Appendix 1: Sites and Monuments Records within a 0.5 km search radius of the development site

No.	*SMR Ref*	*NGR TQ*	*Type*	*Period*	*Comment*
1	081609	2474 8049	Sarcophagus	Roman	
2	214507	24750 79750	Holland Park	Post-Medieval	
3	081652	248 796	Building?	Medieval	Part of manor of west town?
	081648	248 796	Moated Manor?	Medieval	
4	214508	24800 80600	Garden Square	Victorian	Ladbroke Square
	213528	24850 80082	Aubrey House	Post-Medieval	Listed grade II*
5	213965	24867 79717	Holland House	Post-Medieval	Listed grade I
6	081610	250 804	Beacon?	Roman	Hypothetical
7	081656	2535 8045	Village	Medieval/post-Medieval	Notting Hill
8	081547	254 797	Stone axe	Neolithic	
	081548	254 797	Bronze tool hoard	Late Bronze Age	
	081642	254 797	Vineyard	Saxon/Medieval	
9	081675	256 796	Road	Medieval/post-Medieval	

Appendix 2: Historic and modern maps consulted

1)	1672	Ogilby, survey of Middlesex
2)	1717	Desmertz, Survey of Westminster, Chelsea and Kensington (Fig 5)
3)	1741	Rocque, map of London (Fig 6)
4)	1800	Milne, land use map of London and environs
5)	1822	Map of parish of St Mary, Kensington
6)	1829	Crutchley (Fig 7)
7)	1840	Davies
8)	1844	Tithe map (Fig 8)
9)	1846	Map of parish of St. Mary, Kensington
10)	1848	Wyld (Fig 9)
11)	1867/77	Stanford
12)	1867	First Edition Ordnance Survey (Fig 10)
13)	1894	Second Edition Ordnance Survey (Fig 11)
14)	1921	Ordnance Survey
15)	1965	Ordnance Survey
16)	1975	Ordnance Survey

Appendix 3: Extracts from LBH Wembley site investigation report, January 1998

PRELIMINARY

PROJECT: Campden Hill Reservoir, Aubrey Walk, London, W8

CLIENT: Berkeley Homes Thames Valley

BOREHOLE No 1

BORING METHOD: Cable tool percussion - 150 mm dia - cased to 1.50 m

Period: 27/01/98

GROUND WATER			Date
Strike at	Inflow rate	Sealed at	Time
None encountered			BH Depth
			Casing Depth
			Water Level

REMARKS: Gas monitoring standpipe installed at 6.00 m

Samples No	Samples Type	Depth m	SPT N	Legend	Depth m	Description
1	D	0.60				Made ground (100 mm thickness of topsoil over brown clay with scattered brick fragments, roots and gravel)
2	U	1.00-1.45				
3	D	1.50				
4	D	2.30				
	CPT	2.30	10			
5	D	2.80				
6	D	3.30				
	CPT	3.30	8			
7	D	4.30				
	CPT	4.30	8			
8	D	4.70				
9	D	5.30				
	CPT	5.30	13			
10	D	5.75				
11	U	6.00-6.45				
12	D	6.50				
					6.90	
13	D	7.00				Firm, becoming stiff, brown fissured silty CLAY
14	D	7.80				
	SPT	7.80	20			
15	U	9.00-9.45				
16	D	9.50				

Project No

SHEET 1

U=Undisturbed
B= Bulk

PRELIMINARY

PROJECT: Campden Hill Reservoir, Aubrey Walk, London, W8

CLIENT: Berkeley Homes Thames Valley

BOREHOLE No 2

BORING METHOD: Cable tool percussion - 150 mm dia - cased to 6.00 m

Period: 23/01/98

GROUND WATER			Date
Strike at	Inflow rate	Sealed at	Time
4.30	Fast	6.00	BH Depth
			Casing Depth
			Water Level

REMARKS: Excavating services inspection pit from GL to 1 m for 1 hour
Ground water struck at 4.30 m rose to 3.50 m after a rest period of 20 minutes

Samples No	Type	Depth m	SPT N	Legend	Depth m	Description
						Made ground (200 mm thickness of topsoil over mixture of topsoil, clay, brick and concrete rubble and sand and gravel)
1	B	1.30				
	CPT	1.30	9			
2	B	2.30				
	CPT	2.30	4			
3	B	3.30				
	CPT	3.30	3			
4	B	4.30				
	CPT	4.30	4		4.30	
						Medium dense brown SAND and GRAVEL, becoming clayey below 5.80 m - *possible made ground*
5	B	5.30				
	CPT	5.30	14			
6	B	6.30				
	CPT	6.30	14		6.30	
						Stiff brown fissured silty CLAY
7	U	7.50-7.95				
8	D	8.00				
9	D	9.30				
	SPT	9.30	16			

Project No

SHEET 1

U=Undisturbed

PRELIMINARY

PROJECT: Campden Hill Reservoir, Aubrey Walk, London, W8

CLIENT: Berkeley Homes Thames Valley

BOREHOLE No 3

BORING METHOD: Cable tool percussion - 150 mm dia - cased to 1.50 m

Period: 28/01/98

GROUND WATER			Date
Strike at	Inflow rate	Sealed at	Time
None encountered			BH Depth
			Casing Depth
			Water Level

REMARKS: Breaking out surfacing and excavating services inspection pit from GL to 1 m for 2 hours
Chiselling on obstruction at 1.70 m for 30 mins

Samples No	Samples Type	Depth m	SPT N	Legend	Depth m	Description
1	B CPT	1.30 1.30	2		1.70	Made ground (150 mm thickness of concrete over mixture of topsoil, brick and concrete rubble and gravel - concrete (?) obstruction encountered at 1.70 m)

Project No

SHEET 1

U=Undisturbed

PRELIMINARY

PROJECT: Campden Hill Reservoir, Aubrey Walk, London, W8

CLIENT: Berkeley Homes Thames Valley

BOREHOLE No 3A

BORING METHOD: Cable tool percussion - 150 mm dia - cased to 3.00 m

Period: 30/01/98

GROUND WATER			Date
Strike at	Inflow rate	Sealed at	Time
2.60	Seepage	3.00	BH Depth
			Casing Depth
			Water Level

REMARKS: Excavating services inspection pit from GL to 1 m for 2 hours
Gas monitoring standpipe installed at 6.00 m

Samples No	Type	Depth m	SPT N	Legend	Depth m	Description
						Made ground (150 mm thickness of cobblestones over 50 mm thickness of concrete over mixture of topsoil, clay, brick and concrete rubble and sand and gravel)
1	B	1.30				
	CPT	1.30	3			
2	D	1.70				
3	B	2.30				
	CPT	2.30	3			
4	D	2.60				
					3.10	
5	B	3.30				
	CPT	3.30	9			Firm, becoming stiff, brown fissured silty CLAY
6	U	4.00-4.45				
7	D	4.50				
8	D	5.30				
	SPT	5.30	17			
9	U	6.00-6.45				
10	D	6.50				
11	D	7.80				
	SPT	7.80	19			
12	U	9.00-9.45				
13	D	9.50				
					9.90	Stiff, becoming very stiff grey fissured silty CLAY

Project No

SHEET 1

U=Undisturbed
B= Bulk

PRELIMINARY

PROJECT: Campden Hill Reservoir, Aubrey Walk, London, W8

CLIENT: Berkeley Homes Thames Valley

BOREHOLE No 4

BORING METHOD: Cable tool percussion - 150 mm dia - cased to 1.50 m

Period: 28/01/98

GROUND WATER			Date
Strike at	Inflow rate	Sealed at	Time
			BH Depth
None encountered			Casing Depth
			Water Level

REMARKS: Excavating services inspection pit from GL to 1 m for 2 hours

Samples No	Samples Type	Depth m	SPT N	Legend	Depth m	Description
						Made ground (250 mm thickness of reinforced concrete over brick and concrete hardcore)
1	D	0.80				Firm, becoming stiff, brown fissured silty CLAY
2	U	1.00-1.45				
3	D	1.50				
4	D	2.30				
	SPT	2.30	15			
5	U	3.00-3.45				
6	D	3.50				
7	D	4.30				
	SPT	4.30	16			
8	U	5.00-5.45				
9	D	5.50				
10	D	6.30				
	SPT	6.30	25			
					6.80	
						Stiff, becoming very stiff, grey fissured silty CLAY
11	U	7.50-7.95				
12	D	8.00				
13	D	9.30				
	SPT	9.30	27			
						Stiff, becoming very stiff grey fissured silty CLAY

PRELIMINARY

PROJECT: Campden Hill Reservoir, Aubrey Walk, London, W8

CLIENT: Berkeley Homes Thames Valley

BOREHOLE No 5

BORING METHOD: Cable tool percussion - 150 mm dia - cased to 3.00 m

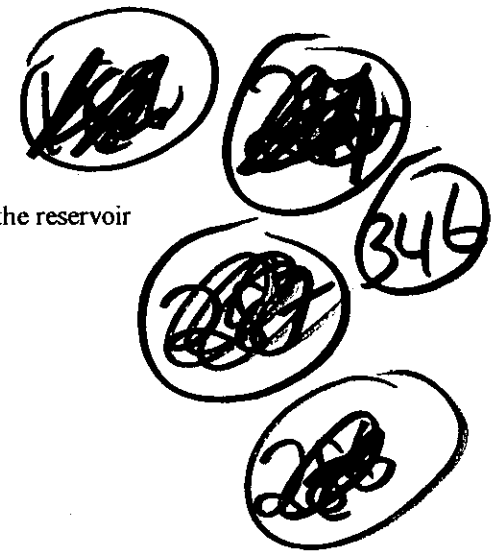
Period: 30/01/98

GROUND WATER			Date
Strike at 2.60	Inflow rate Seepage	Sealed at 3.00	Time
			BH Depth
			Casing Depth
			Water Level

REMARKS: Excavating services inspection pit from GL to 1 m for 2 hours
Gas monitoring standpipe installed at 4.00 m

Samples No	Samples Type	Depth m	SPT N	Legend	Depth m	Description
						Made ground (300 mm thickness of concrete over mixture of topsoil, brown clay and brick rubble)
1	B	1.30				
	CPT	1.30	7			
					1.60	
2	D	1.80				
3	U	2.00-2.45				Firm, becoming stiff, brown fissured silty CLAY
4	D	2.50				
5	B	3.30				
	SPT	3.30	14			
6	U	4.00-4.45				
7	D	4.50				
8	D	5.30				
	SPT	5.30	16			
9	U	6.00-6.45				
10	D	6.50				
					6.90	
						Stiff, becoming very stiff grey fissured silty CLAY
11	D	7.80				
	SPT	7.80	23			
12	U	9.00-9.45				
13	D	9.50				

Appendix 4: Copy of correspondence confirming the non-listed status of the reservoir



DEPARTMENT FOR CULTURE MEDIA AND SPORT
2-4 Cockspur Street
London SW1Y 5DH
Telephone: 0171-211 2139
Facsimile: 0171-211 2006

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J George Esq
Jeffery W George and Associates
The Old Vicarage
Stowe
Shropshire LD7 1NB

Our ref
HD/5021/274/1

25 February 1998

Dear Mr George,

PLANNING (LISTED BUILDINGS AND CONSERVATION AREAS) ACT 1990
BUILDINGS OF SPECIAL ARCHITECTURAL OR HISTORIC INTEREST
CAMPDEN HILL RESERVOIR, AUBREY WALK, LONDON W8

Thank you for your letter of 19 February in which you asked for written confirmation that the above-mentioned structure has recently been rejected for inclusion in the statutory list.

The reservoir was assessed in 1996 by English Heritage, who are the Department's statutory advisers on listing matters. English Heritage commented that this brick-built, vaulted reservoir of 1869 appears to be a fairly standard example for the period, and a number of others survive. This building was therefore not considered to be of the special architectural or historic interest required to warrant listing.

Having carefully considered all the evidence, the Department decided to accept English Heritage's advice not to add this building to the statutory list.

