Jubilee Line Extension Impact Study

Development Impact Study 2002

Task 3 Development Demand – An Analysis of the LDMS Database

Tim Pharoah
For

Jubilee Line Extension Impact Study Unit
University of Westminster

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1.1 *Planning Application Analysis*

1.1.1 The purpose of this section is to analyse planning application data as a means of judging the demand for development, The analysis is based on data held in the London Development Monitoring System (LDMS), which contains data on planning applications relating to larger developments.

1.1.2 The basis of this analysis is to examine whether and to what extent development demand has responded to the increased accessibility provided by the JLE. The following questions are pertinent to the investigation:

- Has development demand changed since the opening of JLE?
- If so in what ways?
- How do any changes compare to areas not served by the JLE?

Two further questions are relevant and are addressed in the case studies and in the spatial analysis sections:

- What role if any has the JLE played in any change?
- What other factors have affected changes in demand?

1.1.3 The LDMS data base data for 1990 - 2001 has been used in this study. The data is supplied by the London Boroughs on a voluntary basis. As a consequence it is difficult to ensure that the data are fully comprehensive, and of a consistent style. Nevertheless, the database is considered to be sufficiently robust to allow analysis at the level undertaken for this study.

Areas Analysed

1.1.4 Data has been collated for three basic areas, or sets of areas:

1 The **JLE station catchment areas** as defined in the baseline study, from Westminster to Stratford inclusive;

2 The **Central Statistical Area (CSA)**, a reference area for those catchments falling within or near central London (Westminster to Bermondsey). The CSA reference area excludes JLE catchments within the CSA.;

3 The **Inner East London Area (IELA)**, a reference area for the catchments falling outside central London (Bermondsey to

Stratford). The IELA reference area excludes JLE catchments within the ILEA.

1.1.5 The analysis of the JLE corridor itself is related to two further areas:

1 **CORA**
All station catchments Waterloo to Stratford (i.e. the JLE excluding Westminster);

2 **MIA**
The "Major Impact Area" from Bermondsey to West Ham. It should be noted that West Ham has been added to MIA since the baseline study since there is considerable development potential within its catchment identified in the revised Newham UDP.

1.1.6 While the overall analysis from this study has moved towards individual catchments or groups of catchments, the LDMS analysis remains at a more aggregate level in view of the need to preserve reasonable data volumes.

Catchments

1.1.7 The catchments defined in the baseline study are fairly broad, especially in MIA. Following the conclusions from the literature review, it is acknowledged that the some of the catchments are somewhat too generous, except for residential development, and where feeder public transport services are included as part of the catchment. The catchments which extend well beyond 500 meters are:

- Canada Water – feeder buses and East London Line
- Canary Wharf – feeder buses and DLR
- North Greenwich – Feeder buses
- Canning Town – Feeder buses and DLR

1.1.8 A sub-set analysis of the data was considered for tighter catchments of 400 metres for non-residential development demand. However, this limited the sample sizes to a point where statistical analysis was not appropriate. Consequently, this issue is dealt with instead in the geographical analysis and case study sections of the report.

1.2 *Residential development applications*

1.2.1 As expected, residential development in all of the areas under study accounts for the bulk of all development demand, as measured by the number of planning applications received. Applications for single-use residential were about 80% in CORA, and 88% in the rest of IELA over the 10 year period 1991-2000. Moreover, the majority of other applications were for mixed-use development which included residential either as the main or as a subsidiary use. The proportion of applications for development that included no residential component was relatively small, 5 - 10% in both CORA and IELA.

1.2.2 A consequence of this is that statistical analysis is most useful for residential applications; data for other uses must be treated with caution.

1.2.3 The table below shows the total single use residential applications received in CORA (i.e. all JLE catchments excluding Westminster) in the 10 year study period. The average number of applications received prior to JLE authorisation (1991-1993) was 30. In the years following authorisation (1993-2000) the annual average increased to 51, a 70% increase.

1.2.4 During this period Canary Wharf had the largest number of applications, 23% of the total in CORA, while Bermondsey had the second highest number, 21% of the total.

Table 1.1Residential applications received in CORA*

Corridor	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	Total
Bermondsey	3	5	12	11	5	13	8	12	8	7	84
Canada Water	4	2	12	6	16	12	6	1	3	6	68
Canary Wharf	4	3	8	9	16	22	20	5	9	7	103
Canning Town	1	2		3	1	1	2	5	4	7	26
London Bridge		1	3	3	6	2	15	11	15	16	72
North Greenwich	2	2					2	2	2		10
Southwark	4	3	3	1	6	7	10	2	2	5	43
Stratford	2		1	2	3	3	1	1	1	3	17
Waterloo			1	1	2		4				8
West Ham	1	6	6	1	2				2	1	19
Total CORA	21	24	46	37	57	60	68	39	46	52	450
Total IELA	192	220	294	256	265	288	314	303	284	267	2683
CORA as % of IELA	*11*	*11*	*15*	*14*	*21*	*21*	*22*	*13*	*16*	*19*	*17*

