DELIVERY & SERVICING MANAGEMENT PLAN

RICHMOND UPON THAMES COLLEGE RESIDENTIAL DEVELOPMENT ZONE

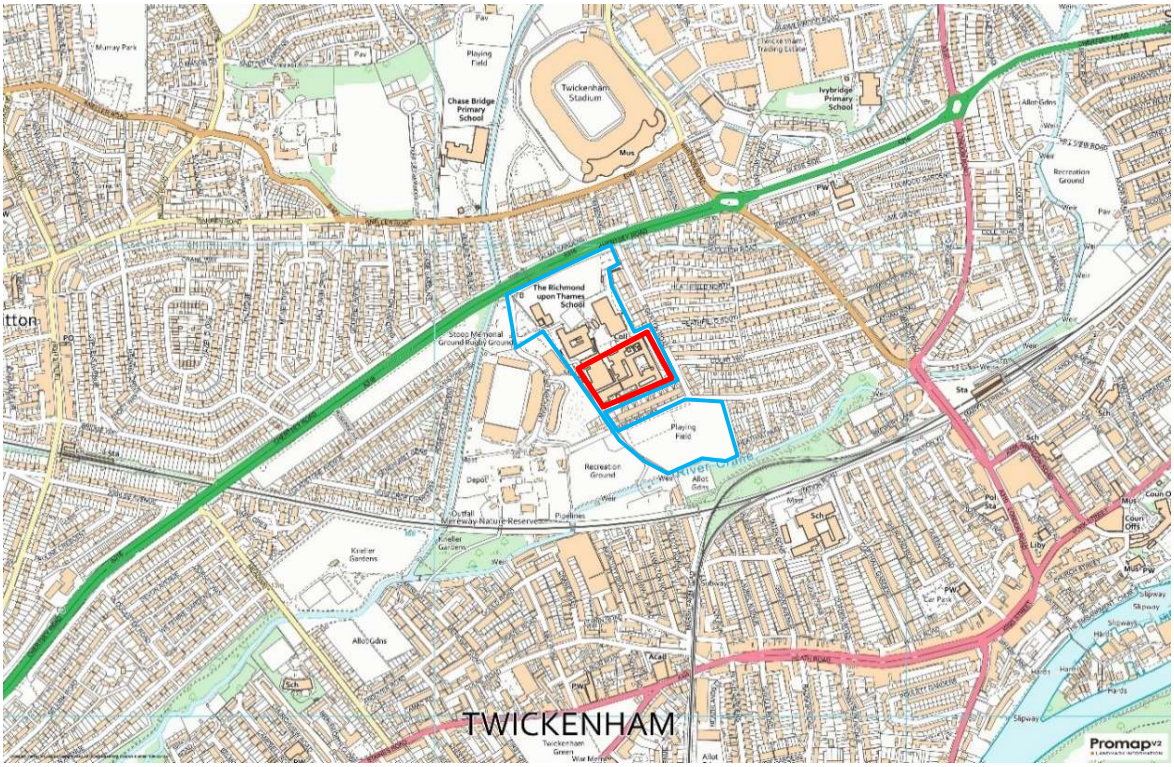
Proposed Residential Development

Date: April 2021 **Ref: 20/5453/DSMP**

1 INTRODUCTION

Background

1.1 RGP has been appointed by Clarion Housing Group to prepare a Delivery & Servicing Management Plan (DSMP) to support the redevelopment of the 'Residential Development Zone' of the Richmond Upon Thames College site ("the site"). The site is located in Twickenham, within the London Borough of Richmond upon Thames (LBRT).



1.2 The development site (shown in red above) forms part of the wider Richmond Education and Enterprise Campus (REEC) site (shown in blue) bound by the A316 Chertsey Road to the north and the Harlequins Stoop Stadium to the west. The Residential Development Zone itself is bordered by the new College buildings and a secondary school to the north, and residential neighbours to the east and south served from Craneford Way and Egerton Road.

1.3 The site comprises the 'Residential Development Zone' of the wider mixed-use redevelopment of the REEC site. In August 2016, Outline planning permission 15/3038/OUT was granted for the demolition of the REEC to provide a new consolidated College campus in the north and west area of the site, enabling the remainder of the site to be redeveloped to provide a mixed-use scheme. The outline proposals including the following:

i) Replacement College with new facilities for 3,000 day students and 500 people attending night classes (weeknights and Saturday mornings) and 300 FTE staff;

ii) Secondary school for 750 students aged 11 to 16 with 80 FTE staff, based on 90 staff of which approximately 20% will be part-time;

iii) A Special Educational Needs (SEN) school for 115 students, aged 11 to 16 with 60 FTE staff (based on 80 staff of which 30% will be part-time);

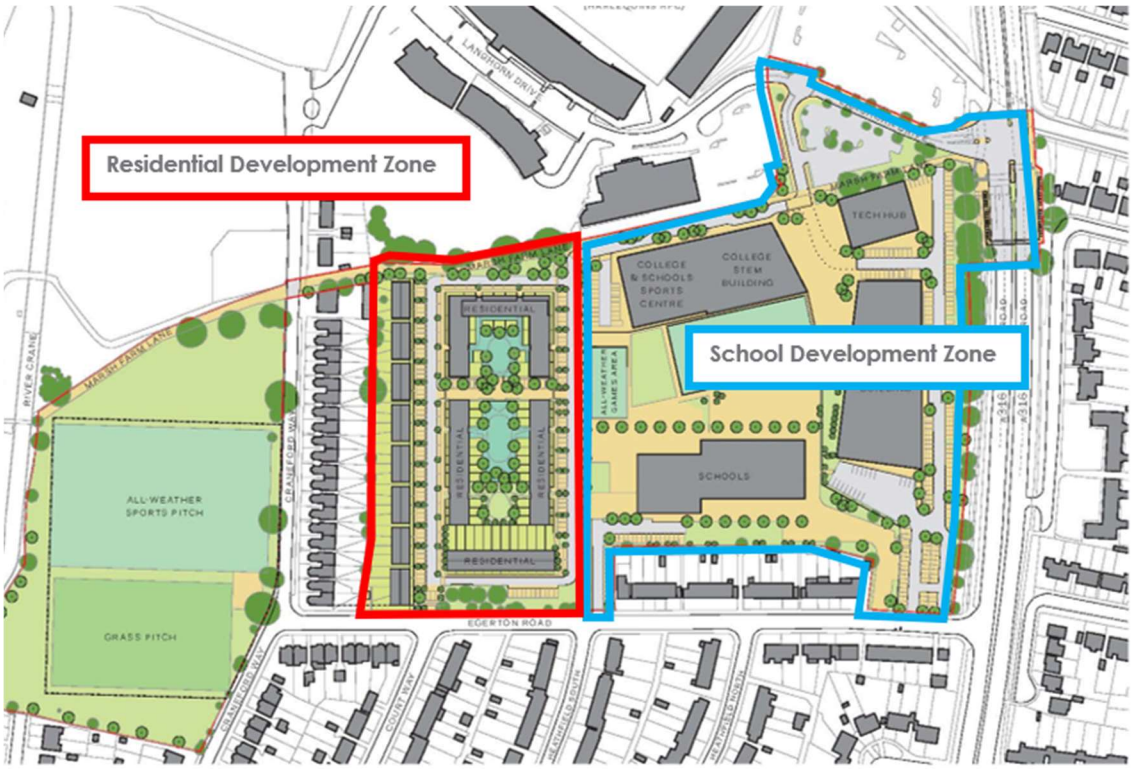
iv) A Tech Hub to provide facilities such as digital labs for new technology and product development, photographic studios, digital editing suites;

v) Residential development of a maximum of 180 units made up of a mix of terraced family housing together with flats/maisonettes within larger blocks;

vi) Sports centre to replace the existing College sports facilities and serve the replacement college, secondary school and SEN school, and the wider community;

vii) Upgrade of the Craneford Way Playing Field to provide improved facilities for the educational facilities and the local community.

