

Client:	Three Rivers District Council
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1. Introduction

- 1.1.1. Evoke Transport Planning Consultants Ltd (Evoke) has been commissioned by Three Rivers District Council (TRDC) to undertake an independent highway review of a live planning application (ref: 22/1764/FUL) which proposes the “demolition of existing building and erection of retail food store, (Use Class E(a)), with associated access, parking and amenities” at the existing World of Water Aquatic Centres Ltd, Hempstead Road, Watford, WD4 8QG.
- 1.1.2. TRDC is the local planning authority (LPA) and Hertfordshire County Council (HCC) is the local highway authority (LHA).
- 1.1.3. It is acknowledged that, at the TRDC Planning Committee on 16 November 2023, Members of the Planning Committee agreed to defer the application to seek an independent highway review of the current scheme. It was agreed that the application should return to a future Planning Committee.
- 1.1.4. It is understood that Planning Committee members specifically requested a review of the following:
- Proposed access arrangements, having specific regard to the right turn from the proposed development onto the A41
 - Speed and volume of on-coming traffic from the A41
 - Cycle safety
 - Acceptability of crossing points
- 1.1.5. In order to review the highway proposals in support of the proposed development, we have considered the below information / documents:
- Transport Assessment (January 2023)
 - Transport Assessment Addendum (July 2023)
 - 2nd Transport Technical Note (December 2023)
 - Manual Classified Count (MCC) traffic survey at Watford Road / A41 Watford Road junction (undertaken 11 October 2022)
 - Automatic Traffic Count (ATC) traffic survey at A41 exit arm of the Hunton Bridge Roundabout (A41 / M25 /A411 Hempstead Road) (undertaken 15 – 21 February 2023)
 - Site Access Arrangement (187011-001 Rev I)
 - Consultation responses from HCC
 - Road Safety Audit Stage 1 (dated January 2023) and Road Safety Designer’s Response (January 2023)

- 1.1.6. A site visit was undertaken on 9 January 2024 during the morning peak hour of between 08:00 and 09:00. The existing site conditions and highway layout were reviewed in conjunction with the development proposals.
- 1.1.7. The review of the proposed highway works and associated documents is included below, with comments set out against each of the four key concerns raised by the Planning Committee as set out above.

2. Proposed Access Arrangements – Design Review

- 2.1.1. The topographical survey base mapping obtained to support the proposed development and the access arrangement were reviewed against the existing site conditions to ensure that there were no anomalies and that all constraints have been considered within the development proposals. The proposed access designs presented have used the topographical mapping for the base, this increases the level of accuracy compared with using OS Base mapping.
- 2.1.2. The development proposals, access design and topographical survey base mapping appear both consistent and representative of the existing site conditions.

2.2. Overview

- 2.2.1. A technical review has been undertaken on Ardent drawings reference 'Site Access Arrangement - 187011-001 Rev I' and 'Potential Toucan Crossing Upgrade Review – 187011-SK07 Rev A'. We note the specific concern raised as to the acceptability of the right hand turn from the proposed development and commentary on this is provided below.
- 2.2.2. It is understood that the 'Potential Toucan Crossing Upgrade' has come at the request of the local highway authority to demonstrate how the development proposals can be upgraded at a future date to meet off-site improvements required for a third-party development in proximity to the site.
- 2.2.3. The design review has been carried out in accordance with relevant guidance documents and referenced accordingly. The guidance referred to is listed below:
- *Design Manual for Roads and Bridges - CD 123 Geometric design of at-grade priority and signal-controlled junctions (CD 123)*
 - *Local Transport Note 1/20 – Cycle Infrastructure Design (LTN 1/20)*
 - *Roads in Hertfordshire: Highway Design Guide 3rd Edition Section 4 – Design Standards and Advice (HCC Section 4)*
 - *Traffic Signs Manual - Chapter 5 - Road Markings (TSM Chapter 5)*
- 2.2.4. Design issues raised within the site review have been shown on the plan in **Appendix A** with reference to their applicable paragraph numbers from within this highway review document.

2.3. Levels

- 2.3.1. As shown on the topographical survey base mapping, there is a clear level difference between the A41 and the site, reducing the feasibility of certain junction options. This is shown below in Figure 1.

