



Routes 38/N38, 507 and 521

Responses to issues raised in consultation

December 2008

Routes 38, 507 and 521: responses to issues raised in consultation

1. Introduction

Routes 38, 507 and 521 currently use articulated buses. It is now planned to convert route 38 to double-deck and routes 507/521 to shorter single-deck. A number of questions and issues were raised during consultation. This document sets out Transport for London's responses.

2. Capacity

Some respondents were concerned that there would be insufficient capacity.

Service frequencies will be increased so that there is sufficient capacity. Frequencies have been set so that there is sufficient capacity at all times. Table 1 shows the tendered frequencies for each vehicle type. Table 2 shows the resulting peak capacities.

Table 1: frequencies (buses per hour) by vehicle type

Route 38	MF Peak	MF Daytime	Saturday Daytime	Sunday Daytime	Evenings
As awarded	28 (am) 25 (pm)	18	18	12	12 (MF/Sat) 10 (Sun)
Artic	20 (am) 18 (pm)	15	15	10	10

Route 507	MF Peak	MF Daytime	Saturday Daytime	Sunday Daytime	Evenings
As awarded	18	10	5	5	5
Artic	10	10	5	5	5

Route 521	MF Peak	MF Daytime	Saturday Daytime	Sunday Daytime	Evenings
As awarded	30 (am) 24 (pm)	6	-	-	5 (MF only)
Artic	17 (am) 15 (pm)	6	-	-	5 (MF only)

Table 2: peak capacity

Route	Articulated buses	Double-deck (38) or Single-deck
38	2400	2380
507	1200	1260
521	2040	2100

Figures based on a total capacity of 120 per articulated bus, 85 per double-deck and 70 per single-deck.

3. Cost

Respondents requested information on the cost of the vehicle conversions.

Table 3 shows the costs of operation as awarded and for the alternative options. All options for routes 38/N38 and route 507 include the weekend enhancements.

Table 3: costs

	Contract Cost
	£pa
Routes 38/N38	
As awarded	15 750 000
New articulated vehicles	13 590 000
Existing articulated vehicles	12 966 000
Route 507	
As awarded	2 175 249
New articulated vehicles	2 192 570
Existing articulated vehicles	1 960 536
Route 521	
As awarded	3 207 794
New articulated vehicles	3 298 752
Existing articulated vehicles	2 856 691
Total	
As awarded	21 133 043
New articulated vehicles	19 081 322
Existing articulated vehicles	17 783 227

4. Ticketing and boarding arrangements

Currently all passengers must have a valid ticket before boarding and all except users of Saver tickets may get on and off at any door. Some respondents suggested that the current ticketing and boarding arrangements contributed to faster boarding times and were concerned that boarding times would increase. Others supported adoption of boarding at the front door only, with all passengers passing the driver, in order to reduce fare evasion.

Route 38 will adopt the same ticketing and boarding arrangements as other double-deck routes. On-bus payment will be permitted everywhere outside the West End "Pay Before You Board" zone. This will mean some increase in boarding times but fare evasion will fall. Many busy central London routes operate satisfactorily in this way. Operating a different system from other double-deck routes would be unnecessarily complex.

Routes 507 and 521 will retain 100% off-bus ticketing. Boarding and alighting will be permitted at both doors. These arrangements are well-suited to these short routes, which operate entirely in the central area and whose main purpose is to distribute passengers from the main rail terminals.

5. Congestion and emissions

Some respondents expressed concern about the possible congestion effects of running an increased number of buses, particularly regarding: Narroway in Hackney; the significant bus priority measures being introduced on route 38; whether there was sufficient space to accommodate the buses and passengers at the terminals. Others welcomed the conversion as they considered that the alternative vehicle types would be beneficial to traffic flow, or beneficial for cyclists. Some respondents were concerned that increased service levels would result in increased emissions, and asked whether an environmental impact assessment (EIA) had been conducted.

Projected bus-kilometres for the options tendered are shown in Table 4. (Route N38 was to be double-deck in both options). Final levels may vary when detailed schedules are prepared.

Table 4: bus-km

	bus-km
Route 38	
as awarded	2 867 713
articulated vehicles	2 224 939
Route N38	
as awarded	433 710
Route 507	
as awarded	474 846
articulated vehicles	366 148
Route 521	
as awarded	590 819
articulated vehicles	444 139

Although these increases are significant per route, they are not significant in the context of total traffic. As with all bus services, Transport for London will continue to work with colleagues in the Boroughs on smoothing traffic flows and reducing congestion. In particular we welcome discussions with Hackney Council regarding Narroway. Route 38 will continue to carry large numbers of passengers and the priority measures being introduced will remain highly beneficial.

