政府總部 運輸及房屋局 運輸科 ^{香港添馬添美道2號} 政府總部東翼

本局檔號 Our Ref. 來函檔號 Your Ref. THB(T)CR 1/5541/2021

Transport and Housing Bureau Government Secretariat

Transport Branch East Wing, Central Government Offices, 2 Tim Mei Avenue, Tamar, Hong Kong

> 電話 Tel. No.: 3509 8171 傳真 Fax No.: 2104 7274

> > 16 July 2021

Ms Angela CHU Senior Council Secretary Legislative Council Secretariat Legislative Council Complex 1 Legislative Council Road Central, Hong Kong

Dear Ms Chu,

Legislative Council Panel on Transport Follow-up matters for the meeting on 18 June 2021

I refer to your email of 21 June 2021. At the meeting on 18 June 2021, the Legislative Council Panel on Transport discussed matters concerning the franchises of the Citybus Limited (Franchise for the Airport and North Lantau bus network), Long Win Bus Company Limited and New World First Bus Services Limited. The Administration was requested to provide information on safety measures adopted by the three franchised bus companies and their respective accident figures in the past three years. We now submit the supplementary information with the details set out at Annex.

Yours sincerely,

(Ms Jerry JI) for Secretary for Transport and Housing

<u>c.c.:</u> Commissioner for Transport (Attn: Mr. Honson YUEN)



Bus Safety Measures Adopted by the Three Franchised Bus Companies and Their Accident Figures

The three franchised bus ("FB") companies have adopted a number of measures in recent years to enhance bus safety. The details are set out below.

(A) New institutional setup for bus safety

2. Since 2019, Citybus Limited (Franchise for the Airport and North Lantau bus network) ("Citybus (Franchise 2)"), Long Win Bus Company Limited ("LW") and New World First Bus Services Limited ("NWFB") have appointed their own Safety Directors to oversee FB safety matters and regularly attend the Committee on Enhancement of Franchised Bus Safety set up by the Transport Department ("TD") to discuss and follow up the bus safety issues and related work. The Safety Directors have also enhanced communications and exchanges with non-local bus operators to share information on topics such as bus safety and application of advance technologies.

(B) Installation of in-vehicle safety devices

3. All new double-deck buses procured by the three FB companies from July 2018 onwards are equipped with seat belt on all passenger seats, electronic stability control ("ESC") which can improve vehicle stability and reduce the risk of rollover, as well as speed limiting retarder (i.e. speed limiter with slow-down function). In particular, to speed up the provision of seat belts on passenger seats for buses operating long-haul routes on expressways, LW purchased 146 new buses equipped with seat belts on all passenger seats and other safety devices in 2019 for replacing the same number of buses. Besides, the three FB companies have started to retrofit suitable existing buses with the above devices since the third quarter of 2020. The target is to complete the installation of seat belts for passenger seats on the upper decks of 132, 116 and 276 existing double-deck buses of Citybus (Franchise 2), LW and NWFB respectively in three years (from the third quarter of 2020)¹. Besides, ESC and speed limiting retarder will be installed on 216, 189 and 486 existing

¹ Upon completion of the installation and taking into account the newly procured buses, the majority of double-deck buses of Citybus (Franchise 2), LW and NWFB registered in or after 2016 would be fitted with seat belts for passenger seats on the upper deck.

double-deck buses of Citybus (Franchise 2), LW and NWFB respectively in four years (from the third quarter of $2020)^2$.

4. Moreover, Citybus (Franchise 2) and LW have installed the advanced driver assistance systems, including anti-collision and lane keeping warning systems, as well as driver monitoring system on all buses running the airport/North Lantau routes to further enhance safe driving.

(C) Real-time alert

5. To make better use of the data of the electronic data recording device (commonly known as the "black box"), TD and the three FB companies have instituted a set of common thresholds on speeding and harsh deceleration since end 2020 for generating real-time alerts to bus captains as well as exception reports for taking follow-up actions with bus captains.

(D) Enhancing bus captains' working conditions, environment and training

6. The three FB companies have fully implemented the enhanced driving hours and rest break arrangements stipulated in the latest Guidelines on Bus Captain Working Hours, Rest Times and Meal Breaks promulgated by TD in February 2018, including –

- (a) Maximum duty hours and driving hours in a shift have been shortened from not exceeding 14 hours and 11 hours respectively to not exceeding 12 hours and 10 hours respectively;
- (b) A rest break for bus captains after six driving hours has been lengthened from 30 minutes to 40 minutes;
- (c) Taking into account the transportation needs of the public during the morning and afternoon peak hours, FB companies are allowed to suitably arrange special shifts exceeding 12 hours, but the maximum duty hours should not exceed 14 hours and the maximum driving hours should tally with bus captains of all other shifts, i.e. not exceeding 10 hours. Besides, a rest break of not less than three consecutive hours should be provided in a special shift. Currently, the three FB companies have already

² Upon completion of the installation and taking into account the newly procured buses, about 96.9%, 79.4% and 70.4% of the respective bus fleets would be equipped with ESC and speed limiting retarder.

implemented the arrangement of having not more than 13 hours in a special shift; and

(d) The total off-duty breaks in three successive shifts (other than special shift) should not be less than 22 hours.