Figure 1 – Level Difference at Site Access Location



2.4. Site Access Arrangement Review (187011-001 Rev I)

Junction

- 2.4.1. The proposed access width is 7.3m, which meets the requirements of “*Roads in Hertfordshire: Highway Design Guide 3rd Edition Section 4 – Design Standards and Advice.*”
- 2.4.2. Kerb radii of 10m and 12m have been proposed. This meets the minimum radius requirements provided in CD 123 5.6.1.
- 2.4.3. An illuminated traffic island is proposed on the access road at the junction. With reference to CD 123 5.8, the proposed minor arm approach lane width should be 4.0 metres for this junction arrangement either side of the island. The proposed design provides widths in excess of the minimum requirements. This is acceptable for this design and location.

Horizontal Alignment

- 2.4.4. The existing ghost island right turn lanes are proposed to be modified to accommodate the junction access location and development requirements.
- 2.4.5. The existing central reserves and central hatching omit the requirement for any hatched taper on approach to the right turn lanes and the design meets the minimum requirements as set out in CD 123 Table 6.1.1.

2.4.6. The A41 adjacent to the site access location is subject to a 40mph speed limit, however we note that the speeds recorded in the Automatic Traffic Count (ATC) survey of the northbound traffic (approaching from Hunton Bridge Roundabout) identified an 85th percentile speed of 29.7mph.

2.4.7. In accordance with CD 123 for a 30mph design speed, the following criteria should be met:

- Turning Length = minimum of 10m (CD 123 6.4)
- Deceleration Length = minimum of 25m (CD 123 Table 5.22)
- Direct Taper Length = minimum of 5m (CD 123 Table 5.22)

2.4.8. In accordance with CD 123 for a 40mph design speed, the following criteria should be met:

- Turning Length = minimum of 10m (CD 123 6.4)
- Deceleration Length = minimum of 40m (CD 123 Table 5.22)
- Direct Taper Length = minimum of 15m (CD 123 Table 5.22)

Northbound Right Turn Lane (from site onto A41)

2.4.9. As above, the specific concern as to the acceptability of the right hand turn onto the A41 from the proposed development has been considered in detail.

2.4.10. No design issues with this aspect of the access design have been identified.

2.4.11. The access proposals have been modelled in the priority junction assessment tool (PICADY) and it is noted that the full model output report is included as Appendix I of the Transport Assessment.

2.4.12. With reference to the egress movement from the site onto the A41 within the 2036 + development scenario (see further comments below on this), the site egress stream during the weekday peak shows a maximum ratio to flow capacity (RFC) of 0.28 (PM period) with a queue of 0.4 passenger car units (PCU's), and during the weekend peak there is an RFC 0.41 and a queue of 0.8 PCU's. An RFC of 0.85 would normally be taken as the junction/movement operating above the theoretical capacity and the queuing prediction in the model is less than 1 vehicle.

2.4.13. This point is further exemplified by turning movements detailed in the Transport Assessment which show a low level of additional trips making the right turn movement out of the site onto the A41, especially when compared to the existing flows. Approximately 13 vehicles in the weekday morning peak and approximately 39 vehicles in the weekday evening peak make this movement.

2.4.14. The modelling therefore indicates that there will be sufficient gaps in the main, straight ahead movements for traffic to turn right.

Northbound Right Turn Lane (Old Mill Lane)

2.4.15. The existing northbound right turn lane into Old Mill Road is proposed to be reduced in length. A 10m turning length is still provided with approximately 50m deceleration length, which meets the minimum requirements for a 40mph design speed as set out above.

2.4.16. The direct taper length for this right turn lane is proposed at 5m. While this meets the minimum requirements for a 30mph design speed (in accordance with the recorded vehicle speeds), it is less than the minimum requirements for a 40mph design speed.

Southbound Right Turn Lane

2.4.17. The existing southbound right turn lane into the site is proposed to be lengthened. A 10m turning length is still provided with approximately 40m deceleration length, which meets the minimum requirements for a 40mph design speed.

