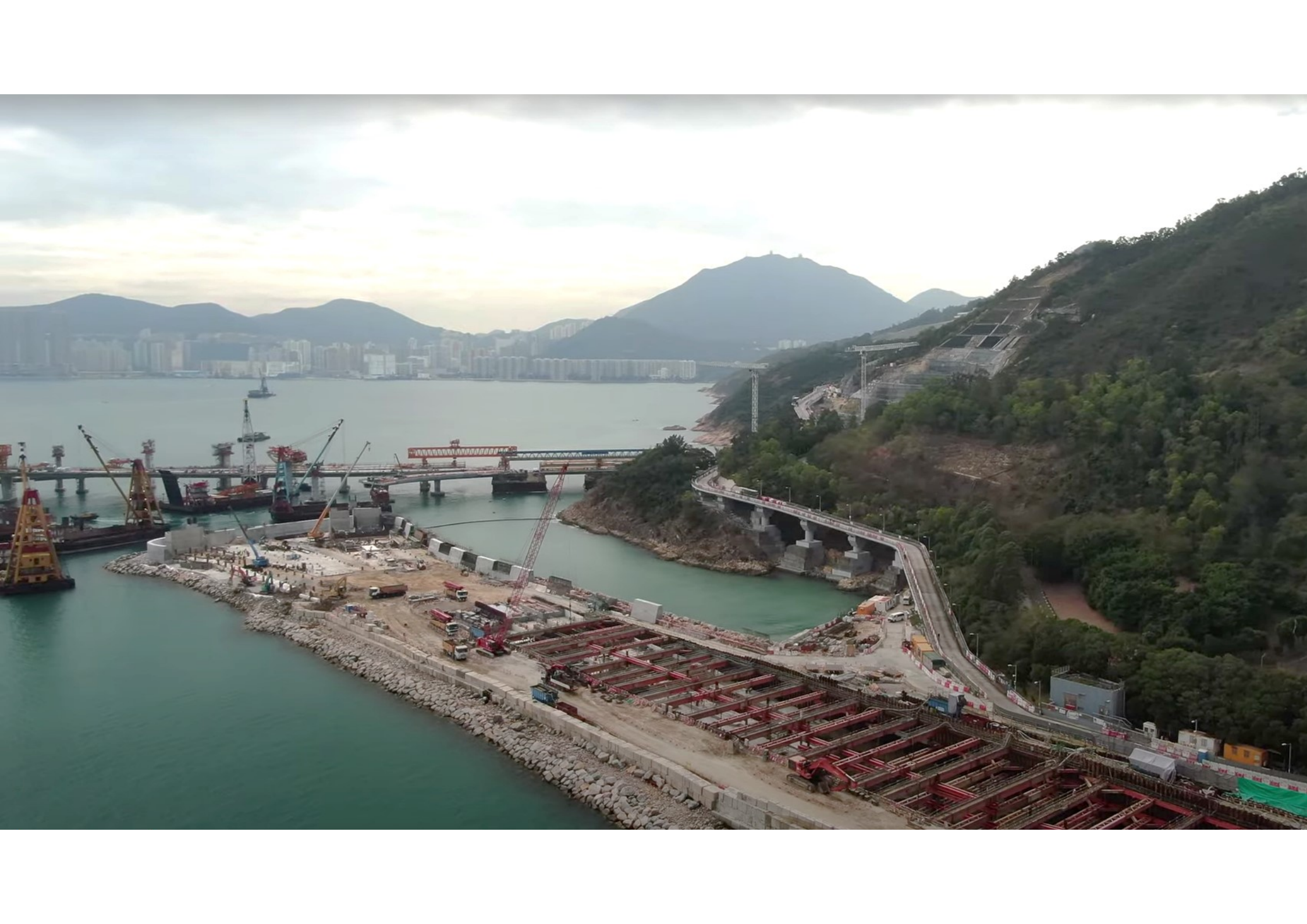
May 2019

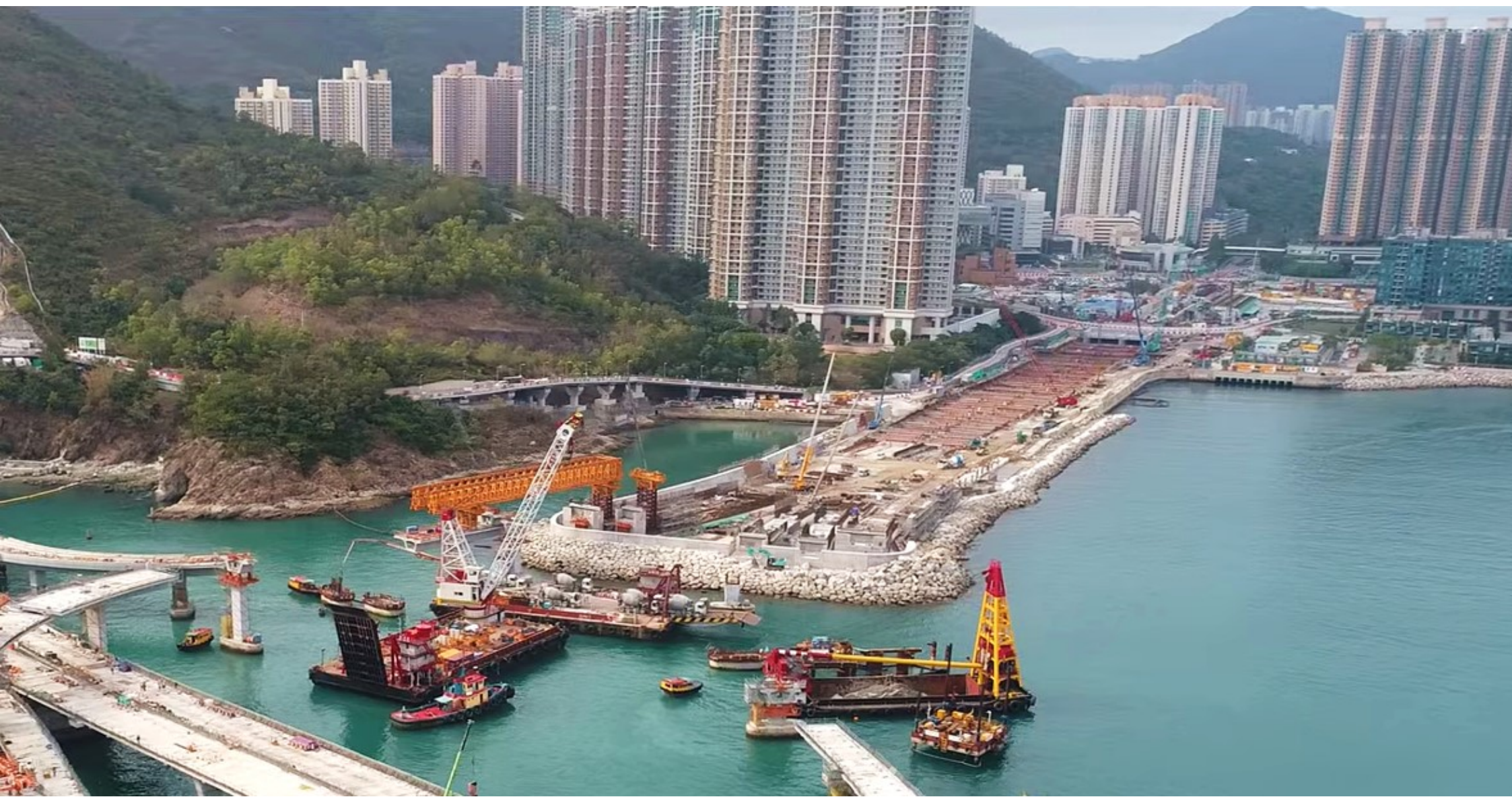




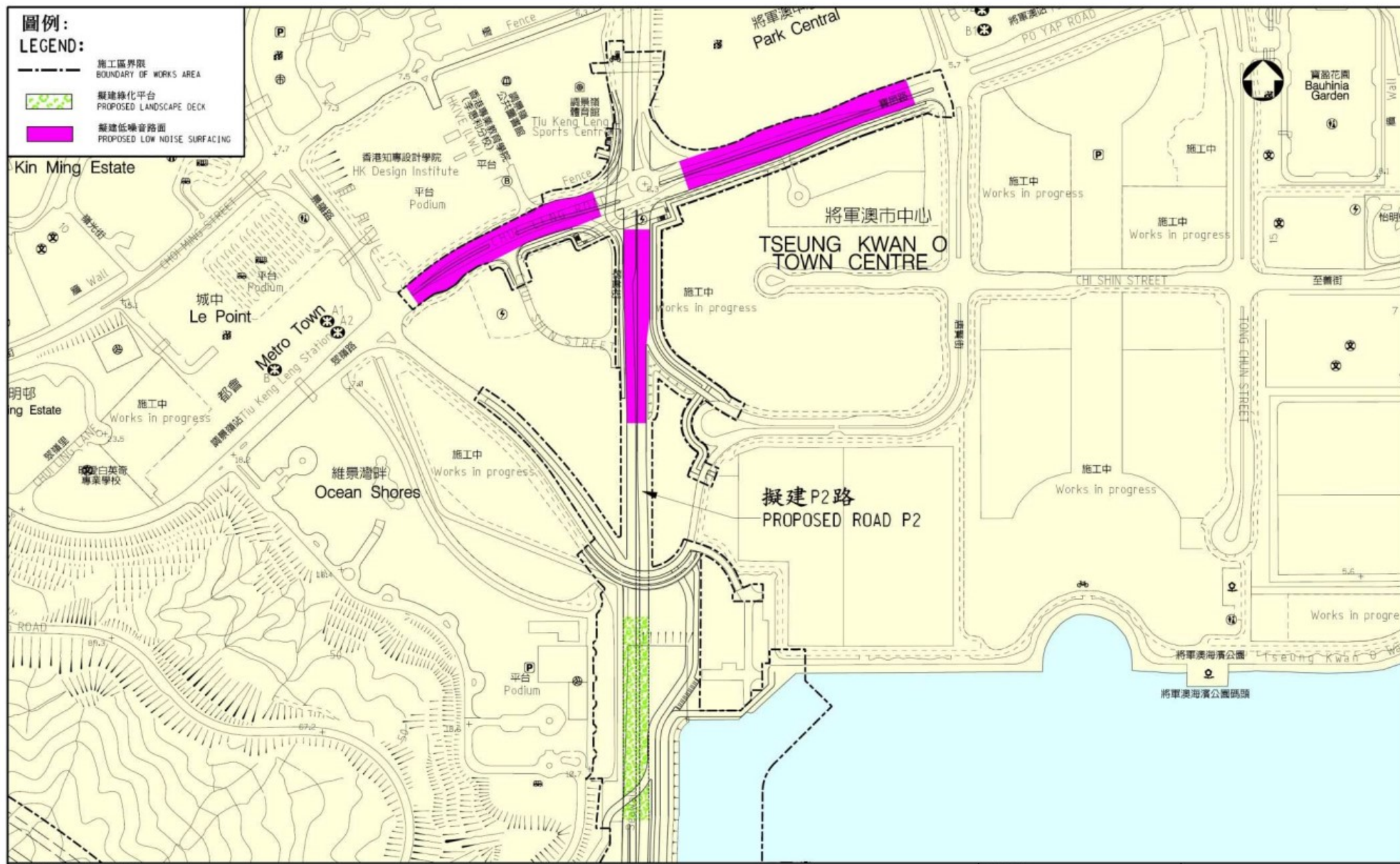
