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Representation in respect of The Draft Fanling/Sheung Shui Extension Area OZP No. S/FSSE/1

REPRESENTATION: TRANSPORT AND TRAFFIC

- Introduction
- Review of TTIA
 - Strategic
 - Location
 - District/Local
 - Conclusion
- Fanling Golf Club
 - Daily Operations
 - Tournaments
- Closing Remarks

FRED BROWN



TTIA FOR PUBLIC HOUSING DEVELOPMENT PROPOSAL: SUMMARY OF FINDINGS

LOCATION

FGC-PD Site severed from Sheung Shui New Town by Fanling Highway

FGC-PD Site far beyond walk-in catchment of MTR Sheung Shui station

Limited local jobs requiring residents to commute to rest of North District or to urban areas

FGC-PD Site will be dependent on roadbased travel – buses, coaches, GMB, taxis and private vehicles

In terms of sustainability and accessibility, falls short of Best Planning Practice for high density development in Hong Kong



STRATEGIC TRAFFIC IMPACT

Population of Fanling/Sheung Shui/Kwu Tung/San Tin set to double by around 2032

Route 9 will be under immense pressure in role as sole North District East-West strategic highway, Cross Boundary Distributor, forming Northern Metropolis Outer Ring Road

Tai Tau Leng roundabout at or overcapacity and unable to accommodate additional traffic even with Po Shek Wu Road flyover

TTIA states ~80% of FGC-PD Site traffic pass through Tai Tau Leng roundabout



LOCAL TRAFFIC IMPACT

Ping Kong Road, a single cul-de-sac access road, serves FGC-PD Site and existing developments connecting to Po Kin Road and onwards to Fan Kam Road with

- 7 closely-spaced junctions
 - 3 signalised junction, 1 roundabout
 - 3 entrances to North District Hospital
- Multiple conflict points and right-turns
- Sub-standard junction spacing

Traffic Consequences

- Serious traffic congestion
- FGC-PD Site access congested
- Delays to public transport

North District Hospital

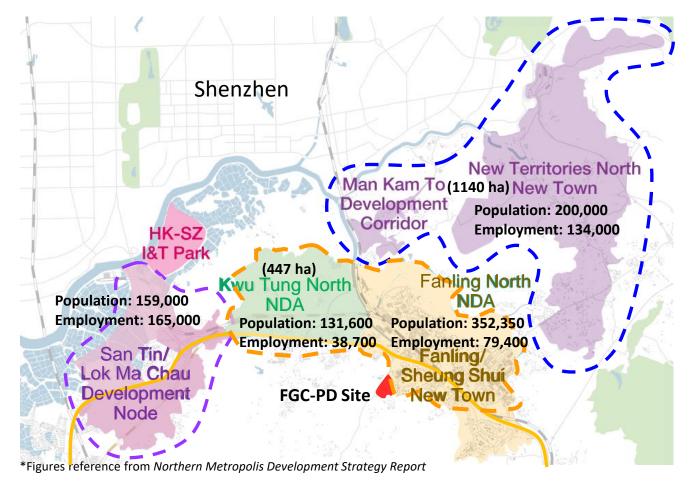
Puts reliable access and A&E at risk





HONG KONG GOLF CLUB

NORTHERN METROPOLIS: NORTH DISTRICT KEY DEVELOPMENTS - POPULATION / EMPLOYMENT GROWTH



- Substantial changes and population increases announced since 2016
 TPEDM Planning Dataset used for TTIA
- Our focus is on Fanling/Sheung Shui/Kwu Tung/Fanling North plus initial phases of HK-SZ L&T Park/San Tin Technopole by around 2032
- New Territories North New Town and associated infrastructure way beyond evaluation period

