Project Name	: Former Imperial College Ground, Teddington
Job No	: 18084
Note Title	: Review of Transport Assessment and highways matters in relation to the Planning Application for a new mixed-use development
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1. INTRODUCTION

1.1.1. This Technical Note has been prepared on behalf of the 'Udney Park Playing Fields Trust' (UPPFT) to review the submitted Transport Assessment (TA) as part of the planning application made by Quantum Group, on land at the Former Imperial College Ground, located to the east of Udney Park Road in Teddington, in the London Borough of Richmond upon Thames (LBRuT).

1.1.2. The proposal submitted as part of planning application reference 18/0151/FUL by Quantum Group includes:

"*Erection of a new extra-care community, with new public open space and improved sports facilities, comprising: 107 extra-care apartments (Class C2 Use), visitor suites, and associated car parking; 12 GP surgery (Class D1 use) and associated car parking; new public open space including a public park, and a community orchard; improved sports facilities (Class D2 use) comprising a 3G pitch, turf pitch, MUGA, playground, pavilion and community space, and associated parking (68 spaces); paddock for horses; and a new pedestrian crossing at Cromwell Road; and all other associated works.*"

1.1.3. This report has examined the submitted Transport Assessment prepared by Bellamy Roberts on behalf of the developer and provides information on the potential adverse traffic and highways impact associated with the development and the local highway network. The report has been prepared to inform Officers and Elected Members in making their determination of the acceptability or otherwise of the transport aspects of the proposed development.

1.1.4. The remainder of this Technical Note is structured as follows:

- General comments and a review of issues affecting highway safety;
- A summary of potential shortfalls in design;
- Issues regarding further analysis within the Transport Assessment including parking;
- Matters concerning construction impact and its wider impact on highway safety; and

- Operational concerns following the opening of the proposed development.

2. GENERAL COMMENTS & HIGHWAY SAFETY

2.1.1. Having reviewed the applicant's Transport Assessment, it is apparent that the proposal will add extra vehicles to the local highway network owing to the intensification of use compared with the existing situation. The applicant's TA states that there will be approximately 261 additional daily movements attributed to the extra care facility, 294 additional daily movements as a result of the sports and community use and 318 associated with the GP Surgery. This totals 873 additional daily movements as a result of the development. It is noted that many of the vehicle numbers will be spread over the whole day, however the impact of a sports use and community use whereby events and meetings end at a specific time, the impact is not spread out and will be noticeable on the local roads, particularly the northern end of Udney Park Road and Kingston Lane where parking on either side of the carriageway leads to traffic waiting and queuing in its existing operation due to two-way movements not usually being possible. The trip calculation for the extra care apartments is based on TRICS data, however the council's pre-application response states that a specific survey of similar site(s) would be more applicable and accurate, and specifically recommended not using TRICS data.

2.1.2. Looking into the calculation undertaken for the sports pitches use of the development, the TRICS database has been used once more with the category of five aside pitches. This would be adequate if the three pitches were of typical five a-side use, however the pitch design enables multiple sports and set ups with the possibility of a higher number of teams or larger teams which may include support staff and spectators, somewhat higher than the numbers involved for a typical 5 a-side match. Furthermore, the design and markings of the pitches enables more matches to take place on smaller pitches for youth games. Therefore, the trip calculations for this use would appear to be too low.

2.1.3. It would be recommended that the trip calculations for the football aspect of the sports use be recalculated based on the above, alongside the TRICS data for tennis and community use, but also to include the horse paddock/training facility which is not accounted for in the Transport Assessment's trip generation exercise. A similar football/sports pitch site trip calculation could be used following a survey, rather than limited pitch data for five a-side pitches.

2.1.4. The trip generation methodology for the GP Surgery also leads to concern for the method of analysis. Although a survey of the existing Park Road Surgery is an acceptable method of estimating the proposed surgery's trip rates, the analysis falls short of an accurate result. Firstly, Park Road Surgery having been surveyed in its existing format is fine if the proposed development was a like for like replacement, however it is not. Additional consulting/nursing rooms, additional training facilities, a larger administration team and the inclusion of an onsite pharmacy (in itself a trip attracting feature) do not appear to have been factored in to the trip calculation. Secondly, the Bellamy Roberts TA mentions TRICS data included at Appendix 18 for the GP Surgery, this is not included and so an assessment of the methodology is not possible. This should be included for transparency.

