

Client

Richmond Housing Partnership

Project / Application Site

Informer House, 2 High Street, Teddington, TW11 8EW

Report

Transport Statement

Published

June 2016

Transport Statement

Prepared for:

Richmond Housing Partnership

Prepared by:

Kronen Limited
16 Church Road
Leatherhead
KT22 8AY

www.kronenlimited.com

Contact:

Alexander Osborn
Co-Founder Kronen Limited
020 8541 1139
alex@kronenlimited.com

Contents

- 1 Introduction
- 2 Existing Conditions - Existing Site Information
- 3 Existing Conditions - Sustainable Transport Network
- 4 Existing Conditions - Road Network
- 5 Proposed Conditions - Proposed Scheme Information
- 6 Proposed Conditions - Parking
- 7 Proposed Conditions - Planning Policy Integration, Mitigation Measures and Impacts
- 8 Summary

Figures

- 1 Parking Survey Area
- 2 Parking Survey Area - Details
- 3 Parking Survey Area - Details
- 4 Parking Survey Area - Details
- 5 Parking Survey Area - Details
- 6 Parking Survey Area - Details
- 7 Parking Survey Area - Details
- 8 Parking Survey Area - Details
- 9 Parking Survey Area - Details
- 10 Parking Survey Area - Details
- 11 Parking Survey Area - Details
- 12 Parking Survey Area - Details
- 13 Parking Survey Area - Details
- 14 Parking Survey Area - Details
- 15 Parking Survey Area - Details
- 16 Parking Survey Area - Details
- 17 Parking Survey Area - Details
- 18 Parking Survey Area - Details
- 19 Swept Path Analysis
- 20 Swept Path Analysis
- 21 Swept Path Analysis

Appendices

- A Bus Spider Map
- B Public Transport Accessibility Level Calculation Worksheet
- C Controlled Parking Zone Map
- D Parking Survey Results
- E Car Club Map
- F Carplus Report Executive Summary

1 Introduction

Introduction

1.1 Kronen Limited has been instructed by Richmond Housing Partnership to prepare this Transport Statement to support a proposed redevelopment scheme at Informer House, 2 High Street, Teddington, TW11 8EW.

Existing Site

1.2 The existing building at the site provides approximately 400sqm of B1 office use floor space.

Proposed Development

1.3 The proposed development is for a mixed-use residential-led development. The proposal comprises: twenty three one-bedroom and two-bedroom flats and a commercial unit / office unit with 300sqm floor space. All residential accommodation is proposed as social / affordable housing.

Transport Statement Structure and Contents

1.4 Sections 2 to 4 of this Transport Statement report detail the existing site, the site's accessibility using sustainable transport modes and the adjoining highway network.

1.5 Sections 5 to 7 of this report detail the proposals and their transport impact and integration with planning policy and guidance.

1.6 Whilst preparing this statement attention has been paid to current web-based best practice guidance resources: Department for Communities & Local Government's *National Planning Practice Guidance: Travel plans, transport assessments and statements in decision-taking* [Online] <<http://planningguidance.planningportal.gov.uk/blog/guidance/travel-plans-transport-assessments-and-statements-in-decision-taking/>> [Accessed February 2016] and Transport for London's *Transport Assessment Guidance* [Online] <<https://tfl.gov.uk/info-for/urban-planning-and-construction/transport-assessment-guidance>> [Accessed February 2016].

1.7 The proposals has been discussed with London Borough of Richmond Upon Thames (LB Richmond) officers prior to submission; LB Richmond were consulted by way of formal pre-application advice and subsequently by informal discussion by email exchange.

2 Existing Conditions - Existing Site Information

Location

2.1 The application site is Informer House, 2 High Street, Teddington, TW11 8EW.

2.2 The site is in Teddington town centre, an established "District Centre", with access to "... shops and services serving local catchments but providing for main weekly convenience shopping" on foot (p.132, Appendix Two, *Adopted Development Management Plan*, LB Richmond, 2011).

2.3 Wimshurst Pelleriti are the project architects. Refer to Wimshurst Pelleriti's accompanying plans for the application site's location, site boundary and building layout.

Existing Site Information

2.4 As discussed the existing building at the site has a B1 office use and has an approximate floorspace of 400sqm.

2.5 The office building is currently used by Dataflow IT Limited.

Existing Access Arrangements and Parking

2.6 The existing building has direct pedestrian access from the High Street and vehicular access from Station Road via Enterprise Way. There is a stepped access from the vehicle access / parking area. Enterprise Way appears to be a shared surface unadopted estate road for The Teddington Business Park.

2.7 The site has ten parking spaces at lower ground floor level in the building's undercroft area.

2.8 The building's refuse store is in the undercroft area and is collected from Enterprise Way. The office building's waste is collected three times a week.

Recent Planning History

2.9 An application was recently submitted for the site as follows:

LB Richmond planning reference - 14/2683/P3JPA

Application - "*Change of use of office building (B1) to 8 residential flats (4 x 1 bed and 4 x 2 bed).*"

Decision - Prior approval required and given

Decision date - 21 August 2014

2.10 The approved application was for 8 flats with 8 vehicles parking spaces.

2.11 Kronen Limited supported the application with a Transport Statement.

3 Existing Conditions - Sustainable Transport Network

Introduction

3.1 This Section of the Transport Statement reports on how accessible the site is using sustainable transport modes (public transport, cycling and walking modes).

Public Transport Accessibility - Buses

3.2 The site has access to six bus services as follows: 33, 281, 285, 481, R68 and X26. These services are summarised in Table 3.1 below.

Table 3.1 Bus Services

Bus Route	Destinations Summary	Approximate Frequency (per hour)
33	Fulwell Abellio London garage - Teddington - Twickenham - Richmond - East Sheen - Barnes Common - Hammersmith	8
281	Tolworth - Surbiton - Kingston - Teddington - Fulwell - Twickenham - Whitton - Hounslow	8
285	Heathrow Airport Central - Hatton Cross - Feltham - Uxbridge Road - Hampton Hill - Teddington - Kingston	6
481	Isleworth West Middlesex Hospital - Mogden Lane - Kneller Road - Nelson Road - Whitton - Hospital Bridge Road - Fulwell - Teddington - Sandy Lane - Hampton Wick - Kingston	1
R68	Hampton Court - Hampton - Hampton Hill - Teddington - Strawberry Vale - Twickenham - Richmond - Kew Retail Park	4
X26	West Croydon - East Croydon - Wallington Green - Carshalton - Sutton - Cheam - North Cheam - Worcester Park - New Malden - Kingston - Teddington - Hatton Cross - Heathrow Airport Central	2

Source: Transport for London & London Bus Routes

3.3 The 281, 285 and R68 bus services are accessible from "Teddington Elmfield Avenue" stops outside the site on High Street. The 481 and X26 services are accessible from "Teddington Police Station" bus stops on Park Road. The 33 bus service is accessible from "Teddington Library" bus stops on Waldegrave Road. These stops (stops C and D, G and H, and A and B respectively) are shown in *Buses from Teddington* (TfL, 2010) spider map, provided in Appendix A. All stops provide seating and shelter except for "Teddington Library" bus stop B which would be used for Northbound 33 services to Twickenham.

Public Transport Accessibility – Rail

3.4 The site has access to rail services from Teddington Railway Station which is accessible from Station Road, as indicated on the map in Appendix A. The station is approximately a 300m walk distance from the site's entrance; the walk route is direct, level, along good footways and does not require crossing any busy roads

3.5 Available rail services are summarised in Table 3.2 below.

Table 3.2 Rail Services

Service	Destinations Summary	Approximate Frequency (per hour)
South West Trains Kingston Loop Line	London Waterloo - Vauxhall - Clapham Junction - Earlsfield - Wimbledon - Raynes Park - New Malden - Norbiton - Kingston - Hampton Wick - Teddington - Strawberry Hill - Twickenham - St Margarets - Richmond - North Sheen - Mortlake - Barnes - Putney - Wandsworth Town - Clapham Junction - Queenstown Road - Vauxhall - London Waterloo	2
South West Trains Shepperton Line	London Waterloo - Vauxhall - Clapham Junction - Earlsfield - Wimbledon - Raynes Park - New Malden - Norbiton - Kingston - Hampton Wick - Teddington - Fulwell - Hampton - Kempton Park - Sunbury - Upper Halliford - Shepperton	2

Source: National Rail

Public Transport Accessibility – Public Transport Accessibility Level

3.6 Public transport accessibility in London is often quantified and measured using TfL's Public Transport Accessibility Level (PTAL) model.

3.7 *Assessing transport connectivity in London* explains PTAL scores as follows (p.6, TfL, 2015):

"PTAL is a measure of connectivity by public transport, which has been used in various planning processes in London for many years. For any selected place, PTAL suggests how well the place is connected to public transport services."

"PTAL values are simple. They range from zero to six, where the highest value represents the best connectivity. For historical reasons, the PTAL value of one is split into two categories (1a and 1b) and the PTAL value of six is split into two categories (6a and 6b). All together there are nine possible values of PTAL: 0, 1a, 1b, 2, 3, 4, 5, 6a and 6b."

"A location will have a higher PTAL if:

- *It is at a short walking distance to the nearest stations or stops*
- *Waiting times at the nearest stations or stops are short*

- *More services pass at the nearest stations or stops*
- *There are major rail stations nearby*
- *Any combination of all the above."*

3.8 As well as quantifying accessibility, PTAL scores have important role in planning decision-making. The *London Plan* states (Greater London Authority, 2016):

"Public Transport Accessibility Levels (PTALs) are used by TfL to produce a consistent London wide public transport access mapping facility to help boroughs with locational planning and assessment of appropriate parking provision by measuring broad public transport accessibility levels."

3.9 TfL provides an online GIS-based PTAL tool. The GIS-based PTAL tool uses spatial data such as point data files (e.g. bus stops) and vector files (e.g. walking network) to give a specific point of interest's Public Transport Accessibility Index (PTAI) and PTAL score.

3.10 TfL's online GIS-based PTAL tool was used to research the site's PTAI and PTAL score.

3.11 The PTAL tool calculated the site to have a PTAI score of 13.0 and a PTAL score of 3. These PTAI and PTAL scores indicate a "moderate" level of public transport service availability. Details of the PTAL calculation are provided in Appendix B of this report.

3.12 Table 3.3 shows the PTAL scoring system from *Assessing transport connectivity in London* (TfL, 2015).

Table 3.3 Public Transport Accessibility Levels

PTAL	Range of Public Transport Accessibility Index	Description
1a (Low)	0.01 - 2.50	Very Poor
1b	2.51 - 5.00	Very Poor
2	5.01 - 10.00	Poor
3	10.01 - 15.00	Moderate
4	15.01 - 20.00	Good
5	20.01 - 25.00	Very Good
6a	25.01 - 40.00	Excellent
6b (High)	40.01 +	Excellent

Source: Transport for London

Cycle and Pedestrian Accessibility

3.13 *Local Cycle Guide 9* (TfL, 2013) has been obtained to research local cycle routes; both Station Road and High Street are shown as *"quieter roads that have been recommended by other cyclists"*. Directly outside the site the footway on High Street is marked and signed as a shared footway / cycleway.

3.14 Additionally there are a number of other recognised cycle routes nearby including the Hampton Court to Putney section of National Cycle Network Route 4.

3.15 All streets surrounding the site have footways either side of the carriageways.

3.16 Footways / routes between the site and bus stops / the rail station are direct.

3.17 There is a Zebra Crossing directly outside the site on High Street. Additionally there is a Zebra Crossing to the West of the site on Park Road, a Zebra Crossing on Waldegrave Road and a Pelican Crossing to the East of the site on High Street.

3.18 It is anticipated that most pedestrians travelling to the site would access buildings at the main access directly at High Street rather than indirectly by walking along Enterprise Way then using the rear stepped access to get to the High Street building entrance.

Sustainable Transport Network - Census Data

3.19 Local Output Area 2011 Census Method of Travel to Work data has been obtained to assess sustainable travel usage in the local area. Local Output Area and LB Richmond borough data is shown in Table 3.4 below.

Table 3.4 2011 Census Method of Travel to Work Data

Method of Travel to Work	Census Output Area	LB Richmond
Work Mainly at or From Home	5%	6%
Underground, Metro, Light Rail, Tram	2%	8%
Train	24%	16%
Bus, Minibus or Coach	10%	5%
Taxi	0%	0%
Motorcycle, Scooter or Moped	2%	1%
Driving a Car or Van	22%	23%
Passenger in a Car or Van	1%	1%
Bicycle	3%	4%
On Foot	10%	6%
Other Method of Travel to Work	0%	1%
Not in Employment	20%	28%

Source: Office for National Statistics

3.20 The data shows that bus, train and cycle travel is higher in the local area than Richmond borough as a whole.

4 Existing Conditions - Road Network

Introduction

4.1 This Section of the Transport Statement reports on the road network adjoining the site.

4.2 As discussed, the site is accessed by vehicles from The A313 High Street via Station Road and Enterprise Way.

4.3 The A313 High Street is a primary / distributor road and Station Road is an unclassified local access road.

Road Network - Department for Transport AADF Data

4.4 The Department for Transport carries out traffic counts on the major road network. The DfT has a traffic count census point on The A313 High Street outside the site.

4.5 The DfT's calculated Annual Average Daily Flow for The A313 High Street census point is shown in Table 4.1.

Table 4.1 DfT 2015 AADF Data for High Street Census Point 56916

Pedal Cycles	Motorcycles	Cars / Taxis	Buses / Coaches	Light Goods Vehicles	Heavy Goods Vehicles	All Motor Vehicles
523	151	9191	511	1164	219	11235

Source: Department for Transport / Office for National Statistics

4.6 As would be expected for a distributor road The A313 High Street is a reasonably well trafficked road carrying approximately 11,200 motor vehicles per day.

Road Network – Parking

4.7 The site is located in LB Richmond's Controlled Parking Zone Teddington 'T'. Restrictions within this CPZ operate Monday to Friday between 8.30am to 10.30am; a map of the CPZ (*Teddington Controlled Parking Zone Cartoon Design Parking Places*, LB Richmond, 2010) is provided in Appendix C of this report.

4.8 As shown on the CPZ map there are also sections of short stay parking outside the site on Station Road and High Street and on Broad Street.

4.9 In a pre-application response LB Richmond officers requested that a full planning application should be accompanied by parking beat surveys.

4.10 Accordingly parking beat surveys have been carried out on streets surrounding the site to assess existing background parking conditions at the site at a high level of detail.

4.11 Existing on-street parking "stress" has been assessed by undertaking two overnight weekday manual parking surveys and one Sunday morning manual parking survey.

4.12 The parking surveys have been undertaken with reference to procedures outlined in *Lambeth Council Parking Survey Guidance Note* (Lambeth Council, 2012), the most established and recognised parking survey methodology in London, and *Richmond parking survey methodology* set out in Appendix A of an unpublished emerging draft of *Developers Transport Supplementary Planning Document* (LB Richmond, unpublished).

4.13 The extent of the survey area covered within this parking assessment is shown in Figure 1. Detailed mapping of the survey area is shown in Figures 2 to 18. All kerb space within the survey area was measured using a measuring wheel.

4.14 As shown in the Figures 2 to 18 the parking survey area includes the following streets:

- Waldegrave Road
- Elmfield Avenue
- Broad Street
- High Street
- Park Lane
- Park Road
- Station Road
- Bridgeman Road
- Christchurch Avenue

4.15 The survey area was agreed with LB Richmond officers in advance by email exchange.

4.16 All marked parkable kerb space in the survey area was split into increments of 5.5m.

4.17 For the purposes of calculating parking stress as defined by the guidance document, it is assumed that each vehicle takes up an average kerb space of 5.5m.

4.18 The number of parking spaces in the survey area were identified as part of the parking inventory measurements.

4.19 The parking inventory measurements are shown in Table 4.2 below.

Table 4.2 Parking Survey Inventory

Street	Parking Restriction									
	T Permit Holder		Free Time Limited		Pay & Display		Unrestricted		All	
	Length	Spaces	Length	Spaces	Length	Spaces	Length	Spaces	Length	Spaces
Waldegrave Road	181.5	33	0	0	0	0	0	0	181.5	33
Elmfield Avenue	0	0	0	0	0	0	126.5	23	126.5	23
Broad Street	0	0	0	0	33	6	0	0	33	6
High Street	0	0	0	0	38.5	7	0	0	38.5	7
Park Lane	0	0	0	0	0	0	77	14	77	14
Park Road	38.5	7	0	0	16.5	3	0	0	55	10
Station Road	104.5	19	38.5	7	16.5	3	0	0	159.5	29
Bridgeman Road	225.5	41	0	0	0	0	0	0	225.5	41
Christchurch Avenue	126.5	23	0	0	0	0	0	0	126.5	23
Total	676.5	123	38.5	7	104.5	19	203.5	37	1023	186

Source: Kronen Limited Surveys

4.20 Time limited bays on Station Road restrict parking for more than one hour Mondays to Saturdays 8.30am to 6.30pm; Pay & Display / Pay at Machine bays are in operation for the same time.

4.21 Overnight weekday parking 'beats' in the survey area were undertaken on Wednesday 15 June 2016 and Thursday 16 June 2016 at 1.45am.

4.22 The time of the beats is in accordance with *Lambeth Council Parking Survey Guidance Note* (Lambeth Council, 2012) and *Richmond parking survey methodology (Developers Transport Supplementary Planning Document, LB Richmond, unpublished)*. The parking beats surveys were undertaken during neutral conditions and were agreed with LB Richmond officers prior to commencement.

4.23 LB Richmond officers also requested a Sunday morning parking survey and this was undertaken on Sunday 19 June 2016 at 9.45am.

4.24 Full survey results are shown in Appendix D.

4.25 The average weekday parking survey result and inventory measurements in Table 4.2 have been used to calculate the overnight parking stress; this parking stress is shown in Table 4.3 below.