Key Developments	Population	Employment	
Existing (Year 2019)	258,300	64,100	
Near Term (2019-2031) Fanling / Sheung Shui Town - (including Fanling North NDA) Kwu Tung North NDA	+94,050 +131,600	+15,300 +38,700	
Add Sub total (upon 2031)	+225,650 <mark>(+87%)</mark> <u>483,950</u>	+54,000 <mark>(+84%)</mark> <u>118,100</u>	
Medium Term (2031-2034) San Tin / LMC (HK-SZ I&T Park exclusive)	+159,000	+165,000	
Add Sub total (upon 2034)	+384,650 <mark>(+149%)</mark> <u>642,950</u>	+219,000 <mark>(+342%)</mark> <u>283,100</u>	
Longer Term (Beyond 2036) NTN New Town / MKT Development Corridor	+200,000	+134,000	
Add Total (beyond 2036)	+584,650 <mark>(+226%)</mark> <u>842,950</u>	+353,000 <mark>(+551%)</mark> <u>417,100</u>	

Note: Increase over 2019 (in percentage)

	<u>Population</u>	
Near Term	~ nearly doubles	
Medium Term	~ 2.5 times	
Longer Term	~ trebles	



TWIN CITIES AND THREE CIRCLES



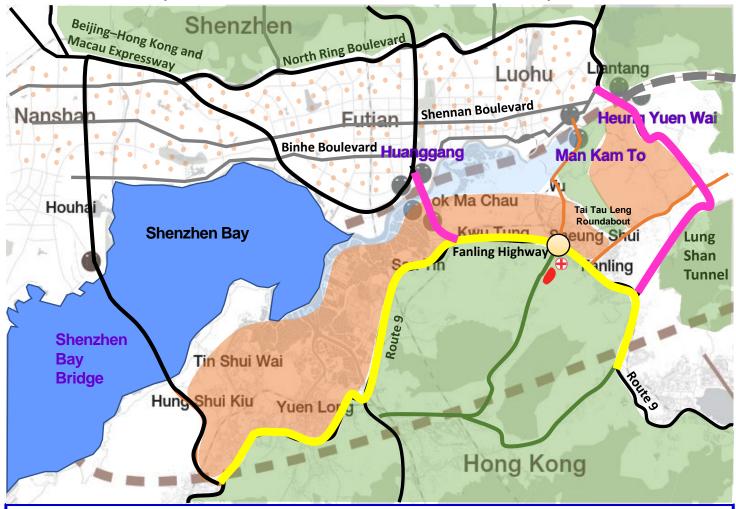
TAI TAU LENG ROUNDABOUT AND FLYOVER

PIVOTAL FULCRUM OF NEW TERRITORIES NORTH STRATEGIC ROAD NETWORK SERVING THE TWIN CITIES, THREE CIRCLES



ROLE OF ROUTE 9 / TAI TAU LENG ROUNDABOUT

Northern Metropolis/Shenzhen Road Network Hierarchy



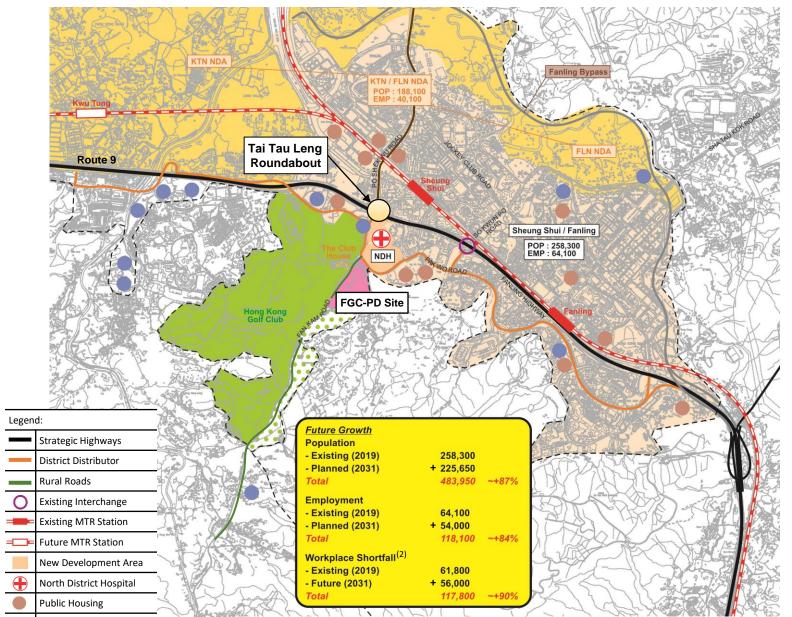
VITAL TO SECURE EFFICIENT CONGESTION FREE OPERATION OF TAI TAU LENG ROUNDABOUT AND FLYOVER ON ROUTE 9

