

**For discussion on
20 March 2020**

Legislative Council Panel on Transport

**Enhancement of Safety of Franchised Buses
and Creation of Directorate Posts in the Transport Department**

PURPOSE

On 8 January 2019, the Government released the Report submitted by the Independent Review Committee on Hong Kong’s Franchised Bus Service (“IRC”) to the Chief Executive. The Government briefed Members on the follow-up actions in relation to the recommendations put forward in the Report at the Transport Panel meeting on 18 January 2019. This paper updates Members on the latest follow-up actions taken by the Government, and invites Members’ views on the proposal to establish a dedicated franchised bus safety team in the Transport Department (“TD”) led by three permanent directorate posts to strengthen support in enhancing the safety of franchised buses (“FBs”).

**PROGRESS OF THE GOVERNMENT’S FOLLOW-UP ACTIONS ON
IRC’S RECOMMENDATIONS AND OTHER INITIATIVES**

2. Following the fatal traffic incident involving an FB on Tai Po Road on 10 February 2018, the Chief Executive set up the IRC¹ to comprehensively review the operation and management of FBs to ensure the safety and reliability of public bus services in Hong Kong. The IRC Report, submitted to the Chief Executive on 31 December 2018, put forward a total of 45 recommendations under 16 areas with a view to sustaining a safe and reliable FB service.

¹ The IRC was chaired by the Honourable Mr Justice Michael Victor Lunn, with two members, namely Mr Rex Auyeung Pak-kuen and Professor Lo Hong-kam.

3. Upon receipt of the IRC Report, the Government has been actively pursuing the recommendations in collaboration with the FB operators and other stakeholders where appropriate. As at end-2019, among the 45 recommendations put forward in the IRC Report, **43** have been implemented or are being implemented (with some of them becoming on-going measures/actions). The Government is studying the remaining two recommendations, which involve legislative amendments or hinge on the implementation progress of the other initiatives, in detail to formulate the next steps. The recommendations and the Government's follow-up actions are detailed at **Annex A**.

4. The major follow-up actions taken by the Government in response to the IRC Report and other initiatives implemented or being implemented are highlighted in paragraphs 5 to 24 below.

Institutional Set-up

5. To strengthen TD's efforts in enhancing FB safety, the Department has revamped its Working Group on the Enhancement of Safety of FB [now renamed the Committee on Enhancement of FB Safety ("the FB Safety Committee")] into a permanent set-up in early 2019. The FB Safety Committee serves as a standing platform for the Government, all FB operators and relevant stakeholders (including experts²) to discuss, study, implement and promote measures to further enhance FB safety in Hong Kong. It is supported by two Sub-committees, namely the Sub-committee on Training, Fatigue and Work Hour Management of Bus Captains, and the Sub-committee on In-vehicle Safety Devices and Technologies. The FB Safety Committee and Sub-Committees meet regularly and have been advising on and overseeing the Government's follow-up actions in relation to the IRC's recommendations closely. Since April 2019, a total of ten FB Safety Committee and Sub-committees meetings have been held.

² Members of the FB Safety Committee include two independent experts, Professor Wong Sze Chun (Chair of Transportation Engineering and Associate Dean (Development and External Relations) of the University of Hong Kong), and Professor Chetwyn Chan (Chair Professor of Rehabilitation Sciences, Director of the University Research Facility in Behavioural and Systems Neuroscience, and Associate Vice President (Learning and Teaching) of the Hong Kong Polytechnic University), and all FB operators, namely the Kowloon Motor Bus Co. (1933) Ltd., Long Win Bus Co. Ltd., New World First Bus Services Ltd., Citybus Ltd. and New Lantao Bus Co. (1973) Ltd. Ad-hoc members (e.g. major bus manufacturers, drivers' unions) would be invited to attend the FB Safety Committee and Sub-committees on particular discussion subjects as appropriate and necessary.

Installation and Enhancement of In-vehicle Devices / Technologies to assist Safe Driving

Installation of seat belts on FBs

6. In order to provide an extra protection to seated passengers, all new buses procured from July 2018 onwards will have all passenger seats installed with seat belts. As at end-2019, all passenger seats of about 400 new buses have been equipped with seat belts. In the coming three years, a further about 1 000 new buses are expected to be in service.

7. As regards existing buses, in line with the IRC's recommendation, TD engaged an independent consultant³ in February 2019 to conduct a cost-benefit analysis on retrofitting seat belts on passenger seats of the upper deck of existing FBs⁴. The study, which was completed in September 2019, concluded that it was cost-effective to retrofit seat belts on the upper deck of about 1 900 existing double-deck buses that were registered in and after 2016. To maximise the safety benefits brought to passengers by FBs retrofitted with seat belts, the deployment priority of the retrofitted buses would be given to routes operating on roads with higher speed limit (i.e. expressways, followed by roads with speed limit of 70 km/hour or above); and among the routes operating on roads of the same speed limit, priority would be given to those with a longer journey distance.

8. The FB operators will commence the retrofitting work in Q2 2020. It is expected that about 700 existing buses would be retrofitted with seat belts in 2020, and the target is to complete the retrofitting work in three years.

9. TD will also actively promote the wearing of seat belts on FBs jointly with the Road Safety Council, the Police and FB operators through passenger education and publicity. As to whether to mandate the wearing of seat belts on

³ PolyU Technology and Consultancy Company Limited was engaged to conduct the cost-benefit analysis.

⁴ The bus manufacturers advised that the floor structure of the lower deck of existing buses is not designed for seat belt installation and that the bus body's frame cannot absorb the relevant impact force. Hence, it is technically infeasible to retrofit seat belts on passenger seats of the lower deck of buses.

FBs, there are some relevant factors that require further deliberation, including the facts that not all FBs are equipped with seat belts, that passengers are allowed to stand on the lower deck of FBs, and that bus captains may have concerns about enforcement. The Government will nonetheless examine the issue in more details.

Installation of bus safety devices

10. All new buses procured from July 2018 onwards by the FB operators will be incorporated with (a) electronic stability control⁵ (“ESC”) and (b) retarder for capping the maximum speed of the speed limiters on downhill (“speed limiting retarder”⁶). For existing buses, TD has conducted cost-benefit analyses on retrofitting these safety devices and considered that all existing double-deck buses which are technically feasible to be retrofitted with ESC and speed limiting retarder (about 4 200 in total) should have these two devices retrofitted. The FB operators will commence the retrofitting work in the first half of 2020 for target completion in four years. When the retrofitting work is completed by end-2023, and together with the newly procured buses, there would be more than 5 500 buses fitted with ESC and speed limiting retarder.

Installation of driver assistance or monitoring devices

11. The FB operators have been conducting trials on advanced driver assistance systems (“ADAS”), including anti-collision and lane keeping warning systems, to establish the effectiveness of these add-on devices. The operators have started the installation of ADAS by phases since Q4 2019 with a view to completing the installation on about 1 700 buses by Q4 2020.

12. The FB operators have also been conducting trials of driver monitoring systems (“DMS”). The DMS monitors the bus captain’s behaviour on board and alerts him/ her if it detects a lack of attention or drowsiness. The operators are

⁵ The system improves the stability of a vehicle and reduces the risk of a vehicle to rollover in extreme cornering or evasive manoeuvres. When loss of steering control is detected, the system will automatically activate the electronic braking system of the vehicle to assist steering and keep the vehicle running on its intended track. The system may also reduce the engine power until the control of the cornering vehicle is regained.

⁶ The device slows down a bus when the speed is over the pre-set threshold even under the downhill rolling situation.

reviewing the accuracy and effectiveness of the systems, and collecting feedback from their bus captains before deciding on the way forward. Preliminarily, the operators will consider putting priorities of installing DMS on buses deployed for long-haul routes via expressways and roads with higher speed limits.

Better use of electronic data recording device installed on FBs

13. It has been a franchise requirement for all FBs to be installed with an electronic data recording device (commonly known as the “black box”). Real-time alerts to bus captains as well as exception reports were generated automatically from the black box data in relation to instances of speeding and harsh deceleration. The FB operators will review the exception reports, investigate improper driving behaviour and take appropriate follow-up actions with the bus captains concerned. To better use the black box data and in the light of the IRC’s recommendation, TD and FB operators have instituted a set of tightened common thresholds for generating real-time alerts and exception reports on speeding and harsh deceleration for gradual implementation in consultation with bus captains.

