Question 1: Please, explain how you measured the fuel consumption, NOx and HC emissions in experiment?

Reply: Thanks for the reviewer's comments. VISSIM can record and output the speed and acceleration of each simulated step of vehicles in the road network during experiments. The VT-micro model can calculate real-time fuel consumption and emission rates based on speed and acceleration. By integrating the fuel consumption rate or emission rate over time, we can obtain the vehicle's fuel consumption, NOx and HC emissions. Summing up the emissions of all vehicles in the research section will give the total emissions.

Question 2: Is it possible to compare results with other research in this field?

Reply: Thanks for the reviewer's comments. In this study, the Eco-driving strategy-fco-cofv proposed in reference [21] is compared. This strategy considers the queue of vehicles before intersection but does not consider obstruction to following vehicles, and the optimization objective only considers fuel consumption. Experimental results show that our proposed strategy outperforms Eco-driving strategy-fco-cofv in all evaluation indicators.

Table 2. Comparison of the eco-driving strategy effects.

	Average speed /(km/h)	**Number of stops /(times)**	**Stopped delay /(h)**	**Fuel consumption /(L)**	**NOX emission /(g)**	**HC emission /(g)**
HDV flow	37.183	775.2	3.367	93.14	246.87	165.21
Eco-driving strategy -so-ctfe	38.323	314.4	1.529	82.80	194.98	127.33
Eco-driving strategy -fco-cofv	39.392	191.6	0.755	77.52	159.72	101.07
Eco-driving strategy -so	40.723	176.6	0.642	75.22	156.56	92.47
Eco-driving strategy	40.712	169.2	0.606	74.16	149.58	88.20