Transport Assessment Addendum

Beaches Yard,
Horton Road,
West Drayton

Prepared for
Harvest Land Management

By

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1.0 INTRODUCTION

1.1 Stuart Michael Associates (SMA) has prepared this Transport Assessment Addendum (TAA) to support a Planning Application for the redevelopment of mixed-use storage and residential site into a warehouse development on land at Horton Road, West Drayton, on behalf of Harvest Land Management (the 'Applicant'). The plans showing the proposed site layout is attached as **Appendix A**.

1.2 A number of documents have been prepared by SMA to support the Application. The most recent versions of these documents were submitted for review by TFL and Hillingdon Council (HC) in January 2023. Further comments from the HC Highways Officer were received (dated: 06/02/2023) and requests for clarification on a number of points, as well as revised information and improved safety measures for access were required. A copy of the Officer's comments are attached as **Appendix B**. An additional meeting was held on the 17th of April 2023 with the HC Highways officers and the resulting information from this meeting has been included in this report. A further telephone consultation on 26th April 2023. between Dave Wiseman of SMA and Allan Tilly of HBC Highways was held to clarify amendments to the trip generation and confirm other outstanding highway matters.

1.3 This TAA has been prepared to address HC's comments, a summary of the points covered is provided below:

- Information regarding the basement car park:
- Further clarification of the development generated trip rates and anticipated daily HGV movements;
- Further measures to ensure the safety of pedestrians at the site access and on the private road and adjoining footways; *and*
- Further information regarding the proposed HGV turntable.
- Amendments to Trip Generation following confirmation on proposed floor areas

2.0 PROPOSED DEVELOPMENT

2.1 Copies of the proposed site layout are attached as **Appendix A**. The development proposes the redevelopment of the site to create a single commercial warehouse building with office basement parking and a loading/unloading yard with turntable facilities. The breakdown of the gross floor areas of each part of the site are as follows.

2.2 The site will provide a basement car parking area, with 45 car parking spaces accessed via a ramp from the private access road. The plans of the proposed car park including cycle parking and provisions of EVs and disabled spaces is attached as **Appendix A**.

Anticipated Trip Generation

2.3 At this time no occupant for the site has been confirmed (as is typical for planning applications of this nature, and in accordance with guidelines on Transport Assessment it is necessary to make informed assumptions on the anticipated trip generation associated with the proposed land use. Therefore, such assumptions on the likely trip generation for the site have had to be made. It has been deemed prudent that the industry standard TRICS database is used to assess the possible impact of the development in terms of vehicle trips on the local highways network.

2.4 Operating hours and shift patterns cannot be confirmed at this time (as the occupant has yet to be confirmed) it has therefore been necessary, for the purpose of assessing transport impacts, to assume that the trip generation for the site will follow similar patterns to the sites included in the TRICs database. This represents standard practice within the industry and is in accordance with Guidelines on Transport Assessment.

2.5 However due to the nature of the site the occupant, once appointed, will be limited to 4 OGV deliveries/ collections at any one time, as only 4 loading bays are to be provided within the site. This will be managed by the scheduling of deliveries/ collections to ensure that HGVS can drive straight into the site and not have to wait on the access road or nearby highway network. All deliveries will be pre-booked with allotted timings for delivery. No HGVs will be allowed to access the site outside of their allotted delivery times. Deliveries running late will be instructed to phone ahead to confirm a new revised delivery time will be booked which will ensure that the warehouse has capacity for the HGVs.

2.6 No HGVs will be allowed to park or idle on the road network in proximity to the site. Areas for HGVs to load/unload will be provided inside the site. This can be secured by condition through a Site Servicing Management Plan.

2.7 To enable a robust assessment of servicing demands, it has been assumed, for assessment purposes, that all OGVs will be articulated HGVs to assume a worst case scenario. It is possible however that deliveries/ collections from the site will be made by a range of large vehicle types, such as rigid HGVs.

2.8 The proposed Trip Generation for the site has previously been set out in the TA and TAA. Sites with similar characteristics to the development proposals have been selected from the TRICS database. The TRICs outputs are displayed in **Appendix C** and the anticipated multimodal trip rates for the development in the AM and PM Commuter Peak Periods.