Enhancing the Training and Working Environment of Bus Captains

Bus captains’ working hours, rest time and fatigue management

14. To further enhance driving safety of FB captains, TD updated the Guidelines on Bus Captain Working Hours, Rest times and Meal Breaks (“the Guidelines”) in February 2018, with improvements in maximum driving hours and minimum rest break arrangements, and has been closely monitoring and following up on the implementation of the revised Guidelines by the FB operators. In this regard, the FB operators have undertaken to achieve a maximum of 13-hour special shift (vis-à-vis 14-hour special shift as stipulated under the current Guidelines), subject to the progress of the recruitment of bus captains to fill up the shortfall arising from the shortening of duty hours and driving hours of the existing captains. The FB operators have already started to implement the 13.5-hour special shift arrangement and will continue to work towards the more ambitious target of 13-hour special shift by end-2020.

15. In the light of the IRC’s recommendation concerning a further review of the Guidelines, over the past six months, TD has conducted literature review and studied research reports on driver fatigue in some overseas jurisdictions. It has come to the notice of the Department that a host of factors (including working hours, duty roster arrangement, rest times, as well as daily routine, sleep patterns and personal physical condition of the bus captains etc.) might cause fatigue on bus captains.

16. TD has discussed the issue with the expert member of the FB Safety Committee from the Hong Kong Polytechnic University and two other local experts⁷, and is planning to appoint independent local expert(s) to conduct a comprehensive research on identification and management of fatigue driving in the FB industry in Hong Kong. The preliminary study directions include:

- (a) understanding the overall situation of fatigue driving of FB captains, the root of the problems and the causes;
- (b) studying the correlation between FB captains’ working hours, rest times and duty roster arrangement (including special shifts) stipulated in the existing Guidelines and fatigue driving of bus captains; and
- (c) exploring corresponding improvement strategies and measures.

All FB operators and their bus captains will be engaged in the study.

Provision of rest and toilet facilities for bus captains

17. TD has endeavoured in every possible way to assist in providing a better working environment for bus captains. To this end, the Government has amended the Hong Kong Planning Standard and Guidelines (“HKPSG”), which stipulate the requirements on the provision of bus regulator’s office and ancillary facilities (e.g. rest room and toilet facilities) at bus termini and public transport interchanges (“PTIs”), while taking into account the operational need of FB. TD has also revised the relevant provisions in its Transport Planning and Design Manual to include guidelines on the provision of basic facilities such as rest

⁷ One is a registered occupational therapist, chartered safety and health practitioner, certified work capacity evaluator and registered driving assessor, and the other is an industrial engineer whose research focuses on the application of human factors on health care work system.

rooms and toilets etc. for bus captains and staff in the planning of new bus termini and PTIs, and provided a layout template with the concerned area provision for the planners' reference. The Government will provide bus regulator's office, rest room and toilet facilities when planning new bus termini and PTIs in accordance with the HKPSG.

Strengthening Bus Accident Analyses and Safety Performance Management

FB accident data

18. TD and FB operators have reached consensus on standardising and aligning the compilation and presentation of bus accident data. As requested by TD, the FB operators have been reporting all accidents involving FBs on a monthly basis as well as compiling accident statistics/ data in the safety chapter of their annual Forward Planning Programmes ("FPPs") to be submitted to TD each year. In response to the IRC's recommendations, the operators have also agreed to make public the accident statistics/ data in the safety chapter of the FPPs. The relevant statistics/ data was published via the websites of the FB operators in January/ February 2020.

Safety performance indicators

19. Based on the set of Safety Performance Indicators ("SPIs") recently adopted by Transport for London, TD has drawn up a new set of 19 more nuanced SPIs covering different areas of bus operations, including general safety issues, bus passenger safety, bus operation and network safety, bus engineering safety, safety of bus captains at work as well as safety management and assurance systems (details are at Appendix 1 of Annex A)⁸. Analyses on the statistics and trends of these SPIs will help identify the details of traffic accidents (e.g. nature, locations, road users involved, etc.) and their causes so that more targeted measures can be derived to enhance safety. The FB operators are required to report these SPIs in standardised formats. After the trial of collecting and compiling the new set of SPIs in the second half of 2019, the operators have started compiling these SPIs from 1 January 2020 for measuring safety performance.

⁸ In the past, there were two SPIs related to FB safety, namely safety-related defects per bus examination and number of buses involved in accidents per million vehicle-kilometre.

Enhancing General Road and Infrastructural Safety and Introducing More Bus-friendly Measures

Road safety audit

20. With a view to reducing road casualties, TD is taking proactive actions to enhance road safety and develop the road safety management system. With reference to overseas practices and experience, TD has required works departments to carry out Road Safety Audit (“RSA”) in Hong Kong with effect from 1 April 2019. RSA takes a precautionary approach in enhancing the safety performance of roads throughout the planning, design, construction and pre-opening stages of transport infrastructures. For existing roads, TD and Highways Department embarked on a consultancy study in May 2018 to review and enhance the roadside safety of all public roads through comprehensive and systematic safety check. The consultancy covers existing public roads with a total length of 4 200 km⁹, and would take about 30 months to complete. Practical improvement proposals at identified sites would be rolled out as appropriate. For instance, an overseas safety product – Energy Absorbing Bollard (“EAB”) has been introduced at the bus stop on Aberdeen Praya Road near Aberdeen Wholesale Fish Market to enhance protection to waiting passengers. The application of EAB is planned to be extended to Tai Lam Tunnel Bus Interchange and Aberdeen Main Road. Another overseas safety product – Raised Profile Marking will also be introduced on a section at each of Shing Mun Tunnel Road and North Lantau Highway with a view to countering the safety concern arising from fatigue driving.

Bus-friendly measures

21. TD has introduced the use of a newly designed “Give way to bus” traffic sign, road markings and labels stuck on the back of some FBs to encourage motorists to give way to FBs, so that FBs may exit more easily from bus bays to adjacent traffic lanes and thereby make bus services more smooth and safe (see Appendix 3 of Annex A). The bus-friendly measures have been progressively implemented at four locations in Central, Kowloon City, Kwai Fong and Shatin

⁹ The total length of public roads covered in the consultancy is derived by counting the road length of each bound individually.

for trial since September 2019. TD will review its effectiveness before extending it to other locations.

Route risk assessment

22. The FB operators are conducting regular route risk assessment which will assess the actual road conditions and environment as well as activities of other road users, and provide appropriate and sufficient driving tips to bus captains on the specific driving environment on a route-by-route basis.

Other Initiatives

23. In the light of the recent fatal FB incident on Fanling Highway on 18 December 2019, the Government has been taking further follow-up actions together with the FB operators to enhance bus safety. As requested by TD, the FB operators will expedite the installation of ADAS (see paragraph 11 above) with a view to having the devices installed on all FBs operating the airport routes and/ or via expressways by Q4 2020.

24. In addition to the above, TD is exploring with major bus manufacturers and FB operators the need, feasibility and implications of enhancing the structure of FBs, especially on the upper deck so as to give additional protection to upper deck passengers. In the light of Hong Kong's special circumstances, the major bus manufacturers have embarked on impact analysis by computer simulation to further assess the strength and integrity of the FB's existing structure, and explore structural enhancement measures accordingly. TD will continue to closely follow up with major bus manufacturers on possible improvement measures related to bus structure and other vehicle technology.

PROPOSED CREATION OF A DEDICATED FB SAFETY TEAM

25. The IRC recommended, *inter alia*, that TD should establish a structure to develop a proactive approach to bus safety, and appoint a Safety Director and a small bus safety team. The dedicated FB Safety Team will be entrusted with the overall responsibility for all aspects of FB safety.

26. Having regard to the IRC's recommendations, TD has critically reviewed its bus safety-related work and considers that the relevant work can be further improved in the following five areas -

- (a) *Bus captain training, fatigue management and working environment*
- There is a need for TD to play a more prominent role in respect of the "Bus Captain" factor, which is a key contributing factor to FB safety. Currently, different FB operators adopt different bus captain training programmes to suit their needs. TD notes that international good practices favour a mechanism whereby training in professional fields comprises structured training, periodic training, accreditation and reaccreditation. TD considers it essential to standardise and accredit course modules and syllabus in relation to the training courses for bus captains. Moreover, TD should put emphasis on fatigue management study and improve the relevant working hours guidelines concerning bus captains, with a view to enhancing health and well-being of bus captains in particular under the unique operating environment in Hong Kong. Suitable and on-going fatigue management strategy and measures should be devised at the Government, FB operators and individual bus captain levels respectively;
- (b) *In-vehicle device and bus technologies* - There is a need for TD to keep abreast of vehicle/ bus technologies so as to take a leading role in coordinating and examining in-vehicle devices/ technologies for buses that suit the roads/ operating environment in Hong Kong, such as advanced driver assistance systems including forward collision warning, lane departure warning, driver monitoring, real time route diversion for contingency, etc.;
- (c) *Safety performance management* - TD has worked out a new set of safety performance indicators to monitor the safety performance of the FB operators. It is necessary for TD to oversee the operators' safety performance with reference to these indicators, work out comprehensive data analyses and draw up plans to rectify any problems/ issues undermining the operational safety of FB;

- (d) Road safety and bus-friendly measures - TD has been implementing various road safety measures and scrutinising proposals on traffic management and road infrastructure improvement submitted by FB operators. TD should take a more proactive role in proposing these measures by a dedicated head instead of just responding to proposals submitted by FB operators so that TD can have a more effective control and monitoring of the road safety measures. A comprehensive review on FB related accident trends will be conducted in formulating road engineering and bus-friendly measures with a view to enhancing the safety performance of FB operators; and
- (e) Participation in international bus benchmarking groups - TD, as a regulating authority over city bus operations, should participate more actively in related international bus benchmarking groups so as to facilitate exchanges with other authorities, and to ensure that TD can keep abreast of international best practices and standards in relation to the regulation of city bus services.