- 2.4.18. The direct taper length for this right turn lane is proposed at 5m. While this meets the minimum requirements for a 30mph design speed (in accordance with the recorded vehicle speeds), it is less than the minimum requirements for a 40mph design speed.

Through Lane Widths

- 2.4.19. In accordance with CD 123 6.8, all through lane widths should be between 3m and 3.65m.
- 2.4.20. As part of the proposals, all existing through lane widths are to be retained. Whilst the southbound lanes are c.3.4m, the northbound through lane is between c.4.3 and 4.65m.
- 2.4.21. These are all existing widths and allow for a suitable alignment through the junction and provide a familiarity to road users. The existing site conditions would suggest retention of these through lane widths appears suitable in this location. The accident data within the Transport Assessment identifies no accidents occurring at this location.

Turning Lane Widths

- 2.4.22. In accordance with CD 123 6.10, all turning lane widths shall meet the minimum requirement of 3.5m but shall not exceed 5m.
- 2.4.23. The existing northbound right turn lane into Old Mill Road has a retained turning width of c.3.2m which is below the minimum requirement (albeit operates as existing).
- 2.4.24. The existing southbound right turn lane into the site, has a turning width starting at c.5.6m and narrowing down to c.3.57m by the site access turn in. This is below the minimum requirement but is recognised as an existing situation. The PIA data within the Transport Assessment shows no accidents in this location.
- 2.4.25. Whilst this exceeds the maximum 5m turning lane width, this arrangement accommodates the existing highway alignment and northbound right turn lane. Any attempt to reduce this to below 5m could negatively impact the overall alignment along the A41 and on balance the design is considered to be acceptable.
- 2.4.26. No safety issues were raised within the Road Safety Audit on this design matter.

Vertical Alignment

- 2.4.27. Full details of the vertical alignment and levels have not been provided. However, this would be provided at the detailed design stages (which is a standard approach). We would suggest that the omission of any level details at this stage should not be considered fundamental to the design principles. The level differences will need to be considered at the next stage, together with any supporting structures or earthworks required.

Visibility

- 2.4.28. Visibility at the proposed site access location is shown below in Figure 2 (taken during the site visit) and reflects the development proposals with regards to achievable visibility in both directions.

Figure 2 – Visibility at site access (to north and south respectively)



- 2.4.29. It is noted that removal of the vegetation in the primary direction would still be required, as has been proposed within the design. This can be controlled by a Condition imposed on any planning permission.
- 2.4.30. Visibility from the proposed access has been shown as achievable in all directions in accordance with the recorded speeds.
- 2.4.31. Given the speed surveys undertaken and correspondence with the local highway authority the visibility at the proposed junction is considered suitable and demonstrate visibility for the existing and proposed site conditions can be achieved.
- 2.4.32. Given the proposed access road speeds, the pedestrian/cyclist visibility splays demonstrated from the crossing point across the access road are suitable.
- 2.4.33. Given the proposed access road speeds, the eastbound forward visibility demonstrated on approach to the junction is suitable.

Road Signs, Markings and Lighting

- 2.4.34. Full details of signing have not been provided. However, this would be provided at the detailed design stages. The omission of any signing details at this stage should not be considered fundamental to the design principles and is in line with standard practice.
- 2.4.35. Further, the proposed road markings as shown in the development proposals are suitable and in accordance with TSM Chapter 5.
- 2.4.36. Full details of lighting have not been provided. However, this would be provided at the detailed design stages. The omission of any lighting details at this stage should not be considered fundamental to the design principles and the existing columns would be relocated accordingly if required.

Swept Path Analysis

- 2.4.37. The designer has undertaken swept path analysis for articulated vehicles around the site access. The proposals demonstrate that all relevant vehicles movements can be accommodated within the proposed design at the relevant and requested forward gear speeds of 10kph. It should be noted that the 'right out' movement from the access has not been included.

Drainage

- 2.4.38. Full details of the drainage have not been provided. However, this would be provided at the detailed design stages. The omission of any drainage details at this stage should not be considered fundamental to the design principles and highway alignment.

2.5. Road Safety Audit and Designers Response

2.5.1. A Road Safety Audit Designers Response (187011-09 January 2023) has been produced following a Stage 1 Road Safety Audit (RSA1).