Table 4.3 Weekday Average Survey Results

Street	Parking Restriction														
	T Permit			Free			Pay			Unrestricted			Total		
	Space	Cars	%age	Space	Cars	%age	Space	Cars	%age	Space	Cars	%age	Space	Cars	%age
Waldegrave Rd	33	16.5	50%	0	0		0	0		0	0		33	16.5	50%
Elmfield Ave	0	0		0	0		0	0		23	18.5	80%	23	18.5	80%
Broad St	0	0		0	0		6	3.5	58%	0	0		6	3.5	58%
High St	0	0		0	0		7	2	29%	0	0		7	2	29%
Park Ln	0	0		0	0		0	0		14	14	100%	14	14	100%
Park Rd	7	2	29%	0	0		3	0.5	17%	0	0		10	2.5	25%
Station Rd	19	10.5	55%	7	1	14%	3	0.5	17%	0	0		29	12	41%
Bridgeman Rd	41	36.5	89%	0	0		0	0		0	0		41	36.5	89%
C'church Ave	23	14	61%	0	0		0	0		0	0		23	14	61%
Total	123	79.5	65%	7	1	14%	19	6.5	34%	37	32.5	88%	186	120	64%

Source: Kronen Limited Surveys

4.26 The results show a moderate level of parking stress in the mid-sixty percentages.

4.27 The Sunday morning parking survey result and inventory measurements in Table 4.2 have been used to calculate Sunday morning parking stress; this parking stress is shown in Table 4.4 below.

Table 4.4 Weekend Survey Results

Street	Parking Restriction														
	T Permit			Free			Pay			Unres'ed			Total		
	Space	Cars	% age	Space	Cars	% age	Space	Cars	% age	Space	Cars	% age	Space	Cars	% age
Waldegrave Rd	33	16	48%	0			0			0			33	16.0	48%
Elmfield Ave	0			0			0			23	17	74%	23	17	74%
Broad St	0			0			6	6	100%	0			6	6	100%
High St	0			0			7	5	71%	0			7	5	71%
Park Ln	0			0			0			14	12	86%	14	12	86%
Park Rd	7	3	43%	0			3	0	0%	0			10	3	30%
Station Rd	19	13	68%	7	4	57%	3	1	33%	0			29	18	62%
Bridgeman Rd	41	35	85%	0			0			0			41	35	85%
C'church Ave	23	18	78%	0			0			0			23	18	78%
Total	123	85	69%	7	4	57%	19	12	63%	37	29	78%	186	130	70%

Source: Kronen Limited Surveys

4.28 The Sunday morning survey work shows a slightly higher but still moderate level of parking stress.

4.29 LB Richmond have recently carried out and published *Teddington parking review 2014/15* and are currently consulting on proposed changes to some CPZ hours of parking restrictions [Online] <http://www.richmond.gov.uk/home/services/roads_and_transport/transport_planning/teddington_parking_review.htm> [Accessed June 2016]. If supported by a sufficient number of locals, parking restriction hours on Waldegrave Road may increase by two hours.

Road Network - Car Clubs

4.30 There are three Zipcar car club cars within a short walk distance to the site and eight Zipcar cars within one mile distance of the site. A Zipcar map extract is provided in Appendix E.

4.31 Zipcar have been contacted and have confirmed that the cars are not fully used, have spare capacity and they do not intend to increase the amount of cars near the site at the present time.

Road Network - Other

4.32 The site is in the TfL's Low Emission Zone and is in the Richmond borough-wide Air Quality Management Area.

5 Proposed Development - Proposed Scheme Information

5.1 As discussed, the proposed development is for a mixed-use residential-led development.

5.2 The proposal comprises: twelve × one-bedroom flats and eleven × two-bedroom flats (twenty three flats in total) and a commercial unit / office unit with 300sqm floor space. All residential accommodation is proposed as social / affordable housing.

5.3 Existing pedestrian and vehicle access arrangements and servicing arrangements will be retained.

5.4 The proposal includes ten vehicle parking spaces at lower ground floor level inclusive of one disabled bay and two private dedicated pool cars for the development operated by Co-Wheels for RHP.

5.5 All proposed parking will be allocated to future residents.

5.6 The applicant will agree to a Section 106 Agreement to remove all of the new development's future occupants' eligibility for CPZ parking permits thereby making the proposal "car capped" by including an element of "car free" housing. The applicant will also agree to a Section 106 Agreement offering residents three year membership to the local Zipcar car club scheme set out in Section 4 of this report.

5.7 The proposals also includes two separate internal and secure cycle parking spaces at ground floor level. One store provides forty cycle spaces for residents and the other cycle store provides six spaces for the commercial / office unit. In addition there are two short stay cycle spaces at ground floor.

5.8 Refer to Wimshurst Pelleriti's accompanying plans for the proposal's site layout, access, refuse stores, cycle and vehicle parking.

6 Proposed Development - Parking

6.1 As discussed the proposed development is for a mixed-use residential-led development comprising: twelve × one-bedroom flats and eleven × two-bedroom flats (twenty three flats in total) and a commercial / office unit with 300sqm floor space.

6.2 Existing vehicle access arrangements from Station Road via Enterprise Way will be retained.

6.3 The proposal includes ten vehicle parking spaces at lower ground floor level inclusive of one disabled bay and two private dedicated pool cars for the development operated by Co-Wheels for RHP.

6.4 All proposed parking will be allocated to future residents.

6.5 The proposals will be a "car capped" development where eight of the flats will have a car parking space and the remainder will have no car parking spaces and will be "car free".

6.6 The applicant will agree to a Section 106 Agreement to remove all of the new development's future occupants' eligibility for CPZ parking permits.

6.7 A "car free" dwelling includes no off-street vehicle parking and where the occupiers of the new development are ineligible for on-street CPZ parking permits. The development's on-street overspill vehicle parking impact is mitigated as the developments' occupants cannot park during hours of the CPZ controls and are therefore unlikely to own a car given the impracticality of having to arrange daily life around CPZ hours of operation.

6.8 Car free parking strategies are now well established and pre-date the first London Plan; *The London Plan Spatial Development Strategy for Greater London* (GLA, 2004).

6.9 *Guidance Note: Residential Parking* explains the control of permits and the well established link of sustainable locations and reduced car ownership (p.7, Chartered Institution of Highways & Transportation & Institute of Highway Engineers, 2012):

"It is clear from the Transport White Paper that "residential parking policies" can include minimum and maximum amounts, according to location. While attempts to limit car ownership through limitations on parking provision have often failed where there are no controls in respect of on-street parking, there is clear evidence that limited provision [car free or car capped housing development] within controlled areas (with less need to travel and greater sustainable travel options) is usually matched by lower ownership."

6.10 To assess whether the car capped development, including an element of car free dwellings, is appropriate Development Plan policies have been assessed.

6.11 Development Plan vehicle and cycle parking policy guidance is set out in: Policies DM TP 7 Cycling and DM TP 8 Off-Street Parking - Retention and New Provision of *Adopted Development Management Plan* (LB Richmond, 2011) and *London Plan* (GLA, 2016) revised Policy 6.13 Parking (and Parking Addendum).

Vehicle Parking - Proposed Flats

6.12 As discussed the application is for a car capped development including some car free dwellings.

6.13 Policy DM TP 8 Off-Street Parking - Retention and New Provision of *Adopted Development Management Plan* states (p.107, LB Richmond, 2011):

"Developments, redevelopments, conversions and extensions will have to demonstrate that the new scheme provides an appropriate level of off street parking to avoid an unacceptable impact on on-street parking conditions and local traffic conditions.

"A set of maximum car parking standards and minimum cycle parking standards are set out in Appendix Four - Parking Standards 'Appendix Four - Parking Standards' for all types of development, these take into account bus, rail and tube accessibility as well as local highway and traffic conditions including demand for on-street parking. These standards will be expected to be met, unless it can be shown that in proposing levels of parking applicants can demonstrate that there would be no adverse impact on the area in terms of street scene or on-street parking."

6.14 Supporting text of Policy DM TP 8 states (p.107, LB Richmond, 2011):

"5.4.29 Developers may only provide fewer parking spaces, including car free schemes, if they can show that there would be no adverse impact on amenity, street scene, road safety or emergency access in the surrounding area or a generation of unacceptable overspill of on-street parking in the vicinity. In general it is expected that in low PTAL areas (1-4) the standards should be met, but in higher PTAL areas (5-6), such as Richmond and Twickenham town centres, parking provision at a level lower than the standard or a car free development, perhaps with a car club, may be appropriate in exceptional circumstances."

6.15 Appendix Four of *Adopted Development Management Plan* (LB Richmond, 2011) gives a maximum parking standards of up to one space per dwelling for one-bedroom and two-bedroom flats.

6.16 With regards to planning decisions, Policy 6.13 of The *London Plan* states (GLA, 2016):

"The maximum standards set out in Table 6.2 in the Parking Addendum to this chapter should be the basis for considering planning applications (also see Policy 2.8), informed by policy and guidance below on their application for housing in parts of Outer London with low public transport accessibility (generally PTALs 0-1)."

6.17 The residential section of Table 6.2 states that one-bedroom and two-bedroom dwellings should have less than one parking space per unit and:

"All developments in areas of good public transport accessibility should aim for significantly less than 1 space per unit"

6.18 Regarding LDF preparation Policy 6.13 instructs local authorities to promote car free developments where there is higher public transport access.

6.19 Both the LB Richmond and GLA policies state that the proposals could provide up to a twenty three parking spaces.

6.20 Based on the maximum standards the proposal has a potential shortfall of up to thirteen spaces.

6.21 Two private dedicated pool cars for the development, operated by Co-Wheels for RHP, are included in the proposal; it is considered that this provision mitigates the shortfall.

6.22 The Car Club Coalition is a body that represents car club operators, London Councils, The Greater London Authority, TfL and key stakeholders. Its strategy *A Car Club Strategy for London Growing car clubs to support London's transport future* defines car clubs as follows (p.8, Car Club Coalition, 2015):

"Car clubs provide vehicles to members on a pay-as-you-drive basis, providing much of the convenience of owning a car but without the hassle or costs of repairs, depreciation, insurance, servicing or parking. Car clubs tend to be organised on an area basis with cars located in clusters so that if one car is not available, a member will only have a short walk to access another car. Most car clubs enable members to reserve cars online or by smartphone app, unlock the vehicle with their membership card or smartphone app and drive off."

6.23 Along with travel planning, car clubs are an important travel demand management tool.

6.24 Car club cars and memberships reduce car use, dependence and ownership and reduce car parking demands. *A Car Club Strategy for London Growing car clubs to support London's transport future* states (p.5, Car Club Coalition, 2015):

"The promotion of car clubs was identified in the Roads Task Force report in 2013 as one of a number of demand management measures which can reduce overall car dependence by making access to cars more flexible, thereby reducing pressure on road space and encouraging sustainable transport. Car clubs were recognised as a key tool in providing for Londoners' urban mobility needs by offering a realistic and economical alternative to private car ownership."

6.25 Carplus is the accreditation body for car clubs in the United Kingdom.

6.26 Carplus undertakes an annual research project into car club use and user trends. Carplus has recently published the latest report reports *Carplus annual survey of car clubs 2015/16 London* (Carplus, 2016); the Executive Summary is provided in Appendix F for reference. With regards to car ownership and hence car parking demand the report states (p.7, Carplus, 2016): *"For each round-trip car club vehicle, car club members sell or dispose of more than 10 private cars ..."*

6.27 This up-to-date and evidence-based figure of one car club car replacing ten private cars is higher than the one car club to six private car figure given in LB Richmond's car club guidance document (p.8, *Car Club Strategy*, LB Richmond, 2006):

"Reducing parking provision in new developments and encouraging existing residents to use the car less when travelling will be key to helping the Council achieve their targets. Car Clubs have a central part to play in this. Research has shown that a car club car can replace 5-6 privately owned vehicles."

6.28 The figures in *Carplus annual survey of car clubs 2015/16 London* (Carplus, 2016) are considered more up-to-date than *Car Club Strategy* (LB Richmond, 2006) as car clubs have become more popular and commonplace in the past decade.

6.29 The applicant will also agree to a Section 106 Agreement offering residents three year membership to the local Zipcar car club schemes set out in Section 4 of this report.

6.30 The proposals provide parking within the maximum permissible standards. Based on the site context and mitigation measures, including travel planning discussed in the next Section of this report, it is considered that the capped development is acceptable.

6.31 Census data has been obtained to assess car or van ownership by accommodation type in the Teddington Ward. As shown in Table 6.1 over a third of the flats in Teddington have no car or van. It is considered the

demand for a car would be lower than this at the proposal site given the site is next to Teddington Railway Station, is in the centre of Teddington's town centre amenities, will have proposed parking permit restrictions, pool cars, will have car club membership and RHP will implement travel planning (discussed in the next Section).

Table 6.1 Census Data - Teddington Accommodation Type and Car or Van Availability

Accommodation	Category	Number	Percent
All categories: Accommodation type	All categories	4,616	100%
	No cars or vans in household	1,029	22%
	1 car or van in household	2,399	52%
	2 or more cars or vans in household	1,188	26%
Whole house or bungalow	All categories	2,528	100%
	No cars or vans in household	256	10%
	1 car or van in household	1,331	53%
	2 or more cars or vans in household	941	37%
Flat, maisonette, apartment, caravan or other mobile or temporary structure	All categories	2,088	100%
	No cars or vans in household	773	37%
	1 car or van in household	1,068	51%
	2 or more cars or vans in household	247	12%

Source: Office for National Statistics

6.32 Census data has also been obtained to assess car or van ownership by tenure type in the Teddington Ward. As shown in Table 6.2 ownership is noticeably lower in social / affordable housing with two thirds of dwellings owning no cars or vans.

Table 6.2 Census Data - Teddington Tenure by Car or Van Availability

Accommodation	Category	Number	Percent
All categories: Tenure	All categories	4,616	100%
	No cars or vans in household	1,029	22%
	1 car or van in household	2,399	52%
	2 or more cars or vans in household	1,188	26%
Owned or shared ownership	All categories	3,101	100%
	No cars or vans in household	427	14%
	1 car or van in household	1,692	55%
	2 or more cars or vans in household	982	32%
Social rented	All categories	392	100%
	No cars or vans in household	258	66%
	1 car or van in household	113	29%
	2 or more cars or vans in household	21	5%
Private rented or living rent free	All categories	1,123	100%
	No cars or vans in household	344	31%
	1 car or van in household	594	53%
	2 or more cars or vans in household	185	16%

Source: Office for National Statistics

6.33 A search for car free / car capped applications, outside of the Richmond / Twickenham PTAL 5-6 sites as specified in Policy DM TP 8, considered at planning committee, has revealed that since 2013 the following applications have been approved:

11/3417/FUL at Whistle Stop, Hampton Court Road, East Molesey, Kingston Upon Thames, KT8 9BY
12/1404/FUL at 172 High Street, Teddington, TW11 8HU
13/0906/FUL at 210 Kingston Road, Teddington, TW11 9JF
13/3489/FUL at 2 Bridgeway House, High Street, Whitton, Twickenham, TW2 7LE
13/4182/FUL at 48 Glenthams Road, Barnes, London, SW13 9JJ
15/2361/GPD15 at 1 Bridgeman Road, Teddington, TW11 9AJ
14/4047/FUL at 113 Archway Street, Barnes, SW13 0AN
15/0160/FUL at 1 Latimer Road, Teddington, TW11 8QA
15/0547/FUL at 97A - 97B High Street, Hampton Wick, KT1 4DG

6.34 It is likely that additional car free / car capped applications have been determined under delegated powers.

6.35 The search shows that there is precedent for car free / car capped developments in centres such as Teddington as well as Richmond and Twickenham.

6.36 Based on the Census data and the planning precedent material considerations it is considered that a car capped application at the proposed site should be acceptable.

Vehicle Parking - Proposed Commercial / Office Unit

6.37 The proposed 300sqm floor space commercial unit has no off-street parking provision.

6.38 The commercial unit use and end user / occupant is not known at the time of writing.

6.39 Teddington has public town centre parking at the North Lane and Cedar Road car parks. As set out in Section 2 there are also numerous short stay / Pay & Display parking bays on Station Road, High Street and Broad Street. It is anticipated that visitors to the proposed commercial unit who choose to drive would make use of these parking spaces. It is considered that this would be in keeping with the Development Plan; The *London Plan* which states (GLA, 2016):

"The starting point for meeting parking demand for new retail development should be use of existing public off-street provision. Parking needs should be assessed taking account of the reduction in demand associated with linked trips".

6.40 The *London Plan* (GLA, 2016) also gives a one space per 600sqm floor space office parking standard and a one space per 500sqm floor space commercial parking standard.

Cycle Parking

6.41 The LB Richmond minimum cycle parking standards for one-bedroom and two-bedroom flats is one space per dwelling. The GLA minimum standard is: one-bedroom flats one space per dwelling and two-bedroom flats two spaces per dwelling (with short stay visitor parking for residential blocks with over forty units only). The proposals provide residential cycle parking in excess of the LB Richmond standard and GLA standard and is therefore considered acceptable.

6.42 The LB Richmond minimum cycle parking standards for an office / commercial use is one space per 200sqm floor space. The GLA minimum standard for Outer London is one long stay space per 150sqm floor

space and one short stay space per 500sqm floor space. The proposals provide commercial cycle parking in excess of the LB Richmond standard and GLA standard and is therefore considered acceptable.

7 Proposed Development - Planning Policy Integration, Mitigation Measures and Impacts

Sustainable Location

7.1 The site is in Teddington town centre, which is described as a "District Centre" in Appendix Two of *Adopted Development Management Plan* (LB Richmond, 2011).

7.2 Future occupants of the proposed development would have access to the town centre's facilities and services within a short walk distance.

7.3 In addition future occupants would have access to bus services and rail services as discussed in Section 3.

7.4 Accordingly the application site is considered to be in an accessible and sustainable location and supports / is supported by The *National Planning Policy Framework* (DCLG, 2012) core planning principles and promoting sustainable transport policies.

Travel Planning

7.5 To encourage sustainable travel and to limit / mitigate the impact of the proposal it is suggested that RHP implement a Residential Travel Plan Statement.

7.6 In accordance with the guidance set out in *TfL Travel Planning Guidance November 2013* (TfL, 2013) it is considered a Travel Plan Statement would be appropriate (rather than a Full Travel Plan required for developments of over eighty flats).