27. In order to take forward the above tasks and to adopt a more proactive approach in pursuing such tasks in a continuous and sustainable manner, it is proposed that a dedicated and permanent FB Safety Team should be set up in TD. The FB Safety Team will be a multi-disciplinary team with the creation of **three directorate posts and nine non-directorate posts**. The FB Safety Team will be led by the Safety Director, which can be filled by either a non-civil service appointee (equivalent to D2 rank) or an Assistant Commissioner for Transport (“AC for T”) (D2), and supported by two directorate posts [i.e. one Principal Transport Officer (‘PTO’) (D1), one Chief Mechanical & Electrical Engineer (“CEME”) (D1)] and nine non-directorate civil service posts from various grades including transport officers, traffic engineers, electrical and mechanical engineer, statistician and clerical/ secretarial staff.

28. With the above proposed set-up, the FB Safety Team will consist of three sections, namely the “Safety Performance and Bus Captain Management Section” (to be led by a PTO), the “Bus Technology Section” (to be led by a CEME) and the “Traffic Management and Statistics Section” (to be led by a

Senior Traffic Engineer). The proposed organisation chart of the FB Safety Team is set out at **Annex B**.

Proposed Creation of a Permanent Safety Director (at D2 rank)

29. It is essential to have a Safety Director, pitched at D2 rank, to head the FB Safety Team, which oversees all aspects of FB safety. The tasks involved are on-going, long-term and complicated. Apart from taking forward the IRC's recommendations, the Safety Director would direct and manage the development and implementation of new initiatives to reinforce TD's regulatory role over FB safety as well as uplifting the safety standards which include, but not limited to, the following major areas -

- (a) to strengthen the Government's regulation on safety of FB operations in Hong Kong;
- (b) to strengthen the Government's regulation and initiatives on the training for bus captains with standardisation/ accreditation of course modules/ syllabus;
- (c) to study, devise and oversee implementation of measures in relation to fatigue management, working hours and rest breaks, as well as issues related to health and well-being of bus captains;
- (d) to develop, monitor and review FB safety performance indicators so as to identify causes of accidents and devise enhancement measures;
- (e) to keep in view new and ever-changing bus technology on operations, bus captain management, new modes of vehicles (including environmentally friendly and autonomous bus), as well as vehicle design and safety installations; and
- (f) to proactively participate in international bus benchmarking organisations and keep close liaison with overseas and Mainland bus regulating authorities and bus operators.

30. Given the broad spectrum of the tasks above, the Safety Director should possess broad knowledge of world-wide technological advances in vehicle design and safety devices (in particular those for buses), local and overseas experience and practices in regulating and monitoring bus operation and bus captains' working environment and training, etc. The appointee would be tasked to assist

the Commissioner for Transport in developing a more proactive approach to enhance FB safety in Hong Kong and oversee the safety performance of individual FB operators. He/ she would also need to maintain regular contact with the Safety Directors of each of the FB operators and advise them on safety measures to enhance bus safety. The Safety Director will also work hand in hand with the FB operators' Safety Directors to keep abreast of the latest bus safety development in the world and keep close liaison with the overseas authorities and organisations in other jurisdictions, as well as to make recommendations on Hong Kong's participation in international benchmarking group(s) on city bus services. The duties and responsibilities of the Safety Director are at **Annex C**.

31. Having regard to the wide-ranging expertise required for the Safety Director post, the current set-up of the Transport Officer grade in TD may not be ready and be best suited to fill the position at the moment. As a temporary arrangement, we propose that the Safety Director should be employed on non-civil service terms for an initial period of six years¹⁰. An open recruitment exercise would be conducted in order to identify the most suitable candidate from local or overseas. Our current plan is that with time, there would be knowledge transfer from the appointed Safety Director to the Transport Officer grade in TD. The Safety Director post could then be filled by internal promotion of the Transport Officer grade officer in the medium term.

Proposed Creation of two other Permanent Directorate (at D1 rank) Posts

32. Under the leadership of the Safety Director, the FB Safety Team will be supported by two directorate officers at D1 rank, each heading one of the three sections under the FB Safety Team.

The need for creating the PTO post

33. The PTO will lead the proposed Safety Performance and Bus Captain Management Section to oversee and monitor the safety and operational performance of FB operators, as well as manpower-related matters of FB services including, among others, the monitoring of the on-going implementation of the

¹⁰ It is proposed to be in the form of two three-year non-civil service contracts.

Guidelines on Bus Captain Working Hours, Rest Times and Meal Breaks, and the strengthening of the Government's monitoring and regulation over bus captain training such as standardisation and accreditation across the FB industry. The tasks are increasingly complex and challenging, and require intense engagement with different stakeholders including FB operators and bus captains. Given the importance and complexity of the work involved, we see a genuine need to create a permanent PTO post to steer, coordinate, monitor and facilitate the tasks ahead as well as to provide directorate support to the FB Safety Team to ensure that various tasks can be carried out effectively. The duties and responsibilities of the PTO post are at **Annex D**.

The need for creating the CEME post

34. The CEME will lead the proposed Bus Technology Section to develop and oversee the safety requirements for the interior and exterior design of buses (including FBs and non-FBs), identify and conduct trial of new initiatives on bus safety technologies and monitoring devices, as well as oversee the application of new vehicle technologies (e.g. autonomous vehicle technology) in FBs. The CEME will also be responsible for formulating new legislation in connection with the installation and application of relevant devices and technologies where appropriate, and to develop and standardise the specifications and requirements of FBs for uplifting their level of safety and integrity to suit the local operational environment. He/ she will also study the feasibility of introducing a new framework of quality assurance scheme for the design and maintenance of FBs, and provide professional advice on design, development, and upgrading of ancillary facilities to suit the operation and maintenance of new FB models. In particular, the appointee will steer the proposed Section to actively pursue research and development initiatives with foresight, with a view to developing a brand-new set of holistic specifications and requirements for buses and in-vehicle devices and installations for operators and manufacturers that suit FB's special operational needs in Hong Kong. He/ she should also possess relevant international knowledge and engage with overseas experts to keep abreast of various state-of-the-art technologies so as to drive operators and manufacturers for putting them on trial and use on buses. The duties and responsibilities of the CEME post are at **Annex E**.

Non-directorate support in the FB Safety Team

35. Apart from the three directorate posts, nine non-directorate officers from various grades including transport officers, traffic engineers, electrical and mechanical engineer, statistician and clerical/ secretarial staff will be put under the FB Safety Team. Specifically, apart from the two sections headed by the PTO and the CEME posts mentioned above, a Traffic Management and Statistics Section, comprising a Senior Engineer, an Engineer/ Assistant Engineer and a Statistician posts, will also be set up under the FB Safety Team to assist in monitoring the route risk assessment by the FB operators, analysing the accident statistics related to buses and introducing necessary road traffic improvement and bus-friendly measures to further enhance FB safety and operation.

Alternatives Considered

36. We have critically examined whether the duties of the proposed posts can be absorbed by the existing manpower but considered it not feasible. The existing teams, including Bus Development Division, Vehicle Safety and Standards Division and Road Safety and Standards Division in TD are already fully stretched. In particular, the teams responsible for bus service planning and operation are having extremely heavy workload and have to deal with the day-to-day bus operation and planning issues and the annual forward planning exercise with the bus operators. These subjects are highly sensitive and controversial at the district level. The relevant teams also have to monitor the financial performance and handle FB fare increase applications. There is neither spare capacity nor scope of reprioritisation/ delegation available within TD's establishment to absorb the additional important and complex tasks mentioned in the above paragraphs. With the setup of a dedicated and permanent FB Safety Team and the creation of the proposed posts, it can take forward the tasks mentioned above to enhance FB safety proactively and in a continuous and sustainable manner. The FB Safety Team will work with the existing teams in a coordinated manner so as to implant the safety elements in the bus service planning and operation aspects.