	Northern Metropolis
	Urban Development
	Green Belt
	Wetlands
	Strategic Highways
	Primary Corridors
	District Distributor
	Rural Roads
	Tai Tau Leng Roundabout
•	North District Hospital
	FGC–PD Site

Route 9

- Outer Ring Road for Northern Metropolis
- Strategic connector/distributor for Cross Boundary traffic
- Tai Tau Leng Roundabout and Flyover sole link for East-West traffic in North District
- Immediate district-wide access to North
 District Hospital
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ISSUE: MAJOR INCREASE IN TRAVEL AND TRAFFIC DEMANDS IN SHEUNG SHUI / FANLING / KWU TUNG BY 2032



Private Housing

- Population set to double
- Workplace Shortfall remains
- Out-commuting to increase substantially
- Car Ownership potentially up by around 40% or more⁽¹⁾
- East Rail Line addition of Kwu Tung
 Station and resurgence of cross
 boundary rail travel places pressure on
 Sheung Shui Station and East Rail
 corridor

TRAVEL AND TRAFFIC DEMANDS SET TO DOUBLE

EFFICIENT USE OF EXISTING AND COMMITTED STRATEGIC ROAD AND RAIL AT A PREMIUM TO UNDERPIN INITIAL PHASES OF NORTHERN METROPOLIS



- (1) Assuming 3.0% p.a. growth 2021 to 2032, reference from *Private Cars in Hong Kong, Statistical Highlights ISSH01/2022*, published by Legislative Council Secretariat (2022)
- (2) Assuming 49% of working population over total population in 2019, reference from Table 110-02001 & Table 210-06822, published by C&SD

OUTDATED / OMITTED TTIA ASSUMPTIONS

Missing Approved Development Sites

Site Location	Use	No. of Units	Source
San Wan Road, Fanling	Public Rental Housing	450	HKHA's Planning Brief (Jan 2022)
FSSTL 262, Ma Sik Road	Private Residential	1,723	A/FLN/17 (17/05/2019)
Fanling Area 17 Sites B1 & B2	Private Residential	1,600	Proposed Amendments to the Approved Fanling/Sheung Shui OZP No. S/FSS/24
R(A) Site at Fanling Area 40	Private Residential	300	Approved Fanling/Sheung Shui OZP No. S/FSS/23
CDA Site at Kam Hang Road	Private Residential	1,573	Y/NE-KTS/12 (20/09/2019)
CDA Site at Kam Hang Road - Site A	Private Residential	971	Y/NE-KTS/14 (18/12/2020)
CDA Site at Hang Tau Tai Po	Private Residential	320	Y/NE-KTS/13 (10/12/2021)
CDA Site at Hang Tau Road	Private Residential	37	A/NE-KTS/484 (05/02/2021)
Total 6,974			

Approved public and private developments, total of **7,000** flats NOT found in the TTIA

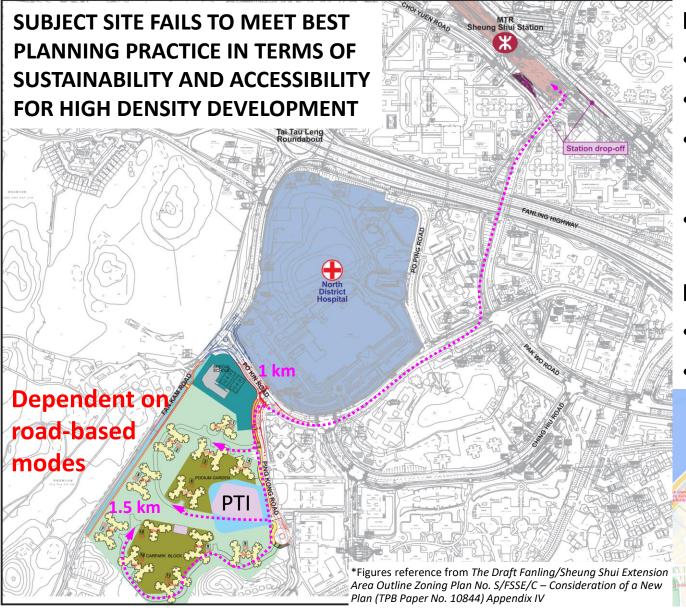
Additional no. of flats in KTN and FLN Rezoning and Upzoning exercise

