

Former Greggs Factory, Twickenham - Residential & Industrial

RSA Problem Location	RSA Problem	RSA Recommendation	Designers Response	Overseeing Organisation Response	Agreed RSA Action
Locations 1, 2, 3 & 4 - Within the alignment of the proposed residential development site access road	Forward visibility impacted upon by the presence of the proposed trees could lead to a potential increased risk of head-on type vehicular collisions occurring or offside to offside vehicular collisions occurring, whereby vehicle occupants could sustain personal injury. In addition, the forward visibility impacted upon by the presence of the proposed trees could lead to a potential increased risk of vehicular and pedestrian and pedal cyclist collisions occurring, whereby pedestrians and pedal cyclists could sustain a personal injury	It is recommended that the proposed trees should be omitted or relocated in order to ensure that a driver's forward visibility to opposing flows of vehicular traffic and to oncoming pedestrians and pedal cyclists is optimised.	<p>The RSA comment on the forward visibility within the site is noted, and the location of the trees will be reviewed as part of Stage 2 on-site design with the view to relocating the trees where possible.</p> <p>As part of the proposed design, the internal mews road through the site has incorporated a shared-use approach to encourage lower vehicular speeds, focus driver attention and offer priority for non-motorised users. There are a number of additional design interventions which have been employed on the north-south mews street to reinforce the shared-surface approach and hierarchy of users, such as planters and landscaping features located along the western side, adjacent to the mews houses.</p> <p>These design interventions result in an environment where low speeds are encouraged, non-motorised users have priority and where there is sufficient space to allow different users to safely navigate the road. In the Department for Transport publication Manual for Streets (DfT 2007), the utilisation of planting is outlined to be a clear benefit in softening urban street scenes whilst acting to "limit forward visibility to help reduce vehicle speeds" (see MfS section 5.12).</p> <p>The following relevant text extracted from Chapter 7, "Street Geometry", summarises the stance on obstacles to visibility:  <i>7.8.6 The impact of other obstacles, such as street trees and street lighting columns, should be assessed in terms of their impact on the overall envelope of visibility. In general, occasional obstacles to visibility that are not large enough to fully obscure a whole vehicle or a pedestrian, including a child or wheelchair user, will not have a significant impact on road safety.</i></p>		
Locations 5 & 6 - The proposed residential development site access road priority T-junctions with Edwin Road and Crane Road/Gould Road	Proposed visibility splays at the Edwin Road and Crane Road/Gould Road junctions could result in a potential increased risk of side impact vehicular collisions occurring, whereby vehicle occupants could sustain personal injury.	<p>It is recommended that the proposed visibility splays should be measured to the effective edges of the vehicular carriageways, which are the longitudinal carriageway markings which form and delineate the on-street parking bays.</p> <p>In order to ensure that operational road safety is not compromised in the future scenario, this may result in adjustments being required to the existing on-street parking bay provision.</p>	<p>The RSA has raised concern that there "could result in a potential increased risk" of vehicle collisions occurring as a result of reduced visibility due to the presence of on-street parking.</p> <p>It is noted in Manual for Streets that improved visibility and/or increased carriageway width are considered to correlate with increased vehicle speeds (see MfS section 7.4) and should be taken into account in layout design and street geometry.</p> <p>The following relevant text extracted from Chapter 7, "Street Geometry", summarises the stance on obstacles to visibility:  <i>"7.8.5 Parking in visibility splays in built-up areas is quite common, yet it does not appear to create significant problems in practice. Ideally, defined parking bays should be provided outside the visibility splay. However, in some circumstances, where speeds are low, some encroachment may be acceptable."</i></p>		
Locations 7 & 8 - The proposed residential development site access road priority T-junctions with Edwin Road and Crane Road/Gould Road	Accommodating pedestrian movements into and out of the proposed development site in order to ensure that pedestrian safety is not compromised in the future scenario.	It is recommended that the existing footways in Edwin Road and Crane Road/Gould Road should tie into the overall shared area width of 6.8 metres of the development site access road and that the pedestrian access routes are clearly defined in order to ensure that pedestrian safety is not compromised in the future scenario.	<p>The proposed development will largely retain the two existing access points, albeit with changes to the entry treatment. The proposed entry treatments along both the south and north entrances would reinstate the footway across each access, with the vehicular accesses being akin to Copenhagen-style crossings rather than formal junctions, with pedestrians crossing having the right of way over vehicle traffic.</p> <p>The detailed design of the two accesses and arrangements would still be the subject of an s278 Agreement, detailed design and technical approval. If the preferred entry treatment described above was not accepted, then we proposed to revert to traditional kerbed access, which would incorporate dropped kerbs and tactile paving.</p>		

# APPENDIX E

ROAD SAFETY ASSESSMENT REPORT





**ACORNS  
PROJECTS  
LIMITED**



**Former Greggs Factory Twickenham  
Road Safety Assessment Study**

**For Velocity Transport Planning  
Prepared by Acorns Projects Limited  
Safety Traffic Project Management & Highway Engineering Consultants**

**JULY 2022**

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## Approvals

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## 1.0 INTRODUCTION

- 1.1** This Road Safety Assessment Study report has been commissioned by Velocity Transport Planning, Unit B, Taper Studios, The Leather Market, 120 Weston Street, London, SE1 4GS and is intended to provide additional road safety related information in support of a planning application for the redevelopment of the Former Greggs Factory site in Twickenham, London Borough of Richmond upon Thames. The Former Greggs Factory site can be approached from a number of local residential roads with vehicular access to the site being from Edwin Road and Crane Road. The Site Location Plan is shown in Appendix A and the Study Area is detailed in Appendix B.
- 1.2** The purpose of this completely independent Road Safety Assessment Study report is to assess and evaluate in operational road safety terms, the current situation and circumstances relating to the residential roads in proximity to the Former Greggs Factory site; these being Colne Road, a short length of Marsh Farm Road, Edwin Road, Crane Road, May Road, Gravel Road, Mereway Road and Gould Road and, whether the proposed planning application for the redevelopment of the Former Greggs Factory site may have any potential impact upon vehicular, pedestrian flows, pedal cycle flows and existing public transport provision.
- 1.3** The report format has been devised on the basis that it contains sufficient information to be a technically based document but should, nevertheless, be easily understood by a wide range of interested parties. The technical information is presented in summary form.
- 1.4** The starting point in any study of this nature is the consideration of the personal injury collision record, together with an assessment in operational road safety engineering terms of Colne Road, the short length of Marsh Farm Road, Edwin Road, Crane Road, May Road, Gravel Road, Mereway Road and Gould Road.
- 1.5** There were no personal injury collisions recorded within the study area from the 1<sup>st</sup> January 2017 to the 31<sup>st</sup> December 2021, a period of 5 years (60 months). As there were no personal injury collisions recorded within the Study Area, the collision analysis exercise was slightly extended to include the nearest principal road, this being the A305 Heath Road and the A305 The Green, which runs to the south of the Study Area.
- 1.6** There were three personal injury collisions recorded within A305 Heath Road and The Green from the 1<sup>st</sup> January 2017 to the 31<sup>st</sup> December 2021, a period of 5 years (60 months). The collision information as supplied by CrashMap is shown in Appendix C.

- 1.7** The Site Survey Findings are discussed in Section 4.0 of this report. Options for Improvement are discussed in Section 5.0 and detailed in Appendix D in concept format. Section 6.0 draws Conclusions and makes Recommendations.

