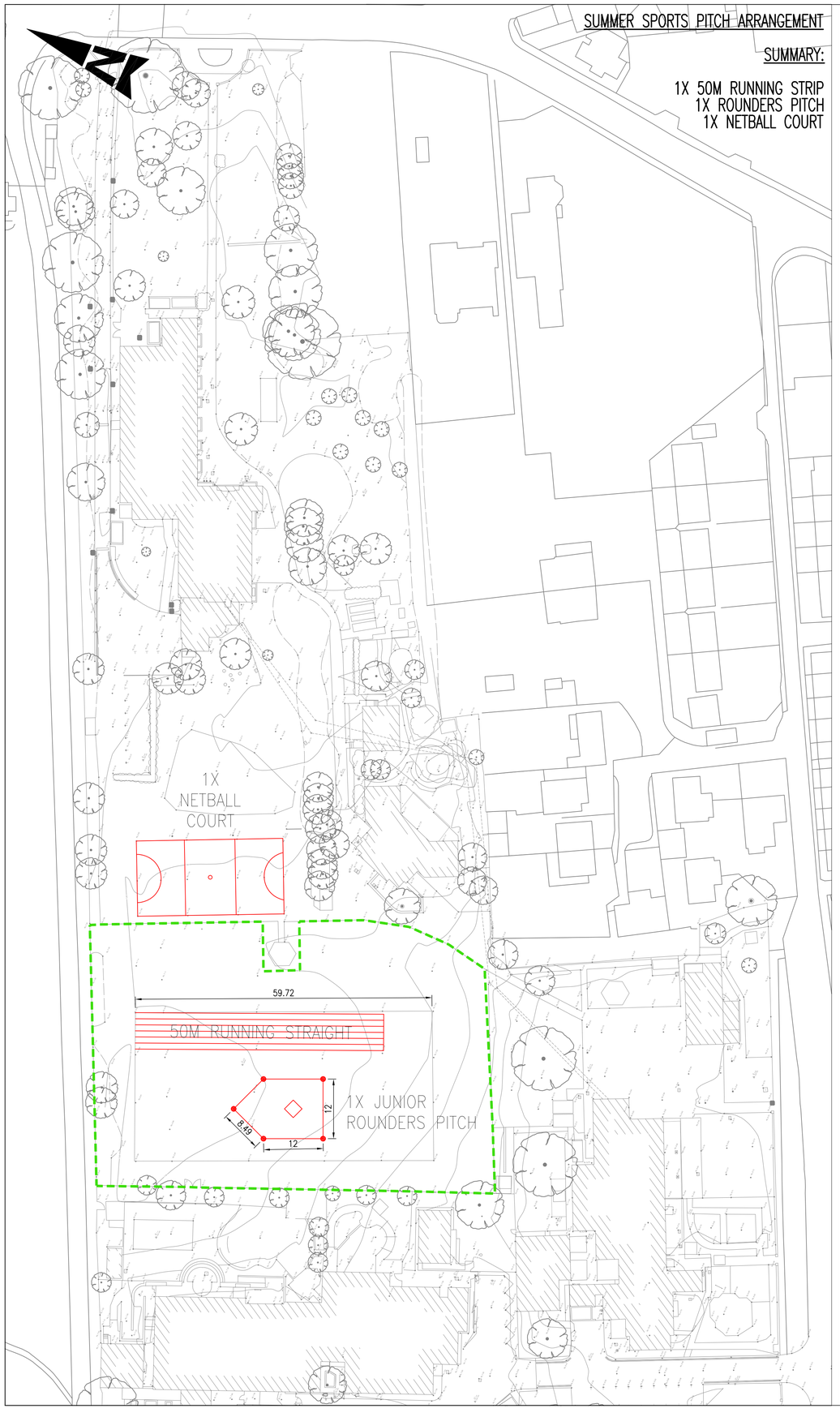
SUMMER SPORTS PITCH ARRANGEMENT

SUMMARY:

1X 50M RUNNING STRIP
1X ROUNDERS PITCH
1X NETBALL COURT



WINTER SPORTS PITCH ARRANGEMENT

SUMMARY:

1X JUNIOR FOOTBALL PITCH
(29.87M X 59.72M)

1X NETBALL COURT

ATKINS™

KEY:

PLAYING FIELD BOUNDARY
(TOTAL AREA:4,135M2)

PITCH/ COURT/ TRACK OUTLINE

NOTE:
DIMENSIONS ARE BASED ON EXISTING PROVISIONS AND SPORT ENGLAND GUIDANCE DOCUMENTATION

Stat	Purpose of Issue	Date	Auth
P	PLANNING	23.09.14	NM

Rev	Description	By	Date	Chk'd	Auth
B	SCHEME UPDATE	NP	23.09.14	JH	NM
A	ORIGINAL	NP	23.09.14	JH	NM

Atkins Limited
Landscape Architecture,
The Octagon,
27 Middleborough,
Colchester, Essex, England
CO1 1TG
Tel: (01206) 732000
Fax: (01206) 732020
www.atkinsglobal.com

Client

LONDON BOROUGH OF RICHMOND-UPON-THAMES

Project

RUSSELL PRIMARY SCHOOL EXPANSION

Title

EXISTING SPORTS PITCH ARRANGEMENT

Sheet Size	Original Scale	Designed/Drawn	Checked	Authorised
A1	1:500	NP Date 23.09.14	JH Date 23.09.14	NM Date 23.09.14

Status	Drawing Number	Rev
P	5127940-COL-LA006	B

Stat	Purpose of Issue	Date	Auth	Rev	Description	By	Date	Chk'd	Auth

ATKINS™

Atkins Limited
Landscape Architecture

©

Client
LONDON BOROUGH OF
RICHMOND-UPON-THAMES

Project
RUSSELL AND STRATHMORE SCHOOLS

Title
VEHICLE TRACKING

Sheet Size	Original Scale	Designed/Drawn	Checked	Authorised
A1	1:250	PC Date 23.09.14	JH Date 23.09.14	NM Date 23.09.14

Status	Drawing Number	Rev
P	5127940-COL-LA007	B

Stat	Purpose of Issue	Date	Auth
P	PLANNING	04.03.15	NM

Rev	Description	By	Date	Chk'd	Auth
A	ORIGINAL	NP	04.03.15	JH	NM

ATKINS™

Client: LONDON BOROUGH OF RICHMOND-UPON-THAMES

Project: RUSSELL AND STRATHMORE SCHOOLS

Title: PLANTING STRATEGY PLAN (EXTERNAL)

Sheet Size	Original Scale	Designed/Drawn	Checked	Authorised
A1	1:500	NP Date 04.03.15	JH Date 04.03.15	NM Date 04.03.15

Status	Drawing Number	Rev.
P	5127940-COL-LA015	A

INDIVIDUAL TREES

SPECIES	FORM	AGE/CONDITION	GIRTH (CM)	HEIGHT (CM)	CLEAR STEM (CM)	ROOT CONDITION	MINIMUM SIZE	MINIMUM No. OF BREAKS/BRANCHES
Amelanchier lamarckii	STANDARD (SELECTED)	2X	10–12	300–350	175–200	ROOTBALL	–	4
Acer campestre	STANDARD (SELECTED)	3X	12–14	350–425	175–200	ROOTBALL	–	5
Acer campestre 'Streetwise'	STANDARD (EXTRA HEAVY)	3X	14–16	425–600	175–200	ROOTBALL	–	5
Acer platanoides	STANDARD (SELECTED)	3X	12–14	350–425	175–200	ROOTBALL	–	4
Alnus glutinosa	STANDARD (SELECTED)	3X	12–14	350–425	175–200	ROOTBALL	–	5
Betula Jacquemontii	FEATHERED	2X	10–12	300–350	175–200	ROOTBALL	–	7
Betula pendula	STANDARD (SELECTED)	2X	10–12	300–350	175–200	ROOTBALL	–	4
Crataegus crus galli	STANDARD (SELECTED)	2X	10–12	300–350	175–200	ROOTBALL	–	4
Crataegus monogyna	STANDARD (SELECTED)	2X	10–12	300–350	175–200	BAREROOT	–	4
Malus sylvestris	STANDARD (SELECTED)	2X	10–12	300–350	175–200	BAREROOT	–	4
Malus tschonoskii	STANDARD (SELECTED)	2X	10–12	300–350	175–200	BAREROOT	–	4
Prunus avium	STANDARD (SELECTED)	2X	10–12	300–350	175–200	BAREROOT	–	4
Prunus cerasifera 'Nigra'	STANDARD (SELECTED)	2X	10–12	300–350	175–200	BAREROOT	–	4
Prunus myrobalan	STANDARD (SELECTED)	2X	10–12	300–350	175–200	BAREROOT	–	4
Pyrus Calleryana Chanticleer	STANDARD (SELECTED)	2X	10–12	300–350	175–200	ROOTBALL	–	4
Quercus robur	STANDARD (SELECTED)	2X	10–12	300–350	175–200	ROOTBALL	–	4
Sorbus x thuringiaca 'Fastigiata'	STANDARD (SELECTED)	2X	10–12	300–350	175–200	ROOTBALL	–	4

ORCHARD

ORCHARD TREES								
SPECIES	FORM	AGE/CONDITION	GIRTH (CM)	HEIGHT (CM)	CLEAR STEM (CM)	ROOT CONDITION	MINIMUM SIZE	MINIMUM No. OF BREAKS/BRANCHES
Malus domestica 'Arthur Turner'	FEATHERED	2X	–	150–180	–	BAREROOT	M27 VERY DWARF	–
Malus domestica 'Chivers Delight'	FEATHERED	2X	–	150–180	–	BAREROOT	M27 VERY DWARF	–
Pyrus communis 'Beth'	FEATHERED	2X	–	150–180	–	CONTAINER	10L	–
Pyrus communis 'Williams Bon Chretien'	FEATHERED	2X	–	150–180	–	CONTAINER	10L	–

*NOTE SCHOOL TO INVESTIGATE ORCHARD INITIATIVE PROJECTS 'FRUIT–FULL SCHOOLS – SPECIES MAY CHANGE SUBJECT TO PARTICIPATION IN ASSOCIATED PROJECTS
4No. EXISTING ORCHARD TREES TO BE TRANSLOCATED INTO NEW ORCHARD, LOCATIONS TO BE AGREED ONSITE

ORNAMENTAL

SPECIES	SIZE	STOCK	DENSITY
ORNAMENTAL MIX (3 OR 5 PER M/S)			
Bergenia cordifolia 'Purpurea'	3L	CG	3 Per M2
Buddleia Nanho Blue	3L	CG	3 Per M2
Calamagrostis × acutiflora 'Karl Foerster'	3L	CG	3 Per M2
Calamagrostis brachytricha	3L	CG	3 Per M2
Ceanothus thyrsiflorus var repens	2L	CG	4 Per M2
Choisya ternata 'Aztec'	3L	CG	3 Per M2
Choisya ternata 'Sundance'	3L	CG	3 Per M2
Cistus x pulverulentus 'Sunset'	3L	CG	3 Per M2
Cistus x 'Silver Pink'	3L	CG	3 Per M2
Cotinus'Grace'	3L	CG	3 Per M2
Geranium pratensis 'Johnson Blue'	2L	CG	5 Per M2
Geranium macrorrhizum 'Ingwersen's Variety'	2L	CG	5 Per M2
Genista tinctoria 'Royal Gold'	3L	CG	3 Per M2
Hypericum patulum 'Hidcote'	3L	CG	3 Per M2
Hebe 'Midsummer Beauty'	3L	CG	3 Per M2
Hebe salicifolia	3L	CG	3 Per M2
Lavandula angustifolia 'Hidcote'	3L	CG	3 Per M2
Miscanthus sinensis 'Cosmopolitan'	3L	CG	3 Per M2
Phormium tenax 'Atropurpureum'	3L	CG	3 Per M2
Phormium tenax 'Atropurpureum' (SP)	5L	CG	SPECIMEN
Photinia x fraseri 'Red Robin' (SP)	5L	CG	SPECIMEN
Rosmarinus officinalis 'Miss Jessopp's Upright	3L	CG	3 Per M2
Sedum'Herbstfreude'	3L	CG	3 Per M2
Spiraea japonica 'Golden Princess'	3L	CG	3 Per M2
Spiraea japonica 'Goldflame'	3L	CG	3 Per M2
Stipa gigantea (SP)	3L	CG	SPECIMEN
Vinca minor	2L	CG	5 Per M2

BOUNDARY HEDGES

HEDGE						
SPECIES	AGE/CONDITION	HEIGHT/SPREAD (CM)	ROOT CONDITION	MINIMUM SIZE	HABIT	MINIMUM No. OF BREAKS/BRANCHES
Fagus sylvatica	1+2 or 1/2	60–80	BARE ROOT	–	–	–

BUFFER & INFILL MIXES

QTY / MIX %	SPECIES	SIZE	STOCK	PLANTING NOTES
NATIVE BUFFER MIX A (1.0M C/S)				
30%	Acer campestre	60–80cm	BR	TREE AND SHRUB MIX TO BE SET OUT ON A 1.0M GRID WITH STAGGERED ROWS. TO BE NOTCH PLANTED IN GROUPS OF 3–5 NO. OF THE SAME SPECIES ENSURING THAT TREE SPECIES ARE EVENLY DISTRIBUTED THROUGHOUT THE MIX. FIRST ROW OF PLANTING TO BE A MINIMUM 1M FROM ANY FENCELINE. ALL PLANTS TO BE FITTED WITH A 600MM HIGH, 200MM DIA. SHRUB SHELTER SUPPORTED BY A CHESTNUT STAKE. EACH PLANTING STATION SHALL HAVE 75MM DEPTH OF PINE BARK MULCH, 1M DIAMETER.
15%	Cornus sanguinea	60–80cm	BR	
5%	Corylus avellana	60–80cm	BR	
25%	Crataegus monogyna	60–80cm	BR	
15%	Ilex aquifolium	3L	CG	
10%	Pinus sylvestris	30–40cm	BR	

BUFFER MIX B (2.0M C/S)				
33%	Cornus alba 'Elegantissima'	40–60cm	CG –3L	SHRUB MIX TO BE SET OUT ON A 2.0M GRID WITH STAGGERED ROWS. TO BE NOTCH PLANTED IN GROUPS OF 3–5 NO. OF THE SAME SPECIES. EACH PLANTING STATION SHALL HAVE 75MM DEPTH OF PINE BARK MULCH, 1M DIAMETER.
34%	Cornus sanguinea 'Midwinter Fire'	40–60cm	CG –3L	
33%	Cornus alba 'Sibirica'	40–60cm	CG –3L	

NOTE: SPECIES LIST IS INDICATIVE, SPECIES MAY BE ADDED / OMITTED AT DETAILED DESIGN STAGE

Stat	Purpose of Issue	Date	Auth
P	PLANNING	04.03.15	NM

Rev	Description	By	Date	Chk'd	Auth
A	ORIGINAL	NP	04.03.15	JH	NM

ATKINS™
Atkins Limited
Landscape Architecture

Client: LONDON BOROUGH OF RICHMOND-UPON-THAMES

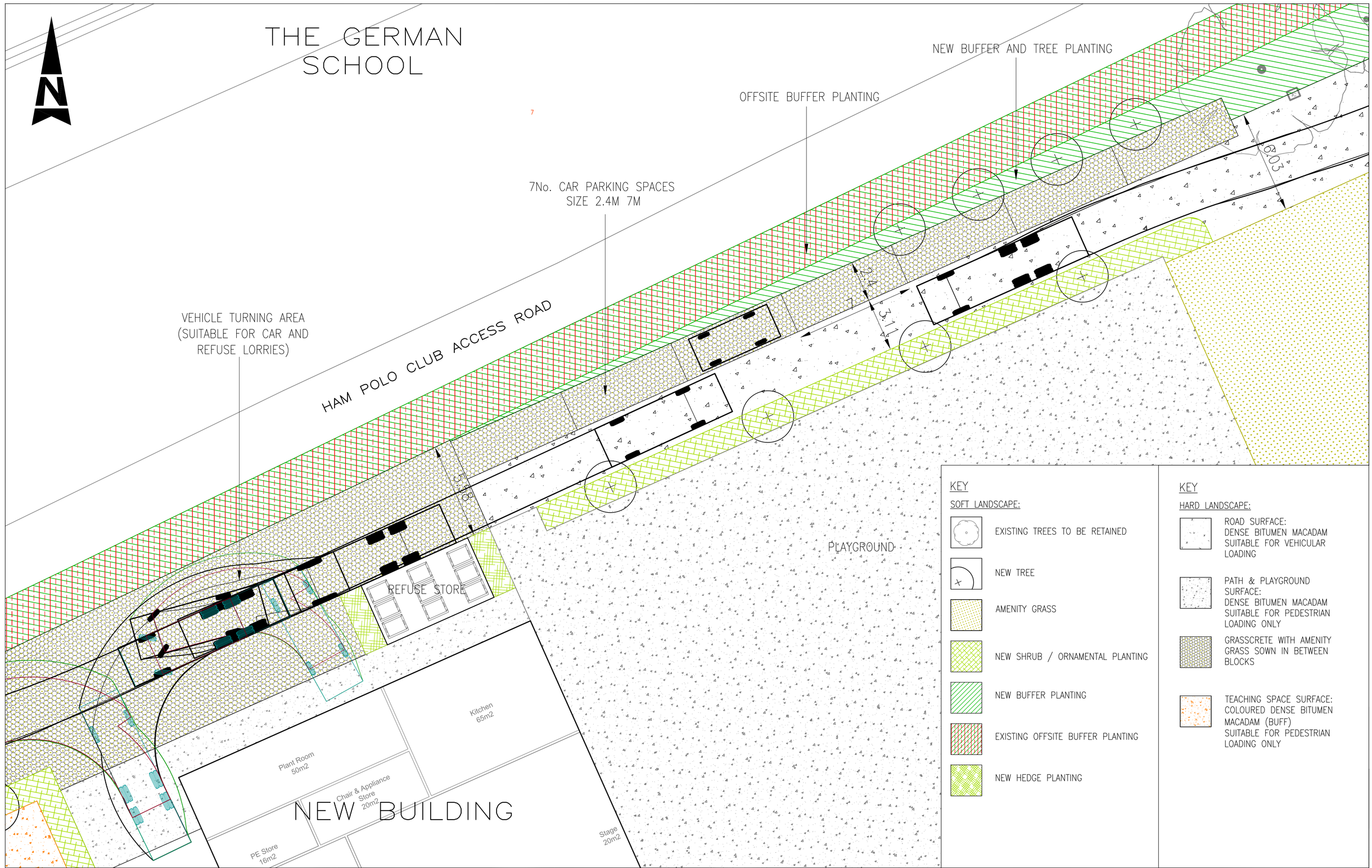
Project: RUSSELL AND STRATHMORE SCHOOLS

Title: INDICATIVE PLANTING PALETTE (EXTERNAL)

Sheet Size	Original Scale	Designed/Drawn	Checked	Authorised
A1	1:500	NP Date 04.03.15	JH Date 04.03.15	NM Date 04.03.15

Status	Drawing Number	Rev
P	5127940-COL-LA016	A

THE GERMAN SCHOOL



KEY

SOFT LANDSCAPE:

- EXISTING TREES TO BE RETAINED
- NEW TREE
- AMENITY GRASS
- NEW SHRUB / ORNAMENTAL PLANTING
- NEW BUFFER PLANTING
- EXISTING OFFSITE BUFFER PLANTING
- NEW HEDGE PLANTING

KEY

HARD LANDSCAPE:

- ROAD SURFACE: DENSE BITUMEN MACADAM SUITABLE FOR VEHICULAR LOADING
- PATH & PLAYGROUND SURFACE: DENSE BITUMEN MACADAM SUITABLE FOR PEDESTRIAN LOADING ONLY
- GRASSCRETE WITH AMENITY GRASS SOWN IN BETWEEN BLOCKS
- TEACHING SPACE SURFACE: COLOURED DENSE BITUMEN MACADAM (BUFF) SUITABLE FOR PEDESTRIAN LOADING ONLY

Stat	Purpose of Issue	Date	Auth
P	PLANNING	04.03.14	NM

Rev	Description	By	Date	Chk'd	Auth
A	ORIGINAL	NP	04.03.14	JH	NM

ATKINS™

Atkins Limited
Landscape Architecture

Client: LONDON BOROUGH OF RICHMOND-UPON-THAMES

Project: RUSSELL AND STRATHMORE SCHOOLS

Title: AVENUE PARKING DETAIL

Sheet Size	Original Scale	Designed/Drawn	Checked	Authorised
A1	1:100	NP Date 04.04.15	JH Date 04.04.15	NM Date 04.04.15

Status	Drawing Number	Rev
P	5127940-COL-LA017	A

BIN STORE

- Drawing reference: Refer to drawing 5127940-COL-LA001
- Manufacturer: Falco UK Ltd.
- Contact: +44 (0)1538 380 080
- Product reference: Falcolok-500 Bin Store, or similar approved
- Method of fixing: Ground fixed in accordance with manufacturer's specifications.
- Finish: All steel work to be hot dip galvanised to BS EN ISO 1461.
- Locking mechanism: Europrofile cylinder locks (fitted as standard)
- Other: Timber to be FSC Hardwood.

CYCLE SHELTERS/ HOOPS

- Drawing reference: Refer to drawing 5127940-COL-LA008
  Supplier and Contact: Marshalls, 0870 600 2425 (Ext 2322)
- Reference: 9No. Velozone (Cycle Shelters) & 9No. R10 (Cycle Racks)
- Materials: Cycle shelters to have transparent PET cladding and all to be Polyester powder coated (Royal Blue BS 18 E 53) to be confirmed before ordering.
- Fixing: Shelters are to be linked to form a continuous run of shelters in each location as indicated by drawing 5127940-COL-LA001, and to be bolted down as per existing manufacturer's guidance.
- Other: Shelters to incorporate cycle support rack: Marshalls R10, polyester powder coated (Royal Blue BS 18 E 53) to be confirmed before ordering. To be fixed as per existing manufacturer's guidance.

Stat	Purpose of Issue	Date	Auth	Rev	Description	By	Date	Chk'd	Auth
P	PLANNING	04.03.15	NM	-	ORIGINAL	NP	04.03.15	JH	NM

ATKINS™
Atkins Limited
Landscape Architecture,
The Octagon,
27 Middleborough,
Colchester, Essex, England
CO1 1TG
Tel: (01206) 732000
Fax: (01206) 732020
www.atkinsglobal.com

Client: LONDON BOROUGH OF RICHMOND-UPON-THAMES

Project: RUSSELL AND STRATHMORE SCHOOLS

Title: BIN STORE AND CYCLE RACK (SPECIFICATION AND IMAGES)

Sheet Size	Original Scale	Designed/Drawn	Checked	Authorised
A3	N/ A	NP Date 04.03.15	NP Date 04.03.15	NM Date 04.03.15

Status	Drawing Number	Rev
P	5127940-COL-LA018	-

Appendix A.3

Consultation Events
The Russell & Strathmore Schools
Design & Access Statement

A.3

A.3

Consultation Events - Staff, Parents, Children and the Local Community

Four separate consultation 'drop-in' events were held as follows:

- 09-07-2014, Staff, Parent and Public Consultation Evening Held at Strathmore SEN School.
- 16-07-2014, Staff, Parent and Public Consultation Evening Held at Russell School.
- 20-08-2014, Public Consultation Evening Held at Ham Youth Club.
- 09-09-2014, Staff, Parent and Public Consultation Evening Held at Russell School.

The events were all hosted by the LBRuT client team and the Atkins Design Team. The main aims of these planned engagements with the staff, parents, children and the local community were to:

- Provide the opportunity for informal and continual involvement;
- Raise awareness of the project in the area;
- Receive and share information;
- Obtain the views of the community and where possible take these into account in the design development.

Attendees at the various events were encouraged to provide the client and design team with their feedback using one of the following methods:

- Either complete feedback forms and deposit these with the LBRuT representatives at the meetings or :

- Email their feedback to one of the LBRuT representatives present at the event.

94 people in total signed-in to the drop in events. Of the 94 attendees, 22 people completed feedback forms and 11 emails were received by LBRuT. The feedback is summarised as follows:

Background Data from Completed Feedback Forms & Emails				
Student	1		Disability - Yes	0
Parent	46		Disability - No	10
Staff/Governors	13			
Resident	31		White/White British	10
Councillors	3		Asian/Asian British	
Total	**94**		Mixed/Mixed British	
			Black/Black British	
Male	8			
Female	3		Website	2
			Letter	6
			Library	1
			School newsletter	1

Russell & Strathmore Schools - Consultation Feedback					
	Stongly Disagree	**Disagree**	**Don't Know**	**Agree**	**Strongly Agree**
To what extent do you like the proposed building design ?	2	0	5	10	4
To what extent do you agree or disagree that the buildings ? layout provides the facilities required for the Strathmore and Russell pupils ?	0	3	5	6	2
To what extent do you agree or disagree that the design of the buildings are sympathetic to its environment?	1	4	3	7	3
To what extent do you like the proposed landscaping and external works shown around the new buildings?	2	2	6	4	3

What aspects of the design do you like ?	Very happy to see a clear presentation	1
	Layout looks sensible	2
	Access for mini buses from Petersham Rd	1
	Existing buildings remain until build completes	1
	Meadlands Drive remains as an entrance	1
	Like everything in one building	1
	Will replace old dilapidated buildings	1
	Having SEN provision on both sides of river	1
	Sympathetic to its environment	2
	Modern facilities welcome	2
	High quality design, like the pitch & roof details	3
	The new future for the Russell!	1
	Orientation and use of canopy as shade	1
	ventilation strategy	1
What aspects of the design do you dislike?	Increased traffic and congestion	15
	Building is too big, and too many pupils	3
	Do not sell the land, loss of play space	8
	Why is the Caretakers house out of the scope?	5
	Access has not been considered properly	2
	Choice of materials will be crucial	1
	Provide entrance away from Meadlands Drive	1
	German school add to pressures of congestion	1
	Do not make the school a 2FE	1
	Make the school a 2FE	2
	Improve the pathway through the copse	3
	Include cycle & pedestrian improvements	1
	Resite the cycle store	1
	Ensure the ponds and habitat site remain	3
	Separation of field and playground not good	1
	Design too ulilitarian	1
	Add some primary colours to the design	1
	School should conenct to the common land	1
	Invasion into MOL	1
	Entrance dull and uninspiring	1
	Car parking dismissed - not enough	4
	Landscaping could be improved	4
	Not enough affordable housing	1
	Too many houses on likley residential site	1
	Make residential plot face Petersham Road	1
	Include houses rather than flats on residential site	1
	Residential proposal too intrusive	1
	Better options available for the residential site	2
	Move school entrance to Petersham Rd	1
	Pinch points - congestion at west entrance	1
	Concerned about loss of trees	2
	Redirect Gloriana funding to this development	1
	Suggest a 20mph zone around school	1
	Increase cycle parking	1
	Through traffic allowed through sold off land	1
	Would like after school provision	1
	Flatten roof and provide roof top classroom	1
	Include a drop off point?	1
	Building height and density a concern	4
	Vehicles should not be allowed to heart of the site	1
	Design needs to be semi rural not urban	1
	Classrooms seem smaller than existing	1
	Noise pollution will increase	1

Appendix A.4

Third Party Reports
The Russell & Strathmore Schools
Design & Access Statement

A.4

Appendix A.4.1

Third Party Reports
Ecology Report
The Russell & Strathmore Schools
Design & Access Statement

A.4.1

Russell and Strathmore Schools

Preliminary Ecological Appraisal; Phase 1 Habitat and Protected Species Survey

16th April 2014; Revised 27th February 2015

Produced for
Richmond Council

Prepared by
Dan Weaver
Mouchel
209-215 Blackfriars Road
London
SE1 8NL

M: 07795044182
E : dan.weaver@mouchel.com

Document Control Sheet

Project Title	Russell and Strathmore Schools
Report Title	Preliminary Ecological Appraisal
Revision	2
Status	Revision
Control Date	27th February 2015

Record of Issue

Issue	Status	Author	Date	Check	Date	Authorised	Date
1	Final	D. Weaver	15/04/14	P. Joyce	16/04/14	A. Bascombe	16/04/14
2	Revision	P. Joyce	27/02/15	L. Deacon	27/02/15	A. Bascombe	27/02/15

Distribution

Organisation	Contact	Copies
Richmond Council	Sylvester Olutayo	PDF

This Report is presented to Richmond Council in respect to proposed works and may not be used or relied on by any other person or by the client in relation to any other matters not covered specifically by the scope of this Report. Notwithstanding anything to the contrary contained in the report, Mouchel Ltd. is obliged to exercise reasonable skill, care and diligence in the performance of the services required by Richmond Council and shall not be liable except to the extent that it has failed to exercise reasonable skill, care and diligence, and this report shall be read and construed accordingly.

This Report has been prepared by Mouchel Limited. No individual is personally liable in connection with the preparation of this Report. By receiving this Report and acting on it, the client or any other person accepts that no individual is personally liable whether in contract, tort, for breach of statutory duty or otherwise

Contents

1 Introduction

1.1 Background

Richmond Council plans to expand the capacity of the Russell School by redeveloping it and the adjacent Strathmore School, on their shared site in Richmond, Greater London. Several existing single-storey school buildings, including the main junior and infant buildings of the Russell School, will be replaced by a combination of modern single and two-storey buildings to increase the classroom space available so that a greater number of pupils can be taught at the school.

Mouchel was commissioned to provide ecological support to the development by carrying out a Preliminary Ecological Appraisal[1] to inform the planning process. This appraisal comprised an evaluation of the ecological resources present at the site, incorporating an extended Phase 1 habitat survey and an assessment of the site's habitats to support protected and/or notable species.

