



# TPS Transport Consultants Ltd

## Technical Note

Client	Enzygo
Project	Station Road, Wombwell
TPS Reference	P2151
Date Prepared	17/03/2023
Prepared By	JA
Checked By	JT

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# 1. INTRODUCTION

1.1 TPS Transport Consultants Ltd (TPS) has been instructed by Enzygo to prepare a Highways Technical Note in support of a change of use application (ref. 2022/1285) to B8 open air storage and distribution. The site, located to the northeast of Valley Road, Wombwell, previously had an industrial premises on it, however, this has since been demolished and the land has not been used since c.2002.

1.2 A consultation response from Barnsley Metropolitan Borough Council highlights that:

*"It is proposed to divide the site into 6no. one acre plots and extend the current access road from Valley Road further into the site to serve all 6 plots. No information has been provided in terms of the intended parking and turning arrangements within the site or the number of vehicle movements that the proposals would generate; this information is required in order for a meaningful assessment of the proposals to be undertaken. It is stated on the proposed layout plan that each plot is to have a gravel surface, it should be clarified that such a surface treatment is suitable to allow vehicles to turn, particularly large vehicles/HGV's."*

1.3 The development site is to be accessed via an extension of Valley Road, in a similar manner as to how the industrial premises which used to occupy the site, was accessed. This then provides a route through the adjacent industrial estate, located to the southwest, as can be seen in **Figure 1**. Approximately 9.0m wide and bound by footways and streetlighting on both sides, Valley Road extends west / south, forming the minor arm of a priority T-junction with the B6096 Station Road.