1.4 An extract of the approved Masterplan layout drawing is shown below indicating the approved 'Development Zones'. The Residential Development Zone is shown at the south end of the site to the rear of the College campus, with access gained via the main access off Langhorn Drive, in a shared arrangement with the College and Twickenham Stoop Rugby Stadium.



RuTC Site Development Zones

1.5 The current proposals include the submission of a planning application for the redesign of the proposed residential Masterplan. A copy of the proposed Masterplan Layout is attached at **Appendix A**. The proposals would include an increase in dwellings from the 180 units specified in the Outline planning consent to provide a scheme of 212 new dwellings, an increase of 32 dwellings on the site. The proposals would include a mix of 182 flats/apartments and 30 houses.

1.6 The revised proposals would retain the previously approved access arrangements, with all traffic to be served by the new signalised junction via Langhorn Drive. It is considered, given that the proposed signalised junction has been designed to cater for significantly higher periods of traffic movement when the College and Rugby Stadium are in operation, that the relatively minor increases in traffic associated with the residential development could be safely accommodated.

1.7 This DSMP has been prepared to outline the details and fully assess the proposed delivery and servicing strategy for the site. Consideration is also given within this document to the waste management procedures to be adopted by the site.

1.8 This DSMP is prepared for the use of the residential management and relevant information would be communicated to suppliers, waste collection companies and LBRT where necessary. This document serves as a practical guide to be used by these parties involved to ensure that safe delivery activity is undertaken at the site and waste generated by the site is efficiently and appropriately managed and removed.

What is a DSMP?

1.9 A DSMP is a framework identifying the requirements to manage the transport impacts associated with the delivery of goods and the servicing of equipment generated by an organisation. The defined strategy needs to be bespoke to both the organisation and the site it is developed for. It should aim to improve the efficiency of activities such as deliveries, collection, servicing trips and catering, as appropriate to the organisation's activities.

1.10 A DSMP can provide improvements to procurement practices, supplier management, environmental management procedures, facilities management and safe and legal loading arrangements.

1.11 Once in place a DSMP will:

i) Ensure that goods and services can be delivered and waste removed, in a safe, efficient and environmentally-friendly way;

ii) Identify deliveries that could be reduced, re-timed or even consolidated, particularly during busy periods;

iii) Help cut congestion on town centre roads and ease pressure on the environment;

iv) improve the reliability of deliveries to the site concerned;

v) Reduce the operating costs of building occupants and freight companies; and

vi) Reduce the impact of freight activity on local residents;

vii) Ensure that waste is disposed of and collected in a safe manner.

1.12 A DSMP is therefore capable of providing benefits not just to the site occupier, but also to the local community and freight operator.

1.13 It is noted that the requirements of a DSMP for a residential scheme are generally limited, since the requirements for deliveries and service vehicle trips are dictated by the individual requirements of the residents, who will require deliveries on an adhoc basis. However, this document has been prepared to outline the key management measures that can be applied to ensure that delivery movements are safe and efficient.

2 OUTLINE DELIVERY & SERVICING MANAGEMENT PLAN

2.1 The Outline planning consent 15/3038/OUT included the submission of a site wide 'Delivery & Servicing Framework', which set out an overarching strategy for the management of car parking, servicing and deliveries across all parts of the site. A copy of this Framework document (prepared by Transport Planning Practice) is attached at **Appendix B**.

2.2 The key aspects of the Outline DSMP are as follows:

i) All permanent vehicular access and egress for the residential development will be via the Langhorn Drive access and the upgraded junction with A316 Chertsey Road. A new link road running adjacent to the Marsh Farm Lane shared foot/cycle path will provide access into the residential development via the main College access;

ii) An emergency access will be retained from Craneford Way along Marsh Farm Lane. The emergency access will be controlled by a gate or bollards with a fire lock which can be opened by the emergency services;

iii) Routes to electrical substations and the pumping station within the Development Zones will allow for access by 10 metre rigid lorries and so can accommodate routing, as well as infrequent maintenance.

2.3 The Framework DSMP confirms that detailed information regarding vehicle types, frequency and timing of deliveries and refuse collections will be outlined in Delivery & Servicing Management Plans for each Development Zone. Where possible, deliveries and servicing will be consolidated, such as using the same refuse collection vehicle for the whole Campus. Deliveries will be timed not to coincide with peak educational use arrival and departure times.

2.4 A Delivery & Servicing Management Plan was subsequently prepared for the replacement College facilitates, to discharge planning condition U07968 of the Outline consent. The DSMP for the College was approved through planning application 15/3038/DD15.

2.5 This DMSP has been prepared exclusively for the residential development but seeks to consolidate any procedures and processes that may be shared with the remainder of the site. It is noted that the Outline Delivery and Servicing Framework will be reviewed following 5-years of the occupation of the development to determine whether any improvements to the ongoing procedures across all parts of the site can be implemented

3 RELEVANT PLANNING POLICY

3.1 The 2021 London Plan confirms in Policy T4 that Delivery and Servicing Plans will be required for all new development, having regard to Transport for London or Mayoral guidance.

3.2 In addition, Policy T7 'Deliveries, servicing and construction' confirms that "*development plans and development proposals should facilitate sustainable freight movements by rail, waterways and road*". Policies T7(g) subsequently confirms that:

…"*Development proposals should facilitate safe, clean and efficient deliveries and servicing. Provision of adequate space for servicing, storage and deliveries should be made off-street, with on-street loading bays only used where it is not possible. Construction Logistics Plans and Delivery and Servicing Plans will be required and should be developed in accordance with Transport for London guidance and in a way which reflects the scale and complexities of developments*"…

3.3 In December 2020, Transport for London (TfL) published is 'Delivery and Servicing Plan Guidance' to assist the preparation of DSMP's for all types of land use. This guidance has been reviewed and considered in the preparation of this document.

3.4 In addition, Policies T7(h) confirms that:

…"*Developments should be designed and managed so that deliveries can be received outside of peak hours and in the evening or night time. Appropriate facilities are required to minimise additional freight trips arising from missed deliveries and thus facilitate efficient online retailing*"…

3.5 It is noted that opportunities to control the frequency and timings of deliveries to a residential site are limited, since these are controlled by the needs of the individual resident. However, as is the nature of residential deliveries, these are generally undertaken outside of peak times and normally at times when the resident is at home (evenings, for example). In addition, most delivery/courier companies operate outside of peak times and can communicate with the recipient to ensure that parcels are safely delivered without the need for return trips.