February 2021















November 2021







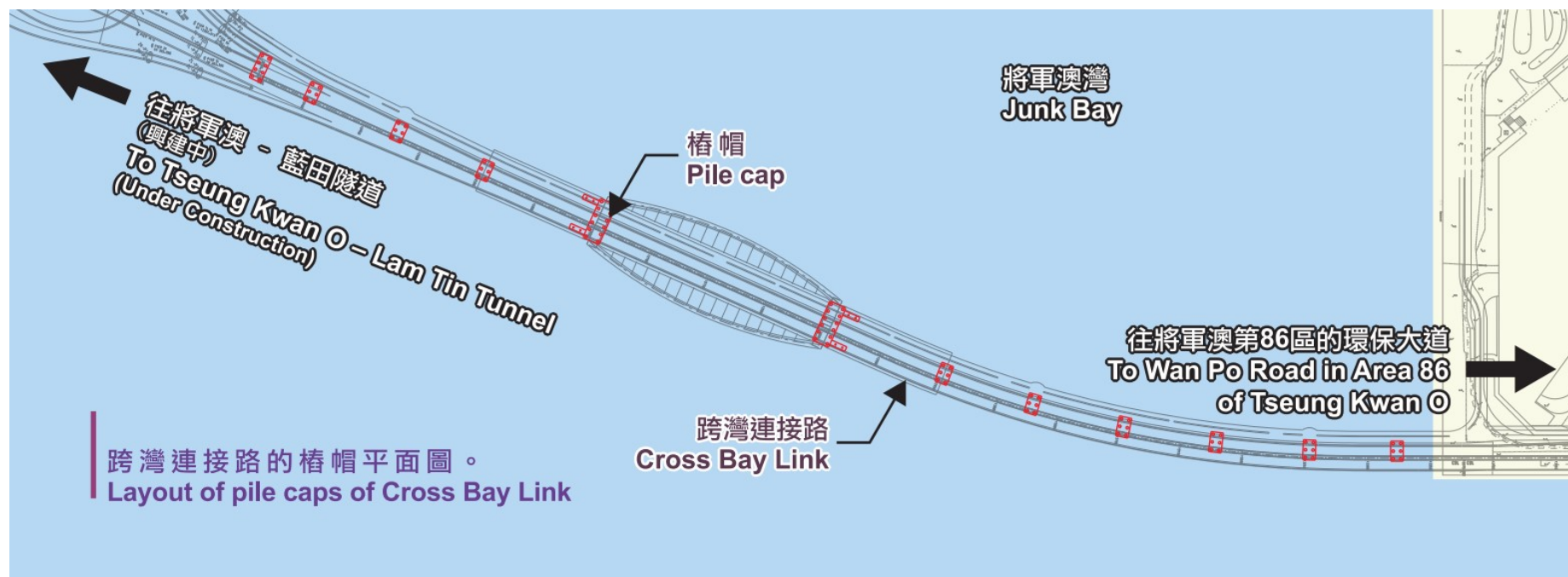
