LOCAL BUS SERVICES MARKET INVESTIGATION

Annex to Explanatory Note (Note on calculation of departure charges)

Introduction

1. This note, which accompanies the Local Bus Services Market Investigation (Access to Bus Stations) Order 2012 (the Order) and its explanatory notes, sets out a worked example of how a Departure Charge might be calculated at a Relevant Bus Station based on the principles set out under Part 5 (Charges at the Relevant Bus Station) of the Order. This paper uses the terms as defined in the Order.

2. This note sets out the methodology for calculating Departure Charges. In practice alternative assumptions may be more appropriate and/or different data may be required depending on the individual features and circumstances of the Relevant Bus Station. This note is therefore not intended to be prescriptive about how the principles set out under Part 5 of the Order should be applied in practice, but rather as an illustration of how the charging principles might be interpreted and applied.

Overview of methodology

3. An overview of our methodology is set out below under five steps:

   (a) *Step 1:* determining which facilities are available to Local Bus Operators at the Relevant Bus Station;

   (b) *Step 2:* calculating the total capacity of the Relevant Bus Station;

   (c) *Step 3:* determining the Reference Peak Period and Used Capacity Percentage;

   (d) *Step 4:* calculating the Relevant Operating Costs (including the Manager's return on its capital invested) and the Adjusted Relevant Operating Costs; and

   (e) *Step 5:* determining Departure Charges based on scheduled utilization of the Relevant Bus Station.

Step 1: Determining which facilities are available to Local Bus Operators at the Relevant Bus Station

Overview

4. Under the Order, Departure Charges are calculated with reference to the Relevant Operating Costs of the Relevant Bus Station and its Used Capacity Percentage. The costs associated with facilities which are available to Local Bus Operators form the main component of the Relevant Operating Costs. The other component is the Manager's return on capital invested, which is covered under Step 4 below.

5. Therefore, when determining which costs are Relevant Operating Costs, it is important to establish which facilities at a Relevant Bus Station are available to Local Bus Operators (including both the Manager and Users). One possible way of doing this is to establish which facilities are available to Users, as facilities which are available to Users are likely to be facilities which are necessary for Local Bus

Services (eg Bus Stands) and are also likely to be available to the Manager for the operation of its own Local Bus Services.

6. Not all of the facilities available at a Relevant Bus Station are available to Users, eg a canteen which is *only* available to the Manager's drivers and employees, or a ticket booth which *only* sells the Manager's tickets. It is therefore not reasonable for Users to be charged for the costs of these facilities for which they can neither gain access to, nor derive any benefit from.

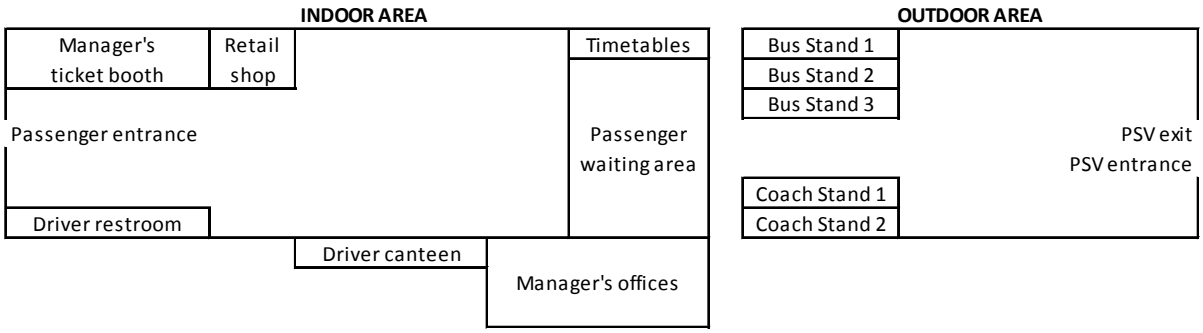
7. Whilst we refer to the availability of facilities to Users, the availability of facilities to the Users' passengers should also be treated as if they were available to Users, for example a passenger waiting area which can be used by all passengers using the Relevant Bus Station.

Methodology

8. Figure 1*(a)* shows a floor plan of the Relevant Bus Station, including the layout of all the facilities available at the Relevant Bus Station. This information should be made publicly available by the Manager as part of its Relevant Bus Station's Conditions of Use (see the content requirements of the Conditions of Use under the Order). We have assumed that the total ground floor area of the Relevant Bus Station, including both the indoor and outdoor areas, and for the avoidance of doubt, the Manager's offices and driver canteen, exceeds 600m^2 and therefore the total floor area exceeds the de minimis threshold requirement set out in the Order for a Bus Station.

FIGURE 1*(a)*

Floor plan of the Relevant Bus Station



Source: CC.

9. This Relevant Bus Station has the following outdoor facilities:

   (a) Bus Stands: three Bus Stands which are available to all Local Bus Operators; and

   (b) Coach stands: two coach stands which are available to all Coach Service operators.

10. The following indoor facilities are also available:

   (a) Manager's ticket booth: a ticket sales booth which employs staff and *only* sells tickets for the Manager's Local Bus Services;

   (b) Retail shop: a retail concession which is accessible to passengers. The concessionaire pays the Manager to operate at the Relevant Bus Station;

(c) *Passenger waiting area:* an enclosed and heated seating area for *all* passengers;

(d) *Timetables:* a timetable which shows all scheduled Local Bus Services and Coach Services operating out of the Relevant Bus Station;

(e) *Driver restroom:* restroom facilities which are available to *all* drivers;

(f) *Driver canteen:* a staff canteen which can only be accessed via the Manager's offices and for business security reasons is *only* available to the Manager's own staff; and

(g) *Manager's offices:* a single-floor of offices used by the Manager to operate its own Local Bus Services.

