

Society for Protection of the Harbour Limited
保護海港協會有限公司

2006, *One Pacific Place*, Tel (852) 2845-8138
88 *Queensway, Hong Kong* Fax (852) 2845-5964

The Society for the Protection of the Harbour

**An Alternative Harbour Front for Central, Wan Chai and Causeway Bay
Option 1 : Including the Central - Wan Chai By-pass**

Introduction

The High Court has ruled that the Government's proposals for the waterfront in Wan Chai and Causeway Bay are excessive. While that decision is still subject to appeal, it is apparent that if the approach advocated by the Court was applied to the Central Waterfront reclamation, then that too would be considered excessive.

It is possible to achieve a world class waterfront from Central to Causeway Bay with significantly less reclamation than that currently proposed by Government. The Alternative Harbour Front Plan indicates how this can be done while significantly increasing public access to the harbour.

This document briefly explains the approach taken. It is conceptual, based on sustainable development principles, good urban design and landscape opportunities, and does respect some basic engineering requirements. Other normally accepted engineering approaches may need to be reconsidered and a more sustainable approach adopted.

Fundamental Assumptions

The following fundamental assumptions have been made:-

1. The over-run tunnel for the Airport Railway will need to be completed so as to enable the Hong Kong Station and the Airport Railway to operate as designed;
2. To build the Airport Railway over-run tunnel, the Star Ferry Pier will need to be relocated;
3. The Central – Wan Chai by-pass will be built as designed in tunnel and reclamation. Provision of this underground by-pass will enable a reduction in roads on the reclamation and will provide opportunities for reduction of traffic and environmental improvements elsewhere in Central and Wan Chai;
4. On the reclamation only limited small scale development which facilitates the public enjoyment of the water front and harbour will be permitted;
5. The number of surface roads can be reduced and the major road, Road P2, is reduced in scale and becomes the Northern Avenue.

The following describes the proposals and the differences with the Governments plans.

Proposals for Central

The general line of reclamation is reduced by approximately 60 to 100 metres and now is located some 10 – 15 metres outside the proposed alignment of the Central Wan Chai Bypass.

The extent of reclamation on the western edge is now defined by the location of the existing Pier 7 and a seawall angled back towards the By-pass alignment, to facilitate tidal movements. The relocation of Pier 8 to this new sea wall allows for a significant reduction in reclamation while still enabling good public access to the harbour.

A new location is identified for the Star Ferry piers, closer to the existing piers and appropriate for the approved design of the Star Ferry as an icon on the waterfront. The existing Pier 7 and proposed Pier 8 should be considered as public piers to enable public access to the harbour as previously provided by Blake's Pier and presently provided by Queen's Pier.

The reduced reclamation formed in this western area provides a major public waterfront park as an extension to the Statute Square open space corridor. The Government's proposal for a "Ground Scraper" commercial building is deleted along with associated roads. The park would be approximately 150 metres wide by up to 300 metres long and would have an area of approximately 3.9 ha.

The former Road P2 is replaced by the Northern Avenue which extends from Man Cheung St. at the IFC to join Hung Hing Road in Wan Chai. This proposed road is reduced from dual three to dual two carriageway to reduce negative environmental and amenity impacts while the existing Hung Hing Road will be slightly widened and upgraded to provide an alternative east-west surface route for traffic. The alignment has been modified to utilise existing roads such as Lung Wui Road, Convention Avenue and Hung Hing Road, and to maximise the waterfront promenade.

The reclaimed area between the new sea wall and the Northern Avenue becomes the Public Promenade. It is a large space with a width of between 170m and 70m, sufficient to accommodate many different areas for different functions. Sufficient waterfront related commercial development sites have been identified to cater for public needs and to create interest. Buildings will be no greater than 2 stories high (15mPD) and located adjacent to the Northern Avenue for servicing. The amount of building proposed is significantly reduced from that proposed by Government

Areas of existing and reclaimed land to the south of the Northern Avenue have been reserved for Government, Institutional and Community Uses. The Tamar site has been retained as G/IC for public buildings, but could be reserved for open space use in conjunction with the use of the harbour front.