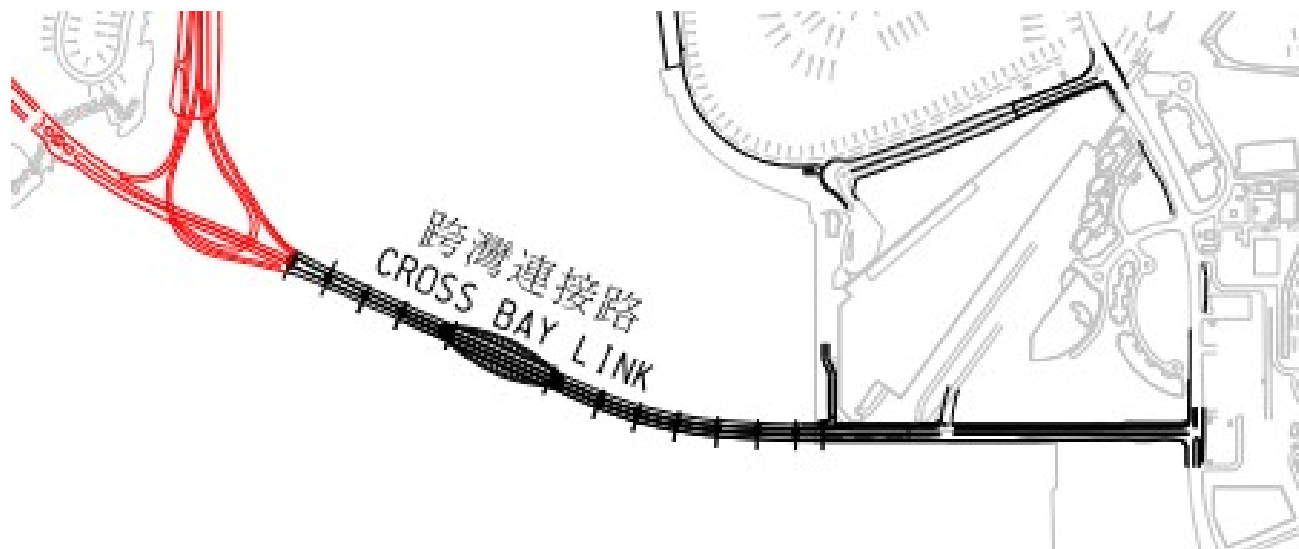


The cut-and-cover tunnel linking the interchanging carriageway to the existing roadway