11. When determining which facilities are available to Users, we establish whether the facility is available to all Users or their passengers. In relation to the above facilities, the following are not available to Users or their passengers, and therefore the relevant costs of these facilities should not be recovered from Users through Departure Charges:

(a) the Manager's ticket booth;

(b) driver canteen;

(c) the Manager's offices; and

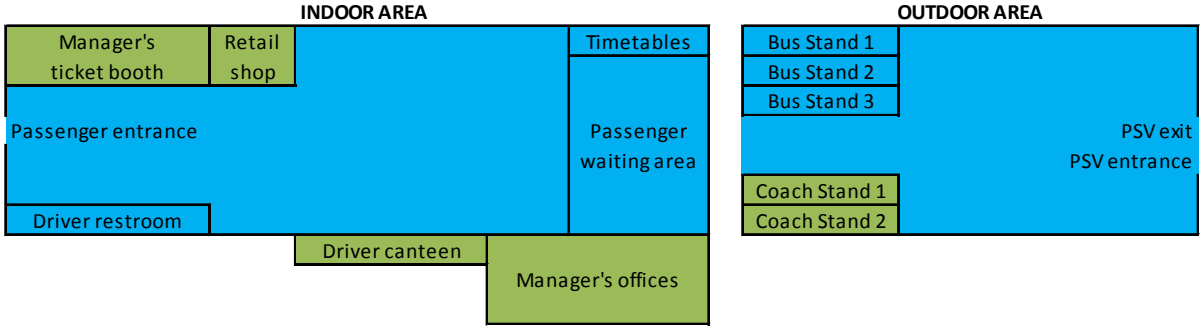
(d) coach stands.

12. In addition, there may be certain facilities for which the Manager is already charging for their use and whose costs are recovered by the Manager from alternative income streams. In our example, in relation to the Retail shop, the concessionaire pays the Manager for use of the concession space available at the Relevant Bus Station. Therefore, any relevant costs associated with the Retail shop should not be recovered from Users. Another example may be a situation where the Manager gives Users access to its ticket booth to sell their tickets, but receives a commission on the Users' ticket sales as payment for granting this access. In this situation where the Manager is already charging Users for its use, it is appropriate to exclude the variable and fixed costs associated with the ticket booth from the Relevant Operating Costs.

13. Having established which facilities should be taken into account when determining Relevant Operating Costs, Figure 1*(b)* shows the same floor plan but this time with the facilities whose costs (to the extent they should be allocated to Local Bus Operators) should be included in Relevant Operating Costs highlighted in blue.

FIGURE 1*(b)*

The relevant facilities for calculating Departure Charges



Source: CC.

Summary of Step 1: Determining which facilities are available to Local Bus Operators at the Relevant Bus Station

In determining Relevant Operating Costs, ie the costs of the facilities at a Relevant Bus Station which are available to Local Bus Operators, the following considerations should be taken into account:

(a) it may be informative to focus only on those facilities which are available to Users since (i) these facilities are likely to be considered necessary for Users to operate their services from the Relevant Bus Station, and (ii) the Manager is likely to also have access to these facilities;

(b) whether the facility is available to all Local Bus Operators or their passengers, in which case the costs are recoverable from Users; and

(c) whether the Manager is already charging for the use of the facility, in which case the costs are not separately recoverable from Users.

In this example, the costs associated with the following facilities should be taken into account in the calculation of Relevant Operating Costs:

- three Bus Stands;
- driver restroom;
- timetables; and
- passenger waiting area.

Step 2: What is the total capacity of the Relevant Bus Station?

Measuring total capacity

14. We measure/calculate total capacity of a Relevant Bus Station first in relation to Local Bus Services. Total capacity is a measure of the total number of departures which can be made by a Local Bus from all of the available Bus Stands over a specified time period, after taking into account any relevant factors which affect total capacity, such as Dwell Times (and any variations of such), health and safety issues, local traffic conditions, and the physical layout of the Relevant Bus Station.

Therefore, in any given hour, the total number of possible departures from a Bus Stand might vary from bus station to bus station depending on the relative impact of these factors.

15. In our example, total capacity for Local Bus departures is measured by the total number of Local Bus departures which can be made out of the Relevant Bus Station during normal operating hours in a typical 7-day week.

Calculating total capacity for Local Bus Services

16. In calculating the total capacity for Local Bus Services, we have taken the following factors into account:

    (a) the typical operating hours and days of the Relevant Bus Station;

    (b) the time taken for one Local Bus departure ; and

    (c) the total number of available Bus Stands.

17. In our example, the Relevant Bus Station's normal daily operating hours are: 7:00am to 10:00pm from Mondays to Fridays (15 hours a day); and 8:00am to 8:30pm on Saturdays and Sundays (12.5 hours a day). Whilst there are certain days of the year when operating hours are longer or shorter than the normal operating hours, in accordance with the definition of Relevant Peak Period in the Order, these variations from normal usage do not need to be taken into account.

18. The Dwell Time may be an important determinant of total capacity. In this example, we assume that the time taken for one Local Bus to park in a Bus Stand; set down and pick up passengers; and then depart from the Bus Stand is 6 minutes. We also assume that in one 60-minute period, each Bus Stand can accommodate a maximum of ten departures.

19. Figure 2 shows a grid representing a single Bus Stand and the total number of possible Local Bus departures which can take place during normal operating hours on a weekday and on a weekend. Each row represents 1 hour of operation for the Bus Stand. Each row is divided into ten squares where each square is a possible departure which can take place every 6 minutes.