2.5.2. The Designers Response provides comment on the issues raised as part of the RSA1. As part of this design review, the RSA1 'Audit Items' have been reviewed with comment below:

Audit Item No. 3.1.1

2.5.3. The response with regards to the posted speed limit and accident history are suitable. As noted within the designers response, this is an existing layout arrangement with a priority junction and right turn lane and therefore no major highway changes are proposed.

2.5.4. The recorded speeds would also suggest that speeds are not excessive on approach to the junction.

Audit Item No. 3.1.2

2.5.5. Response suitable with item to be assessed at detailed design stages.

Audit Item No. 3.1.3

2.5.6. Response suitable with item to be assessed at detailed design stages.

Audit Item No. 3.3.1

2.5.7. Consultant has responded to item raised and provided junction modelling to demonstrate capacity concerns. Consultant has also demonstrated vertical visibility is achievable.

Audit Item No. 3.3.2

2.5.8. Consultant has not accepted RSA1 problem or recommendation. However, the rationale to not relocate the access or provide other junction options appears justified, and in particular, the site levels and the proximity to the existing roundabout appear to have guided the design to provide a feasible option. Given this is an existing junction arrangement and the consultant has provided evidence that the junction operation in terms of capacity is adequate, the response is suitable.

Audit Item No. 3.3.3

2.5.9. Consultant has made amendment to the design to accommodate this item with vegetation noted as to be removed.

Audit Item No. 3.4.1

2.5.10. Consultant has made amendment to the design to accommodate this item and the responses are as appropriate for this stage of the process.

Audit Item No. 3.4.2

2.5.11. Consultant has made amendment to the design to accommodate this item and demonstrated that visibility is achievable.

Audit Item No. 3.4.3

2.5.12. Consultant has made amendment to the design to accommodate this item to provide the recommended non-motorised user requirements.

3. Speed and Volume of on-coming traffic from the A41

3.1. Vehicle Speeds

- 3.1.1. An ATC survey was commissioned by Ardent Consulting Engineers to alleviate the concerns previously raised by Hertfordshire Highways in relation to visibility along the A41 to the south (in the direction of the Hunton Bridge Roundabout).
- 3.1.2. The survey was located on the A41 Watford Road circa 75m to the south of the proposed access junction, recording approach vehicle types and speeds in the northbound direction as vehicles egress from the circulatory carriageway. It was undertaken between Wednesday 15th February and Tuesday 21st February 2023.
- 3.1.3. It should be noted that WebTAG Unit M1.2 – Data Sources and Surveys states that surveys should typically be carried out during a ‘neutral’ or representative month, avoiding main and local holiday periods, local school holidays and half terms, and other abnormal traffic periods. It is understood that Hertfordshire half term holidays fell between 13th February and 17th February 2023 and therefore the ATC data could be seen as not representing a neutral period and may not reflect normal traffic conditions. Justification should be provided as to the validity of this data.
- 3.1.4. The Transport Assessment states that the recorded 85th percentile vehicle speeds on the exit of the Hunton Bridge Roundabout on to the A41 Watford Road was 29.7mph (48kph). The southbound traffic was not surveyed. It should be noted that this is an average 85th percentile speed across the surveyed seven-day period. The ATC has been reviewed and the stated 85th percentile speed is accurate. For reference, the average seven-day speed was 26.4mph, the 5-day average speed was 26mph and the 5-day average 85th percentile speed was 29mph.

3.2. Existing Volume of Traffic

- 3.2.1. The volume of traffic during the morning peak period was considered within the site audit undertaken on 9 January 2024. We would note that the traffic volume did not appear excessive.
- 3.2.2. The right turn lane into Old Mill Road appeared to be operating below capacity and no queuing was observed outside the existing right turn lane length, as shown in Figure 3 below.