1.2 Site location

The Russell School and Strathmore School are located on the north western border of Richmond Park, Richmond, West London (TQ 17867 72970). The surrounding area is characterised by a mixture of residential, educational, recreational and commercial land uses with expansive managed parkland and golf courses.

1.3 Study rationale and objectives

The aim of this study was to appraise the ecological value of the study area, identify habitats and their likelihood of supporting protected or notable species.

- Interpret desk study data to reveal if there are any statutory or non-statutory designated sites, priority species and habitats or other ecological receptors of note within the vicinity of the site.
- To map all habitat types within the survey area and provide a baseline assessment of the ecological value of the habitat based on IEEM (2006) "Guidelines for ecological impact assessment in the United Kingdom".
- To identify habitats which could support protected species and review existing information regarding the presence of such species.
- To identify likely ecological constraints to the proposed redevelopment works and where possible make recommendations for mitigation and enhancement.

[1] CIEEM (2013). Guidance for Preliminary Ecological Appraisal. Chartered Institute of Ecology and Environmental Management, Winchester.

1.4 Legislation

Ecological legislation and planning guidance relevant to this assessment is listed in Appendix 1.

2 Methods

2.1 Overview

This ecological assessment comprised a desk-based assessment and an extended Phase 1 habitat survey including an investigation of the likelihood of the site supporting protected species.

2.2 Desk-based studies

Information about the locations of statutory protected nature conservation sites (e.g. Natura 2000 sites and Sites of Special Scientific Interest - SSSI) and non-statutory nature conservation sites (e.g. county wildlife sites including Sites of Nature Conservation Importance - SINCs) within an area extending 1km from the proposed site boundary (the 'study area') was obtained from the following sources:

- Greenspace Information for Greater London (GiGL);
- Multi Agency Geographic Information Centre website (www.magic.gov.uk);
- Environment Agency's environmental maps database 'What's in your backyard?' (www.environment-agency.gov.uk);
- Natural England's habitat website (www.natureonthemap.org.uk); and
- Ordnance Survey Maps.

2.3 Field survey

An extended Phase 1 habitat survey was undertaken on the 27th March 2014 within the area of the proposed works and immediately adjacent land. Habitats were identified using standard Phase 1 Habitat Survey methodology (JNCC, 2007). In addition to mapping habitat types and dominant flora, the potential for the ecological survey area to support species that are protected by law or otherwise of particular nature conservation value was assessed. Incidental field signs or sightings of such species were recorded as seen. The survey area and Phase 1 Habitat maps are provided in Appendix 2.

All buildings and trees within the survey area, covering both the Russell and Strathmore Schools, were assessed for their potential to support roosting bats. This was undertaken in accordance with the Bat Conservation Trust's Bat Surveys - Good Practice Guidelines (2012).

2.4 Assessment Methodology

The Chartered Institute of Ecology and Environmental Management (IEEM) (2006) method for the assessment of biodiversity value was applied to the findings of the survey. In accordance with this method, this report has used the following categories to value nature conservation resources:

- International – Natura 2000 sites or areas with conservation value at a European level;
- National - Site of Special Scientific Interest (SSSI) or areas with conservation value to England;
- Regional - of conservation value to the south-east;
- County - County Wildlife Sites or areas with conservation value to Greater London;
- District - of conservation value to the district;
- Local - of conservation value within approximately 5km of the proposed site; and,
- Zone of Influence Only - of conservation value within the project site and its immediate surroundings.

3 Baseline Conditions

3.1 Desk study results

3.1.1 Statutory designated sites

The data search identified three statutory designated site within 1km of the proposed site.

Richmond Park (TQ 200 730) is located approximately 200m from the site. This is designated a Special Area of Conservation (SAC), a Site of Special Scientific Interest (SSSI) and a National Nature Reserve (NNR); thus it has value at the international scale.

The park has been managed as a royal deer park since the seventeenth century, producing a range of habitats of value to wildlife. The park supports the most extensive area of dry acid grassland in Greater London. Richmond Park is of importance for its diverse deadwood beetle fauna associated with ancient trees found throughout the parkland. The park support numerous protected and rare invertebrate species. In addition the park has recorded a multitude of protected species including nine species of bats with common pipistrelle *pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus* and Nathusius Pipistrelle *Pipistrellus nathusii*, Daubenton's *Myotis daubentonii*, brown long-eared *Plecotus auritus*, noctule *Nyctalus noctula* and serotine *Eptesicus serotinus* bats numbered among them.

There are two Local Nature Reserves (LNR) within 1km of the site; Ham Common and Ham Lands.

- Ham Common (TQ184 718) is approximately 850m from the site. Designated in 2001, it is characterised by oak and birch woodland with wet hollows and acid grassland. Notable species include remote sedge *Carex remota,* cow-wheat *Melampyrum pratense* and purple hairstreak butterfly *Favonius quercus* and numerous important bird species.
- Ham Lands (TQ 165 720) is approximately 800m from the proposed site. Designated in 1992 and is an extensive area of grassland and scrub with abundant wildlife. The site was once extensively excavated for gravel, then back-filled over time with a variety of soil types from all over London. This has created a unique mosaic of different vegetation types attracting many butterfly and bird species. In the summer, the meadows support hundreds of wild flowers.

These sites are of district value as they are significant areas of space for wildlife within Richmond.

3.1.2 Non-statutory designated sites and Priority Habitats

There are nine Sites of Importance for Nature Conservation (SINCs; non-statutory designated sites), three of metropolitan importance, three of borough importance, and three of local importance:

Sites of Metropolitan Importance: River Thames and tidal tributaries SINC (M031) follows the River Thames which runs to the north and west of the site, and borders Ham Lands SINC (M083) to the west. Richmond Park and associated areas SINC (M082) is found to the east.

Sites of Borough Importance: Petersham Meadows SINC (RiBll06) and Petersham Lodge Wood and Ham House Meadows SINC (RiBll12) lie ~250m to the north, and The Copse, Holly Hedge and Ham Avenues SINC (RiBll10) borders the site to the north and west.

Sites of Local Importance: Terrace Field and Terrace Garden SINC (RiL05) and Ham Common west SINC (RiL13) lie ~1km to the north and south of the site respectively. Marble Hill Park and Orleans House Gardens SINC (RiL02) lies on the opposite side of the Thames to the north.

There are several priority habitats (formally UK BAP habitats) within the 1km study area, including:

- Lowland dry acidic grassland, within Richmond Park, approximately 200m from the site;
- Woodpasture and Parkland habitat, also within Richmond Park;
- Numerous scattered patches of deciduous woodland, including an area adjacent to the western boundary of the site known as The Copes; and,
- Traditional orchards, including a small area immediately to the north of the proposed site.

3.1.3 Species

The area surrounding the Russell and Strathmore Schools site is well recorded and GiGL holds a large number of records of protected and notable species. The majority of these are from Richmond Park to the east of the site and the Thames to the west. However of note is a record of Stag Beetle (a priority species and on the London Biodiversity Action Plan) 70m from the site. Records indicate there are a wide variety of protected species including 10 species of bats, badger, and hazel dormouse.

Russell School has a man-made badger *Meles Meles* sett on site within their nature area. The sett is constructed within a raised mound in the school's wildlife garden, placed against the site's southern boundary. There are two entrances made from plastic piping that lead to a chamber supported by wooden struts and roof. The sett

has been camera trapped by school staff, and the photographic evidence suggests at least one badger uses the sett.

3.2 Field survey

3.2.1 Phase 1 Habitat survey

The survey area comprised of small area of semi-improved grassland, a species-rich hedgerow along the northern boundary of the site, scattered trees, amenity grassland, two ponds, hard standing and buildings.

Table 3.1 - Habitat types found within the survey area.

Habitat type	Description
Semi-improved grassland	This area of semi improved grassland is managed as a wild area by the school. As such the species mix is higher than that found in the other grassland habitats on site. This habitat is common throughout the UK, and considering this site is very close to Richmond Park this habitat can only be classed as locally important.
Amenity grassland	This comprises intensively managed and regularly mown grassland, typical of lawns and playing fields. There are several patches surrounding both the Russell junior school buildings, and its infant block, both of which will be demolished. This habitat is common throughout the UK and therefore has significance within the site only.
Mixed species hedge with standard trees	The northern boundary of the site has a mixed species hedge with mature trees. The species richness was not high, however there is the possibility that there could be nesting birds within both the hedge and the trees; therefore this habitat has local significance only.
Standard trees	The trees within the school site are a mixture of mature and immature ornamental species. All are well maintained, without hazard beams, splits cracks or other features that could be used by roosting bats. There are several self-seeded trees within the hedgerow on the northern boundary of the site with ivy covering, but this is not dense enough to be useful to roosting bats and are of negligible value to these animals. In addition, there is a collection of mature ornamental trees on the eastern boundary of the site where the entrance to Russell School is situated, but these are well maintained with no splits, cracks or hazard beams and therefore of negligible value to bats. There are standard trees bordering the site, but outside the site boundary. These will not receive impacts from the works.

Habitat type	Description
Standing water (ponds)	There are two small ponds on site that look to regularly dry up despite being polyurethane lined. The water is stagnant and they are clogged with macrophytes. One has had a common frog population in the past, but overall they are of low quality. These ponds have significance within the site only.
Buildings	There are a number of buildings present on site. Some buildings can house protected species such as bats and birds. However, a careful inspection of the buildings showed that there were no such constraints associated with the buildings on this site. The buildings are of negligible biodiversity value.
Hard-standing	Hard standing is present within the school grounds. This includes all areas where an artificial surface has been laid, including: pavements, footpaths and playgrounds. Hard-standing is of negligible biodiversity value.

3.2.2 Breeding Birds

All trees and hedgerows within the proposed site have potential to support breeding birds, all species of which are protected in the UK. Breeding birds are typically present during the period March-July inclusive. There is also a bird box on a pear tree towards the southern boundary of the site.

3.2.3 Badgers

As stated above there is a man-made badger sett on site within the school nature area. The photographic evidence from the school camera trapping, suggests the sett has a low-level of use by a single badger. Fresh spoil piles shows that the sett is in current use. The sett tunnels face southward away from current school buildings and not towards the area of proposed development. The sett has been classified as an outlier sett.

A thorough check of the school site during the extended Phase 1 habitat survey did not reveal any field signs of badger use such as dung pits, footprints or hairs. However, it is reasonable to assume the boundary areas including hedgerows, tree lines and areas of rough habitat on the sites are important for badgers as they offer opportunities for concealment, areas of refuge, and corridors for commuting to foraging areas. The main body of the school site is open with few areas for such activities.

3.2.4 Bats

All buildings and trees on site were assessed for their ability to support roosting bats and all were found to have negligible value as roosting sites. Although the buildings of the Russell School are old they are well maintained with intact soffit boxes, slates and roof structures without entrance points bats could use. The mature trees on site

are well maintained and without splits, cracks, hazard beams or other structures bats could use, and ivy, where present, is not dense enough to support roosting.

The habitat on site which is predominately amenity grassland, buildings and hard-standing is generally of lower value for commuting and foraging bats when compared to the surrounding higher value habitats which include Richmond Park and the River Thames.

Figure 3.1 - Photo of badger sett entrance.

4 Discussion: Ecological Constraints & Recommendations

4.1 Designated sites

The proposed works would not have any impacts on Richmond Park SAC, SSSI and NNR or Ham Common LNR or Ham Lands LNR. These sites will therefore not be considered further. Also, the proposed scheme would not have any impacts on the adjacent SINCs or Priority Habitats, including those immediately adjacent. Works will be contained within the school site. These sites will therefore not be considered further.

4.2 Habitats

The proposed scheme is not anticipated to have any residual impacts on habitats of significant biodiversity value. Nevertheless, where possible semi-natural habitats should be retained and protected during works; the current wildlife area is to be retained and expanded and mature trees and bordering hedgerows also retained.

A new wildlife pond is proposed for the site and will involve digging out and replacing the current lined pond in the wildlife area. Where possible water, plants and earth from within the pond should be retained to add to the new pond. A method statement for pond construction detailing the above, and the new pond's design, should be produced.

4.3 Species

4.3.1 Breeding birds

Removal of hedges and trees is to be restricted to those of lower value within the site (boundary hedges, particularly that on the northern edge of the site, will be left intact, as are mature trees) should be undertaken outside the bird breeding season (breeding bird season: March-July) if possible. However if such work should be undertaken during the breeding season then an ecologist should be present to check the habitat for active nests prior to removal. If breeding birds are found, work in the vicinity of a nest should be avoided until young birds have fledged (period dependent on bird species).

The pear tree, which has a bird box, is to be retained as part of the development, and thus the bird box should be left in place.

4.3.2 Badgers

The badger sett will be retained and protected as part of the redevelopment of the Russell and Strathmore School site. Due to its location and the direction of the artificial tunnels that form it (as well as there being no evidence badgers have expanded the sett), it would not be subject to any interference (i.e. destruction or damage).

The sett is already subject to a high level of disturbance from being located within school grounds. However, as the sett is immediately adjacent to works within the

Russell and Strathmore Schools
Preliminary Ecological Appraisal

wildlife garden including the creation of a new pond, and building works for the school are proposed to be ~15m away, a Natural England disturbance licence should be obtained for the works to maintain legal compliance if the sett is currently occupied by a badger.

It is therefore recommended that a preconstruction badger survey is undertaken to inform a licensing decision. This would comprise a check of the sett to see if usage can be determined, a thorough check of the school grounds for field signs of badgers, and consultation with the school staff as to whether they have observations of badgers at the sett and/or camera trapping data that could inform whether the sett is in use. If usage is confirmed, it is recommended that disturbance licence is applied for.

Natural England will not usually issue licences to disturb badger setts during the badger breeding season; that is 30th November – 1st July. However, it should be noted that a licence would only be needed is works likely to disturb badgers are planned in immediate proximity (and not likely to be required for any works 30m distant from) to the sett. Sufficient time prior to works will be required to reconfirm sett usage and produce a licence application. Should a licence application be made, Natural England can take 30 working days to determine whether to grant a licence or not.

The following measures should be implemented during works to mitigate for potential impacts on badgers resulting from construction activities:

- Contractors should be given a tool box talk with particular regard to badgers by a suitably qualified ecologist. All site workers will be informed of the known badger sett and the legal implications and offences relevant to badger and their setts.
- Any works covered by a badger licence should be completed under ecological supervision;
- Any vegetation clearance close to the badger setts should be done under ecological supervision and done in a sensitive manner. Any badger/mammal paths should be cleared of any cut vegetation that may block them;
- Trenches should be covered overnight to prevent badgers or other mammals from falling into them or trenches should include an earth ramp to allow badgers to climb out;
- Works close to badger setts should be restricted at night to reduce disturbance to any badgers which may be leaving or returning to setts. If night works are essential then they should be completed under ecological supervision; and,
- A final walkover of badger sett should be undertaken to ensure that no damage or harm has occurred to it or any badgers and provide updated information on the status of the setts post works completion.

4.3.3 Bats

Bats are not considered a constraint to development as none of the trees or buildings on site provide suitable habitat for these animals to roost.

4.4 Recommendations to further ecological value of the site

To improve the scheme's BREEAM assessment score, there are changes that can be made to the existing habitats that will enhance the ecological value of the site as a whole. This section provides recommendations for commitments to enhance biodiversity and ecological value at the site that would enhance the scheme's BREEAM score.

There are several ways in which the ecological value of the site can be improved, including:

- Enhancing the ponds - Currently the ponds are of poor quality. Improving the quality of these ponds will increase the attractiveness of them to amphibians and aquatic invertebrates;
- Reduce the management of amenity grassland - Leaving a rough grassland boarder around the outside of the playing fields and other managed grassland would help to improve the biodiversity of plants and invertebrates within the site. Care should be taken to reduce the nutrient level in the soil before reducing the management levels as this will stop weed species such as nettle and bramble from taking hold in these areas;
- Expanding the wildlife area – Increasing the size of the wildlife area will help to improve the biodiversity of plants and invertebrates on site. Current landscaping proposals show an enlarged wildlife area with log piles and other features that will enhance the value of the site for wildlife;
- Reduce the nutrient level of the wildlife area – the current wildlife area has high levels of weed species such as nettle. By reducing the nutrient level in the soil these species will gradually reduced in cover and other native wild flowers and grasses will start to take hold;
- Further camera trapping of the badger sett – the presence of a badger sett on is a valuable educational tool;
- Enhance the foraging value to badgers on site, by improving the quality of the remaining areas of grassland, through appropriate management;
- Bat and bird boxes – additional nesting/roosting spaces for these animals could be provided on site.

Russell and Strathmore Schools
Preliminary Ecological Appraisal

We have used our reasonable endeavours to provide information that is correct and accurate and have discussed above the reasonable conclusions that can be reached on the basis of the information available.

5 References

- Bat Conservation Trust (BCT). (2012). *Bat Surveys – Good Practice Guidelines (Second Edition)*. BCT, London.
- The Institute of Ecology and Environmental Management (IEEM) (2006). *Guidelines for Ecological Impact Assessment. IEEM*.
- Joint Nature Conservancy Council (JNCC) (2007). *Handbook for Phase 1 Habitat Survey - A Technique for Environmental Audit*. Peterborough, UK.

Appendix 1: Legislation Context

This section summarises the legislation which is relevant, in ecological terms, to this assessment, i.e. legislation relevant to species present or potentially present within the field survey area is included here along with legislation relevant to protected sites in the vicinity. The following legislation is relevant to the environmental aspects of the site and has guided the scope of work undertaken in order to reasonably identify potential constraints.

Protected Sites
Special Areas of Conservation are protected under the Conservation of Habitats and Species Regulations 2010. SAC have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II of the EC Habitats Directive. SAC form part of the Natura 2000 network. Any developments likely to have significant effect upon a SAC to be assessed for its implications on the site's conservation status. This is undertaken through the appropriate assessment process. All terrestrial SACs are also designated and legally protected as SSSI's.

Sites of Special Scientific Interest (SSSI)
SSSIs provide full statutory protection for the best examples of the UK's flora, fauna, geological, or physiographical features. Originally notified under the National Parks and Access to the Countryside Act 1949, SSSIs are now notified under the Wildlife and Countryside Act 1981 (as amended). Improved provisions for the protection and management of SSSIs were introduced by the Countryside and Rights of Way Act 2000. They are designated in England by Natural England who have powers to prevent damaging operations within and around the site. There is an obligation upon land owners and relevant authorities to notify Natural England if any activity they undertake may impact upon the conservation status of a SSSI.

National Nature Reserve (NNR)
NNRs are fully protected under the National Parks and Access to the Countryside Act 1949 and the Wildlife and Countryside Act 1981. NNR are a selection of the very best parts of SSSI's. They contain examples of some of the most important natural and semi-natural terrestrial ecosystems in Great Britain. They are managed to conserve their habitats or to provide special opportunities for scientific study of the habitats communities and species represented within them. The underlying SSSI designation provides them with their legal protection.

Local Nature Reserves (LNRs)
LNRs are areas of geological or wildlife interest of special local interest. They are designated under the National Parks and Access to the Countryside Act 1949 (as amended) and amended by Schedule 11 of the Natural Environment and Rural Communities Act 2006. They are normally owned and managed by local authorities, though increasingly local wildlife trusts are taking over this role. They can be

protected from damaging operations within or around them through local bylaws or the policies of the local plan.

Sites of Importance for Nature conservation (SINC)
These sites are designated at a county level on account of their value for wildlife. These receive a measure of protection through local planning policies. The aim is to protect sites from land management changes which may lessen their nature conservation interest and to encourage sensitive management to maintain and enhance their importance.

Protected Species
European Protected Species (EPS)
All EPS, including all bat species and great crested newts in England are fully protected through inclusion within Schedule II of the Conservation of Habitats and Species Regulations 2010. This legislation makes it an offence to deliberately capture, kill, injure or disturb an EPS. It is also an offence to damage or destroy a breeding site or resting place of these species. For the purposes of this legislation disturbance has been defined as that likely:

- To impair their ability:

    (i) To survive, breed or reproduce, or to rear or nurture their young; or,

    (ii) To hibernate or migrate.

- To affect significantly the local distribution or abundance of that species to which they belong.

It may be possible to apply for a licence from Natural England to allow activities that would otherwise be an offence under these Regulations.

Wildlife and Countryside Act 1981 (as amended)
The main piece of national legislation which protects animals, plants, and in some cases their habitats in England is the Wildlife and Countryside Act 1981 (as amended).All wild birds receive protection from being intentionally killed, injured or taken damage. It is also an offence to destroy a wild bird nest (whilst being built or in use) or its eggs. Species listed on Schedule 1 of The Act receive further protection which makes it an offence to intentionally or recklessly disturb these species while building a nest, or in, on or near a nest containing eggs or young; or to disturb dependent young of such a bird.

Great crested newts and all bat species are protected from being intentionally or recklessly disturbed whilst using a place of rest or shelter and/or from being obstructed from entering such a place.

No licences are available for the purposes of development for offences under the Wildlife and Countryside Act 1981 (as amended). Some offences are subject to a

number of defences including if the disturbance was the '*incidental result of a lawful operation that could not reasonably have been avoided*'.

The Protection of Badger Act 1992
The Protection of Badgers Act 1992 makes it an offence to wilfully kill, injure or take a badger *Meles meles* or attempt to do so. Badger setts are also protected against obstruction, destruction, or damage to any part, and the animals within a sett cannot be disturbed. Licences from Natural England are available to cover these activities for the purpose of development.

The Countryside Rights of Way Act 2000 (as amended)
This legislation makes it an offence to cause reckless (and therefore not necessarily intentional) disturbance or damage to wild birds and their eggs or nests.

Priority Habitats/Species
In addition to the species and habitats protected under wildlife legislation, many more are included on lists of priority species and habitats. While inclusion in these lists does not confer any direct protection, government agencies and local authorities are obliged to have regard to those features of *principal conservation importance*, analogous with UK BAP lists, in exercising their functions (Section 74 CROW Act, 2000, Section 40 NERC Act, 2006). They are also obliged under Section 74 (3) of the CROW Act 2000 to undertake steps to further the conservation interest of such species and under Section 40 of the NERC Act, 2006 to restore or enhance a population or habitat of such species.

Appendix 2: Phase 1 Survey Map

A	First Issue	16/04/14 DW	16/04/14 PJ	16/04/14 AB	
Version		Drawing Date	Review Date	Approved Date	

Scale (at A3 size): 1:1,100
Purpose of Issue: Information

mouchel

Client: Richmond Council
Project: Russel and Strathmore Schools
Drawing Title: Phase 1 Map
Office: Blackfriars
Tel: 020 7822 2497

Appendix A.4.2

Third Party Reports
Transport Statement
The Russell & Strathmore Schools
Design & Access Statement

A.4.2

LONDON BOROUGH OF RICHMOND UPON THAMES

London Borough of Richmond Upon Thames

RUSSELL & STRATHMORE SCHOOLS, RICHMOND UPON THAMES

Transport Statement

March 2015

WYG Transport
part of the WYG group

Document Control

Project:	Russell and Strathmore Schools, Richmond upon Thames
Client:	London Borough of Richmond Upon Thames
Job Number:	A088428
File Origin:	X:\Projects\2012\A080000\A088428 - Russell and Strathmore Schools, Richmond\40 Reports\Russell and Strathmore TS v2.docx

Document Checking:

Prepared by:	Rob Davies	Signed:
Checked by:	Stephen Evans	Signed:
Verified by:	Victoria Balboa	Signed:

Issue	Date	Status
1	29/08/2014	Draft for Client/Project Team review and comments
2	04/09/2014	Second draft for Client review and comments
3	29/09/2014	Final draft
4	03/03/2015	Final Issue

www.wyg.com creative minds safe hands
100 St John Street, London, EC1M 4EH

Contents

WYG Transport
part of the WYG group

Tables

Figures

Appendices

1 Introduction

General

1.1 WYG has been commissioned by the London Borough of Richmond upon Thames (LBRuT) (the 'Applicant') to prepare a Transport Statement (TS) in support of proposals to expand the Russell Primary School at its existing site, and co-locate part of the nearby Strathmore SEN School to the existing Russell Primary School site on Petersham Road, Petersham, TW10 7AH (the 'Site') in the London Borough of Richmond upon Thames (the 'Borough'). The Site refers to both the Russell Primary and Nursery School and the Strathmore School.

1.2 The Local Planning Authority is LBRuT Planning and the Local Highways Authority is LBRuT Highways and Transport. The local transport authority is Transport for London (TfL).

1.3 The proposed expansion of Russell Primary School is to enable it to meet the high and increasing demand for one form entry' (1FE) status to 1FE plus four additional classroom spaces as part of a 'shared form of entry'. The expansion of the Russell School is phased, with the total capacity in places to be increased from 239 children to 330. The existing number of nursery school places will be retained in future.

1.4 The planning application also proposes to co-locate part of the existing Strathmore SEN School from its current site, adjacent to the Russell School, onto the Russell School site. The Strathmore School is also being expanded. It is forecast that pupil numbers at the Strathmore School will increase, with places being distributed to three Strathmore Schools also co-located on mainstream schools, including at the Russell School. The number of pupils in the Strathmore School at the Russell School Site will decrease from its current size, 57 pupils, to a proposed 18 to 24 pupils.

1.5 The aim of this TS is to provide an assessment of any potential transport impacts resulting from traffic movements associated with additional pupil numbers at Russell Primary School, as well as the transport implications of relocating the Strathmore SEN School to the Russell Primary School site.

Report Scope

Meeting with LBRuT

1.6 The requirement for, and scope of, this TS has been discussed and agreed with LBRuT Highways and Transport during the course of pre-application discussions.

1.7 During the course of pre-application scoping objectives, LBRuT Highways and Transport requested that this TS included the results of an on-street car parking occupancy survey carried out in accordance LBRuT Parking Survey Methodology. It also confirmed that the results of a separate travel survey, to be undertaken once the school returns early in the autumn or spring terms, could be submitted at a later date as supporting information.

National Regional Guidance

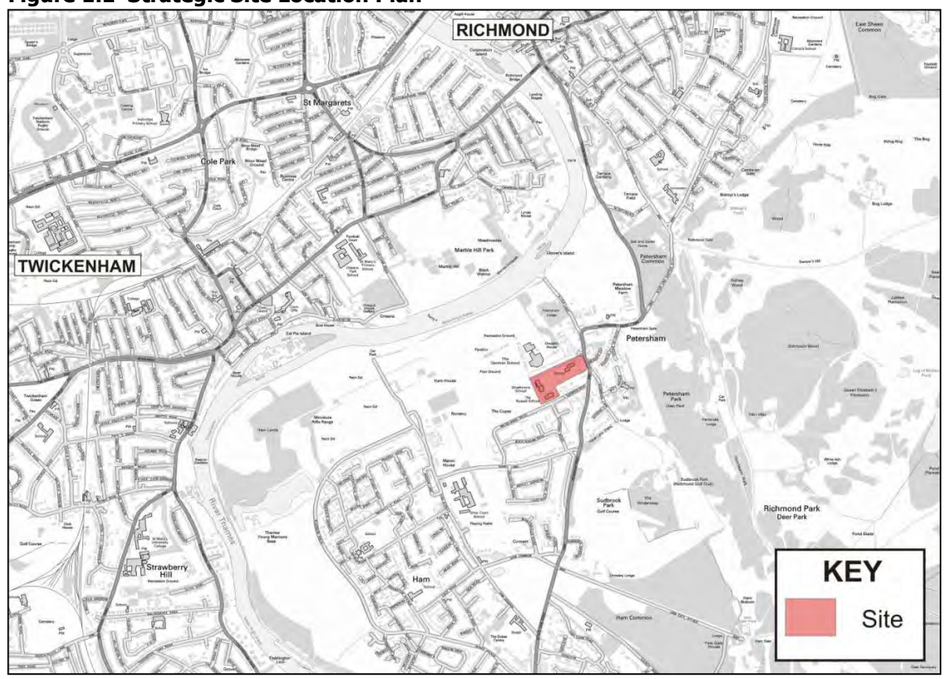
1.8 This TS is prepared generally in accordance with the Department for Transport (DfT) / Department for Communities and Local Government (DCLG) Guidance on Transport Assessment (GTA) (March

2007) and also the Transport for London (TfL) Transport assessment best practice: Guidance document (April 2010).

Site Location

1.9 The Russell School and the Strathmore School are located in the Petersham area of the London Borough of Richmond upon Thames. The Site is bounded to the east by the A307 Petersham Road, to the south by Sandpits Road and Meadlands Drive, which are predominantly residential in nature, and to the north by an access road which provides an approach to a German language school and the grounds of Ham Polo Club. The Site is also bounded by a copse to the east and a residential area to the west on the opposite side of Petersham Road. A strategic site location plan is provided in **Figure 1.1** below.

Figure 1.1 Strategic Site Location Plan



Background

1.10 The Russell Primary School currently operates a one form entry (1FE) system over seven academic years (reception plus Years 1-6), with a total of 239 primary places. In addition, Russell Primary School also operates a nursery year comprising of 52 pupils (each attending on a part-time basis, therefore 26 full-time equivalent nursery pupils). The total number of full-time equivalent pupils currently at the school, including nursery pupils, is therefore 265. The Strathmore SEN School currently has 57 full time pupils.

1.11 There are 44 and 35 staff currently working at the Russell School and Strathmore School respectively, giving a total of 79 staff currently working at the two schools on the Site.