FIGURE 2

Total possible daily bus departures from a Bus Stand

Mondays to Fridays

Time	A Bus Stand										*Departures*
7:00 AM	1	2	3	4	5	6	7	8	9	10	*10*
8:00 AM	11	12	13	14	15	16	17	18	19	20	*10*
9:00 AM	21	22	23	24	25	26	27	28	29	30	*10*
10:00 AM	31	32	33	34	35	36	37	38	39	40	*10*
11:00 AM	41	42	43	44	45	46	47	48	49	50	*10*
12:00 PM	51	52	53	54	55	56	57	58	59	60	*10*
1:00 PM	61	62	63	64	65	66	67	68	69	70	*10*
2:00 PM	71	72	73	74	75	76	77	78	79	80	*10*
3:00 PM	81	82	83	84	85	86	87	88	89	90	*10*
4:00 PM	91	92	93	94	95	96	97	98	99	100	*10*
5:00 PM	101	102	103	104	105	106	107	108	109	110	*10*
6:00 PM	111	112	113	114	115	116	117	118	119	120	*10*
7:00 PM	121	122	123	124	125	126	127	128	129	130	*10*
8:00 PM	131	132	133	134	135	136	137	138	139	140	*10*
9:00 PM	141	142	143	144	145	146	147	148	149	150	*10*
											150

Saturdays to Sundays

Time	A Bus Stand										*Departures*
8:00 AM	1	2	3	4	5	6	7	8	9	10	*10*
9:00 AM	11	12	13	14	15	16	17	18	19	20	*10*
10:00 AM	21	22	23	24	25	26	27	28	29	30	*10*
11:00 AM	31	32	33	34	35	36	37	38	39	40	*10*
12:00 PM	41	42	43	44	45	46	47	48	49	50	*10*
1:00 PM	51	52	53	54	55	56	57	58	59	60	*10*
2:00 PM	61	62	63	64	65	66	67	68	69	70	*10*
3:00 PM	71	72	73	74	75	76	77	78	79	80	*10*
4:00 PM	81	82	83	84	85	86	87	88	89	90	*10*
5:00 PM	91	92	93	94	95	96	97	98	99	100	*10*
6:00 PM	101	102	103	104	105	106	107	108	109	110	*10*
7:00 PM	111	112	113	114	115	116	117	118	119	120	*10*
8:00 PM	121	122	123	124	125						*5*
											125

Source: CC.

20. Based on Figure 2, ten Local Bus departures per hour can be made from a Bus Stand. During a full operating day, each Bus Stand can accommodate 150 Local Bus departures on a weekday (ie ten possible departures per hour x 15 operating hours on a weekday) and 125 Local Bus departures on a weekend (ie ten possible departures per hour x 12.5 operating hours on a weekend).

21. Over a seven-day week, the total number of Local Bus departures possible from a single Bus Stand is 1,000 departures (ie 750 (= 150 x 5) possible departures over the five weekdays; and 250 (= 125 x 2) possible departures over the weekend). Since there are three Bus Stands, the Relevant Bus Station's total capacity for Local Bus Services is 3,000 departures per week.

22. Assuming that the weekly departure profile applies throughout the year, the total annual capacity for Local Bus Services is 156,000 (= 3,000 x 52) Local Bus departures.

Calculating total capacity for Coach Service departures in our example

23. In our example, the total capacity for Coach Service departures will be relevant for when we later allocate the Relevant Bus Station's costs between Local Bus Services and Coach Services in Step 4.

24. To measure total capacity for Coach Service departures, we assume that each coach takes twice as long as a Local Bus to depart from a coach stand, ie 12 minutes, for example because a longer time may be required by coaches to allow for passenger luggage to be offloaded from, or loaded on to, the vehicle. Based on this assumption, the total capacity of a coach stand should be half the total capacity of a Bus Stand, ie 500 possible weekly departures, or 1,000 possible weekly departures for the two coach stands available.

Interpretation of total capacity

25. In our example, if there were 3,000 weekly Local Bus departures scheduled and 500 weekly Coach Service departures scheduled from the Relevant Bus Station, the Relevant Bus Station would be operating at 100 per cent capacity for Local Bus Services, and at 50 per cent capacity for coach services.

Summary of Step 2: What is the total capacity of the Relevant Bus Station?

There are a number of factors which might be relevant for calculating the total capacity of a Relevant Bus Station. In our example, the calculation of the Relevant Bus Station's total capacity for Local Bus Services took into account:

(a) the operating hours and days of the Relevant Bus Station;

(b) the time taken for one Local Bus departure to take place; and

(c) the total number of available Bus Stands.

In our example, we also calculated the total capacity for Coach Services departing from the Relevant Bus Station, which we measured on a similar basis. Based on our methodology, the total capacity of the Relevant Bus Station is:

- 3,000 possible weekly Local Bus departures from three Bus Stands; and
- 1,000 possible weekly coach departures from two coach stands.

Step 3: Determining the Reference Peak Period and Used Capacity Percentage

26. Used Capacity Percentage is measured by the total number of scheduled Local Bus departures as a percentage of the total possible departures during the Reference Peak Period. A Reference Peak Period is a single time period of at least 2 consecutive hours on any day during which available capacity utilization is at its highest.

27. It is important to note that Used Capacity Percentage is utilization of available capacity during the Reference Peak Period and is not a measure of average capacity utilization which would be based on total capacity during operating hours. The Used Capacity Percentage will be used to determine what proportion of Relevant Operating Costs should be recoverable from Users. This is discussed later in Step 4.

28. To arrive at Used Capacity Percentage, we first look at capacity utilization.

Measuring capacity utilization

29. In our example, we assume for simplicity that there are only two Local Bus Operators using the Relevant Bus Station: the Manager and one User.

30. In Step 2, since we measured total capacity as the total possible weekly number of Local Bus departures from the Relevant Bus Station, we shall measure capacity utilization on the same weekly basis.