7.7 A Travel Plan Statement is (TfL, 2013):

"Travel Plan Statement

Smaller developments that fall below the strategic-level Full Travel Plan threshold but which typically employ 20 or more staff, or comprise over 50 residential units, should submit a Travel Plan Statement. It may not be appropriate to set specific targets within these plans. However, a set of positive measures promoting sustainable transport should be included, together with an action plan for their implementation. The level of information required should be agreed with the local authority planning officer at the earliest opportunity."

7.8 It is suggested that the Travel Plan Statement is secured by a pre-occupation planning condition.

7.9 The Travel Plan Statement should include the following contents:

- Introduction
- Context
- Site Assessment
- Travel Surveys
- Objectives
- Measures
- Management
- Monitoring
- Schedule

- Action Plan

7.10 As a Travel Plan Statement target setting is not considered necessary in accordance with *TfL Travel Planning Guidance November 2013* (TfL, 2013).

7.11 The first items on the Travel Plan Statement Action Plan will be: to appoint a co-ordinator, to prepare travel information for distribution and prepare for baseline simple 'main mode' iTrace travel surveys.

7.12 It is suggested that the Residential Travel Plan Statement measures include:

- Promotion of health and environmental benefits of sustainable / active travel
- Marketing of public transport and cycle travel options set out in Section 3 of this report and useful journey planners (for example TfL Plan a Journey [Online] <<https://tfl.gov.uk/plan-a-journey/>>) by leaflet and information boards
- Promotion of the private dedicated pool cars and Zipcar cars.
- Marketing of national sustainable travel / public health initiatives, for example "Bike Week" as part of a Travel Plan diary

7.13 In accordance with *TfL Travel Planning Guidance November 2013* (TfL, 2013) it is suggested that baseline simple 'main mode' iTrace travel surveys are undertaken within six months of occupation and then repeated after 3 years and 5 years to monitor travel changes and maintain Travel Plan momentum / awareness.

Parking - Proposed Flats

7.14 The twenty three flats will have ten vehicle parking spaces, inclusive of a disabled bay and two pool car spaces / cars and forty cycle parking spaces. All proposed parking will be allocated to future residents.

7.15 The latest research carried out in to car clubs in London reports that one car club car is equivalent to ten privately owned cars (p.7, *Carplus annual survey of car clubs 2015/16 London*, Carplus, 2016): "For each round-trip car club vehicle, car club members sell or dispose of more than 10 private cars ...".

7.16 The proposals will be a car capped development where eight of the flats will have a car parking space and the remainder will have no car parking spaces and will be car free. The applicant will agree to a Section 106 Agreement to remove all of the new development's future occupants' eligibility for CPZ parking permits thereby mitigating overspill on-street parking impacts.

7.17 Policies DM TP 8 Off-Street Parking - Retention and New Provision of *Adopted Development Management Plan* (LB Richmond, 2011) and 6.13 Parking of *London Plan* (GLA, 2016) state the proposal should provide no more than twenty three parking spaces.

7.18 Given the site location and the mitigation measures proposed including travel planning, it is considered that the proposal supports / is supported by these Development Plan policies.

7.19 To support this Census data has been researched and shows that, on average, regardless of location or mitigation measures, over a third of all flats in Teddington have no cars and that two thirds of affordable / social housing households have no cars (regardless of location, accessibility, travel demand / mitigation measures).

7.20 A search of applications heard at planning committee has also revealed there is planning precedent for car free and capped developments in centres such as Teddington, this precedent is considered a supportive material consideration.

Parking - Proposed Commercial Unit

7.21 The proposed commercial unit's parking demand will be met in either North Lane and Cedar Road car parks or on parking bays on Station Road, High Street and Broad Street.

7.22 This is supported by Policy 6.13 Parking of *London Plan* (GLA, 2016).

Cycle Parking

7.23 The proposals provide secure internal cycle parking in excess of the minimum standards set out in Policies DM TP 7 of *Adopted Development Management Plan* (LB Richmond, 2011) and 6.13 of *London Plan* (GLA, 2016) and are therefore considered acceptable.

Layout

7.24 Existing vehicle access and servicing arrangements will be retained.

7.25 Wimshurst Pelleriti's proposed lower ground floor plan has been assessed using AutoCAD Vehicle Tracking.

7.26 The assessment has shown that the proposed vehicle parking spaces are accessible by large cars. Vehicle Tracking swept paths are shown in Figures 19 to 21. The proposed layout is therefore considered acceptable.

7.27 Refuse and servicing trips will continue to take place from Enterprise Way as with the existing site.

7.28 The refuse carry distance to the edge of the building undercroft is under 20m and Wimshurst Pelleriti have designed the refuse store to accommodate the requirements of *Refuse And Recycling Storage Requirements* (LB Richmond, 2015).

Trips

7.29 With regards to trip projections for new development Transport for London's *Transport Assessment Guidance* [Online] states:

"When using TRICS, sites more than five years old must be excluded unless otherwise agreed with TfL. The sites used should have comparable characteristics including use, scale, PTAL and car parking. The criteria used in selecting sites should be clearly stated and agreed by TfL in advance of the TA submission."

7.30 Given the guidance, site context and low car nature of the proposal it is considered that there is a paucity of data in TRICS and it is not possible to provide satisfactory trip projections.

7.31 The TRICS Bureau Service officers were contacted whilst preparing this report and confirmed this was their opinion too.

7.32 On the advice of TRICS Bureau Service officers, historical trip data from the now withdrawn London TRAVL trip database information has also been researched. Again the given paucity of suitable data in TRAVL for the proposal it is not possible to provide satisfactory trip projections.

7.33 Given that the proposals are for a car capped residential scheme of modest scale it is considered that detailed trip generation calculations are not required as the proposals' trip impacts are likely to be minimal / insignificant.

7.34 It is considered that the proposals are acceptable / not objectionable in this regard.

Transport Impacts and Summary

7.35 The development is in a sustainable and accessible centre location and is not considered to have any significant transport impacts.

7.36 It is considered that the development supports / is supported by:

- *Adopted Development Management Plan* (LB Richmond, 2011) Policies DM TP 7 Cycling and DM TP 8 Off-Street Parking,
- *Further Alterations to the London Plan* (GLA, 2016) Policy 6.13 Parking, and
- *The National Planning Policy Framework* (DCLG, 2012) core planning principles and promoting sustainable transport policies.

7.37 The current proposals are not considered to have any significant or "severe" transport impacts in the context of The *National Planning Policy Framework* policy of only preventing or refusing development on transport grounds where the "*residual cumulative impacts of development are severe*" (p.10, DCLG, 2012).

8 Summary

8.1 Kronen Limited has been instructed by RHP to prepare this Transport Statement for a proposed development at Informer House, 2 High Street, Teddington, TW11 8EW.

8.2 The existing building at the site provides approximately 400sqm of B1 office use floor space.

8.3 The proposed development is for a mixed-use residential-led development. The proposal comprises: twenty three one-bedroom and two-bedroom flats and a commercial unit / office unit with 300sqm floor space. All residential accommodation is proposed as social / affordable housing.

8.4 Sections 2 to 4 of this Transport Statement assessed the existing site, the site's accessibility using sustainable transport modes and the adjoining highway network.

8.5 Sections 5 to 7 of this report assessed the proposal and its transport impacts and integration with planning policy and guidance.

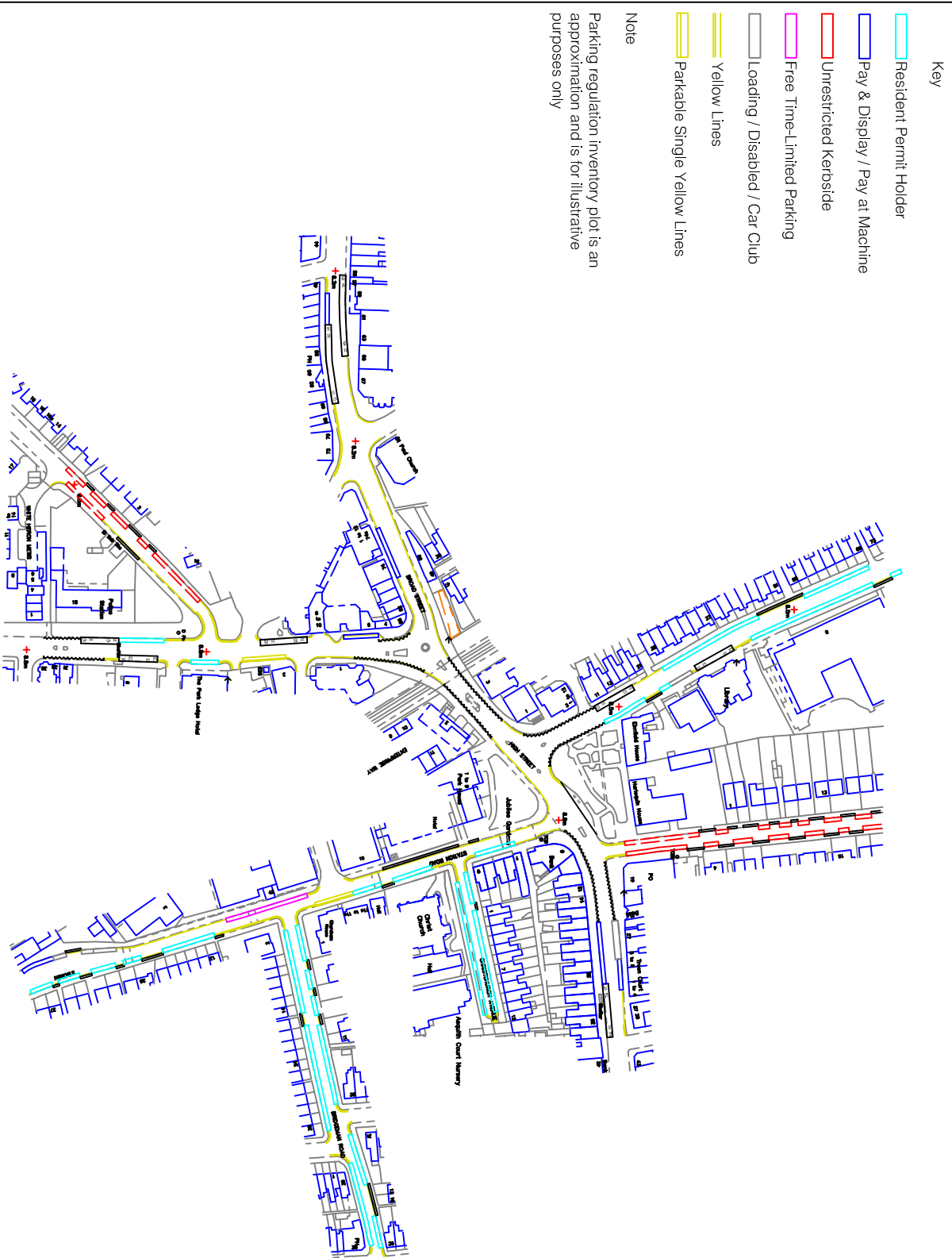
8.6 As set out in this Transport Statement, the proposals are in a sustainable and accessible centre location and are not considered to have any significant transport impacts.

8.7 It is also considered that the proposals support / are supported by:

- *Adopted Development Management Plan* (LB Richmond, 2011) Policies DM TP 7 Cycling and DM TP 8 Off-Street Parking,
- *Further Alterations to the London Plan* (GLA, 2016) Policy 6.13 Parking, and
- *The National Planning Policy Framework* (DCLG, 2012) core planning principles and promoting sustainable transport policies.

8.8 The proposals are not considered to have any significant or "severe" transport impacts in the context of The *National Planning Policy Framework* policy of only preventing or refusing development on transport grounds where the "*residual cumulative impacts of development are severe*" (p.10, DCLG, 2012).

Figures



Key

- Resident Permit Holder
- Pay & Display / Pay at Machine
- Unrestricted Kerbside
- Free Time-Limited Parking
- Loading / Disabled / Car Club
- Yellow Lines
- Parkable Single Yellow Lines

Note

Parking regulation inventory plot is an approximation and is for illustrative purposes only

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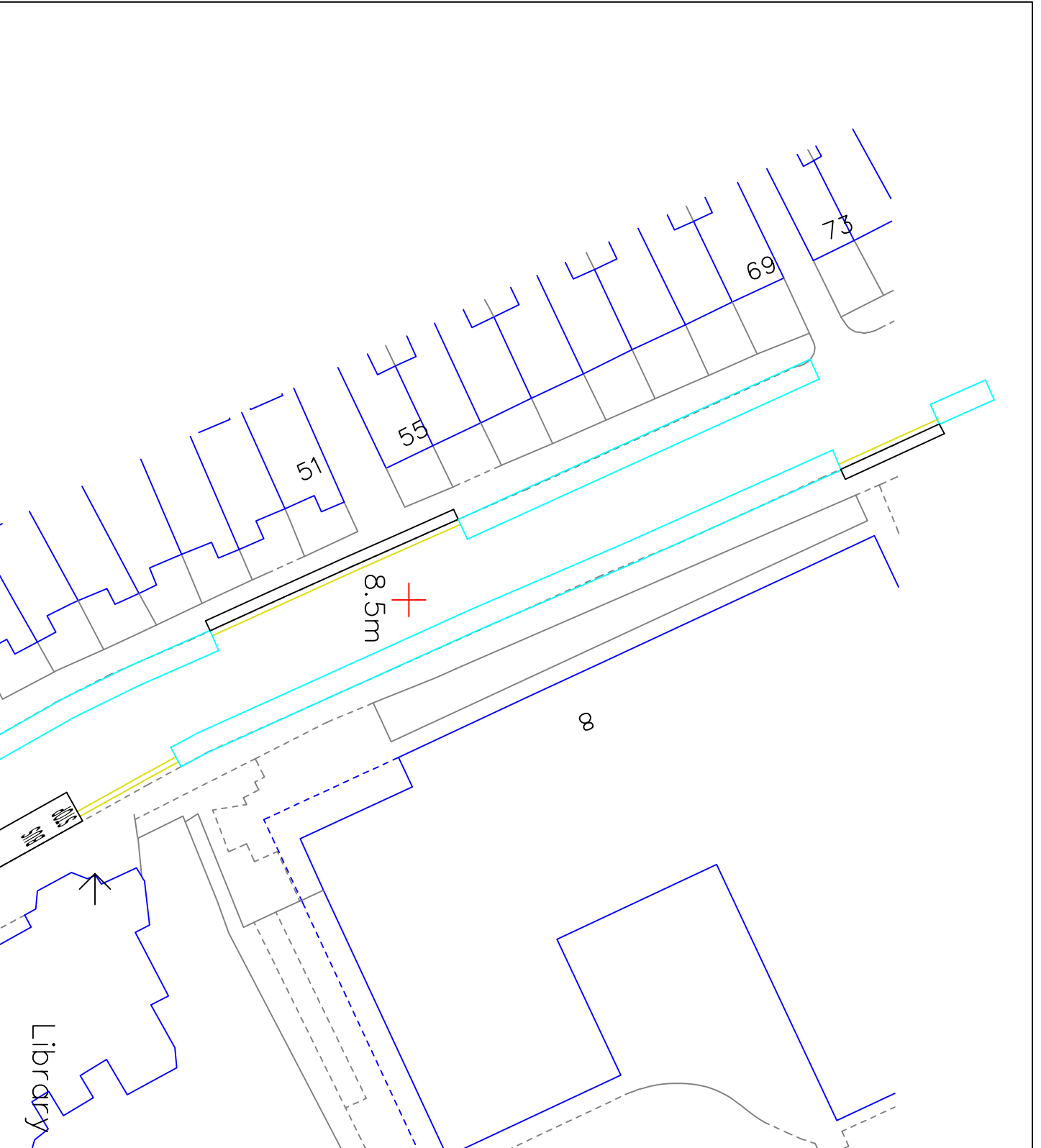
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TRANSPORT PLANNING

Kronen Limited
Specialist Development Transport Planning
16 Church Road, Leatherhead, KT22 8AY
info@kronenltd.com
020 8541 1139
www.kronenltd.com

Project
Proposed Development at
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Figure
Figure 1 Parking Survey Area

Date May 2016
Scale 1:3000 @ A4
Source: Ordnance Survey
Figure Reference P1604_4_1