Yours sincerely,

D J COLES
LISTING BRANCH

Campden Hill Reservoir, Kensington, Greater London, 1998

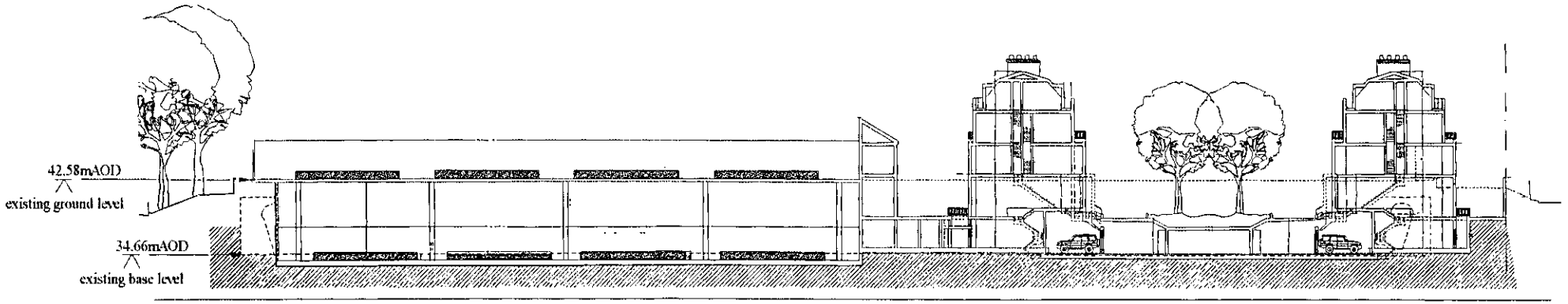
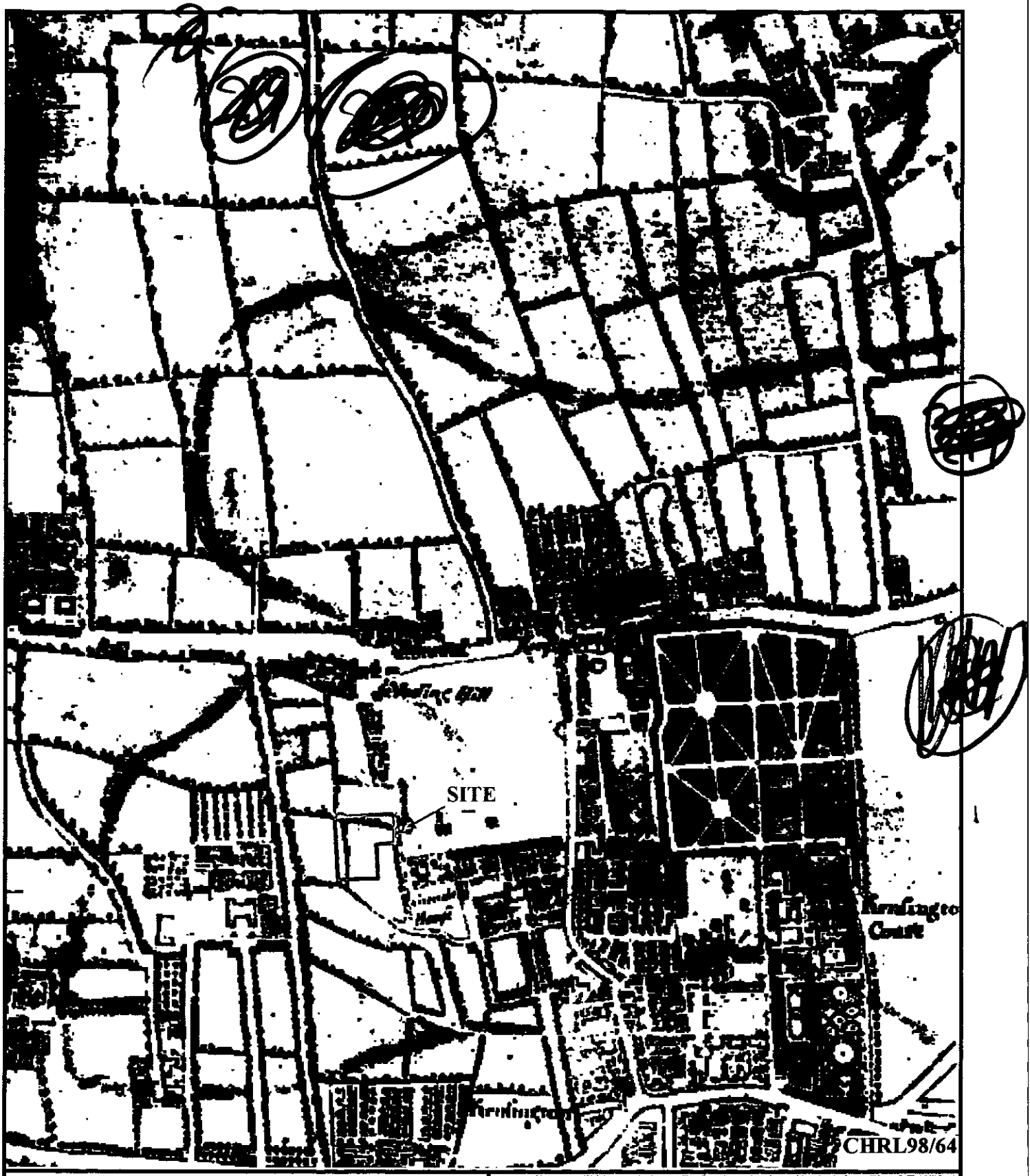


Figure 4. Section of development proposals.

CHRL98/64



Campden Hill Reservoir, Kensington
Greater London, 1998

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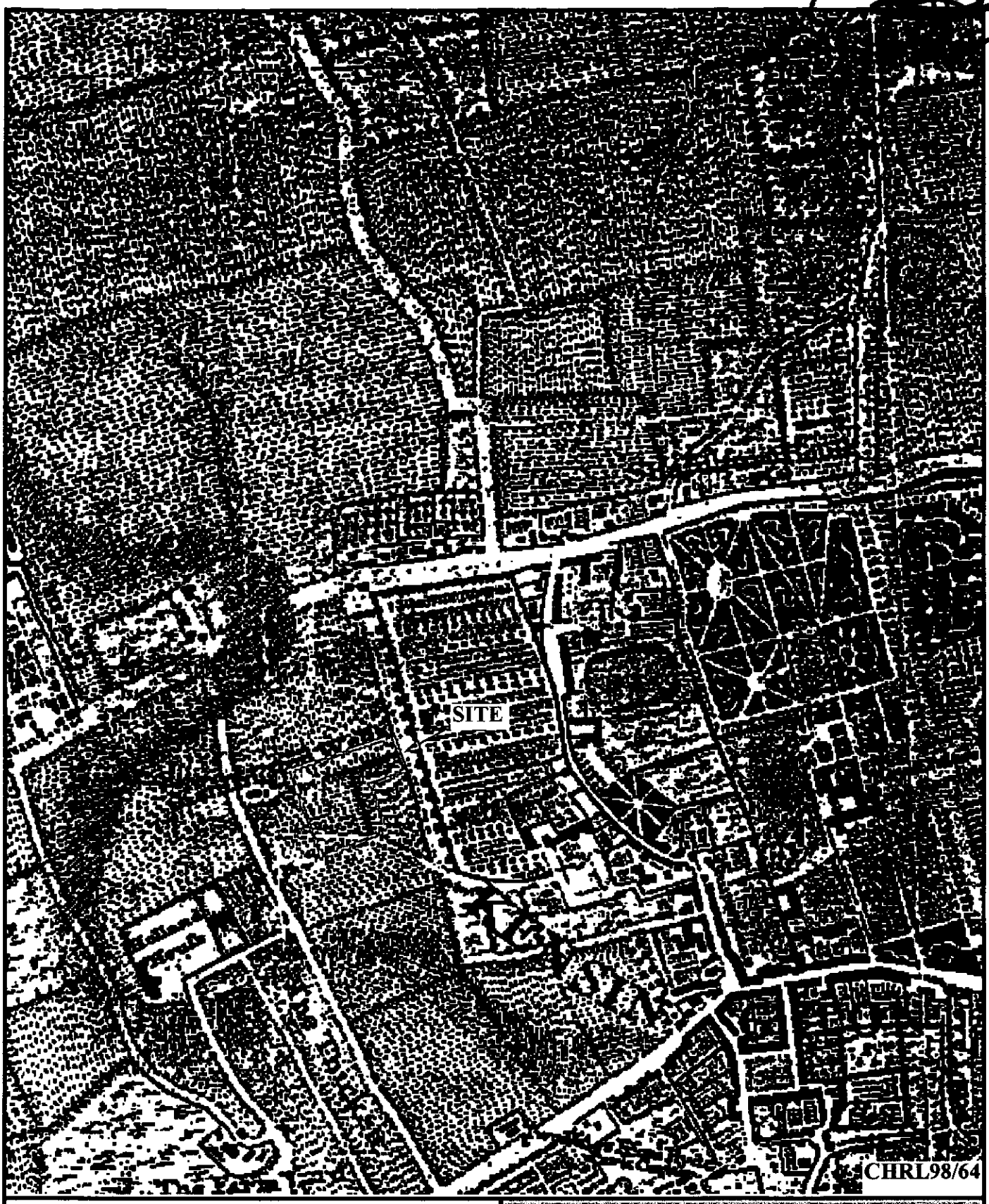
Figure 5. Survey of Westminster, Chelsea and Kensington, Desmertz 1717.

THAMES VALLEY
ARCHAEOLOGICAL
SERVICES



Campden Hill Reservoir, Kensington, Greater London, 1998

Figure 6. John Roqcue's Map of London 1741.

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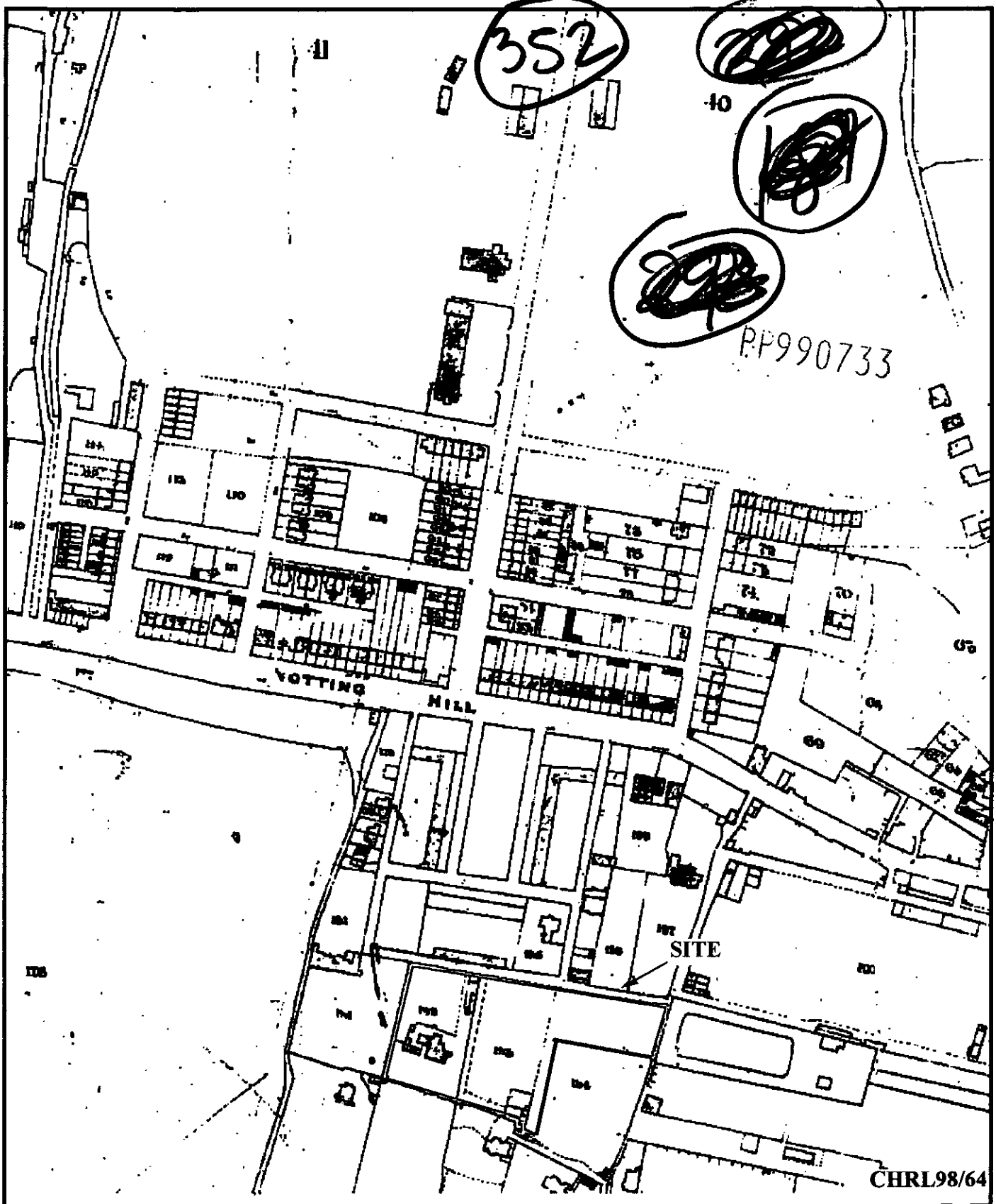
THAMES VALLEY ARCHAEOLOGICAL SERVICES

CHRL98/64

Campden Hill Reservoir, Kensington, Greater London, 1998

Figure 7. Crutchley, 1829.