**Figure 1: Site Location Plan**

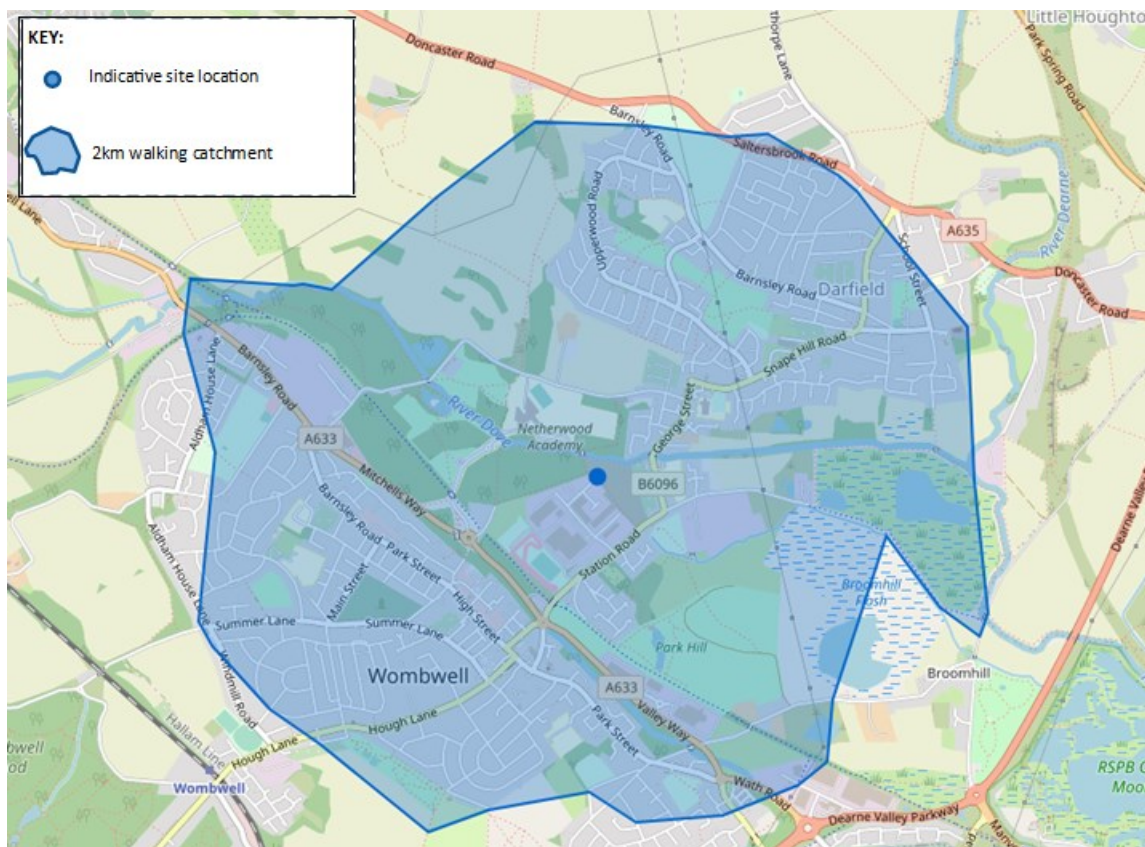


## 2. ACCESSIBILITY

### Pedestrian

2.1 Pedestrian access to the site is facilitated by 3m wide footways and street lighting on both sides of Valley Road, which takes access from the B6096 Station Road, approximately 450m southwest of the proposed site. At the junction of Valley Road / Station Road, dropped kerbs support pedestrian movement across the junction. Wombwell town centre is located approximately 850m southwest of the junction, accessible in a 12-minute walk. **Figure 2** below illustrates a 2km walking catchment from the proposed development.

**Figure 2: 2km Walking Catchment**

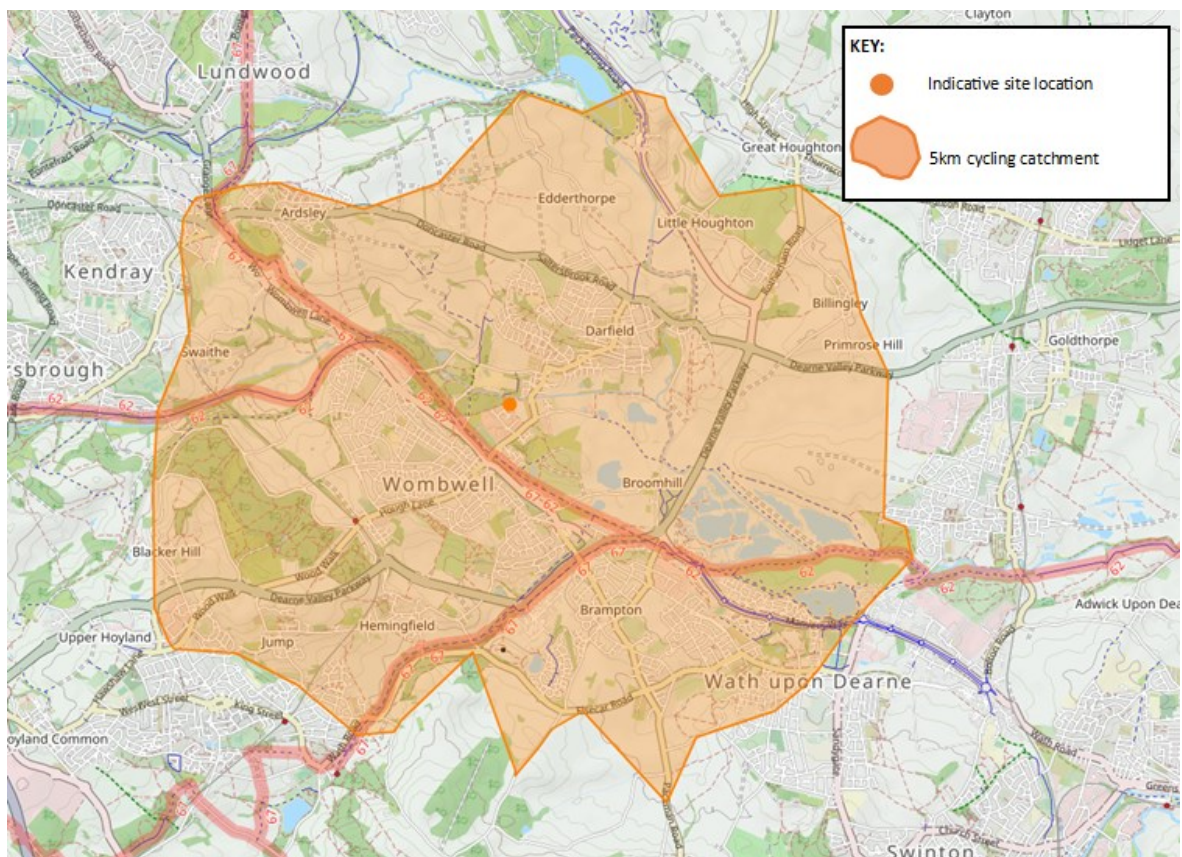


2.2 As shown in **Figure 2**, a 2km walking catchment of the proposed development encompasses Wombwell and Darfield. It is, therefore, reasonable to assume that employees living in these areas could walk to work.