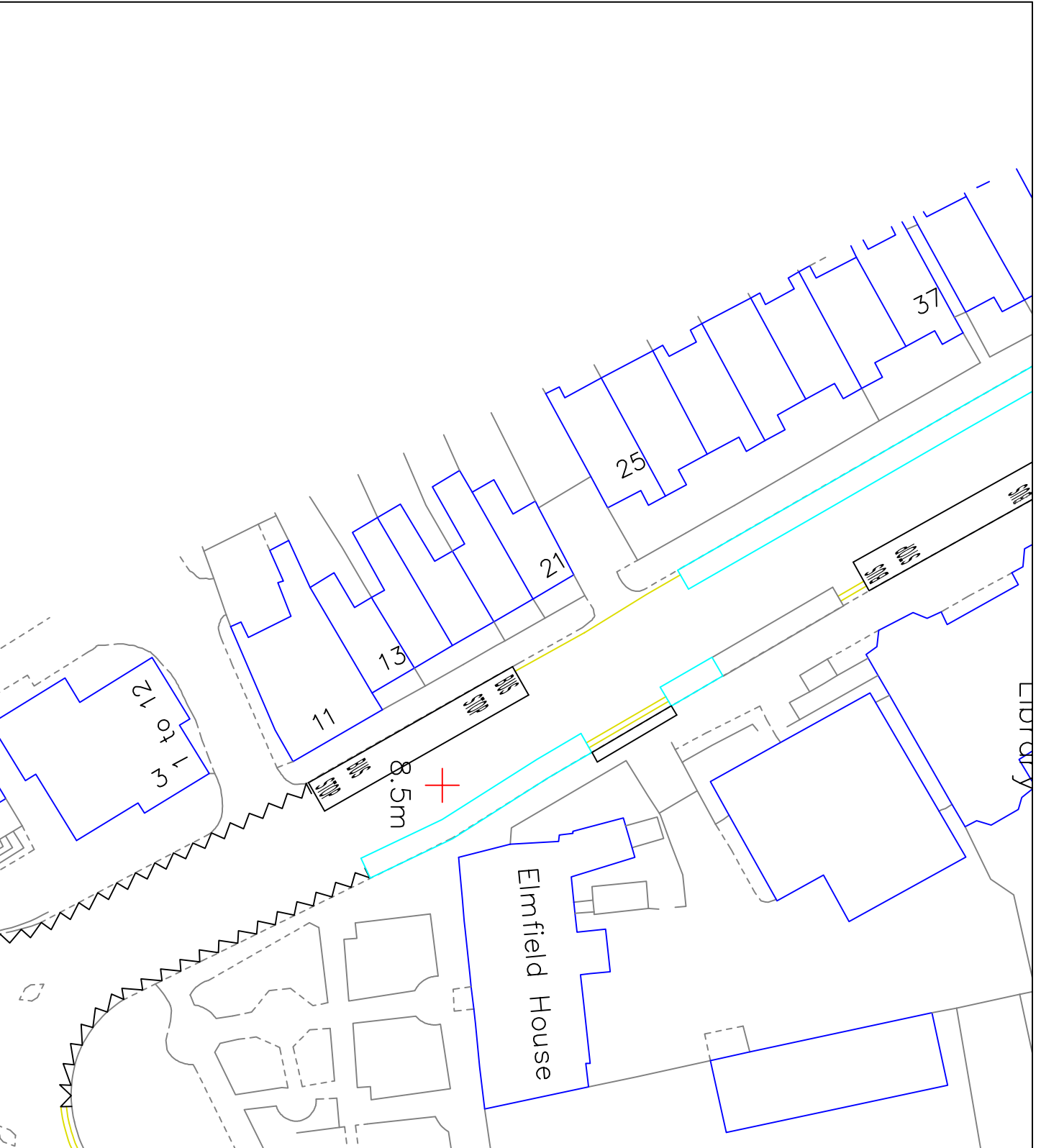
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 info@kronenltd.com
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Figure
 Figure 2 Parking Survey Area
 Waldegave Road (1 of 2)

Date May 2016
 Scale 1:500 @ A4
 Source: Ordnance Survey
 Figure Reference P1604_4_2



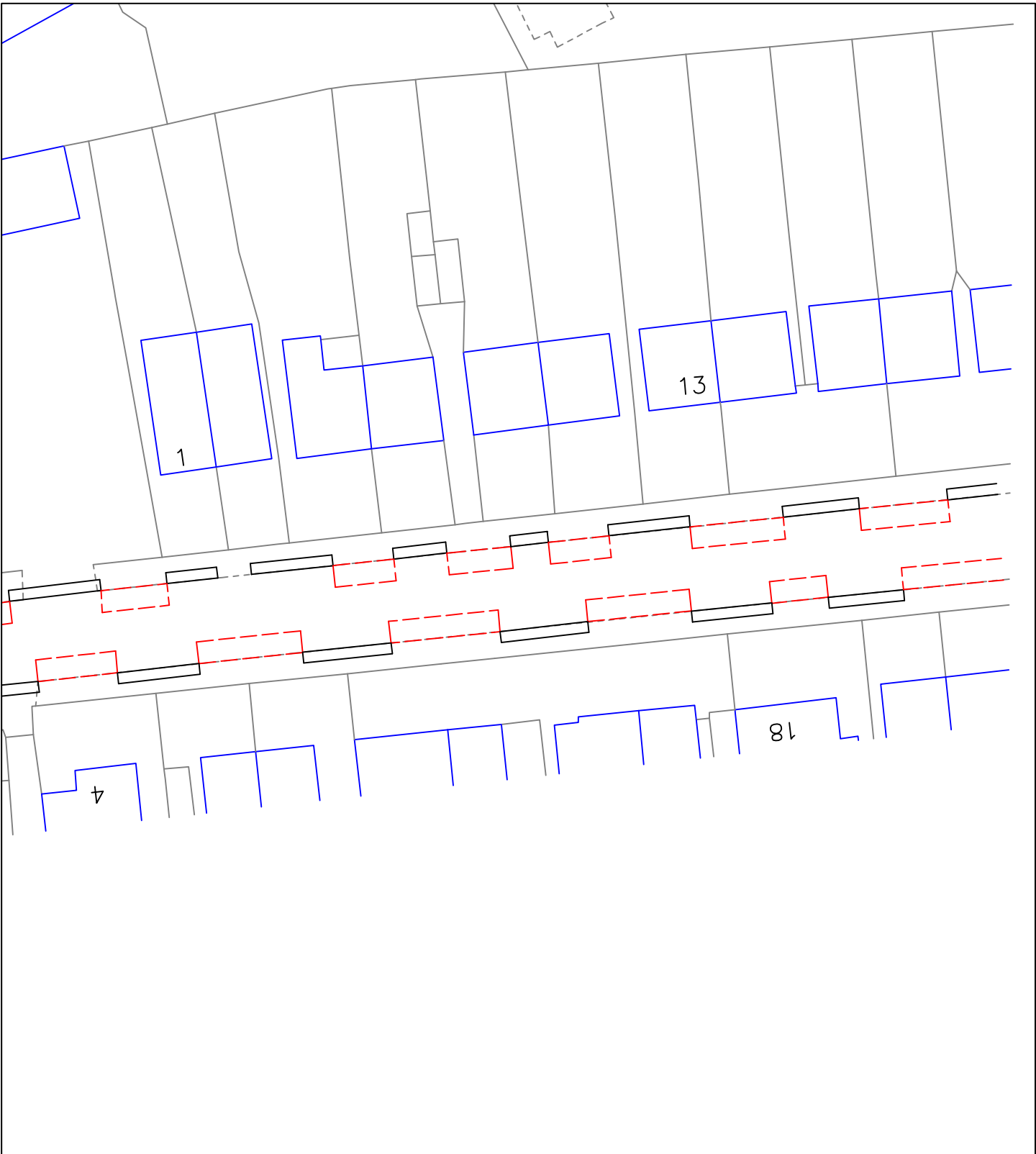
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Figure
 Figure 3 Parking Survey Area
 Waldegarve Road (2 of 2)

Date May 2016
 Scale 1:500 @ A4
 Source: Ordnance Survey
 Figure Reference P1604_4_3



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Figure
 Figure 4 Parking Survey Area
 Elmfield Avenue (1 of 2)

Date May 2016
 Scale 1:500 @ A4
 Source: Ordnance Survey
 Figure Reference P1604_4_4

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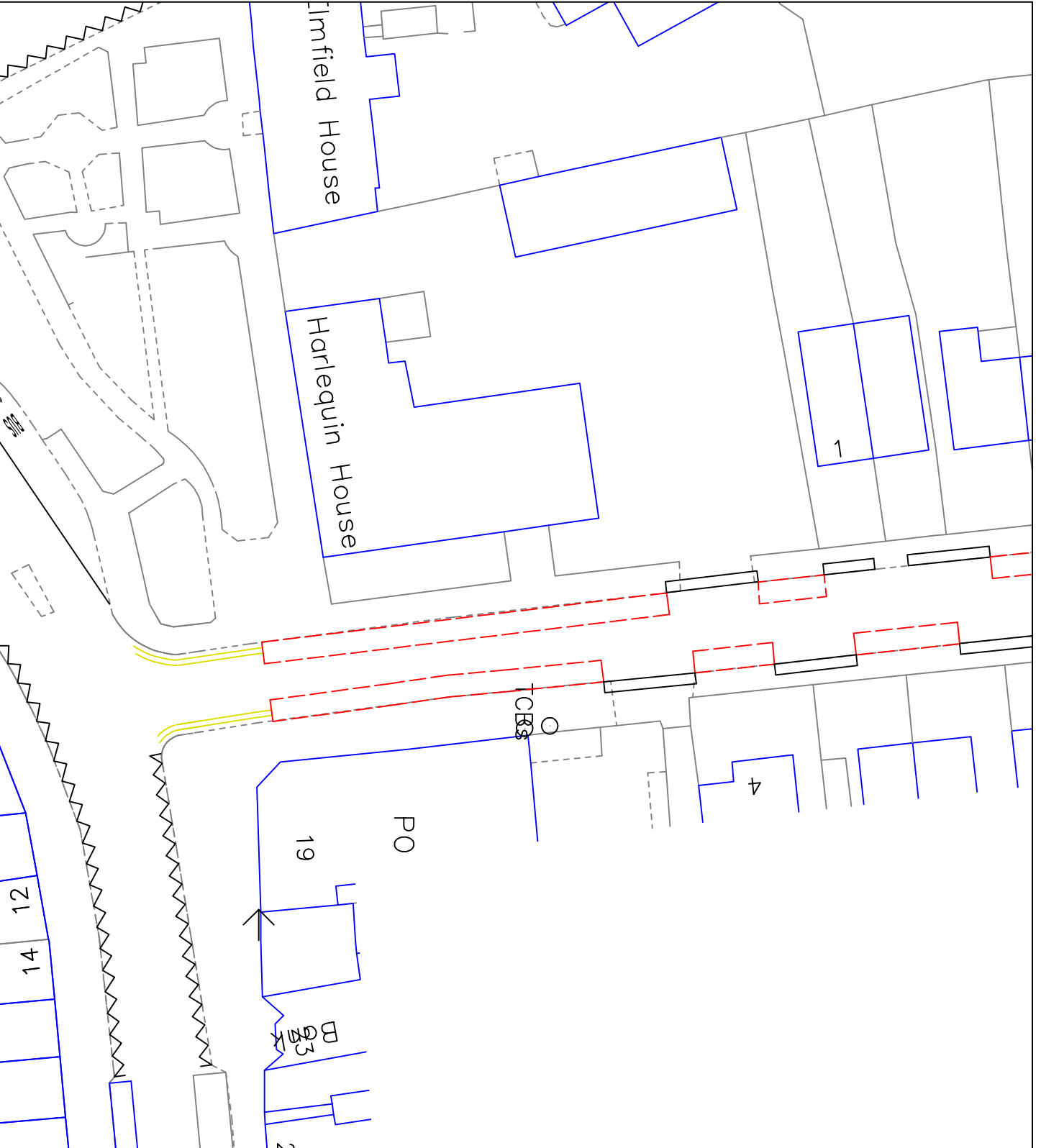
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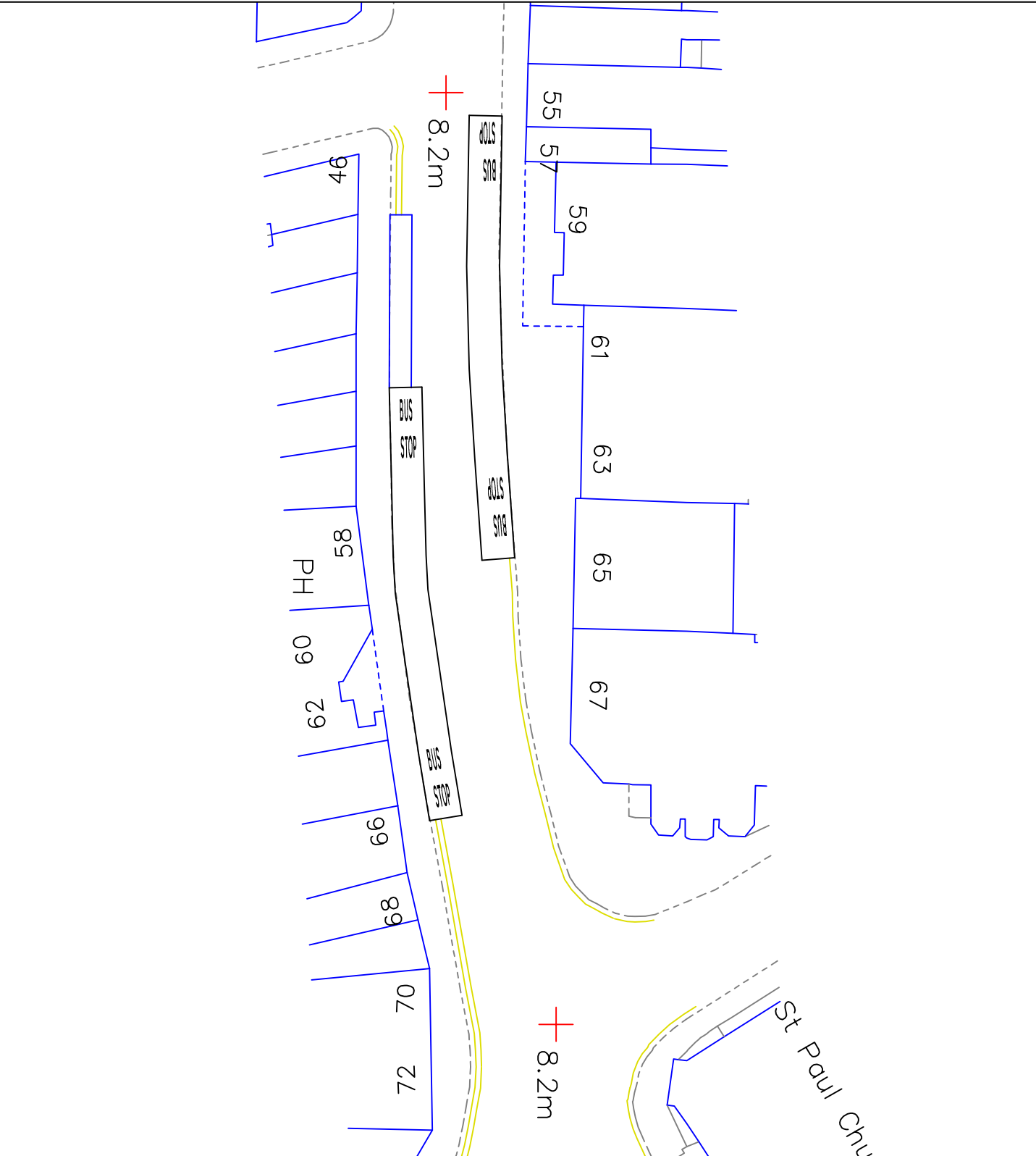
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Figure
Figure 5 Parking Survey Area
Elmfield Avenue (2 of 2)

Date May 2016
Scale 1:500 @ A4
Source: Ordnance Survey
Figure Reference P1604_4_5





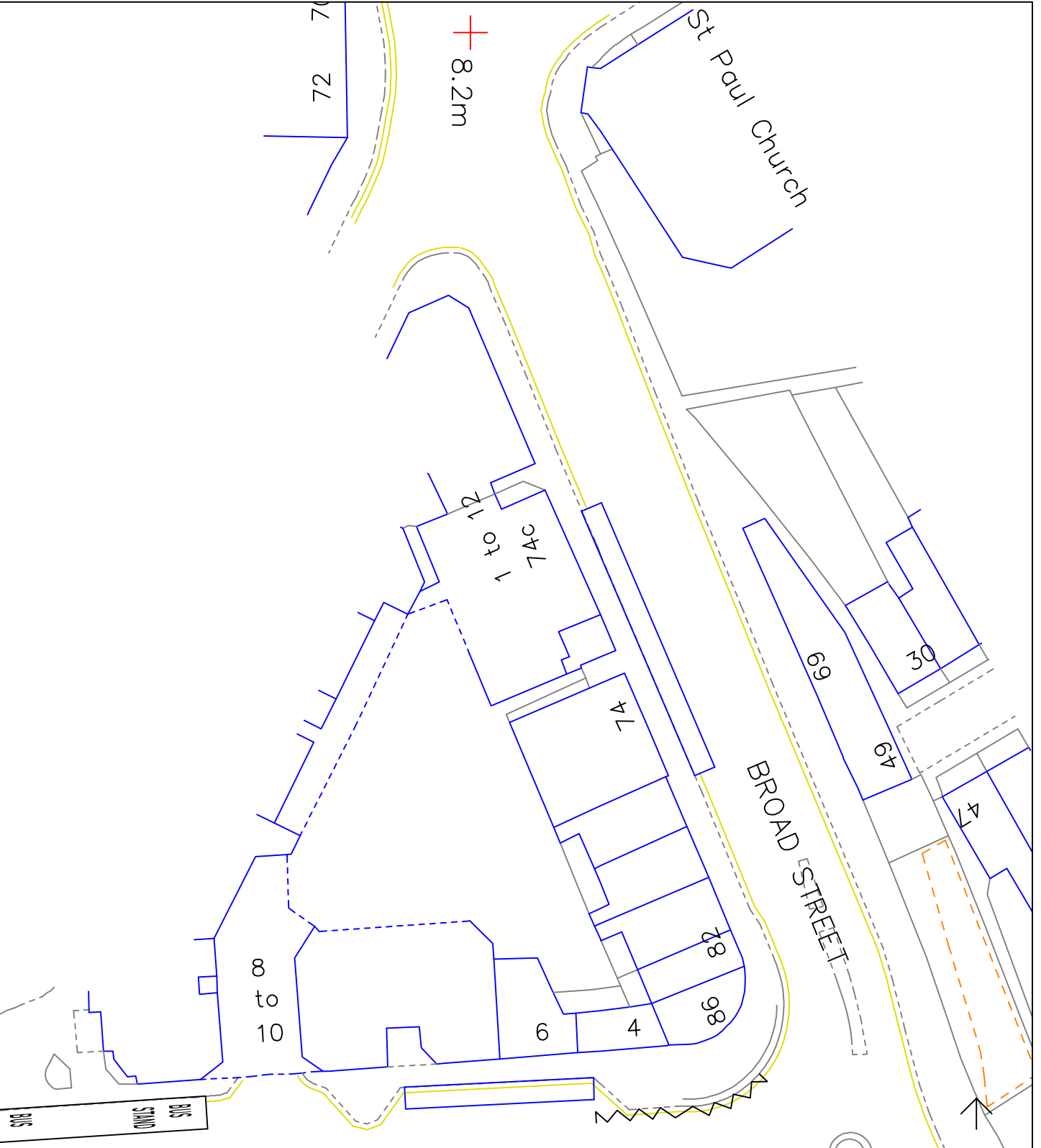
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Figure
 Figure 6 Parking Survey Area
 Broad Street (1 of 2)