## 2.0 EXISTING SITE DESCRIPTION

- 2.1** This Road Safety Assessment Study report assesses and evaluates in operational road safety terms, the current situation and circumstances relating to Colne Road, a short length of Marsh Farm Road, Edwin Road, Crane Road, May Road, Gravel Road, Mereway Road and Gould Road as part of the Former Greggs Factory site redevelopment proposals.
- 2.2** The proposed redevelopment of the Former Greggs Factory in Twickenham, London Borough of Richmond comprises two schemes. The Residential and Industrial scheme is for 97 residential dwellings, which will be accessed from Crane Road and Gould Road respectively. The Residential and Industrial scheme will include 86 car parking spaces, cycle parking for 182 pedal cycles and an industrial unit comprising 883sqm GIA plus 117sqm of affordable workspace. To the south of the site, 22 car parking spaces and 12 pedal cycle spaces will be provided. A communal car club bay will also be implemented along Edwin Road, to the south of the site.
- 2.3** The Residential scheme is for 116 residential dwellings which will be accessed from Edwin Road. The redevelopment of the site will include 100 car parking spaces, cycle parking for 228 pedal cycles and a small commercial unit (175sqm GIA) to the south of the site. A communal car club bay will also be implemented along Edwin Road, to the south of the site.
- 2.4** An overview of the Existing Site Description for Colne Road, the short length of Marsh Farm Road, Edwin Road, Crane Road, May Road, Gravel Road, Mereway Road and Gould Road are as follows:

### **Colne Road**

- 2.5** Colne Road essentially runs in an east/west orientation and for the purposes of this Road Safety Assessment Study, extends from the junction of the A305 Heath Road to the east, through to the Mereway Road junction to the west. Near the eastern limits of Colne Road, the carriageway passes beneath a railway bridge where the existing footway provision for pedestrians is narrow. Adjacent to the Marsh Farm Road junction, a Controlled Zone for parking commences, together with a 20 mph speed limit. Beyond this point on the southern side of the carriageway, the Twickenham Primary Academy school site is present.
- 2.6** In September 2021 a School Street scheme was approved and made permanent for the Twickenham Primary Academy, for part of Colne Road between the junction of Marsh Farm Road and Albion Road. School Streets do not operate during school holidays or at weekends and the on-street signs for the scheme are not displayed during holidays and half term periods.



**2.7** The operating hours for the Colne Road School Street scheme are Monday to Friday 08:20 am to 09:00 am and 15:30 pm to 16:15 pm. People walking, scooting, using wheelchairs, mobility scooters and cycles (including adapted cycles), are not restricted. All other motor vehicles are restricted during the operating times displayed on the signs, subject to exemptions. The following motorised vehicles are automatically exempt:

- Emergency vehicles;
- Council waste trucks serving properties within the School Street zone;
- Postal service vehicles serving post boxes within the School Street zone;
- Statutory undertakers (such as water and gas companies) attending emergency works within the School Street zone;
- School buses serving the school or properties within the School Street zone;
- Public transport and taxis (Hackney Carriage) serving properties within the School Street zone.

The following vehicles are also exempt, but they must apply for exemption using the London Borough of Richmond upon Thames online exemption form or by contacting the Borough directly:

- Residents and businesses within the School Street zone;
- Blue badge holders, when their destination is within the School Street zone;
- Carers and healthcare workers serving properties within the School Street zone;
- Private hire taxis serving properties within the School Street zone;
- Trades people/service providers serving properties within the School Street zone;
- Delivery vehicles serving properties within the School Street zone.

**2.8** Colne Road is a two-way residential road with footways along both sides of the carriageway for the major part, the exception being on the southern side of the carriageway from a point to the west of the May Road crossroads junction up to a point to the east of the Mereway Road junction. In addition, the existing footway provision along the northern side of the carriageway along this particular length is quite narrow, in places being no more than 1 metre wide.

**2.9** Permit only parking is present along Colne Road, both on the carriageway and in a footway parking arrangement along lengths where the carriageway widths become quite narrow. Typically, where footway parking is provided, the remaining width of footway available for pedestrian use can be as little as 1 metre. Street lighting is present throughout the length of Colne Road, which was found to be operating satisfactorily as established during a night time site visit.

**2.10** Where junctions are present along the linear length of Colne Road, there is no evidence of tactile paving provision to assist pedestrians to cross the junctions. This is not a particularly conducive situation, particularly for those pedestrians who may be blind or visually impaired. It is noted that a cul-de-sac arrangement is present at the very western limits of Colne Road and that prior to these limits, access back onto the A305 The Green is available via Briar Road. To the immediate west of the Mereway Road junction, a 7 foot width restriction is present in the carriageway.

### **Marsh Farm Road**

**2.11** Marsh Farm Road essentially runs in a north/south orientation and for the purposes of this Road Safety Assessment Study, extends from the Colne Road junction to the south, through to the Edwin Road junction to the north. Marsh Farm Road is a two-way road with no residential property frontage, and there is a footway on the western side of the carriageway only.

**2.12** The eastern side of the carriageway provides access to a few commercial properties situated within the railway arches. The fifth and final last railway arch provides pedestrian access to and from the length of Edwin Road on the eastern side of the railway line and into the Twickenham town centre area beyond.

**2.13** Parking is precluded on both sides of the carriageway by virtue of double yellow lines and notification of the Controlled Zone for parking within the residential area beyond is identified within the footway on the western side of the carriageway. Street lighting is present throughout the length of Marsh Farm Road, which was found to be operating satisfactorily as established during a night time site visit.

### **Edwin Road**

**2.14** Edwin Road essentially runs in an east/west orientation and for the purposes of this Road Safety Assessment Study, extends from the junction of Marsh Farm Road to the east, through to Crane Road to the west. A Controlled Zone for parking is present together with lengths of double yellow line waiting restrictions protecting junctions and accesses from injudicious parking, together with a 20 mph speed limit.

**2.15** Edwin Road is a two-way road, principally residential, with footways along both sides of the carriageway. Edwin Road provides vehicular access to the Former Greggs Factory site on the northern side of the carriageway and, directly opposite there are a few commercial premises, some of which are associated with the motor trade.

**2.16** Permit only parking is present along Edwin Road, both on the carriageway and in a footway parking arrangement along specific lengths.

Typically, where footway parking is provided, the remaining width of footway available for pedestrian use can be as little as 1 metre. Street lighting is present throughout the length of Edwin Road, which was found to be operating satisfactorily as established during a night time site visit. Where junctions are present along the linear length of Edwin Road, there is no evidence of tactile paving provision to assist pedestrians to cross the junctions. This is not a particularly conducive situation, particularly for those pedestrians who may be blind or visually impaired.

### **Crane Road**

- 2.17** Crane Road essentially runs in a north/south orientation and for the purposes of this Road Safety Assessment Study, extends from the junction of Gould Road to the north, through to Colne Road to the south. A Controlled Zone for parking is present together with lengths of double yellow line waiting restrictions protecting junctions and accesses from injudicious parking, together with a 20 mph speed limit.
- 2.18** Crane Road is a two-way road, principally residential, with footways along both sides of the carriageway. Permit only parking is present along Crane Road on the carriageway only. Street lighting is present throughout the length of Crane Road, which was found to be operating satisfactorily as established during a night time site visit.
- 2.19** Where junctions are present along the linear length of Crane Road, there is no evidence of tactile paving provision to assist pedestrians to cross the junctions. This is not a particularly conducive situation, particularly for those pedestrians who may be blind or visually impaired.

