**Appeal by Aldi Stores Ltd**
**Proposed Discount Foodstore and Non-Food Retail Unit, Homebase, Sturlas Way, Waltham Cross, EN8 7BF**

# Transport Proof of Evidence
# APPENDICES

**Tim Britton**

**LPA Reference: 07/21/0519/F**
**PINS Reference: APP/W1905/W/22/3292367**

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**Appeal by Aldi Stores Ltd**
**Proposed Discount Foodstore and Non-Food Retail Unit, Homebase, Sturlas Way, Waltham Cross, EN8 7BF**

## List of Appendices

| | |
|---|---|
| **Appendix CCL/01** | APP-TN04 Pedestrian Survey Data |
| **Appendix CCL/02** | APP-TN03 Car Parking |
| **Appendix CCL/03** | APP-TN01 Aldi and Homebase Servicing Arrangements |
| **Appendix CCL/04** | APP-TN02 Collisions |
| **Appendix CCL/05** | Drawing 19094-SK220621.1 |

**Appendix CCL/01** APP-TN04 Pedestrian Survey Data

**ALDI STORES LIMITED**

**PROPOSED DISCOUNT FOODSTORE AND NON-FOOD RETAIL UNIT**

**HOMEBASE, STURLAS WAY, WALTHAM CROSS, EN8 7BF**

**APP-TN04 – PEDESTRIAN SURVEY DATA**

**15TH JUNE 2022**

## 1.0 Introduction

1.1 Connect Consultants Limited is a firm of transport planning and highway design consultants that have been instructed by Aldi Stores Limited in relation to their proposed discount foodstore and non-food retail unit which will occupy the existing Homebase DIY superstore on Sturlas Way in the town of Waltham Cross, Hertfordshire.

1.2 This Technical Note (APP-TN04) has been produced to summarise pedestrian survey data relevant to the site.

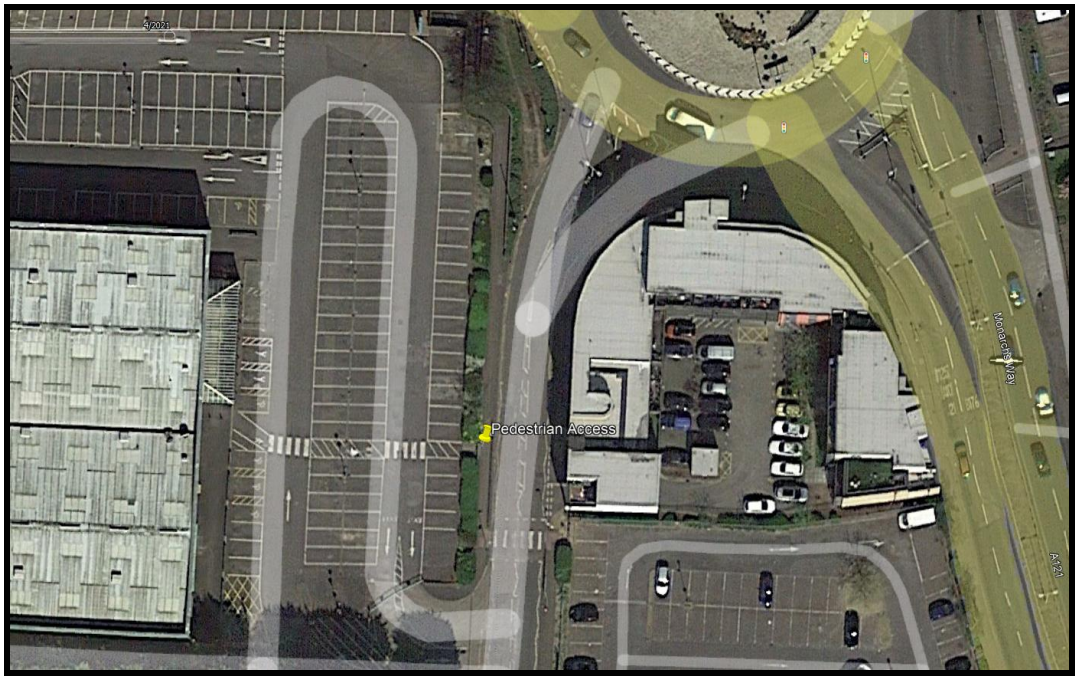
## 2.0 Pedestrian Survey Specifications

2.1 A survey has been undertaken counting pedestrians using the existing Homebase pedestrian access on Sturlas Way with the following specifications:

- Thursday 19th May 2022 and Saturday 21st May 2022
- 07:00 – 19:00 hours
- Data presented in 15-minute intervals
- Data classified by:
    - Direction
    - Adult / child / OAP / Mobility / Cycle, with a count of groups
    - Whether anyone in each group is carrying a Homebase shopping bag / carrying a shopping bag which is NOT Homebase branded / No shopping bag.

2.2 An image showing the location of the pedestrian survey is provided at **Figure 1** below.

**Figure 1 – Pedestrian Survey Location**




*Source: Google Earth*

## 3.0 Pedestrian Survey Results

3.1 The pedestrian counts, surveyed between 0700 and 1900 hours, are presented at Table 1 below.

**Table 1 – Pedestrian Survey Results – All Pedestrian Groups**

| | Thursday 19th May 2022 | | Saturday 21st May 2022 | |
|---|---|---|---|---|
| | **Departures** | **Arrivals** | **Departures** | **Arrivals** |
| Carrying Homebase bags | 2 (1%) | 0 (0%) | 10 (4%) | 0 (0%) |
| Carrying Non-Homebase bags | 67 (49%) | 63 (59%) | 127 (48%) | 84 (55%) |
| No bags | 69 (50%) | 44 (41%) | 128 (48%) | 68 (45%) |
| Subtotal (No bags + Carrying Non-Homebase bags) | 136 (99%) | 107 (100%) | 255 (96%) | 152 (100%) |
| Total | 138 (100%) | 107 (100%) | 265 (100%) | 152 (100%) |

*Note: the implications of the shopping bag based sub division should be treated with caution, as some Homebase customers may have brought their own (non-Homebase) bag.*

3.2 The survey indicates that, on the Thursday, of the 138 pedestrian groups which exited the Homebase site, 2 groups were carrying Homebase branded bags, 67 groups were carrying other bags, and 69 groups were carrying no bags.

3.3 The number of pedestrian group entries to the site at this location was 22% lower (during the survey period) at 107 groups.

3.4 The survey indicates that, on the Saturday, of the 265 pedestrian groups which exited the Homebase site, 10 groups were carrying Homebase branded bags, 127 groups were carrying other bags, and 128 groups were carrying no bags.

3.5 The number of pedestrian group entries to the site at this location was 43% lower (during the survey period) at 152 groups.

3.6 The survey results plotted across the survey period, for Thursday and Saturday, are shown at **Figure 2** and **Figure 3** respectively.