The total area of the Central Reclamation is now only approximately 15.1 ha compared with approximately 25.4 ha in the Government's plan.

Proposals for Wan Chai

The ramps to and from the Central and Wan Chai By-pass in the vicinity of the Convention and Exhibition Centre have been retained so that there is benefit in relieving traffic flows in Wan Chai.

The alignment of the reclamation follows the By-pass with some curvature introduced to the east of the existing Convention Centre to assist with maintaining tidal flows. The Wan Chai Ferry Pier is relocated but in a similar position to the existing pier. It should be developed as a tourism feature on the waterfront rather than being just a Ferry Pier.

The alignment of the Northern Avenue follows the existing Hung Hing Road which is retained and slightly improved in width. This will now pass to the south of the tunnel portal and retain the connection to the existing flyover, providing an easterly connection to the IEC and Causeway Bay.

The existing Wan Chai Swimming Pool and Sports Ground remain unaffected. There is no additional development proposed in the Wan Chai Area and the proposed Convention Centre Stage 3 Extension is deleted. The removal of this additional development removes the need for additional roads and additional reclamation.

The Harbour Front between the Northern Avenue and the new sea wall is reserved as a public promenade with some small scale waterfront related entertainment and commercial uses.

The proposed marina to the west of the Yacht Club is deleted as there will be adequate water area retained within the existing Causeway Bay typhoon shelter.

The reclamation in this area is generally reduced in width by 50 to 100 metres. It is now approximately 8.7ha compared with approximately 14.6 ha in the Government's scheme.

Proposals for Causeway Bay

The Central Wan Chai By-pass becomes elevated as it passes across the existing Yacht Club site, it then passes across the typhoon shelter on a bridge structure linking into the IEC. There is a need to provide additional land to replace the facilities lost to the Yacht Club so that their marine related activities can continue unaffected. However, there is no need to reclaim land under the elevated road within the typhoon shelter. The new bridge structure should become a design feature rather than a visual obstacle, as it will be located in a dominant position.

The proposed KCRC rail tunnel will be partially built through the typhoon shelter and a vent building will be required on an area of reclamation in front of the World Trade Centre and Excelsior Hotel. Reclamation in this location will also remove an area of dead water which is polluted.

The only additional reclamation proposed in the typhoon shelter relates to the provision of a public promenade of approximately 10 metres in width to the north of the KCRC Vent Building, and further to the east where the existing water front is basically retained, but modified to improve the seawall and waters edge so that it provides a closer relationship to the water for pedestrians. Rehabilitation to a more natural environment should be considered, possibly with a beach and recreational

activities. This is possible as the typhoon shelter is the only portion of the whole waterfront which is sheltered by an existing breakwater and is therefore not subject to significant wave action.

The Harbour Park is deleted.

It is considered necessary to provide improved pedestrian connections with the hinterland and Victoria Park.

It is assumed that the existing boats used for residential purposes in the eastern part of the typhoon shelter will be removed and the people re-housed as was originally proposed by Government. This design of the waterfront through the typhoon shelter will therefore retain a significant area of sheltered water for the mooring of boats and possibly other recreational water-based activities. A continuous pedestrian connection of 5 - 10 metres in width along the eastern edge of the typhoon shelter to North Point could be provided by using existing public land or by provision of a boardwalk of up to 10 metres in width.

The width of the reclamation would be reduced by over 100 metres in places. The total area of reclamation proposed in this area is approximately 1.4 ha compared with approximately 12.2 ha in the Government's scheme which included the Harbour Park.