## Cycling

- 2.3 Cycling plays an important role in reducing the need to travel by car. As well as the areas encompassed in the walking catchment in **Figure 2**, the cycling catchment includes all of Little Houghton, Brampton, Hemingfield and parts of Wath Upon Dearne and Ardsley. **Figure 3**, illustrates a 5km cycle isochrone from the site.

**Figure 3: 5km Cycling Catchment**



- 2.4 To the south of the site, National Cycle Network (NCN) Route 62 runs broadly east-west, forming the central sections of the Trans Pennine Trail, which is a long-distance path running from coast to coast across northern England.

## Bus Services

- 2.5 The closest bus stops to the site are located on the B6096 Station Road, approximately 500m southwest of the site. Located on both sides of the carriageway, the bus stop on the north side of the carriageway, supporting eastbound services, comprises a shelter, seating and timetable information. The stop to the south, comprises a flag, pole and timetable

information. **Figure 4**, overleaf, illustrates the location of the bus stops where the 27/27a/27b bus services can be accessed, providing an hourly service Monday-Sunday between Wombwell and Barnsley.

**Figure 4: Bus Stop Locations**

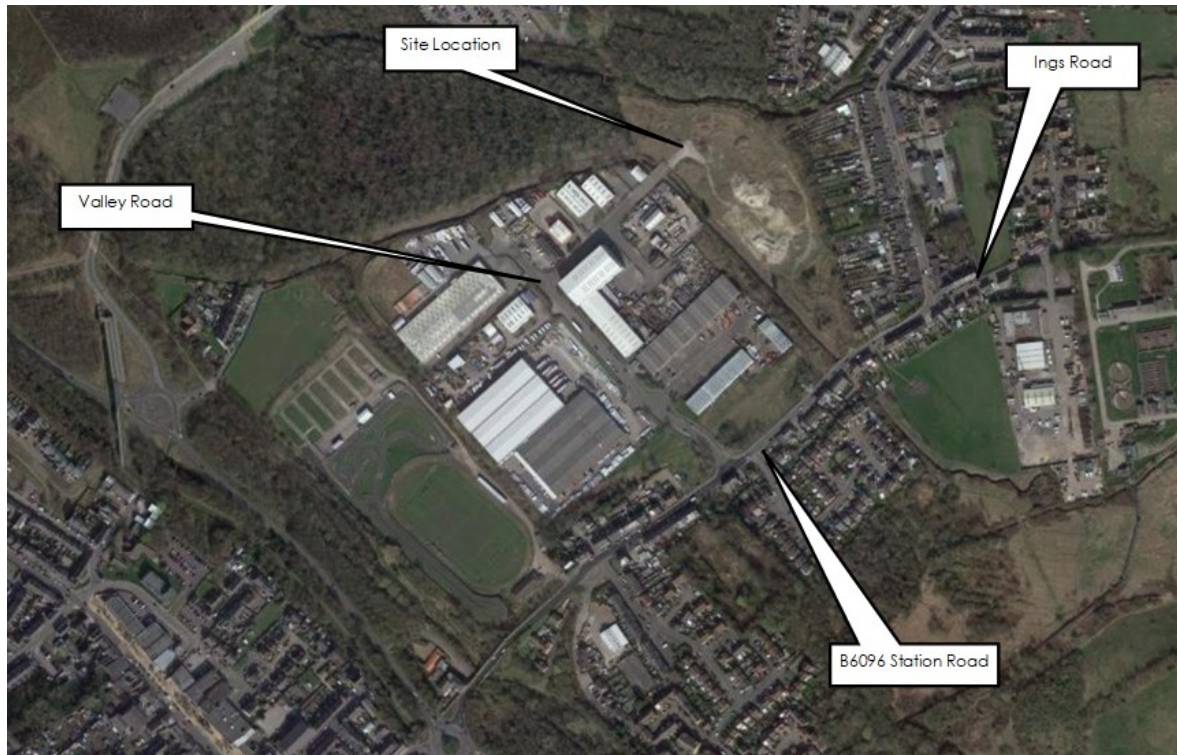


### 3. LOCAL HIGHWAY NETWORK

#### Highway Network

- 3.1 A description is provided below of the local highway network in the immediate vicinity of the site; for ease, it is also shown in **Figure 5**.