Proposed Development

1.12 The development proposals include expanding the current Russell Primary School from its current 1FE system to a 1FE plus an additional four classes under a shared form entry provision, while the nursery is retained as existing. The expansion of the Russell School is phased, so there will be an increase in one class per year group every other year, starting with the youngest age pupils. It is forecast that, once the phased increase of pupils is completed, there will be 356 full time places at the Russell School (including full time equivalent part time nursery places).

1.13 It is also proposed that the existing Strathmore SEN School site will be disposed of, with part of the School co-locating with the Russell Primary School Site. The Strathmore School is also being expanded. It is forecast that the number of pupils at the Strathmore School will increase, with places being distributed to three Strathmore School sites co-located on mainstream schools, including at the Russell School site. It is therefore proposed that, once co-location is complete, the Strathmore School will comprise of 18-24 full time places. For the purposes of analysing the full effects of the proposed development, the maximum number of 24 pupils has been applied.

1.14 As part of the proposed development, there will be an increase in staff (both teaching and support staff) within the Russell School. It is assumed the number of full time equivalents (FTE) members of staff would increase by 10, from 44 to 54. The number of staff at the Strathmore School at the Russell School Site will decrease by 15, with 20 staff remaining at the School. The total number of staff working between the two schools at the proposed site will therefore decrease, from 79 at present, to 74.

Report Structure

1.15 The remainder of this TS is set out as follows:

- **Chapter 2:** Policy Review
- **Chapter 3:** Baseline / Existing Transport Situation
- **Chapter 4:** Development Proposals
- **Chapter 5:** Multi-modal Trip Assessment
- **Chapter 6:** Summary and Conclusions

1.16 All technical appendices (**A to C**) are included at the end of this TS for information.

2 Policy Review

2.1 This section of the TS reviews and analyses the relevant current and emerging integrated land use and transport planning policy and policy guidance in the context of the School and the Proposed Development.

2.2 The policies reviewed within this section demonstrate the ways in which the Proposed Development at the School is consistent with policy objectives at all these levels. Relevant policies identified include the following:

National Policy

- *National Planning Policy Framework (NPPF) (2012);*
- *Government's 'Be Active, Be Healthy: A Plan for getting the nation moving' (2009);*

Regional Policy

- *The London Plan (2011); and Revised Early Minor Alterations to the London Plan (2013);*
- *Mayor of London's Transport Strategy (and Public Draft for Consultation) (2010);*
- *Mayor of London's 'Way to Go! Planning for Better Transport' (2008);*
- *TfL 'What a School Travel Plan Should Contain' (2007 / 2008);*

Local Policy

- *LBRuT Local Development Framework (LDF) – Core Strategy (2009); and*
- *LBRut Development Management Plan (2011).*

National Policy

National Planning Policy Framework

2.3 The National Planning Policy Framework replaced all previous PPS and PPG documents on 27th March 2012.

2.4 The document states that development should be located and designed where practical to achieve the following:

- *"accommodate the efficient delivery of goods and supplies;*
- *give priority to pedestrian and cycle movements, and have access to high quality public transport facilities;*
- *create safe and secure layouts which minimise conflicts between traffic and cyclists or pedestrians, avoiding street clutter and where appropriate establishing home zones;*
- *incorporate facilities for charging plug-in and other ultra-low emission vehicles; and*
- *consider the needs of disabled people by all modes of transport."*

Government's 'Be Active, Be Healthy: A Plan for getting the nation moving'

2.5 In February 2009, the Government's latest policy direction on tacking obesity was released. 'Be Active, Be Healthy: A plan for getting the nation moving' is closely linked to the 'Healthy weight, Healthy Lives' document, published in 2008; and supersedes 'Choosing Activity, a physical activity plan,' released in 2005. It also has areas of common focus with the National Play Strategy. The plan establishes a new framework for delivering physical activity, alongside sport, in the lead up to

the 2012 Olympic and Paralympic Games. One of the targets for the Legacy Action Plan is to get two million more people active by 2012.

2.6 This is the Government's response to the rising trend in the prevalence of obesity in an attempt to combat obesity related ill health. Nearly one in four adults in England is obese and rates have trebled since 1980. Projections of current trends show that nearly 60% of the UK population could be obese by 2050 which, it is estimated, will mean a seven-fold increase in the direct healthcare costs of overweight and obesity.

2.7 The Chief Medical Officer (CMO) has advised that to maintain a healthy weight, adults need at least 30 minutes of moderate intensity activity on five or more days of the week. Children and young people require 60 minutes every day. Currently, only 40% of men and 28% of women aged 16 to 44 are estimated to meet the CMO's recommendations for physical activity. This figure reduces to 17% of men and 13% of women between the ages of 64 and 74.

2.8 The plan recognises that key to achieving a positive shift in levels of activity will be getting away from the traditional view of exercise to promote a broad range of activities as ways to be physically active. In some places this will mean promoting past times where the health value of the associated exercise is overlooked, for instance housework, gardening, making shorter journeys on foot or by bike and more sociable non competitive activities such as recreational walking and dance. There is a greater focus on physical activity for adults, as children and young people's needs in this area are covered in other policy documents.

Regional Policy

The London Plan (2011)

2.9 The July 2011 version of the London Plan replaces the London Plan (consolidated with alterations since 2004). It is the overall strategic plan for London and sets out a fully integrated economic, environmental, transport and social framework for the development of the capital to 2031.

2.10 Enabling sustainable modes of transport is seen to support this vision. The London Plan notes that London should be (objective 6):

> *"A city where it is easy, safe and convenient for everyone to access jobs, opportunities and facilities with an efficient and effective transport system which actively encourages more walking and cycling and makes better use of the Thames, and supports delivery of all the objectives of this Plan."*

2.11 Chapter 6 is titled 'London's Transport' and Policy 6.1 'Strategic Approach' states: *"The Mayor will work with all relevant partners to encourage the closer integration of transport and development through:*

- *encouraging patterns and nodes of development that reduce the need to travel, especially by car;*
- *seeking to improve the capacity and accessibility of public transport, walking and cycling, particularly in areas of greatest demand;*
- *supporting development that generates high levels of trips at locations with high public transport accessibility and/or capacity, either currently or via committed, funded improvements including, where appropriate, those provided by developers through the use of planning obligations;*
- *improving interchange between different forms of transport, particularly around major rail and Underground stations, especially where this will enhance connectivity in outer London;*
- *seeking to increase the use of the Blue Ribbon Network, especially the Thames, for passenger and freight use;*
- *facilitating the efficient distribution of freight whilst minimising its impacts on the transport network;*
- *supporting measures that encourage shifts to more sustainable modes and appropriate demand management;*
- *promoting greater use of low carbon technology so that carbon dioxide and other contributors to global warming are reduced;*
- *promoting walking by ensuring an improved urban realm; and*
- *seeking to ensure that all parts of the public transport network can be used safely, easily and with dignity by all Londoners, including by securing step free access where this is appropriate and practicable."*

2.12 Policy 6.3 Assessing Effects of Development on Transport Capacity states: *"Development proposals should ensure that impacts on transport capacity and the transport network, at both a corridor and local level, are fully assessed."*

2.13 Policy 6.13 'Strategic Approach' states: *"The Mayor wishes to see an appropriate balance being struck between promoting new development and preventing excessive car parking provision that can undermine cycling, walking and public transport use."*

Revision Early Minor Alterations to the London Plan (REMA) (2013)

2.14 On 11th October 2013, the Mayor published Revised Early Minor Alterations to the London Plan (REMA). The REMA are operative as formal alterations to the London Plan and form part of the development plan for Greater London.

2.15 The REMA include several relevant transport strategies, including revised cycle parking standards, which are provided in **Table 2.1** below.

Table 2.1 REMA Cycle Parking Standards

Land Use	Cycle Parking
	Space Required (Minimum)
D1 Nurseries/Schools (Primary & Secondary	1 per 10 students + 1 per 10 staff

The Mayor's Transport Strategy (2010)

2.16 The Mayor's Transport Strategy, published in May 2010 contains six main objectives to (Chapter 1, Para. 2):

- *Support economic development and population growth;*
- *Enhance the quality of life for all Londoners;*
- *Improve the safety and security of all Londoners;*
- *Improve transport opportunities for all Londoners;*
- *Reduce transport's contribution to climate change and improve its resilience; and*
- *Support delivery of the London 2012 Olympic and Paralympic Games and its legacy.*

2.17 The Mayor's transport vision for London is that over the years to 2031 (Chapter 2, Para. 29):

> *'London's transport system should excel among those of global cities, providing access to opportunities for all its people and enterprises, achieving the highest environmental standards and leading the world in its approach to tackling urban transport challenges of the 21st century.'*

Mayor of London's 'Way to Go! Planning for Better Transport'

2.18 The Mayor of London published 'Way to Go! Planning for better transport' in November 2008. This document is a precursor to the future formal process of consulting on the Mayor's Transport Strategy, which commenced in October 2009. This 'Way to Go' acknowledges the need for TfL to control costs and recognises that there is not sufficient government funding available to deliver all of the major transport projects identified in the previous Mayor's Transport Strategy.

TfL 'What a School Travel Plan Should Contain' (2007 / 2008)

2.19 TfL's 'What a School Travel Plan Should Contain' document provides guidance for schools in the preparation of School Travel Plans (STPs).

2.20 The document provides the basic aims behind an STP, which are to:

- *Significantly reduce the number of car trips on journeys to and from schools;*
- *Remove the barriers, both perceived and actual, to walking, cycling and using public transport for school journeys;*
- *Increase the number of young people and adults choosing 'active travel' options over that of the car;*
- *Increase understanding among whole school communities of the travel options that are available to them; and*
- *Provide information to allow school communities to understand the benefits of active, sustainable transport and to use this information to inform how they choose to travel.*

2.21 The document also describes the benefits of an STP, including:

- *Less cars and congestion around the school site;*
- *Healthier, more active pupils, families and staff;*
- *Less pollution around the school;*
- *Safer walking and cycling routes around the school;*
- *Improved school grounds with provision for bicycle storage (where possible);*
- *A more accessible school site; and*
- *Improved attendance and achievement.*

Local Policy

LBRuT Local Development Framework – Core Strategy (April 2009)

2.22 The Core Strategy was adopted on 21st April 2009. The Core Strategy is a Development Plan Document which is part of the Local Development Framework. It is the strategic policy document which will determine the future planning policy for the Borough and outlines the vision, spatial strategy and core planning policies.

2.23 Policy CP5 sets out the Sustainable Travel objectives and policies for the Borough. To implement this policy the Council will:

- *'Protect and enhance local facilities and employment to reduce the need to travel'; and*
- *Require developments which would generate significant amounts of travel to be located on sites well served by public transport'.*

2.24 In promoting safe, sustainable and accessible transport modes such as walking, cycling and public transport, the council will seek to:

- *'Give priority to pedestrians, including those with disabilities;*
- *Provide and promote a well designed bicycle and walking network across the Borough, and improve conditions for cyclists in the design of new developments;*
- *Prioritise the needs of pedestrians and cyclists in the design of new developments including links to existing networks and requiring the provision of adequate cycle parking;*
- *Improve provision for buses, particularly in Richmond and Twickenham town centres;*
- *Achieve integration and convenient interchanges at all the Borough's stations;*
- *Improve walking, cycling and public transport in areas less well served by public transport;*
- *Undertake traffic management measures to reduce the impact of traffic, particularly in Richmond town centre, district and local centres, residential areas and streets unsuitable for through traffic;*
- *Encourage major employers and schools to develop Green Travel Plans and require these where appropriate with planning applications; and*
- *Require all major developments to submit a Transport Assessment/Statement based on TfL's Best Practice Guidance'.*

LBRuT Development Management Plan (November 2011)

2.25 The Development Management Plan (DMP) was adopted on 1st November 2011. It is a Development Plan Document (DPD) and one of the documents that make up the Local Development Framework. The DMP builds on the Core Strategy and includes more up to date and detailed policies for managing development.

2.26 The DMP policies for Transport and Parking are designed to take forward Core Policy 5 (CP5), which seeks to promote sustainable travel with the aim of improving accessibility and reducing congestion and pollution.

2.27 Policy DMTP 1 'Matching Development to Transport Capacity' states:

> *'Higher trip generating development will only be permitted in areas which are, or at the time of implementation are, easily accessible by transport other than the private car, and well located with respect to local services.'*

2.28 Policy DMTP 6 'Walking and the Pedestrian Environment' states that, to protect, maintain and improve the pedestrian environment, the Council will ensure that:

- *'New development and schemes protect, maintain and, where appropriate, improve existing pedestrian infrastructure;*
- *New development does not adversely impact on the pedestrian environment and provides appropriate pedestrian access; and*
- *New development and schemes improve the safety and security of the pedestrian environment where appropriate'*

2.29 Policy DMTP 7 refers to cycling in the Borough, and states that:

> *'to maintain and improve conditions for cyclists, the Council will ensure that new development or schemes do not adversely impact on the cycling network or cyclists and provide appropriate cycle access and sufficient, secure cycle parking facilities'*.

Car and Cycle Parking Standards

2.30 The DMP provides updated car and cycle parking standards for the Borough, which is provided in **Table 2.2** below. In accordance with the London Plan, lower provision is deemed to be appropriate in some cases where public transport provision and/or pedestrian/cycle access is particularly good.

Table 2.2 DMP Car Cycle Parking Standards

Land Use	Vehicle Parking Space Required		Cycle Parking
	Controlled Parking Zones (Maximum Unless Otherwise Stated)	The Remainder of the Borough	Space Required (Minimum)
D1 Schools	**1 space per 2 staff** Arrangements must also be made for adequate setting down areas and visitor parking spaces. Adequate facilities for the setting down of coaches shall also be considered.	**1 Space per 2 staff**	**5 spaces per classroom** Depending on the nature of the school

Summary

In summary, it can be seen that there are a number of current and emerging integrated land use and transport planning policies and policy guidance documents that support and underpin the Proposed Development at the School. These policies also encourage travel to / from the School to be by sustainable travel modes where possible, with particular emphasis in this case on cycling. With regard to the Proposed Development, the key policy objectives to note are:

- *Provide adequate social infrastructure including schools to meet the needs of existing and future communities;*
- *Provide sustainable transport choices and promote behaviour change measures to encourage sustainable travel;*
- *Give priority to people over ease of traffic movements;*
- *Seek to reduce dependency on the private car;*
- *Adopt a sustainable level of car parking provision within maximum standards;*
- *Make provision for pedestrian and cycle access;*
- *Encourage the wider use of cycling for staff and students as a viable alternative to the private car.*
- *Provide cycle and powered two-wheeler parking in line with minimum parking standards.*

3 Baseline / Existing Transport Situation

General

3.1 This section of the TS establishes the existing (or 'baseline') transport conditions currently prevailing at the site and in the immediate surrounding area.

3.2 It is important that baseline conditions are accurately established so that the context of any potential future development at the School site, and its potential impact on the surrounding transport and highway networks, can be fully understood.

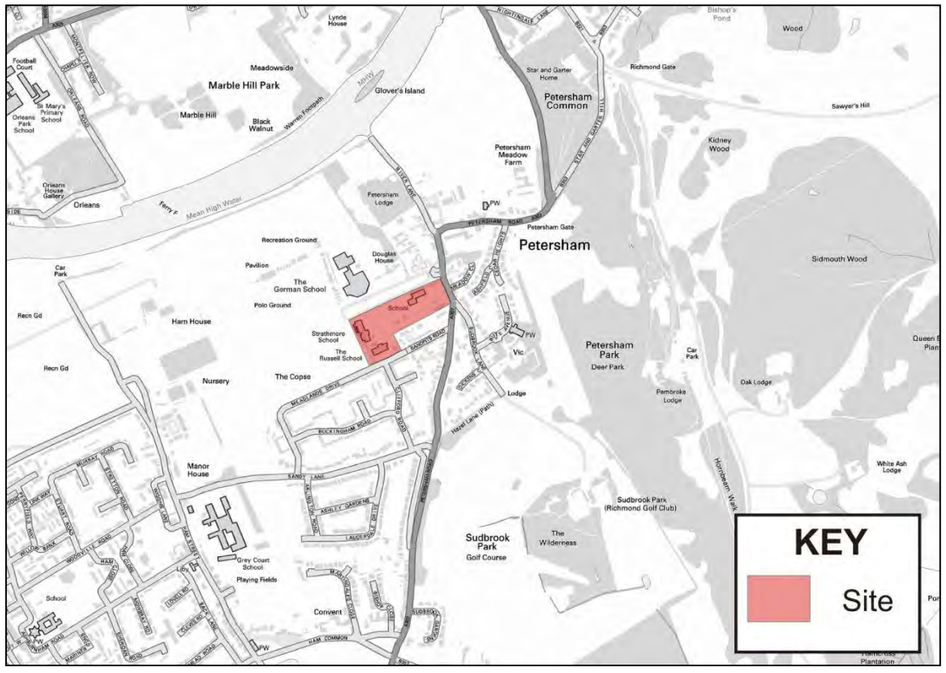
3.3 Baseline studies have been informed by a parking survey carried out on the 2nd and 3rd July 2014, and a detailed site audit conducted by WYG on Friday 22nd August 2014, as well as desk based research undertaken throughout August and September 2014.

Site Location and Description

3.4 The site is located in the London Borough of Richmond upon Thames on the A307 Petersham Road, a busy main road in the Petersham area of the Borough.

3.5 A plan showing the location of the site in the context of the wider surrounding area is provided in **Figure 1.1** within **Chapter 1** of this TS. A detailed site location plan is provided in **Figure 3.1** below.

Figure 3.1 Detailed Site Location Plan

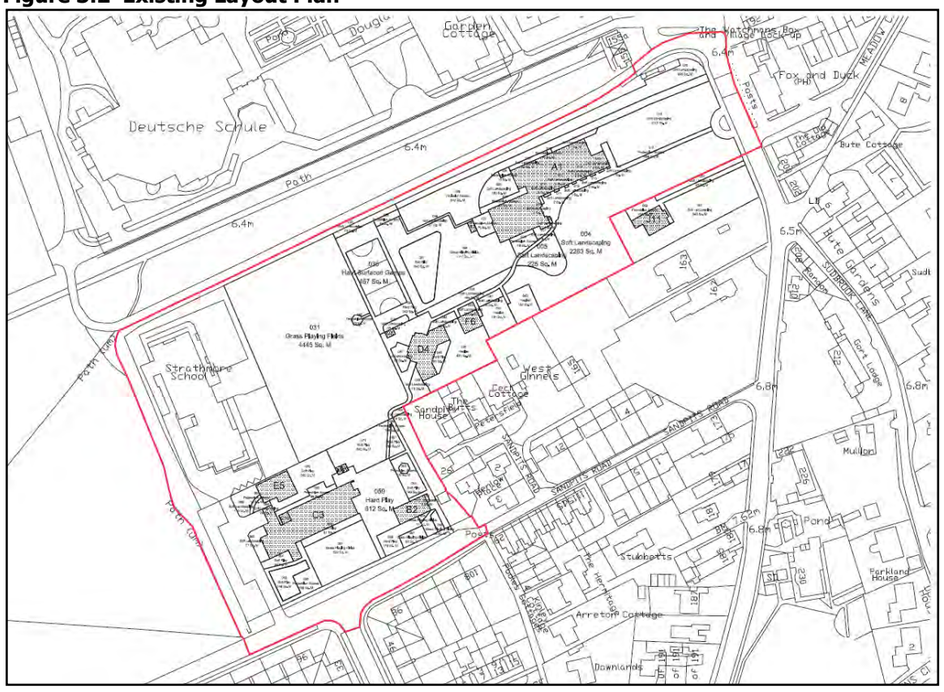


3.6 The site is bounded by to the south by Sandpits Road and Meadlands Drive, which are predominantly residential in nature and to the north by an access road which provides an approach to a German language school and the grounds of Ham Polo Club. The site is also bounded by a copse to the east, polo grounds to the north-west, and a residential area on the opposite side of Petersham Road to the west.

3.7 The two School's are located separately within the site; the Strathmore School is located at the eastern boundary of the site, and borders the Copse to the west, the access road to the north and playing fields and Meadlands Road to the south. The Russell Primary School is roughly located at the northern central boundary of the site, and borders playing fields to the west and south, the access road to the north, and Petersham Road to the east. The Russell School Nursery building is located at south-eastern boundary of the site, adjacent to the Strathmore School. There is also an auxiliary building for the Russell School located roughly northeast of the Nursery and southwest of the Primary School.

3.8 An existing site layout plan is shown in **Figure 3.2** below for information.

Figure 3.2 Existing Layout Plan



Access Arrangements

Pedestrian Access

3.9 There are currently four access points from the footway into the school specifically for Pedestrians; one, which serves the Russell Primary School, is located on Petersham Road, while the others,

which serve the Russell Nursery School and Strathmore Schools, are situated along Meadlands Drive.

3.10 All access points have gates, which are unlocked and opened during the course of the school day and provide access to main entrance doors. Visitors must use the main entrance to gain access to the School site outside of start and finish times. Outside of school hours these gates are locked.

3.11 Existing pedestrian gates are shown below in **Figures 3.3** and **3.4.**

Figure 3.3 Pedestrian Entrance – Meadlands Drive

Figure 3.4 Pedestrian Entrance – Petersham Road

Vehicular Access

3.12 Vehicle access onto the site is also made via separate access points. The main vehicular access point for the Russell School is located on Petersham Road. The access road runs from Petersham Road, along the northern boundary of the site, and provides access to dedicated staff / visitor parking to the west of the Russell School Site. The second vehicle access point is on Meadlands Drive, and provides dedicated access to the main entrance and parking facilities of both the Strathmore School and Russell Nursery School.

3.13 Existing vehicle access points are shown in **Figure 3.5** and **Figure 3.6** below.

Figure 3.5 Vehicle Entrance – Meadlands Drive

Figure 3.6 Vehicle Entrance – Petersham Road

3.14 Vehicular access onto the Site from both access points is normally restricted to staff; and also visitors (not including parents picking-up / dropping-off children), refuse collections and deliveries.

3.15 It is noted that the majority of vehicular movements are tidal in nature, i.e. that they comprise predominantly arrivals (inbound movements) in the morning and departures (outbound movements) in the afternoons. The potential for conflict between inbound and outbound movements is therefore minimal.

Walking Conditions

3.16 The primary pedestrian routes to the school are along Petersham Road, Sandy Lane, Meadlands Drive and Sandpits Road. All of the footways in the area are well lit, and are generally in excess of 2m wide. There is also a separate off-road pedestrian footpath which provides a shortcut from the Sandy Lane / Petersham Road roundabout to the Meadlands Drive entrances of the school (see **Figure 3.7**).

Figure 3.7 Pedestrian Footpath – Meadlands Drive / Sandpits Road

3.17 There is currently one pelican crossing facility with dropped kerbs which is located on Petersham Road directly outside the entrance to the Russell Primary School, as seen in **Figure 3.8**. This is provided with tactile information at both sides and edge delineation of crossing markings.

Figure 3.8 Pelican Crossing on Petersham Road

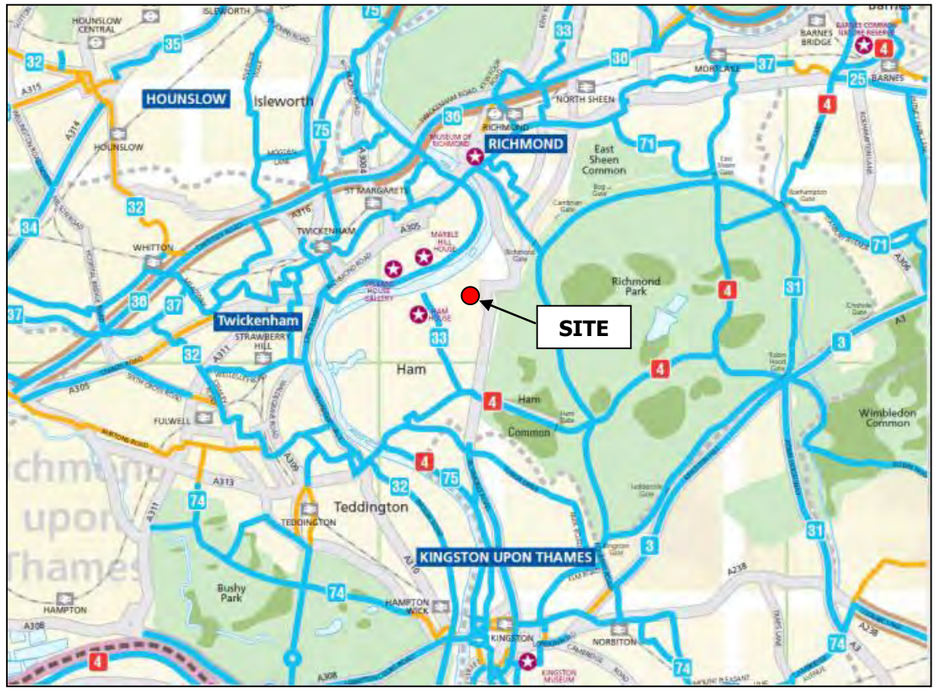
3.18 There is a also designated 'Home Zone' adjacent to the pedestrian access points on Meadlands Drive, as shown in **Figure 3.9**. The purpose of these areas is to prioritise pedestrians and cyclists over motor vehicles.

Figure 3.9 Home Zone – Meadlands Drive

Cycling

3.19 According to the Local Cycling Guide 10 (Transport for London), there are a number of cycle routes that run in close proximity to the Site, including LCN route 3, as seen in **Figure 3.10**. However, it should be noted that some on-road cycle lanes in the Borough may not be suitable for young children to use.

Figure 3.10 LCN Cycle Map



Public Transport Services

3.20 A review of the local public transport services and facilities has been undertaken as part of the TS work. This has been informed by both a desktop study, and the site audits.

Public Transport Accessibility

3.21 The industry standard accessibility indicator for London, the 'Public Transport Accessibility Level' (PTAL) rating, has been used to identify the level of accessibility of the School site to the local public transport network. PTALs are a theoretical measure of the accessibility of given point to the public transport network, taking into account walk access time and service availability. These PTALs are determined by the proximity of a site or point on a map to public transport services, such as bus stops, rail and Underground stations; and range from 1a ('Very Poor') to 6b ('Excellent').

3.22 The Site has, and is located within an area with, a Public Transport Accessibility Level (PTAL) rating of 2 ('Poor').

3.23 The Site-specific PTAL calculation for the Site, obtained from the TfL Planning Information Database (http://www.webptals.org.uk) is included at **Appendix A** for information.

Bus Services

3.24 The nearest local bus stop to the site is located directly outside the pedestrian entrance to the school at Petersham Road. This stop serves London Bus Routes 65 and 371, towards Ealing Broadway and East Sheen respectively. There is another bus approximately 85 metres to the south,

which also serves the 65 and 371 bus routes in a southbound direction towards Kingston upon Thames. Bus stops near the Site are shown in **Figure 3.11** and **Figure 3.12** below.

Figure 3.11 Southbound Bus Stop

Figure 3.12 Northbound Bus Stop

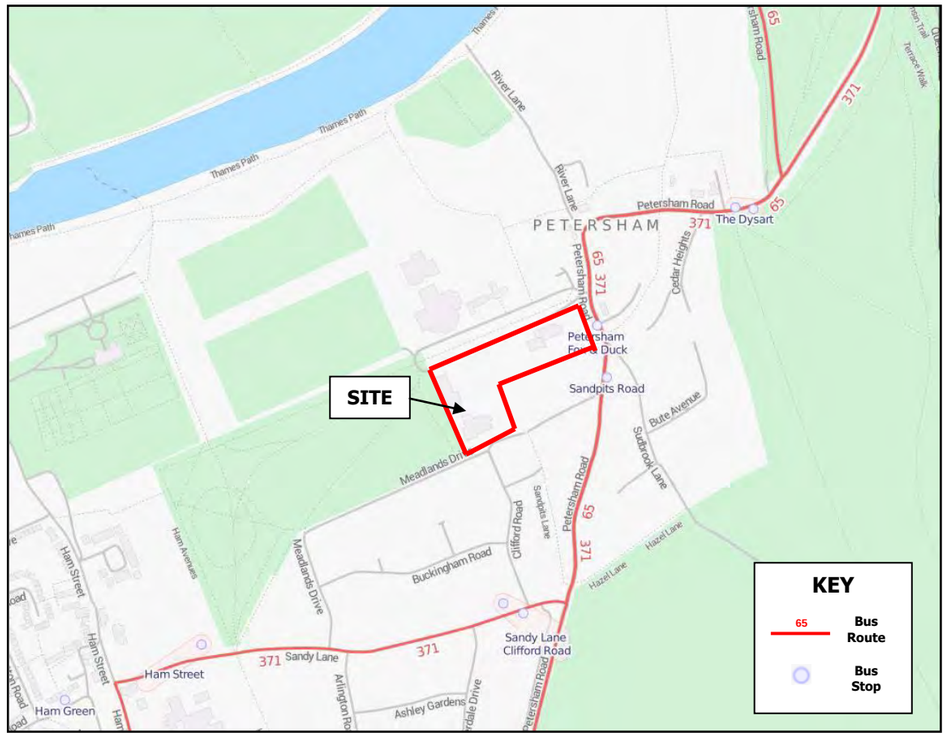
3.25 Details of these bus routes, including frequencies throughout the week, are provided in **Table 3.1** below.

Table 3.1 Local Bus Services

Route Number	Route Description	Frequency (min)			
		Mon - Fri	Evening	Saturday	Sunday
65 (24 hr)	Toward Ealing Broadway (northbound)	6-10	12	7-10	9-12
	Toward Kingston upon Thames (southbound)	6-9	12	7-8	9-12
371	Toward East Sheen (northbound)	8-14	15	8-9	12
	Towards Kingston upon Thames (southbound)	8-14	15	8-9	12

3.26 A plan showing the bus stops in relation to the site and the routes serving them is presented in **Figure 3.13** overleaf.