* *All single use residential applications received, regardless of outcome*

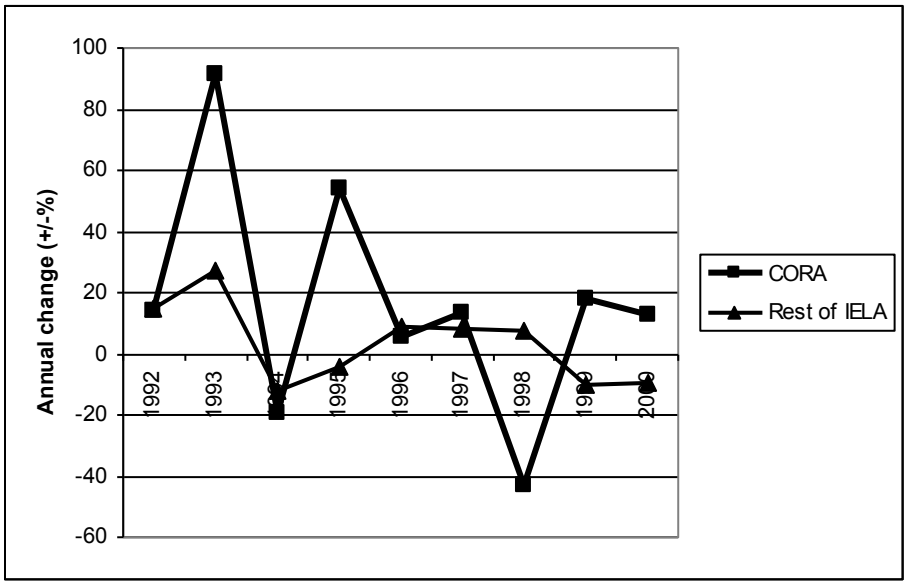
1.2.5 A necessary condition before this increase can be attributed to the JLE, is that the increase was greater in CORA than in the rest of the IELA. The table below shows the equivalent data for the IELA (excluding CORA). The annual average in the rest of IELA was 205 applications received prior to JLE authorisation, and 231 afterwards, an increase of 13%. Thus while planning application activity increased throughout the IELA, the increase was far greater in the JLE corridor. This supports but does not prove the conclusion that the JLE had a positive impact on interest in residential development. The differential rate of increase could be due to other factors such as sites becoming available in the JLE corridor faster than in the rest of ILEA. We have no data to follow this hypothesis.

Table 1.2 Residential applications received in IELA*

1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
171	196	249	219	210	228	246	264	238	215
Annual Average205			Annual Average 231						

* *All single use residential applications received, regardless of outcome*

1.2.6 The rate of growth of residential planning applications is another potentially useful measure of development demand. The table below compares the rate of growth in the IELA and CORA. Not surprisingly the much larger IELA is subject to less annual fluctuation than CORA. With the sole exception of 1997-1998, CORA displayed rates of growth that were higher than in the rest of the IELA, and this could point to a positive JLE effect. The dip in residential applications in 1998 contrasts with the very large number of dwellings under construction or complete in that year (see below). Could it be that the flurry of construction in 1997-1998 meant that there was less capacity in the industry for the planning of new schemes?



1.3 *Volume of residential development*

1.3.1 For this analysis we look at the number of dwellings proposed in the residential applications received, and then at the number of dwellings started or completed.

First, the dwellings proposed by year of application received is shown in the table below. This excludes applications that were withdrawn or superseded, but includes those that had not proceeded to a development start by the end of 2001. This therefore includes where development had been approved but not begun, or where the application was refused or not determined.

Table 1.3 Dwellings proposed by year of application in CORA and IELA

Corridor	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	Total
Waterloo	0	0	141	411	180	0	415	0	0	0	1147
Southwark	176	39	51	11	118	227	388	236	76	106	1428
London Bridge	0	0	39	138	150	60	226	251	440	210	1514
Bermondsey	139	114	236	388	85	474	289	550	254	104	2633
Canada Water	237	30	555	318	342	466	157	42	141	876	3072
Canary Wharf	626	141	178	333	799	1586	1393	693	172	1257	7160
North Greenwich	34	30	0	0	0	0	39	1151	286	0	1540
Canning Town	0	48	0	869	90	500	665	525	110	317	3124
West Ham	30	328	110	12	39	0	0	0	120	32	671
Stratford	32		352	37	35	41	16	23	20	285	841
Total CORA	1274	730	1662	2517	1838	3354	3588	3471	1619	3187	23130
Rest of IELA	4817	5218	8099	7064	6880	7424	9202	8368	8233	7166	72471

1.3.2 The table below shows dwellings by year that the application was made (as above), but includes only those where construction was started or completed by the end of 2001. This shows a substantial increase in demand in the years following JLE authorisation, which continued up to 1999. Comparison with the data for IELA as a whole shows that there was a disproportionate increase in demand in CORA during this period. At no time since 1993 has the proportion of dwellings applied dropped below those seen before 1993. The fall off in demand in CORA recorded in 2000 is not as dramatic as the fall off in demand in IELA. All of this suggests a strong positive impact of the JLE.