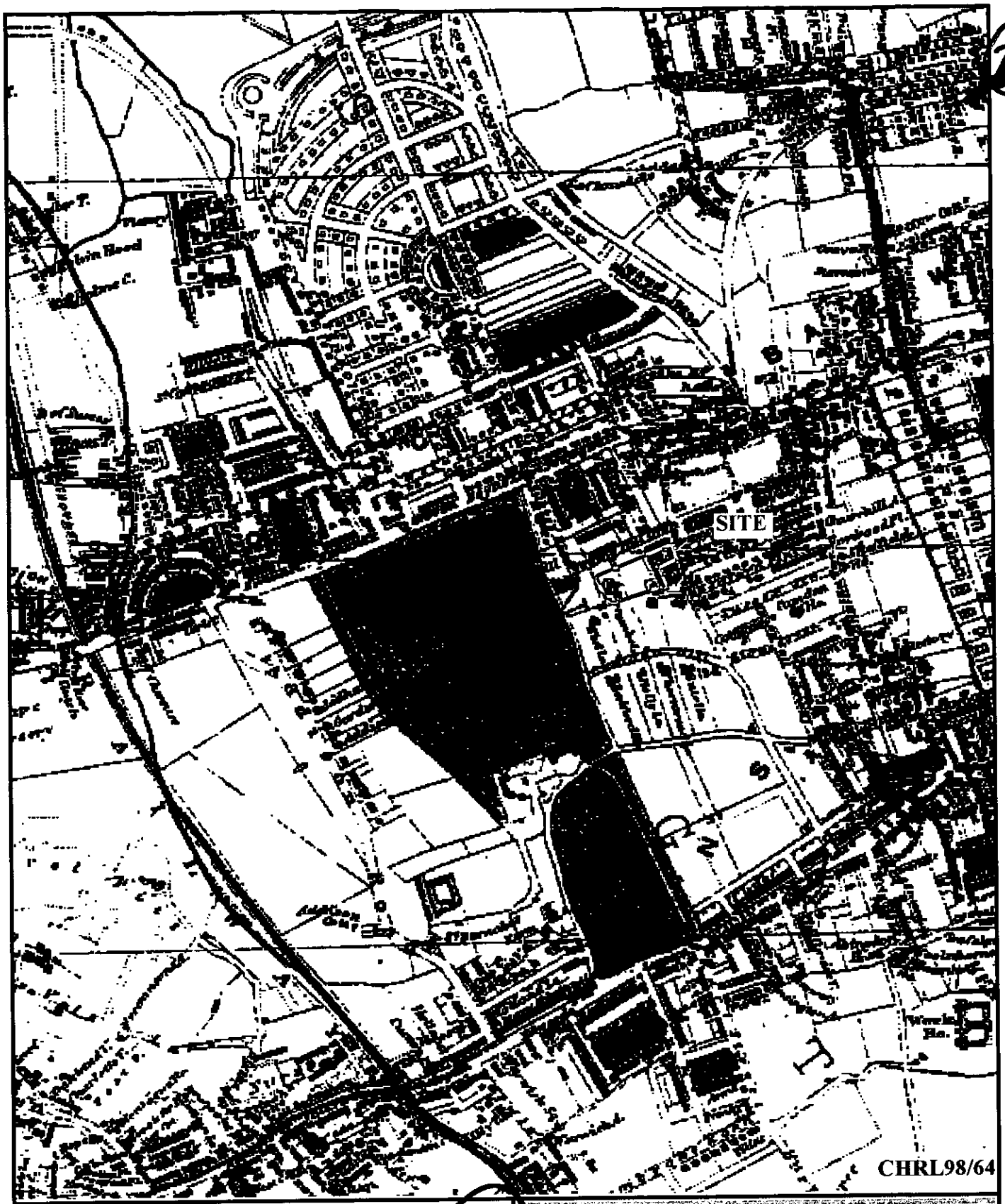
THAMES VALLEY ARCHAEOLOGICAL SERVICES



Campden Hill Reservoir, Kensington, Greater London, 1998

Figure 8. Tithe map of The Parish of Saint James 1844.

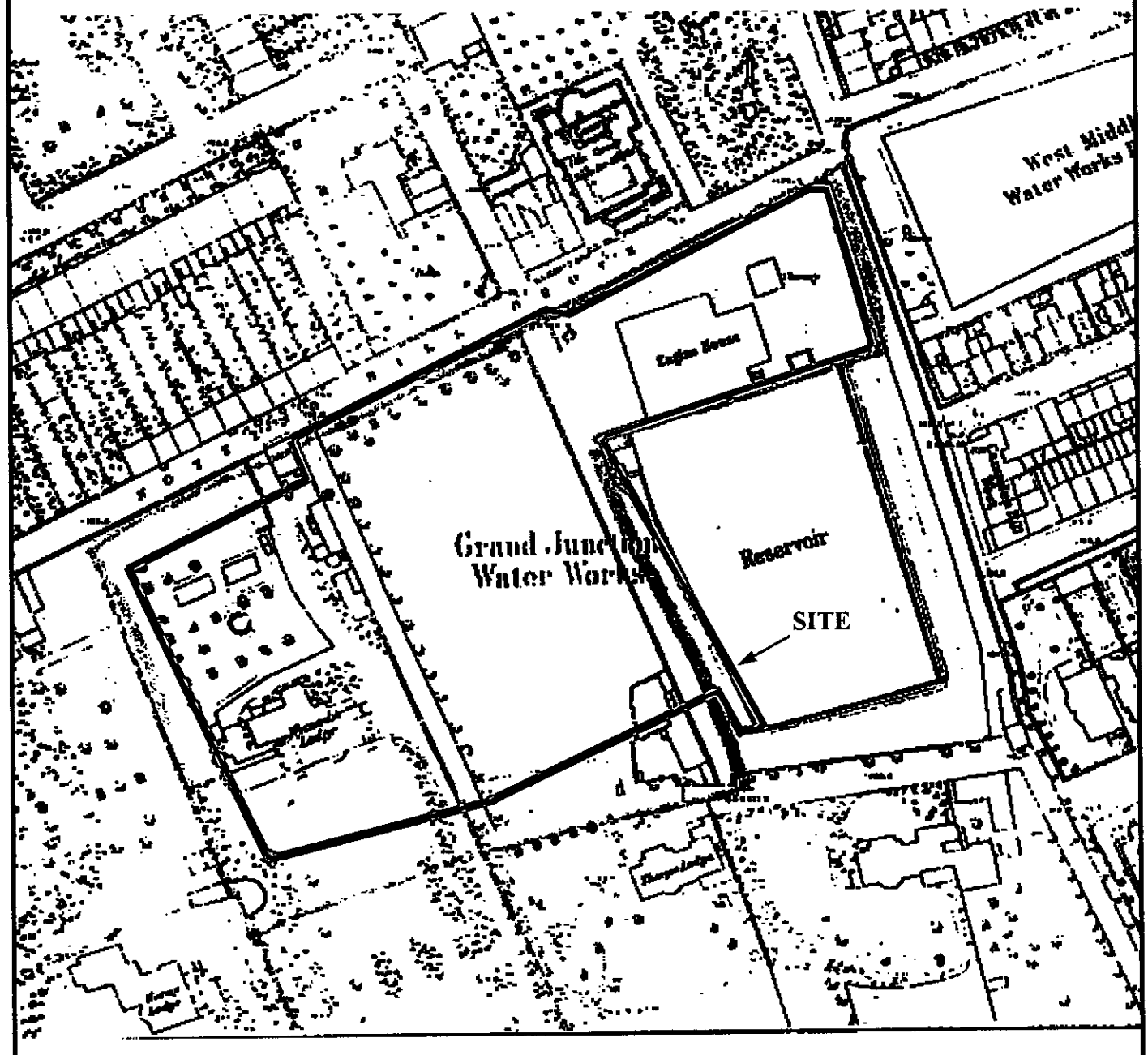
THAMES VALLEY ARCHAEOLOGICAL SERVICES



Campden Hill Reservoir, Kensington, Greater London, 1998

Figure 9. Wyld, 1948.

THAMES VALLEY ARCHAEOLOGICAL SERVICES

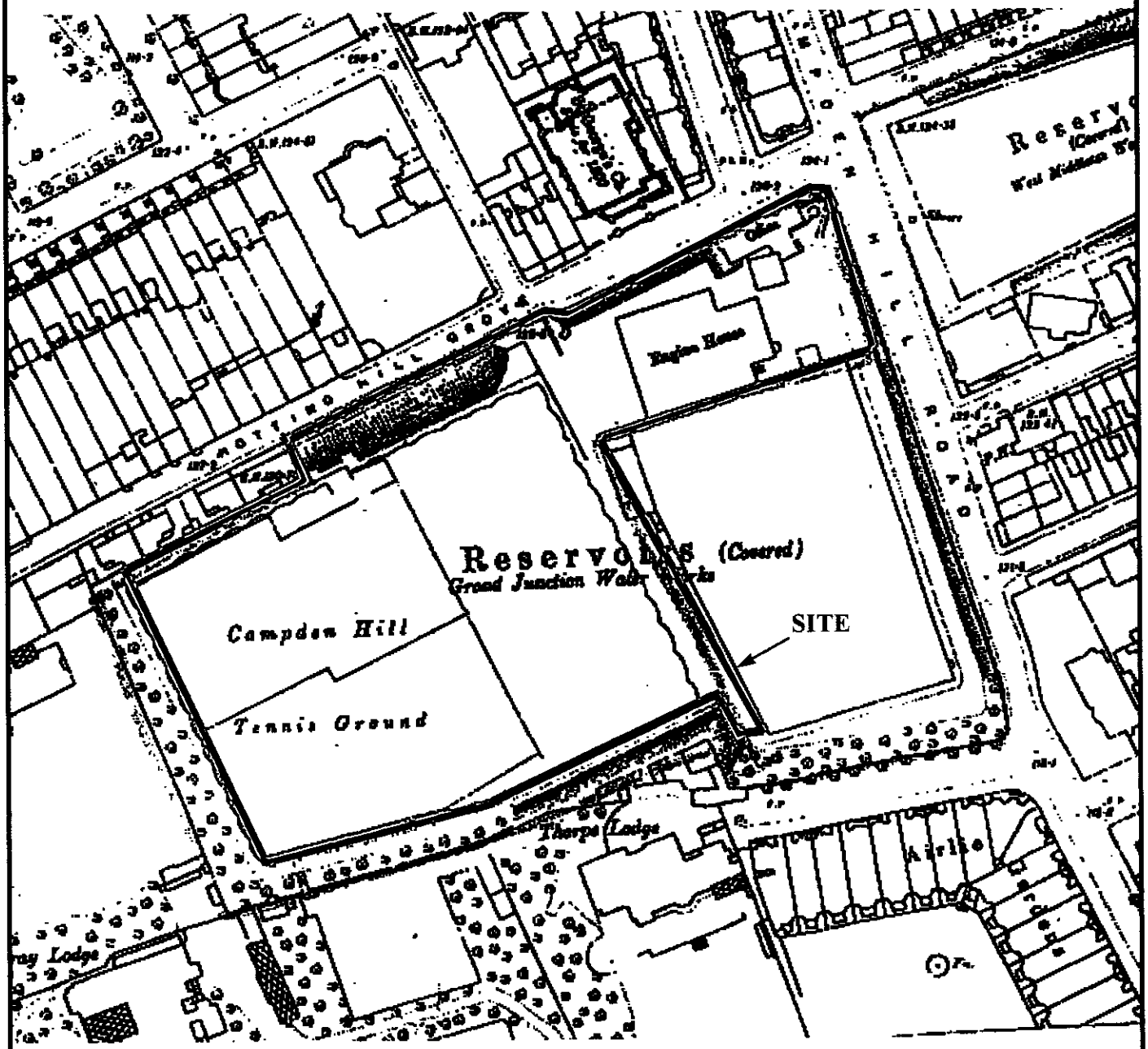


CHRL98/64

Campden Hill Reservoir, Kensington, Greater London, 1998

Figure 10. Ordnance Survey 1st. edition, 1867.

THAMES VALLEY ARCHAEOLOGICAL SERVICES



CHRL98/64

Campden Hill Reservoir, Kensington, Greater London, 1998

Figure 11. Ordnance Survey 2nd. edition, 1894.

THAMES VALLEY ARCHAEOLOGICAL SERVICES

TIME CHART

	Calendar Years
Post Medieval	AD 1500
Medieval	AD 1066
Saxon	AD 410
Roman	AD 43
	AD 0 BC
Iron Age	750 BC
Bronze Age: Late	1300 BC
Bronze Age: Middle	1700 BC
Bronze Age Early	2100 BC
Neolithic: Late	3300 BC
Neolithic: Early	4300 BC
Mesolithic: Late	6000 BC
Mesolithic: Early	10,000 BC
Palaeolithic: Upper	50,000 BC
Palaeolithic: Middle	70,000 BC
Palaeolithic: Lower	2,000,000 BC

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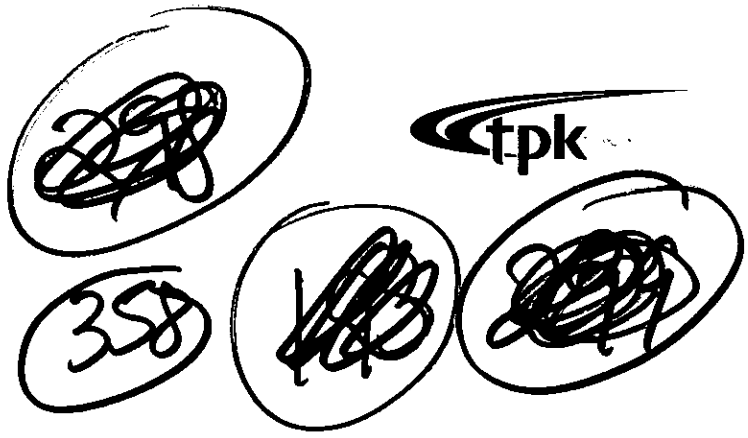
Tucker Parry Knowles Partnership
Transportation & Infrastructure Consultants

PP990733

THE RE-DEVELOPMENT OF WATER TOWER HOUSE AND THE FORMER CAMPDEN HILL RESERVOIR SITE

TRANSPORT IMPACT ASSESSMENT



PP990733

The Re-Development of Water Tower House and the Former Campden Hill Reservoir Site

Transport Impact Assessment

Client: St James Homes/Thames Water Property

Prepared by:

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Doc Ref:	**SW/SG/N/10145-02A**
Date:	**16 March 1999**

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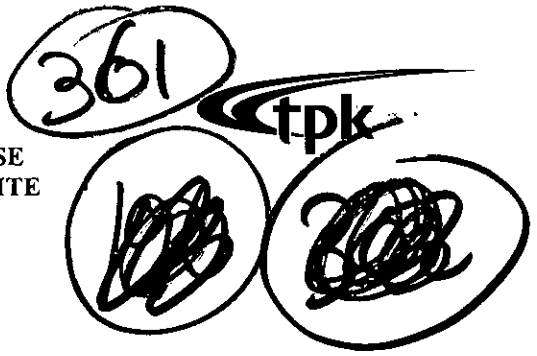


1.0 INTRODUCTION

1.1 This report assesses the transportation impact arising from the proposed re-development of Campden Hill Reservoirs in the Royal Borough of Kensington and Chelsea (RBKC). The site proposals comprise the construction of 19 houses and 43 flats together with the reconstruction of 12 tennis courts. Most existing structures and facilities on site will be removed.