Figure 3.13 Location of Bus Stops / Routes in Relation to Site



Mainline Rail Services

3.27 The School is located within approximately 2.25km (about 30 minutes walking distance) of Richmond Railway station, which is in London Fare Zone 4. Services operating from this station offer high frequency connections to London Waterloo, Vauxhall, Clapham Junction and Stratford to the east and Reading and Ascot to the west. The average journey time to Waterloo is 31 minutes, with services at a frequency of 10 minutes. Frequencies of National Rail services from Richmond are provided in **Table 3.2** below.

Table 3.2 National Rail Services from Richmond Railway Station

Destination	Average Journey Time	Frequency		
		Monday-Friday	Saturday	Sunday
London Waterloo	25m	8 per hour	8 per hour	5 per hour
Reading	1hr 04m	2 per hour	2 per hour	2 per hour
Stratford	1hr 01m	4 per hour	4 per hour	4 per hour

3.28 St Margarets and Twickenham Mainline Railway stations are also located within 2.5km (about 35 minutes walking distance) of the school, and each also offer frequent service to Waterloo and other districts throughout south and west London.

London Underground and Overground

3.29 The nearest Underground and Overground stations to the School is also Richmond, which, in addition to National Rail services, also serves as the terminus of both the London Underground's District Line and the North London Line of the London Overground.

3.30 The District Line offers regular services to the West End and the City, with direct services from Richmond to Victoria and Blackfriars within 30 and 40 minutes respectively. The North London Line of the London Overground also directly connects Richmond with key interchanges such as Willesden Junction and Euston Station.

3.31 It is useful to note that Richmond Station is served by both the 65 and 371 London Bus Routes which both stop directly outside the School. The journey from the school to the station via bus takes on average 16 minutes.

Local Highway Network

3.32 The School is accessed from its eastern side via Petersham Road, which forms the A307. Petersham Road runs north-south, and serves as the main road connection between Richmond and Kingston. The speed limit on the road for the majority of its length is 30mph, although speeds on the road in the direct vicinity of the site are limited to 20mph. In the vicinity of the school, surrounding roads are predominantly residential in nature and also have speed limits of 30mph. Residential streets in the area include Meadlands Drive and Sandpits Road to the south, and Meadow Close and Forge Lane cul-de-sacs to the east of the school on the opposite side of Petersham Road.

3.33 At the junction of Clifford Road and Meadlands Drive, adjacent to the entrance of the Russell School nursery, there is signage to signal that the area is a dedicated 'Home Zone'. Home Zones are designed primarily to designed to meet the needs of pedestrians and cyclists before those of cars and drivers, but while also accommodating cars. The speed limit for this section of Meadlands Drive is limited 15mph.

3.34 The Site is therefore well connected in highway terms. Photographs of Petersham Road looking north and south are shown in **Figure 3.14** and **Figure 3.15** respectively.

Figure 3.14 Petersham Road (Northbound)

Figure 3.15 Petersham Road (Southbound)

Parking

On Site Car Parking

3.35 There are 12 marked staff car parking spaces currently provided at the Russell School from the Petersham Road entrance, with a further 15 spaces accessed via Meadlands Drive; 10 of which are designated for nursery staff, and 5 of which are for Strathmore School Staff.

3.36 The car parking is for staff and visitors (excluding parents) only, although parents may be permitted to use the parking spaces in special circumstances (e.g. dropping off / picking up a disabled or sick child).

On Street Car Parking

3.37 During the site audit, it was noted that the surrounding roads were generally well utilised in terms of parking, with vehicles parked on both sides of Meadlands Road and adjacent streets to the south of the Strathmore School, and directly opposite the main Russell School entrance on Meadow Close. It was also noted that the vast majority of on-street parking available surrounding the Site was unrestricted.

3.38 There are white 'zigzag' markings at Petersham Road, denoting no stopping on school entrance markings at any time. There are also yellow 'zig zag' and 'School – Keep Clear' markings at the vehicle entrance on Meadlands Road. These markings denote no stopping at the school entrance during term times, Monday to Friday, 08:00 – 09:30 and 14:30 – 16:00.

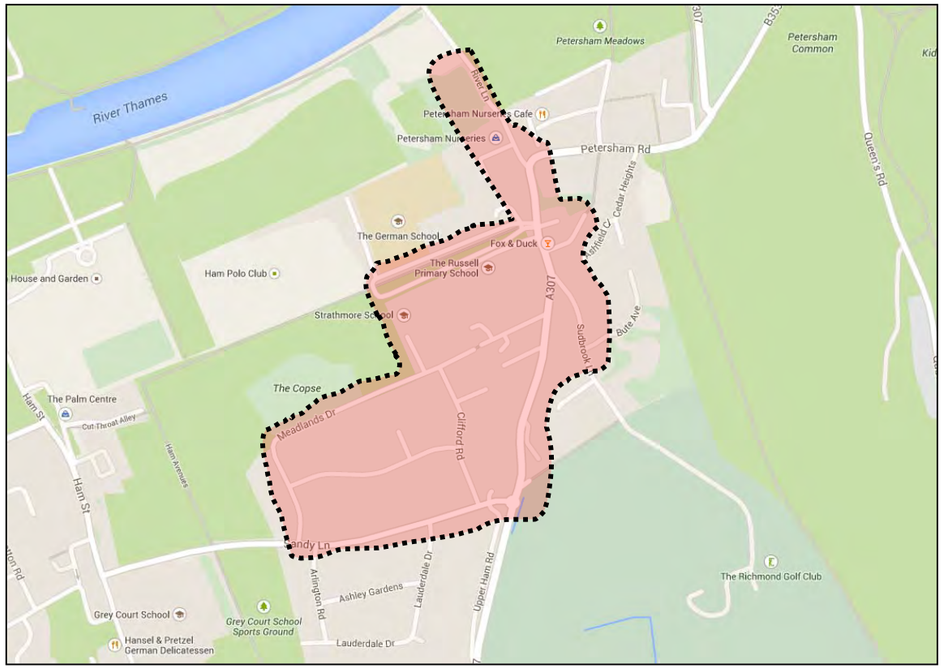
Parking Beat Survey

3.39 A parking beat survey was undertaken on Wednesday 2nd and Thursday 3rd of July, in accordance with the relevant aspects of the Richmond Parking Survey Methodology, to assess daily changes in parking demand across the day during term time, where parking demand is at its peak. The scope of the Survey was discussed and agreed with LBRuT Highways and Transport in advance. The

survey was carried out in streets within at least 200m walking distance of the site, in accordance with the LBRuT methodology. The methodology requires that all streets within at 200m of the Site must be examined in length, until another junction is reached.

3.40 The parking survey area is shown in **Figure 3.16**.

Figure 3.16 Parking Survey Boundary



3.41 The streets included in the Parking Beat Survey are:

- Meadlands Drive;
- Buckingham Road;
- Buckingham Road (Cul-de-sac);
- Clifford Road;
- Petersham Close;
- Sandpits Road;
- A307 Petersham Road;
- Sudbrook Lane;
- Meadow Close; and
- River Lane.

3.42 Numbers of cars parked and spaces recorded throughout the day were added together in order to provide an average total number of car spaces that each individual street, and the study area in

total, is able to accommodate. These figures were divided by the number of beats (17) in order to find the average total number of cars that particular streets are able to accommodate at maximum capacity. It should be noted that these figures provide an estimate of the available spaces at any given time, and does not take account for factors such as driver behaviour, length of individual cars, spaces between cars and general poor parking behaviour. It is possible that numbers of cars parked / spaces available may be higher or lower than the average number of spaces during individual beat surveys.

3.43 The average number of available spaces on each street is provided in **Table 3.3** below.

Table 3.3 Total Number of Car Parking Spaces

Road Name	Average Total Number of Spaces
Meadlands Drive	113
Buckingham Road	72
Buckingham Road (Cul-de-sac)	14
Clifford Road	54
Petersham Close	8
Sandpits Road	4
A307 Petersham Road	0
Sudbrook Lane	1
Meadow Close	15
River Lane	5
Total:	**285**

3.44 The highest number of available spaces is on Meadlands Drive, to the southwest of the Site. There are no spaces available on the A307 Petersham Road, as this area is subject to restrictive parking controls within the boundary of the Parking Beat Survey.

3.45 Parking Beat Surveys were carried out during the two days, including at both morning and afternoon peak times as well as quieter periods throughout the day. As there is also a nursery school at the site, parking demand was also assessed during the middle of the day, when there is a changeover of morning and afternoon pupils at the nursery. The parking survey was divided into six periods, each of which included beats at 15 minute intervals:

- Before School (08:00 – 08:30)
- Start of School (08:45 – 09:15)
- Mid Morning & Midday (09:30 – 13:00)

- Early Afternoon (14:30 – 15:00)
- End of School (15:15 – 15:45)
- After School (16:00 – 17:00)

3.46 For the purposes of providing a summary of the parking survey data, the peak time (in terms of parking occupancy) from each of the periods mentioned above has been used to give a worst case scenario summary of parking availability throughout the day. The full parking survey data is included in **Appendix B** at the end of this report, while individual plans of each parking beat survey are provided at **Appendix C**.

3.47 In accordance with the relevant aspects of the Richmond Parking Survey Methodology, parking beat surveys were undertaken over two days in term time; on Wednesday 2nd and Thursday 3rd of July. The data provided in the following summary represents the average figures recorded over the two days.

3.48 The number of parked vehicles throughout the day is provided in **Table 3.4** below.

Table 3.4 Number of Parked Vehicles

Road Name	Number of Parked Vehicles					
	Before School 08:30	Start of School 08:45	Morning & Midday 12:00	Early Afternoon 15:00	End of School 15:15	After School 16:00
Meadlands Drive	77	77	62	63	72	58
Buckingham Road	48	46	49	50	50	52
Buckingham Road (Cul-de-sac)	13	13	14	13	14	14
Clifford Road	44	43	41	50	49	44
Petersham Close	5	5	4	6	7	4
Sandpits Road	4	4	3	3	3	3
A307 Petersham Road	0	0	0	0	0	0
Sudbrook Lane	1	1	1	2	2	1
Meadow Close	14	14	12	12	11	11
River Lane	2	2	4	3	4	2
Total:	**207**	**204**	**189**	**201**	**210**	**188**

Note: Arithmetic errors due to rounding

3.49 **Table 3.5** shows that the number of cars parked in the area reached a peak at the end of the school day at 15:15, when there were 210 vehicles parked within 200m of the site. Similarly high levels of parking were also seen at 08:30, just before the beginning of the school day, when there

were 207 vehicles parked in the vicinity of the site. The lowest number of cars parked (at peak times) was after the school day had finished at 16:00.

Table 3.5 Number of Available Spaces

Road Name	Number of Available Spaces					
	Before School 08:30	Start of School 08:45	Morning & Midday 12:00	Early Afternoon 15:00	End of School 15:15	After School 16:00
Meadlands Drive	34	34	51	49	42	55
Buckingham Road	22	24	22	22	23	21
Buckingham Road (Cul-de-sac)	1	1	0	2	1	1
Clifford Road	8	10	12	6	7	12
Petersham Close	3	3	4	3	3	5
Sandpits Road	1	0	1	1	1	2
A307 Petersham Road	0	0	0	0	0	0
Sudbrook Lane	0	0	0	0	0	0
Meadow Close	1	1	3	3	3	3
River Lane	2	2	1	2	1	3
Average:	**70**	**73**	**92**	**87**	**79**	**101**

3.50 **Table 3.5** shows that the number of available spaces at peak times was at its highest point at 16:00, with 101 car parking spaces available within 200m of the site. The lowest number of available spaces was at 08:30, when a total of 70 spaces were available in the vicinity of the site. However, this illustrates that, even at peak times, there are still a high number of parking spaces available within a short walking distance of the schools.

3.51 As previously noted in this section, the numbers of vehicles parked and available spaces during individual beat surveys, as shown in **Table 3.4** and **Table 3.5**, may differ from the average total number of spaces shown in **Table 3.3**. This is due to factors such as length of individual cars, spaces between cars, and general 'poor' driving and parking behaviour at any given time throughout the day, as opposed to the general average total numbers of spaces provided in **Table 3.3**.

3.52 The occupancy rates at peak times during the six periods of the parking survey are displayed in **Table 3.6** below. The table provided displays the average parking occupancy between the survey data recorded on Wednesday 2nd July and Thursday 3rd July 2014.

Table 3.6 Parking Occupancy

Road Name	Parking Occupancy (%)					
	Before School 08:30	Start of School 08:45	Morning & Midday 12:00	Early Afternoon 15:00	End of School 15:15	After School 16:00
Meadlands Drive	69%	69%	55%	56%	63%	51%
Buckingham Road	69%	65%	70%	69%	68%	71%
Buckingham Road (Cul-de-sac)	96%	96%	100%	90%	97%	93%
Clifford Road	85%	82%	78%	89%	88%	79%
Petersham Close	67%	67%	50%	67%	72%	44%
Sandpits Road	88%	100%	75%	75%	75%	63%
A307 Petersham Road	0%	0%	0%	0%	0%	0%
Sudbrook Lane	100%	100%	100%	100%	100%	100%
Meadow Close	97%	97%	83%	82%	81%	79%
River Lane	50%	50%	78%	67%	78%	44%
Total:	**75%**	**74%**	**67%**	**70%**	**73%**	**65%**

3.53 **Table 3.6** illustrates the peak occupancy rates of the various streets at periods throughout the day. Unsurprisingly, the peak occupancy rates for all streets were found to be at 08:30 and 15:15; the start and end of the school day when parents are most likely to be dropping off and picking up pupils. Sudbrook Lane remained at capacity throughout the day, and the Buckingham Road Cul-de-sac also remained at a very high capacity. It should be noted however that both streets have a low threshold for parking, with Sudbrook Lane only able to accommodate one car.

3.54 Meadlands Drive, the street with the highest total available parking capacity, did not exceed 70% peak accumulation, and several other streets in the area also remained at comparably low levels throughout the day.

3.55 It should be noted that there is not much variation in the total parking occupancy at peak times in different periods throughout the day. As shown in the table above, even at peak occupancy, the parking accumulation in the vicinity of the site did not exceed 75%, which suggests that street parking for dropping off / picking up pupils at the School is not an issue.

Road Safety / Accident Data

3.56 Up-to-date road traffic collision statistical data for the area in the vicinity of the Site has been obtained from the TfL Road Safety Unit, for the most recently available 60 month period to 30th April 2014.

3.57 The area covered by the collision data analysis is shown in the accident plot, included in **Appendix D** for information.

3.58 The collision data has been summarised according to collision severity, the number of and types of vehicles involved in each collision, and the number and types of casualties involved in each collision. The full collision data analysis provided by the TfL Road Safety Unit, is also included at Appendix D.

3.59 A summary of the severity of all collisions occurring over the five year period is provided in **Table 3.7**.

Table 3.7 Number of Collisions by Date and Severity

Severity of Collisions	Number of Collisions						Total Collisions (%)
	April 2009 to April 2010	April 2010 to April 2011	April 2011 to April 2012	April 2012 to April 2013	April 2013 to April 2014	Total	
Fatal	0	0	0	0	0	0	0.0%
Serious	0	1	0	1	0	2	28.6%
Slight	0	1	2	0	2	5	71.4%
Total	**0**	**2**	**2**	**1**	**2**	**7**	**100%**
Proportion per Year (%)	0.0%	28.6%	28.6%	14.3%	28.6%	100%	

3.60 **Table 3.7** above shows that a total of 7 collisions occurred over the defined five year period. Five of these collisions (71.4%) of these collisions were classified as 'slight', whilst there were two collisions (28.6%) that were categorised as 'serious'.

3.61 A summary of the number of vehicles involved in each collision occurring over the five year period is provided in **Table 3.8** overleaf.

Table 3.8 Number of Vehicles Involved in Collisions

No. of Vehicles Involved	Number of Collisions	Total Collisions (%)
1	1	14.29
2	5	71.42
3	1	14.29
Total	**7**	**100%**

3.62 **Table 3.8** above shows that one collision (approximately 14.29%) involved one vehicle, 5 collisions (71.42%) involved two vehicles and one collision (approximately 14.29%) involved three vehicles.

3.63 A summary of the types of vehicles involved in all the collisions occurring over the five year period is provided in **Table 3.9**.

Table 3.9 Types of Vehicles Involved in Collisions

Types of Vehicles Involved	Total Number of Vehicles	Number of Collisions	Total Collisions (%)
Car	10	6	60%
Taxi	0	0	0%
Lights Good Vehicle (LGV) (<3.5t)	0	0	0%
Heavy Good Vehicle (HGV) (>7.5t)	0	0	0%
Motorcycle	1	1	10%
Pedal Cycle	3	3	30%
Other	0	0	0%

3.64 **Table 3.9** above shows that all but one of the seven collisions involved private cars; one collision involved a motorcycle; and another three involved a pedal cycle.

3.65 A summary of the number of casualties involved in each collision occurring over the five year period is provided in **Table 3.10** overleaf.

Table 3.10 Number of Casualties Involved in Collisions

No. of Casualties Involved	Number of Collisions	Total Collisions (%)
1	7	100%
2	0	0.0%
3	0	0.0%

3.66 **Table 3.10** above shows all of the collisions to occur within the vicinity of the Site only involved individual casualties.

3.67 A summary of the types of casualties involved in all collisions occurring over the five year is provided in **Table 3.11**.

Table 3.11 Types of Casualties Involved in Collisions

Type of Casualties Involved	Number of Collisions	Total Collisions (%)
Driver / Rider	7	100%
Passenger	0	0.0%
Pedestrian	0	0.0%

Road Safety Summary

3.68 All of the collisions occurred on, or at junctions with, Petersham Road. No collisions occurred on Meadlands Drive or in any of the roads adjacent to the Strathmore or Russell Nursery School entrances.

3.69 Two slight collisions were recorded near to the Russell School entrance. The first of these occurred at 08:25 on Wednesday the 27th October 2010 at the junction of Petersham Road and Meadow Close, and involved two cars. The driver of the second car "got their foot stuck behind the pedal'' and drove into the rear of the vehicle in front. The second collision occurred at 12:20 on Sunday 15th May 2011 at the junction of Petersham Road and Sandbrook Lane, and was caused by the driver of one vehicle "driving into the rear of another vehicle, which in turn was pushed into the rear of a stationary vehicle.'' It is noted that both of these collisions were caused by drivers failing to look properly and following too close.

3.70 Two serious collisions occurred in the vicinity of the Site over the course of the 60 month period. The first of which occurred at 10:20 on Thursday 21st April 2011 on Sandpits Road, and involved a car and a cyclist. According to the accident data, the cyclist received a serious injury after colliding with the car and falling off the bicycle. The accident data notes that the driver of the car disobeyed road markings, failed to look properly and passed too close to the cyclist. The second occurred at 07:00 on Thursday 12th July 2012 at the junction of Petersham Road and River Lane, and involved a single motorcyclist who lost control while entering a bend.

3.71 None of the incidents recorded involved pedestrians or people of school-going age, and all but one incident occurred outside of peak morning and afternoon school pick up / drop off periods. Therefore it is considered that there are no significant road safety issues associated with, or in the vicinity of, the school. Given the times and natures of the collisions, it is very likely that the majority of incidents cannot be attributed directly to trips made to or from the Schools.

4 Development Proposals

General

4.1 This section of the TS describes and outlines the Proposed Development at the School. It includes the proposed increase in pupils and staff numbers, car parking arrangements, as well as the proposed access and servicing.

4.2 The development proposals include expanding the Russell School, in terms of both the scale of the building and the numbers of pupils attending. The existing Strathmore SEN School Site will be disposed of, with part of the School co-locating with the Russell School Site.

4.3 The Strathmore School will be fully integrated with the Russell School, and the building will be arranged over two floors. The majority of external spaces (playing fields, wildlife areas) will be retained or re-provided.

School Expansion Proposals

4.4 The development proposals include expanding the current Russell Primary School from its current 1FE system to a 1FE system plus an additional four classes under a shared form entry provision. The number of nursery places will be retained as existing. It is forecast that, once the phased increase of pupils is completed, there will be 356 full time equivalent places at the Russell School (including nursery school places).

4.5 It is also proposed that the existing Strathmore SEN School Site will be disposed of, with part of the School co-locating with the Russell Primary School Site. It is forecast that the number of pupils at the Strathmore School will increase, with places being distributed to three Strathmore School site co-located on mainstream schools, including at the Russell School Site. It is therefore proposed that, once co-location is complete, the Strathmore School at the Russell School Site will comprise of between 18 and 24 full time places.

4.6 As part of the proposed development, there will be an increase in staff (both teaching and support staff) within the Russell School. It is assumed the number of full time equivalents members of staff would increase by 10, from 44 to 54, with the Russell School's expansion. The number of staff at Strathmore will decrease by 15, with 20 staff remaining at the School. The total number of staff working between the two schools at the proposed site will therefore decrease, from 79 at present, to 74.

4.7 The existing, proposed and net change in staff and pupil numbers for both the Russell and Strathmore Schools are provided in **Table 4.1**.

Table 4.1 Net Change in Pupil and Staff Numbers

	Existing	Proposed	Net Change
	Russell Primary School		
Pupils (inc. FTE Nursery School)	265	356	+91
Staff	44	54	+10
	Strathmore School		
Pupils	57	24	-33
Staff	35	20	-15

Daily Timetable - Pupil Arrivals / Departures

4.8 It is understood that the co-located School will operate the following typical daily timetable:

Table 4.2 Typical Daily Timetable

	Russell Primary School	Russell Nursery School	Strathmore SEN School
School Starts	08:45	08:30/12:30	09:05
School Finishes	15:15	11:30/15:30	15:20

Site Layout Proposals

4.9 A proposed site layout plan, prepared by LBRuT, is provided in **Figure 4.1** for information.

Figure 4.1 Proposed Site Plan

Proposed Access Arrangements

Pedestrian Access

4.10 There are currently four pedestrian access points for the schools located across the Site. One, which serves the Russell Primary School, is located on Petersham Road, while three further access points, which serves the Strathmore and Russell nursery schools, are located along Meadlands Drive.

4.11 It is proposed to retain one of the access points and re-provide a second. The Petersham Road gate will continue to provide access to the School from the main road and bus stops, while the second gate on Meadlands Drive will re-provided in a wider form to allow access to pupils who have walked from, or have been driven to, the streets adjacent to Meadlands Drive, where a large proportion of parents have been found to park to drop off / pick up pupils. **Figure 4.2** and **Figure 4.3** show the access points which will be re-provided and retained respectively as part of the proposed development.

Figure 4.2 Existing Meadlands Drive Access – access to be re-provided on Meadlands Drive

Figure 4.3 Retained Access (Petersham Road)

Vehicular Access

4.12 The main Vehicle access onto the Russell Primary School Site from Petersham Road is also to remain as existing, and will serve as the only access / egress from the proposed development.

Servicing

4.13 The School is currently serviced via the existing access on Petersham Road.

Emergency Access

4.14 Emergency vehicle access to the School site is via the existing access on Petersham Road.

Parking

Car Parking

4.15 As previously described in **Chapter 3** of this TS, the current Site has a total of 27 on-site car parking spaces; 12 are designated for the Russell Primary School and are accessed from Petersham Road, while a further 15 are for the use of Strathmore and Russell nursery staff, and are accessed by Meadlands Drive.

4.16 As the Meadlands Drive car park is part of the Site being disposed of, it is proposed that the existing Russell School car park is expanded to cope with the increase in staff numbers accessing this part of the Site. Car park provision will be in line with local standards, as set out in **Chapter 2** of this TS and in **Table 4.2** below.

4.17 It is noted that during the site audit, it was observed that the surrounding roads had a large number of free uncontrolled spaces.

Cycle Parking

4.18 On-site cycle parking provision will be in line with local policy, as set out in **Chapter 2** of this TS and in **Table 4.2** below.

Table 4.3 DMP Car and Cycle Parking Standards

Land Use	Vehicle Parking Space Required		Cycle Parking
	Controlled Parking Zones (Maximum Unless Otherwise Stated)	The Remainder of the Borough	Space Required (Minimum)
D1 Schools	**1 space per 2 staff** Arrangements must also be made for adequate setting down areas and visitor parking spaces. Adequate facilities for the setting down of coaches shall also be considered.	**1 Space per 2 staff**	**5 spaces per classroom** Depending on the nature of the school

5 Multi-Modal Trip Assessment

General

5.1 This section of the TS examines the likely patterns that will occur as a result of a proposed future expansion of the Russell Primary School from a 1FE school to a 1FE plus four additional classrooms school, as well as the proposals in relation to the Strathmore SEN School. The results of the multi-modal trip generation assessment are provided, as well as an assessment of the net change in vehicle trips.

Approach

5.2 WYG has obtained information on journey trends for both staff and pupils from 'Hands Up' surveys undertaken at the existing Russell and Strathmore Schools. Surveys for the Russell School travel patterns were undertaken on Tuesday 21st October 2014. Information regarding the journey trends of Strathmore School Staff and Pupils were provided by the School.

5.3 The modal splits for the Russell and Strathmore Schools are provided in **Table 5.1** and **Table 5.2** respectively.

Table 5.1 Russell Primary School

	Mode								
	Park & Stride	Car (inc Motorcycle)	Rail/ Over ground	Public Bus	School Bus/Taxi	Cycle	Scooter (non-powered)	Walking (all the way)	Total
Pupils	13%	22%	-	5%	0.9%	16%	12%	31%	100%
Staff	-	33%	3%	8%	-	18%	-	38%	100%

Source: Russell Primary School

Table 5.2 Strathmore School

	Mode							
	Car	Car Share	Public Transport	School Bus	Minicab	Walk	Cycle	Total
Pupils	3%	-	-	81%	12%	3%	-	100%
Staff	33%	3%	33%	-	-	17%	14%	100%

Source: Strathmore SEN School

5.4 The results of the existing pupil and staff travel trends from the Russell and Strathmore Schools have been used to calculate and project the expected future trip generations at the co-located School. The existing pupil and staff mode splits have been applied to the expected future pupil and staff numbers once redevelopment is completed, and the resulting trip generation set out.

5.5 The pupil numbers for the Russell School includes full time equivalent (FTE) nursery school places. Although the proposals state that future provisions for the Strathmore School are expected to be

between 18 and 24 places, a maximum of 24 pupils has been applied to present a 'worst case scenario' in terms of pupil travel patterns.

5.6 The application of the existing pupil and staff mode splits to future pupil and staff numbers presents a 'worst case' scenario from a transport and highways perspective, as this assumes that no future modal shift will be achieved, e.g. an increase in the proportion of pupils and staff who travel to school on foot, by bicycle or by public transport. However, in reality it is expected that future modal shift will occur, reducing the expected future impact of the School expansion than is presented in this report.

Existing Travel Patterns

5.7 This section of the TS will identify the existing number of pupils and staff at each of the School's using each mode, in line with the modal splits as detailed in **Table 5.1** and **Table 5.2**.

Russell Primary School

5.8 The current numbers of staff and pupils (including FTE Nursery School pupils) at the Ronald Ross School using each mode to travel to/from school is provided in **Table 5.3** below.

Table 5.3 Russell Primary School Existing Travel Patterns

		Mode								
		Park & Stride	Car (inc Motorcycle)	Rail/ Over ground	Public Bus	School Bus/Taxi	Cycle	Scooter (non-powered)	Walking (all the way)	Total
Pupils	**%**	13%	22%	-	5%	0.9%	16%	12%	31%	100%
	No.	34	58	0	13	2	42	32	82	265
Staff	**%**	-	33%	3%	8%	-	18%	-	38%	100%
	No.	0	15	1	4	0	8	0	17	44
Total		34	15	1	4	2	50	32	99	309

Strathmore SEN Primary School

5.9 The current numbers of staff and pupils at the Strathmore School using each mode to travel to/from school is provided in **Table 5.4** below.

Table 5.4 Strathmore School Existing Travel Patterns

		Mode							
		Car	Car Share	Public Transport	School Bus	Minicab	Walk	Cycle	Total
Pupils	%	3%	-	-	81%	12%	3%	-	100%
	No.	2	0	0	46	7	2	0	57
Staff	%	33%	3%	33%	-	-	17%	14%	100%
	No.	11	1	12	0	0	6	5	35
Total		13	1	12	46	7	8	5	92

Predicted Future Travel Patterns

5.10 This section of the TS will identify the numbers of pupils and staff predicted to use each mode, in line with the expansion and co-location proposals and the modal split for each school as detailed in the previous section.

5.11 It is deemed likely that pupil travel patterns for each school will be the same once co-location of the schools is completed. The majority of Strathmore SEN School pupils currently travel to and from School via minibus or private school bus, and this is expected to continue in the future.

5.12 The predicted future travel patterns for the Russell and Strathmore Schools are provided in **Table 5.5** and **Table 5.6** respectively.