Financial Implications

37. The proposed creation of the three permanent directorate posts [i.e. one Safety Director (D2), one PTO (D1) and one CEME (D1)] will bring an additional notional annual salary cost at mid-point of \$6,130,800 as follows –

Permanent posts	Notional annual salary cost at mid-point	No. of post
Safety Director (D2)	\$2,283,600	1
PTO (D1)	\$1,923,600	1
CEME (D1)	<u>\$1,923,600</u>	<u>1</u>
Total	<u>\$6,130,800</u>	<u>3</u>

The additional full annual average staff cost, including salaries and staff on-cost, is about \$8,237,000.

38. Moreover, the creation of nine non-directorate posts will bring an additional notional annual salary cost at mid-point of \$8,513,520 and the additional full annual average staff cost, including salaries and staff on-cost, of about \$12,198,000. We have included the necessary provision in the 2020-21 draft Estimates to meet the required staff cost of the proposal and will reflect the required resources in the draft Estimates in subsequent financial years.

ADVICE SOUGHT

39. Members are invited to note the Government's follow-up actions in relation to the IRC report as highlighted in paragraphs 5 to 24 above, and support the proposal to establish the FB Safety Team in TD led by three permanent directorate posts as mentioned in paragraphs 29 to 35 above.

Transport and Housing Bureau
Transport Department
March 2020

Report of the Independent Review Committee on Hong Kong’s Franchised Bus Service
Summary of Recommendations and the latest progress on the follow-up actions

Recommendations by the Independent Review Committee	Latest Progress on the Follow-up Actions
<p><i>(i) Safety Director</i></p> <p>(1) The Transport Department (“TD”) to establish a structure to develop a proactive approach to bus safety.</p>	<p><u>Being implemented</u></p> <ul style="list-style-type: none">• The TD has drawn up the various arrangements for appointing a Franchised Bus (“FB”) Safety Director and setting up a FB safety team, including the staff establishment and scope of work, etc. Subject to the approval by the Legislative Council (“LegCo”) on the funding for the manpower increase, it is expected that the TD will set up a FB safety team, headed by a FB Safety Director, in 2020-21 so as to develop a proactive approach to take forward and implement relevant measures to ensure FB safety.
<p>(2) The TD to appoint a Safety Director and a small bus safety team.</p>	
<p>(3) Franchised bus operators to appoint their own Safety Directors.</p>	<p><u>Completed</u></p> <ul style="list-style-type: none">• All FB operators have appointed their own Safety Directors.
<p><i>(ii) Permanent Working Group on the enhancement of safety of franchised buses</i></p> <p>(4) Membership of the Permanent Working Group to be expanded to include independent members with expertise relevant to FB safety.</p>	<p><u>Completed</u></p> <ul style="list-style-type: none">• The Working Group on the Enhancement of Safety of FB (“Working Group”) was turned into a permanent setup, and was revamped and renamed as the Committee on Enhancement of FB Safety (“FB Safety Committee”) in early 2019. Two local academic experts were appointed as members.• There are two sub-committees under the FB Safety Committee, namely the “Sub-Committee on In-vehicle Safety Devices and Technologies” and the “Sub-Committee on Training, Fatigue and Work Hour Management of Bus Captains”. The sub-committees focus on the discussion of relevant topics and the monitoring of follow-up actions concerned. The sub-committees will also

Recommendations by the Independent Review Committee	Latest Progress on the Follow-up Actions
	<p>report work progress to the FB Safety Committee.</p> <ul style="list-style-type: none"> In 2019, meetings of the FB Safety Committee were held in April, June and November respectively, while a total of seven meetings were held by the two sub-committees.
<p><i>(iii) Technological safety devices: The TD's technology team</i></p> <p>(5) A dedicated technology team to be formed urgently in the TD.</p>	<p><u>Completed</u></p> <ul style="list-style-type: none"> On the basis of the individual technology projects being carried out by different divisions in the TD, some additional staff members, dedicated for transport technology matters, were added to the respective divisions of the department. Upon the establishment of the FB safety team in future, the team will be dedicated to handling matters on FB safety and technological safety devices.
<p>(6) The technology team to establish lines of communication with well-respected overseas jurisdictions, such as the Transport for London ("TfL") and Land Transport Authority ("LTA") to share information.</p>	<p><u>Completed (become an on-going task)</u></p> <ul style="list-style-type: none"> At present, the TD has already had lines of communication with well-respected authorities in overseas jurisdictions, such as TfL of the UK and LTA of Singapore, to share information available. The TD will maintain and further enhance the lines of communications and exchanges with those overseas authorities.
<p>(7) FB operators to appoint members of their own staff to be responsible for technological safety devices and to establish lines of communication with FB operators in well-respected overseas jurisdictions to share information.</p>	<p><u>Completed (become an on-going task)</u></p> <ul style="list-style-type: none"> At present, local FB operators have already had lines of communications with FB operators in overseas jurisdictions to share information. The Safety Directors of the FB operators have made coordinated efforts in handling matters on technological safety devices and enhancing lines of communication and exchanges with overseas FB operators, including paying visits to overseas (e.g. Singapore, Japan and the UK, etc.) and Mainland China to communicate and exchange with local bus operators and manufacturers in respect of topics such as bus safety and application of advanced technologies, etc.

<p align="center">Recommendations by the Independent Review Committee</p>	<p align="center">Latest Progress on the Follow-up Actions</p>
<p>(iv) <i>Subsidies</i></p> <p>(8) The TD to establish a small fund to provide grants to FB operators to promote the uptake of new safety technology.</p>	<p><u>Completed (become an on-going task)</u></p> <ul style="list-style-type: none"> • The TD has reviewed the currently available funds, and learnt that the scope of funding of the Innovation and Technology Fund (“ITF”) under the Innovation and Technology Commission (“ITC”) should be able to cover new safety technology of FB. The ITF (including its Partnership Research Programme (“PRP”) and Technology Voucher Programme (“TVP”)) has been providing financial support to local universities, public research institutions, local enterprises, and trade associations, etc., to encourage and help them to upgrade the technological level and introduce more innovative ideas into their business. • The TD has informed FB operators of the funding scope of the ITF and encouraged them to apply for the fund to facilitate research and uptake of new safety technology to enhance FB safety and operations. • In addition, the TD is following up on the provision of government subsidy for retrofitting existing double-deck buses with electronic stability control and speed limiting retarders, as well as seat belts on the upper decks. Details of which are at Item 10.
<p>(9) The TD to engage an independent consultant to conduct a cost/benefit analysis in respect of the retrofitting of seat belts on the upper decks of some franchise buses.</p>	<p><u>Completed</u></p> <ul style="list-style-type: none"> • All new buses procured from July 2018 onwards have all their seats installed with seat belts. As at end-2019, about 400 newly procured buses with seat belts installed have been put into service. • The TD engaged an independent consultant¹ to commence a cost/benefit analysis in respect of the retrofitting of seat belts on FBs in February 2019. The study was completed in September 2019. It was revealed from the analysis that the Government should consider installing seat belts on the upper decks of

¹ The study was conducted by a team from the Department of Civil and Environmental Engineering, Hong Kong Polytechnic University as an independent consultant. The study report has been submitted to the FB Safety Committee and uploaded on the TD website.

<p align="center">Recommendations by the Independent Review Committee</p>	<p align="center">Latest Progress on the Follow-up Actions</p>
	<p>double-deck buses registered in or after 2016 (around 1 900 buses). Moreover, the study also opined that those buses fitted with seat belts should first be deployed to routes operating via expressways and with longer journey distance.</p> <ul style="list-style-type: none"> • In light of the study findings, the TD and FB operators will arrange to have the seats on the upper deck of around 1 900 existing double-deck buses installed with seat belts. Relevant installation works will commence progressively from Q2 2020 for target completion within three years. Among them, the installation works of 700 buses are expected to be completed in 2020. The Government will subsidise FB operators on 80% of the related installation costs, while the rest of the installation costs and future maintenance cost will be borne by the FB operators. • Upon completion of the retrofitting works by 2022, it is estimated that there would be more than 3 000 buses, including the newly procured buses, fitted with seat belts. The TD and FB operators will arrange to deploy these buses with priority given to long-haul routes operated via expressways with relatively fewer bus stops.
<p>(10) The TD to engage an independent consultant to conduct cost/benefit analyses in respect of the retrofitting of the electronic stability control system (“ESC”) and speed limiters with retardation function (“speed limiting retarder”), and all other safety devices proved to be technically successful, before the TD requires installation of those devices by FB operators.</p>	<p><u>Completed</u></p> <ul style="list-style-type: none"> • Given the proven effectiveness of ESC and speed limiting retarder, the TD has conducted a cost/benefit review based on the cost information provided by bus manufacturers and FB operators with reference to findings of relevant overseas studies. Relevant work has been completed and the findings revealed that the Government should consider retrofitting all existing buses with ESC and speed limiting retarder if technically feasible (around 4 200 buses). • In light of the study findings, the TD and FB operators will arrange to have around 4 200 existing double-deck buses retrofitted with ESC and speed limiting retarder. Relevant installation works will commence progressively from Q2 2020 for target completion within four years. The Government will subsidise FB operators on