### **May Road**

- 2.20** May Road essentially runs in a north/south orientation and for the purposes of this Road Safety Assessment Study, extends from the junction of Gould Road to the north, through to the A305 The Green junction to the south. A Controlled Zone for parking is present together with lengths of double yellow line waiting restrictions protecting junctions and accesses from injudicious parking, together with a 20 mph speed limit.
- 2.21** Between the A305 The Green junction and the Colne Road crossroads junction, May Road is subject to a one-way north bound vehicular traffic arrangement, with footways along both sides of the carriageway. Beyond the Colne Road crossroads junction, May Road reverts to being a two-way residential road, with footways along both sides of the carriageway.
- 2.22** May Road is subject to a combination of Permit only parking and on-street parking both on the carriageway and in a footway parking arrangement along specific lengths.

Typically, where footway parking is provided, the remaining width of footway available for pedestrian use can be as little as 1 metre. Street lighting is present throughout the length of May Road, which was found to be operating satisfactorily as established during a night time site visit. Where junctions are present along the linear length of May Road, there is no evidence of tactile paving provision to assist pedestrians to cross the junctions. This is not a particularly conducive situation, particularly for those pedestrians who may be blind or visually impaired.

### **Gravel Road**

**2.23** Gravel Road essentially runs in an east/west orientation and for the purposes of this Road Safety Assessment Study, extends from the junction of May Road to the east, through to the Mereway Road junction to the west. On-street parking is present together with lengths of double yellow line waiting restrictions protecting junctions and accesses from injudicious parking, together with a 20 mph speed limit.

**2.24** Street lighting is present throughout the length of Gravel Road, which was found to be operating satisfactorily as established during a night time site visit. At the May Road junction to the east and the Mereway Road junction to the west, there is no evidence of tactile paving provision to assist pedestrians to cross the junctions. This is not a particularly conducive situation, particularly for those pedestrians who may be blind or visually impaired.

### **Mereway Road**

**2.25** Mereway Road essentially runs in a north/south orientation and for the purposes of this Road Safety Assessment Study, extends from the junction of Gould Road to the north, through to the Colne Road junction to the south. On-street parking is present together with lengths of double yellow line waiting restrictions protecting junctions and accesses from injudicious parking, together with a 20 mph speed limit.

**2.26** Mereway Road is a two-way road, principally residential, with footways along both sides of the carriageway. At the southern end of Mereway Road on the western side of the carriageway, there are a few commercial premises and the Mereway Industrial area is present.

**2.27** Street lighting is present throughout the length of Mereway Road, which was found to be operating satisfactorily as established during a night time site visit. Where junctions are present along the linear length of Mereway Road, there is no evidence of tactile paving provision to assist pedestrians to cross the junctions. This is not a particularly conducive situation, particularly for those pedestrians who may be blind or visually impaired.

## **Gould Road**

- 2.28** Gould Road essentially runs in an east/west orientation and for the purposes of this Road Safety Assessment Study, extends from the junction of Crane Road to the east, through to Mereway Road to the west. Gould Road is a two-way road, principally residential, with footways along both sides of the carriageway. Gould Road provides vehicular access to the Former Greggs Factory site on the northern side of the carriageway, on the corner of the junction with Crane Road.
- 2.29** A combination of Permit only and on-street parking is present along Gould Road on the carriageway. Street lighting is present throughout the length of Gould Road, which was found to be operating satisfactorily as established during a night time site visit. Where junctions are present along the linear length of Gould Road, there is no evidence of tactile paving provision to assist pedestrians to cross the junctions. This is not a particularly conducive situation, particularly for those pedestrians who may be blind or visually impaired.

### 3.0 COLLISION ANALYSIS

3.1 Personal injury collision data for the 5 year (60 months) period from the 1<sup>st</sup> January 2017 to 31<sup>st</sup> December 2021 has been procured from the CrashMap collision data system and subsequently analysed. During this 5 year (60 month) period, no personal injury collisions occurred within the Study Area.

3.2 As there were no personal injury collisions recorded within the Study Area, the collision analysis exercise was slightly extended to include the nearest principal road, this being the A305 Heath Road and the A305 The Green, which runs in an east/west orientation to the south of the Study Area.

3.3 There were three personal injury collisions recorded within A305 Heath Road and The Green from the 1<sup>st</sup> January 2017 to the 31<sup>st</sup> December 2021, a period of 5 years (60 months). The collision information as supplied by CrashMap is shown in Appendix C.

3.4 A tabulated summary of the personal injury collisions within A305 Heath Road and The Green for the 5 year (60 month) period is shown below:

Year	Collisions	Casualties
2017	2	2 serious injuries
2018	1	1 serious injury
2019	0	0
2020	0	0
2021	0	0
<b>Total</b>	<b>3</b>	<b>3 serious casualties</b>

3.5 The following summarises the personal injury collisions for the A305 Heath Road and The Green;

- 3 personal injury collisions.
- 3 total casualties.
- 0 fatal casualties (0%).
- 3 serious casualties (100%).
- 0 slight casualties (0%).
- 0 casualties involving vehicle occupants (0%).

- 0 collisions during peak periods (0%).
- 3 collisions during off-peak periods (100%).
- 1 collision during daylight hours (33%).
- 2 collisions during dark conditions (66%).
- 1 collision in dry road conditions (33%).
- 2 collisions in wet/damp road conditions (66%).
- 0 collisions in frost/ice road conditions (0%).
- 0 collisions involving nose to tail shunts (0%).
- 0 collisions involving a turning manoeuvre (0%).
- 2 collisions involving a pedestrian (66%).
- 0 collisions involving a pedal cyclist (0%).
- 1 collision involving a motorcyclist (33%).
- 0 collisions involving a learner driver (0%).

**3.6** There were three personal injury collisions recorded within A305 Heath Road and The Green from the 1<sup>st</sup> January 2017 to the 31<sup>st</sup> December 2021, a period of 5 years (60 months). The collision analysis exercise has identified that all three personal injury collisions resulted in serious casualties being sustained, two by pedestrians and one by a motorcyclist.

**3.7** As no personal injury collisions have occurred since July 2018, it is suggested that the operational safety performance of the A305 Heath Road and The Green in proximity to the Study Area should be monitored by the London Borough of Richmond upon Thames. This could be important as for considerable periods of time since the first Covid lockdown announced in March 2020, the numbers of movements of all types of road users would have reduced, perhaps by significant levels, and, thus, may not have been reflecting a typical or seemingly normal situation for the area.

## 4.0 SITE SURVEY FINDINGS

- 4.1 Site visits have been undertaken in order to identify any items, issues or causal factors that may impact upon or be considered detrimental to operational road safety within the Study Area.
- 4.2 As the collision exercise has demonstrated, no personal injury collisions occurred within the Study Area. As a result, and with no identifiable vehicular collisions to be considered for potential treatment, attention was drawn to the existing provision within the Study Area, particularly for vulnerable road user types, especially pedestrians.
- 4.3 The site visits have established that at all of the junctions within the Study Area, there is no evidence of dropped kerbs which comply with current design standards and best practice. Combined with a complete lack of tactile paving provision to assist pedestrians to cross the junctions, this situation results in potential trip hazards being present within the highway network. This is not a particularly conducive situation, particularly for those pedestrians who may be blind or visually impaired. Thus, some typical examples (but not limited to), are evidenced in the following paragraphs and photographs taken within the Study Area.

### **Colne Road junction with Marsh Farm Road**

- 4.4 The site visits have established the difficult situation facing pedestrians entering the Study Area at this junction. On the eastern side of the junction, the wholly inadequate footway width/landing pad area creates a very difficult situation for pedestrians. On the western side of the junction, the unacceptable height of the kerb upstand can be seen, which results in a potential trip hazard being present whereby pedestrians could fall and consequently sustain personal injury.