31. Figure 3 below shows the grid presented in Figure 2 for each of the three Bus Stands at the Relevant Bus Station. Each grid now shows when scheduled departures occur on a daily basis from the relevant Bus Stands on weekdays and on weekends. The Manager's scheduled departures are represented by the blue squares, and the User's scheduled departures are represented by the orange squares.

32. As mentioned above, the normal operating hours of the Relevant Bus Station are from 7:00am to 10:00pm on weekdays; and from 8:00am to 8:30pm on weekends.

FIGURE 3

Daily scheduled departures from Bus Stands

Manager
User

Mondays to Fridays

Time	Bus Stand 1										*No. Deps*	*% util'n*
7:00 AM	1	2	3	4	5	6	7	8	9	10	*9*	*90%*
8:00 AM	11	12	13	14	15	16	17	18	19	20	*9*	*90%*
9:00 AM	21	22	23	24	25	26	27	28	29	30	*9*	*90%*
10:00 AM	31	32	33	34	35	36	37	38	39	40	*5*	*50%*
11:00 AM	41	42	43	44	45	46	47	48	49	50	*5*	*50%*
12:00 PM	51	52	53	54	55	56	57	58	59	60	*5*	*50%*
1:00 PM	61	62	63	64	65	66	67	68	69	70	*5*	*50%*
2:00 PM	71	72	73	74	75	76	77	78	79	80	*5*	*50%*
3:00 PM	81	82	83	84	85	86	87	88	89	90	*5*	*50%*
4:00 PM	91	92	93	94	95	96	97	98	99	100	*5*	*50%*
5:00 PM	101	102	103	104	105	106	107	108	109	110	*8*	*80%*
6:00 PM	111	112	113	114	115	116	117	118	119	120	*8*	*80%*
7:00 PM	121	122	123	124	125	126	127	128	129	130	*8*	*80%*
8:00 PM	131	132	133	134	135	136	137	138	139	140	*3*	*30%*
9:00 PM	141	142	143	144	145	146	147	148	149	150	*3*	*30%*
											92	***61%***

Saturdays to Sundays

Time	Bus Stand 1										*No. Deps*	*% util'n*
8:00 AM	1	2	3	4	5	6	7	8	9	10	*5*	*50%*
9:00 AM	11	12	13	14	15	16	17	18	19	20	*5*	*50%*
10:00 AM	21	22	23	24	25	26	27	28	29	30	*5*	*50%*
11:00 AM	31	32	33	34	35	36	37	38	39	40	*5*	*50%*
12:00 PM	41	42	43	44	45	46	47	48	49	50	*5*	*50%*
1:00 PM	51	52	53	54	55	56	57	58	59	60	*5*	*50%*
2:00 PM	61	62	63	64	65	66	67	68	69	70	*5*	*50%*
3:00 PM	71	72	73	74	75	76	77	78	79	80	*5*	*50%*
4:00 PM	81	82	83	84	85	86	87	88	89	90	*5*	*50%*
5:00 PM	91	92	93	94	95	96	97	98	99	100	*5*	*50%*
6:00 PM	101	102	103	104	105	106	107	108	109	110	*5*	*50%*
7:00 PM	111	112	113	114	115	116	117	118	119	120	*5*	*50%*
8:00 PM	121	122	123	124	125						*2*	*20%*
											62	***50%***

Time	Bus Stand 2										No. Deps	% util'n
7:00 AM	1	2	3	4	5	6	7	8	9	10	9	90%
8:00 AM	11	12	13	14	15	16	17	18	19	20	9	90%
9:00 AM	21	22	23	24	25	26	27	28	29	30	9	90%
10:00 AM	31	32	33	34	35	36	37	38	39	40	5	50%
11:00 AM	41	42	43	44	45	46	47	48	49	50	5	50%
12:00 PM	51	52	53	54	55	56	57	58	59	60	5	50%
1:00 PM	61	62	63	64	65	66	67	68	69	70	5	50%
2:00 PM	71	72	73	74	75	76	77	78	79	80	5	50%
3:00 PM	81	82	83	84	85	86	87	88	89	90	5	50%
4:00 PM	91	92	93	94	95	96	97	98	99	100	5	50%
5:00 PM	101	102	103	104	105	106	107	108	109	110	8	80%
6:00 PM	111	112	113	114	115	116	117	118	119	120	8	80%
7:00 PM	121	122	123	124	125	126	127	128	129	130	8	80%
8:00 PM	131	132	133	134	135	136	137	138	139	140	3	30%
9:00 PM	141	142	143	144	145	146	147	148	149	150	3	30%
											92	**61%**

Time	Bus Stand 2										No. Deps	% util'n
8:00 AM	1	2	3	4	5	6	7	8	9	10	5	50%
9:00 AM	11	12	13	14	15	16	17	18	19	20	5	50%
10:00 AM	21	22	23	24	25	26	27	28	29	30	5	50%
11:00 AM	31	32	33	34	35	36	37	38	39	40	5	50%
12:00 PM	41	42	43	44	45	46	47	48	49	50	5	50%
1:00 PM	51	52	53	54	55	56	57	58	59	60	5	50%
2:00 PM	61	62	63	64	65	66	67	68	69	70	5	50%
3:00 PM	71	72	73	74	75	76	77	78	79	80	5	50%
4:00 PM	81	82	83	84	85	86	87	88	89	90	5	50%
5:00 PM	91	92	93	94	95	96	97	98	99	100	5	50%
6:00 PM	101	102	103	104	105	106	107	108	109	110	5	50%
7:00 PM	111	112	113	114	115	116	117	118	119	120	5	50%
8:00 PM	121	122	123	124	125						2	20%
											62	**50%**

