



Hamble Airfield

Transport Assessment Addendum

Client: CEMEX

i-Transport Ref: BH/IN/IT13040-007A

Date: 24 November 2022

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Quality Management

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SECTION 1 Introduction

1.1.1 i-Transport has been appointed by CEMEX to provide highway and transport advice in relation to the proposed extraction of minerals from land at Hamble Airfield. i-Transport prepared a Transport Assessment and Environmental Statement chapter on transport for the site.

1.1.2 A planning application was submitted to Hampshire County Council (HCC) under reference CS/22/92277 for the:

“Proposed extraction of sand and gravel, with restoration to grazing land and recreation using imported inert restoration materials, the erection of associated plant and infrastructure and the creation of a new footpath and access onto Hamble Lane at Hamble Airfield”

1.1.3 HCC in its role as Local Highway Authority provided its initial response by letter dated 23rd March 2022 with a further response dated 16 August 2022, a copy of the consultation responses are provided at **Appendix A** and a summary of the main points raised are provided below:

- **Site Access** - HCC requested that an optioneering report exercise was undertaken to demonstrate that the location of the proposed access, form of junction arrangement and impact on ecology and arboriculture had been considered in detail. Additional information in relation to speed data, visibility splay calculations and pedestrian visibility splays were also requested. The County Council also requested a Walking, Cycling and Horse-riding Assessment and Review (WHCAR) report to be provided along with an assessment of the scheme against LTN1/20.
- **Site Layout** – It was noted that the tracking for the internal layout was undertaken using a 14m articulated vehicle, while the access is tracked with a 16.5m long articulated vehicle, as such it is requested that justification and / or additional sept path analysis to be provided.
- **Highway Safety** – It was requested that updated Personal Injury Accident Data (PIA) data was obtained and reviewed to demonstrate that there are no existing highway safety deficiencies on the local highway network which will be exacerbated by the proposed development.
- **Traffic Impact** – While the proposed trip generation of the site is not contested, HCC requested that additional evidence was provided to support the proposed trip generation of the site to ensure that this reflects the operational requirements of the proposal. It has also been requested that the traffic impact of the proposed

development be validated against updated baseline data as well as operational assessments to be provided for the following junctions:

- Hamble Lane / Satchell Lane Simple Priority Junction;
- Hamble Lane / Portsmouth Road Ghost Island Junction;
- Hamble Lane / Lionheart (Jurd) Way Roundabout;
- Hamble Lane / Tesco Roundabout;
- Windhover Roundabout; and
- M27 Junction 8 Roundabout.

1.1.4 Hamble Parish Council also provided a response in relation to the development proposals and raised a number of objections, one of which related to traffic impact and the need for modelling to be undertaken. As outlined above, junction capacity assessments have now been undertaken and the results are provided in Section 5 of this report.

1.1.5 Liaison with HCC has been undertaken during the determination period to discuss and agree the way forward with regards to the proposed site access, site layout and traffic impact assessment. Correspondence relating to these discussions is included at **Appendix B**.

1.1.6 This TA Addendum addresses each of points raised in turn in the following sections of the report and is structured as follows:

- **Section 2** addresses matters raised in relation to the proposed site access;
- **Section 3** addresses matters raised in relation to the proposed internal layout;
- **Section 4** provides a summary of the updated Personal Injury Accident Data;
- **Section 5** provides further details in relation to the vehicle traffic generation of the site and provides the results of the additional junction capacity assessments requested; and
- **Section 6** – includes a summary and conclusions.

SECTION 2 Site Access Arrangements

2.1.1 Hampshire County Council's initial highway consultation response provided by letter dated 23rd March 2022 considers the proposed site access arrangements. A copy of the consultation response is provided at **Appendix A**. This section of the Transport Assessment Addendum provides a response to each of the matters raised.

2.2 Site Access Location and Form

2.2.1 The consultation response notes that pre-application engagement and a pre-application design review was undertaken with HCC, however, the County Council asked the applicant to demonstrate that other options for access to the site had been considered thoroughly – both in terms of junction location and junction form. The purpose of this was to demonstrate that the proposed impact on arboriculture and ecology could not be avoided.

2.2.2 In order to address this, i-Transport prepared an Access Options Report (report ref: ITB13040-005A) which identified that other access options were considered for the site from the outset and were deemed to have a greater impact on the trees along the site frontage, which is confirmed by comments received from the arboricultural and landscape consultants. A copy of the Access Options Report is provided at **Appendix C**.

2.2.3 The Access Options report was submitted to HCC for review, who confirmed that:

“the conclusions of the Optioneering Report are acceptable”

2.2.4 A copy of the correspondence with HCC is provided at **Appendix B**.

2.3 Additional Information

2.3.1 The initial consultation response also requested that additional information is submitted:

- Speed data - confirming the date and location of the surveys and ensuring the raw data is provided.
- Visibility to the south (left) can be amended to the centreline as there is a physical feature (refuge) which prevents overtaking;
- Visibility splays for pedestrian and cyclists at all crossing points;
- Demonstrate that the LTN 1/20 design standards have been considered in the preparation of the access design;

- A Walking, Cycling and Horse-riding Assessment and Review (WCHAR) should be prepared and submitted;
- With regard to vehicle tracking, HCC noted that lock-to-lock times of 6s would be more appropriate than the 3s currently proposed for HGVs and tracking speeds (of at least 10mph) should be provided for all drawings; and
- Lastly it was noted that the traffic count data included within the Transport Assessment includes ATC data from 2016/2017 plus growth. As such HCC have requested that a sensitivity test is undertaken to compare this approach with more recent data to confirm accuracy.

2.3.2 The additional data requests identified above are addressed in turn below:

Speed Data

2.3.3 Following the comments received from HCC regarding the proposed access arrangements, new Automatic Traffic Count (ATC) surveys were commissioned to provide up to date information on traffic volumes and vehicle speeds along Hamble Lane.

2.3.4 The ATC surveys were undertaken by Hampshire County Councils Survey Team on Hamble Lane in April 2022 (during a period when there were no COVID travel restrictions in place and outside of school holiday and/or bank holidays).

2.3.5 A summary of the latest observed two-way vehicle movements on Hamble Lane in the vicinity of the proposed access is summarised in **Table 2.1**, along with the previous traffic data. A copy of the raw traffic data is included at **Appendix D**.

Table 2.1 Peak Traffic Flows – Hamble Lane

Time	Direction	2017 Observed Flows	2021 Factored Flows	2022 Observed Flows
07:00-08:00	North	444	467	397
	South	719	756	684
	Two-Way	1,163	1,222	1,081
08:00-09:00	North	447	470	470
	South	820	862	743
	Two-Way	1,267	1,331	1,213
16:00-17:00	North	706	740	759
	South	491	515	453
	Two-Way	1,197	1,255	1,212
17:00-18:00	North	629	659	607

Time	Direction	2017 Observed Flows	2021 Factored Flows	2022 Observed Flows
	South	516	541	480
	Two-Way	1,145	1,200	1,087

Source: May 2017 and April 2022 ATC Traffic Survey

2.3.6 **Table 2.1** shows that the observed (2022) traffic flows on Hamble Lane are circa 1,200 - 1,331 two-way movements during the morning and evening peak periods. This equates to 20-22 vehicle movements every minute and is lower than the previously recorded flows, as such the assessments provided in the Transport Assessment were robust as they do not take account of long-term behavioural changes such as retail activities being increasingly focused online, increased active travel and increased home working / reduced business travel that have occurred as a result of the COVID-19 pandemic.

2.3.7 The recorded mean and 85th percentile speeds obtained from the ATC surveys on Hamble Lane are summarised in **Table 2.2**. A copy of the raw Traffic Data is included at **Appendix D**.

Table 2.2 Summary of Recorded Speed Data

Location	Speeds	2022 Recorded Vehicle Speeds	
		Northbound (mph)	Southbound (mph)
Hamble Lane	Mean	34.3	34.6
	85th Percentile	39.6	39.4

Source: Traffic Surveys

Visibility Splays

2.3.8 The visibility splays for the proposed access have been updated based on observed vehicle speeds (**Table 2.2**) and HCC's updated TG3 guidance. The data shows that 85th percentile speeds of 39.6mph were recorded for vehicles travelling northbound and 39.4mph for vehicles travelling southbound. The weather was dry during the survey period, therefore, in accordance with guidance set out in CA185, no adjustments have been made to the recorded vehicle speeds (historic weather report included at **Appendix D**).

2.3.9 HCC's visibility tool calculator has been used to determine the required visibility splays, which shows that visibility splays of 2.4m x 80m (based on parameters for speeds <64kph) are required in both directions. These visibility splays are shown on **drawing ITB13040-SK-006F**, while the visibility splay calculations are included at **Appendix E**.

2.3.10 In line with HCCs comments contained in the initial consultation response, the visibility splay to the south (left) has been amended to the centreline due to the presence of a physical feature (pedestrian refuge) which prevents overtaking.

Pedestrian and Cycle Visibility Splays

2.3.11 In line with HCCs request, drawings demonstrating pedestrian and cycle visibility splays have been prepared and are included as drawings **ITB13040-SK-010A** and **SK-011A** respectively.

2.3.12 While it is noted that vehicles are travelling at circa 40mph along Hamble Lane, vehicles which are turning into the proposed access will not be travelling at this speed. Consequently, discussions were held with HCC, during which it was agreed that provision of a y-distance of 25m (commensurate with a 20mph speed) for vehicles turning into the proposed development was still robust as it is very unlikely that vehicles will be turning into the access at this speed. This is appropriate as pedestrians only need to be able to see vehicles turning into the site to determine whether it is safe to cross, rather than all vehicles travelling along Hamble Lane. This approach has been agreed at other sites with HCC recently.

2.3.13 In HCCs email response dated 22 September 2022 (**Appendix B**) this approach to the y-distance is confirmed as acceptable.

LTN1/20 Design Standards

2.3.14 Consideration to the LTN1/20 design standards, as well as other prevailing walking and cycling design standards was given to the design of the access from the outset.

2.3.15 The proposed access design (shown on drawing **ITB13040-SK-006F**) provides a 3.0m wide shared footway / cycleway around the bell mouth of the proposed access and a refuge island with a length of circa 7.5m and width of 4.0m (inside the pedestrian guard railing), sufficient to safely accommodate a number of pedestrians and cyclists at any time.

2.3.16 Along the site frontage, it is proposed to retain the existing shared footway / cycleway width which varies between circa 2.4m – 3.0m. Consideration to widening the shared footway / cycleway was given, however, the location of trees both within the verge between the carriageway and footway / cycleway and presence of trees along the back edge of the footway (along the site boundary) limits the scope to widen the footway as any widening works would require the removal of additional trees.

2.3.17 It is also noted that the proposed development is unlikely to result in any additional pedestrian / cycle demand along the site frontage. Therefore, while the proposal ensures that the pedestrian and cycle facilities around the site access are in line with standards and do not create any new 'pinch points' on the local highway network, the proposed development will not materially increase the demand and thus does not necessitate the widening of the existing facilities.

Walking, cycling and horse-riding assessment and review (WCHAR)

2.3.18 In line with HCCs request, a Walking, cycling and horse-riding assessment and review (WCHAR) has been prepared. A copy of the WCHAR is included at **Appendix F**.

2.3.19 The WCHAR identifies that the walking and cycling facilities in the vicinity of the proposed development site are good and enable local residents as well as future employees of the site a realistic alternative to using the private car. This is confirmed in the recently adopted Local Cycling and Walking Infrastructure Plan (LCWIP), which states that along the Windhover Roundabout to Hamble Route (Route Ref: 338.3):

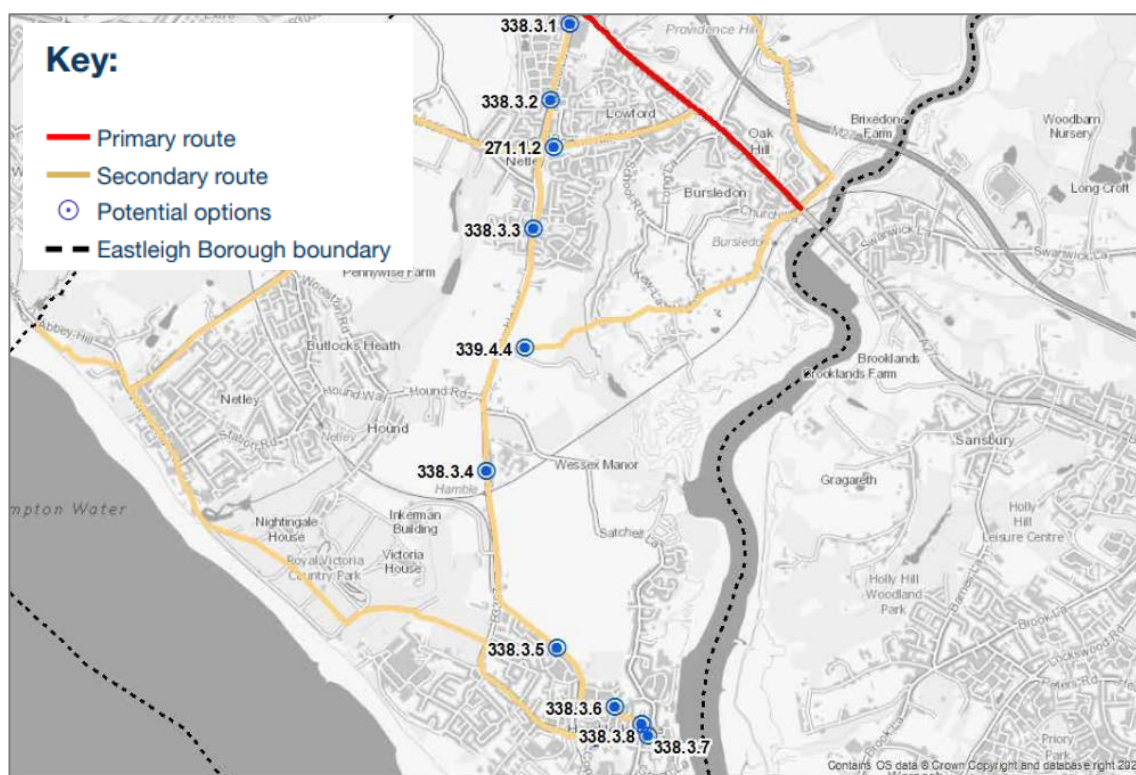
“There is considerable existing infrastructure for cyclists and pedestrians along this section of route 338. Footpaths are available for its entire length, with crossing points at regular intervals. Shared use footpaths are present for much of this section, in addition to some segregated paths”.

2.3.20 Despite this the LCWIP identifies a number of potential improvements, as set out below and indicated on **Image 2.1**:

- 338.3.1 Between Windhover roundabout and the Tesco roundabout there is space to provide a segregated cycle track by reallocating space from the central verge.
- 338.3.2 Between Tesco roundabout and the toucan crossing at Lowford Hill, there is little scope to provide a segregated cycle track without significant land purchase, but it is unlikely that this route could be made suitable for mixed traffic due to high traffic levels and the important nature of this road.
- 338.3.3 For the majority of the route between Lowford Hill and Satchell Lane there is scope to widen the existing shared use path to provide a segregated cycle track; land purchase may be required in some areas.
- 338.3.4 South of Satchell Lane, the existing shared use path is very narrow in some areas and it's very constrained over the humped railway bridge. There is scope to provide a segregated cycle track but a new pedestrian/cycle bridge and some tree removal will be required. An appropriate crossing and link to the railway station should be considered.

- 338.3.5 It is feasible to widen the Hamble trail but this will require significant tree loss. Consider improving the surface quality by providing a bound surface.
- 338.3.6 Spitfire Way is a residential road with low traffic flows and could be made suitable for mixed traffic with a 20mph speed limit.
- 338.3.7 Woodpecker Walk is only two metres wide and should be widened to provide a segregated cycle track.
- 338.3.8 Hamble House Gardens and Meadow Lane are residential roads with low traffic flows so is appropriate for mixed traffic, which could be further reinforced with a 20mph limit

Image 2.1: Extract of Eastleigh LCWIP Windhover Roundabout to Hamble Lane Improvement Plan



2.3.21 Consequently, CEMEX have confirmed that they would be willing to provide a contribution towards helping to deliver some of the identified walking and cycling improvements, which will help make walking and cycling more attractive and encourage a mode shift away from the reliance on the private car and thus mitigating the development impact (see additional information in **Section 5**).

Vehicle Tracking

- 2.3.22 With regard to vehicle tracking, HCCs consultation response states that a lock-to-lock time of 6s would be more appropriate than the 3s currently proposed for HGVs and tracking speeds (of at least 10mph) should be provided for all drawings.
- 2.3.23 Subsequent correspondence with HCC has been undertaken during which it was noted that the 6s lock-to-lock time used is the standard within the vehicle track dataset for an FTA Design Articulated Vehicle 2016 and has not been amended / reduced. Consequently, it is not necessary / appropriate to amend the vehicle lock-to-lock times.
- 2.3.24 In HCCs email response dated 22 September 2022 (**Appendix B**) this approach has since been confirmed as acceptable.
- 2.3.25 Swept path analysis of the proposed access arrangements has been undertaken at a speed of 10mph. The drawings have been updated to demonstrate this and are included as:
- **ITB13040-SK-002D** – Swept Path Analysis - Articulated Vehicle;
 - **ITB13040-SK-004C** – Swept Path Analysis - Fire Tender; and
 - **ITB13040-SK-005C** – Swept Path Analysis – Panel Van and Car.

Traffic Data Validation

- 2.3.26 HCC noted that the traffic count data included within the Transport Assessment includes ATC data from 2016/2017 plus growth. As such, HCC requested that a sensitivity test is undertaken to compare this approach with more recent data to confirm accuracy of the data used in the Transport Assessment.
- 2.3.27 As previously noted, additional traffic surveys were undertaken on Hamble Lane in April 2022 to validate the traffic surveys undertaken to support the application. A summary of the 2022 and 2017 traffic survey data on Hamble Lane is provided in **Table 2.1** above. The survey data shows a slight decrease in traffic flows on Hamble Lane in 2022 when compared with the previous survey data, thus demonstrating that the traffic impact assessments undertaken to date (based on 2017 observed data and factored using TEMPRO growth rates to a base year of 2021) provide a robust assessment, with flows in 2017 being circa 5-10% higher than currently recorded (based on 5-day averages).

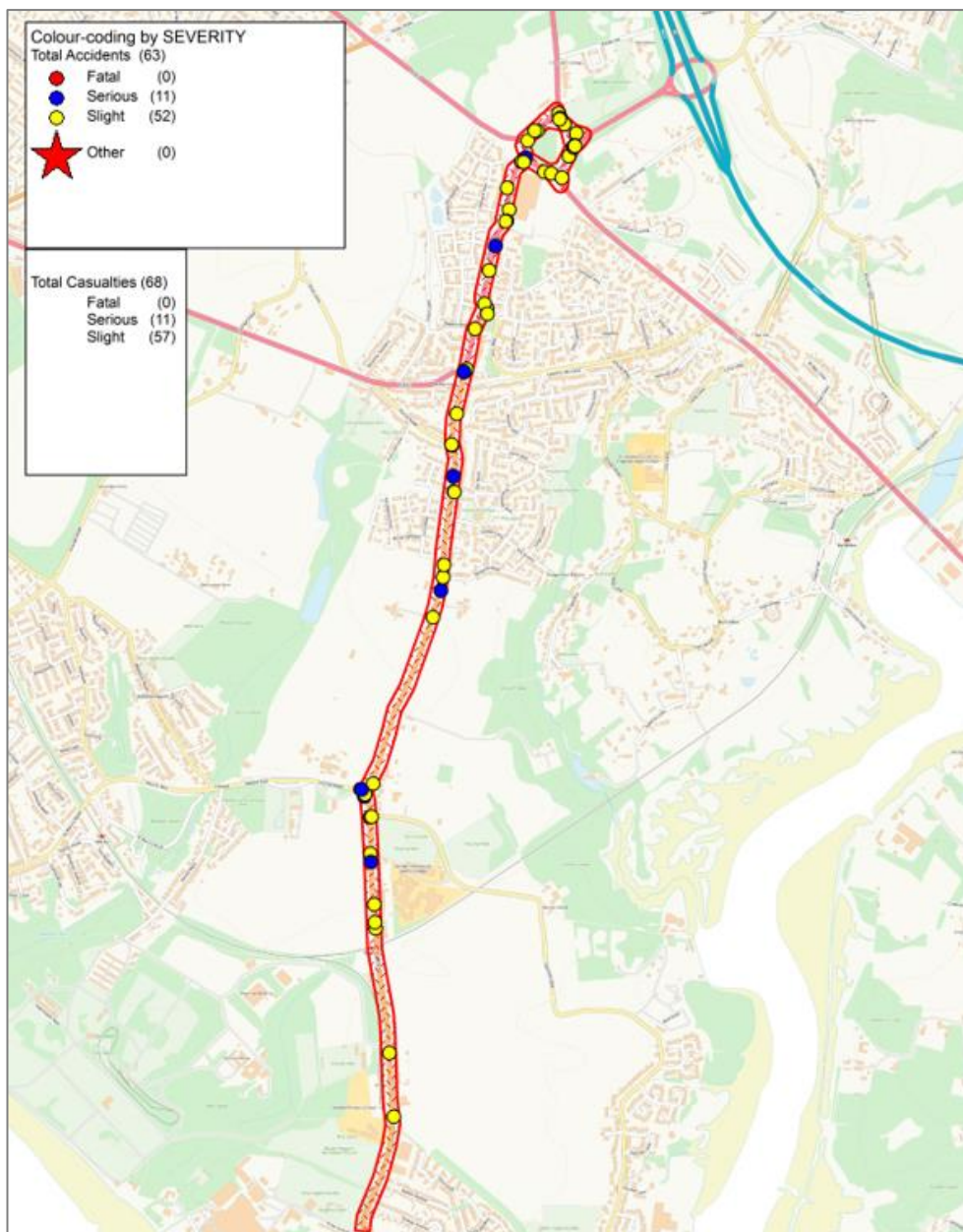
SECTION 3 Internal Layout

- 3.1.1 HCC noted in their initial consultation response that the internal swept path analysis plans have been undertaken with a 14m HGV, whereas the proposed access junction is tracked with the correct 16.5m HGV and have asked for clarification on the inconsistency between the plans.
- 3.1.2 It is noted that 14m HGVs are more commonly anticipated to use the site than 16.5m long vehicles and thus internal tracking used the 14m long vehicles, while the access was designed robustly to ensure that the largest vehicle possible can be accommodated. Nevertheless, the swept path analysis for the internal layout has been updated to demonstrate that a 16.5m articulated vehicle can manoeuvre around the internal site layout without issue as shown on drawing **ITB13040-GA-001B**^[IN1].
- 3.1.3 No further comments were made on the site layout in the additional consultation response provided by HCC in August 2022.

SECTION 4 Highway Safety

- 4.1.1 In HCC’s consultation response dated 16th August 2022 it was noted that the TA provided an analysis of Personal Injury Accident (PIA) data for the five-year period between 1 January 2016 to 31 December 2020, which no longer represents the latest available five-year period.
- 4.1.2 Consequently, updated PIA data has been obtained which covers the period between 1 December 2016 and 30 November 2021 (for the same study area which covers Windhover Roundabout to the north, and to the priority junction with Kings Avenue to the south). **Image 4.1** below provides an extract of the study area and location of recorded PIAs

Image 4.1: Extracted of Updated PIA Data



- 4.1.3 A total of 68 collisions have been recorded in the latest-five-year period within the study area, comprising of 57 slight and 11 serious accidents.
- 4.1.4 A copy of the full PIA data is included as **Appendix G**, whilst a summary of the personal injury accident data analysis in the vicinity of the proposed development is provided below.
- 4.1.5 Two slight incidents were recorded along Hamble Lane within the vicinity of the site access, and seven slight accidents and four severe accidents were recorded to north of the railway line up to the Hamble Lane / Hound Road roundabout (including its approach). These accidents are summarised below.
- A slight incident occurred when a car entered Hamble Lane without giving way to a cyclist. This happened at the Hamble Self Storage access (to the south of the site);
 - A slight incident occurred just outside the junction with the Hampshire Constabulary training facility and involved a single car that misjudged the edge of the carriageway, causing the vehicle to swerve off the road and collide with a tree;
 - A slight incident involved a bus that was travelling along Hamble Lane that collided with a pedestrian as they stepped out into the road. Minor injuries were sustained by the pedestrian;
 - A further incident caused slight injuries to a pedestrian that was walking along the footway but suddenly ran into the road across the path of a car travelling Hamble Lane;
 - An incident occurred at the junction with The Broadway when a car turned left into Hamble Lane but failed to give way to a cyclist travelling along Hamble Lane, causing slight injuries to the cyclist;
 - One serious incident occurred when a motorcyclist clipped the kerb causing the rider to fall off and collide with a traffic sign;
 - Another slight collision occurred on Hamble Lane when a car failed to stop as a pedestrian was crossing at the signalised crossing;
 - Two collisions occurred at the Hamble Lane / Satchell Lane junction, one of which was serious and the other which was recorded as being slight in nature. The serious collision occurred when a car turned right out of Satchell Lane onto Hamble Lane and collided with a motorcycle already travelling along Hamble Lane, while the slight collision occurred when a car pulled out of Satchell Lane onto Hamble Lane and collided with a car;

- Four collisions occurred at the Hamble Lane / Hound Road Roundabout, two of which were serious and two of which were slight in nature. One of the serious collisions occurred when a cyclist tried to mount the pavement but lost control and fell off and the other was a shunt type collision on the Hound Road Arm of the roundabout. One of the slight collisions occurred when a car entered the roundabout (from the Hamble Lane south arm) and failed to give way to a cyclist already on the roundabout, while the final slight collision occurred when a driver had a medical episode and lost control of the vehicle, colliding with another car.

4.1.6 It is noted that there have been no accidents involving large vehicles (3.5T and over).

4.1.7 As such, the latest available accident record does not highlight any existing highway defects or safety issues that would be exacerbated by the proposed development.

SECTION 5 Traffic Impact Assessment

5.1 Trip Generation

5.1.1 HCC noted in their additional consultation response dated 16th August 2022 that the proposed development is expected to generate 90 two-way HGV movements per day (45 in and 45 out) in traffic phases 1 and 3 and 144 two-way HGV movements (72 in and 72 out) in traffic phase 2. While HCC have not contested the anticipated trip generation of the site, further information has been requested to evidence both the proposed HGV trip generation and the hourly profile of those trips to ensure that this reflects the operational requirements of the proposal.

5.1.2 The trip generation of the site has been calculated by CEMEX based on the anticipated annual output and annual infill rates for the sites, as set out below:

- Traffic Phase 1 will consist of exporting aggregate material away from the site. It is anticipated that the annual rate of export will be circa 250,000 tonnes. Therefore, based on the robust assumption that each HGV will carry 20 tonnes of material and the site will be worked for 278 working days per year (5.5 days per week excluding bank holidays), this equates to 45 HGVs arriving and departing the site on average per day (90 two-way movements).
- Traffic Phase 2 will consist of both exporting aggregate material away from the site and infill of inert material to restore the site. During this phase it is anticipated that the annual rate of export will be circa 250,000 tonnes and the infill rate will be circa 150,000 tonnes per annum. Consequently, based on the robust assumption that each HGV will carry 20 tonnes of material and the site will be worked for 278 working days per year (5.5 days per week excluding bank holidays), this equates to 45 HGVs arriving and departing the site (90 two-way movements) associated with the export activity and 27 HGVs arriving and departing the site (54 two-way movements) associated with the export activity, equating to a total of 144 two-way movements in Phase 2.
- Traffic Phase 3 will consist of importing inert material to the site for restoration. It is anticipated that the annual rate of import will be circa 250,000 tonnes. Therefore, based on the previously identified assumptions, this equates to 45 HGVs arriving and departing the site on average per day (90 two-way movements).

5.1.3 As noted in **Section 5** of the Transport Assessment and above, the estimated number of movements set out above are based on 20 tonne capacity aggregate tippers. It is possible that

some of the exports and deliveries would use larger vehicles, with greater capacity. Furthermore, some vehicles will be backloaded (i.e. vehicles arriving with deliveries of infill will also leave the site with exports of aggregates) and as such will reduce the number of movements to and from the site. Therefore, the figures presented represent a worst-case traffic scenario in terms of the number of movements.

- 5.1.4 In order to determine the HGV flow profile across the day, data has been obtained from a number of CEMEX's existing quarry sites with similar activities, extraction rates and operating times, including:
- Hamer Warren Quarry and Recovery Site located near Ringwood;
 - Bramshill Concrete Plant and Quarry located near Yateley; and
 - Denge Quarry near Lydd-on-Sea, Kent.
- 5.1.5 Data from the aggregate dispatch system, which provides information on the number of vehicles arriving and departing each site has been provided by CEMEX between January and May 2017 and analysed to provide a traffic flow profile across a typical weekday. Whilst it is noted that this data is now several years old, it was provided for a period when the quarry sites were operating at full capacity (whereas some sites such as Hamer Warren now only have infill activities occurring at the site and as such vehicle movements are unlikely to be representative of the full activity / vehicle profiles associated with the site).
- 5.1.6 A copy of the dispatch data and flow profile for each quarry site is provided in **Appendix H**, along with the average trip profile for all three sites which has been used to calculate the trip profile for the proposed development at Hamble Airfield.
- 5.1.7 The resulting traffic profile is summarised in **Table 5.1** below. It is noted that the profile in **Table 5.1** shows that a very small proportion of vehicle movements (0.8%) are likely to occur between 06:00-07:00, however, as the proposed development site is not anticipated to open until 07:00, these associated vehicle movements have been moved to the 07:00-08:00 time period instead. The indicative flow profile has been applied to the anticipated number of daily vehicle movements as summarised in **Table 5.2**.

Table 5.1 Typical CEMEX HGV Profile

Time	Trip Profile
06:00 - 07:00	0.8%
07:00 - 08:00	17.4%
08:00 - 09:00	11.7%
09:00 - 10:00	13.3%
10:00 - 11:00	11.0%
11:00 - 12:00	8.7%
12:00 - 13:00	6.8%
13:00 - 14:00	8.6%
14:00 - 15:00	10.4%
15:00 - 16:00	7.9%
16:00 - 17:00	3.3%
17:00 - 18:00	0.1%
18:00 - 19:00	0.0%
Total	100%

Source: CEMEX Quarry data and Consultant's Calculations

Table 5.2: Indicative HGV Movements Throughout the Day

Time	Trip Profile	Number of two-way trips per hour		
		Traffic Phase 1	Traffic Phase 2	Traffic Phase 3
06:00-07:00	0%	0	0	0
07:00-08:00	18%	17	26	17
08:00-09:00	12%	11	17	11
09:00-10:00	13%	12	19	12
10:00-11:00	11%	10	16	10
11:00-12:00	9%	8	12	8
12:00-13:00	7%	6	10	6
13:00-14:00	9%	8	12	8
14:00-15:00	10%	9	15	9
15:00-16:00	8%	7	11	7
16:00-17:00	3%	3	5	3
17:00-18:00	0%	0	0	0
18:00-19:00	0%	0	0	0
Total	100%	90	144	90

Source: CEMEX Quarry data and Consultant's Calculations

- 5.1.8 The HGV traffic associated with Phase 2 (i.e. the worst case) has been added to the surveyed traffic on the local highway network as follows:
- HGV traffic for 07:00-08:00 has been added to the survey flows between 07:30-08:30. This is the network peak as set out below; and
 - HGV traffic for 16:00-17:00 has been added to the survey flows between 16:15-17:15. This is the network peak as set out below.
- 5.1.9 There are also likely to be a small number of staff and visitors travelling to / from the site each day. The site will provide 20 parking spaces, whilst it is not anticipated that all of these spaces would be used each day, in order to provide a robust assessment, it has been assumed that 10 of the 20 staff / visitors will arrive during the morning network peak (07:30-08:30), with the other 10 staff arriving prior to the morning peak period as the site is anticipated to open at 07:00 (therefore it is anticipated that most staff would actually arrive at or slightly before the site opens). The proposed development is anticipated to close at 17:00 therefore to ensure a robust assessment it is assumed all staff / visitors would leave during the evening peak period.

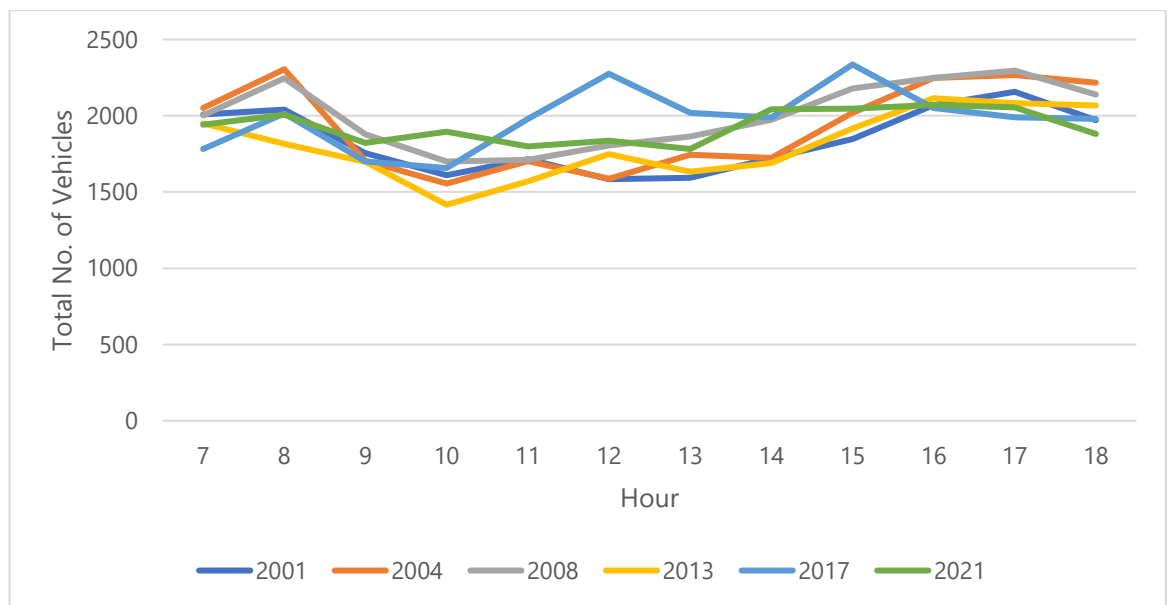
5.2 Updated Traffic Impact Assessment Methodology

- 5.2.1 To determine the existing baseline traffic conditions, a series of updated manual classified counts were undertaken on the local highway network on the 18 October 2022. Analysis of the updated traffic survey data demonstrates that the peak periods on the local highway network occur between 07:30-08:30 in the morning and 16:15-17:15 in the evening. A review of the traffic profiles during the peak periods also demonstrates that the traffic profile on the local highway network is relatively flat. This varies from previously assessed peak periods of 08:00-09:00 and 17:00 – 18:00 in the Transport Assessment. A copy of the turning count data collected, queue length surveys and peak period analysis is provided at **Appendix I**.
- 5.2.2 The Transport Assessment provided a traffic impact assessment for the morning and evening peak hours for the future years of 2023, 2030 and 2034 which coincided with the proposed 'year of opening' and end of traffic phases 2 and 3 respectively. The baseline data was based on traffic survey data collected between 2016-2018 and traffic associated with committed developments was manually added to base traffic flows (based on data provided in the Transport Assessments submitted alongside the associated planning applications). In total, traffic associated with 543 dwellings was included within the committed developments. TEMPRO growth was then added on top of the inclusion of committed development traffic. A number of the developments have now been built (as summarised below) and the traffic surveys undertaken in support of the

preparation of the Transport Assessment and Transport Assessment Addendum (as summarised in **Table 2.1**) do not support the assumption of continual traffic growth along the corridor.