Rezoning and Upzoning exercise	Use	Additional no. of units (about)	Source
Kwu Tung North & Fanling North NDA	Public Housing	6,000	Proposed Amendments to the Approved KTN OZP No. S/KTN/2 & FLN OZP No. S/FLN/2
Kwu Tung North & Fanling North NDA	Public Housing Private Residential	10,000	A/KTN/93 (23/09/2022) A/FLN/30 (23/09/2022)
	Total	16,000	

Rezoning and Upzoning in FLN/KTN NDAs, extra **16,000** flats, which are NOT included in the TTIA



PERIPHERAL LOCATION FOR HIGH DENSITY DEVELOPMENT AT FGC-PD SITE



Local Catchments

- Limited employment opportunities
- Limited secondary and tertiary schools
- Far beyond MTR walking catchment
 - 1.5 km to centre of FGC-PD Site
- TTIA correctly assumes FGC-PD dependent on feeder bus to Sheung Shui Station

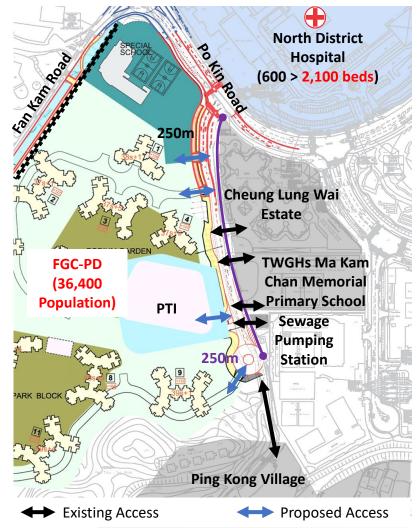
Dependent on road-based modes

- Bus, coach, GMB, taxi and private vehicles
- High mechanised trip rates, vehicle mileage



DISTRICT / LOCAL REVIEW OF TTIA REPORT

Ping Kong Road as a Single Access Road



^{*}Based on The Draft Fanling/Sheung Shui Extension Area Outline Zoning Plan No. S/FSSE/C – Consideration of a New Plan (TPB Paper No. 10844) Appendix IV

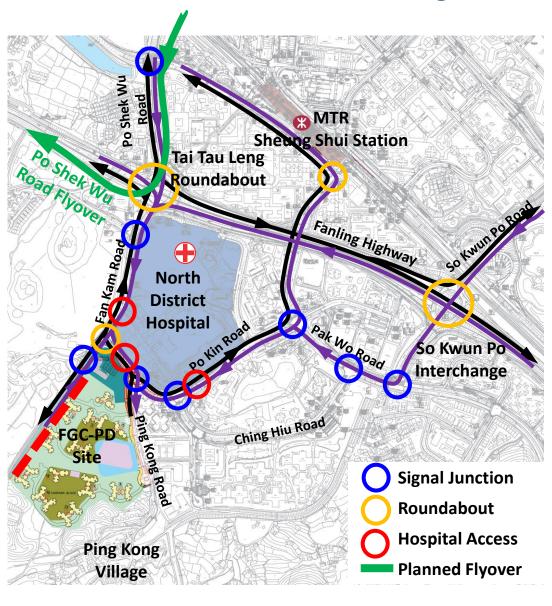
Existing Development	Parameters
Cheung Lung Wai Estate Primary School Ping Kong Village	1,300 units (3,600 population) 1 no. of 36-classroom Population (in hundreds)
Proposed Development	Parameters
FGC-PD Site * 1. Public Housing	13,000 units (36,400 population) ~ 10 x existing popul - 1,690 nos. parking space
2. Public Vehicle Park	300 nos. parking space
3. Special School	1 no. of 30-classroom
 4. Non-domestic Local Retail Kindergartens Community Hall Others Facilities (e.g. Social Welfare) 	 40,000 m² 10,000 m² 24 nos. of classroom 1,260 m² 26,540 m²
5. Public Transport Interchange	6 bus routes, minibus routes, taxi stand