2.1.5. Therefore, this leads to an objection on the grounds of the method and accuracy of **traffic generation**.

2.1.6. It is worth noting that Collis School to the south of the site has a pedestrian access on to Cromwell Road opposite the application site, and as such a high number of pupils and parents use this access during the weekday morning and afternoon peak. The school has circa 700 pupils all under the age of 11, with many parents having under 5's with them during the drop off and collection periods. A large number of pupils are dropped off and collected by car, therefore there a lot of existing vehicular trips at peak times. It is also understood that a large volume of pupils and parents walk to the school given the proximity to the local residential roads. It is noted that the applicant intends to provide a crossing facility near to the Collis School pedestrian access, however this has not been drawn up to show its design, location or dimensions. The location of this is paramount for visibility and access as a number of mature trees (understood to be protected by TPO's) and street furniture could block visibility thus obscuring a child waiting to cross. Such a crossing and its associated markings/parking restrictions would also reduce the opportunity for on-street parking within the vicinity of the school's pedestrian entrance which is in short supply during school drop off and collection periods. Therefore, an objection on the grounds of **highway safety** is applicable, due to the increased risk of collisions through a poorly designed/located crossing, more pressure on car parking and impact of reduced access for private driveways and crossovers in the vicinity of the pedestrian access.

2.1.7. As part of the pre-application feedback from LBRuT the Highway Officer stated that a Road Safety Audit (RSA) would be expected given that several of the accesses were being amended and/or intensified in their use. An RSA was not included in the submission documents. Although this can be included at a reserved matters stage, it would be prudent given the changes proposed on site to include this as proof of the required safety standard being met for the new and amended accesses.

3. DESIGN

3.1.1. The applicant proposes 2 new accesses and 3 amended existing accesses as part of the application. Access visibility drawings have been included for these accesses and are shown in the Bellamy Roberts drawings 4839/201 to 205. The Bellamy Roberts drawings include visibility splays measured as 2.4m x 40.0m from the centre of the proposed access, whereby the 2.4m accounts for the typical car bonnet length (X distance) and the 40m accounts for the required visibility in each direction (Y distance either measured from a speed survey, or accounting for the speed limit of the road). The typical standard for a 30mph speed limit, such as the roads surrounding the site (and in the absence of a suitable speed survey) is to provide 2.4m x 43.0m, as described in paragraph 7.7.10 of Manual for Streets, and shown in Table 7.1. The document states that 2.4 m x 43.0m adjusted for bonnet length should be provided. Therefore, the visibility shown in the access drawings is substandard, and should be extended to 43m, but only if this is achievable. If it is not achievable then a new access in this location would be of sub-standard design.

3.1.2. In addition, three of the accesses include multiple obstructions to visibility with trees located within the visibility envelope. Obstructions are detailed with;

- **Access 3** having five tree trunks obscuring the currently shown 40m visibility splay, but with the likelihood of a further 2 trees (this is prior to the correctly calculated 2.4m x 43m visibility splay being shown);

- **Access 4** having two tree trunks obscuring the currently shown 40m visibility splay, but with the likelihood of a further 1 tree (this is prior to the correctly calculated 2.4m x 43m visibility splay being shown); and
- **Access 5** having 3 tree trunks within the visibility splay.

3.1.3. It is noted that Manual for Streets again provides guidance on this, it is acknowledged that some of the information is open to interpretation. Paragraph 7.8.6 states that:

"The impact of other obstacles, such as street trees and street lighting columns, should be assessed in terms of their impact on the overall envelope of visibility. In general, occasional obstacles to visibility that are not large enough to fully obscure a whole vehicle or a pedestrian, including a child or wheelchair user, will not have a significant impact on road safety."