Russell and Strathmore Schools, Richmond upon Thames

Table 5.5 Russell Primary School Future Travel Patterns

		Mode								
		Park & Stride	Car (inc Motorcycle)	Rail/ Over ground	Public Bus	School Bus/Taxi	Cycle	Scooter (non-powered)	Walking (all the way)	Total
Pupils	%	13%	22%	-	5%	0.9%	16%	12%	31%	100%
	No.	46	78	0	18	3	57	43	110	356
Staff	%	-	33%	3%	8%	-	18%	-	38%	100%
	No.	0	18	2	4	0	10	0	21	54
Total		**46**	**96**	**2**	**22**	**3**	**67**	**43**	**131**	**410**

Table 5.6 Strathmore School Future Travel Patterns

		Mode							
		Car	Car Share	Public Transport	School Bus	Minicab	Walk	Cycle	Total
Pupils	%	3%	-	-	81%	12%	3%	-	100%
	No.	1	0	0	19	3	1	0	24
Staff	%	33%	3%	33%	-	-	17%	14%	100%
	No.	7	1	7	0	0	3	3	20
Total		8	1	7	19	3	4	3	44

Net Change in Travel Patterns

5.13 This section considers the net changes in pupils and staff at the proposed Site. This includes all additional pupils and staff at the Site in contrast to the existing situation. For example, although it is proposed that the number of staff and pupils at the Strathmore School will decrease in comparison to the numbers at the existing Strathmore Site, these will still result in a net increase in trips at the Russell School Site.

5.14 The net change in staff and pupils using each mode, as a result of the proposals, is provided in **Table 5.7**.

Table 5.7 Net Changes of Each Mode

			Mode							
			Park & Stride	Car (inc Motorcycle)	Public Transport	School Bus/Taxi	Cycle	Scooter (non-powered)	Walking (all the way)	Total
Russell	Pupils	Current	**34**	**58**	**13**	**2**	**42**	**32**	**82**	
		Future	46	78	18	3	57	43	110	356
		Net Change	**+12**	**+20**	**+5**	**+1**	**+15**	**+11**	**+28**	**+91**
	Staff	Current	0	15	5	0	8	0	17	44
		Future	0	18	6	0	10	0	21	54
		Net Change	**0**	**+3**	**+1**	**0**	**+2**	**0**	**+4**	**+10**
Strathmore	Pupils	Current	0	2	0	53	0	0	2	57
		Future	0	1	0	22	0	0	1	24
		Net Change	**0**	**-1**	**0**	**-31**	**0**	**0**	**-1**	**-33**
	Staff	Current	0	12	12	0	5	0	6	35
		Future	0	8	7	0	3	0	3	20
		Net Change	**0**	**-4**	**-5**	**0**	**-2**	**0**	**-3**	**-15**
Total Net Change			**+12**	**+18**	**+1**	**-30**	**+15**	**+11**	**+28**	**+53**

Note: Arithmetic errors due to rounding

5.15 As shown in **Table 5.7**, the proposed development will result in an increase in trips made across all modes aside from School Bus Trips, with a total increase of 53 daily trips. The proposed development is predicted to result in an increase of 18 car trips directly to the Site, and an additional 12 park and stride trips, in line with the relevant 'hands up' survey data.

5.16 There is a considerable decrease in the number of school bus / minicab journeys, due to the reduction of Strathmore School.

Impacts on Parking

5.17 In order to gauge the impact of the proposed development on parking conditions in the area at peak periods, the net change in vehicles has been applied to the occupancy rates ascertained from the parking beat survey, which has been outlined in **Chapter 3** of this TS. It should be noted that, as previously explained, the vast majority of parking in the vicinity of the Site is unrestricted.

5.18 As the highway and parking are unlikely to be affected by the increase in school vehicle trips generated outside of peak hours, only times at the start and end of the school day have been

analysed. As the number of nursery school places will remain as existing, traffic and parking around the middle of the day is unlikely to be affected.

5.19 In order to provide a robust assessment of the impacts on parking, the net increase in car trips in the previous has been applied to the existing parking accumulation figures summarised in **Chapter 3**. It should be noted that 'Park and Stride' journeys have been excluded from this assessment, as these include vehicles parking outside of the 200m parking survey boundary.

5.20 **Table 5.8** provides a summary of the maximum predicted impacts on parking occupancy at the beginning and the end of the typical school day as a result of the proposed development and the maximum predicted increase in car trips.

Table 5.8 Maximum Net Change in Parking Occupancy

	Parking Occupancy			
	AM Peak (08:30)		PM Peak (15:15)	
	Parked Cars	Available Spaces	Parked Cars	Available Spaces
Existing	207	70	210	79
Maximum Net Change	**+18**	**-18**	**+18**	**-18**
Future	225	52	228	61

5.21 As shown in **Table 5.8** above, the maximum net change in vehicle trips made to the Site is predicted to result in an increase of 18 vehicles parked at peak times. As already noted, this provides the most robust assessment of the potential impacts of increased parking accumulation associated with the proposed development.

5.22 The parking accumulation assessment suggests that, even at the daily peak for parking demand, there will be a minimum of 52 spaces available within the immediate vicinity of the Site, even as a result of increased parking demand due to the proposed development.

5.23 It is important to recognise that, as the number of pupils at the co-located School increases, there is a greater likelihood that an increased proportion of pupils attending the School will be siblings or will live within close proximity to one another. This further reduces the potential for additional car trips and increases the potential for car sharing and for parents walking more than one pupil to the School at any one time. It is important to note that the future parking occupancy provides a worst case scenario outcome of the proposed development.

5.24 The vast majority of additional trips made by car will be to drop off / pick up pupils, and as a result it is highly likely that trips will be made at different times before and after the school day, and will not be parked for any considerable length of time. Any increase in parking is likely to be limited to 5-10 minute periods. The summary also implies that all trips will be made at the same points at the start and end of the school day, which is highly unlikely. It is clear that, although the number of vehicles parking in the area is likely to increase, there is still a considerable amount of parking available at peak times, even when assuming a worst case scenario for parking.

Summary

5.25 In summary, based on the mode split information available from the latest travel survey and further information provided by the School, it can be seen that the expansion would primarily result in an increase in sustainable trips. The expected increase in vehicle traffic is not considered to be significant and it is considered that an increase to this extent is acceptable given the characteristics of the surrounding highway network and the parking situation in the area.

5.26 As has been stated within this section of the report, WYG has assumed that the mode split will not change in a future scenario. The effects of sibling attendance, resulting in car sharing, may also be underestimated in the future scenario with the enlarged School. However the travel plan, and the associated health benefits of travelling by more sustainable and active modes, should continue to be promoted within the School in order to encourage those that live nearby to walk.

6 Summary and Conclusions

Key Points

6.1 The Transport Statement concludes with a summary of the key points below:

1. WYG has been commissioned by the LBRuT to prepare a Transport Statement (TS) in support of a detailed application for the proposed expansion to Russell Primary School, Petersham Road, Richmond, Surrey, TW10 7AH, and the co-location of the Strathmore SEN School to the Russell School Site.
2. The Site is located in the London Borough of Richmond upon Thames, on Petersham Road. The areas surrounding the Site are predominantly residential in nature. The Site is bounded by Petersham Road to the east, Meadlands Drive and Sandpits Road to the south, an access road to Polo grounds to the north, and Polo grounds and public land to the northeast and east respectively.
3. The Russell Primary School currently operates a one-form entry (1FE) system over eight academic years (nursery, reception plus years 1-6). The total number of pupils currently at the School is approximately 265, including 26 full-time equivalent pupils in the nursery. The Strathmore School currently has 57 pupils.
4. It is proposed that the Russell Primary School will expand from its current 1FE system to a 1FE plus an additional four classes under a shared form entry provision. The expansion of the Russell School is phased, so there will be an increase in one class per year group every other year, starting with the youngest age pupils. It is forecast that, once the phased increase of pupils is completed, there will be 356 full time places at the Russell School. This nursery will be retained as existing.
5. The PTAL value of the site is identified as 2 (‘poor’). There are two bus services within a short walking distance of the Site, routes: 65 and 137. Both routes run along Petersham Road near to the Russell School entrance.
6. There are currently two vehicular access points to the School, one from Petersham Road and another on Meadlands Drive. There are four existing pedestrian access points, each serving different areas and buildings on the Site. It is proposed that the Petersham Road vehicle access be retained, along with two pedestrian access points serving Petersham Road and Meadlands Drive respectively.
7. Up-to-date road traffic collision statistical data for the area in the vicinity of the School for the previous five years was collected. 7 collisions, 5 of which were of ‘slight’ severity and 2 of which were ‘severe’, were recorded over this period, all of which occurred on or at junctions with Petersham Road. None of these incidents involved pedestrians or people of school-going age, and all but one incident occurred outside of peak morning and afternoon school pick up / drop off periods. Therefore it is considered that there are no significant road safety issues associated with the School.
8. A car parking survey was undertaken in accordance with the LBRuT Parking Survey Methodology, which detailed the occupancy rates and availability of parking within at least

200m of the Site. It is concluded that, even at peak times, there is currently a high level of availability for free, unrestricted car parking space within a short walking distance of the Schools.

9. A multi-modal trip assessment has also been carried out based on the numbers of pupils and staff at the existing Russell and Strathmore Schools, and the anticipated numbers of pupils and staff at the proposed development. The mode split for both staff and pupils is based on the most recent journey trend data available from the individual schools, who conducted 'hands up' surveys of staff and pupils.

10. The multi-modal trip assessment shows that the majority of pupils currently travel to school via sustainable modes, such as walking, cycling and public transport, while approximately 25% of pupils travel in a car. Staff journey trends are different, in that a greater proportion travels by car, while less use sustainable modes.

11. Assuming that journey trends remain as existing, a parking accumulation assessment demonstrates that there is still ample available on-street parking in the immediate vicinity of the Site. Any increase in parking as a result of the proposed development is also likely to be limited to short 10-15 minute periods at the beginning and end of the school day.

12. It is also important to recognise that, as the primary School increases in size, there is the greater likelihood that a greater proportion of pupils attending the School will be siblings or will live within close proximity to one another. This further reduces the potential for additional car trips and increases the potential for car sharing and for parents walking more than one pupil to the School at any one time.

13. It can therefore be concluded that there is no reason why the proposed development should not gain planning permission on transport or highway grounds.

APPENDIX A

TfL PTAL Report

PTAI Study Report File Details

Date	19/08/2014 11:42
Day of week	M-F
Time period	AM peak
Walk speed	4.8 kph
Walk file	PLSQLTest

POI Name: 517947, 173073

Bus Services

Reliability factor for this mode is 2
Maximum walk time for this mode is 8 minutes
Maximum walk distance for this mode is 640.0 metres

Stop PETERSHAM RD SANDY LANE
Walk time to stop from POI is 7.83 minutes
Walk distance to stop from POI is 626.75 metres
- Route 65 Direction OUT Frequency 8.0 giving AWT of 3.75 minutes
- Route 65 Direction BACK Frequency 8.0 giving AWT of 3.75 minutes
- Route 65 Direction BACK Frequency 8.0 giving AWT of 3.75 minutes
- Route 65 Direction OUT Frequency 8.0 giving AWT of 3.75 minutes

Stop PETERSHAM FOX & DUCK
Walk time to stop from POI is 2.31 minutes
Walk distance to stop from POI is 184.71 metres
- Route 65 Direction BACK Frequency 8.0 giving AWT of 3.75 minutes
- Route 65 Direction OUT Frequency 8.0 giving AWT of 3.75 minutes
- Route 65 Direction OUT Frequency 8.0 giving AWT of 3.75 minutes
- Route 65 Direction BACK Frequency 8.0 giving AWT of 3.75 minutes
- Route 371 Direction BACK Frequency 7.0 giving AWT of 4.29 minutes
- Route 371 Direction OUT Frequency 7.0 giving AWT of 4.29 minutes
- Route 371 Direction OUT Frequency 7.0 giving AWT of 4.29 minutes
- Route 371 Direction BACK Frequency 7.0 giving AWT of 4.29 minutes

Stop PETERSHAM THE DYSARTS
Walk time to stop from POI is 6.21 minutes
Walk distance to stop from POI is 496.74 metres
- Route 65 Direction BACK Frequency 8.0 giving AWT of 3.75 minutes
- Route 65 Direction OUT Frequency 8.0 giving AWT of 3.75 minutes

Route 65 Direction OUT Frequency 8.0 giving AWT of 3.75 minutes
Route 65 Direction BACK Frequency 8.0 giving AWT of 3.75 minutes
Route 371 Direction BACK Frequency 7.0 giving AWT of 4.29 minutes
Route 371 Direction OUT Frequency 7.0 giving AWT of 4.29 minutes
Route 371 Direction OUT Frequency 7.0 giving AWT of 4.29 minutes
Route 371 Direction BACK Frequency 7.0 giving AWT of 4.29 minutes
Stop NUMBER NOT USED
Walk time to stop from POI is 4.31 minutes
Walk distance to stop from POI is 344.67 metres

TATs for this mode
Route 65 Stop PETERSHAM FOX & DUCK TAT 8.06 minutes EDF 3.72
Route 371 Stop PETERSHAM FOX & DUCK TAT 8.59 minutes EDF 3.49

Best EDF is 3.72
Half of all other EDFs is 1.75

AI for this mode is 5.47

Underground Services

Reliability factor for this mode is .75
Maximum walk time for this mode is 12 minutes
Maximum walk distance for this mode is 960.0 metres

** No stops found within buffer for this POI

Rail Services

Reliability factor for this mode is .75
Maximum walk time for this mode is 12 minutes
Maximum walk distance for this mode is 960.0 metres

** No stops found within buffer for this POI

Total AI for this POI is 5.47. X: 517947, Y: 173073.

PTAL Rating is 2.

APPENDIX B

Parking Survey Results

THE RUSSELL SCHOOL, PETERSHAM - ON STREET PARKING SURVEY RESULTS

ROAD NAME	WEDNESDAY 02/07/2014 - 08:00			THURSDAY 03/07/2014 - 08:00		
	NUMBER PARKED	NUMBER OF SPACES	OCCUPANCY %	NUMBER PARKED	NUMBER OF SPACES	OCCUPANCY %
MEADLANDS DRIVE	56	57	50	59	52	53
BUCKINGHAM ROAD	50	18	74	53	17	76
BUCKINGHAM ROAD (CUL DE SAC)	14	0	100	13	0	100
CLIFFORD ROAD	46	9	84	38	14	73
PETERSHAM CLOSE	4	3	57	5	3	63
SANDPITS ROAD	2	2	50	2	2	50
A307 PETERSHAM ROAD	0	0	0	0	0	0
SUDBROOK LANE	1	0	100	1	0	100
MEADOW CLOSE	11	4	73	11	3	79
RIVER LANE	3	1	75	1	3	25
TOTAL	**187**	**94**	**67**	**183**	**94**	**66**

ROAD NAME	WEDNESDAY 02/07/2014 - 08:15			THURSDAY 03/07/2014 - 08:15		
	NUMBER PARKED	NUMBER OF SPACES	OCCUPANCY %	NUMBER PARKED	NUMBER OF SPACES	OCCUPANCY %
MEADLANDS DRIVE	65	46	59	70	42	63
BUCKINGHAM ROAD	49	19	72	51	19	73
BUCKINGHAM ROAD (CUL DE SAC)	14	0	100	13	0	100
CLIFFORD ROAD	45	8	85	42	9	82
PETERSHAM CLOSE	4	3	57	5	3	63
SANDPITS ROAD	2	2	50	3	1	75
A307 PETERSHAM ROAD	0	0	0	0	0	0
SUDBROOK LANE	1	0	100	1	0	100
MEADOW CLOSE	11	4	73	11	3	79
RIVER LANE	3	1	75	1	3	25
TOTAL	**194**	**83**	**70**	**197**	**80**	**71**

ROAD NAME	WEDNESDAY 02/07/2014 - 08:30			THURSDAY 03/07/2014 - 08:30		
	NUMBER PARKED	NUMBER OF SPACES	OCCUPANCY %	NUMBER PARKED	NUMBER OF SPACES	OCCUPANCY %
MEADLANDS DRIVE	79	32	71	74	36	67
BUCKINGHAM ROAD	50	20	71	46	24	66
BUCKINGHAM ROAD (CUL DE SAC)	13	1	93	13	0	100
CLIFFORD ROAD	42	11	79	46	5	90
PETERSHAM CLOSE	4	3	57	6	2	75
SANDPITS ROAD	4	0	100	3	1	75
A307 PETERSHAM ROAD	0	0	0	0	0	0
SUDBROOK LANE	1	0	100	1	0	100
MEADOW CLOSE	15	0	100	13	1	93
RIVER LANE	3	1	75	1	3	25
TOTAL	**211**	**68**	**76**	**203**	**72**	**74**

THE RUSSELL SCHOOL, PETERSHAM - ON STREET PARKING SURVEY RESULTS

ROAD NAME	WEDNESDAY 02/07/2014 - 08:45			THURSDAY 03/07/2014 - 08:45		
	NUMBER PARKED	NUMBER OF SPACES	OCCUPANCY %	NUMBER PARKED	NUMBER OF SPACES	OCCUPANCY %
MEADLANDS DRIVE	75	36	68	78	32	71
BUCKINGHAM ROAD	47	21	69	44	27	62
BUCKINGHAM ROAD (CUL DE SAC)	13	1	93	13	0	100
CLIFFORD ROAD	41	12	77	44	7	86
PETERSHAM CLOSE	4	3	57	6	2	75
SANDPITS ROAD	4	0	100	4	0	100
A307 PETERSHAM ROAD	0	0	0	0	0	0
SUDBROOK LANE	1	0	100	1	0	100
MEADOW CLOSE	15	0	100	13	1	93
RIVER LANE	3	1	75	1	3	25
TOTAL	**203**	**74**	**73**	**204**	**72**	**74**

ROAD NAME	WEDNESDAY 02/07/2014 - 09:00			THURSDAY 03/07/2014 - 09:00		
	NUMBER PARKED	NUMBER OF SPACES	OCCUPANCY %	NUMBER PARKED	NUMBER OF SPACES	OCCUPANCY %
MEADLANDS DRIVE	58	53	52	66	44	60
BUCKINGHAM ROAD	48	20	71	44	27	62
BUCKINGHAM ROAD (CUL DE SAC)	12	2	86	13	0	100
CLIFFORD ROAD	40	14	74	43	8	84
PETERSHAM CLOSE	5	2	71	6	2	75
SANDPITS ROAD	4	0	100	4	0	100
A307 PETERSHAM ROAD	0	0	0	0	0	0
SUDBROOK LANE	1	0	100	1	0	100
MEADOW CLOSE	11	4	73	13	1	93
RIVER LANE	3	1	75	2	2	50
TOTAL	**182**	**96**	**65**	**192**	**84**	**70**

ROAD NAME	WEDNESDAY 02/07/2014 - 09:15			THURSDAY 03/07/2014 - 09:15		
	NUMBER PARKED	NUMBER OF SPACES	OCCUPANCY %	NUMBER PARKED	NUMBER OF SPACES	OCCUPANCY %
MEADLANDS DRIVE	57	54	51	66	44	60
BUCKINGHAM ROAD	48	20	71	42	29	59
BUCKINGHAM ROAD (CUL DE SAC)	12	2	86	13	0	100
CLIFFORD ROAD	40	14	74	40	11	78
PETERSHAM CLOSE	5	2	71	5	3	63
SANDPITS ROAD	4	0	100	4	0	100
A307 PETERSHAM ROAD	0	0	0	0	0	0
SUDBROOK LANE	1	0	100	1	0	100
MEADOW CLOSE	12	3	80	13	1	93
RIVER LANE	3	1	75	2	2	50
TOTAL	**182**	**96**	**65**	**186**	**90**	**67**

THE RUSSELL SCHOOL, PETERSHAM - ON STREET PARKING SURVEY RESULTS

ROAD NAME	WEDNESDAY 02/07/2014 - 09:30			THURSDAY 03/07/2014 - 09:30		
	NUMBER PARKED	NUMBER OF SPACES	OCCUPANCY %	NUMBER PARKED	NUMBER OF SPACES	OCCUPANCY %
MEADLANDS DRIVE	58	53	52	64	46	58
BUCKINGHAM ROAD	47	21	69	41	30	58
BUCKINGHAM ROAD (CUL DE SAC)	13	1	93	13	0	100
CLIFFORD ROAD	40	14	74	39	12	76
PETERSHAM CLOSE	3	4	43	5	3	63
SANDPITS ROAD	4	0	100	4	0	100
A307 PETERSHAM ROAD	0	0	0	0	0	0
SUDBROOK LANE	1	0	100	1	0	100
MEADOW CLOSE	12	3	80	13	1	93
RIVER LANE	3	1	75	2	2	50
TOTAL	**181**	**97**	**65**	**182**	**94**	**66**

ROAD NAME	WEDNESDAY 02/07/2014 - 12:00			THURSDAY 03/07/2014 - 12:00		
	NUMBER PARKED	NUMBER OF SPACES	OCCUPANCY %	NUMBER PARKED	NUMBER OF SPACES	OCCUPANCY %
MEADLANDS DRIVE	62	52	54	61	49	55
BUCKINGHAM ROAD	54	15	78	44	28	61
BUCKINGHAM ROAD (CUL DE SAC)	14	0	100	13	0	100
CLIFFORD ROAD	49	5	91	33	18	65
PETERSHAM CLOSE	3	4	43	5	4	56
SANDPITS ROAD	4	0	100	2	2	50
A307 PETERSHAM ROAD	0	0	0	0	0	0
SUDBROOK LANE	1	0	100	1	0	100
MEADOW CLOSE	11	4	73	13	1	93
RIVER LANE	4	1	80	3	1	75
TOTAL	**202**	**81**	**71**	**175**	**103**	**63**

ROAD NAME	WEDNESDAY 02/07/2014 - 13:00			THURSDAY 03/07/2014 - 13:00		
	NUMBER PARKED	NUMBER OF SPACES	OCCUPANCY %	NUMBER PARKED	NUMBER OF SPACES	OCCUPANCY %
MEADLANDS DRIVE	63	51	55	61	49	55
BUCKINGHAM ROAD	51	18	74	43	28	61
BUCKINGHAM ROAD (CUL DE SAC)	13	1	93	13	0	100
CLIFFORD ROAD	48	6	89	32	19	63
PETERSHAM CLOSE	4	3	57	5	4	56
SANDPITS ROAD	4	0	100	3	2	60
A307 PETERSHAM ROAD	0	0	0	0	0	0
SUDBROOK LANE	1	0	100	1	0	100
MEADOW CLOSE	11	4	73	13	1	93
RIVER LANE	3	2	60	3	1	75
TOTAL	**198**	**85**	**70**	**174**	**104**	**63**

THE RUSSELL SCHOOL, PETERSHAM - ON STREET PARKING SURVEY RESULTS

ROAD NAME	WEDNESDAY 02/07/2014 - 14:30			THURSDAY 03/07/2014 - 14:30		
	NUMBER PARKED	NUMBER OF SPACES	OCCUPANCY %	NUMBER PARKED	NUMBER OF SPACES	OCCUPANCY %
MEADLANDS DRIVE	67	46	59	57	53	52
BUCKINGHAM ROAD	55	20	73	45	19	70
BUCKINGHAM ROAD (CUL DE SAC)	11	3	79	12	2	86
CLIFFORD ROAD	44	11	80	41	16	72
PETERSHAM CLOSE	7	2	78	7	2	78
SANDPITS ROAD	4	0	100	2	2	50
A307 PETERSHAM ROAD	0	0	0	0	0	0
SUDBROOK LANE	1	0	100	1	0	100
MEADOW CLOSE	12	3	80	11	2	85
RIVER LANE	3	2	60	3	1	75
TOTAL	**204**	**87**	**70**	**179**	**97**	**65**

ROAD NAME	WEDNESDAY 02/07/2014 - 14:45			THURSDAY 03/07/2014 - 14:45		
	NUMBER PARKED	NUMBER OF SPACES	OCCUPANCY %	NUMBER PARKED	NUMBER OF SPACES	OCCUPANCY %
MEADLANDS DRIVE	66	47	58	59	51	54
BUCKINGHAM ROAD	54	21	72	46	23	67
BUCKINGHAM ROAD (CUL DE SAC)	12	2	86	15	0	100
CLIFFORD ROAD	46	9	84	41	16	72
PETERSHAM CLOSE	7	2	78	7	2	78
SANDPITS ROAD	3	1	75	2	2	50
A307 PETERSHAM ROAD	0	0	0	0	0	0
SUDBROOK LANE	1	0	100	1	0	100
MEADOW CLOSE	12	3	80	11	2	85
RIVER LANE	3	2	60	3	1	75
TOTAL	**204**	**87**	**70**	**185**	**97**	**66**

ROAD NAME	WEDNESDAY 02/07/2014 - 15:00			THURSDAY 03/07/2014 - 15:00		
	NUMBER PARKED	NUMBER OF SPACES	OCCUPANCY %	NUMBER PARKED	NUMBER OF SPACES	OCCUPANCY %
MEADLANDS DRIVE	65	48	58	60	50	55
BUCKINGHAM ROAD	54	21	72	46	23	67
BUCKINGHAM ROAD (CUL DE SAC)	12	2	86	14	1	93
CLIFFORD ROAD	52	3	95	48	9	84
PETERSHAM CLOSE	7	2	78	5	4	56
SANDPITS ROAD	3	1	75	3	1	75
A307 PETERSHAM ROAD	0	0	0	0	0	0
SUDBROOK LANE	2	0	100	1	0	100
MEADOW CLOSE	13	2	87	10	3	77
RIVER LANE	3	2	60	3	1	75
TOTAL	**211**	**81**	**72**	**190**	**92**	**67**

THE RUSSELL SCHOOL, PETERSHAM - ON STREET PARKING SURVEY RESULTS

ROAD NAME	WEDNESDAY 02/07/2014 - 15:15			THURSDAY 03/07/2014 - 15:15		
	NUMBER PARKED	NUMBER OF SPACES	OCCUPANCY %	NUMBER PARKED	NUMBER OF SPACES	OCCUPANCY %
MEADLANDS DRIVE	69	46	60	74	37	67
BUCKINGHAM ROAD	52	23	69	47	23	67
BUCKINGHAM ROAD (CUL DE SAC)	14	0	100	14	1	93
CLIFFORD ROAD	52	3	95	46	11	81
PETERSHAM CLOSE	6	3	67	7	2	78
SANDPITS ROAD	3	1	75	3	1	75
A307 PETERSHAM ROAD	0	0	0	0	0	0
SUDBROOK LANE	2	0	100	1	0	100
MEADOW CLOSE	13	2	87	9	3	75
RIVER LANE	4	1	80	3	1	75
TOTAL	**215**	**79**	**73**	**204**	**79**	**72**

ROAD NAME	WEDNESDAY 02/07/2014 - 15:30			THURSDAY 03/07/2014 - 15:30		
	NUMBER PARKED	NUMBER OF SPACES	OCCUPANCY %	NUMBER PARKED	NUMBER OF SPACES	OCCUPANCY %
MEADLANDS DRIVE	61	54	53	69	42	62
BUCKINGHAM ROAD	50	25	67	50	20	71
BUCKINGHAM ROAD (CUL DE SAC)	13	1	93	14	1	93
CLIFFORD ROAD	42	13	76	45	12	79
PETERSHAM CLOSE	5	4	56	7	2	78
SANDPITS ROAD	3	1	75	2	2	50
A307 PETERSHAM ROAD	0	0	0	0	0	0
SUDBROOK LANE	2	0	100	1	0	100
MEADOW CLOSE	13	2	87	10	3	77
RIVER LANE	3	2	60	2	2	50
TOTAL	**192**	**102**	**65**	**200**	**84**	**70**

ROAD NAME	WEDNESDAY 02/07/2014 - 15:45			THURSDAY 03/07/2014 - 15:45		
	NUMBER PARKED	NUMBER OF SPACES	OCCUPANCY %	NUMBER PARKED	NUMBER OF SPACES	OCCUPANCY %
MEADLANDS DRIVE	56	57	50	62	48	56
BUCKINGHAM ROAD	51	24	68	52	18	74
BUCKINGHAM ROAD (CUL DE SAC)	13	1	93	13	2	87
CLIFFORD ROAD	43	12	78	46	11	81
PETERSHAM CLOSE	4	5	44	4	5	44
SANDPITS ROAD	3	1	75	2	2	50
A307 PETERSHAM ROAD	0	0	0	0	0	0
SUDBROOK LANE	1	0	100	1	0	100
MEADOW CLOSE	12	3	80	11	2	85
RIVER LANE	2	3	40	2	2	50
TOTAL	**185**	**106**	**64**	**193**	**90**	**68**

THE RUSSELL SCHOOL, PETERSHAM - ON STREET PARKING SURVEY RESULTS

ROAD NAME	WEDNESDAY 02/07/2014 - 16:00			THURSDAY 03/07/2014 - 16:00		
	NUMBER PARKED	NUMBER OF SPACES	OCCUPANCY %	NUMBER PARKED	NUMBER OF SPACES	OCCUPANCY %
MEADLANDS DRIVE	54	59	48	62	51	55
BUCKINGHAM ROAD	51	24	68	53	18	75
BUCKINGHAM ROAD (CUL DE SAC)	14	0	100	13	2	87
CLIFFORD ROAD	43	12	78	45	12	79
PETERSHAM CLOSE	4	5	44	4	5	44
SANDPITS ROAD	3	1	75	2	2	50
A307 PETERSHAM ROAD	0	0	0	0	0	0
SUDBROOK LANE	1	0	100	1	0	100
MEADOW CLOSE	12	3	80	10	3	77
RIVER LANE	2	3	40	2	2	50
TOTAL	**184**	**107**	**63**	**192**	**95**	**67**