7. The three FB companies have also provided toilets and rest facilities at existing bus termini progressively to cater for the bus captains' needs and further improve their working environment.

8. Furthermore, the three FB companies have set common key performance indicators according to the "Practice Note on Training Framework for Franchised Bus Captains" drawn up by TD. They have also included elements of fatigue management in their bus captain training courses and devised different training modules (e.g. induction courses and refresher courses).

9. To safeguard the driving safety of bus captains, the three FB companies have retrofitted audio-recording equipment on their buses installed with CCTV at bus captain cabins, and have activated the function concerned. The three FB companies have also displayed notices (standardised by TD) inside bus compartments to remind passengers not to disturb bus captains while they are driving.

(E) Safety performance management

10. The three FB companies, in accordance with the requirement by TD, have adopted a new set of Safety Performance Indicators ("SPIs") (based on the SPIs adopted by the Transport for London) and regularly report to TD in a standardised format. The number of items covered in the new set of SPIs increased from two (i.e. (i) safety related defects per bus examination; and (ii) number of buses involved in accidents per million vehicle-km) to 19. These items cover six areas, namely general safety, bus passenger safety, operation and network safety, bus engineering safety, safety of employees at work, and management assurance systems, with a view to reviewing the performance and trends of FB companies' safety in a holistic manner, so as to facilitate targeted studies and measures for further enhancing FB safety. Details of the new SPIs are at <u>Appendix</u>.

(F) Route risk assessment

11. The three FB companies, in accordance with the requirement by TD, conduct regular route risk assessment which assesses the actual road conditions and environment as well as activities of other road users, with a view to providing adequate and appropriate driving instructions to bus captains in the light of the specific driving environment of each bus route.

(G) Accident data analyses

12. In accordance with the requirement by TD, the three FB companies report all accidents involving FBs to TD on a monthly basis. TD has worked with FB companies to standardise the reporting/analysis arrangement of FB accident data. A database on FB accidents has also been maintained since 2019 to facilitate thorough and rigorous data analysis as well as identification of the root cause of accidents involving FBs. Evidence-based and systemic safety improvement measures and initiatives, including road traffic improvement and bus friendly measures, could then be derived and implemented.

Accident figures

13. The accident figures of the three FB companies in the past three years, with breakdown by types and severity of casualties are tabulated below note –

Number of accidents involving Citybus (Franchise 2)		Fatal	Seriously injured	Slightly injured	Total
2018	Collision	.0	3	· 4 1	44
	Non-collision	0	4	43	47
	Total	0	7	84	91
2019	Collision	0	7	35	42
	Non-collision	0	4	36	. 40
	Total	0	11	71	82
2020	Collision	1	2	19	22
	Non-collision	0	0	9	9
	Total	1	2	28	31

Number of accidents nvolving LW		Fatal	Seriously injured	Slightly injured	Total
2018	Collision	0	2	33	35
	Non-collision	0	3	33	36
	Total	0	5	66	71
2019	Collision	0	6	36	42
	Non-collision	0	2	21	23
	Total	0	.8	57	65
	Collision	0	0	17	17
2020	Non-collision	0	3	15	18
	Total	0	3	32	35

Number of accidents involving NWFB		Fatal	Seriously injured	Slightly injured	Total
2018	Collision	2	16	110	128
	Non-collision	0	26	165	191
	Total	2	42	275	319
2019	Collision	3	11	85	99
	Non-collision	0	22	128	150
	Total	3	33	213	249
2020	Collision	0	12	73	85
	Non-collision	1	21	106	128
	Total	1	33	179	213

Note: The numbers of accidents involving NWFB were relatively higher since the majority of its bus routes were operating in urban areas, which were generally more congested and vulnerable to accidents.

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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 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 courses ^{Note}
- 18. Number of failure of on-board closed circuit television system
- 19. Number of cases not yet complied with the company's medical check-up requirements for bus captains
- * Traffic accident figures of the above SPIs refer to traffic accidents with injuries involving FB.

^{Note} FB companies will report this item of SPI upon the full implementation of the requirement of refresher courses as stipulated in the Practice Note on Training Framework for Bus Captains.