4 DELIVERY AND SERVICING PROCEDURES

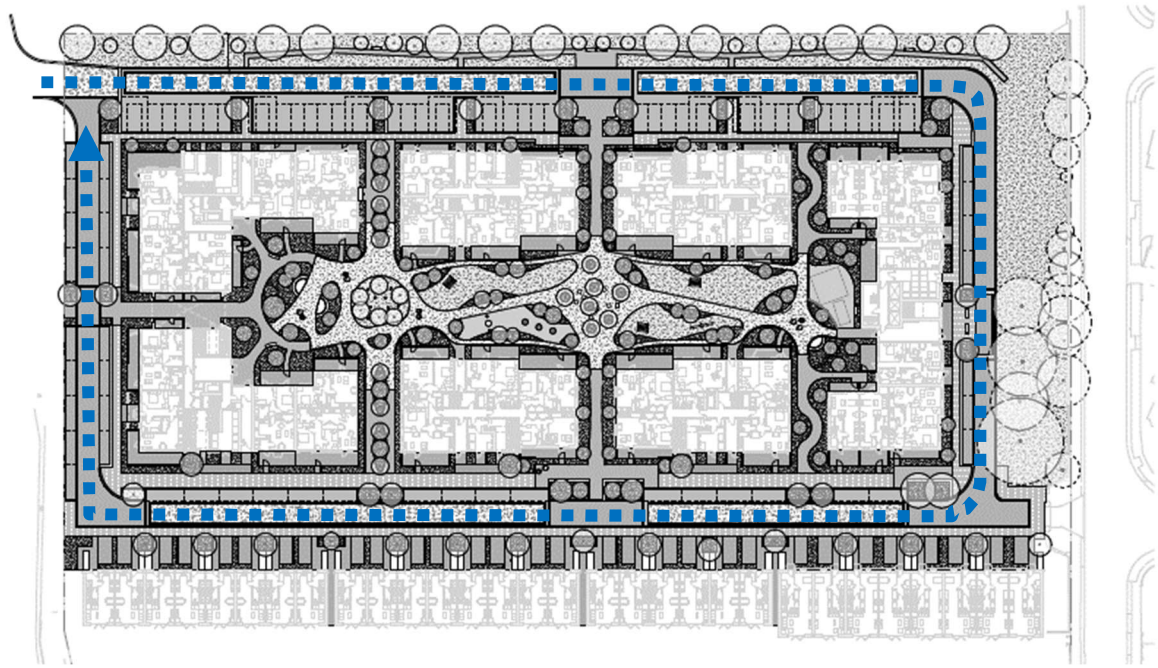
Delivery Vehicle Access

4.1 The residential development site will be accessed off Langhorn Drive by all traffic via its junction with A316 Chertsey Road. The proposed access is currently being implemented as part of the works to the REEC site, including the improvements to the A316 Chertey Road junction to provide a signal-controlled arrangement that permits right turns out (east).

4.2 A copy of the approved General Arrangement drawing for the proposed access road is attached at **Appendix C**. The proposed access road has been designed to ensure that all necessary vehicle movements can access and egress the residential site in a safe and controlled manner, with traffic calming measures in place to control speeds.

4.3 Deliveries generated by the proposed residential units would take place on-street within the site's internal access route. The proposed access route would form a one-way loop road (clockwise) around the site, ensuring that carriageway widths can be reduced to a minimum. The proposed streets will likely remain in private ownership but allow for the daily servicing of the site including refuse collection and deliveries.

4.4 The proposed layout (**Appendix A**) has been designed to ensure that adequate space is provided for delivery vehicles to safely and conveniently stop on the carriageway to carry out associated loading activity without obstructing the throughflow of traffic on the site's access roads. In most cases, the access roads provide a 6.0 metre access road width.



4.5 The site access benefits from a convenient connection to the Transport for London Road Network (TLRN), with the A316 providing direct links to the M3 Motorway to the west and Central London to the east. It is therefore likely that, whilst the routing of deliveries to/from the cannot be controlled, these will benefit from the use of these strategic links and would minimise any disruption to the local highway network.

Delivery Procedures

4.6 Due to the nature of residential deliveries comprising small goods, such as general postal/courier services, supermarket deliveries and restaurant/takeaway deliveries, for example, a short duration of time is required to complete loading activity. As such, delivery and service vehicle activity within the site would not represent an intensive level.

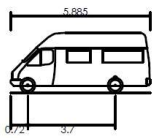
4.7 These types of deliveries would typically require the use of cars and light goods vehicles (LGVs), rather than larger delivery lorries. These deliveries would generally require vehicles to stop within the site for up to a maximum duration of 5 minutes, and on infrequent occasions that larger/bulkier goods are delivered, up to 15 minutes may be needed to complete loading activity.

4.8 All loading activity generated by the site would be carried out in accordance with carriageway restrictions implemented along the site's shared access roads. It is anticipated that where communal parking bays are unoccupied, quick deliveries made by cars and vans could utilise these spaces in order to alleviate vehicular activity on the access route.

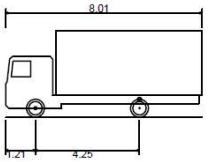
4.9 An Estate Management Company would operate around the site and will likely employ gardeners/landscapers, and contractors (central heating, electrical, plumbing etc.) to service the communal spaces. These visitors would typically arrive and leave in smaller service vehicles (transit vans etc.) that would utilise the existing parking within private areas.

Vehicle Specifications

4.10 As detailed above, the residential units would typically generate postal deliveries and occasional supermarket deliveries. The majority of these goods would be transported to the site via 4.6t transit vans, with supermarket deliveries made by 3.5t Panel Vans. Some occasional larger deliveries would be made via 7.5t rigid delivery vehicles.



4.6t Light Van	
Overall Length	5.885m
Overall Width	2.000m
Overall Body Height	2.526m
Min Body Ground Clearance	0.299m
Track Width	1.765m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	6.000m



7.5t Box Van	
Overall Length	8.010m
Overall Width	2.100m
Overall Body Height	3.556m
Min Body Ground Clearance	0.351m
Track Width	2.064m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	7.400m

4.11 These vehicles would be afforded safe and convenient access into the site and would navigate the one-way access route with ease. No complex turning manoeuvres would be required in order to access the residential properties, whilst the one-way system would ensure that vehicles can egress in a forward gear without the need for reversing.

4.12 In the unlikely event that multiple LGVs were to arrive at the site simultaneously, these could be accommodated within the site on the shared access road. In the rare circumstance that a larger delivery vehicle is required to transport goods to/from the site (i.e. during a change of tenancy), vehicles up to the size of a 10m rigid delivery lorry could safely service the site.

4.13 The largest vehicle that would be required to access the site on a regular basis is a refuse collection vehicle. These vehicles would be afforded with safe access along the internal one-way access route serving the site. Drawing **2020/5453/003** attached hereto illustrates this vehicle travelling through the site with suitable space.

4.14 It should also be noted that emergency vehicles such as a fire tender vehicle and ambulance are smaller in dimension than the refuse vehicle shown above. It is therefore considered that emergency vehicles would also achieve safe access to all areas of the site and would be accommodated by the proposed access design.

Delivery Frequencies and Duration

4.15 As outlined above, deliveries of an ad-hoc nature, such as postal and courier visits, would be undertaken with a short duration of time, typically within 5 minutes. Infrequently, the residential units would generate larger deliveries, such as furnishings, which may require a duration of up to 15 minutes to complete associated loading activity.

4.16 As part of the accompanying Transport Assessment prepared by RGP to support the planning application for the residential development, a multi-modal trip generation assessment was carried out in order to determine the likely number of trips generated by the proposed 212 dwellings across a range of modes. This assessment identifies the level of delivery/service vehicle trips that would be generated by the site over the course of a typical weekday.

4.17 It is evident from the trip generation assessment that the site would generate 30 two-way delivery/servicing vehicle movements over the course of a typical weekday, inclusive of 23 two-way trips by LGVs and 7 two-way trips by 'other' goods vehicles (OGVs). This equates to 15 daily delivery vehicle arrivals and departures (i.e. 15 deliveries).

4.18 It is important to note that as a 'worst-case scenario' up to 2 two-way delivery vehicle movements would expect to be generated during the conventional highway peak hour periods, representing approximately 1 delivery vehicle visit every 30 minutes during the peak hours. It is therefore evident that a low intensity of delivery vehicle activity would be generated by the site and associated vehicle trips would have a negligible impact on the functioning of the site's access / internal road network.