5.2.3 A review of traffic data from DfT Manual Count Point 8559 located on Hamble Lane to the north of the Lionheart Way roundabout also demonstrates that traffic flows on Hamble Lane have been relatively stable for the past 20 years, as demonstrated in **Image 5.1**.

Image 5.1: Traffic Flows of Hamble Lane Between 2001 and 2021



5.2.4 As shown in **Image 5.1**, traffic flows in 2021 are lower in the peak hours than previous years and it is certainly not the case the traffic flows have increased year on year in line with TEMPRO assumptions. This is likely to be due to the existing congestion on the corridor acting as a deterrent for people making vehicular trips during the peak periods. As such, TMEPRO growth rates have not been applied to the proposed opening year of the development.

5.2.5 The Transport Assessment submitted alongside the planning application included the following committed development sites:

- Land at Berry Farm, Hamble Lane, Bursledon (Planning Ref: F/17/79863) - Construction of 166 dwellings with associated access off Cunningham Gardens, parking, landscaping and open space following demolition of existing dwellings and former agricultural buildings/workshop;
- Land at Satchell Lane (Planning Ref: O/17/80319) - development of up to 70 dwellings with associated access, public open space, landscaping and amenity areas;

- Land to the south of Mallards Road (Planning Ref: O/15/76491) - Construction of up to 80 dwellings including public open space with access as only detailed matter for consideration following demolition of nos. 1 and 3 Mallards Road;
- Land to the North of Cranbury Gardens (Planning Ref: O/15/76883) - Outline application for up to 45no. dwellings including public open space, landscaping and vehicular access from land to the north & Hamble Lane, pedestrian link to Hamble Lane. All detailed matters except for access reserved; and
- Land South of Bursledon Road (Planning Ref: O/15/77121) - Outline application for up to 182 no. dwellings and associated landscaping, open space and infrastructure, and diversion of public right of way, with access from Bursledon Road. (All matters reserved except for access).

5.2.6 It is noted that the planning application at Mallards Road for 80 dwellings was dismissed at Appeal and the Land at Satchell Lane application has now lapsed without being implemented. In addition, the consented developments at Land at Berry Farm, Land North of Cranbury Gardens and Land South of Bursledon Road have now been completed (as confirmed by the Eastleigh Five Year Housing Land Supply Position Documents for 2021-2026 and 2022-2027). As such, traffic associated with these developments would have been captured on the local highway network when the updated traffic surveys were undertaken on 18th October 2022. Consequently, no traffic associated with the previously identified committed developments has been added to the local highway network.

5.2.7 As outlined in **Section 5.1** above, Traffic Phase 2 is the most intensive in terms of HGV vehicle trip generation and has therefore been used for the traffic impact assessments. The development traffic therefore includes peak hour traffic associated with Traffic Phase 2 with the addition of staff / visitor movements. These traffic flows have been added onto the observed 2022 traffic flows to assess the impact of the proposed development on the local highway network.

5.3 **Percentage Impact Traffic Assessment - Data Validation**

5.3.1 It was noted in HCCs consultation response dated 16th August 2022 that percentage impact assessments were undertaken to support the application and set out in Section 5 of the Transport Assessment. Given the assessments undertaken in the TA were based on traffic data collected in 2016/2017 and factored to represent the future assessment years, HCC requested that the traffic impact of the proposed development is validated against updated baseline data.

5.3.2 Therefore, in line with the methodology outlined above, the likely traffic impact of Phase 2 (highest trip generation phase) of the development on the local highway network is summarised in **Table 5.3**, whilst **Table 5.4** summaries the percentage impact of HGVs. Annual Average Daily Traffic flows have also been provided.

Table 5.3: Local Traffic Impact Assessment

Link	Morning Peak (07:30 – 08:30)			Evening Peak (16:15 – 17:15)		
	Base Flow	Dev Traffic	Impact (%)	Base Flow	Dev Traffic	Impact (%)
Hamble Lane in vicinity of proposed access	1,370	36	3%	1,386	25	2%
Hamble Lane north of Hound Road	1,487	36	2%	1,501	25	2%
Hamble Lane north of A3025 Portsmouth Road	2,247	36	2%	2,349	25	1%
Hamble Lane north of Tesco	2,207	36	2%	2,306	25	1%

Table 5.4: Local Traffic Impact – HGV Flows

Link	Morning Peak (07:30 – 08:30)			Evening Peak (16:15 – 17:15)		
	Base Flow	Dev Traffic	Impact (%)	Base Flow	Dev Traffic	Impact (%)
Hamble Lane in vicinity of proposed access	23	26	113%	17	5	29%
Hamble Lane north of Hound Road	19	26	137%	13	5	38%
Hamble Lane north of A3025 Portsmouth Road	42	26	62%	27	5	19%
Hamble Lane north of Tesco Access	48	26	54%	23	5	22%

5.3.3 It can be seen from **Table 5.3** that the traffic associated with the proposed development would have a maximum impact on two-way total traffic flows on the local highway network of 3% in the morning peak and 2% in the evening peak, as such it can be seen that the overall development impact is small.

5.3.4 **Table 5.4** indicates that the proposed development would have a maximum impact on two-way HGV flows on the local highway network of 137% in the morning peak and 38% in the evening peak. Whilst the percentage impacts appear to be relatively large, it should be noted that this because the baseline HGV flows (particularly in the vicinity of the site access).

5.4 Operational Assessments

5.4.1 As outlined in **Section 1** of this report, HCC requested that operational assessments for the junctions between the proposed development site and the M27 Junction are provided, which include the following locations:

- Proposed Site Access
- Hamble Lane/Satchell Lane priority junction;
- Hamble Lane/Hound Road Roundabout;
- Hamble Lane/Portsmouth Road priority junction;
- Hamble Lane/Lionheart Way Roundabout;
- Tesco Roundabout;
- Windhover Roundabout; and
- M27 Junction 8 Roundabout.

5.4.2 While the operational assessments for the proposed site access and the Hamble Lane / Hound Road Roundabout were provided in the Transport Assessment and the results were considered acceptable by HCC, these junctions have been re-modelled with the updated data and revised methodology to ensure a consistent approach.

5.4.3 As outlined in Section 5.2 above, the junction assessments have been assessed for the following scenarios:

- Design Year (2022 observed traffic flows); and
- Design Year + Proposed Development Traffic.

5.4.4 All of the junctions have been assessed using industry standard software, Junctions 10 with the exception of the signalised Windhover Roundabout which has been assessed using LINSIG.

5.4.5 To ensure that the operation of the junctions accurately reflects the operation of junctions during the peak periods, the models have been calibrated to the observed average queue lengths during the peak period. The queue length surveys were undertaken at the same time as the updated manual classified counts and provide data on the queue length on each arm of the junction at 1-minute snapshots across the peak periods.

5.4.6 A summary of the operation of each junction is provided below and the full junction outputs are included as **Appendix J**.

Proposed Site Access

- 5.4.7 The operation of the proposed access junction has been assessed using TRL's 'Junctions 10' traffic modelling software for the design year with the addition of the proposed development traffic. **Table 5.5** summarises the assessment whilst the full model outputs are included as **Appendix J**.

Table 5.5: Junction Capacity Assessment – Proposed Site Access

	Morning Peak			Evening Peak		
	RFC	Queue (veh)	Delays (s)	RFC	Queue (veh)	Delays (s)
Design Year 'With Development'						
Proposed Site Access	0.13	<1	39	0.09	<1	16
Hamble Lane (right turn)	0	0	0	0	0	0

Source: Junctions 10

- 5.4.8 **Table 5.5** identifies that the proposed site access would operate well within capacity in the design year with the addition of development traffic.

Hamble Lane / Satchell Lane

- 5.4.9 The operation of the Hamble Lane / Satchell Lane simple priority junction has been assessed using TRL's 'Junctions 10' traffic modelling software for the design year with and without the addition of the proposed development traffic. **Table 5.6** summarises the assessment whilst the full model outputs are included as **Appendix J**.

Table 5.6: Hamble Lane / Satchell Lane Modelling Results

	Morning Peak			Evening Peak		
	RFC	Queue (veh)	Delays (s)	RFC	Queue (veh)	Delays (s)
Design Year 'Without Development'						
Satchell Lane	0.77	3	83	0.76	3	47
Hamble Lane (right turn)	0.16	<1	6	0.17	1	4
Design Year 'With Development'						
Satchell Lane	0.84	4	120	0.77	3	50
Hamble Lane (right turn)	0.16	1	6	0.17	1	4

Source: Junctions 10

- 5.4.10 **Table 5.6** shows that the Hamble Lane/Satchell Lane junction is expected to operate within capacity with the addition of the development traffic. A maximum RFC of 0.84 is observed on

the Satchell Lane arm during the morning peak ‘with development’ scenario, with a queue of four vehicles which represents an additional vehicle queuing when compared with the ‘without development scenario’.

Hamble Lane / Hound Road Roundabout

- 5.4.11 The operation of the Hamble Lane / Hound Road roundabout has been assessed using TRL’s ‘Junctions 10’ traffic modelling software for the design year with and without the addition of the proposed development traffic. **Table 5.7** summarises the assessment whilst the full model outputs are included as **Appendix J**.

Table 5.7: Hamble Lane/Hound Road Modelling Results

	Morning Peak			Evening Peak		
	RFC	Queue (veh)	Delays (s)	RFC	Queue (veh)	Delays (s)
Design Year ‘Without Development’						
Hamble Lane N	0.83	5	23	0.62	2	9
Hamble Lane S	0.38	1	4	0.69	2	8
Hound Road	0.51	1	5	0.32	1	4
Design Year ‘With Development’						
Hamble Lane N	0.87	6	30	0.62	2	9
Hamble Lane S	0.39	1	4	0.71	2	8
Hound Road	0.51	1	5	0.33	1	4

Source: Junctions 10

- 5.4.12 **Table 5.7** shows that the junction is expected to operate within capacity with the addition of development traffic. A maximum RFC of 0.87 is observed on the Hamble Lane north arm during the morning peak ‘with development’ scenario, which represents an increase in RFC of 0.04 when compared with the ‘without development’ scenario and an additional 7 seconds of delay.

Hamble Lane / Portsmouth Road

- 5.4.13 The operation of the Hamble Lane / Portsmouth Road simple priority junction has been assessed using TRL’s ‘Junctions 10’ traffic modelling software for the design year with and without the addition of the proposed development traffic. **Table 5.8** summarises the assessment whilst the full model outputs are included as **Appendix J**.

Table 5.8: Hamble Lane/Portsmouth Road Modelling Results

	Morning Peak			Evening Peak		
	RFC	Queue (veh)	Delays (s)	RFC	Queue (veh)	Delays (s)
Design Year 'Without Development'						
Portsmouth Road	0.96	13	117	0.83	5	40
Hamble Lane (right turn)	0.41	<1	7	0.84	5	33
Design Year 'With Development'						
Portsmouth Road	0.98	16	140	0.85	5	45
Hamble Lane (right turn)	0.41	<1	7	0.85	5	36

Source: Junctions 10

5.4.14 **Table 5.8** shows that the junction operates close to capacity in the morning peak period with and without the proposed development traffic. The proposed development is anticipated to increase the RFC on Portsmouth Road in the morning peak by 0.03 and increase delay by 23 seconds. In the evening peak period, there will be a maximum increase in RFC of 0.02 on Portsmouth Road with an additional 5 seconds of delay. Consequently, it can be seen that the proposed development impact is small and will not result in a severe impact on the local highway network.

Hamble Lane/Lionheart Way

5.4.15 The operation of the Hamble Lane / Lionheart Way roundabout has been assessed using TRL's 'Junctions 10' traffic modelling software for the design year with and without the addition of the proposed development traffic. **Table 5.9** summarises the assessment whilst the full model outputs are included as **Appendix J**.

Table 5.9: Hamble Lane/Lionheart Way Modelling Results

	Morning Peak			Evening Peak		
	RFC	Queue (veh)	Delays (s)	RFC	Queue (veh)	Delays (s)
Design Year 'Without Development'						
Hamble Lane N	0.82	5	18	0.82	4	18
Lionheart Way	0.93	10	79	0.73	3	24
Hamble Lane S	0.49	1	3	0.52	1	3
Design Year 'With Development'						
Hamble Lane N	0.85	6	21	0.82	4	18
Lionheart Way	0.97	15	119	0.73	3	24

	Morning Peak			Evening Peak		
	RFC	Queue (veh)	Delays (s)	RFC	Queue (veh)	Delays (s)
Hamble Lane S	0.50	1	3	0.53	1	3

Source: Junctions 10

- 5.4.16 **Table 5.9** shows that the Hamble Lane arms of the junction operate within capacity in the morning and evening peak in both the 'with' and 'without' development scenarios. Very modest increases in queue length are anticipated on these arms of the junction (one vehicle).
- 5.4.17 The Lionheart Way arm is anticipated to operate close to capacity during both the design year 'with' and 'without' development scenarios in the morning peak. The development increases the RFC on this arm of the junction from 0.93 to 0.97 (an increase of 0.04). When a junction reaches capacity, the model becomes very sensitive to small increases in flows, which can have an unrealistic impact on modelled queue lengths and delay. This is likely to be the case in this instance on Lionheart Way, as only small traffic increases associated with the proposed development are anticipated on the Hamble Lane arms of the junction. In the evening peak period, the junction operates within capacity and the impact of the proposed development traffic would have a negligible impact on the performance of the junction.
- 5.4.18 In this context, the overall impact of the development on the operation of this junction is less than the 'severe' impact test set by the NPPF for preventing the development from coming forward.

Tesco Roundabout

- 5.4.19 The operation of the Tesco roundabout has been assessed using TRL's 'Junctions 10' traffic modelling software for the design year with and without the addition of the proposed development traffic. **Table 5.10** summarises the assessment whilst the full model outputs are included as **Appendix J**.

Table 5.10: Tesco Roundabout Modelling Results

	Morning Peak			Evening Peak		
	RFC	Queue (veh)	Delays (s)	RFC	Queue (veh)	Delays (s)
Design Year 'Without Development'						
Hamble Lane N	0.80	4	14	0.94	12	52
Tesco Access	0.50	1	13	0.76	3	24
Hamble Lane S	0.52	1	3	0.50	1	3

	Morning Peak			Evening Peak		
	RFC	Queue (veh)	Delays (s)	RFC	Queue (veh)	Delays (s)
Design Year 'With Development'						
Hamble Lane N	0.84	5	17	0.94	12	52
Tesco Access	0.52	1	15	0.76	3	24
Hamble Lane S	0.53	1	3	0.51	1	3

Source: Junctions 10

5.4.20 **Table 5.10** shows the junction operates close to capacity during both the design year 'with' and 'without' the addition of proposed development traffic in the evening peak period. However, it is noted that the development traffic would have a negligible impact on the performance of the junction with minimal impacts on observed queuing and delays.

Windhover Roundabout

5.4.21 The operation of the Windhover roundabout has been assessed using LINSIG traffic modelling software for the design year with and without the addition of the proposed development traffic. **Table 5.11** summarises the assessment whilst the full model outputs are included as **Appendix J**.

Table 5.11: Windhover Roundabout Modelling Results

	Morning Peak			Evening Peak		
	DoS(%)	Max Queue	Av Delay (s)	DoS(%)	Max Queue	Av Delay (s)
Design Year 'Without Development'						
Bert Bretts Way	83.6%	5	13	86.8%	7	19
Providence Hill	97.6%	11	91	102.1%	16	165
Hamble Lane	73.2%	10	22	70.7%	9	20
Bursledon Road	86.2%	12	22	73.5%	7	20
West End Road	78.2%	6	19	64.4%	3	9
Design Year 'With Development'						
Bert Bretts Way	86.2%	6	15	86.8%	7	19
Providence Hill	103.3%	25	148	102.7%	17	172
Hamble Lane	73.9%	10	22	70.8%	10	20
Bursledon Road	83.6%	10	20	69.9%	7	18
West End Road	74.8%	6	20	65.3%	3	10

Source: LINSIG

- 5.4.22 **Table 5.11** shows that the Bert Bretts Way, Hamble Lane, Bursledon Road and West End Road arms of the junction operate within capacity in the morning and evening peak in both the 'with' and 'without' development scenarios. Very modest increases in queue length are anticipated on these arms of the junction (one – two vehicles).
- 5.4.23 One arm of the junction (Providence Hill) operates over capacity in both the design year 'with' and 'without' development scenarios. The development increases the queue length on this arm of the junction by 14 vehicles in the morning and one vehicle in the evening. When a junction reaches capacity, the model becomes very sensitive to small increases in flows, which can have an unrealistic impact on modelled queue lengths and delay. This is likely to be the case in this instance on Providence Hill, as only small traffic increases associated with the proposed development are anticipated on the Hamble Lane and Bert Brett's Way arms of the junction.
- 5.4.24 An improvement scheme at the Windhover Roundabout has been designed by National Highways which aims to improve the safety of the junction, improve journey times and provide better pedestrian and cycle connectivity. A public inquiry in relation to the improvement scheme was held in May and June 2022. It is understood that a decision letter is expected in early 2023 and if the improvement is granted consent, National Highways will seek to re-programme the start of the construction works.
- 5.4.25 Nevertheless, the proposed development traffic would have a small impact on the anticipated level of queues and delays when compared with the baseline position, consequently the improvement is not required for the proposed development to come forwards.

M27 Junction 8 Roundabout

- 5.4.26 The operation of the M27 Junction 8 roundabout has been assessed using TRL's 'Junctions 10' traffic modelling software for the design year with and without the addition of the proposed development traffic. **Table 5.12** summarises the assessment whilst the full model outputs are included as **Appendix J**.

Table 5.12: M27 Junction 8 Modelling Results

	Morning Peak			Evening Peak		
	RFC	Queue (veh)	Delays (s)	RFC	Queue (veh)	Delays (s)
2022 Observed Traffic Flows						
M27 North	0.94	12	53	0.96	17	58
Dodwell Lane	0.95	14	69	0.87	6	49
M27 South	0.84	5	28	0.83	5	26

	Morning Peak			Evening Peak		
	RFC	Queue (veh)	Delays (s)	RFC	Queue (veh)	Delays (s)
Bert Bretts Way	0.93	12	23	0.49	1	2
2022 'with development'						
M27 North	0.96	16	70	0.96	19	64
Dodwell Lane	0.97	17	82	0.88	7	54
M27 South	0.87	6	35	0.83	5	26
Bert Bretts Way	0.94	13	27	0.50	1	2

Source: Junctions 10

5.4.27 **Table 5.12** shows that the junction operates close to capacity during both the design year 'with' and 'without' development traffic during the peak periods. Increases in RFC are however limited (0.03 in the morning peak and 0.01 in the evening peak). An improvement scheme at the M27 Junction 8 has been designed by National Highways linked with the improvement at Windhover. As outlined above, a public inquiry in relation to the improvement scheme was held in May and June 2022 and it is understood that a decision letter is expected in early 2023 and if the improvement is granted consent, National Highways will seek to re-programme the start of the construction works.

5.4.28 Nevertheless, the proposed development traffic would have a small impact on the anticipated level of queues and delays when compared with the baseline position, consequently the improvement is not required for the proposed development to come forwards.

5.5 Hamble Parish Council Consultation Response

5.5.1 It is noted that Hamble Parish Council provided a response in relation to the development proposals and raised a number of objections, one of which related to traffic impact. Concern was raised in relation to traffic impact along the Hamble Lane corridor and the need for modelling to be undertaken. As set out above, junction capacity assessments have now been undertaken and demonstrate that the proposed development would only have a very small traffic impact on the local highway network during the peak periods.

5.6 Summary

5.7 This Transport Assessment Addendum sets out the modelling results for the proposed site access as well as seven junctions to the north of the site along Hamble Lane, as requested by HCC. The assessments demonstrate that the impact of the development traffic on the local junctions will be modest and certainly less than the 'severe' impact test set by the NPPF).

5.7.1 Notwithstanding this, it is accepted that Hamble Lane suffers from existing queuing and delay and CEMEX are willing to pay a reasonable and proportionate contribution towards some of the identified improvements along the Hamble Lane corridor identified in the recently adopted LCWIP, which will help make walking and cycling more attractive options and encourage a mode shift away from the reliance on the private car on the local highway network and thus mitigating the small impact arising from the proposed development.

SECTION 6 Summary and Conclusion

6.1.1 This Transport Assessment Addendum has been provided to address the comments made by HCC (the Highway Authority) in its planning application response to the scheme proposals at Hamble Airfield. Ongoing engagement has continued with HCC throughout the preparation of the Addendum to ensure that this is prepared on an agreed basis.

6.1.2 This Transport Assessment Addendum has been prepared to address the comments raised in HCCs consultation response and demonstrates that:

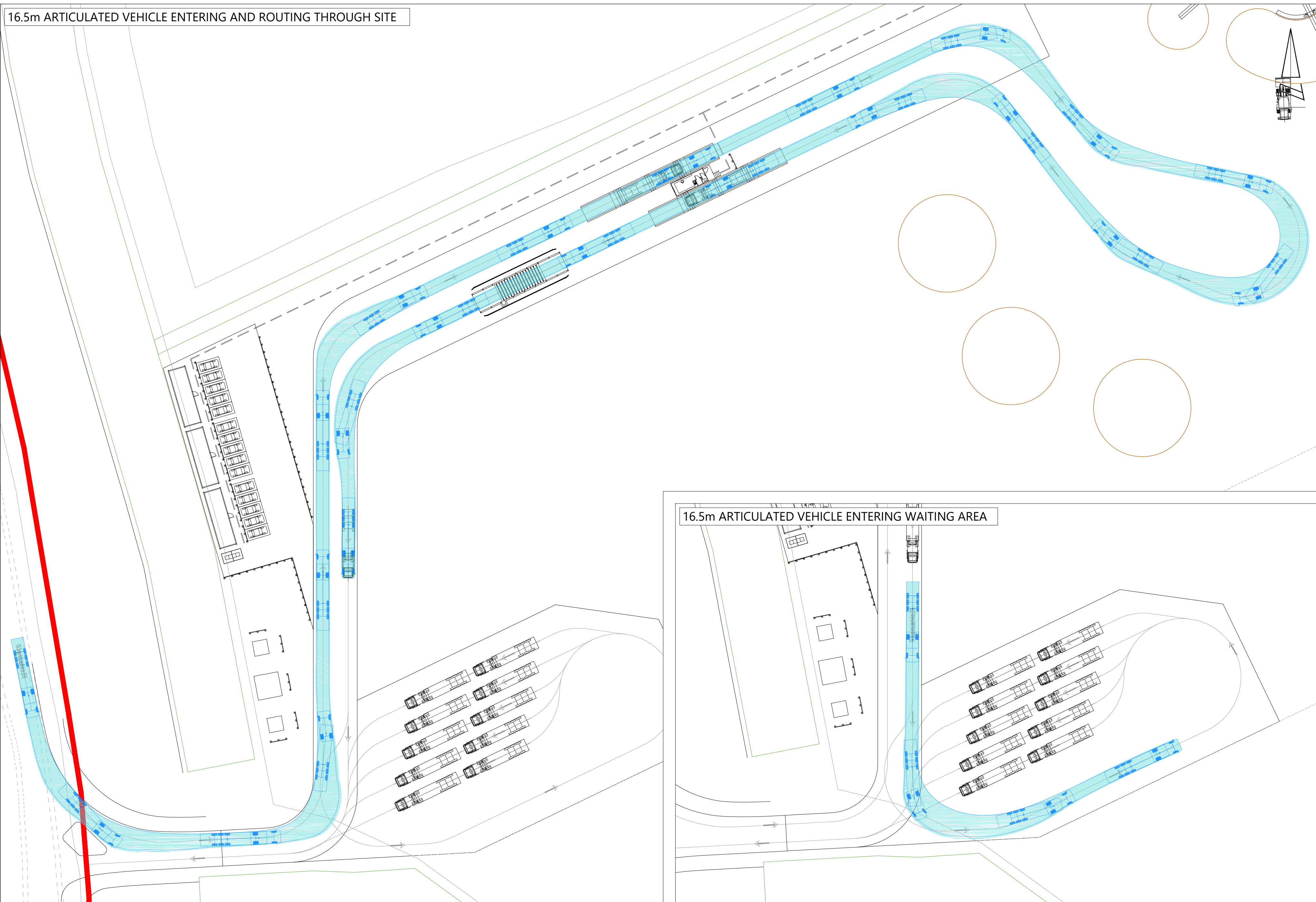
- **Site Access** - The location and form of the proposed access has been designed so that it minimises the impact on ecology and arboriculture as demonstrated in the Optioneering Report appended to this Transport Assessment Addendum. The additional information requested in relation to raw speed survey data, visibility splay calculations, pedestrian visibility splays, compliance with LTN1/20 standards, provision of a Walking, cycling and horse-riding assessment and review (WHCAR) report and amendments to the internal tracking plans have also been provided. Consequently, it has been demonstrated that safe and suitable access arrangements for all users can be provided in line with the key transport tests set out in the NPPF.
- **Site Layout** – Additional swept path analysis has been undertaken which demonstrates that the largest anticipated vehicles can manoeuvre around the proposed site layout without issue and as such provides safe and suitable arrangements for vehicles.
- **Highway Safety** – It was requested that updated Personal Injury Accident Data (PIA) data is obtained and reviewed. Data for the latest available period has been obtained from Hampshire Constabulary and data does not highlight any existing highway defects or safety issues that would be exacerbated by the proposed development.
- **Traffic Impact** – Additional information has been provided to demonstrate the proposed trip generation of the site and identify how the traffic flow profile for the proposed development has been calculated to demonstrate that this reflects the operational requirements of the proposal. Updated traffic flows for the local highway network have also been obtained to undertake junction capacity assessments for the Hamble Lane corridor and the raw data has been provided for review. The operational assessments demonstrate that the proposed development traffic would have a modest impact (and certainly less than the 'severe' impact test set by the NPPF) and consequently off-site junction capacity improvement are not required for the proposed

development to come forwards. Nevertheless, CEMEX are willing to pay a reasonable and proportionate contribution towards some of the identified improvements along the Hamble Lane corridor identified in the recently adopted LCWIP, which will help make walking and cycling more attractive options and encourage a mode shift away from the reliance on the private car on the local highway network and thus mitigating the small impact arising from the proposed development.

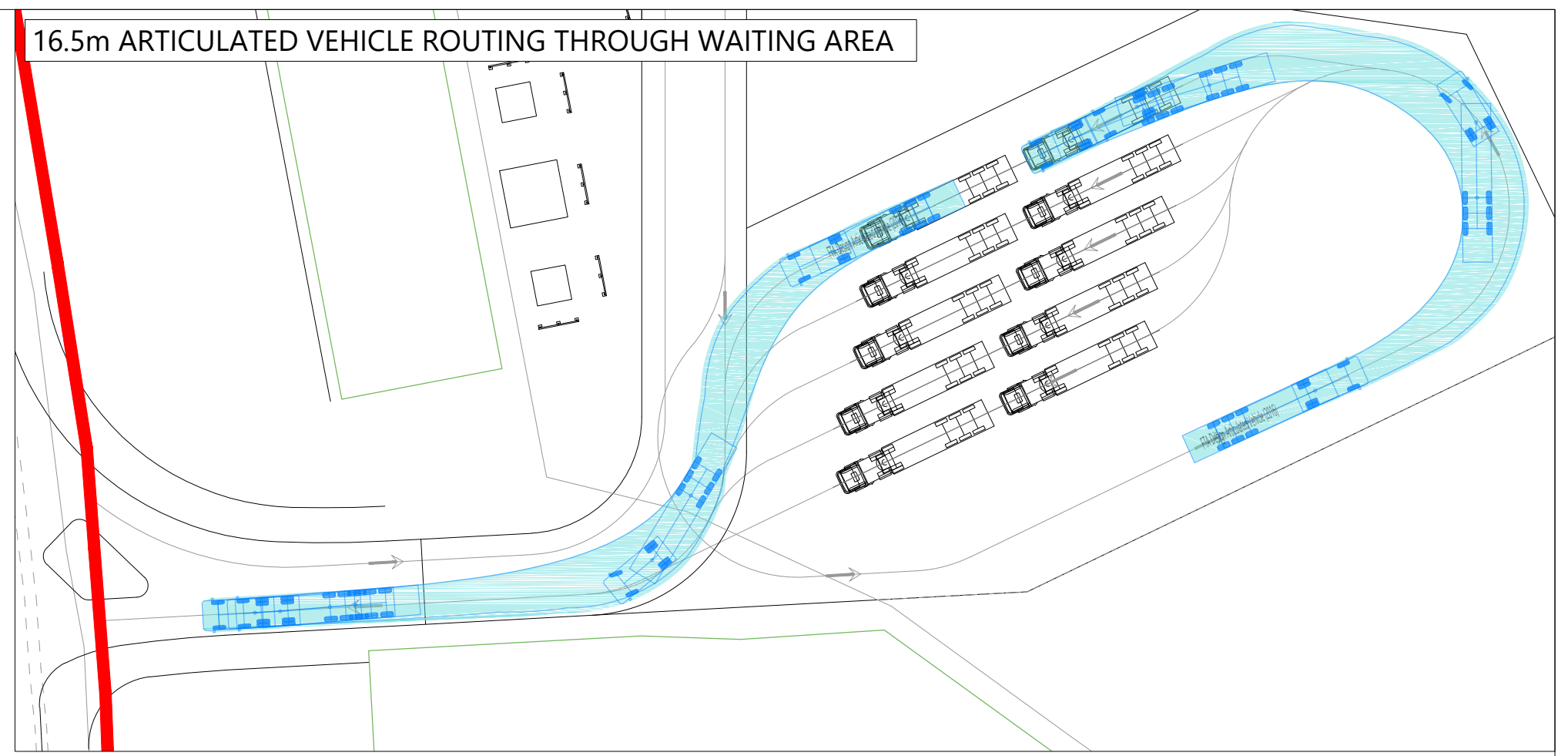
- 6.1.3 Overall, the additional information submitted has fully addressed the matters raised by HCC, and the scheme is demonstrated to be acceptable and deliverable in transport terms.