1.2 This reports updates and supersedes our earlier Transport Impact Assessment (Ref: 10145-01C) submitted in support of planning applications Ref 98/2126, 2128. The report is being submitted in support of :

a) revised details (March 1999) for Application Nos 98/2126, 2128, and

b) a new Planning Application (March 1999).

Both the above are identical in content.

1.3 The total number of dwellings proposed is no different from our earlier report but the number of houses has decreased by two and the number of flats increased by two. This report takes account of this small change and also includes other changes recently discussed with RBKC, as follows:

a) use of an alternative trip distribution for traffic leaving the site; and

b) use of higher base traffic flows on Aubrey Walk (i.e. based on RBKC survey); and

c) alteration to the proposed layout of replacement on-street parking bays on Aubrey Walk.

1.4 The report is divided into six further sections comprising:

- Existing transportation conditions
- Current and potential use of existing site
- Operational assessment of existing situation
- Re-development proposals
- Impact of re-development on surrounding highway network
- Summary and conclusions

1.5 The assessment concludes that there is no material impact on the adjoining highway network resulting from the development proposals on the site.

2.0 EXISTING TRANSPORTATION CONDITIONS

2.1 STRATEGIC HIGHWAY NETWORK

2.1.1 Figure 1 shows the site in relation to the adjacent strategic highway network. The A40 Notting Hill Gate runs east/west to the north of the site. It is a primary designated route linking the M41 with Central London and is the responsibility of the Royal Borough of Kensington and Chelsea (RBKC). In the vicinity of the site, the A40 is single carriageway.

2.2 LOCAL HIGHWAY NETWORK

2.2.1 Figure 2 shows the site in relation to the local highway network. Campden Hill Road runs north/south between Notting Hill Gate and Kensington High Street. It is generally wide enough for opposing vehicles to pass even with cars parked on both sides of the road. Most parking along Campden Hill Road is for resident permit holders only. To the south, Campden Hill Road is one way in the northbound direction between Holland Street and Kensington High Street. Access south to Kensington High Street is achieved via Holland Street and Hornton Street. Access on to Kensington High Street from Hornton Street is left turn only. Westbound vehicles have to turn along Phillimore Walk to Argyll Road where access to Kensington High Street is provided via a signalised junction.

2.2.2 To the north, Campden Hill Road forms a signalised junction with Notting Hill Gate. At the junction Campden Hill Road has a single approach lane, Notting Hill Gate has two approach lanes westbound and two approach lanes plus a right turn eastbound.

2.2.3 Aubrey Walk fronts the northern site boundary. It is a quiet residential road linking Aubrey Road to Campden Hill Road. The road varies in width from around 5.5m at its western end to 6.5m to the east. On-street parking limits the available carriageway width to a single lane in places. This is consistent with other residential roads in the area and is effective in encouraging slow traffic speeds. The junction with Campden Hill Road is a staggered crossroads with Kensington Place, which is a one-way link towards Campden Hill Road.

2.2.4 There are two existing accesses on Aubrey Walk into the site. The first is to the west of Campden Hill Gardens. The second is directly opposite Hillsleigh Road and is currently gated. Visibility from both accesses is restricted by development at the back of footway and by vehicles parking on-street along Aubrey Walk.

2.3 ON-STREET PARKING

2.3.1 Existing on-street parking bays in the vicinity of the site are shown on Figure 3. On Campden Hill Road there are 12 parking spaces in the vicinity of Water Tower House, which include four parking meters on the west side of Campden Hill Road, and spaces for around eight resident permit holders on the east side of Campden Hill Road.

2.3.2 Along Aubrey Walk, between Campden Hill Road and Hillsleigh Road, there are three parking meters and spaces for around seven resident permit holders on the south side, and for around four resident permit holders on the north side. To the west of Hillsleigh Road there are spaces for four resident permit holders on the south side of Aubrey Walk.

2.3.3 Waiting restrictions, in the form of single yellow lines, are in force on areas of carriageway outside the marked parking bays.

2.4 ACCIDENTS

2.4.1 The location of Personal Injury Accidents in the vicinity of the site in the three years from June 1994 to May 1997 are shown on Figure 4.

2.4.2 There have been ten recorded accidents at or close to the junction of Notting Hill Gate and Campden Hill Road. Of these accidents only two have involved traffic turning in to or out of Campden Hill Road. It is therefore considered that there are no abnormal safety problems with turning movements at this junction.

2.4.3 Of the accidents on Campden Hill Road six have involved pedestrians. However, there has been no apparent pattern either to the cause or the location of these accidents.

2.4.4 There are no recorded accidents along Aubrey Walk or the side roads and accesses off Aubrey Walk.

2.5 PEDESTRIANS AND CYCLISTS

2.5.1 There are adequate pedestrian facilities in the area adjacent to the site. Footways are provided on both sides of all roads. There is a zebra crossing across Campden Hill Road close to junction between Campden Hill Road, Airlie Gardens and Bedford Gardens.

2.5.2 Although the signals between Notting Hill Gate and Campden Hill Road do not have a dedicated pedestrian phase, pedestrians are able to cross Notting Hill Gate unopposed by traffic. In addition there is a pelican crossing across Notting Hill Gate 140m to the east of the junction with Campden Hill Road.

2.5.3 With the exception of Holland Walk, to the west of the site, there are no other cycle lanes or other cycle facilities on the local road network surrounding the site.

2.6 PUBLIC TRANSPORT

2.6.1 The site has excellent bus provision as shown in Table 1. The nearest bus stop is at Notting Hill Gate Underground Station. This bus stop is served by all the buses shown in Table 1, around 700 metres or within 7 minutes' walking distance of the site.

2.6.2 Figure 1 shows the underground stations in proximity to the site. Holland Park (approximately 500m or five minutes walking time from the site) and Notting Hill Gate (700m or around seven minutes walking time from the site) are both on the Central Line. Notting Hill Gate is an interchange station between the Central, District and Circle Lines. Paddington main line station is easily accessed from the site by the underground since it is two stops from Notting Hill Gate station and is within walking distance.

2.6.3 There is therefore excellent provision for public transport in the vicinity of the site.

2.7 EXISTING TRAFFIC FLOWS

2.7.1 Morning and evening manual classified counts were undertaken between 07.30-09.30 and 16.30-18.30 on Thursday 17 July 1997 at the following junctions:

- Notting Hill Gate/Campden Hill Road

- Campden Hill Road/Aubrey Walk/Kensington Place

2.7.2 These counts identified the morning peak hour to be 08.30 to 09.30 and the evening peak hour to be 17.30 to 18.30. Additional data supplied by the Borough Council from an Automatic Traffic Counter (ATC) survey on Aubrey Walk on 29 September 1997, show a close correlation except for the westbound evening peak traffic flow on Aubrey Walk where an increase of 37 vehicles per hour was recorded; i.e. 104 vehicles as opposed to 67 vehicles counted in the July 1997 survey.

2.7.3 It has been agreed with the Borough Council that the higher flow will be used for assessment purposes. The manual count data for the Aubrey Walk/Campden Hill Road junction has been factored accordingly and is summarised on Figure 5.

3.0 CURRENT AND POTENTIAL USE OF EXISTING SITE

3.1 The site has a long-standing usage by the Thames Water Authority, although in recent years the level of operations has been scaled down. The extent of each element of the existing development is as follows:

Industrial Depot (625 sqm GFA)
Office (702 sqm GFA)
12 Tennis courts
15 Private Flats

3.2 It is noted that, although operations have recently been scaled down, the office and industrial buildings have the potential to operate on a more intensive basis, thus generating additional traffic.

3.3 No records of historic traffic movements to/from the site are available so the TRICS trip generation database has been interrogated to identify land uses similar in size and location for each element of the site. The resulting trip generation rates are shown in Table 2. These trip rates were applied to the existing land uses on the site to give the potential trip generation for the current uses on the site. The results are shown in the table in Section 3.5 below. The TRICS sites used are included in Appendix A.

3.4 Two base cases have been considered for assessment purposes:

i) existing traffic, including the tennis courts and 15 flats

ii) existing and potential traffic, including an allowance for the elements of the site currently vacant, but which have the potential to resume as lawful uses.

3.5 Estimated movements for both scenarios are summarised in the tables below:

Existing Traffic Movements

	08.00-09.00			17.00-18.00		
	Arrivals	**Departures**	**Total**	**Arrivals**	**Departures**	**Total**
Flats	1	4	5	3	2	5
Tennis Courts	3	1	4	21	25	46
Total	4	5	9	24	27	51

Existing Plus Potential Traffic Movements

	08.00-09.00			17.00-18.00		
	Arrivals	**Departures**	**Total**	**Arrivals**	**Departures**	**Total**
Flats	1	4	5	3	2	5
Tennis Courts	3	1	4	21	25	46
Industrial/Depot	6	2	8	1	5	6
Offices	11	0	11	0	10	10
Total	21	7	28	25	42	67

3.6 The peak hour network flows for potential site traffic and existing plus potential site traffic are given in Figures 6 and 7. In both cases, traffic associated with the tennis courts and flats is inherent within existing network flows. In accordance with current arrangements, traffic associated with the tennis courts does not enter the site.

4.0 OPERATIONAL ASSESSMENT OF EXISTING SITUATION

4.1 In urban areas it is generally accepted that junctions control the capacity of a highway network rather than links. As the proposed development is located within an urban area, junction capacity has been assessed at the following locations:

i) Notting Hill Gate/Campden Hill Road
ii) Campden Hill Road/Aubrey Walk.

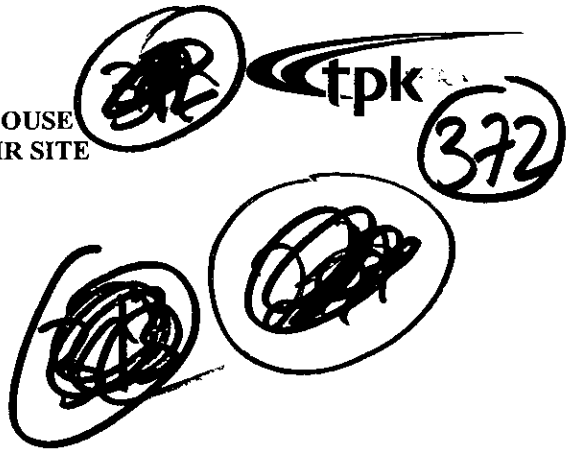
4.2 As identified, assessments of base traffic have been undertaken on the following basis:

i) existing traffic
ii) existing plus potential traffic.

4.3 The A40 Notting Hill Gate/Campden Hill Road signalised junction was assessed using OSCADY3 and the results are summarised in Table 3 for scenarios (i) and (ii). The traffic signal timings were obtained from Traffic Control System Unit, Corporation of London. It can be seen from Table 3 that the junction is approaching capacity on all arms except the straight ahead movement from Notting Hill Gate (west) in both scenarios during both peak periods. The calculated queue lengths correlate with those observed on site during peak hours. These RFCs and queues are considered to be acceptable for an urban location in the peak hour.

4.4 The Campden Hill Road/Aubrey Walk/Kensington Place staggered priority junction was assessed using PICADY3 and the results are summarised in Table 4. The results show that the junction operates with significant spare capacity with either existing or existing plus potential traffic levels.

4.5 It is noted that whereas PICADY indicates zero queuing under existing traffic flows, this does not in practice fully reflect observed peak hour conditions where some limited, short duration queuing occurs on Aubrey Walk. This is due to the intermittent blocking of traffic flow along Campden Hill Road due to constraints on either side of the junction. When traffic is stationary on Campden Hill Road, traffic exiting from Aubrey Walk is temporarily delayed and some queuing occurs. Observations during the morning peak hour indicate that these conditions are most likely to occur between 08.30 and 08.45 with queues on Aubrey Walk of 2 to 8 vehicles. The queues build up and disperse within 2 to 5 minutes. PICADY models junction capacity rather than link capacity and therefore does not detect the observed queues. The PICADY results do, however, provide a basis for the comparison of existing and future junction capacity. It is noted that for the majority of the peak period, the queues on Aubrey Walk are minimal as predicted by PICADY.