**Eastern side of the Colne Road junction with Marsh Farm Road**





**Western side of the Colne Road junction with Marsh Farm Road**

#### **May Road junction with Gould Road**

- 4.5** The site visits have established the difficult situation facing pedestrians crossing at this junction. On the eastern and western sides of the junction, the unacceptable height of the kerb upstand can be seen, which results in a potential trip hazard being present whereby pedestrians could fall and consequently sustain personal injury.



**Eastern side of the May Road junction with Gould Road**



**Eastern side of the May Road junction with Gould Road**

#### **May Road junction with Colne Road**

- 4.6** The site visits have established evidence of a reasonably acceptable upstand at the kerbed build out arrangement at the junction, which it is assumed was installed as part of the one-way north bound vehicular traffic arrangement between the A305 The Green junction and the Colne Road crossroads junction. However, the lack of tactile paving provision does little to assist blind or visually impaired pedestrians when crossing at the crossroads junction.



**May Road junction with Colne Road**



#### **Colne Road - Extremely narrow existing footway provision**

**4.7** The site visits have established evidence of a length of extremely narrow footway for pedestrians on the northern side of the carriageway. The footway provision along the northern side of the carriageway along this particular length is quite narrow, in places being no more than 1 metre wide. When pedestrians are required to pass one another, this situation results in pedestrians having to step out into the carriageway, with a resultant potential increased risk of collisions occurring with vehicular traffic, whereby pedestrians could sustain personal injury. In addition, the presence of the brick boundary is potentially hazardous for blind or visually impaired pedestrians.



**Colne Road - Extremely narrow existing footway provision**

**4.8** Based on the above site survey findings, the Options for Improvement should be considered as described in Section 5.0 of this Road Safety Assessment Study Report.

## 5.0 OPTIONS FOR IMPROVEMENT

5.1 The purpose of this Road Safety Assessment Study report is to assess and evaluate in operational road safety terms, the current situation and circumstances relating to the residential roads in proximity to the Former Greggs Factory site; these being Colne Road, a short length of Marsh Farm Road, Edwin Road, Crane Road, May Road, Gravel Road, Mereway Road and Gould Road and, whether the proposed planning application for the redevelopment of the Former Greggs Factory site may have any potential impact upon vehicular, pedestrian flows, pedal cycle flows and existing public transport provision.

5.2 The site visits have established evidence of significant issues being present for pedestrians, particularly for those pedestrians who may be blind or visually impaired. With regard to pedal cyclists, it is not considered that there are any exceptional operational road safety related risks or issues for this road user type which may require addressing, commensurate with the principally residential status of the Study Area.

5.3 On this basis, the following Options for Improvement are offered for consideration, all of which are detailed in concept format in Appendix D.

### **At all of the junctions within the Study Area**

5.4 The following Options for Improvement should be considered:

- At all junctions within the Study Area, all existing kerbing should be removed and new dropped kerbing should be installed to upstand parameters of between 0 to 6 mm absolute maximum.
- Tactile paving should be installed in order to assist and enhance blind or visually impaired pedestrian movements at all junctions within the Study Area.
- Existing footways leading up to the new dropped kerbs should be re-graded to suit new levels.

## 6.0 CONCLUSIONS AND RECOMMENDATIONS

**6.1** The principal objective of this Road Safety Assessment Study report is to assess and evaluate in operational road safety terms, the current situation and circumstances relating to the residential roads in proximity to the Former Greggs Factory site; these being Colne Road, a short length of Marsh Farm Road, Edwin Road, Crane Road, May Road, Gravel Road, Mereway Road and Gould Road and, whether the proposed planning application for the redevelopment of the Former Greggs Factory site may have any potential impact upon vehicular, pedestrian flows, pedal cycle flows and existing public transport provision.

**6.2** This Road Safety Assessment Study Report has established that in terms of driver behaviour and vehicle speeds, the existing characteristics and physical restraints of the highway network within the Study Area result in a situation which are considered to be somewhat self regulating. This professional view is supported by the speed survey data provided for the purposes of this Road Safety Assessment Study, tabulated as follows;

Road Name	Average Daily 85%ile Speed	Vehicles exceeding 20 mph speed limit
Edwin Road	17.6 mph	4.3 %
Crane Road	19.7 mph	13.7 %
Gould Road	14.4 mph	0.3 %
Colne Road	18.1 mph	7.2 %
May Road	19.1 mph	8.9 %

**6.3** Whilst there are small percentages of drivers who exceeded the 20 mph speed limit, the site observations undertaken offer little to contradict the reasonably positive behavioural manners adopted by drivers when travelling within the Study Area, as can be seen from the Average Daily 85%ile speeds recorded.

**6.4** As stated in the Transport Assessment, one of the key benefits in transport terms of delivering a residential led mixed-use scheme, including the provision of light industrial on the Former Greggs Factory site when compared to its previous use as an industrial factory, is a substantive reduction in the number of HGV movements.

**6.5** This is substantiated by the following LGV and HGV two-way trips as listed overleaf. It is important to note that the TRICS database provides survey data based on operating periods of between 06.00 am and 18.00 pm; however, it is known that the Former Greggs Factory site operated on a 24 hour basis, and, that their peak delivery times were between 02.00 am and 04.00 am:

**Estimated two-way Greggs Factory Servicing and Delivery Trips**

- LGV - 30 per day
- HGV - 68 per day

**TOTAL 98 TRIPS PER DAY**

**Estimated two-way servicing and delivery trips associated with the Residential and Industrial Scheme**

- LGV - 54 per day
- HGV - 8 per day

**TOTAL 62 TRIPS PER DAY**

**Estimated two-way servicing and delivery trips associated with the Residential Scheme**

- LGV - 28 per day
- HGV - 2 per day

**TOTAL 30 TRIPS PER DAY**

**6.6** As can be seen, there are tangible benefits to be derived from the choice made for the redevelopment of the Former Greggs Factory Site, particularly if that choice should be based on the level of additional trips by LGV's and HGV's being minimised as much as possible:

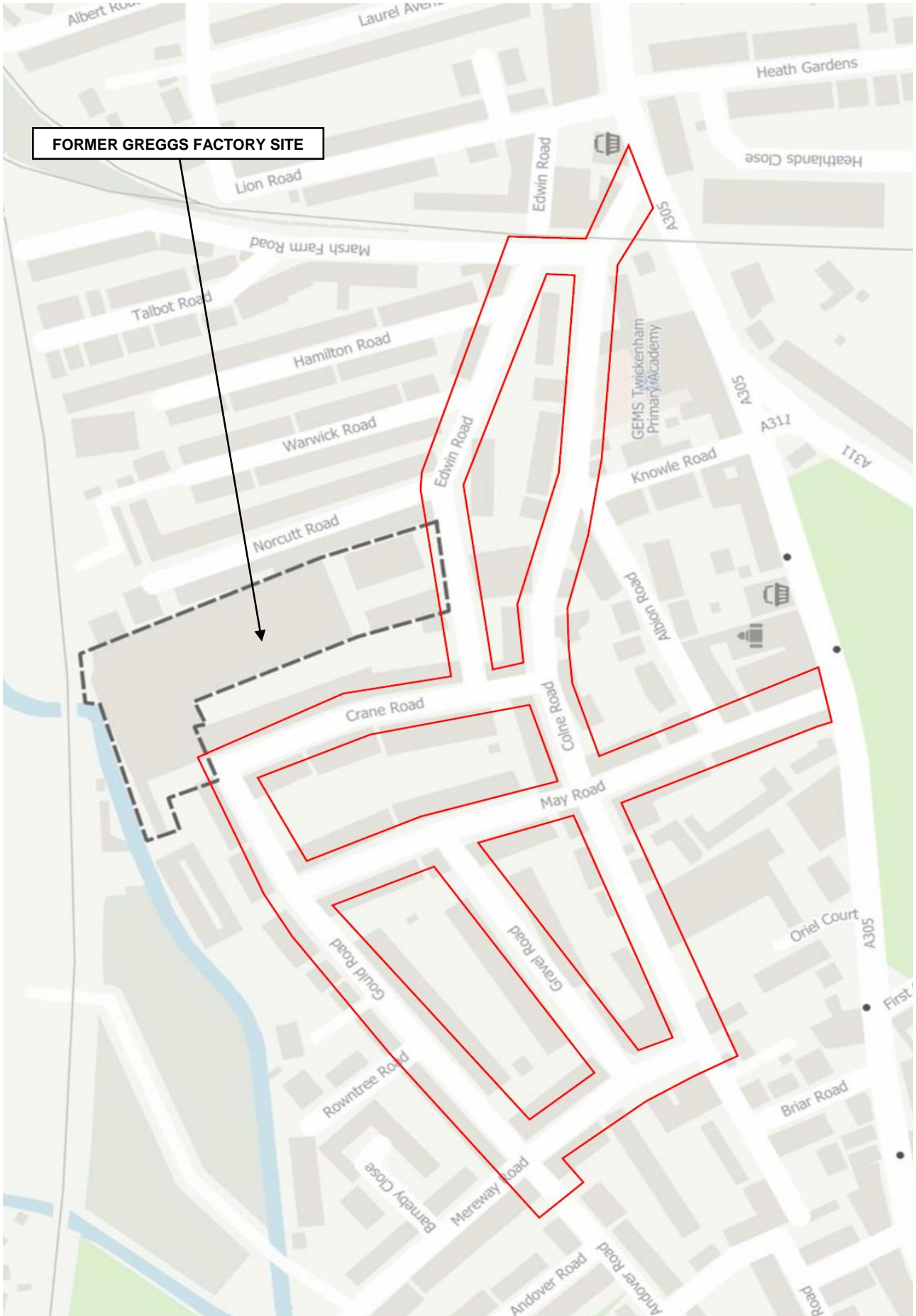
- A reduction in the potentially adverse impact of LGV and HGV movements within the adjacent principally residential local highway network;
- A potential enhancement of operational road safety resulting from a reduction of LGV and HGV movements within the adjacent local highway network;
- A reduction in the potential for conflicts to occur between pedestrians and LGV's and HGV's when manoeuvrability issues are experienced by LGV and HGV drivers;
- A reduction in the potential for damage to be sustained to existing footways and kerbs;
- A reduction in the potential for damage to be sustained to residents parked cars;
- The potential for a reduction in local complaints of noise and poor air quality (this is particularly important as the site is not subject to any restrictions and can in effect operate on a 24 hour basis);
- A potential complete removal of the peak delivery times experienced at the Former Greggs Factory site between 02.00 am and 04.00 am when residents are sleeping;
- Maintaining the improved environment and residential area as seen during the course of this Road Safety Assessment Study, directly resulting from the current lack of activity associated with the Former Greggs Factory site.

- 6.7** All that appears to remain in operational road safety terms, are improvements for pedestrians within the principally residential streets of the Study Area. Thus, on the basis of our findings, we Recommend that the Options for Improvement as described in Section 5.0 of this Road Safety Assessment Study Report should be considered for inclusion as part of a package of highway improvements and operational road safety improvements for pedestrians. This would be of particular benefit for those pedestrians who may be blind or visually impaired.
- 6.8** A package of highway improvements and operational road safety improvements for pedestrians should follow the undertaking of a Feasibility Study to accurately and in thorough detail establish if pedestrian improvements at junctions can be delivered within the Study Area, cognisant of the principally residential characteristics where on-street parking and turning movements at junctions will need to be accommodated and maintained in the future scenario.