**Figure 5: Existing Highway Network**



- 3.2 The proposed development is to take access via an extension of Valley Road, a 9.0m wide carriageway that extends west / south for approximately 450m, through an existing industrial estate. No on-street parking restrictions are in place along Valley Road, which is bound by 3.0m wide footways and street lighting on both sides, along its length. To the south, Valley Road forms a priority T-junction with the B6096 Station Road. The junction comprises dropped kerbs, supporting pedestrian movement east-west across Valley Road.
- 3.3 Station Road is an 8.0m wide single carriageway that runs broadly east-west, subject to a 30mph speed limit. Bound by footways and street lighting on both sides, dwellings take direct frontage access on both sides. Approximately 290m east of the Valley Road junction, Station Road gives access to Ings Road, via a priority T-junction. Ings Road, a residential street, continues east, as the B6096 diverts northbound onto Stonyford Road. To the west, Station

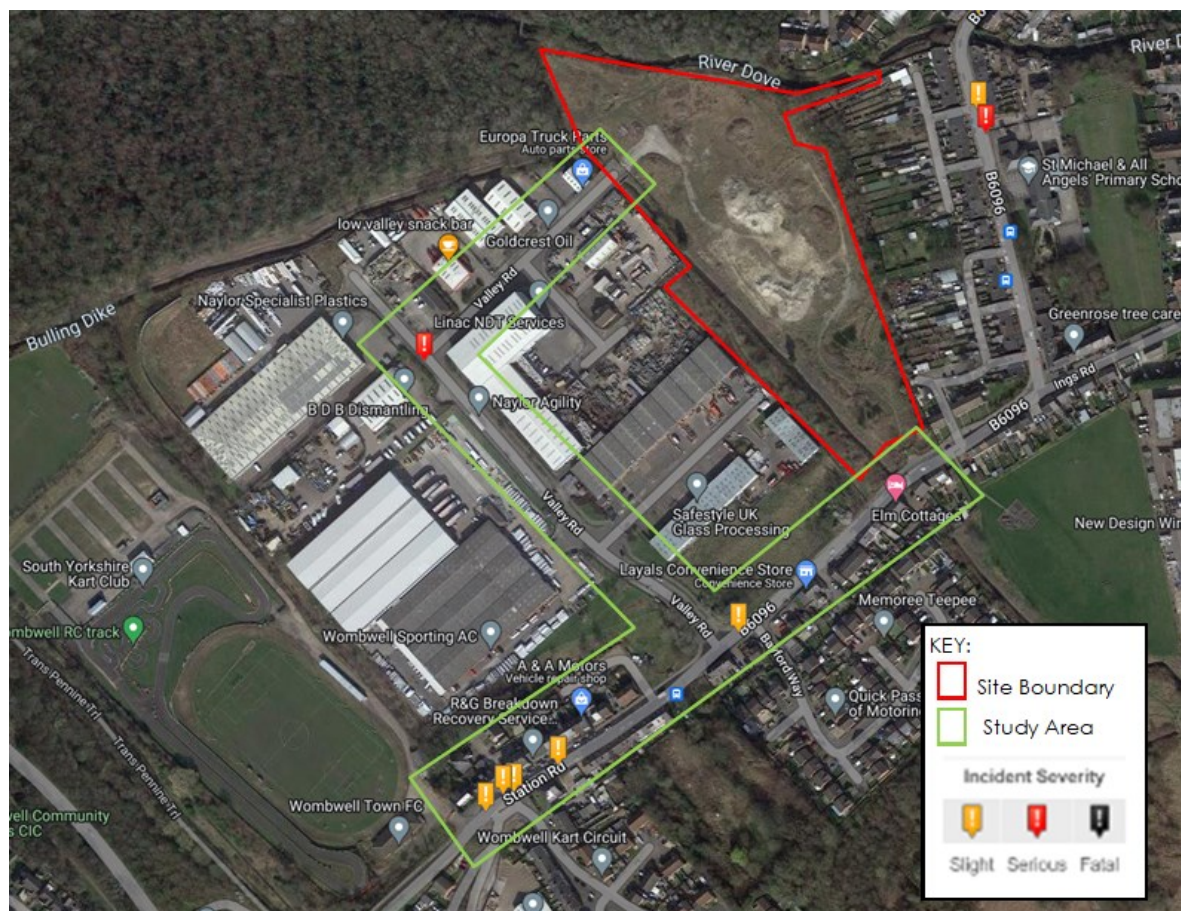
Road is bound by on-street parking bays on the south side of the carriageway, for approximately 100m.