Time	Bus Stand 3										No. Deps	% util'n
7:00 AM	1	2	3	4	5	6	7	8	9	10	9	90%
8:00 AM	11	12	13	14	15	16	17	18	19	20	9	90%
9:00 AM	21	22	23	24	25	26	27	28	29	30	9	90%
10:00 AM	31	32	33	34	35	36	37	38	39	40	6	60%
11:00 AM	41	42	43	44	45	46	47	48	49	50	6	60%
12:00 PM	51	52	53	54	55	56	57	58	59	60	6	60%
1:00 PM	61	62	63	64	65	66	67	68	69	70	3	30%
2:00 PM	71	72	73	74	75	76	77	78	79	80	3	30%
3:00 PM	81	82	83	84	85	86	87	88	89	90	7	70%
4:00 PM	91	92	93	94	95	96	97	98	99	100	7	70%
5:00 PM	101	102	103	104	105	106	107	108	109	110	7	70%
6:00 PM	111	112	113	114	115	116	117	118	119	120	7	70%
7:00 PM	121	122	123	124	125	126	127	128	129	130	7	70%
8:00 PM	131	132	133	134	135	136	137	138	139	140	-	0%
9:00 PM	141	142	143	144	145	146	147	148	149	150	-	0%
											86	**57%**

Time	Bus Stand 3										No. Deps	% util'n
8:00 AM	1	2	3	4	5	6	7	8	9	10	2	20%
9:00 AM	11	12	13	14	15	16	17	18	19	20	2	20%
10:00 AM	21	22	23	24	25	26	27	28	29	30	2	20%
11:00 AM	31	32	33	34	35	36	37	38	39	40	2	20%
12:00 PM	41	42	43	44	45	46	47	48	49	50	2	20%
1:00 PM	51	52	53	54	55	56	57	58	59	60	2	20%
2:00 PM	61	62	63	64	65	66	67	68	69	70	2	20%
3:00 PM	71	72	73	74	75	76	77	78	79	80	2	20%
4:00 PM	81	82	83	84	85	86	87	88	89	90	2	20%
5:00 PM	91	92	93	94	95	96	97	98	99	100	2	20%
6:00 PM	101	102	103	104	105	106	107	108	109	110	2	20%
7:00 PM	111	112	113	114	115	116	117	118	119	120	2	20%
8:00 PM	121	122	123	124	125						2	20%
											26	**21%**

Source: CC.

33. Based on Figure 3 above:

    (a) On weekdays, Bus Stand 1 is only used by the Manager's Local Buses and Bus Stand 2 is only used by the User's Local Buses. Bus Stand 3 is used by both the Manager and the User at different times during the day.

    (b) On weekends, only the Manager uses Bus Stands 1 and 2, and only the User uses Bus Stand 3.

    (c) The total number of scheduled departures from Monday to Friday is: 1,350 (= (92 + 92 + 86) daily scheduled departures x 5 days); and the total number of scheduled departures on Saturday and Sunday is: 300 (= (62 + 62 + 26) daily scheduled departures x 2 days). The total weekly number of scheduled departures is therefore 1,650.

    (d) Assuming that these weekly scheduled departure numbers do not change during the year, the annual number of scheduled departures is: 85,800 (= 1,650 weekly scheduled departures x 52 weeks).

34. Scheduled utilization rates based on total capacity varies between Bus Stands and between weekdays and weekends, eg weekday total scheduled capacity utilization for Bus Stands 1 and 2 is 61 per cent (ie each Bus Stand has 92 daily scheduled departures out of a total possible number of 150). However, weekend total scheduled capacity utilization is 50 per cent for Bus Stands 1 and 2. For Bus Stand 3, weekday total scheduled capacity utilisation is 57 per cent and weekend total scheduled capacity utilization is 21 per cent.

Determining the Reference Peak Period and Used Capacity Percentage

35. Based on Figure 3 above, the Reference Peak Period is considered to be 7:00am to 10:00am on a weekday, during which time, out of a possible number of 90 Local Bus Departures (ie available capacity based on ten departures per hour x 3 hours x three Bus Stands), there are 81 scheduled departures from the three Bus Stands, giving an available capacity utilization figure of 90 per cent. We define this as the Used Capacity Percentage.

36. The Used Capacity Percentage (and not total scheduled capacity utilization) is used to adjust the Relevant Operating Costs to calculate Departure Charges. The Used Capacity Percentage figure of 90 per cent will be used later in Step 4.

37. Whilst scheduled utilization based on total capacity during the day is a much lower figure than Used Capacity Percentage, we recognize that it may be efficient for a Relevant Bus Station to have some excess capacity in order to accommodate the intra-day peak capacity requirements of the Local Bus Operators which use the Relevant Bus Station.

Summary of Step 3: Determining the Reference Peak Period and Used Capacity Percentage

The Used Capacity Percentage is the number of scheduled Local Bus departures calculated as a percentage of the total number of possible departures that can be made during the Reference Peak Period.

The Reference Peak Period is a single period of at least 2 consecutive hours on any day during which scheduled utilization of the available capacity is at its highest.

In this example, the Reference Peak Period is the 3-hour period from 7:00am to 10:00am on a weekday.

Based on this Reference Peak Period, the Used Capacity Percentage is 90 per cent.

By definition, Used Capacity Percentage will always be higher than the actual total capacity utilization.

Step 4: Calculating the Relevant Operating Costs (including the Manager's return on its capital invested) and the Adjusted Relevant Operating Costs

38. The total costs of operating the Relevant Bus Station may contain costs which derive no benefit to Users, (in our example, only the Manager's staff can use the driver canteen; only the Manager's tickets can be sold at the Manager's ticket booth; and coaches also use the Relevant Bus Station (see Figure 1*(b)* above)).

39. Therefore, if Users' Departure Charges were based on the total costs of operating the Relevant Bus Station, the Manager is likely to recover more costs from Users than can be fairly and reasonably attributed to them.