ROAD NAME	WEDNESDAY 02/07/2014 - 17:00			THURSDAY 03/07/2014 - 17:00		
	NUMBER PARKED	NUMBER OF SPACES	OCCUPANCY %	NUMBER PARKED	NUMBER OF SPACES	OCCUPANCY %
MEADLANDS DRIVE	54	59	48	53	57	48
BUCKINGHAM ROAD	55	21	72	52	19	73
BUCKINGHAM ROAD (CUL DE SAC)	14	0	100	14	1	93
CLIFFORD ROAD	46	10	82	45	12	79
PETERSHAM CLOSE	4	5	44	5	4	56
SANDPITS ROAD	3	1	75	3	1	75
A307 PETERSHAM ROAD	0	0	0	0	0	0
SUDBROOK LANE	1	0	100	1	0	100
MEADOW CLOSE	10	5	67	8	5	62
RIVER LANE	2	3	40	2	2	50
TOTAL	**189**	**104**	**65**	**183**	**101**	**64**

APPENDIX C

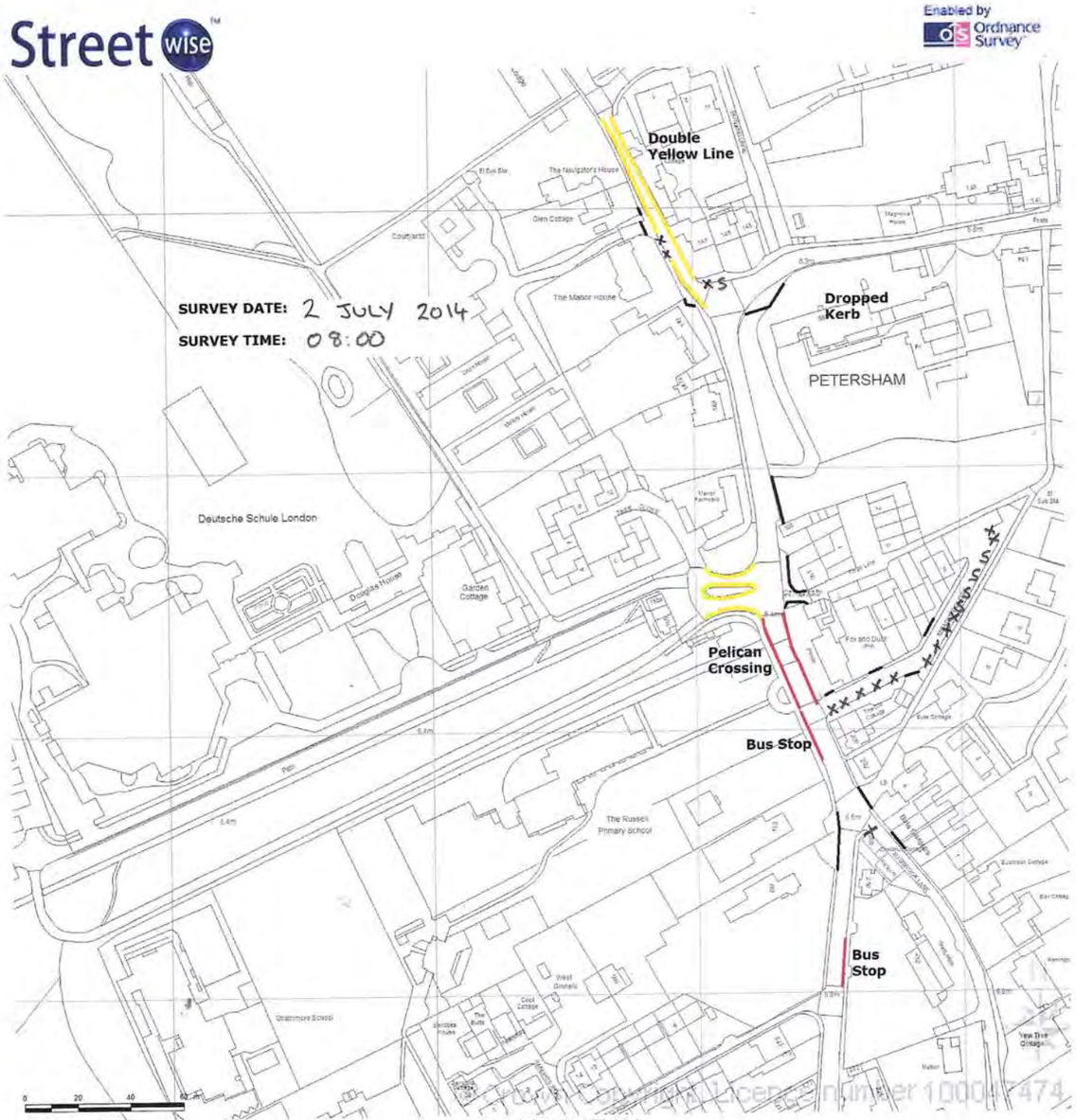
Individual Parking Beat Survey Plans

SITE LOCATION PLAN
AREA 16 HA
SCALE 1:2500 on A4
CENTRE COORDINATES: 517758, 172802

Supplied by Streetwise Maps Ltd
www.streetwise.net
Licence No: 100047474
14/07/2014 12:57:25

Streetwise™

Enabled by Ordnance Survey



SITE LOCATION PLAN
AREA 16 HA
SCALE 1:2500 on A4
CENTRE COORDINATES: 517940, 173154

Supplied by Streetwise Maps Ltd
www.streetwise.net
Licence No: 100047474
15/07/2014 13:34:39

Streetwise™

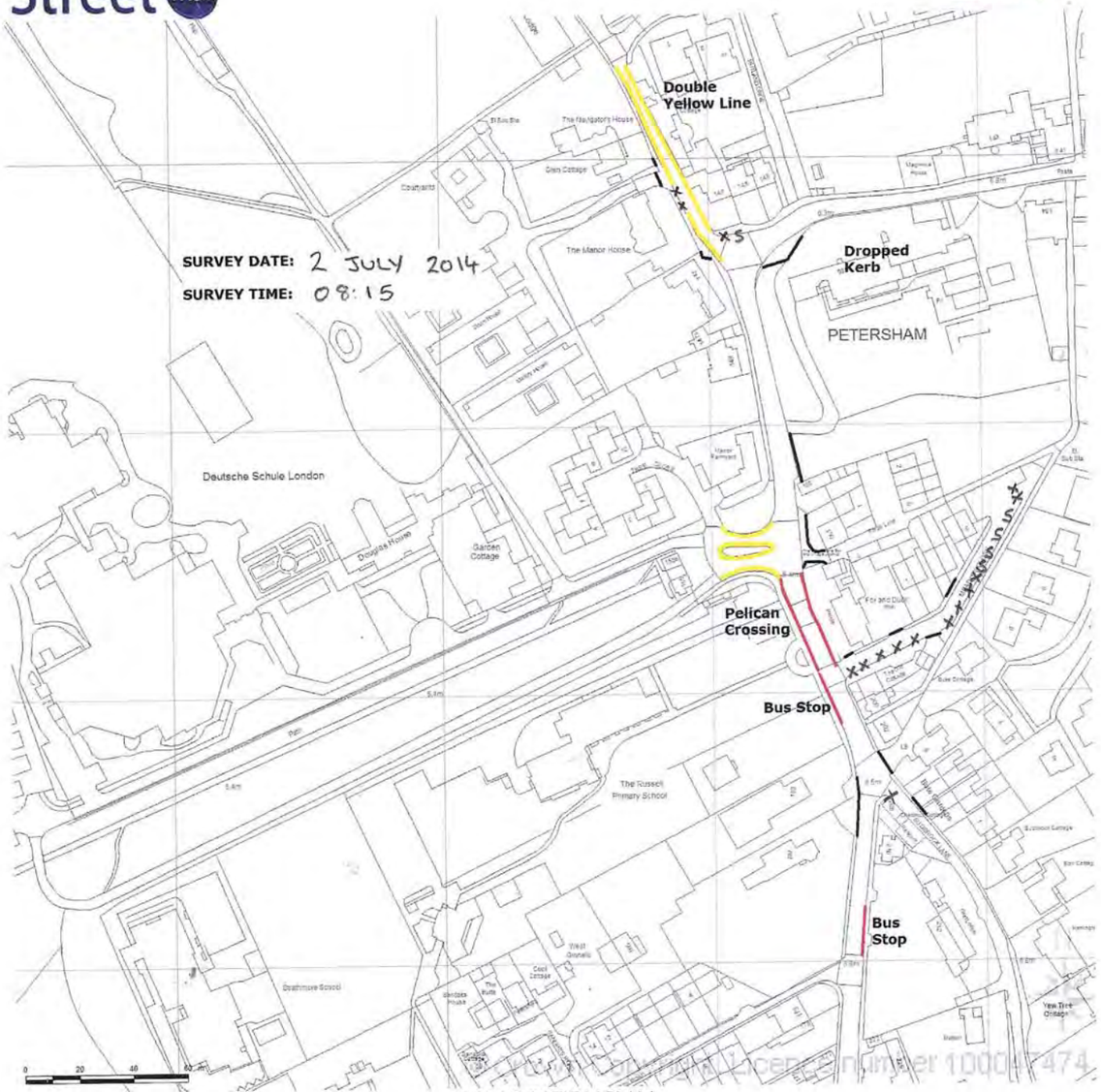
Enabled by Ordnance Survey

SITE LOCATION PLAN
AREA 16 HA
SCALE 1:2500 on A4
CENTRE COORDINATES: 517758, 172802

Supplied by Streetwise Maps Ltd
www.streetwise.net
Licence No: 100047474
14/07/2014 12:57:25

Street wise™

Enabled by Ordnance Survey

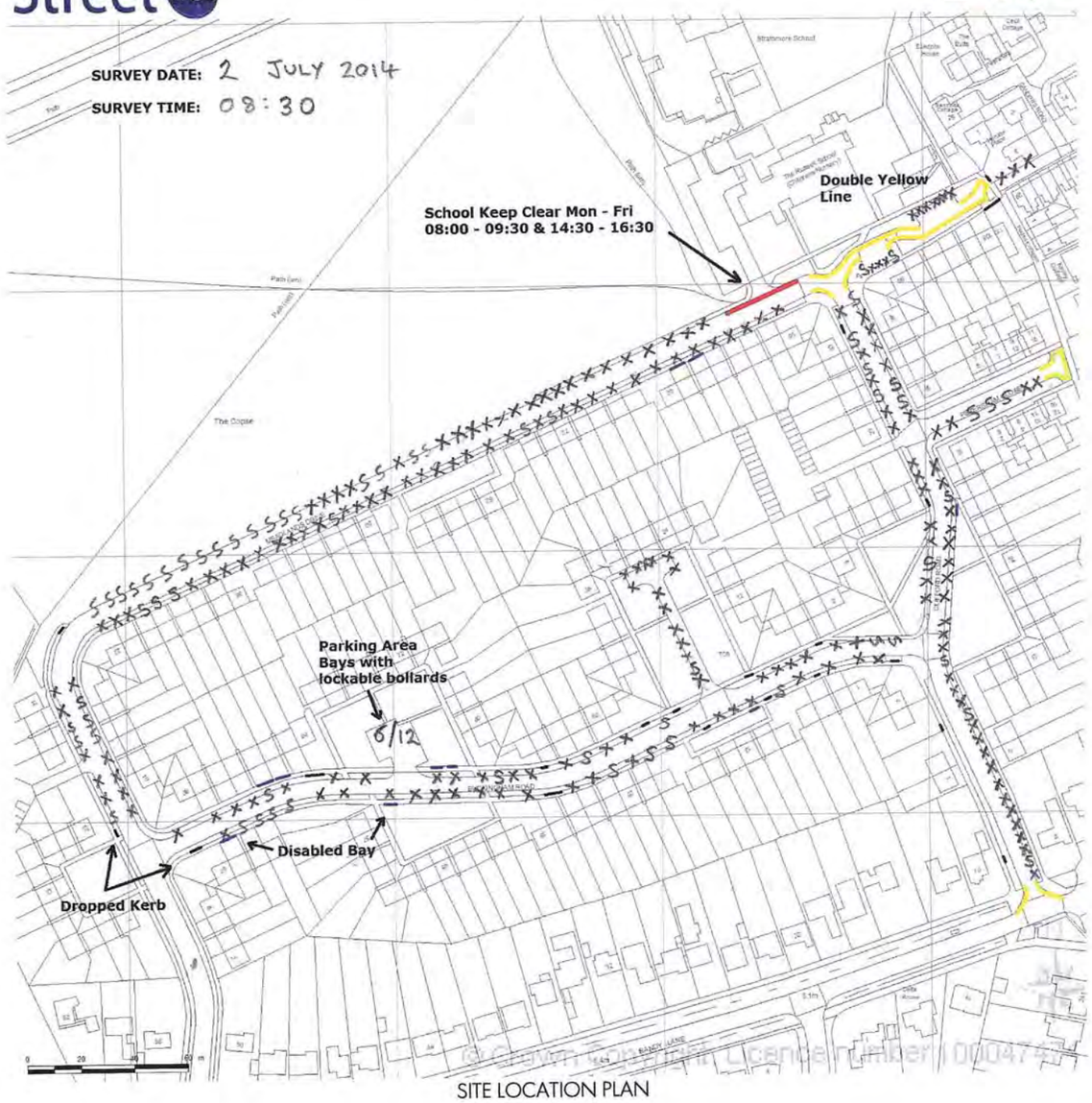


SITE LOCATION PLAN
AREA 16 HA
SCALE 1:2500 on A4
CENTRE COORDINATES: 517940, 173154

Supplied by Streetwise Maps Ltd
www.streetwise.net
Licence No: 100047474
15/07/2014 13:34:39

Street wise™

Enabled by Ordnance Survey

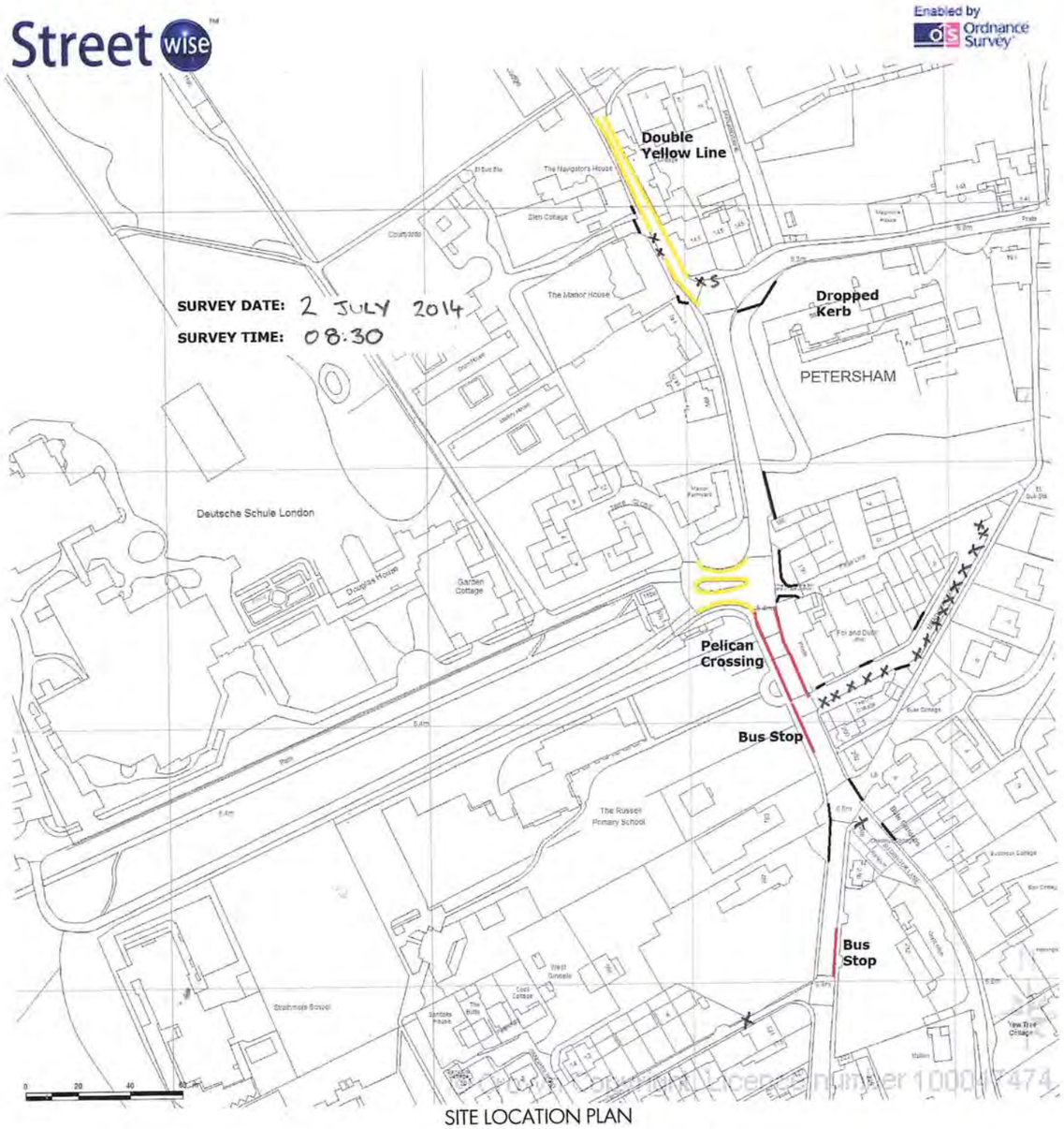


SITE LOCATION PLAN
AREA 16 HA
SCALE 1:2500 on A4
CENTRE COORDINATES: 517758, 172802

Supplied by Streetwise Maps Ltd
www.streetwise.net
Licence No: 100047474
14/07/2014 12:57:25

Street wise™

Enabled by Ordinance Survey



SITE LOCATION PLAN
AREA 16 HA
SCALE 1:2500 on A4
CENTRE COORDINATES: 517940, 173154

Supplied by Streetwise Maps Ltd
www.streetwise.net
Licence No: 100047474
15/07/2014 13:34:39

Street wise™

Enabled by Ordinance Survey

SITE LOCATION PLAN
AREA 16 HA
SCALE 1:2500 on A4
CENTRE COORDINATES: 517758, 172802

Supplied by Streetwise Maps Ltd
www.streetwise.net
Licence No: 100047474
14/07/2014 12:57:25

Street wise™

Enabled by Ordnance Survey

SITE LOCATION PLAN
AREA 16 HA
SCALE 1:2500 on A4
CENTRE COORDINATES: 517940, 173154

Supplied by Streetwise Maps Ltd
www.streetwise.net
Licence No: 100047474
15/07/2014 13:34:39

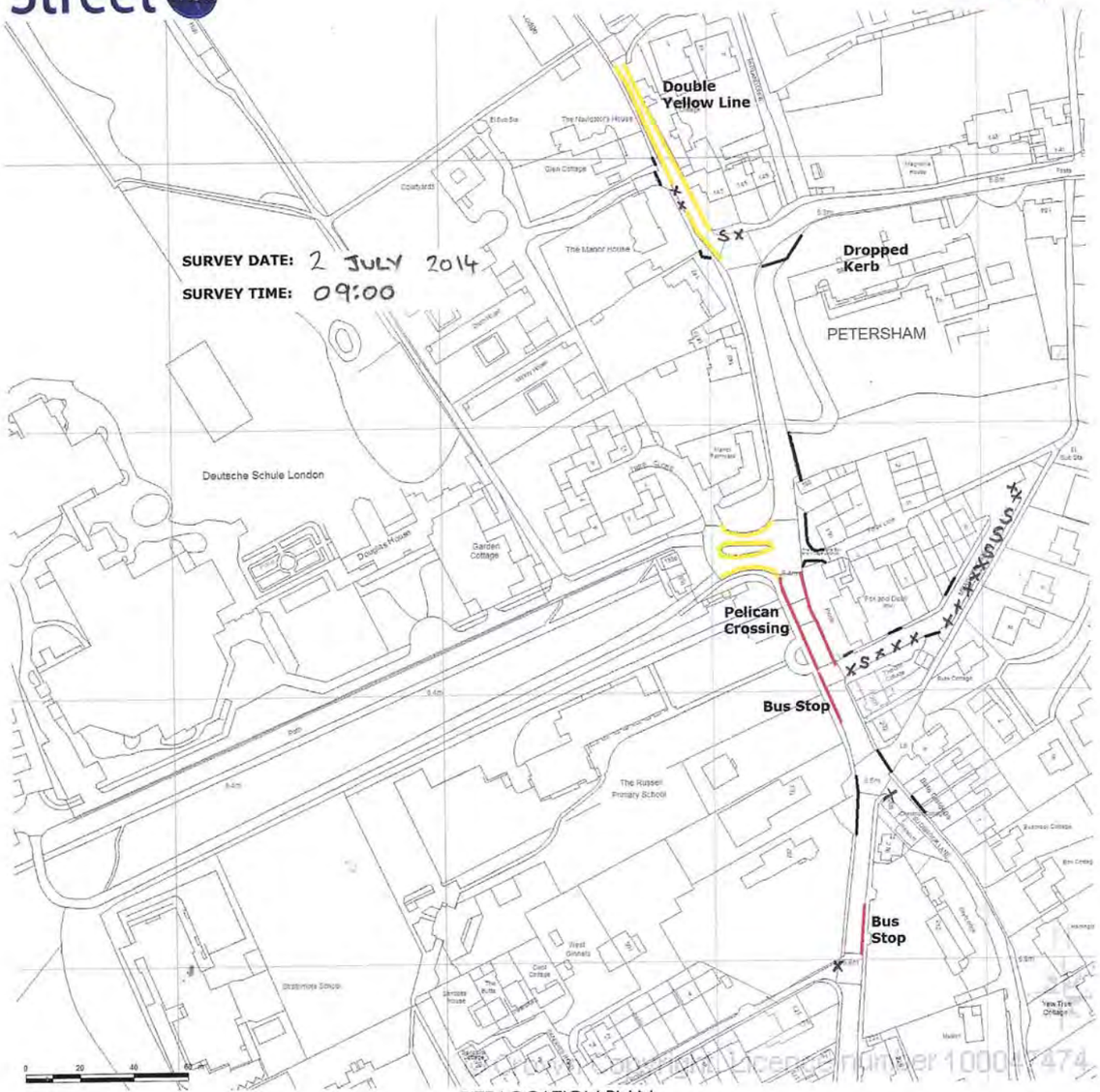
Street wise™

Enabled by Ordnance Survey

SITE LOCATION PLAN
AREA 16 HA
SCALE 1:2500 on A4
CENTRE COORDINATES: 517758, 172802

Supplied by Streetwise Maps Ltd
www.streetwise.net
Licence No: 100047474
14/07/2014 12:57:25

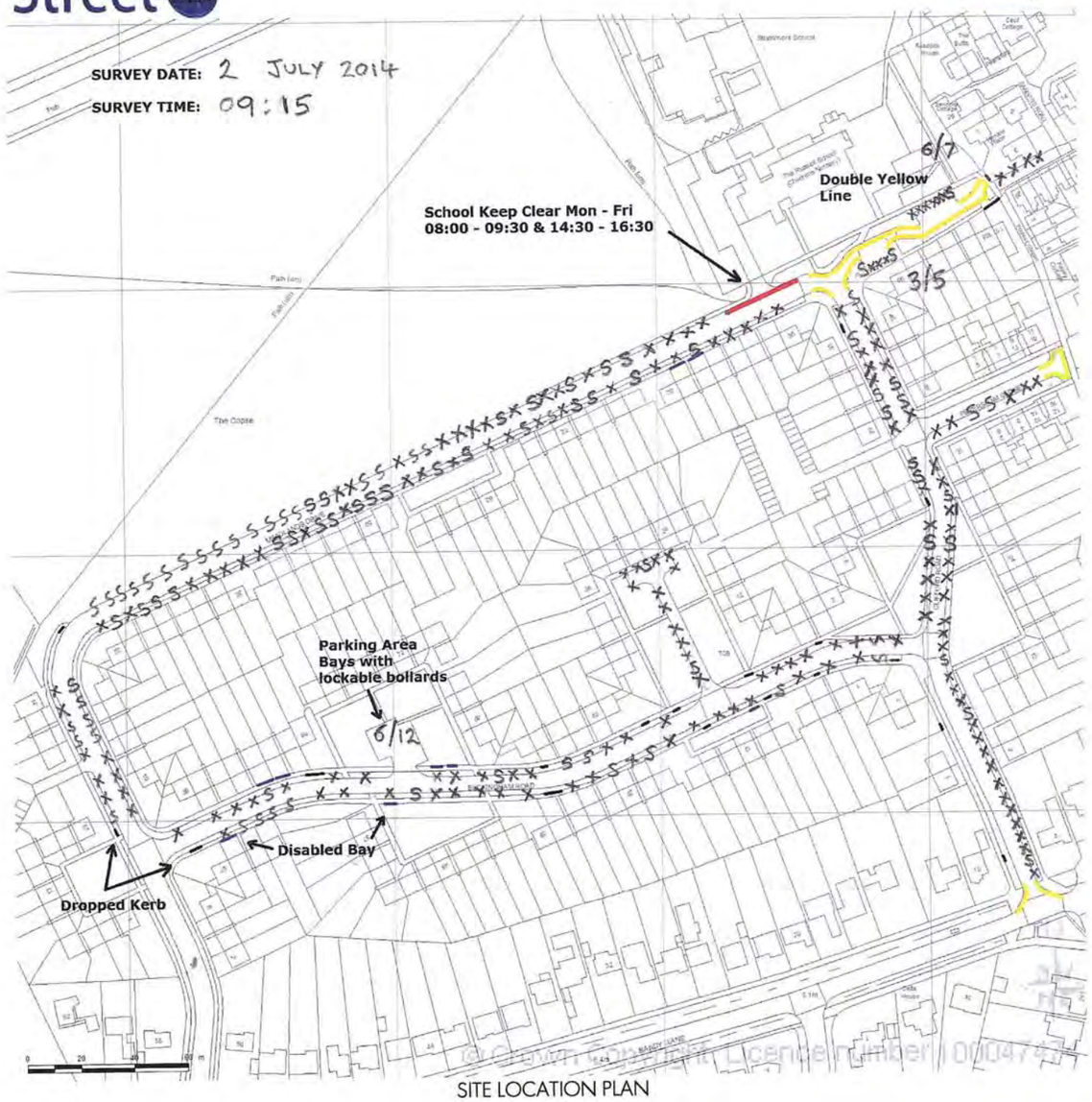
Enabled by Ordnance Survey



SITE LOCATION PLAN
AREA 16 HA
SCALE 1:2500 on A4
CENTRE COORDINATES: 517940, 173154

Supplied by Streetwise Maps Ltd
www.streetwise.net
Licence No: 100047474
15/07/2014 13:34:39

Enabled by Ordnance Survey

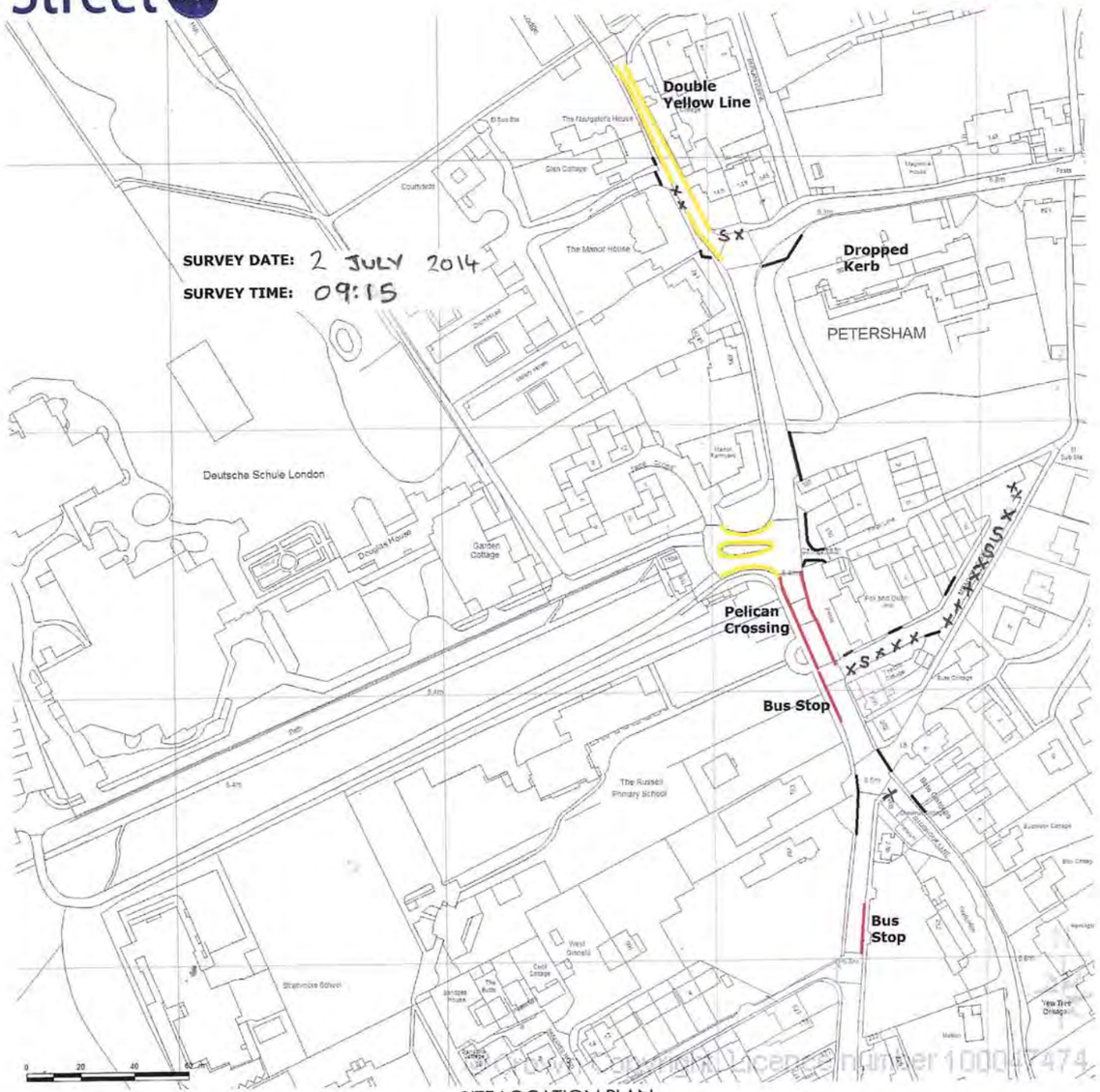


SITE LOCATION PLAN
AREA 16 HA
SCALE 1:2500 on A4
CENTRE COORDINATES: 517758, 172802

Supplied by Streetwise Maps Ltd
www.streetwise.net
Licence No: 100047474
14/07/2014 12:57:25