Recommendations by the Independent Review Committee	Latest Progress on the Follow-up Actions
	<p>80% of the related installation costs, while the rest of the installation costs and future maintenance cost will be borne by the FB operators.</p> <ul style="list-style-type: none"> All new buses procured from July 2018 onwards have been installed with ESC and speed limiting retarder. Upon completion of the retrofitting works by 2023, it is estimated that there would be more than 5 500 buses, including the newly-procured buses, equipped with ESC and speed limiting retarder.
<p><i>(v) Safety Performance Indicators</i></p> <p>(11) The TD to establish more nuanced Safety Performance Indicators (“SPIs”).</p>	<p><u>Completed (become an ongoing task)</u></p> <ul style="list-style-type: none"> With reference to the SPIs of TfL, the TD has finalised the SPIs to be used in Hong Kong with the FB operators and standardised the relevant data format. The number of items covered in the newly adopted SPIs will be increased from two² to 19. These items cover six areas (including general safety, bus passenger safety, operation and network safety, bus engineering safety, safety of employees at work, and management and assurance systems) with a view to reviewing the performance and trends on FB operators’ safety in a holistic manner, so as to facilitate targeted studies and measures for further enhancement of FB safety. The TD and FB operators have started collecting the relevant data for trials since July 2019 and the new set of SPIs has been adopted to measure the safety performance since 1 January 2020. Details of the new set of SPIs are at <u>Appendix 1</u>.
<p>(12) The TD to seek elucidation and clarification from TfL of the SPIs adopted by TfL.</p>	

² The two items are: (i) safety-related defects per bus examination; and (ii) number of buses involved in accidents per million vehicle-km.

<p align="center">Recommendations by the Independent Review Committee</p>	<p align="center">Latest Progress on the Follow-up Actions</p>
<p>(vi) Franchised Bus Accident Data</p> <p>(13) The accident data material in the Bus Safety Chapter of the Forward Planning Programmes (FPP) to be made public.</p>	<p><u>Completed (become an ongoing task)</u></p> <ul style="list-style-type: none"> The TD has consolidated the data and confirmed relevant publishing arrangement with the FB operators. In Q1 2020, the FB operators will make public the accident data in the Bus Safety Chapter of the FPP submitted in 2019 by phases.
<p>(14) The TD to require the FB operators to report all FB accidents to the TD on a monthly basis.</p>	<p><u>Completed (become an ongoing task)</u></p> <ul style="list-style-type: none"> The TD has required the FB operators to report all accidents involving FBs to the TD on a monthly basis. The TD has been maintaining a database on bus accidents since 2019 and has standardised with the FB operators the reporting/analysis arrangements for reporting to the FB Safety Committee on a regular basis and taking follow-up actions as appropriate.
<p>(15) Consideration should be given by the TD to instituting a common reporting/analysis system of FB accident data.</p>	
<p>(16) The TD to stipulate to the FB operators common thresholds for reporting instances of excessive speeding and harsh braking.</p>	<p><u>Completed (become an ongoing task)</u></p> <ul style="list-style-type: none"> The TD has completed the setting of a target common thresholds with the FB operators for providing real-time alerts and generating records of instances of excessive speeding and harsh braking for following up with bus captains. The relevant thresholds are as follows: <ul style="list-style-type: none"> (i) excessive speeding <ul style="list-style-type: none"> real-time alerts – speed exceeding 50km/h or 70km/h (depending on speed limits of the road sections); generation of record – speed exceeding 55km/h or 75km/h consecutively for 10 seconds; and (ii) harsh braking <ul style="list-style-type: none"> generation of record – force exceeding 0.4G FB operators have been providing real-time alerts to bus captains and generating records for speeding situations since last year. In the past year, FB operators have been explaining to bus captains on the use of the relevant thresholds and took follow-up actions regarding reports on individual bus captains.
<p>(17) The TD to stipulate to the FB operators common thresholds of excessive acceleration.</p>	
<p>(vii) Real-time alerts</p> <p>(18) The TD to require the FB operators to provide real-time alerts of excessive speeding, deceleration and acceleration to bus captains and to generate records of those events.</p>	

<p style="text-align: center;">Recommendations by the Independent Review Committee</p>	<p style="text-align: center;">Latest Progress on the Follow-up Actions</p>
	<p>During the implementation period, the number of speeding cases as reported saw a significant drop, while the FB operators progressively tightened the relatively mild thresholds to help bus captains make gradual adaptation and continuous improvements in driving safety. The FB operators have reported to the FB Safety Committee on the situation, which has taken note of the progress made and will keep in view the implementation by FB operators.</p> <ul style="list-style-type: none"> • The TD and the FB operators will follow up on the timetable for implementing the target common thresholds, with a view to fully implementing them in 2020.
<p>(19) The TD and FB operators to explore the feasibility of making use of the generation of real-time, or near real-time, of excessive speeding, deceleration and acceleration to provide an automatic alert to the FB operators Control Room, permitting communication with the bus if appropriate.</p>	<p><u>Being studied</u></p> <ul style="list-style-type: none"> • Upon implementation of the setting of common thresholds for reporting instances of excessive speeding and harsh braking, the TD will explore with FB operators on the feasibility of the recommendation and the possible implementation timetable.
<p>(viii) Bus captain training</p> <p>(20) The TD to collaborate with the FB operators to identify key indicators of the effectiveness of the bus captain training system.</p>	<p><u>Being implemented</u></p> <ul style="list-style-type: none"> • The Practice Note on Training Framework for Franchised Bus Captains (“Practice Note”) issued by the TD to all FB operators has been implemented since October 2018. • In end-2019 (i.e. one year after the implementation of the Practice Note), the TD started to review the implementation of the Practice Note with the FB operators, and to identify and stipulate common key indicators on the effectiveness of bus captain training systems. The review is expected to be completed in 2020.
<p>(21) The TD to stipulate that fatigue management form part of the training courses provided to bus captains.</p>	<p><u>Being implemented</u></p> <ul style="list-style-type: none"> • At present, the FB captain training courses have already included the elements of fatigue management, in which bus captains are reminded to, amongst others, have enough rest to recover their mental and physical strength, avoid fatigue from prolonged working, be mindful of their personal physical conditions and endurable working hours to ensure they are mentally fit for driving and do more

<p align="center">Recommendations by the Independent Review Committee</p>	<p align="center">Latest Progress on the Follow-up Actions</p>
	<p>exercises to maintain good health, etc.</p> <ul style="list-style-type: none"> The TD will study the issues of fatigue identification and management together with the feasibility of further strengthening the relevant training to bus captains. <p>[Please also refer to Items 25 to 27 below.]</p>
<p>(22) The TD to provide funding for a special course/programme for bus captains to deal with abusive and angry passengers.</p>	<p><u>Being implemented</u></p> <ul style="list-style-type: none"> The TD has planned to produce training materials for FB captains on how to handle difficult passengers. The teaching materials, mainly in the form of online short videos, will cover topics such as how to deal with abusive and angry passengers. The TD has come up with the relevant training materials and implementation arrangements with the FB operators. The relevant work is expected to start in Q1 2020 for completion of production and implementation in the second half of 2020.
<p><i>(ix) Guidelines on Bus Captain Working Hours, Rest Times and Meal Breaks</i></p> <p>(24) An expert(s) on fatigue identification and management to be appointed as an ad hoc member of the Permanent Working Group.</p>	<p><u>Completed</u></p> <ul style="list-style-type: none"> The TD has appointed local experts to be members of the FB Safety Committee.
<p>(23) The Guidelines on working hours, etc. to be stipulated in regulations.</p>	<p><u>Being implemented</u></p> <ul style="list-style-type: none"> In 2018, the TD issued the latest revised “Guidelines on Bus Captain Working Hours, Rest Times and Meal Breaks” (“Guidelines”), which have been fully implemented by all FB operators since Q2 2019. The TD has reviewed the implementation of the Guidelines by the FB operators. Having regard that FB operators are required to address the transportation needs of the public during the morning and afternoon peak hours, the revised Guidelines allow bus companies to make appropriate arrangements in such way that the maximum duty hours of a special shift will not exceed 14 hours (provided that the driving hours therein should not exceed 10 hours and a rest break of no less than 3 hours be provided). At present, FB operators have started to implement
<p>(25) Consideration to be given by the Permanent Working Group of whether permitting 14 hours of duty in a split shift is compatible with bus safety.</p>	
<p>(26) Consideration to be given by the Permanent Working Group to restricting the total hours of driving by a bus captain in periods of 14 or 28 days.</p>	
<p>(27) The Permanent Working Group to engage an independent consultant to conduct a cost/benefit analysis of the effect of abrogating the special shift exception to the 22 hours of duty rule, in particular the potential safety improvements, the number and cost of the additional bus captains that</p>	