Access to Pumping Station

4.19 In addition to regular deliveries and servicing, the proposed site layout is expected to retain access to the pumping station located on the western boundary of the site.

4.20 It is noted that access is only required if the pumping station fails and visits would be uncommon, anticipated to be as infrequent as every 5-years. If this happens, the pumping station will need to be accessed by a 10 metre long tanker. Drawing **2020/5453/006** attached hereto illustrates the large tanker accessing the pumping station.

4.21 The pumping station has been designed with a tanker hardstanding area so whilst it is pumping out the road will not be blocked.

Emergency Vehicle Access

4.22 The proposed development would ensure that safe and convenient access is retained via Langhorn Drive at all times. However, in the event of an emergency a further access from Craneford Way would be maintained.

4.23 As part of the College/School Development, improvements are proposed to Marsh Farm Lane including the closure of the existing site access off Craneford Way, to be retained for emergencies only. These works have been secured through Reserved Matters planning application 15/3038/DD03 and include the formation of a new shared pedestrian cycle route, screened from vehicle traffic, along much of the access road (see General Arrangement drawing at **Appendix C**).

4.24 As confirmed by the site wide 'Servicing and Delivery Framework' document this access would be controlled by gates or bollards, with a fire lock that can be opened by emergency services only.

5 WASTE STORAGE AND COLLECTIONS

Storage

5.1 RGP has reviewed local waste storage guidance, set out in LBRT's supplementary guidance document '*Refuse and Recycling Storage Guidance*' (April 2015). Residential properties are required to provide storage for general refuse and it is recommended that for 1-2 bedroom dwellings, a minimum bin capacity of 240L is provided. A minimum of 360L should be provided for 3+ bedroom dwellings. These capacities afford sufficient waste storage to enable weekly collections. Where communal refuse stores are provided, capacity for 70L per bedroom across all combined dwellings should be provided.

5.2 In terms of recycling storage for individual dwellings, capacity for 2 x 50L recycling boxes should be provided. Where communal recycling storage facilities are provided, the following capacity should be applied based on the number of residential units:

Number of households served by bin area	Mixed paper, card and carton recycling bins	Mixed container recycling bins	**Total recycling bins**
3 to 5	1x 240L	1x 240L	**2x 240L**
7 to 8	1x 360L	1x 360L	**2x 360L**
9 to 11	2x 240L	2x 240L	**4x 240L**
12 to 17	2x 360L	2x 360L	**4x 360L**
18 to 25	1x 1100L	1x 1100L	**2x 1100L**
26 to 45	2x 1100L	2x 1100L	**4x 1100L**
46 to 70	3x 1100L	3x 1100L	**6x 1100L**

5.3 In addition to the refuse and recycling storage, residential properties are required to provide capacity for 1 x 23L food waste bin. It is advised by the Council that space must be provided so that the container(s) can be presented within the property boundary and visible from the kerbside on collection day.

5.4 The proposed blocks of flats would be provided with secure refuse stores with level access at ground floor level. The provision of lifts within these blocks would afford residents with step-free access into the respective bin stores. Each refuse store provided for the residential blocks would be sheltered with sufficient drainage and capacity to accommodate wheeled bins in accordance with the above minimum storage capacities.

5.5 Where houses are provided on-site, these units would provide individual refuse and recycling bins and sufficient areas of hardstanding would be provided at the frontage of each property to accommodate 2 x 360L bins. This arrangement would enable convenient and safe collections to take place from the site's internal access route.

Collections

5.6 Refuse collections associated with the residential units would be arranged by LBRT and refuse vehicles would carry out collections from within the site on the shared access route. The Council currently operates refuse and recycling collections on a weekly basis to residential properties, with waste removals taking place between 06:00 and 16:00, Monday to Friday.

5.7 As detailed in Section 4, the proposed layout has been designed to accommodate refuse vehicles and larger vehicles across all areas. As outlined previously, all apartment blocks would be provided with bin storage and collection points located within suitable distances of the carriageway edge. In some cases, a separate refuse collection point would be provided closer to the highway, with bins moved by the residents prior to the collection day.

5.8 The proposed arrangement ensures that suitable collection distances for operatives are provided, with a 25m minimum distance for the houses (household refuse bins) and a 12m distance for the apartments (larger communal bins).

5.9 It is anticipated that all collections would be scheduled by LBRT as part of an existing planned route on the local highway network and the site would therefore not necessarily generate additional new refuse collection trips in the local area.

6 PROPOSED MANAGEMENT MEASURES

Deliveries

6.1 It is important that a range of measures are adopted by the site's occupants to ensure efficient and safe management of delivery and servicing vehicles to the site in order to minimise the impact of deliveries.

6.2 Owing to the sporadic nature of deliveries to the residential units on-site, prospective residents would not contract regular freight operators to carry out delivery and servicing requirements. However, it is envisaged that most services would incorporate schemes such as Transport for London's Fleet Operator Recognition Scheme (FORS), for example.

6.3 Deliveries associated with the proposed residential dwellings would not be centrally controlled, and would instead comprise individual ad-hoc deliveries, such as general post. This type of delivery is completed over a short duration of time (i.e. less than 5 minutes), thus would not generate significant pressure on the site's access route.

6.4 It is not considered appropriate for any form of delivery schedule to be prepared by/for residents of the site due to the nature of these deliveries. However, where maintenance vehicles are required on-site and scheduled by the residential management, residents would be notified if it is reasonably expected that any form of disturbance would occur as a result.

6.5 Where any deliveries or maintenance vehicles are scheduled by site management, these are to be scheduled outside of the conventional highway peak hour periods (08:00 – 09:00 and 17:00 – 18:00 hours), in order to limit congestion on the A316 and reduce the impact on residents within the site.

Waste

6.6 To assist in minimising the duration of refuse collections, residents of the proposed houses on site will be instructed to ensure bins are kept at the front of properties and free of obstruction on scheduled collection days. Residential management staff will also ensure that access to the communal refuse stores is kept clear at all times and to safely remove any items obstructing the store.

6.7 The residential management will ensure that all signage and information stickers on, and within, the communal refuse stores are clear. Replacement signage will be ordered by site management when necessary. This includes labelling on bins to assist with the correct sorting of waste on-site.

6.8 The site management would request the services of a cleaning company in the unlikely occurrence that large spillages occur within the shared refuse stores or should any issue be identified regarding the condition of bins on-site. Owing to the design of the bin stores and their location away from the carriageway, spillages during refuse collections would not affect the site's access route.

6.9 Additionally, site management will be instructed to inform new residents of the refuse / recycling processes to ensure that they are fully aware of the requirements. This approach will be maintained via up-to-date information placed on communal residential notice boards and/or welcome packs for new residents.

6.10 This DSMP is prepared as a standalone planning document which is anticipated to be used predominantly by the site management and LBRT waste collection teams to provide reference to the necessary waste storage, collection and management procedures. This document would also be used periodically for review purposes.

7 SUMMARY AND CONCLUSIONS

7.1 This document sets out a series of clearly defined procedures relating to the anticipated delivery arrangements and waste storage and removal requirements associated with the proposed 'Residential Development Zone' of the Richmond Education and Enterprise Campus (REEC) development. A range of delivery and waste management measures have been defined within this document and should be applied by the future occupants of the site following its development.