Conclusion

This Alternative Harbour Front plan illustrates how there is tremendous scope for providing a magnificent public waterfront while reducing the amount of reclamation to the minimum needed for the construction of the Central to Wan Chai By-pass. This is achieved because commercial use of the formed land is significantly reduced and surface roads have been minimised.

This Alternative Harbour Front proposal will result in a reduction in reclamation of approximately 51.7%, or 27 ha, of that proposed in the Government's Scheme, while still providing the Central to Wan Chai By-pass. There would also be a significant reduction in implementation costs and expenditure of public funds through the major reduction in the scope of engineering works.

(Area in hectares)	Governments. Proposal	Alternative Proposal	Reduction
Central Reclamation	25.4	15.1	10.3
Wan Chai	14.6	8.7	5.9
Causeway Bay	12.2	1.4	10.8
Total	52.2 100%	25.2 48.3%	27 51.7%

November 2003

Society for Protection of the Harbour Limited
保護海港協會有限公司

2006, One Pacific Place, Tel (852) 2845-8138
88 Queensway, Hong Kong Fax (852) 2845-5964

Preliminary Note on the Need for Central-Wanchai Bypass
By: Geoffrey Rogers and John Patient

Historical Perspective

Historically, governments throughout the world have built highways to cater for the anticipated increase in demand for movement of people and goods by road. The extent and rate at which they have done this depends by and large on two factors: (i) the space available; and (ii) the rate of growth in the economy. The latter generates both demand for road use and the revenues to pay for infrastructure.

In cities, the rate of growth of demand for private passenger travel by road is ameliorated by the presence of good public transport; and in general, the greater the population and employment density of the city, the greater the share of passenger travel by public transport. Hong Kong is no exception to this general rule and has a very high level of passenger travel by public transport. The provision of high quality public transport does not affect the demand for goods vehicle movements nor does it impact on the use of private vehicles by senior executives and for non-commuting work related travel.

As a general rule, the approach of most governments is to slowly build new infrastructure in response to demand, which fluctuates over time depending on the state of the economy. New highways are built and justified in terms of its economic benefits to road traffic (both goods and passengers) but may also have environmental benefits, especially road by-passes, when through traffic is removed from city streets.

Many road by-pass schemes of towns in the UK now come as a complete package of by-pass plus town centre improvements designed to “lock in” the benefits of the traffic reductions created by the by-pass. These improvement schemes typically include pedestrianisation measures, streets design, as well as other environmental improvements.

Some cities are now at the stage however where lack of space and concern for the environment is causing them to eschew new road projects in favour of pricing some of the traffic off the roads at peak times and in certain areas. London and Singapore are examples where this has been undertaken.

General car ownership in Hong Kong is constrained by the costs of owning and maintaining the vehicle as it is in all other countries. Car ownership increases when disposable incomes move ahead faster than the ownership costs. There is therefore an inherent restraint on car ownership but less restraint on car usage. Pricing schemes such as those used in London and Singapore would produce a more focussed restraint on car usage in terms of time of day and location without affecting car ownership.

Perceived Problems in Central and Wanchai

Our preliminary review of Central and Wanchai identifies the following traffic related problems, which persist throughout much of the working day:

- Pollution
- High degree of conflict between pedestrians and traffic
- Low traffic speeds
- Extensive one way routings to cater for peak hour traffic and banned turns
- High degree of conflict between servicing traffic and through traffic
- Inadequate footway widths
- Inadequate kerb lengths for loading and unloading due to waiting restrictions
- Poor road hierarchy definition

Also, we find that Connaught Road Central, Harcourt Road and Gloucester Road, which form the main east-west route and which are classified as urban trunk roads, are sub-standard for this purpose. Trunk roads are intended to carry longer distance traffic between the major urban centres and are primarily intended to carry vehicular traffic with minimal pedestrian activity. The spacing of road junctions should ideally be 1km or more. We find however that the route has frequent side-road junctions in the form of off-and-on slips and a number of under-passes and over-passes that have been constructed to maintain through traffic movements at junctions such as at Pedder Street and at Cotton Tree Drive. It also has many bus stops along its length.