- Only one shared access road
- Junction with Po Kin Road
- Upgrade to 10.3m-wide, single 2-lane carriageway
- Cul-de-sac at Ping Kong Village
- 5 existing vehicular accesses, 4 proposed accesses all within 250m
- Fan Kam Road congestion, no access (from TTIA report)

Single cul-de-sac access road with <u>9</u> accesses to future development, over 2,000 parking spaces and Big PTI Liable to congestion, delays to public transport and puts emergency services at risk

1889

Local Road Network Serving FGC-PD Site by 2032 Evaluation Year



Po Kin Road / Fan Kam Road

- 7 closely-spaced junctions
 - with 3 signalised junctions and 1 roundabout
 - 3 entrances to North District Hospital including A&E entrance
- Multiple junction conflicts (right-turns)
- Restricted traffic lanes at junction approaches
- Short queuing lengths between junctions
- Fan Kam Road at capacity (from TTIA report)

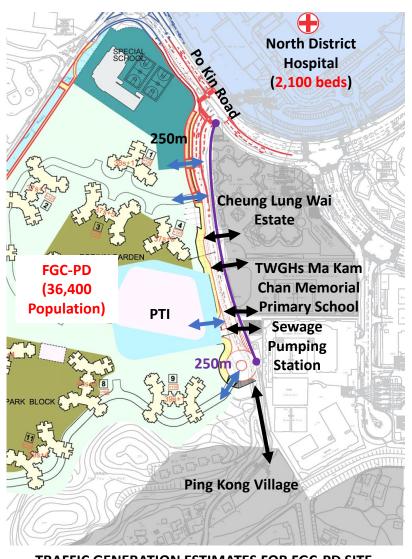
Local road network very restricted in capacity and a potential bottleneck serving the area south of Route 9 and North District Hospital

Tai Tau Leng Roundabout

- At-grade roundabout to be used by 80% of FGC-PD traffic (from TTIA report)
- Interchange with Route 9 for Sheung Shui (West)
- One-way flyover from north of East Rail Line to Route 9 westbound

Tai Tau Leng Roundabout is critical serving Sheung Shui, and revitalisation of cross-boundary connections in the phased development of Northern Metropolis

TTIA: Traffic Generation Estimates for FGC-PD Site (Critical AM Peak)



TRAFFIC GENERATION ESTIMATES FOR FGC-PD SITE SUBSTANTIALLY UNDERESTIMATED IN THE TTIA

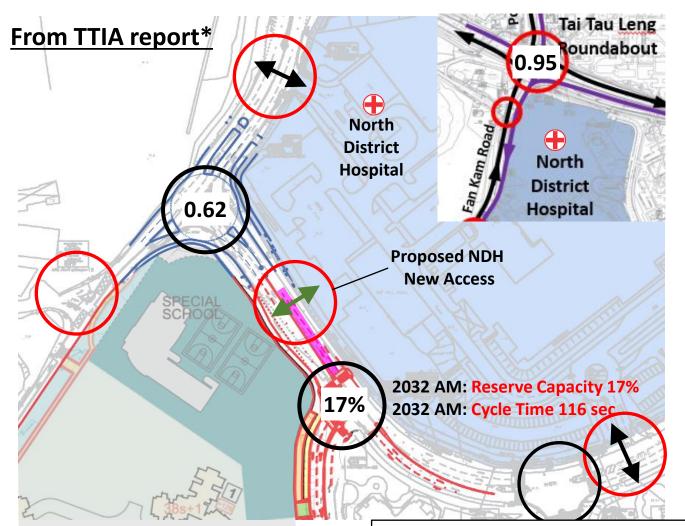
^{*}Based on The Draft Fanling/Sheung Shui Extension Area Outline Zoning Plan No. S/FSSE/C – Consideration of a New Plan (TPB Paper No. 10844) Appendix IV