7.2 This report demonstrates the following:

i) Owing to the site's proximity to the strategic highway network, including the A316 and A3, delivery and refuse collection vehicles would convineintly access the site with minimal deviation from existing scheduled delivery / collection routes;

ii) All loading activity associated with deliveries and refuse collections would be safely and convineintly carried out on the site's internal access roads. Sufficient space will be afforded to accommodate delivery vehicles without obstructing the one-way access route;

iii) Deliveries to the residential units would typically comprise postal and courier services, as well as occasional supermarket deliveries, for example. These ad-hoc deliveries would generally utilise LGVs such as 4.6t light vans or 7.5t panel vans. These vehicles would be provided with ample room to manoeuvre within the site;

iv) The proposed development would generate in the region of 15 daily deliveries, the majority of which would comprise LGV trips to the site. This is not considered to represent an intensive level of delivery vehicle activity. The vast majority of deliveries generated by residents would require a duration of up to 5 minutes to complete;

v) Secure communal refuse stores would be provided for residents of the apartment blocks on-site. these stores would contain sufficient capacity to accommodate both general refuse and recycling, whilst step-free access into the stores would be provided by way of lifts to each floor of the residential blocks. Areas of hard standing would be provided at the front of the houses on-site to accommodate bins and facilitate convenient collections;

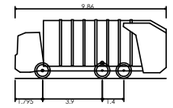
vi) Weekly refuse collections would be scheduled by LBRT as part of an existing collection route through the local area. The residential management will ensure that communal refuse stores are well maintained and not obstructed during scheduled collection periods;

vii) Appropriate measures will be introduced to ensure that residents of the site are fully aware of the refuse / recycling processes via the communal notice boards and welcome packs for new residents.

DRAWINGS

NOTES

This drawing has been prepared for the purpose of planning discussions and does not constitute a detailed design drawing, or construction drawing. A Design Hazard Inventory has been prepared by RGP setting out the hazards which have been designed out. This is available upon request.



Large Refuse Vehicle (3 axle)	
Overall Length	9.860m
Overall Width	2.450m
Overall Body Height	3.814m
Min Body Ground Clearance	0.366m
Track Width	2.450m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	9.500m

RESIDUAL HAZARDS

In addition to the hazards/risks normally associated with the type of work detailed on this drawing, please note the following residual hazards:

It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved risk assessment and method statement.

Rev.	Drawn	Comments	Date
P4	GE	LAYOUT UPDATED	29/04/21
P4	GE	LAYOUT UPDATED	23/02/21
P3	GE	LAYOUT UPDATED	22/02/21
P2	GE	LAYOUT UPDATED	18/02/21
P1	GE	FIRST ISSUE	05/01/21

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Client
Clarion Housing Group

Project
Richmond College
Residential Development Zone

Drawing Title
Large Refuse Vehicle
Swept Path Analysis

Drawing No.	Rev.
2020/5454/003	P5

Scale	Drawn By	Checked By	
1:500	GE	SJ	A3

NOTES

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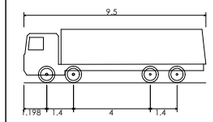

8-Wheel Tanker	
Overall Length	9.500m
Overall Width	2.500m
Overall Body Height	2.800m
Min Body Ground Clearance	0.412m
Track Width	2.471m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	9.500m

RESIDUAL HAZARDS

In addition to the hazards/risks normally associated with the type of work detailed on this drawing, please note the following residual hazards:

It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved risk assessment and method statement.

Rev.	Drawn	Comments	Date
P2	GE	UPDATED SITE LAYOUT	28/04/21
P1	GE	FIRST ISSUE	23/02/21

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Client
Clarion Housing Group

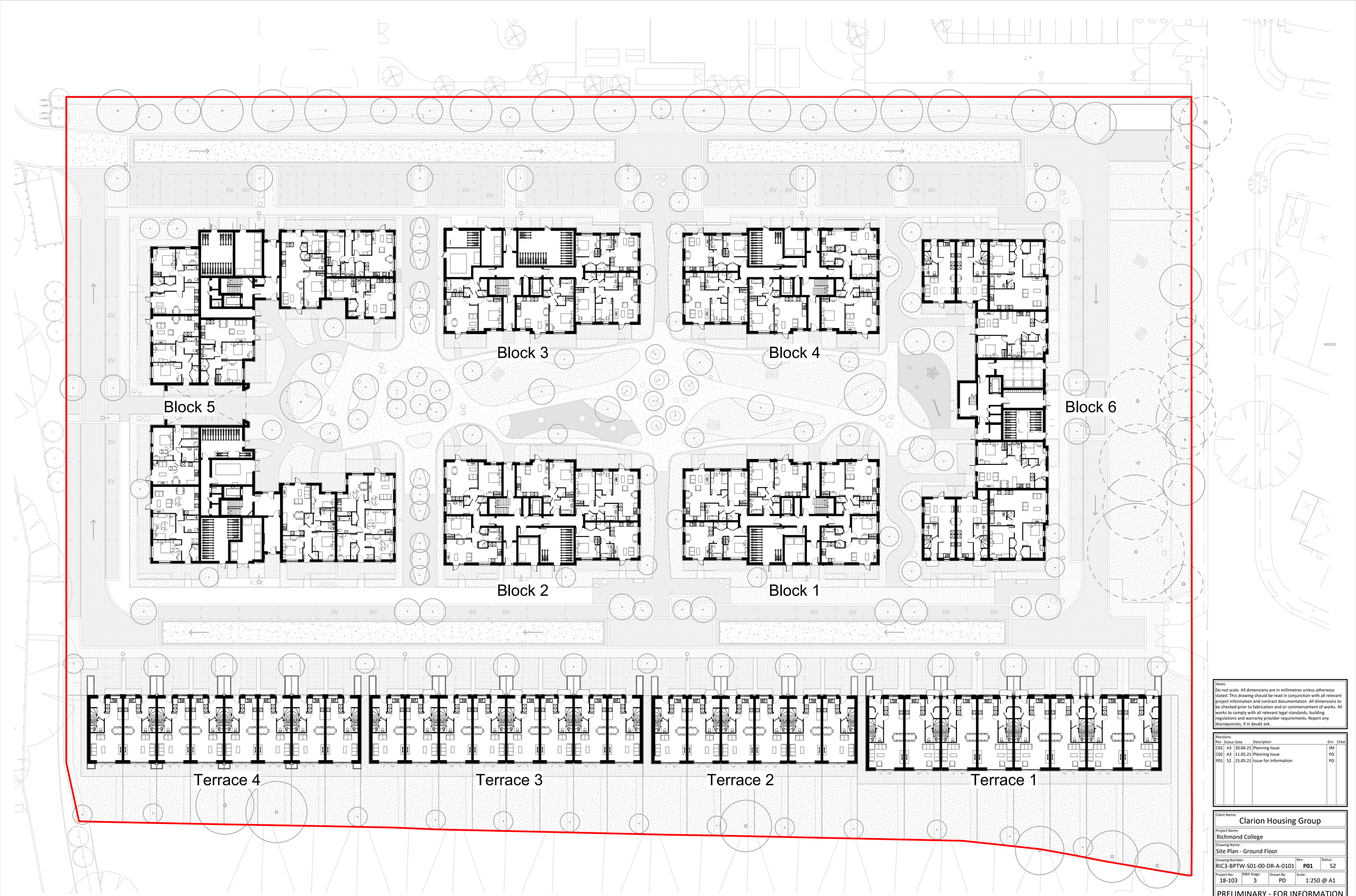
Project
Richmond College
Residential Development Zone

Drawing Title
Vehicle Swept Path Assessment
Access to Pumping Station

Drawing No.	Rev.
2020/5454/006	P2

Scale	Drawn By	Checked By	
1:200	GE	SJ	A3

APPENDIX A



Notes:
Do not scale. All dimensions are in millimetres unless otherwise stated. This drawing should be read in conjunction with all relevant project information and contract documentation. All dimensions to be checked prior to fabrication and or commencement of works. All works to comply with all relevant legal standards, building regulations and warranty provider requirements. Report any discrepancies, if in doubt ask.