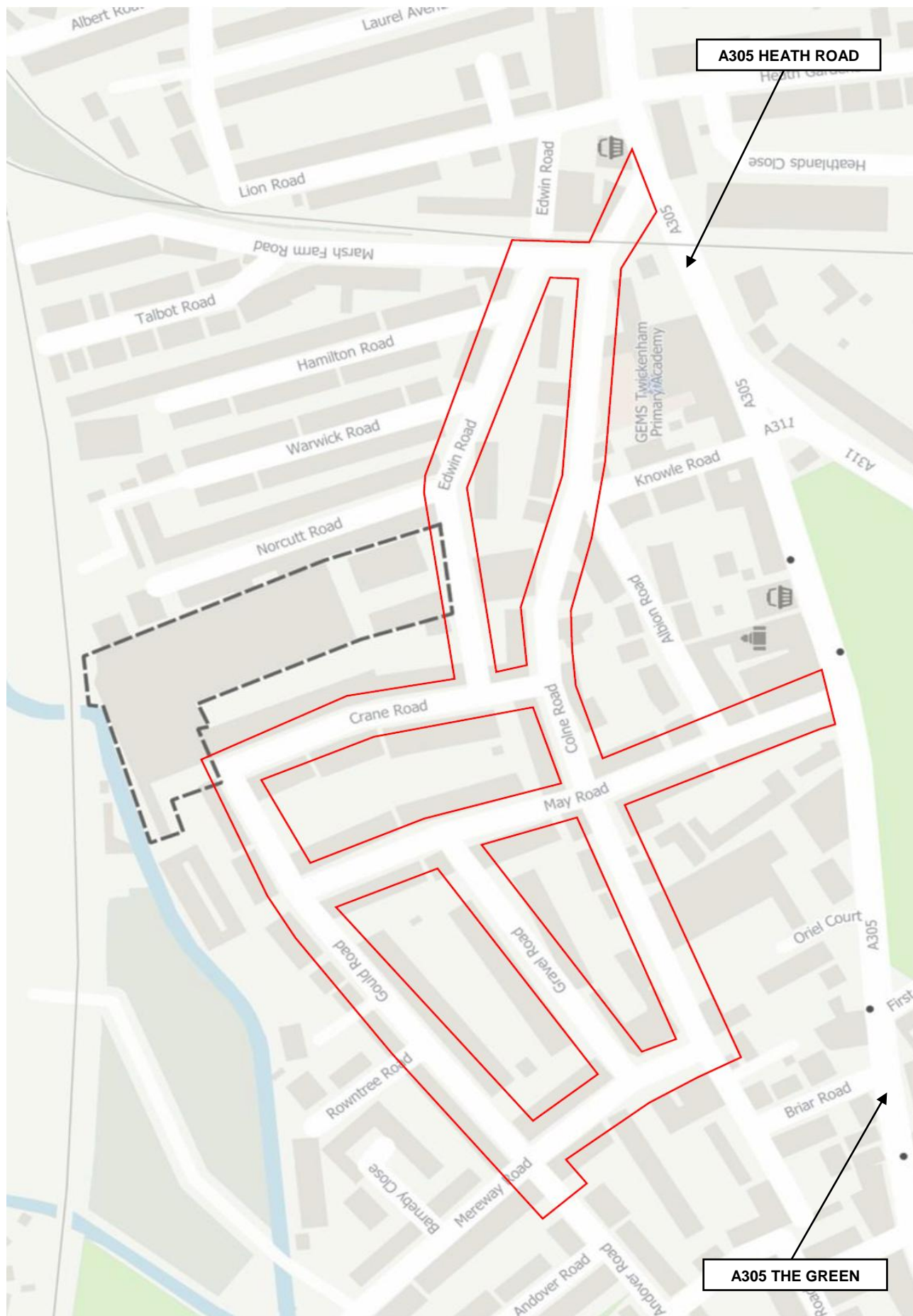
# **APPENDIX A**

**APPENDIX A - FORMER GREGGS FACTORY, TWICKENHAM - SITE LOCATION PLAN**



# **APPENDIX B**

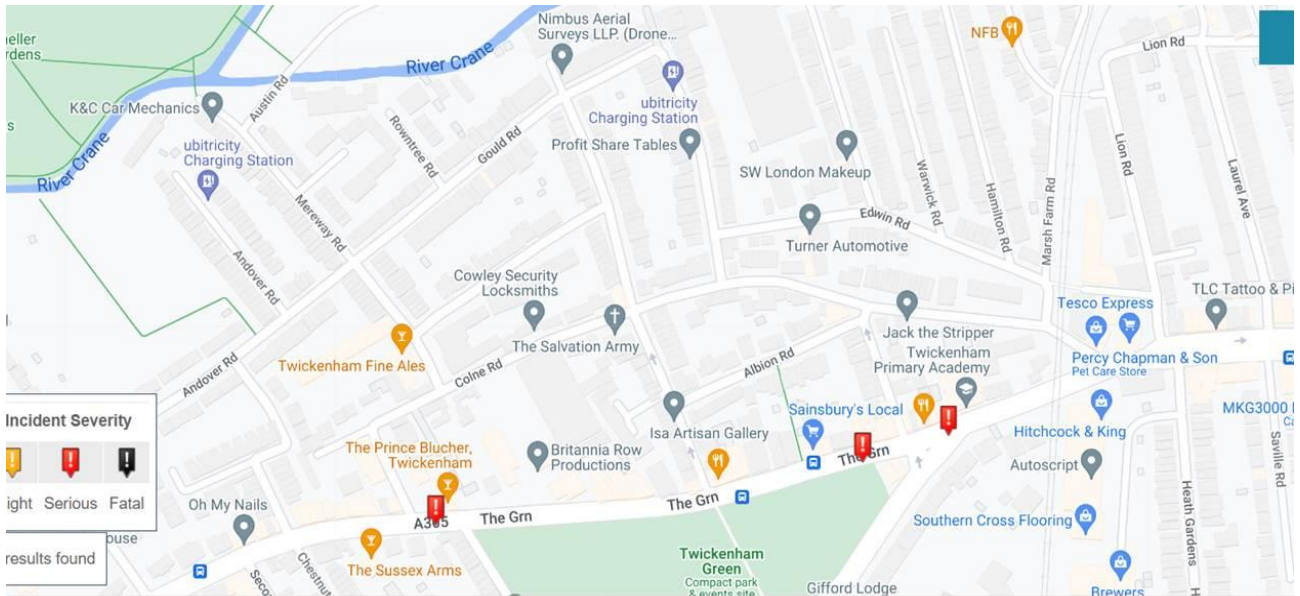
**APPENDIX B - THE STUDY AREA**



# **APPENDIX C**

# APPENDIX C - ROAD TRAFFIC COLLISION LOCATION PLAN

(ALL THREE COLLISIONS OCCURRED ON THE A305 THE GREEN)





APPENDIX C - ROAD TRAFFIC COLLISION INFORMATION



crashmap.co.uk

Validated Data

**Crash Date:** Tuesday, December 12, 2017 **Time of Crash:** 11:55:00 PM **Crash Reference:** 2017010077392

**Highest Injury Severity:** Serious **Road Number:** A305 **Number of Casualties:** 1  
**Highway Authority:** Richmond upon Thames **Number of Vehicles:** 1  
**Local Authority:** Richmond upon Thames London Borough **OS Grid Reference:** 515110 172990

**Weather Description:** Raining without high winds

**Road Surface Description:** Wet or Damp

**Speed Limit:** 30

**Light Conditions:** Darkness: street lights present and lit

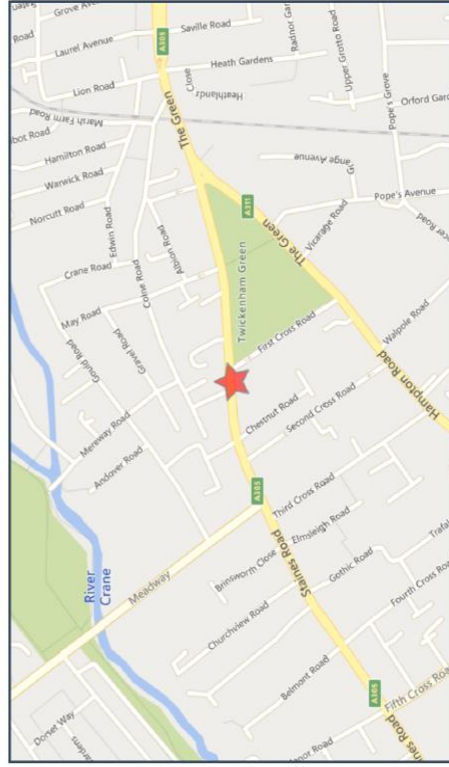
**Carriageway Hazards:** Other object in carriageway

**Junction Detail:** T or staggered junction

**Junction Pedestrian Crossing:** Zebra crossing

**Road Type:** Single carriageway

**Junction Control:** Give way or uncontrolled



For more information about the data please visit: [www.crashmap.co.uk/home/Faq](http://www.crashmap.co.uk/home/Faq)  
 To subscribe to unlimited reports using CrashMap Pro visit: [www.crashmap.co.uk/Home/Premium\\_Services](http://www.crashmap.co.uk/Home/Premium_Services)



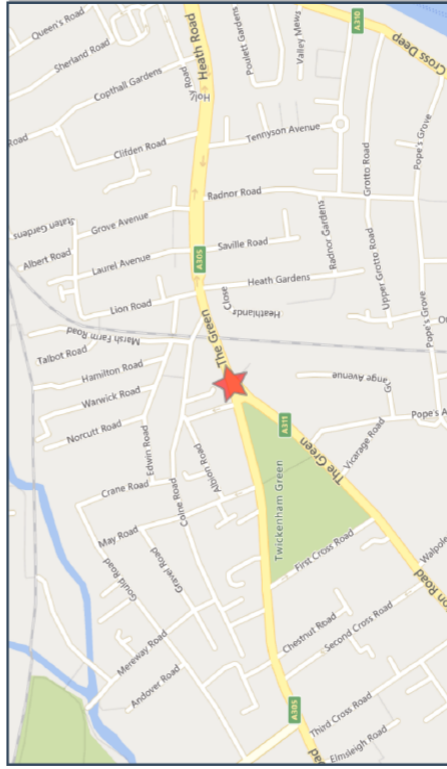
crashmap.co.uk

**Validated Data**

**Crash Date:** Thursday, December 21, 2017    **Time of Crash:** 10:59:00 PM    **Crash Reference:** 2017010079647

**Highest Injury Severity:** Serious    **Road Number:** A305    **Number of Casualties:** 1  
**Highway Authority:** Richmond upon Thames    **Number of Vehicles:** 1  
**Local Authority:** Richmond upon Thames London Borough    **OS Grid Reference:** 515470 173060

**Weather Description:** Fine without high winds  
**Road Surface Description:** Wet or Damp  
**Speed Limit:** 30  
**Light Conditions:** Darkness: street lights present and lit  
**Carriageway Hazards:** None  
**Junction Detail:** T or staggered junction  
**Junction Pedestrian Crossing:** Pedestrian phase at traffic signal junction  
**Road Type:** Single carriageway  
**Junction Control:** Auto traffic signal