Construction of the TKO Cross Bay link

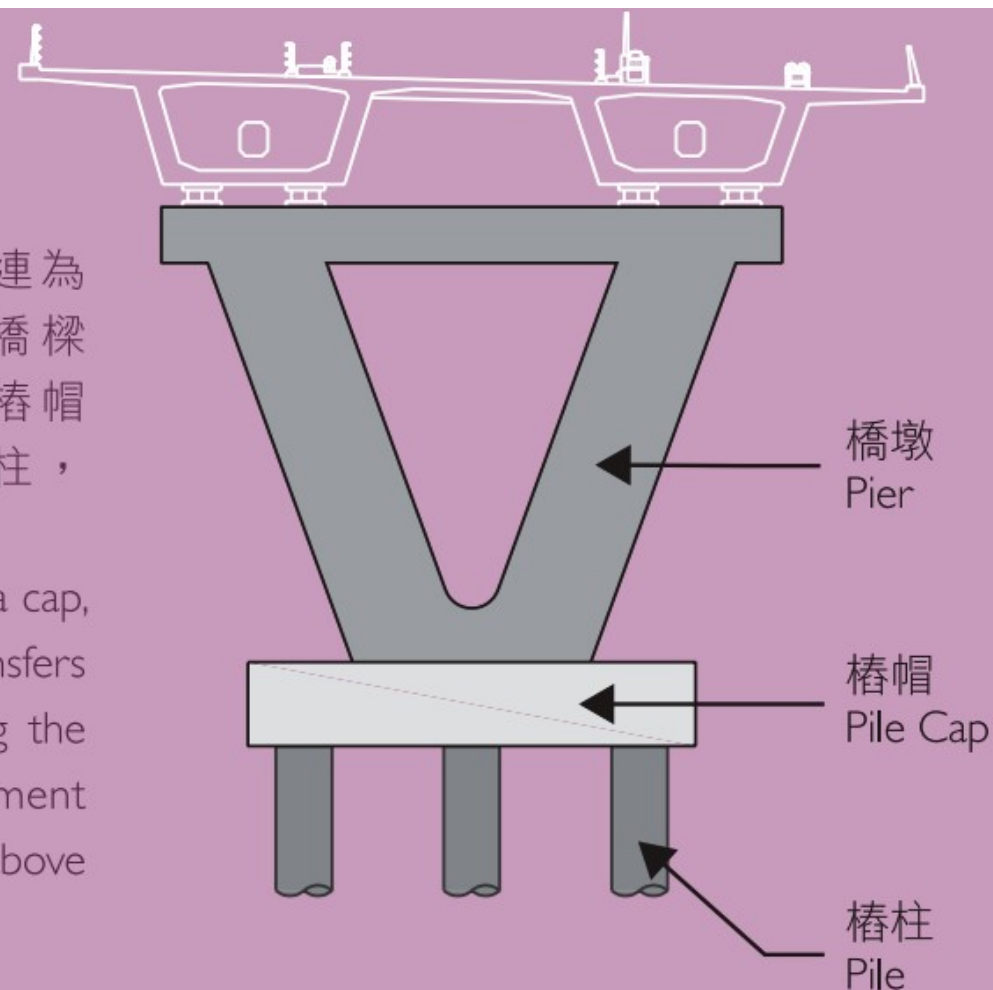


跨灣連接路的樁帽平面圖。
Layout of pile caps of Cross Bay Link

樁帽 Pile Cap

顧名思義，樁帽將數支地下樁柱戴上帽子，把樁柱連為一體，以連接橋墩和樁柱，將橋樑本身的重量和橋樑所荷載的重量包括汽車重量、風力等轉移至樁柱。樁帽由鋼筋及混凝土製作而成，為免船隻撞向樁帽和樁柱，在設計上樁帽會露出水面，容易讓船長看見。

As the name implies, a group of underground piles are united by a cap, providing a linkage between pier and a group of piles. Pile cap transfers weight of bridge together with loadings on the bridge including the weight of vehicles, wind load, etc. It is made of steel reinforcement and concrete. Under CBL, pile caps are designed to be exposed above sea level to be visible to coxswains to avoid collision from vessels.





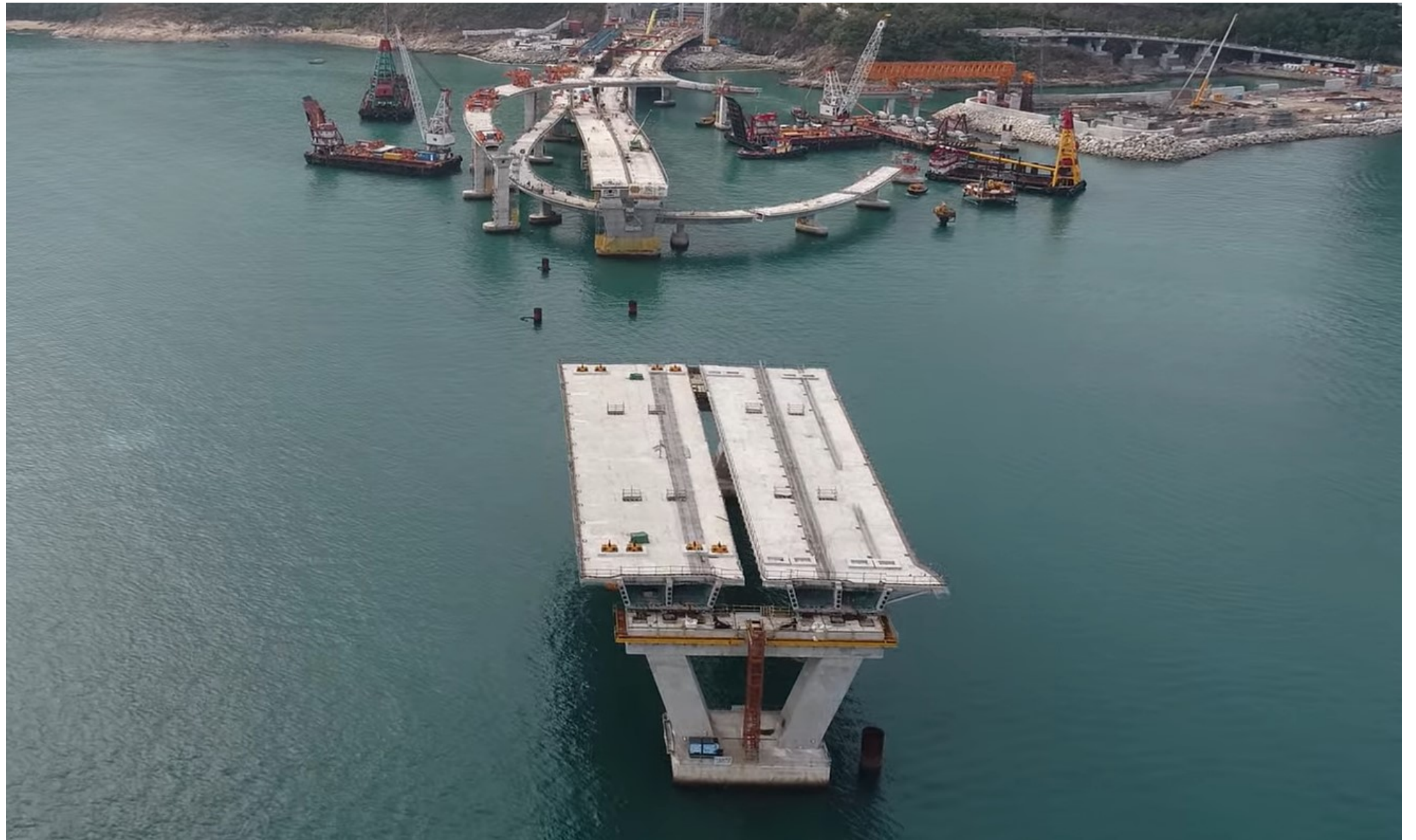
Construction of the pile caps
(using precast box) for the pier
of the Cross Bay Link bridge