Revisions:

Rev	Status	Date	Description	Drn	Chkd
C01	A3	30.04.21	Planning Issue	JM	
C02	A3	11.05.21	Planning Issue	PD	
P01	S2	25.05.21	Issue for Information	PD	

Client Name: Clarion Housing Group

Project Name: Richmond College

Drawing Name: Site Plan - Ground Floor

Drawing Number: RIC3-BPTW-S01-00-DR-A-0101 | Rev: **P01** | Status: S2

Project No:	RIBA Stage:	Drawn By:	Scale:
18-103	3	PD	1:250 @ A1

PRELIMINARY - FOR INFORMATION

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APPENDIX B

Richmond Education and Enterprise Campus

Site Wide Parking and Servicing Framework

Introduction

1. Transport Planning Practice has been commissioned by Richmond upon Thames College to prepare a Site Wide Parking and Servicing Framework for the proposed Richmond Education and Enterprise Campus to discharge planning condition U08042. This is an overarching document for the development as a whole. The preparation of specific car park management plans and delivery & servicing plans for each development zone is conditioned as part of the outline planning permission, 15/3038/OUT.

Car park access/egress control and management

College and Haymarket building

2. All permanent vehicular access and egress for the College which includes the STEM building and Sports Centre, and the Haymarket building (tech hub) will be via the Langhorn Drive access and the upgraded junction with the A316 Chertsey Road.

3. Access and egress for the College site will be restricted from using the Egerton Road access by the use of security gates for which college staff will not have access controls for day-to-day use.

4. The College will be allocated 150 parking spaces, the majority of which will be located at the northern end of the Campus although some will be located next to the Sports Centre. Visitor, accessible and mini-bus parking will be included within the 150 space allocation.

5. The Haymarket building will be allocated ten parking spaces which will be located next to the building main entrance and the service area. Visitor and accessible parking will be included within the ten space allocation.

6. A permit scheme will be used to prevent unauthorised parking within the curtilage of the College and Haymarket building site. This will provide a visual measure of enforcing against unauthorised parking taking place within these zones. Visitors parking at the College will be required to report to reception on arrival and leave their car registration details. All parking within accessible parking spaces would need to be accompanied by a valid Blue Badge. The permit scheme and use of accessible spaces by Blue Badge holders will be enforced by the College's facility management team. Similarly, Haymarket visitors will required to report to the tech hub reception and provide details. The bays will be sign posted as being for tech hub visitors only and Haymarket will liaise with the College's facility management team in terms of enforcement (since any unauthorised parking is most likely related to the college use).

Residential development

7. All permanent vehicular access and egress for the residential development will be via the Langhorn Drive access and the upgraded junction with the A316 Chertsey Road. A road running adjacent to the Marsh Farm Lane shared cycle/footpath will provide access into

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the development from the main College access. An emergency vehicle access for the residential development will be provided from Craneford Way along Marsh Farm Lane. The emergency access will be controlled by a gate/bollards with a fire lock which can be opened by the emergency services, details of which to be agreed through the reserve matters application for Phase 2 of the College development site.

8. The outline planning consent allows for the provision of up to 190 parking spaces in the residential development zone, of which 18 shall be disabled parking spaces. The allocation of parking between the private and affordable units is yet to be determined but it will be in-line with local standards and policy. Visitor parking spaces will also be included within the maximum parking provision.

9. Any podium type car parks or multi-space garages will have secure authorised access. Therefore, residents allocated a parking space within these types of car parks will be provided with key cards/fobs in order to gain access.

10. Parking in the residential development zone will be regulated and monitored by a parking management company appointed by the residential developer, with suitable signs placed around the site indicating penalties for unauthorised parking. The parking management company will also monitor the use of the visitor parking spaces to ensure that it is not being used by residents on the site and is available for visitor use.

Secondary School

11. Permanent vehicle access and egress for the 42 space shared schools car park will be from Egerton Road and via Chertsey Road. Vehicles exiting the car park wishing to travel east on the Chertsey Road will be able to access the College site and then make their way to Langhorn Drive where they will be able to utilise the right-turn lane at the upgraded signal controlled junction.

12. The car park will have automatic gates and only authorised Secondary School or SEN School staff issued with security cards/fobs will be able to access to this car park from Egerton Road. No pedestrian access will be provided from Egerton Road into the car park.

13. Visitors parking in the Secondary School will be required to report to the school reception on arrival and leave their car registration details. A permit scheme will be used to prevent unauthorised parking within the School's car park and it is envisaged that it will be monitored and enforced by the School's facility management team.

14. All HGV access and egress for the school will be via the Langhorn Drive access. Delivery vehicles and refuse collection vehicles will make use of the service yard on the College site to undertake delivery and refuse collection activities.

SEN School

15. Permanent vehicle access and egress for the SEN School's 28 space car park will be via Egerton Road via the residential roads of Court Way, Heathfield North and Heathfield South. The car park's single access located on Egerton Road will have automatic gates and only SEN School staff with security cards/fobs will be authorised immediate access and egress. Visitors will be required to speak to security through an intercom to enter and exit the car park. Visitor, accessible and mini-bus parking will be included in the SEN School's allocation of 30 spaces.

Harlequin FC's Right of Way

16. A legal right of way exists that allows Harlequin Football Club Limited, Harlequin Estates (Twickenham) Limited and Twickenham Leisure Limited (Nuffield Health) rights of way over the access road through the campus site between Langhorn Drive and Egerton Road. Harlequin Football Club Limited, Harlequin Estates (Twickenham) Limited and Twickenham Leisure Limited (Nuffield Health) will be issued with security cards / fobs to control the gate at the Egerton Road access.

17. The gate will be closed at all times during match/event days other than when in use during an emergency.

Match and event days at The Stoop and Twickenham Stadium

18. During match and event days at Harlequins' The Stoop Stadium and Twickenham Stadium, the College currently offers parking for hire. This will continue in part when the site is redeveloped, making use of the parking spaces in the College development zone only. On Harlequin match days and event days the club will have access to a minimum of 100 spaces on the College site to use for parking, this does not apply on Twickenham match days. Access to the parking will be via Langhorn Drive, with no access or egress via the Egerton Road access unless there is an emergency.

19. During the match and event days Harlequins will have parking marshalls to ensure that the agreed spaces are used for the event and to manage the safe movement of vehicles and pedestrians in and out of the car park.

College and school event days

20. The College and schools will hold various events throughout the academic year such as open days/evenings for prospective students or parents/guardian evenings for existing students etc. In such cases, measures and agreements will be put into place between the College, Secondary School and the SEN School to use each other's car parks for additional parking. Where practical, events held at one educational establishment will be spread over a series of days or evenings in order to reduce event parking demand and arranged not to coincide with other events being held at the other educational establishments on the Campus.

21. On major event days the College has a reciprocal parking arrangement which allows them to use surplus spaces on Harlequins' site. Access and egress to these spaces will be via Langhorn Drive.

Sports Centre and Craneford Way playing fields parking

22. The Sports Centre will be available for the wider community use outside of the educational use operational hours. Therefore, other than outside term time they will only be able to use the Sports Centre during the weekday early mornings and evenings and on weekends. Car parking for the public using the Sports Centre will be accommodated within the College's 150 parking space allocation outside of the College's educational use operational hours when the demand for parking from the College staff will be lower.