DRAWINGS

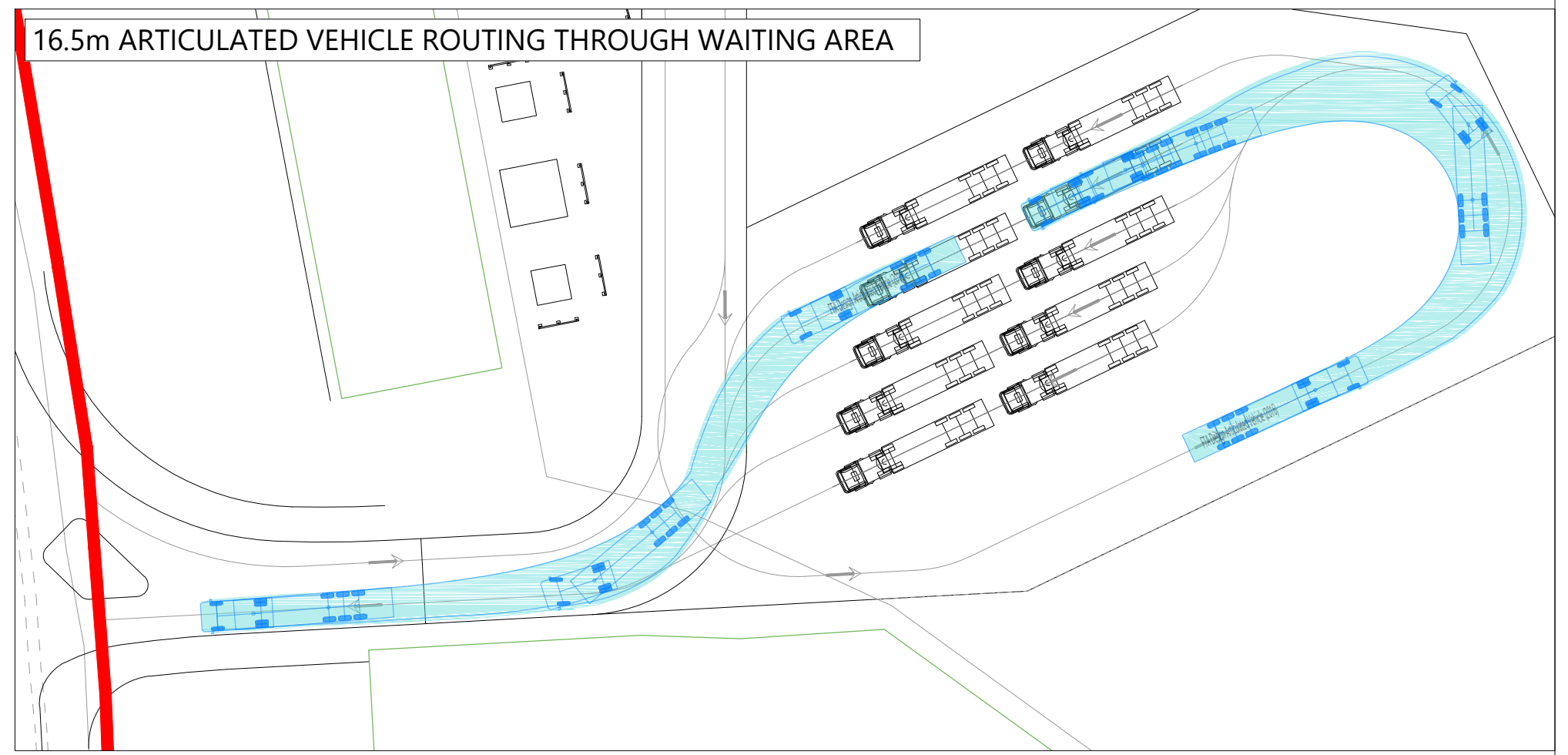
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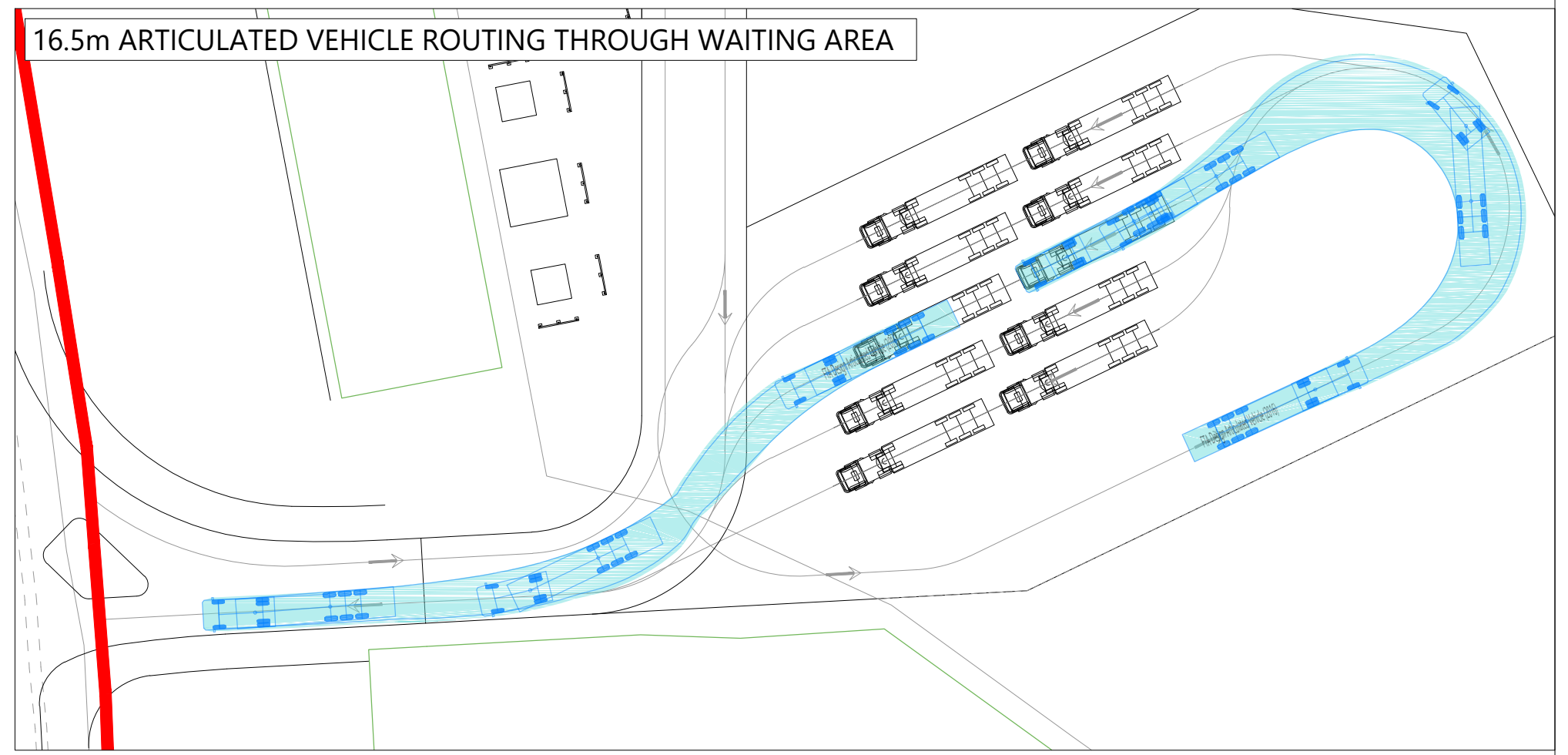
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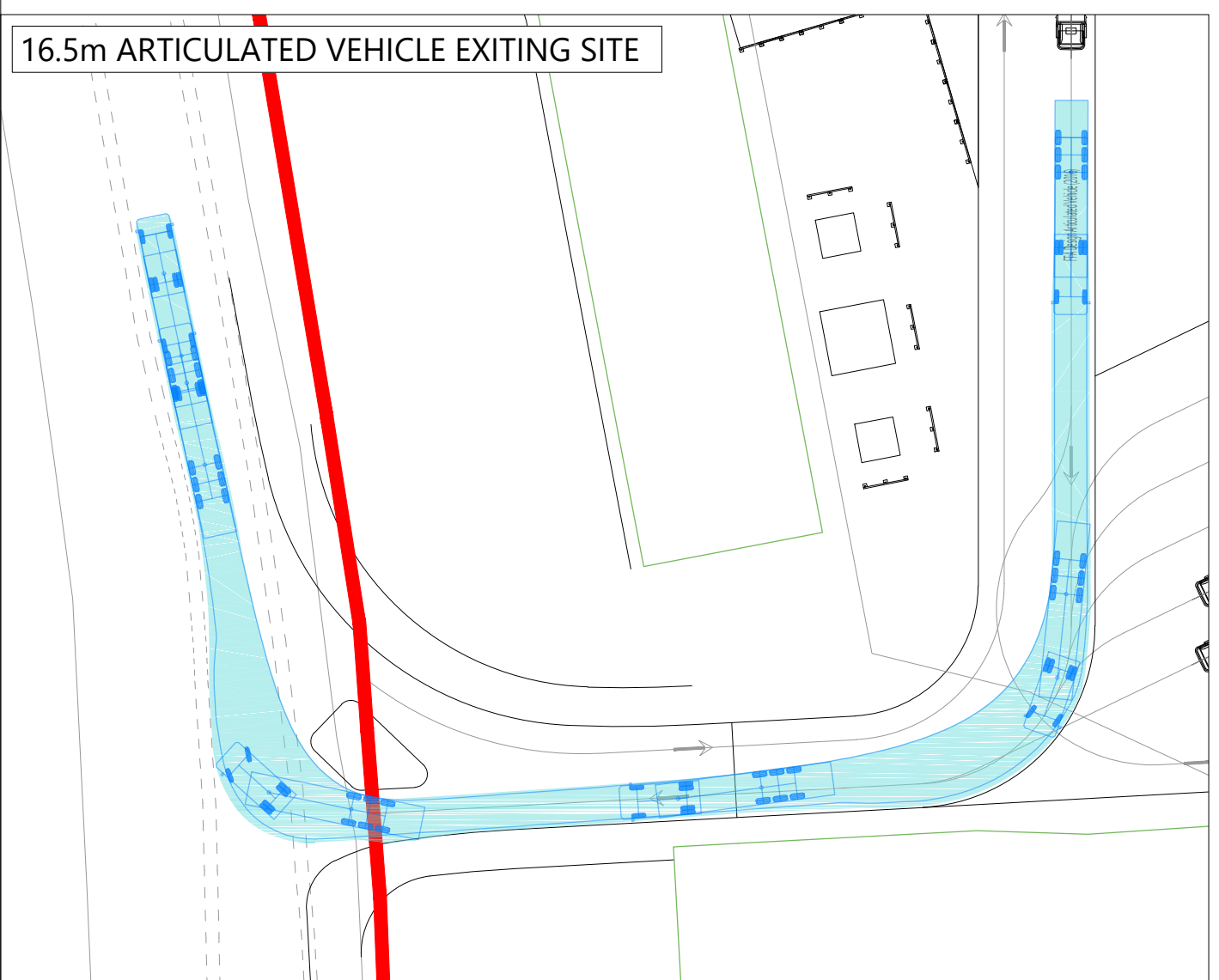
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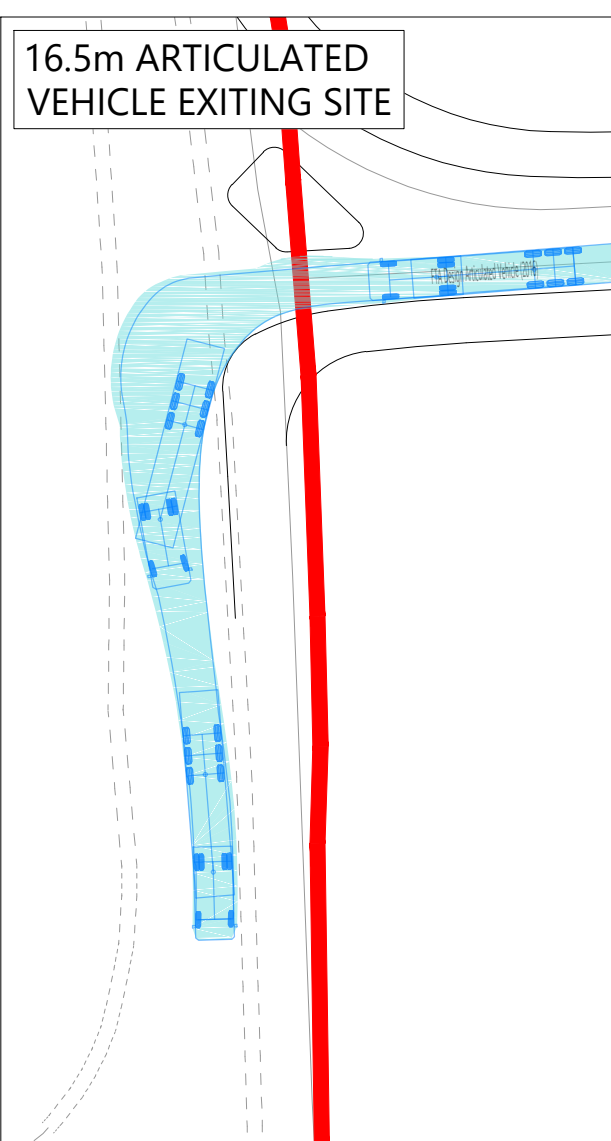
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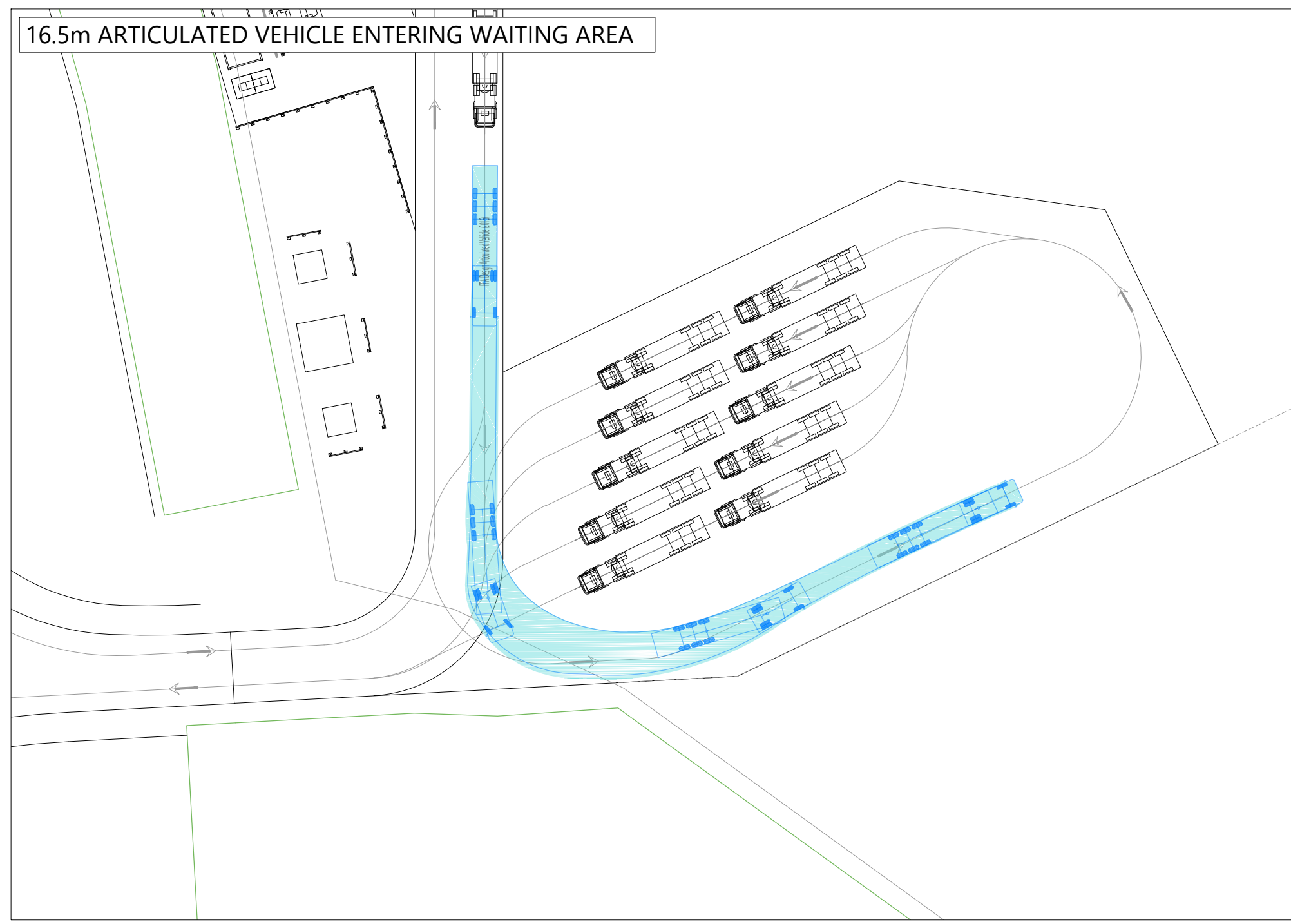
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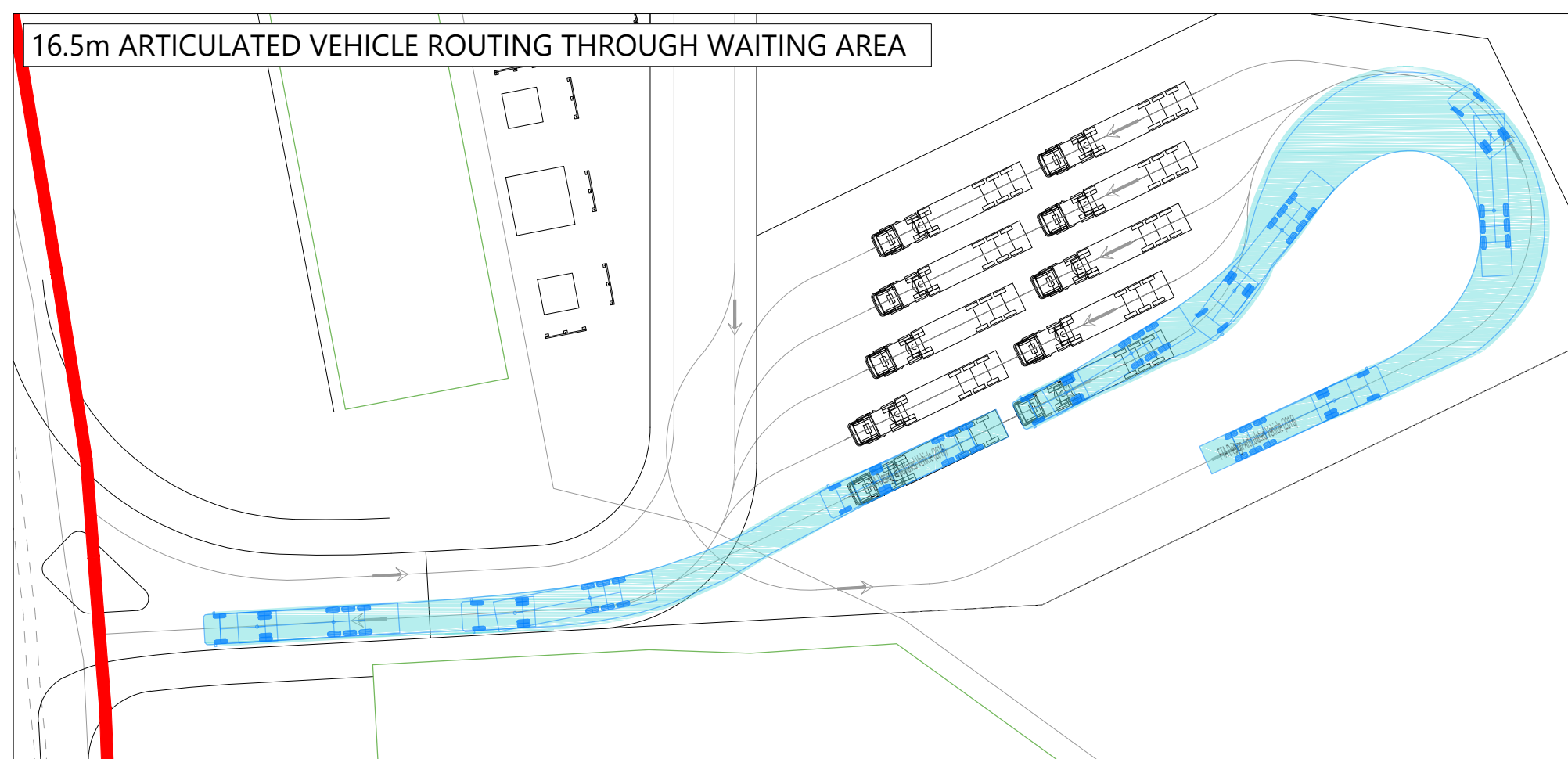
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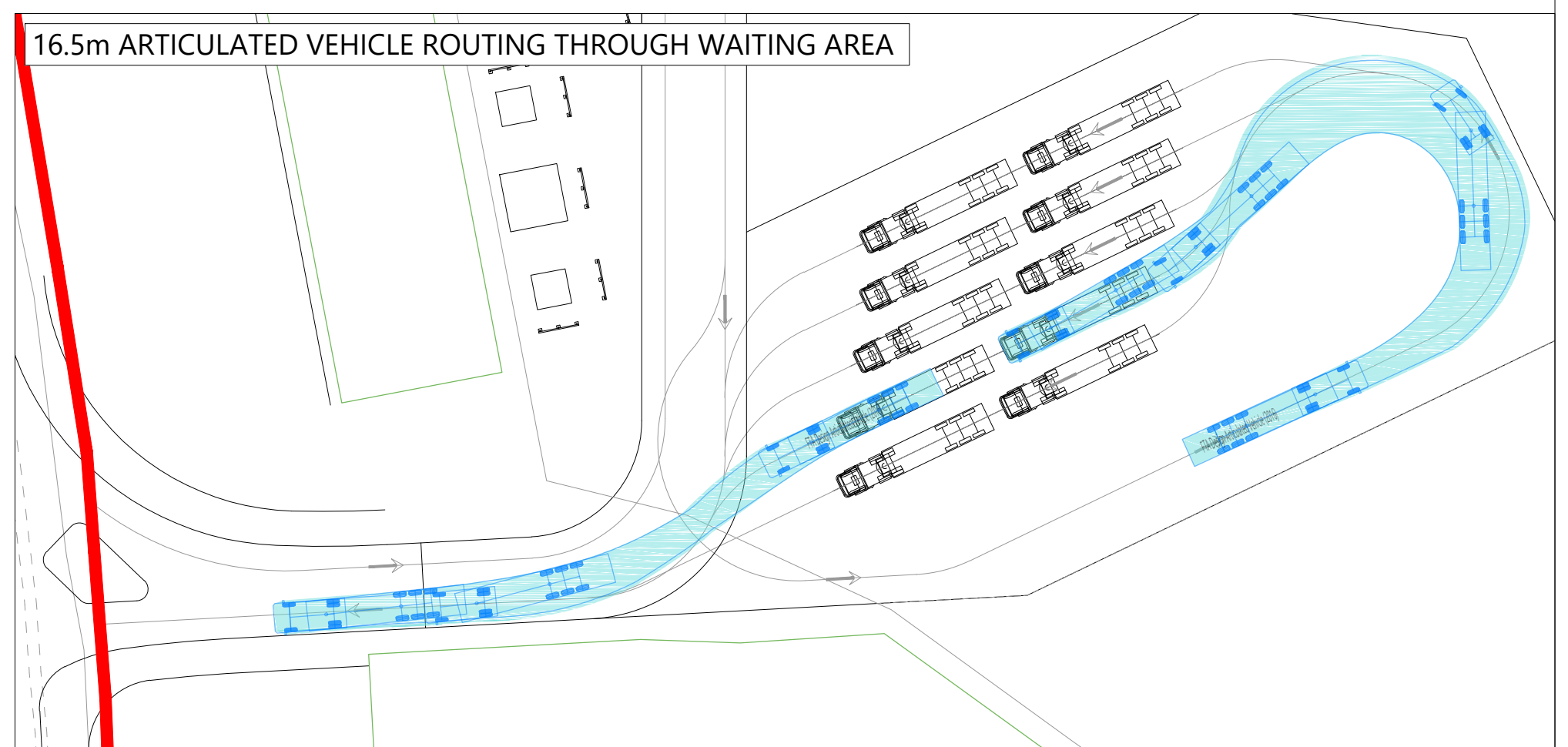
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16.5m ARTICULATED VEHICLE ROUTING THROUGH WAITING AREA



16.5m ARTICULATED VEHICLE ROUTING THROUGH WAITING AREA

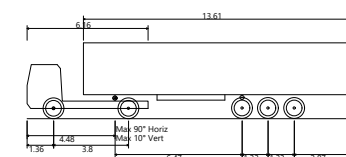


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STAGE ONLY. FURTHER CONSIDERATION REQUIRED BY DETAILED DESIGN TEAM.



FTA Design Articulated Vehicle (2016) - including wing mirrors
Overall Length 26.400m
Overall Width 3.500m
Min. Overlap Height 4.500m
Min. Overlap Clearance 0.800m
Max. Truck Width 3.000m
Lock to lock time 8.000m
Knee to knee Turning Radius 16.000m

NOTE: SWEEP PATHS
TRACKED AT 10mph

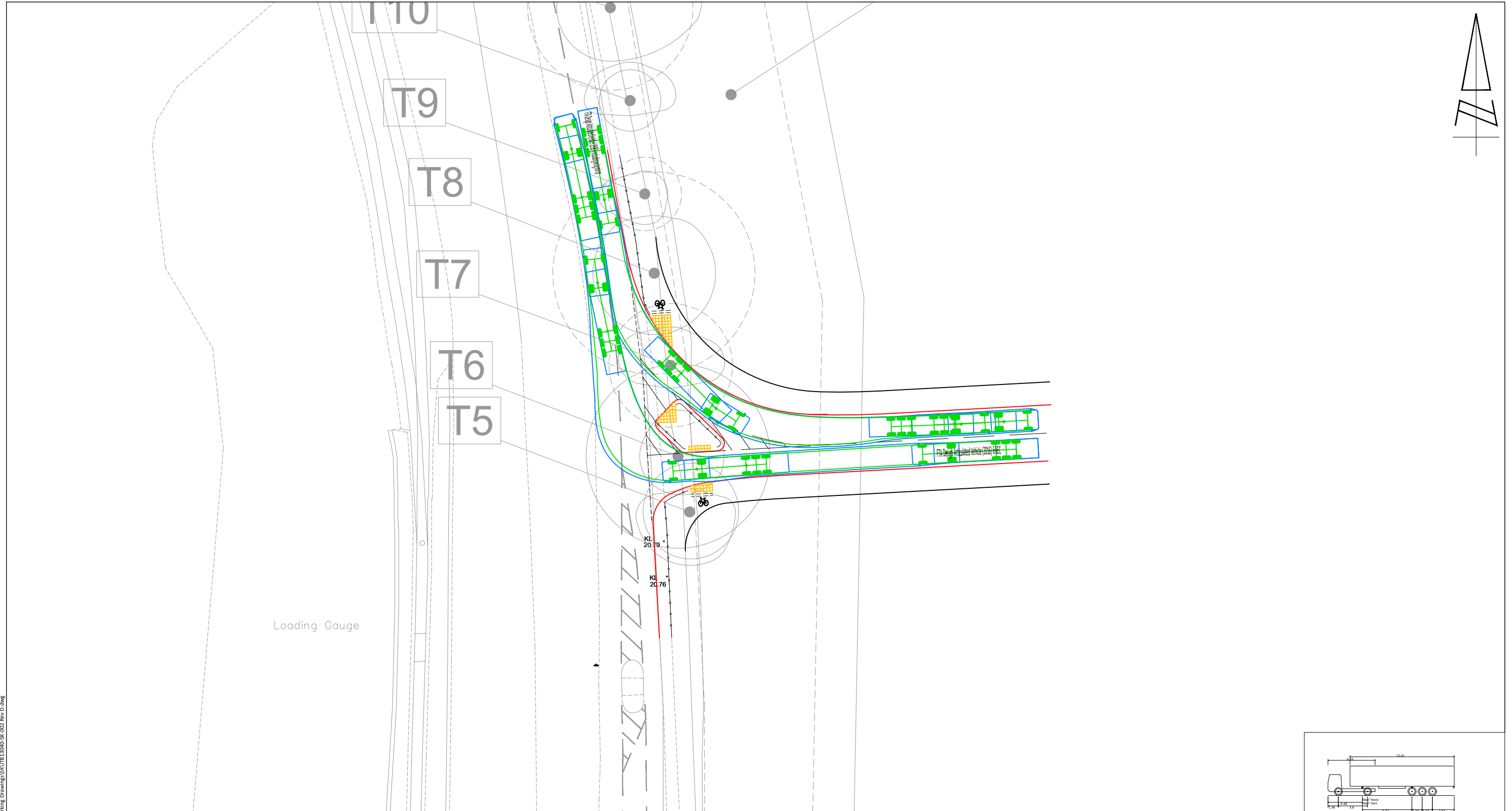
REV	DATE	BY	DESCRIPTION	CHK	APP	PROJECT
B	24.11.22	JD	SITE LAYOUT UPDATED	IN	IN	HAMBLE AIRFIELD
A	10.08.22	JB	UPDATED VEHICLE	IN	IN	CEMEX

TITLE	CLIENT
SWEEP PATH ANALYSIS - 16.5m ARTICULATED VEHICLE	CEMEX

DRAWN	CHECKED	APPROVED
JD	IN	IN

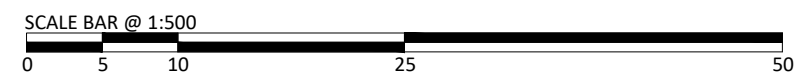
PROJECT No:	SCALE @ A1:	DATE:
ITB13040	1:500	19.10.21

DRAWING No:	REV
ITB13040-GA-001	B

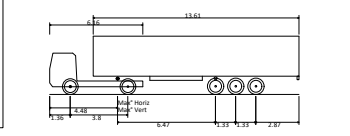


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NOTE: SWEEP PATHS TRACKED AT 10mph



FTA Design Articulated Vehicle (1998) - including wing mirror
 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 6.90s
 Kerb to Kerb Turning Radius 6.550m



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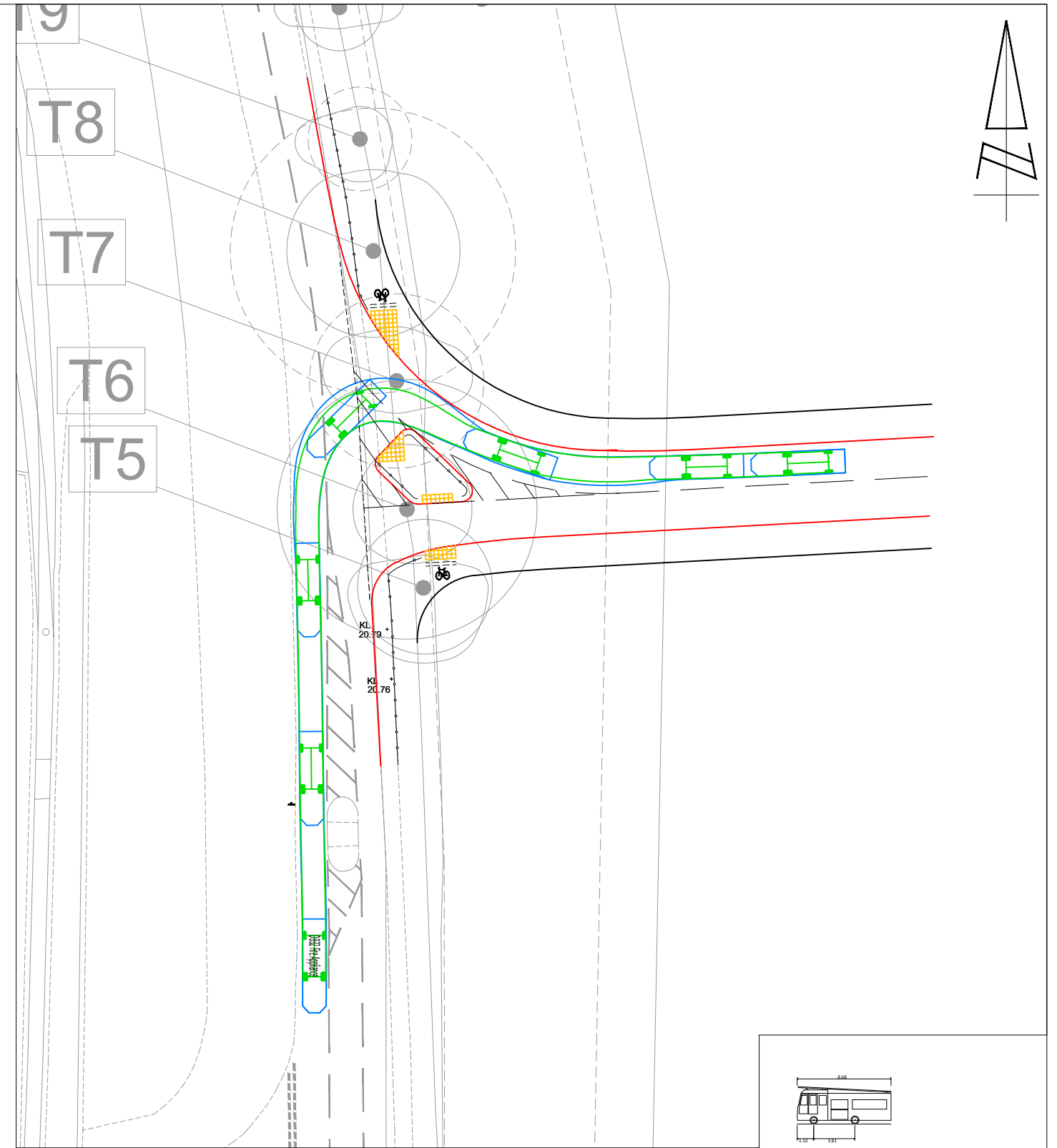
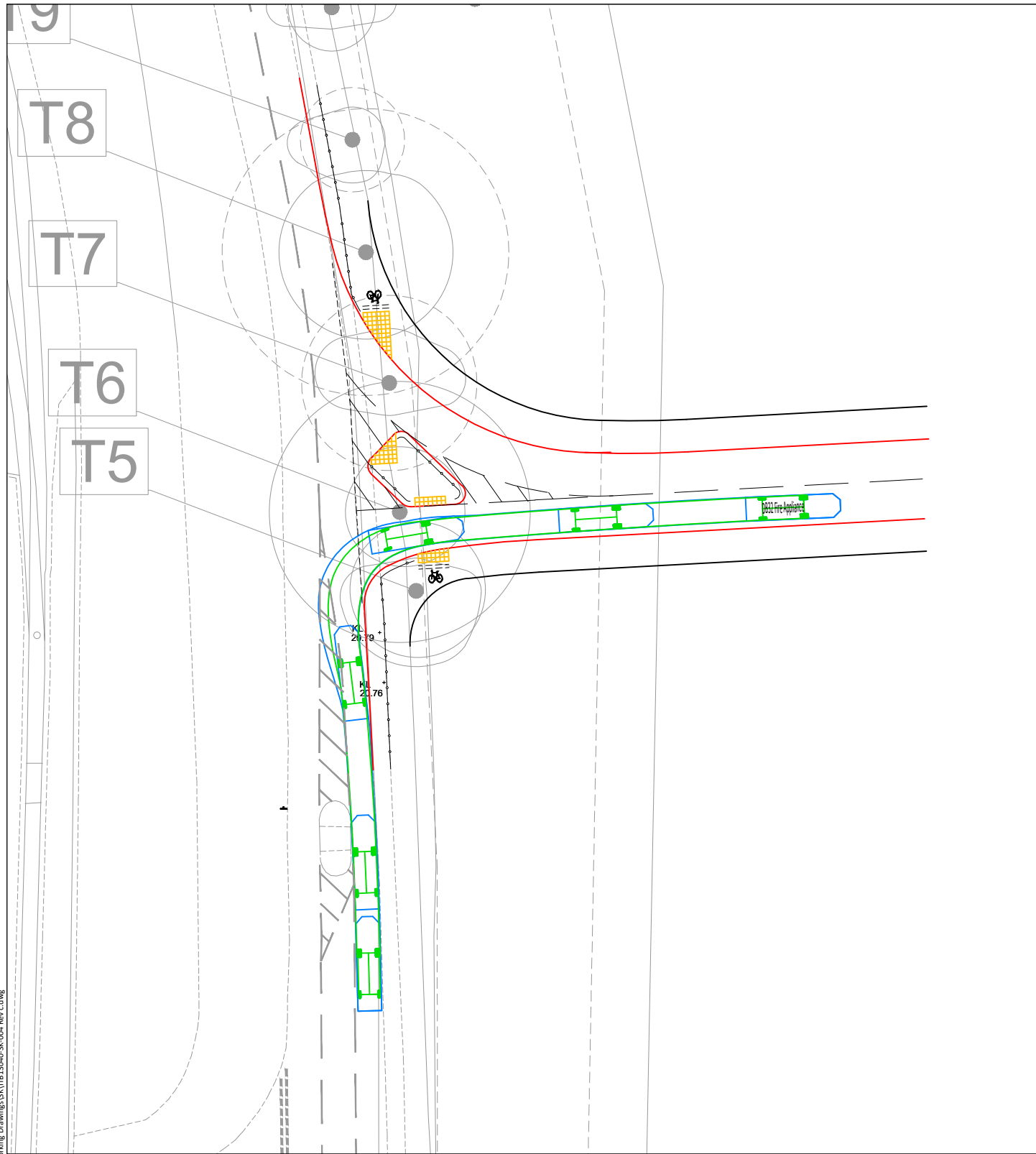
REV	DATE	BY	DESCRIPTION	CHK	APD
D	10.08.22	JB	VEHICLE EDITS	IN	IN
C	25.08.21	JD	SITE ACCESS UPDATED	IN	IN
B	16.07.18	JD	MINOR AMENDMENTS	IN	IN
A	16.05.18	JD	MINOR AMENDMENTS	IN	IN