- 3.4 Extending west for a further 240m, Station Road is bound by double-yellow line waiting restrictions, in the vicinity of a bridge which gives access to Station Road roundabout. This is a 5-arm roundabout which gives access south onto Valley Way and Mayflower Way, west along Station Road, and north on the A633 Mitchells Way towards Barnsley town centre. The roundabout benefits from dropped kerbs and pedestrian refuge islands on all arms, supporting pedestrian movement across the junction.

### Road Safety

- 3.5 Accident data for the most recent 5-year period (2017 - 2021) has been obtained from [www.crashmap.co.uk](http://www.crashmap.co.uk) for the network surrounding the development site. Crashmap offers a definitive map of the official road collision statistics. The locations of the accidents are shown on **Figure 6**.

**Figure 6: Accident Locations**





- 3.6 As can be seen from **Figure 6**, a total of 6 accidents have been recorded within the vicinity of the site in the most recent 5-year period. Of the 6 accidents recorded, 5 were slight and 1 was serious; no fatal accidents were recorded. This equates to 1.2 accidents per year.
- 3.7 One accident was recorded on Valley Road, to the west of the site in 2021. Involving 1 HGV and 1 car, the incident resulted in 1 casualty suffering serious injuries. At the junction of Valley Road / Station Road, an incident in 2020 involving 1 HGV and 2 cars resulted in 1 casualty suffering slight injuries. The remaining 4 incidents recorded across the most recent 5-year period were recorded to the west, on Station Road. All 4 incidents involved cars, resulting in casualties suffering slight injuries. One of the incidents, recorded at the junction of Parkhill Road / Station Road, one involved 1 car and 1 pedal cyclist, who suffered slight injuries.
- 3.8 Given the scale of the accident study area, it is not considered that an average of 1.2 accidents per year signifies an existing road safety issue. It is not expected that the proposed development will exacerbate the existing road safety record in the vicinity of the site.

## 4. TRIP GENERATION

### Introduction

4.1 This section of the Technical Note considers the likely trip generation associated with the development proposals.

### Trip Rates

4.2 Given the bespoke nature of the proposed development, there is no land use classification which provides a direct comparison with the site, in terms of trip generating potential. Therefore, in order to provide the most realistic comparison, the TRICS database has been interrogated, utilising the following parameters:

- Land Use: Employment, Warehousing (Self Storage);
- Gross Floor Area: 1350 – 14000sqm;
- Date Range: 01/01/2014 – 15/10/2021; and
- Location: Suburban Area, Edge of Town.

4.3 The full TRICS output is provided at **Appendix B. Table 4.1** summarises the vehicle trip rates associated with 1no. one acre plot, and resultant vehicle trip generation associated with the proposed development. **Figure 7** summarises the combined vehicle trip rates and resultant vehicle trip generation associated with 6no. one-acre plots.

**Figure 7: Warehousing (Self Storage) Trip Generation**

	AM			PM		
	Arrival	Departure	Two-Way	Arrival	Departure	Two-Way
Trip Rate	0.109	0.078	0.187	0.057	0.135	0.192
Trip Generation (1 plot)	4	3	8	2	5	8
Trip Generation (6 plots)	26	19	45	14	33	47

(Source: TRICS)

4.4 As can be seen in **Figure 7**, each self-storage sites is anticipated to generate 8 two-way vehicle trips in the AM peak hour and 8 two-way trips in the PM peak hour. As shown in **Figure 7**, the proposed development in its entirety is anticipated to generate some 45 two-way vehicle trips in the AM peak hour, and 47 two-way trips in the PM peak hour.



- 4.5 The above trip generation is considered to be a worst-case scenario. In reality, given the site is for external storage of materials, we expect it will not generate regular trips, the site would be accessed as and when materials were required.
- 4.6 It should also be noted, that whilst not a planning consideration, it should be recognised that the site would have generated trips when occupied by the former industrial use.

## 5. PROPOSED ACCESS, PARKING AND SERVICING ARRANGEMENTS

### Introduction

- 5.1 This section of the Technical Note considers the proposed access, parking and servicing arrangements for the site.