23. Members of the public using the Craneford Way playing fields will be able to park within the College site on evenings and on weekends when outside of the College's educational use operational hours. They will then use the upgraded Marsh Farm Lane shared cycle/footpath to access the playing fields.

Accessible parking

24. The quantity of accessible parking for the College, Haymarket building, Schools and residential development will be provided in-line with planning condition U07964: *People with disabilities – Parking* as per Table 1.

Table 1: Condition U07964 People with disabilities - parking

Development Zone	Parking Spaces
Schools – *Secondary and SEN*	4
College	8 (shared)
College, Sports Hall	
College, Craneford Way Playing Fields	
Tech Hub – *Haymarket building*	1
Residential	18

25. Condition U07964 also states:

'The spaces shall be provided in accordance with detailed drawings to be submitted to and approved in writing by the Local Planning Authority, such drawings to show the size, position, surface treatment, and method of delineation and marking/signing of such spaces. These spaces shall at no time be used other than by occupiers of the dwellings identified for wheelchair housing pursuant to conditions U08029 and U08031 f) part c) in the Residential Development Zone or staff/students/visitors to buildings within the other Development Zones'.

26. Accessible spaces will be a minimum of 2.4m x 4.8m with a 1.2m access strip along the side and end of the space. Accessible spaces will be identified with appropriate surface markings and signing and located as close as feasibly possible to the main entrance of the buildings they are serving.

27. Cars parking within accessible spaces will be required to display an in date Blue Badge. This will be enforced by the various facility management teams.

Electric Vehicle Charging Points

28. The quantity of Electric Vehicle Charging Points (EVCPs) for the College, Haymarket building, schools and residential development will be provided in-line with planning condition *U08005: Electric Vehicle Charging Points (EVCPs)* as quoted below:

'Unless otherwise agreed in writing by the Local Planning Authority, the development shall provide active electrical vehicle charging points (EVCPs) at no less than 20% of total parking provision and passive EVCPs at no less than 20% of total parking provision as passive EVCPs provision for all residential and business parking spaces. 8 No. active EVCPS shall be provided within the College and/or Schools Development Zones'.

Car Clubs

29. The provision of car club vehicles on the residential site will be investigated when the detailed application for the residential development zone is prepared. If a car club space is provided on the educational campus site, it will be located where it is accessible to potential users both on the campus and off the campus.

Vehicle and Cycle parking

30. The quantum of vehicle and cycle parking for the Campus will be provided in-line with the requirements set out in planning condition U08002: *Vehicle and Cycle Parking* as shown in Table 2.

Table 2: Condition U08002 Vehicle and Cycle Parking

Development Zone	Use	No. of Vehicle Parking Spaces	No. of Cycle Parking Spaces
Schools – *Secondary and SEN*	D1	70	18 staff (long stay) 9 staff (short stay) 94 students (long stay)
College	D1	150 (shared)	75 staff (long stay) 150 students (long stay) 428 students (short stay)
College, Sports Hall	D2		40 sports centre visitors (short stay)
College, Craneford Way Playing Fields	D1		No. TBA with LPA
Tech Hub – *Haymarket building*	B1	10	11 long stay 4 short stay
Residential	C3	190	315 residents 5 visitors

31. Condition U08002 also states:

'The vehicle parking spaces provided in the Residential Development Zone shall only be made available to residents living within the development and no building/dwelling/flat within any particular Development Zone shall be used/occupied until the parking spaces indicated in the above table for that particular Development Zone have been constructed to the satisfaction of the Local Planning Authority. In the event that the Residential Development Zone is constructed in 2 phases, no fewer than 95 car parking spaces and 150 cycle parking spaces shall be provided within the Residential Development Zone prior to the first occupation of a residential unit within that Development Zone and no more than 90 residential units can be occupied without further provision in accordance with the parking spaces indicated in the above table for that particular Development Zone.

The vehicle parking spaces provided within the College Development Zone shall be at all times made available for users of the 2 pitches within the College Playing Fields Development Zone and the users of the buildings within the College Development Zone in both the D1 Use Class and D2 Use Class.

Cycle parking facilities shall be provided within the College Playing Fields Development Zone in accordance with details to be submitted to and agreed in writing by the Local Planning Authority'.

32. As part of a reserve matters condition the total number of cycle parking for the College Development Zone has been reduced from 653 to 539 spaces,

33. Details of the differentiation between say residents cycle parking (long stay) and their visitor cycle parking (short stay) will be covered in the detailed design of the cycle parking provisions. However, in general long stay parking will be in secure locations,

whereas short stay spaces will be readily visible and accessible to the public as set out below.

College

34. The long stay cycle parking (225 spaces) for staff and students will be provided in covered and secure stores which will be shared. One of the stores will be in the service area in Phase 1 and another will be within the building footprint of Phase 2. These enclosed stores will be monitored with CCTV. The short stay cycle parking (314 spaces) will be spread around the College grounds and will be used by staff, students and visitors depending on where they enter the site/college buildings and their choice of location.

35. Additional short stay cycle parking (40 spaces) will be provided for the Sport Centre to the north of the Sport Centre's car park. Long stay cycle parking facilities will be shared with the main college building.

36. Further short stay cycle parking is also likely to be provided in the proximity of the STEM building. The location and number of cycle spaces will be confirmed within the Reserved Matters submission for the building Zone.

37. The college facility management team will monitor the use of the cycle parking provisions, however they will not strictly enforce whether staff and students make use of either the long or short stay parking, unless there are particular demand and supply issues at particular locations when the situation will be reviewed. Further details for the Main College building will be provided to discharge condition U27006 on Reserved Matters approval 16/4747/RES.

Schools

38. Subject to details to be approved in relation to condition U13875 of Reserved Matters approval 16/3293/RES, it is anticipated that the covered and secure long stay cycle parking spaces (84) provided at the northern pedestrian entrance will be for students. The northern pedestrian entrance will be monitored by CCTV according to the current approved drawings. The further 20 covered long stay cycle parking spaces and 8 covered accessible spaces provided outside the entrance to the Secondary School building are anticipated to be used by staff, visitors and any approved party which requires the use of the accessible spaces.

39. The short stay cycle parking (47 spaces) is located along the primary pedestrian access to the Secondary School. It is anticipated that this parking will be primarily used by students but could also be used by staff and visitors should there be sufficient demand.

40. Details of the designation for both short and long term cycle parking in the Schools Development Zone will be provided to discharge condition U13875 on Reserved Matters approval 16/3293/RES.

41. It is expected that the schools facility management team/teaching staff will monitor the use of the cycle parking provision to ensure that it used in accordance with the information submitted to discharge condition U13875. The Schools will take appropriate action to enforce the approved cycle parking management plan.

Residential

42. At this time the precise details of the cycle parking for the Residential Development Zone is not known. However, it is likely that the long stay cycle parking for the residential

units will be in secure covered location including private garages, private sheds and communal cycle stores in the case of the apartments. Short stay cycle parking for visitors will likely be provided in the form of Sheffield stands in the publically accessible areas of the Residential Development Zone. The long stay cycle parking will be self enforcing given that access will be restricted.

43. Precise details of the long stay and short stay cycle parking for the residential development will be provided within the Reserved Matters submission for the Residential Development Zone.

Haymarket building

44. At this time the precise details of the location of cycle parking for the Haymarket building is not known. However, it is likely that the long stay cycle parking for staff will be provided within the building footprint or an external enclosed and lockable store. It is also likely that short stay cycle parking for visitors will be provided in the form of Sheffield stands in the publically accessible area to the rear of the building. The long stay cycle parking will be self enforcing given that access will be restricted to staff.