The proliferation of side road accesses creates problems of weaving and merging traffic, which have been controlled to a limited extent by a large array of double white lines. The stopping-and-starting of buses along the way further exacerbates the problem.

Finally, we note that Gloucester Road is badly affected by traffic queuing to enter the Central Harbour Crossing Tunnel in that all other traffic movements are impeded by the queuing traffic.

Suggested Package of Measures to be associated with any road scheme for Central and Wanchai

The CWB should carry with it a package of measures designed to lock in the benefits of the by-pass arising from the reductions of traffic flow in these areas.

These measures could include for example:

- Downgrading of Gloucester Road, Harcourt Road and Connaught Road to distributor status.
- A review of the road hierarchy and local access routes to simplify and improve hinterland access particularly from Gloucester Road, Harcourt Road and Connaught Road.
- Traffic calming and pedestrianisation schemes to create pedestrian priority areas and force out inappropriate traffic.
- Transfer of bus routes and stops onto Gloucester Road, Harcourt Road and Connaught Road from less suitable routes where possible.
- Greater emphasis on the needs of local servicing traffic.
- Balancing of the Central and Western Harbour Crossing Tolls so that more traffic uses the Western Harbour Crossing once the bypass is in place.

Minimum Functional Requirements of the Bypass and Surface Roads

If the CWB is to be constructed then we find that the government scheme in itself (ignoring reclamation proposals) is probably a “do-minimum” scheme in that it provides for a junction at each end and one in the middle at the Hong Kong Convention and Exhibition Centre (HKCEC). It also provides the missing link in the trunk road network on the north shoreline of Hong Kong Island.

If a review is undertaken of the CWB and its junctions, we recommend a reconsideration of the connections between the by-pass and the hinterland particularly with regard to providing for all directions of traffic movement at the HKCEC and Causeway Bay junctions so as to maximise usage of the by-pass especially for west bound traffic from Wanchai and Causeway Bay areas. If this could be achieved then this would go a long way to making access to Western Harbour Crossing from these areas more straightforward and would remove additional traffic from Central. In such reconsideration, the use of grade-separated roundabouts may produce a more compact solution than free flow slip roads. There are other surface roads associated with the reclamation, which may be reduced in scale depending on the amount of new development associated with the reclamation. Known problems that these surface roads should resolve are the access to the International Finance Centre (IFC) area, which is a problem since it was designed on the basis that surface roads would be provided on the reclamation.

Surface roads on the reclamation should facilitate internal local connections between any new developments (if any) on the reclamation. However, the creation of yet another east-west route should be avoided by minimising the capacity of the roads and creating frequent signal controlled junctions.

Alternative Schemes Considered

The Hong Kong Government and consulting traffic engineers and planners have studied the existing problems in Central and Wanchai for many years. It would be fair to say that the existing situation is the culmination of years of fine-tuning with traffic engineering solutions and small-scale infrastructure improvements. We believe no further significant improvements can be made with this type of solution.

In order to provide significant improvements in the affected areas, traffic flow must be reduced below their current levels and then held there. This would then facilitate the introduction of the improvement schemes mentioned above.

The necessary flow reduction can only be achieved practically by “demand restraint” using some form of road pricing but ensuring that it is appropriate to Hong Kong.

One method would be to increase the tunnel tolls to an extent that traffic flows to and from Hong Kong Island are reduced sufficiently to achieve the desired flow reductions in Central and Wanchai. Any such scheme would only be successful if a substantial proportion of the harbour crossing traffic had an origin or destination either in or passing through Central and Wanchai.

A second option would be to introduce electronic road pricing (ERP) such that the cost of travelling on the roads in Central and Wanchai was set at sufficiently high a level to effect the necessary traffic flow reductions. This latter option has the benefit of being much more selective in the choice of target area.