Figure 3 – Right Turn into Old Mill Lane



- 3.2.3. The existing volume of (weekday) on-coming traffic from the A41 roundabout is further evidenced in the MCC survey results undertaken at the Watford Road / A41 Watford Road junction (site access) on Monday 11th October 2022.
- 3.2.4. Further details on peak hour periods are included below.
- Weekday morning peak 08:00 – 09:00 = 957
 - Weekday evening peak 16:00 – 17:00 = 952
- 3.2.5. It should be noted that the evening peak hour utilised in the Transport Assessment (17:00 – 18:00) is not presented in the MCC outputs.
- 3.2.6. The existing volume of on-coming traffic from the A41 roundabout is also evidenced in the ATC survey results undertaken at the A41 exit arm of the Hunton Bridge Roundabout (A41 / M25 /A411 Hempstead Road) (undertaken 15 – 21 February 2023). The data is summarised below:
- Weekday average morning peak 07:00 – 08:00 = 873 / 08:00 – 09:00 = 764
 - Weekday average evening peak 16:00 – 17:00 = 1133 / 17:00 – 18:00 = 1109
- 3.2.7. As identified above, there is a difference between the existing traffic volumes surveyed in the MCC and ATC surveys, with examples below:
- Weekday morning peak 08:00 – 09:00 = 193 higher in MCC than ATC
 - Weekday evening peak 16:00 – 17:00 = 181 lower in MCC than ATC

3.2.8. Justification should be provided regarding the variation between the MCC and ATC surveyed traffic flows.

3.3. Future additional volume of traffic

3.3.1. When considering the volume of traffic, it is important to consider the proposed future levels of traffic as a result of the proposed development.

Trip Generation

3.3.2. It is acknowledged that pre-application feedback from HCC was provided to the Applicant in August 2020. Within this feedback, trip generation was accepted and HCC raised no objections or issues with the approach taken in respect of trip type.

3.3.3. We have reviewed the TRICS data, including the acceptability of the selected criteria, and the approach is generally acceptable. New surveys have been added since 2020. Utilising these surveys could result in approximately 10 additional vehicle trips in the both the morning and evening peak, however this is not envisaged to have a material impact on the local highway network.

3.3.4. It is noted that the Transport Assessment and subsequent documents and assessments utilised the following peak hours:

- Weekday morning peak: 08:00 – 09:00
- Weekday evening peak: 17:00 – 18:00
- Weekend peak: 11:00 – 12:00

3.3.5. With regards to the weekday morning and evening peak hours, these are the network peak hours used (although we note that they differ to the actual peak hour of the land use).

3.3.6. With regards to the selected weekend peak, this matches the Discount Retail Store peak identified in the TRICS surveys, compared to the Garden Centre peak identified in the TRICS surveys which was 14:00 – 15:00. This variation is not considered to result in a material impact.

3.3.7. It should however be noted that the TRICS peak hours refer to those which are identified within the selected surveys and are not necessarily location specific. In comparison, the ATC survey identifies a more accurate local network peak (MCC not referred to as the full outputs are not included). The surveys identify the following network peaks:

- Weekday morning peak: 07:00 – 08:00
- Weekday evening peak: 16:00 – 17:00
- Weekend peak: 13:00 – 14:00

3.3.8. The TRICS data for Garden Centres does not cover the 07:00 – 08:00 hour period, and therefore it would not be possible to alter the weekday morning peak trip generation. Trip generation for a garden centre during 0700 to 0800 are likely to be limited reflecting trading hours. The TRICS trip rates for the above alternative peak hours have been applied to the existing and proposed quantum of development. There is a small decrease against what is currently presented; however it does not result in a material change to the overall trips. The trip generation is therefore acceptable.

Trip Type

3.3.9. It is acknowledged that the trip generation exercise sets out all potential trips resulting from the proposed development, however this does not account for the typical characteristics of a food store which can generate different trip types. This includes pass by trips, diverted trips and transferred trips, along with new trips.

- 3.3.10. The Transport Assessment makes reference to the 95/2 and 14/1 TRICS Research Reports which provide guidance on the nature of pass by, diverted and transferred trips and concludes that the proportion of trips generally accepted to be non-primary is between 30 – 40%. The Transport Assessment suggests that up to 60% of the trips generated by the food store will be new or transferred trips, with the remaining 40% comprising an even split between pass-by and diverted trips.
- 3.3.11. While this is likely a robust estimate, it should be noted that no evidence is presented to justify these percentages. We would highlight that a Retail Impact Assessment should generally be produced and considered alongside the Transport Assessment in the assessment of potential trip types.