**Figure 2 – All Pedestrian Groups, Thursday**

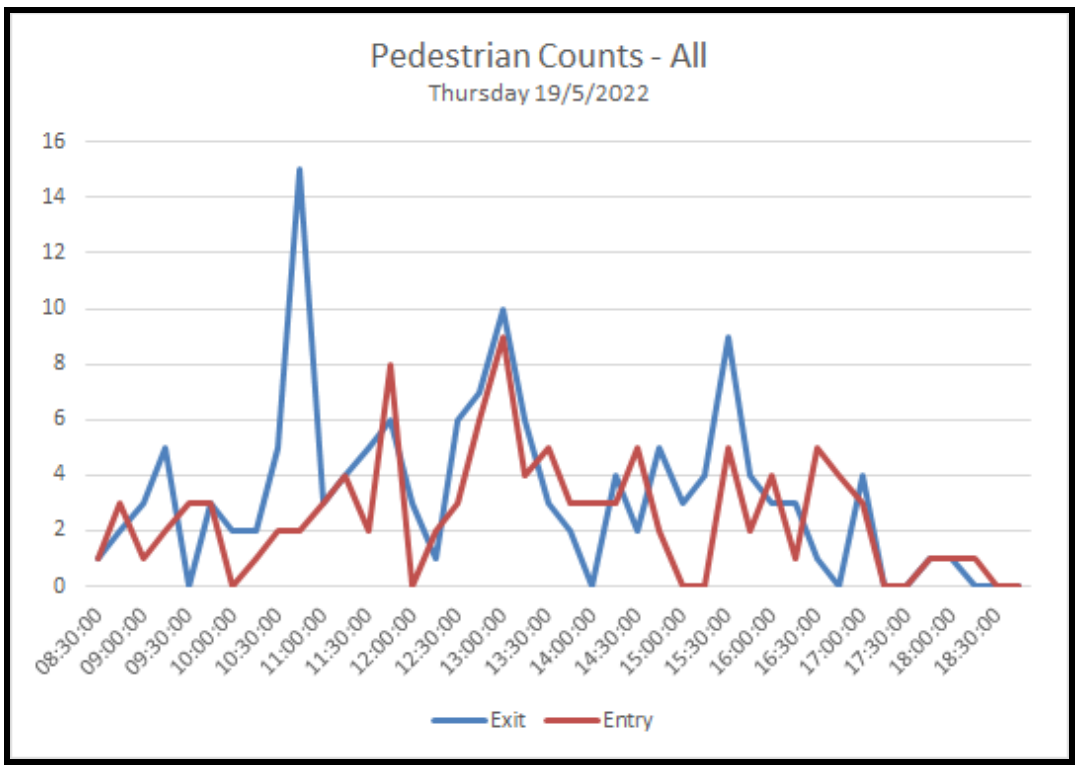
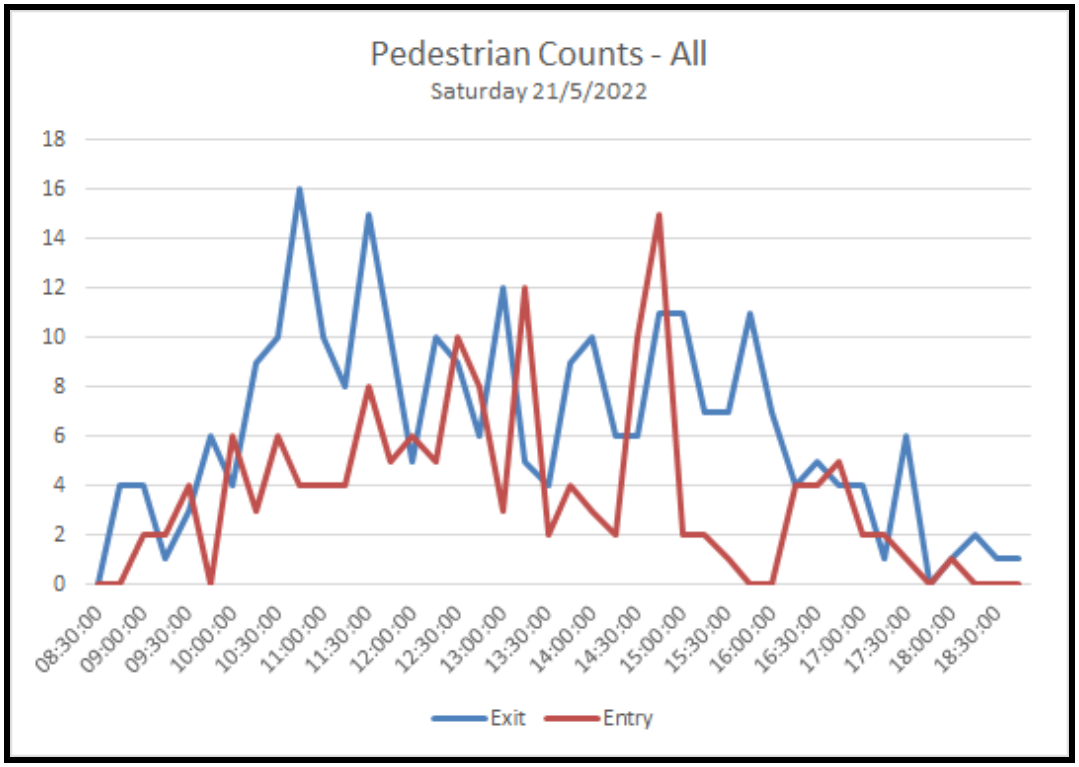


**Figure 3 – All Pedestrian Groups, Saturday**




3.7 Comparing with vehicular arrivals at the Homebase site:

- Thursday vehicular arrivals, 0700-1900 = 685
- Saturday vehicular arrivals, 0700-1900 = 1,001

3.8 Calculating the total pedestrian departures, as a % of total vehicular arrivals, is as follows:

- Thursday 138 / 685 = 20.2%
- Saturday 265 / 1001 = 26.5%

3.9 Calculating the total pedestrian arrivals, as a % of total vehicular departures, is as follows:

- Thursday 107 / 675 = 15.8%
- Saturday 152 / 997 = 15.2%

**Appendix CCL/02** APP-TN03 Car Parking

**ALDI STORES LIMITED**

**PROPOSED DISCOUNT FOODSTORE AND NON-FOOD RETAIL UNIT**

**HOMEBASE, STURLAS WAY, WALTHAM CROSS, EN8 7BF**

**APP-TN03 – CAR PARKING DATA**

**15TH JUNE 2022**

## 1.0 Introduction

1.1 Connect Consultants Limited is a firm of transport planning and highway design consultants that have been instructed by Aldi Stores Limited in relation to their proposed discount foodstore and non-food retail unit which will occupy the existing Homebase DIY superstore on Sturlas Way in the town of Waltham Cross, Hertfordshire.

1.2 This Technical Note (APP-TN03) has been produced to respond to the highway consultation response and the reasons for refusal for the proposed application.

1.3 Specifically, the application was made under Broxbourne Borough Council (BCC) application reference 07/21/0519/F. The highway consultation response was produced by Hertfordshire County Council (HCC), the Local Highway Authority, on the 14th June 2021, which provided comments on the Transport Assessment produced by Connect, dated April 2021, in support of the application.

1.4 The application was refused on the 9th August 2021 following a planning committee meeting on 28th July 2021.

1.5 This note, APP-TN03, provides car park survey data and a car park assessment, as requested in the HCC highway consultation response dated 14th June 2021, and for the consideration of reason for refusal number 4 within the decision notice dated 9th August 2021.

1.6 The HCC consultation response dated 14th June 2021 states: -

> *"Para 3.4.5 – 3.4.10 Although the presented data of parking accumulation may appear correct since no actual site surveys were undertaken this may undermine any conclusions drawn from it. The proposed parking provision will be considerably reduced on site, which may result in overspill of parking into adjacent roads. However, Broxbourne Borough Council is the parking authority for the district and therefore ultimately be satisfied with any proposed parking levels of the site."*

1.7 From the website "www.trics.org", *"The TRICS® database includes over 8,000* ***transport surveys****".* It is not correct for HCC to imply that the assessment is not based on actual survey data.

1.8 The minutes of the planning committee meeting on 28th July 2021 state: -

> *"The proposal would provide 157 car parking spaces in total for both uses (including 8x disabled customer spaces, 8x parent and child spaces, 4x click and collect spaces and 4x spaces with EV charging points (with below ground*

*infrastructure for a further 16 spaces). The number of spaces are indicated to be adequate for the commercial operation requirements for Homebase and Aldi based on their store portfolios. The existing store currently has 192 spaces; under the Council's current parking guidelines this is an excessive amount for the existing arrangement. However, the guidelines indicate that a foodstore would have a higher parking requirement than the existing non-foodstore with garden centre. The Aldi food store would therefore require 98 car parking spaces and Homebase would require 95 spaces as per the Parking Guidelines (a total requirement of 193). A shortfall of 36 spaces is presented. The site is located in an accessible location within the town centre and cycle parking is provided (as set out below). However, whilst the number of car parking spaces is suggested within the submission to suit both stores, the issue of insufficient pedestrian accessibility improvements to and within the site places significant doubt over the acceptability of this shortfall. Without the pedestrian links there is potential for increased vehicular travel to the site resulting in greater demand for parking. Therefore, the shortfall in car parking spaces is not sufficiently justified."*

1.9 The decision notice also provides the following reason for refusal relating to car parking: -

> *"4. The proposal does not adequately address the shortfall in car parking spaces at the site and is therefore contrary to policy TM5 of the Broxbourne Local Plan 2018 - 2033."*

## 2.0 Parking Proposals – Rev F

2.1 As shown on the site layout in front of the Inquiry (The Harris Partnership Drawing Number: 2924-COR-111 Rev F) the development proposals include car parking for 155 vehicles.

2.2 8 of the above spaces will be for disabled users and 8 for parents with young children. 4 will be for Click and Collect. 4 will provide active electric vehicle charging whilst 16 will provide passive charging facilities.