5.0 RE-DEVELOPMENT PROPOSALS

5.1 GENERAL

5.1.1 The re-development proposals are shown on the revised site plan prepared by Broadway Malyan (Drg No 7650/P101A). The proposals include:

- 43 flats
- 19 houses
- 12 tennis courts and a practice court

5.2 ACCESS ARRANGEMENTS

5.2.1 It is proposed to close the two existing points of access from Aubrey Walk and replace them with a single access as shown on Figure 8. A 5m wide, shared surface, private drive is proposed with kerb radii of 4.0m. The access is approximately 7m to the west of the existing entrance to Water Tower House. Visibility splays of 4m x 15m are proposed in accordance with RBKC standards (Figure 5.3 of the adopted UDP 1995).

5.2.2 The proposed access represents a significant improvement over the existing site access arrangements, particularly in respect of junction visibility which is severely constrained at the two existing access points.

5.2.3 The access proposals will necessitate the relocation of three on-street parking spaces. These can be replaced adjacent to the existing reservoir site access (opposite Hillsleigh Road). Discussions with RBKC have led to a redesign of the parking proposals identified in our earlier report, and our proposed layout now complies with the Borough's preference for "parallel" parking at this location - see Figure 8.

5.2.4 It is noted that a number of access options were assessed before the selection of the proposed solution. In particular, consideration was given to the use of the two existing site accesses serving the adjoining Kensington Heights development. One of these accesses is onto Campden Hill Road and the other is on Airlie Gardens. These two accesses currently operate on a one-way basis with inbound traffic entering from Airlie Gardens and outbound traffic exiting onto Campden Hill Road.

5.2.5 The Campden Hill Road exit point is immediately adjacent to a second entrance/exit point serving the Kensington Heights underground car park. Any intensification of the use of this exit point would increase conflicting turning movements at this location with the likelihood that highway safety would be adversely affected. It is also noted that there is insufficient space between Aubrey Walk and the existing Kensington heights access to accommodate an additional access onto Campden Hill Road without compromising junction spacing standards.

5.2.6 The possible widening of the Airlie Gardens access, to accommodate two-way traffic, was also considered but rejected on the grounds that it would increase traffic flows adjacent to several residential properties and intensify turning movements immediately outside the entrance to Holland Park School thus conflicting with existing pedestrians and vehicular traffic.

5.2.7 The proposed access on Aubrey Walk avoids the above difficulties by minimising the number of properties affected by additional traffic and by minimising conflicting turning movements with existing vehicular and pedestrian traffic.

5.3 CAR PARKING

5.3.1 On site car parking provision will be in accordance with RBKC Table 5.1 of the adopted UDP (1995). This will include an allowance for visitor parking based on 0.1 spaces per dwelling and 10% disabled parking spaces.

5.3.2 The car parking requirement in accordance with UDP standards is calculated as follows:

19 houses at 2 per dwelling	38 spaces
43 flats at 1 per dwelling	43 spaces
Visitor parking at 0.1 per dwelling	7 spaces
	Total 88 spaces

5.3.3 It is proposed that each of the 19 houses will be provided with a garage plus an adjacent parking space. Car parking for the flats and visitors will be provided beneath the proposed flats (see Broadway Malyan Architects basement layout drawing 7650/P100A).

5.3.4 As referred to in 5.2.3, some relocation of existing on-street parking spaces is proposed but the net amount of on-street parking space will remain unchanged.

5.4 TRIP GENERATION

5.4.1 The TRICS trip generation database has been interrogated to identify appropriate trip rates for the proposed land uses. The rates are given in Table 2 and the sites selected are given in Appendix A. The proposed generated site traffic is as follows:

	08.00-09.00			17.00-18.00		
	Arrivals	**Departures**	**Total**	**Arrivals**	**Departures**	**Total**
Flats 43 No	4	11	15	9	7	16
Houses (19 No)	2	4	6	5	5	10
Tennis Courts 12 No	3	1	4	21	25	46
Total	9	16	25	35	37	72

Traffic associated with the tennis courts does not gain access to the site and hence site access traffic amounts to residential use only.

5.4.2 Since the preparation of our October 1998 report, further investigation of residential trip generation rates has been undertaken in consultation with the Borough Council. Surveys at the Berkeley Homes development at Barnes (with a similar mix and style of housing) revealed very similar traffic generation rates of 0.37 in the AM peak and 0.30 in the PM peak, compared with 0.35 AM and 0.42 PM used in this report. It should be noted that the Barnes site is less accessible by public transport than the Campden Hill site and therefore a lower trip rate is expected at Campden Hill. Other data held by the Borough Council indicates significantly lower traffic generation at other new sites in the Borough (for example an AM rate of 0.16 and a PM rate of 0.14 were recorded at the St Mary Abbots site off Marloes Road). The rates used in this report are therefore considered to be robust.

5.4.3 It is noted that the number of tennis courts is unchanged in both the existing and future scenarios and accordingly, no net change in peak hour tennis-related traffic is envisaged. Since existing tennis traffic is already accounted for within the base traffic survey data, it has not been necessary to add the above tennis trips to the future, with development, analyses (to do so would result in double counting).

5.4.4 The availability of six indoor courts will enable play to continue at times when the existing outdoor courts are not used (for example, during winter evenings). The traffic activity associated with this use will clearly be well below the maximum summer-time use of the club recorded in the July traffic surveys. It is therefore clear that the assessment presented in this report reflects a worst case in terms of tennis-related traffic activity.

5.4.5 A comparison of the differences between existing uses, potential uses and proposed uses of the site is shown in the table below:

	08.00-09.00			17.00-18.00		
	Arrivals	**Departures**	**Total**	**Arrivals**	**Departures**	**Total**
(i) Existing	4	5	9	24	27	51
(ii)Existing plus Potential	21	7	28	25	42	67
(iii) Proposed	9	16	25	35	37	72
Net Difference						
(iii) - (i)	+5	+11	+16	+11	+10	+21
(iii) - (ii)	-12	+9	-3	+10	-5	+5

5.5 TRIP DISTRIBUTION

5.5.1 The inbound trip distribution has been based on existing observed turning movements and is unchanged from our previous October 1998 report, i.e. trips into the site are assumed to be 95% from Campden Hill Road and 5% from Aubrey Road. At the staggered priority junction between Campden Hill Road, Kensington Place and Aubrey Walk, allowance has been made that 5% of site bound traffic comes from Kensington Place.

5.5.2 Following discussions with the Borough Council, the outbound trip distribution has been modified on the basis that all westbound trips leaving the site will travel via Aubrey Road. This increases the proportion of left turners compared with our October 1997 report. The revised distribution is shown on Figure 9 with the proposed site flows shown on Figure 10.

5.5.3 The total turning movements with existing and site generated traffic are shown in Figure 11.

6.0 IMPACT OF RE-DEVELOPMENT ON HIGHWAY NETWORK

6.1 GENERAL

6.1.1 The site is located within an urban network where the scope for traffic growth in the peak hours is likely to be limited and constrained by the capacity of the network. For assessment purposes, zero peak hour traffic growth has been assumed.

6.1.2 Site generated traffic is calculated to increase peak hour traffic movements on Campden Hill Road by less than 2% north and south of Aubrey Walk in both the AM and PM peak hours.

6.1.3 The junctions of Campden Hill Road/Notting Hill Gate and Campden Hill Road/Aubrey Walk/Kensington High Street have been assessed with the addition of development traffic. The results are discussed below.

6.2 JUNCTION ASSESSMENTS

6.2.1 **Notting Hill Gate/Campden Hill Road signalised Junction.**

6.2.1.1 The results of the operational assessment are summarised in Table 3 and show the comparison with the existing and existing plus potential operating conditions for the AM and PM peak periods.

6.2.1.2 It can be seen that there is a very marginal increase in the ratio of flow to capacity (RFC) for all arms of the junction in the morning and evening peak periods. The Campden Hill Road and Nottinghill Gate (East) arms of the junction already experience RFC values greater than 0.85 in the PM peak. The addition of site generated traffic marginally increases these RFC's but with no

increase in queue length. Only one predicted queue increases by comparison with the existing traffic and this by only one vehicle on Campden Hill Road in the morning peak. No increase in queues is seen when comparison is made with the existing plus potential traffic.

6.2.2 **Campden Hill Road/Aubrey Walk/Kensington Place staggered priority junction.**

6.2.2.1 Results are summarised in Table 4 for the predicted traffic flows. Table 4 also provides a comparison of the operating conditions between the existing and predicted flows. It shows that the junction has spare capacity on all arms.

6.2.2.2 As noted in paragraph 4.5, the PICADY assessment for this junction does not model temporary queuing on Aubrey Walk caused by stationary traffic on Campden Hill Road. Figure 10 shows that the development will generate 10 outbound vehicle movements on the Aubrey Walk arm of the junction in the AM peak and 8 outbound movements in the PM peak. This represents an average of one vehicle every 6 - 7 minutes during peak hours. Clearly traffic flows of this magnitude will not in practice materially worsen existing traffic conditions.

6.2.3 **Site Access**

6.2.3.1 The site access has been assessed using PICADY3. The results of the operational assessment are summarised in Table 5. It shows that there are no queues modelled during either peak period.

7.0 SUMMARY AND CONCLUSIONS

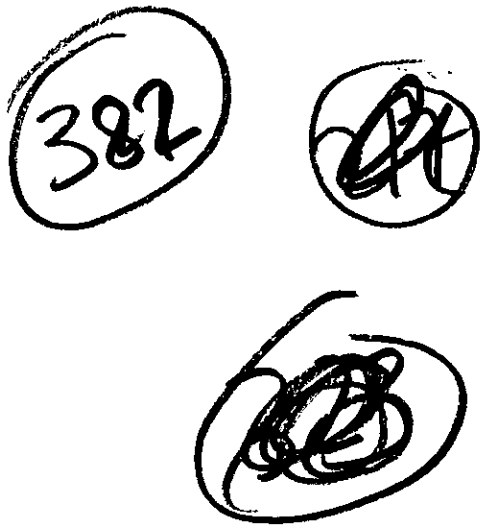
7.1 This report addresses the transportation issues associated with the re-development of the Campden Hill Reservoir site for 19 houses, 43 flats, 12 tennis courts and a practice court.

7.2 Public transport provision close to the site is excellent. There are frequent bus services on Notting Hill Gate to many other parts of London. Holland Park and Notting Hill Gate underground stations are nearby providing services on the central, district and circle lines. It is therefore clear that occupiers of the development will have a good choice of alternative travel modes and will not be reliant on the use of a car.

7.3 It is proposed to close the two existing site accesses and replace them with a single access on to Aubrey Walk approximately 18m to the west of Campden Hill Gardens. The new access will provide significantly improved geometric and visibility standards compared with the existing access arrangements. Three existing on-street parking bays are to be relocated but there will be no net change to the number of spaces available. Capacity analyses show that the access will operate with significant spare capacity.

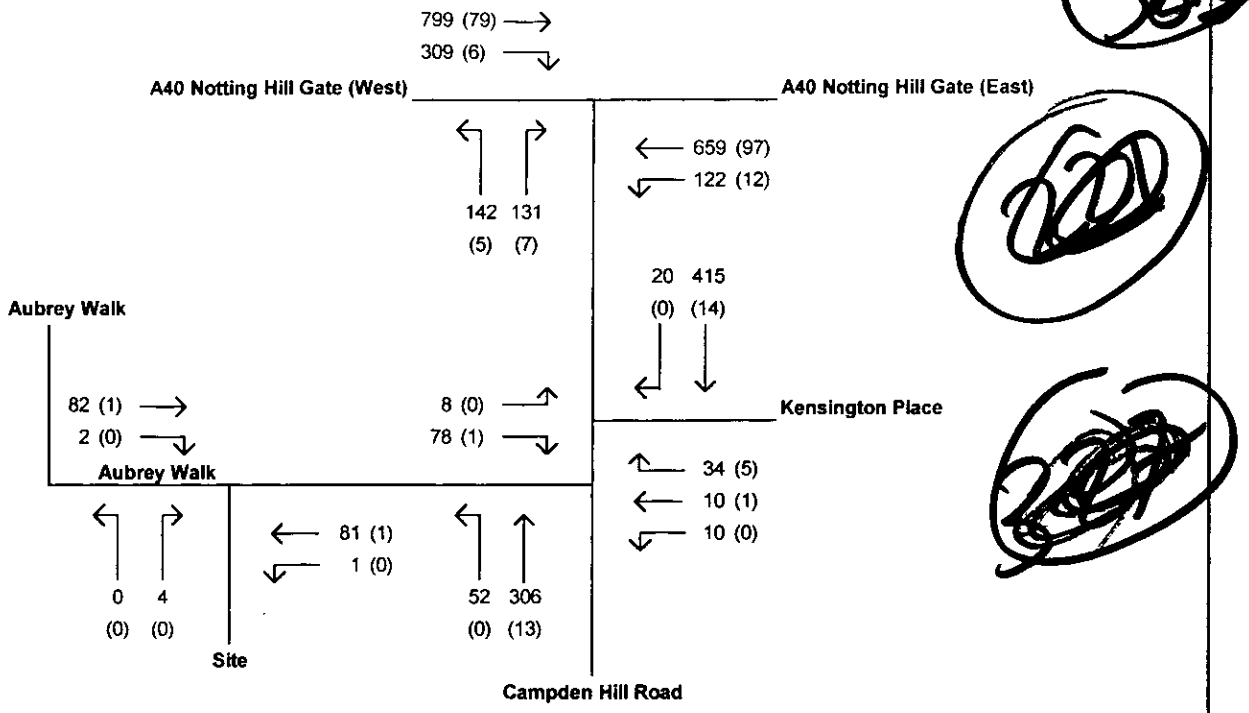
7.4 The proposed development is estimated to generate a total of 25 vph in the AM peak and 72 vph in the PM peak. This compares with existing site uses which generate 9 vph and 51 vph in the AM and PM peaks respectively; i.e. a net increase of only 16 vph (AM) and 21 vph (PM). It is noted, however, that if the existing depot and office uses on site were to be reinstated, the site would generate around 28 vph in the AM peak and 67 vph in the PM peak, resulting in a net difference between potential and proposed uses of -3 vph and +5 vph in the AM and PM peak periods respectively.