Trip Distribution

- 3.3.12. To distribute trips, and in the absence of observed traffic counts, 2011 Census 'Usual Resident Population' data for the existing residential population of the surrounding area available on the Official Labour Market Statistics has been used to estimate the proportion of vehicle trips that could travel along each key route to/from the site. The more detailed methodology explained in Section 6.1.14 of the Transport Assessment is noted and acceptable, although we would reiterate the above point on trip types.

Impact of Development

- 3.3.13. Comment on the impact of the development cannot be completed due to the following reasons:
- Baseline not modelled in PICADY
 - No evidence of TEMPro growth factors utilised for future year traffic flows
 - Note that the committed toucan crossing linked to the 22/0491/FUL permitted application for the Warner Bros studio has been included in the design (see further commentary below) however there is no evidence as to whether any further committed developments have been included in the modelling and if so, no evidence on what developments has been included
 - 2036 future year stated and 2036 future year modelled in PICADY – would expect an opening year assessment and post five years to be provided.
- 3.3.14. It is noted that HCC also queried the use of the 2036 future year in the initial pre-application advice given in February 2021, where it was requested that, in order for a full assessment of the impact of the proposals to be made, an opening year and post five-year assessment should be provided.
- 3.3.15. The use of a 2036 future year is however considered a robust position as this would include a higher level of background growth, when compared with the opening and post five-year assessment scenarios.

4. Cycle (and pedestrian) Safety

- 4.1.1. The following comments on the consideration of cycle safety in the development proposals are provided. Pedestrian safety has also been considered.

Cycle Facilities - Widths

- 4.1.2. The existing shared use footway/cycleway and staggered crossing has been accommodated within the proposed design.
- 4.1.3. In accordance with LTN 1/20 Table 6-3, the minimum width requirements for a shared use facility is 3m.
- 4.1.4. This allows cycle flows of up to 300 cyclists per hour however cycle flows will be much lower than this figure and therefore a 3m width is acceptable.

- 4.1.5. The existing and retained sections of shared use footway/cycleway meet the 3m minimum width requirement. Where new sections of footway are proposed, these appear to meet the 3m width requirement.

Cycles Facilities – Horizontal Alignment

- 4.1.6. On the southbound approach to the access road, there is an alignment change. The horizontal curvature of the footway/cycleway here meets the minimum radii requirements as shown in LTN 1/20 Table and allows for a robust 20kph design speed.

Hazard Paving

- 4.1.7. Corduroy and tactile paving has been proposed throughout and appears suitable in defining the proposed and existing route through the proposed junction works.

Crossing Islands

- 4.1.8. It is proposed to relocate the existing staggered crossing to the north, to accommodate an increased deceleration length for the southbound right turn lane into the site.
- 4.1.9. The proposed staggered crossing is c.4m width, meeting the requirements of “*Roads in Hertfordshire: Highway Design Guide 3rd Edition Section 4 – Design Standards and Advice*” Table 4.11.3.6
- 4.1.10. The tactile crossing widths are suitably proposed at 3.2m to accommodate the 3m width footway/cycleways.
- 4.1.11. The crossing segregation between the two sets of tactile paving on the staggered island is c.1.35m. “*Roads in Hertfordshire: Highway Design Guide 3rd Edition Section 4 – Design Standards and Advice*” Section 4 Table 4.11.3.6 suggests this distance should be a minimum of 1.8m.
- 4.1.12. A preferable width of 3m between crossing limits is often recommended, allowing for cyclists to manoeuvre between the crossings on the island.
- 4.1.13. It is recommended that the distance is increased to align with HCC requirements. This can be addressed at detailed design stage.