	(All in PCU/hr)		
Development	Parameters	Generation	Attraction
Existing Use (by 2032) Cheung Lung Wai Estate Primary School Ping Kong Village	1,300 units (3,600 population) 1 no. of 36-classroom Population (in hundreds)		
(2032 Refere	nce) Original Ping Kong Road Trips	195	125
Proposed FGC-PD Site * 1. Public Housing 2. Public Vehicle Park 3. Special School	13,000 units (36,400 population) 300 nos. parking space 1 no. of 30-classroom	+562 +36 +7	+424 +15 +30
	Add FGC-PD Trips	+605	+469
(2032 Design) Total Pink Kong Road Trips in TTIA		800	594
 4. Non-domestic Local Retail Kindergartens Community Hall Others (Social Welfare Facilities) Day-care unit Hostel/RCHE type 5. Public Transport Interchange Long-haul Bus Feeder Bus GMB Taxi Stand 	 40,000 m² 10,000 m² 24 nos. of classroom 1,260 m² 26,540 m² 480 service places 426 beds 3 routes (8 min headway) 3 routes (6 min headway) TBC TBC 	Missing +23 +55 - +37 +16 Missing +56 +75 -	Missing +24 +55 - +37 +15 Missing +56 +75 -
	Add Missing FGC-PD Trips	+262	+262
(2032 Design) Total Ping K	(Added % on TTIA 2032 Design) Cong Road Trips for Re-Assessment	(+33%) 1,062	(+44%) 856

33% to 44% Trips Missing in TTIA



Traffic Impact Assessment in TTIA



Assumptions – TTIA Underestimated

- Strategic outdated 2016-TPEDM
- District Min. 23,000 units omitted
- FGC-PD Site PTI, retail, G/IC trips omitted, and,

Re-assessment (AM Peak): Generation +33% / Attraction +44%

Junction Assessment Results (AM Peak)

- Po Kin Road/Ping Kong Road (RC = +17%) marginal
- Po Kin Road/Fan Kam Road (RFC = 0.62)
- Tai Tau Leng Roundabout (RFC = 0.95) marginal

Missing Junction Assessments

- 3 junction entrances for North District Hospital
- Fan Kam Road / Golf Club entrance junction

Missing Traffic Analysis

- Interaction between closely-spaced junctions
- Use of Long Cycle Time (e.g. long queue)
- Queue length blocking NDH entrances

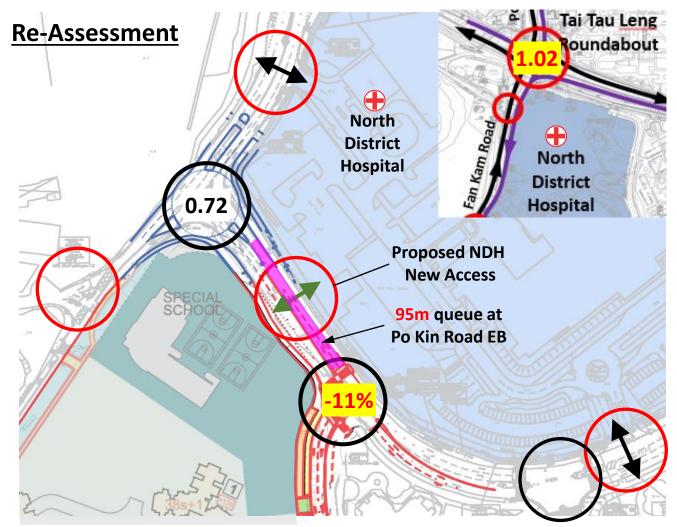
*Based on The Draft Fanling/Sheung Shui Extension Area Outline Zoning Plan No. S/FSSE/C — Consideration of a New Plan (TPB Paper No. 10844) Appendix IV

TTIA invalidated by underestimation of:

- Background traffic forecast in North District
- Omission of District planned developments
- Omission of FGC-PD Site traffic trips (e.g. retail, G/IC, PTI trips)



Re-Assessment of Traffic Impact with Missing FGC-PD Trips



*Based on The Draft Fanling/Sheung Shui Extension Area Outline Zoning Plan No. S/FSSE/C – Consideration of a New Plan (TPB Paper No. 10844) Appendix IV

Re-Assessment with inclusion of FGC-PD Site:

- Missing PTI trips
- Missing Retail trips
- Missing G/IC: social welfare trips

Junction Re-Assessment Results (AM Peak)