7.5 The operational assessment of the critical junctions in the vicinity of the site shows that the signalised junction between Notting Hill Gate and Campden Hill Road is currently very close to capacity. The addition of site generated traffic has a very marginal effect; it increases the predicted queue on the Campden Hill Road arm in the AM peak by one vehicle (from seven vehicles to eight vehicles). The staggered priority junction between Aubrey Walk, Campden Hill Road and Kensington Place has also been assessed and the results show that the junction will continue to operate well within capacity after the site has been redeveloped. There are no increases in predicted queues as a result of the development. It is therefore concluded that site generated traffic will have a negligible impact in terms of the capacity and safety of the surrounding road network.

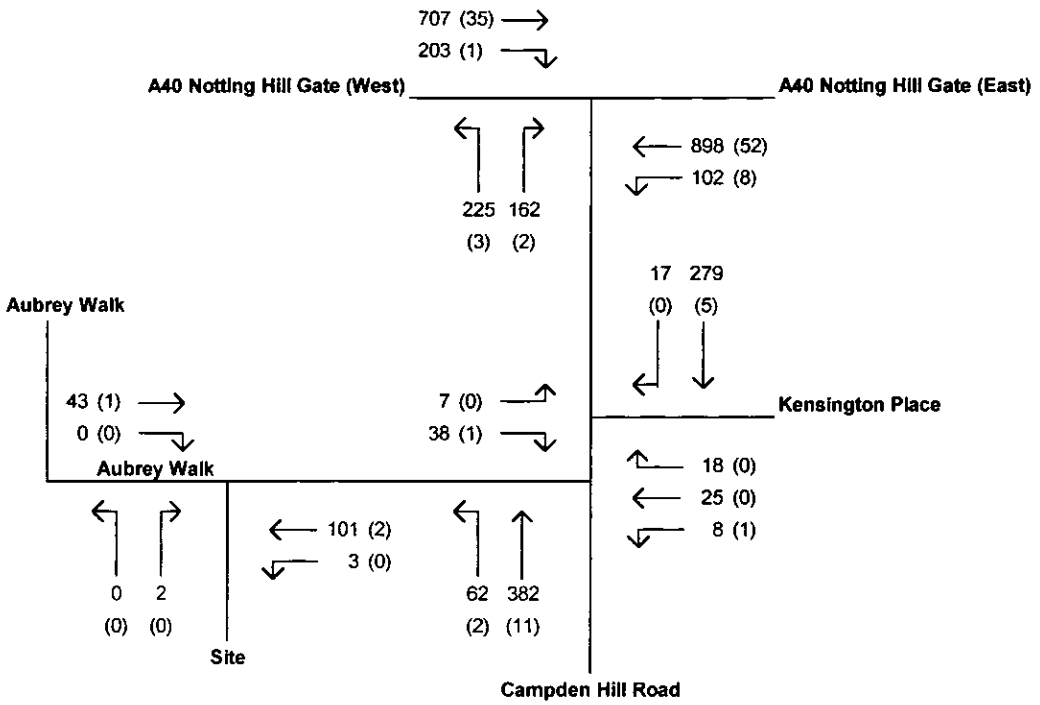


FIGURES

AM PEAK (0830 - 0930)



PM PEAK (1730 - 1830)



Key

62 All Vehicles

(2) HGVs

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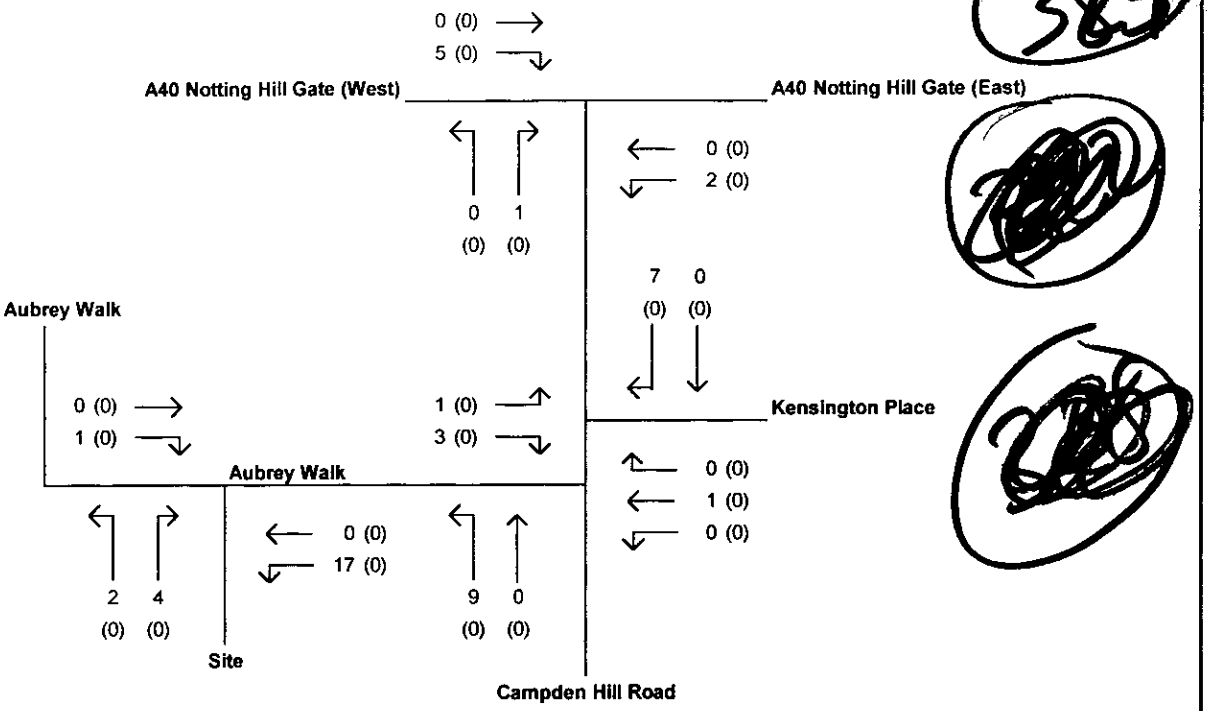
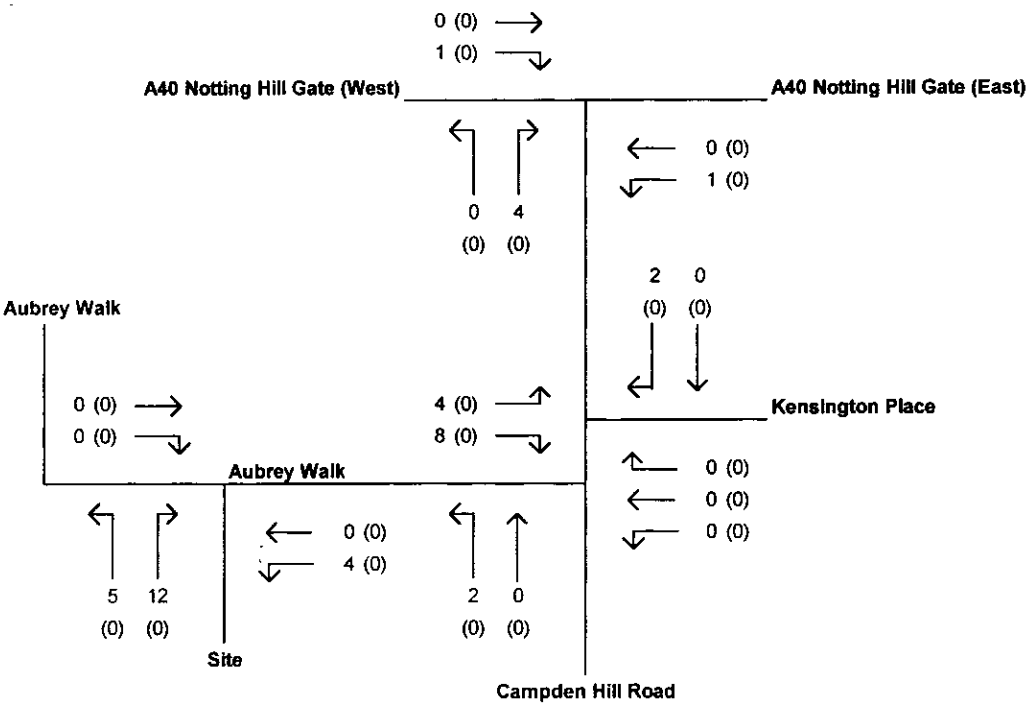
DRAWN BY RH	CHECKED BY	TRACED BY RH	DATE Mar 1999	SCALE N.T.S.	REF FIGURE 5	DRWG NO 10145/13	REV A

AM PEAK (0830 - 0930)



PM PEAK (1730 - 1830)



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2 All Vehicles

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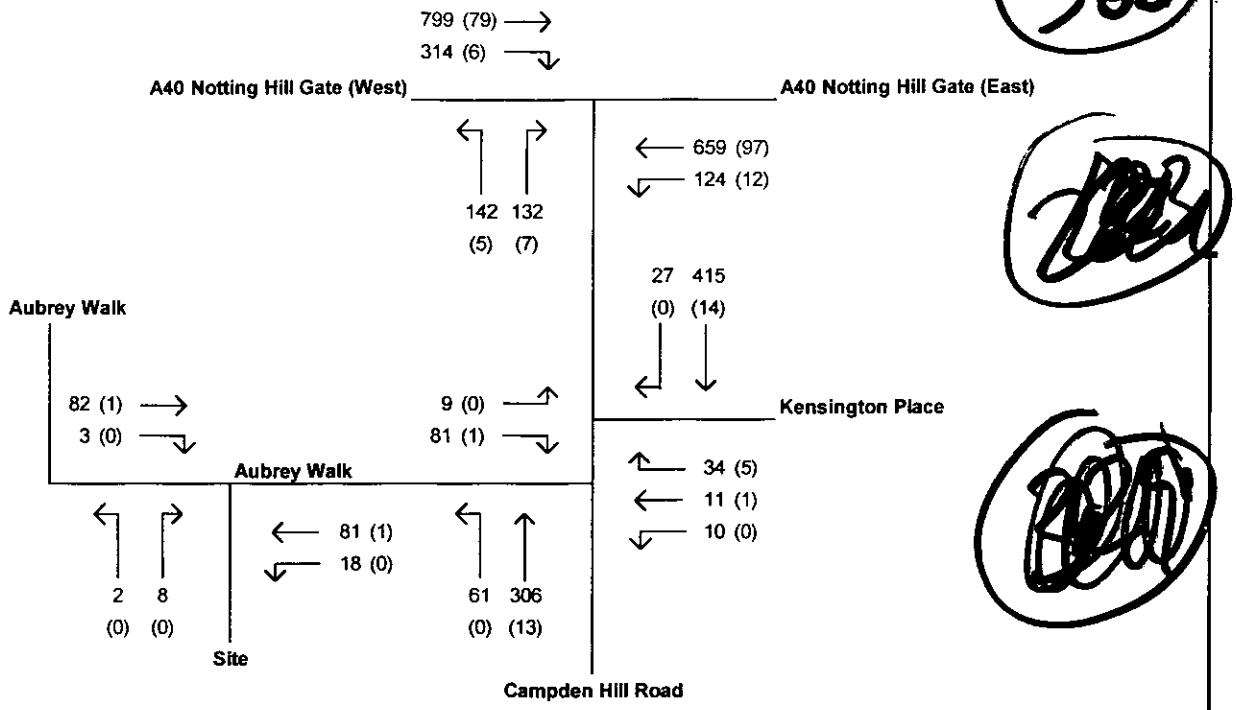
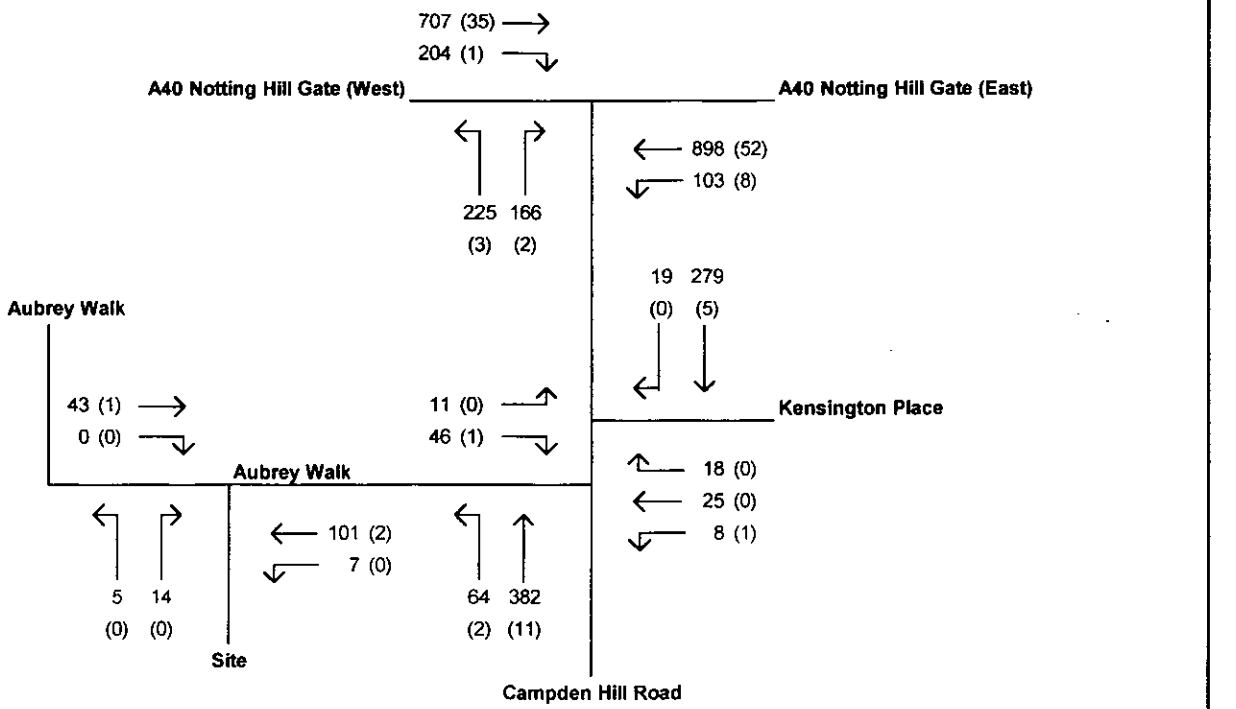
DRAWN BY: RH	CHECKED BY: Siv	TRACED BY: RH	DATE: Mar 1999	SCALE: N.T.S.	REF: FIGURE 6	DRWG NO: 10145/14	REV: A