Date May 2016
 Scale 1:500 @ A4
 Source: Ordnance Survey
 Figure Reference P1604_4_6



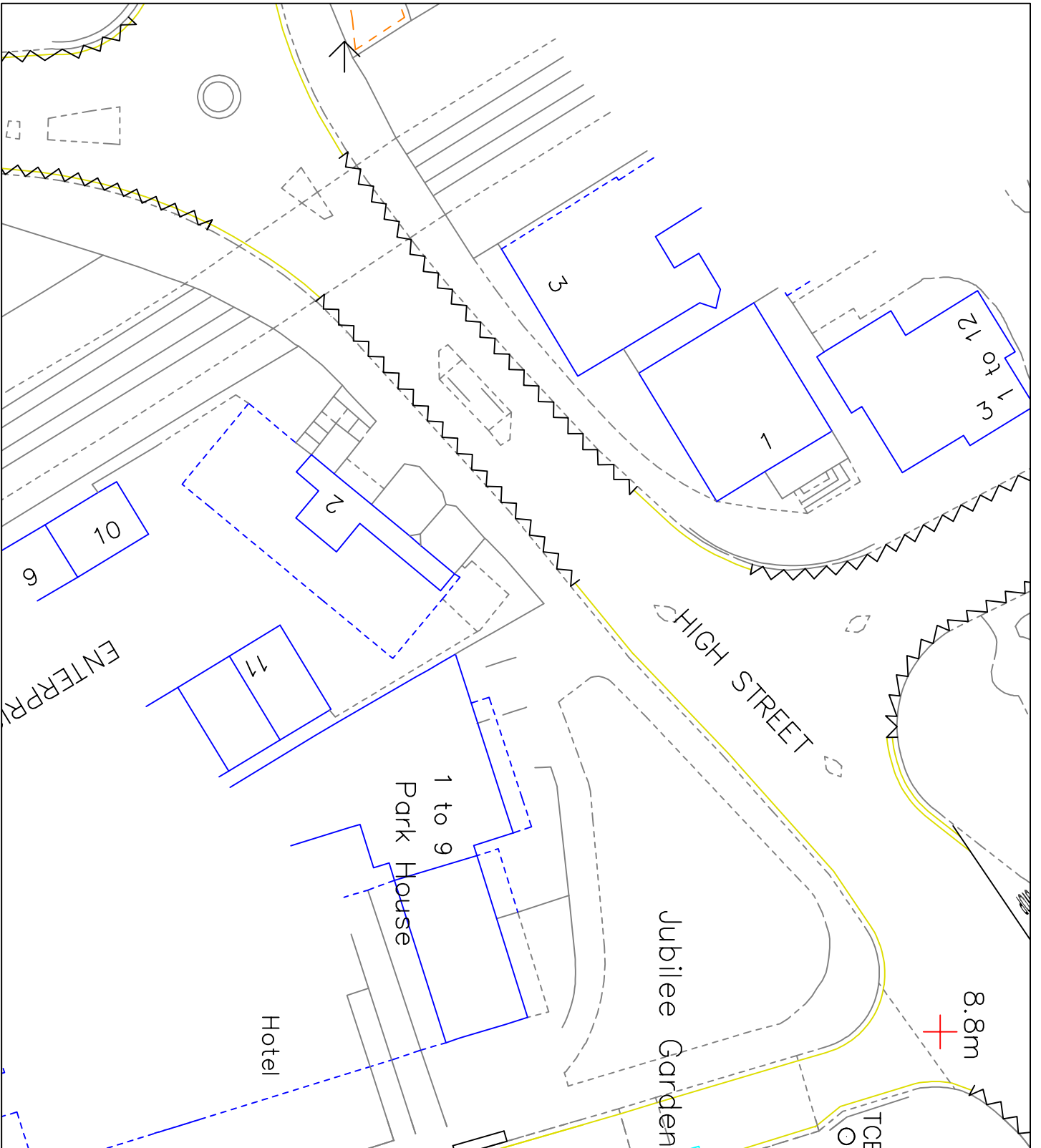
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Figure
 Figure 7 Parking Survey Area
 Broad Street (2 of 2)

Date May 2016
 Scale 1:500 @ A4
 Source: Ordnance Survey
 Figure Reference P1604.4.7



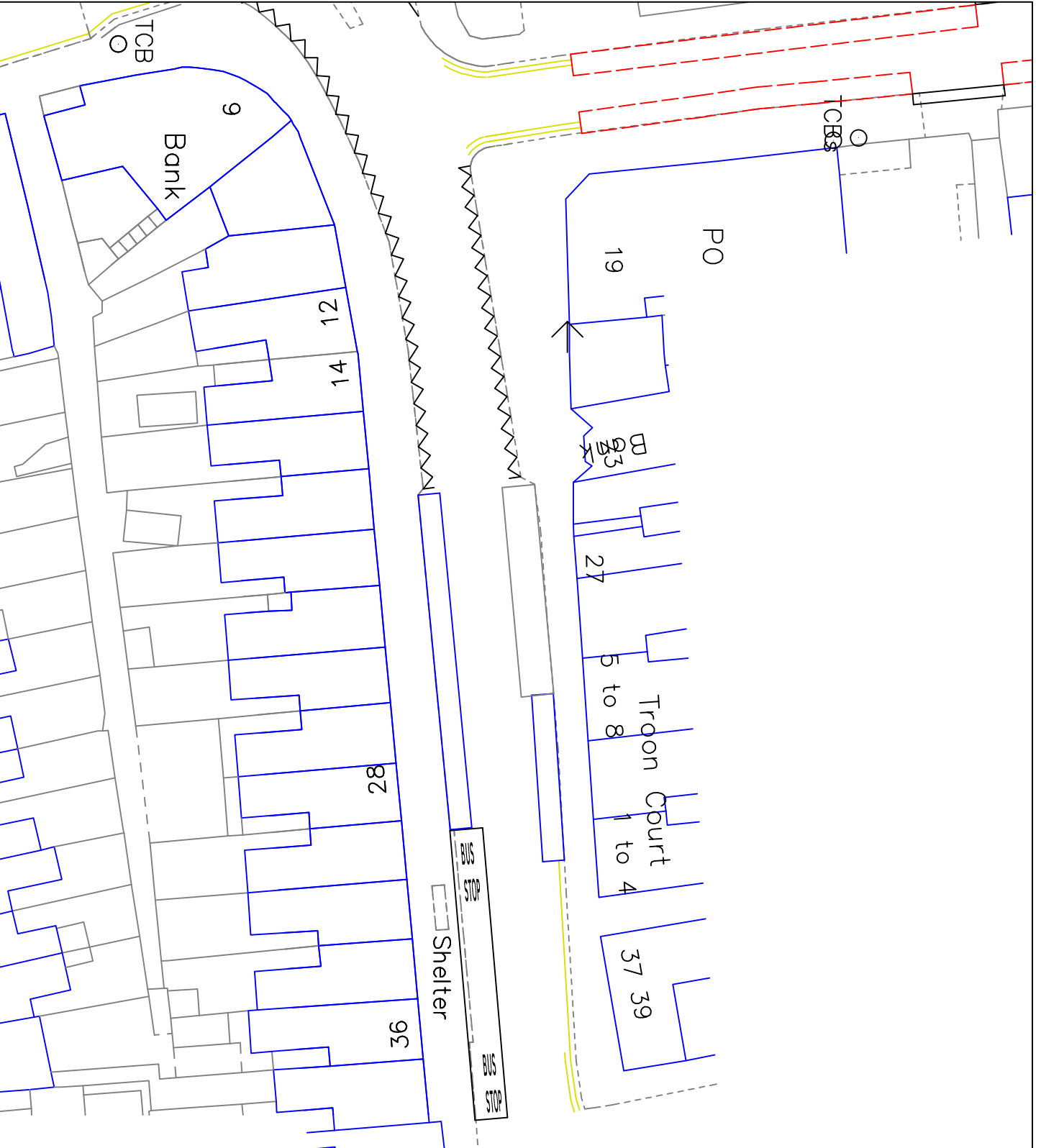
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Figure
 Figure 8 Parking Survey Area
 High Street (1 of 2)

Date May 2016
 Scale 1:500 @ A4
 Source: Ordnance Survey
 Figure Reference P1604_4_8



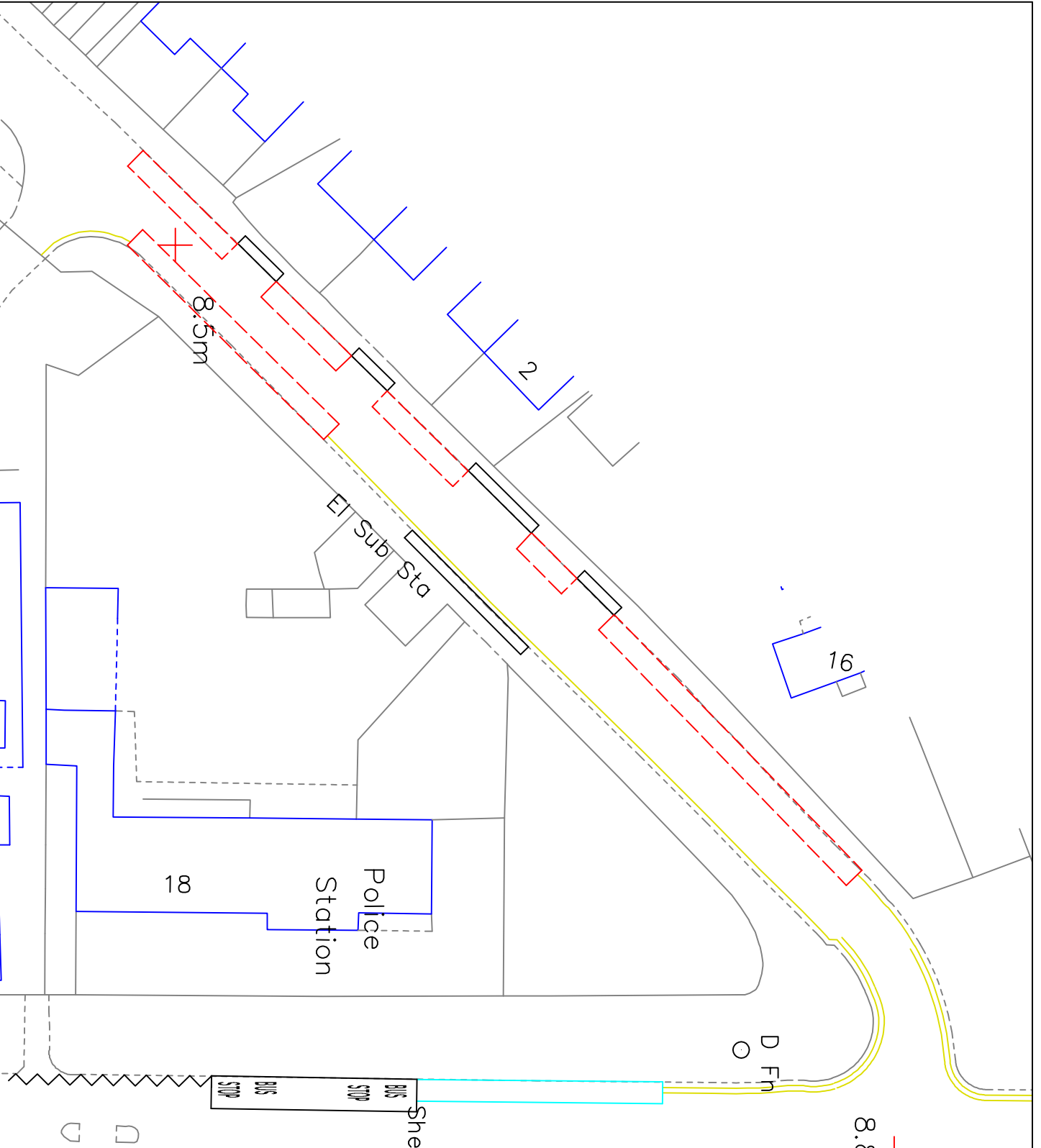
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Figure
 Figure 9 Parking Survey Area
 High Street (2 of 2)

Date May 2016
 Scale 1:500 @ A4
 Source: Ordnance Survey
 Figure Reference P1604_4_9



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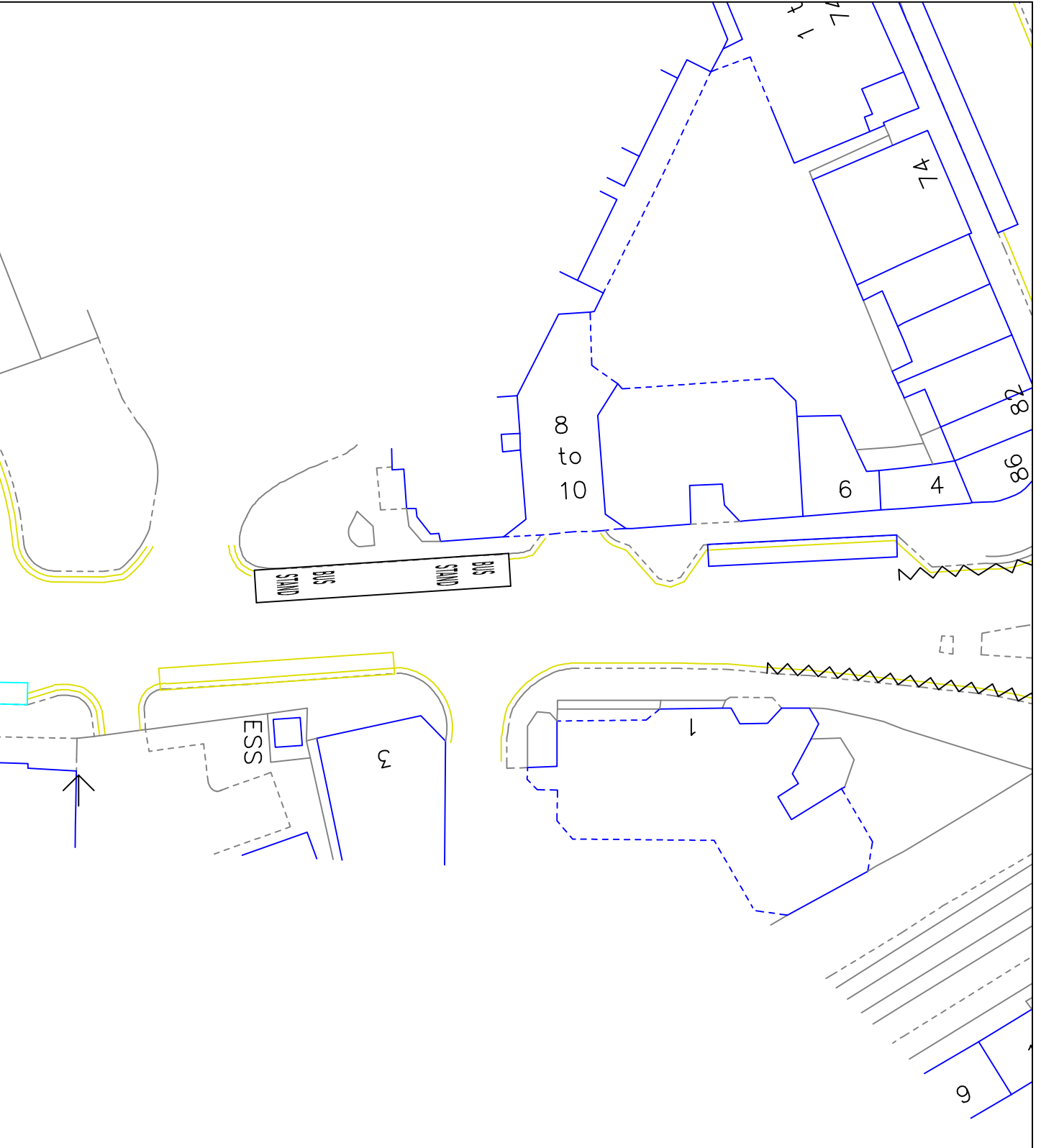
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Figure
Figure 10 Parking Survey Area
Park Lane (1 of 1)

Date May 2016
Scale 1:500 @ A4
Source: Ordnance Survey
Figure Reference P1604_4_10