Street wise™

Enabled by Ordnance Survey

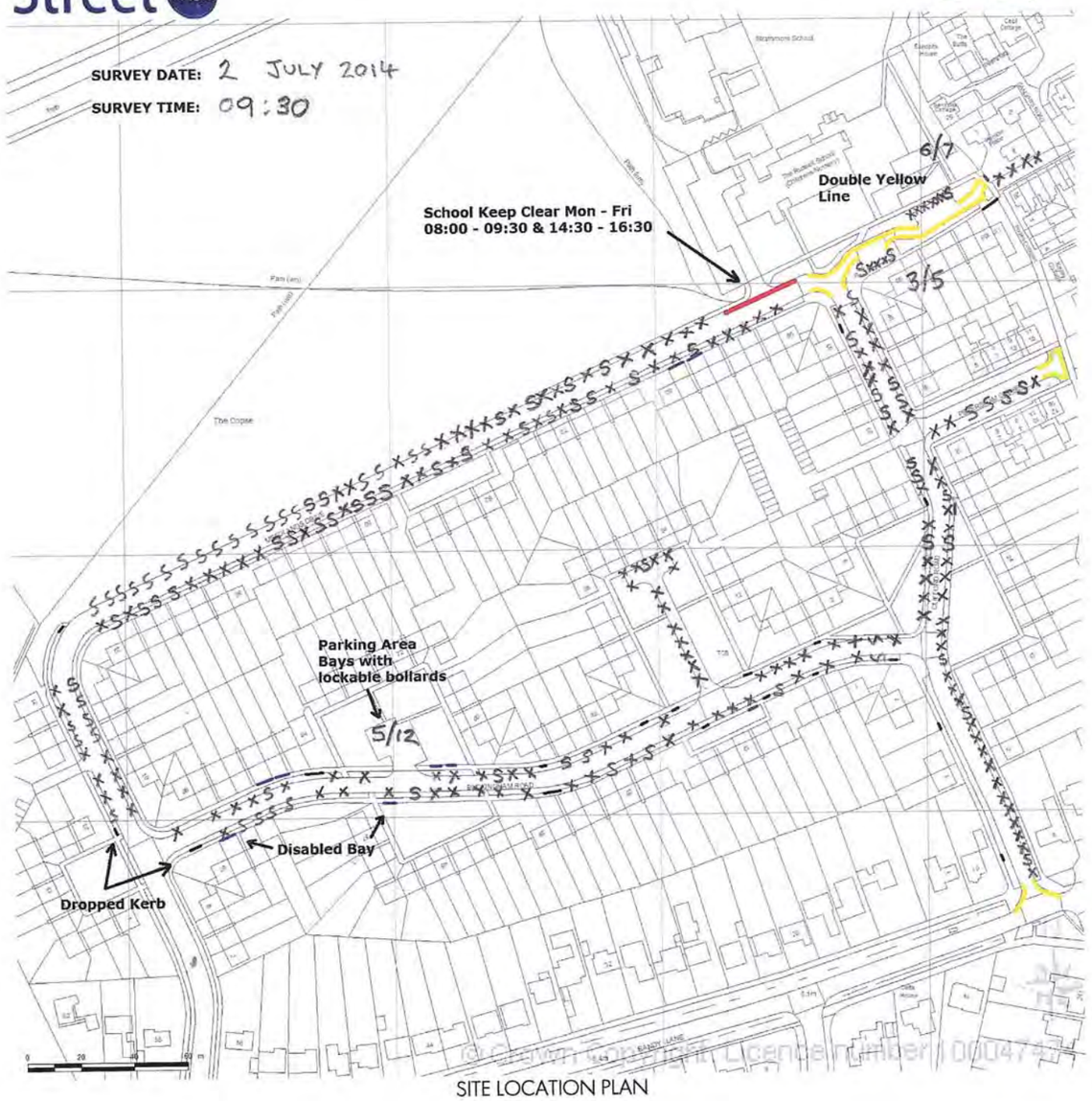


SITE LOCATION PLAN
AREA 16 HA
SCALE 1:2500 on A4
CENTRE COORDINATES: 517940, 173154

Supplied by Streetwise Maps Ltd
www.streetwise.net
Licence No: 100047474
15/07/2014 13:34:39

Street wise™

Enabled by Ordnance Survey

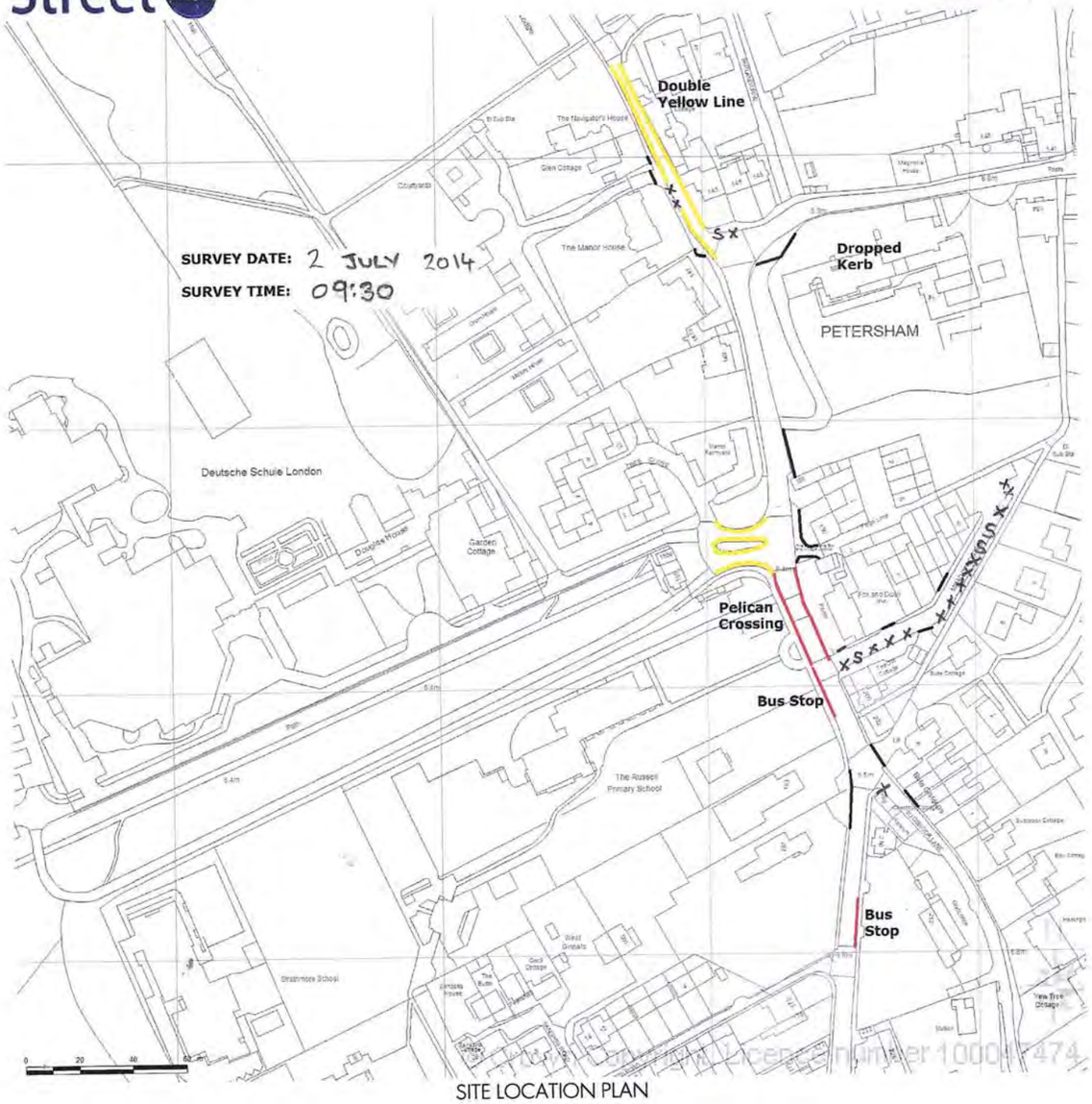


SITE LOCATION PLAN
AREA 16 HA
SCALE 1:2500 on A4
CENTRE COORDINATES: 517758, 172802

Supplied by Streetwise Maps Ltd
www.streetwise.net
Licence No: 100047474
14/07/2014 12:57:25

Street wise™

Enabled by Ordnance Survey

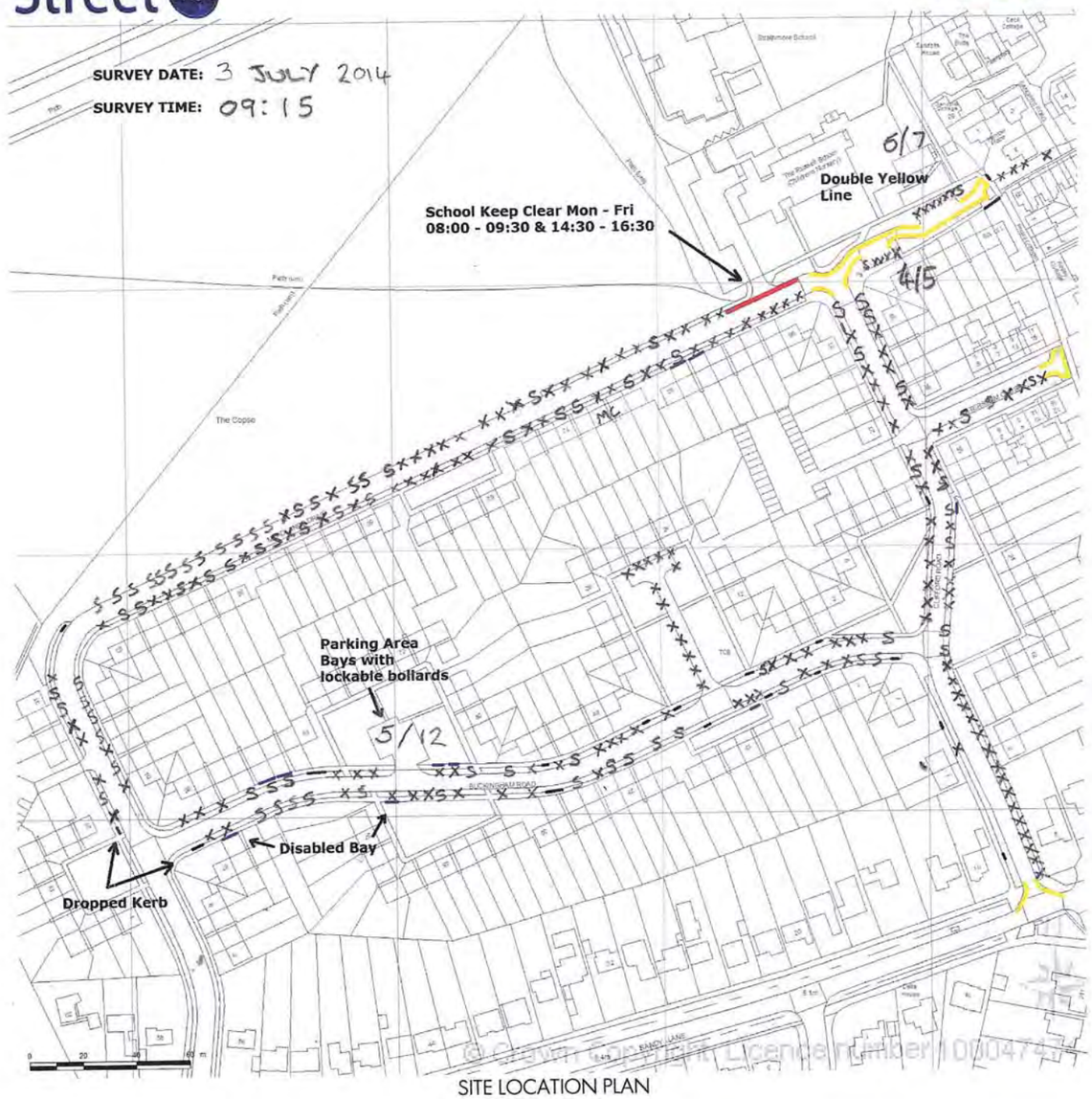


SITE LOCATION PLAN
AREA 16 HA
SCALE 1:2500 on A4
CENTRE COORDINATES: 517940, 173154

Supplied by Streetwise Maps Ltd
www.streetwise.net
Licence No: 100047474
15/07/2014 13:34:39

Street wise™

Enabled by Ordnance Survey

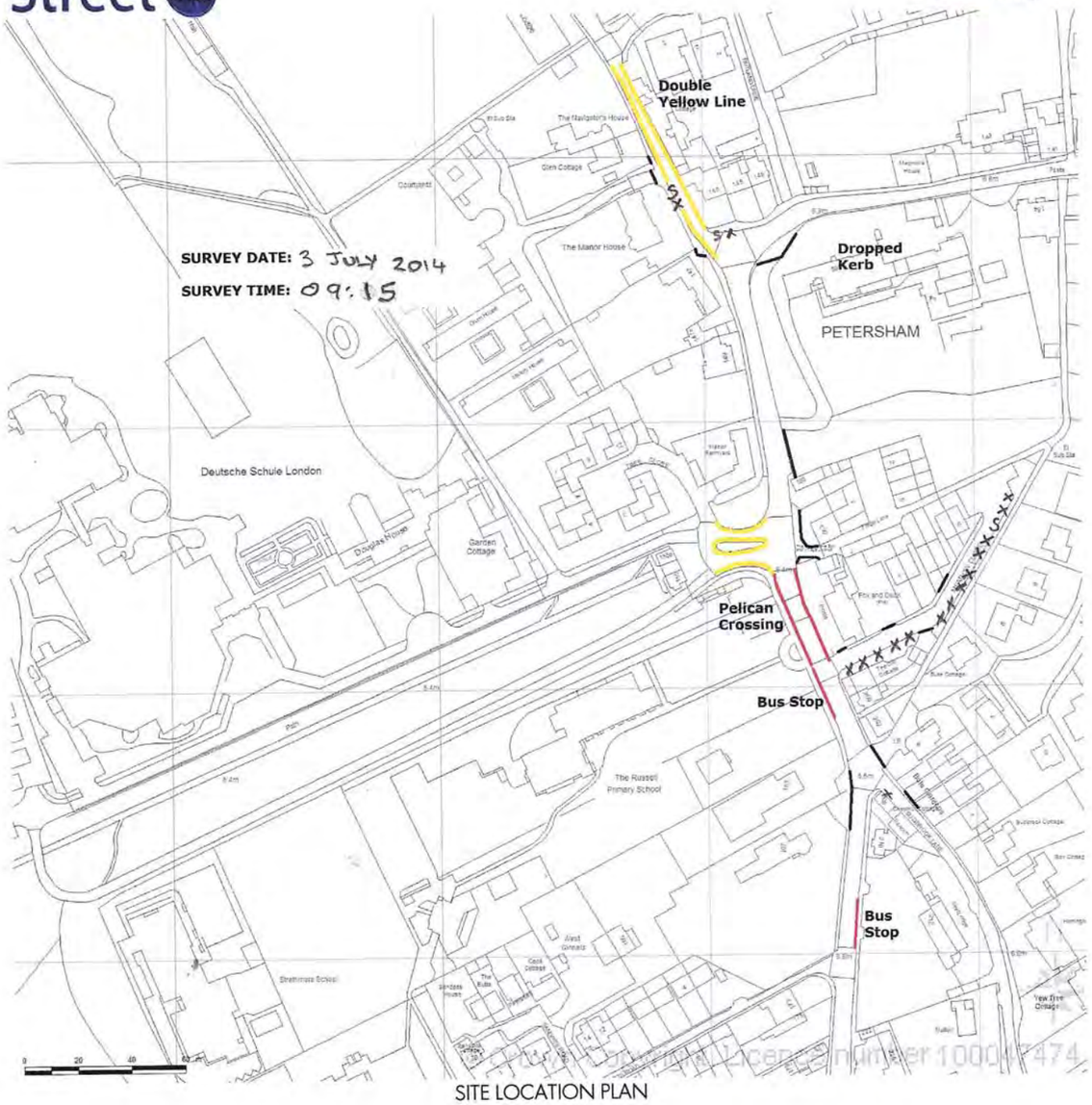


SITE LOCATION PLAN
AREA 16 HA
SCALE 1:2500 on A4
CENTRE COORDINATES: 517758, 172802

Supplied by Streetwise Maps Ltd
www.streetwise.net
Licence No: 100047474
15/07/2014 09:43:51

Streetwise™

Enabled by Ordnance Survey

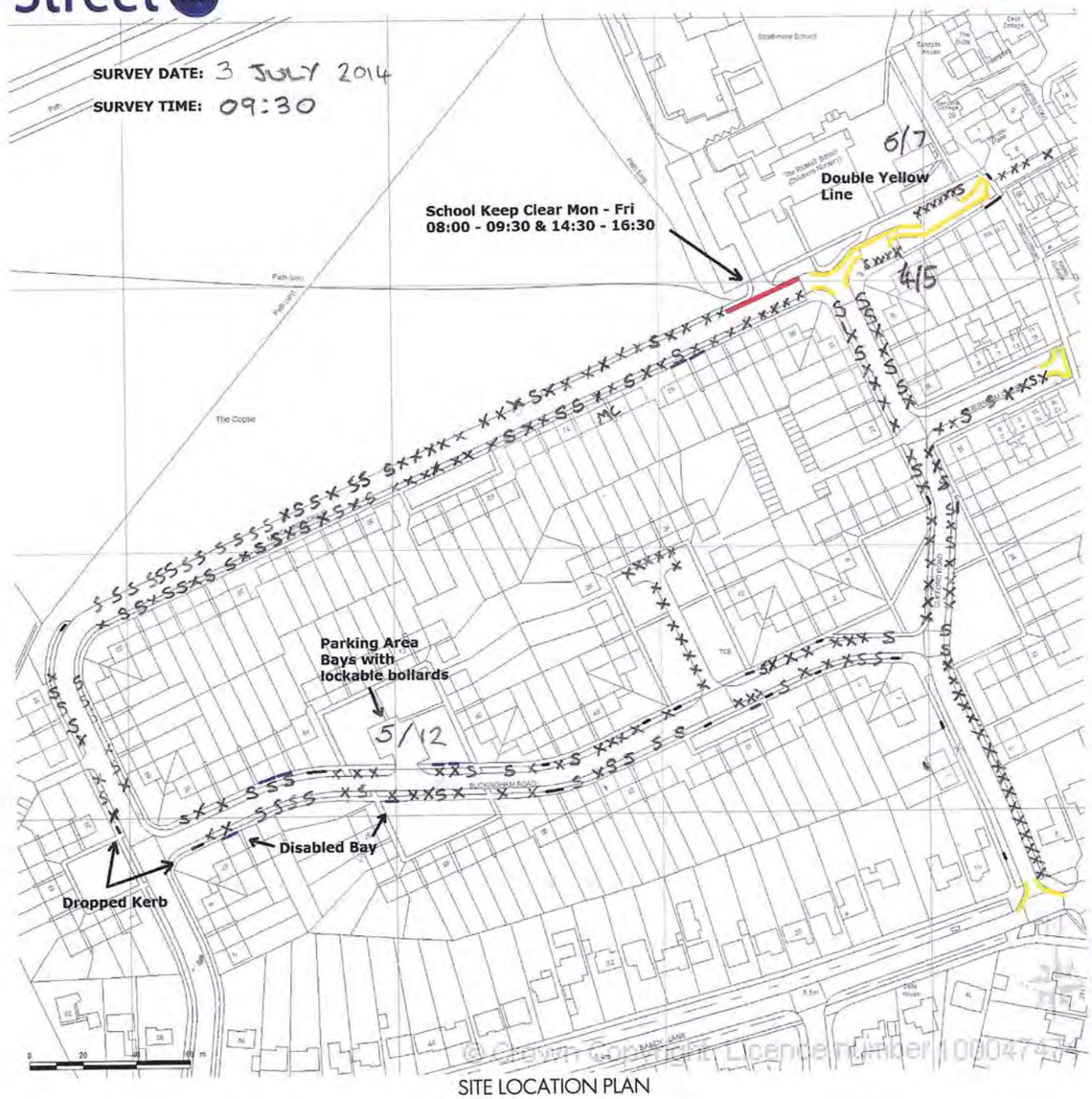


SITE LOCATION PLAN
AREA 16 HA
SCALE 1:2500 on A4
CENTRE COORDINATES: 517940, 173154

Supplied by Streetwise Maps Ltd
www.streetwise.net
Licence No: 100047474
15/07/2014 13:34:39

Streetwise™

Enabled by Ordnance Survey

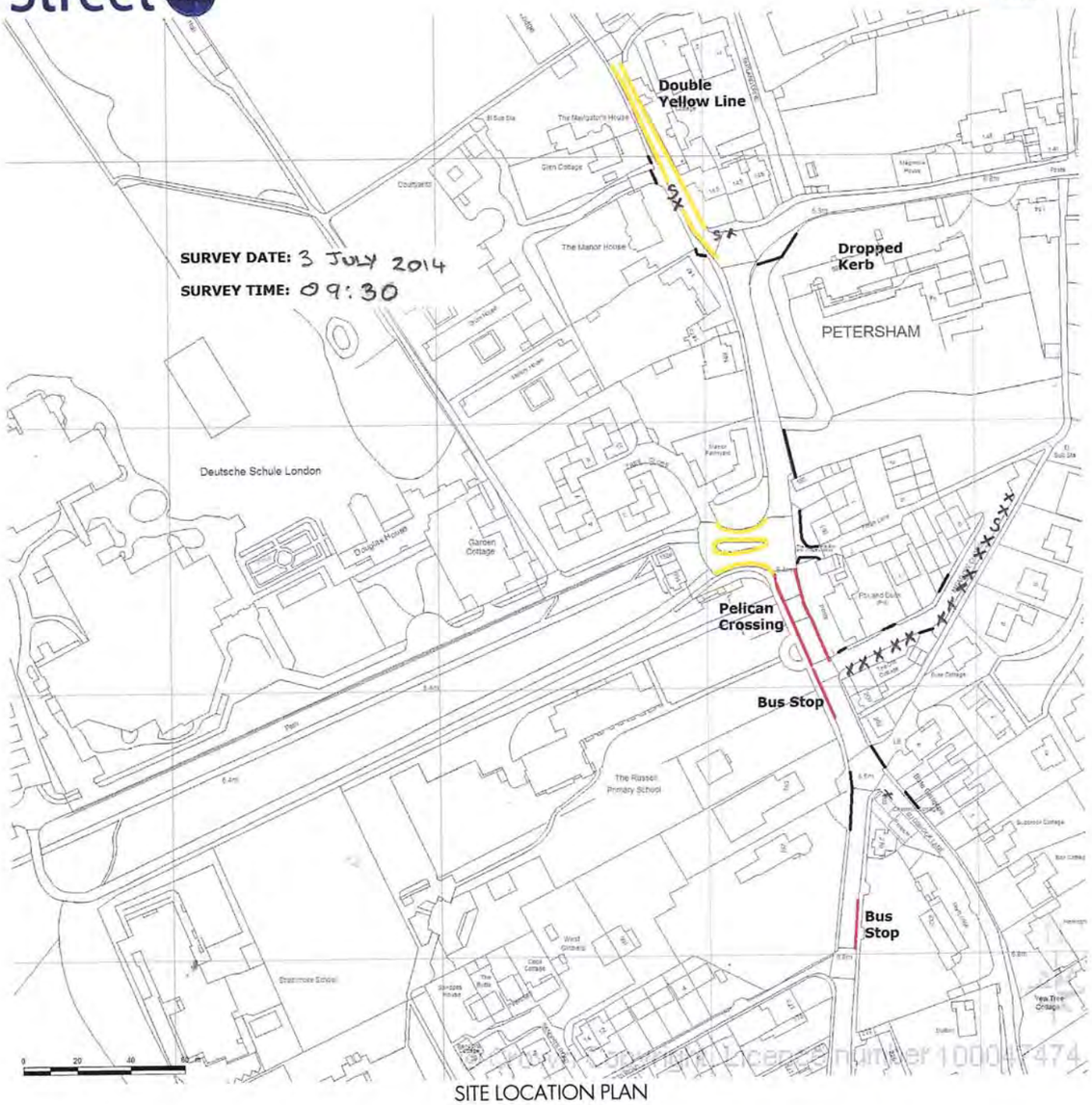


SITE LOCATION PLAN
AREA 16 HA
SCALE 1:2500 on A4
CENTRE COORDINATES: 517758, 172802

Supplied by Streetwise Maps Ltd
www.streetwise.net
Licence No: 100047474
15/07/2014 09:43:51

Street wise™

Enabled by Ordnance Survey

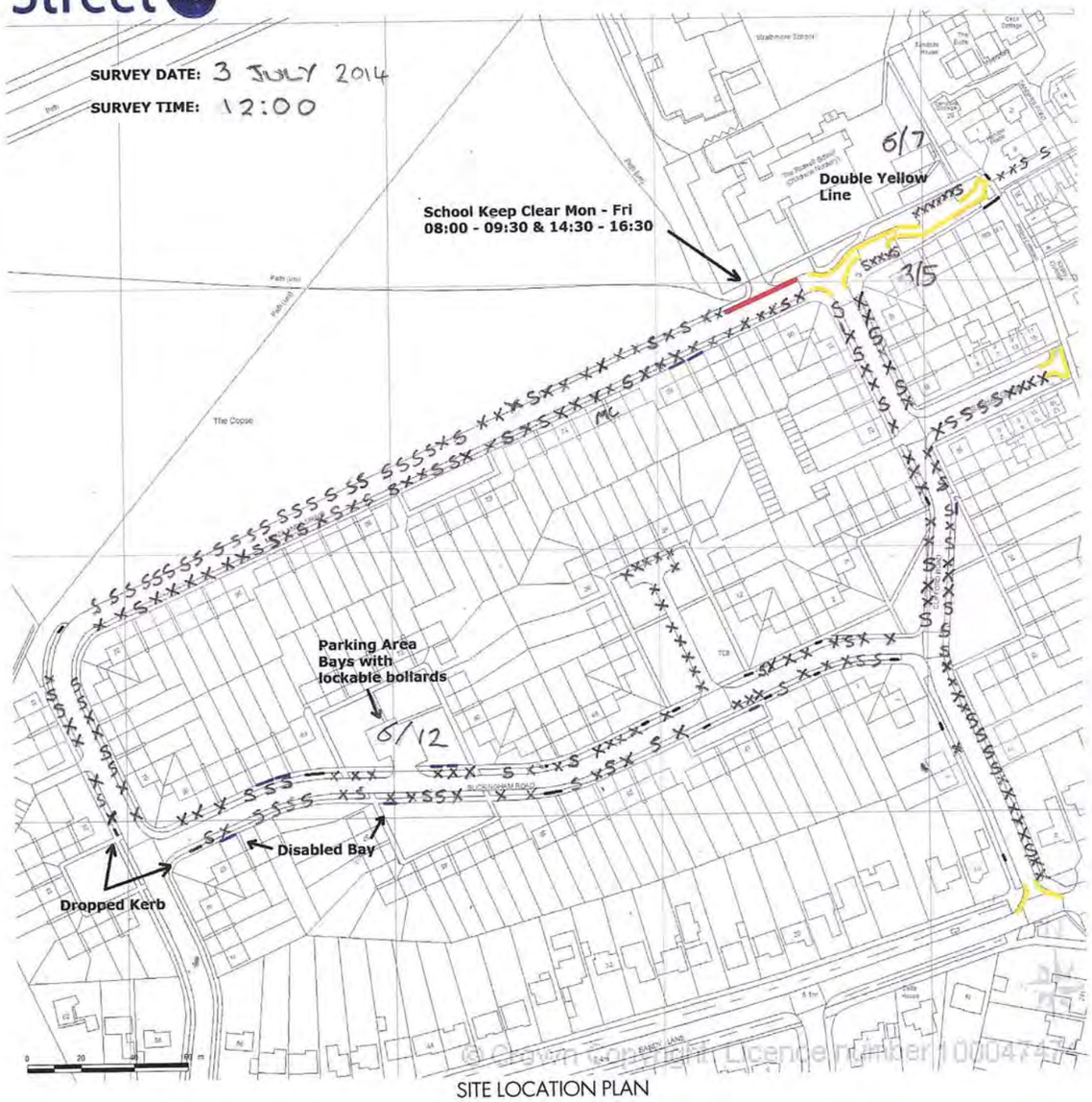


SITE LOCATION PLAN
AREA 16 HA
SCALE 1:2500 on A4
CENTRE COORDINATES: 517940, 173154

Supplied by Streetwise Maps Ltd
www.streetwise.net
Licence No: 100047474
15/07/2014 13:34:39