45. Precise details of the long stay and short stay cycle parking for the Haymarket building will be provided within Reserved Matters submission for the Tech Hub Development Zone.

Residential enclosed/podium car parking

46. The access to enclosed/podium car parking in the Residential Development Zone will typically be controlled via gates to ensure that a safe and secure environment is maintained at all times.

Taxi, mini-bus and coach access

College and Haymarket building

47. Taxi pick-up and drop-off for the College and the Haymarket building will be from the road through the piazza area. Taxis will be able to turn around at the T-junction to the north of the car park between the two buildings. Another taxi pick-up and drop-off location for the College is located next to the entrance on the northern elevation of the main college building where two vehicles are able to stop. Taxis will then be able to turn around at the entrance to the service yard.

48. Mini-buses for the College will pick-up and drop-off from the site road to the north of the College building. They will stop opposite the main entrance on the northern elevation of the College building. The vehicle will turn around in the service area to the east of the College. For the Sports Centre, mini-buses will pick-up and drop-off from the car park next to the Sports Centre. Large coaches (restricted to a maximum of 12m long) are expected to arrive and leave via Langhorn Drive, and dropped-off and picked-up passengers in the service area.

Schools

49. Taxis for the schools will pick-up and drop-off from Egerton Road. Occasionally access may be required into the SEN School site by taxis. The driver will be required to request access into the site via an intercom at the vehicle access gates.

50. Mini-bus pick-up and drop-off for the Secondary School will be from the site's staff car park or the College service yard. Mini-bus pick-up and drop-off for the SEN School will be from the school's secure drop-off zone.

51. Coach pick-up and drop-off for the schools will be from the College service yard. A pedestrian gate and path will link the College site to the Secondary School site. Pedestrians from the SEN School will also be able to access coaches in the service area through the Secondary School site, although the frequency of coach use by the SEN School is likely to be minimal. Coaches (up to a max of 15m long) will arrive via Langhorn Drive and leave via the same route or via the access on Egerton Road.

Residential

52. Taxi pick-up and drop-off for the residential development will be from the site's internal roads.

Delivery & servicing arrangements

53. Delivery and servicing including refuse collection for the Haymarket building will take place from a designated service area within the development zone.

54. Access for all delivery and servicing including refuse collection for the College, Secondary School and SEN School will take place from the service area to the east of the College building where all vehicles will have unfettered access. The service area will be accessed via Langhorn Drive only.

55. The refuse storage area for the College will be located in the service yard with the schools refuse storage area located adjacent to it but within the Secondary School's curtilage. Access from the schools refuse storage area will be provided by a gate sufficiently wide to allow 1,100 litre Eurobins to be wheeled through to the collection vehicle. The collection vehicle will be able to stop with its rear loading point within 10m of both refuse stores.

56. Small deliveries for the Sports Centre such as drinks and snacks for vending machines will take place from the car park next to the Sports Centre.

57. All delivery and servicing including refuse collection for the residential development will take place from the site's internal roads.

58. Details regarding vehicle types, frequency and timing of deliveries and refuse collections will be outlined in Delivery & Servicing Management Plans for each Development Zone which will be prepared to discharge planning condition U07968: *Servicing/Delivery Plan* prior to occupation/use. Where possible, deliveries and servicing will be consolidated, such as using the same refuse collection vehicle for the whole Campus. Deliveries will be timed not to coincide with peak educational use arrival and departure times.

59. Routes to the electrical sub-stations and the pumping station within the Development Zones will allow for access by 10m rigid lorries and so can accommodate routine, as well as infrequent maintenance vehicles.

60. The design of buried utility services takes into account the need for access for routine and infrequent maintenance.

Emergency vehicle access arrangements

61. The Campus will have a total of five vehicle access points which could be used by emergency vehicles. The access points and the buildings they provide access to are:

- **Langhorn Drive access:** Provides access to the Haymarket building, College including STEM and Sports Centre, and residential development, and the Secondary School car park.
- **Egerton Road, Secondary School car park access:** Provides access to Secondary School car park, the College including STEM and Sports Centre, Haymarket building and residential development.
- **Egerton Road, Secondary School pedestrian and cycle access:** Provides access to the Secondary School building, SEN School building, play areas and MUGAs.
- **Egerton Road, SEN School car park access:** Provides access to the SEN School building, Secondary School building, play areas and MUGAs.
- **Craneford Way emergency vehicle access:** Controlled by a gate with a fire lock. It provides access to the residential development, College including STEM and Sports Centre, Haymarket building and Secondary School car.

Review

62. The Site Wide Parking and Servicing Framework is intended to be reviewed and updated every 5 years to reflect changes to best practice, standards and guidance.

Conclusion

63. The Site Wide Parking and Servicing Framework provide strategic context on access, parking, servicing, and refuse collection across the whole development site. Detailed documents covering specific separate issues (e.g. car parking, servicing, cycle parking etc) will be prepared to address reserved matters for each development zone.

APPENDIX C

NOT FOR CONSTRUCTION

TECH HUB DEVELOPMENT ZONE

COLLEGE

COLLEGE PHASE 2

SCHOOL DEVELOPMENT ZONE

PARKING

RESIDENTIAL DEVELOPMENT ZONE

Shared cycle/footway widened to 3.0m width

A DET 623

A PLN 003

A PLN 004

B DET 623

C DET 623

Native tree and shrub planting in build outs. Detailed planting scheme for Marsh Farm Lane to be agreed as part of the Phase 2 Reserved Matters submission for the College Development Zone.

Short-stay cycle parking for college students

Shared cycle/footway widened to 3.0m width

Access to Sports Building Car Park to be agreed as part of the Phase 2 Reserved Matters submission for the College Development Zone.

Connection to residential development

Detailed planting scheme for Marsh Farm Lane to be agreed as part of the Phase 2 Reserved Matters submission for the College Development Zone.

Shared cycle/footway widened to min 5.0m to southern end enabling emergency access

Detailed planting scheme for Marsh Farm Lane to be agreed as part of the Phase 2 Reserved Matters submission for the College Development Zone.

Emergency vehicle gate. Refer to 6377-LD-DET-623

General Notes

- Do not scale from this drawing, use only written dimensions.
- All dimensions are drawn in mm unless otherwise noted.
- All dimensions must be checked on site and any discrepancies verified with landscape architect.
- Landscape drawing only - to be read in conjunction with architect and engineers drawings.
- All materials/items used to be as specified or alternatives to be approved by landscape architect.

Impermeable Pavings

Hot rolled asphalt. Cat III loading BS7533/2, with thermoplastic markings for shared use cycle way and 150x150 PCC edgings

80mm thick block paving as Formpave 'Cornish' or similar to BS7533/2, cat II loading, mix of sizes. Ref drawing 5137894-ATK-00-XX-DR-C-0152 Detail 3.

Permeable Pavings

60mm thick block paving as Formpave 'Cornish' or similar to BS7533/2, cat II loading, mix of sizes. Ref drawing 5137894-ATK-00-XX-DR-C-0152 Detail 2.

80mm thick block paving as Formpave 'Cornish' or similar to BS7533/2, cat II loading, mix of sizes. Ref drawing 5137894-ATK-00-XX-DR-C-0152 Detail 1.

Phase one site boundary

Development zone boundary

Iss	Date	Issue Notes	Drn	Chk	Apv
B	23.01.17	Planning	ML	ML	EP
A	20.07.16	Planning	ML	JB	EP

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Project
Richmond Upon Thames College
Phase 1

Client
Atkins

Title
General Arrangement
Marsh Farm Lane Arrangement

Scale	Status
1:500 @ A1	for Planning

Job No.	Drawing No.	Issue
6377	LD PLN 005	B