### Access

- 5.2 Access to the proposed development is to be provided via an extension of Valley Road, through the adjacent industrial estate. The internal carriageway will give access to each of the 6no. 1-acre open storage yards. The proposed access road will be formed of a bound material, from the point where it extends from Valley Road, through the site, to the southeast. Each plot will have a gravel surface treatment, owing to the site's history of flooding in order to allow surface water to drain more easily. Sufficient depth will be provided of the gravel treatment, to allow HGVs to turn around in each of the plots.
- 5.3 Each open storage yard will be accessible via a 9.4m wide gated entrance, opening inwards. Swept path analysis of each plot has been undertaken, as demonstrated on the drawing attached at **Appendix C** which demonstrates that a 12m rigid HGV, similar to vehicles used by builders merchants can enter/exit in forward gear and turn around within each plot. The turning manoeuvre has been shown in a way which demonstrates that the vehicle will not need to undertake an unnecessarily tight turning manoeuvre within each plot, in order to not damage the proposed surface treatment or cause ruts in the surfacing.

### Parking

- 5.4 Space will be provided within each plot, based on the needs of the site occupier to allow for car parking to take place. The quantum and location of the car parking would be decided by each individual occupier, based on the needs. Given the bespoke nature of the use of the site and that no formal provision will be provided in each site, there is no parking standard which can be applied to the development.
- 5.5 Whilst the nature of the proposals is bespoke, local parking standards set out in the Barnsley Local Development Framework SPD: Parking states that for B8 Storage and Distribution, a maximum of 1 space per 3 staff or 1 space per 100m<sup>2</sup> GFA up to 1000m<sup>2</sup> and 1 space per



150m<sup>2</sup> thereafter is applicable. Based on each plot being approximately 4,000m<sup>2</sup>, a maximum parking provision of 30 spaces would therefore be permissible for each plot.

- 5.6 Notwithstanding this, it is not expected that there would be a high level of staff based at each site, it is more likely that persons will come and collect materials, rather than being based permanently at the site and actual parking provision will be minimal.



## 6. SUMMARY AND CONCLUSIONS

### Summary

6.1 TPS has prepared this Technical Note in support of a change of use application (ref. 2022/1285) to B8 open air storage and distribution on land to the northeast of Valley Road, Wombwell. The following summarises the key points:

- The site benefits from good connectivity with the surrounding area, with opportunities for employees and visitors to travel by non-car modes;
- An analysis of historic accident data suggests that there are no accident trends that might be exacerbated by the addition of development-related traffic;
- The development proposals are anticipated to generate 45 two-way vehicle trips in the AM peak hour and 47 two-way trips in the PM peak hour. This is considered to be a worst case scenario and in reality, the site would only generate trips as and when materials are required. In addition, although not a planning consideration, the former industrial use on the site would have generated trips, likely in excess of what the proposed development will generate; and
- The access and servicing arrangements for the site have been considered and it has been demonstrated that the largest vehicle expected to require access to the site, a 12.0m rigid truck, can turn around internally and egress in forward gear.



# Appendix A

## TRICS Output

## TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT  
 Category : E - WAREHOUSING (SELF STORAGE)  
 TOTAL VEHICLES

Selected regions and areas:

03	SOUTH WEST	
	SD SWINDON	1 days
04	EAST ANGLIA	
	SF SUFFOLK	1 days
05	EAST MIDLANDS	
	NG NOTTINGHAM	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NY NORTH YORKSHIRE	1 days
09	NORTH	
	CB CUMBRIA	1 days
	TW TYNE & WEAR	1 days

## Primary Filtering selection:

Parameter: Gross floor area  
 Actual Range: 1350 to 5500 (units: sqm)  
 Range Selected by User: 1350 to 14000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/14 to 15/10/21

Selected survey days:

Monday	1 days
Tuesday	1 days
Wednesday	1 days
Thursday	2 days
Friday	1 days

Selected survey types:

Manual count	6 days
Directional ATC Count	0 days

Selected Locations:

Suburban Area (PPS6 Out of Centre)	3
Edge of Town	3

Selected Location Sub Categories:

Industrial Zone	4
Development Zone	1
No Sub Category	1

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included	X days - Selected
Servicing vehicles Excluded	6 days - Selected

## Secondary Filtering selection:

Use Class:

B8	6 days
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Filter by Site Operations Breakdown:

All Surveys Included

Population within 500m Range:

All Surveys Included

## Secondary Filtering selection (Cont.):

Population within 1 mile:

5,001 to 10,000	1 days
10,001 to 15,000	2 days
15,001 to 20,000	1 days
25,001 to 50,000	2 days

Population within 5 miles:

5,001 to 25,000	1 days
75,001 to 100,000	1 days
125,001 to 250,000	2 days
250,001 to 500,000	1 days
500,001 or More	1 days

Car ownership within 5 miles:

0.6 to 1.0	2 days
1.1 to 1.5	3 days
1.6 to 2.0	1 days

Travel Plan:

No	6 days
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PTAL Rating:

No PTAL Present	6 days
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Covid-19 Restrictions	Yes
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At least one survey within the selected data set was undertaken at a time of Covid-19 restrictions

LIST OF SITES relevant to selection parameters

1	CB-02-E-01 MILLBROOK ROAD CARLISLE KINGSTOWN IND. ESTATE Edge of Town Industrial Zone Total Gross floor area: 3100 sqm <i>Survey date: FRIDAY 15/10/21</i>	BOX CLEVER SELF STORAGE	CUMBRIA	<i>Survey Type: MANUAL</i>
2	NG-02-E-02 LENTON LANE NOTTINGHAM  Suburban Area (PPS6 Out of Centre) Development Zone Total Gross floor area: 2860 sqm <i>Survey date: THURSDAY 17/11/16</i>	BIG YELLOW SELF STORAGE	NOTTINGHAM	<i>Survey Type: MANUAL</i>
3	NY-02-E-01 OAKNEY WOOD ROAD SELBY  Edge of Town Industrial Zone Total Gross floor area: 1350 sqm <i>Survey date: TUESDAY 21/09/21</i>	SELF STORAGE	NORTH YORKSHIRE	<i>Survey Type: MANUAL</i>
4	SD-02-E-01 DRAKES WAY SWINDON  Suburban Area (PPS6 Out of Centre) No Sub Category Total Gross floor area: 4925 sqm <i>Survey date: WEDNESDAY 21/09/16</i>	BIG YELLOW SELF STORAGE	SWINDON	<i>Survey Type: MANUAL</i>
5	SF-02-E-01 WHITE HOUSE ROAD IPSWICH  Edge of Town Industrial Zone Total Gross floor area: 1530 sqm <i>Survey date: THURSDAY 24/06/21</i>	SELF STORAGE	SUFFOLK	<i>Survey Type: MANUAL</i>
6	TW-02-E-01 STONEYGATE CLOSE GATESHEAD  Suburban Area (PPS6 Out of Centre) Industrial Zone Total Gross floor area: 5500 sqm <i>Survey date: MONDAY 13/06/16</i>	1ST STORAGE	TYNE & WEAR	<i>Survey Type: MANUAL</i>

TRIP RATE for Land Use 02 - EMPLOYMENT/E - WAREHOUSING (SELF STORAGE)

TOTAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	6	3211	0.057	6	3211	0.031	6	3211	0.088
08:00 - 09:00	6	3211	0.109	6	3211	0.078	6	3211	0.187
09:00 - 10:00	6	3211	0.187	6	3211	0.151	6	3211	0.338
10:00 - 11:00	6	3211	0.171	6	3211	0.176	6	3211	0.347
11:00 - 12:00	6	3211	0.130	6	3211	0.109	6	3211	0.239
12:00 - 13:00	6	3211	0.213	6	3211	0.218	6	3211	0.431
13:00 - 14:00	6	3211	0.140	6	3211	0.119	6	3211	0.259
14:00 - 15:00	6	3211	0.161	6	3211	0.176	6	3211	0.337
15:00 - 16:00	6	3211	0.145	6	3211	0.161	6	3211	0.306
16:00 - 17:00	6	3211	0.114	6	3211	0.119	6	3211	0.233
17:00 - 18:00	6	3211	0.057	6	3211	0.135	6	3211	0.192
18:00 - 19:00	6	3211	0.026	6	3211	0.031	6	3211	0.057
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.510			1.504			3.014