Street wise™

Enabled by Ordnance Survey

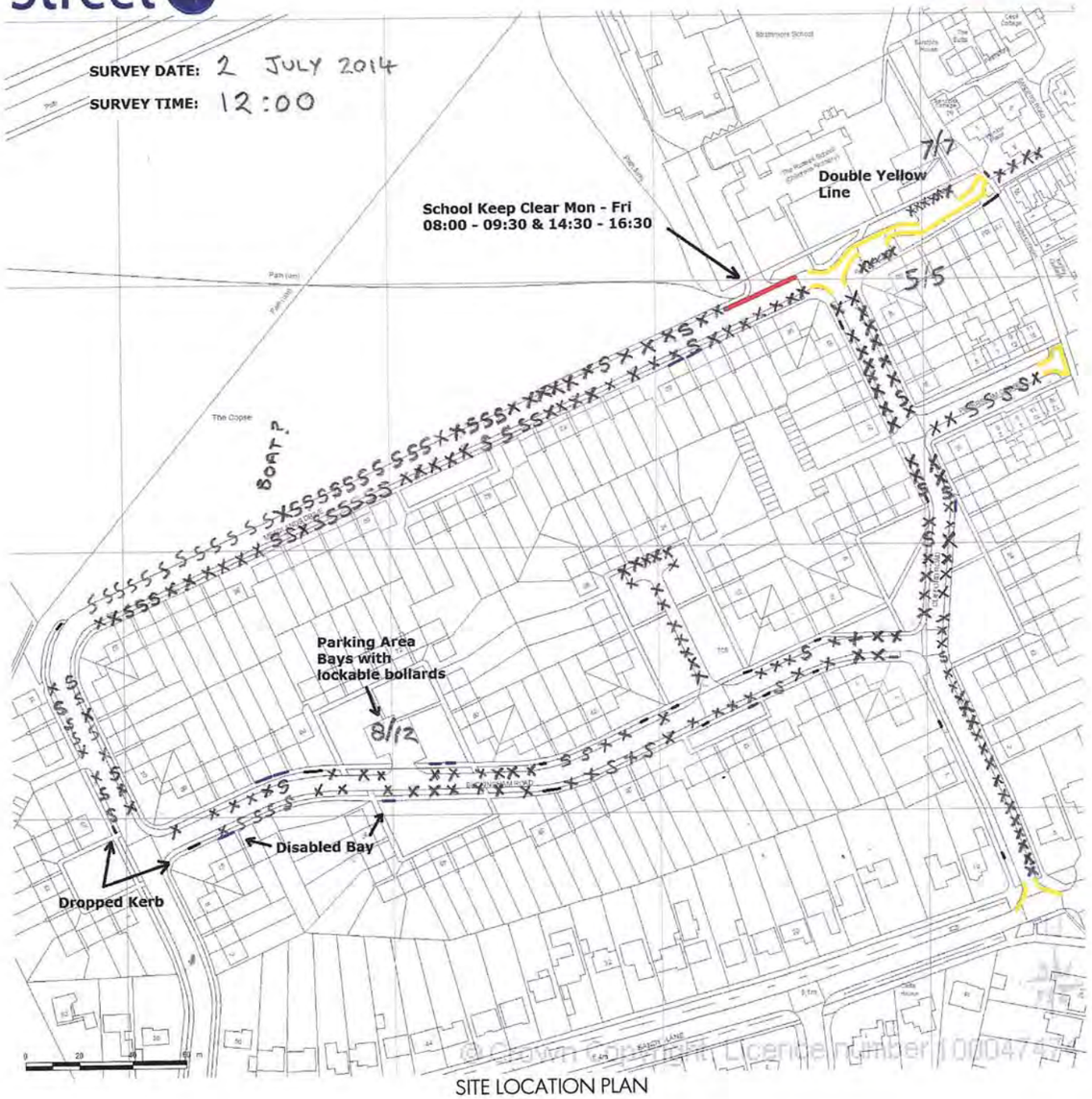


SITE LOCATION PLAN
AREA 16 HA
SCALE 1:2500 on A4
CENTRE COORDINATES: 517758, 172802

Supplied by Streetwise Maps Ltd
www.streetwise.net
Licence No: 100047474
15/07/2014 09:43:51

Street wise

Enabled by Ordinance Survey

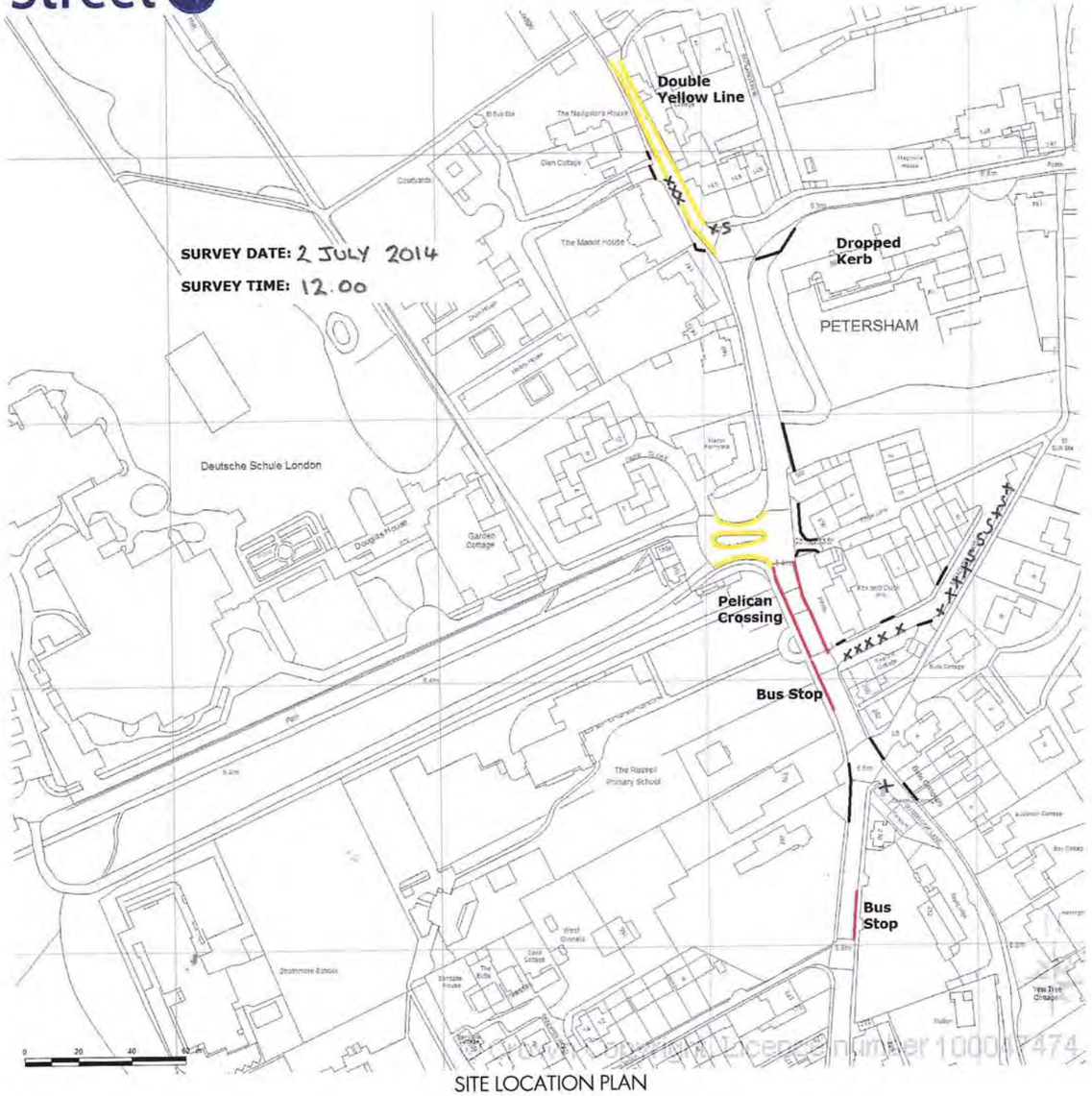


SITE LOCATION PLAN
AREA 16 HA
SCALE 1:2500 on A4
CENTRE COORDINATES: 517758, 172802

Supplied by Streetwise Maps Ltd
www.streetwise.net
Licence No: 100047474
14/07/2014 12:57:25

Street wise

Enabled by Ordinance Survey



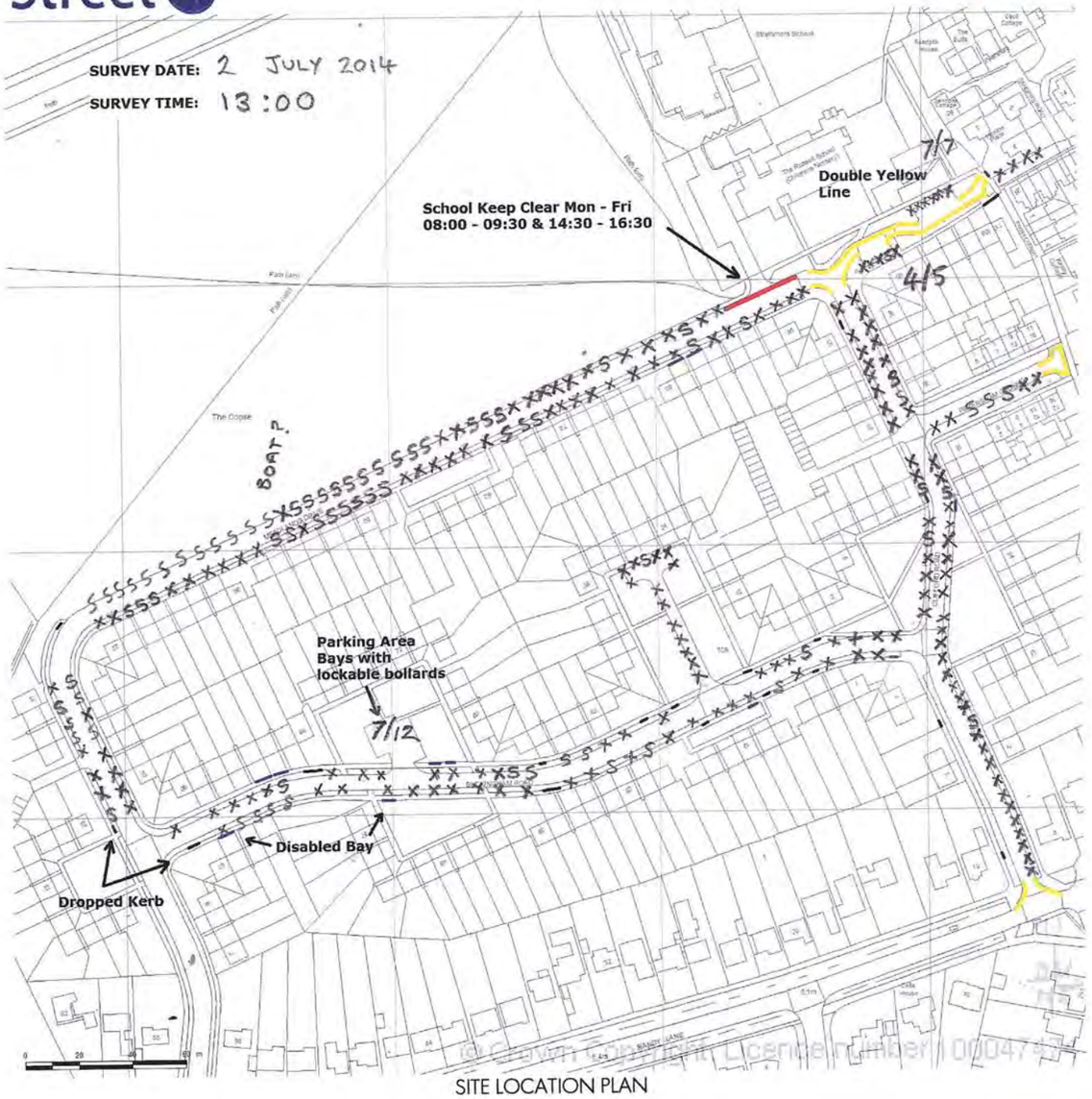
SITE LOCATION PLAN
AREA 16 HA
SCALE 1:2500 on A4
CENTRE COORDINATES: 517940, 173154

Supplied by Streetwise Maps Ltd
www.streetwise.net
Licence No: 100047474
15/07/2014 13:34:39

Enabled by Ordinance Survey

SURVEY DATE: 2 JULY 2014

SURVEY TIME: 13:00



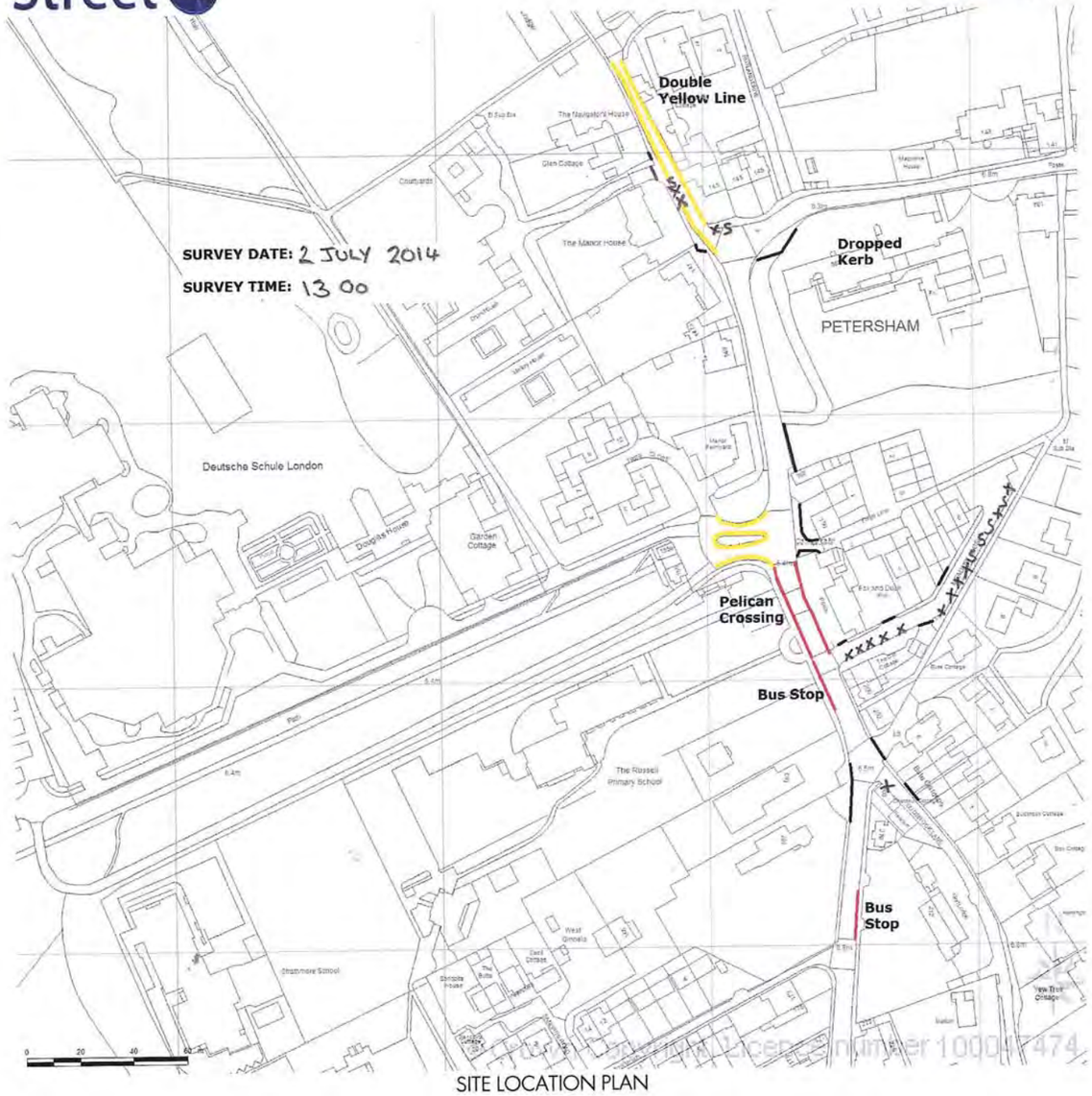
SITE LOCATION PLAN
AREA 16 HA
SCALE 1:2500 on A4
CENTRE COORDINATES: 517758, 172802

Supplied by Streetwise Maps Ltd
www.streetwise.net
Licence No: 100047474
14/07/2014 12:57:25

Enabled by Ordinance Survey

SURVEY DATE: 2 JULY 2014

SURVEY TIME: 13 00

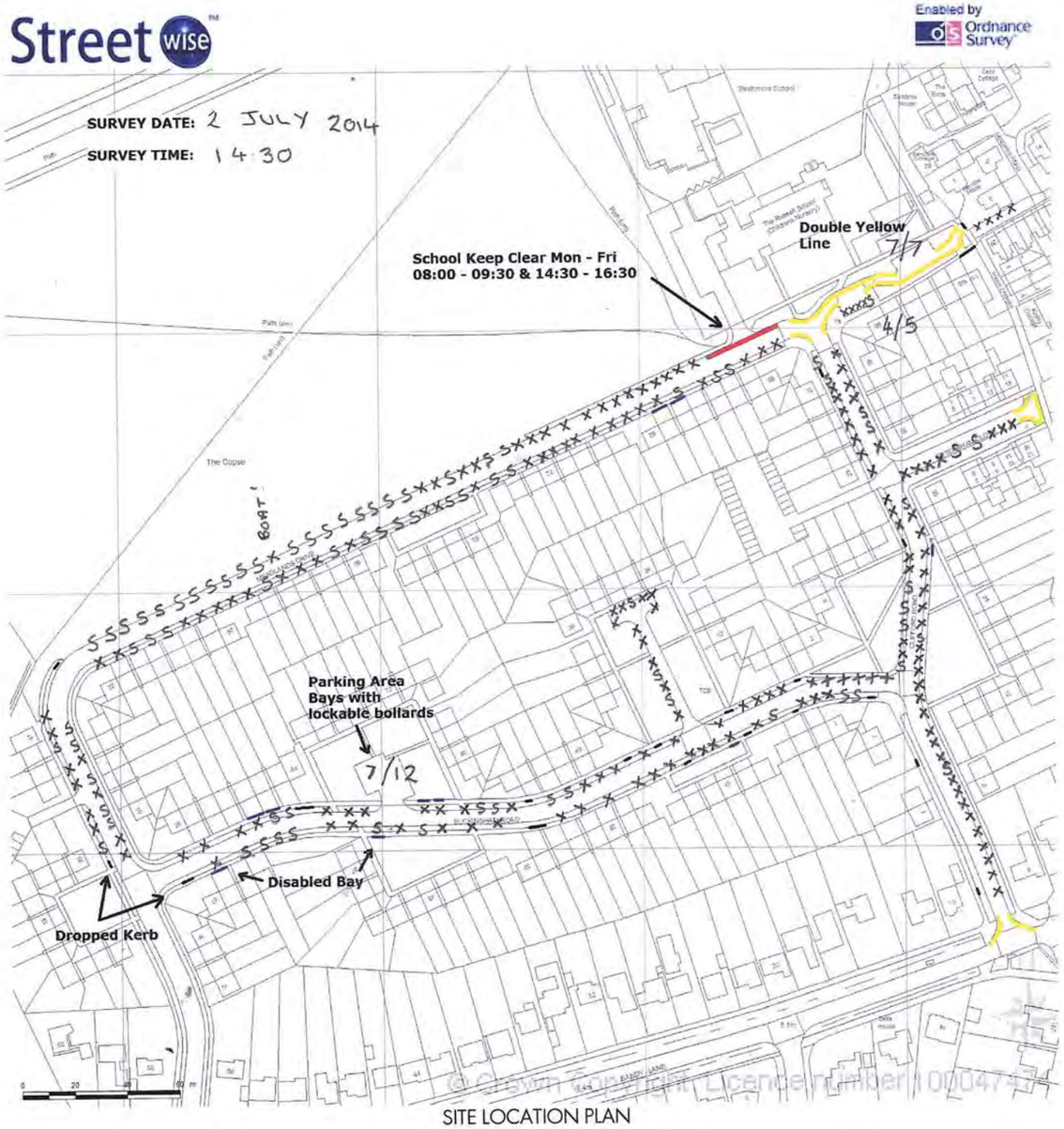


SITE LOCATION PLAN
AREA 16 HA
SCALE 1:2500 on A4
CENTRE COORDINATES: 517940, 173154

Supplied by Streetwise Maps Ltd
www.streetwise.net
Licence No: 100047474
15/07/2014 13:34:39

Street wise™

Enabled by Ordnance Survey



SITE LOCATION PLAN
AREA 16 HA
SCALE 1:2500 on A4
CENTRE COORDINATES: 517758, 172802

Supplied by Streetwise Maps Ltd
www.streetwise.net
Licence No: 100047474
14/07/2014 16:16:11

Street wise™

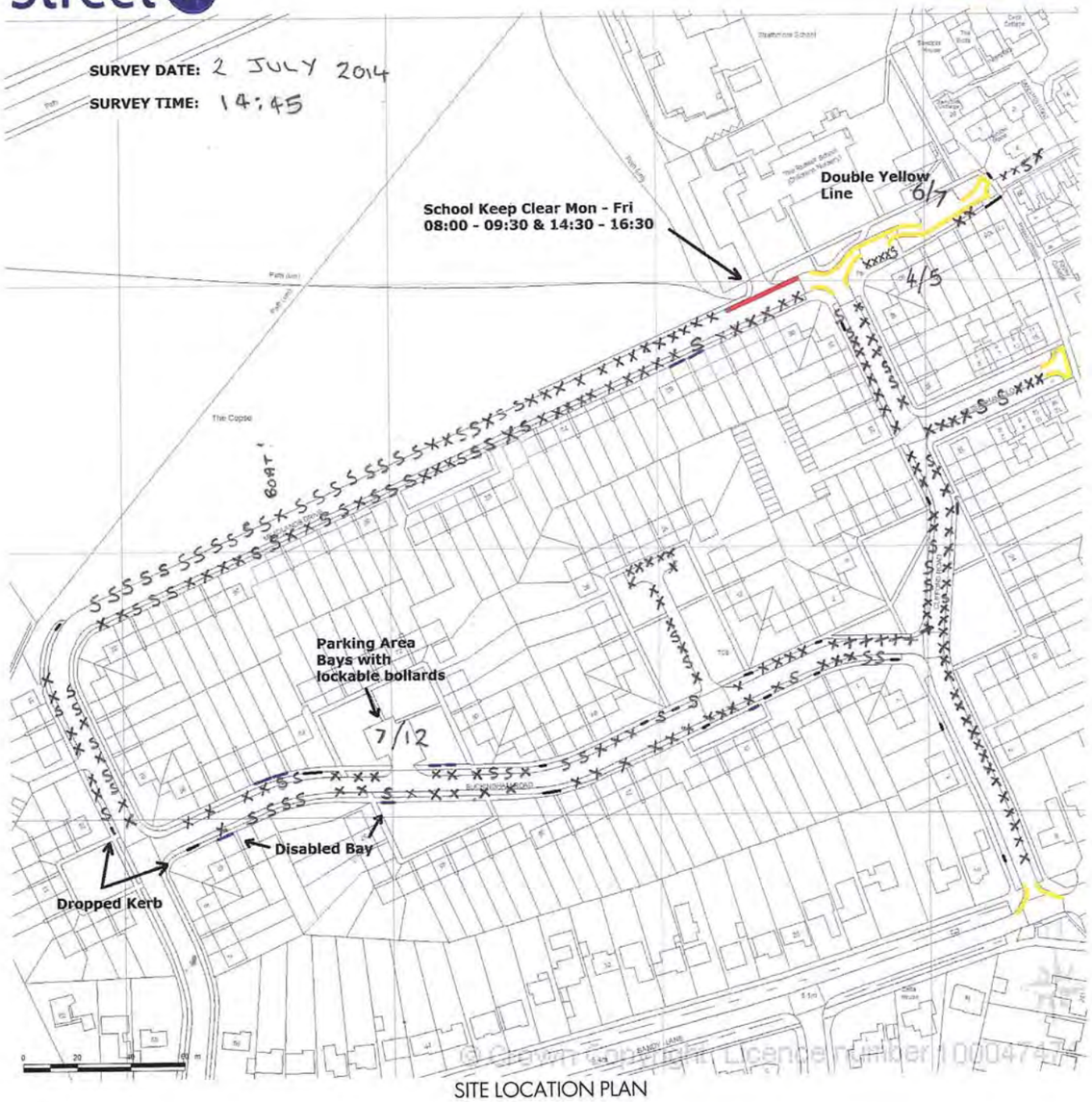
Enabled by Ordnance Survey

SITE LOCATION PLAN
AREA 16 HA
SCALE 1:2500 on A4
CENTRE COORDINATES: 517940, 173154

Supplied by Streetwise Maps Ltd
www.streetwise.net
Licence No: 100047474
15/07/2014 13:34:39

Street wise™

Enabled by Ordnance Survey

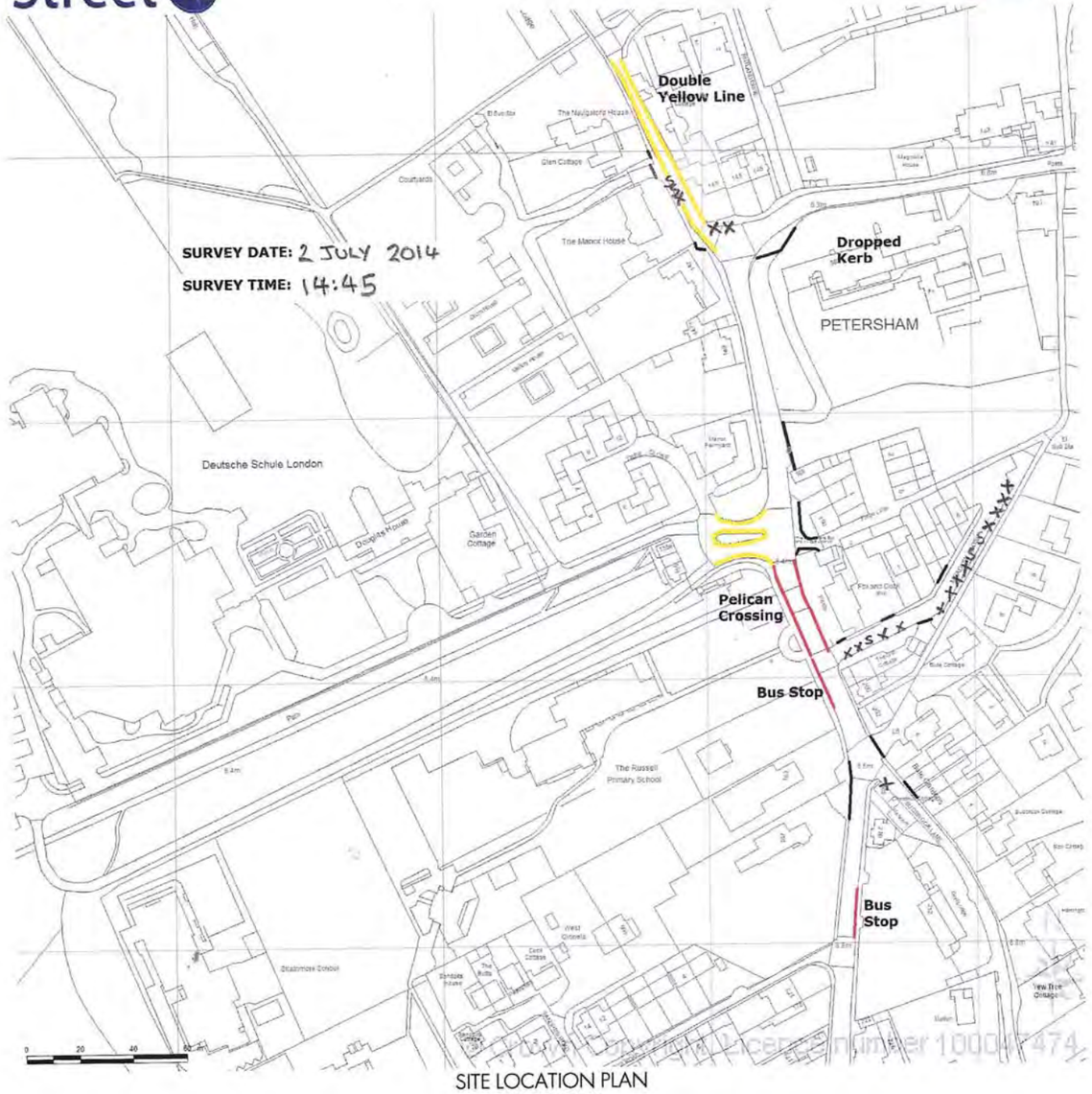


SITE LOCATION PLAN
AREA 16 HA
SCALE 1:2500 on A4
CENTRE COORDINATES: 517758, 172802

Supplied by Streetwise Maps Ltd
www.streetwise.net
Licence No: 100047474
14/07/2014 16:16:11

Street wise™

Enabled by Ordnance Survey



SITE LOCATION PLAN
AREA 16 HA
SCALE 1:2500 on A4
CENTRE COORDINATES: 517940, 173154

Supplied by Streetwise Maps Ltd
www.streetwise.net
Licence No: 100047474
15/07/2014 13:34:39