40. We therefore adjust the total costs of operating the Relevant Bus Station with the following:

(a) *Adjustment 1:* exclude all costs which relate to facilities: *(a)* which are only available to the Manager; and *(b)* for which the Manager is already recovering costs;

(b) *Adjustment 2:* exclude all costs which relate to facilities which are used by Coach Service operators if any, ie which do not relate to the maintenance and operation of the Relevant Bus Station for use by Local Bus Operators;

(c) *Adjustment 3:* include a return on the Manager's invested capital. The resulting costs are defined as the Relevant Operating Costs; and

(d) *Adjustment 4:* Relevant Operating Costs should be adjusted by applying the Used Capacity Percentage.

41. The above adjustments are described in further detail below, where we show a step-by-step calculation of Adjusted Relevant Operating Costs from total costs.

Total costs of operating the Relevant Bus Station

42. Total costs are the total annual costs incurred by the Manager in managing, operating and maintaining a Relevant Bus Station and all its facilities regardless of whether such facilities are available to Users. As noted in paragraph 57 of Appendix 15.4 of the Final Report, we would not expect the total costs of operating a Relevant Bus Station to include corporate overheads or central costs which are not incurred at a local level.

43. In our example, total costs include all of the operating costs attributable to the Relevant Bus Station, including the Manager's offices and Ticket booth, and the Retail shop, etc. Figure 4*(a)* below sets out the total unadjusted costs of the Relevant Bus Station. The list of individual cost items shown in our example is not exhaustive, and there may be other relevant cost items which should be included in the calculation of total costs.

44. As calculated in Step 3, the total annual number of scheduled Local Bus departures (including both the Manager's and User's Local Bus Services) is 85,800. We show the cost per scheduled departure below the cost data.

FIGURE 4*(a)*

Total costs of the Relevant Bus Station

(£'000s)	*Total Costs*
Staff Costs	
Full-time station staff	*100.0*
Part-time station staff	*50.0*
Ticket booth staff	*40.0*
	190.0
Premises Costs	
Rent	*100.0*
Rates	*60.0*
Cleaning	*5.0*
Utilities	*35.0*
Repairs	*10.0*
Maintenance	*15.0*
Depreciation	*15.0*
Publicity Facilities	*4.0*
Catering	*15.0*
Other fixed costs	*1.0*
Return	-
	260.0
Total Costs	450.0
Scheduled departures (k)	85.8
Cost per departure	£5.24

Source: CC.

45. Based on Figure 4*(a)* above, the annual total costs of operating the Relevant Bus Station are £450,000, which comprise:

    (a) Total staff costs of £190,000, which are split between full-time and part-time station employees, and staff at the ticket booth:

        (i) Full-time employees spend 100 per cent of their paid time at the Relevant Bus Station or on matters relating to the Relevant Bus Station.

        (ii) Part-time employees spend less than 100 per cent of their paid time at the Relevant Bus Station or on matters relating to the Relevant Bus Station.

    (b) Total premises costs of £260,000, which comprise all the costs relating to the premises, including rent, rates, repairs, maintenance and depreciation, as well as any other fixed costs necessarily incurred, including the Manager's cost of ongoing compliance with the requirements of the Order.

46. Based on unadjusted total costs, the cost per scheduled departure is £5.24.

47. Since the Manager will be calculating future Departure Charges based on a forecast of the annual total cost of operating the Relevant Bus Station, it is likely that the actual annual total cost will be different from the budgeted annual cost. Therefore, when preparing its forecasts for total costs, the Manager should adjust this by the difference between the actual and budgeted total costs of the Relevant Bus Station for the previous 12-month period. This adjusted figure will then be used by the Manager to set Departure Charges for the following 12-month period. This is to

ensure that the Manager ultimately recovers the actual costs rather than budgeted costs. In our worked example, we have assumed that in the previous year, actual costs equalled budgeted costs and therefore we have not made this adjustment.

Adjustment 1: excluding costs which relate to facilities: (a) which are only available to the Manager; and (b) for which the Manager is already recovering costs

48. The first adjustment we make to total costs is to remove the costs which relate to facilities which are only available to the Manager, since these derive no benefits to Users; and also the costs of those facilities where the Manager receives a separate income stream, eg concessions.

49. In relation to staff costs, we make the following cost allocation assumptions to arrive at a cost figure which excludes the staff costs relating to the Manager's ticket booth, offices and driver canteen, as well as the staff costs relating to the Retail shop (see Figure 1*(b)* above):

    (a) Full-time and part-time station employees spend 90 per cent of their time on the operation and maintenance of the Relevant Bus Station for the benefit of all users of the Relevant Bus Station (including both Local Bus Operators and Coach Service operators). 10 per cent of their time is spent on managing the Manager's own Local Bus Services. Therefore, 10 per cent of these costs are excluded.

    (b) 100 per cent of ticket booth staff time is spent on selling the Manager's own tickets and therefore 100 per cent of ticket booth staff costs are excluded.

50. In relation to premises costs:

    (a) We assume that between 30 and 40 per cent of the total cost of rent, rates, cleaning, utilities, repairs, maintenance and depreciation are accounted for by:

        (i) facilities which are only available to the Manager (ie the driver canteen, ticket booth and offices); and

        (ii) the Retail shop.

        The relevant proportion of these costs should be excluded.

    (b) In relation to the total cost of operating the timetables (ie the Publicity Facilities), these are available to all Local Bus Operators who use the Relevant Bus Station, and are not excluded.

    (c) 100 per cent of the costs of catering are excluded since only the Manager's staff benefits from the driver canteen.

    (d) All of the 'other fixed costs' items (which includes the Manager's ongoing cost of compliance with the requirements of the Order but not initial 'set-up' costs) it is assumed relate to costs which are necessarily incurred for the operation of the Relevant Bus Station and are therefore not excluded.