AM PEAK (0830 - 0930)



PM PEAK (1730 - 1830)



Key

64 All Vehicles

(2) HGVs

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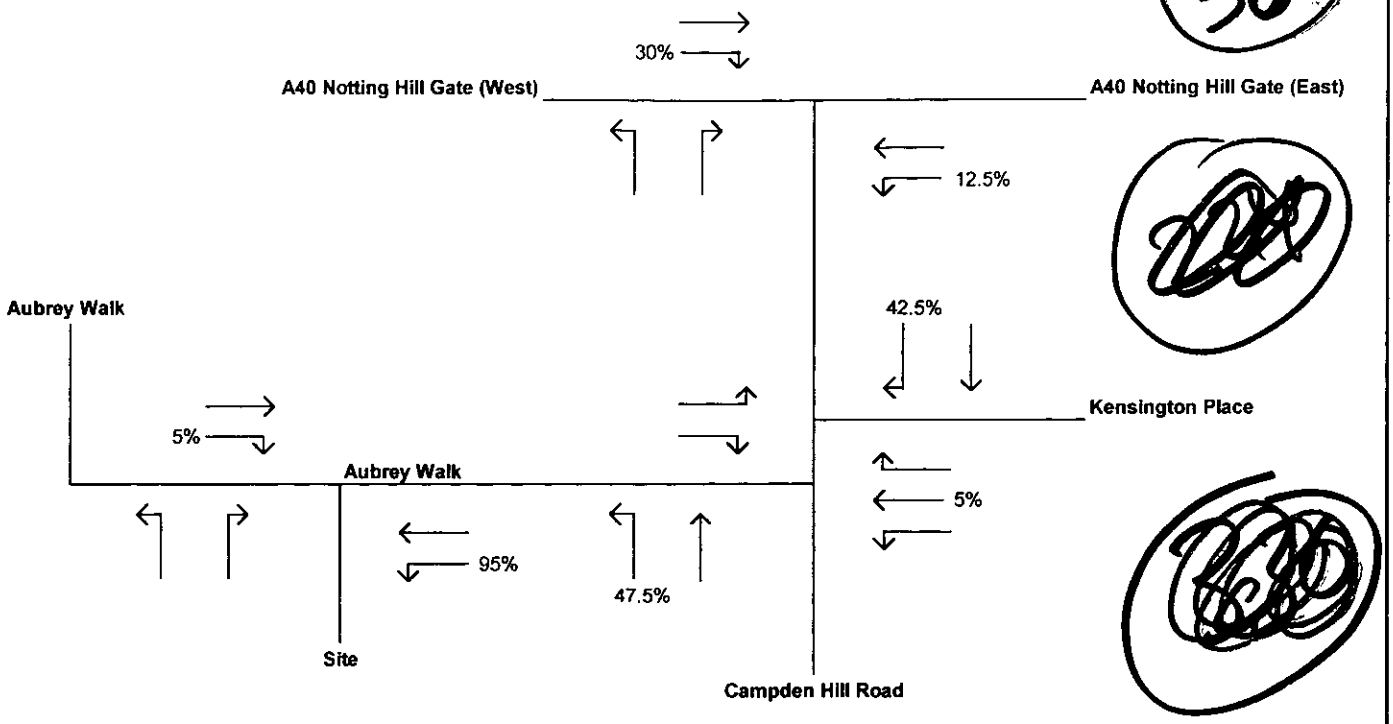
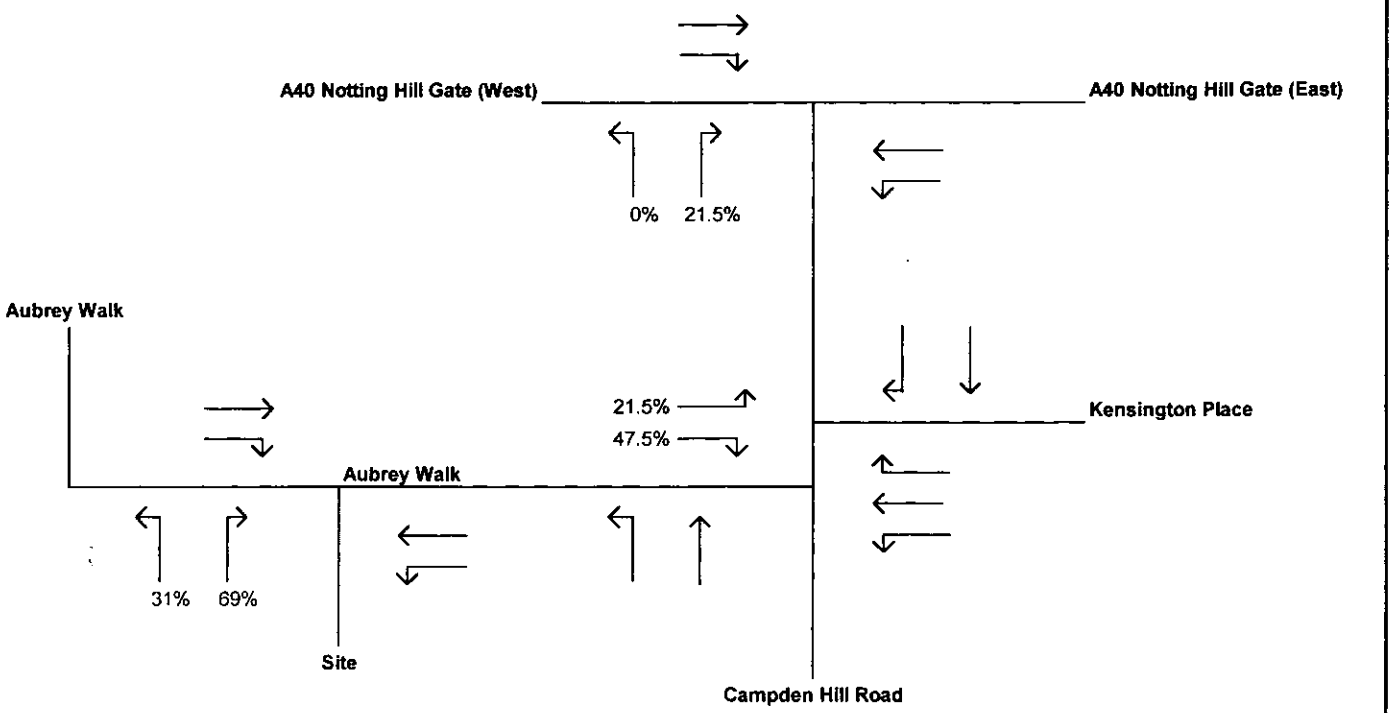
DRAWN BY: RH	CHECKED BY:	TRACED BY: RH	DATE: Mar 1999	SCALE: N.T.S.	REF: FIGURE 7	DRWG NO: 10145/15	REV: A

386

INS



OUTS



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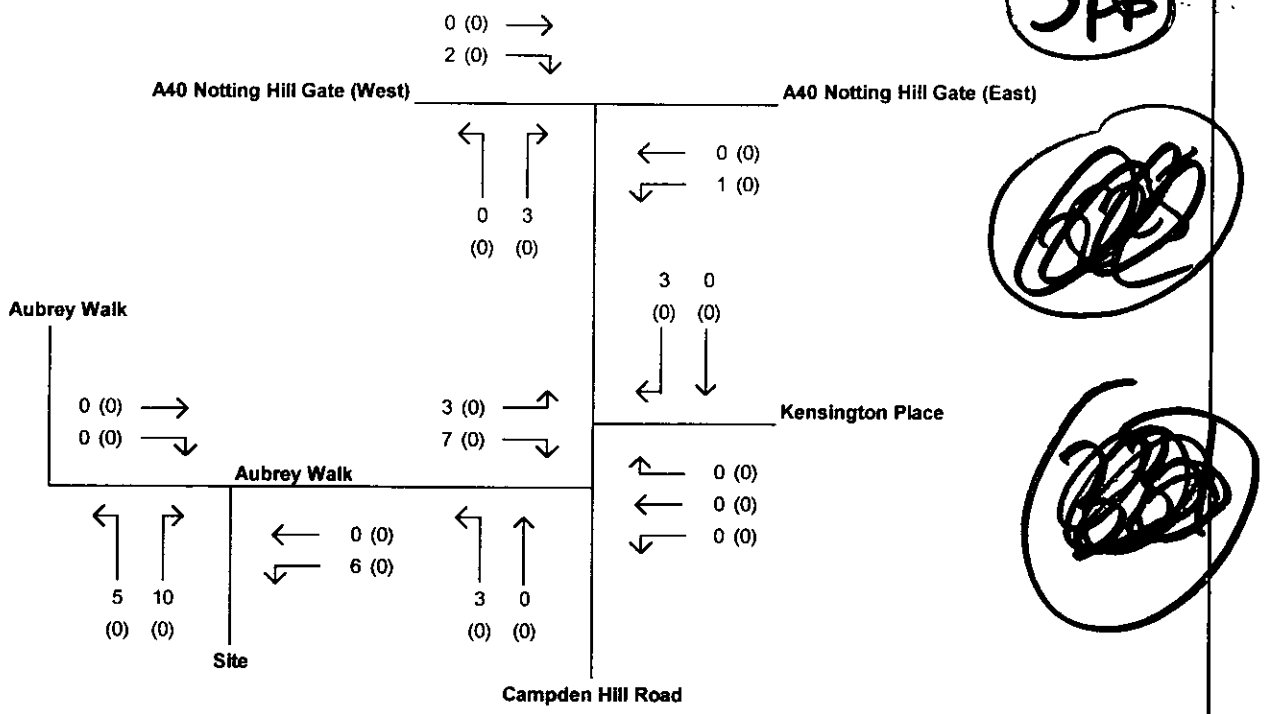
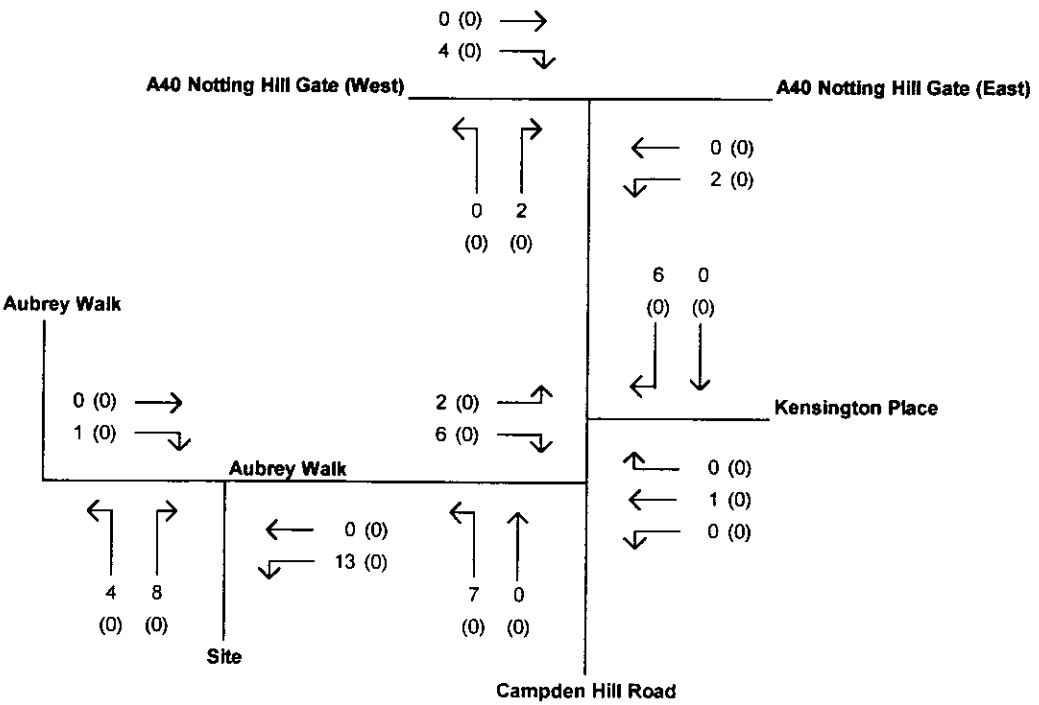
DRAWN BY RH	CHECKED BY	TRACED BY RH	DATE Mar 1999	SCALE N.T.S.	REF FIGURE 9	DRWG NO 10145/12	REV B