Crane barge

Precast bridge deck being transport
to site and lift by crane barge for
placing onto the pier support

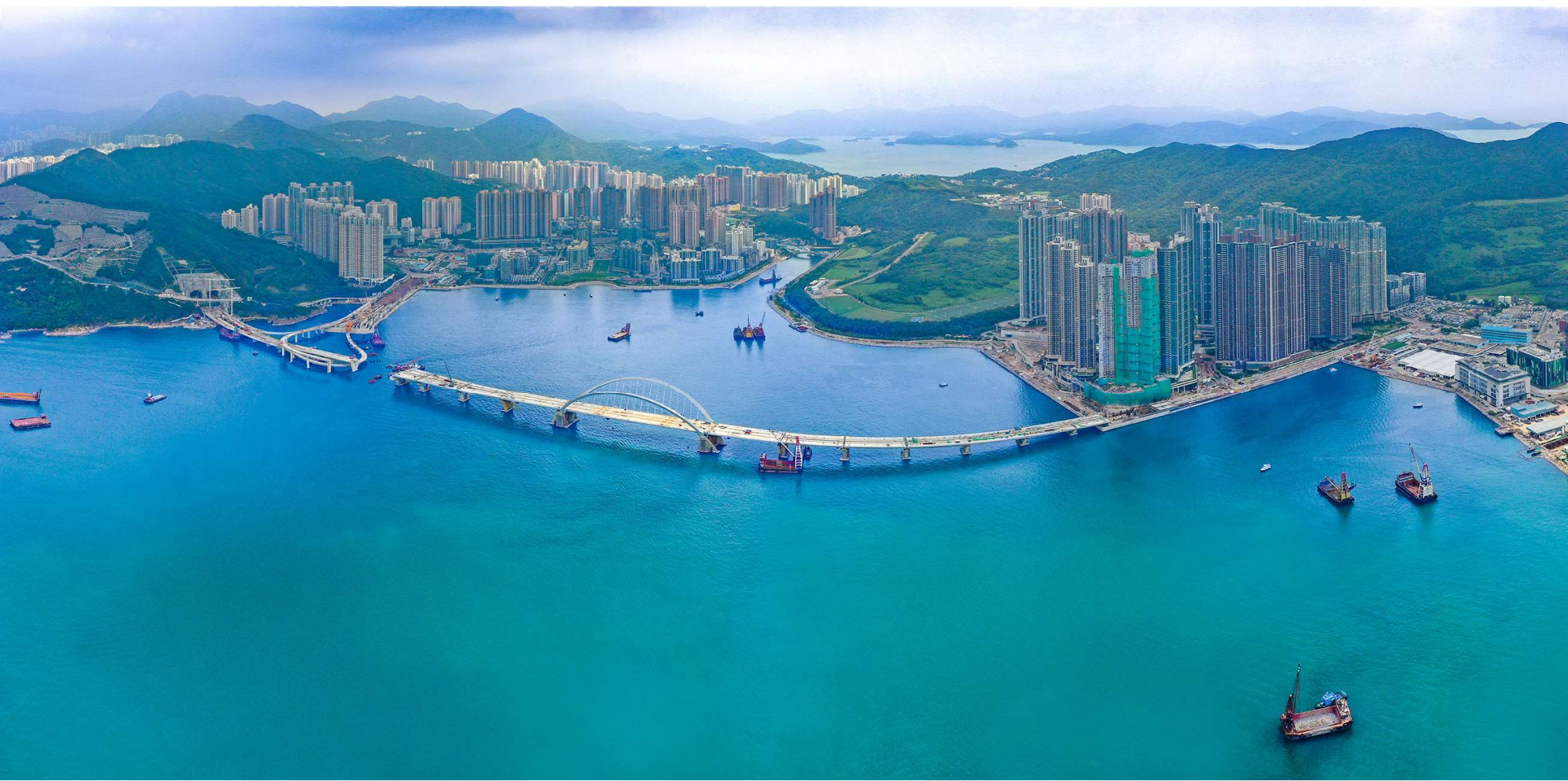


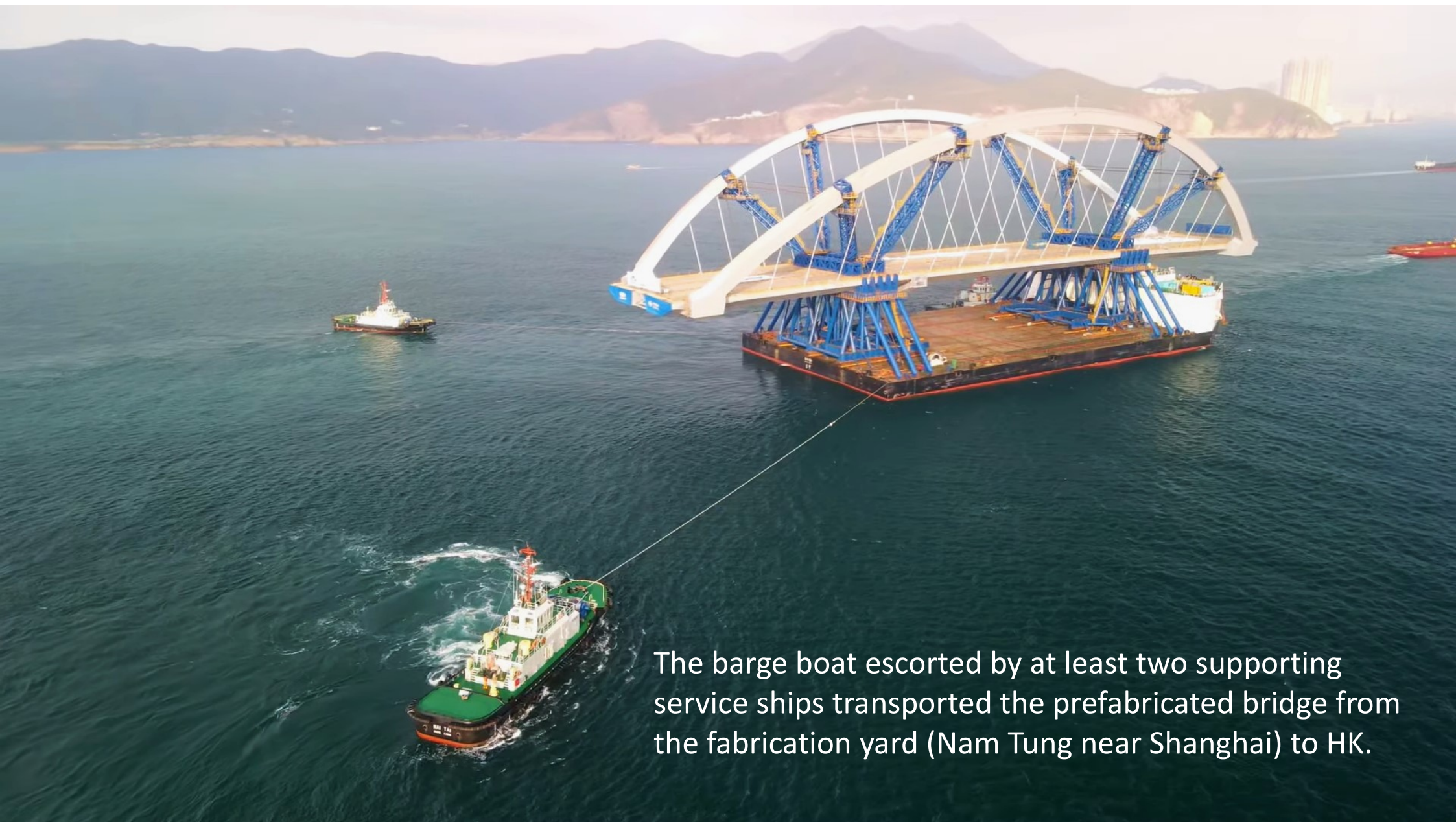












The barge boat escorted by at least two supporting service ships transported the prefabricated bridge from the fabrication yard (Nam Tung near Shanghai) to HK.