2.3 5 motor cycle spaces will be provided as well as 18 customer cycle spaces and 10 staff cycle spaces.

## 3.0 Car Parking Guidelines / Provision

3.1 The car parking advice applicable to the proposed development are set out in Appendix B of the Broxbourne Local Plan 2018 – 2033, which was adopted in June of 2020.

3.2 An extract from Appendix B showing the car parking guidelines for A1 Food and Non-Food stores is provided at Figure 1 below.

**Figure 1 – Local Car Parking Guidelines**

| Use Class | Description | Car Parking Guidelines |
|---|---|---|
| A1 Retail Foodstores | a) Small Food Shops up to 500m² gfa | 1 space per 30m² gfa |
| | b) Food supermarkets exceeding 500m² gfa but not exceeding 2,500m² rfa | 1 space per 18m² gfa |
| | c) Food superstores/hypermarkets exceeding 2,500m² rfa | 1 space per 15m² gfa |
| A1 Non-food retail | a) Non-food retail warehouses with garden centres | 1 space per 25m² gfa |
| | b) Non-food retail warehouses without garden centres | 1 space per 35m² gfa |
| | c) Garden Centres up to 4,000m² gfa | 1 space per 25m² gfa |
| | d) Garden centres exceeding 4,000m² gfa | to be decided in each case on individual merits |

*Source: Borough of Broxbourne, Broxbourne Local Plan 2018 – 2033, June 2020.*

3.3 Based on the above, the guidelines equate to 98 car parking spaces for the proposed discount foodstore unit (1,756 ÷ 18 = 97.5) and 95 car parking spaces for the proposed non-food unit with garden centre (2,371 ÷ 25 = 94.8).

3.4 The guidelines therefore provide a guideline figure of a total of 193 car parking spaces for the proposal site.

3.5 The proposals include a total of 155 (rev F) car parking spaces for the proposed development, 38 spaces fewer than the above guidelines.

## 4.0 Existing Homebase Car Park Survey Data

4.1 Two separate car parking surveys have been undertaken to date of the existing Homebase car park which includes parking for 185 vehicles (192 stated in committee report).

4.2 Details of the surveys are provided below: -

- Car park accumulation survey undertaken on Wednesday 14th July 2021 and Saturday 17th July 2021 during the 09:00 – 19:00 period.
- Car park accumulation survey undertaken on Thursday 19th May 2022 and Saturday 21st May 2022 during the 07:00 – 19:00 period.

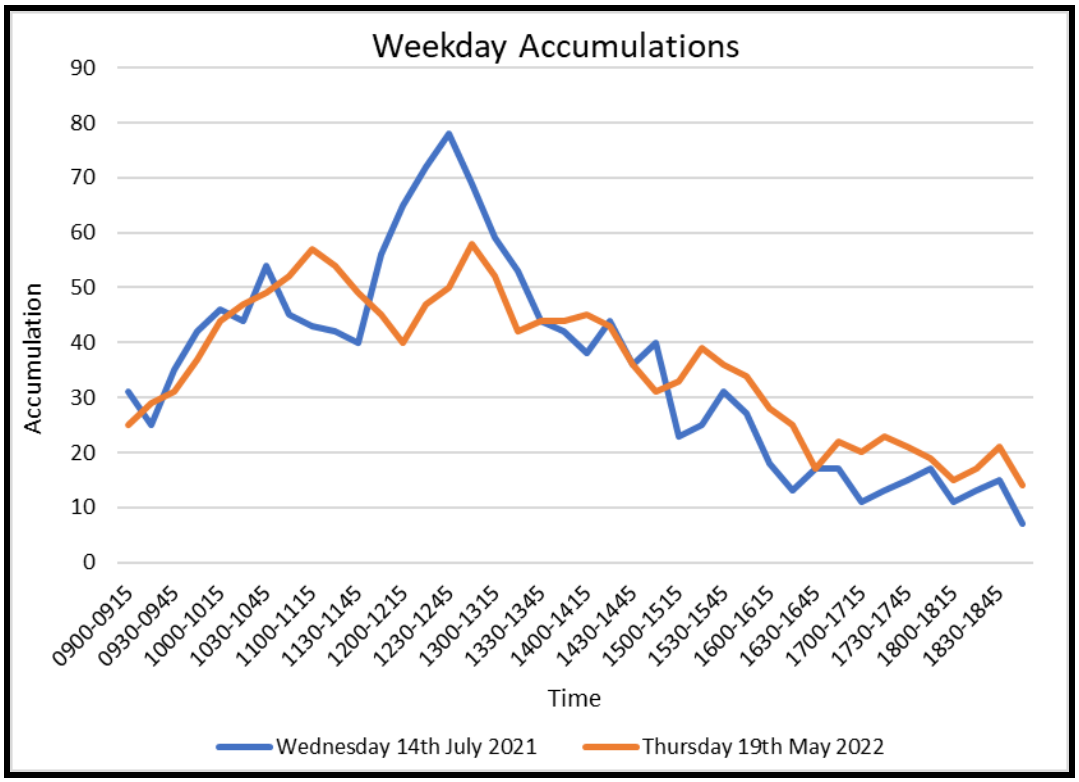
4.3 The Homebase car park also includes an ANPR (Automatic Number Plate Recognition) management system. Connect were provided with car park accumulation data from the Homebase ANPR system to compare to the above car park surveys. The ANPR data shows some discrepancies including episodes of missing data and under recording, resulting in it not providing a suitable dataset for comparison.

4.4 Under-recording of ANPR data occurs when not all number plates are captured by the camera (or a different number of arrivals and departures are captured), often due to a vehicle's alignment at the access. This could be the case in relation to Homebase. Irrespective, the data is not suitable for assessment purposes.

4.5 Figure 2 and Figure 3 below show the existing Homebase parking accumulations based on the above car park surveys.

4.6 Both surveys were undertaken when the majority of Covid-19 restrictions were lifted.

**Figure 2 – Existing Weekday Homebase Parking Accumulations**

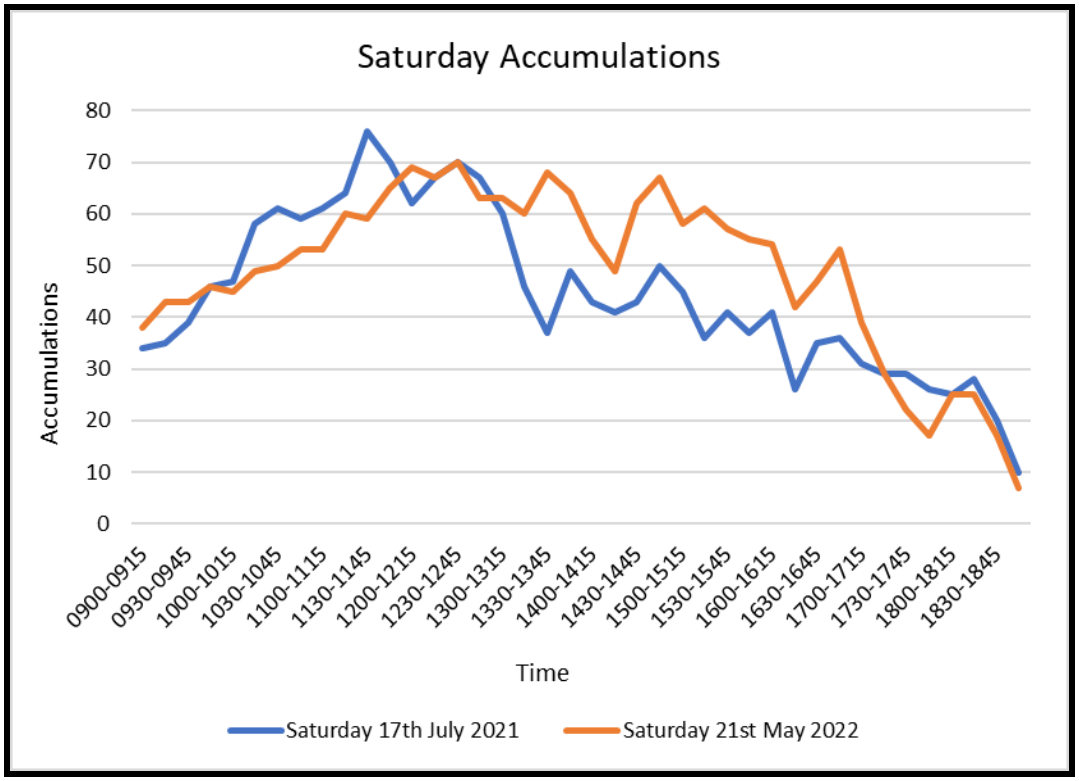



4.7 Figure 2 above shows for the July 2021 survey the peak weekday accumulation was 78 vehicles between 12:30 and 12:45 hours.