STATUS: FOR INFORMATION

TITLE:	SWEPT PATH ANALYSIS	
PROJECT:	HAMBLE AIRFIELD	CLIENT: CEMEX

SCALE @ A3:	1:500	CHECKED:	IN	APPROVED:	IN
FILE REF:	ITB13040	DRAWN:	JB	DATE:	26.05.17
DRAWING No:	ITB13040-SK-002				
PROJECT No:	ITB13040	REV:	D		

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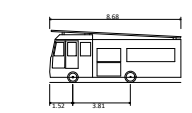


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NOTE: SWEEP PATHS TRACKED AT 10mph



DB32 Fire Appliance
 Overall Length 8.680m
 Overall Width 2.180m
 Overall Body Height 3.452m
 Min Body Ground Clearance 0.337m
 Max Track Width 2.121m
 Lock to lock time 6.905s
 Kerb to Kerb Turning Radius 7.910m



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REV	DATE	BY	DESCRIPTION	CHK	APD
C	10.08.22	JB	MINOR EDITS	IN	IN
B	25.08.21	JD	SITE ACCESS UPDATED	IN	IN
A	16.07.18	JD	MINOR AMENDMENTS	IN	IN

STATUS: FOR INFORMATION

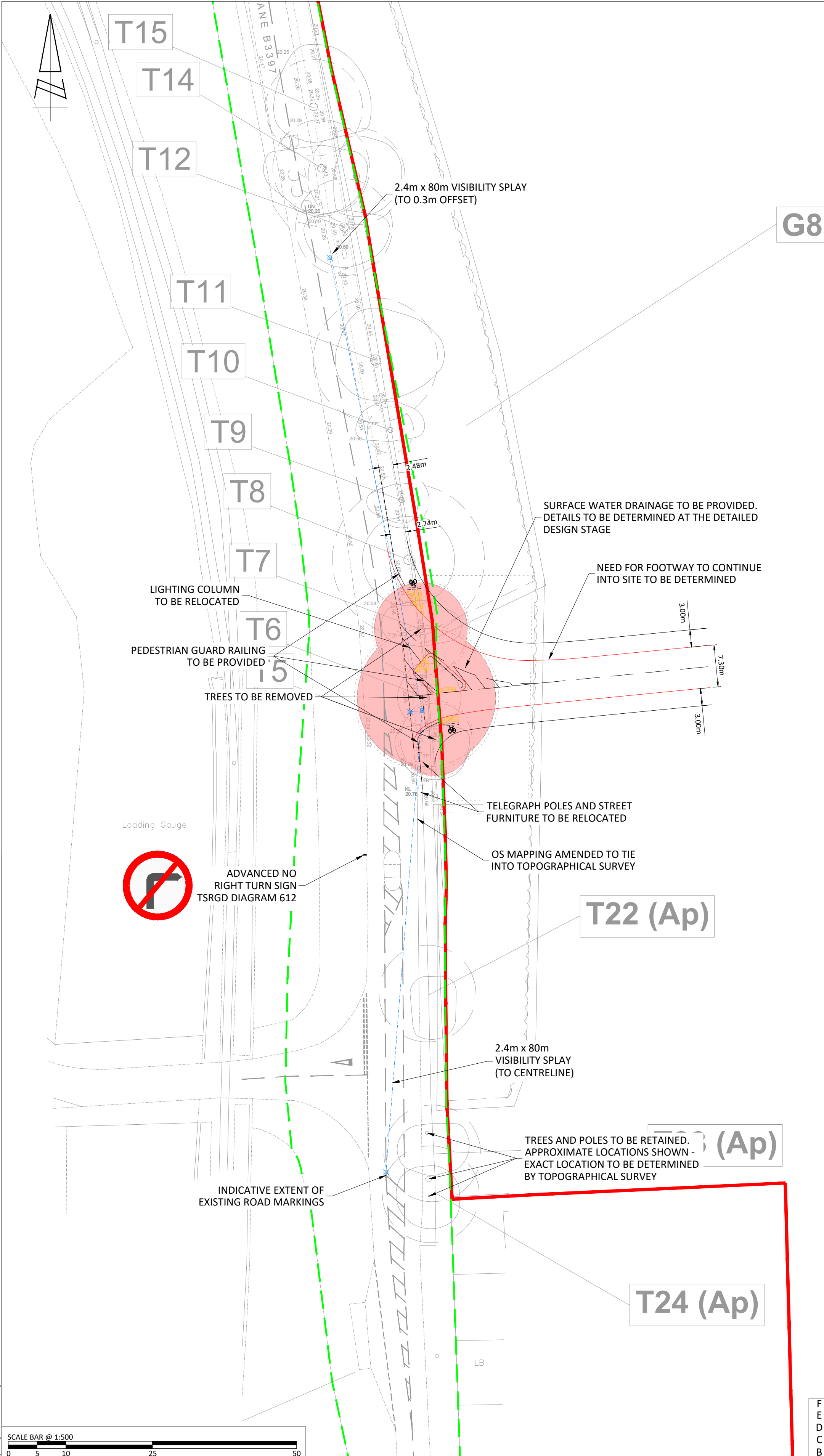
TITLE: SWEPT PATH ANALYSIS - FIRE TENDER
PROJECT: HAMBLE AIRFIELD
CLIENT: CEMEX

SCALE @ A3: 1:500	CHECKED: IN	APPROVED: IN
FILE REF: ITB13040	DRAWN: JD	DATE: 16.05.18
DRAWING No: ITB13040-SK-004		REV: C
PROJECT No: ITB13040		

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KEY:

- SITE BOUNDARY
- - - HIGHWAY BOUNDARY
- TREES TO BE REMOVED



BH
21.01
20.98



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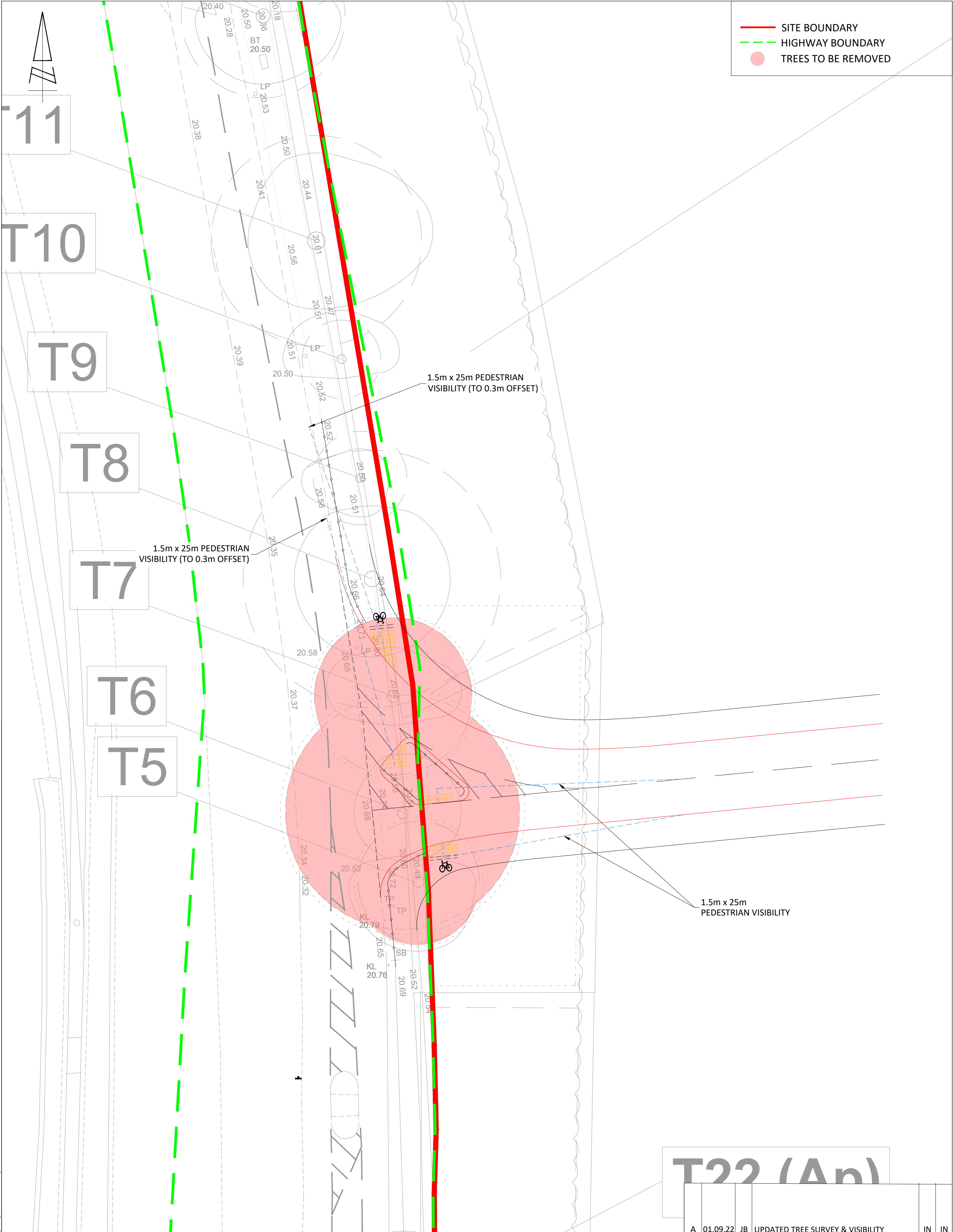
CLIENT: CEMEX

TITLE: PROPOSED SITE ACCESS

PROJECT: HAMBLE AIRFIELD

REV	DATE	BY	DESCRIPTION	CHK	APD
F	01.09.22	JB	TREE SURVEY UPDATED	IN	IN
E	13.06.22	JD	VISIBILITY SPLAYS AMENDED	IN	IN
D	06.05.22	JB	TOPO ADDED AND ACCESS AMENDED	IN	IN
C	07.04.22	JB	VISIBILITY SPLAYS AMENDED	IN	IN
B	30.11.21	SH	VISIBILITY SPLAYS AMENDED	IN	IN
STATUS: FOR INFORMATION					
SCALE @ A2: 1:500		CHECKED: IN		APPROVED: IN	
FILE REF: ITB13040		DRAWN: JB		DATE: 10.08.21	
DRAWING No: ITB13040-SK-006					
PROJECT No: ITB13040					REV: F

- SITE BOUNDARY
- - - HIGHWAY BOUNDARY
- TREES TO BE REMOVED



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CLIENT: CEMEX

TITLE: PROPOSED SITE ACCESS PEDESTRIAN VISIBILITY

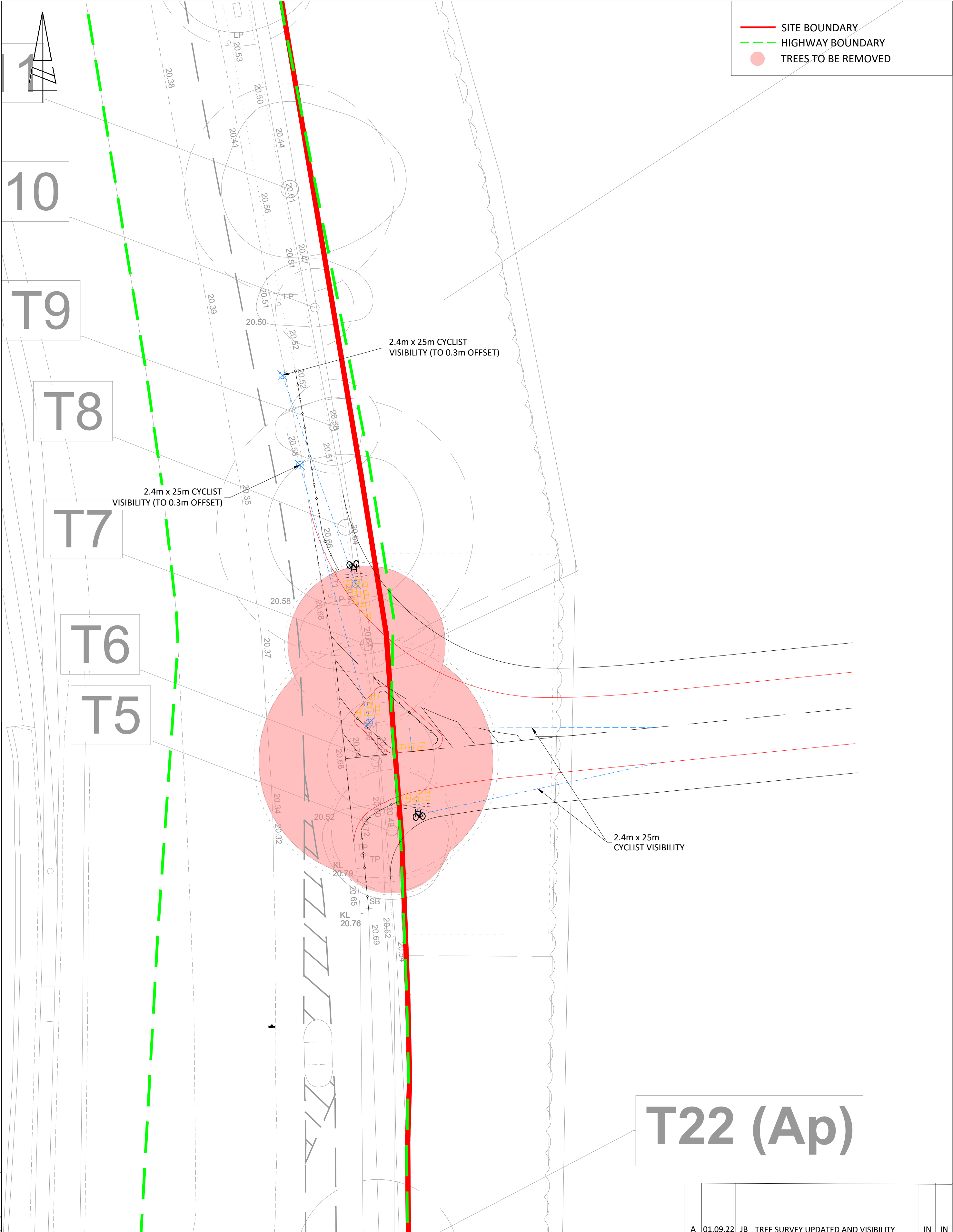
PROJECT: HAMBLE AIRFIELD

T22 (An)

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REV	DATE	BY	DESCRIPTION	CHK	APD
A	01.09.22	JB	UPDATED TREE SURVEY & VISIBILITY	IN	IN
STATUS: FOR INFORMATION					
SCALE @ A2: 1:250		CHECKED: IN		APPROVED: IN	
FILE REF: ITB13040		DRAWN: JB		DATE: 10.08.21	
DRAWING No: ITB13040-SK-010					
PROJECT No: ITB13040					REV: A

- SITE BOUNDARY
- - - HIGHWAY BOUNDARY
- TREES TO BE REMOVED



T22 (Ap)

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CLIENT: CEMEX

TITLE: PROPOSED SITE ACCESS
CYCLE VISIBILITY

PROJECT: HAMBLE AIRFIELD

REV	DATE	BY	DESCRIPTION	CHK	APD
A	01.09.22	JB	TREE SURVEY UPDATED AND VISIBILITY	IN	IN
STATUS: FOR INFORMATION					
SCALE @ A2: 1:250		CHECKED: IN		APPROVED: IN	
FILE REF: ITB13040		DRAWN: JB		DATE: 10.08.21	
DRAWING No: ITB13040-SK-011					
PROJECT No: ITB13040					REV: A



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APPENDIX A. HCC Consultation Responses

Note

To: Peter Bond– Strategic Planning
From: Philippa Gordon – Highways Development Planning
Our Reference: PG 6/3/9/MIN (035985)
Copies to:
Date: 23rd March 2022

Subject: **CS/22/92277 Proposed extraction of sand and gravel, with restoration to grazing land and recreation using imported inert restoration materials, the erection of associated plant and infrastructure and the creation of a new footpath and access onto Hamble Lane at Hamble Airfield**

Thank you for consulting me on the application recently submitted in relation to Hamble Airfield, Hamble. The application is for the proposed extraction of sand and gravel, with restoration to grazing land and recreation using imported inert restoration materials, the erection of associated plant and infrastructure and the creation of a new footpath and access.

Site Location

The site is a former airfield located in the north of Hamble. The site borders Hamble Lane to the west, Satchell Lane to the east and the railway line to the north.

Proposal

The site is allocated within the Hampshire Minerals and Waste Local Plan 2013. It is proposed to extract approximately 1.7million tonnes of sand and gravel at a rate of approximately 250,000 tonnes per annum. It is anticipated that this will take approximately 7 years and this will then be followed by a period of infilling and restoration. It is anticipated that the proposed development would commence in 2023, and would take up to 11 years to complete, generating HGV movements up to 2034.

The anticipated phases are:

- Traffic Phase 1: Year 1-2 – Export only;
- Traffic Phase 2: Years 3 – 7 – Export and infill; and
- Traffic Phase 3: Years 8 – 11 – Infill only.

The site will be operational between the hours of 0700-1700 hours Monday to Friday and 0700-1200 hours on Saturdays. It is stated that soil stripping and sand extraction will not commence until 0800 hours. Maintenance of plant and vehicles will be until 1900 during the week and 1800 hours on Saturdays.

Site Access

Access to the Site is proposed to be taken from a new priority access junction directly onto Hamble Lane (shown on drawing ITB13040-SK-006 Rev B). All HGVs arriving and departing the site will arrive and depart to the north (towards the M27). The access has been designed with a width of 7.3m and a kerb radius of 4.0m to the left / south of the access to prevent HGVs from turning left out of the site whilst still allowing smaller vehicles to make this manoeuvre.

In 2019, the applicant engaged Hampshire County Council's (HCC) Engineering Consultancy to provide a Pre-application Design Review (PADR) of the proposed new access. Two concerns raised within the PADR do not appear to have been addressed:

1. The Designer was asked to demonstrate that other options had been considered thoroughly – both in terms of junction location and junction form. This has been briefly mentioned in the Transport Assessment (TA), but there is no evidence that this optioneering exercise was undertaken fully and this should be provided to enable to rationale of the presented access to be understood.
2. The PADR made it very clear that both HCC Arboriculture and Ecology teams had genuine concerns regarding the proposed tree loss and set out requirements for the Designer to demonstrate that their loss could not be avoided, and to fully mitigate if their loss was found to be essential. One key element relates to CAVAT (Capital Asset Value for Amenity Trees), the value of these trees is likely to be substantial and nothing appears to have been submitted which looks to address these points. Further information can be found within HCC's TG15 Trees, landscape and Ecology and the 2019 Highways Trees Policy <https://documents.hants.gov.uk/transport/TG15-Trees-Landscape-and-Ecology.pdf>
<https://documents.hants.gov.uk/transport/HighwaysTreePolicy.pdf>

Additional information is also required as follows:

- Speed data is provided in a summary table only with no raw data. It is unclear where the measurements were taken, or when. The designer needs to confirm that the speeds are current (within two years) and taken in appropriate locations.

- Visibility to the south (left) can actually be shown to the centreline as there is a physical feature (refuge) which prevents overtaking here.
- Visibility to/from the tactile paving on the southern side of the proposed junction (in particular) may be limited. The designer should demonstrate that ped/cyclist visibility is achieved at all crossing points.
- The RSA requires updating to reflect the changes made since the PADR.
- There is no mention of LTN 1/20. Designs will need to prove compliance. Where possible, the cycleway should be widened to 3.0m and a suitable verge/margin provided for safety – given recorded speeds. The designer also needs to account for ‘shyness’ from the proposed barriers. One section is shown 2.28m wide with barrier adjacent. The effective width becomes minimal here. The crossing refuge in the bellmouth should also be a minimum of 3.0m ‘deep’ to cater for cyclists and the designer needs to check that the barriers do not become a problem for cyclists here too.
- A Walking, cycling and horse-riding assessment and review (WCHAR) has not been provided and is required.
- With regard to vehicle tracking, lock-to-lock times of 6s would be more appropriate than the 3s currently proposed for HGVs.
- Tracking – Speeds are not shown. These should be provided (it should be noted that anything lower than 10mph is not appropriate/realistic).
- All internal tracking uses a 14m HGV, whereas the junction is tracked with the correct 16.5m HGV, it is not clear why this is inconsistent.

Also, it is noted that the traffic count data included within the Transport Assessment includes ATC data from 2016/2017 plus growth. A sensitivity test to compare this approach with more recent data (potentially held by HCC surveys team) should be undertaken to confirm accuracy.

Recommendation

From a review of the information contained in the application I am unable to make a recommendation until further information has been provided as outlined above. A further response which covers the Transport Assessment and mitigation requirements will be provided once the above issues relating to the proposed access have been addressed.

In the meantime, should you wish to discuss this further please do not hesitate to contact Philippa Gordon on 0370 779 2886.

Note

To: Peter Bond– Strategic Planning
From: Philippa Gordon – Highways Development Planning
Our Reference: PG 6/3/9/MIN (035985)
Copies to:
Date: 16 August 2022

Subject: **CS/22/92277 Proposed extraction of sand and gravel, with restoration to grazing land and recreation using imported inert restoration materials, the erection of associated plant and infrastructure and the creation of a new footpath and access onto Hamble Lane at Hamble Airfield**

The Highway Authority provided a response to this application on 23rd March 2022. Since then the additional information requested in that response has not been provided and therefore this further response is being provided now to expand on the Highway Authority's consideration of this application and to facilitate the Planning Authority's consideration of the expected Regulation 25 material.

Site Access

Detailed comments on the proposed site access are contained within our previous response and there are no further comments to make at this stage.

Site Layout

Drawings ITB13040-GA-001 and GA-002 show the Swept Path Analysis of the proposed site layout for a cement mixer, 14.1m articulated vehicle and a rigid 8-wheel tipper.

Twenty car parking spaces will be provided within the site for staff and visitors with cycle parking for 10 bicycles. I am satisfied that adequate provision has been made for parking.

Highway safety

Personal Injury Accident (PIA) data has been obtained by the applicant from Hampshire Constabulary for the five-year period between 1 January 2016 to 31 December 2020.

The data covers a study area consisting of the extent of Hamble Lane, from and including Windhover Roundabout to the north to the priority junction with Kings Avenue to the south. A total of 65 accidents were recorded in the study area during the five-year period, consisting of 12 serious accidents and 53 accidents of a slight nature.

The data provided is not the latest five year period and therefore updated PIA data is required.

Highway ImpactBaseline Traffic Flows

To determine the existing baseline traffic conditions, a series of Automatic Traffic Count (ATC) surveys were undertaken on the Hamble Lane corridor between 2016 and 2017. As set out in the previous response, this data needs to be validated against more recent traffic counts to ensure the baseline is robust.

Surveys were undertaken at the following locations:

- Hamble Lane in vicinity of proposed access;
- Hamble Lane north of Hound Road;
- Hamble Lane north of A3025 Portsmouth Road; and
- Hamble Lane north of the Tesco roundabout.

Turning counts were also undertaken at the Hamble Lane / Hound Road roundabout in April 2018.

The surveys identified the following network peak hours:

- Morning Peak Hour – 08:00-09:00; and
- Evening Peak Hour – 18:00-19:00

To agree the peak hours, the raw traffic count data should be provided when it has been validated as set out above.

Trip GenerationHGVs

The proposed development is expected to generate (as a worst-case scenario) 90 two-way HGV movements per day (45 in and 45 out) in year 1 and 2 and years 8-11 and 144 two-way HGV movements (72 in and 72 out) in years 3-7 across the working day (0700-1700 hours Monday to Friday and 0700-1200 hours on Saturdays).

During the morning network Peak Hour there will be 11 two-way HGV movements in traffic phases 1 and 3 and 17 two-way HGV movements in traffic phase 2. There will not be any HGV movements during the evening network Peak Hour.

Further information is sought to evidence both the proposed HGV trip generation and the hourly profile of those trips to ensure that this reflects the operational requirements of the proposal.

Cars / Light Vehicles

There will be 7 people employed at the site, and it is assumed all will drive meaning that there will be 7 trips to the site and 7 trips from the site.

Traffic Distribution

All HGV traffic arriving at the site will travel to and from the north of the site along Hamble Lane, arriving and departing from the site via the M27 Junction 8. It has been assumed that all staff will also enter the site from the north via Hamble Lane due to the proposed configuration of the junction.

Traffic Impact

The traffic impact has been assessed for the morning and evening peak hours for the future years of 2023, 2030 and 2034 which coincide with the proposed 'year of opening' and end of traffic phases 2 and 3 respectively.

Traffic flows for the following consented developments have been included within the forecasted flows:

- Land at Berry Farm, Hamble Lane, Bursledon (Planning Ref: F/17/79863) -
- Land at Satchell Lane (Planning Ref: O/17/80319)
- Land to the south of Mallards Road (Planning Ref: O/15/76491)
- Land to the North of Cranbury Gardens (Planning Ref: O/15/76883)
- Land South of Bursledon Road (Planning Ref: O/15/77121)

Although the development at Mallards Road was dismissed at Appeal it has been retained in the assessment for robustness.

The applicant has used traffic data from similar aggregate extraction sites to calculate an indicative HGV flow profile across the day (the raw data for this is not provided).

Table 5.8 of the TA outlines that the traffic associated with the proposed development would have a maximum impact on two-way total traffic flows on the local highway network of 2.6% in the morning peak and typically less than 1% throughout the day on Hamble Lane in the vicinity of the site access in the future year of 2030 (the evening peak would only be impacted by staff journeys).

An assessment of existing HGV flows along the Hamble Lane corridor has been undertaken.

The assessment divides Hamble Lane into 4 sections and identifies that during the AM peak hour, the average number of HGVs ranges from 37 north of Hound Road to 77 north of Portsmouth Road. The PM peak averages are similar or less than the AM peak averages. The average daily HGV flows range from 363 to 831. Future year growth results in modest growth to these numbers.

As set out above, Phase 2 of the development will see the highest number of daily HGV movements generated by the proposals, reaching 144 daily HGV movements. When these flows are added to the baseline HGV flows, assumed to be from 2030 onwards in line with the phasing strategy, then the increase in HGVs across the AM Peak ranges from 21% to 45% (north of Hound Lane). The PM peak is not forecast to generate any development HGV trips. Daily HGV flows would be increase by a range of 17% to 38%. For phase 1 and 3, this percentage increases are lower reflecting the lower rates of HGV generation from the proposed use.

This will need to be confirmed against the validated baseline traffic data.

Junction Impact Assessment

Junction assessments have been undertaken for Hamble Lane / the proposed Site Access and Hamble Lane / Hound Road Roundabout using 'Junctions 10' traffic modelling software for the proposed Opening Year at 2023 and the further assessment years of 2030 and 2034.

All three years were assessed 'without development' (this includes background traffic growth and identified committed development) and 'with development' (includes background traffic growth, committed development and the development proposal). This approach is considered to be acceptable.

The remaining junctions between the site and the M27 (Hamble Lane junctions with Satchell Lane, Portsmouth Road, Jurd Way, Tesco, the Windhover Roundabout and M27 Junction 8) have not been assessed. The pre-application advice was that this was not necessary as any outputs would not reflect future traffic conditions due to the planned improvement works to Hamble Lane. However, this was when it was assumed that the works would be in place prior to the commencement of the development which is now unlikely given the planned opening year of 2023. An assessment of the impact of the development traffic on these junctions should be provided to demonstrate whether the addition of the development traffic would result in a significant impact on the capacity of these junctions.

Site Access / Hamble Lane

The maximum Ratio of Flow to Capacity (RFC) is 0.15 which occurs on the proposed access road arm. This results in a queue of less than one vehicle and an estimated average delay of some 28 seconds. I am satisfied that the proposed site access junction would operate within capacity during the weekday morning peak hours.

Hamble Lane / Hound Road Roundabout

The maximum RFC is 0.70 which occurs on the Hamble Lane north arm in the evening peak. This results in a queue of two vehicles and an estimated delay of some 8 seconds per vehicle. The proposed development is estimated to cause a maximum RFC increase of 0.03 on the Hamble Lane north arm in the morning peak period. I am satisfied that the junction will still be able to operate within capacity once the development is operational.

Recommendation

The Highway Authority, as set out in its previous response, is concerned that the proposals are not adequately supported by the necessary transport assessment to quantify the impacts of the development proposal on the local highway network, specifically Hamble Lane north of Hound Road Roundabout, as well as the need to address the detailed comments on the site access layout.

Within this expanded response I have set out in more detail the Highway Authority's position on a number of matters for which additional information is required. If you are minded to determine this application in the absence of this information, please contact me for highway reasons for refusal.

APPENDIX B. Correspondence with HCC

Imogen Nicholson

From: Gordon, Philippa <philippa.gordon@hants.gov.uk>
Sent: 22 September 2022 17:02
To: Imogen Nicholson; Clifton, Ben
Cc: Ben Howard; Emma Lucy Pearman
Subject: RE: Hamble Airfield

CAUTION: This message originated outside of i-Transport. Use caution when opening attachments, clicking links or responding to requests for information.

Hi Imogen,

I have set out our response to the items raised in your previous email below;

1. Optioneering Report: The conclusions of the Optioneering Report are acceptable.
2. Visibility splay requirements from the proposed pedestrian / cycle crossing points (with regards to the Y-distance): This is acceptable. Please note that you need to ensure that vehicles give way to peds/cyclists at minor road crossings in line with the latest Highway Code amendments and that the design is compliant with LTN120.
3. Lock-to-lock time for HGVs: We can confirm that 3 seconds is acceptable.
4. Traffic surveys: We are satisfied that the recent surveys demonstrate that the previously submitted data was robust.
5. Junction modelling: We will require an analysis of how the junctions are currently operating with regards to capacity and queue lengths in order to accurately determine the impact of the proposed development. This should include the impact on the RFCs at the junctions.

Kind regards,

Philippa

Philippa Gordon

Principal Transport Engineer
Highways Development Planning
Strategic Transport
Economy, Transport & Environment Department
Hampshire County Council

Please note my working days are Tuesday, Wednesday and Thursday

Telephone: 0370 779 2886



Hampshire County Council operates a pre-application highway advice service for developers.

Hampshire County Council welcomes and encourages discussions before a developer submits a planning application.

Please follow this link for further information

<https://www.hants.gov.uk/transport/developers/highwaysdevelopmentplanning>.

From: Imogen Nicholson <imogen.nicholson@i-transport.co.uk>

Sent: 20 September 2022 14:11

To: Gordon, Philippa <philippa.gordon@hants.gov.uk>; Clifton, Ben <ben.clifton@hants.gov.uk>

Cc: Ben Howard <ben.howard@i-transport.co.uk>; Emma Lucy Pearman <EmmaLucy.Pearman@cemex.com>

Subject: RE: Hamble Airfield

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Hi Philippa,

Further to your email earlier on the 8th Sept, I am emailing to enquire whether you have had a chance to consult with your colleagues in the Engineering department and able to provide a response on the queries set out in my email? We'd be particularly grateful if you could come back to us on whether the location of the proposed access is considered acceptable in principle at your earliest opportunity.

As always, happy to discuss if you have any queries.

Kind regards,



Imogen Nicholson MTPS MCIHT

Associate

for i-Transport LLP

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M: 07832846514



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From: Gordon, Philippa <philippa.gordon@hants.gov.uk>

Sent: 08 September 2022 14:55

To: Imogen Nicholson <imogen.nicholson@i-transport.co.uk>; Clifton, Ben <ben.clifton@hants.gov.uk>

Cc: Ben Howard <ben.howard@i-transport.co.uk>; Emma Lucy Pearman <EmmaLucy.Pearman@cemex.com>

Subject: RE: Hamble Airfield

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Imogen,

Many thanks for your email and apologies I couldn't make it to the meeting.

We are consulting with colleagues in Engineering and will aim to get back to you with a response early next week.

Kind regards,

Philippa

Philippa Gordon

Principal Transport Engineer
Highways Development Planning
Strategic Transport
Economy, Transport & Environment Department
Hampshire County Council

Please note my working days are Tuesday, Wednesday and Thursday

Telephone: 0370 779 2886



Hampshire County Council operates a pre-application highway advice service for developers.

Hampshire County Council welcomes and encourages discussions before a developer submits a planning application. Please follow this link for further information

<https://www.hants.gov.uk/transport/developers/highwaysdevelopmentplanning>.

From: Imogen Nicholson <imogen.nicholson@i-transport.co.uk>

Sent: 07 September 2022 12:09

To: Clifton, Ben <ben.clifton@hants.gov.uk>

Cc: Ben Howard <ben.howard@i-transport.co.uk>; Emma Lucy Pearman <EmmaLucy.Pearman@cemex.com>; Gordon, Philippa <philippa.gordon@hants.gov.uk>

Subject: RE: Hamble Airfield

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Hi Ben / Philippa,

Many thanks for meeting us last week to discuss the proposed application at Hamble Airfield.

As discussed, please find attached a copy of our access Optioneering Report, which identifies the access locations / options initially considered as part of the proposals, however, determines that the proposed access has the least impact on arboriculture, landscape and ecology. I would be grateful if you could review and confirm (or advise otherwise) that the proposed access is located in the most suitable position and is therefore considered acceptable. I appreciate that there are some additional design elements which need addressing with regards to the proposed access, however, we can progress these once we know the location of the access is considered acceptable in principle.

We would also be grateful if you could confirm the visibility splay requirements that should be shown from the proposed pedestrian / cycle crossing points (with regards to the Y-distance). As noted in the meeting, while vehicles are travelling at circa 40mph along Hamble Lane, vehicles which are turning into the proposed access will not be travelling at this speed. As such, we do not believe that ped/cycle visibility splays need to match those shown from the vehicular access. We can achieve ped / cycle visibility splays of 25m (commensurate with a 20mph speed) without further tree removal, which is still robust as it is very unlikely that vehicles will be turning into the access at this speed. This is considered appropriate as pedestrians only need to be able to see vehicles turning into the site to determine whether it is safe to cross, rather than all vehicles travelling along Hamble Lane. This approach has been agreed at other sites we have recently worked on in Hampshire, such as Whitehill Chase. The pedestrian and cycle visibility splays from the proposed crossing points are shown on drawings ITB13040-SK-010A and SK-011A.

With regards to the comments on vehicle tracking, HCC has requested that the lock-to-lock time for an HGV is increased from the 3 seconds currently shown to 6 seconds. It is noted that the lock-to-lock time used is the standard within the vehicle track dataset for an FTA Design Articulated Vehicle 2016 and we have not amended / reduced this. Consequently, we do not believe it is necessary / appropriate to amend the vehicle lock-to-lock times. As such we would be grateful if HCC could confirm this or advise why this is considered necessary.