For more information about the data please visit: [www.crashmap.co.uk/home/Faq](http://www.crashmap.co.uk/home/Faq)  
 To subscribe to unlimited reports using CrashMap Pro visit: [www.crashmap.co.uk/Home/Premium\\_Services](http://www.crashmap.co.uk/Home/Premium_Services)



APPENDIX C - ROAD TRAFFIC COLLISION INFORMATION



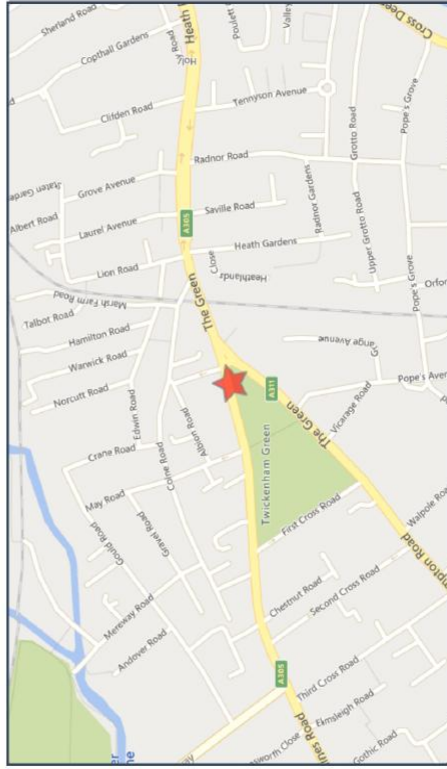
crashmap.co.uk

Validated Data

**Crash Date:** Monday, July 23, 2018 **Time of Crash:** 12:04:00 PM **Crash Reference:** 2018010122708

**Highest Injury Severity:** Serious **Road Number:** A305 **Number of Casualties:** 1  
**Highway Authority:** Richmond upon Thames **Number of Vehicles:** 1  
**Local Authority:** Richmond upon Thames London Borough **OS Grid Reference:** 515410 173040

**Weather Description:** Fine without high winds  
**Road Surface Description:** Dry  
**Speed Limit:** 30  
**Light Conditions:** Daylight: regardless of presence of streetlights  
**Carriageway Hazards:** None  
**Junction Detail:** Not at or within 20 metres of junction  
**Junction Pedestrian Crossing:** Pedestrian phase at traffic signal junction  
**Road Type:** Dual carriageway  
**Junction Control:** Not Applicable



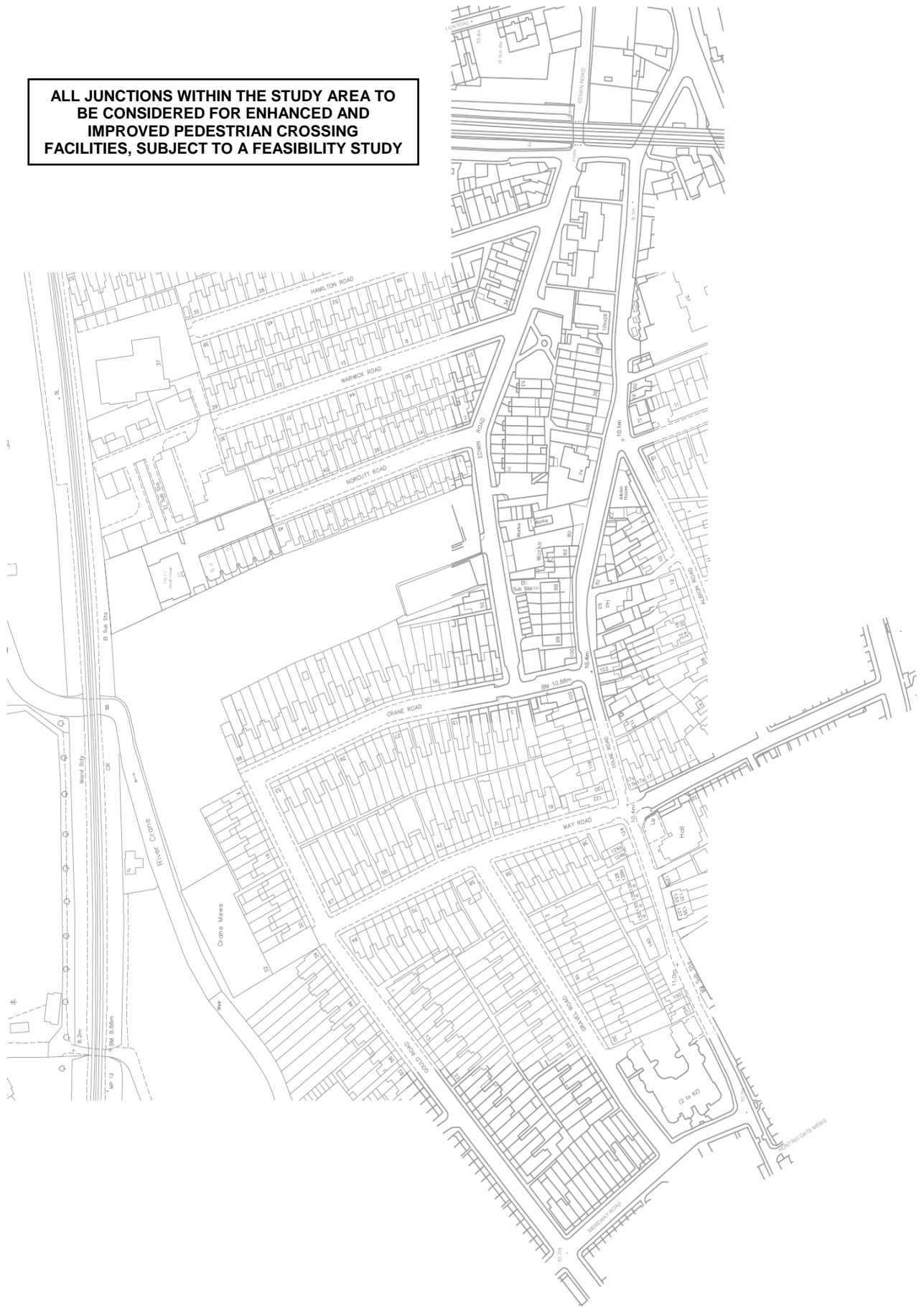
For more information about the data please visit: [www.crashmap.co.uk/home/Faq](http://www.crashmap.co.uk/home/Faq)  
 To subscribe to unlimited reports using CrashMap Pro visit [www.crashmap.co.uk/Home/Premium\\_Services](http://www.crashmap.co.uk/Home/Premium_Services)



# **APPENDIX D**

# APPENDIX D - OPTIONS FOR IMPROVEMENT

**ALL JUNCTIONS WITHIN THE STUDY AREA TO BE CONSIDERED FOR ENHANCED AND IMPROVED PEDESTRIAN CROSSING FACILITIES, SUBJECT TO A FEASIBILITY STUDY**