4.8 For the May 2022 survey the peak accumulation was 58 vehicles between 12:45 and 13:00 hours, which is 20 vehicles lower than in 2021.

4.9 Both are well within the existing car park capacity.

**Figure 3 – Existing Saturday Homebase Parking Accumulations**




4.10 Figure 3 above shows for the July 2021 survey the peak weekday accumulation was 76 vehicles between 11:30 and 11:45 hours.

4.11 For the May 2022 survey the peak accumulation was 70 vehicles between 12:30 and 12:45 hours, which is 6 vehicles lower than in 2021.

4.12 Both are again well within the existing car park capacity.

4.13 Pedestrian arrival and departure surveys at the Homebase site indicate a level of activity which is commensurate with the Homebase car park being used by Homebase customers undertaking linked trips with other town centre uses and / or by people who are using the Homebase car park to visit other parts of the town centre independently of Homebase.

4.14 The use of the car park by people who are visiting other parts of the town centre independently of Homebase results in an inflated level of parking accumulation, and the car park could be managed to exclude these users, and thus manage down the accumulation level.

4.15 Under the proposals the Homebase store will be reduced in size, likely leading to a reduced dwell time and reduced customer demand. This will reduce the occupancy of the car park.

4.16 If an adjustment factor were to be applied to allow for the reduced store size, the reduction would be applicable to the element of car park usage which is associated with Homebase, and not to the users who are using the car park for a town centre visit independently of Homebase.

4.17 Therefore, the application of an adjustment factor to allow for the reduced number of Homebase users and to a managed reduction of non-Homebase users would require a sub-division of the observed parking demand. For simplicity, these potential reductions have been ignored for the purpose of a car park assessment, but it is appropriate to be mindful of the overestimated Homebase demand and potential displacement of non-Homebase users when reviewing the results.

4.18 On this basis, the peak surveyed weekday accumulation of 78 vehicles and peak Saturday accumulation of 76 vehicles have been used. These accumulations are less than the Broxbourne Local Plan parking guideline amount of 151 spaces.

4.19 The spare capacity does however not allow for the full Aldi parking guideline of 98 spaces (78 + 98 = 176) as detailed at Section 3.0 above. A car park assessment of the proposed Aldi is therefore presented below.

## 5.0 Proposed Aldi Car Park Accumulation

5.1 Figure 3.2 of the Connect Transport Assessment dated April 2021 included a TRICS car park accumulation for the proposed Homebase and Aldi stores.

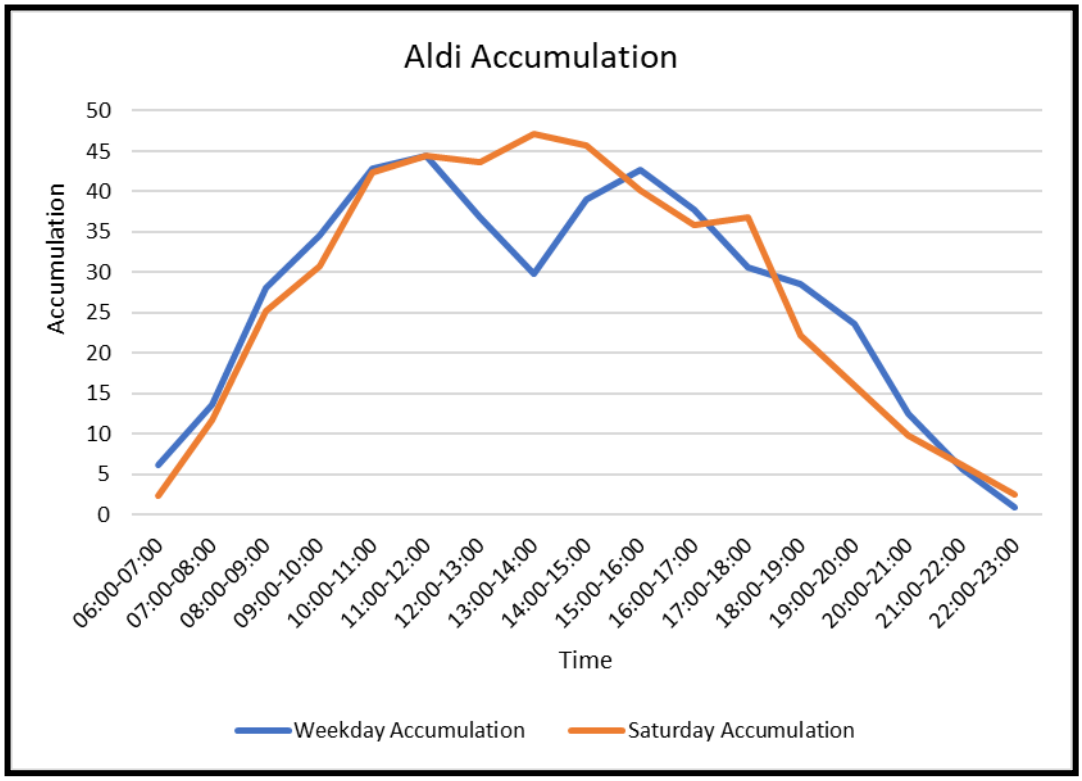
5.2 The same TRICS assessment (for the Aldi element) has been used for the assessment of the proposed Aldi car park accumulation. The TRICS version has been updated to the most recent version (7.9.1) and the time period updated to include surveys from 2016 onwards, to reflect the recent increase in popularity of discount stores.

5.3 The following parameters have been used as presented at Section 4.3 of the Connect April 2021 TA:

- Category '01 – RETAIL' and Subcategory 'C – DISCOUNT FOOD STORES'.
- Surveys in England, excluding Greater London.
- Surveys from 2016 onwards.
- Surveys in 'Edge of Town Centre' and 'Suburban Area' locations.

5.4 The resultant Aldi TRICS car park accumulation in shown at Figure 4 below.

**Figure 4 – Proposed Aldi Car Park Accumulations**




5.5 Figure 4 above shows that, based on the proposed Aldi floor area, the peak car park accumulations on weekdays and Saturdays are 44 and 47 vehicles (between 11:00 - 12:00 and 13:00-14:00) respectively.

5.6 When the TRICS weekday Aldi peak of 44 vehicles is combined with the Homebase weekday surveyed peak of 78 vehicles, the proposed car park is shown to operate within its proposed 155 space capacity (44 + 78 = 122).

5.7 Similarly, when the TRICS Saturday Aldi peak of 47 vehicles is combined with the Homebase Saturday surveyed peak of 76 vehicles, the proposed car park is shown to operate within its proposed 155 space capacity (47 + 76 = 123).

5.8 As a further exercise, the parking accumulation across the day for each use has been summed to calculate the combined parking accumulation. As the Aldi parking accumulation data is by hour, and the most recently surveyed (i.e. 2022) Homebase data is by 15-minute period, the Aldi result for the hour has been duplicated across all four 15-minute periods within that hour.

5.9 Figure 5 and Figure 6 show the combined parking accumulation results for the Thursday and Saturday respectively.

5.10 The peaks of the combined parking accumulations are 101 and 115 vehicles for the Thursday and Saturday data respectively. This is lower than the more simplistic method of summing the individual peaks, as the data shows that the peak for each use occurs at a different time.