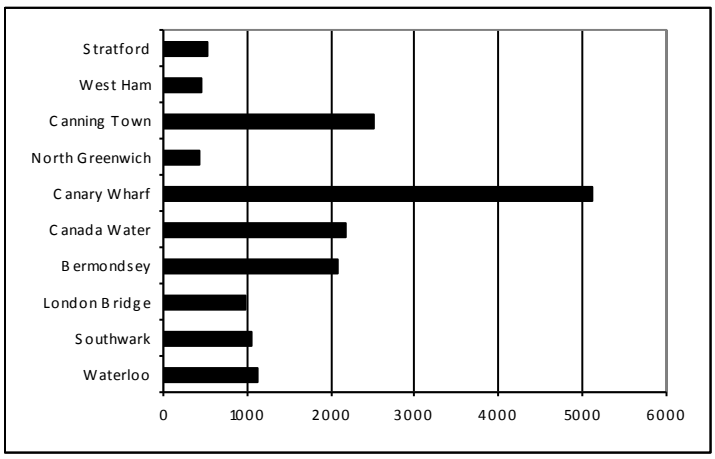
Table 1.4 Dwellings started or completed in CORA and IELA by year application received

Corridor	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	Total
Waterloo	0	0	141	411	180	0	387	0	0	0		1119
Southwark	148	29	51	11	31	95	344	236	66	46		1057
London Bridge	0	0	39	138	150	60	127	219	198	50		981
Bermondsey	139	71	236	376	85	369	89	528	156	26		2075
Canada Water	237	30	555	318	250	448	143	42	141	14		2178
Canary Wharf	0	141	178	333	781	1586	1084	514	81	420		5118
North Greenwich	0	18	0	0	0	0	39	90	286	0		433
Canning Town	0	48	0	869	90	500	665	295	20	21		2508
West Ham	30	307	59	12	39	0	0	0	0	0		447
Stratford	32	0	352	14	35	41	0	23	20	17		534
Total CORA	586	644	1611	2482	1641	3099	2878	1947	968	594		16450
As % of all IELA	*17*	*13*	*18*	*30*	*22*	*34*	*28*	*26*	*18*	*40*		*24*
Rest of IELA	2934	4325	7521	5810	5896	6104	7532	5655	4392	905		53214

Note: Applications received data do not include 2001

1.3.3 The Figure below shows the totals for the ten year period 1991-2000. The dominance of Canary Wharf and Canning Town is somewhat misleading because most of the new dwellings were in parts of the catchments that are beyond 500 metres from the station. The same is true of much of the development in the Canada Water catchment. If this is taken into account, Bermondsey assumes much greater important.

Figure 1.1 Dwellings started/completed 1991-2000 by catchment

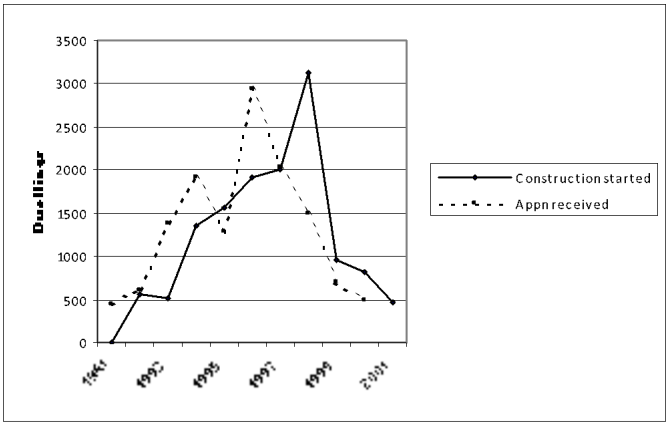


1.3.4 The table below shows the data by the year in which construction started. The two sets of data are compared in the Figure below. This indicated a relatively short period between applications received and construction getting under way, and this in turn indicates strong demand.

Table 1.5 Dwellings started or completed in CORA and IELA by year construction started

Corridor	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	Total
Waterloo	0	0	0	0	411	141	10	557	0	0	0	1119
Southwark	0	116	78	33	12	10	259	123	130	296	0	1057
London Bridge	0	0	0	130	122	60	60	115	210	219	65	981
Bermondsey	0	139	36	299	206	269	115	690	165	144	12	2075
Canada Water	0	267	27	769	193	152	398	146	42	170	14	2178
Canary Wharf	0	0	113	140	816	681	1331	1056	528	453	0	5118
North Greenwich	0	0	18	0	0	0	0	39	190	0	186	433
Canning Town	0	38	10	0	99	770	105	1200	0	20	266	2508
West Ham	0	78	308	10	32	19	0	0	0	0	0	447
Stratford	0	32	0	144	220	27	51	0	23	37	0	534
Total CORA	0	554	512	1362	1566	1918	2000	3131	948	824	478	13293
Rest of IELA	674	2846	3703	6088	4863	5539	6987	4860	7514	5850	2140	51064