Changes to infrastructure are required at London Bridge and Waterloo bus stations. Both are small-scale, involving changes to a pedestrian crossing at

London Bridge and to shelters at Waterloo. There is sufficient stand space to accommodate the buses at all the terminals.

No formal environmental impact assessment was conducted as these are not required for changes of this type.

It is not yet known which manufacturer's vehicles will be operated. Hence the emissions that would be generated from the replacement vehicles cannot be estimated until the vehicle manufacturers have been selected by the bus operators.

Nonetheless, for route 38 it is possible to compare total emissions of CO₂, NO_x and particulates (PM) per year using rates for the existing Euro 3 articulated buses and rates for the type of Euro 4 double-deck which is most prevalent in the fleet. Emissions rates are derived from independently-verified emissions tests conducted at Millbrook proving ground, and are representative of emission rates that would be generated for typical London bus operation.

The total emissions per annum for the Euro 3 articulated buses and the most prevalent Euro 4 double deck buses based on the vehicle-kms for route 38 are shown in Table 5. Vehicle-kms on route N38 are not included since this was specified as double-deck in both options.

Table 5: emissions by vehicle type, based on route 38 bus-km

	CO ₂	NO _x	PM
Emissions rates for vehicle types	g/km	g/km	g/km
Prevalent Euro 4 double-deck	1253	8.7	0.045
Euro 3 articulated	1637	13.4	0.044
Emissions by vehicle type	tonnes pa	tonnes pa	kg pa
Prevalent Euro 4 double-deck	3,602	25,008	129
Euro 3 articulated	3,653	29,905	98
double-deck cf. articulated	-1.4%	-16.4%	31.7%

Overall, the impact of replacing articulated buses with the most prevalent double deck Euro 4 double-deck bus is small. Both CO₂ and NO_x would decrease. Whilst particulate emissions increase, the actual amount (in kg) being released into the atmosphere is already very low. Significant steps have already been taken to reduce particulate emissions from Euro 3 buses through the fitting of particulate filters. A Euro 3 bus fitted with a particulate filter reduces particulate emissions from the exhaust by approximately 90% per vehicle i.e. it will emit only 10% of the particulate emissions of a standard Euro 3 bus. TfL has also worked with all the major bus manufacturers to ensure that any Euro 4 buses coming into the fleet continue to maintain these very low particulate levels. Therefore, although the increase in PM emissions on route 38 is 32%, this is on a very small base in absolute terms.

TfL do not currently have any test data for the type of single-deck bus that would be used for routes 507 and 521. It is thus not possible to provide similar emission comparisons at this stage.

6. The consultation

Some stakeholders were concerned that we had not consulted more widely, including seeking views from members of the public, conducting attitudinal surveys, or carrying out a general consultation on the removal of articulated buses.

TfL followed the usual process for consulting on significant bus service changes. Letters were sent to London TravelWatch, relevant Boroughs, Assembly members, Members of Parliament and the Police. Other organisations were also consulted including user groups. TfL representatives were available to discuss the proposals.

TfL does conduct public consultation on some proposals for change, but this generally happens when the roads to be served by buses (the route) would change, which did not apply in this case.

We did however, receive a number of responses from individuals, along with responses from our usual stakeholders, and all of these were taken into account. No specific attitudinal surveys were carried out.

Similar consultation is planned on specific proposals as they are developed for other routes, prior to their contracts expiring. Expiry dates are shown in Table 6 for information.

Table 6: contract expiry dates

Route	Operator	Initial expiry	Expiry if extended
507	London General	n/a	June 2009
521	London General	n/a	June 2009
38	Arriva	n/a	July 2009
149	Arriva	n/a	Oct 2010
18	First	n/a	Nov 2010
25	East London Bus Group	n/a	June 2011
73	Arriva	n/a	Sept 2011
12	London Central	n/a	Nov 2011
207	First	April 2010	April 2012
29	Arriva	Jan 2011	Jan 2013
436	London Central	Feb 2013	Feb 2015
453	London General	Feb 2013	Feb 2015

Extended expiry date applies subject to route performance.

7. Next steps

Following award of contracts, TfL is discussing vehicle specification, timetabling and start dates with bus operators. The outcomes will be reported to stakeholders.