5. Acceptability of Crossing Points

- 5.1.1. The proposed toucan crossing upgrades, which are illustrated in 187011-SK07 Rev A have been reviewed; the proposed toucan crossing upgrades suitably demonstrate that the proposed staggered island could be upgraded to accommodate a signalised toucan crossing arrangement, with additional road markings and extension of the proposed tactile paving required.
- 5.1.2. Whilst no forward visibility has been shown to the signal heads on drawing 187011-SK07 Rev A, the supporting report ‘Transport Statement Addendum 187011-R-11 July 2023’ makes reference to an additional drawing (187011-SK08) which was produced to demonstrate forward visibility to the signal heads.
- 5.1.3. This report suggests visibility in the southbound direction is achievable for a 40mph design speed, and whilst northbound forward visibility of only 100m can be achieved, that this should be acceptable and that it was deemed acceptable to the HCC signals team.
- 5.1.4. Based on the above correspondence and recorded speeds, adequate visibility can be achieved and that the principles of the upgrade appear feasible.

- 5.1.5. It is however not clear whether consideration has been given to the possibility of the 22/0491/FUL application not progressing and therefore the possibility of the proposed toucan crossing upgrades not progressing. It may be worth exploring the impact on this development should the application/scheme not come forward, and specifically whether an alternative improvement option should be explored, and in what form this would be.

6. Conclusions and Summary

- 6.1.1. Evoke has undertaken an independent highway review of an active planning application (ref: 22/1764/FUL) which proposes the “demolition of existing building and erection of retail food store, (Use Class E(a)), with associated access, parking and amenities” at the existing World of Water Aquatic Centres Ltd, Hempstead Road, Watford, WD4 8QG).

- 6.1.2. The request for an independent review comes as a result of a TRDC Planning Committee on 16 November 2023 where the Committee agreed to defer the application to allow a review of the following items to be undertaken:

- Proposed access arrangements, having specific regard to the right turn from the proposed development onto the A41
- Speed and volume of on-coming traffic from the A41
- Cycle safety
- Acceptability of crossing points

- 6.1.3. The key supporting application documents and consultation responses have been considered together with a site audit. The key conclusions of the above highway review are summarised below:

- **Proposed Access Arrangements – Design Review:** Design generally compliant, with vehicle movements being accommodated however it is noted that:
 - In regard to the northbound right turn lane and the southbound right turn lane proposals meets the minimum requirements for a 30mph design speed (in accordance with the recorded vehicle speeds), but do not meet the minimum requirements for a 40mph design speed
 - The through lane and turning lane widths are proposed to be retained as existing. These do not wholly meet minimum requirements however no safety concerns have been raised and retention of the existing provision appears suitable
 - Level differences to be considered at next stage
 - Removal of the vegetation in the primary direction would still be required, as has been proposed within the design. This can be controlled by a Condition imposed on any planning permission.
 - Road signing, lighting and drainage details to be provided at detailed design stage
- **Speed and Volume of on-coming traffic from the A41:** the existing situation has been generally accurately described and assessed. However, it should be noted that:
 - The ATC survey was undertaken during Hertfordshire school half term holidays and therefore the data may not represent normal traffic conditions
 - It has not been possible to review the impact of the proposed development on the local highway network due to omissions of information around the baseline model, TEMPro growth, committed developments and due to 2036 being utilised for future year modelling
 - 2036 is however considered to present a robust position, with a lower level of background growth likely occurring should opening year and post five-year scenarios be alternatively assessed.

- **Cycle and Pedestrian Safety:** generally appears to have been accurately considered however it is recommended that the width between the two sets of tactile paving is increased to align with HCC standards
- **Acceptability of Crossing Points:** based on the above correspondence and recorded speeds, adequate visibility can be achieved and the principles of the upgrade appear feasible. The impact of the 22/0491/FUL application not progressing and therefore the proposed toucan crossing upgrades not progressing should be considered

APPROVAL					
Number:	Name:		Position:	Date:	Modifications:
01A	Author:	Pia Tiley	Principal Consultant	12/01/2024	
	Checked:	Richard Stacey	Managing Director	15/01/2024	
	Approved:	Richard Stacey	Managing Director	15/01/2024	
01B	Author:	Pia Tiley	Principal Consultant	25/01/2024	Updated following client comments
	Checked:	Richard Stacey	Managing Director	25/01/2024	
	Approved:	Richard Stacey	Managing Director	25/01/2024	

APPENDIX A – DESIGN REVIEW WITH REPORT REFERENCES