<p align="center">Recommendations by the Independent Review Committee</p>	<p align="center">Latest Progress on the Follow-up Actions</p>
<p>would be required and the implication to FB fares.</p>	<p>arrangements for keeping the actual duty hours of each special shift not more than 13.5 hours and they have planned to gradually shorten the duty hours of a special shift to 13 hours by end-2020, subject to the progress of the recruitment of additional bus captains.</p> <ul style="list-style-type: none"> • Over the past six months, besides following up on and monitoring the implementation of the latest revised Guidelines by the FB operators, the TD has also been engaged in studying fatigue identification and management for conducting a further comprehensive review of the Guidelines. This would include a cost/benefit analysis on whether the arrangement of a longer special shift meets safety criteria, the effect of abrogating it, as well as whether and how the total driving hours of bus captains should be capped over a certain period, etc. • Having regard to the literature reviews and research reports on driving fatigue in some overseas jurisdictions, the TD has come to notice that a host of factors (including working hours, duty roster arrangement, rest times, as well as daily routine, sleep patterns and personal physical condition of the bus captains etc.) might cause fatigue on bus captains. The TD has then discussed with the expert member of the FB Safety Committee from the Hong Kong Polytechnic University and two other local experts³ on the way forward. • In the light of the initial findings of overseas practices and the TD's subsequent discussions with the local experts/academics, the TD has reported to the FB Safety Committee its plan to appoint independent local expert(s) to conduct research on identification and management of fatigue driving in the FB industry in Hong Kong. The preliminary study directions include: <ul style="list-style-type: none"> (i) understanding the overall situation of fatigue driving of FB captains, the root of the problem and the causes;

³ One being a registered occupational therapist, chartered safety and health practitioner, certified work capacity evaluator and registered driving assessor, and the other being an industrial engineer whose research focuses on the application of human factors on health care work system.

<p align="center">Recommendations by the Independent Review Committee</p>	<p align="center">Latest Progress on the Follow-up Actions</p>
	<p>(ii) studying the correlation between FB captains' working hours, rest times and duty roster arrangement (including special shifts) stipulated in the existing Guidelines and fatigue driving of bus captains; and</p> <p>(iii) exploring corresponding improvement strategies and measures.</p> <ul style="list-style-type: none"> • All FB operators and their bus captains will be engaged in the study. • As regards the recommendation to stipulate the Guidelines on working hours in regulations, it will be followed up together with the study on identification and management on fatigue driving.
<p>(28) Citybus Limited (CTB) / New World First Bus (NWFB) and the TD to work closely together to ensure that CTB/NWFB provides adequate rest facilities for drivers working on split shifts.</p>	<p><u>Completed (become an on-going task)</u></p> <ul style="list-style-type: none"> • Currently, there are 299 bus termini in Hong Kong (including those of MTR bus routes). FB operators have been progressively providing additional toilets and resting facilities at existing bus termini to cater for the needs of bus captains. At present, toilets are either located at or within a walking distance of three minutes at over 95% of the bus termini. For the remaining bus termini, toilets are basically located within a walking distance of around four to seven minutes. On the other hand, about 90% of the bus termini have been provided with resting facilities for bus captains. • In addition to the provision of new rest rooms/rest facilities at the parking sites at Chai Wan Depot, Ocean Park and Sheung Wan for bus captains in 2018, CTB/NWFB have been progressively providing additional rest facilities for bus captains at different locations (including Exchange Square in Central, etc.,) in 2019. • In the past three years, the Government has granted approval to 74 applications made by FB operators for providing working spaces/rest rooms/resting facilities.
<p><i>(x) Part-time bus captains: other employment</i></p> <p>(29) The TD to stipulate to the FB operators the information that they are required to obtain, maintain and update in respect of the other</p>	<p><u>Completed (become an on-going task)</u></p> <ul style="list-style-type: none"> • At present, each FB operator already has its own mechanism for the part-time captains to

<p align="center">Recommendations by the Independent Review Committee</p>	<p align="center">Latest Progress on the Follow-up Actions</p>
<p>employment of part-time captains, including the nature of the employment and the hours worked.</p>	<p>report other employment.</p>
<p>(30) The TD to require New Lantao Bus (“NLB”) to obtain information and maintain records of the duty and driving hours and off-duty breaks in their other employment of the bus captains provided to them by Kwoon Chung Motors Company Limited, or any other supplier of buses and drivers to NLB, and that NLB is required to be satisfied that, when they are performing driving duties for NLB, they are compliant with the Guidelines.</p>	<p><u>Completed (become an on-going task)</u></p> <ul style="list-style-type: none"> As required by the TD, NLB has obtained information and maintained records of the duty and driving hours and off-duty breaks in their other employment of the bus captains provided to them by supplier(s) of buses and drivers.
<p><i>(xi) The provision of rest and toilet facilities for bus captains</i></p> <p>(31) The TD to amend the Transport Planning and Design Manual (“TPDM”) to delete the provision that toilet facilities for bus operator’s staff will not be required in a bus terminus if such facilities are available in a nearby development.</p>	<p><u>Completed (become an on-going task)</u></p> <ul style="list-style-type: none"> In August 2019, the TD revised the relevant provisions in the TPDM to include guidelines on the requirement of providing fundamental facilities such as rest rooms and toilets etc. for bus captains and staff in the planning of new public transport interchanges and bus termini, and provided a layout template with the concerned area provision for the planners’ reference. In December 2019, the Planning Department amended the relevant provisions in the HKPSG.
<p>(32) The TD to invite the Planning Department to amend paragraph 4.1.6 of Chapter 8 of the Hong Kong Planning Standards and Guidelines (“HKPSG”) to stipulate that the provision of toilets and rest facilities are required at bus termini.</p>	
<p>(33) The Government to provide built-in structures of a bus regulator’s office, and restrooms with toilets facilities at new public transport interchanges and bus termini.</p>	
<p>(34) The TD to invite a representative of the Secretary for Transport and Housing to become a member of the TD’s task force monitoring the provision of ancillary facilities at public transport interchanges and bus termini.</p>	<p><u>Completed (become an on-going task)</u></p> <ul style="list-style-type: none"> Transport and Housing Bureau’s representative has joined and participated in the inter-departmental meeting coordinated by the TD in monitoring the provision of ancillary facilities at public transport interchanges and bus termini.

<p style="text-align: center;">Recommendations by the Independent Review Committee</p>	<p style="text-align: center;">Latest Progress on the Follow-up Actions</p>
<p><i>(xii) Abuse and assaults on bus captains</i></p> <p>(35) The TD and the Hong Kong Police Force (“HKPF”) to conduct a long-term programme in the news print media, television and social media to educate the public and abusing a bus captain performing his duties is not only unacceptable but also a criminal offence.</p>	<p><u>Completed (become an on-going task)</u></p> <ul style="list-style-type: none"> • On 25 February 2019, the TD rolled out a series of Announcements in the Public Interest (“API”) on television and the internet to raise passengers’ awareness of safety and courtesy (including respect for bus captains) when using public transport services. • The TD and the HKPF have formulated the long-term publicity programme to raise awareness on matters such as passenger safety and behaviours etc., through various channels (including API on the internet and the radio, and the Road Safety Bulletin, etc.). • The TD and the HKPF will review the implementation of the publicity programme on a regular basis.
<p>(36) The TD to require the FB operators to display notices to remind FB passengers that abusing a bus captain is unacceptable and constitutes a criminal offence.</p>	<p><u>Completed</u></p> <ul style="list-style-type: none"> • The TD has standardised the contents of the notices, and the FB operators have displayed them inside bus compartments to remind passengers not to disturb bus captains while driving. • The notice being displayed inside bus compartments is at <u>Appendix 2</u>.
<p>(37) The TD to require the FB operators to install video cameras with audio capability at the entrance of buses and where the bus captain is seated.</p>	<p><u>Completed</u></p> <ul style="list-style-type: none"> • FB operators have retrofitted audio-recording equipment on their buses installed with CCTV at bus captain cabins, and have activated the function concerned.
<p>(38) The TD to propose specific legislation be enacted to make it an offence to make a threatening, abusive or insulting communication towards a bus captain performing his public duties.</p>	<p><u>Being studied</u></p> <ul style="list-style-type: none"> • The TD is reviewing the existing relevant legislative provisions to see if they are adequate for the prosecution of a passenger who makes threatening, abusive or insulting communication towards a bus captain performing his public duties. In parallel, the TD will consult relevant government bureaux/departments.