As requested, additional traffic surveys were undertaken on Hamble Lane in 2022 to validate the traffic surveys undertaken to support the application and these are summarised in the Table below. The survey data shows a slight decrease in traffic flows on Hamble Lane in 2022 when compared with the previous survey data. This information will be provided for HCC to review as part of any future submission, however, demonstrates that the traffic impact assessment which has been undertaken to date (based on 2016 observed data and factored using TEMPRO growth rates to a base year of 2021) provides a robust assessment, with flows in 2016 being circa 5-10% higher than currently recorded (based on 5-day averages).

Location	Morning Peak (08:00-09:00)			Evening Peak (18:00-19:00)			Daily Traffic (00:00-23:59)		
	North	South	Two-Way	North	South	Two-Way	North	South	Two-Way
2016 Observed Flows	438	818	1,256	627	641	1,268	7,765	8,116	15,881
2022 Observed Flows	462	738	1,200	541	609	1,150	7,472	7,714	15,186
Difference	+24	-80	-56	-86	-32	-118	-293	-402	-695

We have also given some further thought to the impact of the development on the operation of Hamble Lane and any modelling.

Typical journey times (outside of school holiday periods etc) from the proposed development site to / from the M27 Junction 8 are circa 6-12 minutes (see snips below). These demonstrate that traffic on Hamble Lane effectively forms a slow rolling queue between the southern residential extent of Bursledon and the M27. This is also our experience of the operation of the corridor.

A3024, Bursledon, Southampton
 Hamble Ln, Southampton SO31 4NL

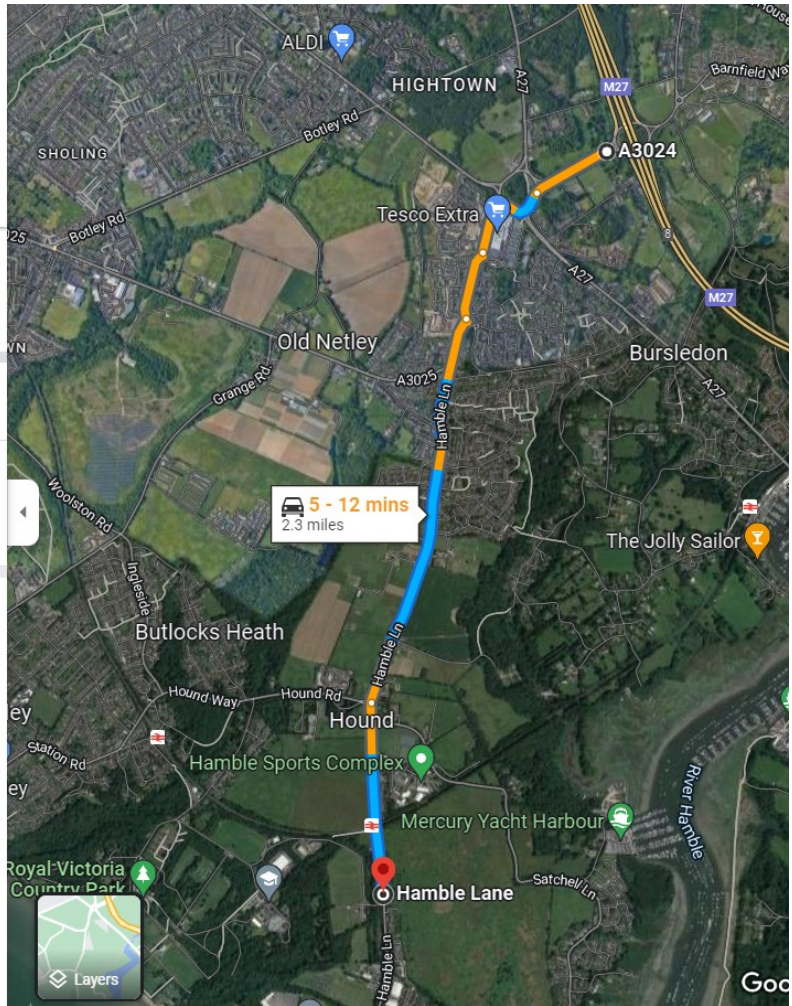
Depart at 08:00 Wed, 15 Jun

Send directions to your phone

via Hamble Ln **typically 5 - 12 min**
 2.3 miles

Explore Hamble Ln

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Hamble Ln, Southampton SO31 4NL
 A3024, Bursledon, Southampton

Depart at 08:00 Wed, 15 Jun

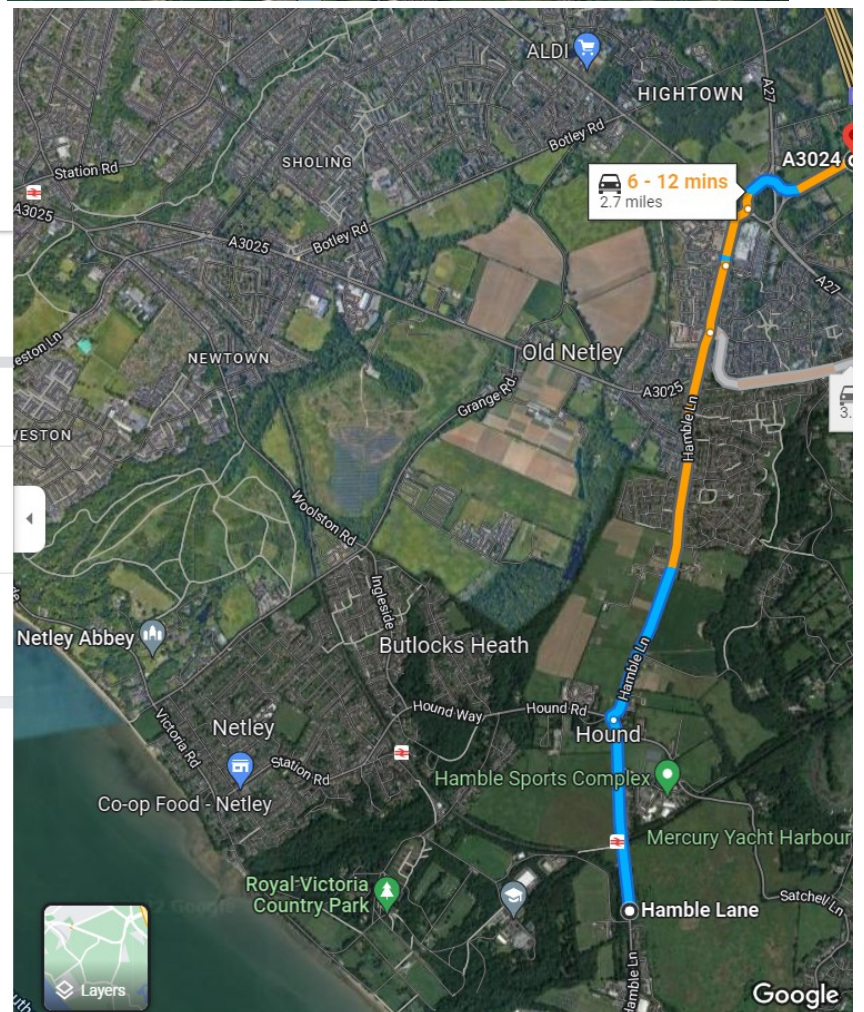
Send directions to your phone

via Hamble Ln **typically 6 - 12 min**
 2.7 miles

via Hamble Ln and Dodwell Ln **typically 8 - 14 min**
 3.3 miles

Explore A3024

- Restaurants
- Hotels
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- More



The maximum development traffic impact in the morning peak will consist of 17 two-way HGV movements and 20 cars (staff) arriving at the site (a total of 37 two-way movements). This is a very robust assessment as it assumes all staff arrive during this period when in practice the site opens earlier. Of these 37 vehicles, 29 vehicles (20 cars and 9 HGVs) will be travelling southbound (towards the site) and 8 HGVs travelling northbound (away from the site). On average, this equates to one vehicle movement every 2 minutes travelling south in the morning peak and one vehicle every 7 minutes travelling north during the peak. Therefore, intuitively, based on it taking 6-12 minutes to travel between the site and the M27 (which all the traffic will route to/from), the proposed development could increase the length of the rolling queue along the corridor by 3-6 vehicles travelling southbound and 1-2 vehicles travelling northbound during the peak period. This is a robust assessment given some staff will arrive at the site before 08:00. This would be a modest impact on the overall operation of the corridor and we feel gives a better understanding of the impact of the development than us seeking to refer to the modelling results for individual junctions produced by others which was an alternative suggested in the meeting. Our suggestion is therefore that we look to present this level of assessment in a Transport Assessment Addendum as opposed to presenting the results of junction modelling undertaken by others. This could obviously be supplemented by a quantification of increases in % terms and in absolute terms.

I would be grateful if you could review the above information and confirm the proposed approaches are acceptable or advise otherwise.

Kind regards,



Imogen Nicholson MTPS MCIHT

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APPENDIX C. Access Options Report

Technical Note

Project No: ITB13040
Project Title: Hamble Airfield, Hamble
Title: Access Options Report
Ref: BH/IN/ITB13040-005A
Date: 7 September 2022

SECTION 1 Introduction

- 1.1 i-Transport has been appointed by CEMEX to provide highway and transport advice in relation to the proposed extraction of minerals from land at Hamble Airfield. A planning application was submitted in December 2021 (planning ref: CS/22/92277), for the:

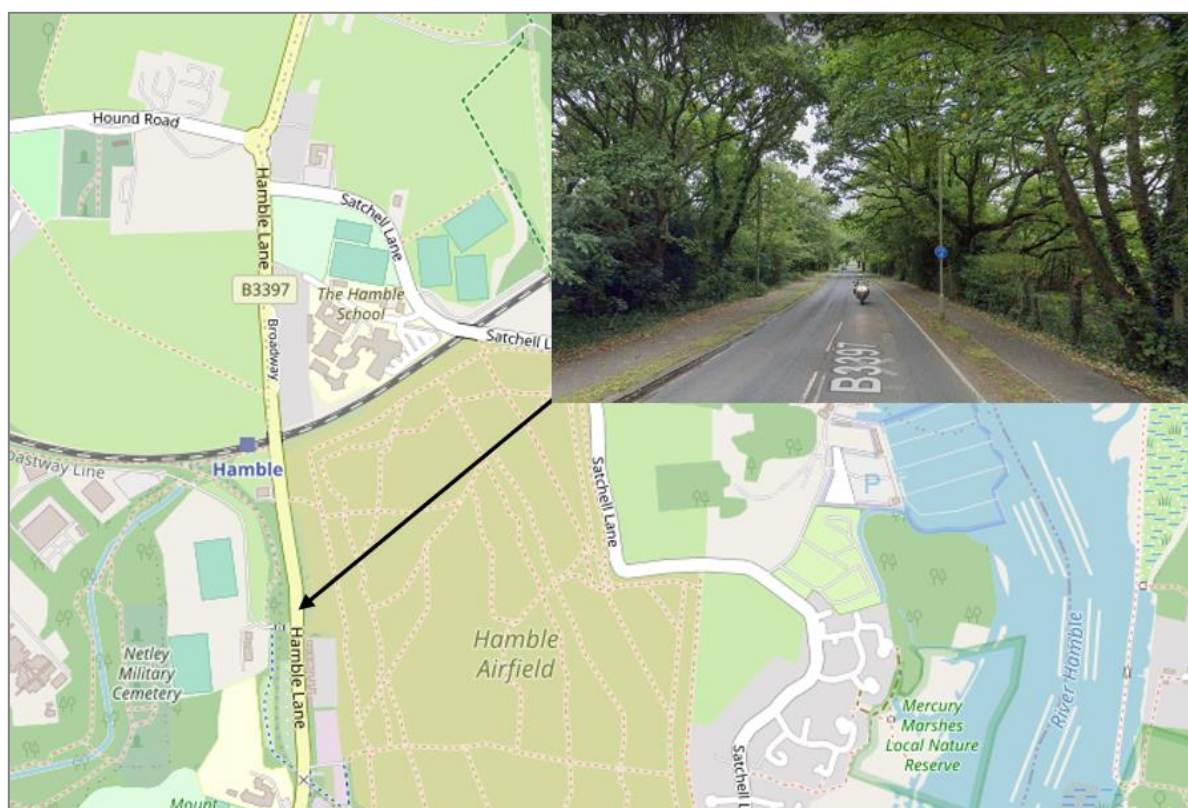
“Proposed extraction of sand and gravel, with restoration to grazing land and recreation using imported inert restoration materials, the erection of associated plant and infrastructure and the creation of a new footpath and access onto Hamble Lane”

- 1.2 Hampshire County Council (HCC) in its role as Local Highway Authority provided an initial application response by letter dated 23rd March 2022 (**Appendix A**). The response focused on the proposed location of the access and the potential impact on arboriculture and ecology and requested that additional information in relation to the access is submitted to HCC, specifically that other access options / locations have been considered thoroughly. As such, this note provides information on the proposed access options considered and seeks confirmation from HCC that the proposed location is the most suitable.
- 1.3 Once the location of the access has been agreed amongst all parties, the additional information requested such as an updated RSA, Walking, Cycling and Horse-riding Assessment Review (WHCAR), updated vehicle tracking, and pedestrian/cycle visibility splays will be provided to demonstrate that a safe and suitable access arrangement can be provided.

SECTION 2 Proposed Access Arrangement

- 2.1 As set out in the Transport Assessment (ITB13040-004b) which accompanied the application, it is proposed to provide a new entrance to the extraction site from Hamble Lane towards the southern extent of the site frontage, which will take the form of a simple priority junction.
- 2.2 The proposed access is located circa 270m south of the railway bridge and 65m north of the existing Hampshire Constabulary Training Centre access. An indicative location plan is included as **Image 2.1** below:

Image 2.1: Indicative Location of Proposed Site Access



- 2.3 It is intended that all HGVs arriving and departing the site would arrive and depart to the north (towards the M27). As such, the access has been designed to help physically prevent any vehicles arriving or departing from the south.
- 2.4 The proposed access has width of 7.3m and has a kerb radius of 4.0m to the left / south of the junction to help physically prevent HGVs from turning left out of the junction, whilst still enabling cars and small commercial vehicles such as panel vans to turn south towards Hamble.
- 2.5 As it is intended that all vehicles will arrive from the north (with the exception of emergency vehicles), the radius of the site entrance has been informed by swept path analysis and would enable large vehicles to undertake a 'left-in' manoeuvre without issue.

- 2.6 The proposed site access arrangement is shown on **drawing ITB13040-SK-006F**.
- 2.7 Following the comments received from HCC regarding the proposed access arrangements, a new Automatic Traffic Count (ATC) survey has been commissioned to provide up to date information on traffic volumes and vehicle speeds along Hamble Lane.
- 2.8 The ATC surveys were undertaken by Hampshire County Councils Survey Team on Hamble Lane in April 2022 (during a period when there were no COVID travel restrictions in place and outside of school holiday and/or bank holidays). Analysis of the survey data identified that the peak hours on the local highway network are 08:00 to 09:00 and from 18:00 to 19:00.
- 2.9 A Summary of the latest observed two-way vehicle movements on Hamble Lane in the vicinity of the proposed access is summarised in **Table 2.1**, along with the previous traffic data used in the Transport Assessment. A copy of the raw Traffic Data is included at **Appendix B**.

Table 2.1 Peak Traffic Flows – Hamble Lane

Location	Morning Peak (08:00-09:00)			Evening Peak (18:00-19:00)		
	North	South	Two-Way	North	South	Two-Way
2017 Observed Flows	447	820	1,267	612	693	1,304
2021 Factored Flows	480	862	1,342	645	731	1,375
2022 Observed Flows	470	743	1,213	545	608	1,153

Source: May 2017 and April 2022 ATC Traffic Survey (5-day Average)

- 2.10 **Table 2.1** shows that the observed (2022) traffic flows on Hamble Lane are circa 1,153 - 1,213 two-way movements during the morning and evening peak periods. This equates to 19-20 vehicle movements every minute and is lower than the previously recorded flows, as such the assessments provided in the Transport Assessment are robust as they do not take account of long-term behavioural changes such as retail activities being increasingly focused online, increased active travel and increased home working / reduced business travel that have occurred as a result of the COVID-19 pandemic.
- 2.11 The recorded mean and 85th percentile speeds obtained from the ATC surveys on Hamble Lane are summarised in **Table 2.2**. A copy of the raw Traffic Data is included at **Appendix B**.

Table 2.2 Summary of Recorded Speed Data

Location	Speeds	2022 Recorded Vehicle Speeds	
		Northbound (mph)	Southbound (mph)
Hamble Lane	Mean	34.3	34.6
	85th Percentile	39.6	39.4

Source: Traffic Surveys

- 2.12 The visibility splays for the proposed access have been updated based on observed vehicle speeds (**Table 2.2**) and HCC's updated TG3 guidance. The data shows that 85%ile speeds of 39.6mph were recorded for vehicles travelling northbound and 39.4mph for vehicles travelling southbound. The weather was dry during the survey period, therefore, in accordance with guidance set out in CA185, no adjustments have been made to the recoded vehicle speeds (historic weather report included at **Appendix C**). HCC's visibility tool calculator has been used to determine the required visibility splays, which shows that visibility splays of 2.4m x 80m (based on parameters for speeds <64kph) are required in both directions. These visibility splays are shown on **drawing ITB13040-SK-006F**, while the visibility splay calculations are included at **Appendix D**.
- 2.13 The proposed access arrangement has also been updated with topographical mapping to ensure that the proposed impacts on trees are accurate.
- 2.14 The proposed access would require the removal of three trees - T5-7 in order to construct the access. No further trees are required to be removed to achieve the visibility splays. Consequently, the access would require the removal of one Category B1 tree and two Category C1 trees. This is confirmed in the review of the proposed access arrangements undertaken by the arboricultural and landscape consultants included at **Appendix E**. While it is noted that some minor amendments have been made to the access arrangement since the review was undertaken by the arboricultural and landscape consultants, these changes do not affect the trees proposed to be removed along the site frontage.
- 2.15 With regards to the proposed loss of trees, the arboricultural and landscape consultants:

"The submitted access proposal (006D) would require the removal of three trees: T5, a 16m high Sycamore, Category C1 "Good" condition, with 20 years or more likely contribution to the streetscene; T6, a 15m high English Oak, Category C1 "Good / Fair" condition, noted as being in decline with less than 10 years contribution, and T7, a 20m high Sycamore, Category B1 "Good" condition, with 20 years or more likely contribution. Additionally, T8, a 20m high English Oak, Category B1 will be retained if possible, with a cellular confinement system to the small sector of rootzone which would be affected by the deceleration lane. In terms of landscape, the submitted proposal would result in the loss of one native broadleaved tree (English Oak) with a limited contribution, with the remaining two being non-native (but naturalised) Sycamore specimens with a medium-term contribution. As this submitted proposal represents the fewest trees to be removed over the shortest stretch of road frontage, this would have the most limited adverse landscape character and visual impact of the three alternatives"

SECTION 3 **Alternative Access Options**

3.1 **Overview**

3.1.1 The location of the access has been carefully selected to minimise the impact on trees and ecology along Hamble Lane and the site frontage. Additional access points were reviewed from the outset and determined to be less suitable.

3.1.2 The access options which were considered are set out in the following sections and are supported by drawings showing the impacts that these would have on trees, as well as advice received from the project arboriculturist and landscape consultant.

3.2 **Satchell Lane**

3.2.1 Satchell Lane forms the sites eastern boundary. Satchell Lane is a single carriageway road, subject to a 30mph speed limit. At its north-western extent, the road forms the minor arm of a simple priority junction with Hamble Lane and shared use pedestrian and cycle facilities are provided on both sides of the carriageway up to the Blackthorn Health Centre, beyond which there are no designated pedestrian or cycle facilities. Circa 300m to the southeast, Satchell Lane provides access to The Hamble School and Hamble Sports Complex. To the southeast of the school, Satchell Lane becomes more rural in nature with multiple 'bend ahead' warning signs and maximum advisory speeds of between 15-30mph. The width of the carriageway also reduces to circa 4.8m in places.

3.2.2 There is an existing access point from the site to Satchell Lane, located on the inside of a bend which limits the visibility that can be achieved and is located opposite a number of residential driveways and a bridleway (PRoW ref: 103/709/1). The location of the access points is shown on **Image 3.1**. The remainder of the site frontage is densely vegetated, with limited gaps to provide a new access point without requiring vegetation removal.

3.2.3 Consequently, the presence of frequent bends along the Satchell Lane site frontage, relatively limited carriageway width (for a site which would generate HGV movements), densely vegetated site frontage makes Satchell Lane less suitable for an access to the proposed development. This is a view shared by the landscape and arboricultural consultants who note that:

“There is mature vegetation forming part of the longer established landscape framework to the east along Satchell Lane, a narrow winding road framed by dense hawthorn hedgerows, some of which are on low hedge banks as the land rises away into the application area. These hedgerows provide a “sunken lane” effect to Satchell Lane and contribute to a strong degree of enclosure and rural feel along the lane itself. The majority of the Satchell Lane frontage to the northern boundary of the site has an attractive appearance, apart from the former airfield access at the north-eastern corner of the site, where the vegetation has long since been removed and replaced with chain link fencing and gates opposite Wessex House”.

Image 3.1: Location of Existing Satchell Lane Access



3.3 Hamble Lane

- 3.3.1 Hamble Lane forms the sites western boundary and is a single carriageway road, subject to a 30mph speed limit. Along the site frontage Hamble Lane is relatively straight and street lit, with a shared footway / cycle way on the eastern (site frontage) side of the carriageway and a footway on the western side.
- 3.3.2 A number of locations were considered for the proposed access as set out below:

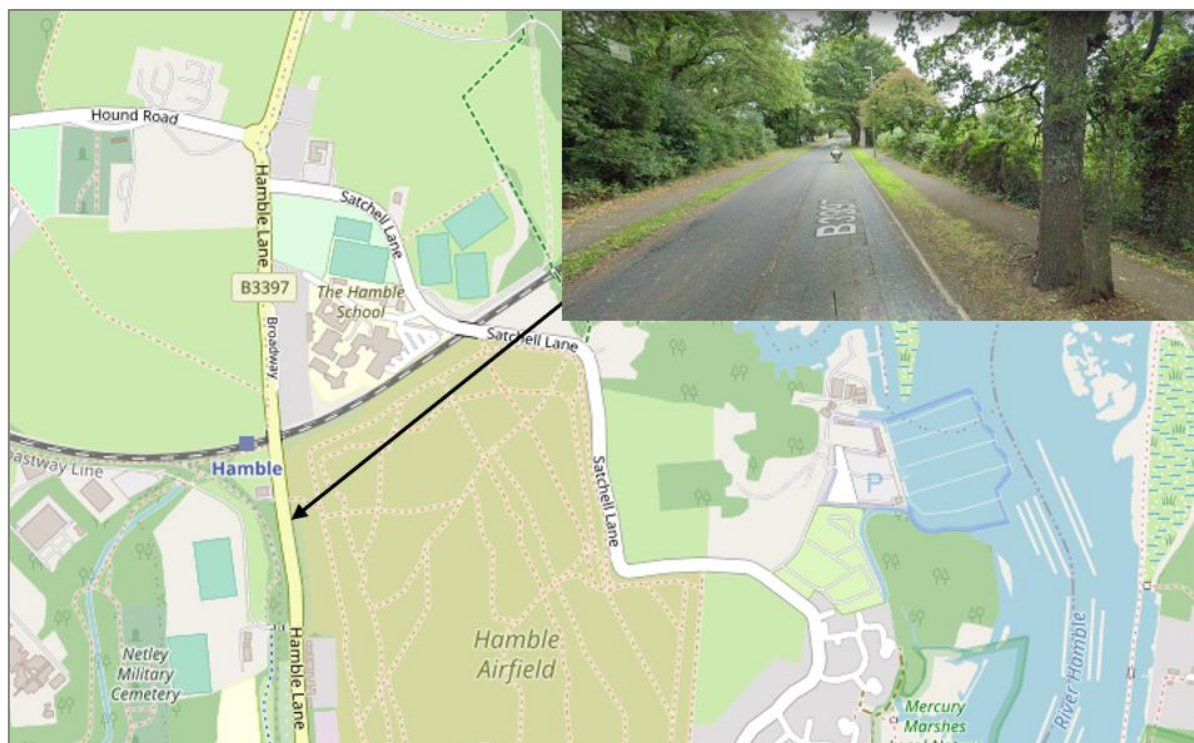
Access South of Railway Line

- 3.3.3 An initial review of an access to the south of the railway line was quickly disregarded as being suitable for access, as the crest curve of the road bridge over the railway line would prevent visibility splays from being achieved to the north of the access. As such any access would need to be located circa 120m to the south of the railway bridge to ensure the visibility splay could be achieved.

Access Circa 150m South of Railway Line

- 3.3.4 A priority access located approximately 150m to the south of the railway bridge, which utilises an existing 'gap' in the trees along Hamble Lane was considered. **Image 3.2** shows the indicative access location, while drawing **ITB13040-SK-007C** shows the potential access arrangement.

Image 3.2: Indicative Location of Access Circa 150m of Railway Line



- 3.3.5 This option was deemed less favourable as it would require the removal of five trees, including T14 and T15 to the south of the access as the visibility splay passes through the trunk of the trees. To the north of the access, trees T17-T20 and T21 would require removing as a minimum to provide an acceptable level of visibility. The kerb and visibility splay would pass through T17 necessitating its removal, while for Trees T18-21, the visibility splay goes through the trees which would create a visibility 'shadow' which could obstruct a vehicle and thus impact the safe operation of the junction, as such these trees would also require removing.

- 3.3.6 Consequently, a total of seven trees (3x Cat B1 and 4x Cat C1) along the frontage would need to be removed to achieve an access in this location. This results in a greater number of trees that would need to be removed when compared with the proposed access arrangement, which only requires the removal of three trees (1x Cat B1 and 2x Cat C1).
- 3.3.7 The alternative access arrangement has been considered by the landscape and arboricultural consultants. It is of note that the drawing has been slightly amended since the review was undertaken, nevertheless the number of trees proposed to be removed remains the same.

“The alternative access proposal 007A would require the removal of seven trees: T19, a 20m high Ash, Category C1 “Fair” condition, with less than 10 years contribution, T14 and T18 English Oak, 18m and 20m respectively, both Category B1 “Good” condition, with more than 20 years contribution. The remainder T15, T17, T20 and T21 are all English Oak between 17 and 20m in height, Category C1 “Good / Fair” condition, with around 10 years likely contribution to the streetscene. In terms of landscape, the alternative proposal 007A would result in the loss of two native broadleaved trees (English Oak) with a medium-term contribution, with the remaining five (English Oak and Ash) with a limited or short-term contribution. As this proposal represents a greater number of native trees (none of which are in decline), to be removed over a longer stretch of road frontage, this would have a greater adverse landscape character and visual impact than the submitted proposal”.

- 3.3.8 Consequently, the proposal shown on drawing **ITB13040-SK-007C** would have a greater impact than the proposed site access arrangement.

[Access Circa 205m South of Railway Line](#)

- 3.3.9 A priority access located circa 205m to the south of the railway bridge was also considered from the outset. **Image 3.3** shows the indicative access location, while drawing **ITB13040-SK-008C** shows the proposed access arrangement.

Image 3.3: Indicative Location of Access Circa 200m of Railway Line

- 3.3.10 This option was deemed unfavourable as it would require the removal of tree T11 to the south of the access to deliver a new 3.0m wide footway/cycleway connection with the site. While to the north of the access, trees T12-15 would require removing to the north as a minimum to provide a footway / cycleway connection and achieve the required visibility splays.
- 3.3.11 Consequently, a total of five trees (3x Cat B1 and 2x Cat C1) along the frontage would need to be removed to achieve an access in this location. This results in a greater number of trees that would need to be removed when compared with the proposed access arrangement, which only requires the removal of three trees (1x Cat B1 and 2x Cat C1). Furthermore, the trees to the north of the access which would need to be removed are also situated on the edge of the carriageway and thus contribute more to the street scene than trees T5-T7, as such, an access located in this position was deemed to be less suitable.
- 3.3.12 This is confirmed by the landscape and arboricultural consultants, who note that:

“The alternative access proposal 008A would require the removal of nine trees: T19, a 20m high Ash, Category C1 “Fair” condition, with less than 10 years contribution, T11, T13, T14 and T18, English Oak between 17 and 20m, all Category B1 “Good” condition, with more than 20 years contribution. The remainder T12, T15, T17 and T20 are all English Oak between 15 and 20m in height, Category C1 “Good / Fair” condition, with around 10 years likely contribution to the streetscene. In terms of landscape, the alternative proposal 008A would result in the loss of four native broadleaved trees (English Oak) with a medium-term contribution, with the remaining five (English Oak and Ash) with a limited or short-term contribution. As this proposal represents the greatest number of native trees (none of which are in decline), to be removed over the longest stretch of road frontage, this would have the greatest adverse landscape character and visual impact of the three alternatives”.

3.3.13 It is of note that while the drawing has been slightly amended since the review was undertaken, the number of trees proposed to be removed remains the same.

Access Circa 30m North of Hampshire Constabulary Headquarters Access

3.3.14 Consideration for a priority access located approximately 30m to the north of the Hampshire Constabulary Headquarters access was also briefly reviewed. However, an access in this location would have a number of implications including:

- Creation of a staggered junction with the existing Hampshire Constabulary Headquarters access which could impact on the safe operation of the local highway network;
- The need to relocate of the existing uncontrolled crossing with pedestrian refuge currently located to the south of the access. The width of the highway to the north and south of the existing location is more limited and widening of the carriageway to provide sufficient space for a refuge is likely to have an impact on trees within the verge and / or the pedestrian / cycle facilities adjacent to the carriageway; and
- The junction would be positioned further south, in closer proximity to Hamble Primary School and the existing residential dwellings and therefore would be less desirable from an amenity perspective.

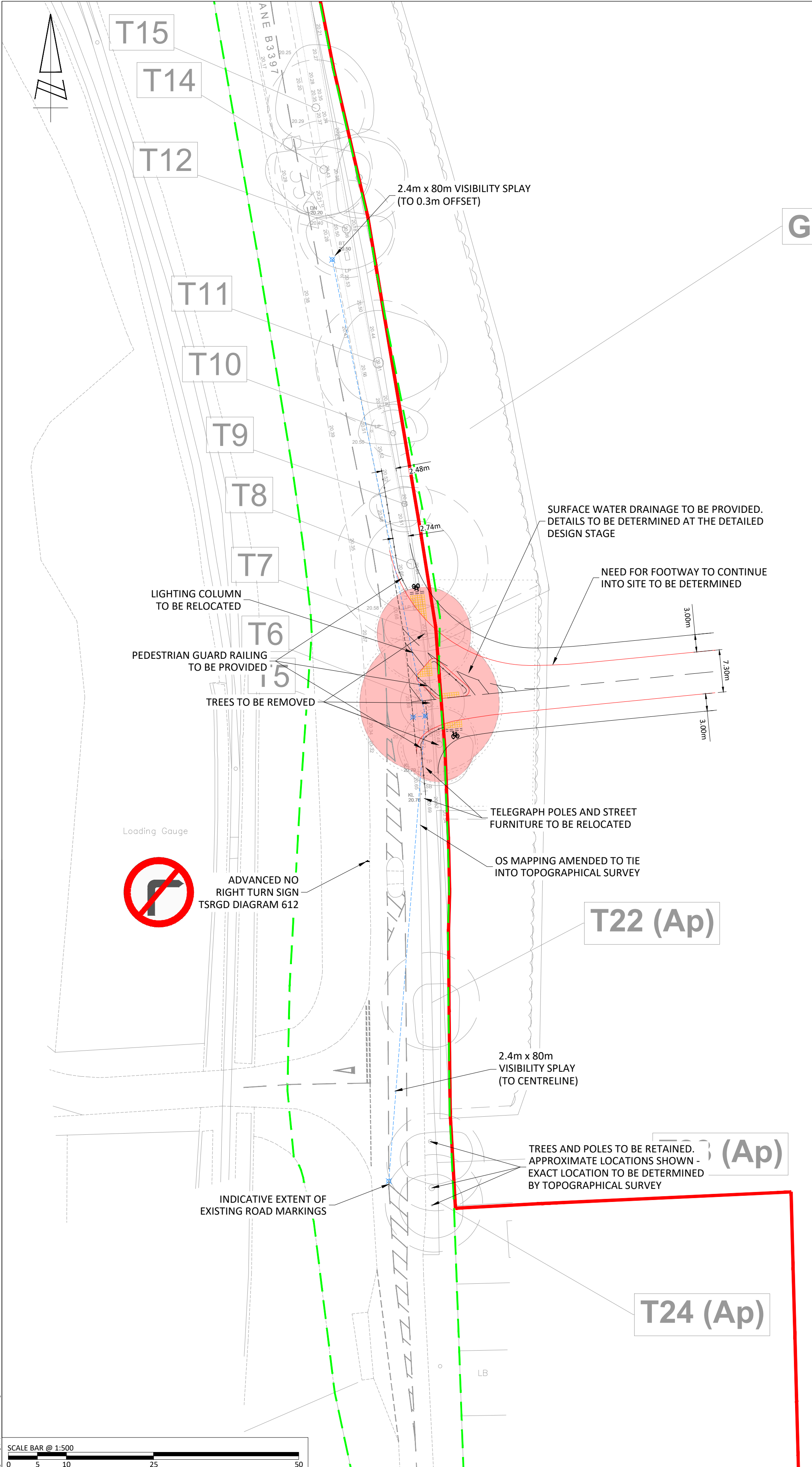
SECTION 4 Summary and Conclusion

- 4.1 i-Transport has been appointed by CEMEX to provide highway and transport advice in relation to the proposed extraction of minerals from land at Hamble Airfield.
- 4.2 Hampshire County Council (HCC) provided an initial application response which requested that i-Transport demonstrate that other access options have been considered thoroughly, as well demonstrating that the arboricultural impact of the proposed tree loss has been considered in detail.
- 4.3 This note provides an update to the proposed access arrangement for the site which reflects the topographical survey and latest speed survey results. The note also sets out the other access options which have been considered for the site and were deemed to have a greater impact on the trees along the site frontage, which is confirmed by comments received from the arboricultural and landscape consultants.
- 4.4 Agreement is sought from HCC that the proposed access is located in the most suitable location and minimises the impact on trees along the site frontage. Once an agreement on the most suitable access location has been reached, the additional information requested, such as an updated RSA, Walking, Cycling and Horse-riding Assessment and Review (WHCAR), updated vehicle tracking, and pedestrian/cycle visibility splays will be provided to demonstrate that a safe and suitable access arrangement can be provided to the site.