# APPENDIX F

## CONFLICT ANALYSIS



# PROJECT: GREGGS SITE, TWICKENHAM

## TECHNICAL NOTE: SERVICING VEHICLE CONFLICT ANALYSIS

### 1 INTRODUCTION

#### 1.1 NOTE PURPOSE

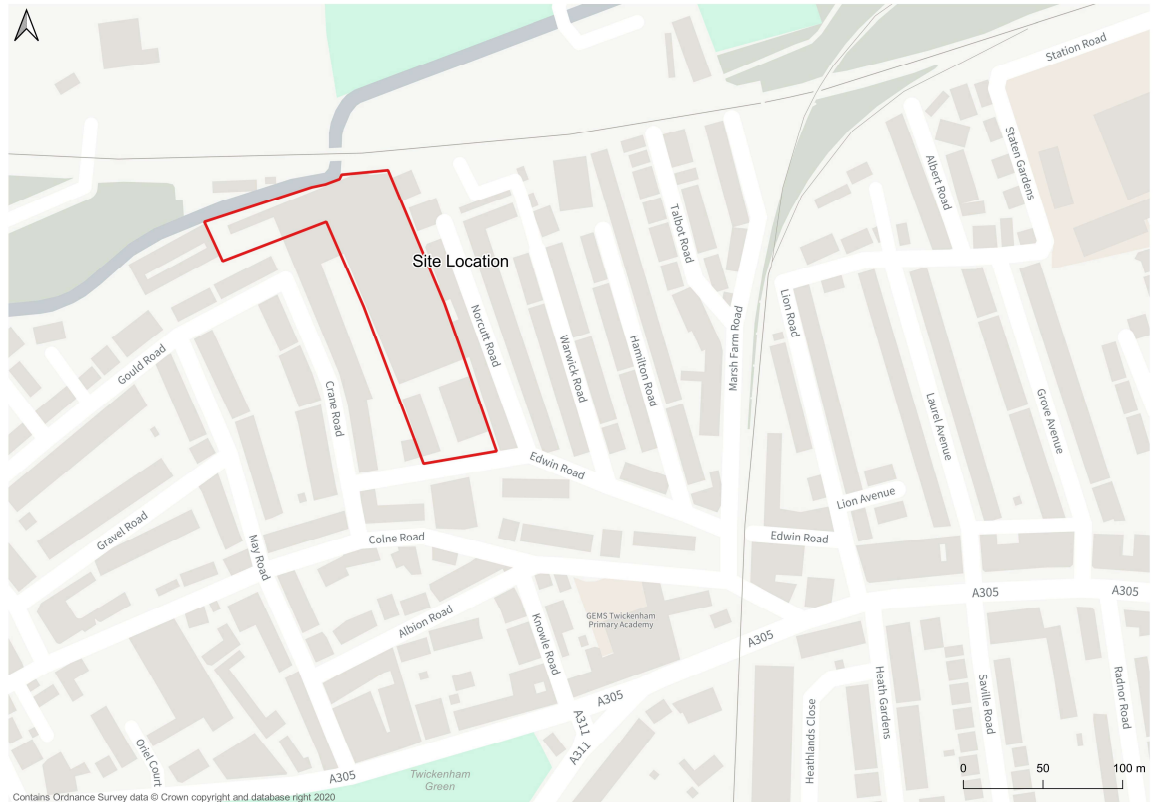
- 1.1.1 This Technical Note has been produced to analyse the proposed B1c (now Class E) industrial floorspace that the former Greggs site could accommodate, based on the findings within the previous Technical Note.
- 1.1.2 The Technical Note that was produced in September 2020 calculated service vehicle trip rates for alternative industrial uses on the site (B1c, B2 and B8 storage and warehousing) and created a trip generation profile for a range of floor areas. From that, the probability matrix that Velocity created showed the likelihood of a generated HGV coming into conflict with the existing traffic on the route between the site access and the A305.
- 1.1.3 The Note considered the types/size of vehicles that each class use, and floor area scenario would likely give rise to, which was then used to identify the maximum industrial floor area (based purely on transport grounds) that the site can accommodate without detriment to the local area and highway safety. A copy of the previous Technical Note is contained within **Appendix A**.
- 1.1.4 The scheme was refused at planning committee partly due to the loss of industrial floorspace. However, we know anecdotally that highway safety was compromised when the site was occupied by Greggs, primarily because of the conflicts created by the number of larger service vehicles associated with Greggs using the local roads.
- 1.1.5 The existing highway access route is not suitable for a moderate volume of Heavy Goods Vehicles, and there is evidence of damage to the highway and historical damage to parked vehicles. There is currently signage in place identifying routes to the site as not being suitable for HGV traffic. However, the route that is signed to the site is still unsuitable, as evidenced by previous damage and incidents.
- 1.1.6 The residential-led scheme produces a substantive reduction in the number of HGV movements to and from the site compared to the extant industrial use.
- 1.1.7 This Note calculates service vehicle trip rates for the proposed industrial use on the site. From that, we have created a probability matrix that shows the likelihood of a generated HGV coming into conflict with existing traffic on the route between the site access and the A305. This Note considers the types/size of vehicles that the proposed industrial use will generate without detriment to the local area and highway safety.
- 1.1.8 The regular presence of HGVs on a narrow residential road network poses a heightened risk of conflict with pedestrian and other road users, and this has led to:
- ⦿ Damage to footways and kerbs;
  - ⦿ Concerns about safety for pedestrians and other road users;
  - ⦿ Damage to parked cars;
  - ⦿ Street furniture being damaged; and
  - ⦿ Conflicts with existing vehicles



## 1.1 BACKGROUND INFORMATION

1.1.1 **Figure 1-1** shows the location of the site.

**Figure 1-1: Site Location and Local Context**



- 1.1.2 The site measures approximately 1.1 hectares and currently comprises empty industrial units which were formerly occupied by Greggs Bakery until Greggs vacated most of its operations in 2016, and since then, the remainder of the site has been vacated and remained vacant.
- 1.1.3 The site is situated between two residential streets, Crane Road and Norcutt Road, bordered by Edwin Road to the south and wrapping around Crane Road to the north. There is existing vehicle access from Crane Road that enters into a parking area, with an HGV service access point located towards the south of the site along Edwin Road, providing access to a service yard.
- 1.1.4 The area surrounding the site is predominantly residential, with some commercial and light industrial buildings interspersed within the vicinity.
- 1.1.5 The area to the south of the site includes car servicing garages and workshops, whilst the River Crane flanks the site to the north. Immediately west of the site is Crane Mews, previously a redundant factory building that has been reused and developed to create a gated mews development.



- 1.1.6 The existing vehicle route for HGVs from the A305 to the development site is via Colne Road and Edwin Road. There is a railway bridge across Colne Road within 40m of the A305 junction with a 4.1m height restriction. The railway bridge and the existing geometry of the route limit the type, size and number of HGVs that can access Edwin Road. It is understood that Greggs did not use any articulated vehicles, and access was limited to large rigid HGV up to 10m in length. The London Borough of Richmond refuse vehicle is 10.4m long with a 3.8m travelling height and is the largest vehicle that would be expected along the route.





## 2 PROPOSED SITE LAYOUT

### 2.1 PREVIOUS DEVELOPMENT PROPOSALS

- 2.1.1 The previous scheme that was considered at planning was a residential-led scheme providing 116 dwellings with associated car parking spaces and a B1 commercial unit of 175sqm.
- 2.1.2 The previous proposals provided a two-way internal route through the site.
- 2.1.3 On-site parking spaces for 100 vehicles (0.86 spaces per dwelling) was proposed, with one space allocated to the proposed commercial space.

### 2.2 PROPOSED DEVELOPMENT

- 2.2.1 The proposed development is a residential-led scheme providing 97 dwellings with associated car parking spaces and a B1c (now Class E) industrial unit of circa 883sqm.
- 2.2.2 The proposal provides separate access points to the commercial building and car parking via Edwin Avenue and to the residential area via Crane Road. It is proposed to provide a two-way internal route through the residential area with a turning head at the southern end of the route. All vehicles would enter and exit the residential scheme from the Crane Road access, except refuse vehicles who would continue through the industrial area and egress onto Edwin Road.
- 2.2.3 The latest proposal provides 84 parking spaces for the residential development, with circa 24 provided for the industrial use. The proposed residential parking provision is the same as the previous development at 0.86 parking spaces per unit.