3.1.4. On account of the guidance above it is considered that each of the accesses but in particular Access 3 has obstacles to visibility which do impact the envelope of visibility. It could also be deemed that 3 or 4 trees within a visibility splay are not "occasional" obstacles. The combined impact of multiple obstructions through the presence of tree trunks could obscure a cyclist/motorcyclist or small car, unless proven otherwise with the preparation of a drawing.

3.1.5. It is worth noting that the Bellamy Roberts Transport Assessment itself acknowledges the impact of the trees on the visibility envelope. In Paragraph 8.13 the TA states:

"It is suggested that a discussion to remove or retain trees to provide clearer visibility should be held on site with the London Borough of Richmond upon Thames Highway Officer"

3.1.6. It is understood that some of the trees that are located within the visibility splays have tree preservation orders (TPO), which the developer has unsuccessfully challenged for removal. If these trees are indeed subject to TPO restrictions, then they should remain in situ and not be affected or removed to provide access or visibility. Thus, the proposed access is not achievable.

3.1.7. In light of the above, it would not be unreasonable to suggest that the presence of between two and four trees within the visibility splay is not deemed acceptable. The position of the trees, the girth of the trunks and the multiple nature of the obstructions means that the likelihood of a visibility obstruction within the envelope of visibility is high, with the possibility of blocking the view of an approaching cyclist, motorcyclist or small car possible. Therefore, this leads to an objection on **highway safety** grounds and **loss of trees**, assuming some or all of the trees which obstruct the visibility splays are subject to a TPO.

3.1.8. The aforementioned accesses do not include any details of parking restrictions immediately adjacent to the entrances, this would enable vehicles to safely access and egress each site entry point. However, the introduction of parking restrictions on already heavily parked roads (particularly in the case of Udney Park Road) would lead to a detrimental effect on the street scene and the availability of parking for existing residents.

3.1.9. Access 5 is in the location of an existing informal maintenance access and as such is very rarely used. If the development were granted permission the access in this location would be formalised with wider access, curved bell mouth, but most notably would have a high intensification of use compared with the existing operation. This is not deemed to be a suitable location for an intensification on this scale given the proximity to the Collis School access, the numbers of pedestrians associated with the school and the impact that an additional access would have with right turning traffic blocking ahead movements during peak times. An increased risk to pedestrians and pupils crossing the road would be expected. There are also no current plans to prevent school related traffic from using the pavilion car park which could lead to further congestion of the car park/Cromwell Road.

3.1.10. For the new and amended accesses which are adjacent to an existing or proposed footway, there is a lack of sufficient facilities for pedestrians with a visual impairment. None of the access junctions into the site provide details regarding tactile paving or dropped kerbs which should be provided in accordance with Manual for Streets and Design Manual for Road and Bridges guidance. Transport for London Streetscape guidance also provides information on this. Therefore, an objection on the grounds of **highway safety** is applicable.

3.1.11. None of the new or amended access designs include swept path analysis of a car accessing or egressing the site. Furthermore, similar plans for cars accessing or egressing the proposed parking areas are also not included. Concern is raised for the access and egress of the double-parking spaces located near the ramp in the underground parking area. These do not appear to include a 6m aisle width for accessing the spaces or each be independently accessible. If they are to be included with properties as a double space arrangement, then this should be specified.

3.1.12. On a similar vein both the onsite coach parking bay and coach drop off area has not been shown to be successfully accessible. It is recommended that swept path analysis of these manoeuvres is shown. Therefore, an objection on the grounds of **road access** is made.

3.1.13. As previously mentioned there has been no design shown for the proposed crossing over Cromwell Road. This leads to concerns over its location with multiple mature trees (subject to TPO's), residential driveways to the south of Cromwell Road and a loss of on-street parking due to the parking restriction markings which must be associated with a crossing. Furthermore, no description is made of the type of crossing (e.g. Zebra, pedestrian refuge island crossing etc). Ideally separation should be provided to driveways, trees, other street furniture etc. to allow vehicle manoeuvres to and from the driveways and to provide visibility without obstruction. Finally, the loss of parking on this stretch of Cromwell Road could have wider negative implications on the availability of spaces for collection and drop off of school children during the morning and afternoon peak periods. This may have wider implications beyond Cromwell Road with vehicles displaced further afield from the current scenario. The applicant has provided no information to discount the possibility.