**Figure 5 – Combined Parking Accumulation, Thursday**

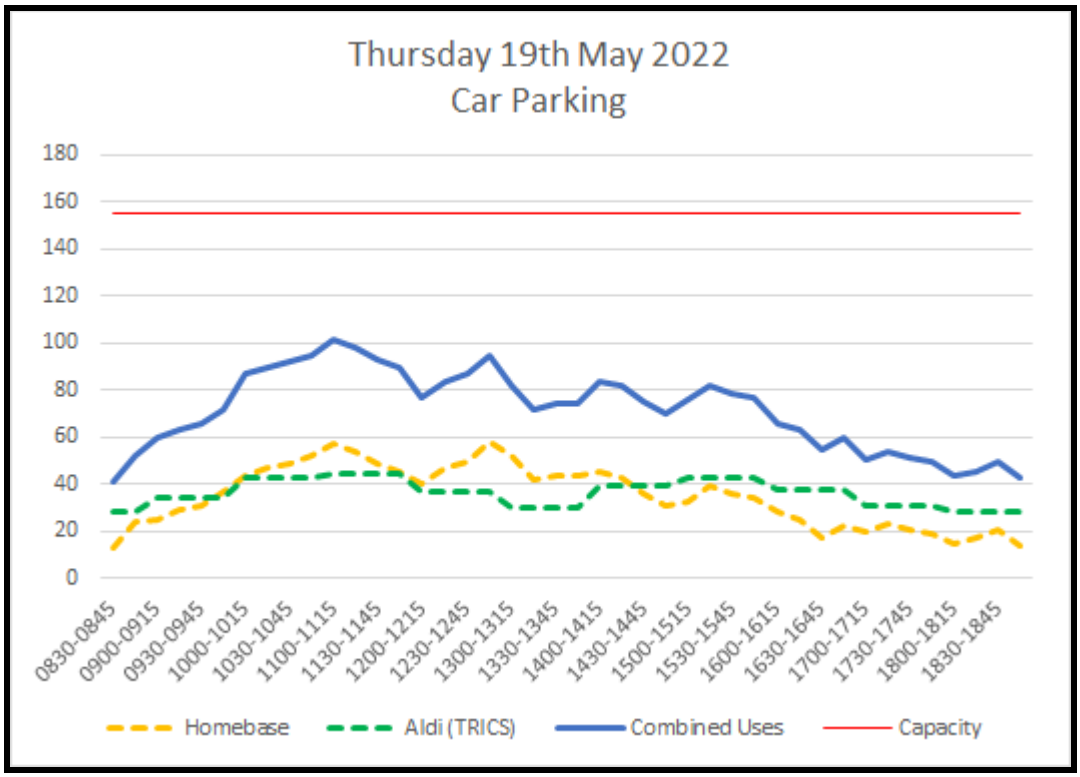
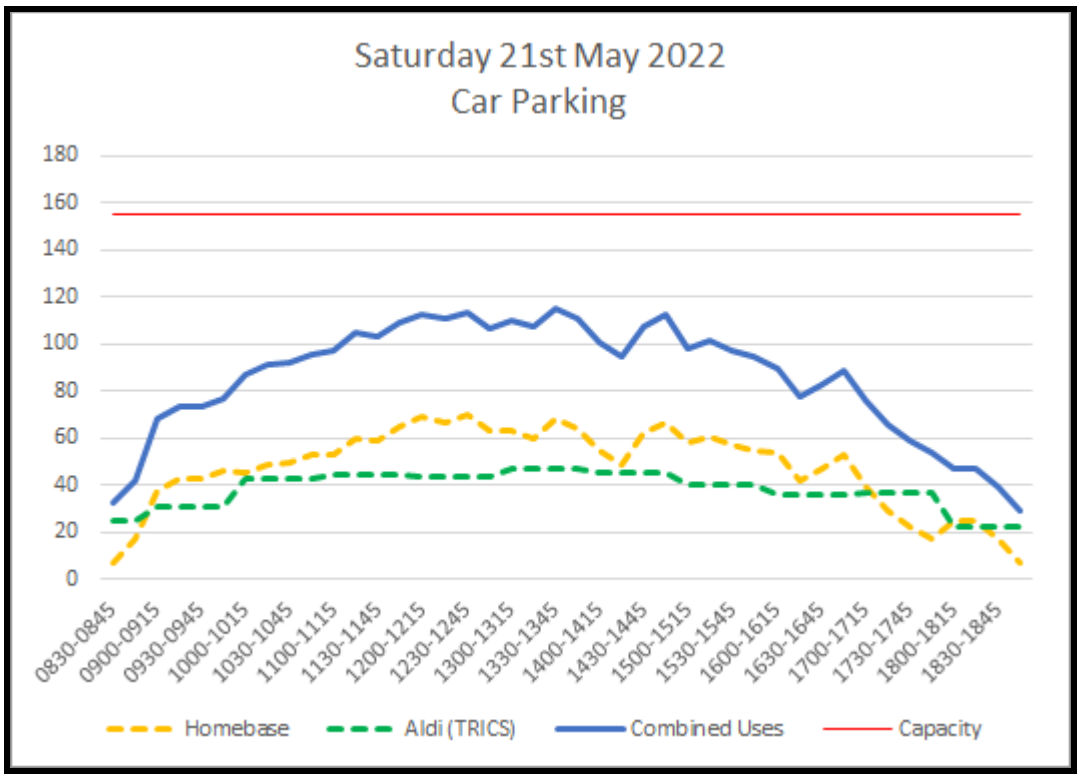



**Figure 6 – Combined Parking Accumulation, Saturday**



**Appendix CCL/03** APP-TN01 Aldi and Homebase Servicing Arrangements

**ALDI STORES LIMITED**

**PROPOSED DISCOUNT FOODSTORE AND NON-FOOD RETAIL UNIT**

**HOMEBASE, STURLAS WAY, WALTHAM CROSS, EN8 7BF**

**APP-TN01 – ALDI AND HOMEBASE SERVICING ARRANGEMENTS**

**1ST JUNE 2022**

## 1.0 Introduction

1.1 Connect Consultants Limited is a firm of transport planning and highway design consultants who have been instructed by Aldi Stores Limited in relation to a proposed discount foodstore and non-food retail unit which will occupy the existing Homebase DIY superstore on Sturlas Way, Waltham Cross, Hertfordshire, EN8 7BF.

1.2 This Technical Note (TN) sets out the expected servicing arrangement of the proposed Aldi store and the non-food unit, which will be occupied by Homebase, in terms of the size of the delivery vehicles, delivery times, and the frequency of deliveries per day.

## 2.0 Aldi Servicing

2.1 An Aldi store typically receives an average of three to four HGV deliveries per day. Three articulated HGV deliveries per day come from the Regional Distribution Centre (RDC) and there is one delivery per day of milk by a local supplier, usually using a medium sized goods vehicle.

2.2 Daily deliveries of milk, bread and morning fresh produce are received prior to, or as early as possible after, the store opening in the morning, and are delivered by one Aldi HGV and one milk delivery vehicle.

2.3 In addition to goods deliveries, each store has 1-2 collections of General Waste and Animal By-products per week.

2.4 Aldi aim for their deliveries to be undertaken during hours which minimise the potential for conflict between delivery vehicles and other traffic. The Aldi store will be open from 08:00 to 22:00 Monday to Saturday and between 10:00 to 16:00 on Sundays.

2.5 Deliveries will be aimed to occur at times when the store is not at its busiest. Aldi will aim to avoid undertaking deliveries during the network peak hours. This is to avoid congestion for delivery traffic and also to avoid deliveries arriving while the store is busy, and will have the added benefit of reducing congestion on the wider highway network.

2.6 The delivery vehicles will require approximately 30-60 minutes unload and so deliveries will be scheduled to not occur at the same time, utilising a servicing booking system where necessary.

2.7 Aldi stores have a cardboard bailer within the warehouse, and all cardboard packaging is bailed. Together with any plastics as required for recycling, this is then back loaded to the RDC with each Aldi HGV.

2.8 Aldi operate a closely managed servicing arrangement for each of its stores. The Aldi articulated service vehicle is able to carry frozen, chilled and mixed goods assembled at Aldi's RDC, enabling the potential to reduce journeys and vehicle kilometres compared to separate deliveries, thus providing an efficient servicing regime.

2.9 Aldi operates its own fleet of dedicated vehicles and drivers. Aldi HGVs are driven and operated by the dedicated Aldi driver who will be familiar with the store sites and the manoeuvres required to access the loading bay.

2.10 The Aldi store warehouse has been designed as a result of years of experience to hold enough stock to prevent unnecessary deliveries, but is also of efficient size to ensure the freshest possible products and to prevent over-stocking. The efficient stock holding in their stores further reduces the need for multiple daily deliveries.

2.11 Stores are constructed with a delivery ramp, sheltered canopy and dock leveller system which means products can be unloaded without any external activity, such as forklift trucks, scissor lifts or cages, and in less than half the time were these facilities not provided. The usual time for unloading an Aldi HGV is 30 - 60 minutes.

2.12 During unloading, the back of the vehicle body is at the shop floor level, enabling the store operatives to wheel pre-packed pallets directly from the HGV to the dedicated storage area within the store. The delivery system is extremely efficient.