DRAWINGS

KEY:

- SITE BOUNDARY
- - - HIGHWAY BOUNDARY
- TREES TO BE REMOVED



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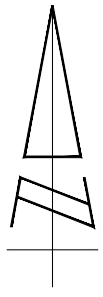
CLIENT: CEMEX

TITLE: PROPOSED SITE ACCESS

PROJECT: HAMBLE AIRFIELD

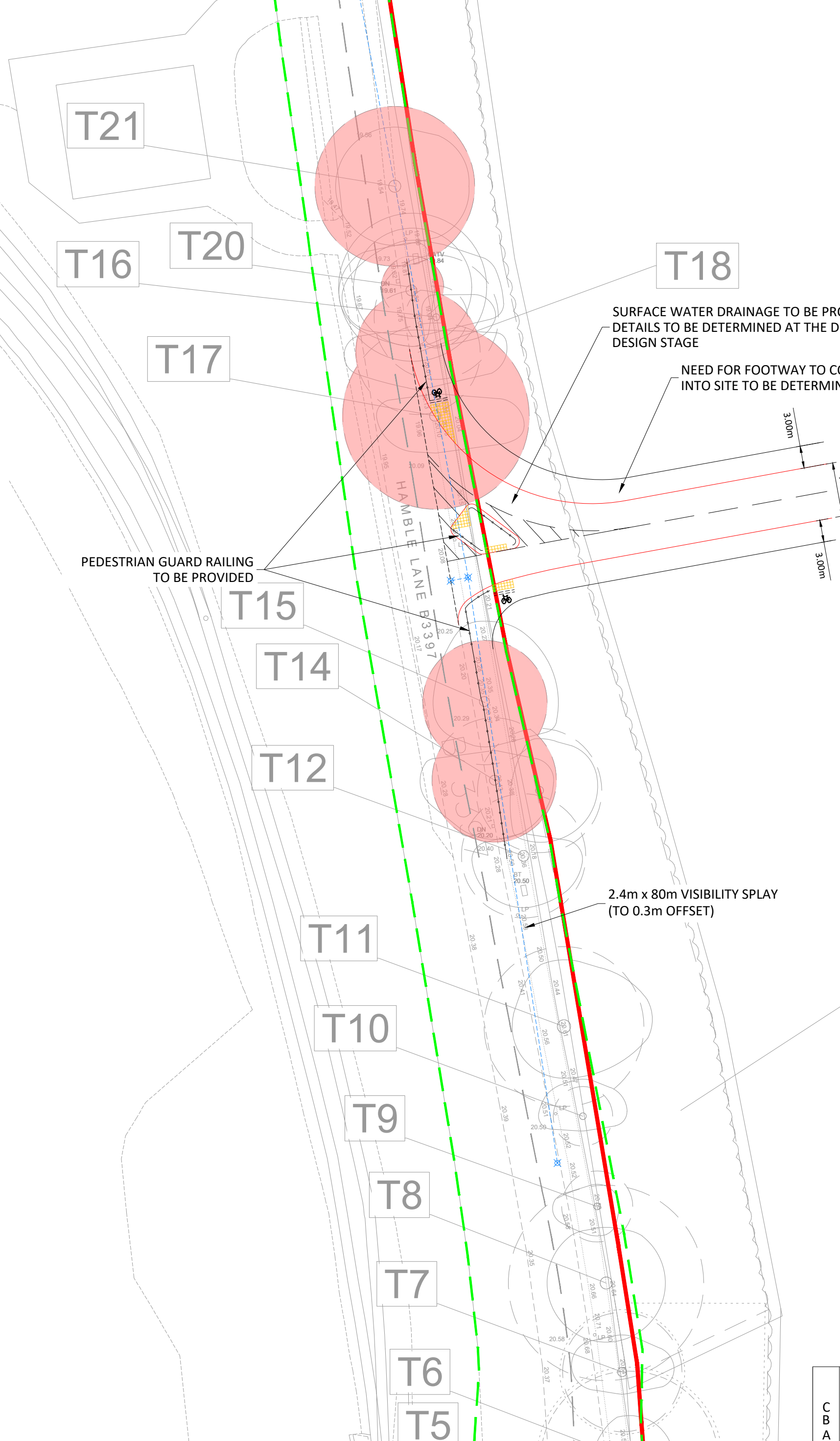
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E	13.06.22	JD	VISIBILITY SPLAYS AMENDED	IN	IN
D	06.05.22	JB	TOPO ADDED AND ACCESS AMENDED	IN	IN
C	07.04.22	JB	VISIBILITY SPLAYS AMENDED	IN	IN
B	30.11.21	SH	VISIBILITY SPLAYS AMENDED	IN	IN

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1:500	IN	IN	
FILE REF:	DRAWN:	DATE:	
ITB13040	JB	10.08.21	
DRAWING No:	ITB13040-SK-006		
PROJECT No:	ITB13040	REV:	F



- KEY:**
- SITE BOUNDARY
 - - - HIGHWAY BOUNDARY
 - TREES TO BE REMOVED

G8



G8

CLIENT: TITLE: PROJECT:	CEMEX PROPOSED SITE ACCESS HAMBLE AIRFIELD	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%;">C</td> <td style="width: 15%;">01.09.22</td> <td style="width: 5%;">JB</td> <td style="width: 55%;">TREE SURVEY UPDATED</td> <td style="width: 5%;">IN</td> <td style="width: 5%;">IN</td> </tr> <tr> <td>B</td> <td>30.06.22</td> <td>JB</td> <td>MINOR AMENDMENTS</td> <td>IN</td> <td>IN</td> </tr> <tr> <td>A</td> <td>06.05.22</td> <td>JB</td> <td>TOPO ADDED AND ACCESS AMENDED</td> <td>IN</td> <td>IN</td> </tr> <tr> <td>REV</td> <td>DATE</td> <td>BY</td> <td>DESCRIPTION</td> <td>CHK</td> <td>APD</td> </tr> <tr> <td colspan="6" style="text-align: center;">STATUS: FOR INFORMATION</td> </tr> <tr> <td colspan="2">SCALE @ A2:</td> <td>CHECKED:</td> <td colspan="2">APPROVED:</td> <td></td> </tr> <tr> <td colspan="2">1:500</td> <td>IN</td> <td colspan="2">IN</td> <td></td> </tr> <tr> <td colspan="2">FILE REF:</td> <td>DRAWN:</td> <td colspan="2">DATE:</td> <td></td> </tr> <tr> <td colspan="2">ITB13040</td> <td>JB</td> <td colspan="2">07.04.22</td> <td></td> </tr> <tr> <td colspan="2">DRAWING No:</td> <td colspan="4">ITB13040-SK-007</td> </tr> <tr> <td colspan="2">PROJECT No:</td> <td colspan="3">ITB13040</td> <td>REV:</td> </tr> <tr> <td colspan="2"></td> <td colspan="3"></td> <td>C</td> </tr> </table>	C	01.09.22	JB	TREE SURVEY UPDATED	IN	IN	B	30.06.22	JB	MINOR AMENDMENTS	IN	IN	A	06.05.22	JB	TOPO ADDED AND ACCESS AMENDED	IN	IN	REV	DATE	BY	DESCRIPTION	CHK	APD	STATUS: FOR INFORMATION						SCALE @ A2:		CHECKED:	APPROVED:			1:500		IN	IN			FILE REF:		DRAWN:	DATE:			ITB13040		JB	07.04.22			DRAWING No:		ITB13040-SK-007				PROJECT No:		ITB13040			REV:						C
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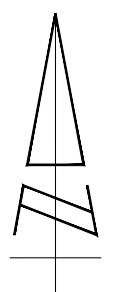
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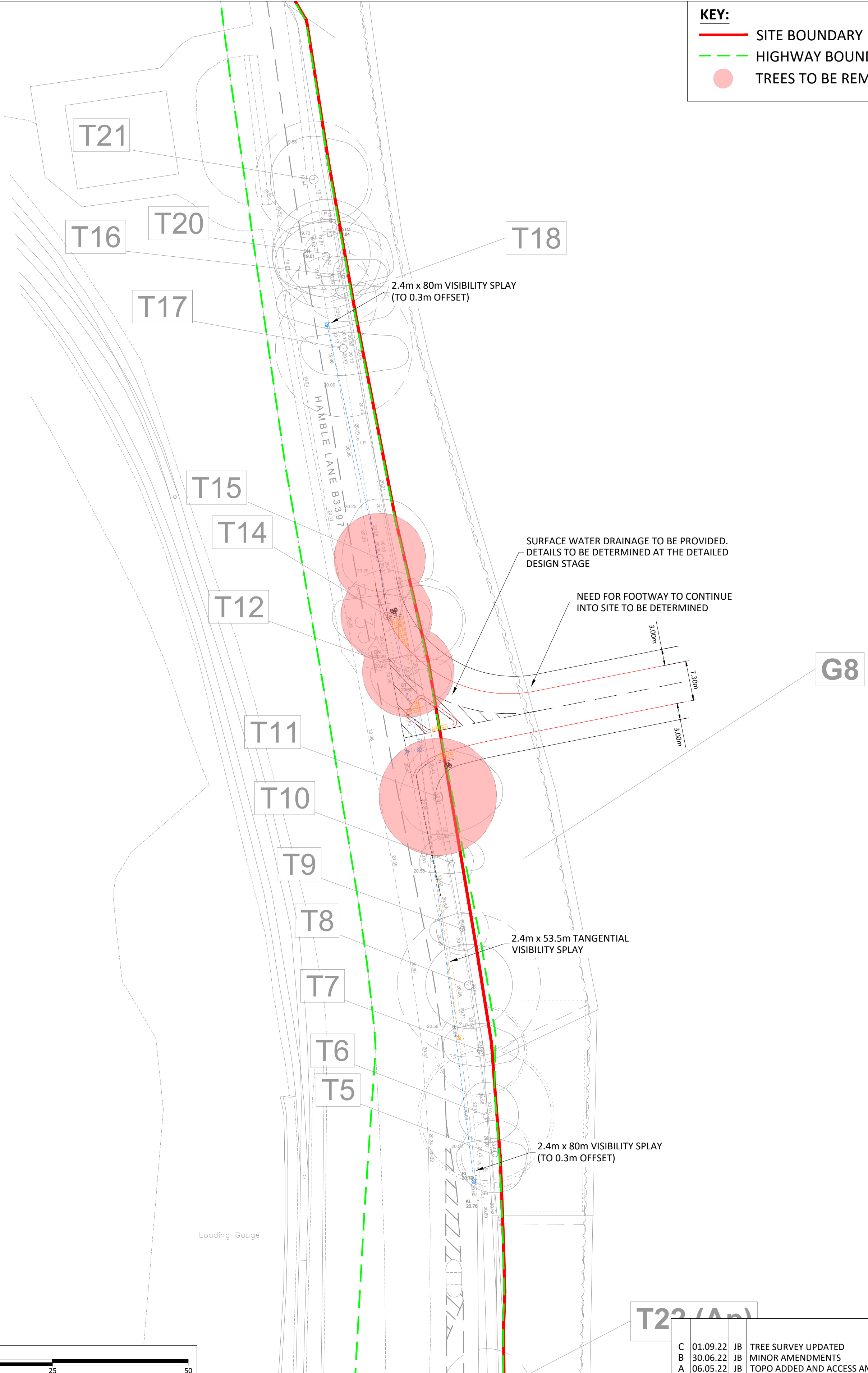
The Square, Basing View,
Basingstoke, Hampshire, RG21 4EB
Tel: 01256 637940
www.i-transport.co.uk

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KEY:

- SITE BOUNDARY
- - - HIGHWAY BOUNDARY
- TREES TO BE REMOVED



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i-Transport

The Square, Basing View,
Basingstoke, Hampshire, RG21 4EB
Tel: 01256 637940
www.i-transport.co.uk

CLIENT:	CEMEX
TITLE:	PROPOSED SITE ACCESS
PROJECT:	HAMBLE AIRFIELD

REV	DATE	BY	DESCRIPTION	CHK	APD
C	01.09.22	JB	TREE SURVEY UPDATED	IN	IN
B	30.06.22	JB	MINOR AMENDMENTS	IN	IN
A	06.05.22	JB	TOPO ADDED AND ACCESS AMENDED	IN	IN

STATUS: FOR INFORMATION

SCALE @ A2:	CHECKED:	APPROVED:
1:500	IN	IN
FILE REF:	DRAWN:	DATE:
ITB13040	JB	07.04.22
DRAWING No:	ITB13040-SK-008	
PROJECT No:	ITB13040	REV: C

APPENDIX A. HCC CONSULTATION RESPONSE

Note

To: Peter Bond– Strategic Planning
From: Philippa Gordon – Highways Development Planning
Our Reference: PG 6/3/9/MIN (035985)
Copies to:
Date: 23rd March 2022

Subject: **CS/22/92277 Proposed extraction of sand and gravel, with restoration to grazing land and recreation using imported inert restoration materials, the erection of associated plant and infrastructure and the creation of a new footpath and access onto Hamble Lane at Hamble Airfield**

Thank you for consulting me on the application recently submitted in relation to Hamble Airfield, Hamble. The application is for the proposed extraction of sand and gravel, with restoration to grazing land and recreation using imported inert restoration materials, the erection of associated plant and infrastructure and the creation of a new footpath and access.

Site Location

The site is a former airfield located in the north of Hamble. The site borders Hamble Lane to the west, Satchell Lane to the east and the railway line to the north.

Proposal

The site is allocated within the Hampshire Minerals and Waste Local Plan 2013. It is proposed to extract approximately 1.7million tonnes of sand and gravel at a rate of approximately 250,000 tonnes per annum. It is anticipated that this will take approximately 7 years and this will then be followed by a period of infilling and restoration. It is anticipated that the proposed development would commence in 2023, and would take up to 11 years to complete, generating HGV movements up to 2034.

The anticipated phases are:

- Traffic Phase 1: Year 1-2 – Export only;
- Traffic Phase 2: Years 3 – 7 – Export and infill; and
- Traffic Phase 3: Years 8 – 11 – Infill only.

The site will be operational between the hours of 0700-1700 hours Monday to Friday and 0700-1200 hours on Saturdays. It is stated that soil stripping and sand extraction will not commence until 0800 hours. Maintenance of plant and vehicles will be until 1900 during the week and 1800 hours on Saturdays.

Site Access

Access to the Site is proposed to be taken from a new priority access junction directly onto Hamble Lane (shown on drawing ITB13040-SK-006 Rev B). All HGVs arriving and departing the site will arrive and depart to the north (towards the M27). The access has been designed with a width of 7.3m and a kerb radius of 4.0m to the left / south of the access to prevent HGVs from turning left out of the site whilst still allowing smaller vehicles to make this manoeuvre.

In 2019, the applicant engaged Hampshire County Council's (HCC) Engineering Consultancy to provide a Pre-application Design Review (PADR) of the proposed new access. Two concerns raised within the PADR do not appear to have been addressed:

1. The Designer was asked to demonstrate that other options had been considered thoroughly – both in terms of junction location and junction form. This has been briefly mentioned in the Transport Assessment (TA), but there is no evidence that this optioneering exercise was undertaken fully and this should be provided to enable to rationale of the presented access to be understood.
2. The PADR made it very clear that both HCC Arboriculture and Ecology teams had genuine concerns regarding the proposed tree loss and set out requirements for the Designer to demonstrate that their loss could not be avoided, and to fully mitigate if their loss was found to be essential. One key element relates to CAVAT (Capital Asset Value for Amenity Trees), the value of these trees is likely to be substantial and nothing appears to have been submitted which looks to address these points. Further information can be found within HCC's TG15 Trees, landscape and Ecology and the 2019 Highways Trees Policy <https://documents.hants.gov.uk/transport/TG15-Trees-Landscape-and-Ecology.pdf>
<https://documents.hants.gov.uk/transport/HighwaysTreePolicy.pdf>

Additional information is also required as follows:

- Speed data is provided in a summary table only with no raw data. It is unclear where the measurements were taken, or when. The designer needs to confirm that the speeds are current (within two years) and taken in appropriate locations.

- Visibility to the south (left) can actually be shown to the centreline as there is a physical feature (refuge) which prevents overtaking here.
- Visibility to/from the tactile paving on the southern side of the proposed junction (in particular) may be limited. The designer should demonstrate that ped/cyclist visibility is achieved at all crossing points.
- The RSA requires updating to reflect the changes made since the PADR.
- There is no mention of LTN 1/20. Designs will need to prove compliance. Where possible, the cycleway should be widened to 3.0m and a suitable verge/margin provided for safety – given recorded speeds. The designer also needs to account for ‘shyness’ from the proposed barriers. One section is shown 2.28m wide with barrier adjacent. The effective width becomes minimal here. The crossing refuge in the bellmouth should also be a minimum of 3.0m ‘deep’ to cater for cyclists and the designer needs to check that the barriers do not become a problem for cyclists here too.
- A Walking, cycling and horse-riding assessment and review (WCHAR) has not been provided and is required.
- With regard to vehicle tracking, lock-to-lock times of 6s would be more appropriate than the 3s currently proposed for HGVs.
- Tracking – Speeds are not shown. These should be provided (it should be noted that anything lower than 10mph is not appropriate/realistic).
- All internal tracking uses a 14m HGV, whereas the junction is tracked with the correct 16.5m HGV, it is not clear why this is inconsistent.

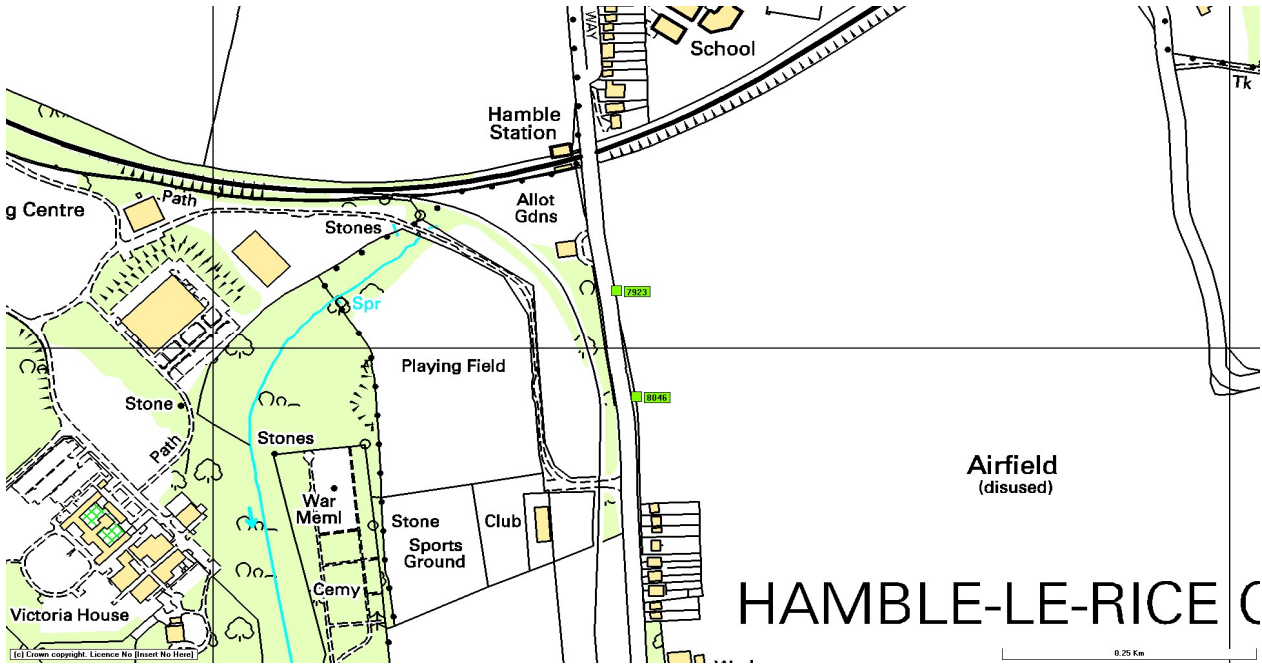
Also, it is noted that the traffic count data included within the Transport Assessment includes ATC data from 2016/2017 plus growth. A sensitivity test to compare this approach with more recent data (potentially held by HCC surveys team) should be undertaken to confirm accuracy.

Recommendation

From a review of the information contained in the application I am unable to make a recommendation until further information has been provided as outlined above. A further response which covers the Transport Assessment and mitigation requirements will be provided once the above issues relating to the proposed access have been addressed.

In the meantime, should you wish to discuss this further please do not hesitate to contact Philippa Gordon on 0370 779 2886.

APPENDIX B. ATC DATA



Site No: 00008046

Site Reference: 00008046

Hamble Ln

Vehicle Count Report

Week Begin: 25-Apr-22

Channel: Southbound

Time	Mon	Tue	Wed	Thu	Fri	Sat	Sun	5-Day	7-Day
Begin	#####	#####	#####	#####	#####	#####	#####	Av	Av
00:00	10	23	19	17	26	53	58	19	29
01:00	11	14	15	10	10	16	27	12	15
02:00	11	11	10	9	13	8	11	11	10
03:00	9	17	18	18	15	17	20	15	16
04:00	28	20	19	26	29	14	13	24	21
05:00	262	274	247	265	252	63	37	260	200
06:00	571	594	592	590	545	279	236	578	487
07:00	659	714	692	705	649	170	105	684	528
08:00	717	768	799	741	692	218	123	743	580
09:00	456	552	503	488	501	416	301	500	460
10:00	372	391	391	398	421	430	322	395	389
11:00	396	440	427	391	481	453	400	427	427
12:00	400	426	432	420	435	427	384	423	418
13:00	409	420	438	386	455	389	339	422	405
14:00	416	424	380	422	429	418	340	414	404
15:00	435	428	452	441	474	387	303	446	417
16:00	447	456	458	433	469	378	355	453	428
17:00	443	450	476	514	518	369	304	480	439
18:00	608	689	543	585	616	557	377	608	568
19:00	240	339	329	309	394	330	214	322	308
20:00	182	172	180	241	269	175	159	209	197
21:00	117	161	168	168	192	150	123	161	154
22:00	87	72	97	82	119	128	81	91	95
23:00	24	37	39	45	95	78	52	48	53
12H,7-19	5758	6158	5991	5924	6140	4612	3653	5994	5462
16H,6-22	6868	7424	7260	7232	7540	5546	4385	7265	6608
18H,6-24	6979	7533	7396	7359	7754	5752	4518	7404	6756
24H,0-24	7310	7892	7724	7704	8099	5923	4684	7746	7048
Am	08:00	08:00	08:00	08:00	08:00	11:00	11:00	-	-
Peak	717	768	799	741	692	453	400	743	653
Pm	18:00	18:00	18:00	18:00	18:00	18:00	12:00	-	-
Peak	608	689	543	585	616	557	384	608	569

Created at 07:53:20 on 3 May 2022

Site No: 00008046

Site Reference: 00008046

Hamble Ln

Vehicle Count Report

Week Begin: 25-Apr-22

Channel: Northbound

Time	Mon	Tue	Wed	Thu	Fri	Sat	Sun	5-Day	7-Day
Begin	#####	#####	#####	#####	#####	#####	#####	Av	Av
00:00	17	22	34	32	37	67	66	28	39
01:00	9	28	18	8	16	27	39	16	21
02:00	19	23	22	26	20	24	33	22	24
03:00	13	13	10	13	18	10	12	13	13
04:00	26	22	30	21	19	23	19	24	23
05:00	64	73	62	67	74	35	28	68	58
06:00	335	349	338	342	333	238	213	339	307
07:00	380	398	405	406	394	162	111	397	322
08:00	465	461	486	461	476	231	146	470	389
09:00	369	341	371	369	385	365	248	367	350
10:00	372	404	392	412	424	385	325	401	388
11:00	408	412	397	405	472	488	439	419	432
12:00	379	408	403	429	650	437	395	454	443
13:00	378	456	419	424	498	391	328	435	413
14:00	611	622	618	558	543	344	346	590	520
15:00	674	697	718	704	670	381	317	693	594
16:00	703	785	803	818	688	351	317	759	638
17:00	677	602	573	650	533	358	247	607	520
18:00	497	565	534	567	560	466	393	545	512
19:00	249	309	276	278	301	255	201	283	267
20:00	168	210	208	214	233	198	156	207	198
21:00	140	187	174	196	166	172	108	173	163
22:00	129	130	126	140	164	152	113	138	136
23:00	54	56	74	59	137	123	101	76	86
12H,7-19	5913	6151	6119	6203	6293	4359	3612	6136	5521
16H,6-22	6805	7206	7115	7233	7326	5222	4290	7137	6457
18H,6-24	6988	7392	7315	7432	7627	5497	4504	7351	6679
24H,0-24	7136	7573	7491	7599	7811	5683	4701	7522	6856
Am	08:00	08:00	08:00	08:00	08:00	11:00	11:00	-	-
Peak	465	461	486	461	476	488	439	470	468
Pm	16:00	16:00	16:00	16:00	16:00	18:00	12:00	-	-
Peak	703	785	803	818	688	466	395	759	665

Created at 07:53:20 on 3 May 2022

Site No: 00008046

Site Reference: 00008046

Hamble Ln

Speed Summary (All Days)-Limit 3 From 25/04/2022 To 02/05/2022 Channel: Southbound

Time Begin	Total Vol.	85th %ile	Mean Ave.	Std. Dev.	Bin 1 <1Mph	Bin 2 1-<6	Bin 3 6-<11	Bin 4 11-<16	Bin 5 16-<21	Bin 6 21-<26	Bin 7 26-<31	Bin 8 31-<36	Bin 9 36-<41	Bin 10 41-<46	Bin 11 46-<51	Bin 12 51-<56	Bin 13 =>56
00:00	29	42.5	36.6	6.8	0	0	0	0	0	0	5	11	8	4	1	0	1
01:00	15	41	35.7	6.1	0	0	0	0	0	0	3	7	2	2	1	0	0
02:00	10	40.3	36.4	5.1	0	0	0	0	0	0	2	4	3	1	0	0	0
03:00	16	41.1	36	5.8	0	0	0	0	0	0	3	6	5	2	1	0	0
04:00	21	42.6	36.6	5.7	0	0	0	0	0	0	3	6	7	4	1	0	0
05:00	200	39.7	34.8	4.6	0	0	0	0	0	1	35	94	53	14	2	0	0
06:00	487	38.8	34.3	4.2	0	0	0	0	1	4	80	261	121	16	3	0	0
07:00	528	36.3	32.2	4.8	0	0	0	2	9	20	161	253	72	10	1	0	0
08:00	580	35.5	31.3	4.9	0	0	1	5	11	26	219	254	55	7	1	0	0
09:00	460	37.2	32.9	4.2	0	0	0	0	1	9	131	230	78	11	0	0	0
10:00	389	37.5	33.3	4.3	0	0	0	0	2	3	101	203	69	9	2	0	0
11:00	427	37.4	33.2	4.3	0	0	0	0	2	4	113	224	74	9	2	0	0
12:00	418	37.6	33.2	4.2	0	0	0	0	1	5	110	213	78	9	1	0	0
13:00	405	37.7	33.4	4.2	0	0	0	0	1	4	100	212	77	10	1	0	0
14:00	404	37.5	33.2	4.2	0	0	0	0	0	5	109	207	72	9	1	0	0
15:00	417	37.1	32.6	4.6	0	0	0	1	2	10	136	191	65	10	1	0	0
16:00	428	37.4	33.2	4.1	0	0	0	0	0	3	112	226	74	12	0	0	0
17:00	439	38.1	33.5	4.6	0	0	0	2	3	4	100	228	86	15	1	0	0
18:00	568	38	33.5	4.2	0	0	0	0	1	5	136	296	110	16	2	0	0
19:00	308	39	34.1	4.7	0	0	0	0	0	3	69	147	70	15	2	1	0
20:00	197	39	34.1	5.1	0	0	0	0	0	2	42	98	41	10	2	1	1
21:00	154	37.7	33.3	4.5	0	0	0	0	0	3	43	76	25	6	1	0	0
22:00	95	39.5	34.4	5	0	0	0	0	0	1	22	41	23	6	2	0	0
23:00	53	40.4	35.1	5.6	0	0	0	0	0	1	12	20	13	4	2	0	0
12H,7-19	5463	37.3	32.9	4.4	0	0	1	10	33	98	1528	2737	910	127	13	0	0
16H,6-22	6609	37.6	33.1	4.5	0	0	1	10	34	110	1762	3319	1167	174	21	2	1
18H,6-24	6757	37.7	33.1	4.5	0	0	1	10	34	112	1796	3380	1203	184	25	2	1
24H,0-24	7048	37.8	33.2	4.6	0	0	1	10	34	113	1847	3508	1281	211	31	2	2
Am	08:00	04:00	00:00	00:00 -	-	-	08:00	08:00	08:00	08:00	08:00	06:00	06:00	06:00	06:00	07:00	00:00
Peak	580	42.6	36.6	6.8 -	-	-	1	5	11	26	219	261	121	16	3	0	1
Pm	18:00	23:00	23:00	23:00 -	-	-	18:00	17:00	17:00	15:00	18:00	18:00	18:00	18:00	18:00	20:00	20:00
Peak	568	40.4	35.1	5.6 -	-	-	0	2	3	10	136	296	110	16	2	1	1

Created at 07:53:26 on 3 May 2022

Site No: 00008046

Site Reference: 00008046

Hamble Ln

Speed Summary (All Days)-Limit 3 From 25/04/2022 To 02/05/2022 Channel: Northbound

Time Begin	Total Vol.	85th %ile	Mean Ave.	Std. Dev.	Bin 1 <1Mph	Bin 2 1-<6	Bin 3 6-<11	Bin 4 11-<16	Bin 5 16-<21	Bin 6 21-<26	Bin 7 26-<31	Bin 8 31-<36	Bin 9 36-<41	Bin 10 41-<46	Bin 11 46-<51	Bin 12 51-<56	Bin 13 =>56
00:00	39	43.4	37.1	6	0	0	0	0	0	0	5	12	11	8	1	1	0
01:00	21	44.2	38.3	6.5	0	0	0	0	0	0	2	6	6	5	1	1	0
02:00	24	41.3	36	5.6	0	0	0	0	0	0	4	9	7	4	1	0	0
03:00	13	42.4	36.9	6.3	0	0	0	0	0	0	2	4	3	2	1	0	0
04:00	23	43.6	37.1	5.8	0	0	0	0	0	0	3	8	5	4	1	0	0
05:00	58	44.4	38.4	5.8	0	0	0	0	0	0	4	19	17	13	4	1	0
06:00	307	42.7	37.5	5.1	0	0	0	0	0	1	19	100	122	54	8	2	1
07:00	322	40.4	35.7	4.7	0	0	0	0	0	2	35	147	103	31	4	1	0
08:00	389	39.2	34.5	4.4	0	0	0	0	1	2	64	203	96	22	3	0	0
09:00	350	39.5	34.7	4.5	0	0	0	0	0	4	49	177	94	22	2	1	0
10:00	388	39.4	34.8	4.3	0	0	0	0	0	3	55	199	105	23	2	0	0
11:00	432	39.1	34.4	4.3	0	0	0	0	0	4	69	227	106	22	2	0	0
12:00	443	39.1	33.9	5.3	0	0	1	4	4	8	71	222	105	26	2	0	0
13:00	413	39.1	34.5	4.2	0	0	0	0	0	2	67	214	108	20	1	0	0
14:00	520	38.6	32.9	6.1	0	0	3	10	10	21	101	240	110	23	2	0	0
15:00	594	37.6	33	4.8	0	0	1	4	4	15	140	305	108	15	2	0	0
16:00	638	37.4	31.5	7.1	0	1	20	15	14	22	144	294	110	15	1	0	0
17:00	520	38.7	31.9	8.3	0	3	24	21	5	10	84	230	120	21	2	0	0
18:00	512	40.1	35.7	4.4	0	0	0	0	1	1	52	231	180	41	5	0	0
19:00	267	40.6	36	5	0	0	0	0	0	1	27	116	89	26	6	1	1
20:00	198	40.6	36	5	0	0	0	0	0	2	20	88	63	20	3	2	0
21:00	163	40.1	35	5.5	0	0	0	0	1	1	28	74	41	14	2	1	1
22:00	136	42.8	36.7	6	0	0	0	0	0	1	16	54	38	20	5	2	1
23:00	86	43	36.9	6	0	0	0	0	0	0	10	30	26	14	3	1	1
12H,7-19	5521	39.1	33.8	5.7	0	4	49	54	39	94	931	2689	1345	281	28	2	0
16H,6-22	6456	39.4	34.1	5.7	0	4	49	54	40	99	1025	3067	1660	395	47	8	3
18H,6-24	6678	39.5	34.2	5.7	0	4	49	54	40	100	1051	3151	1724	429	55	11	5
24H,0-24	6856	39.6	34.3	5.7	0	4	49	54	40	100	1071	3209	1773	465	64	14	5
Am	11:00	05:00	05:00	01:00 -	-	-	11:00	08:00	09:00	11:00	11:00	11:00	06:00	06:00	06:00	06:00	06:00
Peak	432	44.4	38.4	6.5 -	-	-	0	1	4	69	227	122	54	8	2	1	1
Pm	16:00	23:00	23:00	17:00 -	-	-	17:00	17:00	16:00	16:00	16:00	15:00	18:00	18:00	19:00	20:00	22:00
Peak	638	43	36.9	8.3 -	-	-	3	24	21	14	22	144	305	180	41	6	2

Created at 07:53:27 on 3 May 2022

Site No: 00008046

Site Reference: 00008046

Hamble Ln

Length Summary (All Days) From 25/04/2022 To 02/05/2022 Channel: Southbound

Time Begin	Total Vol.	Bin 1 <=5.2m	Bin 2 5.2-6.5	Bin 3 6.5-11.5	Bin 4 >11.5
00:00	29	25	2	0	3
01:00	15	11	1	1	2
02:00	10	7	1	1	1
03:00	16	13	2	0	0
04:00	21	17	2	1	1
05:00	200	187	6	3	4
06:00	487	446	30	6	4
07:00	528	430	67	25	5
08:00	580	452	85	33	9
09:00	460	353	65	30	12
10:00	389	307	50	26	6
11:00	427	351	46	21	9
12:00	418	344	46	20	8
13:00	405	338	44	14	9
14:00	404	341	45	13	5
15:00	417	353	44	16	4
16:00	428	360	46	17	5
17:00	439	339	73	25	3
18:00	568	512	46	7	3
19:00	308	275	26	3	3
20:00	197	175	14	4	4
21:00	154	138	11	2	3
22:00	95	86	6	2	1
23:00	53	48	4	1	1