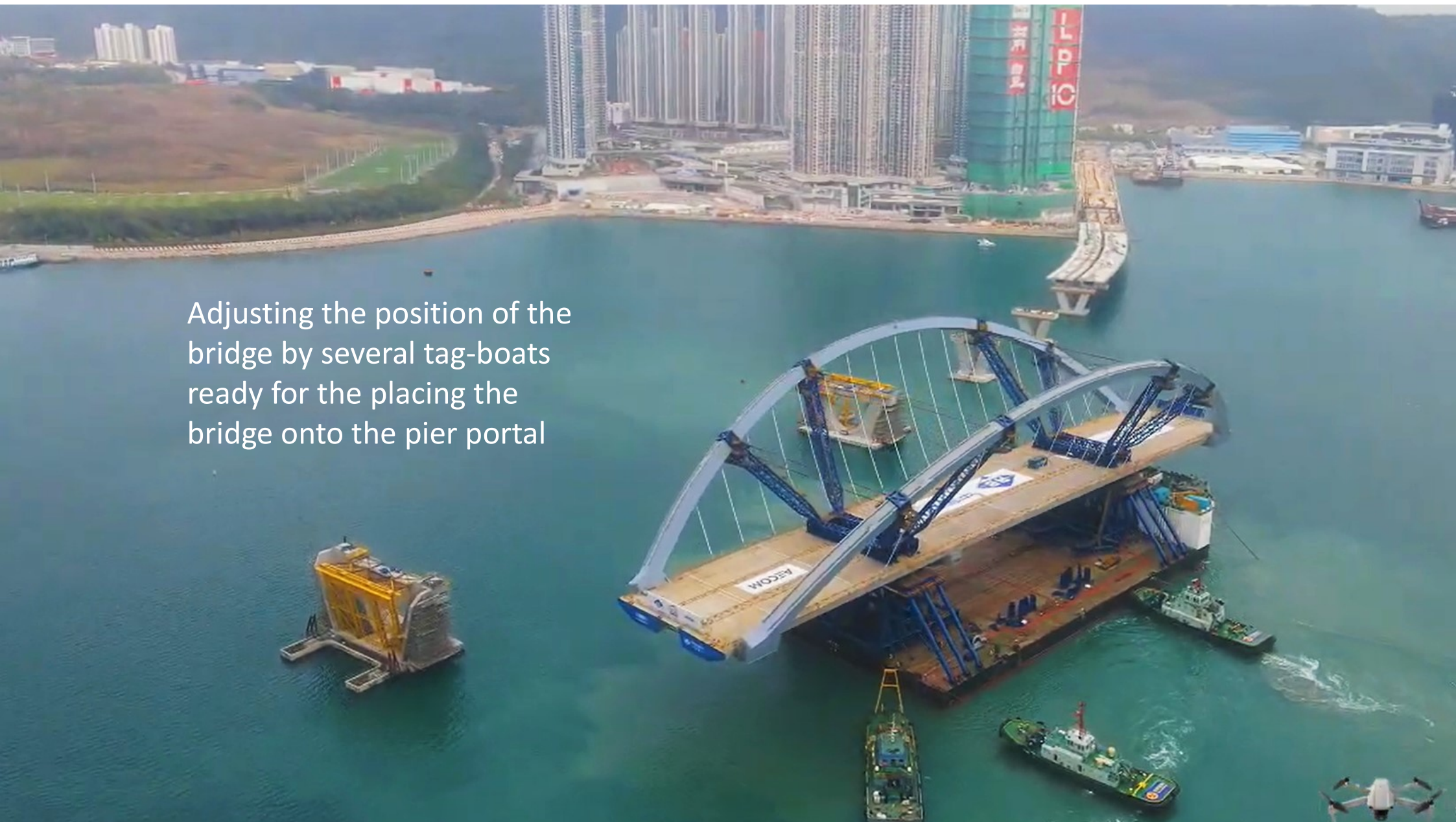


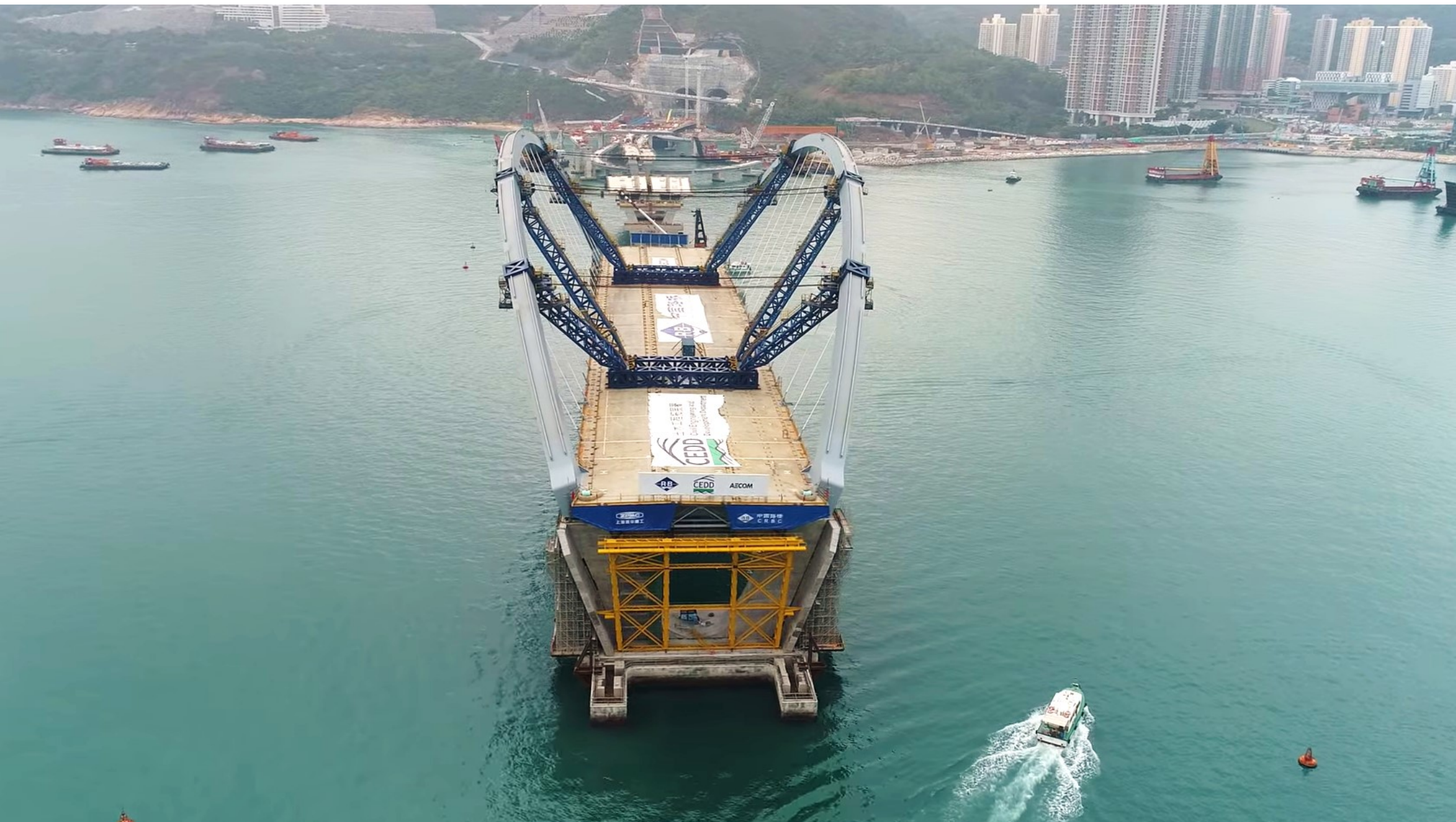
The bridge structure is temporary supported by two stiffening frame to avoid deformation and damage during handling





Adjusting the position of the bridge by several tag-boats ready for the placing the bridge onto the pier portal