2.13 All Aldi vehicles are equipped with Reversing Cameras and Audible Warning Systems enabling the driver and customers to be aware of the reversing vehicle. Where required, a trained Pedestrian Marshal is utilised by the store to guide pedestrians in a safe manner whilst a service vehicle is manoeuvring.

2.14 HGV access to the service area has been designed to accommodate a large service vehicle (FTA 16.5m articulated goods vehicle) so that the service vehicle can drive forwards into the site from the site access, reverse into the service ramp and then drive out forwards to exit the site via the site access.

## 3.0 Homebase Servicing

3.1 Details of the existing servicing arrangements at their Waltham Cross store have been obtained directly from the Homebase team.

3.2 The breakdown of number of deliveries by day is shown at **Table 1** below.

**Table 1 – Homebase Delivery Schedule**

| Day | AM | PM |
|---|---|---|
| Monday | 4 | 0 |
| Tuesday | 5 | 2 |
| Wednesday | 4 | 1 |
| Thursday | 3 | 1 |
| Friday | 5 | 2 |
| Saturday | 0 | 0 |
| Sunday | 0 | 0 |

3.3 The breakdown of vehicles types, approximate numbers per week, and dwell times has been reported as follows:

- Couriers (e.g. DPD, UPS, TNT), approximately 10no deliveries per week, each stays for approximately 5 minutes.
- Box lorries, approximately 10no deliveries per week, each stays for approximately 10 minutes.
- Articulated lorries, approximately 7no deliveries per week, each can stay for up to 30 minutes if it is a full load.

  *"It's the rarity to get two lorries at once (...if we do one waits in the driveway / service road which is two lanes so they are able to pass / this doesn't impact the road or car park in anyway)" – Homebase Store Manager*

3.4 All deliveries coordinated by the Homebase distribution teams when setting out delivery routes and times.

## 4.0 Vehicle Routing

4.1 The site is accessed off Sturlas Way with HGV traffic arriving and departing to / from the site via the A121 Winston Churchill Way / Monarchs Way / Sturlas Way roundabout to the north of the site. Then most likely route to / from the M25 via Junction 25 which is located to the southwest of the site.

**Appendix CCL/04** APP-TN02 Collisions

**ALDI STORES LIMITED**

**PROPOSED DISCOUNT FOODSTORE AND NON-FOOD RETAIL UNIT**

**HOMEBASE, STURLAS WAY, WALTHAM CROSS, EN8 7BF**

**APP-TN02 – RESPONSE TO HIGHWAYS COMMENTS (COLLISION ANALYSIS)**

**13TH JUNE 2022**

## 1.0 Introduction

1.1.1 Connect Consultants Limited is a firm of transport planning and highway design consultants that have been instructed by Aldi Stores Limited in relation to their proposed discount foodstore and non-food retail unit which will occupy the existing Homebase DIY superstore on Sturlas Way in the town of Waltham Cross, Hertfordshire.

1.1.2 This Technical Note (APP-TN02) has been produced to respond to the highway consultation response and the reasons for refusal for the proposed application.

1.1.3 Specifically, the application was made under Broxbourne Borough Council (BCC) application reference 07/21/0519/F. The highway consultation response was produced by Hertfordshire County Council (HCC), the Local Highway Authority, on the 14th June 2021, which provided comments on the Transport Assessment (the TA) produced by Connect, dated April 2021, in support of the application. The application was refused on the 9th August 2021.

1.1.4 This note, APP-TN02, provides the collision analysis of the local area, as requested in the highway consultation response, which read as follows:

> *"VI. No full accident analysis has been undertaken."*

1.1.5 The TA includes a review of the most recent five-years of collision records using data obtained from the online resource crashmap.com.

1.1.6 Crashmap use official data published by the Department for Transport which is based on records of personal injury accidents on public roads that are reported to the police. Its data is updated annually each summer for the preceding year.

1.1.7 The review in the TA shows the location and severity of the collisions.

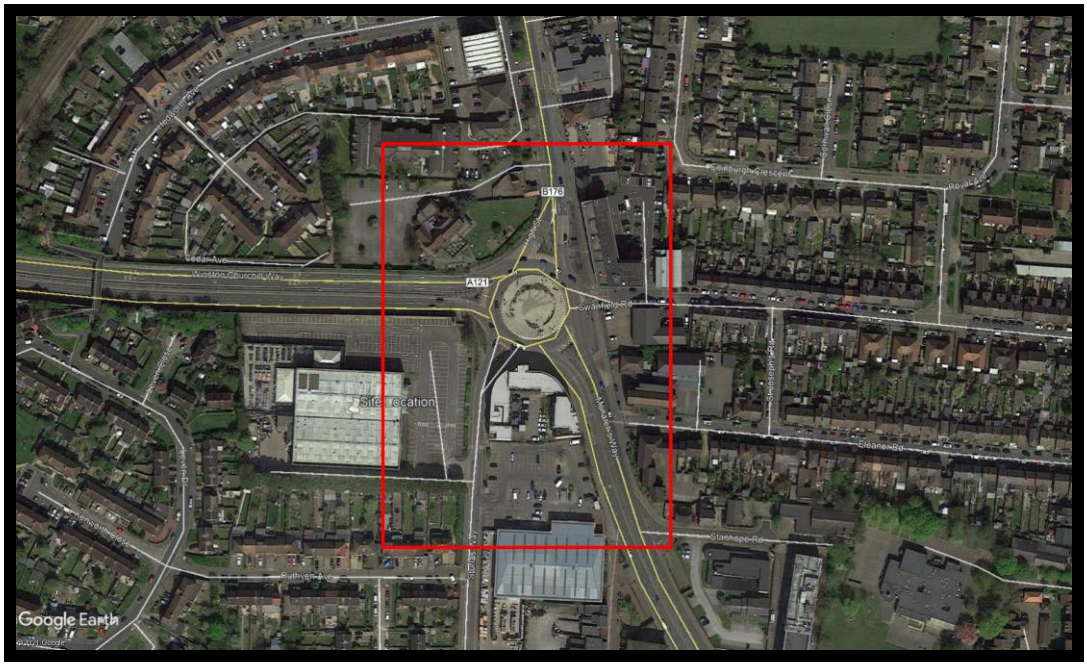
1.1.8 While the Crashmap data shows that a number of slight collisions have occurred in the most recent available five years on the A121 Monarch's Way approach to the Sturlas Way roundabout, the traffic analysis in Section 4 of the TA shows a maximum of only four additional vehicle movements on this particular approach during the assessment peak hours.

1.1.9 On the basis that four additional vehicle movements are not likely to have a detrimental effect on road safety, Connect considered that a more-detailed review of the collision data was not necessary.

## 2.0 Collision Analysis

2.1 As requested by HCC, the most recent collision statistics available have been obtained from HCC for the period from 1st October 2016 to 31st September 2021 for the agreed study area shown at Figure 1 below.

**Figure 1 – Collision Study Area**




*Source: Google Earth.*

2.2 Personal-injury collisions are classified by the police as one of either 'Slight', 'Serious' or 'Fatal'. Where more than one personal injury occurs, the classification is determined by the most serious. A description of each classification is provided in the DfT publication Instructions for the Completion of Road Accident Reports dated October 2004, summarised below:

Slight:

- Sprains, not necessarily requiring medical treatment
- Neck whiplash injury
- Bruises
- Slight cuts
- Slight shock requiring roadside attention.
- (Persons who are merely shaken and who have no other injury should not be included unless they receive or appear to need medical treatment).

Serious:

- Fracture
- Internal injury

- Severe cuts
- Crushing
- Burns (excluding friction burns)
- Concussion
- Severe general shock requiring hospital treatment
- Detention in hospital as an in-patient, either immediately or later
- Injuries to casualties who die 30 or more days after the accident from injuries sustained in that accident.