2.9 The TRICS Database does not include any surveys that cover an entire 24hr period, although the sites that have been selected are operational outside of the surveyed period. As such it has been necessary to calculate trip rates for the 21:00 - 07:00 period. To assess this possible trip generation for the hours not covered in the TRICS data, the trip rates for the time period 07:00-07:30 and 20:30 – 21:00 have been used to generate anticipated trip rates. The computed daily 24 hour trip rates are also shown in Table 2.1 below.

Table 2.1 – Trip Rates – Commercial Warehousing

Mode of Travel	08:00-09:00			17:00-18:00			Daily 24 Hour		
	Arrivals	Departures	Two-way	Arrivals	Departures	Two-way	Arrivals	Departures	Two-way
Walk	0.038	0.012	0.050	0.014	0.046	0.060	0.260	0.268	0.528
Cycle	0.010	0.000	0.010	0.004	0.011	0.015	0.076	0.072	0.148
Public Transport	0.092	0.005	0.097	0.052	0.092	0.144	0.436	0.384	0.820
Car	0.331	0.037	0.368	0.096	0.373	0.469	1.694	1.748	3.442
OGVs	0.031	0.037	0.068	0.030	0.037	0.067	0.729	0.692	1.421
LGVs	0.037	0.021	0.058	0.028	0.033	0.061	0.569	0.548	1.117

2.10 It is important to note that not all of the site will be used for operational purposes. The main definition of GFA, as provided in the TRICS guidance, is the total internal floor area of all floors within a site's building (or buildings), including any mezzanine floors. Internal floor areas will include all areas accessible to staff and visitors (for example office space, canteens, storage areas, toilets, etc), but will exclude service areas (for example lift shafts, stairwells, plant, and visitor car parks etc)

2.11 Based upon the above and the proposal comprises 2504.7sq.m ground floor Warehouse area (this includes warehouse, storage and changing areas). The first floor comprises 1528.4 sq.m (this includes warehouse, office, storage and changing areas). The combined total equates to 4033.1 sq.m.

2.12 The anticipated trip generation for the development has been calculated based on 4033.1 sq.m. The anticipated multi-modal trip generation for the site is summarised for the AM and PM peak periods and the 07:00 – 21:00 period, in **Table 2.2**.

Table 2.2 – Trip Generation – Proposed Development

Mode of Travel	08:00-09:00			17:00-18:00			Daily 24 Hour		
	Arrivals	Departures	Two-way	Arrivals	Departures	Two-way	Arrivals	Departures	Two-way
Walk	2	0	2	1	1	2	10	11	22
Cycle	0	0	0	0	1	1	3	3	6
Public Transport	4	0	4	2	4	6	18	15	33
Car	13	1	14	4	15	19	68	70	139
OGVs	1	1	2	1	1	2	29	28	57
LGVs	1	1	2	1	1	2	23	22	45

Proposed Development Impact/Net Change on the Highway Network

2.13 To understand the impact of the development proposals on the local highway network a comparison of the existing land use trip generation to the proposed development generated vehicle movements this is summarised in **Table 2.3.**