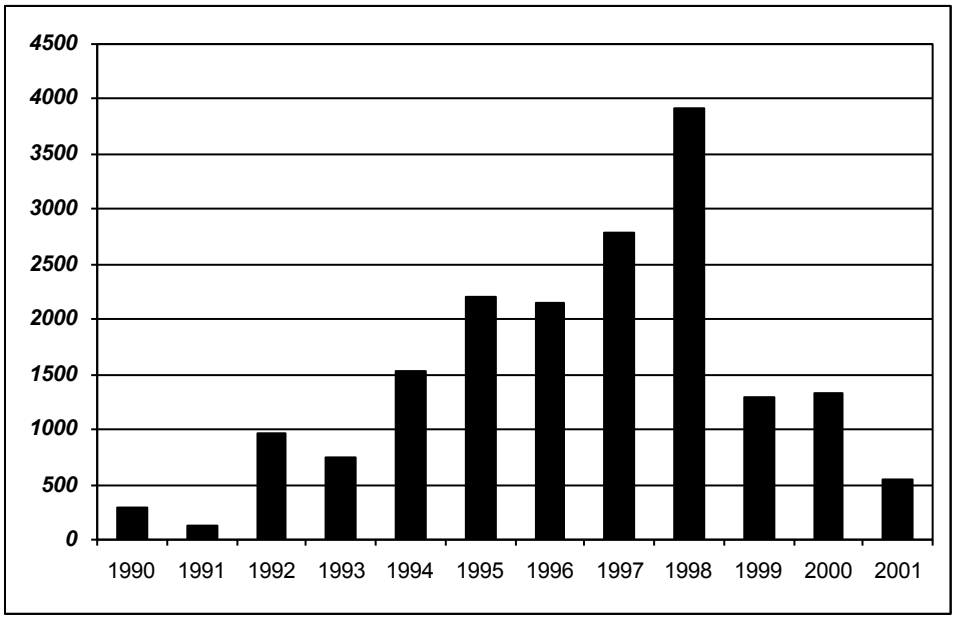
Figure 1.2 Dwellings started or completed in CORA and IELA by year application received and year construction started



1.3.5 In the five years following JLE authorisation, the number of new dwellings greatly increased, reaching a peak in 1998 which was 4-5 times greater than the two years prior to authorisation.[1]

Figure 1.3 Dwellings by year construction started or completed – CORA

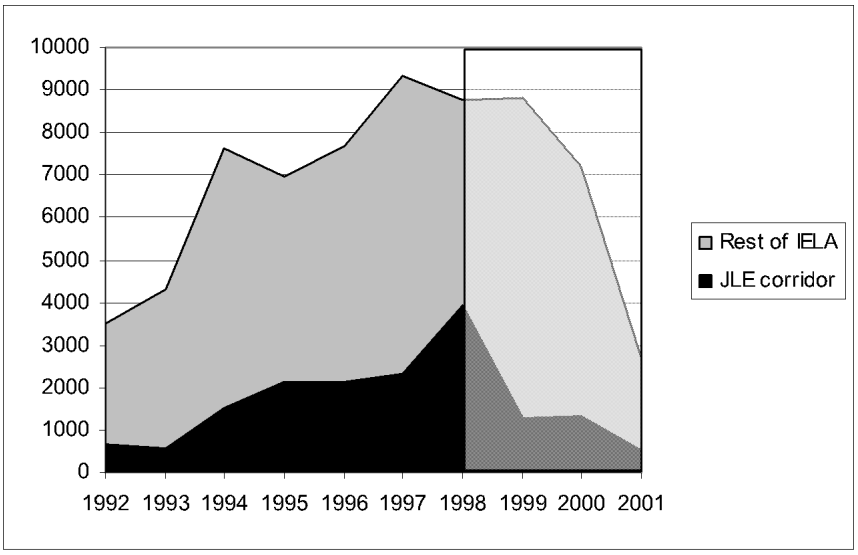
[1] Data for the years 1990-91 are of less interest because they do not include dwellings resulting from planning applications prior to 1990.



1.3.6 The reason for the dramatic drop following 1998 is not clear, but by this time many of the available sites had been built upon, especially those whose marketability may have been perceived as more certain, such as the waterside sites in the Canada Water, Canary Wharf and Canning Town catchments. There may in addition have been a problem of under-reporting in the later years. Even so, the boom in the mid-1990s suggests a positive response to the JLE.

1.3.7 Again, it is necessary to compare these rates of activity with what was happening in the rest of the IELA. The Figure below illustrates the total new dwellings activity, and the split between CORA and the rest of the ILEA. While the general shape of the trend in each area is similar, it may be seen that since JLE authorisation CORA has accounted for a higher proportion of the total activity. Up to the end of 1993, CORA accounted for less that 20% of the IELA, whereas from 1994 to 1998 it accounted for more than 20%.

Figure 1.4 Dwellings by year construction started or completed – CORA and rest of IELA 1992-2001



1.3.8 As noted with the planning application data, there was a fall off after 1999, which may be a product of either the dataset or a decline in residential building, or a combination of both. It is unfortunate that this cannot be resolved since quite different impressions are created is the 1999-2001 data are ignored. If the semi-transparent section of the chart is ignored, we see a picture of CORA with a growing proportion of IELA residential building activity, with 45% recorded in the 1998. Such a result would be consistent with the high proportion of IELA vacant land lying within CORA (47% in sample boroughs in 1998, see below).