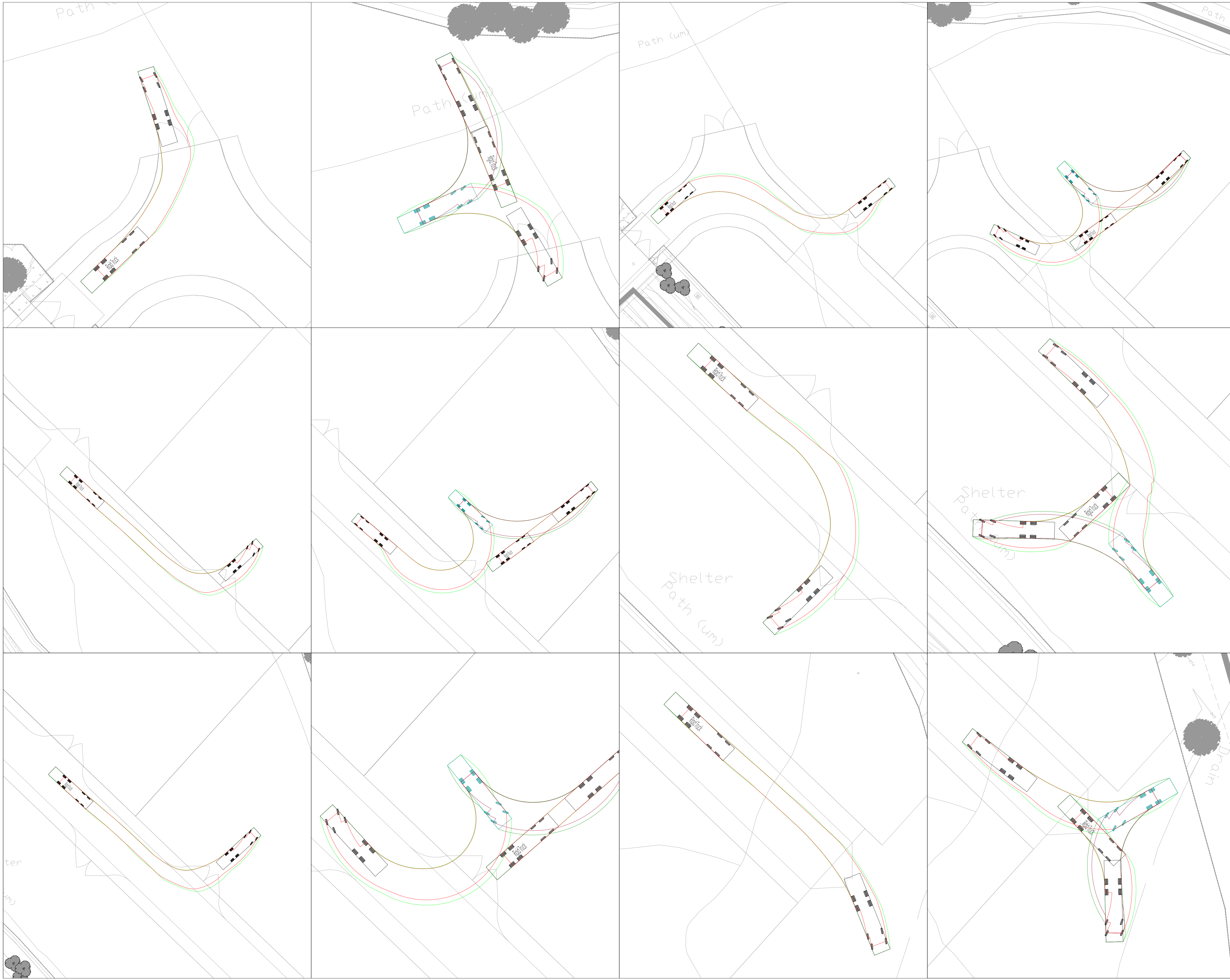
## Parameter summary

Trip rate parameter range selected: 1350 - 5500 (units: sqm)  
 Survey date date range: 01/01/14 - 15/10/21  
 Number of weekdays (Monday-Friday): 6  
 Number of Saturdays: 0  
 Number of Sundays: 0  
 Surveys automatically removed from selection: 0  
 Surveys manually removed from selection: 0



## Appendix B

### Swept Path Analysis



**Standard Notes**

1. This drawing is to be read in conjunction with all relevant Architect's and Engineer's drawings and specification.
2. This drawing should not be scaled.

**Location Plan**

**Notes and Keys**

Rigid Truck  
 Overall Length 12.000m  
 Overall Width 2.500m  
 Overall Body Height 3.928m  
 Min Body Ground Clearance 0.412m  
 Track Width 2.471m  
 Lock to lock time 6.00s  
 Kerb to Kerb Turning Radius 11.900m

Date	Rev	Description	Drawn	Chkd
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**ADDRESS**  
 TPS Business Centre  
 151-153 Wakefield Road,  
 Horbury, Wakefield, WF4 5HQ,  
 Tel: 01924 664638  
[www.tpsconsultants.co.uk](http://www.tpsconsultants.co.uk)

**Project**  
 Station Road  
 Wombwell

**Title**  
 Swept Path Analysis  
 Rigid Truck

**Status**  
**INFORMATION**

Scale @ A1 1:500	Date Created 15/03/23	Drawn JA	Checked JT
TPS Project Number P2151	Drawing Number T - 1001		Revision A