Table 2.3 – Proposed Development Impact Assessment

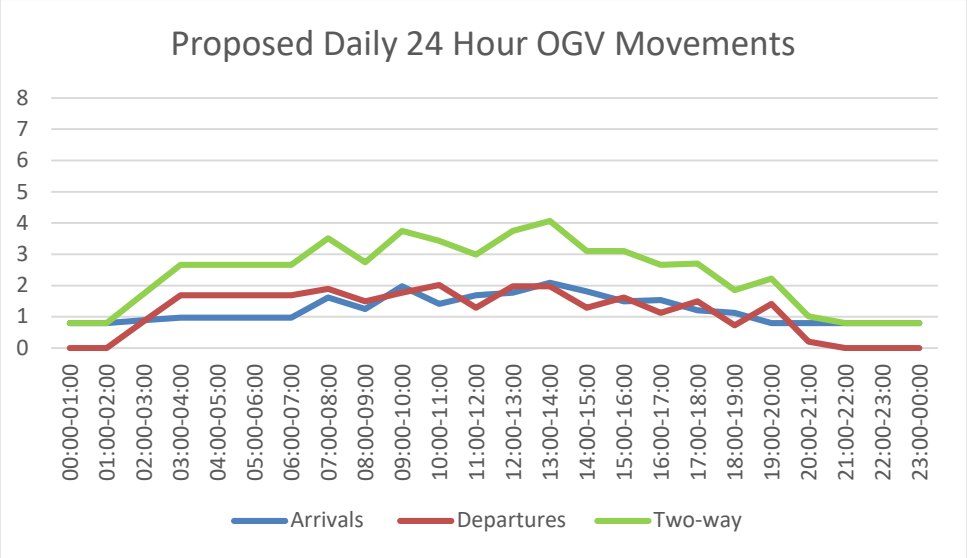
Mode of Travel	08:00-09:00			17:00-18:00			Daily		
	Arrivals	Departures	Two-way	Arrivals	Departures	Two-way	Arrivals	Departures	Two-way
Existing Land Use									
Total Vehicles	15	4	19	7	17	24	92	97	189
Proposed Land Use									
Total Vehicles	15	3	18	6	17	23	120	120	241
Net Development Impact / Change									
Total Vehicles	0	-1	-1	-1	0	-1	28	23	52

2.14 With reference to Table 2.3, the development is anticipated to result in similar two-way vehicular trips in the AM peak period and PM peak period (a net decrease of 1 movement). Across a 24 hour working day the anticipated two-way vehicular movements are slightly higher (a net increase of 28 arrivals and 23 departures).

2.15 To mitigate any impact the development has on the local highway network the development proposals will provide a Travel Plan that will provide measures that will encourage use of sustainable transport modes.

2.16 To understand the likely heavy goods vehicle impact of the development on the local highway network throughout a typical week day the following table (**Table 2.4**) summarises the OGV vehicle movements for each hour across a working day.

Table 2.4– Daily 24 Hour Anticipated OGV Movements



2.17 **Table 2.4** above demonstrates that there is likely to be an equal HGV split of 1 to 2 arrivals and departures within an hour period. This equates to one HGV arrival and one departure movement every 30 minutes. Therefore there will be minimal chance of two HGV's meeting on the private road.

2.18 It is important to note that the composition of HGV movements will vary depending on the occupant. However, it is important to note that the existing access road and site already serves HGV traffic. The existing development site already has approval for fairground traffic, and Uxbridge FC have several HGV

and coaches parked on their site. The existing access road is therefore already suitable for HGV to pass therefore the net change in HGV traffic is considered to be insignificant.

Access Measures

2.19 Given the above, the total existing and proposed vehicular flows are very similar we accept that the composition of HGV movements may increase slightly we consider that the existing access is acceptable in its current arrangement. However, the applicant is willing to widen the private road as requested by HBC. To facilitate this it is proposed that the existing private road is widened. This allows for the continuation of parking on the western side of the carriageway.

2.20 The remaining 6m of carriageway will be for use by through traffic. MfS states 5.5m is adequate for two HGVS to pass each other. By providing 6m the development proposals will maximise safety for HGVs and other road users. **Drawing 6969.002I** shows swept paths for 2 articulated HGVs passing each other when cars are parked on the western side of the carriageway. The drawing also shows a 16.5m articulated HGV entering the site in forward gear and parking on the turntable.

2.21 To ensure the safety of all users of the site and those members of the public on the local access road the following safety measures are proposed at the Car and HGV accesses.

2.22 A black and yellow rubber speed ramp will be provided on exit of the vehicle ramp, to slow cars leaving the car park. Additional STOP road marking will also be provided to stop cars encouraging onto the footway. Bollards will also be provided to ensure that cars do not mount the kerb.

2.23 The HGV access will have STOP markings on exit of the site. Bollards will be provided to ensure HGVs stay within the access area.

2.24 The proposed measures are shown on **Drawing 6969.001H**. The intervisibility between cars and HGVs entering/ exiting the site is shown on **Drawing 6969.012B**.