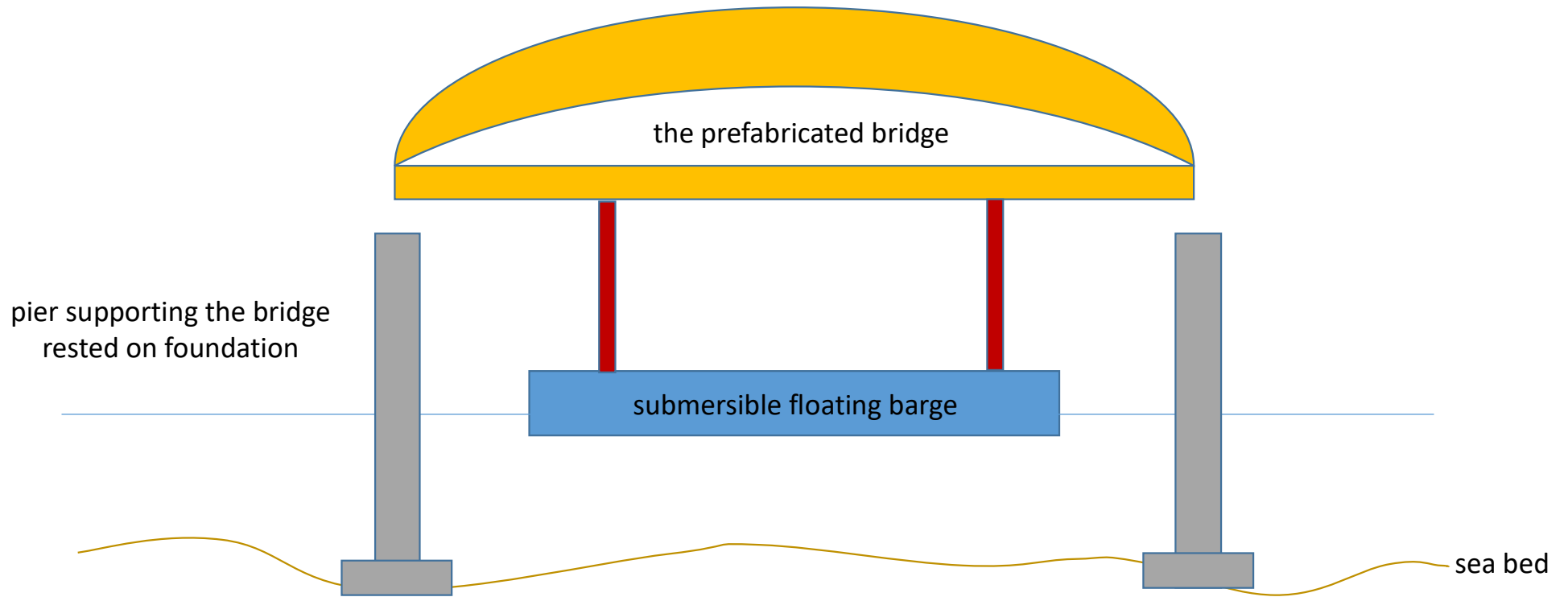






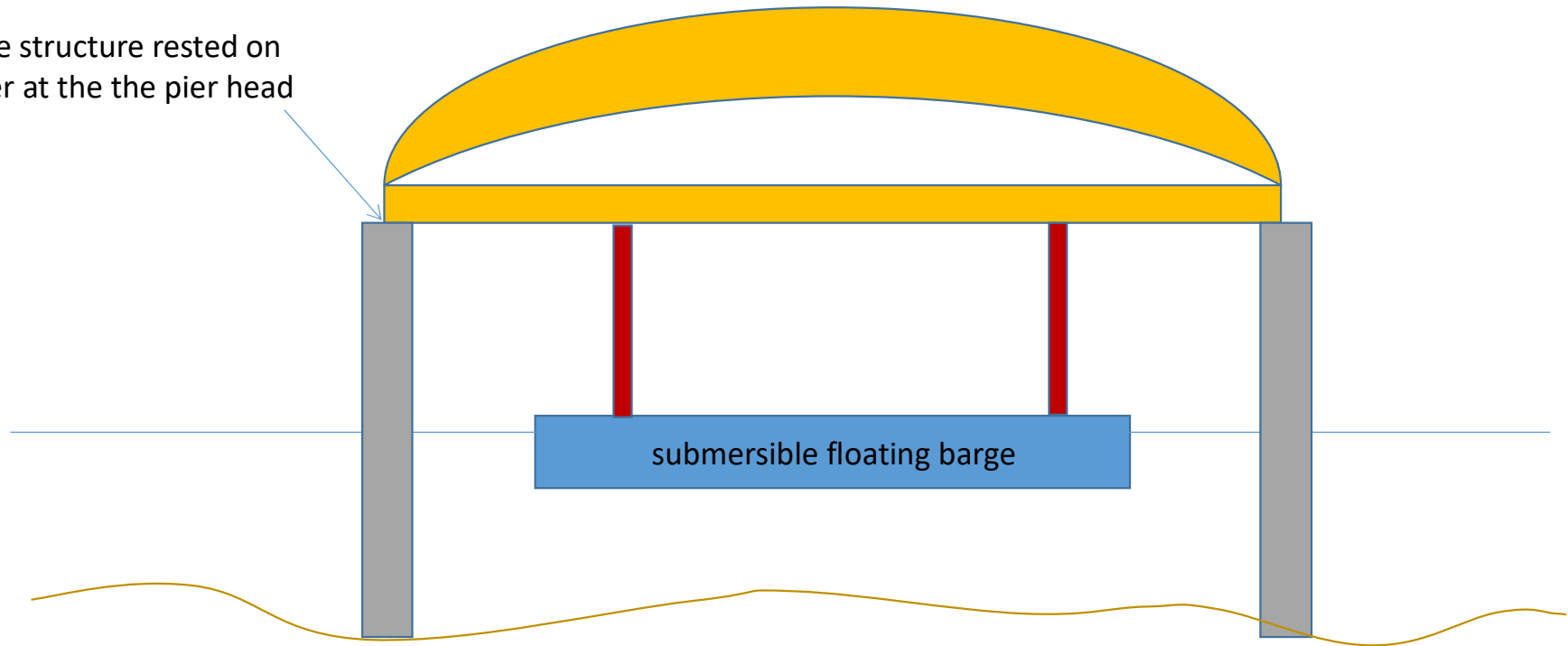






Floating barge on floating condition

bridge structure rested on
bearer at the the pier head



Floating barge on semi-submersed condition





Provision of a pedestrian
foot-path to allow people
crossing the bridge on foot





An over-view from the tunnel portal seeing the slip-road network of the interchange









Provision of a pedestrian
foot-path to allow people
crossing the bridge on foot





Landing of the CHL to the TKO Eastern
(side of Lohas Park)





Casting, transporting, hoisting and
placing of the precast bridge deck

<https://www.youtube.com/watch?v=fb3EoSV3Rb8>



移送橋面到運載船

Transfer of bridge deck to delivery barge



運送及現場安裝橋墩

Delivery and on-site erection of pier



吊運及安裝整段橋面

Whole-deck lifting and erection



吊運及安裝整段橋面

Lifting and erection of whole-deck



End of presentation

Supplement note:

As you can see, there is very limited written explanation in my PPT presentation. My design purpose of this talk is trying to show my audiences the project detail in the form of a photo-story. A photo may convey numerous message behind, especially accompanying my verbal explanation during the seminar time.

It is quite a pity that I can only get 60 minutes to deliver my talk. So, my presentation can hardly input too much technical detail behind all the work operations. Anyway, I have uploaded my full presentation with 240 slides onto my personal homepage so that any interested party can download it and keep a record for further sharing.

Here is the link to my homepage - <https://const-infobank.org/>

Hope to seeing you in my coming seminar.