51. In Figure 4*(b)* below, we set out the Relevant Bus Station's costs after Adjustment 1. After Adjustment 1, the cost per departure falls from £5.25 to £3.36.

FIGURE 4*(b)*

Total costs after Adjustment 1

(£'000s)	*Total Costs*	*Adjust't 1*	***Total Costs (post Adj. 1)***	***Comments***
Staff Costs				
Full-time station staff	*100.0*	*-10.0*	***90.0***	*90% allocated*
Part-time station staff	*50.0*	*-5.0*	***45.0***	*90% allocated*
Ticket booth staff	*40.0*	*-40.0*	**-**	*0% allocated*
	190.0	-55.0	**135.0**	
Premises Costs				
Rent	*100.0*	*-40.0*	***60.0***	*60% allocated*
Rates	*60.0*	*-24.0*	***36.0***	*60% allocated*
Cleaning	*5.0*	*-2.0*	***3.0***	*60% allocated*
Utilities	*35.0*	*-14.0*	***21.0***	*60% allocated*
Repairs	*10.0*	*-3.0*	***7.0***	*70% allocated*
Maintenance	*15.0*	*-4.5*	***10.5***	*70% allocated*
Depreciation	*15.0*	*-4.5*	***10.5***	*70% allocated*
Publicity Facilities	*4.0*	*-*	***4.0***	*100% allocated*
Catering	*15.0*	*-15.0*	**-**	*0% allocated*
Other fixed costs	*1.0*	*-*	***1.0***	*100% allocated*
Return	*-*	*-*	**-**	
	260.0	-107.0	**153.0**	
Total Costs	450.0	-162.0	**288.0**	
Scheduled departures (k)	85.8	85.8	85.8	
Cost per departure	£5.24	-£1.89	£3.36	

Source: CC.

Adjustment 2: exclude all costs which relate to facilities which are used by Coach Service operators if any, ie which do not relate to the maintenance and operation of the Relevant Bus Station for use by Local Bus Operators

52. We take '*Total Costs (post Adj.1)*' (as shown in Figure 4*(b)* above) as our starting point for Adjustment 2.

53. In order to exclude the costs attributable to Coach Services (ie Adjustment 2), we base our cost allocation assumptions on a combination of two factors:

    (a) the relative total capacity of the Relevant Bus Station for Local Bus departures (3,000 possible weekly Local Bus departures) and Coach Service departures (1,000 possible weekly Coach Service departures); and

    (b) the relative length of time taken up by a Local Bus departure (6 minutes) compared with a coach departure (12 minutes).

54. Taking both *(a)* and *(b)* above into account, we adjusted the ratio of Local Bus to Coach Service capacity, ie 3,000:1,000, by the fact that Coach Service departures take twice as long as Local Bus departures, to arrive at 3,000:2,000. Based on this adjusted ratio, we assumed that 40 per cent (= 2,000 divided by (3,000 + 2,000) of '*Total Costs (post Adj.1)*' is attributable to Coach Services and therefore should be

excluded. For simplicity, we also assume in our example that 40 per cent of 'other fixed costs' is attributable to Coach Services.

55. These adjustments to costs are shown in Figure 4*(c)* below. After Adjustment 2, the cost per departure falls from £3.36 to £2.01.

FIGURE 4*(c)*

Total costs after Adjustment 2

(£'000s)	*Total Costs (post Adj. 1)*	*Adjust't 2*	***Total Costs (post Adj. 2)***	***Comments***
Staff Costs				
Full-time station staff	*90.0*	*-36.0*	***54.0***	*60% allocated*
Part-time station staff	*45.0*	*-18.0*	***27.0***	*60% allocated*
Ticket booth staff	-	-	-	
	135.0	-54.0	**81.0**	
Premises Costs				
Rent	*60.0*	*-24.0*	***36.0***	*60% allocated*
Rates	*36.0*	*-14.4*	***21.6***	*60% allocated*
Cleaning	*3.0*	*-1.2*	***1.8***	*60% allocated*
Utilities	*21.0*	*-8.4*	***12.6***	*60% allocated*
Repairs	*7.0*	*-2.8*	***4.2***	*60% allocated*
Maintenance	*10.5*	*-4.2*	***6.3***	*60% allocated*
Depreciation	*10.5*	*-4.2*	***6.3***	*60% allocated*
Publicity Facilities	*4.0*	*-1.6*	***2.4***	*60% allocated*
Catering	-	-	-	*60% allocated*
Other fixed costs	*1.0*	*-0.4*	***0.6***	*60% allocated*
Return	-	-	-	
	153.0	-61.2	**91.8**	
Total Costs	288.0	-115.2	**172.8**	
Scheduled departures (k)	85.8	85.8	85.8	
Cost per departure	£3.36	-£1.34	£2.01	

Source: CC.

Adjustment 3: include a return on the Manager's invested capital

56. The calculation of return is up to 10 per cent of the depreciated historic cost of the capital invested by the Manager into the Relevant Bus Station. The investment must benefit all Local Bus Operators using the Relevant Bus Station. In calculating the relevant capital invested:

(a) The capital invested must be an investment made directly by the Manager and/or an Associate Company and therefore excludes any funding contributions from public authorities or third-party investors.

(b) Any investments which do not benefit Users must be excluded from the return calculation (eg the building of a canteen which is only open to the Manager or an investment into a new ticket booth which only sells Coach Service tickets).

(c) There are accounting standards which set out the criteria for whether maintenance costs should be capitalized or expensed in the Profit and Loss Statement (eg IAS 16) which should be sufficient for the Manager to determine whether relevant maintenance expenditure should be capitalized. However, the Order also states that the Manager may capitalize a relevant maintenance

expenditure if the result of fully expensing these in a single accounting period results in the Departure Charge increasing by 10 per cent or more on its prior year level (an example of such an expenditure may be the replacement of the Relevant Bus Station's roof).