12H,7-19	5462	4481	656	247	78
16H,6-22	6608	5516	737	262	93
18H,6-24	6756	5650	746	265	95
24H,0-24	7048	5910	761	272	105

Am	08:00	08:00	08:00	08:00	09:00
Peak	580	452	85	33	12

Pm	18:00	18:00	17:00	17:00	13:00
Peak	568	512	73	25	9

Created at 07:53:43 on 3 May 2022

Site No: 00008046

Site Reference: 00008046

Hamble Ln

Length Summary (All Days) From 25/04/2022 To 02/05/2022 Channel: Northbound

Time Begin	Total Vol.	Bin 1 <=5.2m	Bin 2 5.2-6.5	Bin 3 6.5-11.5	Bin 4 >11.5
00:00	39	36	2	1	0
01:00	21	18	2	0	0
02:00	24	21	1	1	1
03:00	13	10	1	1	1
04:00	23	16	2	0	4
05:00	58	47	5	2	4
06:00	307	271	25	8	4
07:00	322	259	44	16	5
08:00	389	307	60	17	5
09:00	350	278	43	21	8
10:00	388	313	44	22	8
11:00	432	356	46	24	6
12:00	443	374	44	18	7
13:00	413	351	38	19	5
14:00	520	454	50	13	4
15:00	594	515	56	20	4
16:00	638	551	62	18	7
17:00	520	434	71	12	3
18:00	512	460	42	7	2
19:00	267	237	24	3	3
20:00	198	177	16	3	2
21:00	163	148	9	3	2
22:00	136	126	8	1	1
23:00	86	80	5	1	1

12H,7-19	5521	4650	601	208	63
16H,6-22	6457	5483	676	224	75
18H,6-24	6679	5688	688	225	77
24H,0-24	6856	5837	702	230	87

Am	11:00	11:00	08:00	11:00	10:00
Peak	432	356	60	24	8

Pm	16:00	16:00	17:00	15:00	12:00
Peak	638	551	71	20	7

Created at 07:53:43 on 3 May 2022

Site No: 00007923
 Hamble Ln Hamble
 Vehicle Count Report

Site Reference: 00007923

Week Begin: 25-Apr-22

Channel: Southbound

Time	Mon	Tue	Wed	Thu	Fri	Sat	Sun	5-Day	7-Day
Begin	25/04/2022	26/04/2022	27/04/2022	28/04/2022	29/04/2022	30/04/2022	01/05/2022	Av	Av
00:00	10	23	19	17	26	53	58	19	29
01:00	11	14	15	10	10	16	27	12	15
02:00	11	11	10	9	13	8	11	11	10
03:00	9	17	18	18	15	17	20	15	16
04:00	29	20	19	27	30	14	14	25	22
05:00	265	274	250	266	252	63	37	261	201
06:00	569	597	588	590	548	278	238	578	487
07:00	660	705	689	702	640	172	106	679	525
08:00	715	764	789	733	690	222	122	738	576
09:00	450	550	499	481	499	410	301	496	456
10:00	369	384	384	394	417	430	324	390	386
11:00	388	439	419	387	466	450	396	420	421
12:00	400	414	427	418	433	425	386	418	415
13:00	413	419	436	381	452	390	340	420	404
14:00	419	415	377	420	429	417	342	412	403
15:00	424	430	447	442	469	385	304	442	414
16:00	451	456	459	437	469	375	356	454	429
17:00	446	456	487	515	514	372	302	484	442
18:00	605	690	547	588	617	554	379	609	569
19:00	239	337	328	309	390	329	215	321	307
20:00	181	171	180	241	268	173	158	208	196
21:00	119	162	167	166	192	150	123	161	154
22:00	87	71	97	82	119	128	81	91	95
23:00	24	37	38	45	96	78	52	48	53

12H,7-19	5740	6122	5960	5898	6095	4602	3658	5963	5439
16H,6-22	6848	7389	7223	7204	7493	5532	4392	7231	6583
18H,6-24	6959	7497	7358	7331	7708	5738	4525	7371	6731
24H,0-24	7294	7856	7689	7678	8054	5909	4692	7714	7025

Am Peak	08:00	08:00	08:00	08:00	08:00	11:00	11:00	-	-
Peak	715	764	789	733	690	450	396	738	648

Pm Peak	18:00	18:00	18:00	18:00	18:00	18:00	12:00	-	-
Peak	605	690	547	588	617	554	386	609	570

Created at 07:54:08 on 3 May 2022

Site No: 00007923
 Hamble Ln Hamble
 Vehicle Count Report

Site Reference: 00007923

Week Begin: 25-Apr-22

Channel: Northbound

Time	Mon	Tue	Wed	Thu	Fri	Sat	Sun	5-Day	7-Day
Begin	25/04/2022	26/04/2022	27/04/2022	28/04/2022	29/04/2022	30/04/2022	01/05/2022	Av	Av
00:00	17	21	35	32	37	68	66	28	39
01:00	9	28	18	8	16	27	39	16	21
02:00	19	23	22	26	20	23	33	22	24
03:00	13	13	10	13	18	10	12	13	13
04:00	26	22	30	21	19	23	18	24	23
05:00	65	74	64	68	72	35	29	69	58
06:00	331	353	332	338	333	236	210	337	305
07:00	376	402	416	391	385	162	109	394	320
08:00	447	491	458	442	471	238	144	462	384
09:00	368	338	380	368	384	369	247	368	351
10:00	371	404	388	403	429	379	316	399	384
11:00	409	412	402	396	468	481	435	417	429
12:00	379	407	405	429	591	430	395	442	434
13:00	378	440	408	418	487	394	335	426	409
14:00	607	615	605	555	532	347	339	583	514
15:00	668	680	712	701	649	379	313	682	586
16:00	734	792	789	815	683	353	320	763	641
17:00	677	659	569	634	517	364	248	611	524
18:00	506	553	520	567	561	472	383	541	509
19:00	248	314	273	279	301	250	200	283	266
20:00	163	210	208	214	232	197	152	205	197
21:00	139	187	170	197	167	173	109	172	163
22:00	131	131	125	139	165	153	111	138	136
23:00	55	56	73	58	138	125	100	76	86

12H,7-19	5920	6193	6052	6119	6157	4368	3584	6088	5485
16H,6-22	6801	7257	7035	7147	7190	5224	4255	7086	6416
18H,6-24	6987	7444	7233	7344	7493	5502	4466	7300	6638
24H,0-24	7136	7625	7412	7512	7675	5688	4663	7472	6816

Am Peak	08:00	08:00	08:00	08:00	08:00	11:00	11:00	-	-
Peak	447	491	458	442	471	481	435	462	461

Pm Peak	16:00	16:00	16:00	16:00	16:00	18:00	12:00	-	-
Peak	734	792	789	815	683	472	395	763	669

Created at 07:54:08 on 3 May 2022

Time	Tue	Wed	Thu	Fri	Sat	Sun	Mon	5-Day	7-Day
Begin								Av	Av
00:00	27	44	54	49	63	121	124	60	69
01:00	20	42	33	18	26	43	66	36	35
02:00	30	34	32	35	33	31	44	35	34
03:00	22	30	28	31	33	27	32	29	29
04:00	55	42	49	48	49	37	32	45	45
05:00	330	348	314	334	324	98	66	278	259
06:00	900	950	920	928	881	514	448	829	792
07:00	1036	1107	1105	1093	1025	334	215	911	845
08:00	1162	1255	1247	1175	1161	460	266	1021	961
09:00	818	888	879	849	883	779	548	796	806
10:00	740	788	772	797	846	809	640	747	770
11:00	797	851	821	783	934	931	831	817	850
12:00	779	821	832	847	1024	855	781	812	848
13:00	791	859	844	799	939	784	675	794	813
14:00	1026	1030	982	975	961	764	681	939	917
15:00	1092	1110	1159	1143	1118	764	617	1024	1000
16:00	1185	1248	1248	1252	1152	728	676	1122	1070
17:00	1123	1115	1056	1149	1031	736	550	999	966
18:00	1111	1243	1067	1155	1178	1026	762	1068	1077
19:00	487	651	601	588	691	579	415	548	573
20:00	344	381	388	455	500	370	310	376	393
21:00	258	349	337	363	359	323	232	308	317
22:00	218	202	222	221	284	281	192	211	231
23:00	79	93	111	103	234	203	152	108	139
Total	14430	15481	15101	15190	15729	11597	9355	13911.4	13840.43

Site No: 00007923

Site Reference: 00007923

Hamble Ln Hamble

Speed Summary (All Days)-Limit 3 From 25/04/2022 To 02/05/2022 Channel: Southbound

Time Begin	Total Vol.	85th %ile	Mean Ave.	Std. Dev.	Bin 1 <1Mph	Bin 2 1-<6	Bin 3 6-<11	Bin 4 11-<16	Bin 5 16-<21	Bin 6 21-<26	Bin 7 26-<31	Bin 8 31-<36	Bin 9 36-<41	Bin 10 41-<46	Bin 11 46-<51	Bin 12 51-<56	Bin 13 =>56	
00:00	29	44	37.8	7.1	0	0	0	0	0	1	2	11	8	5	2	0	1	
01:00	15	42.8	37	6	0	0	0	0	0	0	2	6	3	2	1	0	0	
02:00	10	43	37.8	5.2	0	0	0	0	0	0	1	4	3	2	0	0	0	
03:00	16	43.1	37.1	5.9	0	0	0	0	0	0	2	6	4	3	1	0	0	
04:00	22	44.4	37.5	8.6	0	0	1	0	0	0	2	6	6	5	2	0	0	
05:00	201	40.5	36	4.9	0	0	0	0	1	0	18	92	65	19	4	1	0	
06:00	487	40	35.7	4.3	0	0	0	0	2	3	35	228	184	30	3	1	0	
07:00	525	38.6	33.8	4.8	0	0	0	2	9	11	75	282	127	16	2	0	0	
08:00	576	37.7	32.9	4.9	0	0	0	2	11	21	121	297	107	14	2	0	0	
09:00	456	39	34.4	4.3	0	0	0	0	1	6	66	241	121	18	2	0	0	
10:00	386	39.1	34.6	4.4	0	0	0	0	1	3	54	203	106	16	2	1	0	
11:00	421	39.2	34.5	4.3	0	0	0	0	1	4	62	216	114	20	2	0	0	
12:00	415	39	34.5	4.2	0	0	0	0	1	3	62	221	109	17	2	0	0	
13:00	404	39.3	34.7	4.3	0	0	0	0	1	4	54	210	112	22	1	0	0	
14:00	403	39	34.3	4.3	0	0	0	0	1	3	65	211	104	16	3	0	0	
15:00	414	38.6	33.7	4.9	0	0	0	2	2	10	84	203	95	15	2	1	0	
16:00	429	39.1	34.4	4.3	0	0	0	1	0	3	67	225	111	20	1	0	0	
17:00	442	39.5	34.7	4.7	0	0	0	3	2	1	56	221	131	24	2	0	0	
18:00	569	39.5	34.9	4.3	0	0	0	0	2	3	68	295	168	31	3	0	0	
19:00	307	40.2	35.6	4.9	0	0	0	0	0	1	39	139	97	25	5	1	1	
20:00	196	40.2	35.4	5.2	0	0	0	0	0	2	25	93	54	16	3	1	1	
21:00	154	39.6	34.7	4.7	0	0	0	0	0	1	27	75	37	11	2	0	0	
22:00	95	40.3	35.4	5.4	0	0	0	0	0	0	16	40	27	8	3	1	0	
23:00	53	42.1	36.2	6.2	0	0	0	0	0	1	9	19	14	6	2	1	0	
12H,7-19	5440	39	34.3	4.5	0	0	0	10	32	72	834	2825	1405	229	24	2	0	
16H,6-22	6584	39.2	34.5	4.6	0	0	0	10	34	79	960	3360	1777	311	37	5	2	
18H,6-24	6732	39.3	34.5	4.6	0	0	0	10	34	80	985	3419	1818	325	42	7	2	
24H,0-24	7025	39.4	34.6	4.7	0	0	1	10	35	81	1012	3544	1907	361	52	8	3	
Am	08:00	04:00	02:00	04:00	-	-	04:00	08:00	08:00	08:00	08:00	08:00	08:00	06:00	06:00	05:00	06:00	00:00
Peak	576	44.4	37.8	8.6	-	-	1	2	11	21	121	297	184	30	4	1	1	
Pm	18:00	23:00	23:00	23:00	-	-	17:00	17:00	15:00	15:00	15:00	18:00	18:00	18:00	19:00	23:00	20:00	
Peak	569	42.1	36.2	6.2	-	-	0	3	2	10	84	295	168	31	5	1	1	

Created at 07:54:17 on 3 May 2022

Site No: 00007923

Site Reference: 00007923

Hamble Ln Hamble

Speed Summary (All Days)-Limit 3 From 25/04/2022 To 02/05/2022 Channel: Northbound

Time Begin	Total Vol.	85th %ile	Mean Ave.	Std. Dev.	Bin 1 <1Mph	Bin 2 1-<6	Bin 3 6-<11	Bin 4 11-<16	Bin 5 16-<21	Bin 6 21-<26	Bin 7 26-<31	Bin 8 31-<36	Bin 9 36-<41	Bin 10 41-<46	Bin 11 46-<51	Bin 12 51-<56	Bin 13 =>56
00:00	39	45.4	39	6.8	0	0	0	0	0	0	3	10	13	8	3	1	1
01:00	21	45.9	40.5	7.7	0	0	0	0	0	0	1	4	7	5	1	2	1
02:00	24	45.6	40.7	6	0	0	0	0	0	0	1	4	7	8	2	1	0
03:00	13	44.9	39.3	5.8	0	0	0	0	0	0	1	3	4	3	1	0	0
04:00	23	45.1	38.9	6.4	0	0	0	0	0	0	1	8	6	4	2	1	0
05:00	58	45.5	39.8	5.9	0	0	0	0	0	0	2	15	18	16	6	2	0
06:00	305	43.9	38.5	5.3	0	0	0	0	0	1	14	81	121	71	13	3	1
07:00	320	40.8	36.1	5.1	0	0	0	0	1	3	29	134	107	40	4	1	1
08:00	384	39.8	34.8	4.9	0	0	0	0	2	7	57	177	111	26	4	0	0
09:00	351	40.2	35.4	4.7	0	0	0	0	1	3	42	157	112	32	3	0	0
10:00	384	40	35.2	4.8	0	0	0	0	2	3	47	180	119	31	3	1	0
11:00	429	39.8	35.1	4.5	0	0	0	0	1	6	48	208	133	28	4	0	0
12:00	434	40	34.8	5.6	0	0	1	4	5	10	51	195	130	34	4	1	0
13:00	409	39.9	35.1	4.7	0	0	0	1	1	5	47	196	123	33	3	0	0
14:00	514	39.6	33.5	6.7	0	0	6	7	12	27	75	210	136	36	3	1	0
15:00	586	38.8	33.3	5.7	0	0	2	6	12	20	112	274	129	29	2	0	0
16:00	641	38.6	31.4	8.1	0	1	20	28	27	38	99	263	132	31	2	0	0
17:00	524	39.4	32	8.8	0	3	21	26	19	15	62	206	139	30	3	1	0
18:00	509	40.8	36.4	4.7	0	0	0	0	1	2	34	207	194	62	6	1	1
19:00	266	42.1	37.1	5.2	0	0	0	0	0	1	21	93	102	39	7	2	1
20:00	197	42.8	37.3	5.5	0	0	0	0	0	1	13	73	68	31	7	2	1
21:00	163	42.2	36.7	5.3	0	0	0	0	0	0	15	66	51	24	4	1	1
22:00	136	44.4	38.4	6.1	0	0	0	0	0	0	9	43	43	29	7	2	2
23:00	86	44.9	38.6	6.2	0	0	0	0	0	0	6	26	28	17	6	2	1
12H,7-19	5485	39.8	34.2	6.3	0	4	50	72	84	139	703	2407	1565	412	41	6	2
16H,6-22	6416	40.2	34.7	6.3	0	4	50	72	84	142	766	2720	1907	577	72	14	6
18H,6-24	6638	40.3	34.8	6.3	0	4	50	72	84	142	781	2789	1978	623	85	18	9
24H,0-24	6816	40.5	34.9	6.3	0	4	50	72	84	142	790	2833	2033	667	100	25	11
Am	11:00	01:00	02:00	01:00	-	-	08:00	11:00	08:00	08:00	08:00	11:00	11:00	06:00	06:00	06:00	06:00
Peak	429	45.9	40.7	7.7	-	-	0	0	2	7	57	208	133	71	13	3	1
Pm	16:00	23:00	23:00	17:00	-	-	17:00	16:00	16:00	16:00	15:00	15:00	18:00	18:00	22:00	22:00	22:00
Peak	641	44.9	38.6	8.8	-	-	3	21	28	27	38	112	274	194	62	7	2

Created at 07:54:17 on 3 May 2022

Site No: 00007923 Site Reference: 00007923
 Hamble Ln Hamble
 Length Summary (All Days) From 25/04/2022 To 02/05/2022 Channel: Southbound

Time Begin	Total Vol.	Bin 1 <=5.2m	Bin 2 5.2-6.5	Bin 3 6.5-11.5	Bin 4 >11.5
00:00	29	25	1	0	3
01:00	15	11	1	1	2
02:00	10	7	1	1	1
03:00	16	14	2	0	0
04:00	22	19	2	1	1
05:00	201	188	6	3	3
06:00	487	446	30	7	4
07:00	525	430	62	28	6
08:00	576	481	63	24	9
09:00	456	352	60	32	11
10:00	386	308	45	27	6
11:00	421	344	44	24	9
12:00	415	323	58	26	8
13:00	404	339	41	16	9
14:00	403	339	44	15	5
15:00	414	351	42	19	4
16:00	429	370	42	12	5
17:00	442	358	62	19	3
18:00	569	518	41	8	2
19:00	307	277	23	3	3
20:00	196	174	15	4	4
21:00	154	138	11	2	3
22:00	95	87	5	2	1
23:00	53	48	4	0	1
12H,7-19	5439	4512	603	248	76
16H,6-22	6583	5547	681	264	91
18H,6-24	6731	5681	691	266	93
24H,0-24	7025	5945	704	273	102
Am	08:00	08:00	08:00	09:00	09:00
Peak	576	481	63	32	11
Pm	18:00	18:00	17:00	12:00	13:00
Peak	569	518	62	26	9

Created at 07:54:32 on 3 May 2022

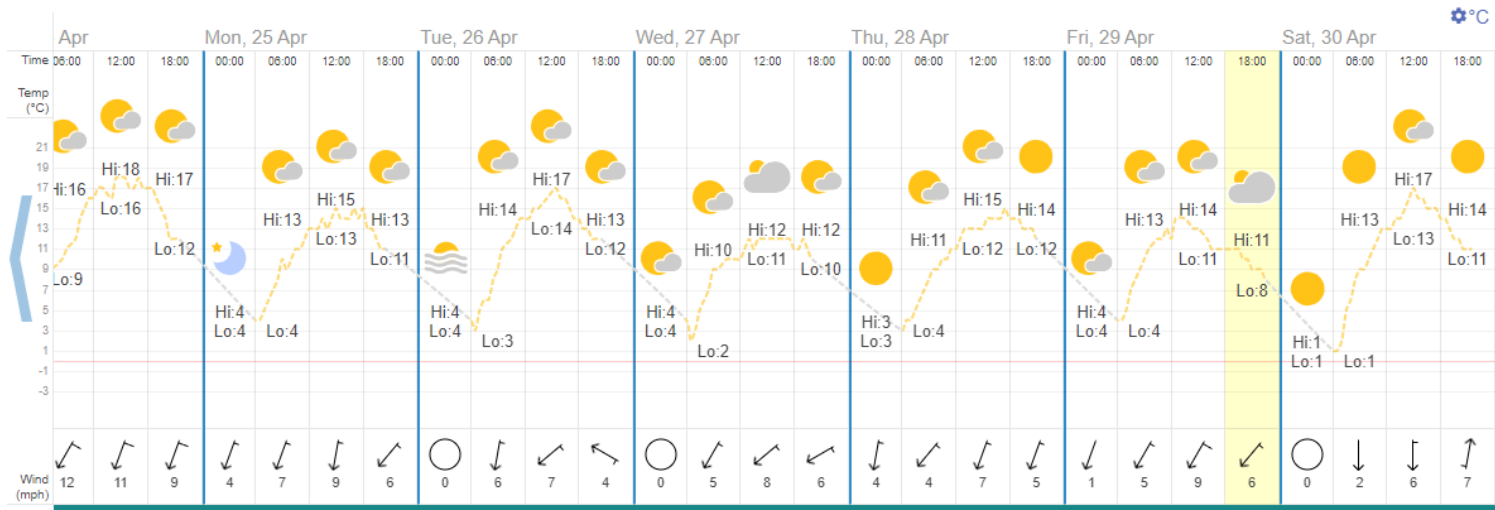
Site No: 00007923 Site Reference: 00007923
 Hamble Ln Hamble
 Length Summary (All Days) From 25/04/2022 To 02/05/2022 Channel: Northbound

Time Begin	Total Vol.	Bin 1 <=5.2m	Bin 2 5.2-6.5	Bin 3 6.5-11.5	Bin 4 >11.5
00:00	39	34	4	1	0
01:00	21	18	2	0	0
02:00	24	21	2	0	1
03:00	13	10	1	1	1
04:00	23	16	2	0	4
05:00	58	45	7	2	4
06:00	305	263	29	9	4
07:00	320	250	48	17	5
08:00	384	300	62	18	5
09:00	351	273	49	21	8
10:00	384	308	46	23	8
11:00	429	346	54	24	6
12:00	434	351	55	22	6
13:00	409	338	46	19	6
14:00	514	445	51	14	5
15:00	586	504	59	21	3
16:00	641	549	67	17	8
17:00	524	445	65	11	3
18:00	509	452	48	6	2
19:00	266	233	28	3	3
20:00	197	173	18	3	2
21:00	163	145	13	3	2
22:00	136	123	11	1	1
23:00	86	77	7	1	1
12H,7-19	5485	4559	648	214	64
16H,6-22	6416	5373	735	232	75
18H,6-24	6638	5574	754	234	78
24H,0-24	6816	5718	771	239	88
Am	11:00	11:00	08:00	11:00	09:00
Peak	429	346	62	24	8
Pm	16:00	16:00	16:00	12:00	16:00
Peak	641	549	67	22	8

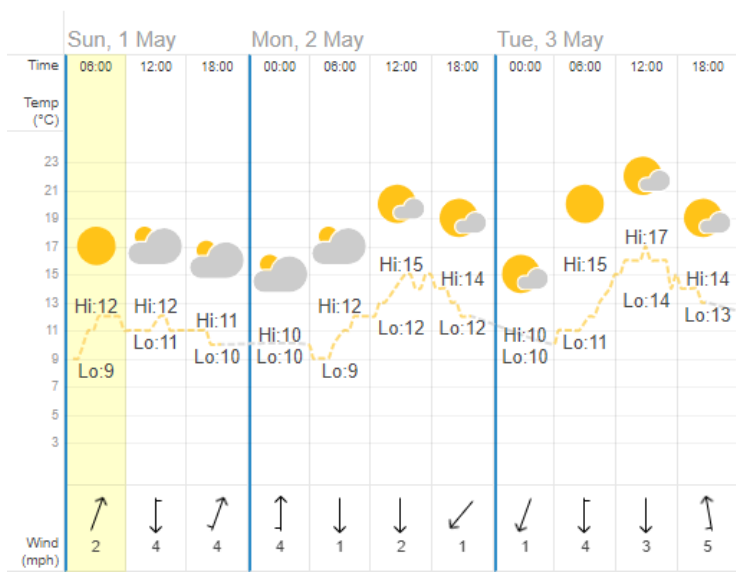
Created at 07:54:32 on 3 May 2022

APPENDIX C. WEATHER DATA

April 2022 Weather in Hamble-le-Rice — Graph



May 2022 Weather in Hamble-le-Rice — Graph



APPENDIX D. VISIBILITY SPLAY CALCULATIONS

Stopping Sight Distance Calculator

Formula for calculating SSD (from Manual for Streets 2): $SSD = vt + v^2/2(d+0.1a)$

v = Speed of vehicle (m/s)

t = driver perception-reaction time (seconds)

d = deceleration rate (m/s)

a = longitudinal gradient (%)

Fill in the white boxes only

Enter the vehicle 85%ile speed below

39.4 mph

17.613 m/s

v = 17.613 m/s

t = 2 taken from MfS2 table 10.1

d = 3.679 Vehicle type All vehicles (≤ 64 kph)

a = 0 +ve for upgrades and -ve for downgrades

Based on Table 10.1 MfS2

Design speed	Vehicle Type	Reaction Time t (s)	Deceleration rate d (m/s) (ie factor x 9.81)	Standard
60kph and below	Light vehicles only	1.5	0.450 g	MfS2
	Buses and/or HGV's greater than 5% of the traffic	1.5	0.375 g	MfS2
Above 60kph	All vehicles (≤ 64 kph)	2	0.375 g (Absolute minimum)	CD 109
	All vehicles (> 64 kph)	2	0.250 g (Desirable minimum)	CD 109

SSD = 77 m

SSD adjusted for bonnet length (MfS only) = 80 m (SSD + 2.4m)

NOTE: The adjustment for the bonnet length is only required on the MfS SSD as the MfS formula is calculated from drivers eye. To avoid a collision, the bonnet length must be added.

Conversions

mph 39.6

to kph 63.7

kph

to mph 0.0

Stopping Sight Distance Calculator

Formula for calculating SSD (from Manual for Streets 2): $SSD = vt + v^2/2(d+0.1a)$

v = Speed of vehicle (m/s)

d = deceleration rate (m/s)

t = driver perception-reaction time (seconds)

a = longitudinal gradient (%)

Fill in the white boxes only

Enter the vehicle 85%ile speed below

39.6 mph

17.703 m/s

v = 17.703 m/s

t = 2 taken from MfS2 table 10.1

d = 3.679 Vehicle type All vehicles (≤ 64 kph)

a = 0 +ve for upgrades and -ve for downgrades

Based on Table 10.1 MfS2

Design speed	Vehicle Type	Reaction Time t (s)	Deceleration rate d (m/s) (ie factor x 9.81)	Standard
60kph and below	Light vehicles only	1.5	0.450 g	MfS2
	Buses and/or HGV's greater than 5% of the traffic	1.5	0.375 g	MfS2
Above 60kph	All vehicles (≤ 64 kph)	2	0.375 g (Absolute minimum)	CD 109
	All vehicles (> 64 kph)	2	0.250 g (Desirable minimum)	CD 109

SSD = 78 m

SSD adjusted for bonnet length (MfS only) = 80 m (SSD + 2.4m)

NOTE: The adjustment for the bonnet length is only required on the MfS SSD as the MfS formula is calculated from drivers eye. To avoid a collision, the bonnet length must be added.

Conversions

mph 39.6

to kph 63.7

kph

to mph 0.0

APPENDIX E. ARBORICULTURAL AND LANDSCAPE
CONSULTANT COMMENTS ON
ALTERNATIVE ACCESS
ARRANGEMENTS

Hamble: Landscape and Arboricultural Comments on Alternative Access Points

10 June 2022

The Tree Survey table attached highlights the trees assessed along the Hamble Lane frontage and compared the effects of the submitted access proposals (green shading) and alternative proposals (orange shading).

The submitted access proposal (006D) would require the removal of three trees: **T5**, a 16m high Sycamore, Category C1 "Good" condition, with 20 years or more likely contribution to the streetscene; **T6**, a 15m high English Oak, Category C1 "Good / Fair" condition, noted as being in decline with less than 10 years contribution, and **T7**, a 20m high Sycamore, Category B1 "Good" condition, with 20 years or more likely contribution. Additionally, **T8**, a 20m high English Oak, Category B1 will be retained if possible, with a cellular confinement system to the small sector of rootzone which would be affected by the deacceleration lane. In terms of landscape, the submitted proposal would result in the loss of one native broadleaved tree (English Oak) with a limited contribution, with the remaining two being non-native (but naturalised) Sycamore specimens with a medium-term contribution. As this submitted proposal represents the fewest trees to be removed over the shortest stretch of road frontage, this would have the most limited adverse landscape character and visual impact of the three alternatives.

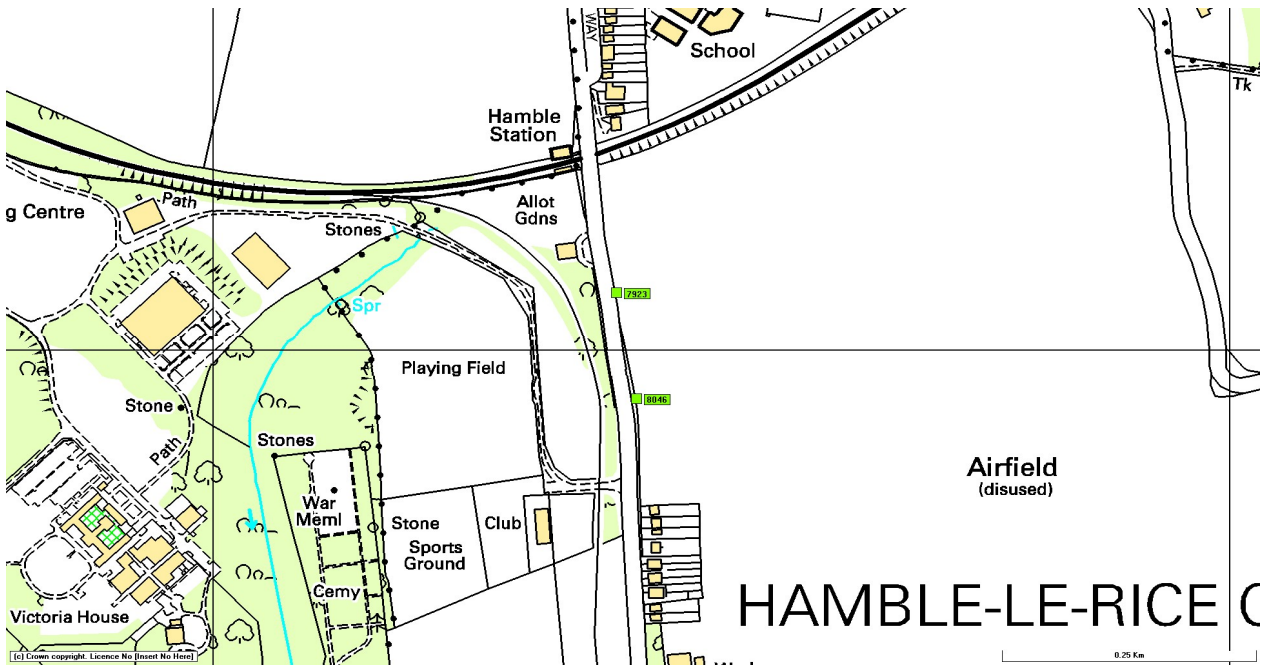
The alternative access proposal 007A would require the removal of seven trees: **T19**, a 20m high Ash, Category C1 "Fair" condition, with less than 10 years contribution, **T14** and **T18** English Oak, 18m and 20m respectively, both Category B1 "Good" condition, with more than 20 years contribution. The remainder **T15**, **T17**, **T20** and **T21** are all English Oak between 17 and 20m in height, Category C1 "Good / Fair" condition, with around 10 years likely contribution to the streetscene. In terms of landscape, the alternative proposal 007A would result in the loss of two native broadleaved trees (English Oak) with a medium-term contribution, with the remaining five (English Oak and Ash) with a limited or short-term contribution. As this proposal represents a greater number of native trees (none of which are in decline), to be removed over a longer stretch of road frontage, this would have a greater adverse landscape character and visual impact than the submitted proposal.

The alternative access proposal 008A would require the removal of nine trees: **T19**, a 20m high Ash, Category C1 "Fair" condition, with less than 10 years contribution, **T11**, **T13**, **T14** and **T18**, English Oak between 17 and 20m, all Category B1 "Good" condition, with more than 20 years contribution. The remainder **T12**, **T15**, **T17** and **T20** are all English Oak between 15 and 20m in height, Category C1 "Good / Fair" condition, with around 10 years likely contribution to the streetscene. In terms of landscape, the alternative proposal 008A would result in the loss of four native broadleaved trees (English Oak) with a medium-term contribution, with the remaining five (English Oak and Ash) with a limited or short-term contribution. As this proposal represents the greatest number of native trees (none of which are in decline), to be removed over the longest stretch of road frontage, this would have the greatest adverse landscape character and visual impact of the three alternatives.

All three of the proposals will result in the removal of short sections of tree group **G8** - this is a mixed thicket of English Oak, Silver Birch, Ash and Sycamore of an average height of 16m, Category B2 "Good" Condition", with 20 years or more likely contribution.

There is mature vegetation forming part of the longer established landscape framework to the east along Satchell Lane, a narrow winding road framed by dense hawthorn hedgerows, some of which are on low hedge banks as the land rises away into the application area. These hedgerows provide a “sunken lane” effect to Satchell Lane and contribute to a strong degree of enclosure and rural feel along the lane itself. The majority of the Satchell Lane frontage to the northern boundary of the site has an attractive appearance, apart from the former airfield access at the north-eastern corner of the site, where the vegetation has long since been removed and replaced with chain link fencing and gates opposite Wessex House.