Stronger demand in the JLE corridor for residential development?

1.3.9 To recap on the analysis, general indications of a positive JLE effect are presented but with some fairly important cautions and qualifications. To arrive at a firm conclusion is difficult, but an important factor is whether all the different indicators point in the same direction, or whether they tend to present conflicting or contradictory results.

1.3.10 As far as residential development is concerned the indicators discussed above (applications received for residential development; number of dwellings involved; and rate of change) present a fairly consistent picture of a greater development demand in the JLE corridor than in inner east London generally.

Is this attributable to the JLE?

1.3.11 All three of these indicators therefore reveal heightened interest in residential development in the JLE catchments following authorisation

of the JLE, than in East London generally. The extent to which this can be attributed to the JLE is complicated by two factors in particular:

- Fluctuations in the development market mean that an upturn in development applications would have been expected after 1993 in any case;
- The JLE catchment areas contain a substantial proportion of the developable land in East London, and indeed the JLE alignment was decided in large part on the basis that it would open up large areas of such land for development.

1.3.12 Nevertheless, the change in relative rates is indicative of the enabling or encouraging impact of the accessibility afforded by the JLE. The development land was available prior to 1993 and yet was not being taken up as rapidly as after JLE authorisation.

1.3.13 The evidence of JLE is perhaps strongest in terms of the proportion of total IELA dwellings being developed that is represented in CORA. This was less than a quarter prior to 1993, and rose to almost half in the following years.

1.3.14 What is more difficult to say is whether development would have occurred without the JLE, or when this might have occurred, or whether it would have occurred at the same density or intensity. It is clear that higher densities have been encouraged through planning policies, and that the existence of the JLE has made such higher densities a workable proposition from the point of view of developers and, of course, occupiers. Such activity and interest was to a measurable degree focussed during the late 1990s on the JLE catchment areas.

1.3.15 Two further points need to be made, though they cannot be addressed through the LDMS analysis alone.

1.3.16 First, the higher rates of residential applications and development in CORA that is evident through the second half off the 1990s may have something to do with a "critical mass" of development being reached, which then generates sufficient confidence in the locations for increased levels of development interest. Especially in former industrial areas, developers of residential schemes have to overcome the "negative image" of an area before they can sell properties. This is because of a lack of confidence over such issues as crime and security, noise and pollution, and lack of support infrastructure found in established residential communities (such as schools and health care). Once it is clear that an area will be transformed into an attractive residential area,

then dwellings will sell, and this then reduces the risks associated with development, thus prompting higher levels of interest from both developers and prospective residents.

1.3.17 The net result of this is that the higher rates of development demand in CORA may be associated with a critical point being reached in the transformation of the area. If this were the case, the promise of increased accessibility offered by the JLE authorisation in 1993 could be regarded as being a complementary rather than the key factor.

1.3.18 Second, the distribution of residential planning applications within CORA might lead one to suspect that developers were studiously avoiding the JLE station locations. The river is seen to be an important factor in the location of development schemes, rather than proximity to the JLE stations. If this was found to be deliberate, it would be perverse in terms of the hypothesis of this, and other, studies, and counter to theories of the relationship between accessibility and development.

1.3.19 The issue therefore needs to be addressed in terms of the particular circumstances of the JLE catchments. This is best done on a station be station basis:

Table 1.6 Distribution of residential applications in JLE catchments

	Distribution of residential applications within station catchment
Waterloo	Entire catchment is area of high accessibility, and differentiation less likely to be reflected in distribution of development applications.
Southwark	Dependent on availability of development land and buildings
London Bridge	Dependent on availability of development land and buildings
Bermondsey	Dependent on availability of development land and buildings
Canada Water	Sites near to station developed for mix of residential and non-residential. Pattern of residential applications reflects marketable riverside sites rather than accessibility, but many of these are still within reasonable (10 minute) walk of JLE station.
Canary Wharf	Sites close to JLE are earmarked for office and commercial uses. Pattern of residential applications therefore reflects land use zoning rather than accessibility.
North Greenwich	Areas close to JLE station not available due to land