- Po Kin Road/Ping Kong Road (RC = -11%) Over-capacity
- Po Kin Road/Fan Kam Road (DFC = 0.72)
- Tai Tau Leng Roundabout (DFC = 1.02) Over-capacity

Po Kin Road / Ping Kong Road will be a BOTTLENECK in local network

Junction queue will block Hospital new access puts emergency services at risk

Tai Tau Leng Roundabout over-capacity and disrupt access to/from Sheung Shui and potentially traffic flow along Route 9

Note: <u>NOT INCLUDE</u> under-estimation of traffic volumes due to application of outdated 2016 TPEDM data and omission of 23,000 public and private housing units in the District

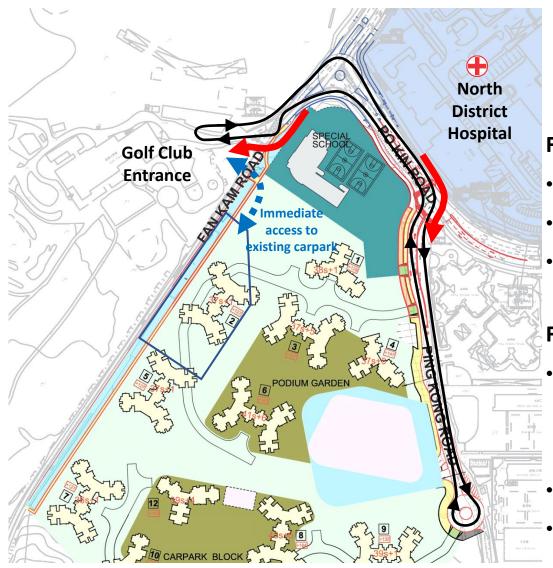


Conclusion

- TTIA based on outdated planning assumptions / omitted developments / missing trips for PTI, retail, social welfare facilities in FGC-PD Site
- TTIA and associated traffic design not technically acceptable and invalid
- Conservative Re-assessment indicates:
 - Serious congestion in the local network (the Po Kin Road / Fan Kam Road section) adversely impacting on the daily lives of the local residents and facilities in the immediate area.
 - Critical **Tai Tau Leng roundabout** will be **over-capacity** and impacts on Route 9 operation, access to Sheung Shui, and public transport operations
 - Junction queue will block new entrance of North District Hospital and adversely impact both District-wide emergency access via Route 9 / Tai Tau Leng roundabout, and local access to 3 hospital entrances at Fan Kam Road / Po Kin Road. Putting the Health and Safety of the North District Population at Risk.

THE FGC-PD SITE PROPOSAL CANNOT BE SUPPORTED ON TRANSPORT AND TRAFFIC GROUNDS

Impact on FGC current daily operations



*Figures reference from The Draft Fanling/Sheung Shui Extension Area Outline Zoning Plan No. S/FSSE/C – Consideration of a New Plan (TPB Paper No. 10844) Appendix IV



FGC Car Park Today

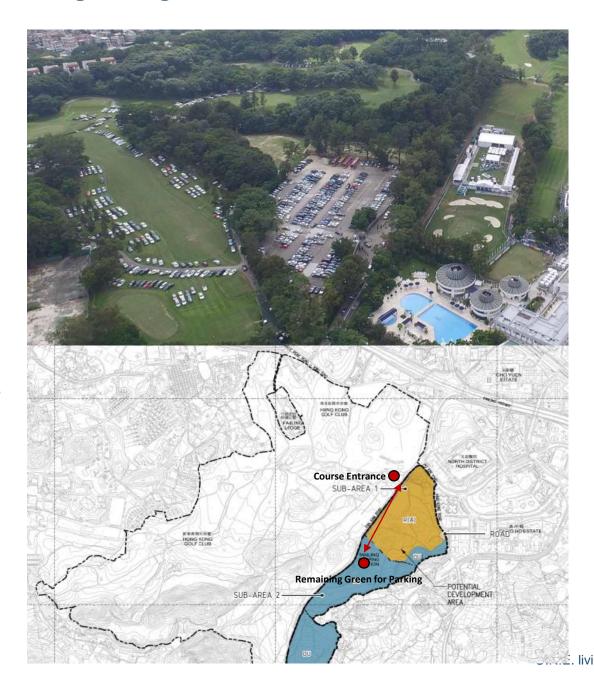
- Existing car park 315 spaces
- Peak Occupancy >100% on normal weekday
- Convenient pedestrian access between the car park and the Club house