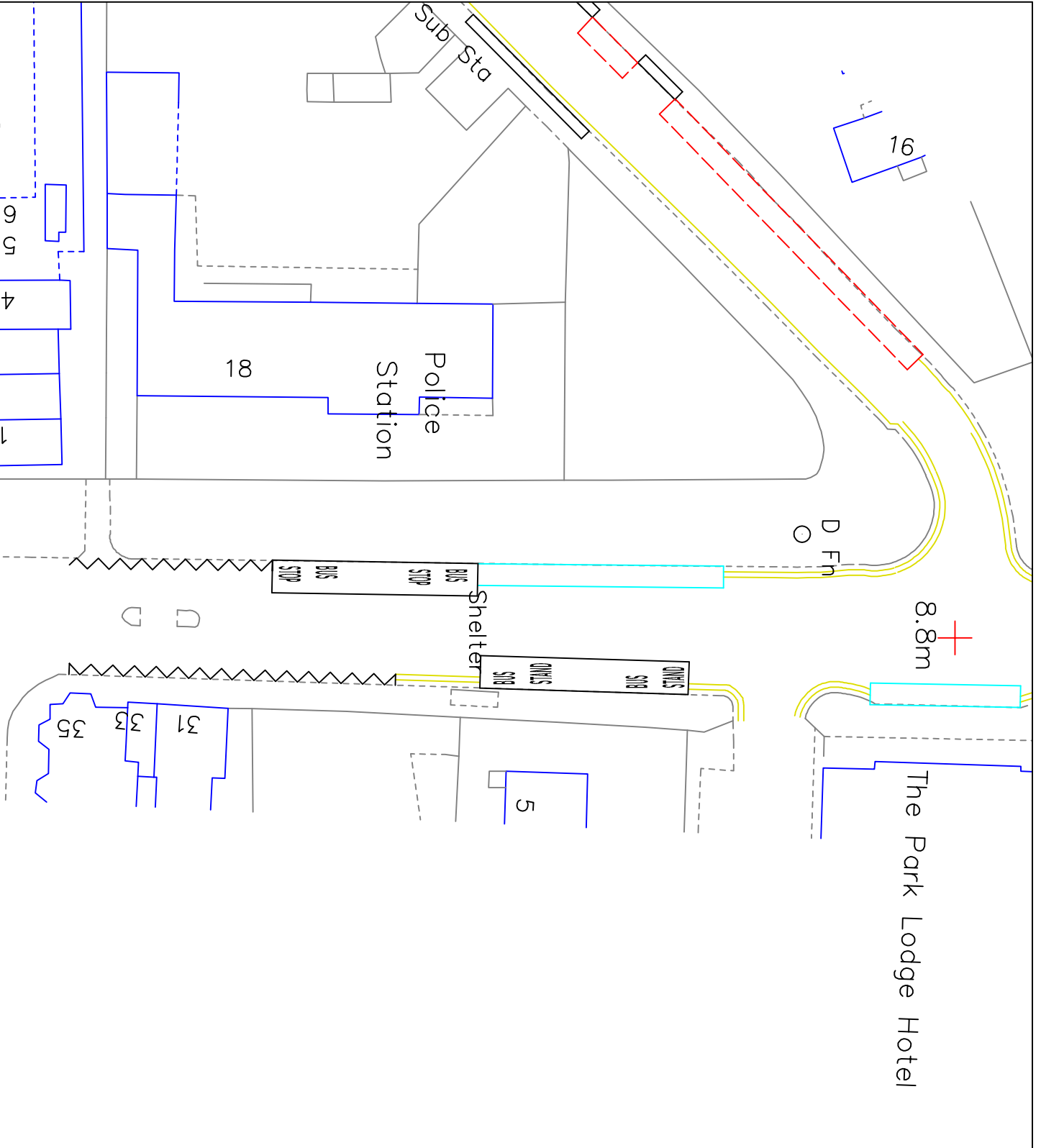
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Figure
 Figure 11 Parking Survey Area
 Park Road (1 of 2)

Date May 2016
 Scale 1:500 @ A4
 Source: Ordnance Survey
 Figure Reference P1604_4_11



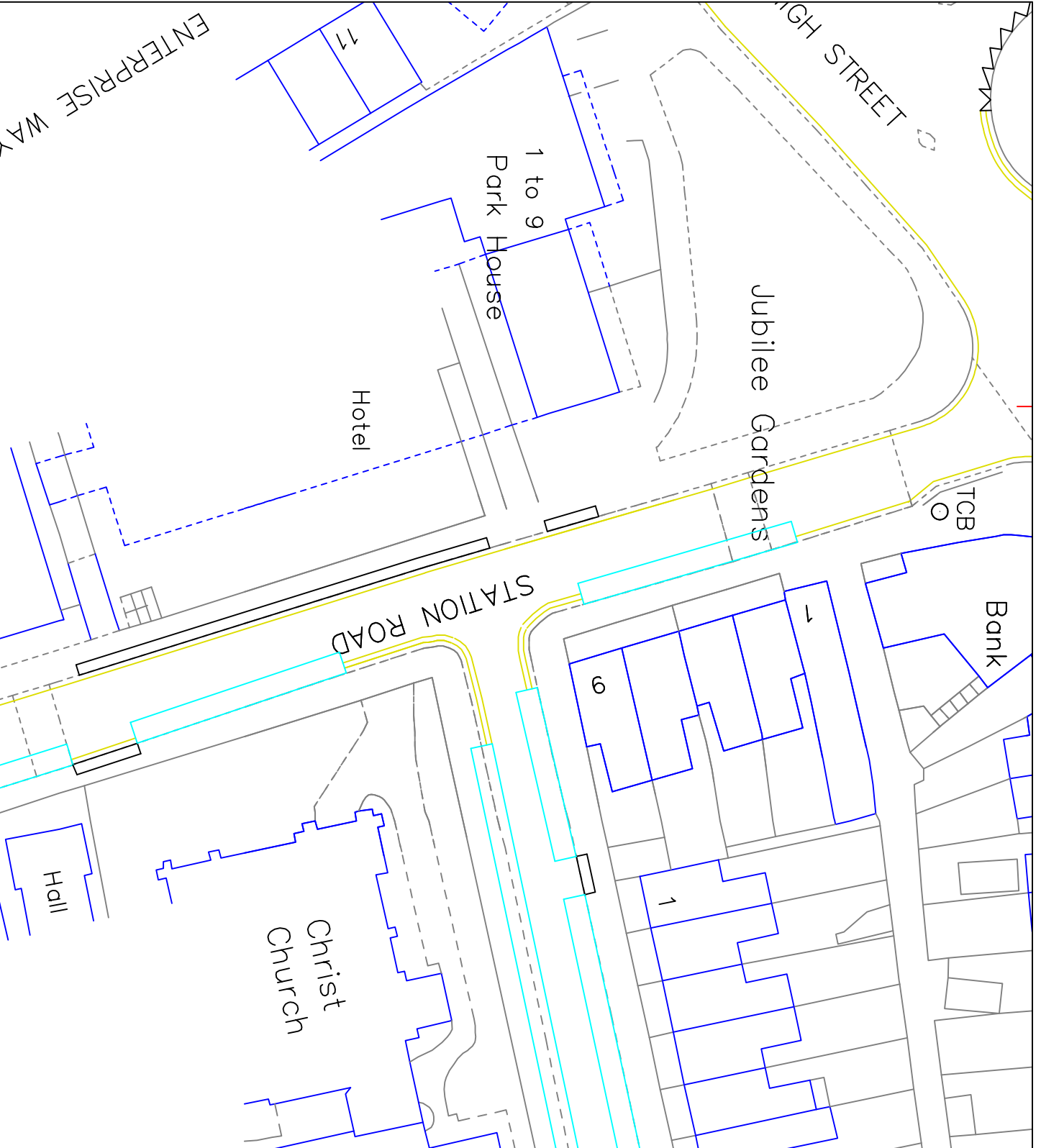
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Figure
 Figure 12 Parking Survey Area
 Park Road (2 of 2)

Date May 2016
 Scale 1:500 @ A4
 Source: Ordnance Survey
 Figure Reference P1604_4_12



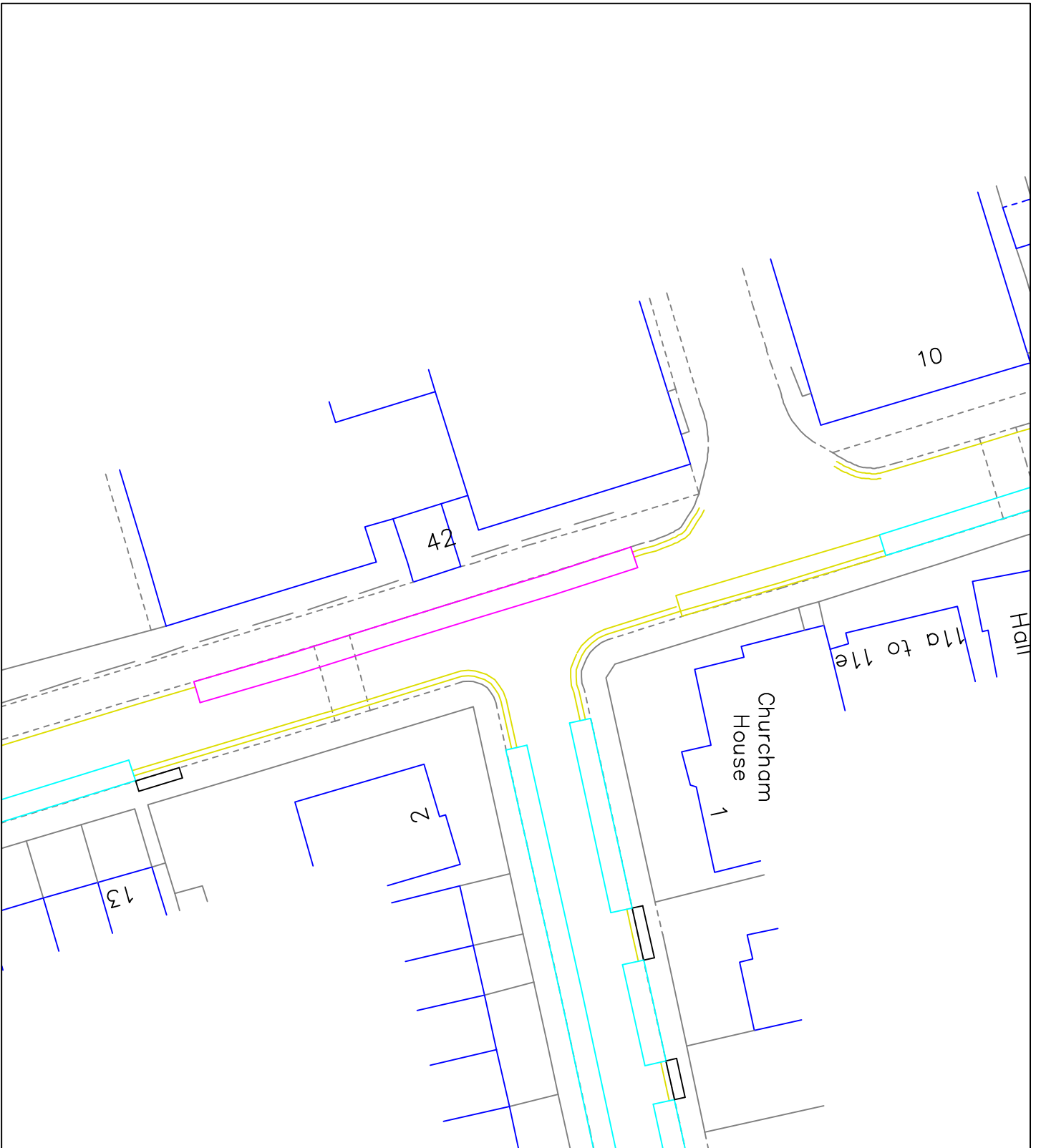
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Figure
 Figure 13 Parking Survey Area
 Station Road (1 of 3)

Date May 2016
 Scale 1:500 @ A4
 Source: Ordnance Survey
 Figure Reference P1604_4_13



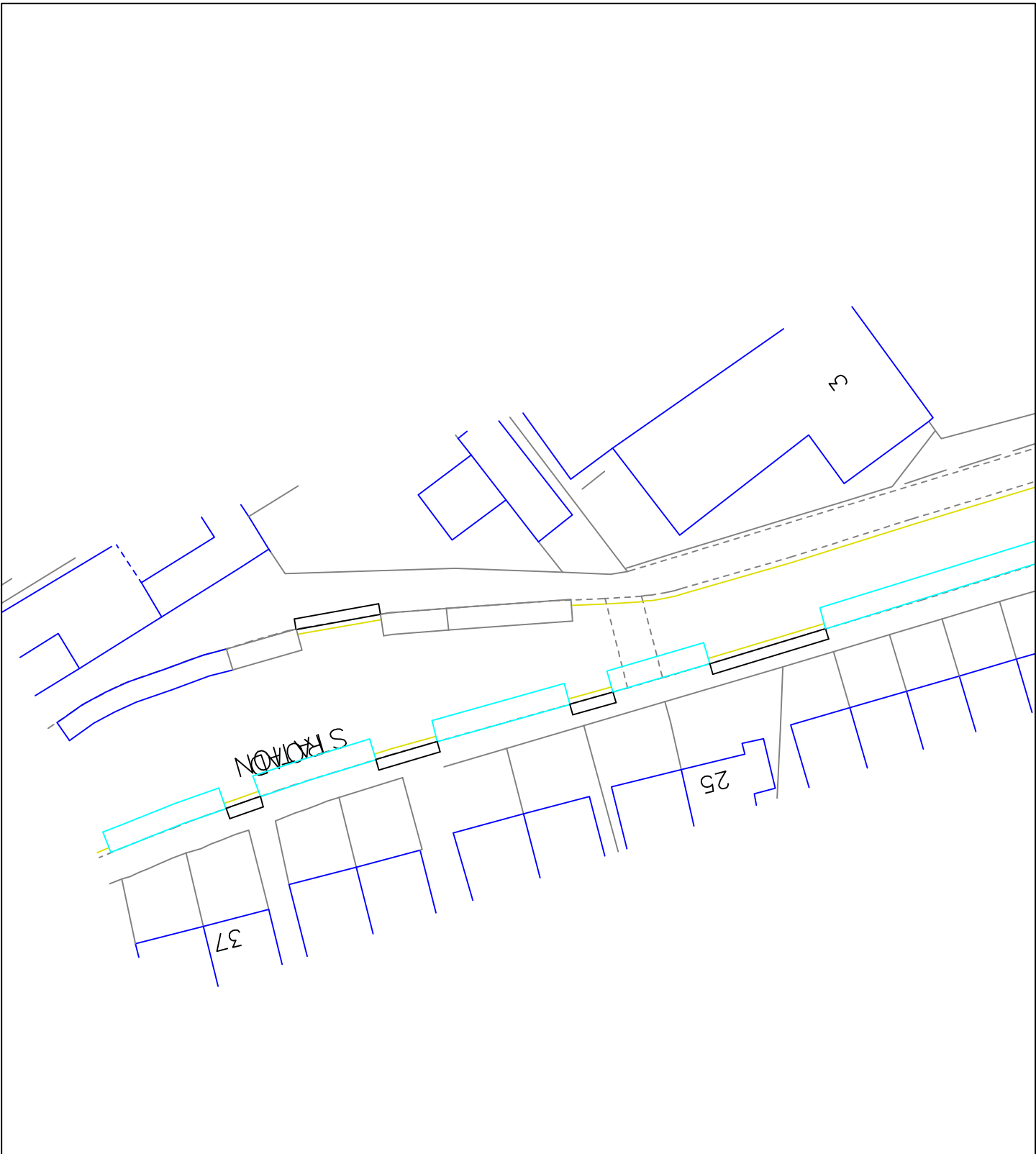
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Figure
 Figure 14 Parking Survey Area
 Station Road (2 of 3)

Date May 2016
 Scale 1:500 @ A4
 Source: Ordnance Survey
 Figure Reference P1604_4_14



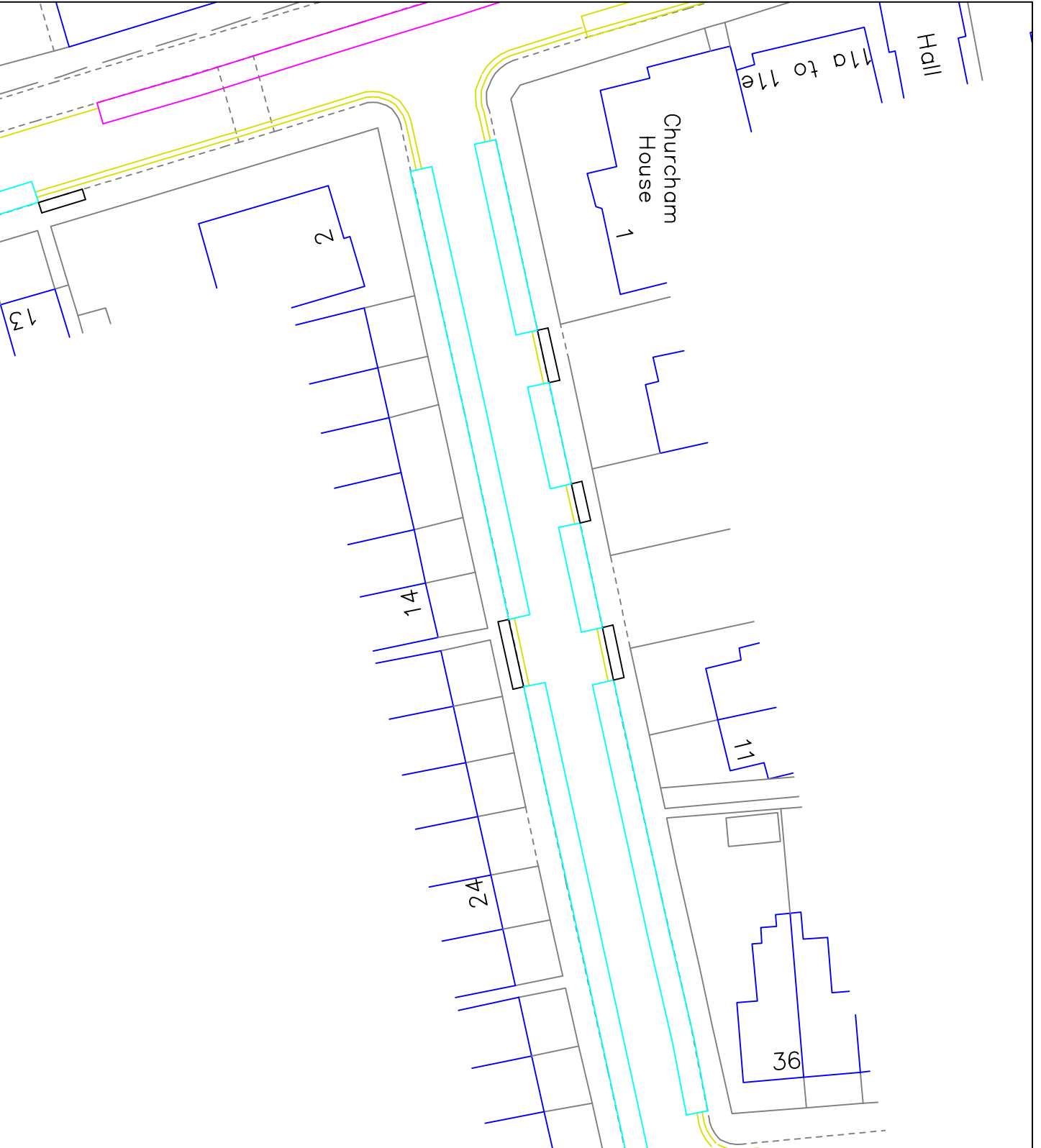
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 Teddington, TW11 8EW