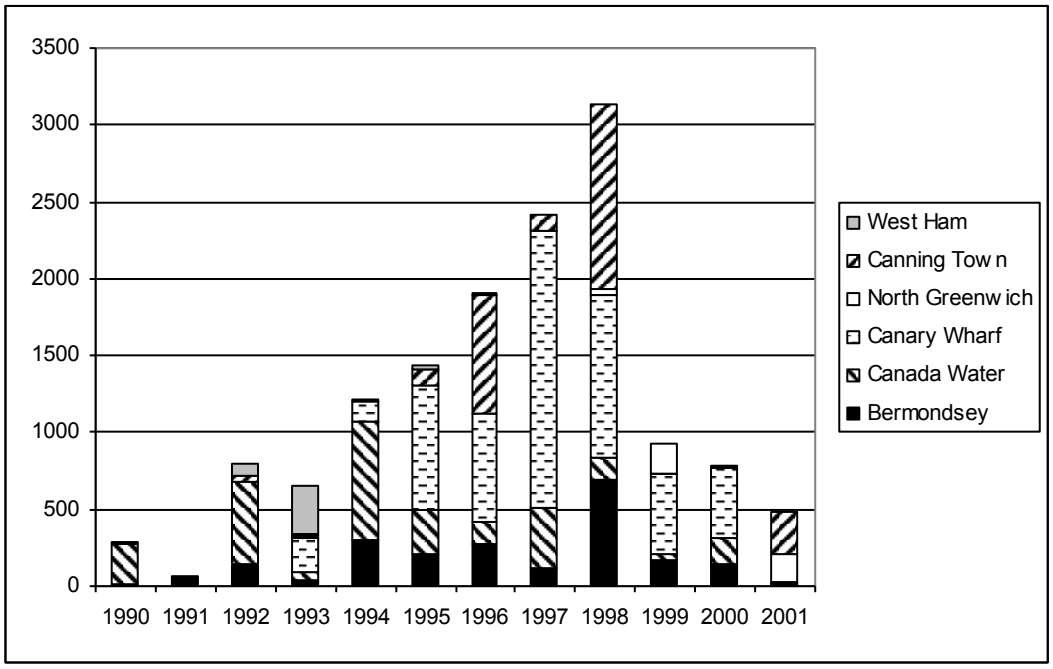
	contamination, industrial use, and latterly the Millennium Dome. The nearest available suitable residential site is being developed as the Millennium Village.
Canning Town	Distribution of applications reflects availability of sites, most of which are located at a distance from the JLE station.
West Ham	Distribution of applications reflects availability of sites, most of which are located at a distance from the JLE station.
Stratford	Sites close to the station are earmarked for office and commercial uses. Pattern of residential applications therefore reflects land use zoning rather than accessibility.

Residential Development starts - MIA

1.3.20 Finally we can examine the trends in developments where construction had started or been completed. Information on starts and/or completions from the beginning of 1990 onwards is recorded in the LDMS, and these data include 2001, thus picking up many schemes for which planning permission was sought up to the end of 2000. Only residential schemes are analysed here.

1.3.21 The figure below shows the data for dwellings started (or completed) in MIA, by year in which starting or completion was recorded. It shows a much higher level of activity in the five years following the authorisation of the JLE. As with analysis above, there is doubt about the significance of the drop off in the volume shown for last three years.

Figure 1.5 Dwellings started or completed in MIA



1.4 *Mixed-use Development*

1.4.1 It is generally assumed that non-residential or trip-attracting development is (or can be) more strongly associated with high public transport accessibility than is single use residential development. Consequently mixed-use development (MXD) which includes a non-residential element is also more strongly associated with public transport accessibility.

1.4.2 Of 4,299 planning applications (all records in the period 1990-2000 inclusive) 348 proposed mixed-use development. Of these, 73 (about a fifth) were in the JLE corridor. Half of the 348 were in the Central Statistical Area, and half were in the IELA (which overlaps the CSA).

1.4.3 A proportion of these applications were superseded, so the number of sites involved, and development scheme intentions is smaller. When superseded applications are removed from the data set, the figures are as follows:

- 3,475 applications excluding those superseded (1990-2000 inclusive)
- Of which 261 were for mixed-use development
- Of which 135 were in the IELA, and 119 in the CSA (small overlap)

- Of which 45 were within the JLE corridor

1.4.4 In the CSA, and indeed city centres generally, mixed-use has always been more prominent than elsewhere due to higher density building and land scarcity. It is apparent that mixed-use has become more prominent in other areas through the 1990s, at least in part due to changed planning policies encouraging mixed as opposed to single-use schemes. The increased importance of mixed-use in IELA is shown in the table below. This (rather than the CSA) is regarded as the most useful benchmark in terms of assessing the impact of the JLE.

1.4.5 The figures are based on three-year moving averages, to smooth data variations caused by the relatively low number of cases. Mixed use formed a growing proportion of all development applications through the 1990s. In CORA this proportion grew by 2.5 times (Row 2). However, mixed-use was growing in importance throughout east London, not just in the JLE corridor. In the IELA, mixed use as a proportion of all development applications grew by 4 times, though from a lower base (Row 3). As a result of this, whereas the IELA proportion in the early 1990s was a third of that found in CORA, by the end of the decade the proportion was half of that found in CORA (comparing Rows 2 and 3).

1.4.6 Given the above analysis, it is not surprising to note that the mixed-use applications in CORA have tended to account for a declining proportion of all mixed use in the IELA (Row 4). The general conclusion from this is that mixed use was more established in CORA prior to the JLE authorisation, has strengthened its importance since then, but that over this period the importance of mixed use in inner east London generally has been catching up fast.