<p align="center">Recommendations by the Independent Review Committee</p>	<p align="center">Latest Progress on the Follow-up Actions</p>
<p><i>(xiii) Illegal stopping by vehicles at and near franchised bus stops</i></p> <p>(39) Legislative provisions to be presented to the Legislative Council as soon as possible to provide for the service of fixed penalty tickets, other than by affixing them to the vehicle or giving them to the vehicle driver, and to permit service by E-ticket.</p>	<p><u>Being implemented</u></p> <ul style="list-style-type: none"> On technology-assisted traffic enforcement, the HKPF initially planned to launch a pilot scheme on the Electronic Fixed Penalty Tickets (E-Ticketing) in Q3 2019. Under the pilot scheme, frontline enforcement officers will process data on illegally parked vehicles via their mobile smart devices on the spot of contraventions and instantly print out fixed penalty notices by portable printers. According to the HKPF, they are re-examining the schedule for launching the pilot scheme.
<p>(40) The TD and the HKPF to explore the feasibility of installing CCTV cameras at suitable vantage points, in particular lampposts, to monitor blackspots of illegal stopping by vehicles at and near franchised bus stops.</p>	<p><u>Being implemented</u></p> <ul style="list-style-type: none"> The HKPF is planning a trial scheme in collaboration with the Logistics and Supply Chain MultiTech R&D Centre, under which video cameras will be mounted at appropriate vantage points and video analytics technology will be used for enforcement against certain offences which may usually cause traffic obstruction, including illegal stopping of vehicle at a bus stop or at a no-stopping restriction zone, etc. The initiative is still at preparation stage. The HKPF will report to the stakeholders upon formulation of the specific details (including the trial points, etc.) and before implementation of the trial scheme.
<p>(41) FB operators to cooperate with the police to make available CCTV recordings obtained by cameras mounted on FBs of illegal stopping by vehicles at and near franchised bus stops.</p>	<p><u>Completed (become an on-going task)</u></p> <ul style="list-style-type: none"> The FB operators have liaised with the HKPF on the matter, and have been providing the HKPF from time to time with CCTV footages of illegal stopping of vehicles at and near franchised bus stops, for follow-up actions by the HKPF.
<p><i>(xiv) Priority measures for franchised buses</i></p> <p>(42) The TD to give consideration to introducing a system of affording priority to buses as they exit bus stops to rejoin the highway.</p>	<p><u>Being implemented</u></p> <ul style="list-style-type: none"> The TD has progressively put on trial a new bus-friendly traffic measure since September 2019 in Shatin, Kwai Fong, Kowloon City and Central. The new bus-friendly traffic measure comprises the use of a newly designed “Give way to bus” traffic

<p align="center">Recommendations by the Independent Review Committee</p>	<p align="center">Latest Progress on the Follow-up Actions</p>
	<p>sign and “Slow” and “Give way to bus” road markings. In parallel, FB operators would stick labels of the “Give way to bus” sign on the back of some buses deployed at the trial sites.</p> <ul style="list-style-type: none"> • Samples of the “Give way to bus” traffic sign, road marking and label are at <u>Appendix 3</u>.
<p>(43) The TD to make greater use of bus lanes in appropriate locations.</p>	<p><u>Completed (become an on-going task)</u></p> <ul style="list-style-type: none"> • The TD has been committed to taking forward the item wherever possible. At present, there are 79 bus-only lanes and 14 designated bus gates in the territory. The TD will continue to set up more bus-only lanes in appropriate locations. For example, a bus-only lane will be set up at the slip road leading from Po Hong Road to Tseung Kwan O Tunnel, and the associated works are expected to be completed in mid-2020.
<p><i>(xv) Route risk assessment</i></p> <p>(44) The TD to require the FB operators to provide the TD with a route risk assessment for each of the routes on which their buses ply.</p>	<p><u>Being implemented</u></p> <ul style="list-style-type: none"> • The TD has finalised with FB operators the detailed arrangements for conducting Route Risk Assessment (“RRA”). In conducting the RRA, the FB operators should check and assess the actual operation of each bus route (including situations of the road, nearby environment, activities of other vehicles and pedestrians, etc.), and provide the bus captains with sufficient and appropriate driving instructions having regard to the unique operating situation of each bus route. • The FB operators started to conduct RRA on all routes of their bus networks progressively in Q4 2019. They expect to complete the submission of reports for TD on RRA by end-2020.
<p><i>(xvi) Speed limits</i></p> <p>(45) The TD to identify suitable locations to conduct trials of a low-speed zone of 30 km/h.</p>	<p><u>Being implemented</u></p> <ul style="list-style-type: none"> • The TD has initially proposed in the “Walk in HK” study to implement a trial of low-speed zone on the road sections in Sham Shui Po Street Market. The TD carried out a public engagement exercise to consult the stakeholders in June to August 2019. The

Recommendations by the Independent Review Committee	Latest Progress on the Follow-up Actions
	consultant is formulating the arrangements for the proposal, and the TD will communicate with the relevant District Councils and stakeholders again later this year.

- End -

Safety Performance Indicators (“SPIs”)
for Franchised Buses (“FB”)

(A) General Safety

1. No. of traffic accidents per million vehicle-km operated
 - 1.1 Total
 - 1.2 No. of fatal accidents
 - 1.3 No. of serious accidents
 - 1.4 No. of slight accidents
2. No. of traffic accidents per million passengers carried
 - 2.1 Total
 - 2.2 No. of fatal accidents
 - 2.3 No. of serious accidents
 - 2.4 No. of slight accidents

(B) Bus Passenger Safety

3. No. of passenger fatalities
4. No. of passenger casualties per million passengers carried
 - 4.1 Total
 - 4.2 No. of passenger fatalities per million passengers carried
 - 4.3 No. of seriously injured passenger casualties per million passengers carried
 - 4.4 No. of slightly injured passenger casualties per million passengers carried
5. No. of passenger casualties lost balance (excluding those boarding/ alighting buses) per total number of accidents involving FB
6. No. of passenger casualties lost balance/ fell down when boarding/ alighting buses per total number of accidents involving FB
7. No. of safety-related complaints received per million passengers carried

(C) Operation and Network Safety

8. No. of collision accidents involving FB by type of vehicle collision
 - 8.1 Total no. of collision accidents involving FB per million vehicle-km operated
 - 8.2 No. of vehicle-to-vehicle collision accidents involving FB per total number of collision accidents
 - 8.3 No. of vehicle-to-pedestrian collision accidents involving FB per total number of collision accidents
 - 8.4 No. of vehicle-to-object collision accidents involving FB per total number of collision accidents

9. No. of collision accidents within bus termini/public transport interchange (PTI) by type of vehicle collision
 - 9.1 Total
 - 9.2 No. of vehicle-to-vehicle collision accident
 - 9.3 No. of vehicle-to-pedestrian collision accident
 - 9.4 No. of vehicle-to-object collision accident

(D) Bus Engineering Safety

10. No. of safety defects per bus examination
11. No. of bus fire or smoke incidents

(E) Safety of Employees at Work

12. No. of bus driver casualties in traffic accidents
 - 12.1 Total
 - 12.2 No. of drivers fatalities
 - 12.3 No. of seriously injured drivers
 - 12.4 No. of slightly injured drivers
13. No. of passenger physical assaults to bus drivers
14. No. of passenger physical assaults to non-driver staff

(F) Management and Assurance Systems

15. Number of speeding cases identified by black box
16. Number of failure cases of alcohol breath testing
17. Number of cases not yet complied with the requirements for delivery of refresher training courses⁴
18. Number of failure of on-board CCTV system
19. Number of cases not yet complied with the company's medical check-up requirements for bus captains

Note: Traffic accident figures of the above SPIs refer to traffic accidents with person injury involving franchised buses.

⁴ Franchised bus operators will report this SPI upon the full implementation of the requirement of refresher courses as stipulated in the Practice Note on Training Framework for Bus Captains.