From TPB Paper

- Potential reprovision of 300 spaces
 - not exclusive for golf course
 - not practical and potential shortfalls
- No specific PVP location shown in FGC-PD Site
- Re-routing of pick-up/drop-off/shuttle trips not mentioned in TTIA or traffic impact
- Additional right turn traffic into FGC-PD Site and Golf Course

Tournament Golf: Traffic, Parking and Servicing Arrangements

- During Tournaments
 - Visitor Parking:
 - Range over 500 to several thousands
 - Utilise Holes 1 to 3 for parking
 - Coach and Tour Bus
 - Servicing
 - Emergency
 - Build Up/Take Down Equipment
- The TPB paper states INCORRECTLY "the proposed 300-space should be able to meet demand for public parking spaces generated by the hosting of local and international sports events in the Fanling Golf Course nearby"*
- Loss of FGC-PD Site results in golf parking remote from Course Entrance
- Access arrangements off Fan Kam Road or FGC-PD Site neither satisfactory or assessed
- Pedestrian routing via FGC-PD Site to golf course entrance not addressed





AND...



A Place to Live, Work and Play – Offering a Full Basket of Life Experiences and Choices



Ocean Park (1)



Star Ferry (5)



Tram (6)



Horse Racing (7)

Photo source from Tiffany Chan Instagram

Photo source from Ocean Park Official Facebook

Photo source from Hong Kong Golf Association



Country Park (8)



Tiffany Chan (2)



Taichi Kho⁽³⁾



Fanling Golf Club (9)



Cheung Ka Long (10)



Lee Wai Sze (11)



Dragon Boat (4)



Hong Kong National Football Team (12)



Hong Kong Sevens (14)



Standard Chartered Hong Kong Marathon (13)



Hong Kong Tennis Open (15)

Its Hong Kong's Advantage Let's make the most of it !!!

- Photo source from Hong Kong Tramways Official Website
- Photo source from Hong Kong Jockey Club Official Website
- Photo source from South China Morning Post
- Photo Source from Hong Kong Golf Club Official Website
- 10) Photo source from Cheung Ka Long Instagram

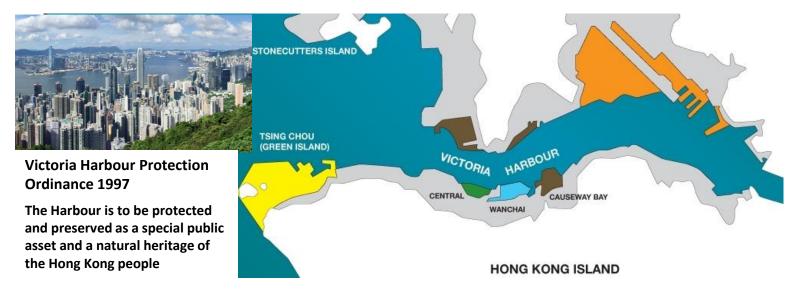
- 11) Photo source from Lee Wai Sze Facebook
- Photo source from The Football Association of Hong Kong, China Instagram
- Photo source from Standard Chartered Hong Kong Marathon Official Facebook
- 14) Photo source from Hong Kong Rugby Sevens Official Instagram

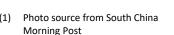


Photo source from Hong Kong Tourism Board Official Website Photo source from Star Ferry Official Website

15) Photo source from Hong Kong Tennis Open Official Instagram

Changing Times – Changing Directions......and......Changing Opportunities





- (2) Photo source from MTR Official Website
- Figure source from Northern Metropolis Development Strategy Report
- Photo source from Urban Renewal Authority Official Website
- 5) Photo source from Hong Kong Tourism Board Official Website
- Base figure source from Society for Protection of the Harbour Ltd.

Lantau Tomorrow (1) Railway Development (2) White Parameter (4)



New Opportunities

- **■** Lantau Tomorrow
- Northern Metropolis
- Urban Renewal
- Railway Development