Either option would require a major change in government policy from one of catering for demand by gradually increasing network capacity to one of restraining demand to suit network capacity. For both options there would be a continuing need to increase charges over time so that the deterrent effect is not eroded by inflation and general growth in disposable incomes.

Conclusions

Reductions in traffic flow in Central and Wanchai are required to improve the environment and for operational reasons sooner rather than later. It should be remembered that the current method of road planning carries its own set of “external costs” that have never been factored into the overall equation. Once the various other benefits could be showed to exist and be “locked in” by an associated package of measures, policy-makers might find it easier to persuade the public to accept a policy change to implement road pricing more effectively.

Society for Protection of the Harbour Limited
保護海港協會有限公司

2006, *One Pacific Place*, Tel (852) 2845-8138
88 *Queensway, Hong Kong* Fax (852) 2845-5964

The Society for the Protection of the Harbour

**An Alternative Harbour Front for Central, Wan Chai and Causeway Bay
Option 1 : Including the Central - Wan Chai By-pass**

Summary

The approach is conceptual, based on sustainable development principles, good urban design and landscape design.

Fundamental Assumptions

1. The over-run tunnel for the Airport Railway will need to be completed;
2. The Star Ferry Pier will need to be relocated to allow for the over-run tunnel to be built;
2. The Central – Wan Chai By-pass will be built as designed in tunnel and reclamation;
4. Only limited small scale development facilitating public enjoyment will be permitted on the reclamation;
5. The number and size of roads is reduced.

Proposals for Central

The reclamation is reduced by approximately 60 to 100 metres and follows closely the alignment of the Central Wan Chai Bypass.

A new location closer to the existing piers is provided for the Star Ferry. The existing Pier 7 and proposed Pier 8 will be public piers to replace Blake's Pier and Queen's Pier. A waterfront park of around 3.9 ha is provided near Star Ferry.

A new east-west road, the Northern Avenue, will extend from Man Cheung St. at the IFC to join Hung Hing Road in Wan Chai. The alignment mainly utilises existing roads such as Lung Wui Road, Convention Avenue and Hung Hing Road.

The reclaimed area is mainly a Public Promenade. Only 2 storey buildings will be permitted for waterfront commercial and entertainment uses

The total area of the Central Reclamation is approximately 15 ha compared with approximately 25 ha in the Government's plan.

Proposals for Wan Chai

The reclamation closely follows the By-pass alignment. The Wan Chai Ferry Pier is relocated and should be developed as a pier and tourism feature along the Public Promenade.

The existing Wan Chai Swimming Pool and Sports Ground remain. There is no additional development proposed in the Wan Chai Area.

The proposed marina to the west of the Yacht Club is deleted as there will be adequate water area retained within the Causeway Bay typhoon shelter.

The reclamation in this area is reduced by 50 to 100 metres and is approximately 8.7 ha compared with approximately 14.6 ha in the Government's scheme.

Proposals for Causeway Bay

The Central Wan Chai By-pass rises on a bridge linking into the IEC so there is no need to reclaim land in the typhoon shelter. The water space for mooring boats should be adequate. The new bridge should be a design feature rather than a visual obstacle.

The proposed KCRC rail tunnel will require a vent building on reclamation in front of the World Trade Centre and Excelsior Hotel and this will also remove an area of dead water. The existing waterfront to the east is retained and improved, and could be rehabilitation to a more natural environment.

The Harbour Park is deleted.

A continuous Pedestrian Promenade of 10 metres width is provided along the eastern edge of the typhoon shelter to North Point by using existing public land or by provision of a boardwalk.

The reclamation would be reduced by over 100 metres in places. The area of reclamation is approximately 1.4 ha compared with approximately 12.2 ha in the Government's scheme which included the Harbour Park.