Figure
 Figure 15 Parking Survey Area
 Station Road (3 of 3)

Date May 2016
 Scale 1:500 @ A4
 Source: Ordnance Survey
 Figure Reference P1604_4_15



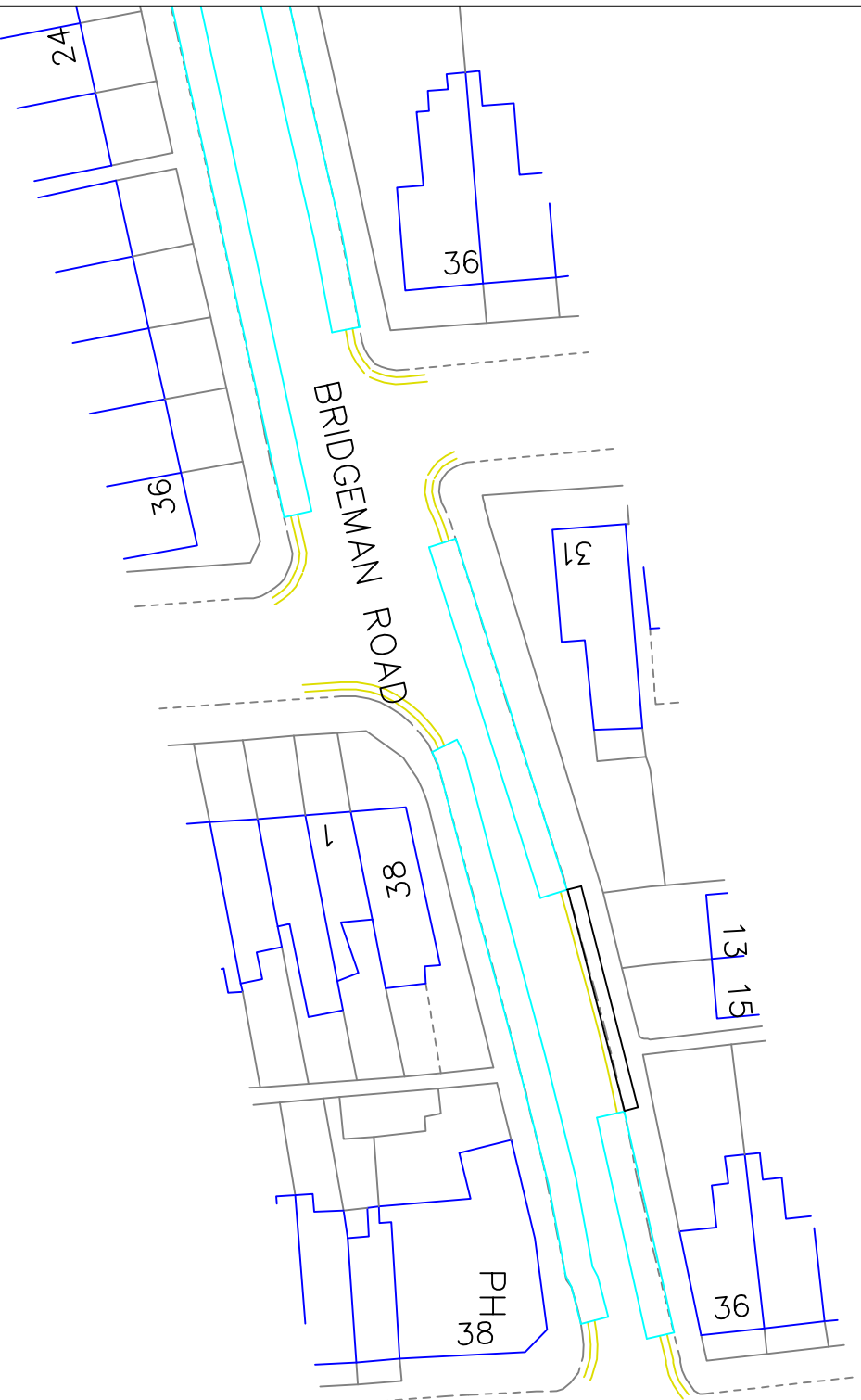
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 info@kronenltd.com
 020 8541 1139
 www.kronenltd.com

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Figure
 Figure 16 Parking Survey Area
 Bridgeman Road (1 of 2)

Date May 2016
 Scale 1:500 @ A4
 Source: Ordnance Survey
 Figure Reference P1604_4_16



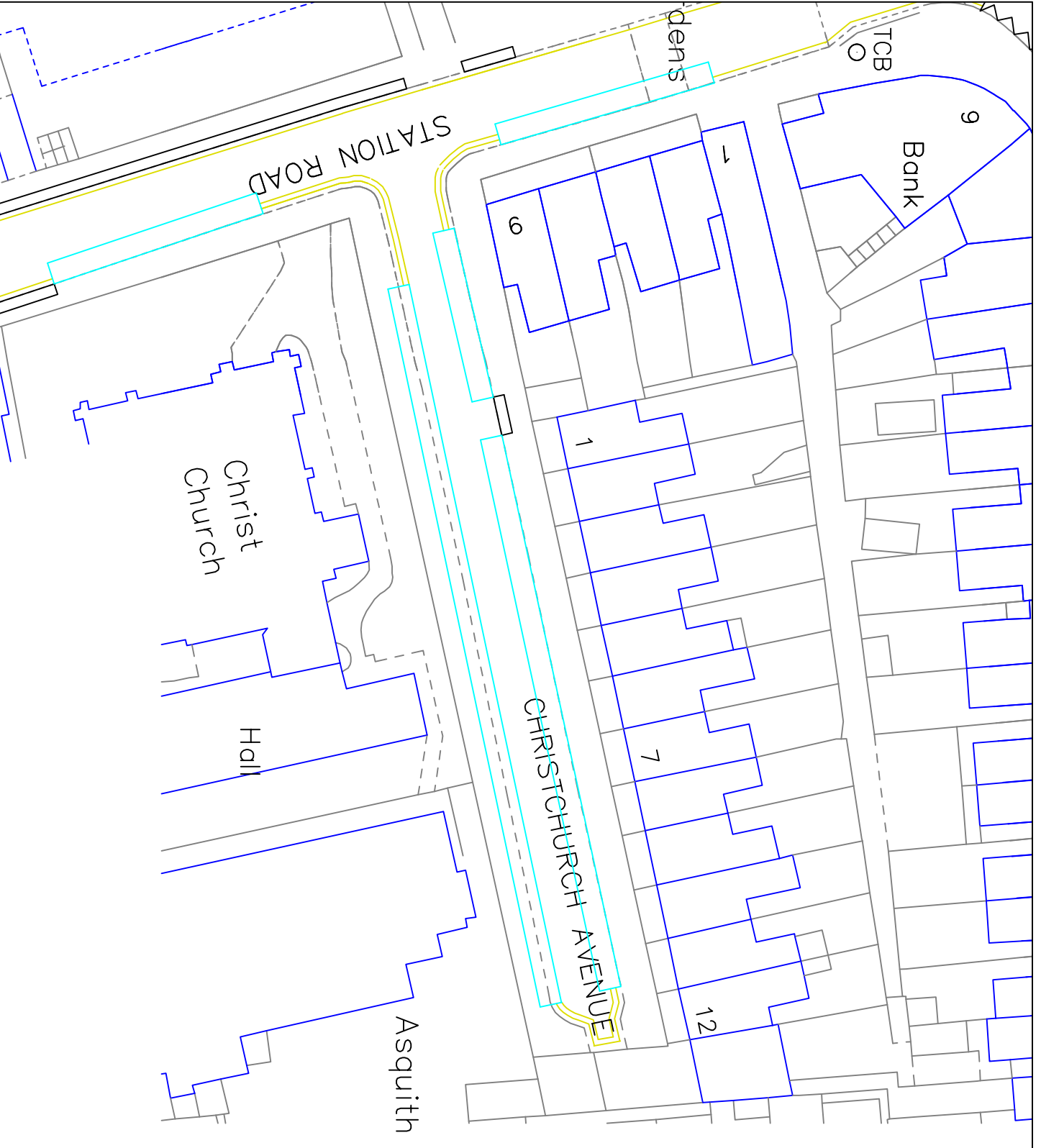
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Figure
 Figure 17 Parking Survey Area
 Bridgeman Road (2 of 2)

Date May 2016
 Scale 1:500 @ A4
 Source: Ordnance Survey
 Figure Reference P1604_4_17



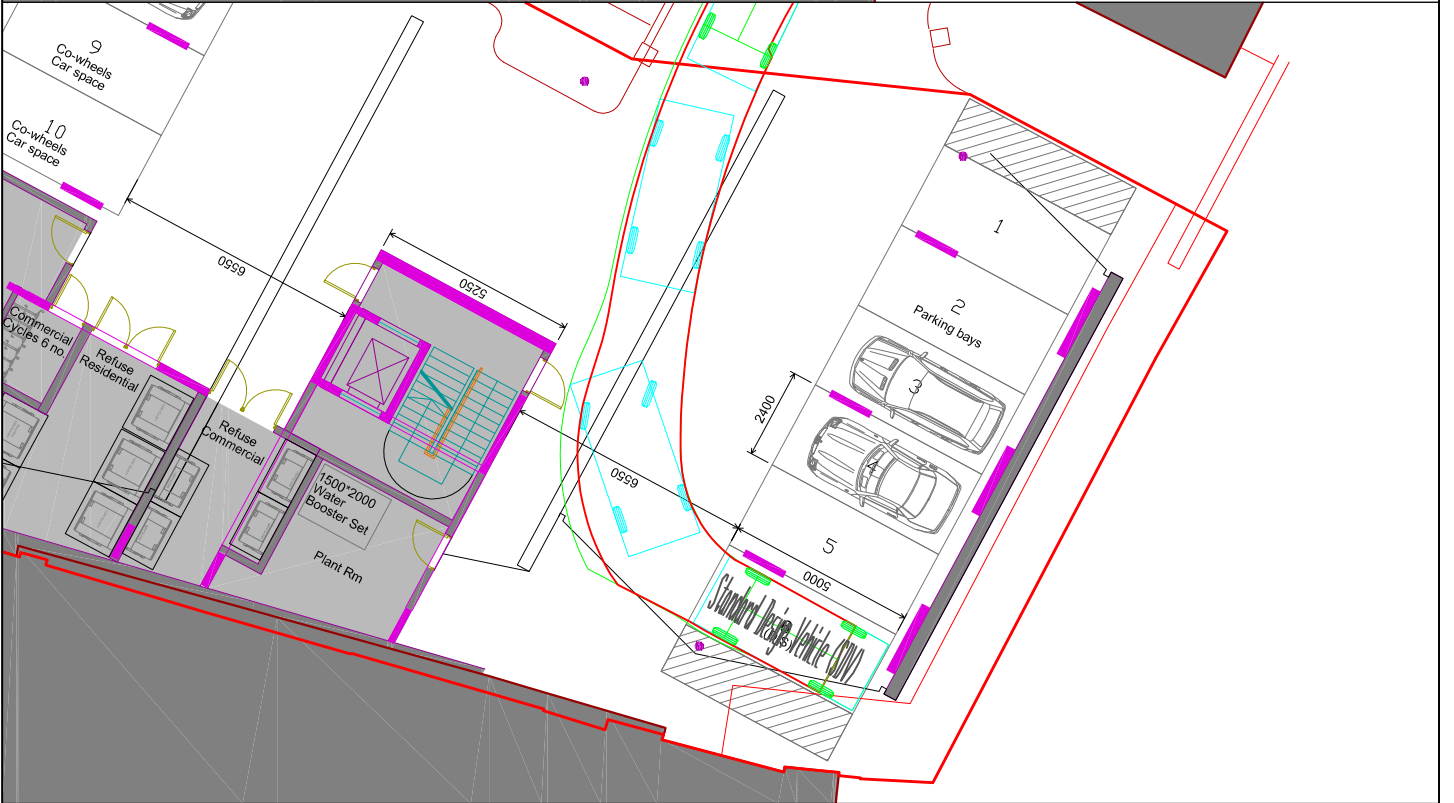
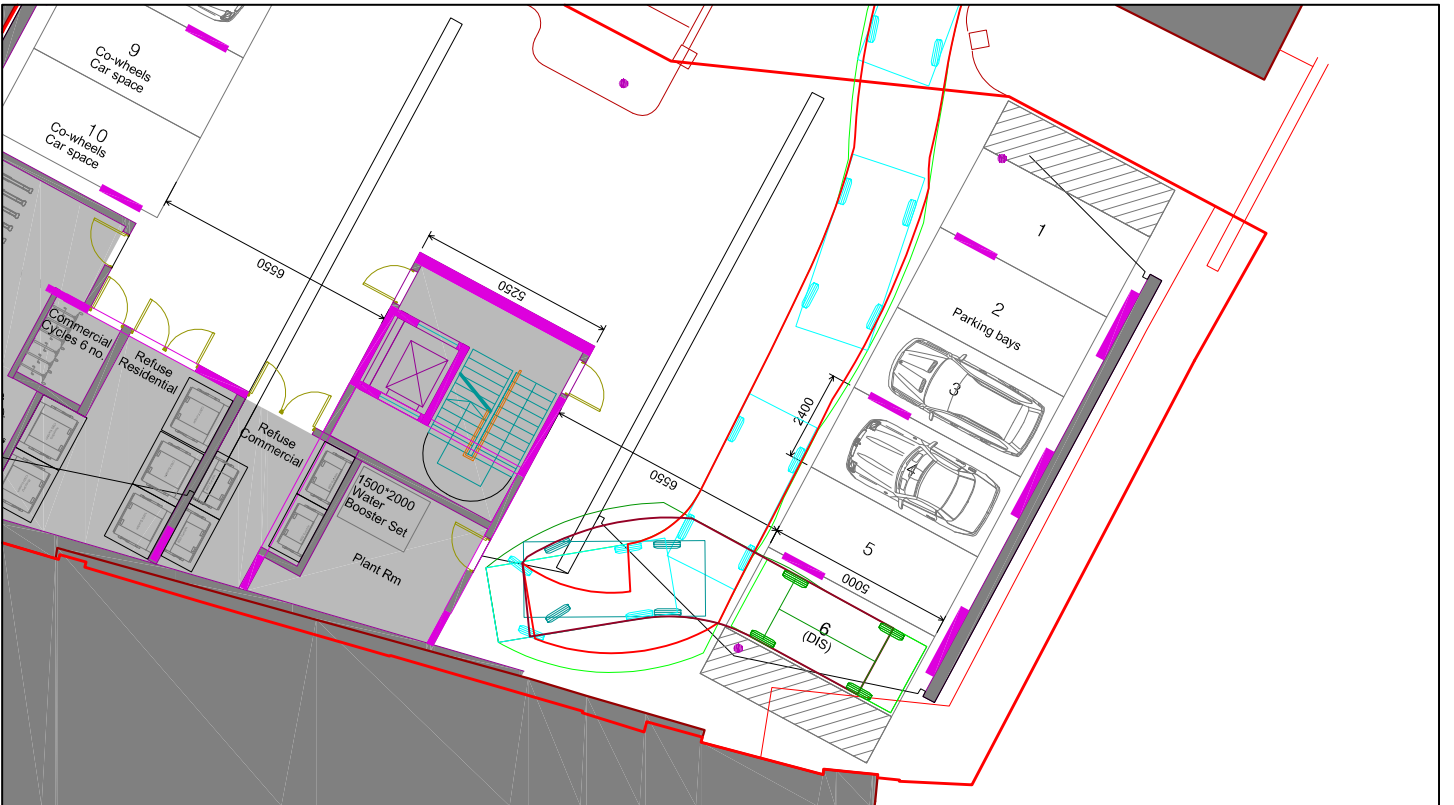
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Figure
 Figure 18 Parking Survey Area
 Christchurch Avenue (1 of 1)

Date May 2016
 Scale 1:500 @ A4
 Source: Ordnance Survey
 Figure Reference P1604_4_18