57. We assume in this example that the depreciated historic cost of the capital invested into the relevant facilities which benefit all Local Bus Operators is £500,000. With a 10 per cent rate of return, the return is £50,000. If we include this return in the adjusted total costs (ie '*Total Costs (post Adj. 2)*') shown in Figure 4*(c)* above, we arrive at the Relevant Operating Costs figure.

58. The inclusion of a 10 per cent return is shown in Figure 4*(d)* below. After Adjustment 3, the cost per departure increases from £2.01 to £2.60.

FIGURE 4*(d)*

Total costs after Adjustment 3

(£'000s)	*Total Costs (post Adj. 2)*	*Adjust't 3*	***Final Relevant Costs***
Staff Costs			
Full-time station staff	*54.0*	-	***54.0***
Part-time station staff	*27.0*	-	***27.0***
Ticket booth staff	-	-	-
	81.0	-	**81.0**
Premises Costs			
Rent	*36.0*	-	***36.0***
Rates	*21.6*	-	***21.6***
Cleaning	*1.8*	-	***1.8***
Utilities	*12.6*	-	***12.6***
Repairs	*4.2*	-	***4.2***
Maintenance	*6.3*	-	***6.3***
Depreciation	*6.3*	-	***6.3***
Publicity Facilities	*2.4*	-	***2.4***
Catering	-	-	-
Other fixed costs	*0.6*	-	***0.6***
Return	-	*50.0*	***50.0***
	91.8	-	**141.8**
Total Costs	172.8	-	**222.8**
Scheduled departures (k)	85.8	85.8	85.8
Cost per departure	£2.01	£0.00	£2.60

Source: CC.

Adjustment 4: Relevant Operating Costs should be adjusted by applying the Used Capacity Percentage

59. In Step 3, we calculated that Used Capacity Percentage is 90 per cent, ie 90 per cent of the Relevant Operating Costs are recoverable from Local Bus Operators (ie the Manager and the User).

60. Figure 4*(e)* below shows the Relevant Operating Cost adjusted for the Used Capacity Percentage (ie 90 per cent of costs are recoverable from Local Bus Operators). The resulting costs are known as the Adjusted Relevant Operating Costs. Based on Adjustment 4, the cost per departure decreases from £2.60 to £2.34.

FIGURE 4*(e)*

Total costs after Adjustment 4

(£'000s)	***Relevant Operating Costs***	*Adjust't 4*	***Adj. Relevant Operating Costs***
Staff Costs			
Full-time station staff	***54.0***	*-5.4*	***48.6***
Part-time station staff	***27.0***	*-2.7*	***24.3***
Ticket booth staff	-	-	-
	81.0	-8.1	**72.9**
Premises Costs			
Rent	***36.0***	*-3.6*	***32.4***
Rates	***21.6***	*-2.2*	***19.4***
Cleaning	***1.8***	*-0.2*	***1.6***
Utilities	***12.6***	*-1.3*	***11.3***
Repairs	***4.2***	*-0.4*	***3.8***
Maintenance	***6.3***	*-0.6*	***5.7***
Depreciation	***6.3***	*-0.6*	***5.7***
Publicity Facilities	***2.4***	*-0.2*	***2.2***
Catering	-	-	-
Other fixed costs	***0.6***	*-0.1*	***0.5***
Return	***50.0***	*-5.0*	***45.0***
	141.8	-14.2	**127.6**
Total Costs	**222.8**	-22.3	**200.5**
Scheduled departures (k)	85.8	85.8	85.8
Cost per departure	£2.60	-£0.26	£2.34

Source: CC.

Summary of Step 4: Calculating the Relevant Operating Costs

The total costs of operating the Relevant Bus Station may contain the costs of facilities which are not available to Users and therefore do not derive any benefits to Users.

Relevant Operating Costs represent only the proportion of total costs which relate to facilities which are available to Local Bus Operators, including a return to the Manager on its invested capital.

In our example, to calculate Relevant Operating Costs from total costs, we made the following adjustments:

(a) Excluded all costs relating to facilities which are only available to the Manager (eg the Manager's offices), and for which the Manager is already recovering costs (eg the retail concession).

(b) Excluded all costs which are attributable to Coach Service operators.

(c) Included a return of 10 per cent on the relevant investment (calculated as the proportion of the depreciated historic cost of the Manager's or an Associate Company's investment into the Relevant Bus Station).

Relevant Operating Costs were then adjusted by applying the Used Capacity Percentage (calculated in Step 3 above).

The resulting costs (ie the Adjusted Relevant Operating Costs) form the basis on which Departure Charges are set (see Step 5 below).

Step 5: Determining Departure Charges based on scheduled utilization

61. Having calculated the Adjusted Relevant Operating Costs (by determining Relevant Operating Costs and adjusting them by the Used Capacity Percentage), we can arrive at the User's departure charge by dividing Adjusted Relevant Operating Costs by the total number of annual scheduled Local Bus departures. One possible alternative to this may be to base the calculation on scheduled Dwell Times rather than scheduled departures. Our calculation of the User's charge per departure is shown in Figure 4*(d)* above, where the Departure Charge is £2.34 per departure.

Summary of Step 5: Determining Departure Charges based on scheduled utilization

A Departure Charge can be calculated based on dividing the Adjusted Relevant Operating Costs (which only includes the proportion which relates to the Used Capacity Percentage) by the total number of scheduled Local Bus departures. For the avoidance of doubt, this figure includes both the Local Bus departures of the Manager and any User.

The resulting Departure Charge is what is paid by each User for every scheduled Local Bus departure made by the User from the Relevant Bus Station.