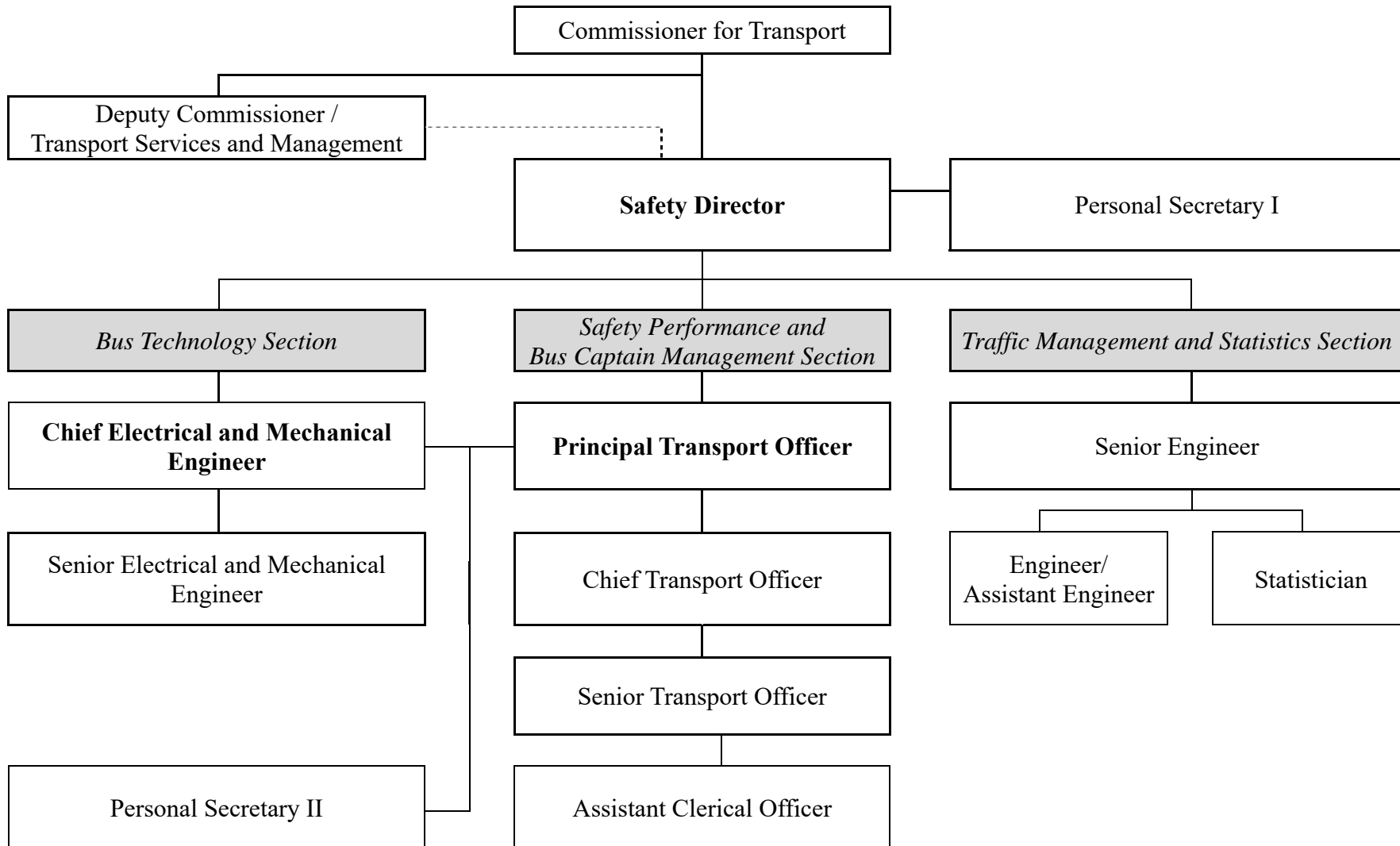
Notice Posted in Bus Compartments



Trial of “Give Way to Bus”



Organisation Chart



Duties and Responsibilities of the Safety Director

Post Title: Safety Director

**Rank: Assistant Commissioner for Transport (D2) /
Non-Civil Service Appointment (D2 equivalent)**

Responsible to: Commissioner for Transport (C for T)

The post-holder will head the Franchised Bus (“FB”) Safety Team to steer, advise and coordinate all matters related to safety of FBs and report direct to the C for T. The main duties include –

- (a) To oversee the accident trends and safety performance of FBs and individual FB operators, and advise FB operators on safety enhancement measures;
- (b) To keep abreast of the latest bus safety development / initiatives / devices / technologies in the world and keep close liaison with relevant authorities / organisations in other jurisdictions as necessary;
- (c) To explore and consider the feasibility of introducing new or overseas bus safety related initiatives / regulations / schemes / measures in light of the current operational and regulatory regime of FB operations in four main areas, namely (i) in-vehicle devices and technologies, (ii) bus captain training, fatigue management and working environment, (iii) safety performance management, and (iv) road safety and bus-friendly measures;
- (d) To oversee, coordinate and monitor the implementation of actions and initiatives under the Committee on Enhancement of Franchised Bus Safety;
- (e) To keep close liaison with the Safety Directors of the FB operators in the monitoring of their work progress and the effective implementation of various schemes / measures;

- (f) To study the identification of fatigue and fatigue management of bus captains, with a view to reviewing and enhancing the working hour guidelines for bus captains, and other health and well-being considerations of bus captains in the unique operating environment in Hong Kong, and to devise suitable and on-going fatigue management strategy and measures at Government, FB operators and individual bus captain levels respectively in light of the study;
- (g) To consider measures and actions to enhance TD's regulation of bus captain training, including standardisation and accreditation of bus captain training;
- (h) To coordinate education and publicity activities related to FB safety;
and
- (i) To examine and make recommendation on Hong Kong's participation in global benchmarking group/forum/association on city bus services.

Duties and Responsibilities of the Principal Transport Officer

Post Title: Principal Transport Officer / Bus Safety

Rank: Principal Transport Officer (D1)

Responsible to: Safety Director

The post-holder will head the Safety Performance and Bus Captain Management Section of the Franchised Bus (“FB”) Safety Team, which provides professional support to the Safety Director and coordinates actions within the FB Safety Team in taking forward cross-sectional matters. The main duties include –

- (a) To assist the Safety Director in the provision of professional support and advice on matters related to safety performance and bus captain management;
- (b) To oversee the monitoring on the safety performance of the FB industry and individual FB operators;
- (c) To oversee the implementation of the Guidelines on Bus Captain Working Hours, Rest Times and Meal Breaks and conduct reviews from time to time;
- (d) To consider and explore fatigue identification and management measures of bus captains at Government, FB operators and individual bus captain levels;
- (e) To oversee the implementation of measures and actions for enhancing the working environment of and facilities for bus captains, including initiatives for protecting the bus captains from abusive communication or behaviour;
- (f) To supervise the monitoring of the implementation and continuous review of the Practice Note on Training Framework for Franchised Bus Captains for evaluating the effectiveness of the bus captain training system;

- (g) To consider measures and actions to enhance TD's regulation of bus captain training, including standardisation and accreditation of bus captain training;
- (h) To oversee the provision of secretariat support for the Committee on Enhancement of Franchise Bus Safety;
- (i) To monitor the coordination of education and publicity activities related to FB safety;
- (j) To assume the overall coordination role on matters involving different sections of the FB Safety Team for reporting and necessary actions, as well as to keep close liaison with the FB operators in the monitoring of their work progress and the effective implementation of various schemes / measures; and
- (k) To perform any other duties as assigned by senior officers.

Duties and Responsibilities of the
Chief Electrical and Mechanical Engineer

Post Title: Chief Electrical and Mechanical Engineer / Bus
Safety

Rank: Chief Electrical and Mechanical Engineer (D1)

Responsible to: Safety Director

The post-holder will head the Bus Technology Section of the Franchised Bus (“FB”) Safety Team, which provides professional support to the Safety Director. The main duties include –

- (a) To assist the Safety Director in the provision of professional support and advice on the formulation of policies, strategies and initiatives on FB safety issues;
- (b) To oversee vehicle safety requirements and enhancement in respect of the design, construction, engines and engineering techniques, in-vehicle device, installations, equipment, facilities for bus captains and passengers etc. for FBs;
- (c) To manage the identification and trial of appropriate safety technologies and safety devices on FBs;
- (d) To oversee the existing regulatory and administrative framework on FB safety and formulate new requirements as well as up-to-date technical and safety standards to regulate FB safety in connection with the application of new vehicle technologies in FBs;
- (e) To formulate new requirements as well as technical and safety standards to uplift the safety level of FBs;
- (f) To coordinate and liaise with government bureaux / departments, bus manufacturers, local bus suppliers / agents, FB operators and relevant stakeholders for implementation of measures and initiatives to enhance FB safety;

- (g) To administer the follow up actions on various initiatives / measures as endorsed by the Committee on Enhancement of Franchised Bus Safety;
- (h) To study the feasibility of introducing a new framework of quality assurance scheme for the design and maintenance of FBs;
- (i) To provide professional advice on design, development and upgrading of ancillary facilities to suit the operation and maintenance of new models of FBs; and
- (j) To perform any other duties as assigned by senior officers.