Table 1.7 Mixed use (MXD) development applications in CORA and IELA

Moving 3 Yr Ave	91-93	92-94	93-95	94-96	95-97	96-98	97-99	98-00
MXD as % of all CORA appns.	6	6	5	9	10	15	14	15
MXD as % of all IELA appns.	2	2	3	5	6	8	8	8
CORA MXD as % of IELA MXD appns.	39	42	38	40	35	36	34	34

Development volume

1.4.7 In terms of the ***volume*** of development represented by mixed-use schemes, the table below gives an overview of applications received. As in the analysis above, applications that were superseded or withdrawn are excluded, so the volumes shown give a good impression of the development demand.

Table 1.8 Volume of mixed-use development applications in JLE corridor 1990-2000 (Gross Floor Area or number of dwellings)

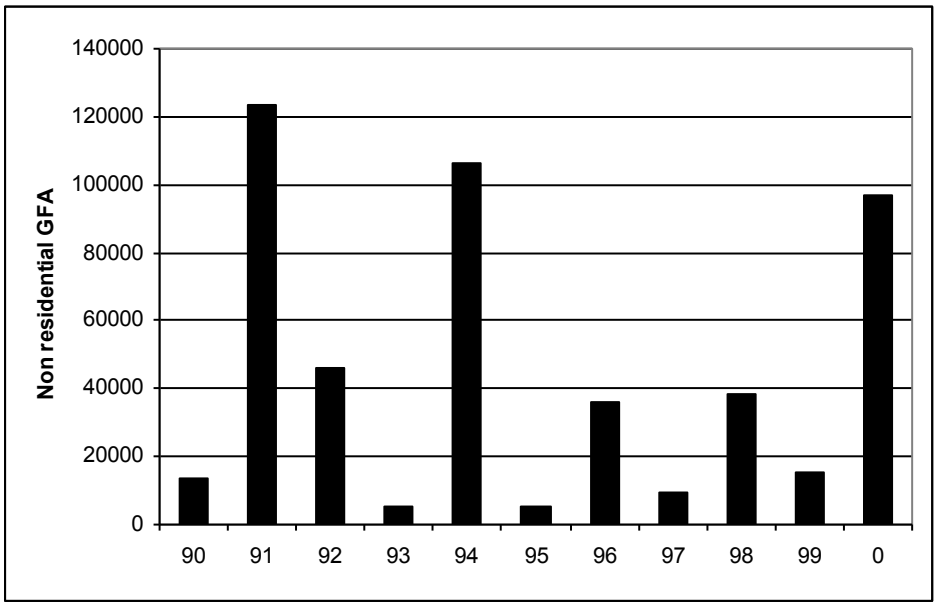
Land use category	90	91	92	93	94	95	96	97	98	99	00
A1	0	2000	0	0	14844	2000	5288	3000	9150	2800	1313
B1	13660	121168	34370	5435	86806	2250	14506	4348	14106	9468	94045
D2	0	0	2700	0	4499	0	0	0	10053	0	1500
Other Non-residential	0	0	8975	0	0	1010	16300	1730	4928	3204	0
Total GFA non-residential	**13750**	**123259**	**46137**	**5528**	**106243**	**5355**	**36190**	**9175**	**38335**	**15571**	**96858**
C3 dwellings	22	699	30	162	286	41	359	621	2093	416	913
Ratio of GFA to Dwellings	625	176	1537	34	371	130	100	14	18	37	106

1.4.8 The GFA data (shaded area on the table) are plotted for clarity in the Figure below. This highlights the strong fluctuations year by year, but more importantly gives no indication of any significant increase following JLE authorisation.

1.4.9 A significant trend, however, is the trend of an increasing residential component of mixed-use schemes, as indicated by the ratio of GFA to dwellings (last row of the table above). Or to put it another way, post-JLE authorisation the balance of residential and non-residential

components of mixed-use schemes tipped in favour of residential. This, however, may be a response to stronger efforts by both the LDDC and (since 1998) the boroughs to provide a greater amount of residential development, including "affordable" dwellings. There is no obvious reason why the JLE should have caused such a shift. This issue is addressed also in the case studies.

Figure 1.6 Gross Floor Area of non-residential element of mixed-use development planning applications (JLE corridor)

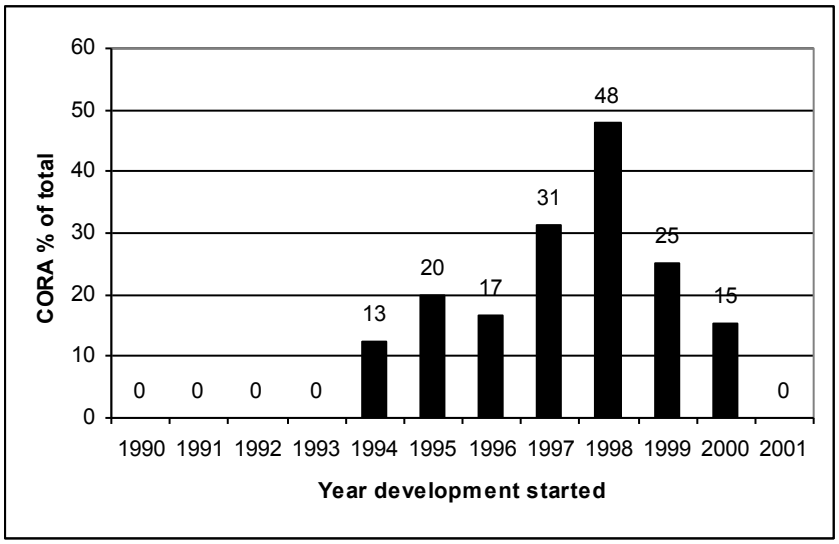


CORA

1.4.10 The picture changes somewhat when the data for CORA are compared with the reference areas. The proportion of mixed-use ***applications received*** falling within CORA remained fairly stable through the 1990s. However, not all of these applications resulted in development going ahead.