APPENDIX D. ATC Traffic Survey Data



Site No: 00008046

Site Reference: 00008046

Hamble Ln

Vehicle Count Report

Week Begin: 25-Apr-22

Channel: Southbound

Time	Mon	Tue	Wed	Thu	Fri	Sat	Sun	5-Day	7-Day
Begin	#####	#####	#####	#####	#####	#####	#####	Av	Av
00:00	10	23	19	17	26	53	58	19	29
01:00	11	14	15	10	10	16	27	12	15
02:00	11	11	10	9	13	8	11	11	10
03:00	9	17	18	18	15	17	20	15	16
04:00	28	20	19	26	29	14	13	24	21
05:00	262	274	247	265	252	63	37	260	200
06:00	571	594	592	590	545	279	236	578	487
07:00	659	714	692	705	649	170	105	684	528
08:00	717	768	799	741	692	218	123	743	580
09:00	456	552	503	488	501	416	301	500	460
10:00	372	391	391	398	421	430	322	395	389
11:00	396	440	427	391	481	453	400	427	427
12:00	400	426	432	420	435	427	384	423	418
13:00	409	420	438	386	455	389	339	422	405
14:00	416	424	380	422	429	418	340	414	404
15:00	435	428	452	441	474	387	303	446	417
16:00	447	456	458	433	469	378	355	453	428
17:00	443	450	476	514	518	369	304	480	439
18:00	608	689	543	585	616	557	377	608	568
19:00	240	339	329	309	394	330	214	322	308
20:00	182	172	180	241	269	175	159	209	197
21:00	117	161	168	168	192	150	123	161	154
22:00	87	72	97	82	119	128	81	91	95
23:00	24	37	39	45	95	78	52	48	53
12H,7-19	5758	6158	5991	5924	6140	4612	3653	5994	5462
16H,6-22	6868	7424	7260	7232	7540	5546	4385	7265	6608
18H,6-24	6979	7533	7396	7359	7754	5752	4518	7404	6756
24H,0-24	7310	7892	7724	7704	8099	5923	4684	7746	7048
Am	08:00	08:00	08:00	08:00	08:00	11:00	11:00	-	-
Peak	717	768	799	741	692	453	400	743	653
Pm	18:00	18:00	18:00	18:00	18:00	18:00	12:00	-	-
Peak	608	689	543	585	616	557	384	608	569

Created at 07:53:20 on 3 May 2022

Site No: 00008046

Site Reference: 00008046

Hamble Ln

Vehicle Count Report

Week Begin: 25-Apr-22

Channel: Northbound

Time	Mon	Tue	Wed	Thu	Fri	Sat	Sun	5-Day	7-Day
Begin	#####	#####	#####	#####	#####	#####	#####	Av	Av
00:00	17	22	34	32	37	67	66	28	39
01:00	9	28	18	8	16	27	39	16	21
02:00	19	23	22	26	20	24	33	22	24
03:00	13	13	10	13	18	10	12	13	13
04:00	26	22	30	21	19	23	19	24	23
05:00	64	73	62	67	74	35	28	68	58
06:00	335	349	338	342	333	238	213	339	307
07:00	380	398	405	406	394	162	111	397	322
08:00	465	461	486	461	476	231	146	470	389
09:00	369	341	371	369	385	365	248	367	350
10:00	372	404	392	412	424	385	325	401	388
11:00	408	412	397	405	472	488	439	419	432
12:00	379	408	403	429	650	437	395	454	443
13:00	378	456	419	424	498	391	328	435	413
14:00	611	622	618	558	543	344	346	590	520
15:00	674	697	718	704	670	381	317	693	594
16:00	703	785	803	818	688	351	317	759	638
17:00	677	602	573	650	533	358	247	607	520
18:00	497	565	534	567	560	466	393	545	512
19:00	249	309	276	278	301	255	201	283	267
20:00	168	210	208	214	233	198	156	207	198
21:00	140	187	174	196	166	172	108	173	163
22:00	129	130	126	140	164	152	113	138	136
23:00	54	56	74	59	137	123	101	76	86
12H,7-19	5913	6151	6119	6203	6293	4359	3612	6136	5521
16H,6-22	6805	7206	7115	7233	7326	5222	4290	7137	6457
18H,6-24	6988	7392	7315	7432	7627	5497	4504	7351	6679
24H,0-24	7136	7573	7491	7599	7811	5683	4701	7522	6856
Am	08:00	08:00	08:00	08:00	08:00	11:00	11:00	-	-
Peak	465	461	486	461	476	488	439	470	468
Pm	16:00	16:00	16:00	16:00	16:00	18:00	12:00	-	-
Peak	703	785	803	818	688	466	395	759	665

Created at 07:53:20 on 3 May 2022

Site No: 00008046

Site Reference: 00008046

Hamble Ln

Speed Summary (All Days)-Limit 3 From 25/04/2022 To 02/05/2022 Channel: Southbound

Time Begin	Total Vol.	85th %ile	Mean Ave.	Std. Dev.	Bin 1 <1Mph	Bin 2 1-<6	Bin 3 6-<11	Bin 4 11-<16	Bin 5 16-<21	Bin 6 21-<26	Bin 7 26-<31	Bin 8 31-<36	Bin 9 36-<41	Bin 10 41-<46	Bin 11 46-<51	Bin 12 51-<56	Bin 13 =>56
00:00	29	42.5	36.6	6.8	0	0	0	0	0	0	5	11	8	4	1	0	1
01:00	15	41	35.7	6.1	0	0	0	0	0	0	3	7	2	2	1	0	0
02:00	10	40.3	36.4	5.1	0	0	0	0	0	0	2	4	3	1	0	0	0
03:00	16	41.1	36	5.8	0	0	0	0	0	0	3	6	5	2	1	0	0
04:00	21	42.6	36.6	5.7	0	0	0	0	0	0	3	6	7	4	1	0	0
05:00	200	39.7	34.8	4.6	0	0	0	0	0	1	35	94	53	14	2	0	0
06:00	487	38.8	34.3	4.2	0	0	0	0	1	4	80	261	121	16	3	0	0
07:00	528	36.3	32.2	4.8	0	0	0	2	9	20	161	253	72	10	1	0	0
08:00	580	35.5	31.3	4.9	0	0	1	5	11	26	219	254	55	7	1	0	0
09:00	460	37.2	32.9	4.2	0	0	0	0	1	9	131	230	78	11	0	0	0
10:00	389	37.5	33.3	4.3	0	0	0	0	2	3	101	203	69	9	2	0	0
11:00	427	37.4	33.2	4.3	0	0	0	0	2	4	113	224	74	9	2	0	0
12:00	418	37.6	33.2	4.2	0	0	0	0	1	5	110	213	78	9	1	0	0
13:00	405	37.7	33.4	4.2	0	0	0	0	1	4	100	212	77	10	1	0	0
14:00	404	37.5	33.2	4.2	0	0	0	0	0	5	109	207	72	9	1	0	0
15:00	417	37.1	32.6	4.6	0	0	0	1	2	10	136	191	65	10	1	0	0
16:00	428	37.4	33.2	4.1	0	0	0	0	0	3	112	226	74	12	0	0	0
17:00	439	38.1	33.5	4.6	0	0	0	2	3	4	100	228	86	15	1	0	0
18:00	568	38	33.5	4.2	0	0	0	0	1	5	136	296	110	16	2	0	0
19:00	308	39	34.1	4.7	0	0	0	0	0	3	69	147	70	15	2	1	0
20:00	197	39	34.1	5.1	0	0	0	0	0	2	42	98	41	10	2	1	1
21:00	154	37.7	33.3	4.5	0	0	0	0	0	3	43	76	25	6	1	0	0
22:00	95	39.5	34.4	5	0	0	0	0	0	1	22	41	23	6	2	0	0
23:00	53	40.4	35.1	5.6	0	0	0	0	0	1	12	20	13	4	2	0	0

12H,7-19	5463	37.3	32.9	4.4	0	0	1	10	33	98	1528	2737	910	127	13	0	0
16H,6-22	6609	37.6	33.1	4.5	0	0	1	10	34	110	1762	3319	1167	174	21	2	1
18H,6-24	6757	37.7	33.1	4.5	0	0	1	10	34	112	1796	3380	1203	184	25	2	1
24H,0-24	7048	37.8	33.2	4.6	0	0	1	10	34	113	1847	3508	1281	211	31	2	2

Am	08:00	04:00	00:00	00:00	-	-	08:00	08:00	08:00	08:00	08:00	06:00	06:00	06:00	06:00	07:00	00:00
Peak	580	42.6	36.6	6.8	-	-	1	5	11	26	219	261	121	16	3	0	1
Pm	18:00	23:00	23:00	23:00	-	-	18:00	17:00	17:00	15:00	18:00	18:00	18:00	18:00	18:00	20:00	20:00
Peak	568	40.4	35.1	5.6	-	-	0	2	3	10	136	296	110	16	2	1	1

Created at 07:53:26 on 3 May 2022

Site No: 00008046

Site Reference: 00008046

Hamble Ln

Speed Summary (All Days)-Limit 3 From 25/04/2022 To 02/05/2022 Channel: Northbound

Time Begin	Total Vol.	85th %ile	Mean Ave.	Std. Dev.	Bin 1 <1Mph	Bin 2 1-<6	Bin 3 6-<11	Bin 4 11-<16	Bin 5 16-<21	Bin 6 21-<26	Bin 7 26-<31	Bin 8 31-<36	Bin 9 36-<41	Bin 10 41-<46	Bin 11 46-<51	Bin 12 51-<56	Bin 13 =>56
00:00	39	43.4	37.1	6	0	0	0	0	0	0	5	12	11	8	1	1	0
01:00	21	44.2	38.3	6.5	0	0	0	0	0	0	2	6	6	5	1	1	0
02:00	24	41.3	36	5.6	0	0	0	0	0	0	4	9	7	4	1	0	0
03:00	13	42.4	36.9	6.3	0	0	0	0	0	0	2	4	3	2	1	0	0
04:00	23	43.6	37.1	5.8	0	0	0	0	0	0	3	8	5	4	1	0	0
05:00	58	44.4	38.4	5.8	0	0	0	0	0	0	4	19	17	13	4	1	0
06:00	307	42.7	37.5	5.1	0	0	0	0	0	1	19	100	122	54	8	2	1
07:00	322	40.4	35.7	4.7	0	0	0	0	0	2	35	147	103	31	4	1	0
08:00	389	39.2	34.5	4.4	0	0	0	0	1	2	64	203	96	22	3	0	0
09:00	350	39.5	34.7	4.5	0	0	0	0	0	4	49	177	94	22	2	1	0
10:00	388	39.4	34.8	4.3	0	0	0	0	0	3	55	199	105	23	2	0	0
11:00	432	39.1	34.4	4.3	0	0	0	0	0	4	69	227	106	22	2	0	0
12:00	443	39.1	33.9	5.3	0	0	1	4	4	8	71	222	105	26	2	0	0
13:00	413	39.1	34.5	4.2	0	0	0	0	0	2	67	214	108	20	1	0	0
14:00	520	38.6	32.9	6.1	0	0	3	10	10	21	101	240	110	23	2	0	0
15:00	594	37.6	33	4.8	0	0	1	4	4	15	140	305	108	15	2	0	0
16:00	638	37.4	31.5	7.1	0	1	20	15	14	22	144	294	110	15	1	0	0
17:00	520	38.7	31.9	8.3	0	3	24	21	5	10	84	230	120	21	2	0	0
18:00	512	40.1	35.7	4.4	0	0	0	0	1	1	52	231	180	41	5	0	0
19:00	267	40.6	36	5	0	0	0	0	0	1	27	116	89	26	6	1	1
20:00	198	40.6	36	5	0	0	0	0	0	2	20	88	63	20	3	2	0
21:00	163	40.1	35	5.5	0	0	0	0	1	1	28	74	41	14	2	1	1
22:00	136	42.8	36.7	6	0	0	0	0	0	1	16	54	38	20	5	2	1
23:00	86	43	36.9	6	0	0	0	0	0	0	10	30	26	14	3	1	1

12H,7-19	5521	39.1	33.8	5.7	0	4	49	54	39	94	931	2689	1345	281	28	2	0
16H,6-22	6456	39.4	34.1	5.7	0	4	49	54	40	99	1025	3067	1660	395	47	8	3
18H,6-24	6678	39.5	34.2	5.7	0	4	49	54	40	100	1051	3151	1724	429	55	11	5
24H,0-24	6856	39.6	34.3	5.7	0	4	49	54	40	100	1071	3209	1773	465	64	14	5

Am	11:00	05:00	05:00	01:00	-	-	-	11:00	08:00	09:00	11:00	11:00	06:00	06:00	06:00	06:00	06:00
Peak	432	44.4	38.4	6.5	-	-	-	0	1	4	69	227	122	54	8	2	1
Pm	16:00	23:00	23:00	17:00	-	-	17:00	17:00	16:00	16:00	16:00	15:00	18:00	18:00	19:00	20:00	22:00
Peak	638	43	36.9	8.3	-	-	3	24	21	14	22	144	305	180	41	6	2

Created at 07:53:27 on 3 May 2022

Site No: 00008046

Site Reference: 00008046

Hamble Ln

Length Summary (All Days) From 25/04/2022 To 02/05/2022 Channel: Southbound

Time Begin	Total Vol.	Bin 1 <=5.2m	Bin 2 5.2-6.5	Bin 3 6.5-11.5	Bin 4 >11.5
00:00	29	25	2	0	3
01:00	15	11	1	1	2
02:00	10	7	1	1	1
03:00	16	13	2	0	0
04:00	21	17	2	1	1
05:00	200	187	6	3	4
06:00	487	446	30	6	4
07:00	528	430	67	25	5
08:00	580	452	85	33	9
09:00	460	353	65	30	12
10:00	389	307	50	26	6
11:00	427	351	46	21	9
12:00	418	344	46	20	8
13:00	405	338	44	14	9
14:00	404	341	45	13	5
15:00	417	353	44	16	4
16:00	428	360	46	17	5
17:00	439	339	73	25	3
18:00	568	512	46	7	3
19:00	308	275	26	3	3
20:00	197	175	14	4	4
21:00	154	138	11	2	3
22:00	95	86	6	2	1
23:00	53	48	4	1	1

12H,7-19	5462	4481	656	247	78
16H,6-22	6608	5516	737	262	93
18H,6-24	6756	5650	746	265	95
24H,0-24	7048	5910	761	272	105

Am	08:00	08:00	08:00	08:00	09:00
Peak	580	452	85	33	12

Pm	18:00	18:00	17:00	17:00	13:00
Peak	568	512	73	25	9

Created at 07:53:43 on 3 May 2022

Site No: 00008046

Site Reference: 00008046

Hamble Ln

Length Summary (All Days) From 25/04/2022 To 02/05/2022 Channel: Northbound

Time Begin	Total Vol.	Bin 1 <=5.2m	Bin 2 5.2-6.5	Bin 3 6.5-11.5	Bin 4 >11.5
00:00	39	36	2	1	0
01:00	21	18	2	0	0
02:00	24	21	1	1	1
03:00	13	10	1	1	1
04:00	23	16	2	0	4
05:00	58	47	5	2	4
06:00	307	271	25	8	4
07:00	322	259	44	16	5
08:00	389	307	60	17	5
09:00	350	278	43	21	8
10:00	388	313	44	22	8
11:00	432	356	46	24	6
12:00	443	374	44	18	7
13:00	413	351	38	19	5
14:00	520	454	50	13	4
15:00	594	515	56	20	4
16:00	638	551	62	18	7
17:00	520	434	71	12	3
18:00	512	460	42	7	2
19:00	267	237	24	3	3
20:00	198	177	16	3	2
21:00	163	148	9	3	2
22:00	136	126	8	1	1
23:00	86	80	5	1	1

12H,7-19	5521	4650	601	208	63
16H,6-22	6457	5483	676	224	75
18H,6-24	6679	5688	688	225	77
24H,0-24	6856	5837	702	230	87

Am	11:00	11:00	08:00	11:00	10:00
Peak	432	356	60	24	8

Pm	16:00	16:00	17:00	15:00	12:00
Peak	638	551	71	20	7

Created at 07:53:43 on 3 May 2022

Site No: 00007923
 Hamble Ln Hamble
 Vehicle Count Report

Site Reference: 00007923

Week Begin: 25-Apr-22

Channel: Southbound

Time	Mon	Tue	Wed	Thu	Fri	Sat	Sun	5-Day	7-Day
Begin	25/04/2022	26/04/2022	27/04/2022	28/04/2022	29/04/2022	30/04/2022	01/05/2022	Av	Av
00:00	10	23	19	17	26	53	58	19	29
01:00	11	14	15	10	10	16	27	12	15
02:00	11	11	10	9	13	8	11	11	10
03:00	9	17	18	18	15	17	20	15	16
04:00	29	20	19	27	30	14	14	25	22
05:00	265	274	250	266	252	63	37	261	201
06:00	569	597	588	590	548	278	238	578	487
07:00	660	705	689	702	640	172	106	679	525
08:00	715	764	789	733	690	222	122	738	576
09:00	450	550	499	481	499	410	301	496	456
10:00	369	384	384	394	417	430	324	390	386
11:00	388	439	419	387	466	450	396	420	421
12:00	400	414	427	418	433	425	386	418	415
13:00	413	419	436	381	452	390	340	420	404
14:00	419	415	377	420	429	417	342	412	403
15:00	424	430	447	442	469	385	304	442	414
16:00	451	456	459	437	469	375	356	454	429
17:00	446	456	487	515	514	372	302	484	442
18:00	605	690	547	588	617	554	379	609	569
19:00	239	337	328	309	390	329	215	321	307
20:00	181	171	180	241	268	173	158	208	196
21:00	119	162	167	166	192	150	123	161	154
22:00	87	71	97	82	119	128	81	91	95
23:00	24	37	38	45	96	78	52	48	53

12H,7-19	5740	6122	5960	5898	6095	4602	3658	5963	5439
16H,6-22	6848	7389	7223	7204	7493	5532	4392	7231	6583
18H,6-24	6959	7497	7358	7331	7708	5738	4525	7371	6731
24H,0-24	7294	7856	7689	7678	8054	5909	4692	7714	7025

Am Peak	08:00	08:00	08:00	08:00	08:00	11:00	11:00	-	-
Peak	715	764	789	733	690	450	396	738	648

Pm Peak	18:00	18:00	18:00	18:00	18:00	18:00	12:00	-	-
Peak	605	690	547	588	617	554	386	609	570

Created at 07:54:08 on 3 May 2022

Site No: 00007923
 Hamble Ln Hamble
 Vehicle Count Report

Site Reference: 00007923

Week Begin: 25-Apr-22

Channel: Northbound

Time	Mon	Tue	Wed	Thu	Fri	Sat	Sun	5-Day	7-Day
Begin	25/04/2022	26/04/2022	27/04/2022	28/04/2022	29/04/2022	30/04/2022	01/05/2022	Av	Av
00:00	17	21	35	32	37	68	66	28	39
01:00	9	28	18	8	16	27	39	16	21
02:00	19	23	22	26	20	23	33	22	24
03:00	13	13	10	13	18	10	12	13	13
04:00	26	22	30	21	19	23	18	24	23
05:00	65	74	64	68	72	35	29	69	58
06:00	331	353	332	338	333	236	210	337	305
07:00	376	402	416	391	385	162	109	394	320
08:00	447	491	458	442	471	238	144	462	384
09:00	368	338	380	368	384	369	247	368	351
10:00	371	404	388	403	429	379	316	399	384
11:00	409	412	402	396	468	481	435	417	429
12:00	379	407	405	429	591	430	395	442	434
13:00	378	440	408	418	487	394	335	426	409
14:00	607	615	605	555	532	347	339	583	514
15:00	668	680	712	701	649	379	313	682	586
16:00	734	792	789	815	683	353	320	763	641
17:00	677	659	569	634	517	364	248	611	524
18:00	506	553	520	567	561	472	383	541	509
19:00	248	314	273	279	301	250	200	283	266
20:00	163	210	208	214	232	197	152	205	197
21:00	139	187	170	197	167	173	109	172	163
22:00	131	131	125	139	165	153	111	138	136
23:00	55	56	73	58	138	125	100	76	86

12H,7-19	5920	6193	6052	6119	6157	4368	3584	6088	5485
16H,6-22	6801	7257	7035	7147	7190	5224	4255	7086	6416
18H,6-24	6987	7444	7233	7344	7493	5502	4466	7300	6638
24H,0-24	7136	7625	7412	7512	7675	5688	4663	7472	6816

Am Peak	08:00	08:00	08:00	08:00	08:00	11:00	11:00	-	-
Peak	447	491	458	442	471	481	435	462	461

Pm Peak	16:00	16:00	16:00	16:00	16:00	18:00	12:00	-	-
Peak	734	792	789	815	683	472	395	763	669

Created at 07:54:08 on 3 May 2022

Time	Tue	Wed	Thu	Fri	Sat	Sun	Mon	5-Day	7-Day
Begin								Av	Av
00:00	27	44	54	49	63	121	124	60	69
01:00	20	42	33	18	26	43	66	36	35
02:00	30	34	32	35	33	31	44	35	34
03:00	22	30	28	31	33	27	32	29	29
04:00	55	42	49	48	49	37	32	45	45
05:00	330	348	314	334	324	98	66	278	259
06:00	900	950	920	928	881	514	448	829	792
07:00	1036	1107	1105	1093	1025	334	215	911	845
08:00	1162	1255	1247	1175	1161	460	266	1021	961
09:00	818	888	879	849	883	779	548	796	806
10:00	740	788	772	797	846	809	640	747	770
11:00	797	851	821	783	934	931	831	817	850
12:00	779	821	832	847	1024	855	781	812	848
13:00	791	859	844	799	939	784	675	794	813
14:00	1026	1030	982	975	961	764	681	939	917
15:00	1092	1110	1159	1143	1118	764	617	1024	1000
16:00	1185	1248	1248	1252	1152	728	676	1122	1070
17:00	1123	1115	1056	1149	1031	736	550	999	966
18:00	1111	1243	1067	1155	1178	1026	762	1068	1077
19:00	487	651	601	588	691	579	415	548	573
20:00	344	381	388	455	500	370	310	376	393
21:00	258	349	337	363	359	323	232	308	317
22:00	218	202	222	221	284	281	192	211	231
23:00	79	93	111	103	234	203	152	108	139
Total	14430	15481	15101	15190	15729	11597	9355	13911.4	13840.43

Site No: 00007923

Site Reference: 00007923

Hamble Ln Hamble

Speed Summary (All Days)-Limit 3 From 25/04/2022 To 02/05/2022 Channel: Southbound

Time Begin	Total Vol.	85th %ile	Mean Ave.	Std. Dev.	Bin 1 <1Mph	Bin 2 1-<6	Bin 3 6-<11	Bin 4 11-<16	Bin 5 16-<21	Bin 6 21-<26	Bin 7 26-<31	Bin 8 31-<36	Bin 9 36-<41	Bin 10 41-<46	Bin 11 46-<51	Bin 12 51-<56	Bin 13 =>56
00:00	29	44	37.8	7.1	0	0	0	0	0	1	2	11	8	5	2	0	1
01:00	15	42.8	37	6	0	0	0	0	0	0	2	6	3	2	1	0	0
02:00	10	43	37.8	5.2	0	0	0	0	0	0	1	4	3	2	0	0	0
03:00	16	43.1	37.1	5.9	0	0	0	0	0	0	2	6	4	3	1	0	0
04:00	22	44.4	37.5	8.6	0	0	1	0	0	0	2	6	6	5	2	0	0
05:00	201	40.5	36	4.9	0	0	0	0	1	0	18	92	65	19	4	1	0
06:00	487	40	35.7	4.3	0	0	0	0	2	3	35	228	184	30	3	1	0
07:00	525	38.6	33.8	4.8	0	0	0	2	9	11	75	282	127	16	2	0	0
08:00	576	37.7	32.9	4.9	0	0	0	2	11	21	121	297	107	14	2	0	0
09:00	456	39	34.4	4.3	0	0	0	0	1	6	66	241	121	18	2	0	0
10:00	386	39.1	34.6	4.4	0	0	0	0	1	3	54	203	106	16	2	1	0
11:00	421	39.2	34.5	4.3	0	0	0	0	1	4	62	216	114	20	2	0	0
12:00	415	39	34.5	4.2	0	0	0	0	1	3	62	221	109	17	2	0	0
13:00	404	39.3	34.7	4.3	0	0	0	0	1	4	54	210	112	22	1	0	0
14:00	403	39	34.3	4.3	0	0	0	0	1	3	65	211	104	16	3	0	0
15:00	414	38.6	33.7	4.9	0	0	0	2	2	10	84	203	95	15	2	1	0
16:00	429	39.1	34.4	4.3	0	0	0	1	0	3	67	225	111	20	1	0	0
17:00	442	39.5	34.7	4.7	0	0	0	3	2	1	56	221	131	24	2	0	0
18:00	569	39.5	34.9	4.3	0	0	0	0	2	3	68	295	168	31	3	0	0
19:00	307	40.2	35.6	4.9	0	0	0	0	0	1	39	139	97	25	5	1	1
20:00	196	40.2	35.4	5.2	0	0	0	0	0	2	25	93	54	16	3	1	1
21:00	154	39.6	34.7	4.7	0	0	0	0	0	1	27	75	37	11	2	0	0
22:00	95	40.3	35.4	5.4	0	0	0	0	0	0	16	40	27	8	3	1	0
23:00	53	42.1	36.2	6.2	0	0	0	0	0	1	9	19	14	6	2	1	0

12H,7-19	5440	39	34.3	4.5	0	0	0	10	32	72	834	2825	1405	229	24	2	0
16H,6-22	6584	39.2	34.5	4.6	0	0	0	10	34	79	960	3360	1777	311	37	5	2
18H,6-24	6732	39.3	34.5	4.6	0	0	0	10	34	80	985	3419	1818	325	42	7	2
24H,0-24	7025	39.4	34.6	4.7	0	0	1	10	35	81	1012	3544	1907	361	52	8	3

Am	08:00	04:00	02:00	04:00 -	-	04:00	08:00	08:00	08:00	08:00	08:00	08:00	06:00	06:00	05:00	06:00	00:00
Peak	576	44.4	37.8	8.6 -	-	1	2	11	21	121	297	184	30	4	1	1	
Pm	18:00	23:00	23:00	23:00 -	-	17:00	17:00	15:00	15:00	15:00	18:00	18:00	18:00	19:00	23:00	20:00	
Peak	569	42.1	36.2	6.2 -	-	0	3	2	10	84	295	168	31	5	1	1	

Created at 07:54:17 on 3 May 2022

Site No: 00007923

Site Reference: 00007923

Hamble Ln Hamble

Speed Summary (All Days)-Limit 3 From 25/04/2022 To 02/05/2022 Channel: Northbound

Time Begin	Total Vol.	85th %ile	Mean Ave.	Std. Dev.	Bin 1 <1Mph	Bin 2 1-<6	Bin 3 6-<11	Bin 4 11-<16	Bin 5 16-<21	Bin 6 21-<26	Bin 7 26-<31	Bin 8 31-<36	Bin 9 36-<41	Bin 10 41-<46	Bin 11 46-<51	Bin 12 51-<56	Bin 13 =>56
00:00	39	45.4	39	6.8	0	0	0	0	0	0	3	10	13	8	3	1	1
01:00	21	45.9	40.5	7.7	0	0	0	0	0	0	1	4	7	5	1	2	1
02:00	24	45.6	40.7	6	0	0	0	0	0	0	1	4	7	8	2	1	0
03:00	13	44.9	39.3	5.8	0	0	0	0	0	0	1	3	4	3	1	0	0
04:00	23	45.1	38.9	6.4	0	0	0	0	0	0	1	8	6	4	2	1	0
05:00	58	45.5	39.8	5.9	0	0	0	0	0	0	2	15	18	16	6	2	0
06:00	305	43.9	38.5	5.3	0	0	0	0	0	1	14	81	121	71	13	3	1
07:00	320	40.8	36.1	5.1	0	0	0	0	1	3	29	134	107	40	4	1	1
08:00	384	39.8	34.8	4.9	0	0	0	0	2	7	57	177	111	26	4	0	0
09:00	351	40.2	35.4	4.7	0	0	0	0	1	3	42	157	112	32	3	0	0
10:00	384	40	35.2	4.8	0	0	0	0	2	3	47	180	119	31	3	1	0
11:00	429	39.8	35.1	4.5	0	0	0	0	1	6	48	208	133	28	4	0	0
12:00	434	40	34.8	5.6	0	0	1	4	5	10	51	195	130	34	4	1	0
13:00	409	39.9	35.1	4.7	0	0	0	1	1	5	47	196	123	33	3	0	0
14:00	514	39.6	33.5	6.7	0	0	6	7	12	27	75	210	136	36	3	1	0
15:00	586	38.8	33.3	5.7	0	0	2	6	12	20	112	274	129	29	2	0	0
16:00	641	38.6	31.4	8.1	0	1	20	28	27	38	99	263	132	31	2	0	0
17:00	524	39.4	32	8.8	0	3	21	26	19	15	62	206	139	30	3	1	0
18:00	509	40.8	36.4	4.7	0	0	0	0	1	2	34	207	194	62	6	1	1
19:00	266	42.1	37.1	5.2	0	0	0	0	0	1	21	93	102	39	7	2	1
20:00	197	42.8	37.3	5.5	0	0	0	0	0	1	13	73	68	31	7	2	1
21:00	163	42.2	36.7	5.3	0	0	0	0	0	0	15	66	51	24	4	1	1
22:00	136	44.4	38.4	6.1	0	0	0	0	0	0	9	43	43	29	7	2	2
23:00	86	44.9	38.6	6.2	0	0	0	0	0	0	6	26	28	17	6	2	1

12H,7-19	5485	39.8	34.2	6.3	0	4	50	72	84	139	703	2407	1565	412	41	6	2
16H,6-22	6416	40.2	34.7	6.3	0	4	50	72	84	142	766	2720	1907	577	72	14	6
18H,6-24	6638	40.3	34.8	6.3	0	4	50	72	84	142	781	2789	1978	623	85	18	9
24H,0-24	6816	40.5	34.9	6.3	0	4	50	72	84	142	790	2833	2033	667	100	25	11

Am	11:00	01:00	02:00	01:00 -	-	08:00	11:00	08:00	08:00	08:00	08:00	11:00	11:00	06:00	06:00	06:00	
Peak	429	45.9	40.7	7.7 -	-	0	0	2	7	57	208	133	71	13	3	1	
Pm	16:00	23:00	23:00	17:00 -	-	17:00	16:00	16:00	16:00	15:00	15:00	18:00	18:00	22:00	22:00	22:00	
Peak	641	44.9	38.6	8.8 -	-	3	21	28	27	38	112	274	194	62	7	2	2

Created at 07:54:17 on 3 May 2022

Site No: 00007923 Site Reference: 00007923
 Hamble Ln Hamble
 Length Summary (All Days) From 25/04/2022 To 02/05/2022 Channel: Southbound

Time Begin	Total Vol.	Bin 1 <=5.2m	Bin 2 5.2-6.5	Bin 3 6.5-11.5	Bin 4 >11.5
00:00	29	25	1	0	3
01:00	15	11	1	1	2
02:00	10	7	1	1	1
03:00	16	14	2	0	0
04:00	22	19	2	1	1
05:00	201	188	6	3	3
06:00	487	446	30	7	4
07:00	525	430	62	28	6
08:00	576	481	63	24	9
09:00	456	352	60	32	11
10:00	386	308	45	27	6
11:00	421	344	44	24	9
12:00	415	323	58	26	8
13:00	404	339	41	16	9
14:00	403	339	44	15	5
15:00	414	351	42	19	4
16:00	429	370	42	12	5
17:00	442	358	62	19	3
18:00	569	518	41	8	2
19:00	307	277	23	3	3
20:00	196	174	15	4	4
21:00	154	138	11	2	3
22:00	95	87	5	2	1
23:00	53	48	4	0	1
12H,7-19	5439	4512	603	248	76
16H,6-22	6583	5547	681	264	91
18H,6-24	6731	5681	691	266	93
24H,0-24	7025	5945	704	273	102
Am	08:00	08:00	08:00	09:00	09:00
Peak	576	481	63	32	11
Pm	18:00	18:00	17:00	12:00	13:00
Peak	569	518	62	26	9

Created at 07:54:32 on 3 May 2022

Site No: 00007923 Site Reference: 00007923
 Hamble Ln Hamble
 Length Summary (All Days) From 25/04/2022 To 02/05/2022 Channel: Northbound

Time Begin	Total Vol.	Bin 1 <=5.2m	Bin 2 5.2-6.5	Bin 3 6.5-11.5	Bin 4 >11.5
00:00	39	34	4	1	0
01:00	21	18	2	0	0
02:00	24	21	2	0	1
03:00	13	10	1	1	1
04:00	23	16	2	0	4
05:00	58	45	7	2	4
06:00	305	263	29	9	4
07:00	320	250	48	17	5
08:00	384	300	62	18	5
09:00	351	273	49	21	8
10:00	384	308	46	23	8
11:00	429	346	54	24	6
12:00	434	351	55	22	6
13:00	409	338	46	19	6
14:00	514	445	51	14	5
15:00	586	504	59	21	3
16:00	641	549	67	17	8
17:00	524	445	65	11	3
18:00	509	452	48	6	2
19:00	266	233	28	3	3
20:00	197	173	18	3	2
21:00	163	145	13	3	2
22:00	136	123	11	1	1
23:00	86	77	7	1	1
12H,7-19	5485	4559	648	214	64
16H,6-22	6416	5373	735	232	75
18H,6-24	6638	5574	754	234	78
24H,0-24	6816	5718	771	239	88
Am	11:00	11:00	08:00	11:00	09:00
Peak	429	346	62	24	8
Pm	16:00	16:00	16:00	12:00	16:00
Peak	641	549	67	22	8

Created at 07:54:32 on 3 May 2022

APPENDIX E. Visibility Splay Calculations

Stopping Sight Distance Calculator

Formula for calculating SSD (from Manual for Streets 2): $SSD = vt + v^2/2(d+0.1a)$

v = Speed of vehicle (m/s)

d = deceleration rate (m/s)

t = driver perception-reaction time (seconds)

a = longitudinal gradient (%)

Fill in the white boxes only

Enter the vehicle 85%ile speed below

39.4 mph

17.613 m/s

v = 17.613 m/s

t = 2 taken from MfS2 table 10.1

d = 3.679 Vehicle type All vehicles (≤ 64 kph)

a = 0 +ve for upgrades and -ve for downgrades

Based on Table 10.1 MfS2

Design speed	Vehicle Type	Reaction Time t (s)	Deceleration rate d (m/s) (ie factor x 9.81)	Standard
60kph and below	Light vehicles only	1.5	0.450 g	MfS2
	Buses and/or HGV's greater than 5% of the traffic	1.5	0.375 g	MfS2
Above 60kph	All vehicles (≤ 64 kph)	2	0.375 g (Absolute minimum)	CD 109
	All vehicles (> 64 kph)	2	0.250 g (Desirable minimum)	CD 109

SSD = 77 m

SSD adjusted for bonnet length (MfS only) = 80 m (SSD + 2.4m)

NOTE: The adjustment for the bonnet length is only required on the MfS SSD as the MfS formula is calculated from drivers eye. To avoid a collision, the bonnet length must be added.

Conversions

mph 39.6

to kph 63.7

kph

to mph 0.0

Stopping Sight Distance Calculator

Formula for calculating SSD (from Manual for Streets 2): $SSD = vt + v^2/2(d+0.1a)$

v = Speed of vehicle (m/s)

d = deceleration rate (m/s)

t = driver perception-reaction time (seconds)

a = longitudinal gradient (%)

Fill in the white boxes only

Enter the vehicle 85%ile speed below

mph

17.703 m/s

v = 17.703 m/s

t = taken from MfS2 table 10.1

d = 3.679 Vehicle type

a = +ve for upgrades and -ve for downgrades

SSD =

m

SSD adjusted for bonnet

length (MfS only) =

m (SSD + 2.4m)

Conversions

mph

to kph

kph

to mph

Based on Table 10.1 MfS2

Design speed	Vehicle Type	Reaction Time t (s)	Deceleration rate d (m/s) (ie factor x 9.81)	Standard
60kph and below	Light vehicles only	1.5	0.450 g	MfS2
	Buses and/or HGV's greater than 5% of the traffic	1.5	0.375 g	MfS2
Above 60kph	All vehicles (≤64kph)	2	0.375 g (Absolute minimum)	CD 109
	All vehicles (>64kph)	2	0.250 g (Desirable minimum)	CD 109

NOTE: The adjustment for the bonnet length is only required on the MfS SSD as the MfS formula is calculated from drivers eye. To avoid a collision, the bonnet length must be added.