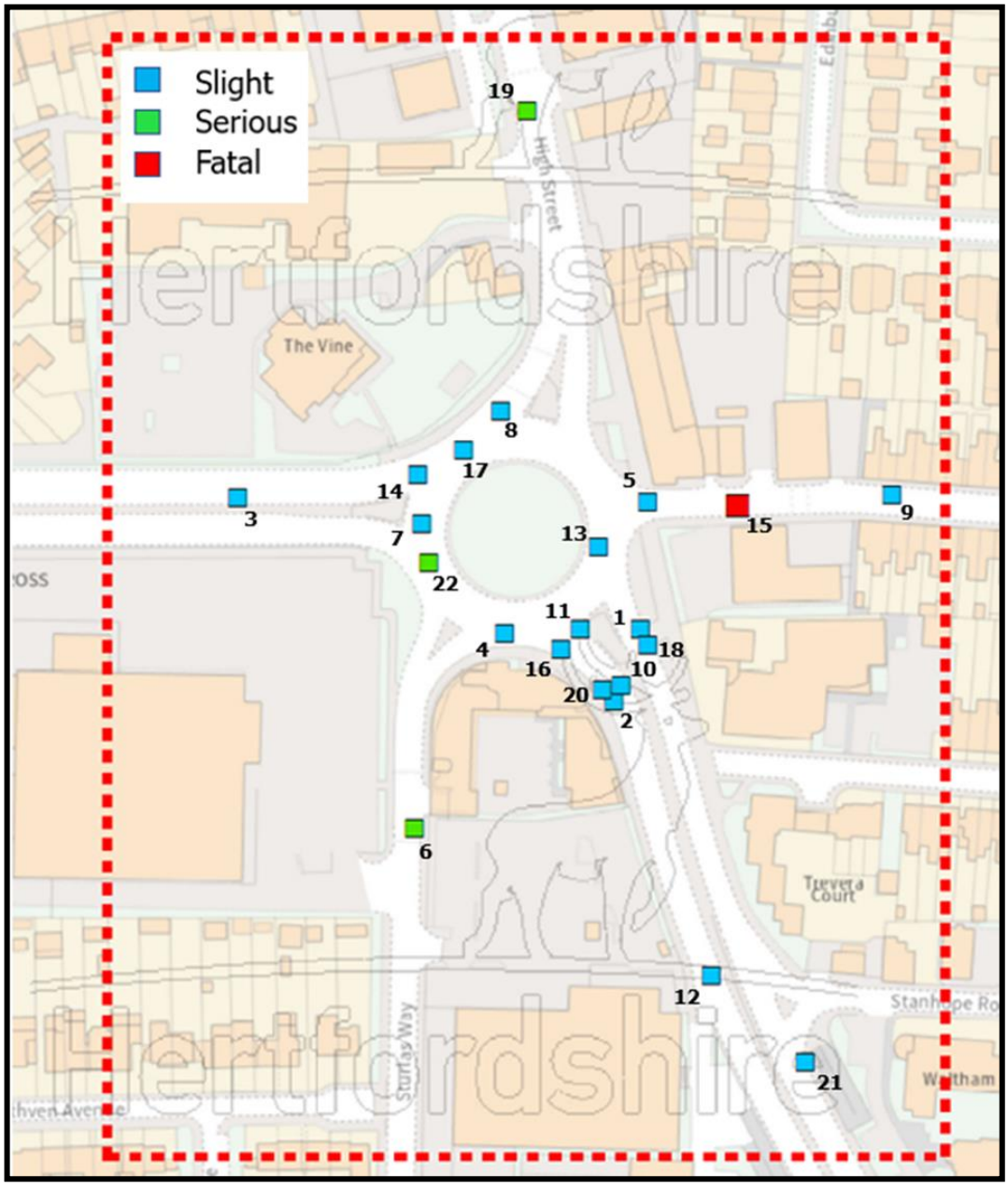
Fatal:

- 'Fatal' injury includes only those cases where death occurs in less than 30 days as a result of the accident. 'Fatal' does not include death from natural causes or suicide.

2.3 The locations and severity of the recorded collisions are shown at **Figure 2** below.

2.4 **Table 1** sets out the details of each of the collisions, grouped by broad location within the study area.

**Figure 2 – Collisions by Location**




*Source: HCC.*

**Table 1 – Collision Analysis**

| Number | Collision Type | Date | Contributory Factors | Day / Night | Road Conditions | Severity |
|---|---|---|---|---|---|---|
| A121 Monarch's Way northbound approaching roundabout | | | | | | |
| 12 | - | 13/08/2018 | Failure to Look / Poor Turn | Day | Fine / Dry | Slight |
| A121 Monarch's Way approach stop-line | | | | | | |
| 2 | Shunt | 16/05/2017 | Too Close / | Day | Fine / Dry | Slight |

| Number | Collision Type | Date | Contributory Factors | Day / Night | Road Conditions | Severity |
|---|---|---|---|---|---|---|
| | | | Failure to Look / Speeding / New Driver | | | |
| 10 | Shunt | 01/05/2018 | Failure to Look / Speeding | Day | Fine / Dry | Slight |
| 20 | Shunt | 29/02/2020 | Slippery Weather / Too Close | Day | Rain / Wet | Slight |
| A121 Monarch's Way entry to roundabout | | | | | | |
| 11 | - | 09/08/2018 | Distracted Driving / Loss of Control / Reckless Driving | Day | Fine / Dry | Slight |
| 16 | Shunt | 05/06/2019 | Too Close / Speeding / Failure to Look / Reckless Driving | Day | Fine / Dry | Slight |
| A121 Monarch's Way exit pedestrian-crossing stop-line | | | | | | |
| 1 | Pedestrian Collision | 03/11/2016 | N/A | Day | Fine / Dry | Slight |
| 18 | Pedestrian Collision | 23/10/2019 | Failure to Look / Reckless Driving / Distracted Driving | Day | Fine / Wet | Slight |
| A121 Monarch's Way southbound | | | | | | |
| 21 | Shunt | 23/07/2020 | Reckless Driving / Failure to Look | Day | Fine / Dry | Slight |
| Sturlas Way south of roundabout | | | | | | |
| 6 | Pedestrian Collision | 13/12/2017 | Failure to Look | Dark (Unknown) | Rain / Wet | Serious |
| Sturlas Way exit | | | | | | |
| 4 | Lane Change | 09/09/2017 | Slippery Weather / Poor Turn | Day | Rain / Wet | Slight |
| Circulatory carriageway adjacent to A121 Winston Churchill Way | | | | | | |
| 7 | Alcohol | 29/09/2021 | alcohol impairment / | Day | Fine / Dry | Slight |

| Number | Collision Type | Date | Contributory Factors | Day / Night | Road Conditions | Severity |
|---|---|---|---|---|---|---|
| | | | hit and run | | | |
| 22 | Medical | 08/04/2021 | Ill driver / poor tyres / misjudge speed | Day | Fine / Dry | Serious |
| A121 Winston Churchill Way approach | | | | | | |
| 3 | Shunt | 19/07/2021 | Misjudge speed | Day | Fine / Dry | Slight |
| 14 | Lane Change | 20/03/2021 | N/A | Day | Fine / Dry | Slight |
| 17 | Lane Change | 03/06/2021 | Reckless driving / misjudge speed / failure to look | Day | Fine / Dry | Slight |
| High Street exit | | | | | | |
| 8 | Lane Change | 18/03/2018 | Poor Turn | Dark (Lit) | Snow / Wet | Slight |
| High Street northbound north of roundabout | | | | | | |
| 19 | Medical | 22/12/2019 | Ill Driver | Day | Fine / Wet | Serious |
| Swanfield Road exit | | | | | | |
| 5 | Pedal Cycle Collision | 02/10/2017 | Failure to Look / Speeding | Day | Fine / Dry | Slight |
| Swanfield Road eastbound | | | | | | |
| 9 | - | 10/04/2018 | N/A | Day | Fine / Dry | Slight |
| 15 | Pedestrian Collision | 21/12/2018 | N/A | Dark (Lit) | Rain / Wet | Fatal |
| Circulatory carriageway adjacent to Swanfield Road | | | | | | |
| 13 | Motorcycle Collision | 19/08/2018 | Failure to Look | Day | Fine / Dry | Slight |