1.4.11 When the data are analysed according to ***building starts*** of mixed-use schemes, it is apparent that CORA had a higher proportion of the total mixed-use schemes after the JLE was authorised, as shown in the chart.

Figure 1.7 Mixed-use starts in CORA as % of total CSA/IELA records*



** Development starts resulting from applications received prior to 1990 are not included. This is likely to be a contributory factor to the zero values for 1990-1993.*

1.4.12 The Figure indicates that following JLE approval in 1993, mixed-use schemes in the JLE corridor formed a higher proportion of total mixed-use schemes in the CSA/IELA, reaching a peak of 48% in 1998. This suggests a considerable impact of the JLE, albeit a short lived one.

MIA

Applications

1.4.13 The corridor as a whole (and CORA as discussed above) includes catchments that already contain mixed-use development because of their proximity to central London, or (like Stratford) their role as a major centre. MIA has a different character with much of the area being in single use. Any change towards more mixed-use development is therefore of particular interest.

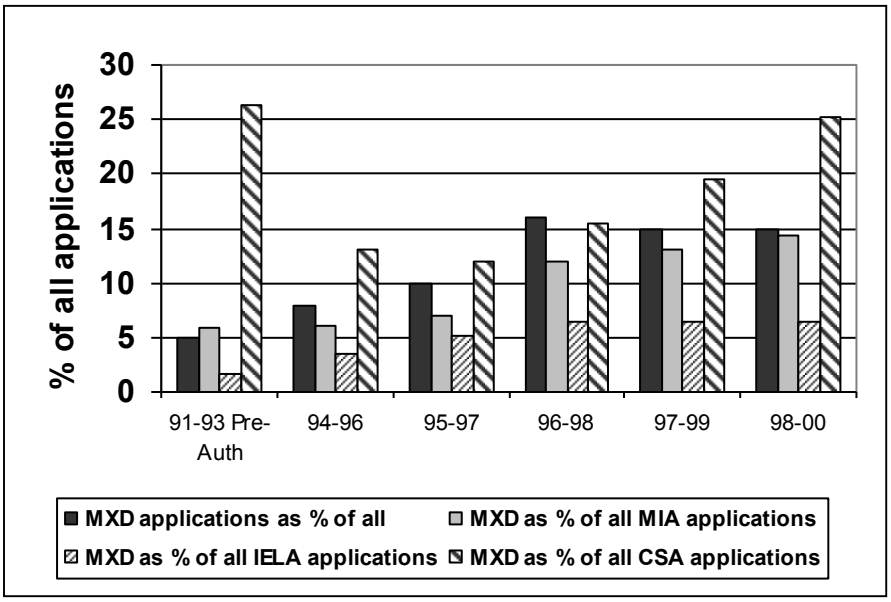
1.4.14 Mixed-use development demand has apparently increased in MIA since the JLE was approved. This is particularly apparent with mixed-use as a percentage of the total applications within MIA. The small number of cases must be borne in mind, however, and because of this the cases have been combined into three-year periods.

Table 1.9 Mixed-use (MXD) Planning Applications in MIA 1991-2000

Three-year moving totals

	91-93	94-96	95-97	96-98	97-99	98-00
	Pre-Auth	Post-authorisation				
MXD applications in MIA (total number in 3 year period)	5	8	10	16	15	15
MXD as % of all MIA applications (for 3 year period)	5.9	6.1	7.0	11.9	13.0	14.3

Figure 1.8 Mixed-use applications as a percentage of all applications in different areas



1.4.15 The two preceding tables are brought together for comparison in the above figure. It is clear that MIA has a higher percentage of mixed-use applications than does the IELA as a whole. However, this situation pre-dated JLE authorisation, and the proportion has not grown as fast in MIA as in the IELA. Consequently the role of the JLE is not established, except to the extent that the accessibility offered by JLE is necessary to sustain such higher proportions of mixed-use.

1.4.16 The mixed use proportion of all development applications pre and post authorisation has increased faster in IELA than in MIA (though from a lower base), so again, this does not indicate a positive JLE influence.

1.4.17 On the other hand, looking at the post-authorisation three-year moving averages in the Table, the mixed use proportion increased faster in MIA (2.3 times) than in IELA (1.8 times). This could be due to the JLE.

1.4.18 Comparing with the CSA, it is interesting to note that although mixed use was a very much higher proportion of applications than in MIA, CORA or IELA, in the early 1990s, this proportion declined during the 1990s, but recovered somewhat towards the end of the decade.