4. TRANSPORT ASSESSMENT ANALYSIS

4.1.1. It is noted that the Bellamy Roberts TA included a traffic survey of existing conditions and along with the trip generation exercise, concluded that no severe impact was found given the impact of an average of one additional vehicle on the local network in the morning and evening peak periods. As such no junction capacity modelling of the surrounding junctions was undertaken.

4.1.2. Having visited the site to inform this Technical Note, it was evident that the northern extent of Udney Park Road and Kingston Lane accommodates a significant number of parked vehicles, owing to a lack of waiting restrictions on either side of the carriageway. The existing residential parking demand therefore restricts vehicles movements to one direction at a time, leading to waiting and queuing in driveway areas and at the northern ends at the junctions with Teddington High Street. Concern is also raised for the accessibility for Emergency vehicles in these areas given the restraints on two-way flows. As such, any additional traffic either arriving or departing the site will exacerbate the situation for both local traffic and emergency vehicles.

4.1.3. The Bellamy Roberts TA states in paragraph 6.20 that a parking survey was undertaken as part of the analysis. The analysis itself includes fairly brief overview of the findings, does not discuss the implications of lost spaces due to the new accesses nor the increase in parking stress as a result. Finally, the report does not provide the parking survey data in the report. At this stage the survey analysis does not appear to be calculated in zones, merely whole roads, which is less relevant for these long residential roads whereby parking trends may change along its entirety. It would be recommended that these results be made publicly available, perhaps as an additional Appendix, to check the agreed methodology and analysis.

4.1.4. The parking provision provided for the Extra Care Apartments appears to have been calculated based on the onsite facilities available to residents and the applicants expectation of a lower than average car ownership level. However, this has not been adequately proven. Census data of local car ownership for over 65's in one-person households is mentioned in the TA, but the apartments would be available to over 55's, with some accommodating couples, the majority with two bedrooms, and 7 apartments with three bedrooms. Likely leading to a higher car ownership level than that described in the TA. It is recommended that details be made available of current car ownership of residents at similar existing sites, compared with the car ownership from the census data output areas to conclude the likelihood of a similar car ownership level being applicable for this site. Additionally, the TA mentions informal discussions with the LBRuT Highway Officer and states that they would recommend "*at least 1 space per unit (if they are all self-contained), however, this may be subject to change when details are provided/or with robust justification on the product*". Therefore, without additional justification of similar site's car ownership levels, the overall provision of 88 spaces for 108 apartments (although averaging out at 0.81 spaces per dwelling, and rounding to 1 space per unit), is in real terms a short fall of 20 spaces as per the council's stated parking requirements.

4.1.5. Furthermore, consideration should be given to the wider communal facilities of the scheme. Assuming these are closed to the public and only for resident's use, the parking implications for users of the hairdressers, beauty/wellbeing, library, onsite restaurant, treatment rooms would each have associated staff and with that brings its own pressures on car parking. If any of the above or other 'communal' facilities are available to the public, this should be taken into account in the wider parking implications.

4.1.6. Paragraph 9.43 of the TA states that sports pitches car parking is determined on a case by case basis, but includes no justification as to where the provision of 16 car parking spaces for the sports pitches has been determined. No mention is made of the different uses of the sports pitches (e.g. youth teams on multiple smaller pitches, spectator provision or for tournaments) whereby car parking demand would be higher. The community aspect includes café floor space, it would be expected that the café is subject to a different parking provision calculation given that this is a trip attractor and available for public use. The LBRuT parking standards as per the Development Management Plan state a requirement of 1 space per 8sqm for A3 Café which is more onerous that the 1 space per 25sqm for the community facility as a whole. On a similar note the inclusion of a Bar and creche in the community use raises concerns with regards to servicing vehicle movements, trip attraction and parking. Clarity should be made on the operation of this facility. No analysis appears to have been included in the trip generation or parking provision assessment for either of these uses.