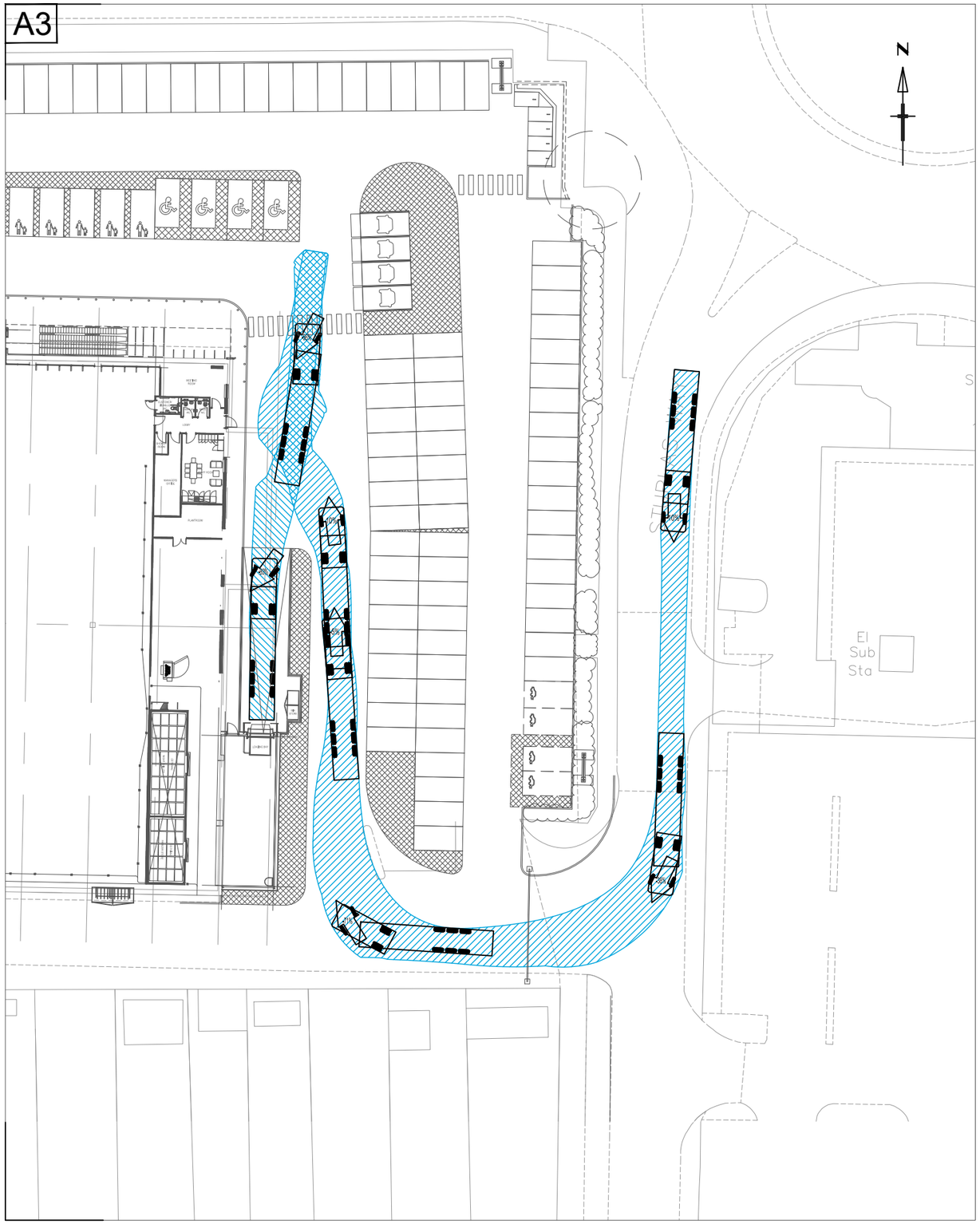
2.5 There are no locations within the study area (in terms of individual conflict points, features etc.) where more than five collisions have occurred during the five-year study period.

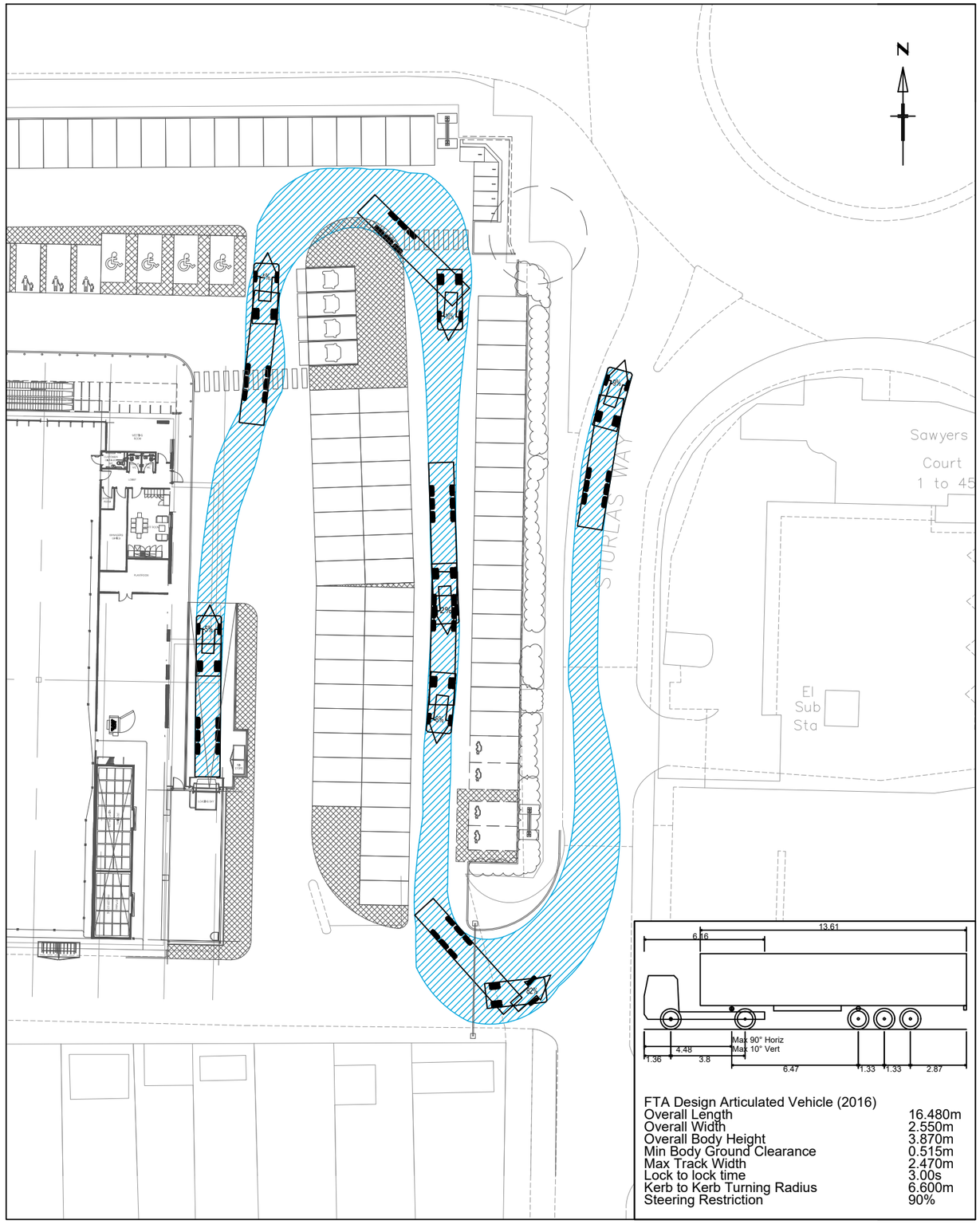
2.6 Considering the infrequency of collisions of similar types, and the range of contributory factors, no underlying pattern of collisions, which is attributable to a road layout deficiency, has been identified.

2.6.1 In light of the detailed review of the recent collision records, the conclusions of the TA are unchanged; the proposed development traffic effect is not likely to have a detrimental effect on road safety.

**Appendix CCL/05** Drawing 19094-SK220621.1

A3







| FTA Design Articulated Vehicle (2016) | |
|---|---|
| Overall Length | 16.480m |
| Overall Width | 2.550m |
| Overall Body Height | 3.870m |
| Min Body Ground Clearance | 0.515m |
| Max Track Width | 2.470m |
| Lock to lock time | 3.00s |
| Kerb to Kerb Turning Radius | 6.600m |
| Steering Restriction | 90% |



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client
ALDI STORES LTD

project
PROPOSED DEVELOPMENT
WALTHAM CROSS

title
SWEPT PATH ANALYSIS
FTA DESIGN ARTICULATED VEHICLE
BASED ON THP DRAWING 2924-COR-111F

| date | drawn by | checked by |
|---|---|---|
| JUNE 2022 | T.A.S | N.P.B |

| scale | status |
|---|---|
| 1:500 | PLANNING |

| drawing number | rev. |
|---|---|
| 19094-SK220621.1 | - |