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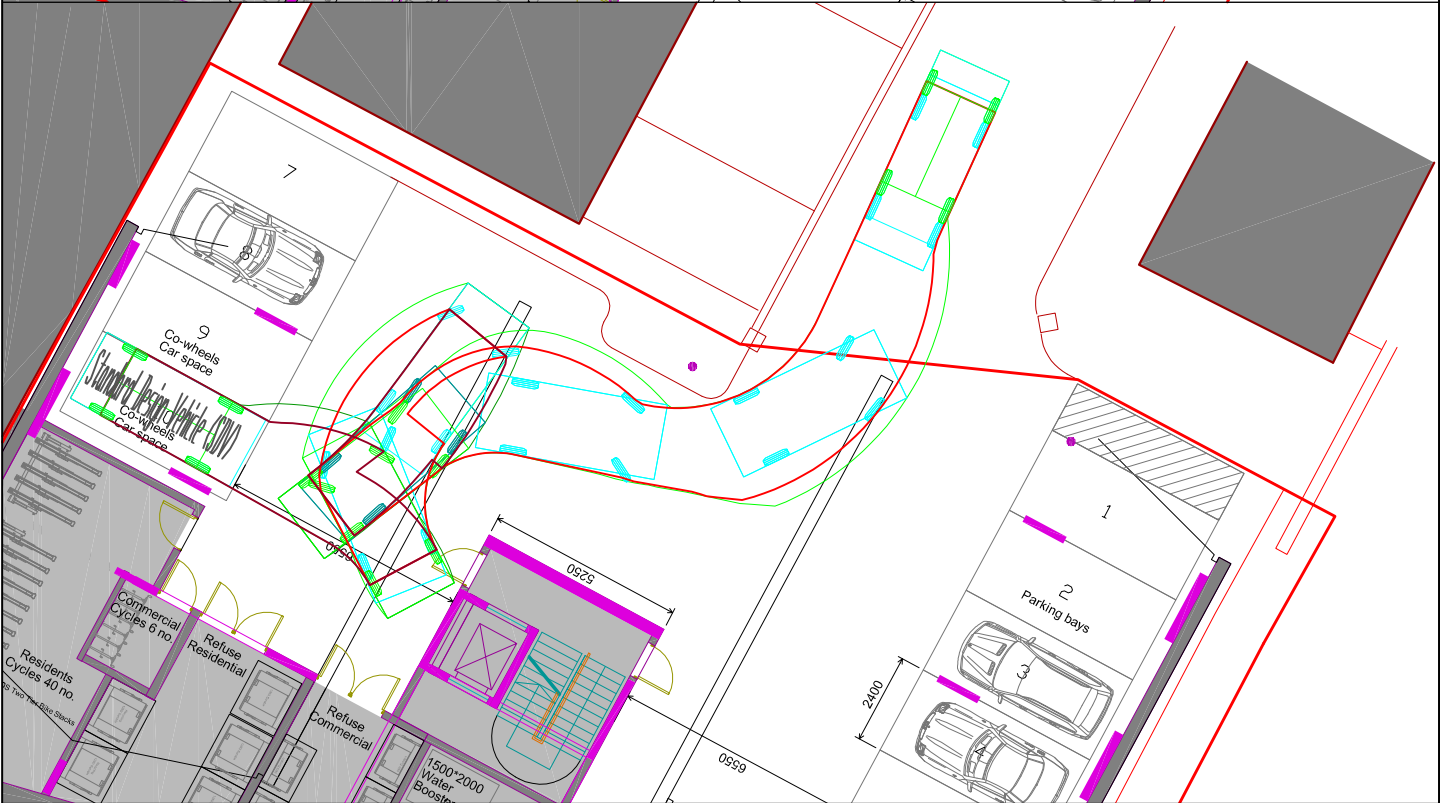
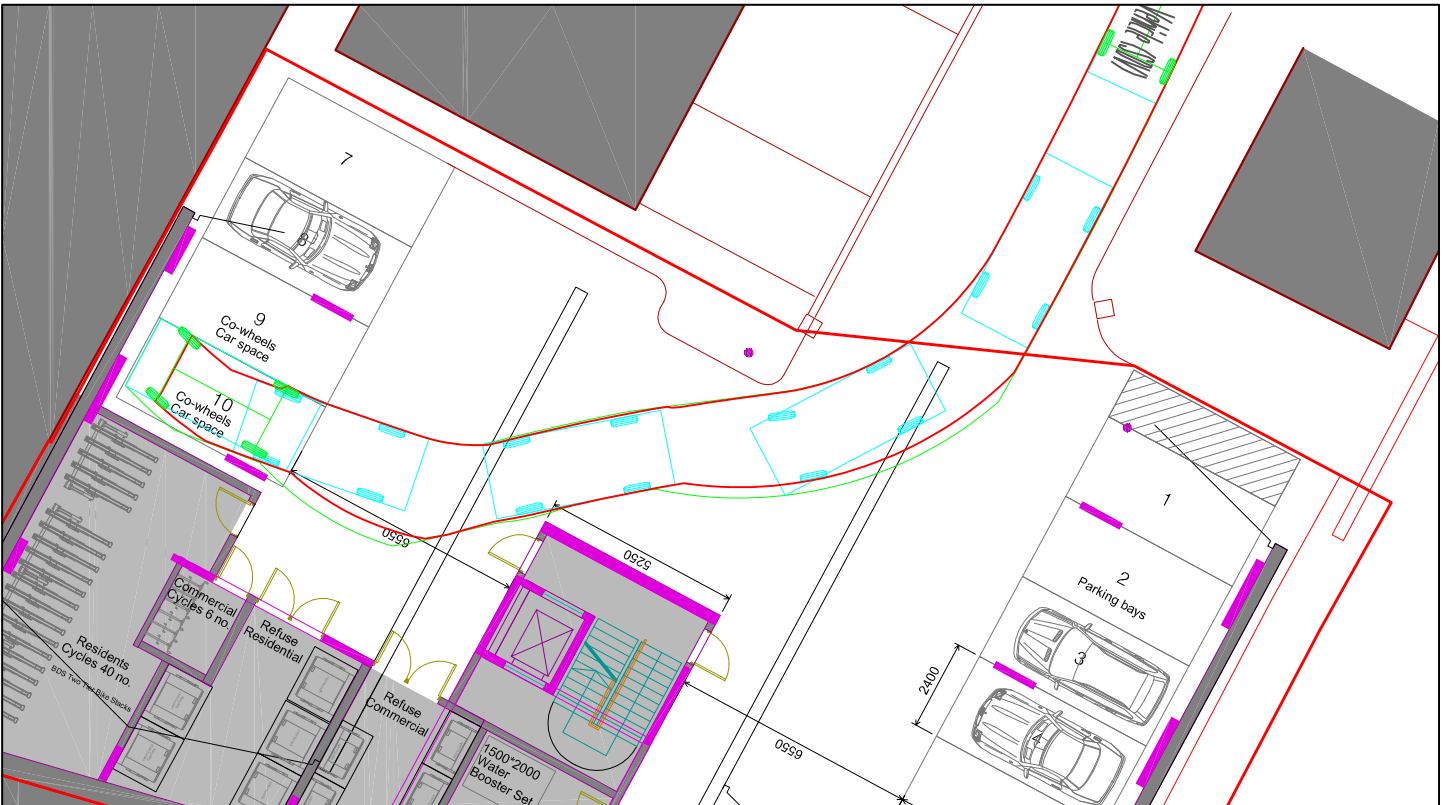
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Figure
Figure 19 Swept Path Analysis
(Standard Design Vehicle
dimensions 4.8m x 2.0m)

Date June 2016
Scale 1:200 @ A4
Source: WP
Figure Reference P1604_4_19



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Figure
 Figure 20 Swept Path Analysis
 (Standard Design Vehicle
 dimensions 4.8m x 2.0m)

Date June 2016
 Scale 1:200 @ A4
 Source: WP
 Figure Reference P1604.4.20



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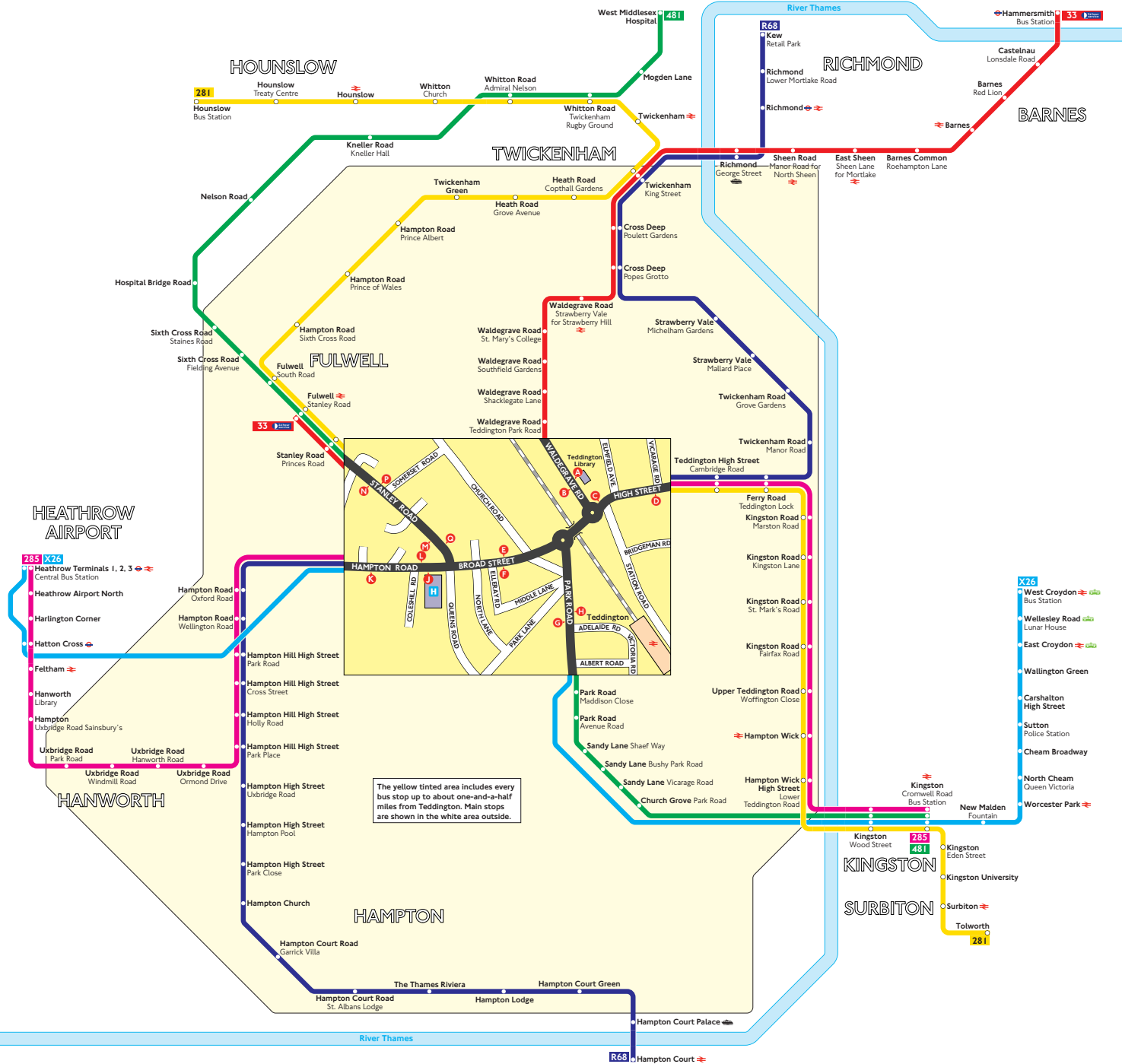
Figure
 Figure 21 Sweet Path Analysis
 (Standard Design Vehicle
 dimensions 4.8m x 2.0m)

Date June 2016
 Scale 1:200 @ A4
 Source: WP
 Figure Reference P1604.4.21

Appendix A

Bus Spider Map

Buses from Teddington



The yellow tinted area includes every bus stop up to about one-and-a-half miles from Teddington. Main stops are shown in the white area outside.

Key

- Connections with Underground
- Connections with National Rail
- Connections with river boats
- Connections with Tramlink

Red discs show the bus stop you need for your chosen bus service. The disc **A** appears on the top of the bus stop in the street (see map of town centre in centre of diagram).

Route finder

Day buses including 24-hour routes

Bus route	Towards	Bus stops
33	Fulwell	A F M N
	Hammersmith	B E P Q
281	Hounslow	D F M N
	Tolworth	C E P Q
285	Heathrow Terminals 1, 2, 3	D F J K
	Kingston	C E L
481	Kingston	E H P Q
	West Middlesex Hospital	F G M N
R68	Hampton Court	D F J K
	Kew	C E L
X26	Heathrow Terminals 1, 2, 3	F
	West Croydon	E

Appendix B

Public Transport Accessibility Level Calculation Worksheet

Project: (P1403.1) Informer House, 2 High Street, Teddington, TW11 8EW

Worksheet: Public Transport Accessibility Level Calculation

Mode	Stop	Route	Distance (metres)	Frequency (vph)	Weight	Walk time (mins)	SWT (mins)	TAT (mins)	EDF	AI
BUS	TEDDINGTON HIGH STREET	285	139.72	6	0.5	1.75	7	8.75	3.43	1.71
BUS	TEDDINGTON HIGH STREET	281	139.72	7.5	0.5	1.75	6	7.75	3.87	1.94
BUS	TEDDINGTON HIGH STREET	R68	139.72	4	0.5	1.75	9.5	11.25	2.67	1.33
BUS	TEDDINGTON PARK ROAD	481	190.34	1	0.5	2.38	32	34.38	0.87	0.44
BUS	TEDDINGTON PARK ROAD	X26	190.34	2	0.5	2.38	17	19.38	1.55	0.77
BUS	TEDDINGTON LIBRARY	33	124.93	7.5	1	1.56	6	7.56	3.97	3.97
UNDERGROUND	None Found	None Found	-	-	-	-	-	-	-	-
NATIONAL RAIL	TEDDINGTON	TEDDINGTON to LONDON WATERLOO BR	373.69	0.33	0.5	4.67	91.66	96.33	0.31	0.16
NATIONAL RAIL	TEDDINGTON	KINGSTON to LONDON WATERLOO BR	373.69	0.33	0.5	4.67	91.66	96.33	0.31	0.16
NATIONAL RAIL	TEDDINGTON	TWICKENHAM BR to LONDON WATERLOO BR	373.69	0.67	0.5	4.67	45.53	50.2	0.6	0.3
NATIONAL RAIL	TEDDINGTON	LONDON WATERLOO BR to SHEPPERTON	373.69	2	1	4.67	15.75	20.42	1.47	1.47
NATIONAL RAIL	TEDDINGTON	LONDON WATERLOO BR to LONDON WATERLOO BR	373.69	2	0.5	4.67	15.75	20.42	1.47	0.73

Total AI for this POI is 12.98

PTAL Rating is 3.

Walk File Parameters

Walk File: PLSQLTest

Day of Week: M-F

Time Period: AM Peak

Walk Speed: 4.8 kph

BUS Walk Access Time (mins): 8

BUS Reliability Factor: 2.0

LU LRT Walk Access Time (mins): 12

LU LRT Reliability Factor: 0.75

NATIONAL_RAIL Walk Access Time (mins): 12

NATIONAL_RAIL Reliability Factor: 0.75

Coordinates: 515906, 171037

Source: Transport for London (<http://www.webptals.org.uk/> [Accessed 11 March 2014])

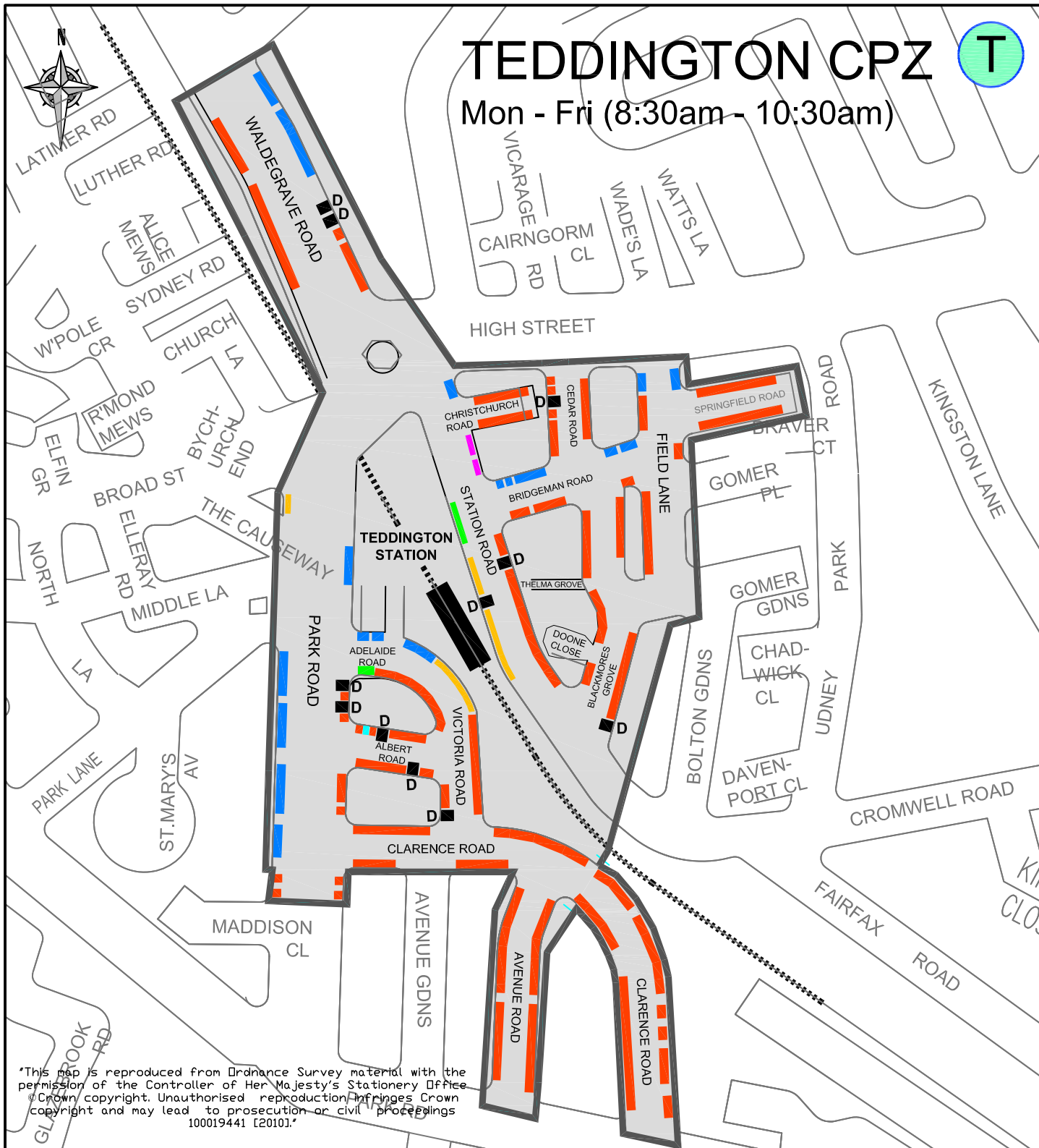
Appendix C

Controlled Parking Zone Map

TEDDINGTON CPZ



Mon - Fri (8:30am - 10:30am)



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CONTROLLED PARKING ZONE BOUNDARY



RESIDENT BAY



1 HOUR FREE



DISABLED BAY



RESIDENT/BUSINESS BAY



2 HOUR FREE



CAR CLUB



2 HOUR PAY AND DISPLAY



				CLIENT		LONDON BOROUGH OF RICHMOND UPON THAMES			
				PROJECT		TEDDINGTON CONTROLLED PARKING ZONE			
C Andy Reeves 15.01.10 B PhIn Keane 07.10.08 A Carl Gellard 19.05.08				DRAWING TITLE		CARTOON DESIGN PARKING PLACES			
				ISSUING OFFICE		TWICKENHAM		DRAWING NUMBER	
DESIGNED BY & DATE		CHECKED BY & DATE		APPROVED BY & DATE		REVISION		C	
Scale (at A4 size)		NTS		TELEPHONE		020 8487 5297			