AM PEAK (0830 - 0930)



PM PEAK (1730 - 1830)



Key

7 All Vehicles

(0) HGVs

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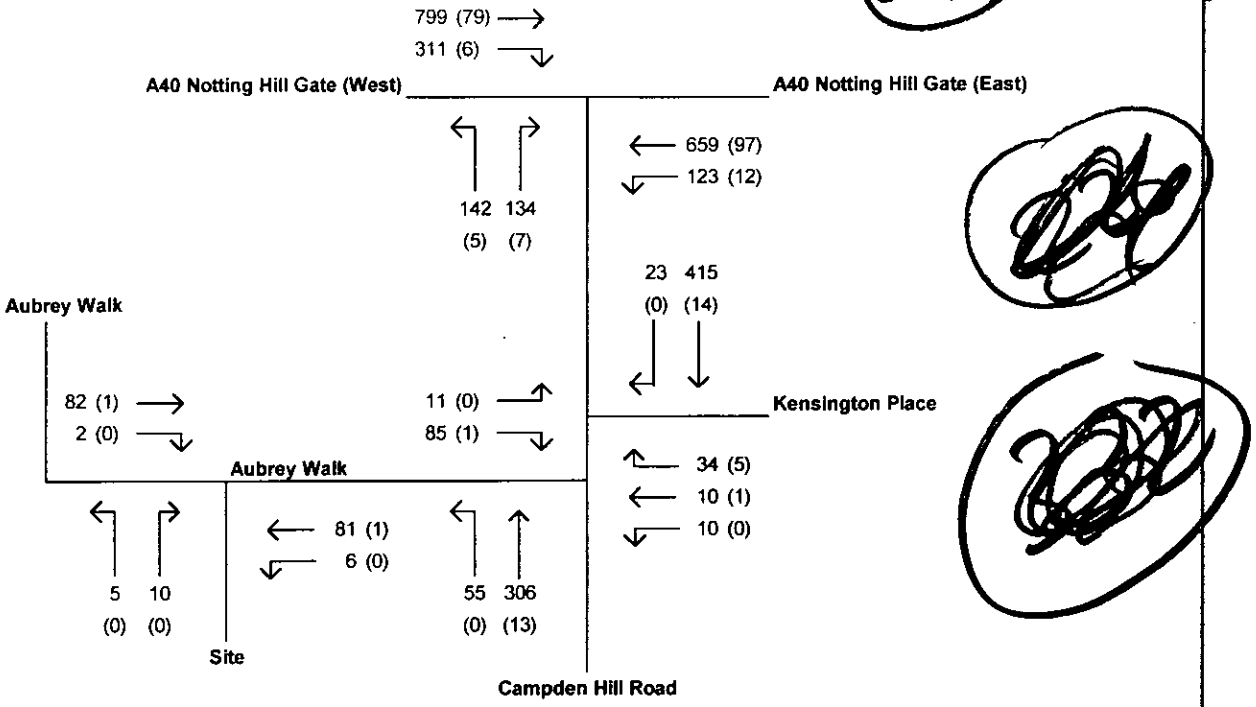
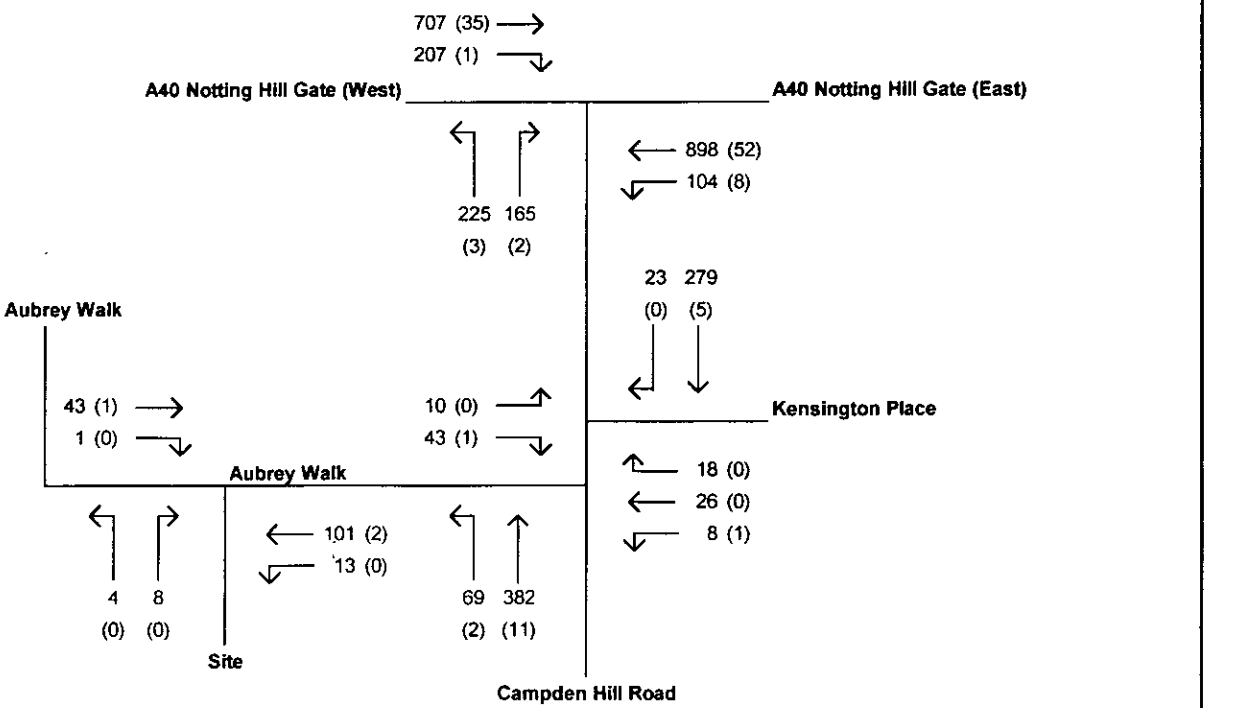
DRAWN BY: RH	CHECKED BY:	TRACED BY: RH	DATE: Mar 1999	SCALE: N.T.S.	REF: FIGURE 10	DRWG NO: 10145/16	REV: B

AM PEAK (0830 - 0930)



PM PEAK (1730 - 1830)



Key

69 All Vehicles

(2) HGVs

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DRAWN BY: RH	CHECKED BY: Sw	TRACED BY: RH	DATE: Mar 1999	SCALE: N.T.S.	REF: FIGURE 11	DRWG NO: 10145/17	REV: B

TABLES

Table 1: Bus Services to Notting Hill Gate

ROUTE NO.	FROM	TO	FREQUENCY OF SERVICE	
			0800-0900	1700-1800
94	Acton	Piccadilly Circus	5 mins	10 mins
	Piccadilly Circus	Acton	8-9 mins	10 mins
70	Acton	Sth Kensington	8-9 mins	8-9 mins
	Sth Kensington	Acton	10 mins	10 mins
27	Camden Town	Turnham Green	10 mins	10 mins
	Turnham Green	Camden Town	10 mins	10 mins
31	Camden Town	Chelsea World's End	10-12 mins	10-12 mins
	Chelsea World's End	Camden Town	10-12 mins	10-12 mins
28	Wandsworth	Golders Green	10-12 mins	10-12 mins
	Golders Green	Wandsworth	10-12 mins	10-12 mins
12	Notting Hill Gate	Dulwich Plough	7-12 mins	7-12 mins
	Dulwich Plough	Notting Hill Gate	7-12 mins	7-12 mins

Table 2: Trip Generation Rates

USE	AM PEAK			PM PEAK		
	IN	OUT	TOTAL	IN	OUT	TOTAL
Industrial/depot (trips per 100m^2)	0.97	0.30	1.27	0.21	0.74	0.95
Office (trips per 100m^2)	1.56	0.06	1.62	0.06	1.47	1.53
Tennis Courts (trips per court)	0.24	0.12	0.36	1.76	2.06	3.82
Flats (trips per flat)	0.09	0.26	0.35	0.22	0.16	0.38
Houses (trip per house)	0.12	0.22	0.34	0.27	0.23	0.50

Arm	AM Peak						PM Peak					
	Existing		Existing & Permitted		Existing & Proposed		Existing		Existing & Permitted		Existing & Proposed	
	RFC	Queue	RFC	Queue	RFC	Queue	RFC	Queue	RFC	Queue	RFC	Queue
Notting Hill Gate (East)	0.828	8	0.836	8	0.833	8	0.882	10	0.890	10	0.888	10
Campden Hill Road	0.835	7	0.841	8	0.838	8	0.884	10	0.890	10	0.888	10
Notting Hill Gate (West) S	0.389	4	0.389	4	0.390	4	0.371	4	0.374	4	0.371	4
R	0.826	8	0.833	8	0.830	8	0.847	7	0.865	7	0.860	7

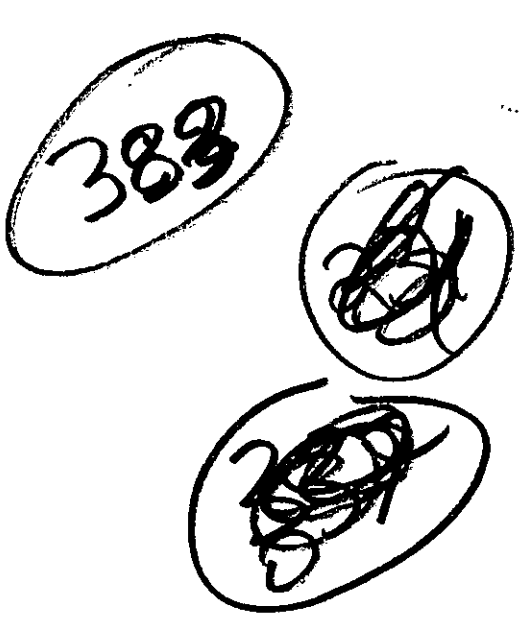
Table 3: Operational Assessments of Notting Hill Gate / Campden Hill Road Signalised Junction

Arm	AM Peak						PM Peak					
	Existing		Existing & Permitted		Existing & Proposed		Existing		Existing & Permitted		Existing & Proposed	
	RFC	Queue	RFC	Queue	RFC	Queue	RFC	Queue	RFC	Queue	RFC	Queue
Campden Hill Road (North)	0.168	0	0.171	0	0.169	0	0.122	0	0.122	0	0.123	0
Kensington Place	0.076	0	0.096	0	0.083	0	0.102	0	0.107	0	0.116	0
Campden Hill Road (South)	0.259	0	0.273	0	0.287	0	0.134	0	0.167	0	0.157	0
Aubrey Walk	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0

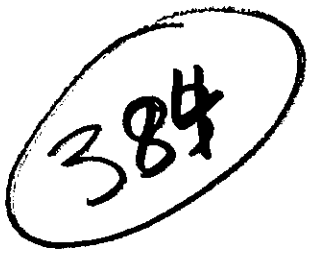
Table 4: Operational Assessments of Campden Hill Road / Aubrey Walk / Kensington Place Staggered Priority Junction

Table 5: Operational Assessments of Site Access Priority Junction

Arm	Existing & Proposed			
	AM Peak		PM Peak	
	RFC	Queue	RFC	Queue
Aubrey Walk (East of Junction)	-	-	-	-
Proposed Site Access	0.032	0	0.024	0
Aubrey Walk (West of Junction)	0.003	0	0.002	0



APPENDICES



APPENDIX A

Extracts from TRICS Data