2.25 Access to the car park for pedestrians is internally via the main access. Access to the cycle parking area will be via the ramp from the private access road, access to cycle parking will not be possible from the car park.

HGV Turntable

2.26 To maximise operational space within the site it is proposed that a HGV turntable facility is provided. The development proposes that an Ø16.5m 44 tonne capacity turntable will be installed. This allows a 16.5m HGV to rotate/turn safely within the site.

2.27 HGV turntables are an increasingly frequent measure provided in commercial facilities as the value of land increases. An example of a nearby turntable is the Waitrose in Gerrards Cross, which has been operational since May 2012, with no known operational issues.

2.28 Further examples of turntables in the UK are summarised at https://truckturntables.co.uk/press-case-studies/. These include examples in London and the south east as well as further afield.

2.29 It can be considered that HGV turntables are a modern solution to the rising scarcity of space and the implications this has on the design of commercial properties. By providing a turntable in the development, space is saved that would otherwise have to be reserved for HGVs to reverse. Also the turntables will increase the safety of operatives as large vehicles will not be required to reverse within confined areas.

2.30 The use of the turntable will be overseen by trained operatives and all HGVs will be made aware that a turntable will be used before arriving at the site. It is therefore considered that there are no safety implications from using a turntable at this development.

2.31 The Applicant has undertaken some initial discussions with a turntable manufacture to understand suitability for the site. Basic information regarding these discussions is provided below, however due to commercial confidentiality no drawings or operational information is provided in this report.

2.32 The turntable will normally use 1 drive engine, in the event this breaks down a secondary drive engine will automatically be used.

2.33 In the event of a turntable or power failure with a vehicle stuck in a position from which it cannot exit the turntable it will be possible to rotate the turntable to recover the vehicle using either man power or batteries. As such no HGV will ever have to reverse in or out of the site.

2.34 In the event the three backup measures stop working, it is then possible for HGVs to safely and adequately drive in and reverse into the loading bays and exit in forward gear using a temporary turning area internally.

2.35 The turntable will be located indoors as to prevent exposure to the elements and to prevent standing water entering in the pit. These measures will ensure optimal operational conditions for turntable.

2.36 To ensure that the turntable is operational at all times a management plan will be in place. This management plan will include but not be limited to the following measures:

- Regular maintenance from the manufacturer – approximately 6 times per year;
- Full training for all staff who will operate the turntable;
- Regular checks by on site staff to ensure any damage to the turntable is recorded and fixed promptly; *and*
- Good housekeeping to prevent items and liquids etc. being left on or around the turntable.

2.37 As such the design of the turntable and the proposed measures that will be implemented will ensure that the turntable is continually operational and will not result in HGVs having to reverse in or out of the site.

Improvements for Pedestrian Safety

2.38 To ensure the safety of pedestrians on Horton Road and those crossing the junction with the access road, it is proposed that access road is widened and the road markings are realigned to better suit the widened access. The proposed widening and line markings are shown on **Drawing 6969.001H**. Autotrack Swept Paths for a range of vehicles at this junction are shown on **Drawing 6969.002I** and **6969.003F**.

3.0 SUMMARY AND CONCLUSION

Summary

3.1 This Transport Assessment Addendum (TAA) has been prepared by Stuart Michael Associates, consulting engineers, on behalf of Harvest Land Management (the 'Applicant') in support of a Planning Application for the construction of proposed warehouse development in the form of a warehouse on land off Horton Road, West Drayton. The proposed site layout is shown in **Appendix A**.

3.2 This TAA has been prepared to address comments raised by the Hillingdon Council Highways Officer (**Appendix B**), including car parking, measures to improve pedestrian safety, the anticipated trip generation for the site and measures to ensure the HGV turntable will be fully operational.

3.3 The proposed development is anticipated to result in similar vehicular trips in the AM peak period and PM peak periods and across a working day therefore in terms of highway and traffic impact this is considered to be negligible.

3.4 This TAA has confirmed that from a Transport and Highway perspective there are no issues that should prevent the granting of planning for the proposed development.