4.1.7. The parking provided for the GP Surgery is in accordance with the standards of 1 space per GP consulting room, however additional ancillary care would also be available from other rooms which could quite feasibly be used with a similar turnover of patients as a GP consulting room. Therefore, the physio, GP consulting rooms, GP training rooms, nurse consulting rooms, treatment rooms and minor surgery total 19 rooms of a similar rate of use to GP Consulting rooms. As such it is recommended that the parking provision for the GP Surgery is increased.

4.1.8. Additionally, no parking provision has been proposed for the pharmacy element. It is acknowledged that some of the trips would be linked with a visit to the GP however the pharmacy will be accessible to the public and would lead to its own vehicle trips, therefore parking should be provided.

4.1.9. Finally, with multiple users of the site with numerous sports events or meetings taking place throughout a typical week, there has been no assessment of parking accumulation analysis. Thereby if cars are parked beyond the end of one session as people leave the sports fields or pavilion, the next user group will have already arrived in preparation for their session. It is expected that this could lead to double parking within the car park, overflow parking onto surrounding streets or cars queuing within the car park on site or on to the surrounding highway network.

5. CONSTRUCTION IMPACT AFFECTING HIGHWAY SAFETY

5.1.1. A construction impact statement was submitted as part of the initial planning application, this detailed some generic mitigation measures so as to reduce the impact during the period of construction. However, some information was not included in this document that is deemed to be relevant and important.

5.1.2. The first is the interaction of the construction traffic on the local highway network. No vehicle routing plans have been included or swept paths shown of large HGV’s utilising the local roads. This should be included to show that access and egress points, local junctions and direction of travel are suitable. Additionally, the expected vehicle movement numbers are not precise and describe that during the most

labour intensive periods "*30-40 movements per day*" are possible. More detailed scheduling and timing should be included so that an accurate assessment of highway safety implications can be confirmed.

5.1.3. Secondly no mitigation has been included for health and safety measures for protecting the Collis School pupils who will be using the pedestrian entrance on Cromwell Road and using the local footways and crossings during the construction period. It would be expected that a ban on construction vehicles manoeuvring to and from the construction site during the school drop off and collection times (approximately 08:30-09:15 and 14:45-15:30) would be implemented. At present only wording stating that "*Construction/delivery vehicle movements to and from the site will be scheduled during off-peak times where possible*" is included. Therefore, an objection on the grounds of **Highway Safety** is made.

6. OPERATIONAL CONCERNS AFFECTING HIGHWAY SAFETY

6.1.1. As part of the development proposals no detail has been shown for the refuse collection or deliveries and servicing vehicles. Given the mixed-use nature of the site and accesses from three of four sides it would be expected that swept path analysis of vehicles manoeuvring to and from the site in a forward gear would be provided for each access, also with the inclusion of the vehicle manoeuvring within the site car parks.

6.1.2. Additionally, the Bellamy Roberts TA does not include servicing information regarding the numbers of deliveries or refuse collection throughout a typical day or week. This should be provided as larger commercial vehicles carry their own highway safety concerns, and greater widths and turning space is required on the local roads in order to enter and exit the site in a forward gear. The previous points made regarding the useable widths of the northern extents of Udney Park Road and Kingston Lane remains true with the larger servicing vehicles. Therefore, an objection on the grounds of **road access** and **adequacy of parking/loading/turning** is made.

7. SUMMARY AND CONCLUSIONS

7.1.1. In conclusion the proposals in their current format raise concerns in terms of general highway safety, the analysis of the information within the Transport Assessment prepared by Bellamy Roberts, the mitigation and safety during construction and the operational needs of the site alongside the local highway network. Further detail and amendments are required in order for a proper assessment of the implications of development to be established. In summary the reasons for raising an objection, as per the LBRuT planning guidance are outlined below:

<u>Reasons for Raising Objection</u>

- **Multiple highway safety concerns**
- **Adequacy of parking/loading/turning**
- **Road access**
- **Possibility of loss of trees**