Summary Table

(Area in hectares)	Governments. Proposal	Alternative Proposal	Reduction
Central Reclamation	25.4	15.1	10.3
Wan Chai	14.6	8.7	5.9
Causeway Bay	12.2	1.4	10.8
Total	52.2 100%	25.2 48.3%	27 51.7%

November 2003

Society for Protection of the Harbour Limited
保護海港協會有限公司

2006, *One Pacific Place*, Tel (852) 2845-8138
88 *Queensway, Hong Kong* Fax (852) 2845-5964

Society for Protection of the Harbour

**An Alternative Harbour Front for Central, Wan Chai and Causeway Bay
Option 2 : Excluding the Central - Wan Chai By-pass**

Summary

The approach is conceptual, based on sustainable development principles, good urban design and landscape design.

Fundamental Assumptions

1. The over-run tunnel for the Airport Railway will need to be completed.
2. To build the Airport Railway over-run tunnel, the Star Ferry Pier will need to be relocated;
3. The Central – Wan Chai by-pass will not be built and alternative traffic management measures will control traffic in Central and Wan Chai.
4. Only limited small scale development which facilitates the public enjoyment of the water front and harbour will be permitted.
5. The number of additional surface roads required is minimal as no additional development is proposed and the major road is downgraded .

Proposals for Central

The reclamation is reduced by approximately by over 100 metres and is limited to the area near the Star Ferry and Tamar. The remainder of the waterfront is existing public land which is to be redesigned as a promenade.

A new location closer to the existing piers is provided for the Star Ferry while a new Queen's Pier is provided near the existing location. A waterfront park of around 3.9 ha is provided near Star Ferry.

A new east-west road, the Northern Avenue, will extend from Man Cheung St. at the IFC to join Hung Hing Road in Wan Chai. The alignment utilises existing roads such as Lung Wui Road, Convention Avenue and Hung Hing Road.

The reclaimed area is mainly a Public Promenade. Only two storey buildings will be permitted for waterfront commercial and entertainment uses

The total area of the proposed Central Reclamation is approximately 4.5 ha compared with approximately 25 ha in the Government's plan.

Proposals for Wan Chai

There is no reclamation in the Wan Chai area. The existing promenade around the Exhibition and Convention Centre is improved. The Wan Chai Ferry Pier remains as it is. Additional pedestrian connection to the east and to the former Cargo Handling Area is provided on a boardwalk

The former Cargo Handling Area could become a vibrant waterfront activity area with scope for marine activities and entertainment, a public landing area and tourist boats. There is scope for restaurant and retail activities to be included in this area.

The existing Wan Chai Swimming Pool and Sports Ground remain. There is no additional development proposed in the Wan Chai Area.

The proposed marina to the west of the Yacht Club is deleted as there will be adequate water area retained within the Causeway Bay typhoon shelter.

The reclamation in this area is reduced by 50 to 100 metres and there would be no compared with approximately 14.6 ha in the Government's scheme.

Proposals for Causeway Bay

Without the Central Wan Chai By-pass the existing Yacht Club facilities remain unaffected so no reprovisioning is required.

The proposed KCRC rail tunnel will require a vent building on reclamation in front of the World Trade Centre and Excelsior Hotel and this will also remove an area of dead water. The existing waterfront to the east is retained and improved, and could be rehabilitation to a more natural environment.

The Harbour Park is deleted.

A continuous Pedestrian Promenade of 10 metres width is provided along the eastern edge of the typhoon shelter to North Point by using existing public land or by provision of a boardwalk.

The reclamation would be reduced by over 100 metres in places. The area of reclamation is approximately 0.7 ha compared with approximately 12.2 ha in the Government's scheme which included the Harbour Park.

Summary Table

(Area in hectares)	Governments. Proposal	Alternative Proposal	Reduction
Central Reclamation	25.4	4.5	20.9
Wan Chai	14.6	0	14.6
Causeway Bay	12.2	0.7	11.5
Total	52.2 100%	5.2 10%	47.0 90%

November 2003